

# FISHERY STATISTICS OF THE UNITED STATES

## 1963



*STATISTICAL DIGEST NO. 57*

UNITED STATES DEPARTMENT OF THE INTERIOR

FISH AND WILDLIFE SERVICE

Bureau of Commercial Fisheries



UNITED STATES DEPARTMENT OF THE INTERIOR

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BY

**Charles H. Lyles**

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Fishery statistics of the United States are compiled and published annually to make available information on both the economic and biological aspects of the domestic commercial fisheries.

Data on the economic aspects are necessary to persons engaged in the commercial fishery and to governmental agencies concerned with its regulation and protection. Those here given cover the total catch and value by species, the yield and value of manufactured products, the employment of men, craft, and gear in the capture of fishery products; and related information.

From the biological standpoint these data are important to sound fishery management in providing detailed information on fluctuations in the commercial catch by species, locality, and gear, and type of craft operated. They assist conservation agencies in regulating the commercial fisheries so as to produce maximum yields without depletion.

Previous statistical reports on the fishery industries were issued under the Department of the Interior in the Administrative Report series for 1938 and in the Statistical Digest series for succeeding years. Reports for preceding years were issued in the Administrative Report series of the former Bureau of Fisheries.

The following is a listing of the various editions of "Fishery Statistics of the United States" issued since 1939:

Statistical Digest Number	Title
No. 1	Fishery Statistics of the United States, 1939
4	Fishery Statistics of the United States, 1940
7	Fishery Statistics of the United States, 1941
11	Fishery Statistics of the United States, 1942
14	Fishery Statistics of the United States, 1943
16	Fishery Statistics of the United States, 1944
18	Fishery Statistics of the United States, 1945
19	Fishery Statistics of the United States, 1946
21	Fishery Statistics of the United States, 1947
22	Fishery Statistics of the United States, 1948
25	Fishery Statistics of the United States, 1949
27	Fishery Statistics of the United States, 1950
30	Fishery Statistics of the United States, 1951
34	Fishery Statistics of the United States, 1952
36	Fishery Statistics of the United States, 1953
39	Fishery Statistics of the United States, 1954
41	Fishery Statistics of the United States, 1955
43	Fishery Statistics of the United States, 1956
44	Fishery Statistics of the United States, 1957
49	Fishery Statistics of the United States, 1958
51	Fishery Statistics of the United States, 1959
53	Fishery Statistics of the United States, 1960
54	Fishery Statistics of the United States, 1961
56	Fishery Statistics of the United States, 1962
57	Fishery Statistics of the United States, 1963

# FISHERY STATISTICS OF THE UNITED STATES, 1963

CHARLES H. LYLES, Acting Chief, Branch of Fishery Statistics

## Division of Economics

### CONTENTS

	Page
Section 1.—General Review . . . . .	4
U.S. Summaries . . . . .	11
U.S. Catch Off Foreign Coasts . . . . .	28
Relative Volume of the Catch, by Species . . . . .	29
Relative Value of the Catch, by Species . . . . .	30
U.S. Catch, Live Weight Basis . . . . .	31
World Catch of Fish, Crustaceans, Mollusks, etc., by Countries . . . . .	32
Seed Oyster Fishery . . . . .	33
Wholesaling and Manufacturing . . . . .	33
Manufactured Fishery Products . . . . .	34
Canned Fishery Products . . . . .	43
Industrial Fishery Products . . . . .	56
Packaged Fishery Products . . . . .	61
Frozen Fishery Trade . . . . .	65
Foreign Fishery Trade . . . . .	74
Section 2.—New England Fisheries . . . . .	88
Sectional Summaries . . . . .	94
Maine . . . . .	104
New Hampshire . . . . .	107
Massachusetts . . . . .	108
Rhode Island . . . . .	112
Connecticut . . . . .	115
Supplementary Surveys . . . . .	
Landings at Maine Ports . . . . .	118
Landings at Massachusetts Ports . . . . .	124
Survey Procedure in the New England States . . . . .	140
Section 3.—Middle Atlantic Fisheries . . . . .	143
Sectional Summaries . . . . .	148
New York . . . . .	155
New Jersey . . . . .	158
Delaware . . . . .	163
Supplementary Survey — Hudson River Shad Fishery . . . . .	165
Section 4.—Chesapeake Fisheries . . . . .	166
Sectional Summaries . . . . .	170
Maryland . . . . .	175
Virginia . . . . .	179
Catch by Waters . . . . .	184
Supplementary Survey — Potomac River Shad and Alewife Fishery . . . . .	187
Section 5.—South Atlantic Fisheries . . . . .	188
Sectional Summaries . . . . .	192
North Carolina . . . . .	200
South Carolina . . . . .	203
Georgia . . . . .	205
Florida, East Coast . . . . .	207
Supplementary Surveys . . . . .	
Florida, Operating Units by Districts . . . . .	211
Florida, Catch by Districts . . . . .	212
South Atlantic Shrimp Fishery . . . . .	214
Survey Procedure in the South Atlantic States . . . . .	217
Section 6.—Gulf Fisheries . . . . .	219
Sectional Summaries . . . . .	225
Florida, West Coast . . . . .	234
Alabama . . . . .	238
Mississippi . . . . .	240
Louisiana . . . . .	242
Texas . . . . .	245
Supplementary Survey — Gulf Shrimp Fishery . . . . .	249
Survey Procedure in the Gulf of Mexico . . . . .	255

## CONTENTS - Continued

	Page
Section 7.-Pacific Coast Fisheries . . . . .	257
Sectional Summaries . . . . .	267
Alaska . . . . .	278
Washington . . . . .	287
Oregon . . . . .	294
California . . . . .	299
Supplementary Surveys	
Landings by Halibut Fleet at Seattle, Washington . . . . .	317
Whaling . . . . .	318
Fur Seal Industry of the Pribilof Islands . . . . .	319
Section 8.-Great Lakes Fisheries . . . . .	321
United States and Canadian Catch . . . . .	324
Sectional Summaries . . . . .	327
Operating Units and Fishing Effort, by Gears . . . . .	339
Catch by Lake, State, and Gear . . . . .	347
Section 9.-Mississippi River Fisheries . . . . .	356
Sectional Summaries . . . . .	358
Operating Units and Catch by States and Waters . . . . .	366
Supplementary Survey - Great Lakes and Mississippi River Catch by State and Species . . . . .	390
Section 10.-Hawaii Fisheries . . . . .	391
Sectional Summaries . . . . .	393
Operating Units by Island and Gear . . . . .	395
Catch by Islands . . . . .	397
Catch by Gear . . . . .	400
Section 11.-Puerto Rico Fisheries . . . . .	403
Section 12.-Review of Certain Major Fisheries . . . . .	406
U.S. Cod Fishery . . . . .	407
Atlantic Coast Haddock Fishery . . . . .	408
Pacific Coast Halibut Fishery . . . . .	409
Atlantic Ocean Perch Fishery . . . . .	410
Pacific Coast Salmon Fishery . . . . .	411
Pacific Coast Sardine Fishery . . . . .	416
Pacific Mackerel Fisheries . . . . .	417
Pacific Tuna Fishery . . . . .	418
U.S. Menhaden Fishery . . . . .	421
U.S. Clam Fishery . . . . .	425
U.S. Crab Fishery . . . . .	427
U.S. Oyster Fishery . . . . .	430
U.S. Shrimp Fishery . . . . .	434
U.S. Fish Otter Trawl Fleet . . . . .	438
Section 13.-Historical Fishery Statistics . . . . .	443
Commercial Fisheries of the Great Lakes, 1879-1963 . . . . .	444
Atlantic and Gulf Coast Menhaden Fishery, 1873-1963 . . . . .	467
Pacific Sardine Fishery, 1915-63 . . . . .	470
Atlantic Ocean Perch Fishery, 1930-63 . . . . .	475
Pacific Coast States Tuna Fishery, 1911-63 . . . . .	478
Section 14.-Statistical Survey Procedure . . . . .	483
Sectional Surveys . . . . .	483
Local and Special Surveys . . . . .	488
Practices and Terms . . . . .	490
Conversion Factors . . . . .	491
Section 15.-Glossary . . . . .	496
Section 16.-Pictorial Section . . . . .	503
Section 17.-Statistical Publications . . . . .	521

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The cooperation of the many contributors is gratefully acknowledged. Cooperators are given credit for their information in the section of the report in which the data appear.

## PREFACE

This report contains a review of the fishery statistics for the year 1963 collected by the Branch of Fishery Statistics, Division of Economics. These statistics include data on the volume and value of the catch of fishery products, employment in the fisheries, quantity of gear operated, number of fishing craft employed in the capture of fishery products, information on the volume and value of the production of manufactured fishery products, data on cold storage freezings and holdings, and on foreign trade in fishery commodities.

Data on employment of fishermen, fishing craft and gear in the fisheries, and on the catch of fish, shellfish, etc., are shown for States having commercial fisheries. There is also information on the pack of canned tuna and industrial products for Puerto Rico and American Samoa included in the manufactured products tables. In section 11, Puerto Rico; there is also shown operating units.

In all of the catch tables in this report, except the one on page 31 entitled, "U.S. Catch, 1963 - Live Weight Basis," the volume of fish, crustaceans, and such mollusks as squid is shown in round (live) weight. However, the weights shown for univalve and bivalve mollusks (conchs, clams, oysters, scallops, etc.) represent the weights of meats, excluding the shell. The weight of shells omitted from the catch in 1963 amounted to about 1.3 billion pounds. It should be noted, however, that the table on page 32 "World Catch of Fish, Crustaceans, Mollusks, Etc., by Countries" is shown on a live weight basis.

In assembling the data on the fisheries, all appropriate records collected by the various State fishery agencies were used. In certain areas, information complete enough to be used by the Statistical agents was available from State agencies, and in these States, only partial surveys were conducted. Information on the means of collecting the data and an explanation of terms used may be found in Section 14 of this publication.

Complete statistical surveys covering the fisheries of the United States were conducted in all areas for 1963. The first complete survey of the fisheries of the United States was made by the Bureau of the Census for 1908. Others were made by the Bureau of Fisheries and the Fish and Wildlife Service for the years 1931, 1950, and for the years 1954 to 1960 and for 1962.

To assist persons interested in reviewing historical statistics of the domestic fisheries, a bibliography was published in the 1956 edition of "Fishery Statistics of the United States", listing the sources of data on the fisheries of the various regions of the United States for the years from 1880 to 1956.

# SECTION 1 - GENERAL REVIEW

In 1963, the commercial fisheries of the United States yielded a catch of 4.8 billion pounds, worth \$377 million to the fishermen. The volume was 507 million pounds and \$19 million less than the previous year. The average value was 7.78 cents per pound. Record catches of flounders, clams, and crabs were taken. The catch was made by 128,470 fishermen operating 11,928 vessels of 5 net tons and greater, and 66,045 motor and other boats. Compared with 1962, there was an increase of 2,137 fishermen, 417 vessels, and 1,823 boats. Most of the increase was in shrimp otter trawlers and salmon trolliers. Several large tuna purse seiners were also added to the fleet. The average lengths and ages of the vessels were about the same as the previous year. Many new vessels entered the shrimp, salmon, and menhaden fisheries, but the number was not large enough to make any substantial change from the previous year. Four New England groundfish vessels were constructed under the vessel construction subsidy bill.

Principal States. Louisiana again led with a total of 761 million pounds--nearly 16 percent of the entire U.S. catch. California was next with 514 million pounds (11 percent), followed by Massachusetts, 468 million pounds (10 percent); and Alaska, 392 million (8 percent). Six States (Alaska, California, Louisiana, Massachusetts, Mississippi, and Virginia) accounted for 59 percent of the total U.S. landings. California led in value with \$49 million, followed by Alaska, \$46 million; and Massachusetts, \$41 million. San Pedro, Calif., was again the leading port, with landings of 348 million pounds, followed closely by Pascagoula, Miss., Empire, La., and Cameron, La., 300, 253, and 238 million pounds, respectively.

Groundfish. The catch of ocean perch at New England ports in 1963 was only 108 million pounds--the lowest since 1940, and nearly 16 million pounds less than in 1962. The price improved a bit in 1963, but the increase was not sufficient to stimulate the already depressed fishery. The Massachusetts ocean perch fishery suffered the most severe loss. Landings in that State were 19 percent less than in 1962. Few vessels were added to the ocean perch fishing fleet during 1963, and sinkings and transfers more than offset these additions. Because of the continued depressed ex-vessel price, this fleet put less effort into the fishery. The Maine catch of ocean perch was down 8 percent from the previous year.

The catch of haddock, 124 million pounds, was 10 million pounds (8 percent) less than in the previous year, but the value increased \$792,000. The principal reason for the increased value was the greater proportion of large haddock taken. While large haddock normally demand a higher price than scrod, the price situation, because of a somewhat less plentiful supply, was generally improved for all sizes.

The 42.1-million-pound catch of Atlantic cod was 4.7 million pounds less than in 1962, but the Pacific coast catch of 6.4 million pounds was double that of 1962.

Halibut. The 1963 catch of 99.8 million pounds of halibut (round weight) in the eastern North Pacific, was nearly identical to that of 1962. The catch was made by fishermen from three nations--United States, Canada, and Japan. This was the first time the Japanese fished in the North Pacific under the rules of the International Pacific Halibut Commission. The United States catch (45.6 million pounds worth \$6.9 million) was down 15 percent in volume and 41 percent in value, while the Canadian production was up 7 percent. The record Canadian catch exceeded the United States production for the first time.

Sea herring. The catch of sea herring during 1963 totaled 193.6 million pounds worth \$2.4 million, down 3 percent in volume and 24 percent in value compared with 1962. Imports of fresh Canadian sea herring which are used principally for canning and reduction in Maine, were 45.5 million pounds--17 million pounds less than in 1962. The Maine pack of sardines canned from sea herring declined 500,000 cases or 25 percent in volume and 34 percent in

value. Small herring were plentiful throughout the season, but heavy stocks of canned sardines and slow sales caused canners to curtail operation. The catch would have been even less had there not been a greater use of herring for bait. In Alaska, where the catch is used for reduction to fish meal or for bait, landings were 31 million pounds--the smallest since 1917.

Pacific and jack mackerel. The combined 1963 catch of 136 million pounds of Pacific and jack mackerel was 2 percent, or 2.9 million pounds less than in 1962. With a reduced California sardine production, canners substituted mackerel for the sardine export trade. This kept the mackerel fleet fishing most of the year. In December 1963, the vessel owners at San Pedro, Calif., asked for a \$10-a-ton increase for mackerel; however, the canners did not agree to this request and fishing was discontinued for the rest of the year. This tie-up had little or no effect on the 1963 production because the fleet normally remains in port the latter part of December. The 1963 catch could have been considerably larger, but the canners' nightly catch limit of 20 to 30 tons per vessel curtailed production. The entire catch of mackerel is used for canning. During 1963, ex-vessel prices remained constant at \$42.50 per ton for both Pacific and jack mackerel. These prices have been in effect since March 1961.

Menhaden. The catch of menhaden was 1,815,798,000 pounds--23 percent less than in 1962. The decline occurred chiefly in the New England, Middle Atlantic, and Chesapeake States, where the total was 632 million pounds--about 500 million pounds less than in 1962. The catch of 968 million pounds in the Gulf was 8 percent less than in the previous year. An increase of almost 60 million pounds occurred in the South Atlantic, principally because of the North Carolina catch. Weather is an important factor in North Carolina, for most of the fishing is done in late November, December, and early January. In some years, storms prevent fishing and disperse the schools; but in 1963, the weather permitted more fishing than in the previous year.

The menhaden catch was taken by 179 vessels--1 less than in the previous year. The trend to replace older vessels with larger, more modern craft continued. Larger and lighter seines were replacing old seines and more refrigerated vessels were used. The continuing trend of increased imports of fish meal was not a factor in limiting the catch: Greater use of fish meal kept prices relatively stable during 1963. The industry expressed concern over the continuing decline in menhaden landings in the North and Middle Atlantic States, especially from Delaware north. The concern was sharpened by the realization that, despite new and improved fishing craft and gear, landings continued to decline. Some industry members felt that the menhaden might be overfished.

Sardines, Pacific coast. Sardines again failed to appear off the California coast, and only 7 million pounds were caught. Less than half was taken during the fall season, when the catch frequently exceeded more than 1 billion pounds from 1934 through 1944. The 1963 catch was only one-half of 1 percent of the record 1.5 billion pounds taken in 1936. At one time, California sardines were landed in greater quantity than any other species in the United States. Because of the limited quantity taken in 1963, nearly all the fish were canned in the 1-pound oval cans in tomato sauce.

Salmon. During 1963, the salmon catch in the Pacific Coast States was 204,177,000 pounds worth \$49,011,000. This was 26 percent of the volume and 39 percent of the value of the Pacific Coast catch of all fish and shellfish in 1963. Pink salmon were the most important, with a catch of 156,603,000 pounds or 53 percent of the total 1963 salmon production. Among the highlights of the 1963 season were the large run of pinks in southeastern Alaska and the disappointing catch of red salmon in Bristol Bay, where forecasters had expected a somewhat larger run of fish.

## GENERAL REVIEW

As a result of a larger than expected run of sockeye salmon on the Fraser River and a price dispute between Canadian fishermen and buyers during the peak of the July sockeye run, American fishermen were given additional fishing time to prevent overseeding of the spawning grounds. United States fishermen caught over 1.3 million sockeyes in convention waters, compared with over 600,000 by Canadian fishermen. The United States catch would have been larger if American fishermen were not restricted to waters south of the international boundary; this restriction permitted a considerable part of the run to escape through Canadian waters during the tie-up of the Canadian fleet.

Because of a heavy run of pinks again in 1963 and a carryover of these fish from the previous year, the industry experienced difficulty in marketing the pack. Reds or sockeyes, however, were in short supply and consequently, readily marketed. Prices quoted for some of the canned pink and chum salmon appeared to be near or below the cost of packing these fish, and was expected to affect developments in the salmon fishery.

A highlight of the 1963 salmon fishery of the Pacific coast was the pink salmon fishery in the State of Washington. In Puget Sound, pink salmon appear only in odd-numbered years. During 1963, the troll fleet made a record catch of this species. Some observers felt that recently developed baits and lures were responsible for the increased pink catch by trolling. In an ordinary pink salmon year, it can be assumed that the greatest share of pink salmon receipts in Seattle will be canned, but because of the heavy increases in troll receipts during 1963, much of the catch was sold fresh. Daily receipts of pink salmon from the troll fleet, while steady, did not provide the volume necessary for profitable cannery operations. Fresh pink salmon were featured in many of the chain stores on the Pacific coast and inland as far east as Denver and Omaha. It was not until large quantities of the Fraser River pink salmon were available that canneries were able to operate at capacity on seine caught as well as troller caught fish.

While the catch of red or sockeye salmon was down sharply in Alaska, where most of the catch of this species is taken, production on Puget Sound, based largely on the run of these fish to the Fraser River in British Columbia, was up over 50 percent. Because of a price disagreement, Canadian fishermen stopped fishing during 3 weeks when the sockeye run was at its height; so, for the first time in the memory of most fishermen, only United States nationals fished the Fraser River run at its peak. The Fraser River sockeye salmon fishery is under the control and supervision of the International Pacific Salmon Fisheries Commission, with headquarters at New Westminster, British Columbia. One of the functions of the commission is equal division of the catch of sockeye and pink salmon between United States and Canadian fishermen. It is difficult to determine the degree to which the inactivity of the Canadian fishermen helped the United States fleet. Confined to one side of the international boundary, the United States had no access to salmon in Canadian waters, and the chief advantage they received was additional fishing time to prevent over-spawning of the fishing grounds.

Tuna. Landings of tuna in 1963, excluding deliveries by U.S. craft to Puerto Rico, were 321,619,000 pounds worth \$40,170,000. This was an increase of 3 percent in volume, but a decline of 11 percent in value. The value declined despite an increase of 14.8 million pounds in the Pacific Coast States' catch of the more expensive albacore. This species represented the most successful segment of the tuna fishery in 1963.

Tuna accounted for 27 percent of the volume and 30 percent of the value of all Pacific Coast fisheries in 1963. Landings of albacore and skipjack increased, but the catch of bluefin and yellowfin declined compared with 1962. The albacore fishery in California and Oregon was very good--the catch for the two States totaled 60.3 million pounds, 32 percent more than in the previous year.

# GENERAL REVIEW

The conversion from the pole and line method to purse seining for skipjack and yellowfin was completed in 1963. The principal additions to the fleet during the year were new vessels or vessels converted from military craft.

There were important developments in the corporate structure of some of the tuna canneries during 1963. Early in the year, the H. J. Heinz Company of Pittsburgh, Pa., packers of food products, acquired Star Kist Foods, Inc. In February, the Van Camp Seafood Company merged with the Ralston-Purina Company, packers of cereal food products and animal food. During the middle of the year, the C. H. B. Foods of Pico Rivera, Calif., acquired the Franco-Italian Packing Company of Terminal Island. These mergers follow a general trend in the U.S. food processing industry to integrate all types of food processing.

Crabs. The 1963 catch of 252.3 million pounds of crabs worth \$21.4 million was up 8 percent in volume and 14 percent in value. Chiefly responsible for the increase was the expanding king crab fishery in Alaska, where landings of 78.7 million pounds, were 26 million pounds above the previous year. The Dungeness crab catch of 24.9 million pounds was 6 percent more than in 1962. Most of the increase was in Alaska, where because of a crab scarcity on the Washington, Oregon, and California coasts, this latent fishery expanded considerably. The catch of blue crabs was 145.3 million pounds, a decline of 10 million pounds, principally because crabs were scarce and reduced effort resulting from the more plentiful supply of shrimp. Fishermen found their efforts more rewarding in the shrimp fishery.

Shrimp. The 1963 catch of 240.5 million pounds of shrimp, worth \$70 million to the fishermen, was a 26-percent increase in volume but a 4-percent decline in value. An unusually good catch of both brown and white shrimp in the Gulf of Mexico so depressed prices that the total value declined, despite the larger catches. In contrast to the good catches in the Gulf of Mexico, shrimp were very scarce in the South Atlantic where catches of pink and white shrimp in North Carolina, South Carolina, and Georgia were down sharply. Because of the serious shortage of shrimp in the South Atlantic, many of the vessels migrated to the Gulf. Many shrimp taken in Louisiana, Mississippi, and Alabama, and to a lesser extent in eastern Texas waters, were small, which reduced the average value considerably. The volume of landings in Louisiana was so great, at times, that processing plants were unable to handle them, which resulted in some individual boat owners peddling their catches to retailers and consumers.

The shrimp industry expanded into the grounds off South America. The fishery resources off the South American countries had been known since the Bureau did exploratory work there in 1941 and 1942, but the fishing industry had not taken full advantage of this knowledge.

Oysters. The production of 58.4 million pounds of oyster meats, valued at \$27.1 million, was a 4-percent increase in volume but a 7-percent decline in value. The volume and value increased in the New England, South Atlantic, and Gulf, but declined in the Middle Atlantic, Chesapeake, and Pacific Coast States. The Gulf States had a phenomenal increase, and production of oyster meats there increased from 18.8 million pounds in 1962 to 24.1 million pounds in 1963. Chiefly responsible was the larger volume of oysters taken for canning; the Gulf pack was over 60 percent more than in 1962. In addition, large quantities of fresh oysters were produced for the eastern and northern trade because the Middle Atlantic and Chesapeake Bay States were unable to supply their usual markets. Mortalities on the oyster reefs in the Chesapeake and Middle Atlantic States were chiefly responsible for the declines in the production in these areas. Some shucking plants in the Chesapeake and Middle Atlantic States continued to handle oysters trucked in from the Gulf States. The average price per gallon of shucked oysters declined slightly, as did the total quantity produced. The production of breaded oysters increased and the average price per pound for this item also advanced.

## GENERAL REVIEW

Scallops. Landings of 21.5 million pounds of scallop meats in 1963 were down 23 percent in volume, while the value of the catch--\$10.3 million--was down 15 percent. The total supply of scallops in 1963 (domestic catch plus imports) was down 11 percent or 4.5 million pounds from the 1962 record supply of 39.4 million pounds. The Canadian fleet continued to grow, and most of the new units fished Georges Bank--the same grounds fished by the United States fleet. Competition for the available scallops on Georges Bank became more keen.

Total Supply. In 1963, the total supply of fishery products (domestic catch plus imports) on a round weight basis was a record 11,459,000 pounds and, for the first time, more than half the supply (57.7 percent) came from imports. The decline in the U.S. production of fish meal and increased imports of this product, principally from Peru, were responsible for imports exceeding domestic production. U.S. production accounted for 52.9 percent of the supply of edible products, but only 34.5 percent of the supply of industrial products.

Processed Fishery Products. The total value of processed fishery products in 1963 was \$914.5 million--down \$44.3 million (5 percent) from the previous year, but 6 percent above the 5-year average (1959-63).

Frozen raw, peeled and deveined shrimp, which have been becoming increasingly popular for the past few years, were again produced in greater quantity. While the volume increased 4 million pounds and \$3.7 million, the average price per pound declined from \$1.22 in 1962 to \$1.16 in 1963. Breaded shrimp--another popular shrimp product--was down 1 percent in volume and 14 percent in value compared with the previous year. Declining ex-vessel prices for shrimp were also reflected in the lower average price of the breaded product in 1963.

The greatest decline was in the canned items--down \$35.3 million (8 percent)--principally in canned salmon (down \$18.7 million) and tuna (down \$8.2 million), pet food (down \$6.8 million), and Maine sardines (down \$6.8 million). There were gains in canned shrimp, oysters, and crab meat.

The production of fresh and frozen packaged fillets and steaks totaled 166 million pounds valued at \$57.5 million--a 3-percent decline in both volume and value compared with 1962. The decline in volume was chiefly the result of decreased production of haddock and Atlantic ocean perch fillets (each down 5 million pounds) and halibut, down 1 million pounds. The production of flounder fillets was up 8 million pounds and \$2.3 million, primarily because of higher yellowtail landings at New Bedford, Mass.

Whales. During 1963, three whaling companies operated on the Pacific Coast, the same number as in the previous year. These firms caught 259 whales--11 more than in 1962. More sperm, humpback, and sei whales were taken during 1963, while the number of fin whales, considered by the industry to be more valuable because of the greater meat yield, declined sharply in 1963. The change in the composition of the catch resulted in a 21-percent decrease in the volume of processed products and a 23-percent decline in the value.

Fishery Imports. In 1963, over 100 countries (or areas) on 6 continents exported fishery products worth \$490.7 million to the United States. Imports from North America accounted for 41 percent of the value, followed by Asia (24 percent), South America (14 percent), and Europe (13 percent). Canada led other countries in the value of fishery products sent to the United States, accounting for 24 percent of the total value. Japan was in second place with 19 percent, followed by Mexico with 12 percent.

A total of 91 countries (or areas) on 6 continents sent 1.2 billion pounds (product weight) of edible fishery products to the United States in 1963. Only 7 items--fresh and frozen tuna, canned tuna in brine, canned sardines, fillets and steaks, shrimp, lobster, and

pickled or salted fish--accounted for 79 percent of the total. Shipments from countries in North America made up 48 percent of the total, followed by Asia (22 percent), Europe (15 percent), South America (8 percent), Africa (5 percent), and Australia and Oceania (2 percent). Canada led other countries in the volume of edible fishery products sent to the United States in 1963, accounting for 35 percent of the total. Japan was in second place with 19 percent, followed by Mexico, 9 percent, and Iceland and Peru with 5 percent each.

According to domestic catch and import statistics the production segment of the U.S. fishing industry has failed to hold its share of the market. While U.S. landings by the domestic fleet have stabilized, imports have continued to rise and in 1963 constituted 58 percent of the total U.S. supply. If this trend continues, only a small portion of the total supply will come from the U.S. fleet within the next decade. The tendency in recent years has been to use more of the domestic catch of fish for industrial purposes and less for human food.

In 1963, the world catch of fish, crustaceans, mollusks, etc., was a record 102.3 billion pounds--2.4 billion pounds more than in 1962. Peru again made the most spectacular gain and for the second year was first among the nations of the world in volume of production of fishery products. The United States continued in fifth place.

Detailed summaries of the catch and operating unit data for the United States have been previously published in Current Fishery Statistics No. 3727.

Summaries of operating unit and catch statistics for each region of the United States have been published in the Current Fishery Statistics series of bulletins. "Fisheries of the United States," a preliminary review available each April, contains current information on many aspects of the fisheries, such as domestic and world catch, per capita consumption, price indexes, foreign trade, supplies, etc.; and comparative data for previous years. This publication may be obtained free from the Office of Information, U.S. Fish and Wildlife Service, Washington, D.C. 20240.

The current statistical publications of the Bureau that contain data on the domestic fisheries are listed in Fishery Leaflet 432 "Fishery Statistical Publications of the Bureau of Commercial Fisheries." The publication also lists other Federal agencies, interstate commissions, and international and nongovernmental sources of fishery statistics. Copies of this leaflet may be obtained from the Office of Information.



## GENERAL REVIEW

## CATCH OF FISH AND SHELLFISH, 1945-63

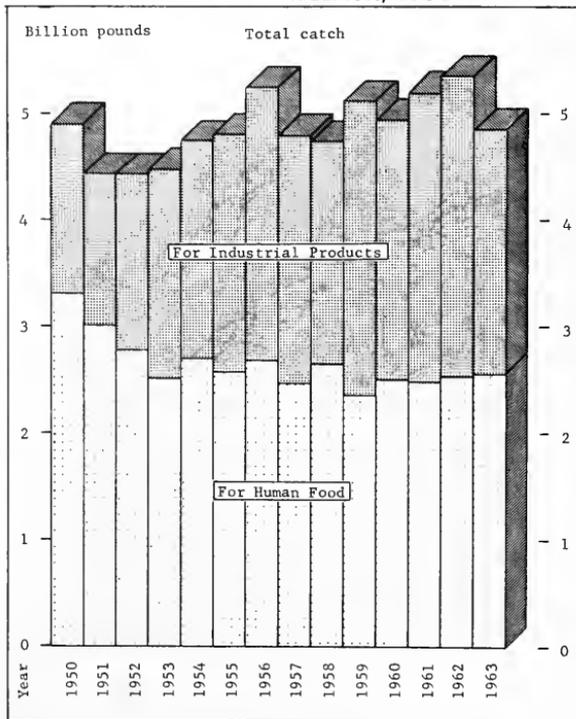
(ROUND WEIGHT BASIS)

YEAR	CATCH FOR HUMAN FOOD	CATCH FOR INDUSTRIAL PRODUCTS <sup>1/</sup>	TOTAL		AVERAGE PRICE PER POUND
	MILLION POUNDS	MILLION POUNDS	MILLION POUNDS	MILLION DOLLARS	CENTS
1945	3,167	1,431	4,598	270	5.87
1946	3,049	1,418	4,467	313	7.01
1947	3,020	1,329	4,349	312	7.16
1948	3,146	1,367	4,513	371	8.22
1949	3,305	1,499	4,804	343	7.13
1950	3,307	1,594	4,901	347	7.09
1951	3,048	1,385	4,433	365	8.23
1952	2,778	1,654	4,432	364	8.20
1953	2,519	1,968	4,487	356	7.94
1954	2,705	2,057	4,762	359	7.55
1955	2,579	2,230	4,809	339	7.05
1956	2,690	2,578	5,268	372	7.06
1957	2,475	2,314	4,789	354	7.39
1958	2,651	2,096	4,747	373	7.86
1959	2,369	2,753	5,122	346	6.76
1960	2,498	2,444	4,942	354	7.15
1961	2,490	2,697	5,187	362	6.98
1962	2,540	2,814	5,354	396	7.40
1963	2,556	2,291	4,847	377	7.78

<sup>1/</sup> MANUFACTURED INTO MEAL, OIL, FISH SOLUBLES, HOMOGENIZED CONDENSED FISH, SHELL PRODUCTS, AND USED AS BAIT AND ANIMAL FOOD.

NOTE:--DOES NOT INCLUDE DATA ON THE HAWAIIAN CATCH PRIOR TO 1946.

### U. S. CATCH AND UTILIZATION OF FISH AND SHELLFISH, 1950-63



# GENERAL REVIEW

11

## SUMMARY OF CATCH, 1963

(MILLIONS OF POUNDS AND MILLIONS OF DOLLARS)

REGION	FISH		SHELLFISH, ETC.		WHALE PRODUCTS		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
NEW ENGLAND . . . . .	758	37	71	31	-	-	829	68
MIDDLE ATLANTIC . . . . .	496	11	54	10	-	-	550	21
CHESAPEAKE . . . . .	335	8	95	22	-	-	430	30
SOUTH ATLANTIC . . . . .	298	9	73	11	-	-	371	20
GULF . . . . .	1,140	25	259	74	-	-	1,399	99
PACIFIC . . . . .	960	106	149	17	B	1	1,117	124
GREAT LAKES . . . . .	59	5	-	-	-	-	59	5
MISSISSIPPI RIVER AND TRIBUTARIES . . . . .	63	6	17	1	-	-	80	7
HAWAII . . . . .	12	3	(1)	(1)	-	-	12	3
TOTAL . . . . .	4,121	210	718	166	B	1	4,847	377

1/ LESS THAN 500,000 POUNDS OR \$500,000.

## SUMMARY OF OPERATING UNITS, 1963

ITEM	NEW ENGLAND	MIDDLE ATLANTIC	CHESAPEAKE	SOUTH ATLANTIC	GULF
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:					
ON VESSELS . . . . .	4,202	3,057	3,795	3,414	11,374
ON BOATS AND SHORE . . . . .	17,226	5,496	13,989	8,526	13,109
TOTAL . . . . .	21,428	8,553	17,784	11,940	24,483
VESSELS:					
MOTOR . . . . .	733	599	1,209	1,157	3,369
GROSS TONNAGE . . . . .	47,561	33,669	26,261	41,611	142,809
SAIL . . . . .	-	-	65	-	-
GROSS TONNAGE . . . . .	-	-	720	-	-
TOTAL VESSELS . . . . .	733	599	1,274	1,157	3,369
TOTAL GROSS TONNAGE . . . . .	47,561	33,669	27,001	41,611	142,809
BOATS:					
MOTOR . . . . .	10,070	4,085	9,495	5,711	9,992
OTHER . . . . .	676	268	888	819	626
GEAR:					
HAUL SEINES . . . . .	15	78	252	132	128
STOP NETS AND SEINES . . . . .	166	4	-	-	-
PURSE SEINES AND LAMPARA NETS:					
HERRING . . . . .	2	-	-	-	-
MACKEREL AND SARDINE . . . . .	4	-	-	-	-
MENHADEN . . . . .	-	57	39	57	72
TUNA . . . . .	10	5	5	-	-
OTHER . . . . .	15	23	-	2	4
BAG NETS . . . . .	14	-	-	20	-
BEAM TRAWLS . . . . .	-	7	-	-	-
OTTER TRAWLS:					
CRAB . . . . .	-	-	-	337	5
FISH . . . . .	613	303	83	101	110
LOBSTER . . . . .	-	35	-	-	-
SHRIMP . . . . .	28	-	-	2,445	9,224
WEIRS . . . . .	81	5	-	-	-
POUND NETS . . . . .	61	142	3,780	655	-
FLOATING TRAPS . . . . .	44	-	-	-	-
FYKE AND HOOP NETS . . . . .	5	291	1,198	280	12,822
POTS AND TRAPS:					
CONCH . . . . .	1,015	50	-	-	-
CRAB . . . . .	1,460	5,450	192,083	58,870	66,936
CRAWFISH . . . . .	-	-	-	-	6,680
EEL . . . . .	1,145	1,045	7,033	410	-
FISH . . . . .	-	17,425	4,778	15,623	275
LOBSTER . . . . .	857,100	9,800	-	20,240	60,050
TURTLE . . . . .	-	150	247	25	-
BOX TRAPS . . . . .	5	-	4	-	-
SLAT TRAPS . . . . .	-	-	3	-	-

(CONTINUED ON NEXT PAGE)

## GENERAL REVIEW

## SUMMARY OF OPERATING UNITS, 1963 - Continued

ITEM	NEW ENGLAND	MIDDLE ATLANTIC	CHESAPEAKE	SOUTH ATLANTIC	GULF
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
GEAR - CONTINUED:					
GILL NETS:					
ANCHOR, SET OR STAKE . . . . .	39	177	2,696	3,194	239
DRIFT . . . . .	85	91	1,044	675	11
RUNAROUND . . . . .	-	35	-	479	1,107
TRAMMEL NETS . . . . .	-	-	-	5	644
HOOKS AND BAITS . . . . .	550,211	242,834	961,221	1,284,666	1,382,439
DIF NETS . . . . .	404	-	415	2,550	23,073
PUSH NETS . . . . .	-	9	-	-	-
CAST NETS . . . . .	-	-	-	17	29
HARPOONS . . . . .	95	12	-	-	-
SPEARS . . . . .	21	23	-	135	257
SCRAPES . . . . .	-	-	614	-	-
DREDGES:					
CLAM . . . . .	73	107	312	26	-
CRAB . . . . .	-	56	407	-	-
MUSSEL . . . . .	1	-	-	-	-
OYSTER . . . . .	45	140	695	171	1,341
SCALLOP . . . . .	1,070	1,580	6	70	101
OTHER . . . . .	-	11	-	-	-
TONGS AND OYSTER GRABS . . . . .	1,097	2,945	7,574	366	2,528
RAKES . . . . .	1,614	2,035	773	302	-
HOES . . . . .	3,254	14	-	-	-
FORKS . . . . .	39	-	-	-	-
BRUSH TRAPS . . . . .	-	-	-	-	43,160
GRASS, FROG . . . . .	-	-	-	-	54
HOOKS, SPONGE . . . . .	-	-	-	-	69
DIVING OUTFITS . . . . .	616	-	-	-	18
ITEM	PACIFIC	GREAT LAKES	MISSISSIPPI RIVER AND TRIBUTARIES	HAWAII	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	15,191	694	-	266	40,052
ON BOATS AND SHORE . . . . .	16,421	1,610	9,287	554	86,418
TOTAL . . . . .	33,612	2,704	9,287	820	128,470
VESSELS:					
MOTOR . . . . .	4,791	1/ 400	-	56	11,663
GROSS TONNAGE . . . . .	143,046	7,172	-	1,728	406,058
SAIL . . . . .	-	-	-	-	65
GROSS TONNAGE . . . . .	-	-	-	-	720
TOTAL VESSELS . . . . .	4,791	1/ 400	-	56	11,928
TOTAL GROSS TONNAGE . . . . .	143,046	7,172	-	1,728	406,778
SOATS:					
MOTOR . . . . .	13,269	1,156	8,059	360	62,090
OTHER . . . . .	303	95	237	23	3,955
GEAR:					
HAUL SEINES . . . . .	117	62	250	(2)	1,054
STOP NETS AND SEINES . . . . .	-	-	-	-	170
PURSE SEINES AND LAMPARA NETS:					
ANCHOVY . . . . .	23	-	-	-	23
HERRING . . . . .	15	-	-	-	17
MACKEREL AND SARDINE . . . . .	90	-	-	-	94
MENHADEN . . . . .	-	-	-	-	179
SALMON . . . . .	1,699	-	-	-	1,699
SQUID . . . . .	24	-	-	-	141
TUNA . . . . .	134	-	-	-	24
OTHER . . . . .	8	-	-	-	141
BAG NETS . . . . .	-	-	-	(2)	34
BEAM TRAWLS . . . . .	37	-	-	-	44
OTTER TRAWLS:					
CRAB . . . . .	-	-	-	-	342
FISH . . . . .	233	19	1	-	1,324
LOBSTER . . . . .	-	-	-	-	35
SHRIMP . . . . .	49	-	-	-	11,325
WEIRS . . . . .	1	-	52	-	139
POUND NETS . . . . .	2	136	37	-	4,613
TRAP NETS . . . . .	-	1,773	237	-	2,010

SEE FOOTNOTES AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# GENERAL REVIEW

13

## SUMMARY OF OPERATING UNITS, 1963 - Continued

ITEM	PACIFIC	GREAT LAKES	MISSISSIPPI RIVER AND TRIBUTARIES	HAWAII	TOTAL, EXCLUSIVE OF DUPLICATION
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
GEAR - CONTINUED:					
FLOATING TRAPS . . . . .	4	-	-	-	48
FYKE AND HOOP NETS . . . . .	-	263	54,954	-	69,813
POTS AND TRAPS:					
CONCH . . . . .	-	-	-	-	1,065
CRAB . . . . .	103,485	-	-	(2)	427,986
CRAWFISH . . . . .	600	-	15,230	-	22,510
EEL . . . . .	-	-	-	-	9,633
FISH . . . . .	100	-	3,712	(2)	41,913
LOBSTER . . . . .	12,730	-	-	(2)	959,470
OCTOPUS . . . . .	275	-	-	-	275
SHRIMP . . . . .	190	-	125	-	315
TURTLE . . . . .	-	-	-	-	422
BOX TRAPS . . . . .	-	-	-	-	9
WIRE BASKETS . . . . .	-	-	2,808	-	2,808
SLAT TRAPS . . . . .	-	-	-	-	3
GILL NETS:					
ANCHOR, SET OR STAKE . . . . .	2,699	1,416	7,167	(2)	17,629
DRIFT . . . . .	5,407	-	-	-	7,313
RUNAROUND . . . . .	-	-	-	-	1,615
TRAMMEL NETS . . . . .	8	-	4,033	-	4,689
HOOKS AND BAITS . . . . .	1,035,385	60,774	4,062,203	(2)	9,575,509
DIP NETS . . . . .	206	5	1,277	-	27,930
BRAIL OR SCOOP NETS . . . . .	89	-	-	-	89
REEF NETS . . . . .	83	-	-	-	83
PUSH NETS . . . . .	-	-	-	-	9
WHEELS . . . . .	6	-	-	-	6
CAST NETS . . . . .	-	-	-	(2)	46
HARPOONS . . . . .	24	-	-	-	128
SPEARS . . . . .	-	-	-	(2)	436
SCRAPES . . . . .	-	-	-	-	614
DREDGES:					
CLAM . . . . .	4	-	-	-	522
CRAB . . . . .	-	-	-	-	463
MUSSEL . . . . .	-	-	-	-	1
OYSTER . . . . .	86	-	-	-	2,476
SCALLOP . . . . .	-	-	-	-	2,613
OTHER . . . . .	-	-	-	-	11
TONGS AND OYSTER GRABS . . . . .	30	-	-	-	14,540
RAKES . . . . .	-	-	-	-	4,524
HOES . . . . .	-	-	-	-	3,268
FORKS . . . . .	-	-	-	-	39
SHOVELS . . . . .	1,750	-	-	-	1,750
BRUSH TRAPS . . . . .	-	-	-	-	43,160
CROWFOOT BARS . . . . .	-	-	1,383	-	1,383
GRABS, FROG . . . . .	-	-	159	-	213
HOOKS, SPONGE . . . . .	-	-	-	-	69
DIVING OUTFITS . . . . .	130	-	-	-	764

1/ INCLUDES 4 VESSELS OPERATED IN LAKE WINNEBAGO.

2/ DATA ON THE NUMBER OF GEAR OPERATED IN HAWAII ARE NOT AVAILABLE.

## VESSELS OBTAINING DOCUMENTS AS FISHING CRAFT, 1954-63

YEAR	FIRST DOCUMENTATION	REDOCUMENTATION	TOTAL
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
1954 . . . . .	717	28	745
1955 . . . . .	418	23	441
1956 . . . . .	521	17	538
1957 . . . . .	601	18	619
1958 . . . . .	684	29	713
1959 . . . . .	479	34	513
1960 . . . . .	408	24	432
1961 . . . . .	410	20	430
1962 . . . . .	352	16	368
1963 . . . . .	569	21	590

## GENERAL REVIEW

## U.S. CATCH BY WATERS, FISHERMEN, CRAFT, PLANTS AND EMPLOYMENT, BY STATES 1963

STATE	MARINE WATERS AND COASTAL RIVERS		LAKES 1/		MISSISSIPPI RIVER AND TRIBUTARIES		TOTAL		FISHERMEN		FISHING CRAFT		WHOLESALE AND MANUFACTURING					
	THOUSAND POUNDS	THOUSAND DOLLARS	THOUSAND POUNDS	THOUSAND DOLLARS	THOUSAND POUNDS	THOUSAND DOLLARS	THOUSAND POUNDS	THOUSAND DOLLARS	NUMBER	NUMBER	VESSELS		BOATS		PLANTS		EMPLOYEES	
											NUMBER	AVERAGE FOR YEAR	NUMBER	AVERAGE FOR SEASON	NUMBER	NUMBER	NUMBER	NUMBER
ALABAMA . . . . .	14,868	3,714	-	6,746	965	4,699	268	2,460	1,147	768	72	1,437	1,147	768				
ALASKA . . . . .	391,938	45,703	-	-	-	45,703	2,286	17,014	7,907	2,609	181	7,907	7,907	2,609				
ARIZONA . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
CALIFORNIA . . . . .	513,746	49,286	-	4,198	457	49,557	51,345	1,899	1,106	65	48	1,106	65	36				
CONNECTICUT . . . . .	5,047	1,247	-	-	-	1,247	1,464	1,731	478	7,032	16	9,737	9,737	7,032				
DELAWARE . . . . .	104,168	1,292	-	-	-	1,292	104,168	662	39	207	20	155	20	663				
FLORIDA . . . . .	186,211	27,720	9,311	1,329	10,483	29,049	1,423,473	4,955	473	5,298	473	4,955	473	5,298				
GEORGIA . . . . .	21,011	2,613	-	-	-	2,613	21,011	1,883	3,633	896	52	2,560	2,560	1,845				
HAWAII . . . . .	11,735	2,679	285	6,261	669	11,735	2,679	820	36	383	16	383	36	270				
ILLINOIS . . . . .	-	-	-	2,438	173	2,438	3	614	1,058	934	93	1,058	1,058	934				
INDIANA . . . . .	-	-	6	2,438	173	2,438	377	377	377	220	32	377	377	220				
IOWA . . . . .	-	-	-	44	12	44	43	43	35	44	6	35	35	44				
KANSAS . . . . .	-	-	-	-	-	-	3,970	492	670	132	21	631	670	132				
KENTUCKY . . . . .	752,284	33,941	-	3,970	492	3,970	3,970	492	11,750	6,092	224	5,877	11,750	6,092				
LOUISIANA . . . . .	253,656	9,718	-	8,378	1,254	760,662	35,199	1,498	9,260	2,739	282	6,430	9,260	2,739				
MARYLAND . . . . .	59,579	11,518	-	-	-	11,518	469,437	10,748	9,657	298	286	3,919	9,657	298				
MASSACHUSETTS . . . . .	467,693	41,234	-	-	-	41,234	20,326	2,322	1,286	6,716	266	5,451	1,286	6,716				
MICHIGAN . . . . .	-	-	20,326	2,322	631	14,759	866	645	5	477	26	320	5	477				
MINNESOTA . . . . .	341,313	8,591	5,336	2,255	325	344,278	8,916	3,725	1,632	1,235	82	1,927	3,725	1,235				
MISSISSIPPI . . . . .	-	-	-	349	40	349	40	243	243	224	36	239	243	224				
MISSOURI . . . . .	-	-	-	269	32	269	32	269	32	269	32	269	32	269				
MONTANA . . . . .	-	-	-	472	42	472	42	42	126	134	6	126	126	134				
NEBRASKA . . . . .	-	-	-	-	-	-	1,201	443	363	11	96	6	363	96				
NEW HAMPSHIRE . . . . .	1,201	443	-	-	-	443	255,020	10,335	3,682	363	114	1,679	3,682	2,006				
NEW JERSEY . . . . .	255,020	10,335	-	-	-	10,335	191,758	8,809	4,526	3,962	332	2,585	4,526	3,962				
NEW YORK . . . . .	9,718	7,047	502	91	256,652	7,047	256,652	7,047	5,802	4,75	165	2,975	5,802	4,75				
NORTH CAROLINA . . . . .	256,652	7,047	-	263	21	283	3	25	16	12	2	16	16	12				
NORTH DAKOTA . . . . .	-	-	14,223	1,151	-	1,151	14,223	544	544	17	15	544	544	17				
OHIO . . . . .	-	-	-	444	57	444	61,362	7,679	2,707	1,017	57	1,994	2,707	1,017				
OKLAHOMA . . . . .	-	-	-	-	-	-	1,412	105	2,408	1,683	60	1,027	2,408	1,683				
OREGON . . . . .	61,362	7,679	1,412	105	-	7,679	69,312	4,140	1,694	1,139	32	392	1,694	1,139				
PENNSYLVANIA . . . . .	69,312	4,149	-	-	-	4,149	22,015	3,236	1,957	222	1,002	67	1,957	222				
RHODE ISLAND . . . . .	22,015	3,236	-	-	-	3,236	12,669	1,227	359	27	2	359	359	27				
SOUTH CAROLINA . . . . .	-	-	-	3,719	157	3,719	167,126	30,163	6,243	1,526	163	4,823	6,243	1,526				
TENNESSEE . . . . .	-	-	-	782	96	782	374,746	19,056	9,048	4,465	357	4,853	9,048	4,465				
TEXAS . . . . .	166,344	30,067	-	-	-	30,067	149,687	21,437	1,209	546	78	4,099	1,209	546				
VIRGINIA . . . . .	374,746	19,056	-	-	-	19,056	29,869	595	1,109	859	2	859	1,109	859				
WASHINGTON . . . . .	149,687	21,437	16,916	1,332	595	12,673	160	160	2	2	2	2	2	2				
WEST VIRGINIA . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
WYOMING . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
TOTAL . . . . .	4,698,742	363,151	66,517	79,650	7,393	4,647,109	377,162	2,128,470	87,252	54,492	4,194	2,06,045	87,252	54,492				

1/ INCLUDES THE CATCH OF THE GREAT LAKES, THE INTERNATIONAL LAKES OF MINNESOTA, AND THE INLAND LAKES OF FLORIDA.

2/ EXCLUSIVE OF DUPLICATION.

# GENERAL REVIEW

## SUMMARY OF U. S. FISHING VESSELS, BY TONNAGE GROUPS, 1963

GROSS TONNAGE	NEW ENGLAND	MIDDLE ATLANTIC	CHESA-PEAKE <sup>1/</sup>	SOUTH ATLANTIC	GULF	PACIFIC	GREAT LAKES <sup>2/</sup>	HAWAII	TOTAL EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
5 - 9	36	53	807	223	190	1,006	65	1	2,378
10 - 19	131	145	274	260	746	2,010	209	15	3,774
20 - 29	89	87	60	167	438	674	81	15	1,567
30 - 39	84	67	28	179	450	377	26	10	1,133
40 - 49	60	49	17	155	424	272	17	8	917
50 - 59	42	39	12	60	279	107	2	5	506
60 - 69	47	31	7	42	530	51	-	1	674
70 - 79	52	27	11	13	175	37	-	1	278
80 - 89	20	9	1	1	42	32	-	-	100
90 - 98	21	3	-	2	11	29	-	-	64
100 - 109	16	5	4	2	9	20	-	-	47
110 - 119	30	11	4	2	2	17	-	-	57
120 - 129	12	3	4	3	2	15	-	-	35
130 - 139	13	1	2	-	2	9	-	-	24
140 - 149	7	4	5	1	6	5	-	-	24
150 - 159	15	4	4	2	1	2	-	-	22
160 - 169	16	2	1	-	5	12	-	-	28
170 - 179	6	5	-	1	5	7	-	-	19
180 - 189	2	4	2	1	7	7	-	-	22
190 - 199	6	31	8	15	11	15	-	-	64
200 - 209	1	-	-	-	-	1	-	-	2
210 - 219	3	-	-	-	3	2	-	-	8
220 - 229	3	4	1	3	4	1	-	-	13
230 - 239	3	2	1	2	4	4	-	-	14
240 - 249	3	1	2	4	1	-	-	-	11
250 - 259	4	2	5	6	3	3	-	-	15
260 - 269	2	-	4	4	3	4	-	-	15
270 - 279	-	-	-	-	-	5	-	-	5
280 - 289	-	3	1	1	-	3	-	-	3
290 - 299	2	1	1	2	1	3	-	-	8
300 - 309	2	2	-	2	1	1	-	-	6
310 - 319	2	2	-	-	1	4	-	-	9
320 - 329	3	-	1	1	-	2	-	-	6
330 - 339	-	-	-	-	-	2	-	-	2
340 - 349	-	-	-	-	-	4	-	-	4
350 - 359	-	-	-	-	-	7	-	-	7
360 - 369	-	-	-	-	-	4	-	-	4
370 - 379	1	-	1	-	-	10	-	-	11
380 - 389	1	-	1	-	-	3	-	-	3
390 - 399	-	1	1	-	-	2	-	-	3
400 - 409	-	-	-	-	-	1	-	-	1
410 - 419	-	-	-	-	1	2	-	-	3
420 - 429	-	-	-	-	-	2	-	-	2
430 - 439	-	-	-	-	-	4	-	-	4
440 - 449	-	-	-	-	-	4	-	-	4
450 - 459	1	-	-	-	-	2	-	-	3
460 - 469	-	-	-	-	1	2	-	-	3
470 - 479	-	-	-	-	5	3	-	-	8
480 - 489	-	-	1	-	2	3	-	-	5
490 - 499	-	-	-	-	-	1	-	-	1
530 - 539	-	-	1	1	-	-	-	-	1
540 - 549	-	-	1	1	-	-	-	-	1
550 - 559	1	-	1	-	-	1	-	-	1
600 - 609	-	-	-	-	1	-	-	-	1
610 - 619	-	-	-	-	1	-	-	-	1
630 - 639	-	-	-	-	-	1	-	-	1
640 - 649	-	-	-	-	1	-	-	-	1
680 - 689	-	1	-	-	-	-	-	-	1
720 - 729	-	1	-	-	-	1	-	-	1
770 - 779	-	-	-	-	-	1	-	-	1
800 - 809	-	-	-	-	-	1	-	-	1
810 - 819	-	-	-	-	-	1	-	-	1
TOTAL VESSELS	733	599	1,274	1,157	3,369	4,791	400	56	11,928
TOTAL GROSS TONNAGE	47,581	33,669	27,001	41,811	142,609	143,046	7,172	1,728	406,778

<sup>1/</sup> INCLUDES SAILING VESSELS.

<sup>2/</sup> INCLUDES 4 VESSELS OPERATED IN LAKE WINNEBAGO.

## GENERAL REVIEW

## LENGTH DISTRIBUTION OF U. S. FISHING VESSELS, 1963

LENGTH IN FEET	NEW ENGLAND	MIDDLE ATLANTIC	CHESA-PEAKE	SOUTH ATLANTIC	GULF	PACIFIC	GREAT LAKES	HAWAII	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
23.	1	-	-	-	-	-	-	-	1
24.	-	-	-	1	-	-	-	-	1
25.	-	-	-	1	3	2	3	-	7
26.	-	-	2	11	1	21	6	-	43
27.	1	1	-	9	5	69	4	-	89
28.	3	6	1	16	6	274	10	-	316
29.	5	4	2	9	11	226	8	-	264
30.	7	1	2	22	17	214	10	-	278
31.	1	1	9	25	23	319	13	-	397
32.	11	10	16	50	34	211	28	-	356
33.	11	7	51	37	45	271	37	-	459
34.	17	12	86	46	60	241	25	1	484
35.	16	10	122	38	57	227	20	-	489
36.	13	22	116	46	64	256	38	-	554
37.	19	13	156	52	94	225	48	-	605
38.	9	24	128	50	87	193	16	1	505
39.	13	28	97	36	74	172	30	2	450
40.	11	19	81	31	76	145	12	2	374
41.	7	13	44	41	92	140	13	1	341
42.	11	9	38	31	75	131	10	-	304
43.	10	15	21	29	81	130	9	2	293
44.	12	15	27	46	89	110	7	1	296
45.	12	12	20	29	107	97	9	1	272
46.	12	14	23	28	97	64	6	1	234
47.	18	10	17	30	88	70	11	1	235
48.	8	4	5	42	130	79	7	3	260
49.	9	12	12	33	106	229	2	1	390
50.	11	12	15	46	133	37	5	4	241
51.	17	14	7	50	136	37	3	2	236
52.	10	8	16	15	83	21	4	2	150
53.	12	6	5	25	115	25	1	-	176
54.	10	8	8	23	77	18	-	2	137
55.	16	6	11	30	134	20	-	2	200
56.	22	15	8	13	119	28	2	1	198
57.	16	8	11	9	50	14	1	1	101
58.	14	18	12	31	136	19	2	1	208
59.	6	5	4	5	102	43	-	1	164
60.	12	13	7	5	65	29	-	1	126
61.	17	22	8	28	313	20	-	1	389
62.	7	12	5	5	84	27	-	1	134
63.	8	7	2	4	37	14	-	-	69
64.	10	6	2	3	38	11	-	-	63
65.	8	6	1	4	52	20	-	2	90
66.	9	5	-	3	13	15	-	2	44
67.	5	4	-	1	16	8	-	2	36
68.	3	5	1	5	19	9	-	-	39
69.	16	4	1	1	10	9	-	2	40
70.	17	5	1	2	8	19	-	1	49
71.	6	7	2	3	11	13	-	3	40
72.	17	2	1	-	-	11	-	4	34
73.	9	4	-	-	1	3	-	-	20
74.	7	7	1	-	-	3	-	1	23
75.	10	1	1	-	-	3	-	-	29
76.	7	5	1	-	-	3	-	1	15
77.	9	5	2	1	2	6	-	-	22
78.	4	1	1	-	3	10	-	-	19
79.	10	6	1	-	-	13	-	-	29
80.	4	2	-	2	4	6	-	1	18
81.	4	-	-	-	2	4	-	-	10
82.	4	2	1	-	-	9	-	-	14
83.	7	2	-	-	-	2	-	-	9
84.	8	1	-	-	-	1	-	-	10
85.	14	4	3	1	1	1	-	-	16
86.	5	-	-	-	-	6	-	-	7
87.	4	-	-	-	-	4	-	-	7
88.	10	3	2	-	-	1	-	-	12
89.	12	2	1	-	-	6	-	-	20

(CONTINUED ON NEXT PAGE)

# GENERAL REVIEW

## LENGTH DISTRIBUTION OF U. S. FISHING VESSELS, 1963 - Continued

LENGTH IN FEET	NEW ENGLAND	MIDDLE ATLANTIC	CHESA-PEAKE	SOUTH ATLANTIC	GULF	PACIFIC	GREAT LAKES	HAWAII	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
90.	9	3	2	-	3	3	-	-	15
91.	4	3	-	1	2	3	-	-	11
92.	10	3	1	-	1	-	-	-	11
93.	1	-	-	-	-	1	-	-	2
94.	3	1	-	-	1	4	-	-	8
95.	4	1	-	-	2	1	-	-	7
96.	2	1	1	-	-	5	-	-	7
97.	2	-	1	-	-	1	-	-	4
98.	3	-	-	-	-	1	-	-	4
99.	1	-	1	-	-	3	-	-	3
100.	2	-	-	-	2	2	-	-	6
101.	1	2	1	2	-	2	-	-	5
102.	8	-	-	-	-	2	-	-	10
103.	4	-	-	-	1	1	-	-	6
104.	9	7	4	-	-	-	-	-	13
105.	2	2	2	1	2	6	-	-	12
106.	3	1	1	-	1	3	-	-	8
107.	-	4	3	1	-	1	-	-	8
108.	1	-	-	-	1	-	-	-	1
109.	1	1	-	-	2	1	-	-	5
110.	1	-	-	-	-	1	-	-	2
111.	2	1	1	1	1	2	-	-	4
112.	-	1	-	-	2	-	-	-	2
113.	-	-	2	2	-	-	-	-	2
114.	5	-	-	-	-	5	-	-	10
115.	-	-	1	-	-	3	-	-	4
116.	-	1	2	1	-	1	-	-	4
117.	1	-	-	-	-	11	-	-	11
118.	2	1	1	-	-	15	-	-	18
119.	1	-	-	-	1	2	-	-	4
120.	-	5	2	-	1	1	-	-	9
121.	-	3	1	-	-	2	-	-	6
122.	-	-	2	-	2	-	-	-	4
123.	-	-	-	-	-	1	-	-	1
124.	2	2	3	1	7	3	-	-	16
125.	1	7	6	8	7	3	-	-	23
126.	1	3	5	2	3	2	-	-	16
127.	-	2	3	-	-	2	-	-	7
128.	-	1	1	-	-	1	-	-	3
129.	-	1	1	1	-	2	-	-	4
130.	-	11	1	5	2	2	-	-	16
131.	-	-	-	-	-	1	-	-	4
132.	-	-	1	-	-	1	-	-	2
133.	3	-	-	-	-	2	-	-	5
134.	-	3	-	-	1	1	-	-	5
135.	-	-	-	-	1	-	-	-	1
136.	-	-	-	-	-	1	-	-	1
138.	-	-	-	-	-	-	-	-	1
139.	1	-	-	1	2	3	-	-	5
140.	-	4	-	4	1	-	-	-	5
141.	-	1	-	1	2	-	-	-	3
142.	-	1	1	3	1	-	-	-	5
143.	-	1	-	-	-	-	-	-	1
145.	-	-	-	-	1	-	-	-	1
146.	-	5	1	4	2	-	-	-	7
147.	-	3	-	3	-	-	-	-	3
150.	-	-	1	-	6	-	-	-	7
152.	-	-	-	-	-	1	-	-	1
153.	-	-	-	-	1	2	-	-	3
156.	-	2	-	-	-	1	-	-	2
160.	-	-	-	-	2	-	-	-	2
166.	-	-	2	2	-	-	-	-	2
168.	1	-	1	-	-	1	-	-	1
171.	-	-	-	-	-	1	-	-	1
172.	-	-	-	-	-	1	-	-	1
193.	-	-	-	-	1	-	-	-	1
194.	-	-	-	-	1	-	-	-	1
195.	-	-	-	-	1	-	-	-	1
<b>TOTAL</b>	<b>733</b>	<b>599</b>	<b>1,274</b>	<b>1,157</b>	<b>3,369</b>	<b>4,791</b>	<b>400</b>	<b>56</b>	<b>11,928</b>

## GENERAL REVIEW

AGE DISTRIBUTION OF U. S. VESSELS ENGAGED IN  
COMMERCIAL FISHING, 1961-63

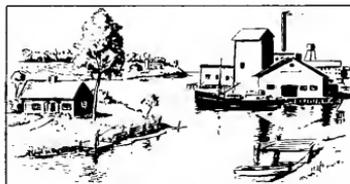
YEAR BUILT	1961	1962	1963
	VESSELS	VESSELS	VESSELS
	NUMBER	NUMBER	NUMBER
1865. . . . .	1	1	1
1872. . . . .	2	2	2
1873. . . . .	1	2	2
1874. . . . .	1	-	-
1875. . . . .	1	1	1
1876. . . . .	1	2	4
1877. . . . .	2	2	2
1881. . . . .	2	2	2
1882. . . . .	3	3	3
1883. . . . .	4	3	3
1884. . . . .	2	3	3
1886. . . . .	2	3	3
1887. . . . .	3	3	3
1888. . . . .	3	3	3
1889. . . . .	3	2	2
1890. . . . .	2	2	1
1891. . . . .	6	6	3
1892. . . . .	3	3	2
1893. . . . .	5	5	5
1894. . . . .	3	3	2
1896. . . . .	5	5	6
1897. . . . .	3	2	2
1898. . . . .	5	4	3
1899. . . . .	9	7	6
1900. . . . .	12	11	10
1901. . . . .	27	23	22
1902. . . . .	20	12	13
1903. . . . .	17	21	19
1904. . . . .	18	19	16
1905. . . . .	20	20	18
1906. . . . .	23	23	21
1907. . . . .	26	25	23
1908. . . . .	19	20	19
1909. . . . .	28	25	23
1910. . . . .	29	29	29
1911. . . . .	37	39	41
1912. . . . .	61	58	58
1913. . . . .	69	57	56
1914. . . . .	53	49	52
1915. . . . .	72	61	66
1916. . . . .	42	36	39
1917. . . . .	113	112	111
1918. . . . .	108	101	99
1919. . . . .	70	63	64
1920. . . . .	103	107	106
1921. . . . .	46	41	41
1922. . . . .	48	46	47
1923. . . . .	64	61	62
1924. . . . .	113	111	115
1925. . . . .	140	126	134
1926. . . . .	143	139	145
1927. . . . .	173	160	165
1928. . . . .	214	197	200
1929. . . . .	195	187	184
1930. . . . .	155	158	164
1931. . . . .	114	106	106
1932. . . . .	69	62	66
1933. . . . .	53	46	54
1934. . . . .	98	97	99
1935. . . . .	155	155	154

(CONTINUED ON NEXT PAGE)

# GENERAL REVIEW

## AGE DISTRIBUTION OF U. S. VESSELS ENGAGED IN COMMERCIAL FISHING, 1961-63 - Continued

YEAR BUILT	1961 VESSELS	1962 VESSELS	1963 VESSELS
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
1936 . . . . .	192	181	182
1937 . . . . .	215	198	197
1938 . . . . .	202	201	209
1939 . . . . .	202	189	195
1940 . . . . .	222	211	218
1941 . . . . .	226	214	227
1942 . . . . .	266	263	259
1943 . . . . .	292	269	288
1944 . . . . .	448	444	447
1945 . . . . .	522	501	516
1946 . . . . .	680	648	655
1947 . . . . .	599	565	569
1948 . . . . .	514	476	476
1949 . . . . .	446	430	425
1950 . . . . .	360	359	345
1951 . . . . .	386	353	350
1952 . . . . .	400	353	374
1953 . . . . .	452	424	415
1954 . . . . .	412	383	377
1955 . . . . .	265	248	252
1956 . . . . .	323	319	314
1957 . . . . .	422	390	388
1958 . . . . .	434	408	406
1959 . . . . .	290	270	270
1960 . . . . .	171	171	188
1961 . . . . .	105	179	197
1962 . . . . .	-	96	187
1963 . . . . .	-	-	195
UNKNOWN . . . . .	99	93	90
TOTAL . . . . .	11,964	11,511	11,928



## GENERAL REVIEW

## CATCH BY REGION, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	NEW ENGLAND		MIDDLE ATLANTIC		CHESAPEAKE		SOUTH ATLANTIC		GULF	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
ALDWIVES . . . . .	13,497	145	35	1	27,551	481	15,123	152	836	25
AMBERJACK . . . . .	-	-	(1)	(1)	-	-	6	(1)	14	1
ANCHOVIES . . . . .	83	2	-	-	-	-	-	-	-	-
ANGLERFISH . . . . .	43	1	30	1	-	-	-	-	-	-
BALLYHOD . . . . .	-	-	-	-	-	-	(1)	(1)	82	12
BARRACUDA . . . . .	-	-	-	-	-	-	-	-	2	(1)
BULLFISH . . . . .	5	(1)	-	-	-	-	-	-	-	-
BLUEFISH . . . . .	181	26	1,541	203	674	84	2,289	229	898	78
BLUE RUNNER . . . . .	-	-	-	-	-	-	25	1	1,496	30
BONITO . . . . .	110	10	94	9	6	1	1	(1)	1	(1)
BOWFIN . . . . .	-	-	-	-	-	-	(1)	(1)	7	(1)
BUFFALOFISH . . . . .	-	-	-	-	-	-	-	-	925	102
BUTTERFISH . . . . .	6,009	560	2,539	273	1,422	110	202	14	-	-
CABIO . . . . .	-	-	-	-	33	2	23	2	39	3
CARP . . . . .	2	(1)	101	7	491	15	168	5	41	3
CATFISH AND BULLHEADS . . . . .	-	-	47	4	2,046	137	15,391	2,094	6,157	1,265
CIGARFISH . . . . .	-	-	-	-	-	-	-	-	389	25
COD . . . . .	39,901	2,794	2,076	292	200	20	-	-	-	-
CRAPPIE . . . . .	-	-	-	-	3	(1)	-	-	-	-
CREVALLE . . . . .	-	-	-	-	-	-	77	2	725	17
CROAKER . . . . .	-	-	-	-	124	31	2,427	170	172	13
CUSK . . . . .	1,909	110	-	-	-	-	-	-	-	-
DOLPHIN . . . . .	-	-	-	-	-	-	4	1	5	(1)
ORUM:										
BLACK . . . . .	-	-	8	(1)	350	15	170	12	1,634	135
RED . . . . .	-	-	-	-	3	(1)	205	25	2,198	366
EELS:										
COMMON . . . . .	117	26	238	33	574	68	40	2	-	-
CONGER . . . . .	17	1	9	(1)	-	-	-	-	-	-
FLOUNDER . . . . .	106,767	6,744	12,552	1,820	2,308	472	3,011	506	861	173
GARFISH . . . . .	-	-	-	-	5	(1)	-	-	613	32
GIZZARD SHAD . . . . .	-	-	-	-	26	(1)	-	-	-	-
GROUPERS . . . . .	-	-	(1)	(1)	-	-	200	21	7,324	740
GRUNTS . . . . .	-	-	-	-	-	-	34	3	60	4
HADDOCK . . . . .	123,881	11,695	91	10	-	-	-	-	-	-
HAKE:										
RED . . . . .	5,239	58	1,417	38	56	1	-	-	-	-
WHITE . . . . .	6,126	253	118	6	5	(1)	-	-	-	-
HALIBUT . . . . .	-	-	-	-	-	-	272	-	-	-
HARVESTFISH . . . . .	-	-	-	-	108	9	20	-	-	-
HERRING, SEA . . . . .	154,513	1,699	238	5	19	(1)	-	-	-	-
HICKORY SHAD . . . . .	-	-	-	-	33	1	294	9	-	-
HOGFISH . . . . .	-	-	-	-	-	-	4	1	16	2
HOGCHOKER . . . . .	-	-	-	-	4	(1)	-	-	-	-
JEW FISH . . . . .	-	-	-	-	-	-	17	1	122	10
KING MACKEREL . . . . .	-	-	-	-	10	1	2,231	259	2,817	296
KING WHITING OR "KINGFISH" . . . . .	1	(1)	21	2	60	7	2,588	249	1,209	65
LAUNCE . . . . .	245	15	-	-	-	-	-	-	-	-
MACKEREL . . . . .	2,653	257	180	39	81	18	1	(1)	-	-
MENHADEN . . . . .	353	4	372,851	4,270	259,015	3,349	215,886	2,589	967,693	12,174
MOJARRA . . . . .	-	-	-	-	-	-	151	11	75	5
MULLET . . . . .	-	-	44	9	47	4	7,527	447	35,077	1,860
OCEAN PERCH, ATLANTIC . . . . .	108,292	5,147	-	-	-	-	-	-	-	-
OCEAN POUT . . . . .	1	(1)	-	-	-	-	-	-	-	-
PADDLEFISH . . . . .	-	-	-	-	-	-	-	-	17	2
PERMIT . . . . .	-	-	-	-	-	-	4	(1)	14	2
PIGFISH . . . . .	-	-	-	-	4	(1)	65	5	7	1
PIKE OR PICKEREL . . . . .	-	-	-	-	4	1	-	-	-	-
POLLOCK . . . . .	14,601	670	6	(1)	-	-	-	-	-	-
POMPANO . . . . .	-	-	-	-	-	-	324	176	597	413
TOTAL, SALMON, ATLANTIC . . . . .	1	1	-	-	-	-	-	-	-	-
SAND PERCH . . . . .	-	-	-	-	-	-	26	1	4	(1)
SAWFISH . . . . .	-	-	-	-	-	-	-	-	-	-
SCUP OR FORGY . . . . .	9,975	629	22,037	1,851	9,619	601	236	14	55	4
SEA BASS, BLACK (ATLANTIC) . . . . .	160	24	3,388	443	4,620	582	1,069	123	-	-
SEA CATFISH . . . . .	-	-	-	-	-	-	8	1	252	15
SEA ROBIN . . . . .	134	2	31	(1)	75	1	-	-	-	-
SEA TROUT OR WEAKFISH:										
GRAY . . . . .	3	(1)	567	73	1,192	130	1,839	142	-	-
SPOTTED . . . . .	-	-	-	-	26	7	1,086	279	4,275	1,026
WHITE . . . . .	-	-	-	-	-	-	-	-	294	21
SHAD . . . . .	325	64	744	142	3,139	479	1,734	352	-	-
SHARKS:										
GRAYFISH . . . . .	757	5	82	4	504	13	-	-	-	-
UNCLASSIFIED . . . . .	31	1	8	(1)	97	2	41	4	4	(1)
TOTAL SHARKS . . . . .	788	6	90	4	601	15	41	4	4	(1)

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# GENERAL REVIEW

21

## CATCH BY REGION, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	NEW ENGLAND		MIDDLE ATLANTIC		CHESAPEAKE		SOUTH ATLANTIC		GULF	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
<b>FISH - CONTINUED</b>										
SHEEPSHEAD:										
FRESH-WATER	-	-	-	-	-	-	-	-	360	33
SALT-WATER	-	-	-	-	-	-	82	6	480	38
SILVERSIDES	-	-	165	18	-	-	-	-	-	-
SKATES	76	2	16	1	2	(1)	-	-	-	-
SMELT	216	65	-	-	-	-	-	-	-	-
SNAPPER:										
MANGROVE	-	-	-	-	-	-	64	15	311	53
MUTTON	-	-	-	-	-	-	83	17	118	25
RED	-	-	-	-	-	-	489	153	12,676	3,361
VERMILION	-	-	-	-	-	-	18	3	66	11
YELLOWTAIL	-	-	-	-	-	-	103	24	729	153
SPADEFISH	-	-	-	-	(1)	(1)	10	1	-	-
SPANISH MACKEREL	-	-	(1)	(1)	79	10	2,267	214	5,447	496
SPOT	-	-	1,474	(1)	1,490	238	4,766	372	405	26
STRIPED BASS	582	87	20	212	6,496	890	737	115	-	-
STURGEON, COMMON	18	2	2	3	11	2	99	18	31	4
SUCKERS	2	(1)	1	(1)	9	(1)	5	(1)	-	-
SUNFISH	-	-	(1)	(1)	1	(1)	-	-	-	-
SWELLFISH	-	-	1,116	49	2,125	48	466	10	-	-
SWORDFISH	2,331	577	240	107	183	79	1	1	-	-
TAUTOG	105	4	62	1	3	(1)	-	-	1,192	27
TENPOUNDER	-	-	-	-	-	-	(1)	(1)	3	(1)
TILEFISH	194	24	59	7	14	1	-	-	-	-
TOMCOD	-	-	1	(1)	-	-	-	-	12	1
TRIGGERFISH	-	-	-	-	-	-	7	(1)	8	(1)
TRIPLETAIL	-	-	-	-	-	-	2	(1)	-	-
<b>TUNA:</b>										
BLUEFIN	6,591	376	2,850	159	571	50	-	-	-	-
LITTLE	-	-	8	1	4	(1)	-	-	-	-
SKIPJACK	2,204	116	-	-	2,073	98	-	-	-	-
YELLOWFIN	-	-	-	-	456	56	-	-	-	-
UNCLASSIFIED	8	1	-	-	3	(1)	-	-	-	-
TOTAL TUNA	8,803	493	2,858	160	3,107	304	-	-	-	-
<b>WARSAW:</b>										
WHITE PERCH	78	9	110	14	1,714	131	259	26	227	15
WHITING	86,558	1,914	5,777	254	307	10	1	(1)	-	-
WOLFFISH	768	39	-	-	-	-	-	-	-	-
YELLOW PERCH	-	-	1	(1)	106	8	43	3	-	-
UNCLASSIFIED:										
FDR FOOD	4,835	305	347	29	89	8	243	16	1,240	80
BAIT, REDUCTION AND ANIMAL FOOD	58,200	498	62,563	440	5,113	41	13,255	118	80,109	1,313
TOTAL FISH	798,970	37,051	495,903	10,830	335,403	8,412	297,397	9,019	1,140,623	24,576
<b>SHELLFISH, ETC.</b>										
<b>CRABS:</b>										
<b>BLUE:</b>										
HARD	(1)	(1)	1,383	139	63,072	3,697	50,769	2,454	26,519	1,429
SOFT AND PEELER	-	-	36	8	3,057	1,082	83	38	358	167
GREEN	71	5	-	-	-	-	-	-	-	-
ROCK	2,296	115	23	1	-	-	-	-	-	-
STONE	-	-	-	-	-	-	157	63	660	207
TOTAL CRABS	2,367	120	1,442	148	66,129	4,779	51,009	2,555	27,517	1,603
<b>CRANFISH, FRESH-WATER</b>										
HORSESHOE CRABS	-	-	201	1	-	-	-	-	892	134
<b>LOBSTERS:</b>										
NORTHERN	29,120	16,212	1,130	547	24	10	-	-	-	-
SPINY	-	-	-	-	-	-	815	328	2,771	1,061
SHRIMP	561	67	7	7	-	-	15,529	5,246	203,116	63,539
<b>CLAMS:</b>										
HARD	3,987	2,462	7,157	4,322	2,585	1,277	406	155	7	2
OCEAN QUAHOG	104	10	-	-	-	-	-	-	-	-
RAZOR	24	8	8	2	-	-	-	-	-	-
SOFT	2,781	1,393	114	34	6,859	1,499	-	-	-	-
SURF	-	-	38,922	2,671	64	5	-	-	-	-
TOTAL CLAMS	6,896	3,873	45,801	7,029	9,508	2,781	406	155	7	2
<b>CONCHS.</b>										
MUSSELS, SEA	192	34	552	118	347	30	-	-	-	-
OCTOPUS	727	55	74	11	-	-	1	(1)	-	-
<b>OYSTERS, MARKET,</b>										
<b>EASTERN:</b>										
PUBLIC	33	39	66	73	8,401	6,079	691	338	14,637	4,142
PRIVATE	419	494	865	1,082	9,873	7,649	4,146	1,682	9,502	3,044
TOTAL OYSTERS	452	533	951	1,155	18,274	13,728	4,837	2,020	24,139	7,186

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## GENERAL REVIEW

## CATCH BY REGION, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	NEW ENGLAND		MIDDLE ATLANTIC		CHESAPEAKE		SOUTH ATLANTIC		GULF	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
SHELLFISH, ETC.-CONT'D.										
PERIWINKLES AND COCKLES	34	11	-	-	-	-	-	-	-	-
SCALLOPS:										
BAY	391	492	577	404	-	-	321	122	228	59
CALICO	-	-	-	-	-	-	-	-	(1)	(1)
SEA	17,794	8,257	2,999	978	46	22	-	-	-	-
SQUID	2,682	154	1,668	110	292	16	31	2	73	7
SEA URCHIN	-	3	-	-	-	-	-	-	-	-
TERRAPIN	-	-	3	1	14	4	(1)	(1)	1	(1)
TURTLES:										
GREEN	-	-	-	-	-	-	1	(1)	54	9
LOGGERHEAD	-	-	1	(1)	-	-	-	-	8	1
SNAPPER	-	-	53	6	166	22	18	3	22	4
SOFT-SHELL	-	-	-	(1)	-	-	152	18	-	-
UNCLASSIFIED	-	-	2	(1)	-	-	-	-	-	-
TOTAL TURTLES	-	-	56	6	166	22	171	21	84	14
FROGS	-	-	-	-	-	-	-	-	6	2
FRESH MOSS	6,967	129	-	-	-	-	-	-	-	-
SPONGES	-	-	-	-	-	-	-	-	55	387
BLOODWORMS	816	772	-	-	-	-	-	-	-	-
SANDWORMS	836	526	-	-	-	-	-	-	-	-
TOTAL SHELLFISH, ETC.	69,919	31,238	54,561	10,515	94,800	21,392	73,120	10,449	258,889	74,214
GRAND TOTAL	828,689	68,289	550,464	21,345	430,203	29,804	370,717	19,468	1,399,512	98,790

SPECIES	PACIFIC		GREAT LAKES		MISSISSIPPI RIVER AND TRIBUTARIES		HAWAII		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH										
ALEWIVES	-	-	5,398	102	-	-	-	-	62,440	906
AMBERJACK	-	-	-	-	-	-	106	29	126	30
ANCHOVIES	4,570	78	-	-	-	-	-	-	4,653	80
ANGLERFISH	-	-	-	-	-	-	-	-	73	2
BALLYHOOD	-	-	-	-	-	-	-	-	82	12
BARRACUDA	379	62	-	-	-	-	11	4	392	66
BILLFISH	-	-	-	-	-	-	-	-	5,583	(1)
BLUEFISH	-	-	-	-	-	-	-	-	(1)	(1)
BLUE PIKE	-	-	(1)	(1)	-	-	-	-	1,521	31
BLUE RUNNER	-	-	-	-	-	-	-	-	4,234	133
BONITO	4,022	113	-	-	-	-	-	-	91	2
BOWFIN	-	-	2	(1)	82	2	-	-	18,295	1,815
BUFFALOFISH	-	-	64	8	17,306	1,705	-	-	450	10
BURBOT	-	-	401	7	49	3	-	-	10,172	957
BUTTERFISH	-	-	-	-	-	-	-	-	3	(1)
CABEZONE	3	(1)	-	-	-	-	-	-	95	7
CABO	-	-	-	-	-	-	-	-	37	6
CABRILLA	37	6	-	-	-	-	-	-	30,018	1,073
CARP	1,429	19	6,298	275	21,488	749	-	-	38,614	6,775
CATFISH AND BULLHEADS	-	-	1,496	343	13,477	2,932	-	-	11,023	1,569
CHUBS	-	-	11,023	1,569	-	-	-	-	389	25
CIGARFISH	-	-	-	-	-	-	-	-	6	2
CISCO	-	-	6	2	-	-	-	-	48,546	3,456
COD	6,369	350	-	-	-	-	-	-	13	2
CRAPPIE	-	-	3	1	7	1	-	-	901	60
CREVALLE	-	-	-	-	-	-	99	41	2,723	214
CROAKER	-	-	-	-	-	-	-	-	1,909	110
CUSK	-	-	-	-	-	-	-	-	5	1
DOLLY VARDEN TROUT	5	1	-	-	-	-	-	-	136	53
DOLPHIN	-	-	-	-	-	-	127	52	-	-
DRUM:										
BLACK	-	-	-	-	-	-	-	-	2,362	162
RED	-	-	-	-	-	-	-	-	2,406	391
EELS:										
COMMON	-	-	19	5	(1)	(1)	-	-	988	134
CONGER	-	-	-	-	-	-	4	(1)	30	1
FLOUNDERS	51,299	3,696	-	-	-	-	-	-	176,798	15,411
FLYING FISH	47	3	-	-	-	-	-	-	47	3
GARFISH	-	-	(1)	(1)	867	42	-	-	1,485	74
GIZZARD SHAD	-	-	5	(1)	1	(1)	-	-	32	(1)
GOUTFISHES	-	-	-	-	-	-	-	-	128	66
GOLDFISH	-	-	172	5	-	-	-	-	172	5
GROUPERS	234	51	-	-	-	-	-	-	7,758	812
GRUNTS	-	-	-	-	-	-	-	-	94	7
HADDOCK	-	-	-	-	-	-	-	-	123,972	11,705
HAKE:										
PACIFIC	540	10	-	-	-	-	-	-	540	10
RED	-	-	-	-	-	-	-	-	6,712	97
WHITE	-	-	-	-	-	-	-	-	6,249	259

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# GENERAL REVIEW

## CATCH BY REGION, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	PACIFIC		GREAT LAKES		MISSISSIPPI RIVER AND TRIBUTARIES		HAWAII		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH - CONTINUED										
HALFMOON . . . . .	9	2	-	-	-	-	-	-	9	2
HALIBUT . . . . .	45,569	6,883	-	-	-	-	-	-	45,569	6,873
HARHAD . . . . .	148	30	-	-	-	-	-	-	148	30
HARVESTFISH . . . . .	-	-	-	-	-	-	-	-	-	128
HERRING:										
LAKE . . . . .	-	-	8,477	479	1	(1)	-	-	8,478	479
SEA . . . . .	38,834	656	-	-	-	-	-	-	193,604	2,360
HICKORY SHAD . . . . .	-	-	-	-	-	-	-	-	327	10
HOGFISH . . . . .	-	-	-	-	-	-	-	-	20	3
HOGCHOKER . . . . .	-	-	-	-	-	-	-	-	4	(1)
JACK MACKEREL . . . . .	95,442	1,989	-	-	-	-	401	129	95,843	2,118
JEWFISH . . . . .	-	-	-	-	-	-	-	-	139	11
KING CROAKER . . . . .	551	33	-	-	-	-	-	-	551	33
KING MACKEREL . . . . .	-	-	-	-	-	-	-	-	5,058	556
KING WHITING OR "KINGFISH"										
LAKE TROUT . . . . .	2	1	127	79	-	-	-	-	3,899	323
LAUNCE . . . . .	-	-	-	-	-	-	-	-	129	80
LINGCOD . . . . .	4,790	293	-	-	-	-	-	-	245	15
MACKEREL . . . . .	40,243	861	-	-	-	-	-	-	4,790	293
MARLIN . . . . .	-	-	-	-	-	-	532	155	43,158	1,175
MENHADEN . . . . .	-	-	-	-	-	-	-	-	532	155
MOJARRA . . . . .	-	-	-	-	-	-	-	-	1,815,798	22,386
MOONEYE . . . . .	-	-	1	(1)	33	2	-	-	16	34
MULLET . . . . .	-	-	-	-	-	-	39	34	42,734	2,354
OCEAN PERCH:										
ATLANTIC . . . . .	-	-	-	-	-	-	-	-	108,292	5,147
PACIFIC . . . . .	23,578	1,172	-	-	-	-	-	-	23,578	1,172
OCEAN POUT . . . . .	-	-	-	-	-	-	-	-	4	(1)
OPALEYE . . . . .	4	1	-	-	-	-	-	-	4	1
PADDOLEFISH . . . . .	-	-	-	-	725	71	-	-	742	73
PERCH . . . . .	323	41	-	-	-	-	-	-	323	41
PERMIT . . . . .	-	-	-	-	-	-	-	-	18	2
PIGFISH . . . . .	-	-	-	-	-	-	-	-	96	6
PIKE OR PICKEREL . . . . .	-	-	140	16	29	2	-	-	173	19
POLLOCK . . . . .	-	-	-	-	-	-	-	-	14,607	670
POMPANO . . . . .	58	18	-	-	-	-	-	-	679	609
QUILLBACK . . . . .	-	-	5	(1)	677	24	-	-	682	24
RATFISH . . . . .	1,095	7	-	-	-	-	-	-	1,095	7
ROCK BASS . . . . .	-	-	16	2	-	-	-	-	16	2
ROCKFISHES . . . . .	25,030	1,328	-	-	-	-	-	-	25,030	1,328
RUDDERFISH . . . . .	-	-	-	-	-	-	2	1	2	1
SABLEFISH . . . . .	6,464	654	-	-	-	-	-	-	6,464	654
SALMON:										
ATLANTIC . . . . .	-	-	-	-	-	-	-	-	1	1
CHINOOK OR KING . . . . .	27,179	10,911	-	-	-	-	-	-	27,179	10,911
CHUM OR KETA . . . . .	38,840	3,626	-	-	-	-	-	-	38,840	3,626
PINK . . . . .	156,603	18,289	-	-	-	-	-	-	156,603	18,289
RED OR SOCKEYE . . . . .	43,424	10,337	-	-	-	-	-	-	43,424	10,337
SILVER OR COHO . . . . .	28,131	5,848	-	-	-	-	-	-	28,131	5,848
TOTAL SALMON . . . . .	294,177	49,011	-	-	-	-	-	-	294,178	49,012
SAND PERCH . . . . .	-	-	-	-	-	-	-	-	26	1
SARDINE, PACIFIC . . . . .	7,131	299	-	-	-	-	-	-	7,131	299
SAUGER . . . . .	-	-	85	10	-	-	-	-	85	10
SAWFISH . . . . .	-	-	-	-	-	-	-	-	4	(1)
SCULPIN . . . . .	76	22	3	(1)	-	-	-	-	79	22
SCUP OR PORGY . . . . .	-	-	-	-	-	-	-	-	41,922	3,099
SEA BASS:										
BLACK (ATLANTIC) . . . . .	-	-	-	-	-	-	-	-	9,237	1,172
BLACK (PACIFIC) . . . . .	304	48	-	-	-	-	33	13	337	61
WHITE . . . . .	898	242	-	-	-	-	-	-	898	242
SEA CATFISH . . . . .	-	-	-	-	-	-	-	-	260	16
SEA ROBIN . . . . .	-	-	-	-	-	-	-	-	240	3
SEA TROUT OR WEAFFISH:										
GRAY . . . . .	-	-	-	-	-	-	-	-	3,601	345
SPOTTED . . . . .	-	-	-	-	-	-	-	-	5,387	1,312
WHITE . . . . .	-	-	-	-	-	-	-	-	294	21
SHAD . . . . .	1,503	104	-	-	-	-	-	-	7,445	1,141
SHARKS:										
GRAYFISH . . . . .	867	4	-	-	-	-	-	-	2,210	26
SOUPFIN . . . . .	4	(1)	-	-	-	-	-	-	4	(1)
UNCLASSIFIED . . . . .	665	62	-	-	-	-	-	-	846	69
TOTAL SHARKS . . . . .	1,536	66	-	-	-	-	-	-	3,060	95
SHEEPSHEAD:										
FRESH-WATER . . . . .	-	-	4,152	84	6,461	308	-	-	10,973	425
SALT-WATER . . . . .	28	2	-	-	-	-	-	-	590	46

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## GENERAL REVIEW

## CATCH BY REGION, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	PACIFIC		GREAT LAKES		MISSISSIPPI RIVER AND TRIBUTARIES		HAWAII		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH - CONTINUED										
SILVERSIDES	-	-	-	-	-	-	-	-	165	18
SKATES	945	15	-	-	-	-	-	-	1,039	18
SMELT	1,663	132	3,015	67	-	-	-	-	4,894	284
SNAPPER:										
MANGROVE	-	-	-	-	-	-	-	-	395	68
MUTTON	-	-	-	-	-	-	-	-	201	42
RED	-	-	-	-	-	-	-	-	13,165	3,534
VERMILION	-	-	-	-	-	-	-	-	86	14
YELLOWTAIL	-	-	-	-	-	-	-	-	832	177
UNCLASSIFIED	-	-	-	-	-	-	292	168	292	168
SPODEFISH	-	-	-	-	-	-	-	-	10	1
SPANISH MACKEREL	-	-	-	-	-	-	-	-	7,793	720
SPLITTAIL	5	1	-	-	-	-	-	-	5	1
SPOT	-	-	-	-	-	-	2	(1)	6,663	636
STEELHEAD TROUT	1,353	395	-	-	-	-	-	-	1,353	395
STRIPED BASS	69	10	-	-	-	-	-	-	9,358	1,314
STURGEON:										
COMMON	401	51	5	5	-	-	-	-	585	85
SHOVELNOSE, ETC.	-	-	-	-	53	9	-	-	53	9
SUCKERS:	13	(1)	1,373	45	338	8	-	-	1,733	53
SUNFISH	-	-	9	1	-	-	-	-	18	1
SWELLFISH	-	-	-	-	-	-	-	-	3,707	107
SWORDFISH	98	58	-	-	-	-	22	4	2,875	826
TAUTOG	-	-	-	-	-	-	-	-	170	5
TENPOUNDER	-	-	-	-	-	-	8	2	1,200	29
TILEFISH	-	-	-	-	-	-	-	-	270	32
TOMCOD	5	(1)	-	-	-	-	-	-	5	(1)
TRIGGERFISH	-	-	-	-	-	-	-	-	20	1
TRIPLETAIL	-	-	-	-	-	-	1	(1)	10	(1)
TULLIBEE	-	-	2,058	60	1	(1)	-	-	2,059	60
TUNA:										
ALBACORE	60,787	9,159	-	-	-	-	15	5	60,802	9,164
BLUEFIN	30,353	3,392	-	-	-	-	2/ 948	2/ 302	2/41,313	2/4,479
LITTLE	-	-	-	-	-	-	60	8	72	9
SKIPJACK	95,620	10,374	-	-	-	-	6,100	1,090	108,997	11,778
YELLOWFIN	109,583	14,530	-	-	-	-	365	153	110,424	14,739
UNCLASSIFIED	-	-	-	-	-	-	-	-	11	1
TOTAL TUNA	297,343	37,455	-	-	-	-	9,508	1,758	321,619	40,170
TURBOT	97	6	-	-	-	-	-	-	97	6
WAHOO	22	7	-	-	-	-	30	6	52	13
WARSAW	-	-	-	-	-	-	-	-	237	16
WHITEAIT	148	11	-	-	-	-	-	-	148	11
WHITE BASS	-	-	1,174	152	84	12	-	-	1,258	164
WHITEFISH:										
COMMON	1	(1)	900	459	147	26	-	-	1,048	485
MENOMINEE	-	-	34	7	-	-	-	-	34	7
WHITE PERCH	-	-	6	(1)	-	-	-	-	2,167	180
WHITING	-	-	-	-	-	-	-	-	92,643	2,178
WOLFFISH	-	-	-	-	-	-	-	-	768	39
YELLOW PERCH	-	-	11,275	1,070	318	25	-	-	11,743	1,107
YELLOW PIKE	-	-	1,264	416	463	72	-	-	1,727	486
YELLOWTAIL	70	7	-	-	-	-	-	-	70	7
UNCLASSIFIED:										
FOR FOOD	16	1	-	-	-	-	330	174	7,100	613
BAIT, REDUCTION AND ANIMAL FOOD	1,034	21	-	-	-	-	-	-	220,274	2,431
TOTAL FISH	960,010	106,322	59,006	5,289	62,607	5,994	11,675	2,636	4,121,794	210,129
SHELLFISH, ETC.										
CRABS:										
BLUE:										
HARD	-	-	-	-	-	-	-	-	141,743	7,719
SOFT AND PEELER	-	-	-	-	-	-	-	-	3,514	1,295
DUNGENESS	24,863	4,306	-	-	-	-	-	-	24,863	4,306
GREEN	-	-	-	-	-	-	-	-	71	5
KING	78,740	7,607	-	-	-	-	-	-	78,740	7,607
ROCK	241	22	-	-	-	-	-	-	2,560	138
STONE	-	-	-	-	-	-	-	-	817	270
UNCLASSIFIED	-	-	-	-	-	-	26	14	26	14
TOTAL CRABS	103,644	11,935	-	-	-	-	26	14	252,334	21,354
CRAWFISH, FRESH-WATER	16	4	-	-	1,227	166	-	-	2,135	304
HORSESHOE CRABS	-	-	-	-	-	-	-	-	201	1
LIMPET	-	-	-	-	-	-	4	9	4	9
LOBSTERS:										
NORTHERN	-	-	-	-	-	-	-	-	30,274	16,769
SPINY	584	381	-	-	-	-	10	8	4,180	1,798

SEE FOOTNOTES AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# GENERAL REVIEW

25

## CATCH BY REGION, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	PACIFIC		GREAT LAKES		MISSISSIPPI RIVER AND TRIBUTARIES		HAWAII		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
SHELLFISH, ETC.,-CONT'D.										
SHRIMP . . . . .	21,260	1,181	-	-	5	2	(1)	-	240,478	70,044
ABALONE . . . . .	869	626	-	-	-	-	-	2	869	626
CLAMS:										
HARD . . . . .	386	183	-	-	-	-	1	2	14,529	8,403
OCEAN QUAHOG . . . . .	-	-	-	-	-	-	-	-	104	10
RAZOR . . . . .	377	167	-	-	-	-	-	-	409	177
SOFT . . . . .	-	-	-	-	-	-	-	-	9,754	2,926
SURF . . . . .	-	-	-	-	-	-	-	-	38,586	2,676
MIXED . . . . .	21	10	-	-	-	-	-	-	21	10
TOTAL CLAMS . . . . .	784	360	-	-	-	-	1	2	63,403	14,202
CONCHS . . . . .	-	-	-	-	-	-	-	-	1,091	182
MUSSELS, SEA . . . . .	-	-	-	-	-	-	-	-	801	66
MUSSEL SHELLS . . . . .	-	-	-	-	15,743	1,062	-	-	15,743	1,062
PEARLS AND SLUGS . . . . .	-	-	-	-	-	27	-	-	-	27
OCTOPUS . . . . .	149	13	-	-	-	-	8	4	158	17
OYSTERS, MARKET:										
EASTERN:										
PUBLIC . . . . .	-	5	-	-	-	-	-	-	23,828	10,671
PRIVATE . . . . .	14	-	-	-	-	-	-	-	24,839	13,956
PACIFIC . . . . .	9,746	2,377	-	-	-	-	-	-	9,746	2,377
WESTERN . . . . .	31	101	-	-	-	-	-	-	31	101
TOTAL OYSTERS . . . . .	9,791	2,483	-	-	-	-	-	-	58,444	27,105
PERIWINKLES AND COCKLES	-	-	-	-	-	-	-	-	34	11
SCALLOPS:										
BAY . . . . .	-	-	-	-	-	-	-	-	1,517	1,077
CALICO . . . . .	-	-	-	-	-	-	-	-	(1)	(1)
SEA . . . . .	-	-	-	-	-	-	-	-	19,939	9,257
SQUID . . . . .	11,562	240	-	-	-	-	6	2	16,314	531
SEA URCHIN . . . . .	-	-	-	-	-	-	(1)	(1)	64	3
TERRAPIN . . . . .	-	-	-	-	-	-	-	-	18	5
TURTLES:										
BABY . . . . .	-	-	-	-	26	100	-	-	26	100
GREEN . . . . .	-	-	-	-	-	-	-	-	55	9
LOGGERHEAD . . . . .	-	-	-	-	-	-	-	-	9	1
SLIDER . . . . .	-	-	-	-	9	(1)	-	-	9	(1)
SNAPPER . . . . .	-	-	-	-	175	21	-	-	434	56
SOFT-SHELL . . . . .	-	-	-	-	4	(1)	-	-	156	18
UNCLASSIFIED . . . . .	-	-	-	-	-	-	(1)	(1)	2	(1)
TOTAL TURTLES . . . . .	-	-	-	-	214	121	(1)	(1)	691	184
FROGS	-	-	-	-	54	21	-	-	60	23
KELP (WITH HERRING EGGS) . . . . .	199	16	-	-	-	-	-	-	199	16
IRISH MOSS . . . . .	-	-	-	-	-	-	-	-	6,967	129
SEAWEED . . . . .	-	-	-	-	-	-	5	2	5	2
SPONGES . . . . .	-	-	-	-	-	-	-	-	55	367
BLOODWORMS . . . . .	-	-	-	-	-	-	-	-	816	772
SANDWORMS . . . . .	-	-	-	-	-	-	-	-	836	526
TOTAL SHELLFISH, ETC. . . . .	149,058	17,239	-	-	17,243	1,399	60	43	717,650	166,489
WHALE PRODUCTS:										
MEAL . . . . .	2,638	153	-	-	-	-	-	-	2,638	153
MEAT . . . . .	2,684	242	-	-	-	-	-	-	2,684	242
OIL:										
SPERM . . . . .	700	58	-	-	-	-	-	-	700	58
WHALE . . . . .	1,429	91	-	-	-	-	-	-	1,429	91
SOLUBLES . . . . .	14	(1)	-	-	-	-	-	-	14	(1)
TOTAL WHALE PRODUCTS . . . . .	7,665	544	-	-	-	-	-	-	7,665	544
GRAND TOTAL . . . . .	1,116,733	124,105	59,006	5,289	79,850	7,393	11,735	2,679	4,847,109	377,162

1/ LESS THAN 500 POUNDS OR \$500.

2/ INCLUDES DATA ON THE CATCH OF BIGEYE TUNA IN HAWAII.

## GENERAL REVIEW

## CATCH BY GEAR, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

GEAR	NEW ENGLAND		MIDDLE ATLANTIC		CHESAPEAKE	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
HAUL SEINES . . . . .	1,244	44	1,263	150	13,268	609
STOP NETS AND SEINES . . . . .	135,460	1,452	51	3	-	-
PURSE SEINES . . . . .	20,495	570	368,067	4,770	222,146	3,113
BAG NETS . . . . .	58	17	-	-	-	-
BEAM TRAWLS . . . . .	-	-	6	6	-	-
OTTER TRAWLS . . . . .	555,898	33,333	106,247	5,051	21,951	1,719
WEIRS . . . . .	16,147	202	206	3	-	-
POUND NETS . . . . .	5,640	341	16,287	437	65,506	1,800
FLOATING TRAPS . . . . .	8,753	530	-	-	-	-
FYKE AND HOOP NETS . . . . .	1	(2)	134	11	2,295	88
POTS AND TRAPS . . . . .	29,663	15,351	3,468	516	3/39,531	3/2,506
GILL NETS . . . . .	3,356	221	1,769	255	7,581	946
HOOKS AND BAITS . . . . .	15,044	1,416	2,355	398	11,163	849
DIP NETS . . . . .	1,752	221	-	-	103	24
PUSH NETS . . . . .	-	-	1	1	-	-
HARPOONS . . . . .	449	99	35	13	-	-
SPEARS . . . . .	10	3	70	9	-	-
SCRAPES . . . . .	-	-	-	-	1,988	687
DREDGES . . . . .	19,774	9,523	45,080	6,586	35,100	11,110
TONGS AND RAKES <sup>2/</sup> . . . . .	10,387	2,205	4,850	2,915	9,442	6,294
HDS AND FORKS . . . . .	4,659	2,719	10	4	-	-
DIVING OUTFITS . . . . .	52	30	-	-	-	-
BY HAND . . . . .	47	12	525	217	129	59
TOTAL . . . . .	828,889	66,289	550,464	21,345	430,203	29,804

GEAR	SOUTH ATLANTIC		GULF		PACIFIC	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
HAUL SEINES . . . . .	11,343	906	12,798	797	1/4,550	1/393
PURSE SEINES . . . . .	216,920	2,596	967,731	12,185	1/598,386	1/52,660
BAG NETS . . . . .	125	37	-	-	-	-
BEAM TRAWLS . . . . .	-	-	-	-	3,307	147
OTTER TRAWLS . . . . .	45,781	6,643	286,106	65,119	131,963	7,669
WEIRS . . . . .	-	-	-	-	20	4
POUND NETS . . . . .	14,567	359	-	-	605	94
FLOATING TRAPS . . . . .	-	-	-	-	417	47
FYKE AND HOOP NETS . . . . .	326	32	1,621	261	-	-
POTS AND TRAPS . . . . .	39,844	2,758	22,365	2,379	104,545	12,348
GILL NETS . . . . .	15,399	1,430	38,279	2,800	4/79,949	4/14,587
TRAMMEL NETS . . . . .	38	22	8,171	1,138	-	-
HOOKS AND BAITS . . . . .	19,633	2,259	36,031	6,186	170,545	31,730
DIP NETS . . . . .	1,132	101	1,733	220	5/2,042	5/123
REEF NETS . . . . .	-	-	-	-	1,006	229
WHEELS . . . . .	-	-	-	-	18	3
CAST NETS . . . . .	32	9	24	1	-	-
HARPOONS . . . . .	-	-	-	-	7,739	589
SPEARS . . . . .	150	29	164	39	-	-
DREDGES . . . . .	382	199	17,019	5,051	6/9,504	6/2,433
TONGS AND RAKES <sup>2/</sup> . . . . .	3,137	1,298	7,300	2,176	6/320	6/60
SHOWELS . . . . .	-	-	-	-	746	347
BRUSH TRAPS . . . . .	-	-	63	28	-	-
GRABS . . . . .	-	-	6	2	-	-
HOOKS . . . . .	-	-	29	120	268	870
DIVING OUTFITS . . . . .	-	-	26	268	-	626
BY HAND . . . . .	1,888	740	55	20	201	16
TOTAL . . . . .	370,717	19,468	1,399,512	98,790	1,116,733	124,105

GEAR	GREAT LAKES		MISSISSIPPI RIVER AND TRIBUTARIES	
	QUANTITY	VALUE	QUANTITY	VALUE
HAUL SEINES . . . . .	8,835	477	18,101	830
OTTER TRAWLS . . . . .	8,220	259	2,230	67
WEIRS . . . . .	-	-	841	43
POUND NETS . . . . .	4,562	199	106	8
TRAP NETS . . . . .	8,925	971	1,039	32
FYKE AND HOOP NETS . . . . .	1,197	116	12,702	1,364
POTS AND TRAPS . . . . .	-	-	1,853	309
GILL NETS . . . . .	26,998	3,203	11,369	1,010
TRAMMEL NETS . . . . .	-	-	8,707	782
HOOKS AND BAITS . . . . .	268	64	7,918	1,714
DIP NETS . . . . .	1	(2)	186	121

SEE FOOTNOTES AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# GENERAL REVIEW

## CATCH BY GEAR, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

GEAR	GREAT LAKES		MISSISSIPPI RIVER AND TRIBUTARIES	
	QUANTITY	VALUE	QUANTITY	VALUE
GRABS . . . . .	-	-	54	21
BY HAND . . . . .	-	-	1,772	110
CROWFOOT GARS . . . . .	-	-	13,972	982
TOTAL . . . . .	59,006	5,289	79,850	7,393

GEAR	HAWAII		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE
HAUL SEINES . . . . .	37	13	71,450	4,219
STOP NETS AND SEINES . . . . .	4	-	135,511	1,455
PURSE SEINES . . . . .	-	-	2,393,765	75,894
BAG NETS . . . . .	102	64	285	118
BEAM TRAWLS . . . . .	-	-	3,313	153
OTTER TRAWLS . . . . .	-	-	1,158,396	119,860
WEIRS . . . . .	-	-	17,214	252
POUND NETS . . . . .	-	-	107,293	3,235
TRAP NETS . . . . .	-	-	9,964	1,003
FLOATING TRAPS . . . . .	-	-	9,170	577
FYKE AND HOOP NETS . . . . .	-	-	18,276	1,872
POTS AND TRAPS . . . . .	110	47	241,379	36,214
GILL NETS . . . . .	57	32	183,757	24,504
TRAMMEL NETS . . . . .	-	-	16,916	1,942
HOOKS AND BAITS . . . . .	11,111	2,396	274,068	47,042
DIP NETS . . . . .	-	-	6,949	810
LIFT NETS . . . . .	208	61	208	61
REEF NETS . . . . .	-	-	1,006	229
PUSH NETS . . . . .	-	-	1	1
WHEELS . . . . .	-	-	18	3
CAST NETS . . . . .	2	1	58	11
HARPOONS . . . . .	-	-	6,223	701
SPEARS . . . . .	5	3	399	83
SCRAPES . . . . .	-	-	1,988	687
DREGGES . . . . .	-	-	126,859	34,902
TONGS AND RAKES 7/ . . . . .	-	-	35,436	14,948
HOES AND FORKS . . . . .	-	-	4,669	2,723
SHOVELS . . . . .	-	-	746	347
BRUSH TRAPS . . . . .	-	-	63	28
GRABS . . . . .	-	-	60	23
HOOKS . . . . .	-	-	29	120
DIVING OUTFITS . . . . .	-	-	948	924
BY HAND . . . . .	9	10	4,626	1,184
UNCLASSIFIED GEAR . . . . .	94	52	94	52
CROWFOOT GARS . . . . .	-	-	13,972	982
TOTAL . . . . .	11,735	2,679	4,847,109	377,162

1/ THE CATCH BY HAUL SEINES IN ALASKA AND BY LAMPARA NETS IN CALIFORNIA HAS BEEN INCLUDED WITH PURSE SEINES.

2/ LESS THAN \$500.

3/ THE CATCH BY SLAT TRAPS IN VIRGINIA HAS BEEN INCLUDED WITH POTS AND TRAPS.

4/ THE CATCH BY TRAMMEL NETS IN CALIFORNIA HAS BEEN INCLUDED WITH GILL NETS.

5/ THE CATCH BY BRAIL OR SCOOP NETS IN CALIFORNIA HAS BEEN INCLUDED WITH DIP NETS.

6/ THE CATCH BY HAND IN WASHINGTON AND OREGON HAS BEEN INCLUDED WITH THE CATCH BY DREGGES. IN CALIFORNIA, IT HAS BEEN INCLUDED WITH TONGS.

7/ INCLUDES THE CATCH BY OYSTER GRABS.



## GENERAL REVIEW

CATCH FROM WATERS OFF THE UNITED STATES  
AND ON THE HIGH SEAS OFF FOREIGN COASTS, 1963

(MILLION POUNDS)

AREA AND SPECIES	WATERS OFF U. S. COASTS	HIGH SEAS OFF FOREIGN COASTS	TOTAL
	QUANTITY	QUANTITY	QUANTITY
<b>ATLANTIC AND GULF STATES:</b>			
<b>NEW ENGLAND:</b>			
COD . . . . .	36.9	3.0	39.9
CUSH . . . . .	1.6	.3	1.9
FLOUNDERS . . . . .	106.0	.8	106.8
HADDOCK . . . . .	107.8	16.1	123.9
HAKE, WHITE . . . . .	5.6	.5	6.1
HALIBUT . . . . .	.2	.1	.3
OCEAN PERCH . . . . .	19.6	89.7	109.3
POLLOCK . . . . .	10.3	4.3	14.6
SNORFISH . . . . .	2.0	.3	2.3
TUNA . . . . .	8.8	(1)	8.8
WHITING . . . . .	86.6	(1)	86.6
WOLFFISH . . . . .	.5	.3	.8
SCALLOPS, SEA . . . . .	17.8	(1)	17.8
UNCLASSIFIED . . . . .	310.7	.1	310.8
TOTAL . . . . .	714.4	114.5	828.9
<b>MIDDLE ATLANTIC STATES, UNCLASSIFIED, TOTAL . . . . .</b>			
	550.5	-	550.5
<b>CHESAPEAKE STATES:</b>			
TUNA . . . . .	1.0	2.1	3.1
UNCLASSIFIED . . . . .	427.1	-	427.1
TOTAL . . . . .	428.1	2.1	430.2
<b>SOUTH ATLANTIC STATES, UNCLASSIFIED, TOTAL . . . . .</b>			
	370.7	-	370.7
<b>GULF:</b>			
GROUPERS . . . . .	6.2	1.1	7.3
SNAPPER, RED . . . . .	7.2	5.5	12.7
SHRIMP . . . . .	177.9	25.2	203.1
UNCLASSIFIED . . . . .	1,176.4	-	1,176.4
TOTAL . . . . .	1,367.7	31.8	1,399.5
<b>TOTAL ATLANTIC AND GULF STATES . . . . .</b>			
	3,431.4	146.4	3,579.8
<b>PACIFIC COAST STATES:</b>			
<b>ALASKA, WASHINGTON, AND OREGON:</b>			
BOTTOMFISH (WASHINGTON AND OREGON) 2/ . . . . .	39.5	40.4	79.9
HALIBUT . . . . .	43.1	2.5	45.6
SALMON . . . . .	282.5	3.8	286.3
UNCLASSIFIED . . . . .	191.1	.1	191.2
TOTAL . . . . .	556.2	46.8	603.0
<b>CALIFORNIA:</b>			
BARRACUDA . . . . .	.4	(1)	.4
BONITO . . . . .	4.0	(1)	4.0
CABRILLA . . . . .	-	(1)	(1)
FLOUNDERS . . . . .	.8	.3	1.1
GROUPERS . . . . .	-	.2	.2
KING CROAKER . . . . .	.6	(1)	.6
LINGCOD . . . . .	1.1	(1)	1.1
MACKEREL, PACIFIC . . . . .	40.2	(1)	40.2
PERCH . . . . .	.2	(1)	.2
ROCKFISHES . . . . .	11.5	.2	11.7
SCULPIN . . . . .	.1	(1)	.1
SEA BASS:			
BLACK . . . . .	(1)	.3	.3
WHITE . . . . .	.4	.5	.9
SHARKS, UNCLASSIFIED . . . . .	.6	(1)	.7
SHEEPSHEAD . . . . .	(1)	(1)	(1)
SNORFISH . . . . .	.1	(1)	.1
TUNA:			
ALBACORE . . . . .	41.9	6.9	48.8
BLUEFIN . . . . .	7.1	23.2	30.3
SKIPJACK . . . . .	2.2	94.4	96.6
YELLOWFIN . . . . .	.1	109.5	109.6
WAHOO . . . . .	-	(1)	(1)
YELLOWTAIL . . . . .	(1)	(1)	(1)
UNCLASSIFIED . . . . .	166.6	.2	166.8
TOTAL . . . . .	277.9	235.8	513.7
<b>TOTAL PACIFIC COAST STATES . . . . .</b>			
	834.1	282.6	1,116.7
<b>GREAT LAKES AND MISSISSIPPI RIVER STATES, UNCLASSIFIED, TOTAL . . . . .</b>			
	138.9	-	138.9
<b>HAWAII, UNCLASSIFIED, TOTAL . . . . .</b>			
	11.7	-	11.7
<b>GRAND TOTAL . . . . .</b>			
	4,416.1	431.0	4,847.1

1/ LESS THAN 50,000 POUNDS.

2/ PRINCIPALLY COD, FLOUNDERS (INCLUDING SOLE), LINGCOD, OCEAN PERCH, ROCKFISHES, AND SABLEFISH.

# GENERAL REVIEW

## RELATIVE VOLUME OF THE CATCH, BY SPECIES, 1963

SPECIES	QUANTITY	PERCENT OF TOTAL	RECORD CATCH AND YEAR	
	THOUSAND POUNDS	PERCENT	YEAR	THOUSAND POUNDS
MENHADEN . . . . .	1,815,798	37.5	1962	2,347,944
TUNA . . . . .	321,619	6.6	1950	391,454
SALMON . . . . .	291,178	6.1	1936	790,884
CRABS . . . . .	252,334	5.2	1963	252,334
SHRIMP . . . . .	240,478	5.0	1954	268,334
INDUSTRIAL FISH 1/ . . . . .	227,374	4.7	1959	247,980
<hr/>				
HERRING SEA:				
ATLANTIC . . . . .	154,770	3.2	1902	200,598
PACIFIC . . . . .	36,634	.8	1937	263,200
TOTAL . . . . .	193,604	4.0	-	-
<hr/>				
FLOUNDERS . . . . .	176,798	3.6	1963	176,798
HADDOCK . . . . .	123,972	2.6	1929	293,809
OCEAN PERCH, ATLANTIC . . . . .	108,292	2.2	1951	258,320
JACK MACKEREL . . . . .	95,843	2.0	1932	145,522
WHITING . . . . .	92,643	1.9	1957	133,041
CLAMS . . . . .	63,403	1.3	1963	63,403
ALEWIVES . . . . .	62,440	1.3	1908	89,978
OYSTERS . . . . .	58,444	1.2	2/ 1908	152,046
<hr/>				
COD:				
ATLANTIC . . . . .	42,177	.9	1880	294,351
PACIFIC . . . . .	6,369	.1	1915	32,681
TOTAL . . . . .	48,546	1.0	-	-
<hr/>				
HALIBUT, PACIFIC . . . . .	45,569	.9	1915	66,696
MULLET . . . . .	42,734	.9	1902	43,385
SCUP OR PORPY . . . . .	41,922	.9	1960	49,229
MACKEREL, PACIFIC . . . . .	40,243	.8	1935	146,727
CATFISH AND BULLHEADS . . . . .	38,614	.8	1963	38,614
LOBSTERS, NORTHERN . . . . .	30,274	.6	1950	31,168
CARP . . . . .	30,018	.6	1908	42,659
ROCKFISHES . . . . .	25,030	.5	1945	57,686
OCEAN PERCH, PACIFIC . . . . .	23,578	.5	1963	23,578
SCALLOPS, SEA . . . . .	19,939	.4	1961	27,461
BUFFALOFISH . . . . .	18,295	.4	1950	25,873
SQUID . . . . .	16,314	.3	1946	40,266
MUSSEL SHELLS . . . . .	15,743	.3	1908	81,869
POLLOCK . . . . .	14,607	.3	1936	40,694
SNAPPER, RED . . . . .	13,165	.3	1902	23,457
YELLOW PERCH . . . . .	11,743	.2	1934	16,282
CHUBS . . . . .	11,023	.2	1960	16,854
SHEEPSHEAD, FRESH-WATER . . . . .	10,172	.2	1959	13,644
BUTTERFISH . . . . .	9,973	.2	1939	17,151
STRIPED BASS . . . . .	9,358	.2	1961	9,495
SEA BASS, BLACK (ATLANTIC) . . . . .	9,237	.2	1952	21,997
HERRING, LAKE . . . . .	8,478	.2	1899	59,914
SPANISH MACKEREL . . . . .	7,793	.2	1945	11,593
GROUPERS . . . . .	7,788	.2	1943	6,682
WHALE PRODUCTS 3/ . . . . .	7,665	.2	(4)	(4)
SHAD . . . . .	7,445	.2	1890	43,000
SARDINE, PACIFIC . . . . .	7,131	.2	1936	1,502,299
IRISH MOSS . . . . .	6,967	.1	1961	6,995
HAKE, RED . . . . .	6,712	.1	(4)	(4)
SPOT . . . . .	6,663	.1	1952	13,863
SABLEFISH . . . . .	6,464	.1	1943	17,750
HAKE, WHITE . . . . .	6,249	.1	1898	39,900
BLUEFISH . . . . .	5,583	.1	5/ 1897	22,673
SEA TROUT OR WEAKFISH, SPOTTED . . . . .	5,387	.1	1936	8,800
KING MACKEREL . . . . .	5,058	.1	1963	5,058
SMELT . . . . .	4,894	.1	1958	13,303
LINGCOD . . . . .	4,790	.1	1944	14,262
ANCHOVIES . . . . .	4,653	.1	1953	86,044
BONITO . . . . .	4,234	.1	1947	13,918
LOBSTERS, SPINY . . . . .	4,180	.1	1957	4,657
KING WHITING OR "KINGFISH" . . . . .	3,899	.1	1952	5,270
SWELLFISH . . . . .	3,707	.1	1963	3,707
SEA TROUT OR WEAKFISH, GRAY . . . . .	3,601	.1	1945	41,420
UNCLASSIFIED . . . . .	63,481	1.3	-	-
TOTAL . . . . .	4,847,109	100.0	-	-

1/ UNCLASSIFIED SPECIES FOR BAIT, REDUCTION, AND ANIMAL FOOD. 2/ FIRST YEAR IN WHICH AN OYSTER SURVEY WAS MADE IN ALL REGIONS. 3/ SINCE DATA ARE NOT AVAILABLE ON THE POUNDAGE OF WHALES TAKEN, STATISTICS ON THE YIELD OF THESE MAMMALS REPRESENT THE WEIGHT OF THE WHALE PRODUCTS WHICH INCLUDES MEAT, AND OIL. 4/ DATA NOT AVAILABLE. 5/ INCLUDES DATA ON NEW ENGLAND CATCH IN 1898.

## GENERAL REVIEW

## RELATIVE VALUE OF THE CATCH, BY SPECIES, 1963

SPECIES	VALUE	PERCENT OF TOTAL	RECORD VALUE AND YEAR	
	THOUSAND DOLLARS	PERCENT	YEAR	THOUSAND DOLLARS
SHRIMP . . . . .	70,044	18.6	1953	76,641
SALMON . . . . .	49,012	13.0	1962	56,353
TUNA . . . . .	40,170	10.6	1950	61,342
OYSTERS . . . . .	27,105	7.2	1961	33,204
MENHADEN . . . . .	22,386	5.9	1956	28,425
CRABS . . . . .	21,354	5.7	1963	21,354
LOBSTERS, NORTHERN . . . . .	19,769	4.4	1963	19,769
FLOUNDERS . . . . .	15,411	4.1	1963	15,411
CLAMS . . . . .	14,202	3.8	1963	14,202
HADDOCK . . . . .	11,705	3.1	1946	13,043
SCALLOPS, SEA . . . . .	9,257	2.5	1959	11,805
HALIBUT, PACIFIC . . . . .	6,893	1.8	1962	11,579
CATFISH AND BULLHEADS . . . . .	6,775	1.8	1963	6,775
OCEAN PERCH, ATLANTIC . . . . .	5,147	1.4	1931	12,597
SHAPPER, RED . . . . .	5,534	1.0	1963	5,534
COD:				
ATLANTIC . . . . .	3,166	.9	1946	4,742
PACIFIC . . . . .	350	.1	1959	664
TOTAL . . . . .	3,456	1.0	-	-
SCUP OR PORGY . . . . .	3,099	.8	1963	3,099
INDUSTRIAL FISH 1/ . . . . .	3,044	.8	1963	3,044
HERRING, SEA:				
ATLANTIC . . . . .	1,704	.4	1948	3,798
PACIFIC . . . . .	656	.2	1947	2,152
TOTAL . . . . .	2,360	.6	-	-
MULLET . . . . .	2,354	.6	1945	4,647
WHITING . . . . .	2,178	.6	1951	2,903
JACK MACKEREL . . . . .	2,118	.6	1962	4,785
BUFFALOFISH . . . . .	1,815	.5	1952	3,564
LOBSTERS, SPINY . . . . .	1,798	.5	1963	1,798
CHUBS . . . . .	1,569	.4	1956	2,564
ROCKFISHES . . . . .	1,328	.4	1945	2,648
STRIPED BASS . . . . .	1,314	.3	1959	1,436
SEA TROUT OR MACKEREL, SPOTTOED . . . . .	1,312	.3	1922	1,781
OCEAN PERCH, PACIFIC . . . . .	1,172	.3	1963	1,172
SEA BASS, BLACK (ATLANTIC) . . . . .	1,172	.3	1952	5,206
SHAD . . . . .	1,141	.3	1945	2,680
YELLOW PERCH . . . . .	1,107	.3	1958	1,540
SCALLOPS, BAY . . . . .	1,077	.3	1960	1,474
CARP . . . . .	1,073	.3	1951	2,007
MUSSEL SHELLS . . . . .	1,062	.3	(2)	(2)
BUTTERFISH . . . . .	957	.3	1962	1,005
ALEWIVES . . . . .	906	.2	1963	906
MACKEREL, PACIFIC . . . . .	861	.2	1957	1,231
SWORDFISH . . . . .	826	.2	1946	1,435
GROUPERS . . . . .	812	.2	1945	1,038
BLOODWORMS . . . . .	772	.2	1963	772
SPANISH MACKEREL . . . . .	750	.2	1945	1,521
POLLOCK . . . . .	670	.2	1945	1,219
SABLEFISH . . . . .	654	.2	1946	1,634
SPOT . . . . .	636	.2	1949	975
ABALONE . . . . .	626	.2	1963	626
BLUEFISH . . . . .	620	.2	1951	760
POMPANO . . . . .	609	.2	1941	695
KING MACKEREL . . . . .	556	.1	1945	578
WHALE PRODUCTS 3/ . . . . .	544	.1	(2)	(2)
SQUID . . . . .	531	.1	1947	1,370
SANDWORMS . . . . .	526	.1	1963	526
YELLOW PIKE . . . . .	488	.1	1951	2,152
WHITEFISH, COMMON . . . . .	485	.1	1948	3,784
HERRING, LAKE . . . . .	479	.1	1952	1,458
SHEEPSHEAD, FRESH-WATER . . . . .	425	.1	1951	929
STEELHEAD TROUT . . . . .	395	.1	1963	395
DRUM, RED . . . . .	391	.1	1945	728
UNCLASSIFIED . . . . .	7,370	1.9	-	-
TOTAL . . . . .	377,162	100.0	-	-

1/ UNCLASSIFIED SPECIES FOR BAIT, REDUCTION, AND ANIMAL FOOD, 2/ DATA NOT AVAILABLE, 3/ THE VALUE OF THE WHALE PRODUCTS REPRESENTS THE AMOUNT RECEIVED BY THE MANUFACTURER FOR THE PRODUCTION OF WHALE MEAL, MEAT, AND OIL.

## U. S. CATCH - LIVE WEIGHT BASIS

In the annual digest it has been the practice of the Bureau to show the catch of univalve and bivalve mollusks on the basis of the weight of meats. Insofar as possible, all other fish and shellfish items are shown on a live weight basis.

Since world fishery statistics published by the Food and Agriculture Organization of the United Nations represent the live weight of the catch for all items of fish and shellfish, it has been necessary to provide that organization with information on the domestic catch of all species on a live weight basis. Data released by the Food and Agriculture Organization, therefore, indicate that the 1963 U. S. catch was 1.3 billion pounds greater than the figure appearing in Bureau publications. The increase is due to the inclusion of the weight of the shells of univalve and bivalve mollusks in the Food and Agriculture Organization data.

It has been deemed desirable to include in this report a table showing the entire domestic catch on a live weight basis. Information is also published on the catch of fishery products in the principal countries of the world so that the relative importance of the domestic fisheries can be determined. Tables containing these data follow:

## U. S. CATCH, 1963 - LIVE WEIGHT BASIS

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

ITEM	QUANTITY	VALUE
FISH . . . . .	4, 121, 794	210, 129
SHELLFISH, ETC: UNIVALVE AND BIVALVE MOLLUSKS: ABALONE . . . . .	4, 314	626
CLAMS: HARD . . . . .	109, 853	8, 403
OCEAN QUAHOG . . . . .	834	10
RAZOR . . . . .	1, 052	177
SOFT . . . . .	49, 815	2, 926
SURF . . . . .	203, 634	2, 676
MIXED . . . . .	96	10
TOTAL CLAMS . . . . .	365, 266	14, 202
CONCHS . . . . .	3, 425	182
LIMPETS . . . . .	20	9
MUSSELS: SEA . . . . .	5, 452	66
FRESH-WATER . . . . .	17, 317	1, 089
OYSTERS, MARKET . . . . .	871, 028	27, 105
PERIWINKLES AND COCKLES . . . . .	142	11
SCALLOPS: BAY . . . . .	12, 617	1, 077
CALICO . . . . .	2	(1)
SEA . . . . .	164, 947	9, 257
TOTAL UNIVALVE AND BIVALVE MOLLUSKS . . . . .	1, 444, 550	53, 624
CRUSTACEANS . . . . .	529, 602	110, 270
OTHER . . . . .	26, 203	2, 595
TOTAL SHELLFISH, ETC. . . . .	2, 000, 355	166, 489
WHALE PRODUCTS . . . . .	7, 665	544
GRAND TOTAL . . . . .	6, 129, 814	377, 162

1/ LESS THAN \$500.

## GENERAL REVIEW

## WORLD CATCH OF FISH, CRUSTACEANS, MOLLUSKS, ETC., BY COUNTRIES

The 1963 world commercial landings of fish, crustaceans, mollusks, etc., totaled 102.3 billion pounds, according to the "Yearbook of Fishery Statistics, 1963" released by the Food and Agriculture Organization of the United Nations. The landings were 2 percent more than the 1962 production of 99.9 billion pounds and once again established a new record.

In 1962, Peru had replaced Japan as world leader in total fishery landings with a spectacular increase in the catch of industrial fish (anchoveta) used primarily for fish meal. Peru continued to lead in 1963 with 14.9 percent of the world catch, followed by Japan with 14.4 percent. The China, Mainland catch (1959 data) was third with 10.8 percent, the U. S. S. R. was fourth (8.6 percent), and the United States, fifth (6.0 percent). These five nations accounted for 55 percent of the 1963 world catch.

Asia accounted for 38 percent of the world landings, followed by Europe (19 percent); South America (18 percent); North America (10 percent); the U. S. S. R. (9 percent); and Africa (6 percent). An insignificant percentage was taken in Oceania.

### WORLD CATCH OF FISH, CRUSTACEANS, MOLLUSKS, ETC., BY COUNTRIES, 1963

(LIVE WEIGHT BASIS)

COUNTRY	BILLION POUNDS	PERCENT
PERU . . . . .	15.21	14.9
JAPAN . . . . .	14.77	14.4
CHINA (MAINLAND) . . . . .	1/11.07	10.8
U. S. S. R. . . . .	8.77	8.6
UNITED STATES . . . . .	2/6.12	6.0
NORWAY . . . . .	3.05	3.0
CANADA . . . . .	2.63	2.6
SPAIN . . . . .	2.42	2.4
INDIA . . . . .	2.31	2.3
UNITED KINGDOM . . . . .	2.10	2.1
INDONESIA . . . . .	2.06	2.0
DENMARK . . . . .	1.87	1.8
ICELAND . . . . .	1.73	1.7
CHILE . . . . .	1.68	1.6
FRANCE . . . . .	1.64	1.6
GERMANY, WESTERN . . . . .	1.42	1.4
SOUTH AFRICA . . . . .	1.30	1.3
PHILIPPINES . . . . .	1.25	1.2
SOUTH WEST AFRICA . . . . .	1.23	1.2
PORTUGAL . . . . .	1.19	1.2
KOREA, SOUTH . . . . .	.98	1.0
THAILAND . . . . .	.92	.9
BRAZIL . . . . .	3/.84	.8
NETHERLANDS . . . . .	.80	.8
BURMA . . . . .	.79	.8
CHINA (TAIWAN) . . . . .	.77	.7
PAKISTAN . . . . .	.76	.7
SWEDEN . . . . .	.75	.7
VIET-NAM, SOUTH . . . . .	.73	.7
ANGOLA . . . . .	3/.59	.6
MEXICO . . . . .	.54	.5
FEDERATION OF MALAYA . . . . .	.54	.5
ITALY . . . . .	.51	.5
POLAND . . . . .	.50	.5
GERMANY, EASTERN . . . . .	.41	.4
MOROCCO . . . . .	.39	.4
CAMBODIA . . . . .	.35	.3
OTHER . . . . .	7.29	7.1
<b>TOTAL . . . . .</b>	<b>102.29</b>	<b>100.0</b>

1/ 1959 DATA.

2/ REVISED. EXCLUDES WHALE PRODUCTS.

3/ 1962 DATA.

SOURCE:--YEARBOOK OF FISHERY STATISTICS, 1963, VOLUME 16, FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS.

# GENERAL REVIEW

## SEED OYSTER FISHERY, 1963

ITEM	NEW ENGLAND 1/		MIDDLE ATLANTIC 2/		CHESAPEAKE 3/		TOTAL	
	NUMBER	VALUE	NUMBER	VALUE	NUMBER	VALUE	NUMBER	VALUE
<b>OPERATING UNITS</b>								
FISHERMEN:								
ON VESSELS . . . . .	21		-		181		202	
ON BOATS AND SHORE:								
REGULAR . . . . .	3		35		624		662	
CASUAL . . . . .	5		223		289		517	
TOTAL . . . . .	29		258		1,094		1,381	
<b>VESSELS, MOTOR</b>								
GROSS TONNAGE . . . . .	6		-		75		81	
BOATS:	230		-		476		706	
MOTOR . . . . .	4		110		630		744	
OTHER . . . . .	2		-		-		2	
<b>GEAR:</b>								
DREDGES, COMMON . . . . .	15		-		-		15	
YARDS AT MOUTH . . . . .	18		-		-		18	
TONGS . . . . .	2		258		1,094		1,354	
<b>CATCH</b>								
<b>OYSTERS, SEED:</b>								
PUBLIC:								
SPRING . . . . .	252	\$756	88,200	\$120,650	729,576	\$715,721	816,028	\$837,127
FALL . . . . .	303	909	-	-	542,874	562,213	543,177	563,122
PRIVATE:								
SPRING . . . . .	11,397	59,796	-	-	37,364	32,503	48,761	92,299
FALL . . . . .	6,820	27,986	-	-	25,793	22,750	32,613	50,736
TOTAL . . . . .	18,772	89,447	88,200	120,650	1,335,607	1,333,187	1,442,579	1,543,264

1/ CONFINED TO CONNECTICUT AND MASSACHUSETTS.

2/ CONFINED TO NEW YORK AND NEW JERSEY.

3/ CONFINED TO VIRGINIA.

NOTE:--THE CAPACITY OF A U. S. STANDARD BUSHEL IS 2,150.4 CUBIC INCHES. OF THE TOTAL NUMBER OF PERSONS FISHING FOR SEED OYSTERS, 1,095 WERE DUPLICATED AMONG THOSE FISHING FOR MARKET OYSTERS OR OTHER SPECIES. SIMILARLY, THE FOLLOWING CRAFT AND GEAR WERE DUPLICATED: 62 VESSELS (493 GROSS TONS), 677 MOTOR BOATS, 11 DREDGES (12 YARDS AT MOUTH), AND 1,078 TONGS.

DREDGING OF SEED OYSTERS IN NEW JERSEY DURING 1963 WAS FORBIDDEN BY LAW.

## WHOLESALE AND MANUFACTURING, 1963

ITEM	NEW ENGLAND	MIDDLE ATLANTIC	CHESAPEAKE	SOUTH ATLANTIC	GULF
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
<b>WHOLESALE AND MANUFACTURING:</b>					
ESTABLISHMENTS . . . . .	547	492	655	415	609
PERSONS ENGAGED:					
AVERAGE FOR SEASON . . . . .	12,529	7,969	10,949	7,617	18,267
AVERAGE FOR YEAR . . . . .	8,141	6,697	7,384	4,582	10,446
<b>WHOLESALE AND MANUFACTURING:</b>					
ITEM	PACIFIC	GREAT LAKES	MISSISSIPPI RIVER AND TRIBUTARIES	HAWAII	TOTAL
<b>WHOLESALE AND MANUFACTURING:</b>					
ESTABLISHMENTS . . . . .	593	262	405	16	4,194
PERSONS ENGAGED:					
AVERAGE FOR SEASON . . . . .	23,737	3,177	2,663	324	87,252
AVERAGE FOR YEAR . . . . .	12,803	2,105	2,064	270	54,492

# GENERAL REVIEW

## MANUFACTURED FISHERY PRODUCTS

The 1963 production of manufactured products (packaged fresh and frozen, canned, cured, and industrial products) in the United States, American Samoa, and Puerto Rico was valued at \$914 million to the producers. This was \$44 million less than the previous year. Canned products accounted for 46 percent of the total value; fresh and frozen packaged items, 41 percent, industrial products (principally meal and oil), 8 percent; and cured products, 5 percent.

The canned fish and shellfish pack in 1963 amounted to over 1.0 billion pounds valued at \$422 million to the packers.

The pack for human food was 728.9 million pounds valued at \$381.3 million while that for animal food and bait was 307.0 million pounds valued at \$40.3 million.

The value of three items--salmon, tuna, and animal food--accounted for 78 percent of the total amount received by the producers of canned fishery products excluding specialties in 1963.

Production of fresh and frozen packaged fish and shellfish in 1963 amounted to 670.4 million pounds valued at \$376.0 million. This was an increase in quantity of 23.0 million pounds, and a decrease of \$3.5 million in value when compared with the production and value in 1962.

Industrial fish meal products were valued at \$68.6 million in 1963--a decrease of \$7.0 million compared with the previous year. The production of 255,907 tons of fish meal was 56,352 tons less than in 1962. The yield of marine animal oil in 1963 was 185,827 thousand pounds.

The manufacture of solubles and homogenized condensed fish amounted to 107,402 tons--17,247 tons less than the 124,649 tons produced in 1962.



# GENERAL REVIEW

35

## MANUFACTURED FISHERY PRODUCTS, 1963

ITEM	QUANTITY	VALUE	
<b>ALEWIVES:</b>			
<b>CANNED:</b>			
FISH . . . . .	STANDARD CASES	93,933	\$374,563
ROE . . . . .	DO	41,613	536,846
SALTED AND PICKLED . . . . .	POUNDS	7,959,725	571,985
SMOKED . . . . .	DO	1,690	169
MEAL AND SCRAP . . . . .	TONS	713	90,126
OIL . . . . .	1,000 POUNDS	322	20,249
SOLUBLES . . . . .	TONS	434	26,610
<b>ANCHOVIES:</b>			
<b>CANNED</b>			
PASTE . . . . .	STANDARD CASES	(1)	(1)
ANGLERFISH FILLETS, FROZEN . . . . .	DO	2,102	83,573
BARRACUDA, SMOKED . . . . .	POUNDS	(1)	(1)
BLUEFISH FILLETS, FRESH AND FROZEN . . . . .	DO	3,670	2,647
BUFFALO FISH, SMOKED . . . . .	DO	(1)	(1)
BUTTERFISH, SMOKED . . . . .	DO	(1)	(1)
CARP:	DO	466,491	329,176
SMOKED . . . . .	DO	246,100	131,423
MEAL AND SCRAP . . . . .	TONS	(1)	(1)
<b>CATFISH:</b>			
<b>BREADED, FROZEN</b>			
SMOKED . . . . .	POUNDS	(1)	(1)
CHUBS, SMOKED . . . . .	DO	(1)	(1)
CISCO, SMOKED . . . . .	DO	6,371,291	3,544,485
<b>COD:</b>			
<b>FILLETS:</b>			
FRESH . . . . .	DO	6,834,850	2,462,983
FROZEN . . . . .	DO	3,007,174	802,338
STEAKS, FRESH AND FROZEN . . . . .	DO	599,723	129,834
<b>SPECIALTIES:</b>			
FROZEN (CAKES, BREADED FILLETS) . . . . .	DO	2,953,591	1,274,998
CANNED (CAKES, SALTED) . . . . .	STANDARD CASES	(1)	(1)
SALTED . . . . .	POUNDS	970,777	460,656
SMOKED . . . . .	DO	693,866	296,326
LUTEFISK . . . . .	DO	815,485	207,900
<b>CUSK:</b>			
<b>FILLETS:</b>			
FRESH . . . . .	DO	211,034	66,465
FROZEN . . . . .	DO	51,678	15,799
SALTED . . . . .	DO	(1)	(1)
EELS, SMOKED . . . . .	DO	250,500	178,180
<b>FLOUNDER:</b>			
<b>FILLETS:</b>			
FRESH . . . . .	DO	26,979,310	11,107,067
FROZEN . . . . .	DO	16,914,208	5,319,114
<b>SPECIALTIES, FROZEN:</b>			
BREADED . . . . .	DO	984,708	412,817
STUFFED, BREADED IN SAUCES, DINNERS . . . . .	DO	573,138	404,899
<b>GROUPER:</b>			
<b>FILLETS:</b>			
FRESH . . . . .	DO	235,150	105,840
FROZEN . . . . .	DO	296,468	146,348
<b>STEAKS:</b>			
FRESH . . . . .	DO	88,110	32,749
FROZEN . . . . .	DO	160,000	41,600
<b>HADDOCK:</b>			
<b>FILLETS:</b>			
FRESH . . . . .	DO	23,604,612	9,006,045
FROZEN . . . . .	DO	13,103,201	4,275,938
BREADED AND COOKED, FROZEN . . . . .	DO	655,217	302,171
<b>SPECIALTIES:</b>			
FROZEN (STUFFED, DINNERS, ETC.) . . . . .	DO	(1)	(1)
CANNED (FINNAN HADDIE, CREAMED) . . . . .	STANDARD CASES	(1)	(1)
SMOKED:	DO	(1)	(1)
FILLETS . . . . .	POUNDS	(1)	(1)
FINNAN HADDIE . . . . .	DO	217,560	88,916
<b>HAKE:</b>			
<b>FILLETS:</b>			
FRESH . . . . .	DO	282,534	85,911
FROZEN . . . . .	DO	37,480	11,033
SALTED . . . . .	DO	(1)	(1)

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## GENERAL REVIEW

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

ITEM	QUANTITY	VALUE	
HALIBUT, (INCLUDES ALASKA PRODUCTION):			
FILLETS, FRESH AND FROZEN, . . . . .	POUNDS	3,553,266	\$1,966,841
STEAKS, FROZEN . . . . .	DO	5,638,630	2,679,926
SPECIALTIES, FROZEN (AU GRATIN, DINNERS, ETC.)	DO	195,511	163,986
CANNED:			
REGULAR . . . . .	STANDARD CASES	(1)	(1)
SMOKED . . . . .	DO	(1)	(1)
SMOKED . . . . .	POUNDS	329,150	107,113
HERRING, LAKE:			
FILLETS:			
FRESH . . . . .	DO	20,150	5,268
FROZEN . . . . .	DO	19,240	5,076
SALTED . . . . .	DO	1,736,600	204,874
SMOKED . . . . .	DO	116,695	43,981
HERRING, SEA:			
CANNED:			
MAINE SARDINES	STANDARD CASES	1,619,235	13,243,902
SPECIALTIES (DIPS, TID BITS, IN CREAM AND WINE SAUCES), . . . . .	DO	10,476	307,340
SALTED:			
BRIRED . . . . .	POUNDS	120,000	43,000
PICKLED . . . . .	DO	12,906,005	5,559,831
SMOKED . . . . .	DO	534,097	164,920
SPECIALTIES, CURED AND REFRIGERATED (PARTY SNACKS, ETC.) . . . . .	DO	(1)	(1)
SALTED EGGS (WITH KELP), . . . . .	DO	184,500	78,350
MEAL AND SCRAP . . . . .	TONS	7,537	856,432
OIL . . . . .	1,000 POUNDS	5,709	292,966
KINGFISH:			
FILLETS, FROZEN, . . . . .	POUNDS	(1)	(1)
STEAKS, FRESH AND FROZEN . . . . .	DO	(1)	(1)
SMOKED . . . . .	DO	(1)	(1)
LAKE TROUT:			
FILLETS:			
FRESH . . . . .	DO	34,356	32,827
FROZEN . . . . .	DO	17,645	13,685
SMOKED . . . . .	DO	174,100	139,135
LINGCOD:			
FILLETS:			
FRESH . . . . .	DO	570,220	131,748
FROZEN . . . . .	DO	603,463	153,175
SMOKED . . . . .	DO	(1)	(1)
LUMPFISH CAVIAR, CANNED, . . . . .	STANDARD CASES	(1)	(1)
MACKEREL:			
ATLANTIC:			
FILLETS, FRESH . . . . .	POUNDS	18,162	5,482
SALTED . . . . .	DO	(1)	(1)
SMOKED . . . . .	DO	64,390	39,873
JACK:			
CANNED . . . . .	STANDARD CASES	877,925	5,244,374
DRIED . . . . .	POUNDS	36,195	25,900
SMOKED . . . . .	DO	(1)	(1)
PACIFIC:			
CANNED . . . . .	STANDARD CASES	397,527	2,359,055
SMOKED . . . . .	POUNDS	1,400	677
MARLIN, SMOKED . . . . .	DO	(1)	(1)
MENHADEN:			
MEAL AND SCRAP . . . . .	TONS	184,205	22,263,320
OIL, . . . . .	1,000 POUNDS	167,635	9,853,302
SOLUBLES . . . . .	TONS	74,831	4,485,957
MULLET:			
CANNED . . . . .	STANDARD CASES	(1)	(1)
SALTED:			
FISH . . . . .	POUNDS	626,500	80,650
ROE . . . . .	DO	9,800	7,360
SMOKED . . . . .	DO	(1)	(1)
OCEAN PERCH:			
ATLANTIC FILLETS:			
FRESH . . . . .	DO	266,846	87,321
FROZEN . . . . .	DO	29,963,175	8,402,940
BREADED, RAW AND COOKED, FROZEN, . . . . .	DO	2,155,902	824,161
PACIFIC FILLETS:			
FRESH . . . . .	DO	2,598,826	587,557
FROZEN . . . . .	DO	4,395,817	1,058,351
MEAL AND SCRAP . . . . .	TONS	(1)	(1)
OIL . . . . .	1,000 POUNDS	(1)	(1)

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# GENERAL REVIEW

37

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

ITEM	QUANTITY	VALUE
PADDLEFISH, SMOKED . . . . .	POUNDS 35,550	\$28,335
PIKE OR PICKEREL FILLETS, FRESH OR FROZEN . . . . .	DO 49,735	23,412
POLLOCK:		
FILLETS:		
FRESH . . . . .	DO 1,477,366	346,133
FROZEN . . . . .	DO 3,969,790	713,479
CANNED (FLAKED) . . . . .	STANDARD CASES (1)	(1)
SALTED (WHOLE, FILLETS AND STRIPS) . . . . .	POUNDS 20,500	5,600
SMOKED . . . . .	DO 60,775	14,621
DRIED . . . . .	DO (1)	(1)
POMPANO FILLETS, FRESH AND FROZEN . . . . .	DO (1)	(1)
ROCKFISH FILLETS:		
FRESH . . . . .	DO 3,501,936	798,824
FROZEN . . . . .	DO 1,768,322	447,520
SABLEFISH:		
FILLETS, FROZEN . . . . .	DO (1)	(1)
STEAKS, FROZEN . . . . .	DO (1)	(1)
SALTED . . . . .	DO 33,800	13,150
SMOKED . . . . .	DO 3,138,443	2,054,644
SALMON:		
FILLETS, FROZEN . . . . .	DO (1)	(1)
STEAKS, FROZEN . . . . .	DO 1,077,068	787,295
CANNED:		
CHINOOK OR KING . . . . .	STANDARD CASES 96,843	3,988,142
CHUM OR KETA . . . . .	DO 462,375	9,290,951
PINK . . . . .	DO 1,956,482	43,244,695
RED OR SOCKEYE . . . . .	DO 605,947	25,960,804
SILVER OR COHO . . . . .	DO 165,556	5,152,122
STEELHEAD . . . . .	DO 7,654	326,085
TOTAL . . . . .	DO 3,294,857	87,962,799
SMOKED . . . . .	DO 1,405	113,149
CAVIAR . . . . .	DO 4,847	426,036
EGGS FOR BAIT . . . . .	DO 16,321	1,235,808
SPECIALTIES (DIPS, SALTED LIVERS, SPREADS) . . . . .	DO 147	6,226
SALTED:		
MILD-CURED . . . . .	POUNDS 8,457,615	9,481,395
CAVIAR . . . . .	DO 488,923	280,811
EGGS, FOR FOOD AND BAIT . . . . .	DO 628,702	249,540
SPECIALTIES (SALTED BELLIES) . . . . .	DO (1)	(1)
SMOKED . . . . .	DO 8,440,690	12,279,609
MEAL AND SCRAP . . . . .	TONS (1)	(1)
OIL . . . . .	1,000 POUNDS 645	55,346
SARDINES, PACIFIC:		
CANNED . . . . .	STANDARD CASES 57,072	685,037
SALTED . . . . .	POUNDS (1)	(1)
MEAL AND SCRAP . . . . .	TONS (1)	(1)
OIL . . . . .	1,000 POUNDS (1)	(1)
SAUGER FILLETS:		
FRESH . . . . .	POUNDS 508,500	417,805
FROZEN . . . . .	DO 249,300	198,226
SCUP OR PORGY FILLETS, FRESH . . . . .	DO (1)	(1)
SEA BASS:		
FILLETS AND STEAKS, FRESH AND FROZEN . . . . .	DO (1)	(1)
SMOKED . . . . .	DO (1)	(1)
SEA TROUT FILLETS, FRESH AND FROZEN . . . . .	DO (1)	(1)
SHAD:		
FILLETS, FRESH (BONED) . . . . .	DO (1)	(1)
CANNED:		
FISH . . . . .	STANDARD CASES 10,280	102,612
ROE . . . . .	DO 2,206	153,188
SMOKED . . . . .	POUNDS 90,501	31,499
SHARKS:		
SMOKED . . . . .	DO (1)	(1)
OIL (LIVER) . . . . .	1,000 POUNDS (1)	(1)
SMELTS:		
COOKED, FROZEN . . . . .	POUNDS (1)	(1)
SMOKED . . . . .	DO (1)	(1)
SNAPPER, RED:		
FILLETS:		
FRESH . . . . .	DO 107,407	98,716
FROZEN . . . . .	DO 294,639	207,035
STEAKS:		
FRESH . . . . .	DO (1)	(1)
FROZEN . . . . .	DO (1)	(1)
SPECIALTIES (STUFFED) . . . . .	DO (1)	(1)

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## GENERAL REVIEW

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

ITEM		QUANTITY	VALUE
<b>SPANISH MACKEREL, FILLETS:</b>			
FRESH, . . . . .	POUNDS	55,334	\$20,117
FROZEN, . . . . .	DO	852,200	277,535
STRIPED BASS FILLETS, FRESH, . . . . .	DO	(1)	(1)
STURGEON:			
FILLETS, FROZEN, . . . . .	DO	(1)	(1)
CANNED:			
SMOKED, KIPPERED, AND SPREADS, . . . . .	STANDARD CASES	721	49,182
CAVIAR, . . . . .	DO	(1)	(1)
SMOKED, KIPPERED, . . . . .	POUNDS	1,236,116	2,879,210
SWORDFISH:			
STEAKS, FROZEN, . . . . .	DO	866,691	423,365
SMOKED, . . . . .	DO	(1)	(1)
TUNA:			
SPECIALTIES, FROZEN (PIES, CAKES, ETC.), . . . . .	DO	1,165,030	240,586
CANNED:			
ALBACORE, . . . . .	STANDARD CASES	5,266,171	68,670,905
LIGHT MEAT (INCLUDING TONNO), . . . . .	DO	11,289,649	132,916,746
TOTAL, . . . . .	DO	16,555,620	201,587,651
<b>SPECIALTIES (WITH NOODLES, VEGETABLES, SAUCES, AND SMOKED)</b>			
SMOKED AND DRIED, . . . . .	DO	47,066	598,826
TUNALIKE:			
CANNED, . . . . .	POUNDS	109,511	108,716
SMOKED, . . . . .	STANDARD CASES	71,541	570,403
WAHOO:			
CANNED, . . . . .	POUNDS	2,818	2,765
SMOKED, . . . . .	STANDARD CASES	(1)	(1)
WHITE BASS, FILLETS:			
FRESH, . . . . .	POUNDS	(1)	(1)
FROZEN, . . . . .	DO	104,500	52,225
SMOKED, . . . . .	DO	55,000	27,550
WHITEFISH:			
FILLETS:			
FRESH, . . . . .	DO	308,071	224,812
FROZEN, . . . . .	DO	96,240	56,064
CANNED:			
FISH, . . . . .	STANDARD CASES	(1)	(1)
CAVIAR, . . . . .	DO	1,636	116,770
SMOKED, . . . . .	POUNDS	3,037,435	2,442,172
WHITING:			
FILLETS:			
FRESH, . . . . .	DO	9,322	2,213
FROZEN, . . . . .	DO	2,395,204	532,737
SMOKED, . . . . .	DO	417,000	164,504
WOLFFISH:			
FILLETS:			
FRESH, . . . . .	DO	26,610	9,854
FROZEN, . . . . .	DO	209,304	70,522
SPECIALTIES (BREADED AND COOKED), . . . . .	DO	(1)	(1)
YELLOW PERCH, FILLETS:			
FRESH, . . . . .	DO	3,229,240	1,337,405
FROZEN, . . . . .	DO	908,313	368,625
BREADED, FROZEN, . . . . .	DO	(1)	(1)
YELLOW PIKE, FILLETS:			
FRESH, . . . . .	DO	627,759	503,599
FROZEN, . . . . .	DO	511,525	390,359
BREADED, FROZEN, . . . . .	DO	(1)	(1)
CRABS:			
BLUE, HARD (INCLUDES ROCK CRABS):			
FRESH AND FROZEN, COOKED MEAT, . . . . .	DO	15,983,145	16,938,956
FROZEN SPECIALTIES:			
CAKES AND DEVILED, . . . . .	DO	4,319,323	3,601,763
OTHER (AU GRATIN, STUFFED, ROLLS, STICKS, ETC.), . . . . .	DO	2,664,262	1,761,538
CANNED:			
REGULAR, . . . . .	STANDARD CASES	54,965	1,239,668
SPECIALTIES (BISSOU, DEVILED, DIPS, SMOKED, ETC.), . . . . .	DO	10,974	176,248
BACK SHELLS, CLEANED AND POLISHED, . . . . .	DO	-	45,760

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# GENERAL REVIEW

39

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

ITEM	QUANTITY	VALUE
<b>CRABS - CONTINUED:</b>		
<b>DUNGENESS:</b>		
<b>FRESH AND FROZEN:</b>		
COOKED MEAT . . . . .	POUNDS	4,829,236
SECTIONS . . . . .	DO	1,820,500
SPECIALTIES (COCKTAILS) . . . . .	DO	(1)
<b>CANNED:</b>		
REGULAR . . . . .	STANDARD CASES	30,265
SPECIALTIES (COCKTAILS, SPREADS, AND SMOKED) . . . . .	DO	122
<b>KING:</b>		
<b>FRESH AND FROZEN:</b>		
COOKED MEAT . . . . .	POUNDS	10,549,300
SECTIONS . . . . .	DO	860,600
CANNED, REGULAR . . . . .	STANDARD CASES	292,005
FREEZE-DRIED . . . . .	POUNDS	(1)
STONE CLAWS, COOKED, FRESH AND FROZEN . . . . .	DO	38,674
MEAL AND SCRAP . . . . .	TONS	7,610
<b>CRABFISH SPECIALTIES:</b>		
FROZEN . . . . .	POUNDS	(1)
CANNED . . . . .	STANDARD CASES	(1)
<b>LOBSTERS:</b>		
<b>NORTHERN:</b>		
FRESH AND FROZEN, COOKED MEAT . . . . .	POUNDS	1,045,067
FROZEN WHOLE . . . . .	DO	(1)
<b>SPECIALTIES:</b>		
FROZEN (COCKTAILS, LOBSTERETTES, NEWBURGS, ETC.) . . . . .	DO	142,990
CANNED (MEAT, DEVILED, DIPS, NEWBURGS, ETC.) . . . . .	STANDARD CASES	11,345
SPINY, FRESH AND FROZEN (WHOLE AND TAILS) . . . . .	POUNDS	2,089,702
<b>SHRIMP:</b>		
<b>FRESH AND FROZEN:</b>		
RAW, HEADLESS . . . . .	DO	66,441,041
PEELED (INCLUDING DEVEINED):		
RAW . . . . .	DO	22,155,216
COOKED . . . . .	DO	2,321,882
BREADED (RAW AND COOKED) . . . . .	DO	76,215,522
SPECIALTIES (BURGERS, COCKTAILS, STICKS, STUFFED, ETC.) . . . . .	DO	5,101,380
<b>CANNED:</b>		
REGULAR . . . . .	STANDARD CASES	1,060,297
SPECIALTIES (COCKTAILS, DIPS, SAUCE, STEWS, ETC.) . . . . .	DO	8,817
<b>CURED:</b>		
FREEZE-DRIED . . . . .	POUNDS	(1)
SUN-DRIED . . . . .	DO	454,146
SMOKED . . . . .	DO	(1)
MEAL AND SCRAP . . . . .	TONS	247
<b>ABALONE, FROZEN:</b>		
STEAKS . . . . .	POUNDS	420,101
SPECIALTIES (BREADED) . . . . .	DO	132,042
<b>CLAMS:</b>		
<b>SHUCKED, FRESH AND FROZEN:</b>		
HARD (INCLUDING SURF AND OCEAN QUAHOG, WHOLE AND MINCED) . . . . .	GALLONS	2,256,092
RAZOR . . . . .	DO	12,882
SOFT . . . . .	DO	754,522
<b>SPECIALTIES, FROZEN:</b>		
BREADED (INCLUDING DEVILED) . . . . .	POUNDS	1,816,921
OTHER (CROQUETTES, CUTLETS, SLICED, STICKS, ETC.) . . . . .	DO	3,909,457
<b>CANNED:</b>		
<b>WHOLE AND MINCED:</b>		
HARD, SOFT, AND SURF . . . . .	STANDARD CASES	541,299
RAZOR . . . . .	DO	7,049
CHOWDER AND JUICE (HARD, SOFT, AND SURF) . . . . .	DO	1,683,877
SPECIALTIES . . . . .	DO	81,626
<b>CONCH MEAT:</b>		
FROZEN . . . . .	POUNDS	(1)
CANNED:		
MEAT . . . . .	STANDARD CASES	7,407
SPECIALTIES . . . . .	DO	(1)
<b>MUSSELS, SEA:</b>		
SPECIALTIES, FROZEN (IN HOT SAUCE) . . . . .	POUNDS	(1)
CANNED . . . . .	STANDARD CASES	(1)
MUSSEL SHELL BUTTONS . . . . .	GROSS	280,991

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## GENERAL REVIEW

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

ITEM		QUANTITY	VALUE
OSTERS:			
EASTERN:			
SHUCKED, FRESH AND FROZEN . . . . .	GALLONS	3,638,301	\$26,983,273
STEAMED . . . . .	DO	85,383	1,570,000
FROZEN:			
BREADED . . . . .	POUNDS	2,812,072	2,702,958
SPECIALTIES (BURGERS, PIES, STEWS, STUFFED, ETC.) . . . . .	DO	977,301	386,092
CANNED:			
REGULAR . . . . .	STANDARD CASES	372,477	4,549,784
SPECIALTIES (BISQUE, SOUP, AND STEWS) . . . . .	DO	2,595	38,602
SHELL PRODUCTS:			
CRUSHED SHELL FOR POULTRY GRIT . . . . .	TONS	304,090	4,622,953
LIME, BURNED AND UNBURNED . . . . .	DO	75,781	627,821
PACIFIC:			
SHUCKED, FRESH AND FROZEN . . . . .	GALLONS	1,029,560	3,997,660
BREADED . . . . .	POUNDS	50,396	44,710
CANNED:			
REGULAR . . . . .	STANDARD CASES	73,867	1,083,033
SPECIALTIES:			
SMOKED . . . . .	DO	893	92,739
OTHER (SOUPS, STEWS AND CASSEROLES) . . . . .	DO	168,062	2,344,123
SHELL PRODUCTS:			
CRUSHED SHELL FOR POULTRY GRIT . . . . .	TONS	16,856	208,679
LIME, BURNED . . . . .	DO	1,856	20,766
WESTERN OYSTERS, SHUCKED . . . . .	GALLONS	5,399	237,922
SCALLOPS:			
BAY, SHUCKED, FRESH AND FROZEN . . . . .	DO	136,809	1,327,934
SEA, FRESH AND FROZEN MEATS . . . . .	POUNDS	5,939,781	3,077,513
BREADED:			
RAW . . . . .	DO	2,187,534	1,326,208
COOKED . . . . .	DO	5,104,217	3,565,189
SPECIALTIES (DINNERS, STUFFED, ETC.) . . . . .	DO	501,329	374,058
SQUID:			
FROZEN:			
NATURAL . . . . .	DO	(1)	(1)
IN TOMATO SAUCE . . . . .	DO	(1)	(1)
CANNED:			
TURTLE:			
STEAKS, FROZEN . . . . .	POUNDS	(1)	(1)
CANNED (MEAT, SOUPS, AND STEWS) . . . . .	STANDARD CASES	14,333	262,622
OIL . . . . .	1,000 POUNDS	(1)	(1)
WHALE:			
MEAT, FROZEN . . . . .	POUNDS	2,883,713	241,491
MEAL . . . . .	TONS	1,318	153,040
OIL:			
SPERM . . . . .	1,000 POUNDS	700	57,943
OTHER . . . . .	DO	1,429	90,473
SOLUBLES . . . . .	TONS	7	428
UNCLASSIFIED:			
PACKAGED, FRESH AND FROZEN:			
FISH:			
FILLETS AND STEAKS, RAW, NOT BREADED . . . . .	POUNDS	897,707	543,328
STICKS, BREADED:			
RAW . . . . .	DO	5,163,047	1,855,373
COOKED . . . . .	DO	74,136,779	29,734,101
FILLETS, STEAKS AND PORTIONS, BREADED (RAW AND COOKED) . . . . .	DO	92,636,599	33,356,622
PORTIONS, RAW, NOT BREADED . . . . .	DO	3,054,175	1,034,671
CAKES, RAW AND COOKED . . . . .	DO	1,412,974	635,620
FISH AND SHELLFISH SPECIALTIES . . . . .	DO	15,404,629	11,000,248
CANNED:			
FISH:			
CAKES . . . . .	STANDARD CASES	71,586	969,895
CEFTLEFISH . . . . .	DO	313,116	4,760,459
OTHER . . . . .	DO	110,563	2,176,286
ANIMAL FOOD . . . . .	DO	6,376,936	39,041,606
SHELLFISH, MISCELLANEOUS (CHOWDERS, GUMBO AND UNCLASSIFIED SHELLFISH IN SOUPS AND STEWS) . . . . .	DO		
CURED:			
SMOKED . . . . .	POUNDS	17,886	221,603
SALTED . . . . .	DO	221,492	148,135
DRIED . . . . .	DO	6,879,456	4,037,977
		224,901	1,343,366

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

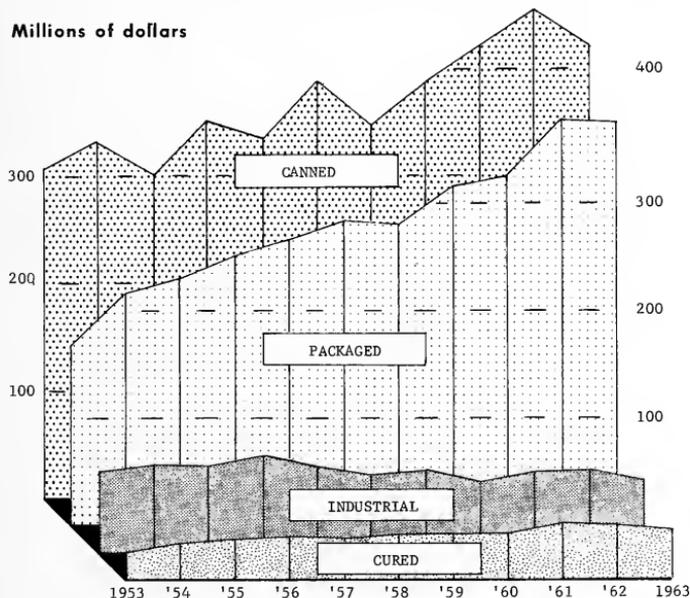
ITEM		QUANTITY	VALUE
UNCLASSIFIED - CONTINUED:			
MEAL AND SCRAP:			
TUNA AND MACKEREL . . . . .	TONS	26,957	\$2,943,109
UNCLASSIFIED . . . . .	DO	27,320	3,578,976
OIL:			
BODY:			
TUNA AND MACKEREL . . . . .	1,000 POUNDS	5,903	273,901
UNCLASSIFIED . . . . .	DO	3,459	182,202
LIVER . . . . .	DO	25	29,070
FISH SOLUBLES AND HOMOGENIZED CONDENSED FISH . . . . .	TONS	32,130	2,236,070
MARINE PEARL SHELL BUTTONS . . . . .	GROSS	499,978	1,151,549
OTHER (AGAR-AGAR, FISH FEED PELLETS, LIQUID FERTILIZER, GLUE, IRISH MOSS EXTRACT, KELP PRODUCTS, PEARL ESSENCE, ETC.) . . . . .	-	-	13,713,414
GRAND TOTAL . . . . .	-	-	914,492,402

1/ INCLUDED WITH UNCLASSIFIED ITEMS.

NOTE:--SOME OF THE ABOVE ITEMS HAVE BEEN MANUFACTURED FROM RAW PRODUCTS IMPORTED FROM FOREIGN COUNTRIES; THEREFORE, THE PRODUCTION CANNOT BE CORRELATED DIRECTLY WITH THE CATCH. CERTAIN ITEMS, SUCH AS PICKLED ALEWIVES, MILD CURED SALMON, AND STEAMED OYSTERS, ETC., ARE SHOWN IN AN INTERMEDIATE AND ALSO IN A MORE ADVANCED STAGE OF PROCESSING. THE LIME AND POULTRY FEED MANUFACTURED FROM SHELL PRODUCTS WERE PRODUCED FROM LIVE AND REEF MOLLUSK SHELLS THAT ARE NOT INCLUDED IN THE CATCH STATISTICS.

## VALUE OF MANUFACTURED FISHERY PRODUCTS 1953 - 63

Millions of dollars



## GENERAL REVIEW

## SUMMARY OF MANUFACTURED FISHERY PRODUCTS, 1963

(THOUSAND DOLLARS)

ITEM		QUANTITY	VALUE
PACKAGED PRODUCTS, FRESH AND FROZEN:			
FISH:			
NOT BREADED:			
FILLETS AND STEAKS, RAW. . . . .	1,000 POUNDS	165,965	57,461
OTHER (INCLUDES WHALE MEAT FOR ANIMAL FEEDING) . . . . .	DO	6,643	2,075
BREADED, RAW AND COOKED:			
STICKS . . . . .	DO	79,300	31,589
FILLETS, PORTIONS, AND STEAKS. . . . .	DO	95,448	34,483
SHELLFISH:			
NOT BREADED. . . . .	DO	194,378	161,116
BREADED. . . . .	DO	92,639	66,885
SPECIALTIES, FISH AND SHELLFISH. . . . .	DO	35,992	22,422
TOTAL FRESH AND FROZEN . . . . .	DO	670,385	376,031
CANNED:			
FISH, SHELLFISH, ETC., FOR HUMAN CONSUMPTION . . . . .	DO	728,937	361,329
SALMON EGGS FOR BAIT . . . . .	DO	783	1,236
ANIMAL FOOD. . . . .	DO	306,189	39,042
TOTAL BAIT AND ANIMAL FOOD . . . . .	DO	306,972	40,278
TOTAL CANNED . . . . .	DO	1,035,909	421,607
CURED:			
SALTED . . . . .	DO	41,020	21,075
SMOKED . . . . .	DO	26,182	25,139
LUTEFISK . . . . .	DO	815	208
DRIED 1/ . . . . .	DO	797	1,831
TOTAL CURED. . . . .	DO	68,814	48,253
INDUSTRIAL:			
MEAL AND SCRAP (2,000 POUNDS PER TON) . . . . .	DO	511,814	30,235
OIL, BODY AND LIVER (7.75 POUNDS PER GALLON) . . . . .	DO	185,827	10,853
FISH SOLUBLES AND HOMOGENIZED CONDENSED FISH . . . . .	DO	214,804	6,753
OYSTER SHELL LIME AND POULTRY GRIT . . . . .	DO	797,166	5,480
MARINE PEARL SHELL AND MUSSEL SHELL BUTTONS. . . . .	1,000 GROSS	781	1,521
OTHER (AGAR-AGAR, FISH FEED PELLETS, ANIMAL FEEDS, GLUE, IRISH MOSS EXTRACT, KELP PRODUCTS, PEARL ESSENCE, ETC.) . . . . .	-	-	13,759
TOTAL INDUSTRIAL PRODUCTS. . . . .	-	-	68,601
GRAND TOTAL. . . . .	-	-	914,492

1/ INCLUDES FREEZE-DRIED PRODUCTS.



## CANNED FISHERY PRODUCTS

The 1963 pack of canned fishery products by 377 plants in the United States, American Samoa, and Puerto Rico amounted to 34.6 million standard cases (1.0 billion pounds) valued at \$421.6 million to the packers. Compared with the pack in 1962, production was down 2.3 million cases and \$35.3 million. The decreases resulted mainly from a sharp decline in the canning of fish for animal food and smaller packs of Alaska salmon, California tuna, and Maine and Pacific sardines.

The pack for human consumption (728.9 million pounds) was 28.4 million pounds less than in 1962. The production of bait and animal food (307.0 million pounds) was down 69.4 million pounds in 1963. The value of three items--salmon, tuna, and animal food--accounted for 78 percent of the total amount received by producers of canned fishery products in 1963. Animal food containing less than 10 pounds of fish per standard case of 48 pounds (4,143,405 standard cases valued at \$16,732,929) has been excluded from this report.

Tuna. The 1963 pack of tuna (16.6 million cases or 326.7 million pounds valued at \$201.6 million) was the second largest in volume and value being exceeded only by the record 1962 pack of 17.0 million cases (335.5 million pounds) valued at \$209.8 million. The California pack fell from 10.5 million cases in 1962 to 9.0 million cases in 1963. In all other areas, production was slightly higher than in 1962.

The tuna industry had shown remarkable growth between the years 1953-1962. However, there was a sharp curtailment of demand for canned tuna early in 1963 that was reflected in a cutback in tuna canning--the first material decrease in production in recent years. Had this not occurred, production would have been the largest in history. It was not until the last half of 1963 that the market situation was reversed and the pace of consumption recovered.

Salmon. The 1963 pack of salmon amounted to 3.3 million cases (158.2 million pounds) valued at \$88.0 million. Compared with 1962, this was a decrease of 506,000 cases and \$18.7 million. Pink salmon accounted for 59 percent of the volume and 49 percent of the value of the 1963 pack.

Production in Washington was 323,000 cases larger than in 1962 because of the excellent run of pink salmon to Puget Sound. However, in Alaska the total pack was 819,000 cases smaller than in 1962. This was due to the sharply reduced runs of red salmon in Western and Central Alaska, pink salmon in Central Alaska, and chum salmon in all regions. The Columbia River pack of 82,000 cases was one of the smallest in history.

Mackerel. The 1963 pack of mackerel (1.3 million cases valued at \$7.6 million) was 55,000 cases over the amount canned in 1962 and the third largest pack since 1952. Because of a limited market for canned mackerel, the 1963 catch was curtailed by canners imposing nightly quotas on the vessels. Mackerel was available to the fleet until late in 1963. Fishermen could have taken larger catches but canneries would not accept more than they could reasonably expect to market.

Sardines. The 1963 pack of Pacific sardines (57,000 cases valued at \$685,000) was the smallest since the fishery was in its early stages of development. The fishery, once the largest in the United States in volume of catch, just about reached the vanishing point in 1963. Sardines just failed to appear in the waters off California, and the catch amounted to only 7.1 million pounds.

The 1963 pack of Maine sardines (sea herring) amounted to 1.6 million cases valued at \$13.2 million. Fish were plentiful throughout the season; however, stocks of canned sardines became heavy, and canning was discontinued when the pack was 528,000 cases less than the 2.1 million cases canned in 1962.

## GENERAL REVIEW

**Clams.** The 1963 pack of clams and clam products amounted to 2.2 million cases valued at \$17.4 million. In 1962, the pack totaled 2.1 million cases valued at \$17.1 million. Whole and minced clams accounted for 25 percent of the pack; and chowders and juices, 75 percent.

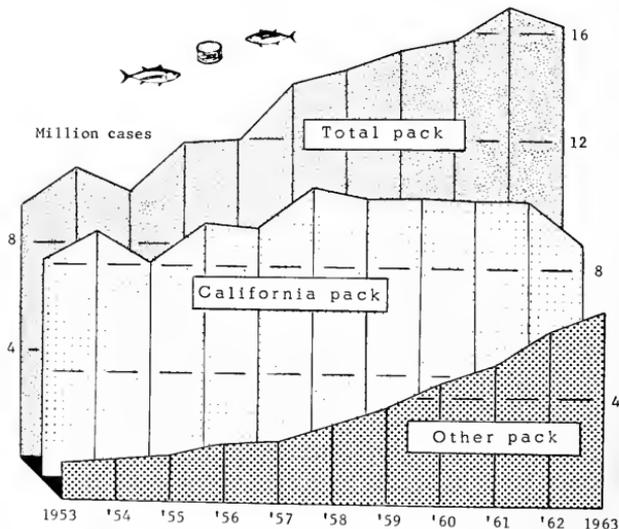
**Shrimp.** The 1963 pack of shrimp amounted to a record 1.1 million cases valued at \$19.5 million. Compared with 1962, production was up 20 percent in volume and 3 percent in value. The increase occurred in the Gulf States with Louisiana showing the largest gain. On the Pacific Coast, the pack was up a few thousand cases in Washington and Oregon but declined by about 20,000 cases in Alaska.

**Crabs.** A record pack of 377,000 cases of crab meat valued at an alltime high of \$10.3 million was canned in 1963. Compared with 1962, this was an increase of 89,000 cases and \$2.5 million. The pack of blue crab meat along the Atlantic and Gulf Coasts was up 8,500 cases. The combined packs of Dungeness and king crab meat in Washington and Oregon showed an increase of 12,500 cases. However, the large increase was in Alaska where the pack of king crab meat increased spectacularly from 187,000 cases in 1962 to 256,000 cases in 1963—a gain of 37 percent.

**Oysters.** The 1963 oyster pack totaled 446,000 cases valued at \$5.6 million compared with 322,000 cases valued at \$4.6 million in 1962. Production of oyster specialties (smoked, stew, bisque, and soup) amounted to 172,000 cases compared with 162,000 cases in 1962.

**Animal food.** The 1963 pack of animal food containing 10 pounds or more of raw fish per standard case (48 one pound cans) amounted to 6.4 million cases valued at \$39.0 million. Compared with 1962, this was a decline of 18 percent in volume and 15 percent in value. Not included in this report is a canned pack containing less than 10 pounds of fish per case, amounting to 4.1 million cases valued at \$16.7 million.

U. S. CANNED TUNA PACK, 1953-63



# GENERAL REVIEW

45

## SUMMARY OF PRODUCTION, BY COMMODITIES, 1963

PRODUCT	NUMBER OF PLANTS	STANDARD CASES	POUNDS PER CASE	POUNDS	VALUE
<b>CANNED PRODUCTS:</b>					
<b>FOR HUMAN CONSUMPTION:</b>					
SALMON . . . . .	118	3,294,857	48	158,153,136	\$87,962,799
SARDINES:					
MAINE . . . . .	27	1,619,235	23.4	37,890,099	13,243,902
PACIFIC . . . . .	7	57,072	45	2,568,240	685,037
TUNA:					
SOLID . . . . .	36	4,182,690	21	87,836,490	59,310,856
CHUNKS . . . . .	27	10,772,781	19.5	210,069,230	130,201,772
FLAKES AND GRATED . . . . .	26	1,600,349	18	28,906,282	12,075,023
TOTAL . . . . .	<u>1/37</u>	16,555,820	-	326,712,002	201,587,651
TUNALIKE FISH . . . . .	4	71,541	21-19.5-18	1,386,504	570,403
ALEWIVES . . . . .	9	93,933	45	4,226,985	374,563
MACAREL . . . . .	8	1,275,452	45	57,395,340	7,603,429
SHAD . . . . .	3	10,280	45	462,600	102,612
FISH CAKES (PRINCIPALLY GROUND FISH) . . . . .	8	71,586	48	3,436,128	969,895
GEMFLET FISH . . . . .	5	313,116	48	15,029,568	4,760,459
SALMON, SMOKED AND KIPPERED . . . . .	28	1,405	48	67,440	113,149
STURGEON, SMOKED, KIPPERED AND SPREADS . . . . .	14	721	48	34,608	48,182
TUNA SPECIALTIES . . . . .	10	47,066	48	2,259,168	598,826
ANCHOVY PASTE . . . . .	4	2,102	48	100,896	83,573
MISCELLANEOUS FISH SPECIALTIES . . . . .	23	118,090	48	5,668,320	1,622,572
FISH ROE AND CAVIAR . . . . .	27	53,598	48	2,572,704	2,102,130
TOTAL FISH . . . . .	-	23,585,874	-	617,963,738	322,429,182
CRAB MEAT . . . . .	39	377,255	19.5	7,356,472	10,322,026
CRAB MEAT SPECIALTIES . . . . .	12	11,096	48	532,608	185,771
LOBSTER MEAT AND SPECIALTIES . . . . .	6	11,345	46	544,560	274,328
SHRIMP . . . . .	40	1,060,297	15	2/15,904,455	19,531,170
SHRIMP SPECIALTIES . . . . .	11	8,817	48	423,216	201,400
CLAMS AND CLAM PRODUCTS:					
WHOLE . . . . .	11	6,552	15	128,280	104,280
MINCED . . . . .	25	59,796	15	3/8,096,940	6,269,885
CHOWDER . . . . .	14	1,580,292	30	3/47,408,760	10,543,307
JUICE . . . . .	10	103,565	30	3/3,107,550	531,551
TOTAL . . . . .	<u>1/41</u>	2,232,225	-	3/58,741,530	17,449,023
CLAM SPECIALTIES . . . . .	16	81,626	48	3,918,048	1,550,958
CONCH MEAT . . . . .	3	7,407	48	355,536	171,508
OYSTERS:					
OYSTER SPECIALTIES:	27	446,344	14	2/6,248,616	5,632,817
SMOKED . . . . .	8	893	48	42,864	92,739
STEWES . . . . .	7	168,762	48	8,100,576	2,349,608
BISQUE AND SOUPS . . . . .	5	1,895	48	90,960	33,117
SQUID . . . . .	8	149,307	48	7,166,736	621,156
TURTLE MEAT, SOUPS, AND STEWES . . . . .	7	14,333	48	687,984	262,622
MISCELLANEOUS SHELLFISH SPECIALTIES . . . . .	7	17,886	48	858,528	221,603
TOTAL SHELLFISH . . . . .	-	4,589,488	-	110,972,889	58,899,546
TOTAL FOR HUMAN CONSUMPTION . . . . .	-	28,175,362	-	728,936,627	381,329,028
BAIT AND ANIMAL FOOD:					
ANIMAL FOOD . . . . .	58	6,378,936	46	306,188,928	39,041,806
SALMON EGGS FOR BAIT . . . . .	7	16,321	48	783,408	1,235,808
TOTAL BAIT AND ANIMAL FOOD . . . . .	<u>1/65</u>	6,395,257	-	306,972,336	40,277,614
GRAND TOTAL . . . . .	<u>1/377</u>	34,570,619	-	1,035,908,963	421,606,642

1/ EXCLUSIVE OF DUPLICATION.

2/ DRAINED WEIGHT.

3/ "CUT OUT" OR "DRAINED" WEIGHTS OF CAN CONTENTS ARE GIVEN FOR WHOLE OR MINCED CLAMS, AND NET CAN CONTENTS FOR OTHER CLAM PRODUCTS.

NOTE:--LISTS OF CANNERS OF FISHERY PRODUCTS BY INDIVIDUAL COMMODITIES MAY BE OBTAINED FROM THE OFFICE OF INFORMATION, U.S. FISH AND WILDLIFE SERVICE, WASHINGTON, D.C. 20240.

## GENERAL REVIEW

## SUMMARY OF PRODUCTION, BY STATES, 1963

STATE	CANNED FISHERY PRODUCTS	
	POUNDS	VALUE
MAINE . . . . .	61,233,75	\$19,223,631
MASSACHUSETTS, RHODE ISLAND AND CONNECTICUT . . . . .	47,347,474	5,810,784
NEW YORK . . . . .	10,247,795	4,365,007
NEW JERSEY . . . . .	39,349,351	12,592,096
PENNSYLVANIA AND DELAWARE . . . . .	12,556,041	4,297,740
MARYLAND . . . . .	17,762,210	8,259,742
VIRGINIA . . . . .	7,759,596	961,453
NORTH CAROLINA . . . . .	1,126,254	565,871
SOUTH CAROLINA . . . . .	1,401,932	1,393,291
FLORIDA AND ALABAMA . . . . .	464,396	697,729
MISSISSIPPI . . . . .	130,651,173	16,324,425
LOUISIANA . . . . .	13,464,720	14,992,164
TEXAS . . . . .	605,437	726,765
ILLINOIS . . . . .	5,884,464	399,937
KANSAS, MICHIGAN, NEBRASKA, OHIO, AND WISCONSIN . . . . .	12,357,024	1,417,373
ALASKA . . . . .	135,810,359	76,253,560
WASHINGTON . . . . .	50,368,697	28,659,377
OREGON . . . . .	37,265,916	19,754,998
CALIFORNIA . . . . .	324,090,614	131,466,618
HAWAII AND AMERICAN SAMOA . . . . .	32,258,039	19,855,471
PUERTO RICO . . . . .	95,462,883	51,269,400
TOTAL . . . . .	1,035,906,963	421,606,642

## FACTORS USED TO CONVERT STANDARD CASES TO POUNDS

PRODUCT	PRIOR TO 1939	1939 AND 1940	1941	1942	1943
	POUNDS PER CASE				
SARDINES:					
MAINE . . . . .	25	25	25	20.3	20.3
PACIFIC . . . . .	48	48	48	45	45
TUNA AND TUNALIKE FISHES:					
SOLID . . . . .	24	24	21	22.5	22.5
CHUNKS . . . . .	-	-	-	-	-
FLAKES . . . . .	24	24	21	18	18
MACKEREL . . . . .	48	48	48	48	45
ALEWIVES . . . . .	48	48	48	45	45
ANCHOVIES . . . . .	48	48	48	45	45
SHAD . . . . .	48	48	48	48	48
FISH FLAKES . . . . .	48	48	48	48	48
OYSTERS . . . . .	15	15	15	15	22.5
SHRIMP, WET PACK . . . . .	17.25	17.25	17.25	21	21
CLAM PRODUCTS:					
WHOLE AND MINCED . . . . .	15	15	15	15	15
JUICE, CHOWDER, BROTH, ETC. . . . .	30	30	30	30	30
CPABS . . . . .	48	39	39	39	39
ALL OTHERS . . . . .	48	48	48	48	48

PRODUCT	1944 TO 1947	1948 TO 1951	1952	1953 TO 1957	1958 TO 1963
	POUNDS PER CASE				
SARDINES:					
MAINE . . . . .	20.5	20.3	20.3	20.3	23.4
PACIFIC . . . . .	45	45	45	45	45
TUNA AND TUNALIKE FISHES:					
SOLID . . . . .	21	21	21	21	21
CHUNKS . . . . .	(1)	(1)	19.5	19.5	19.5
FLAKES . . . . .	18	18	18	18	18
MACKEREL . . . . .	45	45	45	45	45
ALEWIVES . . . . .	45	45	45	45	45
ANCHOVIES . . . . .	48	48	48	31.25	31.25
SHAD . . . . .	45	45	45	45	45
FISH FLAKES . . . . .	42	42	42	48	48
OYSTERS . . . . .	22.5	14	14	14	14
SHRIMP, WET PACK . . . . .	21	15	15	15	15
CLAM PRODUCTS:					
WHOLE AND MINCED . . . . .	15	15	15	15	15
JUICE, CHOWDER, BROTH, ETC. . . . .	30	30	30	30	30
CPABS . . . . .	39	19.5	19.5	19.5	19.5
ALL OTHERS . . . . .	48	48	48	48	48

1/ PRIOR TO 1952 CHUNK PACK TUNA WAS INCLUDED WITH THE FLAKE PACK.

NOTE:--THE FACTORS LISTED ABOVE WERE USED IN CONVERTING THE STANDARD CASES REPORTED IN THE CANNED FISHERY PRODUCTS BULLETINS FOR THE YEARS INDICATED.

# GENERAL REVIEW

## PLANTS PRODUCING CANNED FISHERY PRODUCTS, 1963

AREA AND STATE	NUMBER OF PLANTS
<b>NEW ENGLAND:</b>	
MAINE . . . . .	35
MASSACHUSETTS . . . . .	7
RHODE ISLAND . . . . .	1
CONNECTICUT . . . . .	1
TOTAL . . . . .	44
<b>MIDDLE ATLANTIC:</b>	
NEW YORK . . . . .	12
NEW JERSEY . . . . .	14
PENNSYLVANIA . . . . .	8
DELAWARE . . . . .	1
TOTAL . . . . .	35
<b>CHESAPEAKE BAY:</b>	
MARYLAND . . . . .	6
VIRGINIA . . . . .	10
TOTAL . . . . .	16
<b>SOUTH ATLANTIC AND GULF:</b>	
NORTH CAROLINA . . . . .	6
SOUTH CAROLINA . . . . .	3
FLORIDA . . . . .	5
ALABAMA . . . . .	1
MISSISSIPPI . . . . .	13
LOUISIANA . . . . .	22
TEXAS . . . . .	3
TOTAL . . . . .	53
<b>GREAT LAKES AND MISSISSIPPI RIVER:</b>	
ILLINOIS . . . . .	3
IOWA . . . . .	1
KANSAS . . . . .	2
MICHIGAN . . . . .	2
NEBRASKA . . . . .	1
OHIO . . . . .	2
WISCONSIN . . . . .	4
TOTAL . . . . .	15
<b>PACIFIC COAST:</b>	
ALASKA . . . . .	100
WASHINGTON . . . . .	61
OREGON . . . . .	20
CALIFORNIA . . . . .	26
TOTAL . . . . .	207
HAWAII . . . . .	1
AMERICAN SAMOA . . . . .	2
PUERTO RICO . . . . .	4
GRAND TOTAL . . . . .	377

## GENERAL REVIEW

**PACK OF SALMON, BY STATES, 1963**  
(STANDARD CASES)

SPECIES AND CAN SIZE	ALASKA				WASHINGTON				OREGON				TOTAL			
	CASES	VALUE	CASES	VALUE	CASES	VALUE	CASES	VALUE	CASES	VALUE	CASES	VALUE	CASES	VALUE		
CHINOOK OR KING:																
1-POUND TALL.....	8,178	\$236,070	3,579	\$59,110	1,977	\$34,528	13,734	\$375,709								
1/2-POUND FLAT.....	29,031	1,159,150	10,117	397,771	1/ 37,624	1,700,975	6,072	3,277,896								
1/4-POUND FLAT.....	1,644	71,650	537	33,346	3,870	241,760	7,551	346,776								
4-POUND TALL.....	14	420	272	7,342	-	-	266	7,762								
TOTAL.....	39,867	1,467,290	14,505	493,569	43,471	2,027,263	96,843	3,986,142								
CHUM OR KETA:																
1-POUND TALL.....	389,710	7,038,560	20,815	394,363	1,694	30,492	412,219	8,063,435								
1/2-POUND FLAT.....	30,663	771,970	1,934	46,738	148	3,054	32,716	821,762								
1/4-POUND FLAT.....	5	10	-	-	-	-	5	70								
4-POUND TALL.....	12,336	263,850	5,099	141,754	-	-	17,495	405,594								
TOTAL.....	432,685	8,074,530	27,848	562,875	1,842	33,546	462,375	9,290,951								
PINK:																
1-POUND TALL.....	1,380,476	28,976,930	205,548	4,039,004	-	-	1,586,024	33,515,934								
1/2-POUND FLAT.....	136,360	3,732,680	154,884	4,172,623	216	5,992	291,460	7,911,295								
1/4-POUND FLAT.....	44	1,480	1,582	45,016	-	-	1,596	46,496								
4-POUND TALL.....	53,411	1,226,460	23,991	545,510	-	-	77,402	1,770,970								
TOTAL.....	1,570,291	33,937,530	385,975	9,301,153	216	5,992	1,956,462	43,244,695								
RED OR SOCKEYE:																
1-POUND TALL.....	253,070	9,156,550	3,526	128,229	-	-	256,596	9,280,779								
1/2-POUND FLAT.....	185,568	8,027,610	74,791	3,665,897	782	41,877	261,161	11,734,364								
1/4-POUND FLAT.....	3	2,042,300	3,060	2,452,040	862	53,959	10,937	4,508,397								
4-POUND TALL.....	9,665	339,020	1,268	47,464	-	-	10,933	387,684								
TOTAL.....	483,343	19,562,300	120,940	6,302,668	1,664	95,836	605,947	25,960,804								
SILVER OR COHO:																
1-POUND TALL.....	108,461	3,090,970	2,579	74,108	256	7,680	111,296	3,172,758								
1/2-POUND FLAT.....	14,761	493,560	10,969	366,005	3,359	117,921	29,089	977,466								
1/4-POUND FLAT.....	33	1,210	6,101	245,570	11,337	531,506	17,551	776,286								
4-POUND TALL.....	7,038	206,640	582	16,952	-	-	7,620	223,592								
TOTAL.....	130,293	3,792,380	20,311	702,635	14,952	657,107	165,556	5,152,122								
STEELHEAD:																
1-POUND TALL.....	-	-	-	-	348	10,106	348	10,106								
1/2-POUND FLAT.....	-	-	-	-	2,216	81,029	2,216	81,029								
1/4-POUND FLAT.....	-	-	-	-	5,090	234,950	5,090	234,950								
TOTAL.....	-	-	-	-	7,654	326,085	7,654	326,085								
GRAND TOTAL.....	2,655,479	67,434,050	569,579	17,362,900	69,799	3,145,849	3,294,857	87,962,799								

1/ INCLUDES A SMALL PACK PRODUCED IN CALIFORNIA.

NOTE:--"STANDARD CASES" REPRESENT THE VARIOUS SIZE CASES CONVERTED TO THE EQUIVALENT OF FORTY-EIGHT 1 POUND CANS. EACH CONTAINING 16 OUNCES. SALMON WERE CANNED IN 76 PLANTS IN ALASKA, 32 PLANTS IN WASHINGTON, 9 PLANTS IN OREGON AND 1 PLANT IN CALIFORNIA. THE PACK OF SMOKED SALMON IS INCLUDED IN THE TABLE "PACK OF MISCELLANEOUS FISHERY PRODUCTS".



## GENERAL REVIEW

## WASHINGTON AND OREGON SALMON PACK, BY DISTRICTS, 1963

(STANDARD CASES)

SPECIES	PUGET SOUND		COLUMBIA RIVER		COASTAL		TOTAL	
	CASES	VALUE	CASES	VALUE	CASES	VALUE	CASES	VALUE
CHINOOK OR KING . . . . .	5,439	\$108,021	52,213	\$2,399,052	324	\$13,779	57,976	\$2,520,852
CHUM OR KETA . . . . .	25,903	547,966	2,625	47,667	1,162	20,788	29,690	616,421
PINK . . . . .	365,562	9,290,411	-	-	629	16,754	366,191	9,307,145
RED OR SOCKEYE . . . . .	119,045	6,206,362	2,583	142,818	976	49,304	122,604	6,396,504
SILVER OR COHO . . . . .	17,607	626,230	17,299	727,394	157	6,118	35,263	1,359,742
STEELHEAD . . . . .	-	-	7,654	326,085	-	-	7,654	326,085
TOTAL . . . . .	553,756	16,779,010	82,374	3,643,016	3,248	106,723	639,378	20,528,749

NOTE:--"STANDARD CASES" REPRESENT THE VARIOUS SIZE CASES CONVERTED TO THE EQUIVALENT OF FORTY-EIGHT 1 POUND CANS, EACH CONTAINING 16 OUNCES.

## PUGET SOUND SALMON PACK, BY ORIGIN OF FISH, 1963

(STANDARD CASES)

SPECIES	PUGET SOUND FISH	CANADIAN FISH	ALASKAN FISH	TOTAL FISH
	CASES	CASES	CASES	CASES
CHINOOK OR KING . . . . .	1/ 5,439	-	-	5,439
CHUM OR KETA . . . . .	6,376	9,788	9,789	25,903
PINK . . . . .	366,238	-	19,324	365,562
RED OR SOCKEYE . . . . .	110,575	-	6,470	119,045
SILVER OR COHO . . . . .	15,125	-	2,662	17,607
TOTAL . . . . .	503,753	9,788	40,215	553,756

1/ INCLUDES A SMALL PACK FROM CANADIAN FISH.

NOTE:--"STANDARD CASES" REPRESENT THE VARIOUS SIZE CASES CONVERTED TO THE EQUIVALENT OF FORTY-EIGHT 1 POUND CANS, EACH CONTAINING 16 OUNCES.

## PACK OF MAINE SARDINES, 1963 1/

STYLE OF PACK	STANDARD CASES	VALUE	CAN CONTENTS AND CASE SIZE	ACTUAL CASES	VALUE
IN SOYBEAN OIL . . . . .	1,365,968	\$11,167,272	3-3/4 OUNCES NET (100 CANS) . . . . .	1,324,661	\$11,236,001
IN MUSTARD SAUCE . . . . .	186,177	1,523,454	12 OUNCES NET (48 CANS) . . . . .	6,475	61,452
IN TOMATO SAUCE . . . . .	38,604	263,746	15 OUNCES NET (48 CANS) . . . . .	27,866	265,277
OTHER (IN OLIVE OIL, PEANUT OIL, & WITH CHILI PEPPERS) . . . . .	28,486	269,430	OTHER SIZES CONVERTED TO STANDARD CASES . . . . .	231,024	1,681,172
TOTAL . . . . .	1,619,235	13,243,902	TOTAL . . . . .	1,590,026	13,243,902

1/ INCLUDES SEA HERRING.

NOTE:--"STANDARD CASES" REPRESENT THE VARIOUS SIZE CASES CONVERTED TO THE UNIFORM BASIS OF ONE HUNDRED 1/4 OIL CANS (3-3/4 OUNCES NET) TO THE CASE. SARDINES WERE CANNED IN 27 PLANTS IN MAINE.

## PACK OF PACIFIC SARDINES, 1963

STYLE OF PACK	STANDARD CASES	VALUE	CAN CONTENTS AND CASE SIZE	ACTUAL CASES	VALUE
IN TOMATO SAUCE . . . . .	30,876	\$303,630	1 POUND CAN: 15 OUNCES NET, OVAL (48 CANS)	39,488	\$386,761
IN MUSTARD SAUCE . . . . .	8,612	85,131	15 OUNCES NET, TALL (48 CANS)	6,908	44,617
OTHER 1/ . . . . .	17,584	296,276	OTHER SIZES CONVERTED TO STANDARD CASES . . . . .	10,676	251,659
TOTAL . . . . .	57,072	685,037	TOTAL . . . . .	57,072	685,037

1/ INCLUDES QUANTITIES PACKED IN BARBECUE SAUCE AND WITHOUT SAUCE.

NOTE:--"STANDARD CASES" REPRESENT THE VARIOUS SIZE CASES CONVERTED TO THE UNIFORM BASIS OF FORTY-EIGHT 1 POUND CANS, EACH CONTAINING 15 OUNCES NET WEIGHT. SARDINES WERE CANNED IN 7 PLANTS IN CALIFORNIA.

# GENERAL REVIEW

## PACK OF TUNA, 1963

(STANDARD CASES)

SPECIES	CALIFORNIA		WASHINGTON AND OREGON		ATLANTIC COAST, HAWAII, AND TERRITORIES		TOTAL	
	CASES	VALUE	CASES	VALUE	CASES	VALUE	CASES	VALUE
ALBACORE; SOLID PACK . . . . .	1,098,117	\$15,317,963	818,621	\$12,189,234	1,620,330	\$22,732,530	3,537,068	\$50,239,727
CHUNKS . . . . .	357,350	4,520,548	80,483	1,003,147	622,399	7,905,425	1,060,232	13,429,120
FLAKES AND GRATED . . . . .	230,658	1,756,423	121,696	967,461	316,517	2,278,174	668,871	5,002,058
TOTAL . . . . .	1,686,125	21,594,934	1,020,800	14,159,842	2,559,246	32,916,129	5,266,171	68,670,905
LIGHT MEAT; SOLID PACK 1/2 . . . . .	514,263	7,304,246	(2)	(2)	131,359	1,766,883	645,622	9,071,126
CHUNKS . . . . .	6,197,351	74,890,936	466,236	4,612,887	3,048,962	37,268,829	9,712,549	116,772,652
FLAKES AND GRATED . . . . .	677,015	5,162,684	(2)	(2)	254,463	1,910,281	931,478	7,072,965
TOTAL . . . . .	7,388,629	87,357,866	466,236	4,612,887	3,434,784	40,945,993	11,289,649	132,916,746
GRAND TOTAL . . . . .	9,074,754	106,952,800	1,487,036	18,772,729	5,994,030	73,862,122	16,555,820	201,587,651

1/ INCLUDES PACK OF TONNO.

2/ INCLUDED WITH CALIFORNIA PACK.

NOTES--"STANDARD CASES" REPRESENT THE VARIOUS SIZE CASES CONVERTED TO THE EQUIVALENT OF FORTY-EIGHT NO. 1/2 TUNA CANS TO THE CASE, EACH CONTAINING 7 OUNCES NET WEIGHT OF SOLID PACK, 6-1/2 OUNCES NET WEIGHT OF CHUNKS, AND 6 OUNCES NET WEIGHT OF FLAKES OR GRATED. THE PACK OF DIETETIC TUNA IS INCLUDED IN THESE TOTALS. TUNA WERE CANNED IN 11 PLANTS IN CALIFORNIA, 8 PLANTS IN OREGON, 8 PLANTS IN WASHINGTON, 4 PLANTS IN PUERTO RICO, 2 PLANTS EACH IN MARYLAND AND AMERICAN SAMOA, AND 1 PLANT EACH IN MAINE AND HAWAII. DATA ON THE PACK OF TUNA SPECIALTIES CAN BE FOUND IN THE TABLE "PACK OF MISCELLANEOUS FISHERY PRODUCTS." THE PACK OF TUNA FOR ANIMAL FOOD IS NOT INCLUDED IN THE ABOVE TABLE.

## PACK OF TUNA, BY CAN SIZES, 1963

CAN AND CASE SIZE	ACTUAL CASES	VALUE
4 POUND . . . . . (12 CANS)	178,783	\$4,659,007
1 POUND . . . . . (48 CANS)	416,433	9,266,734
1/2 POUND . . . . . (48 CANS)	13,620,088	163,768,168
1/4 POUND . . . . . (48 CANS)	964,698	8,347,853
4 OUNCES . . . . . (100 CANS)	58,611	923,310
9-1/4 OUNCES . . . . . (24 CANS)	1,675,578	14,590,813
OTHER SIZES (CONVERTED TO STANDARD CASES)	3,516	31,766
TOTAL . . . . .	16,917,707	201,587,651

## PACK OF TUNA, BY AREAS AND STATES, 1963

(STANDARD CASES)

AREA AND STATE	CASES	VALUE	AREA AND STATE	CASES	VALUE
ATLANTIC COAST, MAINE AND MARYLAND . . . . .	756,819	\$7,906,155	OTHER: HAWAII AND AMERICAN SAMOA . . . . .	1,429,900	\$19,057,290
PACIFIC COAST:			PUERTO RICO . . . . .	3,607,311	46,896,677
WASHINGTON . . . . .	407,085	4,229,842	TOTAL . . . . .	5,237,211	65,955,967
OREGON . . . . .	1,093,374	14,646,718			
CALIFORNIA . . . . .	9,061,331	106,848,969	GRAND TOTAL . . . . .	16,555,820	201,587,651
TOTAL . . . . .	10,561,790	127,725,529			

## PACK OF TUNALIKE FISHES, 1963

SPECIES	STANDARD CASES	VALUE
BONITO AND YELLOWTAIL, SOLID PACK, CHUNKS AND FLAKES OR GRATED . . . . .	71,541	\$570,403

NOTES--"STANDARD CASES" REPRESENT THE EQUIVALENT OF FORTY-EIGHT NO. 1/2 TUNA CANS TO THE CASE, EACH CONTAINING 7 OUNCES NET WEIGHT OF SOLID PACK, 6-1/2 OUNCES NET WEIGHT OF CHUNKS, AND 6 OUNCES NET WEIGHT OF FLAKES OR GRATED. TUNALIKE FISHES WERE CANNED IN 4 PLANTS IN CALIFORNIA.

## GENERAL REVIEW

## PACK OF ALEWIVES, 1963

STATE AND NUMBER OF PLANTS	STANDARD CASES	VALUE
MARYLAND (1), AND NORTH CAROLINA (2) . . . . .	5,457	\$24,304
VIRGINIA (6) . . . . .	88,476	350,259
TOTAL (9) . . . . .	93,933	374,563

NOTE:--"STANDARD CASES" REPRESENT THE VARIOUS SIZE CASES CONVERTED TO THE EQUIVALENT OF FORTY-EIGHT CANS OF 15 OUNCES EACH.

## PACK OF MACKEREL, 1963

ITEM	STANDARD CASES	VALUE
JACK MACKEREL:		
NATURAL . . . . .	739,025	\$4,202,682
IN TOMATO SAUCE 1/ . . . . .	138,890	1,041,692
TOTAL . . . . .	877,925	5,244,374
PACIFIC MACKEREL, NATURAL 2/ . . . . .	397,527	2,359,055
GRAND TOTAL . . . . .	1,275,452	7,603,429

1/ INCLUDES A SMALL PRODUCTION PACKED IN HOT SAUCE. 2/ INCLUDES A SMALL PRODUCTION PACKED IN TOMATO SAUCE.  
NOTE:--"STANDARD CASES" REPRESENT THE VARIOUS SIZE CASES CONVERTED TO THE EQUIVALENT OF FORTY-EIGHT CANS OF 15 OUNCES EACH. MOST OF THE PACK WAS CANNED IN 15 OUNCE CANS. MACKEREL WERE CANNED IN 8 PLANTS IN CALIFORNIA.

## PACK OF SHAD, 1963

STATE AND NUMBER OF PLANTS	STANDARD CASES	VALUE
OREGON (5) . . . . .	9,670	\$95,054
NORTH CAROLINA (1) AND WASHINGTON (2) . . . . .	610	7,558
TOTAL (8) . . . . .	10,280	102,612

NOTE:--"STANDARD CASES" REPRESENT THE VARIOUS SIZE CASES CONVERTED TO THE EQUIVALENT OF FORTY-EIGHT CANS OF 15 OUNCES EACH.

## PACK OF ANIMAL FOOD FROM FISHERY PRODUCTS, 1963

STATE AND NUMBER OF PLANTS	STANDARD CASES	VALUE	CAN CONTENTS AND CASE SIZE	ACTUAL CASES	VALUE
MAINE (2), MASSACHUSETTS (3), NEW JERSEY (1), PENN- SYLVANIA (3) . . . . .	900,620	\$4,536,476	6 OUNCES NET (48 CANS) . . . . .	212,542	\$710,853
MARYLAND (2), VIRGINIA (3) . . . . .	41,640	154,427	6-1/2 OUNCES NET (48 CANS) . . . . .	63,417	242,419
AND NORTH CAROLINA (1) . . . . .	99,826	724,669	8 OUNCES NET (48 CANS) . . . . .	3,995,626	17,263,059
ILLINOIS (2), MICHIGAN (1) . . . . .	301,725	1,451,423	15 OUNCES NET (48 CANS) . . . . .	2,788,884	12,084,965
AND WISCONSIN (2) . . . . .			15-1/2 OUNCES NET (48 CANS) . . . . .	672,565	3,088,891
OHIO (1), KANSAS (2), AND NEBRASKA (1) . . . . .	74,066	278,644	16 OUNCES NET (48 CANS) . . . . .	622,530	3,651,781
MISSISSIPPI (4) . . . . .	2,620,378	12,475,927	OTHER SIZES CONVERTED TO STANDARD CASES (16 OUNCES NET-48 CANS) . . . . .	387,001	1,999,838
WASHINGTON (3) . . . . .	66,956	423,888			
OREGON (6) . . . . .	227,601	1,371,755			
CALIFORNIA (14), HAWAII (1), AND AMERICAN SAMOA (2) . . . . .	1,618,937	13,249,844			
PUEERTO RICO (4) . . . . .	427,187	4,370,723			
TOTAL (58) . . . . .	6,378,936	39,041,806		8,742,565	39,041,806

NOTE:--EACH STANDARD CASE CONTAINS 10 OR MORE POUNDS OF FISH. AN ADDITIONAL PACK (4,143,405 STANDARD CASES VALUED AT \$16,732,929) HAD LESS THAN 10 POUNDS OF FISH PER STANDARD CASE AND IS NOT INCLUDED IN THE ABOVE PACK OF 6,473,081 STANDARD CASES. "STANDARD CASES" REPRESENT THE VARIOUS SIZE CASES CONVERTED TO THE EQUIVALENT OF FORTY-EIGHT CANS, EACH CONTAINING 16 OUNCES.

# GENERAL REVIEW

53

## PACK OF FISH ROE AND CAVIAR, 1963

PRODUCT AND NUMBER OF PLANTS	STANDARD CASES	VALUE	STATES OF PRODUCTION AND NUMBER OF PLANTS
ALEWIFE ROE (14) . . . . .	41,613	\$536,846	MARYLAND (1), VIRGINIA (9), AND NORTH CAROLINA (4)
SHAD ROE (8) . . . . .	2,206	153,188	CALIFORNIA (1), OREGON (5), AND WASHINGTON (2)
SALMON CAVIAR (4) . . . . .	4,847	426,036	NEW YORK (3), AND ALASKA (1)
WHITEFISH CAVIAR (4), LUMPFISH CAVIAR (1), AND STURGEON ROE (1)	4,932	986,060	NEW YORK (3), AND WISCONSIN (1)
TOTAL EDIBLE ROE AND CAVIAR (27) 1/ . . . . .	53,598	2,102,130	
SALMON EGGS FOR BAIT (7) . . . . .	16,321	1,235,608	WASHINGTON (7)
GRAND TOTAL (34) 1/ . . . . .	69,919	3,337,938	

1/ EXCLUSIVE OF DUPLICATION.

NOTE: --"STANDARD CASES" REPRESENT THE VARIOUS SIZE CASES CONVERTED TO THE EQUIVALENT OF FORTY-EIGHT CANS, EACH CONTAINING 16 OUNCES.

## PACK OF FISH ROE AND CAVIAR, BY STATES, 1963

STATE AND NUMBER OF PLANTS	STANDARD CASES	VALUE
NEW YORK (3) . . . . .	9,145	\$1,391,093
MARYLAND (1), AND VIRGINIA (9) . . . . .	32,913	417,646
NORTH CAROLINA (4) . . . . .	8,700	119,200
WASHINGTON (9) . . . . .	16,461	1,247,104
CALIFORNIA (1), OREGON (5), WISCONSIN (1), AND ALASKA (1) . . . . .	2,700	162,895
TOTAL (34) . . . . .	69,919	3,337,938

## PACK OF CRAB MEAT, 1963

STATE AND NUMBER OF PLANTS	SPECIES	STANDARD CASES	VALUE	CAN CONTENTS AND CASE SIZE	ACTUAL CASES	VALUE
ATLANTIC AND GULF STATES: MAINE (1), NORTH CAROLINA (1), SOUTH CAROLINA (1), ALABAMA (1), LOUISIANA (1), MISSISSIPPI (2), AND TEXAS (1) . . . . .	BLUE 1/	54,985	\$1,239,668	5 OUNCES NET (24 CANS) . . . . .	35,962	\$537,360
TOTAL (8) . . . . .		54,985	1,239,668	6-1/2 OUNCES NET (24 CANS) . . . . .	117,623	1,408,880
PACIFIC STATES: WASHINGTON (5), AND OREGON (2) . . . . .	DUNGNESS AND KING DUNGNESS KING	50,721	1,485,498	6-1/2 OUNCES NET (48 CANS) . . . . .	13,293	379,695
ALASKA (10) . . . . .		15,659	580,990	7-1/2 OUNCES NET (24 CANS) . . . . .	372,690	5,932,499
ALASKA (14) . . . . .	255,890	7,015,870	15 OUNCES NET (24 CANS) . . . . .	62,494	1,975,154	
TOTAL, EXCLUSIVE OF DUPLICATION (28) . . . . .		322,270	9,082,358	OTHER SIZES CONVERTED TO STANDARD CASES. . . . .	4,208	88,438
GRAND TOTAL (36) . . . . .		377,255	10,322,026	TOTAL . . . . .	606,270	10,322,026

1/ INCLUDES A SMALL QUANTITY OF ROCK CRABS PACKED IN MAINE.

NOTE: --"STANDARD CASES" REPRESENT THE VARIOUS SIZE CASES CONVERTED TO THE EQUIVALENT OF FORTY-EIGHT CANS TO THE CASE, EACH CONTAINING 6-1/2 OUNCES.

## GENERAL REVIEW

## PACK OF CLAMS AND CLAM PRODUCTS, 1963

(STANDARD CASES)

SPECIES	WHOLE AND MINCED		CHOWDER AND JUICE		TOTAL	
	CASES	VALUE	CASES	VALUE	CASES	VALUE
CLAMS:						
HARD, SOFT, AND SURF. . . . .	541,299	\$6,216,011	1,683,877	\$11,074,858	2,225,176	\$17,290,869
RAZOR . . . . .	7,049	156,154	-	-	7,049	156,154
TOTAL . . . . .	548,348	6,374,165	1,683,877	11,074,858	2,232,225	17,449,023

NOTE:--CLAMS WERE CANNED IN 11 PLANTS IN WASHINGTON, 7 PLANTS IN NEW JERSEY, 5 PLANTS IN MAINE, 4 PLANTS IN ALASKA, 3 PLANTS EACH IN NEW YORK AND OREGON, 2 PLANTS EACH IN MASSACHUSETTS AND PENNSYLVANIA, 1 PLANT EACH IN RHODE ISLAND, CONNECTICUT, DELAWARE AND MARYLAND. "STANDARD CASES" REPRESENT THE VARIOUS SIZE CASES CONVERTED TO THE EQUIVALENT OF 46 NO. 1 PINTIC CANS, EACH CAN OF WHOLE OR MINCED CLAMS CONTAINING 5 OUNCES OF MEAT, DRAINED WEIGHT; AND EACH CAN OF CHOWDER, JUICE, BROTH, BOUILLON, OR NECTAR, 10 DUNCES NET CONTENT. THE PACK OF CLAMS CANNED IN THE SHELL IS NOT INCLUDED IN THIS TABLE.

## CLAM PRODUCTION, BY TYPE OF PACK, 1963

PRODUCT AND NUMBER OF PLANTS	STANDARD CASES	POUNDS	VALUE
CLAMS:			
WHOLE (11) . . . . .	8,552	126,280	\$104,280
MINCED (25) . . . . .	539,796	8,096,940	6,269,885
CHOWDER (14) . . . . .	1,580,292	47,408,760	10,543,307
JUICE (INCLUDES BOUILLON, BROTH AND NECTAR) (10) . . . . .	103,585	3,107,550	531,551
TOTAL 1/ (41) . . . . .	2,232,225	58,741,530	17,449,023

1/ EXCLUSIVE OF DUPLICATION.

## PACK OF OYSTERS, 1963

STATE AND NUMBER OF PLANTS	STANDARD CASES	VALUE	CAN CONTENTS AND CASE SIZE	ACTUAL CASES	VALUE
ATLANTIC AND GULF STATES:			ATLANTIC AND GULF STATES:		
SOUTH CAROLINA (2) AND			4-2/3 OUNCES (24 CANS) . . .	645,786	\$3,943,035
ALABAMA (1) . . . . .	59,573	\$601,448	6-1/2 OUNCES (24 CANS) . . .	55,227	442,666
LOUISIANA (9) . . . . .	178,410	2,101,753	PACIFIC COAST STATES:		
MISSISSIPPI (10) . . . . .	139,494	1,646,583	4-2/3 OUNCES (24 CANS) . . .	46,821	391,910
TOTAL (22) . . . . .	372,477	4,549,784	6-1/2 OUNCES (24 CANS) . . .	72,049	687,923
PACIFIC COAST STATES:			OTHER SIZES CONVERTED TO		
WASHINGTON (4) AND			STANDARD CASES . . . . .	11,402	167,283
OREGON (1) . . . . .	73,667	1,063,033	GRAND TOTAL . . . . .	831,265	5,632,617
GRAND TOTAL (27) . . . . .	446,344	5,632,617			

NOTE:--"STANDARD CASES" REPRESENT THE VARIOUS SIZE CASES CONVERTED TO THE EQUIVALENT OF FORTY-EIGHT CANS TO THE CASE, EACH CAN CONTAINING 4-2/3 OUNCES OF OYSTER MEATS.

# GENERAL REVIEW

## PACK OF SHRIMP, 1963

STATE AND NUMBER OF PLANTS	STANDARD CASES	VALUE	CAN CONTENTS AND CASE SIZE	ACTUAL CASES	VALUE
<b>GULF STATES:</b>					
MISSISSIPPI (10) . . .	199,499	\$4,069,341	4-1/2 OUNCES (24 CANS) . . . . .	1,879,750	\$15,695,039
LOUISIANA (16) . . .	716,844	12,757,839	5-OUNCES (24 CANS) . . . . .	378,503	3,213,235
FLORIDA, WEST COAST (1), ALABAMA (1), AND TEXAS (3) . . . .	58,293	1,276,704	OTHER SIZES CONVERTED TO STANDARD CASES . . . . .	25,157	422,896
TOTAL (31) . . . . .	974,636	18,103,884			
<b>PACIFIC STATES:</b>					
WASHINGTON (2), AND OREGON (2) . . . . .	23,712	379,716			
ALASKA (5) . . . . .	61,949	1,047,570			
TOTAL (9) . . . . .	85,661	1,427,286			
<b>GRAND TOTAL (40)</b> . . . . .	<b>1,060,297</b>	<b>19,531,170</b>	<b>TOTAL . . . . .</b>	<b>2,283,410</b>	<b>19,531,170</b>

NOTE:--"STANDARD CASES" REPRESENT THE VARIOUS SIZE CASES CONVERTED TO THE EQUIVALENT OF FORTY-EIGHT CANS TO THE CASE EACH CONTAINING 5 OUNCES OF SHRIMP MEATS.

## PACK OF MISCELLANEOUS FISHERY PRODUCTS, 1963

PRODUCT	STANDARD CASES	VALUE	LOCATION AND NUMBER OF PLANTS
<b>FISH:</b>			
ANCHOVY PASTE . . . . .	2,102	\$83,573	NEW YORK (2), MARYLAND (1), AND MICHIGAN (1)
CAKES (PRINCIPALLY GROUND FISH) . . .	71,566	969,895	MAINE (1), MASSACHUSETTS (1), AND NEW JERSEY (1)
GEFFILFISH . . . . .	313,116	4,760,459	NEW YORK (2) AND NEW JERSEY (3)
HERRING SPECIALTIES (BITS, CREAMED DIPS AND SAUCES) . . . . .	10,476	307,340	MAINE (2) AND NEW YORK (1)
<b>SALMON:</b>			
SMOKED AND KIPPERED . . . . .	1,405	113,149	WASHINGTON (13), OREGON (4), CALIFORNIA (1), AND ALASKA (10)
SPECIALTIES (DIPS, SPREADS AND SALTED LIVERS) . . . . .	147	8,226	MAINE (1), WASHINGTON (1), AND OREGON (1)
STURGEON, SMOKED, KIPPERED, AND SPREADS . . . . .	721	48,182	WASHINGTON (8) AND OREGON (6)
TUNA SPECIALTIES (WITH NOODLES, VEGETABLES, SAUCES, AND SMOKED) . .	47,066	598,826	MAINE (1), PENNSYLVANIA (1), WASHINGTON (2), OREGON (2), AND CALIFORNIA (4)
OTHER (ANCHOVIES, HALIBUT, MULLET, WAHOO, WHITEFISH, SALTED CODFISH, AND OTHER FISH, IN APPETIZERS, BITES, CHOWDERS, CREAMED, AND FLAKES) AND OTHER FISH SPECIALTIES	107,467	1,307,006	MAINE (3), MASSACHUSETTS (1), NEW JERSEY (3), FLORIDA, EAST COAST (1), FLORIDA, WEST COAST (2), MICHIGAN (1), WASHINGTON (1), ALASKA (1) CALIFORNIA (1), AND AMERICAN SAMOA (2)
TOTAL FISH . . . . .	554,086	8,196,656	
<b>SHELLFISH:</b>			
CRAB SPECIALTIES (BISQUE, COCK- TAILS, DEVILED, DIP, SMOKED, SOFT-SHELL, SOUPS AND SPREADS) . . .	11,096	185,771	MAINE (1), NEW JERSEY (1), PENNSYLVANIA (1), MARYLAND (2), SOUTH CAROLINA (1), LOUISIANA (1), WASHINGTON (2), AND OREGON (3)
LOBSTER SPECIALTIES (MEAT, DEVILED, DIPS, NEWBURG, SAUCE, SOUPS, SPREADS, AND THERMIDOR) . . . . .	11,345	274,328	MAINE (1), CONNECTICUT (1), NEW JERSEY (2), MARYLAND (1), AND PENNSYLVANIA (1)
SHRIMP SPECIALTIES (COCKTAILS, DIPS, PICKLED SAUCE, SOUPS, SPREADS AND STEWS) . . . . .	8,817	201,400	MAINE (1), NEW JERSEY (2), MARYLAND (1), PENNSYLVANIA (1), LOUISIANA (3), WASHINGTON (1), AND OREGON (2)
CLAM SPECIALTIES (CAKES, DIPS, FRITTERS, A LA KING, SPREADS, IN THE SHELL, SMOKED SOUPS AND STEW) . . . . .	81,626	1,550,958	MAINE (2), MASSACHUSETTS (1), CONNECTICUT (1), NEW YORK (1), NEW JERSEY (2), PENNSYLVANIA (1), DELAWARE (1), MARYLAND (2), WASHINGTON (4), AND OREGON (1)
CONCH MEAT . . . . .	7,407	171,508	NEW YORK (1), NEW JERSEY (1), AND DELAWARE (1)
OSTER SPECIALTIES: SMOKED . . . . .	893	92,739	WASHINGTON (8)
STEW . . . . .	168,762	2,349,608	NEW JERSEY (1), MARYLAND (1), SOUTH CAROLINA (1), WASHINGTON (3), AND OREGON (1)
BISQUE, SOUPS, AND CASSEROLES . .	1,895	33,117	NEW JERSEY (1), LOUISIANA (2), AND WASHINGTON (2)
SQUID . . . . .	149,307	621,156	NEW YORK (1), NEW JERSEY (1), AND CALIFORNIA (6)
TURTLE MEAT, SOUPS AND STEWS . . .	14,333	262,622	NEW JERSEY (1), PENNSYLVANIA (2), FLORIDA, WEST COAST (1), LOUISIANA (2), AND OHIO (1)
OTHER SPECIALTIES (CONCH CHOWDER, CRAWFISH BISQUE, CREOLE GUMBO, MUSSELS WHOLE AND IN BISQUE, AND UNCLASSIFIED SHELLFISH IN SOUPS AND CHOWDERS) . . . . .	17,886	221,603	MAINE (1), CONNECTICUT (1), NEW YORK (1), NEW JERSEY (1), FLORIDA, WEST COAST (1), AND LOUISIANA (2)
TOTAL SHELLFISH . . . . .	473,367	5,964,610	
<b>GRAND TOTAL . . . . .</b>	<b>1,027,453</b>	<b>14,161,466</b>	

NOTE:--"STANDARD CASES" REPRESENT THE VARIOUS SIZE CASES CONVERTED TO THE EQUIVALENT OF FORTY-EIGHT CANS, EACH CONTAINING 16 OUNCES NET WEIGHT.

## INDUSTRIAL FISHERY PRODUCTS

The production of industrial fishery products by 153 plants in the United States, American Samoa, and Puerto Rico in 1963 was valued at \$68.6 million. Compared with 1962, this was a decrease of \$7.1 million.

**Marine animal scrap and meal.** The 1963 production of 255,907 tons was 13 percent less than the 312,259 tons manufactured in 1962 and the smallest production since 1958. Menhaden scrap and meal (184,205 tons) was nearly 55,500 tons less than in 1962. There was a shortage of menhaden in 1963 and the catch was less than in 1962. However, imports of meal (376,000 tons) were received in record volume and the supply (domestic production plus imports) totaled 632,000 tons, the largest in history.

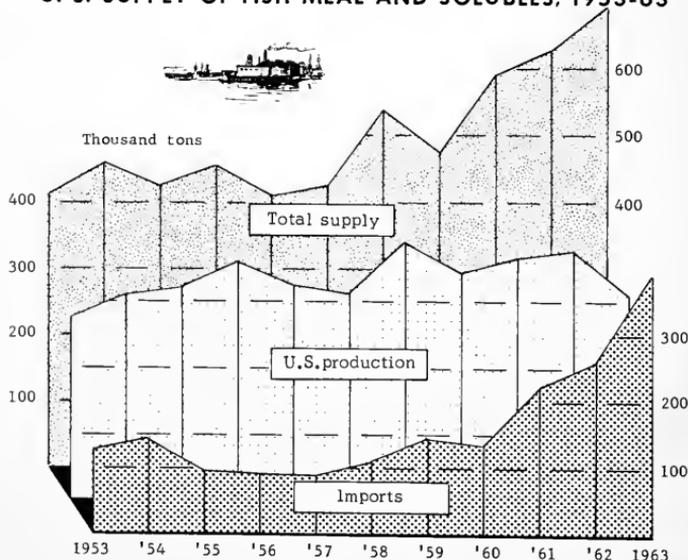
**Marine animal oil.** Domestic production of marine animal oil fell from 250 million pounds in 1962 to 186 million pounds in 1963. Despite the decline in the catch, the production of menhaden oil (168 million pounds) accounted for 90 percent of the fish oil manufactured in 1963. A record 262 million pounds of fish oils were exported in 1963. Unlike 1962 when there was difficulty in marketing fish oils, conditions changed in 1963. Demand for fish oils increased and prices rose sharply.

**Solubles and homogenized condensed fish.** The 1963 production of solubles and homogenized condensed fish amounted to 107,000 tons--14 percent less than in the previous year. The production was far below the record 165,000 tons manufactured in 1959.

**Other industrial products.** Products from oyster shells and buttons from fresh-water and marine mollusk shells were valued at \$7.0 million in 1963. Compared with the previous year, this was a decrease of \$1.5 million.

Other industrial products manufactured in 1963 included agar-agar, fish feed pellets and animal feeds, glue, Irish moss extract, kelp products, liquid fertilizer, pearl essence, and crab shells valued at \$13.8 million. In the previous year, other industrial products were valued at \$13.9 million.

## U. S. SUPPLY OF FISH MEAL AND SOLUBLES, 1953-63



# GENERAL REVIEW

## SUMMARY OF PRODUCTION, BY COMMODITIES, 1963

PRODUCTS	NUMBER OF PLANTS	UNIT	QUANTITY	VALUE
MARINE ANIMAL SCRAP AND MEAL. . . . .	99	TONS	255,907	\$30,235,149
MARINE ANIMAL OILS:				
BODY OIL. . . . .	66	THOUSAND POUNDS	165,802	10,824,382
LIVER OIL. . . . .	4	DO	25	29,070
FISH SOLUBLES AND HOMOGENIZED CONDENSED FISH.	36	TONS	107,402	6,753,065
MARINE PEARL SHELL BUTTONS. . . . .	9	GROSS	499,978	1,151,549
MUSSEL SHELL BUTTONS. . . . .	8	DO	280,991	369,020
OYSTER SHELL GRIT AND LIME ("LIVE AND REEF SHELLS"). . . . .	16	TONS	396,583	5,479,819
MISCELLANEOUS INDUSTRIAL PRODUCTS. . . . .	22	-	-	13,759,174
TOTAL. . . . .	1/153	-	-	68,601,228

1/ EXCLUSIVE OF DUPLICATION.

NOTE:--LISTS OF MANUFACTURERS OF FISHERY INDUSTRIAL PRODUCTS BY INDIVIDUAL COMMODITIES MAY BE OBTAINED FROM THE OFFICE OF INFORMATION, U.S. FISH AND WILDLIFE SERVICE, WASHINGTON, D.C. 20240.

## SUMMARY OF PRODUCTION, BY STATES, 1963

STATE	VALUE
MAINE. . . . .	\$5,229,998
MASSACHUSETTS, RHODE ISLAND, AND CONNECTICUT. . . . .	2,647,409
NEW YORK. . . . .	2,441,403
NEW JERSEY. . . . .	4,295,046
PENNSYLVANIA AND DELAWARE. . . . .	1,858,274
MARYLAND. . . . .	1,411,205
VIRGINIA. . . . .	5,695,961
NORTH CAROLINA. . . . .	4,134,971
GEORGIA, FLORIDA, AND ALABAMA. . . . .	2,691,718
MISSISSIPPI. . . . .	5,565,584
LOUISIANA. . . . .	13,116,176
TEXAS AND IOWA. . . . .	3,748,030
ALASKA. . . . .	507,490
WASHINGTON. . . . .	405,217
OREGON. . . . .	717,952
CALIFORNIA. . . . .	13,431,296
AMERICAN SAMOA AND PUERTO RICO. . . . .	703,496
TOTAL. . . . .	68,601,228

## PLANTS PRODUCING INDUSTRIAL FISHERY PRODUCTS, 1963

AREA AND STATE	NUMBER	AREA AND STATE	NUMBER
NEW ENGLAND:		SOUTH ATLANTIC:	
MAINE. . . . .	13	NORTH CAROLINA. . . . .	14
MASSACHUSETTS. . . . .	5	GEORGIA. . . . .	1
RHODE ISLAND. . . . .	1	FLORIDA. . . . .	6
CONNECTICUT. . . . .	1	ALABAMA. . . . .	1
TOTAL. . . . .	20	MISSISSIPPI. . . . .	4
		LOUISIANA. . . . .	9
		TEXAS. . . . .	4
		TOTAL. . . . .	39
MIDDLE ATLANTIC:		MISSISSIPPI RIVER, IOWA. . . . .	6
NEW YORK. . . . .	4		
NEW JERSEY. . . . .	12	PACIFIC COAST:	
PENNSYLVANIA. . . . .	2	ALASKA. . . . .	1
DELAWARE. . . . .	2	WASHINGTON. . . . .	12
TOTAL. . . . .	20	OREGON. . . . .	5
		CALIFORNIA. . . . .	22
		TOTAL. . . . .	40
CHESAPEAKE:		AMERICAN SAMOA. . . . .	2
MARYLAND. . . . .	8	PUERTO RICO. . . . .	3
VIRGINIA. . . . .	15		
TOTAL. . . . .	23	GRAND TOTAL. . . . .	153

## GENERAL REVIEW

## NUMBER OF PLANTS PRODUCING INDUSTRIAL FISHERY PRODUCTS, 1963

PRODUCTS	ATLANTIC AND GULF COASTS <sup>1/</sup>	PACIFIC COAST <sup>2/</sup>	TOTAL
	NUMBER	NUMBER	NUMBER
SCRAP AND MEAL, OILED:			
ALEWIFE . . . . .	3	-	3
CRAB . . . . .	15	-	17
OCEAN PERCH . . . . .	1	-	1
HERRING, SEA . . . . .	7	-	9
MENHADEN . . . . .	31	-	31
SALMON . . . . .	-	2	2
SARDINE, PACIFIC . . . . .	-	2	2
SHRIMP . . . . .	2	-	3
TUNA AND MACKEREL . . . . .	1	18	19
WHALE . . . . .	-	3	3
UNCLASSIFIED . . . . .	22	8	30
OIL:			
BODY:			
ALEWIFE . . . . .	4	-	4
OCEAN PERCH . . . . .	1	-	1
HERRING, SEA . . . . .	2	2	4
MENHADEN . . . . .	31	-	31
SALMON:			
EDIBLE . . . . .	-	5	5
INDUSTRIAL . . . . .	-	1	1
SARDINE, PACIFIC . . . . .	-	2	2
TUNA AND MACKEREL . . . . .	-	12	12
WHALE:			
SERM . . . . .	-	2	2
OTHER . . . . .	-	3	3
UNCLASSIFIED . . . . .	11	4	15
LIVER:			
SHARK . . . . .	1	1	2
SKIPJACK . . . . .	1	-	1
TUNA . . . . .	-	2	2
MUSSEL SHELL PRODUCTS (FRESH- WATER):			
BUTTONS . . . . .	8	-	8
OYSTER SHELL PRODUCTS:			
CRUSHED SHELL FOR POULTRY FEED . . . . .	9	5	14
SHELL LIME:			
BURNED . . . . .	2	-	2
UNBURNED . . . . .	7	5	12
MARINE PEARL SHELL BUTTONS . . . . .	9	-	9
AGAR-AGAR . . . . .	-	1	1
FISH SOLUBLES AND HOMOGENIZED CONDENSED FISH . . . . .	30	8	38
GLUE . . . . .	1	-	1
IRISH MOSS EXTRACTS . . . . .	2	-	2
KELP PRODUCTS . . . . .	1	3	4
LIQUID FERTILIZER . . . . .	-	4	4
PEARL ESSENCE . . . . .	6	-	6
CRAB SHELLS (FOR DEVILED CRAB MEAT) . . . . .	3	-	3
ANIMAL FEEDS . . . . .	-	1	1
FISH FOOD PELLETS . . . . .	-	3	3
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	108	45	153

<sup>1/</sup> INCLUDES FIRMS IN THE MISSISSIPPI RIVER AREA.

<sup>2/</sup> INCLUDES AMERICAN SAMOA AND PUERTO RICO.

NOTE:—LISTS OF MANUFACTURERS OF INDUSTRIAL FISHERY PRODUCTS BY INDIVIDUAL COMMODITIES MAY BE OBTAINED FROM THE OFFICE OF INFORMATION, U.S. FISH AND WILDLIFE SERVICE, WASHINGTON, D. C. 20240



# GENERAL REVIEW

## PRODUCTION OF MARINE ANIMAL SCRAP AND MEAL, 1963

PRODUCT	ATLANTIC AND GULF COASTS		PACIFIC COAST AND TERRITORIES		TOTAL	
	TONS	VALUE	TONS	VALUE	TONS	VALUE
DRIED SCRAP AND MEAL:						
ALEWIFE . . . . .	713	\$90,126	-	-	713	\$90,126
CRAB . . . . .	1/7,610	1/334,289	(1)	(1)	7,610	334,289
HERRING . . . . .	4,878	516,332	2,659	\$340,100	7,537	856,432
MENHADEN . . . . .	164,205	22,263,320	-	-	164,205	22,263,320
SHRIMP . . . . .	1/247	1/15,857	(1)	(1)	247	15,857
TUNA AND MACKEREL . . . . .	(2)	(2)	2/26,957	2/2,943,109	26,957	2,943,109
WHALE . . . . .	-	-	1,318	153,040	1,318	153,040
UNCLASSIFIED . . . . .	3/25,240	3/3,366,419	4/2,080*	4/212,557	27,320	3,578,976
<b>TOTAL . . . . .</b>	<b>222,893</b>	<b>26,586,343</b>	<b>33,014</b>	<b>3,648,806</b>	<b>255,907</b>	<b>30,235,149</b>

1/ A SMALL WEST COAST PRODUCTION IS INCLUDED WITH THE WEST COAST PRODUCTION.

2/ A SMALL EAST COAST PRODUCTION IS INCLUDED WITH THE WEST COAST PRODUCTION.

3/ INCLUDES OCEAN PERCH MEAL AND SCRAP.

4/ INCLUDES PACIFIC SARDINE AND SALMON MEAL AND SCRAP.

## PRODUCTION OF MARINE ANIMAL OIL, 1963

PRODUCT	ATLANTIC AND GULF COASTS		PACIFIC COAST AND PUERTO RICO		TOTAL	
	THOUSAND POUNDS	VALUE	THOUSAND POUNDS	VALUE	THOUSAND POUNDS	VALUE
BODY OIL:						
ALEWIFE . . . . .	322	\$20,249	-	-	322	\$20,249
HERRING . . . . .	(1)	(1)	1/5,709	1/\$292,966	5,709	292,966
MENHADEN . . . . .	167,635	9,853,302	-	-	167,635	9,853,302
SALMON . . . . .	-	-	645	53,346	645	53,346
TUNA AND MACKEREL . . . . .	-	-	5,903	273,901	5,903	273,901
WHALE . . . . .	-	-	-	-	-	-
SPERM . . . . .	-	-	700	57,943	700	57,943
OTHER . . . . .	-	-	1,429	90,473	1,429	90,473
UNCLASSIFIED . . . . .	2/2,887	2/153,182	3/572	3/29,020	3,459	182,202
<b>TOTAL . . . . .</b>	<b>170,844</b>	<b>10,026,733</b>	<b>14,958</b>	<b>797,649</b>	<b>185,802</b>	<b>10,824,382</b>
LIVER OIL, (TUNA, SHARK, MIXED). . . . .	(1)	(1)	25	29,070	25	29,070
<b>GRAND TOTAL . . . . .</b>	<b>170,844</b>	<b>10,026,733</b>	<b>14,983</b>	<b>826,719</b>	<b>185,827</b>	<b>10,853,452</b>

1/ EAST COAST PRODUCTION INCLUDED WITH WEST COAST PRODUCTION.

2/ INCLUDES OCEAN PERCH OIL.

3/ INCLUDES ANCHOVY AND SARDINE OIL.

## PRODUCTION OF FISH SOLUBLES AND HOMOGENIZED CONDENSED FISH, 1963

PRODUCT, STATE, AND NUMBER OF PLANTS	TONS	VALUE
FISH SOLUBLES:		
MAINE (2), MASSACHUSETTS (2) . . . . .	2,882	\$170,396
NEW YORK (1), NEW JERSEY (3) . . . . .	12,637	673,146
VIRGINIA (5) . . . . .	14,496	1,026,459
NORTH CAROLINA (4), EAST COAST OF FLORIDA (1) . . . . .	8,653	472,940
MISSISSIPPI (3), TEXAS (1) . . . . .	16,522	956,647
LOUISIANA (7) . . . . .	25,390	1,485,076
OREGON (1), AND CALIFORNIA (7) . . . . .	19,598	1,351,501
<b>TOTAL (37) . . . . .</b>	<b>100,178</b>	<b>6,175,145</b>
HOMOGENIZED CONDENSED FISH, RHODE ISLAND (1) . . . . .	7,224	577,920
<b>GRAND TOTAL (38) . . . . .</b>	<b>107,402</b>	<b>6,753,065</b>

NOTE--INCLUDES MENHADEN SOLUBLES.

## GENERAL REVIEW

## PRODUCTION OF MENHADEN PRODUCTS, 1963

STATE AND NUMBER OF PLANTS	DRY SCRAP AND MEAL		OIL		SOLUBLES		TOTAL
	TONS	VALUE	POUNDS	VALUE	TONS	VALUE	VALUE
NEW YORK (1), NEW JERSEY (3), AND DELAWARE (2) . . . . .	36,515	\$4,244,590	39,811,238	\$2,146,386	10,204	\$534,465	\$6,925,441
VIRGINIA (5) . . . . .	25,163	3,140,195	14,473,125	954,560	14,062	997,829	5,092,584
NORTH CAROLINA (9) FLORIDA (1) . . . . .	22,472	2,809,000	15,838,536	1,015,520	8,653	472,940	4,297,460
MISSISSIPPI (3) . . . . .	25,121	3,027,079	29,578,317	1,705,634	12,055	727,646	5,460,359
LOUISIANA (7) AND TEXAS (1) . . . . .	74,934	9,042,456	67,933,400	4,031,202	29,657	1,753,077	14,826,735
TOTAL (32) . . . . .	184,205	22,263,320	167,634,616	9,853,302	74,831	4,485,957	36,602,579

NOTE:--INCLUDES A SMALL QUANTITY OF OTHER SPECIES.

PRODUCTION OF OYSTER SHELL PRODUCTS, 1963  
(“LIVE AND REEF SHELLS”)

STATE AND NUMBER OF PLANTS	POULTRY GRIT		LIME, BURNED AND UNBURNED		TOTAL	
	TONS	VALUE	TONS	VALUE	TONS	VALUE
NEW JERSEY (1), PENNSYLVANIA (1), MARYLAND (2), AND VIRGINIA (3) . . . . .	58,990	\$1,083,331	36,444	\$299,216	95,434	\$1,382,547
FLORIDA (1), ALABAMA (1), AND TEXAS (2) . . . . .	245,100	3,539,222	39,337	328,605	284,437	3,867,827
WASHINGTON (3), OREGON (1), AND CALIFORNIA (1) . . . . .	16,656	208,679	1,856	20,766	18,712	229,445
TOTAL (16) . . . . .	320,946	4,831,232	77,637	648,587	398,583	5,479,819

## PRODUCTION OF FRESH-WATER MUSSEL SHELL BUTTONS, 1963

STATE AND NUMBER OF PLANTS	BUTTONS	
	GROSS	VALUE
IOWA (6), NEW JERSEY (1), AND PENNSYLVANIA (1) . . . . .	280,991	\$369,020

## PRODUCTION OF MARINE PEARL SHELL BUTTONS, 1963

STATE AND NUMBER OF PLANTS	GROSS	VALUE
	CONNECTICUT (1), NEW YORK (1), AND PENNSYLVANIA (1) . . . . .	211,230
NEW JERSEY (6) . . . . .	288,748	771,363
TOTAL (9) . . . . .	499,978	1,151,549

## PRODUCTION OF MISCELLANEOUS INDUSTRIAL FISHERY PRODUCTS, 1963

PRODUCTS	STATE AND NUMBER OF PLANTS	VALUE
AGAR-AGAR . . . . .	CALIFORNIA (1) . . . . .	} \$13,759,174
FISH FEED PELLETS AND ANIMAL FEEDS . . . . .	WASHINGTON (2), OREGON (1) . . . . .	
FISH GLUE . . . . .	MASSACHUSETTS (1) . . . . .	
IRISH MOSS EXTRACT . . . . .	MAINE (2) . . . . .	
KELP PRODUCTS . . . . .	MAINE (1), CALIFORNIA (3) . . . . .	
LIQUID FERTILIZER . . . . .	WASHINGTON (1), OREGON (1), CALIFORNIA (1) . . . . .	
PEARL ESSENCE . . . . .	MAINE (5), MASSACHUSETTS (1) . . . . .	
CRAB SHELLS (FOR DEVILED CRAB MEAT) . . . . .	WEST COAST OF FLORIDA (2), TEXAS (1) . . . . .	

## PACKAGED FISHERY PRODUCTS

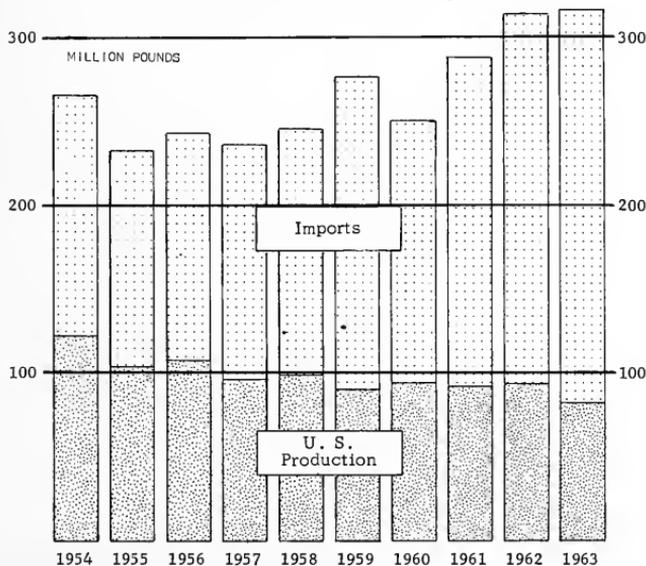
The production of fresh and frozen packaged fish fillets and steaks in the United States, excluding Alaska and Hawaii, during 1963 totaled 166.0 million pounds valued at \$57.5 million to the processors. Compared with the previous year, this was a decrease of 5.5 million pounds and \$1.8 million.

Flounder fillets (45.9 million pounds), haddock fillets (36.7 million pounds) and Atlantic ocean perch fillets (30.2 million pounds) continued to be the leading items and accounted for 68 percent of the total volume and 66 percent of the total value. Halibut and cod fillets and steaks were among other important leading items. The New England area continued to lead all other areas in the production of packaged fish with more than 67 percent of the total volume and 61 percent of the value.

Preliminary data on the production of packaged fish during 1963 have been published in Current Fishery Statistics No. 3455.



### SUPPLY OF GROUND FISH FILLETS, 1954-63



## GENERAL REVIEW

## SUMMARY OF PRODUCTION OF PACKAGED FISH, 1963

ITEM	FILLETS		STEAKS		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
FRESH . . . . .	73,962,993	\$27,790,401	634,219	\$152,119	74,597,212	\$27,942,520
FROZEN . . . . .	83,337,990	25,452,202	8,049,331	4,065,976	91,387,321	29,518,178
TOTAL . . . . .	157,300,983	53,242,603	8,683,550	4,218,095	165,984,533	57,460,698



## PRODUCTION OF FRESH AND FROZEN PACKAGED FISH, BY SECTIONS, 1963

SPECIES	NEW ENGLAND		MIDDLE ATLANTIC		CHESAPEAKE, SOUTH ATLANTIC, AND GULF	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
COD . . . . .	5,910,803	\$1,751,315	2,575,287	\$1,183,291	-	-
CUSH . . . . .	262,712	82,264	-	-	-	-
FLOWNERS . . . . .	31,063,478	10,043,307	4,789,316	2,656,069	64,000	\$41,600
GROUPE . . . . .	-	-	-	-	779,728	326,537
HADDOCK . . . . .	35,476,266	12,705,249	1,231,547	578,734	-	-
HAKE . . . . .	277,014	81,894	43,000	15,050	-	-
HALIBUT . . . . .	424,200	194,604	-	-	-	-
MACKEREL . . . . .	18,162	5,462	-	-	-	-
OCEAN PERCH, ATLANTIC . . . . .	30,250,021	8,490,261	-	-	-	-
POLLOCK . . . . .	5,447,156	1,059,612	-	-	-	-
SALMON . . . . .	58,750	43,640	-	-	-	-
SNAPPER, RED . . . . .	-	-	-	-	402,046	305,751
SPANISH MACKEREL . . . . .	-	-	-	-	903,534	297,752
SWORDFISH . . . . .	107,850	49,800	-	-	74,000	26,000
WHITING . . . . .	2,404,526	534,950	-	-	-	-
WOLFFISH . . . . .	235,914	80,376	-	-	-	-
UNCLASSIFIED . . . . .	27,111	34,230	47,000	18,360	407,212	265,669
TOTAL . . . . .	111,963,972	35,155,906	8,686,150	4,451,524	2,633,520	1,263,309

SPECIES	GREAT LAKES		PACIFIC COAST	
	POUNDS	VALUE	POUNDS	VALUE
COD . . . . .	-	-	1,045,657	\$460,549
FLOWNERS . . . . .	-	-	9,976,724	3,685,205
HALIBUT . . . . .	-	-	6,465,616	4,292,725
HERRING, LAKE . . . . .	39,390	\$10,344	-	-
LAKE TROUT . . . . .	52,003	46,512	-	-
LINGCOD . . . . .	-	-	1,175,683	264,923
OCEAN PERCH, PACIFIC . . . . .	-	-	6,994,643	1,645,906
PIKE OR PICKEREL . . . . .	49,735	23,412	-	-
ROCKFISHES . . . . .	-	-	5,270,258	1,246,344
SALMON . . . . .	-	-	1,018,318	743,655
SAUGER . . . . .	757,800	616,031	-	-
SWORDFISH . . . . .	-	-	684,831	347,565
WHITE BASS . . . . .	159,500	79,775	-	-
WHITEFISH . . . . .	404,311	280,876	-	-
YELLOW PERCH . . . . .	4,137,553	1,706,030	-	-
YELLOW PIKE . . . . .	1,139,284	893,956	-	-
UNCLASSIFIED . . . . .	112,550	93,840	303,634	111,227
TOTAL . . . . .	6,852,126	3,750,778	35,851,764	12,618,101

# GENERAL REVIEW

## PRODUCTION OF PACKAGED FISH, BY METHOD OF PREPARATION, 1963

SPECIES	FILLETS			
	FRESH		FROZEN	
	POUNDS	VALUE	POUNDS	VALUE
COD . . . . .	6,834,850	\$2,462,969	3,007,174	\$602,338
CUSK . . . . .	211,034	55,465	51,675	15,799
FLOWNDERS . . . . .	26,979,310	11,107,087	16,914,205	5,319,114
GROUPEFS . . . . .	235,150	105,840	296,466	146,346
HADDOCK . . . . .	23,504,612	9,008,045	13,103,201	4,275,956
HAKE . . . . .	282,534	85,911	37,460	11,033
HALIBUT . . . . .	-	-	3,269,366	1,607,401
HERRING, LAKE . . . . .	20,150	5,268	19,240	5,076
LAKE TROUT . . . . .	34,358	32,627	7,645	13,665
LINGCOD . . . . .	570,220	131,748	503,463	153,175
MACKEREL . . . . .	18,162	5,482	-	-
OCEAN PERCH:				
ATLANTIC . . . . .	286,846	87,321	29,963,175	8,402,940
PACIFIC . . . . .	2,598,826	587,557	4,395,817	1,056,351
PIKE OR PICKEREL . . . . .	49,735	23,412	-	-
POLLOCK . . . . .	1,477,366	346,133	3,969,790	713,479
ROCKFISHES . . . . .	3,501,936	798,824	1,766,322	447,520
SAUGER . . . . .	508,500	417,805	249,300	196,226
SNAPPER, RED . . . . .	107,407	98,716	294,639	207,035
SPANISH MACKEREL . . . . .	53,334	20,117	650,200	277,635
WHITE BASS . . . . .	104,500	52,225	55,000	27,530
WHITEFISH . . . . .	308,071	224,812	96,240	56,064
WHITING . . . . .	9,322	2,213	2,395,204	532,737
WOLFFISH . . . . .	26,610	9,854	209,304	70,522
YELLOW PERCH . . . . .	3,229,240	1,337,405	906,313	366,625
YELLOW PIKE . . . . .	627,759	503,599	511,525	390,359
UNCLASSIFIED . . . . .	263,161	265,752	351,218	151,252
TOTAL . . . . .	73,962,993	27,790,401	83,337,990	25,452,202

SPECIES	STEAKS, FRESH AND FROZEN		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE
	COD . . . . .	589,723	\$129,834	10,491,747
CUSK . . . . .	-	-	262,712	62,254
FLOWNDERS . . . . .	-	-	45,893,518	16,426,201
GROUPEFS . . . . .	248,110	74,349	779,728	326,537
HADDOCK . . . . .	-	-	36,707,813	13,283,983
HAKE . . . . .	-	-	320,014	96,944
HALIBUT . . . . .	5,638,630	2,679,926	6,908,016	4,487,329
HERRING, LAKE . . . . .	-	-	39,390	10,344
LAKE TROUT . . . . .	-	-	52,003	46,512
LINGCOD . . . . .	-	-	1,173,683	284,923
MACKEREL . . . . .	-	-	18,162	5,482
OCEAN PERCH:				
ATLANTIC . . . . .	-	-	30,250,021	6,490,261
PACIFIC . . . . .	-	-	6,994,643	1,645,908
PIKE OR PICKEREL . . . . .	-	-	49,735	23,412
POLLOCK . . . . .	-	-	5,447,156	1,059,612
ROCKFISHES . . . . .	-	-	5,270,258	1,246,344
SALMON . . . . .	1,077,068	767,295	1,077,068	767,295
SAUGER . . . . .	-	-	757,800	616,031
SNAPPER, RED . . . . .	-	-	402,046	305,751
SPANISH MACKEREL . . . . .	-	-	903,534	297,752
SWORDFISH . . . . .	866,691	423,365	866,691	423,365
WHITE BASS . . . . .	-	-	159,500	79,775
WHITEFISH . . . . .	-	-	404,311	260,876
WHITING . . . . .	-	-	2,404,526	534,950
WOLFFISH . . . . .	-	-	235,914	80,376
YELLOW PERCH . . . . .	-	-	4,137,553	1,706,030
YELLOW PIKE . . . . .	-	-	1,139,264	693,958
UNCLASSIFIED . . . . .	263,328	123,324	697,707	543,526
TOTAL . . . . .	8,683,550	4,218,095	165,984,533	57,450,698

## GENERAL REVIEW

## PRODUCTION OF FISH STICKS, 1963

MONTH	COOKED	RAW	TOTAL
	<u>THOUSAND POUNDS</u>	<u>THOUSAND POUNDS</u>	<u>THOUSAND POUNDS</u>
JANUARY . . . . .	7,213	341	7,554
FEBRUARY . . . . .	7,782	459	8,241
MARCH . . . . .	7,668	365	8,053
APRIL . . . . .	6,249	297	6,546
MAY . . . . .	5,369	381	5,750
JUNE . . . . .	5,826	297	6,125
JULY . . . . .	4,489	381	4,870
AUGUST . . . . .	5,427	269	5,696
SEPTEMBER . . . . .	5,336	229	5,665
OCTOBER . . . . .	7,200	928	8,128
NOVEMBER . . . . .	6,026	445	6,471
DECEMBER . . . . .	5,530	473	6,003
TOTAL . . . . .	74,137	5,165	79,302
	<u>THOUSAND DOLLARS</u>	<u>THOUSAND DOLLARS</u>	<u>THOUSAND DOLLARS</u>
TOTAL VALUE-YEAR . . . . .	29,734	1,856	31,590

NOTE:--A FISH STICK IS AN ELONGATED PIECE OF FISH FLESH (GENERALLY CUT FROM A BLOCK OF FILLETS) WEIGHING NOT LESS THAN 3/4 OF AN OUNCE AND NOT MORE THAN 1-1/4 OUNCES WITH THE LARGEST DIMENSION AT LEAST THREE TIMES THAT OF THE NEXT LARGEST DIMENSION.

## PRODUCTION OF FISH PORTIONS, 1963

MONTH	BREADED			UNBREADED	TOTAL
	COOKED	RAW	TOTAL		
	<u>THOUSAND POUNDS</u>				
JANUARY . . . . .	1,416	6,563	7,979	194	8,173
FEBRUARY . . . . .	1,317	5,746	7,063	298	7,361
MARCH . . . . .	1,406	7,107	8,513	322	8,835
APRIL . . . . .	1,466	6,271	7,737	182	7,919
MAY . . . . .	1,769	5,246	7,015	278	7,293
JUNE . . . . .	846	7,749	8,595	179	8,774
JULY . . . . .	830	3,462	4,312	212	4,524
AUGUST . . . . .	1,156	5,264	6,420	264	6,684
SEPTEMBER . . . . .	1,846	7,475	9,321	300	9,621
OCTOBER . . . . .	2,001	7,554	9,555	322	9,877
NOVEMBER . . . . .	1,448	6,397	7,845	291	8,136
DECEMBER . . . . .	1,122	6,113	7,235	212	7,447
TOTAL . . . . .	16,623	74,967	91,590	3,054	94,644
	<u>THOUSAND DOLLARS</u>				
TOTAL VALUE-YEAR . . . . .	6,846	26,099	32,945	1,035	33,980

NOTE:--A FISH PORTION IS A PIECE OF FISH FLESH GENERALLY OF UNIFORM SIZE AND GENERALLY CUT FROM A BLOCK OF FILLETS. IT HAS A THICKNESS, INCLUDING THE BATTER, OF 3/8 OF AN INCH OR MORE, AND DOES NOT CONFORM TO THE DEFINITION OF A FISH STICK.

## FROZEN FISHERY TRADE

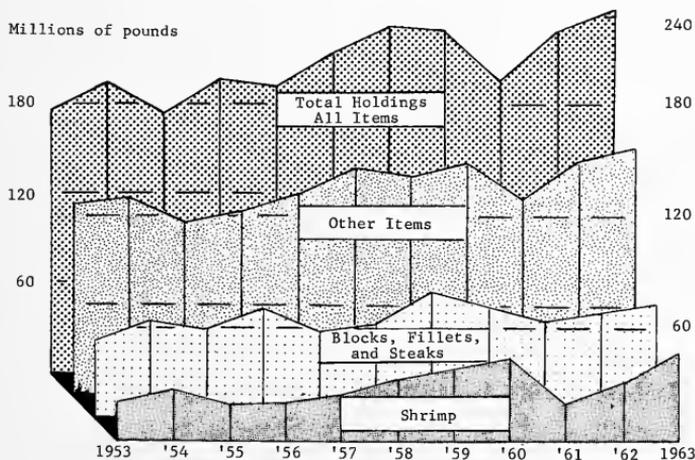
The 1963 production of frozen fish and shellfish by firms reporting monthly to the Bureau of Commercial Fisheries totaled 351.5 million pounds. Leading products frozen were shrimp (112.5 million pounds); bait and animal food (60.0 million pounds); blocks, fillets, and steaks consisting largely of ocean perch and haddock (59.7 million pounds); halibut (32.8 million pounds); and whiting, headed and gutted (21.5 million pounds). An estimated 569.4 million pounds of fish and shellfish (live weight) were required to produce the 351.5 million pounds of frozen fishery items

The New England area led all other areas in freezings with 131.3 million pounds or 37 percent of the total, followed by the South Central area with 76.8 million pounds; South Atlantic area with 44.6 million pounds; Pacific area, 43.7 million pounds; and Alaska with 43.7 million pounds. The Middle Atlantic, North Central East, and North Central West accounted for the remainder.

Data on the freezings and holdings of fishery products for 1963, by firms supplying monthly data on their operations, and a list of cold storage warehouses freezing and storing fishery products were published previously in Current Fishery Statistics No. 3451. Data on freezings and holdings were also published in the preliminary monthly bulletin, Frozen Fish Report, and in the final monthly report, Frozen Fishery Products, which are also in the Current Fishery Statistics series.

In addition to the production of frozen fishery items by cold storage plants reporting to the Bureau, a considerable volume of frozen fillets and steaks is produced by firms operating plate freezers at the end of fillet production lines and by freezers not reporting to the Bureau. Data assembled in the packaged fish survey for 1963 indicates that about 23 million pounds of fillets and steaks were frozen by these firms. An estimated 66.5 million pounds of fish (live weight) were required to produce these items.

### HOLDINGS OF FROZEN FISHERY PRODUCTS, 1953 - 63 (ON DECEMBER 31)



## GENERAL REVIEW

## SUMMARY OF FREEZINGS, BY MONTHS, 1963

(THOUSANDS OF POUNDS)

SPECIES	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
FISH	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
SALT-WATER:						
BLOCKS . . . . .	55	103	197	319	61	127
FILLETS AND STEAKS:						
COO . . . . .	143	192	124	223	460	314
FLOUNDER . . . . .	707	355	303	494	1,225	1,058
HADDOCK . . . . .	365	509	1,318	2,060	1,110	1,320
HALIBUT . . . . .	-	-	-	63	113	476
OCEAN PERCH . . . . .	1,105	1,422	1,789	1,715	3,363	3,882
POLLOCK . . . . .	143	77	59	77	212	182
SALMON . . . . .	-	-	-	-	1	4
WHITING . . . . .	-	-	10	33	32	504
UNCLASSIFIED . . . . .	135	100	152	243	321	221
TOTAL FILLETS AND STEAKS . . . .	2,618	2,655	3,755	4,908	6,858	7,971
TOTAL BLOCKS, FILLETS AND STEAKS	2,673	2,758	3,952	5,227	6,919	8,098
ROUND, DRESSED, ETC.:						
HALIBUT . . . . .	-	-	-	4,245	8,487	5,771
MACKEREL (EXCEPT SPANISH) . . .	1	21	7	23	75	27
SABLEFISH . . . . .	162	5	7	49	99	116
SALMON:						
CHINOOK OR KING . . . . .	-	-	-	58	462	561
SILVER OR COHO . . . . .	-	-	-	-	1	100
CHUM OR KETA . . . . .	-	-	-	-	-	17
OTHER . . . . .	-	-	-	-	124	283
TOTAL SALMON . . . . .	-	-	-	58	587	961
SMELT . . . . .	4	37	6	48	15	5
SWORDFISH . . . . .	-	-	-	1	80	13
TUNA . . . . .	1	1	20	-	22	8
WHITING, HEADED AND GUTTED . . .	-	-	71	337	295	5,051
OTHER (EXCEPT BAIT) . . . . .	2,372	2,064	2,503	2,308	1,867	1,695
TOTAL SALT-WATER FISH . . . . .	5,213	4,886	6,566	12,296	18,465	21,745
FRESH-WATER:						
FILLETS AND STEAKS . . . . .	6	-	-	1	1	1
ROUND, DRESSED, ETC.:						
CHUBS . . . . .	9	-	-	2	102	5
TROUT . . . . .	40	56	46	55	104	59
WHITEFISH . . . . .	9	-	45	13	33	5
OTHER (EXCEPT BAIT) . . . . .	4	20	19	64	235	137
TOTAL FRESH-WATER FISH . . . . .	68	76	110	135	475	207
BAIT AND ANIMAL FOOD (SALT- AND FRESH-WATER) . . . . .	1,857	2,078	3,560	3,878	8,241	9,863
SHELLFISH						
CRABS (INCLUDING CRAB MEAT) . . . .	178	188	187	457	167	515
SPINY LOBSTER (TAILS) . . . . .	71	45	45	31	195	43
OYSTER MEATS . . . . .	124	163	524	251	287	44
SCALLOP MEATS . . . . .	92	115	76	149	333	417
SHRIMP:						
RAW (HEADLESS, SHELL-ON) . . . . .	2,217	2,289	2,234	2,038	3,154	4,033
ALL OTHER (INCLUDING BREADED) . . .	5,757	5,332	4,920	4,218	3,734	3,182
TOTAL SHRIMP . . . . .	7,974	7,621	7,154	6,256	6,888	7,215
SQUID . . . . .	42	139	21	45	1,004	151
OTHER . . . . .	46	63	82	103	191	161
TOTAL SHELLFISH . . . . .	8,527	8,334	8,089	7,292	9,066	8,566
TOTAL FISH AND SHELLFISH . . . . .	15,665	15,374	18,325	23,601	36,248	40,381

SEE NOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# GENERAL REVIEW

## SUMMARY OF FREEZINGS, BY MONTHS, 1963 - Continued

(THOUSANDS OF POUNDS)

SPECIES	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
FISH	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
SALT-WATER: BLOCKS . . . . .	221	433	193	255	28	33	2,025
FILLETS AND STEAKS:							
COD . . . . .	371	170	261	58	77	39	2,432
FLOUNDER . . . . .	1,353	1,388	990	1,451	753	371	10,459
HADDOCK . . . . .	784	1,150	783	922	360	123	10,824
HALIBUT . . . . .	421	208	295	243	9	-	1,828
OCEAN PERCH . . . . .	3,048	3,357	1,852	1,994	1,338	1,139	26,024
POLLOCK . . . . .	40	34	57	225	411	192	1,709
SALMON . . . . .	4	-	-	-	25	-	34
WHITING . . . . .	657	216	184	207	101	5	1,979
UNCLASSIFIED . . . . .	253	277	219	147	145	160	2,373
TOTAL FILLETS AND STEAKS . . . . .	6,961	6,800	4,641	5,247	3,219	2,029	57,662
TOTAL BLOCKS, FILLETS, AND STEAKS	7,182	7,233	4,834	5,502	3,247	2,062	59,687
ROUND, DRESSED, ETC.:							
HALIBUT . . . . .	7,983	3,311	1,807	1,012	198	-	32,814
MACKEREL (EXCEPT SPANISH) . . . . .	155	443	91	26	9	17	875
SABLEFISH . . . . .	173	385	1,009	520	332	63	2,920
SALMON:							
CHINOOK OR KING . . . . .	647	792	1,127	737	56	56	4,496
SILVER OR COHO . . . . .	2,156	1,931	1,472	303	29	-	5,992
CHUM OR KETA . . . . .	116	90	488	353	863	15	1,942
OTHER . . . . .	1,257	561	908	17	-	-	3,145
TOTAL SALMON . . . . .	4,176	3,374	3,990	1,410	948	71	15,575
SMELT . . . . .	41	9	14	17	16	30	242
SWORDFISH . . . . .	42	51	313	51	10	-	561
TUNA . . . . .	444	390	2,324	155	7	1	3,373
WHITING, HEADED AND GUTTED . . . . .	6,840	4,557	1,552	2,234	587	19	21,543
OTHER (EXCEPT BAIT) . . . . .	1,645	1,385	1,902	2,743	2,063	2,097	24,664
TOTAL SALT-WATER FISH . . . . .	28,661	21,138	17,836	13,670	7,417	4,360	162,254
FRESH-WATER:							
FILLETS AND STEAKS . . . . .	-	-	3	67	10	-	89
ROUND, DRESSED, ETC.:							
CHUBS . . . . .	9	40	95	106	1	4	373
TROUT . . . . .	99	75	69	82	73	58	816
WHITEFISH . . . . .	-	-	10	11	1	1	128
OTHER (EXCEPT BAIT) . . . . .	173	107	76	137	103	201	1,276
TOTAL FRESH-WATER FISH . . . . .	281	222	253	403	188	264	2,682
BAIT AND ANIMAL FOOD (SALT- AND FRESH-WATER) . . . . .	6,841	7,145	5,921	5,467	2,872	2,270	59,993
SHELLFISH							
CRABS (INCLUDING CRAB MEAT) . . . . .	639	759	800	625	381	464	5,360
SPINY LOBSTER (TAILS) . . . . .	-	-	-	18	36	20	505
OYSTER MEATS . . . . .	18	22	53	82	53	54	1,675
SCALLOP MEATS . . . . .	262	193	177	120	298	164	2,396
SHRIMP:							
RAW (HEADLESS, SHELL-ON) . . . . .	5,585	6,929	6,325	6,643	4,754	3,957	50,158
ALL OTHER (INCLUDING BREADED) . . . . .	5,789	7,279	6,401	5,889	5,247	4,590	62,338
TOTAL SHRIMP . . . . .	11,374	14,208	12,726	12,532	10,001	8,547	112,496
SQUID . . . . .	55	118	32	39	184	127	1,957
OTHER . . . . .	313	141	787	71	42	128	2,148
TOTAL SHELLFISH . . . . .	12,661	15,441	14,575	13,487	10,995	9,504	126,537
TOTAL FISH AND SHELLFISH . . . . .	48,444	43,946	38,585	33,027	21,472	16,398	351,466

NOTE:--PRODUCTION OF FISH FROZEN ON UNITED STATES FISHING OR TRANSPORTING CRAFT IS NOT INCLUDED IN THIS REPORT.

## GENERAL REVIEW

## SUMMARY OF FREEZINGS, BY SECTIONS, 1963

(THOUSANDS OF POUNDS)

SPECIES	NEW ENGLAND	MIDDLE ATLANTIC	SOUTH ATLANTIC	NORTH CENTRAL EAST	NORTH CENTRAL WEST
	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
FISH					
SALT-WATER:					
BLOCKS . . . . .	1,922	3	41	-	-
FILLETS AND STEAKS:					
COD . . . . .	1,663	7	20	-	-
FLOUNDER . . . . .	9,581	-	31	-	-
Haddock . . . . .	10,821	3	-	-	-
OCEAN PERCH . . . . .	25,111	-	-	-	-
POLLOCK . . . . .	1,709	-	-	-	-
WHITING . . . . .	1,978	1	-	-	-
UNCLASSIFIED . . . . .	551	25	126	-	2
TOTAL FILLETS AND STEAKS . . . . .	51,414	36	177	-	2
TOTAL BLOCKS, FILLETS, AND STEAKS . . . . .	53,336	39	218	-	2
ROUND, DRESSED, ETC.:					
HALIBUT . . . . .	19	21	-	-	-
MACKEREL (EXCEPT SPANISH) . . . . .	553	171	-	-	-
SALMON:					
SILVER OR COHO . . . . .	-	-	-	-	1
OTHER . . . . .	-	32	-	-	-
TOTAL SALMON . . . . .	-	32	-	-	1
SMELT . . . . .	33	107	-	36	-
SWORDFISH . . . . .	437	25	-	-	-
TUNA . . . . .	1,874	7	-	-	-
WHITING, HEADED AND GUTTED . . . . .	21,340	202	-	-	-
OTHER (EXCEPT BAIT) . . . . .	11,191	2,656	3,559	1	3
TOTAL SALT-WATER FISH . . . . .	86,783	3,260	3,777	39	6
FRESH-WATER:					
FILLETS AND STEAKS . . . . .	-	-	-	13	75
ROUND, DRESSED, ETC.:					
CHUBS . . . . .	-	147	-	70	156
TROUT . . . . .	-	3	1	3	2
WHITEFISH . . . . .	-	124	-	-	4
OTHER (EXCEPT BAIT) . . . . .	57	405	139	333	255
TOTAL FRESH-WATER FISH . . . . .	57	679	140	419	492
BAIT AND ANIMAL FOOD (SALT- AND FRESH-WATER) . . . . .	36,349	2,706	736	805	255
SHELLFISH					
CRABS (INCLUDING CRAB MEAT) . . . . .	-	-	245	-	-
SPINY LOBSTER (TAILS) . . . . .	29	1	110	-	3
OYSTER MEATS . . . . .	6	-	994	-	2
SCALLOP MEATS . . . . .	2,203	107	43	-	-
SHRIMP:					
RAW (HEADLESS, SHELL-ON) . . . . .	79	1,268	8,366	-	2
ALL OTHER (INCLUDING BREADED) . . . . .	3	6	30,110	-	-
TOTAL SHRIMP . . . . .	82	1,274	38,476	-	2
SQUID . . . . .	586	963	2	-	-
OTHER . . . . .	1,242	309	56	-	-
TOTAL SHELLFISH . . . . .	4,148	2,654	39,926	-	7
TOTAL FISH AND SHELLFISH . . . . .	131,337	9,299	44,579	1,263	760

NOTE:--THE SECTIONS INDICATED INCLUDE THE FOLLOWING STATES:  
 NEW ENGLAND--MAINE, MASSACHUSETTS, RHODE ISLAND, AND CONNECTICUT.  
 MIDDLE ATLANTIC--NEW YORK, NEW JERSEY, AND PENNSYLVANIA.  
 SOUTH ATLANTIC--MARYLAND, DISTRICT OF COLUMBIA, VIRGINIA, NORTH CAROLINA, GEORGIA, AND FLORIDA.  
 NORTH CENTRAL, EAST--OHIO, INDIANA, ILLINOIS, MICHIGAN, AND WISCONSIN.  
 NORTH CENTRAL, WEST--MINNESOTA, IOWA, MISSOURI, NORTH DAKOTA, NEBRASKA, AND KANSAS.

(CONTINUED ON NEXT PAGE)

# GENERAL REVIEW

69

## SUMMARY OF FREEZINGS, BY SECTIONS, 1963 - Continued

(THOUSANDS OF POUNDS)

SPECIES	SOUTH CENTRAL	PACIFIC	ALASKA	TOTAL
FISH	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>
SALT-WATER:				
BLOCKS . . . . .	-	59	-	2,025
FILLETS AND STEAKS:				
COD . . . . .	-	733	9	2,432
FLOUNDER . . . . .	138	709	-	10,459
HADDOCK . . . . .	-	-	-	10,824
HALIBUT . . . . .	-	554	1,274	1,828
OCEAN PERCH . . . . .	-	913	-	26,024
POLLOCK . . . . .	-	-	-	1,709
SALMON . . . . .	-	9	25	34
WHITING . . . . .	-	-	-	1,979
UNCLASSIFIED . . . . .	76	1,582	11	2,373
TOTAL FILLETS AND STEAKS . . . . .	214	4,500	1,319	57,662
TOTAL BLOCKS, FILLETS, AND STEAKS . . . . .	214	4,559	1,319	59,687
ROUND, DRESSED, ETC.:				
HALIBUT . . . . .	-	9,744	23,030	32,814
MACKEREL (EXCEPT SPANISH) . . . . .	-	151	-	875
SABLEFISH . . . . .	-	1,847	1,073	2,920
SALMON:				
CHINOOK OR KING . . . . .	-	2,262	2,234	4,496
SILVER OR COHO . . . . .	-	2,094	3,897	5,992
CHUM OR KETA . . . . .	-	1,321	621	1,942
OTHER . . . . .	-	1,625	1,488	3,145
TOTAL SALMON . . . . .	-	7,302	8,240	15,575
SMELT . . . . .	-	64	-	242
SWORDFISH . . . . .	-	99	-	561
TUNA . . . . .	-	1,492	-	3,373
WHITING, HEADED AND GUTTED . . . . .	1	-	-	21,543
OTHER (EXCEPT BAIT) . . . . .	5,025	2,168	61	24,664
TOTAL SALT-WATER FISH . . . . .	5,240	27,426	33,723	162,254
FRESH-WATER:				
FILLETS AND STEAKS . . . . .	-	1	-	89
ROUND, DRESSED, ETC.:				
CHUBS . . . . .	-	-	-	373
TROUT . . . . .	39	765	3	816
WHITEFISH . . . . .	-	-	-	128
OTHER (EXCEPT BAIT) . . . . .	85	2	-	1,272
TOTAL FRESH-WATER FISH . . . . .	124	768	3	2,682
BAIT AND ANIMAL FOOD (SALT- AND FRESH-WATER) . . . . .	549	11,918	4,675	59,993
SHELLFISH				
CRABS (INCLUDING CRAB MEAT) . . . . .	167	758	4,190	5,360
SPINY LOBSTER (TAILS) . . . . .	163	199	-	505
OYSTER MEATS . . . . .	518	155	-	1,675
SCALLOP MEATS . . . . .	14	29	-	2,396
SHRIMP:				
RAW (HEADLESS, SHELL-ON) . . . . .	39,185	844	414	50,158
ALL OTHER (INCLUDING BREADED) . . . . .	30,705	788	726	62,338
TOTAL SHRIMP . . . . .	69,890	1,632	1,140	112,496
SQUID . . . . .	118	268	-	1,957
OTHER . . . . .	30	511	-	2,148
TOTAL SHELLFISH . . . . .	70,900	3,572	5,330	126,537
TOTAL FISH AND SHELLFISH . . . . .	76,813	43,684	43,731	351,466

NOTE:--THE SECTIONS INDICATED INCLUDE THE FOLLOWING STATES:  
 SOUTH CENTRAL--KENTUCKY, TENNESSEE, ALABAMA, MISSISSIPPI, LOUISIANA, TEXAS, OKLAHOMA, AND ARKANSAS.  
 PACIFIC--WASHINGTON, OREGON, CALIFORNIA, ARIZONA, COLORADO, UTAH, AND IDAHO.  
 ALASKA.  
 PRODUCTION OF FISH FROZEN ON UNITED STATES FISHING OR TRANSPORTING CRAFT IS NOT INCLUDED IN THIS TABLE.

## GENERAL REVIEW

## SUMMARY OF FREEZINGS, BY SECTIONS AND MONTHS, 1963

(THOUSANDS OF POUNDS)

MONTH	NEW ENGLAND	MIDDLE ATLANTIC	SOUTH ATLANTIC	NORTH CENTRAL, EAST	NORTH CENTRAL, WEST
	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>
JANUARY . . . . .	4,629	314	4,391	4	10
FEBRUARY . . . . .	4,916	191	4,540	-	2
MARCH . . . . .	6,105	660	3,313	-	3
APRIL . . . . .	7,612	1,026	3,569	54	5
MAY . . . . .	11,666	1,926	3,469	79	466
JUNE . . . . .	19,801	1,266	2,676	734	6
JULY . . . . .	20,266	466	3,637	46	5
AUGUST . . . . .	16,167	634	3,993	53	11
SEPTEMBER . . . . .	13,742	396	3,717	60	68
OCTOBER . . . . .	13,395	943	3,677	115	136
NOVEMBER . . . . .	6,960	680	3,491	65	3
DECEMBER . . . . .	4,074	595	3,604	33	5
TOTAL . . . . .	131,337	9,299	44,579	1,263	760

MONTH	SOUTH CENTRAL	PACIFIC	ALASKA	TOTAL
	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>
JANUARY . . . . .	4,744	1,435	136	15,665
FEBRUARY . . . . .	4,068	1,235	820	15,374
MARCH . . . . .	5,096	1,677	1,471	18,325
APRIL . . . . .	3,768	3,666	3,361	23,601
MAY . . . . .	4,443	6,121	7,656	36,246
JUNE . . . . .	4,737	4,513	6,444	40,361
JULY . . . . .	7,918	6,365	9,699	46,444
AUGUST . . . . .	10,668	6,024	4,196	43,946
SEPTEMBER . . . . .	9,141	4,736	6,705	36,565
OCTOBER . . . . .	9,606	3,153	2,042	33,027
NOVEMBER . . . . .	7,253	2,363	617	21,472
DECEMBER . . . . .	5,371	2,356	350	16,396
TOTAL . . . . .	76,613	43,684	43,731	351,466

NOTE:--THE STATES INCLUDED IN THE VARIOUS SECTIONS ARE INDICATED ON PAGES 66 AND 69.



## COLD STORAGE HOLDINGS OF FROZEN FISHERY PRODUCTS

The 1963 holdings of frozen fishery products were highest on November 30, when 248.7 million pounds of fish and shellfish were in storage. The December 31, 1963 holdings of 244.1 million pounds were second highest, and those of October 31 (243.5 million pounds) were third. The low point occurred on March 31, when stocks totaled only 153.4 million pounds.

Shrimp was the principal item held in storage throughout the year, with cod (blocks and fillets), second, and halibut, third.

# GENERAL REVIEW

71

## SUMMARY OF HOLDINGS, BY MONTHS, 1963

(THOUSANDS OF POUNDS)

SPECIES	JANUARY 1	JANUARY 31	FEBRUARY 26	MARCH 31	APRIL 30	MAY 31
FISH	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
SALT-WATER:						
BLOCKS . . . . .	24,328	20,723	15,177	9,409	10,336	11,701
FILLETS AND STEAKS:						
COD . . . . .	9,677	8,562	6,559	5,945	6,956	7,166
FLOUNDER . . . . .	6,156	5,352	3,411	2,326	2,113	2,700
HADDOCK . . . . .	5,397	5,046	3,887	4,535	6,188	6,274
HALIBUT . . . . .	2,965	2,607	2,210	2,226	2,385	1,940
OCEAN PERCH . . . . .	13,456	10,106	7,500	5,141	5,504	7,146
POLLOCK . . . . .	1,039	982	691	546	342	471
SALMON . . . . .	149	596	261	249	154	115
WHITING . . . . .	2,585	2,145	1,644	1,109	924	777
UNCLASSIFIED . . . . .	6,550	5,577	4,956	4,643	4,647	4,909
TOTAL FILLETS AND STEAKS . . . . .	47,944	40,973	31,119	26,720	29,413	31,498
TOTAL BLOCKS, FILLETS AND STEAKS	72,272	61,696	46,296	36,129	39,749	43,199
FISH STICKS AND PORTIONS (RAW AND COOKED) . . . . .	11,558	12,263	10,230	8,436	12,004	12,435
ROUND, DRESSED, ETC.:						
HALIBUT . . . . .	18,496	15,337	12,599	9,205	11,626	17,150
MACKEREL (EXCEPT SPANISH) . . . . .	860	969	867	637	622	562
SABLEFISH . . . . .	3,164	3,079	2,861	2,491	2,160	1,915
SALMON:						
CHINOOK OR KING . . . . .	4,292	3,418	2,964	2,168	1,906	2,008
SILVER OR COHO . . . . .	5,180	4,218	3,695	2,557	1,729	1,017
CHUM OR KETA . . . . .	1,361	1,109	1,022	840	795	626
OTHER . . . . .	1,073	885	643	665	562	643
TOTAL SALMON . . . . .	11,906	9,630	8,004	6,250	4,992	4,294
SMELT . . . . .	3,112	2,734	2,371	1,752	1,589	1,322
SWORDFISH . . . . .	2,465	1,820	1,991	1,919	1,947	2,205
TUNA . . . . .	1,219	736	134	360	149	147
WHITING, HEADED AND GUTTED . . . . .	11,345	8,626	6,751	4,892	3,122	1,664
OTHER (EXCEPT BAIT) . . . . .	18,254	15,642	14,226	11,500	11,976	12,266
TOTAL SALT-WATER FISH . . . . .	154,771	132,552	106,330	83,771	90,136	97,163
FRESH-WATER:						
FILLETS AND STEAKS . . . . .	1,443	1,275	908	848	1,100	796
ROUND, DRESSED, ETC.:						
CHUBS . . . . .	1,440	1,289	783	527	533	825
TROUT . . . . .	1,249	1,064	1,064	1,056	1,047	1,151
WHITEFISH . . . . .	1,828	1,780	1,569	1,324	1,054	765
OTHER (EXCEPT BAIT) . . . . .	2,927	2,455	1,924	2,011	1,737	1,684
TOTAL FRESH-WATER FISH . . . . .	8,887	7,663	6,248	5,766	5,471	5,221
BAIT AND ANIMAL FOOD (SALT- AND FRESH-WATER)	12,420	10,048	10,611	12,144	13,021	17,966
SHELLFISH						
CRABS (INCLUDING CRAB MEAT) . . . . .	2,226	1,850	2,016	2,330	2,651	2,535
SPINY LOBSTER (TAILS) . . . . .	6,665	5,956	6,225	6,414	6,005	6,574
OYSTER MEATS . . . . .	712	910	927	1,327	1,992	1,828
SCALLOP MEATS . . . . .	2,749	2,373	1,978	1,571	1,467	1,716
SHRIMP:						
RAW (HEADLESS, SHELL-ON) . . . . .	31,577	28,487	26,039	27,970	24,964	24,053
ALL OTHER (INCLUDING BREADED) . . . . .	6,167	9,657	10,618	10,570	11,205	10,857
TOTAL SHRIMP . . . . .	39,744	38,344	36,657	38,540	36,159	34,910
SQUID . . . . .	837	827	757	614	561	1,423
OTHER . . . . .	1,516	1,156	1,197	1,024	1,214	1,399
TOTAL SHELLFISH . . . . .	54,449	51,416	51,757	51,630	50,269	50,365
TOTAL FISH AND SHELLFISH . . . . .	230,527	201,879	174,946	153,511	158,897	170,705
CURED FISH						
HERRING, SALTED . . . . .	6,761	6,098	7,305	8,945	10,121	9,348
SALMON, MILD-CURED . . . . .	4,005	3,777	3,233	2,651	2,456	2,430
OTHER SALTED . . . . .	2,824	2,693	2,546	2,563	2,683	2,669
SMOKED FISH . . . . .	531	450	491	527	466	703
TOTAL CURED FISH . . . . .	14,121	12,958	13,575	14,866	15,696	15,220

(CONTINUED ON NEXT PAGE)

## GENERAL REVIEW

## SUMMARY OF HOLDINGS, BY MONTHS, 1963 - Continued

(THOUSANDS OF POUNDS)

SPECIES	JUNE	JULY	AUGUST	SEPTEM-	OCTOBER	NOVEMBER	DECEMBER
	30	31	31	BER 30	31	30	31
FISH	QUANTITY						
SALT-WATER:							
BLOCKS . . . . .	15,528	21,733	27,391	29,296	24,730	23,576	25,634
FILLET'S AND STEAKS:							
COO. . . . .	7,679	7,716	8,954	8,269	8,736	10,278	8,916
FLOUNDER . . . . .	3,611	4,686	5,701	6,475	7,381	8,089	8,021
HADDOCK. . . . .	7,033	6,479	7,149	6,370	6,430	6,285	4,785
HALIBUT. . . . .	2,165	2,759	3,031	3,310	4,356	5,301	3,858
OCEAN PERCH. . . . .	9,052	10,564	13,063	13,844	14,604	15,919	16,339
POLLOCK. . . . .	443	454	394	311	514	818	966
SALMON . . . . .	105	116	124	122	433	1,645	741
WHITING. . . . .	1,052	1,784	1,851	2,029	2,050	2,012	1,755
UNCLASSIFIED . . . . .	5,014	5,794	6,141	5,634	5,951	6,166	6,497
TOTAL FILLET'S AND STEAKS . . . . .	36,154	40,502	46,508	46,564	50,655	56,513	51,896
TOTAL BLOCKS, FILLET'S AND STEAKS . . . . .	51,682	62,235	73,899	75,860	75,385	80,089	77,732
FISH STICKS AND PORTIONS (RAW AND COOKED) . . . . .	12,892	11,745	11,201	10,369	11,564	12,037	13,614
ROUND, DRESSED, ETC.: . . . . .							
HALIBUT. . . . .	19,941	25,992	26,994	25,638	25,435	22,707	20,027
MACKEREL (EXCEPT SPANISH). . . . .	507	656	1,119	1,024	1,444	792	871
SABLEFISH. . . . .	1,710	1,562	1,652	2,047	2,337	2,727	2,369
SALMON:							
CHINOOK OR KING. . . . .	2,135	3,173	3,742	4,784	5,825	5,173	3,542
SILVER OR COHO . . . . .	892	2,763	3,321	4,262	4,048	4,036	3,565
CHUM OR KETA . . . . .	716	598	670	1,043	1,215	1,342	1,671
OTHER. . . . .	859	2,057	2,315	2,736	1,884	1,604	1,350
TOTAL SALMON . . . . .	4,605	6,591	10,248	12,645	12,973	12,795	10,128
SMELT . . . . .	1,278	1,282	1,254	1,272	1,453	1,443	1,155
SNORFISH. . . . .	1,723	2,124	1,925	2,510	2,892	3,150	2,933
TUNA . . . . .	209	602	1,353	3,576	1,754	1,327	1,804
WHITING, HEADED AND GUTTED . . . . .	4,748	11,663	11,624	11,996	11,875	10,296	10,667
OTHER (EXCEPT BAIT). . . . .	9,842	10,429	14,166	12,122	10,941	11,511	11,634
TOTAL SALT-WATER FISH. . . . .	109,137	136,881	155,575	159,259	157,653	158,634	151,954
FRESH-WATER:							
FILLET'S AND STEAKS . . . . .	784	828	897	777	2,444	1,416	1,459
ROUND, DRESSED, ETC.: . . . . .							
CHUBS. . . . .	805	997	1,137	1,290	1,771	1,890	1,697
TROUT. . . . .	912	1,131	1,103	1,179	1,221	1,330	1,323
WHITEFISH. . . . .	956	1,053	1,053	1,267	1,438	1,403	1,220
OTHER (EXCEPT BAIT). . . . .	2,691	2,169	2,022	2,966	3,473	3,356	3,009
TOTAL FRESH-WATER FISH . . . . .	6,286	6,178	6,212	7,479	10,347	9,396	8,708
BAIT AND ANIMAL FOOD (SALT- AND FRESH-WATER) . . . . .	20,954	21,480	13,164	12,267	7,430	5,822	6,486
SHELLFISH							
CRABS (INCLUDING CRAB MEAT). . . . .	2,720	2,997	3,342	3,472	4,689	4,899	5,037
SPINY LOBSTER (TAILS). . . . .	6,624	6,494	6,557	5,070	4,603	5,006	5,071
OYSTER MEATS . . . . .	1,585	1,798	1,444	1,373	1,205	1,216	1,426
SCALLOP MEATS. . . . .	2,358	2,463	2,905	3,145	3,055	3,551	3,275
SHRIMP:							
RAW (HEADLESS, SHELL-ON) . . . . .	24,047	25,460	24,803	27,356	37,418	42,142	45,393
ALL OTHER (INCLUDING BREADED). . . . .	9,676	11,521	13,194	12,999	13,910	14,635	13,781
TOTAL SHRIMP . . . . .	33,723	36,981	37,997	40,355	51,328	56,777	59,116
SQUID. . . . .	1,368	1,115	870	1,035	1,138	1,062	968
OTHER. . . . .	1,551	2,108	1,513	2,451	2,004	2,098	2,029
TOTAL SHELLFISH. . . . .	49,929	53,976	54,628	56,901	68,022	74,603	76,929
TOTAL FISH AND SHELLFISH . . . . .	186,308	218,515	229,599	235,926	243,452	246,654	244,070
CURED FISH							
HERRING, SALTED. . . . .	9,162	8,292	6,639	5,833	5,082	6,560	5,601
SALMON, MILD-CURED . . . . .	2,962	3,975	4,979	4,997	4,710	4,417	3,964
OTHER SALTED . . . . .	2,742	2,516	2,382	2,268	2,096	1,544	1,726
SMOKED FISH. . . . .	568	488	562	535	612	622	555
TOTAL CURED FISH . . . . .	15,434	15,271	14,562	13,633	12,500	13,143	11,846

# GENERAL REVIEW

73

## SUMMARY OF HOLDINGS, BY SECTIONS AND MONTHS, 1963

(THOUSANDS OF POUNDS)

DATE	NEW ENGLAND	MIDDLE ATLANTIC	ATLANTIC	NORTH CENTRAL, EAST	NORTH CENTRAL, WEST
	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>
JANUARY 1 . . . . .	64,167	36,305	9,690	26,237	11,496
JANUARY 31 . . . . .	53,930	33,051	10,595	24,209	11,267
FEBRUARY 28 . . . . .	36,841	33,234	10,337	21,294	9,800
MARCH 31 . . . . .	26,347	33,393	9,520	17,560	8,816
APRIL 30 . . . . .	33,899	32,635	11,275	16,776	8,300
MAY 31 . . . . .	36,866	30,547	11,866	16,680	8,060
JUNE 30 . . . . .	51,774	31,331	9,062	17,454	6,650
JULY 31 . . . . .	70,972	31,035	9,432	17,214	9,608
AUGUST 31 . . . . .	73,596	34,311	9,135	21,586	9,868
SEPTEMBER 30 . . . . .	77,757	34,914	10,325	20,928	9,406
OCTOBER 31 . . . . .	72,640	36,847	10,640	24,404	10,320
NOVEMBER 30 . . . . .	71,631	43,229	10,643	24,676	11,036
DECEMBER 31 . . . . .	72,934	41,332	11,443	23,067	11,103

DATE	SOUTH CENTRAL	PACIFIC	ALASKA	TOTAL
	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>
JANUARY 1 . . . . .	21,671	51,195	7,566	230,527
JANUARY 31 . . . . .	18,503	44,446	5,856	201,879
FEBRUARY 28 . . . . .	16,620	40,000	4,820	174,946
MARCH 31 . . . . .	15,479	35,065	5,331	153,511
APRIL 30 . . . . .	15,266	33,958	6,768	156,897
MAY 31 . . . . .	12,923	41,769	9,994	170,705
JUNE 30 . . . . .	12,762	44,667	10,568	166,308
JULY 31 . . . . .	17,140	46,662	16,232	216,515
AUGUST 31 . . . . .	17,696	47,960	15,225	229,599
SEPTEMBER 30 . . . . .	16,650	45,064	16,660	235,926
OCTOBER 31 . . . . .	20,133	51,229	17,239	243,452
NOVEMBER 30 . . . . .	22,266	49,366	15,603	248,654
DECEMBER 31 . . . . .	22,561	49,757	11,833	244,070

NOTE:--THE STATES INCLUDED IN THE VARIOUS SECTIONS ARE INDICATED ON PAGES 68 AND 69.

## COLD STORAGE HOLDINGS OF CURED FISH

The 1963 average holdings of salted and smoked cured fish totaled 14.1 million pounds. Cold storage stocks average 7.4 million pounds of cured herring and 3.8 million pounds of mild-cured salmon. These two species accounted for 79 percent of the average cold storage inventories of cured fish.

## SUMMARY OF HOLDINGS OF CURED FISH, BY MONTHS, 1963

(THOUSANDS OF POUNDS)

DATE	SALTED			SMOKED	TOTAL
	HERRING, CURED	SALMON, MILD-CURED	OTHER		
	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>
JANUARY 1 . . . . .	6,761	4,005	2,824	531	14,121
JANUARY 31 . . . . .	6,036	3,777	2,693	490	12,956
FEBRUARY 28 . . . . .	7,305	3,233	2,546	491	13,575
MARCH 31 . . . . .	8,945	2,851	2,563	527	14,866
APRIL 30 . . . . .	10,121	2,436	2,653	466	15,696
MAY 31 . . . . .	9,348	2,480	2,689	703	15,220
JUNE 30 . . . . .	9,162	2,962	2,742	566	15,434
JULY 31 . . . . .	8,292	3,975	2,516	488	15,271
AUGUST 31 . . . . .	6,639	4,979	2,362	562	14,562
SEPTEMBER 30 . . . . .	5,633	4,997	2,266	535	13,633
OCTOBER 31 . . . . .	5,082	4,710	2,096	612	12,500
NOVEMBER 30 . . . . .	6,560	4,417	1,544	622	13,143
DECEMBER 31 . . . . .	5,601	3,964	1,726	555	11,846

# GENERAL REVIEW

## FOREIGN FISHERY TRADE

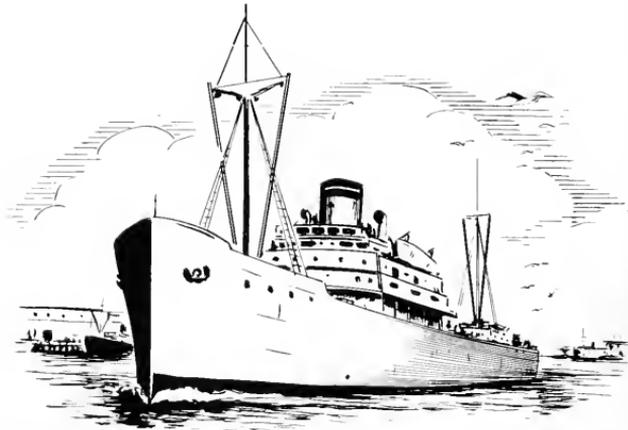
U. S. foreign trade in fishery products was valued at a record \$547 million in 1963--an increase of \$27 million compared with 1962. Imports for consumption amounted to \$491 million and exports more than \$56 million. The value of imports was nearly \$6 million more than in 1962, while exports increased \$21 million.

Imports of edible fishery products in 1963 totaled 1.2 billion pounds valued at \$395 million. Compared with 1962, this was a decrease of 5 percent in volume and 2 percent in value. The loss in volume was due chiefly to decreases in the imports of fresh and frozen tuna, sea herring, and canned sardines. Total volume of imports of edible products would have been lower had not imports of groundfish fillets and blocks, shrimp, and sea scallop meats remained at record levels. Other important edible items received in considerable volume in 1963 were fresh and frozen halibut; tuna loins and discs; fillets (other than groundfish); lobsters (common and spiny); canned tuna in brine; and pickled or salted cod, haddock, hake, pollock, and cusk.

Shrimp was the major item imported with respect to value. Nearly 151 million pounds (including fresh and frozen, canned, and cured) valued at \$103 million were received from over 50 countries. Shrimp accounted for 26 percent of the value of all imported edible items in 1963. Mexico, Panama, and India were among the principal sources. Mexican shrimp accounted for 50 percent of the total imports of shrimp in 1963.

Imports of nonedible fishery products were valued at \$96 million in 1963--15 percent more than in 1962. Increased receipts of fish meal and scrap (376,000 tons--\$37 million) largely accounted for the gain in value. Fish meal accounted for nearly 39 percent of the value of all imported nonedible fishery products in 1963. Other important items were cultured and natural pearls (\$18 million) and fish and marine animal oils (\$8 million).

Exports of domestic edible fishery products totaled 64.7 million pounds valued at \$30.4 million--an increase of 15 percent in quantity and 35 percent in value compared with the previous year. The gain was due to exporting greater quantities of fresh and frozen salmon and shrimp. Exports of nonedible domestic fishery products valued at \$26.2 million were nearly double the value of the 1962 exports (\$13.3 million). The increase was due to the record exports of 262.3 million pounds of fish oils. Nearly 76 percent of 1963 exports of oils were sent to Sweden, United Kingdom, and West Germany. Exports of foreign produced fishery products during 1963 amounted to \$8.5 million compared with \$4.4 million in 1962.





Explanation of Changes In Reporting Statistics on  
U. S. Foreign Trade in Fishery Products

Statistics on foreign fishery trade are obtained from compilations made by the Bureau of the Census, Department of Commerce. Statistics on all known imported or exported fishery products have been assembled and published annually since 1926 in statistical digests published by the Bureau of Commercial Fisheries and its predecessor organizations.

Until September 1963, data were compiled from Bureau of the Census records utilizing "Schedule A. Statistical Classification of Commodities Imported into the United States." However, since August 31, 1963, U. S. importers have been required to report shipments in terms of "Tariff Schedules of the United States Annotated." Commencing with September 1963, "Schedule A. Statistical Classification of Commodities Imported into the United States" were replaced by commodity classifications (for statistical reporting and publication purposes) in the "Tariff Schedules of the United States Annotated" (TSUSA).

The principal effect of this change in reporting has been an unavoidable break in the historical and current series of statistics on the imports of fishery commodities. In some instances there were direct correlations between the Schedule A. commodity numbers and TSUSA item numbers; however, there were no apparent correlations for other commodity numbers. A number of fishery items described in Schedule A. classifications lost their identity when the TSUSA classifications became effective. Other fishery items not listed in Schedule A. classifications are described in the new TSUSA classifications.

This publication has been reorganized in an effort to retain continuity in the Bureau's reporting of historical and current statistics of foreign trade in fishery products.



## GENERAL REVIEW

## EXPORTS OF DOMESTIC FISHERY PRODUCTS, 1962-63

ITEM	UNIT	1962		1963	
		QUANTITY	1,000 DOLLARS	QUANTITY	1,000 DOLLARS
EDIBLE FISHERY PRODUCTS					
FRESH OR FROZEN:					
FISH:					
COD, HADDOCK, HAKE, POLLOCK, AND CUSK. . . . .	1,000 POUNDS	612	127	543	113
SALMON . . . . .	DO	1,508	872	4,888	2,330
OTHER . . . . .	DO	13,958	1,135	13,921	1,858
SHELLFISH:					
SHRIMP . . . . .	DO	3,457	3,299	8,078	7,748
OYSTERS, SHUCKED . . . . .	DO	411	311	251	191
OTHER (INCLUDING LOBSTERS, SHUCKED CLAMS, AND OYSTERS IN THE SHELL). . . . .	DO	876	629	2,580	1,196
TOTAL FRESH AND FROZEN . . . . .	DO	20,822	6,373	30,261	13,636
CANNED:					
FISH:					
MACKEREL . . . . .	DO	4,272	671	4,940	681
SALMON . . . . .	DO	8,978	7,292	10,228	8,239
SARDINES:					
IN OIL . . . . .	DO	578	218	146	50
NOT IN OIL . . . . .	DO	7,188	1,285	3,493	666
TUNA . . . . .	DO	497	233	201	119
OTHER (INCLUDING HERRING). . . . .	DO	531	460	723	628
SHELLFISH:					
SHRIMP . . . . .	DO	2,212	2,572	3,199	3,054
SQUID . . . . .	DO	7,765	729	8,048	742
OTHER (INCLUDING CRABS AND CRAB MEAT). . . . .	DO	1,995	1,507	1,685	1,263
TOTAL CANNED . . . . .	DO	34,036	14,967	32,663	15,442
CURED, SALTED, PICKLED, OR DRY CURED:					
SALMON . . . . .	DO	569	528	574	509
MISCELLANEOUS FISH . . . . .	DO	381	119	309	121
SHRIMP . . . . .	DO	72	71	80	81
TOTAL CURED. . . . .	DO	1,022	718	963	711
FISH, SHELLFISH, AND OTHER MARINE ANIMAL PRODUCTS (INCLUDING CANNED OR FROZEN SPECIALTIES AND SMOKED FISH AND SHELLFISH). . . . .	DO	650	412	858	587
TOTAL EDIBLE FISHERY PRODUCTS. . . . .	DO	56,530	22,470	64,745	30,376
NONEDIBLE FISHERY PRODUCTS					
FISH AND MARINE ANIMAL BODY AND LIVER OIL (EXCEPT MEDICINAL). . . . .	DO	123,050	6,047	262,342	15,636
WHALE AND SPERM OIL . . . . .	DO	2,697	254	5,591	457
SEAL FURS, DRESSED OR DYED . . . . .	1,000 PIECES	64	3,851	75	5,877
PEARL ESSENCE . . . . .	1,000 POUNDS	18	314	17	276
SHELLS, UNMANUFACTURED . . . . .	DO	11,041	1,285	14,988	2,137
FISH, SHELLFISH, AND OTHER MARINE ANIMAL PRODUCTS, NONEDIBLE . . . . .	-	-	1,507	-	1,846
TOTAL NONEDIBLE FISHERY PRODUCTS . . . . .	-	-	13,258	-	26,229
GRAND TOTAL. . . . .	-	-	35,728	-	56,605

NOTE:--IN ADDITION TO THE EXPORT FIGURES THAT ARE SHOWN THERE ARE LARGE QUANTITIES OF FISH OILS AND CONCENTRATES THAT ARE EXPORTED FOR MEDICINAL PURPOSES, AND OTHER MISCELLANEOUS FISHERY PRODUCTS THAT CANNOT BE SHOWN BECAUSE THE EXPORT CLASSIFICATION COVERING THESE PRODUCTS INCLUDES OTHER THAN FISHERY PRODUCTS.



# GENERAL REVIEW

77

## EXPORTS OF FOREIGN FISHERY PRODUCTS, 1962-63

ITEM	UNIT	1962		1963	
EDIBLE FISHERY PRODUCTS	UNIT	QUANTITY	1,000 DOLLARS	QUANTITY	1,000 DOLLARS
<b>FRESH OR FROZEN:</b>					
COD, HADDOCK, HAKE, POLLOCK, AND CUSK. . . . .	1,000 POUNDS	3	1	192	50
SALMON . . . . .	DO	6	4	65	33
OTHER FISH . . . . .	DO	257	72	1,049	173
SHRIMP . . . . .	DO	1,992	1,900	5,733	5,276
OTHER SHELLFISH. . . . .	DO	184	149	276	234
TOTAL FRESH AND FROZEN . . . . .	DO	2,442	2,126	7,317	5,766
<b>CANNED:</b>					
MACKEREL . . . . .	DO	179	21	9	1
SALMON . . . . .	DO	5	5	-	-
SARDINES: . . . . .					
IN OIL . . . . .	DO	104	36	34	12
NOT IN OIL . . . . .	DO	291	51	237	41
TUNA . . . . .	DO	4	2	58	20
OTHER FISH . . . . .	DO	24	69	38	57
SHRIMP . . . . .	DO	44	41	33	42
SQUID. . . . .	DO	-	-	9	1
OTHER SHELLFISH. . . . .	DO	2,501	1,349	3,234	1,788
TOTAL CANNED . . . . .	DO	3,152	1,574	3,652	1,962
<b>CURED, SALTED, PICKLED, OR DRY CURED:</b>					
SALMON . . . . .	DO	(1)	(1)	3	1
MISCELLANEOUS FISH . . . . .	DO	139	51	160	59
SHRIMP . . . . .	DO	102	92	2	3
TOTAL CURED. . . . .	DO	241	143	165	63
<b>FISH, SHELLFISH, AND OTHER MARINE ANIMAL PRODUCTS (INCLUDING CANNED OR FROZEN SPECIALTIES, AND SMOKED FISH AND SHELLFISH).</b>					
	DO	110	93	82	84
TOTAL EDIBLE FISHERY PRODUCTS. . . . .	DO	5,945	3,936	11,216	7,875
<b>NONEDIBLE FISHERY PRODUCTS</b>					
<b>FISH AND MARINE ANIMAL BODY AND LIVER</b>					
OIL (EXCEPT MEDICINAL). . . . .	DO	36	15	1,110	90
WHALE AND SPERM OIL. . . . .	DO	2,805	210	4,004	285
SEAL FURS, DRESSED OR DYED . . . . .	1,000 PIECES	1	24	4	113
PEARL ESSENCE. . . . .	1,000 POUNDS	(1)	1	(1)	4
SHELLS, UNMANUFACTURED . . . . .	DO	64	16	4	1
FISH, SHELLFISH, AND OTHER MARINE ANIMAL PRODUCTS, NONEDIBLE . . . . .	-	-	183	-	148
TOTAL NONEDIBLE FISHERY PRODUCTS . . . . .	-	-	449	-	641
GRAND TOTAL. . . . .	-	-	4,385	-	8,516

1/ LESS THAN 500 POUNDS OR \$500.



## IMPORTS OF FISHERY PRODUCTS ENTERED FOR CONSUMPTION, 1962-63

ITEM	1962		1963		TOTAL 1/	
	QUANTITY	1,000 DOLLARS	FIRST 8 MONTHS		LAST 4 MONTHS	
			QUANTITY	1,000 DOLLARS	QUANTITY	1,000 DOLLARS
FRESH OR FROZEN:						
FISH:						
WHETHER OR NOT WHOLE (EXCEPT FILLETS, STEAKS, ETC.):						
FRESH-WATER:						
LAKE HERRING, CISCO, AND CHUB . . . . .	1,864	429	1,158	249	90	1,530
LAKE TROUT . . . . .	2,230	926	1,142	431	281	1,941
LAKE EXCEPT YELLOW PIKE . . . . .	(2)	(2)	(2)	(2)	(3)	(5)
PLUGER . . . . .	4,005	1,589	2,168	1,111	703	1,904
SALMON (INCLUDING RAINBOW, BROOK, AND BROWN) . . . . .	4,430	1,991	1,201	1,201	4,049	5,393
WHITEFISH . . . . .	15,761	5,769	9,589	3,602	1,691	13,985
YELLOW PERCH . . . . .	1,804	246	1,353	1,157	(3)	1,350
YELLOW PIKE . . . . .	7,872	3,856	4,579	1,908	1,010	7,505
EELS (FRESH- AND SALT-WATER) . . . . .	4,292	105	88	34	(3)	85
UNCLASSIFIED . . . . .	4,562	861	3,444	597	1,366	4,810
TOTAL FRESH-WATER FISH . . . . .	41,000	13,938	25,249	8,690	12,080	37,329
SALT-WATER:						
COD, HADDOCK, HAKE, POLLOCK, AND CUSK (INCLUDES EELS, AND SHAD FOR LAST 4 MONTHS OF 1963) . . . . .	1,990	223	1,387	151	141	2,175
HALLIBUT . . . . .	14,905	8,245	19,614	5,129	1,229	22,722
MACKEREL:						
FRESH:						
FRONZ . . . . .	3,104	307	739	116	1,237	1,976
SALMON . . . . .	1,621	241	54	74	54	1,025
SALMON . . . . .	9,735	5,042	5,042	3,063	3,040	8,898
SFA HERRING . . . . .	62,490	1,430	3,223,399	3,567	3/23,056	4/42,455
SHAD . . . . .	20	5	35	8	(1)	34
SKELT . . . . .	11,968	1,661	5,732	772	3,069	8,781
STURGEON . . . . .	1,448	710	773	445	688	1,461
SWEDENSH:						
FROZEN . . . . .	3,336	1,943	5,143	1,734	1,482	9,777
FROZEN . . . . .	286	82	135	33	67	202
TUNA (WHOLE AND OTHER THAN WHOLE):						
ALBACORE . . . . .	83,940	14,590	43,990	7,090	31,356	75,346
YELLOW FN . . . . .	152,684	23,413	73,076	9,935	27,864	130,860
SKIPJACK . . . . .	34,331	3,927	26,955	3,502	41,634	48,559
UNCLASSIFIED . . . . .	1,310	611	9,559	1,507	6,587	16,146
TOTAL TUNA . . . . .	272,465	41,941	143,721	19,325	87,037	230,778
TUNA LOINS AND DISCS:						
YELLOWFN . . . . .	(3)	(3)	(3)	(2)	(2)	(2)
UNCLASSIFIED . . . . .	3,650	3,732	3,732	1,596	69	3,961
TOTAL LOINS AND DISCS . . . . .	10,321	3,674	5,922	2,165	6,192	12,114
UNCLASSIFIED . . . . .	10,161	2,566	6,293	1,504	2,542	8,835
TOTAL SALT-WATER FISH . . . . .	413,050	65,707	316,500	35,286	20,136	354,184
TOTAL . . . . .						
TOTAL . . . . .						

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTES AT END OF TABLE.

# GENERAL REVIEW

## IMPORTS OF FISHERY PRODUCTS ENTERED FOR CONSUMPTION, 1962-63 - Continued

ITEM	1962		1963		LAST 4 MONTHS		TOTAL 1/	
	QUANTITY	1,000 DOLLARS	QUANTITY	1,000 DOLLARS	QUANTITY	1,000 DOLLARS	QUANTITY	1,000 DOLLARS
EDIBLE FISHERY PRODUCTS - CONTINUED								
FRESH OR FROZEN - CONTINUED:								
FISH - CONTINUED:								
FILLETS, STEAKS, ETC.:								
GROUND FISH AND OCEAN PERCH:								
1,000 POUNDS								
HADDOCK, HAKE, POLLOCK, AND CISK.	32,981	7,608	22,732	5,371	9,977	2,292	32,709	7,663
MACKEREL	25,445	4,523	17,395	4,720	6,819	3,848	24,214	6,368
SALMON	1,740	1,740	1,740	1,740	1,740	1,740	1,740	1,740
SOLE	143,541	28,430	100,936	20,583	52,334	10,804	153,270	31,380
TOTAL GROUND FISH AND OCEAN PERCH	231,430	46,937	152,981	33,297	78,787	17,041	231,768	50,328
OTHER:								
FLOUNDER OR FLATFISH (EXCEPT HALIBUT)	19,439	5,709	10,640	3,223	5,958	1,747	16,598	4,970
HALIBUT AND SALMON	3,446	3,446	2,909	1,562	1,968	879	4,817	5,233
MACKEREL	9,374	1,907	5,150	1,060	2,936	1,060	8,086	1,721
WOLFISH (SEA CATFISH)	1,202	2,035	1,202	3,315	1,202	1,736	2,404	3,741
UNCLASSIFIED SALT-WATER	4,063	2,603	4,987	1,506	2,737	853	7,624	2,361
YELLOW PERCH	4,238	1,276	5,514	1,742	2,570	860	8,084	2,622
YELLOW PIKE	3,467	2,293	2,286	1,579	2,233	1,420	4,519	2,999
UNCLASSIFIED FRESH-WATER	6,435	2,227	2,080	738	435	154	2,515	892
TOTAL, OTHER THAN GROUND FISH	76,443	26,127	45,908	15,644	22,961	8,128	66,869	23,772
TOTAL FILLETS, STEAKS, ETC.	297,863	73,064	193,889	48,931	101,748	25,169	300,637	74,100
FISH STICKS AND SIMILAR PRODUCTS	325	97	299	83	78	29	377	112
TOTAL FISH, FRESH AND FROZEN	752,238	159,806	440,987	92,990	251,540	49,630	692,527	142,620
SHELLFISH, ETC.:								
CRABS:								
FRESH OR FROZEN (INCLUDING PREPARED OR PRESERVED, EXCEPT CANNED)	595	230	500	213	181	51	681	264
CRAB MEAT (FRESH COOKED)	2,101	292	210	180	41	44	251	224
LOBSTERS:								
FRESH OR FROZEN (INCLUDING FRESH-COOKED MEAT)	22,101	15,000	18,653	13,427	3,194	2,692	21,847	16,599
SPINNY (INCLUDES FRESH-COOKED MEAT)	35,297	42,182	24,187	27,252	9,661	10,292	33,848	39,474
SHRIMP:								
5/	59,339	39,928	62,703	42,235	(3)	(3)	(3)	(3)
HEADLESS	13,231	164	357	1,140	(3)	111	484	431
BREADED	19,537	8,902	20,281	14,140	(3)	(3)	(3)	(3)
PEELED AND DEVEINED	2	2	2	2	49,014	31,987	2	2
SHELL-ON	2	2	2	2	9,179	6,722	2	2
SHELL-OFF	2	2	2	2	629	459	2	2
PEELED, COOKED, BUT NOT BREADED	61,876	43,504	61,745	32,714	923	623	7,670	5,997
UNCLASSIFIED								
TOTAL SHRIMP	141,183	91,998	90,086	61,969	60,052	39,942	130,138	101,917
CLAMS (IN SHELL OR SHUCKED)	640	159	402	87	67	10	469	97
OYSTERS:								
EXCEPT SEED OYSTERS	1,400	73	805	334	575	271	1,380	605
UNCLASSIFIED (PRINCIPALLY SEED OYSTERS)	1,820	4,993	7,290	632	746	24	6,036	656
SCALLOPS:								
EXCEPT PREPARED (PREPARED AND PRESERVED)	1,503	2,592	1,661	1,589	4,374	2,169	13,342	6,306
TURTLES (LIVE ONLY)	2,604	50	239	79	1,274	1,138	2,935	2,717
TOTAL SHELLFISH, ETC., FRESH AND FROZEN	217,695	157,749	153,001	110,959	60,615	56,795	233,616	167,354
TOTAL FRESH AND FROZEN FISH, SHELLFISH, ETC.	969,923	313,554	593,988	203,549	332,155	106,425	926,143	309,974

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTES AT END OF TABLE.

## GENERAL REVIEW

## IMPORTS OF FISHERY PRODUCTS ENTERED FOR CONSUMPTION, 1962-63 - Continued

ITEM	1962		1963		LAST 8 MONTHS		TOTAL 1/	
	QUANTITY	1,000 DOLLARS	QUANTITY	1,000 DOLLARS	QUANTITY	1,000 DOLLARS	QUANTITY	1,000 DOLLARS
	UNIT		UNIT		UNIT		UNIT	
EDIBLE FISHERY PRODUCTS - CONTINUED								
CANNED:								
ANCHOVIES:								
IN OIL	4,904	2,564	2,738	1,652	1,162	800	3,900	2,452
NOT IN OIL	36	9	-	-	271	77	271	77
SALMON:								
IN OIL	(2)	(2)	(2)	(2)			(2)	(2)
NOT IN OIL	3,436	781	393	393	468	222	1,249	605
SARDINES:								
IN OIL	32,303	13,303	13,303	6,344	6,705	3,248	19,906	9,592
NOT IN OIL	20,342	2,909	17,556	2,604	4,084	798	21,640	3,402
HERRING:								
IN OIL	(2)	(2)	(2)	(2)			(2)	(2)
NOT IN OIL	12,134	3,788	5,364	1,756	3,160	1,035	8,554	2,611
TUNA:								
IN OIL:								
ALBACORE	261	123	150	79	53	29	203	108
OTHER	97	41	21	10	(3)	(3)	(3)	(3)
TOTAL IN OIL	358	164	171	89	53	29	224	118
IN BRINE:								
ALBACORE	27,836	12,666	17,832	8,543	12,508	5,908	30,340	14,451
OTHER	28,525	10,054	15,779	5,457	11,151	3,638	26,950	9,295
TOTAL IN BRINE	56,361	22,720	33,611	14,000	23,659	9,746	57,270	23,746
BONITO AND YELLOWTAIL:								
IN OIL	6,127	1,675	3,018	868	462	135	3,480	1,003
IN BRINE	2,600	650	1,166	291	1,210	323	2,385	614
TOTAL BONITO AND YELLOWTAIL	8,727	2,325	4,184	1,159	1,681	458	5,865	1,617
POLLOCK, SMOKED:	20	12	3	2	3	3	6	5
ANTIPASTO, IN OIL:	236	211	124	126	95	95	224	211
FISH CAKES, BALLS, AND PUDDING:	1,447	356	777	193	503	159	1,280	322
CAYLAR AND OTHER FISH ROE (MAY INCLUDE SOME)								
IN OIL	277	993	189	537	118	421	307	958
UNGLASSIFIED FISH:	144	71	106	56	64	33	170	89
IN OIL	2,124	384	469	241	144	83	613	324
NOT IN OIL	147,304	53,905	79,931	29,389	42,322	17,431	122,453	46,820
TOTAL CANNED FISH:								
SHELLFISH, ETC.:								
ABALONE (MAY INCLUDE FRESH OR DRIED, AND CANNED)	5,243	2,699	4,237	2,297	2,641	1,365	6,878	3,662
CLAMS (AND SAUCE):								
IN OIL	5	3	60	34	-	-	60	34
OTHER	1,454	861	969	564	478	281	1,447	845
CHOWDER, JUICE, ETC.:	5	5	5	5	37	24	37	24
CRAB MEAT (INCLUDES PASTE AND SAUCE):	3,505	4,701	3,206	3,902	2,090	2,468	5,296	6,370
LOBSTER MEAT:								
IN OIL	3,111	5,507	1,877	3,376	485	955	2,362	4,331
NOT IN OIL	198	304	172	269	109	188	281	487
SHRIMP:	(2)	(2)	(2)	(2)	1,304	1,100	(2)	(2)

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTES AT END OF TABLE.

# GENERAL REVIEW

## IMPORTS OF FISHERY PRODUCTS ENTERED FOR CONSUMPTION, 1962-63 - Continued

ITEM	1962		1963		TOTAL	
	EDIBLE FISHERY PRODUCTS - CONTINUED		EDIBLE FISHERY PRODUCTS - CONTINUED		EDIBLE FISHERY PRODUCTS - CONTINUED	
	UNITS	1,000 DOLLARS	QUANTITY	1,000 DOLLARS	QUANTITY	1,000 DOLLARS
CANNED - CONTINUED:						
SHELLFISH, ETC. - CONTINUED:						
OYSTERS, AND OYSTER JUICE. . . . .	1,000 POUNDS	2,810	4,165	1,463	8,463	3,101
SCALLOPS. . . . .	DO	(2)	(2)	(2)	(2)	(2)
SHELLFISH PASTE AND SAUCE. . . . .	DO	113	65	37	98	54
UNCLASSIFIED. . . . .	DO	4,331	2,739	724	469	1,153
TOTAL CANNED SHELLFISH. . . . .	DO	25,995	19,195	17,510	12,961	30,033
TOTAL CANNED FISH, SHELLFISH, ETC. . . . .	DO	173,299	72,000	97,441	42,230	25,845
CURED:						
DRIED SHRIMP. . . . .	DO	(2)	(2)	(2)	(2)	(2)
DRIED (UNSALTED):						
COD, HADDOCK, HAKE, POLLOCK, AND CUSK. . . . .	DO	648	354	33	33	1,090
SHARK FINS. . . . .	DO	125	102	59	52	120
UNCLASSIFIED. . . . .	DO	138	119	86	78	133
TOTAL DRIED (UNSALTED). . . . .	DO	931	575	217	173	714
PICKLED OR SALTED:						
ALEWIVES. . . . .	DO	-	-	1	(6)	1
COD, HADDOCK, HAKE, POLLOCK, AND CUSK:						
SKINNED OR BONED. . . . .	DO	9,623	2,066	5,069	1,824	9,260
OTHER. . . . .	DO	34,390	51,900	20,315	3,204	33,430
HERRING. . . . .	DO	25,860	3,625	14,737	2,050	1,476
MACKEREL. . . . .	DO	2,473	402	632	146	1,539
SALMON. . . . .	DO	19	7	51	37	2,069
UNCLASSIFIED. . . . .	DO	540	265	232	132	56
TOTAL PICKLED OR SALTED. . . . .	DO	73,066	13,167	41,247	7,413	29,601
SMOKED OR KIPPED:						
COD, HADDOCK, HAKE, POLLOCK, AND CUSK:						
WHOLE, BEHEADED, OR Eviscerated OR BOTH. . . . .	DO	125	35	110	28	34
FILLETS, STEAMS, ETC. . . . .	DO	1,688	483	890	264	411
HERRING:						
WHOLE OR BEHEADED:						
HARD DRY SMOKED. . . . .	DO	516	62	108	12	44
OTHER. . . . .	DO	343	216	375	70	607
BONED. . . . .	DO	422	90	268	56	146
NOT BONED (Eviscerated, Split). . . . .	DO	(2)	(2)	(2)	(2)	(2)
SALMON. . . . .	DO	45	63	84	20	27
UNCLASSIFIED. . . . .	DO	81	23	69	17	9
TOTAL SMOKED OR KIPPED. . . . .	DO	4,132	1,032	2,378	621	1,794
TOTAL CURED. . . . .	DO	79,129	14,774	43,842	9,207	32,629
OTHER FISH AND SHELLFISH, NOT ESPECIALLY PROVIDED FOR:						
TOTAL EDIBLE FISHERY PRODUCTS. . . . .	DO	1,465	554	2,425	734	2,853
SEE FOOTNOTES AT END OF TABLE.	DO	1,222,836	400,892	737,696	254,740	422,702

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTES AT END OF TABLE.

## GENERAL REVIEW

## IMPORTS OF FISHERY PRODUCTS ENTERED FOR CONSUMPTION, 1962-63 - Continued

ITEM	1962		1963		TOTAL 1/	
	NONDETERMINABLE FISHERY PRODUCTS		LAST 4 MONTHS		TOTAL 1/	
	QUANTITY	1,000 DOLLARS	QUANTITY	1,000 DOLLARS	QUANTITY	1,000 DOLLARS
OILS, FISH AND MARINE ANIMAL:						
COD:						
INDUSTRIAL . . . . .	708	324				
MEDICINAL (LIVER) . . . . .	855	826	118	53	712	343
HALIBUT LIVER . . . . .	2	22	304	280	671	870
HERRING . . . . .	599	206	(3)	(3)	(3)	(4)
SHARKS, INCLUDING GRAYFISH . . . . .	1	(6)	11	8	296	108
BODY . . . . .	1	(6)				
LIVER . . . . .	37	10	(3)	(3)	(3)	(4)
WHALE: . . . . .						
SPECK . . . . .			27	7	38	10
CRUDE . . . . .	976	928	390	397	713	710
OTHER . . . . .	7,954	5,424	2,710	2,103	7,974	5,732
UNCLASSIFIED: . . . . .						
BODY . . . . .	88	33	58	15	60	17
LIVER . . . . .	33	92.6	11	237	20	323
TOTAL FISH AND MARINE ANIMAL OIL . . . . .	11,257	6,730	3,561	2,992	10,791	9,160
MEAL AND SCRAP:						
ANIMAL FEED . . . . .	238	23,404	252	25,295	365	35,814
FERTILIZER . . . . .	14	894	10	1,103	11	1,253
TOTAL MEAL AND SCRAP . . . . .	252	24,298	114	10,621	376	37,039
COD LIVER OIL CAKE AND MEAL . . . . .	610	49	(3)	(3)	(3)	(3)
FISH SOLUBLES . . . . .	6	425	4	261	7	494
FISH SOUND . . . . .	27	65	17	20	33	51
GLUE . . . . .	14	2	(3)	6	(3)	(3)
ISINGLASS . . . . .	832	124	616	100	25	145
PEARL ESSENCE . . . . .	45	294	11	18	25	123
AQUARIUM FISH (INCLUDING GOLDFISH) . . . . .		442	20	62	36	565
FISH (OTHER THAN FOR HUMAN CONSUMPTION) . . . . .		4,549		221		2,916
CUTTLEFISH BONE . . . . .	281	147	77	967	265	124
SHELLS AND BUTTONS:						
MOTHER-OF-PEARL AND TROUS SHELL . . . . .	896	440	(5)	(3)	(3)	(3)
OTHER . . . . .	2,648	231	(3)	(3)	(3)	(3)
MARINE SHELLS, CRUDE . . . . .	(2)	(3)	909	141	(2)	610
SHELL AND MOTHER-OF-PEARL, ORNAMENTED . . . . .		341		326		610
OCEAN AND FRESH-WATER PEARL AND SHELL BUTTONS . . . . .						
AND BLANKS . . . . .	528	591	196	196	515	549
PEARLS:						
CULTURED . . . . .		18,196		4,806		17,427
NATURAL . . . . .		737		355		479
TOTAL PEARLS . . . . .		18,935		12,976		17,906

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTES AT END OF TABLE.



## GENERAL REVIEW

## U. S. IMPORTS OF FISHERY PRODUCTS, BY COUNTRY OF ORIGIN, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

COUNTRY	EDIBLE		NONEDIBLE	TOTAL
	QUANTITY	VALUE	VALUE	VALUE
<b>NORTH AMERICA:</b>				
GREENLAND . . . . .	8,618	1,859	255	2,114
CANADA . . . . .	406,305	109,822	8,218	118,040
MIQUELON AND ST. PIERRE ISLANDS . . . . .	1,415	349	46	395
MEXICO . . . . .	100,142	59,419	487	59,906
GUATEMALA . . . . .	1,355	1,057	24	1,091
BRITISH HONDURAS . . . . .	434	379	43	422
EL SALVADOR . . . . .	6,694	4,301	2	4,303
HONDURAS . . . . .	965	533	27	560
NICARAGUA . . . . .	2,230	1,412	14	1,426
COSTA RICA . . . . .	1,699	961	4	965
REPUBLIC OF PANAMA . . . . .	10,380	7,073	3	7,076
CANAL ZONE . . . . .	407	253	-	253
BAHAMAS . . . . .	1,440	779	12	611
JAMAICA . . . . .	211	76	32	88
HAITI . . . . .	55	83	6	89
DOMINICAN REPUBLIC . . . . .	26	24	-	24
LEEWARD AND WINDWARD ISLANDS . . . . .	2	1	-	1
BARBADOS . . . . .	245	173	-	173
TRINIDAD AND TOBAGO . . . . .	17,563	2,403	10	2,413
NETHERLANDS ANTILLES . . . . .	109	47	1	48
TOTAL . . . . .	562,953	191,014	9,184	200,198
<b>SOUTH AMERICA:</b>				
COLOMBIA . . . . .	1,877	1,277	807	2,084
VENEZUELA . . . . .	6,384	3,543	141	3,684
BRITISH GUIANA . . . . .	5,911	4,666	94	4,762
SURINAM . . . . .	1,206	1,154	(1)	1,154
FRENCH GUIANA . . . . .	2,789	1,952	3	1,955
ECUADOR . . . . .	11,920	5,733	35	5,788
PERU . . . . .	57,670	6,473	28,565	35,038
BOLIVIA . . . . .	-	-	(1)	(1)
CHILE . . . . .	1,994	1,224	4,822	6,046
BRAZIL . . . . .	4,006	3,834	2,364	6,198
PARAGUAY . . . . .	-	-	95	95
URUGUAY . . . . .	11	3	42	45
ARGENTINA . . . . .	546	124	1,191	1,315
TOTAL . . . . .	94,114	30,005	36,119	68,124
<b>EUROPE:</b>				
ICELAND . . . . .	60,852	14,659	347	15,006
SWEDEN . . . . .	1,998	449	169	618
NORWAY . . . . .	50,779	15,120	1,658	16,778
DENMARK . . . . .	18,778	4,899	513	5,412
UNITED KINGDOM . . . . .	4,648	1,621	2,957	4,578
IRELAND . . . . .	204	38	13	53
NETHERLANDS . . . . .	3,446	1,090	2,370	3,460
BELGIUM AND LUXEMBOURG . . . . .	130	58	315	373
FRANCE . . . . .	3,090	647	2,077	2,724
WEST GERMANY . . . . .	5,836	2,265	1,913	4,178
AUSTRIA . . . . .	9	2	365	367
CZECHOSLOVAKIA . . . . .	-	-	9	9
HUNGARY . . . . .	13	3	-	3
SWITZERLAND . . . . .	-	-	363	363
SPAIN . . . . .	11,169	2,866	319	3,185
FINLAND . . . . .	3	(1)	(1)	(1)
POLAND AND DANZIG . . . . .	45	14	-	14
UNION OF SOVIET SOCIALIST REPUBLICS . . . . .	58	156	6	162
AZORES . . . . .	1,192	345	17	362
PORTUGAL . . . . .	11,273	5,344	189	5,533
ITALY . . . . .	497	321	1,265	1,586
YUGOSLAVIA . . . . .	249	131	20	151
FREE TERRITORY OF TRIESTE . . . . .	14	4	-	4
GREECE . . . . .	9	3	680	683
BULGARIA . . . . .	-	-	1	1
TURKEY . . . . .	17	25	1	26
CYPRUS . . . . .	-	-	12	12
TOTAL . . . . .	174,309	50,060	15,581	65,641

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# GENERAL REVIEW

95

## U. S. IMPORTS OF FISHERY PRODUCTS, BY COUNTRY OF ORIGIN, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

COUNTRY	EDIBLE		NONEDIBLE	TOTAL
	QUANTITY	VALUE	VALUE	VALUE
<b>ASIA:</b>				
SYRIAN ARAB REPUBLIC . . . . .	1	1	15	16
LEBANON . . . . .	-	-	71	71
IRAN . . . . .	1,250	1,004	11	1,015
ISRAEL . . . . .	-	-	166	166
JORDAN . . . . .	-	-	2	2
ARABIA PENINSULA STATES:				
KUWAIT . . . . .	3,728	2,756	-	2,756
SAUDI ARABIA . . . . .	110	58	-	58
ARABIA PENINSULA STATES . . . . .	30	11	6	17
ADEN . . . . .	-	-	30	30
INDIA . . . . .	11,094	7,449	904	8,353
PAKISTAN . . . . .	1,793	2,331	44	2,375
BURMA . . . . .	-	-	2	2
THAILAND . . . . .	1,195	995	12	1,007
CEYLON . . . . .	-	-	(1)	(1)
VIET-NAM . . . . .	74	66	2	68
CAMBODIA . . . . .	-	-	1	1
FEDERATION OF MALAYA . . . . .	2,497	435	65	500
LAOS . . . . .	-	-	(1)	(1)
STATE OF SINGAPORE . . . . .	150	93	3	96
REPUBLIC OF INDONESIA . . . . .	87	13	12	25
REPUBLIC OF THE PHILIPPINES . . . . .	226	126	498	624
REPUBLIC OF KOREA . . . . .	2,695	1,267	76	1,345
HONG KONG . . . . .	1,432	1,331	634	1,965
TAIWAN . . . . .	9,488	927	37	964
JAPAN . . . . .	220,852	67,551	27,806	95,357
NANSAI AND NANPO ISLANDS . . . . .	236	36	1	37
TOTAL . . . . .	256,938	86,450	30,400	116,850
<b>AUSTRALIA AND OCEANIA:</b>				
AUSTRALIA . . . . .	8,812	12,235	285	12,520
NEW ZEALAND . . . . .	3,026	3,412	19	3,431
FRENCH PACIFIC ISLANDS . . . . .	417	64	22	86
TRUST TERRITORY OF THE PACIFIC ISLANDS . . . . .	-	-	1	1
BRITISH WESTERN PACIFIC ISLANDS . . . . .	6,210	942	1	943
TOTAL . . . . .	18,465	16,653	328	16,981
<b>AFRICA:</b>				
MOROCCO . . . . .	650	243	557	800
SEYCHELLES AND DEPENDENCIES . . . . .	1	1	-	1
TUNISIA . . . . .	1	1	5	6
UNITED ARAB REPUBLIC (EGYPT) . . . . .	999	653	3	656
WESTERN PORTUGUESE AFRICA . . . . .	622	158	-	158
CANARY ISLANDS . . . . .	5,239	756	-	756
SPANISH AFRICA . . . . .	52	27	-	27
WESTERN AFRICA . . . . .	7,979	1,284	(1)	1,284
GHANA . . . . .	57	16	1	17
FEDERATION OF NIGERIA . . . . .	46	36	187	223
MADEIRA ISLANDS . . . . .	-	-	1	1
ANGOLA . . . . .	1,689	562	61	623
BRITISH WEST AFRICA AND SIERRA LEONE . . . . .	7,728	934	-	934
ETHIOPIA . . . . .	-	-	2	2
BRITISH EAST AFRICA AND TANGANYIKA . . . . .	14	14	60	74
MOZAMBIQUE . . . . .	81	77	5	82
REPUBLIC OF SOUTH AFRICA . . . . .	28,461	15,602	1,668	17,270
THE FEDERATION OF RHODESIA AND NYASALAND . . . . .	-	-	(1)	(1)
TOTAL . . . . .	53,619	20,364	2,550	22,914
GRAND TOTAL . . . . .	1,160,398	394,546	96,162	490,708

1/ LESS THAN 500 POUNDS OR \$500.

SOURCE: DEPARTMENT OF COMMERCE, BUREAU OF THE CENSUS.

## GENERAL REVIEW

U. S. EXPORTS OF FISHERY PRODUCTS,  
BY COUNTRY OF DESTINATION, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

COUNTRY	EDIBLE		NONEDIBLE	TOTAL
	QUANTITY	VALUE	VALUE	VALUE
<b>NORTH AMERICA:</b>				
CANADA . . . . .	18,315	1,194	3,462	11,156
MEXICO . . . . .	232	112	151	263
GUATEMALA . . . . .	502	125	3	129
BRITISH HONDURAS . . . . .	1	-	(1)	1
EL SALVADOR . . . . .	1,299	272	(1)	272
HONDURAS . . . . .	130	30	-	30
NICARAGUA . . . . .	651	125	1	126
COSTA RICA . . . . .	700	143	1	144
REPUBLIC OF PANAMA . . . . .	239	57	(1)	67
CANAL ZONE . . . . .	43	19	4	23
BERMUDA . . . . .	251	149	15	165
BAHAMAS . . . . .	284	138	7	145
JAMAICA . . . . .	815	254	10	264
HAITI . . . . .	33	1	(1)	1
DOMINICAN REPUBLIC . . . . .	256	85	20	105
LEEWARD AND WINDWARD ISLANDS . . . . .	41	15	(1)	15
BARBADOS . . . . .	11	6	(1)	6
TRINIDAD AND TOBAGO . . . . .	61	52	20	72
NETHERLANDS ANTILLES . . . . .	421	237	1	238
FRENCH WEST INDIES . . . . .	5	-	-	-
TOTAL . . . . .	24,290	9,546	3,696	13,242
<b>SOUTH AMERICA:</b>				
COLOMBIA . . . . .	31	12	16	28
VENEZUELA . . . . .	261	164	19	183
BRITISH GUIANA . . . . .	13	8	-	8
SURINAM . . . . .	122	34	5	39
ECUADOR . . . . .	21	(1)	1	1
PERU . . . . .	26	23	2	25
BOLIVIA . . . . .	21	14	-	14
CHILE . . . . .	2	4	2	6
BRAZIL . . . . .	3	2	23	25
PARAGUAY . . . . .	1	1	-	1
URUGUAY . . . . .	-	-	2	2
ARGENTINA . . . . .	3	3	27	30
TOTAL . . . . .	504	265	97	362
<b>EUROPE:</b>				
ICELAND . . . . .	1	1	-	1
SWEDEN . . . . .	294	270	4,203	4,473
NORWAY . . . . .	17	34	1,515	1,539
DENMARK . . . . .	353	343	32	375
UNITED KINGDOM . . . . .	9,556	7,697	5,384	13,081
IRELAND . . . . .	7	4	3	7
NETHERLANDS . . . . .	909	554	2,039	2,593
BELGIUM AND LUXEMBOURG . . . . .	445	342	103	445
FRANCE . . . . .	2,396	1,436	453	1,689
WEST GERMANY . . . . .	566	405	3,233	3,638
EAST GERMANY . . . . .	-	-	1	1
AUSTRIA . . . . .	1	1	12	13
CZECHOSLOVAKIA . . . . .	-	-	103	103
SWITZERLAND . . . . .	240	217	2,011	2,228
SPAIN . . . . .	563	168	10	178
UNION OF SOVIET SOCIALIST REPUBLICS . . . . .	-	-	3	3
AZORES . . . . .	2	1	-	1
PORTUGAL . . . . .	12	2	62	64
MALTA AND GOZO . . . . .	14	2	-	4
GIBRALTAR . . . . .	5	4	-	2
ITALY . . . . .	3,816	642	1,001	1,643
GREECE . . . . .	5,488	555	11	566
TURKEY . . . . .	-	-	2	2
CYPRUS . . . . .	5	1	-	1
TOTAL . . . . .	24,694	12,669	20,181	32,850
<b>ASIA:</b>				
LEBANON . . . . .	27	25	3	28
IRAQ . . . . .	1	3	-	3
IRAN . . . . .	28	17	5	22
ISRAEL . . . . .	6	5	1	6
JORDAN . . . . .	(1)	2	3	5

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# GENERAL REVIEW

87

## U. S. EXPORTS OF FISHERY PRODUCTS, BY COUNTRY OF DESTINATION, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

COUNTRY	EDIBLE		NONEDIBLE	TOTAL
	QUANTITY	VALUE	VALUE	VALUE
<b>ASIA - CONTINUED:</b>				
<b>ARABIA PENINSULA STATES:</b>				
KUWAIT . . . . .	5	3	-	3
SAUDI ARABIA . . . . .	26	24	-	24
ARABIA PENINSULA STATES . . . . .	2	2	-	2
ADEN . . . . .	1	1	-	1
STATE OF BAHRAIN . . . . .	5	5	-	5
AFGHANISTAN . . . . .	1	(1)	(1)	(1)
INDIA . . . . .	1	2	-	2
PAKISTAN . . . . .	7	3	-	3
BURMA . . . . .	(1)	(1)	1	1
THAILAND . . . . .	50	16	5	21
CEYLON . . . . .	3	2	-	2
VIET-NAM . . . . .	23	14	-	14
FEDERATION OF MALAYA . . . . .	83	45	1	46
LAOS . . . . .	10	6	-	6
STATE OF SINGAPORE . . . . .	269	167	-	167
REPUBLIC OF INDONESIA . . . . .	5	5	-	5
REPUBLIC OF THE PHILIPPINES . . . . .	2,943	393	11	404
REPUBLIC OF KOREA . . . . .	-	-	5	5
HONG KONG . . . . .	706	380	8	388
JAPAN . . . . .	6,040	5,689	2,131	7,820
NANSEI AND NANPO ISLANDS . . . . .	31	26	-	26
<b>TOTAL . . . . .</b>	<b>10,274</b>	<b>6,835</b>	<b>2,174</b>	<b>9,009</b>
<b>AUSTRALIA AND OCEANIA:</b>				
AUSTRALIA . . . . .	352	170	34	204
NEW ZEALAND AND WESTERN SAMOA . . . . .	1,512	216	14	230
NEW GUINEA . . . . .	5	5	-	5
FRENCH PACIFIC ISLANDS . . . . .	519	99	-	99
TRUST TERRITORY OF THE PACIFIC ISLANDS . . . . .	76	19	-	19
BRITISH WESTERN PACIFIC ISLANDS . . . . .	1,049	116	-	116
<b>TOTAL . . . . .</b>	<b>3,513</b>	<b>625</b>	<b>48</b>	<b>673</b>
<b>AFRICA:</b>				
MOROCCO . . . . .	1	1	-	1
LIBYA . . . . .	10	10	(1)	10
UNITED ARAB REPUBLIC (EGYPT) . . . . .	7	2	3	5
CANARY ISLANDS . . . . .	12	10	-	10
WESTERN EQUATORIAL AFRICA . . . . .	16	6	-	6
WESTERN AFRICA . . . . .	2	2	-	2
GUINEA . . . . .	75	18	1	19
FEDERATION OF NIGERIA . . . . .	2	1	9	10
ANGOLA . . . . .	(1)	(1)	-	(1)
BRITISH WEST AFRICA AND SIERRA LEONE . . . . .	1	1	(1)	1
LIBERIA . . . . .	161	53	-	53
REPUBLIC OF THE CONGO . . . . .	1,019	207	1	208
SOMALI REPUBLIC . . . . .	1	1	1	2
FRENCH SOMALILAND . . . . .	9	1	-	1
ETHIOPIA . . . . .	(1)	1	-	1
BRITISH EAST AFRICA AND TANGANYIKA . . . . .	5	2	-	2
MOZAMBIQUE . . . . .	(1)	(1)	-	(1)
MALAGASY REPUBLIC (FORMERLY MADAGASCAR) . . . . .	4	5	-	5
REPUBLIC OF SOUTH AFRICA . . . . .	63	62	18	80
THE FEDERATION OF RHODESIA AND NYASALAND . . . . .	82	53	-	53
<b>TOTAL . . . . .</b>	<b>1,470</b>	<b>436</b>	<b>33</b>	<b>469</b>
<b>GRAND TOTAL . . . . .</b>	<b>64,745</b>	<b>30,376</b>	<b>26,229</b>	<b>56,605</b>

1/ LESS THAN 500 POUNDS OR \$500.

SOURCE: DEPARTMENT OF COMMERCE, BUREAU OF THE CENSUS.

## SECTION 2 - NEW ENGLAND FISHERIES

The commercial fisheries of the New England States, (Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut) in 1963 yielded 829 million pounds of fish and shellfish worth \$68.3 million to the fishermen. This harvest represented a decline from 1962 of 43 million pounds (5 percent), but an increase of \$2.5 million (4 percent). The 294.7-million pound catch of groundfish (cod, cusk, haddock, ocean perch, pollock, and white hake) was 10 percent under 1962. Also well below 1962 catches were menhaden, whiting, and sea scallops. Yellowtail flounders showed the largest increase--up 38 percent to 78 million pounds. Average prices for most foodfishes were higher than a year earlier and shellfish prices were much improved.

Landings in the New England States, with the exception of New Hampshire, were down from 1962. Massachusetts led in catch with 56 percent; followed by Maine with 34 percent; Rhode Island, 8 percent; and Connecticut and New Hampshire, 1 percent each. The percentage breakdown by value was Massachusetts, 60; Maine, 31; Rhode Island, 6; Connecticut, 2; and New Hampshire, 1 percent.

Fishermen and vessels. In 1963, New England had 21,428 fishermen using 733 vessels of 5 net tons or greater and 10,746 other craft. This was a gain of 6 vessels, but a decrease of 108 fishermen and 367 other craft compared with 1962.

Vessel construction. Four vessels built under the Fishing Vessel Construction Differential Subsidy Program joined the fleet in 1963, making a total of six built under this law. Public Law 86-516, which expired in June 1963, was passed to provide financial assistance to correct inequities between foreign and domestic costs of construction of fishing vessels. The New England groundfish industry was the only fishery to meet all the eligibility requirements of the program. In addition to the six vessels completed under the program, five more applications were pending and may possibly be completed later. In 1963, bills were introduced in both houses of Congress to replace the program and in October, the Senate passed S. 1006 which would provide a \$10-million annual appropriation for a 5-year period. This bill, if approved, would allow a subsidy of up to 50 percent of the cost of construction rather than the 33 percent under the expired law. Eligibility to apply for subsidies would also be liberalized.

The first U.S. stern trawler, Narragansett, which joined the fleet early in 1963, proved a success. In the first year of operation, this vessel engaged in deep-sea lobstering, flounder and groundfish trawling, and longlining. The Rhode Island shipyard that built the Narragansett had orders for at least three additional stern trawlers to be constructed in 1964.

The U.S.-built former French trawler St. Patrick joined the Boston fleet in December. Built in 1948, the St. Patrick was purchased by Boston interests in 1963 and returned to this country. The 153-foot-long, 483-gross-ton vessel is the largest trawler ever to fish out of Boston. This vessel and the Sturgeon Bay, sister ship of the Massachusetts, both built under the Fishing Vessel Subsidy Program, were welcome additions to the declining Boston fleet.

During 1963 the New England fleet lost 11 vessels at sea--8 from the port of Gloucester. Three fishermen were lost, and the toll might have been heavier had it not been for modern lifesaving equipment. The Gloucester trawler St. Nicholas, on fire at sea, was lost despite assistance from a Russian vessel. Eight new vessels entered the industry--four of which will fish out of New Bedford.

Processing. The 1963 value of manufactured fishery products produced in the New England States was \$121.7 million--a decrease of \$11.2 million (8 percent) compared with 1962. The value of the Maine manufactured products declined \$11.7 million, while there were smaller decreases in New Hampshire, Rhode Island, and Connecticut. Massachusetts, with a gain of \$869,000, was the only State showing an improved value over the previous year. A reduc-

tion of \$6.8 million in the value of the pack of canned Maine sardines was largely responsible for the lower value of the New England manufactured fishery products in 1963.

Weather. A severe storm the last of November caused serious losses to fishermen and waterfront property, particularly in northern New England. Damage to property, boats, vessels, and lobster pots was estimated at over \$1 million in Maine alone. The Boothbay Harbor, Maine, area suffered most severely. At Gloucester, a large section of the breakwater was breached and waterfront property was destroyed. Fortunately, no lives or vessels were lost at sea. The November storm climaxed a year of unusually high winds and poor fishing weather.

Labor. The fishing industry had another year of labor-management tranquility with no major work stoppage or tieups among the fishing fleet. New agreements were signed between fish processors and employee unions at Rockland, Gloucester, and Boston. Wage increases, in general, were moderate, ranging between 5 and 15 cents plus fringe benefits. The agreement reached in Boston was for a 3-year period and will not expire until May 1966.

Legislation. Effective October 1963, all groundfish landed in Massachusetts, with the exception of ocean perch, must be gutted at sea. The new regulation is contained in an amendment to Section 14 of the Rules and Regulations promulgated by the Massachusetts Director of the Division of Marine Fisheries. The amendment was designed, primarily, to prevent the landing of ungutted pollock and small haddock.

Lobsters. This most valuable of all fish and shellfish taken by New England fishermen was in increased demand in 1963. Although the catch of 29 million pounds was up only 3 percent from 1962, the value to the fishermen of \$16.2 million was 13 percent above the previous year. The catch of so-called deep sea lobsters by otter trawlers was 2.0 million pounds and was landed at several ports in Massachusetts, Rhode Island, and Connecticut. This fishery continues to attract additional vessels each year and is carried on from Hudson Canyon to the Southeast part of Georges Bank in waters ranging from 100 to 250 fathoms deep. With the increased otter trawl lobster catch have come more frequent calls for a complete investigation into the possible harmful effects this type of fishery might have upon the future of the lobster fishery. Conflicts have also arisen over the increased activities of skin divers--primarily sports fishermen. Skin diving for lobsters is illegal in Maine and New Hampshire but allowed in the other three Coastal New England States.

Groundfish. Landings of groundfish declined to 295 million pounds--31 million pounds below the 1962 catch. However the value of the catch (\$21 million) was slightly higher than in 1962, as the fresh-fish market continued to improve. Landings of cod, haddock, ocean perch, and pollock were below the previous year, while cusk and white hake showed small increases. The available U.S. supply of groundfish fillets in 1963 (catch plus imports) set a new high of just over 315 million pounds. Imports of groundfish fillets were 232 million pounds, a record 73.5 percent of total supply. Included in the imports of groundfish fillets were 153 million pounds in the form of blocks or slabs used primarily by the expanding fish stick and portion industry--a 7-percent increase over 1962 imports.

Whiting. The 1963 catch of whiting was 87 million pounds, 11 percent below the 1962 catch and the lowest since 1953. Massachusetts led in volume with 67 million pounds, followed by Maine with 16 million. The Maine catch dropped 11 percent despite legislation that limited the operations of Massachusetts vessels in Maine waters. Once again Gloucester vessel owners and fishermen attempted to form organizations that would work for higher prices and improved fish handling methods. They were unsuccessful, however, and the whiting industry made no significant changes in its catching, handling, or processing practices. Despite the catch decrease, the supply of frozen whiting appeared adequate, with the consumer market showing some signs of decline. The activities of a large fleet of Russian trawlers was considered by many fishermen and processors to be the dominant factor in the drop in catch. The

# NEW ENGLAND FISHERIES

Bureau's Technological Laboratory in Gloucester completed initial tests on the value of refrigerated sea water for holding whiting. The possibility of improving the quality of whiting by better handling practices both afloat and on shore was carefully observed by the industry.

Herring. The 1963 catch of 152.3 million pounds of Maine sea herring was 3 percent less than in 1962. Of this amount, 6.3 million pounds were exported to Canada compared with 5.6 million the previous year. The sardine pack of 1.6 million standard cases was 25 percent below the 1962 production. A greater proportion of the sea herring catch was used for bait and reduction than in 1962. Imports of sea herring from Canada were 45.5 million pounds compared with 62.1 million the previous year. Only 27 canneries packed sardines in 1963--a reduction of 5 plants from the previous year. Imports of canned sardines in 1963 totaled 41.5 million pounds, 22 percent less than in 1962.

Ocean Perch. Only 108 million pounds of ocean perch were landed at New England ports in 1963--the lowest catch since 1940. Maine landings of 64 million pounds were down 8 percent from 1962, but the most severe drop occurred in Massachusetts, where the catch was only 44 million pounds, 19 percent less than the previous year. Although there was some improvement in ex-vessel prices, the fleet continued to decline in the face of ever diminishing returns. One new, large wooden trawler was added to the fishery in Maine, while several older large and medium vessels were removed from the fleet by sinking or transfers to more profitable fisheries. Imports of ocean perch filets in 1963 were 21.6 million pounds, 11 percent more than in 1962.

Sea Scallops. The 18-million pound landings of sea scallops, valued at \$8.3 million, represented a decline for the second year. The catch was 18 percent less in poundage and 7 percent less in value than the 1962 catch. Landings of 16 million pounds enabled New Bedford to continue to be the leading sea scallop port. Imports of sea scallops, almost entirely from Canada, increased to over 13 million pounds or 15 percent more than the previous year. This was the eighth year of increase. The scallop fleet declined in 1963 as several of the older and marginally profitable vessels were converted to otter trawling or longlining. Some evidence indicated that scallop abundance was decreasing on Georges Bank, as the grounds come under ever increasing fishing pressure from Canadian and United States fishermen.

Yellowtail Flounders. The yellowtail flounder continued its phenomenal comeback to the ranks of major species with total landings of 78 million pounds valued at \$5 million--up 38 percent in poundage and 21 percent in value from 1962. Massachusetts contributed 69 million pounds which were, for the most part, landed and processed in New Bedford. Rhode Island had a total of 9 million pounds, and only insignificant catches were reported from Connecticut. The large quantity of yellowtail flounders encouraged several plants to expand their filleting and packing facilities in New Bedford and although glut periods occasionally occurred, most of the catch was landed and processed in an orderly and stable manner.

Tuna. The tuna seining fleet operating off the Eastern Coast increased to 16 U.S. vessels, which landed 8.3 million pounds of bluefin and skipjack tuna at New England ports. Additional quantities were taken directly to Puerto Rico. In 1962 the fleet had only 7 vessels, which landed 6.7 million pounds. Only one plant processed tuna in New England in 1963. New plants were considered but not built by West Coast interests. Most of the New England landings were shipped frozen to canneries in Maryland, Puerto Rico, and California. Some fish were also shipped to Italy. New Bedford was the leading tuna port, with 3.3 million pounds. Low prices, poor weather conditions, and the comparatively short season tempered the success of the 1963 operation. Additional local canning facilities would greatly improve the outlook for this fishery.

Swordfish. The longline method of fishing for swordfish, which began in 1962, continued to grow in 1963. New England landings of swordfish caught by this gear in 1963 were over 1.9

million pounds. In addition, longlines also caught some tuna and shark. A Maine vessel was the most successful for the year, with one trip taking 514 fish (54,000 pounds), and another trip taking 412 fish (81,000 pounds). Both trips established records at New England ports--the first trip by capturing a record number of fish; the second trip by landing a record poundage. The high percentage of "pups" or fish weighing well under 100 pounds has caused concern because of the lower price of steaks cut from the smaller fish. The average price per pound for dressed swordfish declined to 31 cents from 55 cents the previous year.

Menhaden. Less than 1 million pounds of menhaden were landed in the New England States, compared with 24 million in 1962. Fish were caught north of Cape Cod, as this species once again failed to visit Massachusetts Bay and northward. Rhode Island purse seiners did catch additional menhaden, but the fish were either landed directly on Long Island, N. Y., or taken there by carrier boat.

Other Industrial Species. Landings of unclassified species for industrial purposes totaled 58 million pounds which was slightly under the 1962 catch. Rhode Island received 32 million pounds landed at Point Judith, while Massachusetts landings were 24 million pounds, principally at New Bedford. In addition to these unclassified species, 11 million pounds of alewives were taken by purse seines and landed at Gloucester. Despite somewhat improved industrial product prices, New England plants mostly experienced a poor year due to an insufficient supply of raw materials.

Bait Fishery. For the first time the combined catch of blood and sand worms brought over \$1 million to Maine diggers. The value of the 1963 worm catch, \$1.3 million, was 35 percent above 1962 and the fourth most valuable in the Maine catch. The demand for marine worms continues to grow at a rapid pace, and, providing their abundance can be maintained, the catches should continue to increase markedly over the next few years.

Foreign fishing. Fishing off the New England coast by foreign vessels, primarily Russian, intensified in 1963. The Russian fleet alone totaled almost 300 vessels. There were fewer gill net vessels and more stern trawlers and side trawlers, thus leading to fewer complaints from American vessels concerning nets in their propellers or being forced to detour miles around the strings of gear. The Russians were fishing primarily for whiting and herring. Demands from fishermen and other segments of the industry that the territorial waters be extended beyond the present 3 miles were voiced. Complaints of the Russian activity were greatest during July and August, when the Russian fleet was concentrated on Georges Bank and off Cape Cod.

Irradiation laboratory. Construction began in July on the new building to house the Gloucester irradiation laboratory. An appropriation of \$650,000 was voted by Congress the previous year for this facility, which will be operated jointly by the Atomic Energy Commission and the Bureau of Commercial Fisheries. Work already underway on the radiation pasteurization of seafood products shows great promise of improving the shelf life of fresh fishery products. The new building is expected to be completed in autumn 1964.

Research vessel. The Albatross IV, the most modern and best equipped U.S. fishery research vessel, began its first year of operation in 1963. The 187-foot long, 1,000-ton stern trawler was officially commissioned on May 9 and sailed on its first scientific cruise on May 13. The new vessel has a cruising range of 9,000 miles and is completely equipped with the latest scientific facilities and electronic aids. Invitations to submit bids for the construction of a replacement for the Bureau's aging exploratory fishing vessel, Delaware, were sent out in 1963. Plans call for the vessel to be built as a 155-foot stern trawler, and equipped with the latest facilities for fishery research.

# NEW ENGLAND FISHERIES

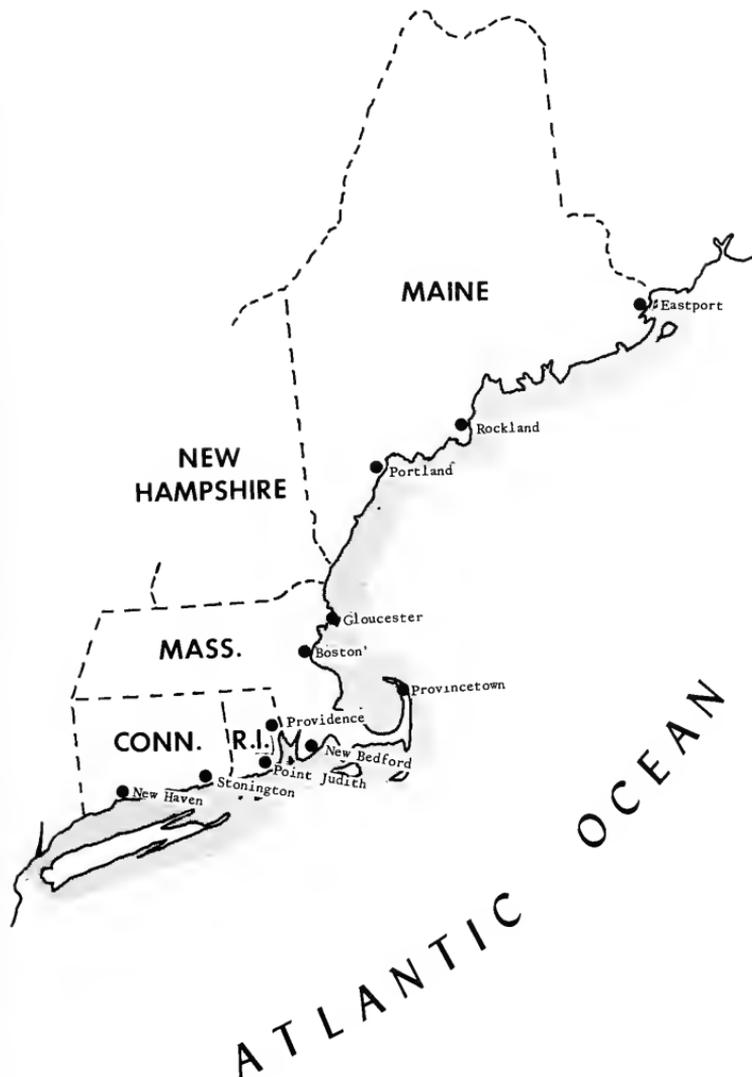
Shore and Plant Development. Construction got underway in New Bedford in 1963 on a 19-acre Maritime Terminal site for the use of fishing and other waterfront businesses. The development will feature a 1,500-foot long bulkhead for the mooring of vessels, and a cold storage warehouse with a capacity of 20 to 30 million pounds. Work also began in New Bedford on a hurricane dike which will cost over \$16 million. In Gloucester, approval was received for a \$1.2-million dredging project which, it is hoped, will stimulate increased exports and imports as well as benefit some of the larger domestic fishing vessels. This project is embodied in the Federal Urban Renewal program, under which a large section of the Gloucester waterfront will eventually be razed and rebuilt. Urban renewal projects both in Gloucester and along the Atlantic Avenue section of Boston are expected to result in the relocation of many fish processing plants.

Training Program. A fishermen's training program was inaugurated at Boston in 1963 with funds provided by the Manpower Development and Training Act. The training course, conducted by vessel owners and the Atlantic Fishermen's Union, included 10 weeks at sea and an intensive 3-week course on shore. Out of the first class of 37 trainees, 13 completed the course. A similar program is scheduled for Gloucester in 1964.

Other information. The following tables contain summarized and detailed information on the 1963 operating units and catch of fish and shellfish in the New England States. Condensed summary data on the operating units and catch by States of the New England area, appearing on the following pages, have been previously published in Current Fishery Statistics No. 3590. Additional data on many aspects of the New England fisheries may be found in Maine, Massachusetts, and Rhode Island monthly and annual landing bulletins released by the Branch of Fishery Statistics and in daily, monthly, and annual reports published by the Bureau's Fishery Market News Office, Commonwealth Pier, Boston, Mass.

Acknowledgments. The following organizations assisted in collecting the data appearing in this section: Maine Department of Sea and Shore Fisheries; New Hampshire Fish and Game Department; Massachusetts Department of Natural Resources, Division of Marine Fisheries; Rhode Island Department of Agriculture and Conservation, Division of Fish and Game; Connecticut State Board of Fisheries and Game; and Connecticut State Shell Fish Commission.





NEW ENGLAND STATES

## NEW ENGLAND FISHERIES

## SECTIONAL SUMMARIES

## SUMMARY OF CATCH, 1963

(MILLIONS OF POUNDS AND MILLIONS OF DOLLARS)

STATE	FISH		SHELLFISH, ETC.		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
MAINE . . . . .	250	6	36	15	286	21
NEW HAMPSHIRE . . . . .	(1)	(1)	1	(1)	1	(1)
MASSACHUSETTS . . . . .	439	29	29	13	468	42
RHODE ISLAND . . . . .	65	2	4	2	69	4
CONNECTICUT . . . . .	4	(1)	1	1	5	1
TOTAL . . . . .	758	37	71	31	829	68

1/ LESS THAN 500,000 POUNDS OR \$500,000.

## SUMMARY OF OPERATING UNITS, 1963

ITEM	MAINE	NEW HAMPSHIRE	MASSACHUSETTS	RHODE ISLAND	CONNECTICUT	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	563	-	3,353	437	120	4,202
ON BOATS AND SHORE:						
REGULAR . . . . .	4,302	90	817	501	76	5,786
CASUAL . . . . .	4,395	292	5,715	756	262	11,440
TOTAL . . . . .	9,260	382	9,885	1,694	478	21,426
VESSELS, MOTOR . . . . .	141	-	466	112	46	733
GROSS TONNAGE . . . . .	8,669	-	37,403	4,564	1,319	47,961
BOATS:						
MOTOR . . . . .	5,470	173	3,056	1,116	256	10,070
OTHER . . . . .	397	8	224	23	20	676
GEAR:						
HAUL SEINES, COMMON . . . . .	1	-	2	2	4	15
LENGTH, YARDS . . . . .	100	-	465	290	270	1,125
STOP SEINES . . . . .	166	-	-	-	-	166
LENGTH, YARDS . . . . .	83,750	-	-	-	-	83,750
PURSE SEINES:						
HERRING . . . . .	2	-	-	-	-	2
LENGTH, YARDS . . . . .	800	-	-	-	-	800
MACKEREL . . . . .	-	-	3	1	-	4
LENGTH, YARDS . . . . .	-	-	1,150	100	-	1,250
TUNA . . . . .	1	-	10	3	-	10
LENGTH, YARDS . . . . .	800	-	7,460	2,630	-	7,460
OTHER . . . . .	10	-	5	-	-	15
LENGTH, YARDS . . . . .	3,600	-	2,600	-	-	6,200
BAG NETS . . . . .	10	4	-	-	-	14
OTTER TRAWLS:						
FISH . . . . .	119	-	402	63	62	613
YARDS AT MOUTH . . . . .	2,620	-	10,762	2,036	1,022	15,382
SHRIMP . . . . .	26	-	-	-	-	26
YARDS AT MOUTH . . . . .	532	-	-	-	-	532
WEIRS . . . . .	74	7	-	-	-	81
POUND NETS, FISH . . . . .	-	-	60	1	-	61
FLOATING TRAPS . . . . .	5	-	21	18	-	44
FYKE AND HOOP NETS, FISH . . . . .	-	-	-	-	5	5
POTS AND TRAPS:						
CONCH . . . . .	-	-	100	285	630	1,015
CRAB . . . . .	78	150	87	1,145	-	1,460
EEL . . . . .	-	-	265	395	495	1,145
LOBSTERS . . . . .	730,528	16,500	94,540	7,709	7,623	857,100
BOX TRAPS . . . . .	5	-	-	-	-	5
GILL NETS:						
ANCHOR, SET OR STAKE . . . . .	10	-	19	1	10	39
SQUARE YARDS . . . . .	64,920	-	110,656	100	1,662	174,558
DRIFT:						
SHAD . . . . .	-	-	-	-	51	51
SQUARE YARDS . . . . .	-	-	-	-	101,956	101,956
OTHER . . . . .	-	1	24	-	9	34
SQUARE YARDS . . . . .	-	2,500	245,000	-	3,622	251,122

(CONTINUED ON NEXT PAGE)

# NEW ENGLAND FISHERIES

95

## SUMMARY OF OPERATING UNITS, 1963 - Continued

ITEM	MAINE	NEW HAMPSHIRE	MASSACHUSETTS	RHODE ISLAND	CONNECTICUT	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
<b>GEAR - CONTINUED:</b>						
<b>LINES:</b>						
HAND . . . . .	333	354	2,199	199	29	3,114
HOOKS . . . . .	410	708	2,475	310	58	3,961
TROLL . . . . .	-	-	15	30	-	45
HOOKS . . . . .	-	-	15	30	-	45
LONG OR SET WITH HOOKS	80	5	97	5	-	185
HOOKS . . . . .	315,000	7,500	222,245	2,610	-	546,205
DIP NETS, COMMON . . . . .	90	-	207	-	107	404
<b>HARPOONS:</b>						
SWORDFISH . . . . .	-	-	55	14	-	63
OTHER . . . . .	19	-	8	-	-	27
SPEARS . . . . .	-	-	20	-	1	21
<b>DREDGES:</b>						
CLAM . . . . .	-	-	35	30	9	73
YARDS AT MOUTH . . . . .	-	-	22	30	9	60
MUSSEL . . . . .	-	-	-	1	-	1
YARDS AT MOUTH . . . . .	-	-	-	2	-	2
OYSTER, COMMON . . . . .	5	-	21	-	19	45
YARDS AT MOUTH . . . . .	5	-	17	-	29	51
SCALLOP . . . . .	64	-	994	16	-	1,070
YARDS AT MOUTH . . . . .	118	-	1,096	13	-	1,213
<b>TONGS:</b>						
OYSTER . . . . .	-	-	13	16	13	42
OTHER . . . . .	-	-	177	876	2	1,055
RAKES . . . . .	390	-	1,208	216	-	1,814
HOES . . . . .	2,548	37	658	11	-	3,254
FORKS . . . . .	-	-	39	-	-	39
DIVING OUTFITS . . . . .	-	-	616	-	-	616

## CATCH BY STATES, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	MAINE		NEW HAMPSHIRE		MASSACHUSETTS	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
<b>FISH</b>						
ALEWIVES . . . . .	1,480	22	150	2	11,735	119
ANCHOVIES . . . . .	-	-	-	1	55	1
ANGLERFISH . . . . .	-	-	-	-	31	1
BILLFISH . . . . .	-	-	-	-	5	(1)
BLUEFISH . . . . .	-	-	-	-	47	7
BONITO . . . . .	-	-	-	-	48	4
BUTTERFISH . . . . .	13	1	-	-	777	92
COD . . . . .	1,960	68	75	5	37,221	2,645
CUSK . . . . .	470	23	8	(1)	1,431	67
<b>EELS:</b>						
COMMON . . . . .	37	7	5	1	24	6
CONGER . . . . .	-	-	-	-	3	(1)
<b>FLOUNDERS:</b>						
BLACKBACK . . . . .	455	22	-	-	11,786	1,338
DAB . . . . .	49	3	-	-	4,622	353
FLUKE . . . . .	-	-	-	-	2,296	716
GRAY SOLE . . . . .	711	66	-	-	2,364	288
LEMON SOLE . . . . .	1	(1)	-	-	1,958	488
YELLOWTAIL . . . . .	-	-	-	-	68,875	4,576
<b>TOTAL FLOUNDERS . . . . .</b>	<b>1,216</b>	<b>91</b>	<b>-</b>	<b>-</b>	<b>91,681</b>	<b>7,759</b>
<b>HADDOCK:</b>						
HADDOCK . . . . .	2,877	245	40	4	120,940	11,444
<b>HAKE:</b>						
RED . . . . .	-	-	-	-	5,068	55
WHITE . . . . .	3,564	125	1	(1)	2,526	126
HALIBUT . . . . .	92	31	2	1	178	57
HERRING, SEA . . . . .	152,317	1,649	-	-	1,853	35
LAUNCE . . . . .	-	-	-	-	245	15
MACKEREL . . . . .	304	23	2	1	2,243	217
MENHADEN . . . . .	-	-	-	-	345	4
OCEAN PERCH . . . . .	63,905	2,936	-	-	44,387	2,211
POLLOCK . . . . .	2,489	73	10	(1)	-	597
SALMON . . . . .	1	1	-	-	-	-

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## NEW ENGLAND FISHERIES

## CATCH BY STATES, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	MAINE		NEW HAMPSHIRE		MASSACHUSETTS	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH - CONTINUED						
SCUP OR PORGY . . . . .	-	-	-	-	747	44
SEA BASS . . . . .	-	-	-	-	17	2
SHAD . . . . .	-	-	-	-	22	1
SHARKS:						
GRAYFISH . . . . .	757	5	-	-	-	-
UNCLASSIFIED . . . . .	2	(1)	-	-	25	1
TOTAL SHARKS . . . . .	759	5	-	-	25	1
SKATES . . . . .	-	-	-	-	51	2
SMELT . . . . .	146	40	70	25	-	-
STRIPED BASS . . . . .	1	(1)	-	-	480	69
STURGEON . . . . .	1	(1)	-	-	6	1
SWORDFISH . . . . .	445	101	-	-	1,717	431
TAUTOG . . . . .	-	-	-	-	10	(1)
TILEFISH . . . . .	-	-	-	-	93	13
TUNA:						
BLUEFIN . . . . .	912	60	2	(1)	4,957	269
SKIPJACK . . . . .	-	-	-	-	1,588	79
UNCLASSIFIED . . . . .	-	-	-	-	8	1
TOTAL TUNA . . . . .	912	60	2	(1)	6,553	349
WHITE PERCH . . . . .	-	-	-	-	68	8
WHITING . . . . .	15,942	242	-	-	66,770	1,563
WOLFFISH . . . . .	49	2	(1)	(1)	719	37
UNCLASSIFIED:						
FOR FOOD, . . . . .	26	1	-	-	4,797	303
BAIT, REDUCTION, AND . . . . .	1,235	9	-	-	24,037	243
ANIMAL FOOD . . . . .	-	-	-	-	-	-
TOTAL FISH . . . . .	250,241	5,775	365	39	439,248	28,544
SHELLFISH, ETC.						
CRABS:						
GREEN . . . . .	-	-	45	2	18	2
ROCK . . . . .	2,011	84	25	1	33	5
TOTAL CRABS . . . . .	2,011	84	70	3	51	7
LOBSTERS, NORTHERN	22,804	12,636	747	388	4,506	2,565
SHRIMP . . . . .	538	64	-	-	23	3
CLAMS:						
HARD:						
PUBLIC . . . . .	2	2	-	-	1,460	1,025
PRIVATE . . . . .	-	-	-	-	14	14
RAZOR . . . . .	-	-	-	-	24	8
SOFT, PUBLIC . . . . .	1,832	786	-	-	948	606
TOTAL CLAMS . . . . .	1,834	788	-	-	2,446	1,653
CONCHS . . . . .	-	-	-	-	32	4
MUSSELS, SEA . . . . .	20	2	-	-	706	53
OYSTERS, MARKET:						
PUBLIC:						
SPRING . . . . .	2	2	-	-	9	13
FALL . . . . .	-	-	-	-	9	11
PRIVATE:						
SPRING . . . . .	-	-	-	-	14	16
FALL . . . . .	-	-	-	-	12	16
TOTAL OYSTERS . . . . .	2	2	-	-	44	56
PERIWINKLES AND COCKLES . . . . .	34	11	-	-	-	-
SCALLOPS:						
BAY . . . . .	-	-	-	-	333	422
SEA . . . . .	1,186	548	-	-	16,608	7,709
SQUID . . . . .	7	(1)	-	-	1,971	107
SEA URCHINS . . . . .	84	3	-	-	-	-
IRISH MOSS . . . . .	5,331	100	-	-	1,636	29
BLOODWORMS . . . . .	731	697	8	7	77	68
SANDWORMS . . . . .	813	506	11	6	12	14
TOTAL SHELLFISH, ETC.	35,395	15,441	836	404	28,445	12,690
GRAND TOTAL . . . . .	285,636	21,216	1,201	443	467,693	41,234

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# NEW ENGLAND FISHERIES

97

## CATCH BY STATES, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	RHODE ISLAND		CONNECTICUT		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
<b>FISH</b>						
ALEWIVES . . . . .	129	2	3	(1)	13,497	145
ANCHOVIES . . . . .	29	1	-	(1)	83	2
ANGLERFISH . . . . .	12	(1)	(1)	(1)	43	1
BILLFISH . . . . .	-	-	-	-	5	(1)
BLUEFISH . . . . .	82	11	52	8	181	26
BONITO . . . . .	61	6	1	(1)	110	10
BUTTERFISH . . . . .	5,122	458	97	9	6,009	560
CARP . . . . .	-	-	2	(1)	2	(1)
COD . . . . .	509	48	136	13	39,901	2,794
CUSK . . . . .	-	-	-	-	1,909	110
EELS:						
COMMON . . . . .	36	9	15	3	117	26
CONGER . . . . .	14	1	-	-	17	1
<b>FLOUNDERS:</b>						
BLACKBACK . . . . .	2,918	172	983	58	16,142	1,590
DAB . . . . .	1	(1)	-	-	4,652	356
FLUKE . . . . .	512	161	98	22	2,906	899
GRAY SOLE . . . . .	14	1	2	(1)	3,091	355
LEMON SOLE . . . . .	7	1	1	(1)	1,967	489
YELLOWTAIL . . . . .	8,998	472	135	7	78,009	5,055
TOTAL FLOUNDERS . . . . .	12,450	807	1,220	87	106,767	8,744
<b>HAPOOCK</b> . . . . .	21	2	3	(1)	123,881	11,695
<b>HAKE:</b>						
RED . . . . .	150	3	21	(1)	5,239	58
WHITE . . . . .	34	2	1	(1)	6,126	253
HALIBUT . . . . .	-	-	-	-	272	89
HERRING, SEA . . . . .	312	14	31	1	154,513	1,699
KING WHITING OR "KINGFISH" . . . . .	1	(1)	-	-	1	(1)
LAUNCE . . . . .	104	16	-	-	349	31
MACKEREL . . . . .	-	(1)	(1)	(1)	2,549	241
MENHADEN . . . . .	3	(1)	5	(1)	353	4
OCEAN PERCH . . . . .	-	(1)	-	-	108,292	5,147
OCEAN POUT . . . . .	1	(1)	-	-	1	(1)
POLLOCK . . . . .	9	(1)	-	-	14,601	670
SALMON . . . . .	-	-	-	-	1	1
SCUP OR PORGY . . . . .	8,469	509	759	76	9,975	629
SEA BASS . . . . .	114	18	29	4	160	24
SEA ROBIN . . . . .	131	2	3	(1)	134	2
SEA TROUT OR WEAFFISH . . . . .	-	-	-	-	-	-
GRAY . . . . .	2	(1)	1	(1)	3	(1)
SHAD . . . . .	2	(1)	301	63	325	64
<b>SHARKS:</b>						
GRAYFISH . . . . .	(1)	(1)	(1)	(1)	757	5
UNCLASSIFIED . . . . .	3	(1)	1	(1)	31	1
TOTAL SHARKS . . . . .	3	(1)	1	(1)	788	6
<b>SKATES . . . . .</b>						
SMELTS . . . . .	9	(1)	16	(1)	76	2
STRIPED BASS . . . . .	(1)	(1)	-	-	216	65
STURGEON . . . . .	71	13	30	5	582	87
SUCKERS . . . . .	3	(1)	8	1	18	2
SWORDFISH . . . . .	-	-	2	(1)	2	(1)
TAUTOG . . . . .	169	45	-	-	2,331	577
TILEFISH . . . . .	74	3	21	1	105	4
	101	11	-	-	194	24
<b>TUNA:</b>						
BLUEFIN . . . . .	720	47	-	-	6,591	376
SKIPJACK . . . . .	616	37	-	-	2,204	116
UNCLASSIFIED . . . . .	-	-	-	-	8	1
TOTAL TUNA . . . . .	1,336	84	-	-	8,803	493

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## NEW ENGLAND FISHERIES

## CATCH BY STATES, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	RHODE ISLAND		CONNECTICUT		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH - CONTINUED						
WHITE PERCH . . . . .	10	1	-	-	78	9
WHITING . . . . .	3,477	99	359	10	86,558	1,914
WOLFFISH . . . . .	-	-	-	-	768	39
UNCLASSIFIED:						
FOR FOOD . . . . .	8	1	4	(1)	4,835	305
BAIT, REDUCTION, AND ANIMAL FOOD. . . . .	32,341	238	587	8	58,200	498
TOTAL FISH . . . . .	65,398	2,404	3,718	289	756,970	37,051
SHELLFISH, ETC.						
CRABS:						
BLUE, HARD. . . . .	-	-	(1)	(1)	(1)	(1)
GREEN . . . . .	8	1	-	-	71	5
ROCK. . . . .	227	25	-	-	2,296	115
TOTAL CRABS. . . . .	235	26	(1)	(1)	2,367	120
LOBSTERS, NORTHERN. . . . .	592	339	41	284	29,120	10,212
SHRIMP. . . . .	-	-	-	-	551	67
CLAMS:						
HARD:						
PUBLIC. . . . .	2,224	1,295	2	1	3,688	2,323
PRIVATE. . . . .	-	-	265	125	299	139
OCEAN QUAHOG. . . . .	104	10	-	-	104	10
RAZOR. . . . .	-	-	-	-	24	8
SOFT, PUBLIC. . . . .	1	1	-	-	2,781	1,393
TOTAL CLAMS. . . . .	2,329	1,306	267	126	6,896	3,873
CONCHS. . . . .	78	16	82	14	192	34
MUSSELS, SEA. . . . .	1	(1)	-	-	727	55
OYSTERS, MARKET:						
PUBLIC:						
SPRING. . . . .	4	5	2	1	17	21
FALL. . . . .	7	7	-	-	16	18
PRIVATE:						
SPRING. . . . .	-	-	237	278	251	294
FALL. . . . .	-	-	156	184	168	200
TOTAL OYSTERS. . . . .	11	12	395	463	452	533
PERIWINKLES AND COCKLES . . . . .	-	-	-	-	34	11
SCALLOPS:						
BAY. . . . .	2	2	56	68	391	492
SEA. . . . .	-	-	-	-	17,794	8,257
SQUID. . . . .	656	44	38	3	2,682	154
SEA URCHINS. . . . .	-	-	-	-	84	3
IRISH MOSS. . . . .	-	-	-	-	6,967	129
BLOODWORMS. . . . .	-	-	-	-	816	772
SANDWORMS. . . . .	-	-	-	-	836	526
TOTAL SHELLFISH, ETC. . . . .	3,914	1,745	1,329	958	69,919	31,238
GRAND TOTAL. . . . .	69,312	4,149	5,047	1,247	828,889	68,289

1/ LESS THAN 500 POUNDS OR \$500.

NOTE:--STATISTICS ON THE CATCH ARE SHOWN IN ROUND (LIVE) WEIGHT EXCEPT FOR SHELL MOLLUSKS, CLAMS, CONCHS, MUSSELS, OYSTERS, AND PERIWINKLES AND COCKLES ARE REPORTED IN WEIGHT OF TOTAL MEATS. SCALLOPS ARE REPORTED IN WEIGHT OF EDIBLE MEATS.

# NEW ENGLAND FISHERIES

99

## CATCH OF CERTAIN SHELLFISH, 1963

(NUMBER AND BUSHELS)

SPECIES	MAINE		NEW HAMPSHIRE		MASSACHUSETTS	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
CRABS:						
GREEN . . . . .	NUMBER	-	643,050	\$2,025	262,936	\$1,976
ROCK . . . . .	DO	6,032,700	75,000	675	100,200	5,084
CLAMS:						
HARD:	U. S. STANDARD					
PUBLIC . . . . .	BUSHELS	209	1,515	-	132,755	1,025,237
PRIVATE . . . . .	DO	-	-	-	1,227	14,500
RAZOR . . . . .	DO	-	-	-	1,519	7,930
SOFT, PUBLIC . . . . .	DO	122,107	766,765	-	72,685	605,734
CONCHS. . . . .	DO	-	-	-	2,100	4,200
MUSSELS, SEA . . . . .	DO	1,360	1,407	-	70,550	52,975
OYSTERS, MARKET:						
PUBLIC:						
SPRING . . . . .	DO	240	1,798	-	1,400	13,381
FALL . . . . .	DO	-	-	-	1,338	11,526
PRIVATE:						
SPRING . . . . .	DO	-	-	-	2,215	16,200
FALL . . . . .	DO	-	-	-	1,923	15,970
PERIWINKLES AND						
COCKLES . . . . .	DO	1,894	10,704	-	-	-
SCALLOPS:						
BAY . . . . .	DO	-	-	-	55,533	421,614
SEA . . . . .	DO	197,667	547,923	-	2,767,950	7,708,620

SPECIES	RHODE ISLAND		CONNECTICUT		TOTAL		
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	
CRABS:							
BLUE, HARD . . . . .	NUMBER	-	720	\$101	720	\$101	
GREEN . . . . .	DO	110,340	-	-	1,016,326	5,001	
ROCK . . . . .	DO	907,200	-	-	7,115,100	115,125	
CLAMS:							
HARD:	U. S. STANDARD						
PUBLIC . . . . .	BUSHELS	185,292	1,295,464	150	962	318,406	2,323,178
PRIVATE . . . . .	DO	-	-	23,767	124,549	24,994	139,049
OCEAN QUAHOG . . . . .	DO	10,420	10,421	-	-	10,420	10,421
RAZOR . . . . .	DO	-	-	-	-	1,519	7,950
SOFT, PUBLIC . . . . .	DO	108	904	-	-	195,100	1,393,403
CONCHS. . . . .	DO	5,213	15,377	5,440	14,142	12,753	33,719
MUSSELS, SEA . . . . .	DO	140	254	-	-	72,050	54,636
OYSTERS, MARKET:							
PUBLIC:							
SPRING . . . . .	DO	643	4,611	195	1,263	2,478	21,053
FALL . . . . .	DO	971	6,917	-	-	2,309	18,445
PRIVATE:							
SPRING . . . . .	DO	-	-	30,805	277,806	33,020	294,006
FALL . . . . .	DO	-	-	20,323	183,560	22,248	199,530
PERIWINKLES AND							
COCKLES . . . . .	DO	-	-	-	-	1,894	10,704
SCALLOPS:							
BAY . . . . .	DO	300	2,700	9,097	67,630	64,930	491,944
SEA . . . . .	DO	-	-	-	-	2,965,617	8,256,543

NOTE:--THE CAPACITY OF A U. S. STANDARD BUSHEL IS 2,150.4 CUBIC INCHES.

## AVERAGE WEIGHTS OF CERTAIN SHELLFISH, 1963

SPECIES	MAINE	NEW HAMPSHIRE	MASSACHUSETTS	RHODE ISLAND	CONNECTICUT
	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
CRABS:					
BLUE, HARD . . . . .	NUMBER PER POUND	-	-	-	2.40
GREEN . . . . .	DO	-	14.29	13.79	-
ROCK . . . . .	DO	3.00	3.00	4.00	-
CLAMS:					
HARD:	LBS. OF MEATS				
PUBLIC . . . . .	PER U. S. STANDARD BUSHEL	11.00	-	11.00	12.00
PRIVATE . . . . .	DO	-	-	11.00	12.00
OCEAN QUAHOG . . . . .	DO	-	-	-	10.00
RAZOR . . . . .	DO	-	-	16.00	-
SOFT, PUBLIC . . . . .	DO	15.00	-	13.00	13.00
CONCHS. . . . .	DO	-	-	15.00	15.00
MUSSELS, SEA . . . . .	DO	15.00	-	10.00	10.00
OYSTERS, MARKET:					
PUBLIC:					
SPRING . . . . .	DO	7.50	-	6.50	7.00
FALL . . . . .	DO	-	-	6.50	7.00
PRIVATE:					
SPRING . . . . .	DO	-	-	6.50	-
FALL . . . . .	DO	-	-	6.50	7.70
PERIWINKLES AND					
COCKLES . . . . .	DO	18.00	-	-	-
SCALLOPS:					
BAY . . . . .	DO	-	-	6.00	6.20
SEA . . . . .	DO	6.00	-	6.00	-

NOTE:--THE CAPACITY OF A U. S. STANDARD BUSHEL IS 2,150.4 CUBIC INCHES.

## NEW ENGLAND FISHERIES

## MANUFACTURED FISHERY PRODUCTS, 1963

ITEM	MAINE		NEW HAMPSHIRE	
	QUANTITY	VALUE	QUANTITY	VALUE
ALFVIVES:				
SALTED AND PICKLED . . . . .	POUNDS	(1)	-	-
SMOKED . . . . .	DO	1,690	\$169	-
COD:				
FILLETS, FRESH AND FROZEN . . . . .	DO	160,295	49,339	-
SALTED (WHOLE, FILLETS, AND STRIPS) . . . . .	DO	(1)	(1)	-
SMOKED . . . . .	DO	(1)	(1)	-
CUSH:				
FILLETS, FRESH AND FROZEN . . . . .	DO	79,468	24,233	-
SALTED . . . . .	DO	(1)	(1)	-
FLOUNDERS:				
FILLETS, FRESH AND FROZEN . . . . .	DO	(1)	(1)	-
SPECIALTIES, FROZEN (BREADED IN SAUCES AND DINNERS) . . . . .	DO	(1)	(1)	-
HADDOCK:				
FILLETS, FRESH AND FROZEN . . . . .	DO	791,001	310,426	-
CANNED, FINNAN HADDIE, CREAMED . . . . .	STANDARD CASES	(1)	(1)	-
SMOKED, FINNAN HADDIE . . . . .	POUNDS	(1)	(1)	-
HAKE:				
FILLETS, FRESH AND FROZEN . . . . .	DO	169,224	55,815	-
SALTED . . . . .	DO	(1)	(1)	-
HALIBUT, SPECIALTIES, FROZEN (AU GRATIN AND DINNERS) . . . . .	DO	(1)	(1)	-
HERRING, SEA:				
CANNED:				
SARDINES . . . . .	STANDARD CASES	1,619,235	13,243,902	-
SPECIALTIES (COCKTAILS AND TIDBITS) . . . . .	DO	(1)	(1)	-
SMOKED . . . . .	POUNDS	165,664	58,666	-
MEAL AND SCRAP . . . . .	TONS	4,647	516,332	-
OIL . . . . .	1,000 POUNDS	576	35,576	-
OCEAN PERCH, FILLETS:				
FRESH AND FROZEN . . . . .	POUNDS	16,698,899	4,845,016	-
BREADED, RAW, AND COOKED, FROZEN . . . . .	DO	(1)	(1)	-
POLLOCK:				
FILLETS, FRESH AND FROZEN . . . . .	DO	519,350	87,206	-
SALTED (WHOLE, FILLETS, AND STRIPS) . . . . .	DO	(1)	(1)	-
SMOKED . . . . .	DO	(1)	(1)	-
DRIED . . . . .	DO	(1)	(1)	-
TUNA, CANNED:				
REGULAR . . . . .	STANDARD CASES	(1)	(1)	-
SPECIALTIES (SHERRY DIPS) . . . . .	DO	(1)	(1)	-
WHITING, FILLETS, FRESH AND FROZEN . . . . .	POUNDS	435,030	85,306	-
WOLFFISH, FILLETS:				
FRESH AND FROZEN . . . . .	DO	(1)	(1)	-
BREADED AND COOKED, FROZEN . . . . .	DO	(1)	(1)	-
CRABS:				
COOKED MEAT, FRESH AND FROZEN . . . . .	DO	132,501	152,037	-
CANNED:				
REGULAR . . . . .	STANDARD CASES	(1)	(1)	-
SPECIALTIES (DEVILED, DIPS, AND SPREADS) . . . . .	DO	(1)	(1)	-
LOBSTERS, NORTHERN:				
FRESH AND FROZEN:				
COOKED MEAT . . . . .	POUNDS	298,440	904,887	38,500
WHOLE . . . . .	DO	(1)	(1)	-
SPECIALTIES (NEWBURGS, PIES, DINNERS, ETC.) . . . . .	DO	(1)	(1)	-
CANNED:				
REGULAR . . . . .	STANDARD CASES	(1)	(1)	-
SPECIALTIES (DIPS, BISQUE, SPREADS, ETC.) . . . . .	DO	(1)	(1)	-
SHRIMP:				
RAW HEADLESS, FRESH . . . . .	POUNDS	15,050	13,850	-
SPECIALTIES, CANNED (DIPS) . . . . .	STANDARD CASES	(1)	(1)	-
CLAMS:				
SOFT, FRESH AND FROZEN, SHUCKED, CANNED:				
WHOLE AND MINCED . . . . .	STANDARD CASES	17,528	251,698	-
CHOWDER AND JUICE . . . . .	DO	568,852	3,754,404	-
SPECIALTIES (A LA KING, STEWS, STEAMED, ETC.) . . . . .	DO	(1)	(1)	-

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# NEW ENGLAND FISHERIES

101

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

ITEM	MAINE		NEW HAMPSHIRE	
	QUANTITY	VALUE	QUANTITY	VALUE
SCALLOPS, SEA:				
FRESH AND FROZEN:				
SHUCKED:				
BREADED: . . . . . POUNDS	(1)	(1)	-	-
RAW: . . . . . DO	(1)	(1)	-	-
COOKED . . . . . DO	(1)	(1)	-	-
SPECIALTIES (DINNERS, ETC.) . . . . . DO	(1)	(1)	-	-
UNCLASSIFIED:				
FRESH AND FROZEN, PACKAGED:				
FISH:				
PORTIONS:				
RAW:				
NOT BREADED: . . . . . DO	(1)	(1)	-	-
BREADED: . . . . . DO	(1)	(1)	-	-
BREADED AND COOKED . . . . . DO	(1)	(1)	-	-
STICKS, BREADED, COOKED. . . . . DO	(1)	(1)	-	-
FISH AND SHELLFISH . . . . . DO	6,410,678	\$3,151,313	-	-
CANNED . . . . . STANDARD CASES	159,479	1,970,327	-	-
CURED . . . . . POUNDS	389,411	77,035	-	-
INDUSTRIAL . . . . . -	-	4,578,090	-	-
TOTAL . . . . . -	-	34,877,442	-	\$554,867

ITEM	MASSACHUSETTS		RHODE ISLAND AND CONNECTICUT	
	QUANTITY	VALUE	QUANTITY	VALUE
ANGLERFISH, FILLETS, FROZEN. . . . . POUNDS	(1)	(1)	-	-
BUTTERFISH, SMOKED . . . . . DO	(1)	(1)	-	-
CHUBS, SMOKED . . . . . DO	(1)	(1)	-	-
COO:				
FRESH AND FROZEN:				
FILLETS: . . . . . DO	5,140,785	\$1,572,142	-	-
STEAKS . . . . . DO	589,723	129,834	-	-
BREADED AND COOKED, FROZEN:				
FILLETS . . . . . DO	(1)	(1)	-	-
CAKES . . . . . DO	(1)	(1)	-	-
CANNED, SALTED . . . . . STANDARD CASES	(1)	(1)	-	-
SALTED (WHOLE FILLETS, AND STRIPS) . . . . . POUNDS	(1)	(1)	-	-
SMOKED . . . . . DO	(1)	(1)	-	-
CUSK, FILLETS, FRESH AND FROZEN. . . . . DO	183,244	56,031	-	-
FLOUNDERS:				
FILLETS:				
FRESH AND FROZEN . . . . . DO	28,432,709	9,249,426	(1)	(1)
BREADED AND COOKED, FROZEN . . . . . DO	812,991	341,732	-	-
SPECIALTIES, FROZEN (IN SAUCES AND DINNERS). . . . . DO	(1)	(1)	-	-
HADDOCK:				
FILLETS:				
FRESH AND FROZEN . . . . . DO	34,685,255	12,394,821	-	-
BREADED AND COOKED, FROZEN . . . . . DO	655,217	302,171	-	-
DINNERS, BREADED, FROZEN . . . . . DO	(1)	(1)	-	-
SMOKED:				
FILLETS . . . . . DO	(1)	(1)	-	-
FINNAN HADDIE . . . . . DO	(1)	(1)	-	-
HAKE, FILLETS, FRESH AND FROZEN. . . . . DO	87,790	26,079	-	-
HALIBUT:				
FILLETS, FRESH . . . . . DO	(1)	(1)	-	-
STEAKS, FROZEN . . . . . DO	(1)	(1)	-	-
SPECIALTIES, FROZEN (AU GRATIN AND DINNERS). . . . . DO	(1)	(1)	-	-
HERRING, SEA:				
SALTED . . . . . DO	(1)	(1)	-	-
SMOKED . . . . . DO	48,511	21,812	-	-
MACKEREL:				
FILLETS, FRESH AND FROZEN. . . . . DO	18,162	5,482	-	-
SMOKED . . . . . DO	(1)	(1)	-	-
OCEAN PERCH:				
FILLETS:				
FRESH AND FROZEN . . . . . DO	13,351,122	3,645,245	-	-
BREADED, RAW AND COOKED, FROZEN. . . . . DO	863,312	370,484	-	-
MEAL AND SCRAP . . . . . TONS	(1)	(1)	-	-
OIL . . . . . 1,000 POUNDS	(1)	(1)	-	-
POLLOCK:				
FILLETS, FRESH AND FROZEN. . . . . POUNDS	4,927,806	972,406	-	-
CANNED, FLAKES . . . . . STANDARD CASES	(1)	(1)	-	-
SALTED (WHOLE, FILLETS, AND STRIPS) . . . . . POUNDS	(1)	(1)	-	-
SMOKED . . . . . DO	(1)	(1)	-	-
SMOKED . . . . . DO	(1)	(1)	-	-
SABLEFISH, SMOKED. . . . . DO	(1)	(1)	-	-
SALMON:				
STEAKS, FROZEN . . . . . DO	(1)	(1)	-	-
SMOKED . . . . . DO	(1)	(1)	-	-

SEE FOOTNOTE AT END OR TABLE.

(CONTINUED ON NEXT PAGE)

## NEW ENGLAND FISHERIES

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

ITEM	MASSACHUSETTS		RHODE ISLAND AND CONNECTICUT	
	QUANTITY	VALUE	QUANTITY	VALUE
SHAD, FILLETS, FRESH (BONED) . . . . .	POUNDS	(1)	21,867	\$32,800
SMELT, COOKED, FROZEN. . . . .	DO	(1)	-	-
SWDROFISH, STEAKS, FROZEN . . . . .	DO	(1)	-	-
WHITEFISH, SMOKED. . . . .	DO	(1)	-	-
WHITING, FILLETS, FRESH AND FROZEN . . . . .	DO	1,969,496	\$449,644	-
WOLFFISH, FILLETS, FRESH AND FROZEN. . . . .	DO	235,914	80,376	-
CRABS, COOKED MEAT, FRESH AND FROZEN . . . . .	DO	87,136	162,986	-
LOBSTERS (NORTHERN):				
FRESH AND FROZEN, COOKED MEAT. . . . .	DO	662,926	2,164,656	43,201
CANNED, SPECIALTIES (DIPS, BISQUE, SPREADS, ETC.). . . . .	STANDARD CASES	-	-	(1)
SHRIMP:				
COOKED:				
PEELED AND DEVEINED. . . . .	POUNDS	(1)	(1)	-
BREADED, FROZEN. . . . .	DO	608,661	676,517	-
SPECIALTIES, FROZEN (CROQUETTES AND DINNERS). . . . .	DO	(1)	(1)	-
CLAMS:				
FRESH AND FROZEN:				
SHUCKED:				
HARD AND SURF. . . . .	GALLONS	46,083	107,120	336,740
SOFT . . . . .	DO	98,540	583,132	1,320
BREADED, RAW AND COOKED. . . . .	POUNDS	(1)	(1)	(1)
SPECIALTIES (STUFFED, SLICED, ETC.). . . . .	DO	926,000	477,575	-
CANNED:				
WHOLE AND MINCED. . . . .	STANDARD CASES	-	-	(1)
CHOWDER AND JUICE. . . . .	DO	(1)	(1)	(1)
SPECIALTIES (A LA KING, STEWS, STEAMED, ETC.). . . . .	DO	(1)	(1)	(1)
OYSTERS, SHUCKED, FRESH. . . . .	GALLONS	-	-	4,356
SCALLOPS:				
FRESH AND FROZEN:				
RAW, SHUCKED. . . . .	DO	39,080	421,914	6,662
SEA:				
SHUCKED. . . . .	POUNDS	5,727,223	2,952,319	(1)
BREADED:				
RAW. . . . .	DO	271,494	186,944	-
COOKED . . . . .	DO	2,443,553	1,732,999	-
SPECIALTIES (DINNERS, ETC.). . . . .	DO	(1)	(1)	-
UNCLASSIFIED:				
FRESH AND FROZEN, PACKAGED:				
FISH:				
PORTIONS:				
RAW:				
NOT BREADED. . . . .	DO	1,013,832	344,040	-
BREADED. . . . .	DO	21,472,336	526,439	-
BREADED AND COOKED . . . . .	DO	7,034,662	2,706,516	-
STICKS, BREADED:				
RAW. . . . .	DO	777,835	295,984	-
COOKED . . . . .	DO	41,075,416	17,041,375	-
CAKES, COOKED. . . . .	DO	1,378,506	479,884	-
FISH AND SHELLFISH . . . . .	DO	9,764,418	6,586,997	2,606,209
CANNED . . . . .	STANDARD CASES	971,590	5,422,670	47,530
CURED. . . . .	POUNDS	1,615,089	1,143,314	-
INDUSTRIAL . . . . .	-	-	1,767,489	-
TOTAL . . . . .	-	-	-	877,920
TOTAL . . . . .	-	-	-	3,897,802
TOTAL . . . . .	-	-	-	82,406,539
TOTAL . . . . .	-	-	-	3,897,802

1/ INCLUDED WITH UNCLASSIFIED.

NOTE:--SOME OF THE ABOVE PRODUCTS MAY HAVE BEEN MANUFACTURED FROM RAW PRODUCTS IMPORTED FROM ANOTHER STATE OR A FOREIGN COUNTRY; THEREFORE, THEY CANNOT BE CORRELATED DIRECTLY WITH THE CATCH WITHIN THE STATE. CERTAIN ITEMS ARE SHOWN IN AN INTERMEDIATE AND ALSO IN A MORE ADVANCED STAGE OF PROCESSING.



# NEW ENGLAND FISHERIES

103

## SUMMARY OF MANUFACTURED PRODUCTS, 1963

(VALUE IN THOUSAND DOLLARS)

ITEM		QUANTITY	VALUE
<b>PACKAGED PRODUCTS, FRESH AND FROZEN:</b>			
<b>NOT BREADED:</b>			
FISH . . . . .	1,000 POUNDS	111,964	35,157
SHELLFISH . . . . .	DO	13,859	11,385
<b>BREADED:</b>			
FISH . . . . .	DO	75,766	29,463
SHELLFISH . . . . .	DO	3,688	2,479
SPECIALTIES, FISH AND SHELLFISH (NOT BREADED AND BREADED) . . . . .	DO	14,716	9,043
<b>CANNED:</b>			
FISH . . . . .	1,000 STANDARD CASES	1,805	15,508
SHELLFISH . . . . .	DO	689	4,985
ANIMAL FOOD . . . . .	DO	901	4,538
<b>CURED:</b>			
SALTED AND PICKLED (INCLUDING DRIED)	1,000 POUNDS	765	259
SMOKED . . . . .	DO	1,475	1,042
INDUSTRIAL . . . . .	-	-	7,878
<b>TOTAL . . . . .</b>	<b>-</b>	<b>-</b>	<b>121,737</b>

## VALUE OF MANUFACTURED PRODUCTS, BY STATES, 1963

(THOUSANDS OF DOLLARS)

STATE	VALUE
MAINE . . . . .	34,877
NEW HAMPSHIRE . . . . .	555
MASSACHUSETTS . . . . .	82,407
RHODE ISLAND . . . . .	3,414
CONNECTICUT . . . . .	484
<b>TOTAL . . . . .</b>	<b>121,737</b>

## WHOLESALE AND MANUFACTURING, 1963

ITEM	MAINE	NEW HAMPSHIRE	MASSACHUSETTS	RHODE ISLAND	CONNECTICUT	TOTAL
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
WHOLESALE AND MANUFACTURING:						
ESTABLISHMENTS . . . . .	252	11	241	32	11	547
PERSONS ENGAGED:						
AVERAGE FOR SEASON . . . . .	6,438	96	5,528	392	75	12,529
AVERAGE FOR YEAR . . . . .	2,739	79	4,937	317	69	8,141

## NEW ENGLAND FISHERIES

## MAINE

## OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	STOP SEINES	PURSE SEINES			BAG NETS
			HERRING	TUNA	OTHER	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	-	71	9	17	3	-
ON BOATS AND SHORE:						
REGULAR . . . . .	-	239	-	-	23	3
CASUAL . . . . .	2	447	-	-	14	9
TOTAL . . . . .	2	757	9	17	40	12
VESSELS, MOTOR . . . . .	-	19	2	1	1	-
GROSS TONNAGE . . . . .	-	373	40	366	24	-
BOATS:						
MOTOR . . . . .	1	183	1	1	9	6
OTHER . . . . .	-	214	4	-	15	6
GEAR:						
NUMBER . . . . .	1	166	2	1	10	10
LENGTH, YARDS . . . . .	100	83,750	800	800	3,600	-
ITEM	OTTER TRAWLS		WEIRS	FLOATING TRAPS	POTS AND TRAPS	
	FISH	SHRIMP			CRAB	LOBSTER
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	335	-	-	-	-	31
ON BOATS AND SHORE:						
REGULAR . . . . .	49	28	81	6	4	3,044
CASUAL . . . . .	20	2	64	3	-	2,628
TOTAL . . . . .	404	30	145	9	4	5,703
VESSELS, MOTOR . . . . .	76	-	-	-	-	30
GROSS TONNAGE . . . . .	7,075	-	-	-	-	318
BOATS:						
MOTOR . . . . .	43	28	74	5	4	5,153
OTHER . . . . .	-	-	71	4	-	12
GEAR:						
NUMBER . . . . .	119	28	74	5	78	730,528
YARDS AT MOUTH . . . . .	2,628	532	-	-	-	-
ITEM	POTS AND TRAPS - CONTINUED	GILL NETS, ANCHOR, SET OR STAKE	LINES		OIP NETS, COMMON	HARPOONS
			HAND	LONG OR SET WITH HOOKS		
	BOX TRAP	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	-	15	8	14	-	5
ON BOATS AND SHORE:						
REGULAR . . . . .	-	1	85	112	3	17
CASUAL . . . . .	7	5	240	15	87	11
TOTAL . . . . .	7	21	333	141	90	33
VESSELS, MOTOR . . . . .	-	5	5	4	-	2
GROSS TONNAGE . . . . .	-	106	50	231	-	44
BOATS:						
MOTOR . . . . .	2	2	62	75	8	17
OTHER . . . . .	-	-	-	-	1	-
GEAR:						
NUMBER . . . . .	5	10	333	80	90	19
SQUARE YARDS . . . . .	-	64,920	-	-	-	-
HOOKS . . . . .	-	-	410	315,000	-	-
ITEM	DREDGES		RAKES	HOES	BY HAND	TOTAL, EXCLUSIVE OF DUPLICATION
	OYSTER, COMMON	SCALLOP				
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	-	85	-	-	-	563
ON BOATS AND SHORE:						
REGULAR . . . . .	-	57	-	1,333	52	4,302
CASUAL . . . . .	8	14	390	1,215	33	4,395
TOTAL . . . . .	8	156	390	2,548	85	9,260
VESSELS, MOTOR . . . . .	-	10	-	-	-	141
GROSS TONNAGE . . . . .	-	775	-	-	-	8,869
BOATS:						
MOTOR . . . . .	5	48	291	-	-	5,470
OTHER . . . . .	-	-	75	-	-	397
GEAR:						
NUMBER . . . . .	5	64	390	2,548	-	-
YARDS AT MOUTH . . . . .	5	118	-	-	-	-

# NEW ENGLAND FISHERIES

105

## MAINE - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		STOP SEINES		PURSE SEINES	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
HERRING, SEA . . . . .	-	-	135,447,300	\$1,451,033	930,600	\$7,988
MACKEREL . . . . .	-	-	11,700	608	13,400	675
SMELT . . . . .	1,700	\$141	-	-	-	-
STRIPED BASS . . . . .	-	-	1,400	165	-	-
TUNA, BLUEFIN . . . . .	-	-	-	-	880,000	57,200
TOTAL . . . . .	1,700	141	135,460,400	1,451,806	1,824,000	65,863

SPECIES	BAG NETS		OTTER TRAWLS		WEIRS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUTTERFISH . . . . .	-	-	400	\$48	-	-
COD . . . . .	-	-	1,122,000	50,206	-	-
CUSK . . . . .	-	-	264,100	13,942	-	-
FLOUNDERS:						
BLACKBACK . . . . .	-	-	49,300	2,786	-	-
OAB . . . . .	-	-	450,800	21,843	-	-
GRAY SOLE . . . . .	-	-	710,600	65,979	-	-
LEMON SOLE . . . . .	-	-	300	36	-	-
HADDOCK . . . . .	-	-	2,662,800	225,934	-	-
HAKE, WHITE . . . . .	-	-	553,600	23,237	-	-
HALIBUT . . . . .	-	-	31,800	9,946	-	-
HERRING, SEA . . . . .	-	-	-	-	15,928,600	\$189,799
MACKEREL . . . . .	-	-	-	-	31,800	1,996
OCEAN PERCH . . . . .	-	-	63,904,800	2,935,653	-	-
POLLOCK . . . . .	-	-	1,659,000	51,636	-	-
SHARKS, GRAYFISH . . . . .	-	-	900	6	-	-
SMELT . . . . .	55,500	\$15,727	-	-	-	-
STURGEON . . . . .	-	-	100	4	-	-
WHITING . . . . .	-	-	15,941,200	241,613	-	-
WOLFFISH . . . . .	-	-	47,700	1,514	-	-
UNCLASSIFIED:						
FOR FOOD . . . . .	-	-	22,700	931	-	-
BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	-	-	1,225,400	6,767	-	-
LOBSTERS, NORTHERN . . . . .	-	-	400	312	-	-
SHRIMP . . . . .	-	-	538,500	63,886	-	-
TOTAL . . . . .	55,500	15,727	89,186,600	3,718,279	15,960,400	191,795

SPECIES	FLOATING TRAPS		POTS AND TRAPS		GILL NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUTTERFISH . . . . .	12,700	\$1,428	-	-	-	-
COD . . . . .	1,000	27	-	-	443,200	\$25,375
CUSK . . . . .	-	-	-	-	5,500	342
EELS, COMMON . . . . .	-	-	36,700	\$7,170	-	-
HADDOCK . . . . .	-	-	-	-	53,700	5,260
HAKE, WHITE . . . . .	-	-	-	-	106,600	5,406
HALIBUT . . . . .	-	-	-	-	100	27
HERRING, SEA . . . . .	10,300	222	-	-	-	-
MACKEREL . . . . .	247,000	19,806	-	-	-	-
POLLOCK . . . . .	-	-	-	-	139,100	6,662
SALMON . . . . .	600	600	-	-	-	-
SHARKS:						
GRAYFISH . . . . .	-	-	-	-	651,400	4,055
UNCLASSIFIED . . . . .	-	-	-	-	1,500	48
SMELT . . . . .	-	-	-	-	7,200	1,579
STURGEON . . . . .	200	14	-	-	400	64
WHITING . . . . .	900	17	-	-	-	-
WOLFFISH . . . . .	-	-	-	-	-	-
UNCLASSIFIED, FOR BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	900	18	-	-	1,100	41
CRABS, ROCK . . . . .	-	-	2,010,900	84,522	-	-
LOBSTERS, NORTHERN . . . . .	-	-	22,803,900	12,635,514	-	-
SQUID . . . . .	6,700	454	-	-	-	-
TOTAL . . . . .	280,300	22,586	24,851,500	12,727,206	1,409,800	48,859

(CONTINUED ON NEXT PAGE)

## NEW ENGLAND FISHERIES

## MAINE - CATCH BY GEAR, 1963 - Continued

SPECIES	LINES				DIP NETS	
	HAND		LONG OR SET WITH HOOKS		POUNDS	VALUE
	POUNDS	VALUE	POUNDS	VALUE		
ALEWIVES . . . . .	-	-	-	-	1,480,300	\$21,957
COD . . . . .	84,300	\$2,213	309,700	\$9,823	-	-
CUSK . . . . .	4,800	276	195,100	8,696	-	-
EELS, COMMON . . . . .	-	-	-	-	500	65
FLOUNDERS:						
DAB . . . . .	-	-	3,800	149	-	-
GRAY SOLE . . . . .	-	-	151,500	61	-	-
HADDOCK . . . . .	9,000	667	151,300	13,101	-	-
HAKE, WHITE . . . . .	5,100	305	2,898,800	96,026	-	-
HALLIBUT . . . . .	9,700	2,946	50,800	18,115	-	-
POLLACK . . . . .	585,300	12,092	105,200	3,092	-	-
SHARKS:						
GRAYFISH . . . . .	-	-	104,900	681	-	-
UNCLASSIFIED . . . . .	200	11	-	-	-	-
SMELT . . . . .	75,900	21,254	-	-	5,600	1,170
SWORDFISH . . . . .	-	-	445,200	101,291	-	-
TUNA, BLUEFIN . . . . .	400	21	7,800	1,062	-	-
WOLFFISH . . . . .	-	-	200	6	-	-
UNCLASSIFIED:						
FOR FOOD . . . . .	-	-	300	19	2,500	147
BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	-	-	9,000	73	-	-
SEA URCHINS . . . . .	-	-	-	-	73,200	1,696
TOTAL . . . . .	774,700	39,985	4,282,600	252,195	1,562,100	25,235

SPECIES	HARPOONS		DREDGES		RAKES	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
SHARKS, UNCLASSIFIED . . . . .	100	\$4	-	-	-	-
TUNA, BLUEFIN . . . . .	23,500	2,121	-	-	-	-
OYSTERS, MARKET, PUBLIC . . . . .	-	-	1,800	\$1,798	-	-
SPRING . . . . .	-	-	1,186,000	547,923	-	-
SCALLOPS, SEA . . . . .	-	-	-	-	5,331,000	\$99,542
IRISH MOSS . . . . .	-	-	-	-	-	-
TOTAL . . . . .	23,600	2,125	1,187,800	549,721	5,331,000	99,542

SPECIES	HOES		BY HAND	
	POUNDS	VALUE	POUNDS	VALUE
CLAMS:				
HARG, PUBLIC . . . . .	2,300	\$1,515	-	-
SOFT, PUBLIC . . . . .	1,631,600	786,765	-	-
MUSSELS, SEA . . . . .	20,400	1,407	-	-
PERIWINKLES . . . . .	-	-	34,100	\$10,704
SEA URCHINS . . . . .	-	-	11,300	750
BLOODWORMS . . . . .	730,900	696,887	-	-
SANDWORMS . . . . .	813,300	506,578	-	-
TOTAL . . . . .	3,398,500	1,993,152	45,400	11,454



DIP NET

# NEW ENGLAND FISHERIES

107

## NEW HAMPSHIRE

### OPERATING UNITS BY GEAR, 1963

ITEM	BAG NETS	WEIRS	POTS AND TRAPS	
			CRAB	LOBSTER
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN, ON BOATS AND SHORE:				
REGULAR . . . . .	-	-	1	90
CASUAL . . . . .	4	8	1	134
TOTAL . . . . .	4	8	2	224
BOATS:				
MOTOR . . . . .	-	2	2	170
OTHER . . . . .	-	3	-	5
GEAR, NUMBER . . . . .	4	7	150	16,500

ITEM	GILL NETS, DRIFT	LINES		HOES	TOTAL, EXCLUSIVE OF DUPLICATION
		HAND	LONG OR SET WITH HOOKS		
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN, ON BOATS AND SHORE:					
REGULAR . . . . .	2	12	10	-	90
CASUAL . . . . .	-	165	-	37	292
TOTAL . . . . .	2	177	10	37	382
BOATS:					
MOTOR . . . . .	1	4	5	-	173
OTHER . . . . .	-	-	-	-	8
GEAR:					
NUMBER . . . . .	1	354	5	37	-
LENGTH, YARDS . . . . .	2,500	-	-	-	-
HOOKS . . . . .	-	708	7,500	-	-

### NEW HAMPSHIRE - CATCH BY GEAR, 1963

SPECIES	BAG NETS		WEIRS		POTS AND TRAPS	
	<u>POUNDS</u>	<u>VALUE</u>	<u>POUNDS</u>	<u>VALUE</u>	<u>POUNDS</u>	<u>VALUE</u>
ALEWIVES . . . . .	-	-	150,000	\$1,500	-	-
EELS, COMMON . . . . .	-	-	5,000	1,250	-	-
SMELT . . . . .	2,500	\$1,125	32,000	8,000	-	-
CRABS:						
GREEN . . . . .	-	-	-	-	45,000	\$2,025
ROCK . . . . .	-	-	-	-	25,000	675
LOBSTERS, NORTHERN . . . . .	-	-	-	-	747,000	388,440
TOTAL . . . . .	2,500	1,125	187,000	10,750	817,000	391,340

SPECIES	GILL NETS, DRIFT		LINES				HOES	
	<u>POUNDS</u>	<u>VALUE</u>	HAND		LONG OR SET WITH HOOKS		<u>POUNDS</u>	<u>VALUE</u>
			<u>POUNDS</u>	<u>VALUE</u>	<u>POUNDS</u>	<u>VALUE</u>		
COD . . . . .	-	-	45,000	\$3,240	30,000	\$2,160	-	-
CUSK . . . . .	-	-	-	-	8,000	320	-	-
HADDOCK . . . . .	-	-	-	-	40,000	3,800	-	-
HAKE, WHITE . . . . .	-	-	-	-	500	30	-	-
HALIBUT . . . . .	-	-	500	175	1,800	630	-	-
MACKEREL . . . . .	2,500	\$450	-	-	-	-	-	-
POLLOCK . . . . .	-	-	7,500	300	2,500	100	-	-
SMELT . . . . .	-	-	35,000	15,750	-	-	-	-
TUNA, BLUEFIN . . . . .	-	-	2,000	120	-	-	-	-
WOLFFISH . . . . .	-	-	-	-	400	20	-	-
BLOODWORMS . . . . .	-	-	-	-	-	-	7,500	\$6,750
SANDWORMS . . . . .	-	-	-	-	-	-	11,500	6,325
TOTAL . . . . .	2,500	450	90,000	19,585	83,200	7,060	19,000	13,075

# NEW ENGLAND FISHERIES

## MASSACHUSETTS

### OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	PURSE SEINES			OTTER TRAWLS, FISH	POUND NETS, FISH	FLOATING TRAPS	POTS AND TRAPS	
		MACKEREL	TUNA	OTHER				CONCH	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN:	-	22	120	64	2,461	13	5	-	
ON VESSELS . . . . .									
ON BOATS AND SHORE:									
REGULAR . . . . .	3	-	-	-	6	39	16	1	
CASUAL . . . . .	22	-	-	-	4	2	11	-	
TOTAL . . . . .	25	22	120	64	2,471	74	32	1	
VESSELS, MOTOR . . . . .	-	3	10	5	395	3	2	-	
GROSS TONNAGE . . . . .	-	98	2,453	356	29,026	36	25	-	
BOATS:									
MOTOR . . . . .	3	2	9	5	7	28	11	1	
OTHER . . . . .	3	3	2	5	-	18	11	-	
GEAR:									
NUMBER . . . . .	8	3	10	5	402	60	21	100	
LENGTH, YARDS . . . . .	465	1,150	7,480	2,600	-	-	-	-	
YARDS AT MOUTH . . . . .	-	-	-	-	10,762	-	-	-	

ITEM	POTS AND TRAPS - CONTINUED			GILL NETS			LINES		
	CRAB	EEL	LOBSTER	ANCHOR, SET OR STAKE	DRIFT	HAND	TROLL	LONG OR SET WITH HOOKS	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN:	-	-	-	28	2	10	-	149	
ON VESSELS . . . . .									
ON BOATS AND SHORE:									
REGULAR . . . . .	3	1	322	10	26	89	-	75	
CASUAL . . . . .	-	7	908	6	11	1,952	13	50	
TOTAL . . . . .	3	8	1,230	44	39	2,051	13	274	
VESSELS, MOTOR . . . . .	-	-	-	8	1	4	-	34	
GROSS TONNAGE . . . . .	-	-	-	195	9	77	-	1,510	
BOATS:									
MOTOR . . . . .	3	7	911	11	23	412	5	63	
OTHER . . . . .	-	-	187	-	-	-	-	-	
GEAR:									
NUMBER . . . . .	87	255	94,540	19	24	2,199	15	97	
SQUARE YARDS . . . . .	-	-	-	110,656	245,000	2,475	15	222,245	
HOOKS . . . . .	-	-	-	-	-	-	-	-	

ITEM	DIP NETS, COMMON	HARPOONS		SPEARS	OREGEGES		
		SWORDFISH	OTHER		CLAM	OYSTER, COMMON	SCALLOP
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:	-	62	-	-	13	-	690
ON VESSELS . . . . .							
ON BOATS AND SHORE:							
REGULAR . . . . .	20	-	4	-	41	4	41
CASUAL . . . . .	187	-	15	20	6	21	481
TOTAL . . . . .	207	62	19	20	60	25	1,212
VESSELS, MOTOR . . . . .	-	17	-	-	4	-	62
GROSS TONNAGE . . . . .	-	481	-	-	143	-	6,081
BOATS, MOTOR . . . . .	199	39	8	3	31	16	294
GEAR:							
NUMBER . . . . .	207	55	8	20	35	21	994
YARDS AT MOUTH . . . . .	-	-	-	-	22	17	1,096

ITEM	TONGS		RAKES	HOES	FORKS	DIVING OUTFITS	BY HAND	TOTAL, EXCLUSIVE OF DUPLICATION
	OYSTER	OTHER						
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:	-	-	-	-	-	-	-	3,353
ON VESSELS . . . . .								
ON BOATS AND SHORE:								
REGULAR . . . . .	8	61	103	125	6	-	-	817
CASUAL . . . . .	5	116	1,105	533	33	616	24	5,715
TOTAL . . . . .	13	177	1,208	658	39	616	24	9,885
VESSELS, MOTOR . . . . .	-	-	-	-	-	-	-	488
GROSS TONNAGE . . . . .	-	-	-	-	-	-	-	37,403
BOATS:								
MOTOR . . . . .	13	177	1,165	-	22	-	-	3,058
OTHER . . . . .	-	-	-	-	-	-	-	228
GEAR, NUMBER . . . . .	13	177	1,208	658	39	616	-	-

# NEW ENGLAND FISHERIES

## MASSACHUSETTS - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		PURSE SEINES		OTTER TRAWLS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	798,300	\$15,735	10,882,200	\$102,690	13,000	\$130
ANGLERFISH . . . . .	-	-	-	-	30,400	1,388
BLUEFISH . . . . .	-	-	-	-	2,700	320
BUTTERFISH . . . . .	-	-	-	-	593,000	57,899
COD . . . . .	-	-	-	-	32,884,100	2,345,752
CUSK . . . . .	-	-	-	-	1,040,000	63,697
EELS, CONGER . . . . .	-	-	-	-	2,600	62
FLOUNDERS:						
BLACKBACK . . . . .	-	-	-	-	11,652,100	1,324,224
DAB . . . . .	-	-	-	-	4,595,700	352,335
FLUKE . . . . .	-	-	-	-	2,293,500	715,154
GRAY SOLE . . . . .	-	-	-	-	2,362,300	238,205
LEMON SOLE . . . . .	-	-	-	-	1,949,400	486,592
YELLOWTAIL . . . . .	-	-	-	-	68,792,800	4,559,958
HAODOCK . . . . .	-	-	-	-	118,160,400	11,167,495
HAKE:						
RED . . . . .	-	-	-	-	5,062,300	54,760
WHITE . . . . .	-	-	-	-	2,365,600	118,056
HALIBUT . . . . .	-	-	-	-	125,600	32,761
HERRING, SEA . . . . .	-	-	-	-	254,800	6,345
LAUNCE . . . . .	244,900	15,305	-	-	-	-
MACKEREL . . . . .	-	-	5,600	386	16,000	2,852
MENHADEN . . . . .	-	-	324,200	3,242	-	-
OCEAN PERCH . . . . .	-	-	-	-	44,385,900	2,210,757
POLLOCK . . . . .	-	-	-	-	11,558,300	574,744
SCUP OR PORGY . . . . .	-	-	-	-	731,800	43,661
SEA BASS . . . . .	-	-	-	-	15,900	1,800
SHAD . . . . .	-	-	-	-	500	17
SHARKS, UNCLASSIFIED . . . . .	-	-	300	10	8,200	327
SKATES . . . . .	-	-	-	-	50,800	1,967
STRIPED BASS . . . . .	-	-	-	-	600	80
STURGEON . . . . .	-	-	-	-	4,300	373
TAUTOG . . . . .	-	-	-	-	4,100	142
TILTFISH . . . . .	-	-	-	-	92,600	12,932
TUNA:						
BLUEFIN . . . . .	-	-	4,580,300	237,577	-	-
SKIPJACK . . . . .	-	-	1,587,600	78,690	-	-
WHITE PERCH . . . . .	68,300	7,513	-	-	66,745,800	1,562,507
WHITING . . . . .	-	-	-	-	709,000	37,022
WOLFFISH . . . . .	-	-	-	-	-	-
UNCLASSIFIED:						
FOR FOOD . . . . .	-	-	-	-	4,253,500	263,588
BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	-	-	-	-	24,014,900	242,303
LOBSTERS, NORTHERN . . . . .	-	-	-	-	1,406,800	658,663
SHRIMP . . . . .	-	-	-	-	23,000	2,952
SCALLOPS, SEA . . . . .	-	-	-	-	300	115
SQUID . . . . .	-	-	-	-	93,400	5,122
<b>TOTAL . . . . .</b>	<b>1,111,500</b>	<b>38,553</b>	<b>17,380,200</b>	<b>422,595</b>	<b>406,297,500</b>	<b>27,205,068</b>

SPECIES	POUND NETS		FLOATING TRAPS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	1,600	\$16	-	-	-	-
ANCHOVIES . . . . .	55,100	819	-	-	-	-
BILLFISH . . . . .	5,900	265	-	-	-	-
BLUEFISH . . . . .	8,100	1,293	-	-	-	-
BONITO . . . . .	47,700	4,381	400	\$37	-	-
BUTTERFISH . . . . .	161,500	31,818	22,900	2,737	-	-
COD . . . . .	1,700	116	600	32	-	-
EELS, COMMON . . . . .	-	-	-	-	15,300	\$3,675
FLOUNDERS:						
BLACKBACK . . . . .	1,900	143	-	-	-	-
FLUKE . . . . .	2,500	732	-	-	-	-
HAKE:						
RED . . . . .	5,600	56	-	-	-	-
WHITE . . . . .	2,600	23	-	-	-	-
HERRING, SEA . . . . .	1,595,600	28,440	2,200	95	-	-
MACKEREL . . . . .	1,562,200	147,993	625,600	57,312	-	-
MENHADEN . . . . .	20,400	261	-	-	-	-
POLLOCK . . . . .	24,200	1,277	500	19	-	-
SCUP OR PORGY . . . . .	15,000	718	-	-	-	-
SEA BASS . . . . .	900	75	-	-	-	-
SHAD . . . . .	21,000	1,217	-	-	-	-
SHARKS, UNCLASSIFIED . . . . .	1,000	40	-	-	-	-
STRIPED BASS . . . . .	33,400	4,968	300	57	-	-
STURGEON . . . . .	300	38	-	-	-	-

(CONTINUED ON NEXT PAGE)

## NEW ENGLAND FISHERIES

## MASSACHUSETTS - CATCH BY GEAR, 1963 - Continued

SPECIES	POUND NETS		FLOATING TRAPS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
TAUTOG.	5,600	\$189	-	-	-	-
TUNA, BLUEFIN	143,300	12,940	-	-	-	-
WHITING	16,800	337	7,100	\$250	-	-
UNCLASSIFIED:						
FOR FOOD.	-	-	50,300	3,241	-	-
BAIT, REDUCTION, AND ANIMAL FOOD.	21,400	321	-	-	-	-
CRABS:						
GREEN	-	-	-	-	18,400	\$1,976
ROCK.	-	-	-	-	33,400	5,084
LOBSTERS, NORTHERN.	-	-	-	-	3,046,000	1,875,600
CONCHS.	-	-	-	-	27,000	3,600
SQUID	1,877,300	102,296	300	19	-	-
TOTAL	5,632,000	340,272	710,200	63,799	3,140,100	1,889,935

SPECIES	GILL NETS				LINES	
	ANCHOR, SET OR STAKE		DRIFT		HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ANGLERFISH.	400	\$18	-	-	-	-
BLUEFISH.	-	-	-	-	36,500	\$5,724
COD	690,200	45,461	-	-	2,145,500	126,296
CUSK.	3,500	148	-	-	11,100	263
FLOUNDER:						
BLACKBACK	67,600	4,497	-	-	5,500	751
DAB	100	4	-	-	200	76
FLUKE	-	-	-	-	500	41
LEMON SOLE.	-	-	-	-	1,900	449
YELLOWTAIL.	-	-	-	-	27,700	2,763
HADDOCK	120,900	10,343	-	-	550,100	43,043
HAKE, WHITE	88,500	3,177	-	-	5,300	182
HALIBUT	200	77	-	-	9,300	4,268
MACKEREL.	-	-	33,200	\$8,102	800	112
POLLOCK	147,600	6,256	-	-	283,000	10,869
SEA BASS.	-	-	-	-	100	15
SHARKS, UNCLASSIFIED.	7,600	222	400	17	500	19
STRIPED BASS.	-	-	400	78	445,200	63,423
STURGEON.	1,300	146	-	-	-	-
TAUTOG.	-	-	-	-	100	3
TUNA, BLUEFIN	200	20	-	-	28,200	1,091
WOLFFISH.	-	-	-	-	1,400	50
UNCLASSIFIED, FOR FOOD.	341,800	24,809	-	-	63,300	4,180
TOTAL	1,469,900	95,178	34,000	8,197	3,616,300	265,618

SPECIES	LINES - CONTINUED				DIP NETS	
	TROLL		LONG OR SET WITH HOOKS			
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES.	-	-	-	-	40,000	\$500
COD	-	-	1,497,600	\$122,618	-	-
CUSK.	-	-	376,300	22,664	-	-
FLOUNDER:						
BLACKBACK	-	-	50,400	7,468	-	-
DAB	-	-	100	6	-	-
LEMON SOLE.	-	-	900	89	-	-
HADDOCK	-	-	2,108,800	223,423	-	-
HAKE, WHITE	-	-	63,300	4,088	-	-
HALIBUT	-	-	42,900	20,277	-	-
OCEAN PERCH	-	-	600	24	-	-
POLLOCK	-	-	79,600	3,369	-	-
SHARKS, UNCLASSIFIED.	-	-	7,100	314	-	-
SKATES.	-	-	300	14	-	-
SWORDFISH	-	-	1,373,300	349,069	-	-
TUNA:						
BLUEFIN	4,600	\$191	175,200	15,898	-	-
UNCLASSIFIED.	-	-	8,100	1,330	-	-
WOLFFISH.	-	-	7,600	337	-	-
UNCLASSIFIED:						
FOR FOOD.	-	-	88,000	7,603	-	-
BAIT, REDUCTION, AND ANIMAL FOOD.	-	-	200	10	-	-
SCALLOPS, BAY	-	-	-	-	91,400	127,359
TOTAL	4,600	191	5,880,500	778,623	131,400	127,859

(CONTINUED ON NEXT PAGE)

# NEW ENGLAND FISHERIES

111

## MASSACHUSETTS - CATCH BY GEAR, 1963 - Continued

SPECIES	HARPOONS		SPEARS		DREDGES	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
COD . . . . .	-	-	-	-	1,100	\$59
EELS, COMMON. . . . .	-	-	9,000	\$2,600	-	-
FLOUNDERS:	-	-	-	-	-	-
BLACKBACK . . . . .	-	-	-	-	8,000	694
DAB . . . . .	-	-	-	-	5,500	189
FLUKE . . . . .	-	-	-	-	200	16
GRAY SOLE . . . . .	-	-	-	-	1,700	70
LEMON SOLE . . . . .	-	-	-	-	6,000	841
YELLOWTAIL . . . . .	-	-	-	-	54,900	2,955
HADDOCK . . . . .	-	-	-	-	300	17
SHARKS, UNCLASSIFIED. . . . .	200	\$4	-	-	-	-
SWORDFISH . . . . .	343,600	82,122	-	-	-	-
TUNA, BLUEFIN . . . . .	25,400	1,399	-	-	-	-
WOLFFISH . . . . .	-	-	-	-	500	20
UNCLASSIFIED, FOR FOOD. . . . .	-	-	-	-	200	9
CLAMS, HARD, PUBLIC . . . . .	-	-	-	-	522,400	182,868
OYSTERS, MARKET:	-	-	-	-	-	-
PUBLIC:	-	-	-	-	-	-
SPRING. . . . .	-	-	-	-	3,500	4,961
FALL. . . . .	-	-	-	-	2,100	2,012
PRIVATE:	-	-	-	-	-	-
SPRING. . . . .	-	-	-	-	2,000	2,100
FALL. . . . .	-	-	-	-	1,300	1,400
SCALLOPS:	-	-	-	-	-	-
BAY . . . . .	-	-	-	-	241,600	294,255
SEA . . . . .	-	-	-	-	16,607,400	7,708,505
<b>TOTAL . . . . .</b>	<b>369,200</b>	<b>83,525</b>	<b>9,000</b>	<b>2,600</b>	<b>17,458,900</b>	<b>8,201,021</b>

SPECIES	TONGS		RAKES		HOES	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CLAMS:	-	-	-	-	-	-
HARD:	-	-	-	-	-	-
PUBLIC. . . . .	207,200	\$199,842	680,600	\$603,753	50,100	\$38,774
PRIVATE . . . . .	-	-	13,500	14,500	-	-
Razor . . . . .	-	-	-	-	24,300	7,950
SOFT, PUBLIC. . . . .	-	-	57,100	48,798	889,100	555,736
CONCHS. . . . .	4,500	600	-	-	-	-
MUSSELS, SEA. . . . .	527,000	39,525	-	-	-	-
OYSTERS, MARKET:	-	-	-	-	-	-
PUBLIC:	-	-	-	-	-	-
SPRING. . . . .	2,000	1,800	-	-	-	-
FALL. . . . .	2,900	2,700	-	-	-	-
PRIVATE:	-	-	-	-	-	-
SPRING. . . . .	12,400	14,100	-	-	-	-
FALL. . . . .	11,200	14,570	-	-	-	-
IRISH MOSS. . . . .	-	-	1,636,400	28,636	-	-
BLOOD WORMS . . . . .	-	-	-	-	76,900	67,700
SANDWORMS . . . . .	-	-	-	-	12,100	13,590
<b>TOTAL . . . . .</b>	<b>767,200</b>	<b>273,137</b>	<b>2,387,600</b>	<b>695,697</b>	<b>1,052,500</b>	<b>683,750</b>

SPECIES	FORKS		DIVING OUTFITS		BY HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
LOBSTERS, NORTHERN. . . . .	-	-	51,900	\$29,816	1,100	\$598
CLAMS, SOFT, PUBLIC . . . . .	1,300	\$1,200	-	-	-	-
MUSSELS, SEA. . . . .	178,500	13,450	-	-	-	-
OYSTERS, MARKET, PUBLIC:	-	-	-	-	-	-
SPRING. . . . .	3,600	6,600	-	-	-	-
FALL. . . . .	3,700	6,816	-	-	-	-
<b>TOTAL . . . . .</b>	<b>187,100</b>	<b>28,066</b>	<b>51,900</b>	<b>29,816</b>	<b>1,100</b>	<b>598</b>

## NEW ENGLAND FISHERIES

## RHODE ISLAND

## OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	PURSE SEINES		OTTER TRAWLS, FISH	POUND NETS, FISH
		MACKEREL	TUNA		
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:	-	-	39	253	-
ON VESSELS	-	-	-	-	-
ON BOATS AND SHORE:	-	-	-	-	-
REGULAR . . . . .	4	-	-	12	1
CASUAL . . . . .	-	2	-	6	1
TOTAL . . . . .	4	2	39	273	2
VESSELS, MOTOR . . . . .	-	-	3	72	-
GROSS TONNAGE . . . . .	-	-	1,172	2,738	-
BOATS:					
MOTOR . . . . .	-	1	6	11	1
OTHER . . . . .	2	1	-	-	-
GEAR:					
NUMBER . . . . .	2	1	3	83	1
LENGTH, YARDS . . . . .	290	100	2,630	-	-
YARDS AT MOUTH . . . . .	-	-	-	2,036	-

ITEM	FLOATING TRAPS	POTS AND TRAPS				GILL NETS, ANCHOR, SET OR STAKE
		CONCH	CRAB	EEL	LOBSTER	
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:	78	2	4	-	8	-
ON VESSELS	-	-	-	-	-	-
ON BOATS AND SHORE:	-	-	-	-	-	-
REGULAR . . . . .	4	5	8	7	55	2
CASUAL . . . . .	-	-	1	1	100	-
TOTAL . . . . .	82	7	13	8	163	2
VESSELS, MOTOR . . . . .	6	1	22	-	4	-
GROSS TONNAGE . . . . .	154	16	24	-	42	-
BOATS:						
MOTOR . . . . .	5	4	6	8	137	1
OTHER . . . . .	11	-	-	-	-	-
GEAR:						
NUMBER . . . . .	18	265	1,145	395	7,709	1
SQUARE YARDS . . . . .	-	-	-	-	-	100

ITEM	LINES			HARPOONS	DREDGES	
	HAND	TROLL	LONG OR SET WITH HOOKS		CLAM	MUSSEL
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:	36	11	13	49	31	2
ON VESSELS	-	-	-	-	-	-
ON BOATS AND SHORE:	-	-	-	-	-	-
REGULAR . . . . .	21	1	3	-	28	-
CASUAL . . . . .	128	18	2	4	2	-
TOTAL . . . . .	165	30	18	53	61	2
VESSELS, MOTOR . . . . .	16	5	3	12	15	1
GROSS TONNAGE . . . . .	296	73	138	528	201	16
BOATS:						
MOTOR . . . . .	49	12	2	2	15	-
OTHER . . . . .	-	-	-	9	-	-
GEAR:						
NUMBER . . . . .	199	30	5	14	30	1
YARDS AT MOUTH . . . . .	-	-	-	-	30	2
HOOKS OR BAITS . . . . .	310	30	2,810	-	-	-

ITEM	DREDGES- CONTINUED	TONGS		RAKES	HOES	TOTAL, EXCLUSIVE OF DUPLI- CATION
	SCALLOP	OYSTER	OTHER			
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:	-	-	-	-	-	437
ON VESSELS	-	-	-	-	-	-
ON BOATS AND SHORE:	-	-	-	-	-	-
REGULAR . . . . .	4	8	369	96	11	501
CASUAL . . . . .	4	8	467	120	-	756
TOTAL . . . . .	8	16	876	216	11	1,694
VESSELS, MOTOR . . . . .	-	-	-	-	-	112
GROSS TONNAGE . . . . .	-	-	-	-	-	4,564
BOATS:						
MOTOR . . . . .	8	16	876	216	-	1,116
OTHER . . . . .	-	-	-	-	-	23
GEAR:						
NUMBER . . . . .	16	16	876	216	11	-
YARDS AT MOUTH . . . . .	13	-	-	-	-	-

# NEW ENGLAND FISHERIES

113

## RHODE ISLAND - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		PURSE SEINES		OTTER TRAWLS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	112,000	\$1,400	-	-	-	-
ANGLERFISH . . . . .	-	-	-	-	11,900	\$301
BLUEFISH . . . . .	100	23	-	-	10,500	1,432
BONITO . . . . .	-	-	-	-	700	90
BUTTERFISH . . . . .	-	-	-	-	4,770,200	400,697
COD . . . . .	-	-	-	-	406,200	38,200
EELS:						
COMMON . . . . .	100	15	-	-	-	-
CONGER . . . . .	-	-	-	-	14,200	626
FLOUNDERS:						
BLACKBACK . . . . .	-	-	-	-	2,917,400	172,066
DAB . . . . .	-	-	-	-	700	44
FLUKE . . . . .	-	-	-	-	470,600	148,587
GRAY SOLE . . . . .	-	-	-	-	13,900	950
LEMON SOLE . . . . .	-	-	-	-	6,900	922
YELLOWTAIL . . . . .	-	-	-	-	8,996,100	472,168
HADDOCK . . . . .	-	-	-	-	20,700	1,616
HAKE:						
RED . . . . .	-	-	-	-	142,400	2,548
WHITE . . . . .	-	-	-	-	33,600	1,673
HERRING, SEA . . . . .	-	-	-	-	267,900	13,029
KING WHITING OR "KINGFISH"	-	-	-	-	300	35
MACKEREL . . . . .	-	-	3,000	\$434	16,700	3,276
OCEAN POUT . . . . .	-	-	-	-	1,400	25
POLLOCK . . . . .	-	-	-	-	5,700	260
SCUP OR PORGY . . . . .	-	-	-	-	2,021,000	208,589
SEA BASS . . . . .	-	-	-	-	37,400	5,306
SEA ROBIN . . . . .	-	-	-	-	1,400	43
SEA TROUT OR WEAKFISH, GRAY	-	-	-	-	1,600	231
SHAD . . . . .	-	-	-	-	300	13
SHARKS:						
GRAYFISH . . . . .	-	-	-	-	200	6
UNCLASSIFIED . . . . .	-	-	-	-	2,100	78
SKATES . . . . .	-	-	-	-	9,200	290
SMELTS, ATLANTIC . . . . .	400	186	-	-	-	-
STRIPED BASS . . . . .	11,400	2,217	-	-	-	-
STURGEON . . . . .	-	-	-	-	5,200	806
TAUTOG . . . . .	-	-	-	-	2,400	232
TILEFISH . . . . .	-	-	-	-	47,400	1,450
TUNA:					100,900	11,274
BLUEFIN . . . . .	-	-	671,700	43,658	-	-
SKIPJACK . . . . .	-	-	615,700	36,939	-	-
WHITE PERCH . . . . .	2,200	422	-	-	-	-
WHITING . . . . .	-	-	-	-	3,390,400	94,793
UNCLASSIFIED:						
FOR FOOD . . . . .	-	-	800	123	800	57
BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	-	-	-	-	32,341,300	238,006
LOBSTERS, NORTHERN . . . . .	-	-	-	-	424,500	227,585
CONCHS . . . . .	-	-	-	-	200	36
SQUID . . . . .	-	-	-	-	463,200	31,409
<b>TOTAL . . . . .</b>	<b>126,200</b>	<b>4,263</b>	<b>1,291,200</b>	<b>61,154</b>	<b>56,959,900</b>	<b>2,078,749</b>

SPECIES	POUND NETS		FLOATING TRAPS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	-	-	17,300	\$173	-	-
ANCHOVIES . . . . .	-	-	28,200	1,515	-	-
BLUEFISH . . . . .	-	-	68,800	8,727	-	-
BONITO . . . . .	-	-	60,600	5,797	-	-
BUTTERFISH . . . . .	-	-	391,700	57,025	-	-
COD . . . . .	-	-	32,500	3,355	-	-
EELS:						
COMMON . . . . .	300	\$60	-	-	35,500	\$8,654
CONGER . . . . .	-	-	300	9	-	-
FLOUNDERS:						
BLACKBACK . . . . .	-	-	200	13	-	-
FLUKE . . . . .	-	-	40,300	11,894	-	-
HAKE, RED . . . . .	-	-	7,700	184	-	-
HERRING, SEA . . . . .	-	-	44,200	1,430	-	-
KING WHITING OR "KINGFISH"	-	-	500	64	-	-
MACKEREL . . . . .	-	-	83,600	11,953	-	-
MENHADEN . . . . .	-	-	2,600	26	-	-
POLLOCK . . . . .	-	-	3,000	126	-	-
SCUP OR PORGY . . . . .	-	-	6,448,000	300,793	-	-
SEA BASS . . . . .	-	-	76,000	12,160	-	-
SEA ROBIN . . . . .	-	-	130,000	1,628	-	-
SEA TROUT OR WEAKFISH, GRAY	-	-	400	65	-	-
SHAD . . . . .	-	-	1,900	113	-	-

(CONTINUED ON NEXT PAGE)

## NEW ENGLAND FISHERIES

## RHODE ISLAND - CATCH BY GEAR, 1963 - Continued

SPECIES	POUND NETS		FLOATING TRAPS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
SHARKS:						
GRAYFISH . . . . .	-	-	100	\$2	-	-
UNCLASSIFIED . . . . .	-	-	800	24	-	-
STRIPED BASS . . . . .	-	-	31,800	6,617	-	-
STURGEON . . . . .	-	-	18,400	463	-	-
TAUTOG . . . . .	-	-	18,600	2,139	-	-
TUNA, BLUEFIN . . . . .	6,000	\$960	-	-	-	-
WHITE PERCH . . . . .	-	-	86,100	3,647	-	-
WHITING . . . . .	-	-	5,700	652	-	-
UNCLASSIFIED, FOR FOOD . . . . .	-	-	-	-	-	-
CRABS:						
GREEN . . . . .	-	-	-	-	6,000	\$1,000
ROCK . . . . .	-	-	-	-	225,600	24,644
LOBSTERS, NORTHERN . . . . .	-	-	-	-	167,600	111,529
CONCHS . . . . .	-	-	-	-	75,400	14,711
SQUID . . . . .	-	-	202,600	12,599	-	-
TOTAL . . . . .	6,300	1,020	7,762,400	443,561	511,300	160,738

SPECIES	GILL NETS		LINES			
	ANCHOR, SET OR STAKE		HAND		TROLL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH . . . . .	1,900	\$305	500	\$50	300	\$34
COD . . . . .	-	-	69,900	6,263	-	-
FLOUNDERS:						
BLACKBACK . . . . .	-	-	200	13	-	-
FLUKE . . . . .	-	-	400	132	-	-
MACKEREL . . . . .	-	-	200	14	-	-
POLLOCK . . . . .	-	-	300	13	-	-
SEA BASS . . . . .	-	-	300	91	-	-
STRIPED BASS . . . . .	-	-	22,300	3,195	400	61
TAUTOG . . . . .	-	-	6,500	744	-	-
TUNA, BLUEFIN . . . . .	-	-	-	-	17,900	962
UNCLASSIFIED, FOR FOOD . . . . .	-	-	300	30	-	-
TOTAL . . . . .	1,900	305	102,900	10,565	18,600	1,057

SPECIES	LINES - CONTINUED		HARPOONS		DREDGES	
	LONG OR SET WITH HOOKS					
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
COD . . . . .	200	\$14	-	-	-	-
SWORDFISH . . . . .	113,500	31,870	55,800	\$13,252	-	-
TUNA, BLUEFIN . . . . .	11,400	623	-	-	-	-
CLAMS:						
HARD, PUBLIC . . . . .	-	-	-	-	336,600	\$172,793
OCEAN QUAHOG . . . . .	-	-	-	-	104,200	10,421
CONCHS . . . . .	-	-	-	-	4,400	510
MUSSELS, SEA . . . . .	-	-	-	-	1,400	254
SCALLOPS, BAY . . . . .	-	-	-	-	1,600	2,700
TOTAL . . . . .	125,100	32,507	55,800	13,252	448,600	186,778

SPECIES	TONGS		RAKES		HOES	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CLAMS:						
HARD, PUBLIC . . . . .	1,509,400	\$696,138	377,300	\$224,533	-	-
SOFT, PUBLIC . . . . .	-	-	-	-	1,400	\$904
CONCHS . . . . .	100	10	100	10	-	-
OYSTERS, MARKET, PUBLIC:						
SPRING . . . . .	4,500	4,611	-	-	-	-
FALL . . . . .	6,800	5,917	-	-	-	-
TOTAL . . . . .	1,520,600	909,676	377,400	224,543	1,400	904

# NEW ENGLAND FISHERIES

115

## CONNECTICUT

### OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	OTTER TRAWLS, FISH	FYKE AND HOOP NETS, FISH	POTS AND TRAPS		
				CONCH	EEL	LOBSTER
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	-	78	-	3	3	10
ON BOATS AND SHORE:						
REGULAR . . . . .	-	10	-	10	1	27
CASUAL . . . . .	6	21	1	4	27	70
TOTAL . . . . .	6	109	1	17	31	107
VESSELS, MOTOR . . . . .	-	30	-	1	1	6
GROSS TONNAGE . . . . .	-	927	-	8	8	51
BOATS:						
MOTOR . . . . .	1	22	1	10	18	80
OTHER . . . . .	3	-	-	-	3	-
GEAR:						
NUMBER . . . . .	4	52	5	630	495	7,823
LENGTH, YARDS . . . . .	270	-	-	-	-	-
YARDS AT MOUTH . . . . .	-	1,022	-	-	-	-

ITEM	GILL NETS			LINES, HAND	DIP NETS, COMMON	SPEARS
	ANCHOR, SET OR STAKE	DRIFT				
		SHAD	OTHER			
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	-	5	-	-	-	-
ON BOATS AND SHORE:						
REGULAR . . . . .	-	13	8	2	26	1
CASUAL . . . . .	12	93	2	26	81	-
TOTAL . . . . .	12	111	10	28	107	1
VESSELS, MOTOR . . . . .	-	2	-	-	-	-
GROSS TONNAGE . . . . .	-	25	-	-	-	-
BOATS:						
MOTOR . . . . .	2	42	9	22	107	1
OTHER . . . . .	6	10	-	-	-	-
GEAR:						
NUMBER . . . . .	10	51	9	29	107	1
SQUARE YARDS . . . . .	1,882	101,956	3,622	-	-	-
HOOKS . . . . .	-	-	-	58	-	-

ITEM	DREDGES		TONGS		TOTAL, EXCLUSIVE OF DUPLI- CATION
	CLAM	OYSTER, COMMON	OYSTER	OTHER	
	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN:					
ON VESSELS . . . . .	18	29	-	-	120
ON BOATS AND SHORE:					
REGULAR . . . . .	2	-	3	2	75
CASUAL . . . . .	-	-	10	-	262
TOTAL . . . . .	20	29	13	2	478
VESSELS, MOTOR . . . . .	8	10	-	-	46
GROSS TONNAGE . . . . .	192	305	-	-	1,319
BOATS:					
MOTOR . . . . .	1	-	12	2	258
OTHER . . . . .	-	-	-	-	20
GEAR:					
NUMBER . . . . .	9	19	13	2	-
YARDS AT MOUTH . . . . .	9	29	-	-	-

## NEW ENGLAND FISHERIES

## CONNECTICUT - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		OTTER TRAWLS		FYKE AND HOOP NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	1,400	\$22	-	-	-	-
ANGLERFISH . . . . .	-	-	200	35	-	-
BLUEFISH . . . . .	-	-	9,300	1,314	-	-
BONITO . . . . .	-	-	500	66	-	-
BUTTERFISH . . . . .	-	-	97,200	8,831	-	-
CARP . . . . .	800	113	-	-	-	-
COD . . . . .	-	-	120,500	11,329	-	-
FLOUNDERS:	-	-	-	-	-	-
BLACKBACK . . . . .	-	-	982,000	58,160	-	-
FLUKE . . . . .	-	-	97,700	21,577	-	-
GRAY SOLE . . . . .	-	-	2,400	164	-	-
LEMON SOLE . . . . .	-	-	700	96	-	-
YELLOWTAIL . . . . .	-	-	136,000	7,072	-	-
HAGDOCK . . . . .	-	-	2,900	229	-	-
HAKE:	-	-	-	-	-	-
RED . . . . .	-	-	21,000	378	-	-
WHITE . . . . .	-	-	1,000	50	-	-
HERRING, SEA . . . . .	-	-	31,000	1,519	-	-
MACKEREL . . . . .	-	-	300	59	-	-
SCUP OR PORGY . . . . .	-	-	798,600	75,983	-	-
SEA BASS . . . . .	-	-	28,800	4,059	-	-
SEA ROBIN . . . . .	-	-	3,400	44	-	-
SEA TROUT OR WEAKFISH, GRAY . . . . .	-	-	700	108	-	-
SHAD . . . . .	2,100	440	500	105	-	-
SHARKS:	-	-	-	-	-	-
GRAYFISH . . . . .	-	-	300	10	-	-
UNCLASSIFIED . . . . .	-	-	400	14	-	-
SKATES . . . . .	-	-	16,000	200	-	-
STURGEON . . . . .	-	-	7,700	971	-	-
SUCKERS . . . . .	500	10	-	-	1,000	\$15
TAUTOG . . . . .	-	-	19,300	679	-	-
WHITING . . . . .	-	-	368,800	10,486	-	-
UNCLASSIFIED:	-	-	-	-	-	-
FOR FOOD . . . . .	100	8	3,800	240	-	-
BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	-	-	480,100	6,436	-	-
LOBSTERS, NORTHERN . . . . .	-	-	220,000	117,920	-	-
CONCHS . . . . .	-	-	4,500	725	-	-
SQUID . . . . .	-	-	38,300	2,603	-	-
TOTAL . . . . .	4,900	593	3,453,900	331,432	1,000	15

SPECIES	POTS AND TRAPS		GILL NETS			
			ANCHOR, SET OR STAKE		DRIFT	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH . . . . .	-	-	-	-	25,900	\$3,523
CARP . . . . .	-	-	-	-	1,200	180
EELS, COMMON . . . . .	14,600	\$2,468	-	-	-	-
MENHADEN . . . . .	-	-	-	-	5,100	110
SHAD . . . . .	-	-	3,300	\$702	294,900	61,860
STRIPED BASS . . . . .	-	-	-	-	700	110
UNCLASSIFIED, FOR BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	-	-	-	-	107,000	1,338
LOBSTERS, NORTHERN . . . . .	251,400	166,175	-	-	-	-
CONCHS . . . . .	77,100	13,417	-	-	-	-
TOTAL . . . . .	343,100	182,060	3,300	702	434,800	67,121

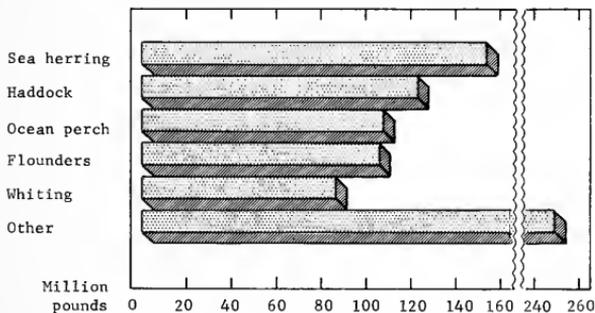
SPECIES	LINES, HAND		DIP NETS		SPEARS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	-	-	2,000	\$35	-	-
BLUEFISH . . . . .	16,800	\$2,797	-	-	-	-
COD . . . . .	15,900	1,498	-	-	-	-
EELS, COMMON . . . . .	200	30	-	-	500	\$112
FLOUNDERS:	-	-	-	-	-	-
BLACKBACK . . . . .	800	71	-	-	-	-
FLUKE . . . . .	100	20	-	-	-	-
MACKEREL . . . . .	100	20	-	-	-	-
SHARKS, UNCLASSIFIED . . . . .	200	4	-	-	-	-
STRIPED BASS . . . . .	28,800	4,517	-	-	-	-
TAUTOG . . . . .	1,700	94	-	-	-	-
UNCLASSIFIED:	-	-	-	-	-	-
FOR FOOD . . . . .	100	8	-	-	-	-
BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	300	6	-	-	-	-
CRABS, BLUE, HARD . . . . .	-	-	300	101	-	-
SCALLOPS, BAY . . . . .	-	-	56,400	67,650	-	-
TOTAL . . . . .	65,000	9,065	58,700	67,766	500	112

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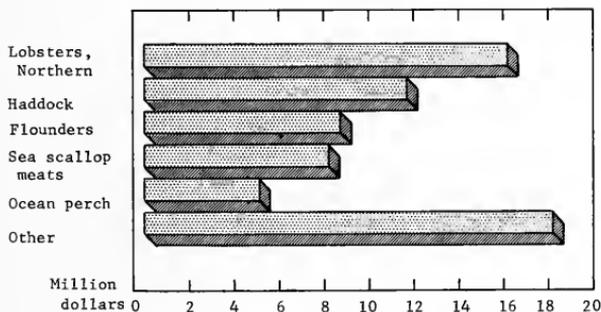
## CONNECTICUT - CATCH BY GEAR, 1963 - Continued

SPECIES	DREDGES		TONGS	
	POUNDS	VALUE	POUNDS	VALUE
CLAMS, HARD:				
PUBLIC . . . . .	-	-	1,800	\$962
PRIVATE . . . . .	265,200	\$124,549	-	-
OYSTERS, MARKET:				
PUBLIC, SPRING . . . . .	-	-	1,500	1,263
PRIVATE:				
SPRING . . . . .	237,200	277,806	-	-
FALL . . . . .	156,500	183,560	-	-
TOTAL . . . . .	678,900	585,915	3,300	2,225

### NEW ENGLAND STATES CATCH, 1963



### VALUE OF NEW ENGLAND STATES CATCH, 1963



# NEW ENGLAND FISHERIES

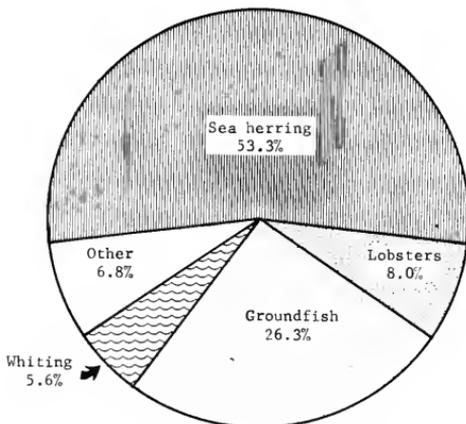
## LANDINGS AT MAINE PORTS

In cooperation with the Maine Department of Sea and Shore Fisheries, the Bureau of Commercial Fisheries collects and compiles monthly and annual data on the landings of fish, shellfish, and other aquatic resources in the State of Maine. This information is published monthly in "Maine Landings," which is in the Current Fishery Statistics series of reports. Additional detailed tabulations are prepared for the use of Bureau and State scientists and the International Commission for the Northwest Atlantic Fisheries.

Maine landings data, summarized by species and months, appeared in Digests for the years 1947-58. In 1959, data were shown on the catch off Canada by species and area of capture. Information was also included on the number of fishing craft operated, trips, days absent, and days fished. Since 1960, similar data have been shown for most of the Maine catch, except sea herring, lobsters, sea scallops, and a small amount of other fish. The quantities shown represent the round weight of species except univalve and bivalve mollusks. These shellfish are reported in pounds of meats. The data are comparable with catch figures shown in other tables.

During 1963, landings at Maine ports by fishing craft of all sizes were 286 million pounds, a decline of 9 million pounds from 1962. The major decreases occurred in ocean perch, down 5.5 million pounds; herring, down 4.4 million; and whiting, down 1.9 million pounds. The only item to increase by more than 1 million pounds was Irish moss, up 1.1 million. Slight increases were made in lobster, tuna, and sea worms. The total value of the landings increased by \$851,000--primarily because of increased demand for lobsters, which brought \$1.4 million more than in the previous year.

### LANDINGS AT MAINE PORTS, 1963



Total - 285,636,104 pounds

# LANDINGS AT MAINE PORTS

## SUMMARY OF FISHERY - BY GEAR AND SUBAREA, 1963

GEAR AND SUBAREA	CRAFT FISHING	TRIPS	DAYS ABSENT	DAYS FISHED	COD, DRAWN			CLISK, DRAWN	FLOUNDERS, ROUND			
					NUMBER	POUNDS	MARKET		SCROD	GRAY SOLE	LEMON SOLE	YELLOW-TAIL
LINE TRAWLS:	NUMBER	NUMBER	NUMBER	NUMBER	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS
EASTERN MAINE	0	60.0	60	30.0	89,267	888	-	-	-	-	-	-
CENTRAL MAINE	50	499.0	499	249.5	83,844	83,175	-	-	-	-	-	-
WESTERN MAINE	23	222.0	222	102.5	25,643	88,500	545	-	-	-	-	-
TOTAL	1/ 79	761.0	761	382.0	46,120	172,563	545	-	-	-	-	-
HAND LINES:	NUMBER	NUMBER	NUMBER	NUMBER	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS
EASTERN MAINE	6	29.0	29	14.5	13,523	3,138	-	-	-	-	-	-
CENTRAL MAINE	342.0	342.0	342	171.0	29,248	1,180	-	-	-	-	-	-
WESTERN MAINE	3.0	3.0	3	1.5	760	1,180	-	-	-	-	-	-
TOTAL	1/ 62	374.0	374	187.0	43,401	4,318	-	-	-	-	-	-
HARBOONS:	NUMBER	NUMBER	NUMBER	NUMBER	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS
CENTRAL MAINE	1	1.0	1	.5	-	-	-	-	-	-	-	-
WESTERN MAINE	15	59.0	59	21.5	-	-	-	-	-	-	-	-
TOTAL	1/ 16	60.0	60	21.9	-	-	-	-	-	-	-	-
LONG LINES:	NUMBER	NUMBER	NUMBER	NUMBER	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS
SOUTHWEST GRAND BANKS	1	3.0	47	29.0	-	-	-	-	-	-	-	-
ST. PIERRE BANK	1	1.5	11	10.0	-	-	-	-	-	-	-	-
CENTRAL AND SOUTHEAST GEORGES	1	1.5	14	9.0	-	-	-	-	-	-	-	-
SOUTHWEST GEORGES BANK	1	1.5	14	9.0	-	-	-	-	-	-	-	-
OFF LONG ISLAND	1	3.0	52	25.0	-	-	-	-	-	-	-	-
TOTAL	1/ 1	9.0	140	76.0	-	-	-	-	-	-	-	-
OTTER TRAWLS:	NUMBER	NUMBER	NUMBER	NUMBER	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS
NORTHERN GRAND BANKS	1	7.3	5	1.5	-	-	-	-	-	-	-	-
SOUTHWEST GRAND BANKS	12	420	420	215.5	-	-	-	-	-	-	-	-
EASTERN NOVA SCOTIA	8.2	8.2	114	32.2	-	-	-	-	-	-	-	-
ST. PIERRE BANKS	9	15.9	204	61.2	-	-	-	-	-	-	-	-
EAST GULF OF ST. LAWRENCE	3	8.7	109	24.5	-	-	-	-	-	-	-	-
NORTH GULF OF ST. LAWRENCE	1	1.1	2	.7	-	-	-	-	-	-	-	-
SOUTH GULF OF ST. LAWRENCE	5	3.2	43	12.5	-	-	-	-	-	-	-	-
NORTHEAST CAPE BRETON	3	3.7	45	10.9	-	-	-	-	-	-	-	-
MISAJINE BANK	15	31.7	457	110.9	225	20	1,275	1,185	975	35	20	1,275
CASCO	14	7.3	114	29.0	660	345	400	400	345	35	345	400
MIDDLE GROUND	5	5.2	64	18.5	2,695	270	2,695	2,695	270	3,225	3,225	270
SOUTHEAST SABLE ISLAND BANK	1	.1	1	.4	4,632	140	4,632	4,632	140	4,930	4,930	140
HORSESHOE GROUND	10	12.5	172	46.7	7,023	5,265	9,930	9,930	5,265	4,930	4,930	5,265
SOUTHWEST SABLE ISLAND BANK	3	1.6	19	5.4	1,700	1,515	1,515	1,515	1,515	1,515	1,515	1,515
EASTERN NOVA SCOTIA	9	14.0	181	44.2	16,045	8,996	16,045	16,045	8,996	4,359	4,359	8,996
ERIALD BANK	6	3.7	230	56.5	9,036	95	9,036	9,036	95	4,165	4,165	95
EASTERN BROWNS AND LA HAVRE	6	2.7	36	10.0	4,632	5,003	4,632	4,632	5,003	3,333	3,333	5,003
SOUTHERN NOVA SCOTIA	15	12.2	156	44.5	1,795	2,724	340	340	2,724	100	100	2,724
WESTERN BROWNS	21	47.5	355	140.1	7,228	11,012	7,228	7,228	11,012	357	357	11,012
SOUTHERN NOVA SCOTIA	22	34.2	292	100.9	22,566	2,080	22,566	22,566	2,080	4,699	4,699	2,080
SOUTHERN BAY OF FUNDY	3	5.0	27	11.9	13,715	7,563	13,715	13,715	7,563	1,590	1,590	7,563
NORTHERN BAY OF FUNDY	12	2.5	27	8.2	10,300	460	10,300	10,300	460	60	60	460
CENTRAL MAINE	5	4.5	50	6.2	11,265	14,965	11,265	11,265	14,965	19,053	19,053	14,965
WESTERN MAINE	53	1,426.0	1,670	775.0	47,733	156,198	47,733	47,733	156,198	45,403	45,403	156,198
INNER GROUNDS	46	1,541.5	1,743	856.4	151,291	1,985	151,291	151,291	1,985	38,038	38,038	1,985
WEST SIDE SOUTH CHANNEL	39	178.3	942	348.2	49,879	81,814	49,879	49,879	81,814	52,953	52,953	81,814
EAST SIDE SOUTH CHANNEL	8	7.1	57	22.4	2,268	3,305	2,268	2,268	3,305	1,241	1,241	3,305
CONNECTICUT SHORE	2	1.8	9	1.8	1,124	1,115	1,124	1,124	1,115	80	80	1,115
TOTAL	1/ 117	3,542.0	9,303	3,264.8	296,431	2,992	690,462	690,462	2,992	710,626	710,626	456

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTES AT END OF TABLE.

LANDINGS AT MAINE PORTS  
SUMMARY OF FISHERY - BY GEAR AND SUBAREA, 1963 - Continued

GEAR AND SUBAREA	CRAFT FISHING		TRIPS		DAYS ABSENT		DAYS FISHED		COD, DRAWN			CUSH, DRAWN		FLOUNDER, ROUND						
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	POUNDS	MARKET	SCROD	POUNDS	POUNDS	POUNDS	GRAY SOLE	LEMON SOLE	YELLOW-TAIL	POUNDS	POUNDS	POUNDS	POUNDS	
SINK GILL NETS:																				
WESTERN MAINE . . . . .	6	544.0	544	544	17.0	17.0	305,243	64,660	510	3,880	-	-	-	-	-	-	-	-	-	
INNER GROUND . . . . .	1	17.0	17	17	-	-	6,770	1,680	-	950	-	-	-	-	-	-	-	-	-	
TOTAL . . . . .	7	561.0	561	561	17.0	17.0	312,013	66,280	510	4,830	-	-	-	-	-	-	-	-	-	
PURSE SEINE, TUNA: OFF LONG ISLAND . . . . .	1	2.0	24	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SCALLOP DREDGES:																				
EASTERN MAINE . . . . .	15	107.0	107	107	53.5	53.5	-	-	-	-	-	-	-	-	-	-	-	-	-	
CENTRAL MAINE . . . . .	6	294.0	294	294	146.2	146.2	-	-	-	-	-	-	-	-	-	-	-	-	-	
WESTERN MAINE . . . . .	1	1.0	1	1	6.0	6.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
WEST SIDE SOUTH CHANNEL . . . . .	2	2.0	21	21	16.5	16.5	-	-	-	-	-	-	-	-	-	-	-	-	-	
EAST SIDE SOUTH CHANNEL . . . . .	1	4.0	4	4	16.0	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
CENTRAL AND SOUTHEAST PEAK . . . . .	5	531.9	480	480	306.0	306.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
CENTRAL AND SOUTHEAST GEORGES . . . . .	2	131.1	136	136	106.0	106.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
NAVY TACKET SHOALS AND LIGHTSHIP GROUNDS . . . . .	1	1.0	7	7	6.0	6.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL . . . . .	7	472.0	1,025	1,025	643.9	643.9	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL (LANDED WEIGHT, ALL SPECIES) . . . . .	17,335	5,801.0	12,298	12,298	5,143.5	5,143.5	680,634	987,269	6,775	415,425	711,171	456	35	-	-	-	-	-	-	
TOTAL (ROUND WEIGHT, ALL SPECIES 2/1) . . . . .	-	-	-	-	-	-	796,342	1,155,102	7,927	469,431	711,171	456	35	-	-	-	-	-	-	
MISCELLANEOUS GEAR, UNCLASSIFIED WATERS OFF MAINE . . . . .	-	-	-	-	-	-	-	1,053	-	-	-	-	-	-	-	-	-	-	-	
GRAND TOTAL (ROUND WEIGHT 2/1) . . . . .	-	-	-	-	-	-	796,342	1,156,155	7,927	469,431	711,171	456	35	-	-	-	-	-	-	
GEAR AND SUBAREA	BLACK-BACK		DAG		GRAY-FISH, ROUND		HADDOCK, DRAWN			HAKE, WHITE, DRESSED		HALIBUT, DRAWN		HERRINGS, SEA		MACKEREL, ROUND		OCEAN PERCH, ROUND		
	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	
LINE TRAWLS:																				
EASTERN MAINE . . . . .	-	-	-	-	41,595	15,751	-	-	-	4,453	-	-	-	-	-	-	-	-	-	
CENTRAL MAINE . . . . .	-	-	-	-	43,299	2,137,007	-	-	-	20,065	-	-	-	-	-	-	-	-	-	
WESTERN MAINE . . . . .	-	550	3,370	104,958	33,860	6,210	-	-	5,380	19,637	-	-	-	-	-	-	-	-	-	
TOTAL . . . . .	-	3,920	119,754	13,826	2,157,878	5,380	-	-	44,195	-	-	-	-	-	-	-	-	-	-	
HAND LINES:																				
EASTERN MAINE . . . . .	-	-	1,309	1,181	-	-	-	-	-	1,181	-	-	-	-	-	-	-	-	-	
CENTRAL MAINE . . . . .	-	-	6,527	7,290	-	-	-	-	-	7,290	-	-	-	-	-	-	-	-	-	
WESTERN MAINE . . . . .	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL . . . . .	-	-	7,936	8,471	-	-	-	-	-	8,471	-	-	-	-	-	-	-	-	-	
OTTER TRAWLS:																				
NORTH GRAND BANKS . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SOUTHWEST GRAND BANKS . . . . .	-	-	-	-	310	-	-	-	-	1,600	-	-	-	-	-	-	-	-	-	
SOUTH GRAND BANKS . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ST. PIERRE BANKS . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
EAST GULF OF ST. LAWRENCE . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
NORTH GULF OF ST. LAWRENCE . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SOUTH GULF OF ST. LAWRENCE . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MIDWATER CAPE BRETON . . . . .	-	-	-	-	35	25	-	-	-	-	-	-	-	-	-	-	-	-	-	
MIDWATER ST. JOHN'S . . . . .	-	-	-	-	195	580	-	-	-	-	-	-	-	-	-	-	-	-	-	
BANQUEREAU . . . . .	-	1,090	195	195	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	
CANSO . . . . .	-	2,595	3,790	225	25	25	-	-	-	-	-	-	-	-	-	-	-	-	-	
MIDDLE GROUND . . . . .	-	3,120	4,605	100	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-	
SOUTHWEST SABLE ISLAND BANK . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SEE FOOTNOTES AT END OF TABLE.																				

((CONTINUED ON NEXT PAGE))

# NEW ENGLAND FISHERIES

## LANDINGS AT MAINE PORTS SUMMARY OF FISHERY - BY GEAR AND SUBAREA, 1963 - Continued

GEAR AND SUBAREA	FLOUNDERS, ROUND-CONT'D.		GRAY-NOSE ROUND		HADDOCK, DRAWN		HAKE, WHITE, DRESSED		HALL BUT, DRAWN	HERRING, SEA	MACKEREL, ROUND	OCEAN PERCH, ROUND				
	BLACK-BACK	POUNDS	DAB	POUNDS	LARGE	POUNDS	SCROD	POUNDS					LARGE	POUNDS	SMALL	POUNDS
OTTER TRAWLS: -CONTINUED																
HORSESHOE GROUND, . . . . .	-	5,500	-	5,690	-	8,095	-	530	1,349	-	-	1,529,740				
SOUTHWEST SABLE ISLAND BANK . . . . .	-	2,275	-	2,210	-	2,210	-	2,210	230	-	-	1,470,230				
EASTERN NOVA SCOTIA . . . . .	-	3,730	-	2,935	-	13,180	-	933	760	-	-	1,600,290				
CENTRAL BANK, . . . . .	-	3,575	-	3,030	-	14,453	-	25	1,667	-	-	558,616				
CENTRAL NOVA SCOTIA . . . . .	-	2,985	-	9,286	-	14,453	-	900	775	-	-	1,669,910				
EASTERN BAY AND LA HAVRE, . . . . .	-	350	-	7,412	-	2,692	-	529	560	-	-	1,201,590				
SOUTHWEST SABLE ISLAND BANK . . . . .	-	350	-	7,412	-	2,692	-	529	560	-	-	1,201,590				
WESTERN BROWNS, . . . . .	-	4,770	-	47,025	-	34,649	-	6,954	44	-	-	2,881,322				
EASTERN NOVA SCOTIA . . . . .	-	60	-	44,952	-	7,093	-	6,431	393	-	-	2,439,175				
SOUTHERN BAY OF FUNDY . . . . .	-	1,485	-	51,470	-	24,350	-	9,180	-	-	-	8,800				
NORTHERN BAY OF FUNDY . . . . .	-	30	-	33,375	-	24,910	-	80	900	-	-	41,600				
EASTERN MAINE . . . . .	-	9,315	-	89,773	-	94,315	-	31,705	100	-	-	1,339,210				
CENTRAL MAINE . . . . .	-	49,293	-	463,898	-	189,774	-	149,162	15,852	-	-	2,323,338				
WESTERN MAINE . . . . .	-	210,748	-	1,942,176	-	1,924,176	-	932,493	92,266	-	-	6,390,529				
INNER GROUNDS . . . . .	-	35,114	-	354,028	-	196,695	-	21,462	1,180	-	-	1,761,173				
WEST SIDE SOUTH CHANNEL . . . . .	-	500	-	18,391	-	8,248	-	2,231	184	-	-	6,344,350				
EAST SIDE SOUTH CHANNEL . . . . .	-	340	-	5,151	-	1,788	-	225	-	-	-	29,200				
CONNECTICUT SHORE . . . . .	-	200	-	10	-	10	-	-	-	-	-	-				
TOTAL, . . . . .	49,368	450,735	906	1,514,653	821,107	224,029	178,964	27,526	-	-	-	63,904,800				
SINK GILL NETS:																
WESTERN MAINE . . . . .	-	-	-	631,495	-	587	-	76,965	95	-	-	-				
INNER GROUNDS . . . . .	-	-	-	19,875	-	-	-	2,985	-	-	-	-				
TOTAL, . . . . .	-	-	-	651,370	-	587	-	79,951	95	-	-	-				
TOTAL (LANDED WEIGHT, ALL SPECIES) . . . . .	49,368	454,675	757,134	1,687,875	835,520	2,396,369	263,495	80,249	-	-	-	63,904,800				
TOTAL (ROUND WEIGHT, ALL SPECIES 2/).	49,368	454,675	757,134	1,924,176	932,493	3,211,134	353,063	92,266	-	-	-	63,904,800				
MISCELLANEOUS GEAR:																
UNCLASSIFIED WATERS OFF MAINE . . . . .	-	-	-	-	-	-	-	-	152,916,727	304,043	-	-				
GRAND TOTAL (ROUND WEIGHT 2/).	49,368	454,675	757,134	1,924,176	932,493	3,211,134	353,063	92,266	152,916,727	304,043	-	63,904,800				
GEAR AND SUBAREA																
POLLOCK, DRAWN	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
SHRIMP, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
SCALLOPS, SEA (MEATS)	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
LOBSTERS, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WOLF-FISH, DRAWN	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WHITTING, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
TUNA, BLUEFIN, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
SWORDE-FISH, DRESSED	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
SHRIMP, SEA (MEATS)	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR FOOD	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR REDUCTION	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WOLF-FISH, DRAWN	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WHITTING, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
TUNA, BLUEFIN, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
SWORDE-FISH, DRESSED	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR FOOD	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR REDUCTION	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WOLF-FISH, DRAWN	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WHITTING, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
TUNA, BLUEFIN, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
SWORDE-FISH, DRESSED	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR FOOD	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR REDUCTION	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WOLF-FISH, DRAWN	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WHITTING, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
TUNA, BLUEFIN, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
SWORDE-FISH, DRESSED	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR FOOD	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR REDUCTION	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WOLF-FISH, DRAWN	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WHITTING, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
TUNA, BLUEFIN, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
SWORDE-FISH, DRESSED	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR FOOD	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR REDUCTION	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WOLF-FISH, DRAWN	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WHITTING, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
TUNA, BLUEFIN, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
SWORDE-FISH, DRESSED	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR FOOD	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR REDUCTION	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WOLF-FISH, DRAWN	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WHITTING, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
TUNA, BLUEFIN, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
SWORDE-FISH, DRESSED	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR FOOD	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR REDUCTION	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WOLF-FISH, DRAWN	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WHITTING, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
TUNA, BLUEFIN, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
SWORDE-FISH, DRESSED	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR FOOD	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR REDUCTION	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WOLF-FISH, DRAWN	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WHITTING, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
TUNA, BLUEFIN, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
SWORDE-FISH, DRESSED	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR FOOD	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR REDUCTION	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WOLF-FISH, DRAWN	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
WHITTING, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
TUNA, BLUEFIN, ROUND	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
SWORDE-FISH, DRESSED	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS				
UNCLASSIFIED FISH FOR FOOD	POUNDS	POUNDS	PO													

# LANDINGS AT MAINE PORTS

## SUMMARY OF FISHERY - BY GEAR AND SUBAREA, 1963 - Continued

GEAR AND SUBAREA	POLLOCK, DRAWN POUNDS	SWORD- FISH, DRESSED POUNDS	TUNA, BLUEFIN, ROUND POUNDS	WHITING, ROUND POUNDS	WOLF- FISH, DRAWN POUNDS	UNCLASSIFIED FISH		SCALLOPS, SEA (MEATS) POUNDS	SHRIMP, ROUND POUNDS	LOBSTERS, ROUND POUNDS	UNCLASSI- FIED SHELL- FISH, ETC. POUNDS	TOTAL POUNDS
						FOR FOOD POUNDS	FOR REDUCTION POUNDS					
<b>LONG LINES:</b>												
SOUTHWEST GRAND BANKS . . . . .	-	163,507	1,556	-	-	-	-	-	-	-	-	165,063
ST. PIERRE BANK . . . . .	-	46,400	-	-	-	-	-	-	-	-	-	46,400
CENTRAL AND SOUTHEAST GEORGES . . . . .	-	35,190	1,026	-	-	-	-	-	-	-	-	36,216
ST. GEORGES BANK . . . . .	-	56,636	-	-	-	-	-	-	-	-	-	56,636
OFF LONG ISLAND . . . . .	-	-	-	-	-	-	-	-	-	-	-	62,054
TOTAL . . . . .	-	356,164	7,600	-	-	-	-	-	-	-	-	363,764
<b>OTTER TRAWLS:</b>												
NORTHERN GRAND BANKS . . . . .	-	-	-	-	-	-	-	-	-	-	-	20,000
SOUTHWEST GRAND BANKS . . . . .	-	-	-	-	-	-	-	-	-	-	-	17,985,773
ST. PIERRE BANKS . . . . .	420	-	-	-	-	-	-	-	-	-	-	1,571,575
EAST GULF OF ST. LAWRENCE . . . . .	-	-	-	-	-	-	-	-	-	-	-	2,446,752
NORTH GULF OF ST. LAWRENCE . . . . .	-	-	-	-	-	-	-	-	-	-	-	1,501,000
SOUTH GULF OF ST. LAWRENCE . . . . .	-	-	-	-	-	-	-	-	-	-	-	23,500
NORTHEAST CAPE BRETON . . . . .	-	-	-	-	-	-	-	-	-	-	-	475,095
MAINE BANK . . . . .	875	-	-	-	5	-	-	-	-	-	-	580,100
CAPE BRETON . . . . .	48,372	-	-	-	70	-	-	-	-	-	-	6,395,170
CAISU . . . . .	985	-	-	-	370	-	-	-	-	-	-	1,295,820
MIDDLE GROUND . . . . .	9,195	-	-	-	10	-	-	-	-	-	-	742,845
SOUTHEAST SABLE ISLAND BANK . . . . .	-	-	-	-	-	-	-	-	-	-	-	4,700
HORSESHOE GROUND . . . . .	94,076	-	-	-	3,790	-	-	-	-	-	-	1,677,543
SOUTHWEST SABLE ISLAND BANK . . . . .	7,230	-	-	-	-	-	-	-	-	-	-	248,265
EASTERN NOVA SCOTIA . . . . .	100,780	-	-	-	5,295	-	-	-	-	-	-	1,832,715
CENTRAL NOVA SCOTIA . . . . .	455	-	-	-	-	-	-	-	-	-	-	382,293
EASTERN NOVA SCOTIA . . . . .	457,765	-	-	-	70	-	-	-	-	-	-	1,294,605
EASTERN BROWNS AND LA HAVE . . . . .	1,220	-	-	-	90	-	-	-	-	-	-	1,310,171
SOUTHERN NOVA SCOTIA . . . . .	43,540	-	-	-	55	-	-	-	-	-	-	3,024,895
NORTHERN NOVA SCOTIA . . . . .	15,465	-	-	-	200	-	-	-	-	-	-	2,653,689
WESTERN NOVA SCOTIA . . . . .	74,781	-	-	-	872	-	-	-	-	-	-	119,605
SOUTHERN BAY OF FUNDY . . . . .	2,080	-	-	-	185	-	-	-	-	-	-	119,595
NORTHERN BAY OF FUNDY . . . . .	3,575	-	-	-	10	-	-	-	-	-	-	119,595
CENTRAL MAINE . . . . .	82,593	-	-	-	1	-	-	-	-	-	-	8,595,618
WESTERN MAINE . . . . .	536,522	-	-	-	13,449	-	450	798,884	222,766	-	-	15,213,271
INNER GROUNDS . . . . .	250,132	-	-	-	7,274	-	22,764	425,300	312,344	-	454	8,056,622
WEST SIDE SOUTH CHANNEL . . . . .	17,759	-	-	-	5,130	-	-	430	-	-	-	403,540
EAST SIDE SOUTH CHANNEL . . . . .	4,689	-	-	-	50	-	-	-	-	-	-	44,648
CONNECTICUT SHORE . . . . .	-	-	-	-	20	-	-	-	3,100	-	-	3,650
TOTAL . . . . .	1,468,116	-	-	15,941,269	39,725	23,234	1,225,514	-	538,470	454	-	88,322,788
<b>SINK GILL NETS:</b>												
WESTERN MAINE . . . . .	120,112	-	-	-	340	-	342	1,095	-	-	-	1,250,977
INNER GROUNDS . . . . .	3,000	-	-	-	500	-	-	190	-	-	-	36,450
TOTAL . . . . .	123,112	-	-	-	840	-	342	1,285	-	-	-	1,287,427
<b>PURSE SEINES, TUNA: OFF LONG ISLAND . . . . .</b>	-	-	-	-	-	-	-	-	-	-	-	880,000

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTES AT END OF TABLE.

LANDINGS AT MAINE PORTS

SUMMARY OF FISHERY - BY GEAR AND SUBAREA, 1963 - Continued

GEAR AND SUBAREA	POLLOCK, DRAWN		SWORD-FISH, DRESSED		TUNA, BLUEFIN ROUND		WHITING, ROUND		WOLF-FISH, DRAWN		UNCLASSIFIED FISH FOR FOOD		SCALLOPS, SEA (MEATS)		SHRIMP, ROUND		LOBSTERS, ROUND		UNCLASSIFIED SHELL-FISH, ETC.		TOTAL		
	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	
SCALLOP DREGS:																							
EASTERN MAINE . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	19,362	-	-	-	-	-	-	-	19,362	
CENTRAL MAINE . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	92,720	-	-	-	-	-	-	-	92,720	
WESTERN MAINE . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	27,200	-	-	-	-	-	-	-	27,200	
WEST SIDE SOUTH CHANNEL . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	40,660	-	-	-	-	-	-	-	40,660	
NORTHERN COGE AND NORTHEAST PEAK . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	735,726	-	-	-	-	-	-	-	735,726	
CENTRAL AND SOUTHEAST GEORGES . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	259,805	-	-	-	-	-	-	-	259,805	
NANTUCKET SHOALS AND LIGHTSHIP GROUNDS . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	10,455	-	-	-	-	-	-	-	10,455	
TOTAL . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	1,185,928	-	-	-	-	-	-	-	1,185,928	
TOTAL (LANDED WEIGHT, ALL SPECIES) . . . . .	2,202,231	356,184	911,796	15,941,269	40,839	24,131	1,235,767	1,185,928	538,470	454	-	-	95,666,339	-	-	-	-	-	-	-	-	-	
TOTAL (ROUND WEIGHT, ALL SPECIES $\frac{2}{1}$ ) . . . . .	2,488,521	445,230	911,796	15,941,269	49,007	24,131	1,235,767	1,185,928	538,470	454	-	-	97,660,206	-	-	-	-	-	-	-	-	-	
MISCELLANEOUS GEAR, UNCLASSIFIED WATERS OFF MAINE . . . . .	-	-	-	-	900	-	1,691,124	875	-	-	-	-	22,603,911	10,667,263	22,604,365	10,667,263	22,604,365	10,667,263	22,604,365	10,667,263	22,604,365	10,667,263	
GRAND TOTAL (ROUND WEIGHT $\frac{2}{1}$ ) . . . . .	2,488,521	445,230	911,796	15,942,169	49,007	1,705,255	1,236,642	1,185,928	538,470	454	-	-	97,660,206	-	-	-	-	-	-	-	-	-	

1/ EXCLUSIVE OF DUPLICATION.  $\frac{2}{1}$  ALL SPECIES ARE LISTED AS ROUND WEIGHT EXCEPT UNIVALVE AND BIVALVE MOLLUSKS WHICH ARE REPORTED AS POUNDS OF MEATS. SEA SCALLOPS ARE LISTED AS WEIGHT OF EDIBLE MEAT. LANDED WEIGHT OF FISH WAS CONVERTED TO ROUND WEIGHT BY MULTIPLYING BY THE FOLLOWING FACTORS: COD, DRAWN 1.17; CUSK, DRAWN 1.13; HADDOCK, DRAWN 1.14; WHITE HAKE, DRESSED 1.34; HALIBUT, DRAWN 1.15; POLLOCK, DRAWN 1.13; SWORDFISH, DRESSED 1.25; TUNA, DRESSED 1.25; WHITING, DRESSED 1.66 AND WOLFFISH, DRAWN 1.20.

NOTE:---DAYS ABSENT IS THE MEASURE OF TIME, TO THE NEAREST COMPLETE DAY, THAT A VESSEL IS AWAY FROM PORT DURING A FISHING TRIP. WHEN A CRAFT OPERATES IN TWO OR MORE SUBAREAS DURING A VOYAGE, A FRACTIONAL PART (IN TENTHS) OF THE TRIP IS ALLOTTED TO THE SUBAREA ON THE BASIS OF THE CATCH IN EACH SUBAREA. DAYS FISHED IS THE TIME ACTUAL FISHING OPERATIONS WERE CARRIED ON, EXPRESSED TO THE NEAREST TENTH OF A DAY. TO OBTAIN FISHING TIME IN HOURS, MULTIPLY THE NUMBER OF DAYS FISHED BY 24.



# NEW ENGLAND FISHERIES

## LANDINGS AT MASSACHUSETTS PORTS

Detailed statistics on landings at Boston, Gloucester, New Bedford, and other Massachusetts ports are collected and published monthly and annually in the Current Fishery Statistics series of bulletins. Additional detailed tabulations are prepared for the use of Bureau and State scientists and the International Commission for the Northwest Atlantic Fisheries. The data usually represent about 98 percent of the total Massachusetts catch. The figures do not include data on shellfish (except the landings of otter trawl caught lobsters, shrimp, sea scallop meats, and squid). Additional landings, not included in the data, consist mostly of crabs, pot caught lobsters, clams, sea mussels, oysters, bay scallop meats, Irish moss, and small amounts of other fish, shellfish, and other marine organisms.

The following tables present a summary of 1963 data on Massachusetts landings by ports, gear, and area of capture. Since the quantities shown are the weights of the actual landings, they are not directly comparable with the catch figures that appear in other tables in this Digest.

Landings by fishing craft of all sizes at Boston, Gloucester, New Bedford, and certain other Massachusetts ports in 1963 were 432 million pounds valued at \$37 million. Compared with 1962 (453 million pounds worth \$36 million), landings decreased 5 percent in volume but increased 2 percent in value. Gloucester was the leading port with 32 percent of the landings, followed closely by New Bedford with 31 percent; Boston, 25 percent; and other Massachusetts Ports, 12 percent. The distribution of value was nearly identical with the previous year: New Bedford, 46 percent; Boston, 29; Gloucester, 18; and other ports, 7 percent.

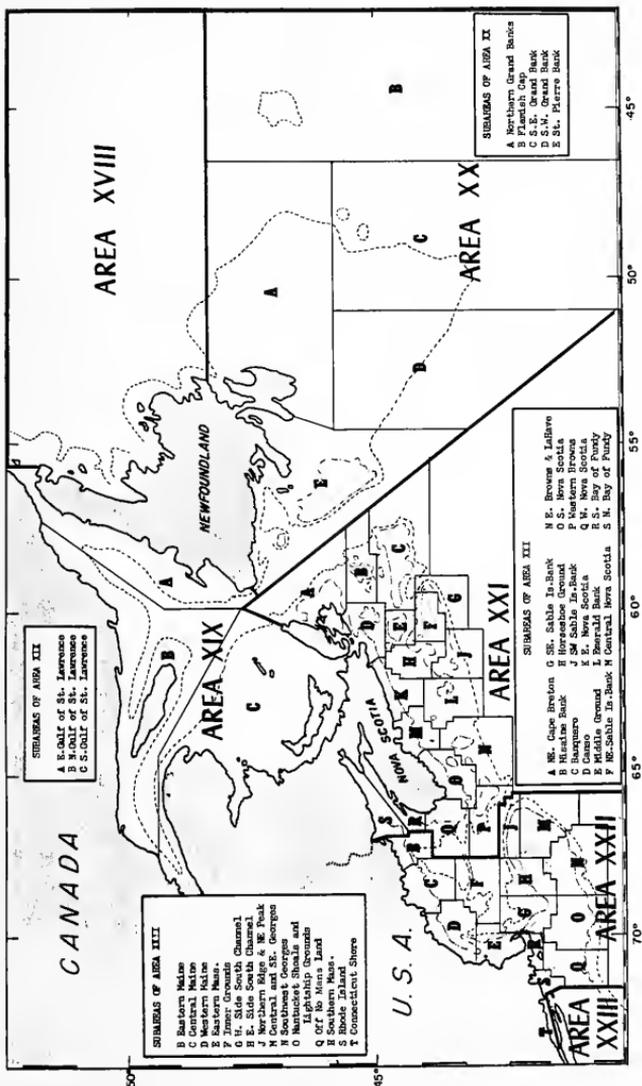
Boston landings of 107.2 million pounds were down 10.4 million pounds from 1962--the lowest level in 41 years. Ex-vessel prices were generally higher and total value of the landings increased \$318,700 over 1962 to the highest level in 4 years. The 8-million-pound decrease in haddock landings was the major factor in the decline in volume. Gloucester vessels, which land much of their groundfish catch at Boston, accounted for 24 percent of the landings at Boston.

Gloucester landings decreased sharply in volume, down 17 percent to the lowest level in 23 years, but because of improved prices, the total value rose 3 percent to the highest level since 1959. A major reason for the decline in volume was the complete absence of menhaden, which provided landings of 16 million pounds in 1962. Ocean perch receipts dropped 19 percent to 43.2 million pounds, the lowest since 1938. Whiting landings fell nearly 4 million pounds to the lowest point in 7 years.

Once again, New Bedford had the best year in its history, with landings of 135 million pounds (up 13 percent) worth \$16.8 million (up 2 percent). Yellowtail flounder landings of 63.8 million pounds (up 37 percent) were responsible for the increase at this port and also established a new record for this species. In 1963, yellowtail landings were second to haddock in Massachusetts--quite a jump over the past few years. The major decline was in sea scallops, which dropped 17 percent because of decreased abundance on Georges Bank. The unit value increased as demand was strong. New Bedford remained the leading New England tuna port (3.3 million pounds) and became the leading port for the new longline swordfish fishery (1.2 million pounds).

At Massachusetts ports, 711 fishing craft captured the 432 million pounds of fish and shellfish landed in 1963. Of these, 402 craft with otter trawls caught 89 percent of the landings. Purse seines and scallop dredges accounted for about 4 percent each, and the remainder was taken on lines, in pound and trap nets, by harpoons, or with gill nets. Fishing grounds off the New England shore yielded 370 million pounds or 86 percent of the entire landings. About 12 percent was taken from grounds off Nova Scotia, while the remainder came from the Gulf of St. Lawrence, the Newfoundland Banks, and from areas off the Middle Atlantic States.

## STATISTICAL AREAS AND SUBAREAS USED IN REPORTING THE CATCH LANDED AT CERTAIN MASSACHUSETT PORTS DURING 1963



# NEW ENGLAND FISHERIES

## LANDINGS AT MASSACHUSETTS PORTS

### SUMMARY OF LANDINGS, 1963

SPECIES	BOSTON		GLOUCESTER	
	POUNDS	VALUE	POUNDS	VALUE
	ALEWIVES, ROUND . . . . .	-	-	10,895,230
ANGLERFISH, ROUND . . . . .	-	-	6,455	264
BONITO, ROUND . . . . .	-	-	35	2
BUTTERFISH, ROUND . . . . .	6,525	\$766	94,530	7,034
COD, DRAWN: WHALE . . . . .	2,700	210	-	-
LARGE . . . . .	6,630,631	544,672	1,417,104	106,030
MARKET . . . . .	8,562,945	701,621	1,651,057	133,153
SCROD . . . . .	2,759,502	214,991	314,483	20,182
CUSK, DRAWN . . . . .	836,855	62,511	404,618	23,452
EELS, CONGER, ROUND . . . . .	220	7	-	-
FLOUNDERS, ROUND:				
BLACKBACK: LARGE . . . . .	736,261	97,591	31,765	2,970
SMALL . . . . .	22,437	1,667	35,615	1,960
DAG . . . . .	1,119,895	68,931	1,439,314	79,608
FLUKE: LARGE . . . . .	2,450	64	40	3
SMALL . . . . .	2,000	77	-	-
GRAY SOLE . . . . .	356,045	55,980	916,979	100,118
LEMON SOLE . . . . .	279,759	43,261	14,245	1,951
YELLOWTAIL . . . . .	1,084,420	66,833	153,245	9,174
HADDOCK, DRAWN: LARGE . . . . .	37,797,920	4,355,761	9,153,266	1,042,350
SCROD . . . . .	37,337,562	3,948,325	7,777,621	761,627
SNAPPER . . . . .	15,155	1,998	296,140	14,156
HAKE: RED, ROUND . . . . .	15,218	36	110,535	2,647
WHITE, DRESSED: LARGE . . . . .	72,590	8,089	520,195	36,018
MEDIUM . . . . .	687,435	59,215	280,435	14,932
HALIBUT, DRAWN . . . . .	54,601	16,457	56,554	16,424
HERRING, SEA, ROUND . . . . .	-	-	133,210	1,210
MACKEREL, ROUND . . . . .	150	11	319,155	27,614
OCEAN PERCH, ROUND . . . . .	1,145,669	67,172	43,236,768	2,143,705
POLLOCK: ROUND . . . . .	51,250	3,054	254,976	8,326
DRAWN . . . . .	6,512,955	396,790	3,651,433	176,962
SCUP DR PORGY, ROUND, UNCLASSIFIED . . . . .	-	-	2,300	92
SEA BASS, ROUND, UNCLASSIFIED . . . . .	-	-	250	31
SHAD, ROUND . . . . .	-	-	475	17
SHARKS, UNCLASSIFIED, DRAWN . . . . .	2,750	145	6,009	312
SKATES, ROUND . . . . .	14,055	565	31,140	1,123
STRIPED BASS, ROUND . . . . .	-	-	2,333	405
STURGEON, DRAWN . . . . .	250	30	265	37
SWORFISH, DRESSED . . . . .	33,214	14,408	-	-
TILEFISH, DRAWN . . . . .	900	45	210	16
TUNA, ROUND: BLUEFIN . . . . .	2,111	141	35,542	1,464
UNCLASSIFIED . . . . .	7,200	241	49,233,394	1,178,468
WHITING: ROUND . . . . .	150,625	7,379	65,350	3,212
DRESSED . . . . .	404,445	27,337	136,525	7,508
WOLFFISH, DRAWN . . . . .	6,850	423	4,583,973	268,569
UNCLASSIFIED: FOR FOOD . . . . .	253,190	20,670	42,720	3,477
SPAWN . . . . .	300	15	1,576,375	11,669
FOR INDUSTRIAL USE . . . . .	-	-	500	150
LOBSTERS, NORTHERN . . . . .	-	-	23,056	2,952
SHRIMP . . . . .	50	25	545,536	253,764
SEA SCALLOP MEATS . . . . .	-	-	14,610	626
SQUID . . . . .	-	-	-	-
TOTAL . . . . .	107,154,660	10,609,494	139,475,812	6,611,066

SPECIES	NEW BEDFORD		OTHER MASSACHUSETTS PORTS	
	POUNDS	VALUE	POUNDS	VALUE
	ALEWIVES, ROUND . . . . .	-	-	1,600
ANCHOVIES, ROUND . . . . .	-	-	55,125	619
ANGLERFISH, ROUND . . . . .	-	-	22,290	1,142
BILLFISH, ROUND . . . . .	-	-	5,200	265
BLUEFISH, ROUND . . . . .	-	-	11,422	1,684
BONITO, ROUND . . . . .	-	-	47,704	4,381
BUTTERFISH, ROUND . . . . .	106,160	\$9,340	553,670	72,339
COD, DRAWN: WHALE . . . . .	12,675	1,206	164	24
LARGE . . . . .	1,378,045	119,369	2,397,397	195,391
MARKET . . . . .	4,225,508	404,516	1,526,076	124,985
SCROD . . . . .	366,770	34,639	226,573	13,666

SEE NOTE ON PAGE 126.

(CONTINUED ON NEXT PAGE)

# NEW ENGLAND FISHERIES

127

## LANDINGS AT MASSACHUSETTS PORTS

### SUMMARY OF LANDINGS, 1963 - Continued

SPECIES	NEW BEDFORD		OTHER MASSACHUSETTS PORTS	
	POUNDS	VALUE	POUNDS	VALUE
CUSK, DRAWN . . . . .	2,725	\$68	19,564	\$576
EELS, CONGER, ROUND . . . . .	-	-	2,415	55
FLOUNDERS, ROUND:				
BLACKBACK, LARGE . . . . .	4,129,160	642,770	2,388,320	264,286
SMALL . . . . .	3,505,330	258,550	902,718	61,941
CAB . . . . .	1,824,350	169,371	218,123	14,502
FLUKE:				
LARGE . . . . .	698,420	264,734	10,565	4,211
MEDIUM . . . . .	494,675	155,334	25,738	7,205
SMALL . . . . .	1,032,112	255,079	15,417	3,946
GRAY SOLE . . . . .	732,140	85,260	359,086	46,927
LEMON SOLE . . . . .	1,629,375	435,610	34,339	7,129
YELLOWTAIL . . . . .	63,847,825	4,192,465	3,788,271	307,095
Haddock, DRAWN: LARGE . . . . .	5,888,510	589,895	2,890,696	273,937
SCROD . . . . .	4,269,210	391,818	646,230	42,886
SNAPPER . . . . .	375	8	115	2
HAKE: RED, ROUND . . . . .	-	-	4,956,999	52,139
WHITE, DRESSED: LARGE . . . . .	1,500	30	12,640	675
MEDIUM . . . . .	960	35	109,435	6,504
HALIBUT, DRAWN . . . . .	7,613	1,899	33,434	18,326
HERRING, SEA, ROUND . . . . .	-	-	1,717,015	33,575
MACKEREL, ROUND . . . . .	2,930	521	1,597,995	156,024
MENHADEN, ROUND . . . . .	324,220	3,242	20,400	261
OCEAN PERCH, ROUND . . . . .	225	11	2,015	97
POLLACK: ROUND . . . . .	700	35	11,773	349
DRAWN . . . . .	22,995	1,230	220,911	9,250
SCUP OR FORGY, ROUND: LARGE . . . . .	1,415	167	7,960	638
MEDIUM . . . . .	349,200	17,951	268,375	16,614
SMALL . . . . .	100	4	-	-
UNCLASSIFIED . . . . .	-	-	112,212	8,733
SEA BASS, ROUND: LARGE . . . . .	-	-	95	9
MEDIUM . . . . .	5,980	461	2,029	163
SMALL . . . . .	200	10	-	-
UNCLASSIFIED . . . . .	-	-	7,875	1,151
SHAD, ROUND . . . . .	-	-	20,456	1,203
SHARKS, UNCLASSIFIED, DRAWN . . . . .	4,067	232	6,012	259
SKATES, ROUND . . . . .	-	-	5,900	293
STRIPED BASS, ROUND . . . . .	150	6	80,666	11,962
STURGEON, DRAWN . . . . .	2,045	119	2,005	310
SWORFISH, DRESSED . . . . .	1,201,763	348,523	59,769	37,324
TAUTOG, ROUND . . . . .	500	25	7,609	246
TILEFISH, DRAWN . . . . .	83,690	12,629	280	40
TUNA, ROUND: BLUEFIN . . . . .	1,885,024	110,667	3,003,468	155,579
SKIPJACK . . . . .	1,423,565	71,160	164,000	7,510
UNCLASSIFIED . . . . .	-	-	5,975	1,189
WHITING: ROUND . . . . .	-	-	12,006,715	248,477
DRESSED . . . . .	-	-	3,106,154	125,095
WOLFFISH, DRAWN . . . . .	5,205	230	51,849	2,338
UNCLASSIFIED: FOR FOOD . . . . .	45,035	679	137,531	11,444
SPAWN . . . . .	-	-	5,880	623
FOR INDUSTRIAL USE . . . . .	18,311,722	164,041	4,148,055	65,689
LOBSTERS, NORTHERN . . . . .	1,377,974	645,491	26,700	12,022
SEA SCALLOP MEATS . . . . .	15,940,747	7,394,763	121,360	60,028
SQUID . . . . .	3,480	154	1,737,900	93,769
TOTAL . . . . .	135,146,620	16,804,673	49,903,195	2,590,420

SEE NOTE ON PAGE 126.



# NEW ENGLAND FISHERIES

## LANDINGS AT MASSACHUSETTS PORTS

### SUMMARY OF LANDINGS, 1963 - Continued

SPECIES	TOTAL			
	1963		1962	
	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES, ROUND . . . . .	10,896,830	\$102,896	(1)	(1)
ANCHOVIES, ROUND, . . . . .	55,125	819	-	-
ANGLERFISH, ROUND, . . . . .	30,745	1,406	(1)	(1)
BILLFISH, ROUND, . . . . .	5,290	265	-	-
BLUEFISH, ROUND, . . . . .	11,422	1,684	(1)	(1)
BONITO, ROUND, . . . . .	47,739	4,383	(1)	(1)
BUTTERFISH, ROUND, . . . . .	762,905	89,479	(1)	(1)
COD, DRAWN: WHALE, . . . . .	15,739	1,542	-	-
LARGE, . . . . .	11,823,377	965,462	12,021,991	\$955,969
MARKET, . . . . .	15,966,396	1,364,277	17,078,274	1,392,604
SCROD, . . . . .	3,669,328	283,500	4,940,799	361,809
CASK, DRAWN, . . . . .	1,263,762	86,627	1,090,235	69,745
EELS, CONGER, ROUND, . . . . .	2,635	62	(1)	(1)
FLOUNDERS, ROUND:				
BLACKBACK: LARGE, . . . . .	7,255,526	1,007,617	-	-
SMALL, . . . . .	4,466,300	324,338	-	-
UNCLASSIFIED, . . . . .	-	-	12,554,024	1,463,561
CAB, . . . . .	4,601,662	352,612	3,904,273	297,504
FLUKE: LARGE, . . . . .	711,475	289,012	-	-
MEDIUM, . . . . .	520,413	162,539	-	-
SMALL, . . . . .	1,049,529	259,102	3,770,407	887,264
GRAY SOLE, . . . . .	2,364,250	288,285	1,978,121	244,256
LEMON SOLE, . . . . .	1,957,718	487,971	2,689,194	633,199
YELLOWTAIL, . . . . .	68,875,761	4,575,887	50,844,326	3,824,920
HADDOCK, DRAWN: LARGE, . . . . .	35,730,392	6,261,963	51,788,105	5,216,654
SCROD, . . . . .	50,030,643	5,164,656	63,574,331	5,480,873
SNAPPER, . . . . .	313,785	16,164	-	-
HAKE: RED, ROUND, . . . . .	5,067,852	54,822	5,340,025	56,511
WHITE, DRESSED: LARGE, . . . . .	606,925	44,812	1,272,195	85,510
MEDIUM, . . . . .	1,278,265	80,686	454,896	21,873
HALIBUT, DRAWN, . . . . .	154,402	57,166	138,540	47,751
HERRING, SEA, ROUND, . . . . .	1,650,225	34,785	(1)	(1)
MACKEREL, ROUND, . . . . .	1,920,230	184,170	1,344,199	194,208
MENHADEN, ROUND, . . . . .	344,620	3,503	16,031,941	158,813
OCEAN PERCH, ROUND, . . . . .	44,386,697	2,210,985	54,529,520	2,355,580
POLLOCK: ROUND, . . . . .	318,701	11,764	-	-
DRAWN, . . . . .	10,408,294	584,232	12,115,059	599,163
SCUP OR PORGY, ROUND: LARGE, . . . . .	9,395	825	-	-
MEDIUM, . . . . .	617,575	34,565	-	-
SMALL, . . . . .	100	4	-	-
UNCLASSIFIED, . . . . .	114,512	8,825	1,275,833	62,484
SEA BASS, ROUND: LARGE, . . . . .	95	9	-	-
MEDIUM, . . . . .	8,009	644	-	-
SMALL, . . . . .	200	10	-	-
UNCLASSIFIED, . . . . .	8,125	1,182	(1)	(1)
SHAD, ROUND, . . . . .	20,931	1,220	(1)	(1)
SHARKS, UNCLASSIFIED, DRAWN, . . . . .	20,858	948	(1)	(1)
SKATES, ROUND, . . . . .	51,095	1,981	-	-
STRIPED BASS, ROUND, . . . . .	83,149	12,375	(1)	(1)
STURGEON, DRAWN, . . . . .	4,585	496	(1)	(1)
SWORDFISH, DRESSED, . . . . .	1,294,746	399,895	481,443	264,744
TAUTOG, ROUND, . . . . .	8,109	271	-	-
TILEFISH, DRAWN, . . . . .	85,080	12,932	56,330	7,674
TUNA, ROUND: BLUEFIN, . . . . .	4,924,034	267,750	-	-
SKIPJACK, . . . . .	1,587,385	78,690	-	-
UNCLASSIFIED, . . . . .	8,086	1,330	5,828,699	438,257
WHITING: ROUND, . . . . .	61,249,309	1,427,206	68,600,180	1,462,552
DRESSED, . . . . .	3,322,129	135,686	4,085,940	193,204
WOLFFISH, DRAWN, . . . . .	598,024	37,413	496,508	34,006
UNCLASSIFIED: FOR FOOD, . . . . .	4,773,389	301,115	8,349,767	978,830
SPAWN, . . . . .	301,790	24,770	219,710	90,171
FOR INDUSTRIAL USE, . . . . .	24,405,452	242,634	26,832,299	223,234
LOBSTERS, NORTHERN, . . . . .	1,405,174	657,663	(1)	(1)
SHRIMP, . . . . .	23,068	2,952	(1)	(1)
SEA SCALLOP MEATS, . . . . .	16,607,715	7,708,620	19,529,768	7,968,267
SQUID, . . . . .	1,755,990	94,549	-	-
TOTAL, . . . . .	431,682,287	36,815,673	453,216,933	36,071,210

1/ INCLUDED UNDER UNCLASSIFIED.

NOTE: THIS REPORT INCLUDES ALL LANDINGS IN MASSACHUSETTS EXCEPT THE INSHORE CATCH OF SHELLFISH (LOBSTERS, CLAMS, BAY SCALLOPS, IRISH MOSS, ETC.) AND SMALL QUANTITIES OF FINFISH. IN 1962, THE LANDINGS SHOWN ABOVE ACCOUNTED FOR 97.3 PERCENT OF THE MASSACHUSETTS TOTAL CATCH. THE WEIGHTS OF FISH GIVEN IN THIS BULLETIN REPRESENT THE FRESH FISH AS LANDED AND THE VALUES ARE THOSE RECEIVED BY THE FISHERMEN. THE GRADES OR SIZES GIVEN FOR CERTAIN SPECIES ARE THOSE RECOGNIZED IN THE TRADE. "WHALE" COD ARE CLASSIFIED AS THOSE WEIGHING OVER 25 POUNDS; "LARGE" COD, 10 TO 25 POUNDS; "MARKET" COD, 2-1/2 TO 10 POUNDS; AND "SCROD" COD, 1-1/2 TO 2-1/2 POUNDS. "LARGE" BLACKBACK FLOUNDERS, 1 TO 3-1/2 POUNDS; AND "SMALL" BLACKBACK FLOUNDERS, 3/4 TO 1 POUND. "LARGE" FLUKE, OVER 4 POUNDS; "MEDIUM" FLUKE, 3 TO 4 POUNDS; AND "SMALL" FLUKE, 1-1/2 TO 3 POUNDS. "LARGE" HADDOCK ARE THOSE WEIGHING OVER 2-1/2 POUNDS; "SCROD" HADDOCK, 1-1/2 TO 2-1/2 POUNDS; AND "SNAPPER" HADDOCK, UNDER 1-1/2 POUNDS. "LARGE" HAKE ARE THOSE WEIGHING OVER 6 POUNDS, AND "MEDIUM" HAKE, UNDER 6 POUNDS. THE FOLLOWING TERMS INDICATE THE CONDITION IN WHICH LANDED: "ROUND," "AS CAUGHT;" "DRAWN," "EVISERATED;" AND "DRESSED," "EVISERATED AND HEADED." THE CATEGORY "OTHER MASSACHUSETTS PORTS" INCLUDES PLYMOUTH, PROVINCETOWN, AND OTHER CAPE COD PORTS.

LANDINGS AT MASSACHUSETTS PORTS  
SUMMARY OF FISHERY - BY GEAR AND SUBAREA, 1963

GEAR AND SUBAREA	CRAFT FISHING	TRIPS	DAYS ABSENT	DAYS FISHED	COD, DRAWN			CUSH, DRAWN	FLOUNDERS, ROUND	
					LARGE	MARKET	SCROD		BLACK-BACK	POUNDS
	NUMBER	NUMBER	NUMBER	NUMBER	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS
LINE TRAWLS:										
WESTERN MASSACHUSETTS:	1	1.0	1	6	65	100	550			
INNER GROUNDS:	47	828.0	838	300.4	79,790	123,035	115,703	32,382		
WEST SIDE SOUTH CHANNEL:	5	116.0	116	76.2	66,726	70,355	180,070	135		
SOUTHERN MASSACHUSETTS:	42	975.0	987	501.2	534,461	230,866	34,158	205		
TOTAL:	1/ 66	1,938.0	1,960	883.8	750,889	439,861	76,815	330,481	32,722	
HAND LINES:										
EASTERN MASSACHUSETTS:	90	1,310.0	1,313	578.2	54,770	21,577	455	5,396		
WEST SIDE SOUTH CHANNEL:	50	1,979.0	1,979	989.0	1,311,549	426,647	9,416	125		
CENTRAL AND SOUTHEAST GEORGES:	1	1.0	1	4.2	2,200	4,000				
NANTUCKET SHOALS AND LIGHTSHIP:	1	1.0	3	1.5	3,200	2,750				
SOUTHERN MASSACHUSETTS:	1/ 131	3,292.0	3,303	1,573.2	1,373,111	455,479	270	9,871	5,526	
TOTAL:										
HARPOONS:										
EASTERN MASSACHUSETTS:	3	14.0	14	2.4						
SOUTHERN MASSACHUSETTS:	5	7.0	61	34.0						
NANTUCKET SHOALS AND LIGHTSHIP:	4	7.0	96	53.0						
OFF NO MAN'S LAND:	1/ 12	43.0	203	107.9						
TOTAL:										
LONG LINES:										
EASTERN MASSACHUSETTS:	3	8.0	8	2.4						
NORTHERN EDGE AND NORTHEAST PEAK:	2	16.0	28	16.0						
SOUTHWEST GEORGES:	8	18.5	163	100.5						
NANTUCKET SHOALS AND LIGHTSHIP:	10	17.5	127	74.5						
OFF NO MAN'S LAND:	11	32.0	196	137.6						
OFF NEW ENGLAND, UNCLASSIFIED:	8	12.0	68	43.0						
OFF LONG ISLAND:	5	5.0	42	13.8						
TOTAL:	1/ 25	104.0	590	215.8						
OTTER TRAWLS:										
ST. PIERRE BANK:	5	3.6	54	11.5						
EAST GULF OF ST. LAWRENCE:	16	25.0	416	117.2	460	215	150			
SOUTH GULF OF ST. LAWRENCE:	11	12.3	188	47.0	400	500	35			
NORTHEAST CAPE BRETON:	3	3.1	41	7.3			125			
MISATAINE BANK:	15	13.4	183	54.6						
LANGUEDOC:	16	24.6	326	92.8	495	3,940	794			
MIDDLE GROUND:	9	8.4	119	37.1	238	4,118	300			
SOUTHEAST SABLE ISLAND BANK:	2	4.9	71	17.2	63	4,269				
HORSESHOE GROUND:	23	35.8	470	121.1	3,015	7,177	2,372			
SOUTHWEST SABLE ISLAND BANK:	1	1.1	1	109.2						
EASTERN BANK SCOTIA:	24	30.3	465	109.6	2,163	5,859	3,657			
WESTERN BANK SCOTIA:	6	8.0	97	138.6	50	50	112			
EASTERN BROWN CANALS HAVE:	26	39.9	597	166.7	2,947	6,659	4,755			
SOUTHERN BANK SCOTIA:	40	38.5	692	202.8	101,653	132,970	23,339	6,250		
SOUTHERN NEW SCOTIA:	48	72.0	676	235.6	37,720	74,155	26,555	1,640		
WESTERN BROWN:	59	123.1	1,041	646.1	300,703	534,594	111,118	6,085		
WESTERN BANK SCOTIA:	25	23.3	196	120.4	34,699	62,592	30,909	1,967		
NORTHERN BAY OF FUNDY:	24	27.6	232	147.8	92,579	184,526	17,533	9,300		
SOUTHERN BAY OF FUNDY:	29	54.2	453	233.5	145,546	559,548	64,034	19,812		
EASTERN MAINE:	3	4.4	49	8.1	1,295	525				
TOTAL:	1									

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTE AT END OF TABLE.

## NEW ENGLAND FISHERIES

**LANDINGS AT MASSACHUSETTS PORTS  
SUMMARY OF FISHERY - BY GEAR AND SUBAREA, 1963 - Continued**

GEAR AND SUBAREA	CRAFT FISHING	TRIPS	DAYS ABSENT	DAYS FISHED	COD, DRAWN			CUSK, DRAWN	FLOUNDERS, ROUND
					LARGE	MARKET	SCROD		
	NUMBER	NUMBER	NUMBER	NUMBER	POUNDS	POUNDS	POUNDS	POUNDS	BLACK-BACK
OTTER TRAWLS - CONTINUED:									
WESTERN LONG ISLAND	45	211.4	364	183.5	52,265	106,742	19,400	1,862	
WESTERN MASSACHUSETTS	182	8,516.2	8,975	3,627.6	483,425	935,888	69,521	2,195,429	
INNER GROUNDS	66	98.3	505	244.7	81,804	61,926	44,469	1,062	
WEST SIDE SOUTH CHANNEL	214	1,792.5	6,586	3,876.1	1,366,969	3,195,623	140,353	3,695,881	
EAST SIDE SOUTH CHANNEL	186	946.2	5,226	3,320.6	3,323,969	3,523,556	146,862	1,951,592	
NORTHERN EDGE AND NORTHEAST PEAK	154	381.0	3,352	2,682.6	2,145,888	1,923,908	54,700	672,043	
CENTRAL AND SOUTHEAST GEORGES	17	157.6	1,527	947.4	159,722	419,056	30,060	145,706	
NANTUCKET SHOALS AND LIGHTSHIP	161	1,152.5	4,658	3,395.1	156,742	1,361,825	173,813	3,200,686	
OFF NO MAN'S LAND	165	1,500.0	5,637	2,604.4	35,589	134,173	2,690	421,153	
SOUTHERN MASSACHUSETTS	72	415.4	837	432.0	1,417	19,039	1,765	627,818	
RHODE ISLAND SHORE	28	52.2	225	100.3	3,940	8,965	375	12,680	
OFF LONG ISLAND, UNCLASSIFIED	1	1.0	4	1.0	550	4,100	-	1,375	
OFF LONG ISLAND	49	80.0	532	341.6	-	-	-	-	
TOTAL	1/	16,739.0	49,587	26,946.4	9,556,364	14,957,893	3,960,493	11,660,472	
FLOATING TRAPS,									
EASTERN MASSACHUSETTS	9	351.0	358	357.4	-	500	-	-	
SINK GILL NETS									
EASTERN MASSACHUSETTS	10	512.0	542	540.8	157,999	111,040	1,750	23,100	
DRIFT GILL NETS									
EASTERN MASSACHUSETTS	10	109.0	109	51.1	-	-	-	-	
WEST SIDE SOUTH CHANNEL	12	70.0	70	70.0	-	-	-	-	
TOTAL	1/	179.0	179	121.1	-	-	-	-	
PURSE SEINES									
WESTERN MASSACHUSETTS	11	180.0	180	55.3	-	-	-	-	
WEST SIDE SOUTH CHANNEL	2	3.0	23	5.5	-	-	-	-	
OFF NO MAN'S LAND	1	5.0	5	5.0	-	-	-	-	
RHODE ISLAND SHORE	1	1.0	3	1.3	-	-	-	-	
OFF LONG ISLAND	7	19.0	173	45.0	-	-	-	-	
TOTAL	1/	208.0	364	111.1	-	-	-	-	
SCALLOP PRECES:									
WESTERN BROWNS	1	.9	13	9.0	-	-	-	-	
WESTERN NOVA SCOTIA	1	1.0	1	1.0	-	-	-	-	
EASTERN MASSACHUSETTS	9	88.0	108	38.2	178	75	-	5,095	
WEST SIDE SOUTH CHANNEL	30	126.0	1,027	787.9	-	-	-	1,135	
EAST SIDE SOUTH CHANNEL	45	131.1	1,033	745.7	-	-	-	1,400	
NORTHERN EDGE AND NORTHEAST PEAK	40	159.5	1,278.5	1,278.5	50	200	-	200	
CENTRAL AND SOUTHEAST GEORGES	52	343.6	3,030.2	2,305.5	-	-	-	20	
NANTUCKET SHOALS AND LIGHTSHIP	31	86.5	693	496.2	-	-	-	235	
OFF NO MAN'S LAND	1	1.0	64	2.5	-	-	-	-	
OFF LONG ISLAND	5	7.0	64	48.0	-	-	-	-	
TOTAL	1/	1,236.0	10,209	7,592.7	228	700	-	8,045	
POUND NETS									
EASTERN MASSACHUSETTS	6	742.0	742	735.7	-	923	-	322	
WEST SIDE SOUTH CHANNEL	6	308.0	308	308.0	525	-	-	1,639	
SOUTHERN MASSACHUSETTS	1	43.0	43	43.0	-	-	-	-	
TOTAL	1/	1,093.0	1,093	1,086.7	525	923	-	1,961	
GRAND TOTAL	1/	25,697.0	66,508	39,696.9	11,839,116	15,966,396	3,669,328	11,721,826	

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTE AT END OF TABLE.

LANDINGS AT MASSACHUSETTS PORTS  
SUMMARY OF FISHERY - BY GEAR AND SUBAREA, 1963 - Continued

GEAR AND SUBAREA	FLOUNDER, ROUND - CONTINUED				HADDOCK, DRAWN				HAKE	
	DAG	FLUME	GRAY SOLE	LEMON SOLE	YELLOW-TAIL	LARGE	SCROD	SNAPPER	RED, ROUND	WHITE & LARGE
	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS
LINE TRAWLS:										
WESTERN MAINE . . . . .	-	-	-	-	-	1,100	-	-	-	2,900
EASTERN MASSACHUSETTS . . . . .	-	-	-	-	-	139,304	40,305	-	-	2,950
INNER GROUNDS . . . . .	80	-	-	-	-	359,560	76,095	100	-	16,950
WEST SIDE SOUTH CHANNEL . . . . .	-	-	11	865	48	1,222,272	32,858	-	18	11,525
SOUTHERN MASSACHUSETTS . . . . .	-	-	-	-	-	-	-	-	-	-
TOTAL . . . . .	80	-	11	865	48	1,692,466	149,258	100	18	35,810
HAND LINES:										
EASTERN MASSACHUSETTS . . . . .	-	-	-	290	440	-	35	-	-	45
WEST SIDE SOUTH CHANNEL . . . . .	623	200	5	1,750	27,375	474,809	6,375	-	-	-
CENTRAL AND SOUTHEAST GEORGES . . . . .	-	-	-	-	875	-	-	-	-	-
TOTAL . . . . .	623	205	-	1,849	27,673	476,124	6,410	-	-	45
OTTER TRAWLS:										
EAST GULF OF ST. LAWRENCE . . . . .	25	-	140	-	-	865	640	-	1,375	-
SOUTH GULF OF ST. LAWRENCE . . . . .	85	-	-	-	-	1,654	2,231	-	-	30
BANQUEREAU . . . . .	5,807	-	96,673	-	-	630	750	-	-	200
CANSO . . . . .	9,205	-	146,238	-	-	170	125	-	-	-
GROUND . . . . .	300	-	7,960	-	-	11,435	21,125	-	-	1,411
HOPESHAD GROUND . . . . .	643	-	4,910	-	-	4,231	6,927	2,700	-	2,108
EASTERN NOVA SCOTIA . . . . .	35	-	-	-	-	-	188	-	-	1,204
EMERALD BANK . . . . .	1,165	-	5,361	-	-	5,501	9,845	1,560	-	2,778
CENTRAL NOVA SCOTIA . . . . .	23,195	-	2,486	6,420	11,027	93,467	1,670,342	17,500	-	4,554
EASTERN BROMIS AND LA HAVE . . . . .	10,782	-	61,801	4,616	45,553	2,715,524	4,408,937	17,649	-	2,961
SOUTHERN NOVA SCOTIA . . . . .	27,720	2,000	27,573	4,712	2,600	366,381	599,703	300	2,400	10,720
WESTERN BROWNS . . . . .	9,176	-	9,164	350	-	436,704	583,977	300	2,400	20,921
SOUTHERN BAY OF FUNDY . . . . .	50,438	-	27,190	-	3,600	710,997	828,654	500	3,600	19,975
EASTERN MAINE . . . . .	2,990	-	26,438	-	2,000	726,976	902,214	1,200	3,600	1,051
CENTRAL MAINE . . . . .	35,862	-	70,625	-	8,000	2,362	2,988	-	-	25,702
WESTERN MAINE . . . . .	10,429	-	53,949	-	2,000	2,362	2,988	9,149	10,992	935,845
EASTERN MASSACHUSETTS . . . . .	972,173	10,429	520,071	16,515	3,473,335	1,654,408	1,355,417	108,326	935,845	38,769
INNER GROUNDS SOUTH CHANNEL . . . . .	448,552	16,208	291,241	254,759	1,333,213	12,784,925	297,066	71,360	690,840	117,372
EAST SIDE SOUTH CHANNEL . . . . .	2,218,684	1,125	340,387	470,236	2,224,673	13,947,317	7,695,452	101,064	733,637	9,359
NORTHERN EDGE & NORTHEAST PEAK . . . . .	285,467	2,145	285,467	174,272	376,913	9,216,642	12,385,602	56,567	500	500
CENTRAL & SOUTHEAST GEORGES . . . . .	250,098	-	46,810	759,707	18,091,350	5,317,515	13,950,615	2,525	-	440
NANTUCKET SHOALS & LIGHTSHIP . . . . .	48,375	94,265	44,170	111,069	3,461,110	2,516,757	1,091,678	500	-	440
OFF NO MAN'S LAND . . . . .	12,375	567,439	298,200	134,662	18,776,542	94,760,562	18,440	2,677,370	-	-
OFF LONG ISLAND . . . . .	6,670	390,453	351,340	5,180	62,830	600	11,330	-	-	-
PHOENIX ISLAND . . . . .	-	70	525	200	657,745	600	1,125	-	-	-
OFF LONG ISLAND . . . . .	-	626,146	11,600	312,500	6,180	-	-	-	-	-
TOTAL . . . . .	4,595,309	2,276,530	2,392,574	1,949,099	66,791,120	53,461,687	49,874,365	313,625	5,052,259	505,205
SINK GILL NETS.										
EASTERN MASSACHUSETTS . . . . .	75	-	40	-	-	99,955	520	-	-	65,865
SCALLOP DRIFTERS:										
EASTERN MASSACHUSETTS . . . . .	-	-	-	-	1,665	-	-	-	-	-
WEST SIDE SOUTH CHANNEL . . . . .	5,170	-	-	5,073	20,135	45	-	-	-	-
NANTUCKET SHOALS & LIGHTSHIP . . . . .	415	-	675	660	17,590	115	90	-	-	-
CENTRAL & SOUTHEAST GEORGES . . . . .	-	200	750	82	13,760	-	-	-	-	-
NANTUCKET SHOALS & LIGHTSHIP . . . . .	-	-	-	70	815	-	-	-	-	-
OFF LONG ISLAND . . . . .	5,565	200	1,625	5,885	54,920	160	90	-	-	-
TOTAL . . . . .	11,270	400	2,040	7,633	100,000	1,000	1,000	-	-	65,865

(CONTINUED)

SEE NOTE AT END OF TABLE.

# LANDINGS AT MASSACHUSETTS PORTS SUMMARY OF FISHERY - BY GEAR AND SUBAREA, 1963 - Continued

GEAR AND SUBAREA	FLOUNDER, ROUND - CONTINUED										HADDOCK, DRAWN		HAKE		
	DAB	FLUKE	GRAY SOLE	LEMON-TAIL	LARGE	POLLOCK	SCUP OR SUPPOTY, ROUND	SCUP-FISH, DRESSED	TILEFISH, DRAWN	WHITE, DRESSED	LARGE	RED, ROUND	SNAPPER	POUNDS	
														POUNDS	POUNDS
POUND NETS:															
EASTERN MASSACHUSETTS . . . . .	-	2,462	-	-	-	-	-	-	-	-	-	-	-	5,575	-
WEST SIDE SOUTH CHANNEL . . . . .	-	2,462	-	-	-	-	-	-	-	-	-	-	-	5,575	-
TOTAL . . . . .	-	4,924	-	-	-	-	-	-	-	-	-	-	-	11,150	-
GRAND TOTAL . . . . .	4,601,682	2,281,417	2,364,250	1,957,718	65,873,761	55,730,392	50,030,643	313,795	5,057,852	506,925	-	-	-	-	-
GEAR AND SUBAREA	HAKE, CONTD.	WHITE, DRESSED	MEDIUM	HALLIBUT, DRAWN	MACKEREL, ROUND	MENHADEN, ROUND	OCEAN PERCH, ROUND	POLLOCK	SCUP OR SUPPOTY, ROUND	SCUP-FISH, DRESSED	TILEFISH, DRAWN	SNAPPER	SHAD	SOLE	TOTAL
LINE TRAWLS:															
EASTERN MASSACHUSETTS . . . . .	175	1,770	13,717	694	60	754	5	7,685	151,363	109,546	201,964	218,751	63,652	360,209	249,295
INNER GROUNDS . . . . .	1,770	13,717	694	60	754	5	7,685	151,363	109,546	201,964	218,751	63,652	360,209	249,295	249,295
WEST SIDE SOUTH CHANNEL . . . . .	9,075	366	3,660	366	366	366	366	2,127	14	14	200	200	200	200	200
SOUTH MASSACHUSETTS . . . . .	11,020	36,803	24	8,110	750	750	5	69,595	151,363	109,546	201,964	218,751	63,652	360,209	249,295
TOTAL . . . . .	11,020	36,803	24	8,110	750	750	5	69,595	151,363	109,546	201,964	218,751	63,652	360,209	249,295
HAND LINES:															
EASTERN MASSACHUSETTS . . . . .	3,665	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134
WEST SIDE SOUTH CHANNEL . . . . .	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134
NANTUCKET SHOALS & LIGHTSHIP . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SOUTHERN MASSACHUSETTS . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL . . . . .	3,665	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134	8,134
HOOKS:															
SOUTHWEST GEORGES . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NANTUCKET SHOALS & LIGHTSHIP . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OFF NO MANS LAND . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LONG LINES:															
PIERRE, EDGE & NORTHEAST PEAK . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CENTRAL & SOUTHEAST GEORGES . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SOUTHWEST GEORGES . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NANTUCKET SHOALS & LIGHTSHIP . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OFF NO MANS LAND . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OFF NEW ENGLAND, UNCLASSIFIED . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OFF LONG ISLAND . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL . . . . .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OTTER TRAWLS:															
ST. PIERRE BANK . . . . .	629	1,580	1,580	1,580	1,580	1,580	1,580	1,580	1,580	1,580	1,580	1,580	1,580	1,580	1,580
EAST GULF OF ST. LAWRENCE . . . . .	150	110	110	110	110	110	110	110	110	110	110	110	110	110	110
NORTH GULF OF ST. LAWRENCE . . . . .	110	600	600	600	600	600	600	600	600	600	600	600	600	600	600
SOUTH GULF OF ST. LAWRENCE . . . . .	600	843	843	843	843	843	843	843	843	843	843	843	843	843	843
NORTHEAST CAPE BRETON . . . . .	843	4,074	4,074	4,074	4,074	4,074	4,074	4,074	4,074	4,074	4,074	4,074	4,074	4,074	4,074
BAVIERRE . . . . .	1,299	152	152	152	152	152	152	152	152	152	152	152	152	152	152
CANSO . . . . .	53	132	132	132	132	132	132	132	132	132	132	132	132	132	132
MIDDLE GROUND . . . . .	52	108	108	108	108	108	108	108	108	108	108	108	108	108	108
SOUTHEAST SABLE ISLAND BANK . . . . .	994	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555	3,555
HORSESHOE GROUND . . . . .	1,153	2,153	2,153	2,153	2,153	2,153	2,153	2,153	2,153	2,153	2,153	2,153	2,153	2,153	2,153
EASTERN NOVA SCOTIA . . . . .	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175
EMERALD BANK . . . . .	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175

(CONTINUED ON NEXT PAGE)

SEE NOTE AT END OF TABLE.

LANDINGS AT MASSACHUSETTS PORTS  
SUMMARY OF FISHERY - BY GEAR AND SUBAREA, 1963 - Continued

GEAR AND SUBAREA	HAKE-CONTD.		HALIBUT, DRAWN POUNDS	MACKEREL, ROUND POUNDS	MENHADEN, ROUND POUNDS	FOLLOCK		SCUP OR FORGE, ROUND POUNDS	SWORD- FISH, DRESSED POUNDS	TILEFISH, DRAWN POUNDS	
	WRITE, DRESSED MEDIUM POUNDS	DRAWN POUNDS				OCEAN PERCH, ROUND POUNDS	ROUND POUNDS				DRAWN POUNDS
OTTER TRAWLS - CONTINUED:											
CENTRAL NOVA SCOTIA:											
EASTERN BROWNS & LA HAVE.	1,104	4,471		4,977,251		97,361					
WESTERN BROWNS	2,920	2,386		4,915,953		182,936					
SOUTHERN NOVA SCOTIA.	9,258	10,911		441,360		845,678					
WESTERN NOVA SCOTIA.	7,925	3,929		85,160		815,612					
SOUTHERN NOVA SCOTIA.	24,265	1,354		60,720		224,578					
NORTHERN BAY OF FUNDY	10,929	1,354		136,363		440,629					
NORTHERN BAY OF FUNDY	157,752	1,106		207,850		350					
EASTERN MAINE	137,225					421,146					
CENTRAL MAINE	35,617	1,242		649,630		355,873					
WESTERN MAINE	209,041	9,731		920,283		36,266	41,408				
EASTERN MASSACHUSETTS	107,065	1,335	9,931	1,695,838		5,720	307,760				
INNER GROUNDS	156,364	10,233	960	2,570,644		25,603	310		900		
WEST SIDE SOUTH CHANNEL	272,772	15,329	2,065	1,996,845		11,000	1,270,218				
EASTERN MASSACHUSETTS	66,950	4,133		47,600		11,000	793,494				
NORTHERN EDGE & NORTHEAST BEAK	1,217	2,172		550		1,700	27,312		125		
CENTRAL & SOUTHEAST GEORGES	1,217	2,172		225		27,500	5,796	2,238	69,030		
SOUTHWEST GEORGES	1,035	960	3,065			55,000		1,557	8,900		
NANTUCKET SHOALS & LIGHTSHIP											
OFF NO MANS LAND.											
SOUTHERN MASSACHUSETTS											
RHODE ISLAND SHORE.											
OFF LONG ISLAND											
TOTAL	1,261,240	109,275	16,021	44,385,938		316,451	9,948,249	731,608	6,150	85,080	
FLOATING TRAPS,											
EASTERN MASSACHUSETTS			306,614				400				
SINK GILL NETS,											
EASTERN MASSACHUSETTS	185	190					121,220				
DRIFT NETS,											
EASTERN MASSACHUSETTS			23,616								
WEST SIDE SOUTH CHANNEL			5,778								
TOTAL			32,394								
PURSE SEINES,											
EASTERN MASSACHUSETTS			5,590		324,220						
OFF NO MANS LAND.											
TOTAL			5,590		324,220						
POUND NETS,											
EASTERN MASSACHUSETTS	1,955	1,098,016			7,100		2,260				
WEST SIDE SOUTH CHANNEL	1,955	1,360,943			13,300						
TOTAL		1,558,861			20,400		2,260				
GRAND TOTAL	1,276,265	154,402	1,920,230	344,620	44,386,697	318,701	10,408,294	741,582	1,294,746	85,080	
GEAR AND SUBAREA											
TUNA,											
ROUND											
POUNDS											
WHITTING											
DRESSED											
POUNDS											
WOLFFISH,											
DRAWN											
POUNDS											
SEA SCALLOP HEATS											
UNCLASSIFIED											
FOR FOOD											
POUNDS											
FOR INDUS-TRIAL USE											
POUNDS											
OTHER SPECIES											
TOTAL											
LINE TRAWLS:											
WESTERN MAINE										4,715	
EASTERN MASSACHUSETTS										654,202	
INNER GROUNDS										800,397	
WEST SIDE SOUTH CHANNEL										2,181,256	
SOUTHERN MASSACHUSETTS										80	
TOTAL										3,726,925	
TOTAL	430			5,899			87,908	200	7,662		

(CONTINUED ON NEXT PAGE)

SEE NOTE AT END OF TABLE.

# LANDINGS AT MASSACHUSETTS PORTS

## SUMMARY OF FISHERY - BY GEAR AND SUBAREA, 1963 - Continued

GEAR AND SUBAREA	TUNA, ROUND		WHITING		WOLFISH, DRAWN	SEA SCALOP MEATS	UNCLASSIFIED		OTHER SPECIES	TOTAL	
	POUNDS	POUNDS	FOR FOOD				FOR INDUS-TRIAL USE	POUNDS			POUNDS
			POUNDS	POUNDS							
<b>HARD LINES:</b>											
EASTERN MASSACHUSETTS . . . . .											
EASTERN MIDDLE CHANNEL . . . . .											
CENTRAL & SOUTHEAST GEORGES . . . . .											
NANTUCKET SHOALS & LIGHTSHIP . . . . .											
SOUTHERN MASSACHUSETTS . . . . .											
TOTAL . . . . .											
<b>HARPOONS:</b>											
EASTERN MASSACHUSETTS . . . . .											
SOUTHWEST GEORGES . . . . .											
NANTUCKET SHOALS & LIGHTSHIP . . . . .											
OFF NO MAINS LAND . . . . .											
TOTAL . . . . .											
<b>LOVS LINES:</b>											
EASTERN MASSACHUSETTS . . . . .											
NORTHERN EDGE & NORTHEAST PEAK . . . . .											
CENTRAL & SOUTHEAST GEORGES . . . . .											
SOUTHWEST GEORGES . . . . .											
NANTUCKET SHOALS & LIGHTSHIP . . . . .											
OFF NO MAINS LAND . . . . .											
OFF MIDDLE CHANNEL . . . . .											
OFF LONG ISLAND . . . . .											
TOTAL . . . . .											
<b>OTTER TRAWLS:</b>											
ST. PIERRE BANK . . . . .											
EAST GULF OF ST. LAWRENCE . . . . .											
GULF OF ST. LAWRENCE . . . . .											
SOUTH GULF OF ST. LAWRENCE . . . . .											
NORTHEAST CAPE BRETON . . . . .											
MISALNE BANK . . . . .											
BANQUEREAU . . . . .											
CANSO . . . . .											
MIDDLE GROUND . . . . .											
LE ISLAND BANK . . . . .											
HORSHEOE GROUND . . . . .											
EASTERN NOVA SCOTIA . . . . .											
EMERALD BANK . . . . .											
CENTRAL NOVA SCOTIA . . . . .											
SOUTHERN NOVA SCOTIA . . . . .											
WESTERN BROWNS . . . . .											
EASTERN BROWNS & LA HAVRE . . . . .											
SOUTHERN BAY OF FUNDY . . . . .											
NORTHERN BAY OF FUNDY . . . . .											
EASTERN MAINE . . . . .											
CENTRAL MAINE . . . . .											
WESTERN MAINE . . . . .											
EASTERN MASSACHUSETTS . . . . .											
INNER GROUNDS . . . . .											
EAST SIDE SOUTH CHANNEL . . . . .											
EAST SIDE NORTH CHANNEL . . . . .											
NORTHERN EDGE & NORTHEAST PEAK . . . . .											
CENTRAL & SOUTHEAST GEORGES . . . . .											
SOUTHWEST GEORGES . . . . .											
NANTUCKET SHOALS & LIGHTSHIP . . . . .											
OFF NO MAINS LAND . . . . .											
TOTAL . . . . .											

(CONTINUED ON NEXT PAGE)

SEE NOTE AT END OF TABLE.

LANDINGS AT MASSACHUSETTS PORTS  
SUMMARY OF FISHERY - BY GEAR AND SUBAREA, 1963 - Continued

GEAR AND SUBAREA	TUNA, ROUND		WHITING		WOLFFISH, DRAWN	SEA SCALLOP MEATS	UNCLASSIFIED		OTHER SPECIES	TOTAL		
	POUNDS	ROUND	POUNDS	DRESSED			POUNDS	FOR FOOD			FOR INDUS-TRIAL USE	POUNDS
OTTER TRAWLS - CONTINUED:												
SOUTHERN MASSACHUSETTS, . . . . .	-	-	20	-	-	-	130	57,490	64,957	1,786,264		
RHODE ISLAND SHORE, . . . . .	-	-	2,500	-	-	-	-	-	-	884,200		
NORTHERN MASSACHUSETTS, . . . . .	-	-	-	-	-	-	1,000	-	-	3,500		
OFF LONG ISLAND, . . . . .	270	-	-	-	-	-	-	-	21,325	1,024,986		
TOTAL . . . . .	3,035	61,231,084	3,322,129	590,540	590,540	224	4,229,956	24,014,852	2,792,954	382,914,105		
FLOATING TRAPS, . . . . .	-	-	-	-	-	-	50,300	-	13,280	372,469		
EASTERN MASSACHUSETTS, . . . . .	-	-	1,375	-	-	-	-	-	-	-		
SINK GILL NETS, . . . . .	206	-	15	-	-	-	341,775	-	7,330	934,350		
EASTERN MASSACHUSETTS, . . . . .	-	-	-	-	-	-	-	-	366	23,982		
DRIFT GILL NETS: . . . . .	-	-	-	-	-	-	-	-	418	9,196		
EASTERN MASSACHUSETTS . . . . .	-	-	-	-	-	-	-	-	-	-		
WEST SIDE SOUTH CHANNEL . . . . .	-	-	-	-	-	-	-	-	-	-		
TOTAL . . . . .	3,031,890	61,231,084	3,322,129	590,540	590,540	224	4,229,956	24,014,852	2,792,954	382,914,105		
PURSE SEINES: . . . . .												
EASTERN MASSACHUSETTS . . . . .	3,031,890	-	-	-	-	-	-	-	10,882,490	13,919,970		
WEST SIDE SOUTH CHANNEL . . . . .	210,140	-	-	-	-	-	-	-	-	40,100		
OFF NO MANS LAND, . . . . .	-	-	-	-	-	-	-	-	-	520,220		
RHODE ISLAND SHORE, . . . . .	361,220	-	-	-	-	-	-	-	-	98,220		
OFF LONG ISLAND, . . . . .	2,897,677	-	-	-	-	-	-	-	-	2,687,677		
TOTAL . . . . .	6,107,927	-	-	-	-	-	-	-	10,882,490	17,360,227		
SCALLOP DREDGES: . . . . .												
WESTERN BROWNS, . . . . .	-	-	-	-	-	14,795	-	-	-	14,705		
WESTERN NOVA SCOTIA, . . . . .	-	-	-	-	-	1,634	-	-	-	1,634		
WASTELANDS, . . . . .	-	-	-	-	395	139,312	-	-	10	145,690		
WEST SIDE SOUTH CHANNEL, . . . . .	-	-	-	-	-	1,826,717	-	-	-	1,826,037		
EAST SIDE SOUTH CHANNEL, . . . . .	-	-	-	-	-	1,533,473	175	-	-	1,533,473		
NORTHERN EDGE & NORTHEAST PEAK, . . . . .	-	-	-	-	-	2,831,798	-	-	-	2,831,798		
CENTRAL & SOUTHEAST GEORGES, . . . . .	-	-	-	-	-	4,393,283	-	-	-	4,393,283		
SOUTHWEST GEORGES, . . . . .	-	-	-	-	-	4,772,487	-	-	-	4,772,487		
NANTUCKET SHOALS & LIGHTSHIP, . . . . .	-	-	-	-	-	1,067,487	-	-	-	1,067,487		
OFF NO MANS LAND, . . . . .	-	-	-	-	-	3,359	-	-	-	3,359		
OFF LONG ISLAND, . . . . .	-	-	-	-	-	68,024	-	-	-	68,024		
TOTAL . . . . .	-	-	-	-	395	16,607,491	175	-	10	16,685,509		
ROUND NETS: . . . . .												
EASTERN MASSACHUSETTS, . . . . .	143,252	-	16,835	-	-	-	-	21,400	1,680,809	3,297,856		
WEST SIDE SOUTH CHANNEL, . . . . .	-	-	-	-	-	-	-	-	1,703,640	2,092,405		
SOUTHERN MASSACHUSETTS, . . . . .	-	-	-	-	-	-	-	-	7,797	7,797		
TOTAL . . . . .	143,252	-	16,835	-	-	-	-	21,400	3,392,246	5,398,058		
GRAND TOTAL . . . . .	6,519,705	61,249,309	3,322,129	596,024	596,024	16,607,715	4,773,389	24,036,452	17,354,094	431,682,287		

J/ EXCLUSIVE OF DUPLICATION.

NOTE: ALL SPECIES ARE LISTED AS LANDED WEIGHT. LANDED WEIGHT OF FISH MAY BE CONVERTED TO ROUND WEIGHT BY MULTIPLYING BY THE FOLLOWING FACTORS: COD, DRAWN 1.17; CUSK, DRAWN 1.13; HADDOCK, DRAWN 1.14; WHITIC HAKE, DRESSED 1.34; SUBAREA PORT DRAWN 1.13; WHITING, DRESSED 1.65; AND WOLFFISH, DRAWN 1.20. THIS METHOD OF MEASUREMENT IS USED FOR ALL SPECIES OF FISHES. INSHORE CATCH CONSISTING OF LOBSTERS, CLAMS, BAY SCALLOPS, IRISH MOSS, AND MUSSELS IS REPORTED AS FRESH WEIGHT. COMPARABLE DATA ON LANDINGS IN 1962 ACCOUNTED FOR 97.3 PERCENT OF THE MASSACHUSETTS TOTAL CATCH. A SINGLE TRIP IS REPORTED FOR EACH VOYAGE. DAYS ABSENT IS THE MEASURE OF TIME. TO THE NEAREST COMPLETE DAY, THE TRIP IS ALLOTTED TO THE SUBAREA ON THE BASIS OF THE CATCH OBTAINED IN TWO OR MORE SUBAREAS DURING A VOYAGE. A FRACTIONAL PART (IN TENTHS) OF THE TRIP IS ALLOTTED TO THE SUBAREA ON THE BASIS OF THE CATCH TAKEN IN EACH SUBAREA. "OCCASIONAL" AFTER THE NAME OF A SUBAREA INDICATED THAT THE CATCH CONTRIBUTING TO THE TOTAL CATCH WAS FISHED WITH ANOTHER TYPE OF GEAR. DAYS FISHED IS THE TIME ACTUAL FISHING OPERATIONS WERE CARRIED ON, EXPRESSED TO THE NEAREST TENTH OF A DAY. TO OBTAIN FISHING TIME IN HOURS, MULTIPLY NUMBER OF DAYS FISHED BY 24.

# LANDINGS AT MASSACHUSETTS PORTS SUMMARY OF FISHERY - BY AREA AND SUBAREA, 1963

AREA AND SUBAREA	CRAFT FISHING		TRIPS		DAYS ASSENT		DAYS FISHED		COD, DRAWN			CISK, DRAWN		FLOUNDERS, ROUND	
	NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS	LARGE	MARKET	SCROD	BLACK-BACK	DAB		
OFF GRAND BANKS (AREA XX),	5	3.6	54	11.5											
ST. PIERRE BANK, . . . . .	16	25.0	416	117.2					460	215	-	150	-	-	25
GULF OF ST. LAWRENCE (AREA XIX):	11	12.3	188	47.0					-	400	125	35	-	-	85
EAST GULF OF ST. LAWRENCE, . . . . .	3	3.1	41	7.3											
NORTH GULF OF ST. LAWRENCE, . . . . .	1/	17	40.4	645	171.5				860	730	125	400	-	-	110
TOTAL, . . . . .															
OFF NOVA SCOTIA (AREA XXI):	15	13.4	183	54.6											
NORTHEAST CAPE BRETON, . . . . .	11	6.5	92	30.4											
MISAJNE BANK, . . . . .	16	24.4	340	92.8					495	3,940	20	794	-	-	5,807
BANQUEREAU, . . . . .	13	8.4	119	37.1					238	4,118	-	300	-	-	3,305
CANSO, . . . . .	9	4.9	71	17.2					63	-	-	-	-	-	1,257
MIDDLE GROUND, ISLAND BANK, . . . . .	2	35.8	470	121.7					3,015	7,177	-	2,372	-	-	300
SOUTHEAST SABLE ISLAND BANK, . . . . .	21	30.3	456	109.6					2,163	5,859	-	3,657	-	-	643
SOUTHWEST SABLE ISLAND BANK, . . . . .	6	8	10	3.3					50	-	-	4,756	-	-	35
EASTERN NOVA SCOTIA, . . . . .	26	39.9	587	138.6					2,947	8,669	643	4,756	-	-	21,195
CENTRAL NOVA SCOTIA, . . . . .	49	38.5	592	130.6					101,653	121,970	48,673	12,316	-	-	10,782
EASTERN BROWNS AND LA HAVRE, . . . . .	48	172.0	676	656.6					32,970	26,055	1,640	11,118	-	-	72,810
SOUTHERN NOVA SCOTIA, . . . . .	20	23.4	197	121.4					534,594	235,529	30,909	11,118	-	-	19,987
WESTERN BROWNS, NOVA SCOTIA, . . . . .	24	27.6	232	147.8					364,699	62,592	17,645	7,069	-	-	27,720
SOUTHERN BAY OF FUNDY, . . . . .	29	44.2	383	239.6					92,279	184,826	17,456	9,300	-	-	54,607
NORTHERN BAY OF FUNDY, . . . . .	1/	95	494.9	5,273	2,212.9				741,969	1,242,595	401,442	207,032	-	-	216,805
TOTAL, . . . . .															
OFF NEW ENGLAND (AREA XXII):	33	54.7	499	263.3					145,946	359,528	64,034	19,912	-	-	50,438
EASTERN MAINE, . . . . .	4	4.4	21	8.1					52,330	95	100	5,363	-	-	2,990
WESTERN MAINE, . . . . .	46	212.4	365	184.1					106,842	48,673	1,862	19,950	-	-	35,862
EASTERN MASSACHUSETTS, . . . . .	337	12,660.2	13,187	6,289.5					776,162	1,193,038	319,872	19,950	-	-	972,448
INNER GROUNDS, . . . . .	70	214.3	621	320.9					148,530	132,281	99,335	284,339	-	-	1,197
WEST SIDE SOUTH CHANNEL, . . . . .	334	5,295.5	10,980	6,337.7					3,213,204	3,853,136	61,053	193,300	-	-	44,854
EAST SIDE SOUTH CHANNEL, . . . . .	230	1,077.5	4,066.3	2,066.3					1,362,038	1,949,164	347,392	146,862	-	-	2,218,884
NORTHERN EDGE AND NORTHEAST PEAK, . . . . .	173	981.6	3,230	2,801.7					1,445,025	1,443,090	154,702	94,700	-	-	290,637
SOUTHWEST GEORGES, . . . . .	159	598.7	4,243	2,145.025					2,145,025	1,933,108	3,437,090	37,750	-	-	145,726
SOUTHWEST GEORGES, . . . . .	193	1,269.0	6,446	4,043.4					1,591,722	419,281	30,060	37,750	-	-	42,375
NAUQUET SHOALS AND LIGHTSHIP, . . . . .	174	1,625.0	4,745	2,673.4					1,61,542	1,364,579	173,813	3,200,921	-	-	18,375
OFF NO MAN'S LAND, . . . . .	75	477.4	899	480.7					72,856	35,069	2,690	1,765	-	-	6,870
SOUTHERN MASSACHUSETTS, . . . . .	2	53.2	228	100.6					3,940	8,565	3,375	121,680	-	-	-
RHODE ISLAND SHORE, . . . . .	2	71.0	46	14.8					-	-	-	-	-	-	-
UNCLASSIFIED, . . . . .	1/	695	25,045.1	61,709	36,838.4				11,095,737	14,718,971	3,267,761	1,056,330	-	-	4,384,767
TOTAL, . . . . .															
OFF MIDDLE ATLANTIC (AREA XXIII):	66	113.0	827	462.6					550	4,100	-	-	-	-	1,375
OFF LONG ISLAND, . . . . .	1/	711	25,697.0	68,508	39,696.9				11,839,116	15,966,396	3,669,328	1,263,762	-	-	4,601,682
GRAND TOTAL, . . . . .															

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTE AT END OF TABLE.

LANDINGS AT MASSACHUSETTS PORTS

SUMMARY OF FISHERY - BY AREA AND SUBAREA, 1963 - Continued

AREA AND SUBAREA	FLOUNDERS, ROUND - CONTINUED				HADDOCK, DRAWN				HAKE	
	FLUKE	GRAY SOLE	LEMON SOLE	YELLOW-TAIL	LARGE	SCROO	SNAPPER	RED, ROUND	WHITE, DRESSED	
									LARGE	MEDIUM
GULF OF ST. LAWRENCE (AREA XIX):										
OFF GULF OF ST. LAWRENCE . . . . .		140	-	-	865	640	-	1,375	-	150
NORTH GULF OF ST. LAWRENCE . . . . .		-	-	-	-	50	-	-	-	110
SOUTH GULF OF ST. LAWRENCE . . . . .		-	-	-	-	-	-	-	-	-
TOTAL . . . . .		140	-	-	865	690	-	1,375	-	260
OFF NOVA SCOTIA (AREA XXI):										
BANQUEREAD . . . . .		96,673	-	-	1,664	2,231	-	-	200	1,299
CANNADON . . . . .		162	-	-	830	750	-	-	-	52
MIDDLE GROUND . . . . .		146,296	-	-	1,470	125	-	-	1,411	994
HORSESHOE GROUND . . . . .		7,960	-	-	11,435	21,125	-	-	2,103	2,103
EASTERN NOVA SCOTIA . . . . .		4,910	-	-	4,231	6,927	-	2,700	-	87
EMERALD BANK . . . . .		-	-	-	5,501	9,895	-	-	1,204	1,104
CENTRAL NOVA SCOTIA . . . . .		5,361	-	-	9,679,926	1,670,857	-	-	1,076	1,076
EASTERN BROWNS AND LA HAVÉ . . . . .		2,499	6,420	-	94,667	203,342	-	500	4,554	9,258
SOUTHERN BROWNS . . . . .		6,148	-	-	2,715,524	4,406,937	-	17,649	2,961	7,925
WESTERN NOVA SCOTIA . . . . .		8,501	4,616	-	386,381	599,703	-	2,400	10,720	24,280
SOUTHERN BAY OF FUNDY . . . . .	2,000	27,573	-	2,600	439,704	583,977	300	2,400	19,375	50,032
NORTHERN BAY OF FUNDY . . . . .	-	9,164	350	3,600	710,997	828,654	600	3,600	20,921	154,242
TOTAL . . . . .	2,000	344,626	11,661	62,780	5,326,220	8,336,671	25,309	8,400	66,232	283,364
OFF NEW ENGLAND (AREA XXII):										
EASTERN MAINE . . . . .		26,438	-	-	726,976	902,214	1,200	3,600	19,621	137,732
WESTERN MAINE . . . . .		70,625	-	-	2,322	2,888	-	-	1,775	35
NORTHERN MASSACHUSETTS . . . . .		53,949	-	-	221,068	283,985	9,149	10,992	26,505	211,556
EASTERN MASSACHUSETTS . . . . .	10,429	597,387	16,515	3,477,260	1,894,107	1,396,277	19,360	941,460	57,200	108,855
INNER GROUNDS . . . . .		49,061	265,745	1,393,463	14,482,083	10,631,310	101,064	690,859	128,697	169,304
WEST SIDE SOUTH CHANNEL . . . . .	19,695	491,582	470,279	2,224,673	13,947,317	7,693,282	56,567	733,637	133,323	272,732
LAST SIDE SOUTH CHANNEL . . . . .	1,125	34,715	179,347	397,048	9,218,390	12,385,692	1,625	9,339	68,715	68,715
NORTH AND NORTHEAST PEAK . . . . .		34,715	772,117	18,136,315	5,318,357	9,956,990	1,625	5,000	6,950	6,950
CENTRAL AND SOUTHEAST GEORGES . . . . .	2,345	46,685	111,151	3,474,870	2,019,357	1,991,753	1,500	50	1,625	1,625
NANTUCKET SHOALS AND LIGHTSHIP . . . . .	94,465	44,920	134,758	19,545,859	903,793	1,061,650	-	-	440	440
OFF NO MAN'S LAND . . . . .	567,439	268,200	810	16,976,862	18,440	11,120	-	2,677,370	-	-
SOUTHERN MASSACHUSETTS . . . . .	390,453	56,250	5,160	857,745	630	1,120	-	-	-	-
RHODE ISLAND SHOALS . . . . .	-	70	525	-	-	-	-	-	-	-
TOTAL . . . . .	1,653,271	2,007,654	1,946,057	68,497,866	50,395,127	41,699,282	288,476	5,058,077	540,693	1,014,641
MIDDLE ATLANTIC (AREA XXIII):										
OFF LONG ISLAND . . . . .	626,146	11,800	-	313,415	6,180	-	-	-	-	-
TOTAL . . . . .	2,281,417	2,364,250	1,957,718	69,873,761	55,730,392	50,030,643	313,795	5,067,892	606,925	1,279,265

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTE AT END OF TABLE.

## LANDINGS AT MASSACHUSETTS PORTS

## SUMMARY OF FISHERY - BY AREA AND SUBAREA, 1963 - Continued

AREA AND SUBAREA	HALIBUT, DRAWN POUNDS	MACKEREL, ROUND POUNDS	MENHADEN, ROUND POUNDS	OCEAN PERCH, ROUND POUNDS	POLLOCK		SCIP OR PORGY ROUND POUNDS	SWORD- FISH, DRESSED POUNDS	TILLEFISH, DRAWN POUNDS	TUNA, ROUND POUNDS
					ROUND POUNDS	DRAWN POUNDS				
OFF GRAND BANKS (AREA XX),										
ST. PIERRE BANK, . . . . .	629	-	-	741,380	-	-	-	-	-	-
GULF OF ST. LAWRENCE (AREA XIX):										
EAST GULF OF ST. LAWRENCE . . . . .	1,980	-	-	4,520,525	-	745	-	-	-	-
NORTH GULF OF ST. LAWRENCE . . . . .	-	-	-	1,422,816	-	490	-	-	-	-
SOUTH GULF OF ST. LAWRENCE . . . . .	-	-	-	1,425,810	-	975	-	-	-	-
TOTAL . . . . .	1,980	-	-	7,200,069	-	2,200	-	-	-	-
OFF NOVA SCOTIA (AREA XXI):										
NORTHEAST CAPE BRETON . . . . .	690	-	-	2,130,528	-	4,000	-	-	-	-
MISAINNE BANK . . . . .	843	-	-	1,105,766	-	4,212	-	-	-	-
BANQUEREAU, . . . . .	4,074	-	-	3,031,912	-	7,541	-	-	-	-
CHESAPEAKE SOUND . . . . .	132	-	-	1,493,400	-	7,167	-	-	-	-
SOUTHEAST SABLE ISLAND BANK . . . . .	108	-	-	125,400	-	-	-	-	-	-
HORSESHOE SOUND . . . . .	3,535	-	-	4,874,105	18,980	290,834	-	-	-	-
EASTERN NOVA SCOTIA . . . . .	3,330	-	-	4,303,288	91,000	130,296	-	-	-	-
EMERALD BANK, . . . . .	-	-	-	30,700	-	97	175	-	-	-
CENTRAL NOVA SCOTIA . . . . .	4,471	-	-	4,847,691	-	182,936	-	-	-	-
EASTERN BROWNS AND LA HAVÉ . . . . .	2,980	-	-	4,915,983	11,600	845,878	-	-	-	-
WESTERN BROWNS . . . . .	10,911	-	-	4,441,563	-	815,612	-	-	-	-
WESTERN NOVA SCOTIA . . . . .	3,929	-	-	82,160	-	161,902	-	-	-	-
SOUTHERN BAY OF FUNDY . . . . .	1,354	-	-	60,720	-	224,578	-	-	-	-
NORTHERN BAY OF FUNDY . . . . .	599	-	-	136,563	3,850	440,529	-	-	-	-
TOTAL . . . . .	39,454	-	-	29,232,004	129,430	3,213,121	-	-	-	-
OFF NEW ENGLAND (AREA XXII):										
EASTERN MAINE . . . . .	1,106	-	-	207,830	550	421,148	-	-	-	-
CENTRAL MAINE . . . . .	-	-	-	649,630	5,112	395,873	-	-	-	-
WESTERN MAINE . . . . .	1,242	-	-	920,283	40,518	1,067,809	41,408	-	-	3,210,344
EASTERN MASSACHUSETTS . . . . .	12,850	1,544,517	7,100	1,696,532	3,720	318,315	-	-	900	210,570
INNER GROUNDS . . . . .	15,052	370,583	15,300	2,590,549	20,593	1,276,218	10,284	-	-	-
WEST SIDE SOUTH CHANNEL . . . . .	18,158	-	-	1,570,549	11,000	1,793,484	-	-	-	-
EASTERN BAY OF FUNDY (AREA XXIIA):	14,761	-	-	47,790	11,000	1,793,484	-	-	-	-
CENTRAL AND SOUTHEAST GEORGES . . . . .	10,533	-	-	267,000	1,700	267,000	-	-	-	63,852
SOUTHWEST GEORGES . . . . .	2,172	-	-	550	35,215	13,085	360,209	125	-	4,058
NANTUCKET SHOALS AND LIGHTSHIP . . . . .	960	-	-	225	27,500	6,296	337,537	25	-	6,230
OFF NO MAN'S LAND, . . . . .	-	3,065	324,220	-	55,000	29,090	343,724	69,030	-	109,500
SOUTHERN MASSACHUSETTS . . . . .	-	-	-	-	492	61,100	84,763	81,900	-	28,320
RHODE ISLAND SHORE, . . . . .	-	-	-	-	-	554,430	-	-	-	38,220
UNCLASSIFIED, . . . . .	-	-	-	-	-	2,100	-	-	-	8,741
TOTAL . . . . .	112,759	1,920,230	344,620	7,693,244	193,271	7,192,973	709,397	1,229,310	70,980	3,617,993
MIDDLE ATLANTIC (AREA XXIII):										
OFF LONG ISLAND, . . . . .	154,402	1,920,230	344,620	44,386,697	318,701	10,408,294	741,582	1,294,745	6,100	2,901,722
GRAND TOTAL . . . . .	154,402	1,920,230	344,620	44,386,697	318,701	10,408,294	741,582	1,294,745	85,080	6,519,705

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTE AT END OF TABLE.

# LANDINGS AT MASSACHUSETTS PORTS

# NEW ENGLAND FISHERIES

## SUMMARY OF FISHERY - BY AREA AND SUBAREA, 1963 - Continued

AREA AND SUBAREA	WHITING		WOLFFISH, DRAWN	SEA SCALLOP MEATS	UNCLASSIFIED		OTHER SPECIES	TOTAL		
	ROUND	DRESSED			FOR FOOD	FOR INDUS- TRIAL USE			POUNDS	POUNDS
OFF GRAND BANKS (AREA XX),	-	-	-	-	-	-	-	742,009		
ST. PIERRE BANK, . . . . .	-	-	-	-	-	-	-	4,526,870		
GULF OF ST. LAWRENCE (AREA XIX):	-	-	-	-	-	-	-	1,773,374		
EAST GULF OF ST. LAWRENCE, . . . . .	-	-	-	-	-	-	-	428,960		
NORTH GULF OF ST. LAWRENCE, . . . . .	-	-	-	-	-	-	-	-		
SOUTH GULF OF ST. LAWRENCE, . . . . .	-	-	-	-	-	-	-	-		
TOTAL . . . . .	-	-	-	-	-	-	-	6,729,404		
OFF NOVA SCOTIA (AREA XXI):	-	-	-	-	-	-	-	-		
NORTHEAST CAPE BRETON, . . . . .	-	-	-	-	980	-	-	2,136,198		
MISAJNE BANK, . . . . .	-	-	-	-	80	-	-	1,106,689		
BANQUEREAU, . . . . .	-	-	-	-	7,180	-	-	3,646,737		
ST. JOHN'S, . . . . .	-	-	-	-	600	-	-	1,664,074		
MIDDLE GROUND, . . . . .	-	-	-	-	3,380	-	-	126,508		
SOUTHEAST SABLE ISLAND BANK, . . . . .	-	-	-	-	-	-	-	5,368,662		
HORSESHOE GROUND, . . . . .	-	-	-	-	19,760	-	-	4,983,217		
EASTERN NOVA SCOTIA, . . . . .	-	-	-	-	16,390	-	-	31,347		
EMERALD BANK, . . . . .	-	-	-	-	15,050	-	-	5,139,358		
CENTRAL NOVA SCOTIA, . . . . .	-	-	-	-	3,250	-	-	4,062,045		
EASTERN BRUNSWICK AND LA HAVÉ, . . . . .	-	-	-	-	52,914	-	-	6,039,492		
SOUTHERN NOVA SCOTIA, . . . . .	2,000	-	-	-	13,927	-	-	1,524,188		
WESTERN NOVA SCOTIA, . . . . .	-	5,625	-	14,705	1,100	-	3,166	1,039,492		
SOUTHERN BAY OF FUNDY, . . . . .	-	2,100	-	1,634	1,400	-	62	1,719,096		
NORTHERN BAY OF FUNDY, . . . . .	-	900	-	-	2,132	-	-	2,785,605		
TOTAL . . . . .	2,000	9,010	273,650	16,359	121,332	-	7,424	50,345,768		
OFF NEW ENGLAND (AREA XXI1):	-	-	-	-	-	-	-	-		
EASTERN MAINE, . . . . .	-	55	5,632	-	12,188	-	800	3,104,363		
CENTRAL MAINE, . . . . .	15,213	-	210	-	100,012	-	-	1,111,206		
WESTERN MAINE, . . . . .	3,986,846	7,070	77,790	-	4,210,893	-	2,005	6,029,633		
EASTERN MASSACHUSETTS, . . . . .	26,403,586	2,568,130	2,240	139,486	44,035	1,703,045	13,200,995	69,634,891		
INNER GROUNDS, . . . . .	17,475	8,210	1,695	-	855,090	200	3,509	4,422,220		
WEST SIDE SOUTH CHANNEL, . . . . .	15,960,638	209,040	66,569	1,826,757	137,153	885,090	1,968,607	66,165,320		
EAST SIDE SOUTH CHANNEL, . . . . .	12,227,598	456,175	79,441	2,183,708	95,075	601,600	183,021	39,267,156		
NORTHERN EDGE AND NORTHEAST PEAK, . . . . .	1,500	1,175	42,595	4,393,233	1,000	-	67,600	40,816,631		
CENTRAL AND SOUTHEAST GEORGES, . . . . .	-	-	5,100	4,772,819	-	-	448,927	13,804,015		
SOUTHWEST GEORGES, . . . . .	1,185,935	3,900	2,095	820	237,415	-	925,157	31,256,459		
MANUQUET SHOALS AND LIGHTSHIP, . . . . .	1,444,448	58,066	2,170	48,245	20,581,612	-	384,136	45,973,848		
OFF NO MAN'S LAND, . . . . .	-	-	-	3,359	48,245	-	72,834	1,884,517		
SOUTHERN MASSACHUSETTS, . . . . .	-	-	-	-	130	-	-	922,420		
OFF ISLAND SHORE, . . . . .	-	-	-	-	-	-	-	51,260		
UNCLASSIFIED, . . . . .	2,500	-	-	-	1,000	-	-	-		
TOTAL . . . . .	61,247,309	3,313,119	324,364	16,523,352	4,652,057	24,036,452	17,325,052	369,806,485		
MIDDLE ATLANTIC (AREA XXI11):	-	-	-	68,024	-	-	-	-		
OFF LONG ISLAND, . . . . .	-	-	-	-	4,773,389	-	21,618	4,058,651		
TOTAL . . . . .	61,249,309	3,322,129	598,024	16,607,715	4,773,389	24,036,452	17,354,094	431,662,287		

SEE NOTE ON PAGE 135.

# NEW ENGLAND FISHERIES

## SURVEY PROCEDURE IN THE NEW ENGLAND STATES

Statistical programs in the New England States are under the general supervision of the Bureau's regional office in Gloucester, Mass., with direct supervision by a regional supervisor for statistics also at Gloucester. The operation is carried on by field reporters at Rockland, Boothbay Harbor, and Portland, Me.; Boston, Gloucester, Provincetown, and New Bedford, Mass.; and Warren and Point Judith, R.I. They are specialists trained in obtaining and reporting fishery statistical data on a daily, monthly, and annual basis. Information on the volume and value of the catch by species, gear, and area of capture is obtained from fishermen and buyers of fish, shellfish, and other marine products. Special surveys are conducted for statistics on employment of fishermen, shoreworkers, fishing craft and gear, and the production of processed fishery products.

Catch. The fishery reporting specialists obtain daily individual trip data for all landings at their respective ports. They also interview a high percentage of trips for information on fishing effort and area of capture. These data are entered on punch cards for use in preparing monthly and annual tabulations of catch by species, gear, area of capture, and county where landed. Complete information on State landings is not always included because deliveries may be made at ports not covered daily. Information on these landings is obtained annually.

Maine. Each month, all areas in Maine, except Portland and Rockland, are canvassed by a Bureau representative and a State employee to obtain from each dealer and buyer a report on the quantity of fish, shellfish, and worms, by species, purchased from fishermen. These data are entered on punchcards at the same time as those for the major ports, thus providing complete information on Maine landings for the month.

Current cumulative tabulations of the monthly landings by area are maintained, and shortly after the end of each year, a revised tabulation is prepared listing by county and month all species taken during the year. Any revisions in the monthly data are included, and data on sea moss, which is shown only annually, are added.

Massachusetts. Daily information on Massachusetts landings is assembled for Boston, Gloucester, New Bedford, Plymouth, and Cape Cod ports. Detailed statistics are obtained on the volume and value of the catch for each vessel by species, gear used, and the subarea in which the catch was made. Additional detailed information on the time spent in fishing, depth fished, etc., is obtained for 12 study vessels.

Landings at the major ports in Massachusetts constitute about 98 percent of the total annual catch for that State. Species not covered are most shellfish (other than sea scallops and trawl caught lobsters) and some minor finfish species such as smelt, eels, and river-run alewives. Information on the catch of lobsters is obtained from annual reports which each fisherman is required to file with the State. Statistics on other shellfish and alewife catches are secured from town shellfish wardens. Data on the remaining species are collected by annual personal interviews with fishermen and dealers and are prorated to the area of capture and gear used. The information is forwarded to the Washington office to be machine processed with other figures for the State.

Rhode Island. Data to complete the monthly Rhode Island Landings bulletin are collected and tabulated each month in the fishery statistical office at Warren. Detailed information is assembled on daily landings at Point Judith and Newport. Cumulative tabulations are maintained on the monthly catch by county and by area. After the close of each year, a revised tabulation is prepared and issued as an annual Rhode Island Landings bulletin.

Connecticut. Landings data for Connecticut are obtained by an annual questionnaire which the State sends to each fisherman and by visits that the Bureau's employee stationed at Warren, R.I., pays to fishermen and dealers. At Stonington, a part-time employee records

individual vessel landings (hails). Daily information is obtained by the New York Fishery Market News office on shipments from Connecticut received on the market. These are tabulated at the Gloucester office. At the end of the year, data from these various sources are summarized by the Rhode Island field reporter, listed by county, prorated to area of capture based on interviews with fishermen and dealers, and entered on schedules which are forwarded to the Washington office for processing.

Summary. At the end of the year, all catch data are consolidated into summary tabulations for each State, by species, by county and gear. After being reviewed by the field staff and the Washington office, the tabulations are published.

Operating Units. A set of prepunched Bureau of Customs vessel cards containing the name of the vessel, the official number, the rig code, gross tons, length, and year built is furnished field reporters each year. Reporters interview the captains of the vessels to obtain area fished; number of crew; and number, type, and quantity of gear used in each fishery. The Gloucester office adds to the vessel punchcards the data on the crew and gear. The number of crew is the maximum number of crewmen aboard the vessel at any one time for each gear operated. Number and quantity of gear reported for each vessel is the greatest quantity used at one time. Gear ashore or carried aboard the vessel for replacement is not included. Machine tabulations of vessel landings provide information on the vessels that fished at major ports during the year. Throughout the year, field reporters prepare supplemental vessel lists for areas other than major ports, which are combined into one list at the end of the year. In detailed State operating unit tabulations, operating unit information on the number of men and craft is shown for each gear. In the summary for the State, however, they are shown only once.

Data on crew and gear are added to the vessel punchcards by the Gloucester office. Data relating to the operation of craft of less than 5 net tons and fishermen operating without boats are classified as the shore and boat fishery, and one or more cards are prepared for the total number of boats, etc., using each type of gear in each county.

The vessel, boat, and shore cards are punched at the Gloucester statistical office, processed by the Woods Hole tabulating unit, and returned to Gloucester, where operating unit tables are prepared. These tables are reviewed and corrected by area supervisors, who forward them to the Washington office. Any discrepancies are reconciled by field and central office personnel, and an annual summary entitled New England Fisheries is published.

Processed Fishery Products. Data on the production of processed fishery products are obtained monthly, quarterly, or annually through the use of questionnaires and followup visits where necessary. As the reports are received, they are checked for discrepancies and then forwarded to the Washington office. Summaries of the annual data appear in the Canned, Industrial, Manufactured, and Packaged Fishery Products bulletins.

Fish Sticks and Portions, and Breaded Shrimp. Data on the production of fish sticks and portions and breaded shrimp summarized on a monthly basis are collected quarterly by field reporters on forms (schedules) provided by the central office. The forms are mailed to producers at the end of each quarter, and if the forms are not returned, the firms are contacted by a field reporter. The information is published by the central office in a quarterly report entitled, Fish Sticks, Fish Portions, and Breaded Shrimp. At the end of the year, the data are summarized, figures are obtained on the value of the production, and an annual summary is published.

Fish Meal, Oil, and Solubles. Data on the production of fish meal, oil, and solubles are collected monthly by field reporters, who, on the first of each month, mail the data forms to each of the

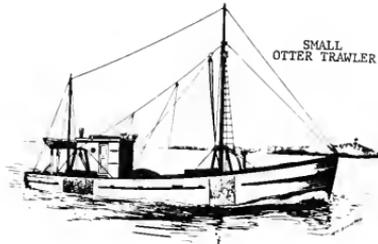
# NEW ENGLAND FISHERIES

meal producing firms in the area. The forms request production figures on meal, oil, and solubles; menhaden plants are also asked about the number of fish received. When completed forms are not returned, the field reporter obtains the data by telephone or in person. After review by field personnel, the reports are forwarded to the Washington office, where the data are tabulated and published monthly in a bulletin entitled Fish Meal and Oil. At the end of the year, the data for each firm are returned to the field for review and revision, if necessary, before being tabulated and published in the annual bulletins, Industrial Fishery Products and Fish Meal and Oil.

Freezings and Cold Storage Holdings. Collection of data on the monthly freezings and holdings of fishery products in New England is handled cooperatively by the Bureau and the U.S. Department of Agriculture. Statistical and market news personnel in New England obtain monthly freezings and storage figures from 34 firms in coastal areas. The Department of Agriculture conducts a mail canvass of three firms.

The figures are machine tabulated by the central office of the Branch of Fishery Statistics. National data on freezings and holdings are published in preliminary cold storage reports, which are released on the 15th of each month unless the date falls on a holiday or weekend. Summaries are issued by the Bureau's Fishery Market News offices and the Department of Agriculture. Final monthly reports are published by the Branch of Fishery Statistics, as well as an annual Frozen Fishery Products bulletin, which lists the firms that furnished information on the fishery cold storage activities.

Market News Reporting. A great deal of current fishery data appears in the Fishery Products Reports issued daily by the Boston and New York Fishery Market News offices. These reports show day-to-day fluctuations. Seasonal fluctuations can be determined by reviewing the monthly landings bulletins. The most complete annual data appear in the Statistical Digest, Fishery Statistics of the United States. Information on the catch by waters is not published but is machine processed and tabulations are furnished State and Federal laboratories along the New England coast.



## SECTION 3 - MIDDLE ATLANTIC FISHERIES

The 1963 commercial landings of fish and shellfish in the coastal areas of the Middle Atlantic States (New York, New Jersey, and Delaware) totaled 550 million pounds valued at \$21.3 million. Compared with 1962, this was a decline of 394 million pounds (42 percent) and \$3.9 million (15 percent). A drop in landings of menhaden accounted for the major portion of the decline.

New Jersey was the leading producer of the Middle Atlantic States area with 46 percent of the volume and 48 percent of the value; New York was next with 35 percent of the volume and 46 percent of the value. Delaware landings, 99 percent of which was menhaden, accounted for the remaining 19 percent of the volume and 6 percent of the value.

Fishermen and vessels. During 1963 the Middle Atlantic States had 8,553 commercial fishermen--299 more than in 1962. The increase was entirely in casual fishermen who were attracted to a relatively profitable hard clam fishery. Commercial fishing craft operated in these States consisted of 599 vessels, 4,085 motor boats, and 288 other boats. This was an increase of 320 craft, all motor boats.

Processing. Manufactured fishery products were valued at \$86.5 million--\$9.3 million less than in the previous year. New York accounted for 41 percent of the value; New Jersey, 36 percent; and Pennsylvania and Delaware, the remaining 23 percent.

Marketing. An important change in the Philadelphia and New York City markets was the trend toward buying fish and shellfish direct from the producer rather than for the producer to ship on a consignment basis.

Weather. Production was lowered by almost continuous unfavorable weather during January and February. Offshore fisheries for scup, fluke, and sea scallops were adversely affected, and small boats, operating longline gear, lost a great deal of fishing time. The very poor crab season in New Jersey and Delaware was attributed to the extreme cold and freezings of local bays.

### Legislation.

New York. Taking shellfish at night was made a misdemeanor, enforcement officers were empowered to seize, without warrant, the tools used or possessed for taking shellfish from uncertified areas or at night, and penalties for taking shellfish from uncertified areas at night were increased. The taking of bay scallops on Sunday with power-operated devices was prohibited, and the present minimum size limit for scallops was continued. It was made clear in the Town Law that towns may regulate the taking of clams, oysters, and shellfish (but not lobsters, crabs, or finfishes) in waters over lands to which title and right of fishing are vested in the town. Provision was made that, until January 1, 1967, nonresidents may, under permit, take lobsters in most of Block Island Sound. The use of purse seines for taking foodfish was prohibited within 3 miles of the Atlantic Coast and in all other tidal waters of the State. The use of beam trawls and otter trawls was prohibited within one-half mile of the coast from Rockway Point to Fire Island Inlet Jetty and in all inshore tidal waters within these limits. The 14-inch size limit for fluke that is now in effect with respect to commercial fishing was extended to angling.

New Jersey--The cost of bay scallop permits for 1963 was increased from \$2.50 to \$25.00 for those fishing scallops on a commercial basis. A \$2.50 permit can be had by anyone who does not catch more than 4 bushels of scallops per day. Striped bass caught along the eastern shore of New Jersey must be 18 inches or more in length; in Delaware Bay, 12 inches; and in Delaware River, 10 inches.

# MIDDLE ATLANTIC FISHERIES

Surf clams. The surf clam industry, centered in New Jersey, continued to grow, and production of 38.5 million pounds of meats surpassed the 1962 record catch by 7.8 million pounds of meats. New York had a very small part in this fishery. Most of the surf clam meats processed in New York come from New Jersey producers. The best catch for a 1-month period in New Jersey occurred in October when the 4.3 million pounds of meats taken set a monthly record for this fishery. Five reasons for this amazing rise in production are: fine demand and acceptance of the product by the consumer, creation of inventory by all firms who feel the clam grounds are now beginning to show signs of depletion, a virgin surf clam area found during the early part of the year, addition of six vessels, and favorable weather conditions during periods of intensive fishing.

Crabs. The 1.4 million pounds of hard blue crabs taken were 59 percent less than the previous year. The crabs were small and poor in quality, with very few peelers. High mortality of small crabs during the severe cold weather and ice conditions were considered the major causes for the drop in production. The hard crab production in Delaware Bay was a complete failure, with the lowest catch since 1945.

Menhaden. Menhaden production declined 410 million pounds in 1963. Compared with the previous year, there was a drop of 197 million pounds in New Jersey, 47 million pounds in New York, and 166 million pounds in Delaware. The menhaden catch of 373 million pounds accounted for 68 percent of the total Middle Atlantic landings of all species.

Industrial Fishery. Trawl caught industrial fish have become important in the fisheries of the Middle Atlantic area. Initial landings in quantity, which began in 1962 in the New York area, have increased and have substituted for the declining catch of menhaden. One New York plant continued to process large quantities of trawl caught industrial fish, and another began handling the fish on an experimental basis in the fall of 1963. With the closing of the only Rhode Island reduction plant, the boats from Rhode Island and Connecticut have been landing their industrial fish in New York or sending it by transporter to the plant in that State. The number of boats are limited by mutual agreement so as not to over exploit the fishery. Indications are that Middle Atlantic production will increase at least for another season or until the Rhode Island plant is in operation again.

Otter Trawl Fishery. Landings were drastically reduced by unfavorable weather conditions during the year. This is indicated by smaller landings of scup or porgies, butterfish, and fluke. New York City's Fulton Fish Market landings of fish and sea scallops dropped 32 percent (3.4 million pounds) compared with the previous year's total. Otter trawl vessels and scallopers made 127 fewer trips than in 1962, and 166 fewer trips than in 1961. Fulton Fish Market has mainly transient vessels from New England that land their catches from October through April. Landings at this port are steadily declining. A number of otter trawl vessels were lost during storms, and from fires, and other causes in 1963, and few vessels have been added to the fishery.

Hudson River Fisheries. Commercial landings of Hudson River fish in 1962 were 466,000 pounds worth \$90,800--the poorest season on record. The shad run was very light. Striped bass dropped to as low as 5 cents per pound, giving little incentive for the river fishermen to build special bass nets to fish the early season. Commercial fishing on the Hudson River has declined to a casual, seasonal fishery, with few fishermen making a livelihood from the catch of shad and bass.

## Research.

New Jersey. The industry, with technical aid from the Bureau of Commercial Fisheries, used the vessel Mable Susan to make a preliminary survey of potential surf clam producing grounds. No new significantly productive areas were located.

Striped bass. New Jersey catches of striped bass totaled three-quarters of a million pounds--the largest recorded catch of these fish in the State. The New York production was nearly this amount, although not a record. Otter trawl gear was credited with 86 percent of the catch for New Jersey and 26 percent for New York. Otter trawl catches of striped bass have increased in recent years.

Tuna. For the first time in New Jersey's history, tuna were landed in commercial quantities at the ports of Jersey City and Cape May by purse seiners from Massachusetts and California. Because this type of fishing is completely new to New Jersey, dock facilities were not adequate to handle the fish; however, one dock at Cape May installed tuna-handling equipment after it received its first catch, 270,000 pounds, in June. It is anticipated that landings of tuna will continue, and improvements will be made in handling facilities. Total landings of tuna in the Middle Atlantic area for 1963 were 2.9 million pounds worth \$160,000.

Oysters. The oyster industry again had a very poor year and set a new low in landings. In New Jersey, after an encouraging 1962 season, the production declined by 1 million pounds of meats. As a result of early observations of the oyster beds, the State closed the public seed beds at the mouth of the Delaware River. Only two shucking houses were opening New Jersey oysters. Most shucking houses obtained limited supplies from other States. Prices paid for shell stock oysters were the highest in the history of the New Jersey oyster industry. New York production has declined to an insignificant figure compared with the multimillion-dollar industry of 10 or more years ago. Current stocks of market oysters are very low, with no immediate prospects for improvement. The 1963 set of seed oysters for Long Island and Connecticut was insignificant. To supplement their income, oyster growers dredged hard clams on their private grounds. Without this production of hard clams many would have been out of business.

Hard clams. The hard clam market and production improved over the previous year. Seventy-four percent of the hard clam production for the Middle Atlantic area came from New York. Excellent supplies of little necks and cherrystones, shorter supply from other areas, and higher prices gave incentive to local producers in New York to push the production to a higher level. The increase in production in New Jersey was chiefly in medium-sized clams. In general, clams were in demand all year. The value of the production of hard clams exceeded that of any other item of commercial value in the Middle Atlantic Fishery.

The first of a series of steel clam dredge boats were built for operations in the bay areas of Long Island. They cost an average of about \$30,000 each to build and equip. Two vessels were in operation. As additional boats are constructed, old converted oyster dredge boats will be retired from the fishery.

Longline Swordfishing. Vessels in New Jersey took the initiative to make an all-out effort in the longline fishery for swordfish. Seven vessels in New Jersey and a couple from New York entered the fishery. Early spring catches were landed at Hampton, Va. because the port was close to the fishing area. Starting in May, the vessels landed all their swordfish and tuna in New Jersey. Most of these vessels stopped longlining in July and went back to otter trawling because of the drop in swordfish prices. Some fishermen caught few swordfish; however, this was blamed mostly on lack of experience in the use of a new gear for swordfish. It is worthwhile to note that many of the vessels longlining for swordfish during the summer made part of their catch with harpoons.

Bay scallops. Bay scallop landings for 1963 were the poorest for the past 7 years in New York. After a peak production in 1962, the catch declined by 686,000 pounds of meats and \$430,000. A very poor set of scallops in 1962 was the major cause for the decline. New Jersey production dropped 25 percent mainly because of inability to harvest the available supply due to frozen bays and cold in November and December--the bay scallop season.

# MIDDLE ATLANTIC FISHERIES

New York. Starfish and other predators on the oyster and clam grounds have been a major concern in the Long Island area where extensive mopping and dredging have not eliminated the starfish. Oyster growers cannot continue to expend large sums of money, time, and equipment to combat starfish unless oyster production increases. The industry has given serious consideration to promoting the growth of oyster seed by artificial means. Four firms in New York have built oyster hatcheries at considerable expense and extensive labor to raise seed oysters from spawn. From all indications, seed oysters can be successfully grown to maturity. Production on an extensive commercial basis has yet to be accomplished; however, some stock raised in the laboratories should be of marketable size.

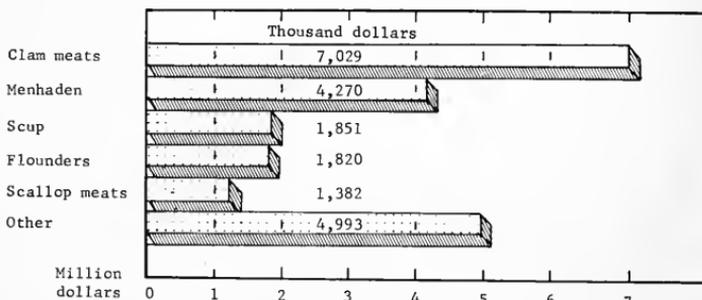
The New York Conservation Department, in cooperation with the industry, trial-tested the Japanese raft method of oyster culture. One trial test survived the winter successfully, and another is being made in Mecox Bay, Southampton, N.Y. A very successful seed set was raised in Salt Pond, Fishers Island. These projects show the effort being made to re-establish the New York oyster industry.

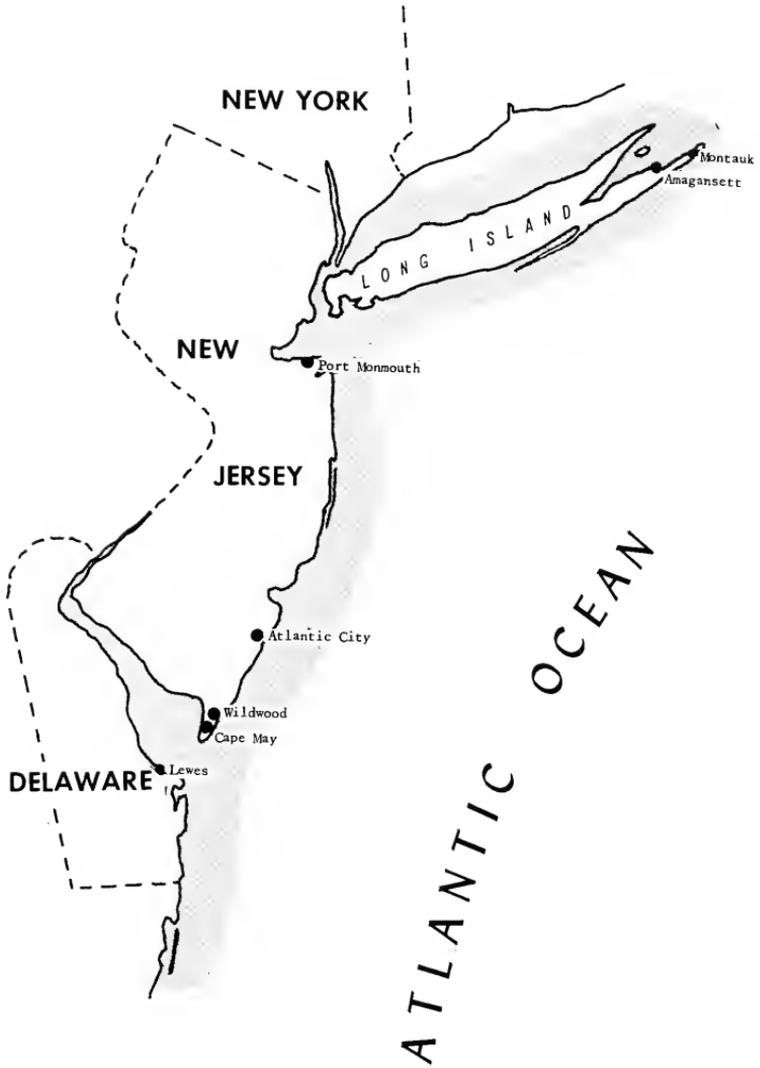
A shellfish transplantation fund with an initial appropriation of \$50,000 was established by the New York Legislature to implement a program of transplanting clams from polluted waters to pure waters from which they may later be safely harvested for human consumption. In conjunction with this legislative appropriation and plans of individual townships, hard clam transplant programs are being implemented.

Other information. Condensed summary data on the operating units and catch, by States, appearing on the following pages have been previously published in Current Fishery Statistics No. 3574. Additional data may be found in the New York and New Jersey monthly and annual landings bulletins published by the Branch of Fishery Statistics in cooperation with the respective States. Information on the daily, monthly, and annual production of fishery products in selected areas of these States is available in reports published by the Bureau's Fishery Market News Service at New York City and Hampton, Va.

Acknowledgements. The following organizations assisted the Bureau to collect the data appearing in this section: New York Conservation Department, Marine Fisheries Division, and Division of Fish and Game; New Jersey Conservation Department, Division of Fish and Game, New Jersey Shellfish Commission; State of Delaware Commission of Shell Fisheries.

## VALUE OF MIDDLE ATLANTIC STATES CATCH, 1963





MIDDLE ATLANTIC STATES

## MIDDLE ATLANTIC FISHERIES

## SECTIONAL SUMMARIES

## SUMMARY OF CATCH, 1963

(MILLIONS OF POUNDS AND MILLIONS OF DOLLARS)

STATE	FISH		SHELLFISH, ETC.		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
NEW YORK . . . . .	181	4	10	6	191	10
NEW JERSEY . . . . .	212	6	43	4	255	10
DELAWARE . . . . .	103	1	1	(1)	104	1
TOTAL . . . . .	496	11	54	10	550	21

1/ LESS THAN \$500,000.

## SUMMARY OF OPERATING UNITS, 1963

ITEM	NEW YORK	NEW JERSEY	DELAWARE	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:				
ON VESSELS . . . . .	995	1,681	409	3,057
ON BOATS AND SHORE:				
REGULAR . . . . .	1,121	653	71	1,855
CASUAL . . . . .	2,321	1,138	162	3,641
TOTAL . . . . .	4,437	3,682	662	8,553
VESSELS, MOTOR . . . . .	247	353	39	599
GROSS TONNAGE . . . . .	12,201	19,448	4,689	33,669
BOATS:				
MOTOR . . . . .	2,475	1,471	141	4,085
OTHER . . . . .	66	208	14	289
GEAR:				
HAUL SEINES, COMMON	45	31	2	78
LENGTH, YARDS . . . . .	13,741	2,285	1,250	17,276
STOP SEINES . . . . .	-	4	-	4
LENGTH, YARDS . . . . .	-	1,600	-	1,600
PURSE SEINES:				
MENHADEN . . . . .	10	27	21	57
LENGTH, YARDS . . . . .	4,360	10,540	7,420	21,900
TUNA . . . . .	-	5	-	5
LENGTH, YARDS . . . . .	-	4,280	-	4,280
OTHER . . . . .	-	23	-	23
LENGTH, YARDS . . . . .	-	9,175	-	9,175
BEAM TRAWLS . . . . .	-	7	-	7
YARDS AT MOUTH . . . . .	-	21	-	21
OTTER TRAWLS:				
FISH . . . . .	172	149	4	303
YARDS AT MOUTH . . . . .	3,974	3,650	86	7,110
LOBSTER . . . . .	4	32	-	35
YARDS AT MOUTH . . . . .	125	870	-	968
WEIRS . . . . .	-	5	-	5
POUNO NETS, FISH . . . . .	102	4	-	142
FYKE AND HOOP NETS:				
FISH . . . . .	83	16	63	162
TURTLE . . . . .	-	-	129	129
POTS AND TRAPS:				
CONCH . . . . .	50	-	-	50
CRAB . . . . .	-	3,981	1,469	5,450
EEL . . . . .	642	323	80	1,045
FISH . . . . .	650	16,775	-	17,425
LOBSTER . . . . .	6,900	2,900	-	9,800
TURTLE . . . . .	-	150	-	150
GILL NETS:				
ANCHOR, SET OR STAKE . . . . .	81	56	40	177
SQUARE YARDS . . . . .	75,997	70,607	49,010	195,614
DRIFT:				
SHAD . . . . .	35	9	5	49
SQUARE YARDS . . . . .	101,784	7,685	3,800	113,269
OTHER . . . . .	4	37	1	42
SQUARE YARDS . . . . .	24,100	255,701	3,600	283,401
RUNAROUND . . . . .	10	25	-	35
SQUARE YARDS . . . . .	16,100	199,100	-	215,200
LINES:				
HAND . . . . .	750	113	-	863
HOOKS . . . . .	915	165	-	1,080
TROLL:				
TUNA . . . . .	-	2	-	2
HOOKS . . . . .	-	2	-	2
OTHER . . . . .	-	82	-	82
HOOKS . . . . .	-	82	-	82

(CONTINUED ON NEXT PAGE)

# MIDDLE ATLANTIC FISHERIES

149

## SUMMARY OF OPERATING UNITS, 1963 - Continued

ITEM	NEW YORK	NEW JERSEY	DELAWARE	TOTAL, EXCLUSIVE OF DUPLICATION
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
GEAR - CONTINUED:				
LINES - CONTINUED:				
LONG OR SET WITH HOOKS. . . . .	61	84	6	150
HOOKS . . . . .	46,100	183,450	4,020	232,970
TROT WITH BAITs . . . . .	-	14	-	14
BAITS . . . . .	-	8,700	-	8,700
PUSH NETS . . . . .	-	9	-	9
HARPOONS. . . . .	4	8	-	12
SPEARS. . . . .	18	5	-	23
DREDGES:				
CLAM. . . . .	33	59	15	107
YARDS AT MOUTH. . . . .	27	76	19	122
CRAB. . . . .	-	42	15	57
YARDS AT MOUTH. . . . .	-	57	-	57
OYSTER, COMMON. . . . .	26	105	9	140
YARDS AT MOUTH. . . . .	37	105	13	155
SCALLOP. . . . .	1,398	198	-	1,580
YARDS AT MOUTH. . . . .	1,453	212	-	1,610
OTHER . . . . .	-	11	-	11
YARDS AT MOUTH. . . . .	-	35	-	35
TONGS:				
DYSTER. . . . .	-	200	-	200
OTHER . . . . .	1,660	1,020	45	2,745
RAKES . . . . .	1,246	690	99	2,035
HOES. . . . .	-	14	-	14

## CATCH BY STATES, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	NEW YORK		NEW JERSEY		DELAWARE		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH								
ALEWIVES. . . . .	32	1	3	(1)	-	-	35	1
AMBERJACK . . . . .	-	-	(1)	(1)	-	-	(1)	(1)
ANGLERFISH. . . . .	30	1	-	-	-	-	30	1
BLUEFISH. . . . .	697	102	823	97	21	4	1,541	203
BONITO. . . . .	39	5	55	4	-	-	94	9
BULLHEADS . . . . .	1	(1)	-	-	-	-	1	(1)
BUTTERFLISH. . . . .	1,151	148	1,386	125	2	(1)	2,539	273
CARP. . . . .	10	1	84	5	7	1	101	7
CATFISH . . . . .	9	1	35	3	2	(1)	46	4
COD . . . . .	882	138	1,106	143	88	11	2,076	292
DRUM, BLACK . . . . .	-	-	8	(1)	-	-	8	(1)
EELS:								
COMMON. . . . .	202	27	24	5	12	1	238	33
CONGER. . . . .	7	(1)	2	(1)	-	-	9	(1)
FLOUNDERS:								
BLACKBACK . . . . .	1,843	99	185	11	37	3	2,065	113
DAB . . . . .	-	-	2	(1)	-	-	2	(1)
FLUKE . . . . .	1,306	366	4,444	1,047	17	3	5,767	1,416
GRAY SOLE . . . . .	9	1	27	2	-	-	36	3
YELLOWTAIL. . . . .	4,669	288	13	(1)	-	-	4,682	288
UNCLASSIFIED. . . . .	(1)	(1)	(1)	(1)	-	-	(1)	(1)
TOTAL FLOUNDERS . . . . .	7,827	754	4,671	1,060	54	6	12,552	1,820
GRUNTS. . . . .	-	-	(1)	(1)	-	-	(1)	(1)
HADDOCK . . . . .	88	10	3	(1)	-	-	91	10
HAKE:								
RED . . . . .	647	18	769	20	1	(1)	1,417	38
WHITE . . . . .	5	(1)	113	6	-	-	118	6
HERRING, SEA. . . . .	87	2	151	3	(1)	(1)	238	5
KING WHITING OR "KINGFISH". . . . .	2	(1)	12	1	7	-	21	2
MACKEREL . . . . .	76	19	101	20	-	-	180	39
MENHADEN. . . . .	91,650	1,014	178,377	2,197	102,824	1,059	372,851	4,270
MULLET. . . . .	-	-	44	9	-	-	44	9
POLLACK . . . . .	4	(1)	2	(1)	-	-	6	(1)
SCUP OR PORGY . . . . .	9,308	784	12,729	1,067	-	-	22,037	1,851
SEA BASS. . . . .	576	109	2,812	334	-	-	3,386	443
SEA ROBIN . . . . .	11	(1)	2	(1)	-	-	21	(1)
SEA TROUT OR WEAKFISH, GRAY . . . . .	96	19	333	37	148	17	567	73
SHAD. . . . .	202	39	442	90	100	13	744	142
SHARKS:								
GRAYFISH. . . . .	78	2	4	(1)	-	-	82	4
UNCLASSIFIED. . . . .	2	(1)	6	(1)	-	-	8	(1)
TOTAL SHARKS. . . . .	80	4	10	(1)	-	-	90	4

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## MIDDLE ATLANTIC FISHERIES

## CATCH BY STATES, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	NEW YORK		NEW JERSEY		DELAWARE		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH - CONTINUED								
SILVERSIDES . . . . .	165	18	-	-	-	-	165	18
SKATES . . . . .	16	1	-	-	-	-	16	1
SPOT . . . . .	-	-	-	-	(1)	(1)	(1)	(1)
STRIPED BASS . . . . .	673	97	753	106	48	9	1,474	212
STURGEON . . . . .	5	1	13	2	2	(1)	20	3
SUCKERS . . . . .	1	(1)	-	-	-	-	1	(1)
SUNFISH . . . . .	(1)	(1)	-	-	-	-	(1)	(1)
SWELLFISH . . . . .	948	43	163	6	7	(1)	1,116	49
SWORDFISH . . . . .	47	17	191	90	-	-	240	107
TAUOG . . . . .	6	(1)	54	1	-	-	62	1
TILEFISH . . . . .	26	4	31	3	-	-	59	7
TOMCOD . . . . .	1	(1)	-	-	-	-	1	(1)
TUNA:								
BLUEFIN . . . . .	22	3	2,628	156	-	-	2,650	159
LITTLE . . . . .	8	1	-	-	-	-	8	1
TOTAL TUNA . . . . .	30	4	2,628	156	-	-	2,658	160
WHITE PERCH . . . . .	26	4	63	8	21	2	110	14
WHITING . . . . .	2,368	111	3,409	143	-	-	5,777	254
YELLOW PERCH . . . . .	1	(1)	-	-	-	-	1	(1)
UNCLASSIFIED:								
FOR FOOD . . . . .	335	26	12	1	-	-	347	29
BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	62,530	439	33	1	-	-	62,563	440
TOTAL FISH . . . . .	180,894	3,963	211,665	5,743	103,344	1,124	495,903	10,830
SHELLFISH, ETC.								
CRABS:								
BLUE:								
HARD . . . . .	-	-	861	105	522	34	1,363	139
SOFT AND PEELER . . . . .	-	-	33	7	3	1	36	8
ROCK . . . . .	-	-	23	1	-	-	23	1
TOTAL CRABS . . . . .	-	-	917	113	525	35	1,442	148
HORSESHOE CRABS . . . . .								
LOBSTERS, NORTHERN . . . . .	380	210	750	337	-	-	1,130	547
SHRIMP . . . . .	-	-	7	7	-	-	7	7
CLAMS:								
HARD:								
PUBLIC . . . . .	3,438	2,346	1,571	630	119	48	5,128	3,024
PRIVATE . . . . .	1,873	1,235	13	5	143	58	2,029	1,296
RAZOR . . . . .	6	2	2	-	-	-	8	2
SOFT, PUBLIC . . . . .	99	26	15	6	-	-	114	34
SURF . . . . .	974	91	37,546	2,560	-	-	36,522	2,671
TOTAL CLAMS . . . . .	6,392	3,702	39,147	3,221	262	106	45,801	7,029
CONCHS . . . . .								
MUSSELS, SEA . . . . .	22	5	524	112	6	1	552	116
OYSTERS, MARKET:								
PUBLIC:								
SPRING . . . . .	-	-	4	4	-	-	4	4
FALL . . . . .	-	-	62	69	-	-	62	69
PRIVATE:								
SPRING . . . . .	191	277	14	17	12	7	217	301
FALL . . . . .	203	295	436	468	29	16	668	781
TOTAL OYSTERS . . . . .	394	572	516	556	41	25	951	1,155
SCALLOPS:								
BAY . . . . .	303	292	274	112	-	-	577	404
SEA . . . . .	1,925	895	174	83	-	-	2,099	978
SQUID . . . . .	872	68	796	42	-	-	1,668	110
TERRAPIN . . . . .	-	-	3	1	-	-	3	1
TURTLES:								
LOGGERHEAD . . . . .	-	-	1	(1)	-	-	1	(1)
SNAPPER . . . . .	-	-	43	5	10	1	53	6
UNCLASSIFIED . . . . .	-	-	2	(1)	-	-	2	(1)
TOTAL SHELLFISH, ETC. . . . .	10,362	5,755	43,355	4,592	844	168	54,561	10,515
GRAND TOTAL . . . . .	191,256	9,718	255,020	10,335	104,168	1,292	550,464	21,345

1/ LESS THAN 500 POUNDS OR \$500.

NOTE:--STATISTICS ON THE CATCH ARE SHOWN IN ROUND (LIVE) WEIGHT EXCEPT FOR SHELL MOLLUSKS. CLAMS, CONCHS, MUSSELS, AND OYSTERS ARE REPORTED IN WEIGHT OF TOTAL MEATS. SCALLOPS ARE REPORTED IN WEIGHT OF EDIBLE MEATS.

# MIDDLE ATLANTIC FISHERIES

151

## CATCH OF CERTAIN SHELLFISH, 1963

(NUMBER AND BUSHELS)

SPECIES	NEW YORK		NEW JERSEY		
	QUANTITY	VALUE	QUANTITY	VALUE	
CRABS:					
BLUE:					
HARD . . . . .	NUMBER	-	2,066,400	\$104,794	
SOFT AND PEELER . . . . .	DO	-	114,208	6,640	
ROCK . . . . .	DO	-	68,400	712	
HORSESHOE CRABS . . . . .	DO	-	50,300	1,007	
CLAMS:					
HARD:	U. S. STANDARD				
PUBLIC . . . . .	BUSHELS	266,517	\$2,346,291	157,120	629,747
PRIVATE . . . . .	DO	156,067	1,235,506	1,320	4,605
RAZOR . . . . .	DO	525	2,257	-	-
SOFT, PUBLIC . . . . .	DO	6,162	27,527	1,293	6,392
SURF . . . . .	DO	57,312	90,524	2,206,729	2,560,151
CONCHS. . . . .	DO	1,487	4,797	26,160	112,168
MUSSELS, SEA . . . . .	DO	7,430	10,604	-	-
OYSTERS, MARKET:					
PUBLIC:					
SPRING . . . . .	DO	-	-	543	4,430
FALL . . . . .	DO	-	-	9,521	68,668
PRIVATE:					
SPRING . . . . .	DO	25,493	277,470	1,943	17,235
FALL . . . . .	DO	27,107	295,218	56,730	468,404
SCALLOPS:					
BAY . . . . .	DO	50,400	291,676	42,138	112,172
SEA . . . . .	DO	320,733	894,620	26,950	83,248
SPECIES	DELAWARE		TOTAL		
	QUANTITY	VALUE	QUANTITY	VALUE	
CRABS:					
BLUE:					
HARD . . . . .	NUMBER	1,253,520	\$33,630	3,319,920	\$139,424
SOFT AND PEELER . . . . .	DO	10,200	1,207	124,408	7,847
ROCK . . . . .	DO	-	-	66,400	712
HORSESHOE CRABS . . . . .	DO	-	-	50,300	1,007
CLAMS:					
HARD:	U. S. STANDARD				
PUBLIC . . . . .	BUSHELS	14,875	48,312	459,512	3,024,350
PRIVATE . . . . .	DO	17,688	58,143	175,275	1,298,254
RAZOR . . . . .	DO	-	-	525	2,257
SOFT, PUBLIC . . . . .	DO	-	-	7,445	33,919
SURF . . . . .	DO	-	-	2,266,041	2,670,675
CONCHS. . . . .	DO	300	525	27,967	117,490
MUSSELS, SEA . . . . .	DO	-	-	7,430	10,604
OYSTERS, MARKET:					
PUBLIC:					
SPRING . . . . .	DO	-	-	543	4,430
FALL . . . . .	DO	-	-	9,521	68,668
PRIVATE:					
SPRING . . . . .	DO	1,799	7,200	29,235	301,905
FALL . . . . .	DO	4,389	17,686	68,226	781,506
SCALLOPS:					
BAY . . . . .	DO	-	-	92,536	403,848
SEA . . . . .	DO	-	-	349,683	977,868

NOTE:--THE CAPACITY OF A U. S. STANDARD BUSHEL IS 2,150.4 CUBIC INCHES.

## AVERAGE WEIGHTS OF CERTAIN SHELLFISH, 1963

SPECIES	NEW YORK	NEW JERSEY	DELAWARE
	QUANTITY	QUANTITY	QUANTITY
CRABS:			
BLUE:			
HARD . . . . .	NUMBER PER POUND	-	2.40
SOFT AND PEELER . . . . .	DO	-	3.44
ROCK . . . . .	DO	-	3.00
HORSESHOE CRABS . . . . .	POUNDS PER CRAB	-	4.00
CLAMS:			
HARD:	LBS. MEATS PER		
PUBLIC . . . . .	U. S. STANDARD BUSHEL	12.00	10.00
PRIVATE . . . . .	DO	12.00	10.00
RAZOR . . . . .	DO	16.00	-
SOFT, PUBLIC . . . . .	DO	16.00	12.00
SURF . . . . .	DO	17.00	17.00
CONCHS. . . . .	DO	15.00	20.00
MUSSELS, SEA . . . . .	DO	10.00	-
OYSTERS, MARKET:			
PUBLIC:			
SPRING . . . . .	DO	-	7.00
FALL . . . . .	DO	-	6.46
PRIVATE:			
SPRING . . . . .	DO	7.50	7.26
FALL . . . . .	DO	7.50	7.68
SCALLOPS:			
BAY . . . . .	DO	6.00	6.50
SEA . . . . .	DO	6.00	6.00

NOTE:--THE CAPACITY OF A U. S. STANDARD BUSHEL IS 2,150.4 CUBIC INCHES.

## MIDDLE ATLANTIC FISHERIES

## MANUFACTURED FISHERY PRODUCTS, 1963

ITEM	NEW YORK		NEW JERSEY		DELAWARE AND PENNSYLVANIA	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
ANCHOVY PASTE, CANNED . . . . .	STANDARD CASES (1)	(1)	-	-	-	-
BUTTERFISH, SMOKED. . . . .	POUNDS 322,000	\$225,250	(1)	(1)	(1)	(1)
CARP, SMOKED. . . . .	DO 99,000	92,600	(1)	(1)	-	-
CHUBS, SMOKED. . . . .	DO 2,286,500	1,418,350	(1)	(1)	(1)	(1)
COO:						
FILLETS, FRESH. . . . .	DO 2,086,540	980,476	(1)	(1)	(1)	(1)
SPECIALTIES:						
FROZEN (CAKES, BREADED RAW AND COOKED). . . . .	DO (1)	(1)	(1)	(1)	1,204,145	\$558,798
CANNED (CAKES). . . . .	STANDARD CASES (1)	(1)	(1)	(1)	-	-
SALTED, SMOKED AND DRIED. . . . .	POUNDS (1)	(1)	(1)	(1)	-	-
EELS, SMOKED. . . . .	DO 115,000	92,300	57,000	\$37,050	-	-
FLOUNDER:						
FILLETS, FRESH AND FROZEN SPECIALTIES, FROZEN (STUFFED, BREADED RAW AND COOKED). . . . .	DO 3,814,400	2,142,935	(1)	(1)	(1)	(1)
HADDOCKS:						
FILLETS, FRESH. . . . .	DO 745,300	364,642	(1)	(1)	(1)	(1)
SPECIALTIES, FROZEN (STUFFED, BREADED, COOKED). . . . .	DO (1)	(1)	-	-	-	-
SMOKED. . . . .	DO (1)	(1)	-	-	-	-
HAKE FILLETS, FRESH. . . . .	DO 43,000	15,050	-	-	-	-
HALIBUT SPECIALTIES, FROZEN (AU GRATIN). . . . .	DO (1)	(1)	-	-	-	-
HERRING, SEA:						
SPECIALTIES:						
CURED AND REFRIGERATED (PARTY SNACKS, ETC.). . . . .	DO (1)	(1)	-	-	-	-
CANNED (FILLETS IN CREAM AND IN WINE SAUCE). . . . .	STANDARD CASES (1)	(1)	-	-	-	-
SALTED. . . . .	POUNDS 377,854	121,195	-	-	(1)	(1)
SMOKED. . . . .	DO 30,702	10,222	-	-	(1)	(1)
LAKE TROUT, SMOKED. . . . .	DO 66,000	58,200	-	-	(1)	(1)
LUMPFISH CAVIAR, CANNED . . . . .	STANDARD CASES (1)	(1)	-	-	-	-
MACKEREL:						
FILLETS, SALTED. . . . .	POUNDS (1)	(1)	-	-	(1)	(1)
SMOKED. . . . .	DO (1)	(1)	-	-	-	-
MENHADEN:						
MEAL AND SCRAP. . . . .	TONS (1)	(1)	16,257	1,914,920	(1)	(1)
OIL. . . . .	1,000 POUNDS (1)	(1)	31,011	1,140,582	(1)	(1)
SOLUBLES. . . . .	TONS (1)	(1)	8,503	437,508	-	-
PAODLEFISH, SMOKED. . . . .	POUNDS 18,000	18,000	-	-	-	-
POLLOCK FILLETS, FRESH. . . . .	DO (1)	(1)	-	-	-	-
SABLEFISH, SMOKED. . . . .	DO 1,750,000	1,211,500	(1)	(1)	(1)	(1)
SALMON:						
CAVIAR, CANNED. . . . .	STANDARD CASES 4,696	419,846	-	-	-	-
SMOKED. . . . .	POUNDS 6,699,750	10,686,875	(1)	(1)	(1)	(1)
SHAO:						
FILLETS, FRESH. . . . .	DO -	-	-	-	(1)	(1)
SMOKED. . . . .	DO 29,000	7,900	-	-	(1)	(1)
SHARK LIVER OIL. . . . .	1,000 POUNDS (1)	(1)	-	-	-	-
STURGEON:						
CAVIAR, CANNED. . . . .	STANDARD CASES (1)	(1)	-	-	-	-
SMOKED. . . . .	POUNDS 1,081,000	2,646,850	(1)	(1)	(1)	(1)
TUNA, SPECIALTIES:						
FROZEN (WITH NOODLES AND PIES). . . . .	POUNDS (1)	(1)	-	-	-	-
CANNED (WITH NOODLES, CREAMED, ETC.). . . . .	STANDARD CASES -	-	-	-	(1)	(1)
WHITEFISH:						
CANNED:						
FISH. . . . .	STANDARD CASES (1)	(1)	(1)	(1)	-	-
CAVIAR. . . . .	DO 1,393	101,957	-	-	-	-
SMOKED. . . . .	POUNDS 1,910,000	1,596,250	(1)	(1)	(1)	(1)

SEE NOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# MIDDLE ATLANTIC FISHERIES

153

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

ITEM	NEW YORK		NEW JERSEY		DELAWARE AND PENNSYLVANIA		
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	
WHITING:							
FILLETS, FRESH. . . . .	POUNDS	(1)	-	-	-	-	
SMOKED. . . . .	DO	161,000	\$57,550	173,000	\$75,350	-	
CRAB, BLUE:							
SPECIALTIES:							
FROZEN (CAKES, CUTLETS, DEVILED, ETC.) . . . . .	DO	(1)	(1)	146,382	102,438	2,370,856	\$2,122,620
CANNED (BISQUE) . . . . .	STANDARD CASES	-	-	(1)	(1)	(1)	(1)
MEAL AND SCRAP. . . . .	TONS	-	-	(1)	(1)	-	-
LOBSTERS:							
NORTHERN:							
COOKED MEAT, FRESH. . . . .	POUNDS	-	-	(1)	(1)	-	-
SPECIALTIES:							
FROZEN (LOBSTERETTES) CANNED (BISQUE, CHOW- DER, NEWBURG, ETC.). . . . .	DO STANDARD CASES	- -	- -	- -	- -	(1) (1)	(1) (1)
SPINY, TAILS, RAW, FROZEN	POUNDS	(1)	(1)	-	-	(1)	(1)
SHRIMP:							
FROZEN:							
MEAT, PEELED AND DEVILED, RAW AND COOKED . . . . .	DO DO	(1) 842,500	(1) 673,125	(1) (1)	(1) (1)	(1) (1)	(1) (1)
BREADED, RAW AND COOKED SPECIALTIES (COCKTAILS, STUFFED, STEAKS, ETC.) . . . . .	DO	1,455,931	1,302,110	492,798	478,846	(1)	(1)
CANNED, SPECIALTIES (BISQUE, SAUCES, ETC.) . . . . .	STANDARD CASES	-	-	(1)	(1)	(1)	(1)
CLAMS, SURF AND HARD:							
FRESH AND FROZEN:							
SHUCKED . . . . .	GALLONS	391,467	864,379	1,442,294	2,689,387	(1)	(1)
SPECIALTIES (SHREDDED, STICKS, CROQUETTES, ETC.) . . . . .	POUNDS	2,524,958	666,209	479,450	337,262	(1)	(1)
CANNED:							
WHOLE AND MINCED. . . . .	STANDARD CASES	(1)	(1)	311,931	3,707,005	(1)	(1)
CHOWDER AND JUICE . . . . .	DO	(1)	(1)	677,342	4,366,407	194,497	1,226,419
SPECIALTIES (SAUCES, SOFT IN SHELL) . . . . .	DO	(1)	(1)	(1)	(1)	(1)	(1)
CONCH MEAT:							
FROZEN. . . . .	POUNDS	(1)	(1)	-	-	-	-
CANNED. . . . .	STANDARD CASES	(1)	(1)	(1)	(1)	(1)	(1)
MUSSELS, SEA:							
SPECIALTIES, FRESH AND FROZEN (IN HOT SAUCE) CANNED (WHOLE AND BISQUE)	POUNDS STANDARD CASES	- -	- -	(1) (1)	(1) (1)	- -	- -
MUSSEL SHELL BUTTONS. . . . .	GROSS	(1)	(1)	(1)	(1)	(1)	(1)
OYSTERS:							
FRESH AND FROZEN:							
SHUCKED . . . . .	GALLONS	(1)	(1)	77,231	965,386	61,850	724,075
BREADED . . . . .	POUNDS	-	-	199,813	206,931	330,100	367,722
SPECIALTIES (STEWES, PIES AND FRIED) . . . . .	DO	-	-	-	-	909,879	433,069
CANNED, SPECIALTIES (BISQUE AND STEW) . . . . .	STANDARD CASES	-	-	(1)	(1)	(1)	(1)
SHELL GRIT AND LIME . . . . .	TONS	-	-	(1)	(1)	-	-
SCALLOPS:							
BAY, SHUCKED, FRESH . . . . .	GALLONS	33,597	352,770	30,432	304,320	-	-
SEA, BREADED, FROZEN. . . . .	POUNDS	(1)	(1)	145,042	107,355	755,264	583,915
SPECIALTIES, FROZEN (BON FEMME) . . . . .	DO	(1)	(1)	-	-	-	-
NATURAL FROZEN. . . . .	DO	(1)	(1)	-	-	-	-
SPECIALTIES, FROZEN (IN TOMATO SAUCE) . . . . .	DO	(1)	(1)	-	-	-	-
CANNED. . . . .	STANDARD CASES	(1)	(1)	(1)	(1)	-	-
TURTLE:							
STEAK, RAW, FROZEN. . . . .	POUNDS	-	-	(1)	(1)	-	-
CANNED:							
MEAT. . . . .	STANDARD CASES	-	-	(1)	(1)	(1)	(1)
SPECIALTIES (SOUP) . . . . .	DO	-	-	(1)	(1)	(1)	(1)
OIL . . . . .	1,000 POUNDS	-	-	(1)	(1)	-	-

SEE NOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## MIDDLE ATLANTIC FISHERIES

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

ITEM	NEW YORK		NEW JERSEY		DELAWARE AND PENNSYLVANIA	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
UNCLASSIFIED:						
PACKAGED, FRESH AND FROZEN:						
FILLETS, STICKS, PORTIONS, AND OTHER FISH AND SHELL-						
FISH . . . . . POUNDS	5,620,665	\$3,004,076	7,880,302	\$5,665,991	17,200,032	\$6,448,691
CURED . . . . . DO	143,800	91,095	1,766,000	2,114,425	2,310,300	2,094,700
CANNED . . . . . STANDARD CASES	289,586	4,046,204	296,952	4,516,684	256,363	3,171,321
INDUSTRIAL . . . . .	-	2,441,403	-	802,038	-	1,858,274
TOTAL . . . . .	-	35,709,719	-	31,173,907	-	19,589,624

1/ INCLUDED IN UNCLASSIFIED ITEMS.

NOTE:--SOME OF THE ABOVE PRODUCTS MAY HAVE BEEN MANUFACTURED FROM RAW PRODUCTS IMPORTED FROM ANOTHER STATE OR A FOREIGN COUNTRY; THEREFORE, THEY CANNOT BE CORRELATED DIRECTLY WITH THE CATCH WITHIN THE STATE.

## SUMMARY OF MANUFACTURED PRODUCTS, 1963

(VALUE IN THOUSANDS OF DOLLARS)

ITEM	QUANTITY	VALUE
PACKAGED PRODUCTS, FRESH AND FROZEN:		
NOT BREADED:		
FISH . . . . . 1,000 POUNDS	8,686	4,451
SHELLFISH . . . . . DO	18,435	6,613
BREADED:		
FISH . . . . . DO	17,328	5,844
SHELLFISH . . . . . DO	5,017	4,394
SPECIALTIES, FISH AND SHELLFISH (NOT BREADED AND BREADED) . . . . . DO	17,810	12,363
CANNED . . . . . 1,000 STD. CASES	2,035	21,558
CURED:		
SALTED . . . . . 1,000 POUNDS	868	265
SMOKED AND DRIED . . . . . DO	16,524	22,350
INDUSTRIAL . . . . .	-	8,595
TOTAL . . . . .	-	86,474

## VALUE OF MANUFACTURED PRODUCTS, BY STATES, 1963

(THOUSANDS OF DOLLARS)

STATE	VALUE
NEW YORK . . . . .	35,710
NEW JERSEY . . . . .	31,174
DELAWARE . . . . .	5,769
PENNSYLVANIA . . . . .	13,821
TOTAL . . . . .	86,474

## WHOLESALE AND MANUFACTURING, 1963

ITEM	NEW YORK	NEW JERSEY	DELAWARE	PENNSYLVANIA	TOTAL
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
WHOLESALE AND MANUFACTURING:					
ESTABLISHMENTS . . . . .	304	114	20	54	492
PERSONS ENGAGED:					
AVERAGE FOR SEASON . . . . .	3,755	2,554	663	997	7,969
AVERAGE FOR YEAR . . . . .	3,471	2,006	357	863	6,697

# MIDDLE ATLANTIC FISHERIES

155

## NEW YORK

### OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	PURSE SEINES, MENHADEN	OTTER TRAWLS		POUND NETS, FISH	FYKE AND HOOP NETS, FISH	POTS AND TRAPS CONCH
			FISH	LOBSTER			
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:							
ON VESSELS . . . . .	37	170	511	16	37	-	-
ON BOATS AND SHORE:							
REGULAR . . . . .	74	-	8	-	18	9	-
CASUAL . . . . .	35	-	4	-	16	18	1
TOTAL . . . . .	146	170	523	16	71	27	1
VESSELS, MOTOR . . . . .	6	10	166	4	8	-	-
GROSS TONNAGE . . . . .	299	2,540	6,771	342	85	-	-
BOATS:							
MOTOR . . . . .	40	20	6	-	15	19	1
OTHER . . . . .	8	-	-	-	10	2	-
GEAR:							
NUMBER . . . . .	45	10	172	4	102	83	50
LENGTH, YARDS . . . . .	13,741	4,360	-	-	-	-	-
YARDS AT MOUTH . . . . .	-	-	3,974	125	-	-	-

ITEM	POTS AND TRAPS - CONTINUED				GILL NETS		
	EEL	FISH	LOBSTER	ANCHOR, SET OR STAKE	DRIFT		RUNAROUND
					SHAD	OTHER	
NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN:							
ON VESSELS . . . . .	-	2	22	-	-	5	4
ON BOATS AND SHORE:							
REGULAR . . . . .	11	-	22	12	-	4	10
CASUAL . . . . .	10	-	25	42	70	-	5
TOTAL . . . . .	21	2	69	54	70	9	19
VESSELS, MOTOR . . . . .	-	1	11	-	-	2	2
GROSS TONNAGE . . . . .	-	8	135	-	-	27	17
BOATS:							
MOTOR . . . . .	15	-	37	37	35	2	8
OTHER . . . . .	2	-	-	-	-	-	-
GEAR:							
NUMBER . . . . .	642	650	6,900	81	35	4	10
SQUARE YARDS . . . . .	-	-	-	75,997	101,784	24,100	16,100

ITEM	LINES		HARPOONS, SWORDFISH	SPEARS, EEL	DREDGES CLAM
	HAND	LONG OR SET WITH HOOKS			
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	-	32	13	-	69
ON BOATS AND SHORE:					
REGULAR . . . . .	125	26	-	1	5
CASUAL . . . . .	625	11	-	17	-
TOTAL . . . . .	750	69	13	18	74
VESSELS, MOTOR . . . . .	-	11	4	-	30
GROSS TONNAGE . . . . .	-	273	109	-	750
BOATS:					
MOTOR . . . . .	425	23	2	18	2
OTHER . . . . .	25	-	-	-	-
GEAR:					
NUMBER . . . . .	750	61	4	18	33
YARDS AT MOUTH . . . . .	-	-	-	-	27
HOOKS OR BAITS . . . . .	915	46,100	-	-	-

ITEM	DREDGES - CONTINUED		TONGS	RAKES	TOTAL, EXCLUSIVE OF DUPLI- CATION
	OYSTER, COMMON	SCALLOP			
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	50	116	-	-	995
ON BOATS AND SHORE:					
REGULAR . . . . .	2	223	610	454	1,121
CASUAL . . . . .	-	485	1,070	782	2,321
TOTAL . . . . .	52	824	1,680	1,246	4,437
VESSELS, MOTOR . . . . .	13	11	-	-	247
GROSS TONNAGE . . . . .	536	1,172	-	-	12,201
BOATS:					
MOTOR . . . . .	1	467	1,189	930	2,475
OTHER . . . . .	-	-	20	-	66
GEAR:					
NUMBER . . . . .	26	1,398	1,680	1,246	-
YARDS AT MOUTH . . . . .	37	1,453	-	-	-

## MIDDLE ATLANTIC FISHERIES

## NEW YORK - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		PURSE SEINES		OTTER TRAWLS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	15,000	\$466	-	-	-	-
ANGLERFISH . . . . .	-	-	-	-	29,600	\$1,199
BLUEFISH . . . . .	49,700	7,296	-	-	10,900	1,606
BONITO . . . . .	-	-	-	-	500	60
BUTTERFISH . . . . .	-	-	-	-	1,044,300	134,251
CARP . . . . .	4,400	220	-	-	-	-
COD . . . . .	-	-	-	-	350,700	54,702
EELS, CODGER . . . . .	-	-	-	-	6,900	224
FLOUNDERS:						
BLACKBACK . . . . .	-	-	-	-	1,773,100	94,773
FLUKE . . . . .	-	-	-	-	1,269,200	355,236
GRAY SOLE . . . . .	-	-	-	-	9,200	1,140
YELLOWTAIL . . . . .	-	-	-	-	4,623,400	285,141
UNCLASSIFIED . . . . .	-	-	-	-	400	16
HADDOCK . . . . .	-	-	-	-	88,300	10,433
HAKE:						
RED . . . . .	-	-	-	-	643,600	18,021
WHITE . . . . .	-	-	-	-	5,300	188
HERRING, SEA . . . . .	-	-	-	-	24,000	512
MACKEREL . . . . .	-	-	-	-	2,700	653
MENHADEN . . . . .	-	-	90,600,000	\$1,003,174	-	-
POLLOCK . . . . .	-	-	-	-	4,500	406
SCUP OR PORGY . . . . .	415,600	34,985	-	-	8,560,200	720,630
SEA BASS . . . . .	-	-	-	-	387,600	73,071
SEA ROBIN . . . . .	-	-	-	-	1,100	18
SEA TROUT OR WEAKFISH, GRAY . . . . .	17,800	3,902	-	-	51,700	11,341
SHAD . . . . .	7,200	1,359	-	-	100	19
SHARKS:						
GRAYFISH . . . . .	-	-	-	-	47,000	2,452
UNCLASSIFIED . . . . .	-	-	-	-	1,500	89
SKATES . . . . .	165,200	18,145	-	-	-	-
STRIPED BASS . . . . .	374,100	56,205	-	-	15,700	733
STURGEON . . . . .	-	-	-	-	177,000	26,591
SWELLFISH . . . . .	-	-	-	-	1,400	285
TAUTOG . . . . .	1,200	50	-	-	139,900	6,347
TILEFISH . . . . .	-	-	-	-	2,600	108
WHITE PERCH . . . . .	1,100	174	-	-	27,900	3,635
WHITING . . . . .	-	-	-	-	2,352,700	110,699
UNCLASSIFIED:						
FDR FOOD . . . . .	27,300	2,710	-	-	214,700	18,842
BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	-	-	-	-	62,382,100	437,345
LOBSTERS, NORTHERN . . . . .	-	-	-	-	234,800	115,955
CONCHS . . . . .	-	-	-	-	5,300	1,132
SQUID . . . . .	-	-	-	-	805,700	62,651
TOTAL . . . . .	1,078,600	125,512	90,600,000	1,003,174	85,295,600	2,550,564

SPECIES	POUND NETS		FYKE AND HOOP NETS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	-	-	17,300	\$625	-	-
BLUEFISH . . . . .	242,400	\$35,588	-	-	-	-
BONITO . . . . .	25,200	3,110	-	-	-	-
BULLHEADS . . . . .	-	-	600	59	-	-
BUTTERFISH . . . . .	106,700	13,715	-	-	-	-
CARP . . . . .	-	-	5,700	267	-	-
CATFISH . . . . .	-	-	5,100	462	-	-
EELS, COMMON . . . . .	-	-	-	-	-	-
FLOUNDERS:						
BLACKBACK . . . . .	55,300	2,956	13,500	722	-	-
FLUKE . . . . .	17,400	4,910	-	-	-	-
HAKE, RED . . . . .	3,200	89	-	-	-	-
HERRING, SEA . . . . .	63,100	1,348	-	-	-	-
KING WHITING OR "KINGFISH" . . . . .	1,800	274	-	-	-	-
MACKEREL . . . . .	18,600	4,470	-	-	-	-
MENHADEN . . . . .	1,050,500	10,505	-	-	-	-
SCUP OR PORGY . . . . .	331,900	27,938	-	-	-	-
SEA BASS . . . . .	-	-	-	-	188,800	35,593
SEA ROBIN . . . . .	9,800	157	-	-	-	-
SEA TROUT OR WEAKFISH, GRAY . . . . .	7,200	1,578	-	-	-	-
SHAD . . . . .	63,800	12,406	-	-	-	-
SHARKS:						
GRAYFISH . . . . .	26,500	1,362	-	-	-	-
UNCLASSIFIED . . . . .	400	24	-	-	-	-
SKATES . . . . .	100	5	-	-	-	-
STRIPED BASS . . . . .	5,000	751	-	-	-	-
SUCKERS . . . . .	-	-	600	104	-	-
SUNFISH . . . . .	-	-	300	60	-	-
SWELLFISH . . . . .	807,800	36,657	-	-	-	-

(CONTINUED ON NEXT PAGE)

# MIDDLE ATLANTIC FISHERIES

157

## NEW YORK - CATCH BY GEAR, 1963 - Continued

SPECIES	POUND NETS		FYKE AND HOOP NETS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
TAUTOG . . . . .	3,200	\$133	-	-	-	-
TOMCOD . . . . .	-	-	1,300	\$425	-	-
TUNA, BLUEFIN . . . . .	2,100	277	-	-	-	-
WHITE PERCH . . . . .	19,500	3,093	1,900	365	-	-
WHITING . . . . .	15,000	706	-	-	-	-
YELLOW PERCH . . . . .	-	-	600	85	-	-
UNCLASSIFIED: FOR FOOD . . . . .	75,900	5,258	-	-	-	-
BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	148,000	1,480	-	-	-	-
LOBSTERS, NORTHERN . . . . .	-	-	-	-	144,200	\$93,755
CONCHS . . . . .	-	-	-	-	3,700	805
SQUID . . . . .	66,400	5,164	-	-	-	-
TOTAL . . . . .	3,230,600	182,438	46,900	3,174	405,800	139,302

SPECIES	GILL NETS					
	ANCHOR, SET OR STAKE		DRIFT		RUNAROUND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH . . . . .	89,400	\$13,124	-	-	41,200	\$6,047
CARP . . . . .	400	31	-	-	-	-
CATFISH . . . . .	900	74	-	-	-	-
MACKEREL . . . . .	-	-	7,200	\$1,682	-	-
SEA TROUT OR WEAKFISH, GRAY, SHAD . . . . .	500	110	-	-	8,600	1,884
61,500	14,569	69,300	10,948	-	-	
STRIPED BASS . . . . .	46,900	3,518	3,200	385	600	90
STURGEON . . . . .	2,600	672	300	65	-	-
WHITE PERCH . . . . .	3,900	429	-	-	-	-
UNCLASSIFIED, FOR FOOD . . . . .	12,900	1,206	-	-	3,800	350
TOTAL . . . . .	219,000	33,736	80,000	13,080	54,200	8,371

SPECIES	LINES				HARPOONS	
	HAND		LONG OR SET WITH HOOKS		POUNDS	VALUE
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH . . . . .	263,100	\$38,634	-	-	-	-
BONITO . . . . .	13,800	1,646	-	-	-	-
CATFISH . . . . .	-	-	3,000	\$188	-	-
COD . . . . .	25,700	4,008	505,800	78,949	-	-
EELS, COMMON . . . . .	-	-	700	105	-	-
MACKEREL . . . . .	50,300	12,139	-	-	-	-
SHARKS: GRAYFISH . . . . .	-	-	4,500	235	-	-
UNCLASSIFIED . . . . .	300	18	200	10	-	-
STRIPED BASS . . . . .	66,000	9,914	-	-	-	-
STURGEON . . . . .	-	-	300	45	-	-
SWORDFISH . . . . .	-	-	17,700	6,583	29,100	\$10,813
TAUTOG . . . . .	700	29	-	-	-	-
TUNA: BLUEFIN . . . . .	19,300	2,497	800	104	-	-
LITTLE . . . . .	7,800	594	-	-	-	-
TOTAL . . . . .	447,000	69,479	533,000	86,219	29,100	10,813

SPECIES	SPEARS		DREGGES		TONGS		RAKES	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
EELS, COMMON . . . . .	68,500	\$9,088	-	-	-	-	-	-
FLOUNDERS: BLACKBACK . . . . .	-	-	600	\$32	-	-	-	-
FLUKE . . . . .	-	-	19,200	5,418	-	-	-	-
YELLOWTAIL . . . . .	-	-	45,300	2,795	-	-	-	-
SKATES . . . . .	-	-	100	5	-	-	-	-
LOBSTERS, NORTHERN . . . . .	-	-	1,000	494	-	-	-	-
CLAMS: HARD: PUBLIC . . . . .	-	-	-	-	1,872,400	\$1,268,471	1,565,800	\$1,077,820
PRIVATE . . . . .	-	-	1,872,800	1,235,506	-	-	-	-
RAZOR . . . . .	-	-	-	-	-	-	8,400	2,257
SOFT, PUBLIC . . . . .	-	-	-	-	-	-	98,600	27,527
SURF . . . . .	-	-	953,900	88,724	-	-	20,400	1,800
CONCHS . . . . .	-	-	13,300	2,860	-	-	-	-
MUSSELS, SEA . . . . .	-	-	-	-	-	-	74,300	10,604
OYSTERS, MARKET, PRIVATE: SPRING . . . . .	-	-	191,200	277,470	-	-	-	-
FALL . . . . .	-	-	203,300	295,218	-	-	-	-
SCALLOPS: BAY . . . . .	-	-	302,400	291,676	-	-	-	-
SEA . . . . .	-	-	1,924,400	894,620	-	-	-	-
TOTAL . . . . .	68,500	9,088	5,527,500	3,094,818	1,872,400	1,268,471	1,767,500	1,120,088

# MIDDLE ATLANTIC FISHERIES

## NEW JERSEY

### OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	STOP SEINES	PURSE SEINES		
			MENHADEN	TUNA	OTHER
FISHERMEN:	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
ON VESSELS . . . . .	-	-	459	60	161
ON BOATS AND SHORE:					
REGULAR . . . . .	33	4	-	-	20
CASUAL . . . . .	10	-	-	-	-
TOTAL . . . . .	43	4	459	60	161
VESSELS, MOTOR . . . . .	-	-	27	5	20
GROSS TONNAGE . . . . .	-	-	5,348	1,928	342
BOATS:					
MOTOR . . . . .	31	4	54	5	23
OTHER . . . . .	-	-	-	-	16
GEAR:					
NUMBER . . . . .	31	4	27	5	23
LENGTH, YARDS . . . . .	2,285	1,600	10,540	4,260	9,175

ITEM	BEAM TRAWLS, SHRIMP	OTTER TRAWLS		WEIRS	POUND NETS, FISH
		FISH	LOBSTER		
FISHERMEN:	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
ON VESSELS . . . . .	-	471	122	-	54
ON BOATS AND SHORE:					
REGULAR . . . . .	-	13	3	-	31
CASUAL . . . . .	7	-	-	6	-
TOTAL . . . . .	7	484	125	6	85
VESSELS, MOTOR . . . . .	-	143	31	-	13
GROSS TONNAGE . . . . .	-	6,141	1,729	-	104
BOATS:					
MOTOR . . . . .	7	6	1	3	7
OTHER . . . . .	-	-	-	3	-
GEAR:					
NUMBER . . . . .	7	149	32	5	47
YARDS AT MOUTH . . . . .	21	3,650	870	-	-

ITEM	FYKE AND HOOP NETS, FISH	POTS AND TRAPS				
		CRAB	EEL	FISH	LOBSTER	TURTLE
FISHERMEN:	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
ON VESSELS . . . . .	1	7	-	16	13	-
ON BOATS AND SHORE:						
REGULAR . . . . .	8	39	6	29	7	-
CASUAL . . . . .	-	4	12	2	2	9
TOTAL . . . . .	9	50	18	49	22	9
VESSELS, MOTOR . . . . .	1	5	-	9	7	-
GROSS TONNAGE . . . . .	8	57	-	91	73	-
BOATS, MOTOR . . . . .	8	38	16	24	6	9
GEAR, NUMBER . . . . .	16	3,961	323	16,775	2,900	150

ITEM	ANCHOR, SET OR STAKE	GILL NETS		RUNAROUND
		DRIFT		
		SHAD	OTHER	
FISHERMEN:	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
ON VESSELS . . . . .	9	-	35	15
ON BOATS AND SHORE:				
REGULAR . . . . .	47	1	36	36
CASUAL . . . . .	44	13	6	6
TOTAL . . . . .	100	14	77	57
VESSELS, MOTOR . . . . .	4	-	15	7
GROSS TONNAGE . . . . .	43	-	203	54
BOATS:				
MOTOR . . . . .	55	8	18	18
OTHER . . . . .	5	2	-	-
GEAR:				
NUMBER . . . . .	56	9	37	25
SQUARE YARDS . . . . .	70,607	7,695	255,701	199,100

(CONTINUED ON NEXT PAGE)

# MIDDLE ATLANTIC FISHERIES

159

## NEW JERSEY - OPERATING UNITS BY GEAR, 1963 - Continued

ITEM	LINES				
	HAND	TROLL		LONG OR SET WITH HOOKS	TROT WITH BAITS
		TUNA	OTHER		
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:					
ON VESSELS . . . . .	17	4	23	156	-
ON BOATS AND SHORE:					
REGULAR . . . . .	7	-	12	46	4
CASUAL . . . . .	48	-	25	-	8
TOTAL . . . . .	72	4	60	202	12
VESSELS, MOTOR . . . . .	9	1	11	55	-
GROSS TONNAGE . . . . .	101	68	119	1,242	-
BOATS, MOTOR . . . . .	34	-	37	29	12
GEAR:					
NUMBER . . . . .	113	2	82	84	14
HOOKS OR BAITS . . . . .	165	2	82	163,450	8,700

ITEM	PUSH NETS	HARPOONS	SPEARS	DREDGES	
				CLAM	CRAB
		<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:					
ON VESSELS . . . . .	-	28	-	168	54
ON BOATS AND SHORE:					
REGULAR . . . . .	-	3	1	-	3
CASUAL . . . . .	9	-	4	-	-
TOTAL . . . . .	9	31	5	168	57
VESSELS, MOTOR . . . . .	-	7	-	56	19
GROSS TONNAGE . . . . .	-	360	-	2,960	481
BOATS:					
MOTOR . . . . .	-	1	5	-	3
OTHER . . . . .	9	-	-	-	-
GEAR:					
NUMBER . . . . .	9	8	5	59	42
YARDS AT MOUTH . . . . .	-	-	-	76	57

ITEM	DREDGES - CONTINUED			TONGS	
	OYSTER, COMMON	SCALLOP	OTHER	OYSTER	OTHER
		<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:					
ON VESSELS . . . . .	315	97	25	-	-
ON BOATS AND SHORE:					
REGULAR . . . . .	19	165	-	133	390
CASUAL . . . . .	9	-	-	67	630
TOTAL . . . . .	343	262	25	200	1,020
VESSELS, MOTOR . . . . .	43	9	10	-	-
GROSS TONNAGE . . . . .	1,465	941	321	-	-
BOATS:					
MOTOR . . . . .	13	90	-	160	820
OTHER . . . . .	-	-	-	-	150
GEAR:					
NUMBER . . . . .	105	198	11	200	1,020
YARDS AT MOUTH . . . . .	105	212	35	-	-

ITEM	RAKES	HOES	BY HAND	TOTAL, EXCLUSIVE OF DUPLICATION
				NUMBER
		<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:				
ON VESSELS . . . . .	-	-	-	1,881
ON BOATS AND SHORE:				
REGULAR . . . . .	240	4	210	663
CASUAL . . . . .	450	10	470	1,136
TOTAL . . . . .	690	14	680	3,682
VESSELS, MOTOR . . . . .	-	-	-	353
GROSS TONNAGE . . . . .	-	-	-	19,448
BOATS:				
MOTOR . . . . .	611	14	552	1,471
OTHER . . . . .	50	-	43	208
GEAR, NUMBER . . . . .	690	14	-	-

## MIDDLE ATLANTIC FISHERIES

## NEW JERSEY - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		STOP SEINES		PURSE SEINES	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	3,400	\$128	-	-	-	-
BLUEFISH . . . . .	-	-	-	-	46,700	\$6,694
BUTTERFISH . . . . .	-	-	-	-	2,000	344
CARP . . . . .	33,200	1,702	51,100	\$3,208	-	-
CATFISH . . . . .	33,400	2,728	-	-	-	-
DRUM, BLACK . . . . .	-	-	-	-	100	8
EELS, COMMON . . . . .	100	10	-	-	-	-
FLOUNDERS:						
BLACKBACK . . . . .	100	8	-	-	900	68
FLUKE . . . . .	-	-	-	-	1,500	448
MENHADEN . . . . .	-	-	-	-	166,148,000	2,030,537
MULLET . . . . .	44,000	6,800	-	-	-	-
SCUP OR PORGY . . . . .	-	-	-	-	5,631,200	512,725
SEA BASS . . . . .	-	-	-	-	3,000	192
SEA TROUT OR WEAKFISH, GRAY . . . . .	-	-	-	-	600	164
SHAD . . . . .	10,900	1,388	-	-	-	-
SHARKS, UNCLASSIFIED . . . . .	-	-	-	-	1,900	76
STRIPED BASS . . . . .	14,100	3,049	-	-	11,700	2,944
STURGEON . . . . .	-	-	-	-	300	42
TAUTOG . . . . .	-	-	-	-	2,700	96
TUNA, BLUEFIN . . . . .	-	-	-	-	2,811,300	153,527
WHITE PERCH . . . . .	42,200	4,281	-	-	-	-
TOTAL . . . . .	161,400	22,094	51,100	3,208	174,663,900	2,707,865

SPECIES	BEAM TRAWLS		OTTER TRAWLS		WEIRS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
AMBERJACK . . . . .	-	-	200	\$7	-	-
ANGLERFISH . . . . .	-	-	400	8	-	-
BLUEFISH . . . . .	-	-	33,600	5,063	-	-
BONITO . . . . .	-	-	300	52	-	-
BUTTERFISH . . . . .	-	-	1,232,600	112,098	-	-
COO . . . . .	-	-	125,000	15,473	-	-
DRUM, BLACK . . . . .	-	-	2,400	126	-	-
EELS:						
COMMON . . . . .	-	-	-	-	4,500	\$1,600
CONGER . . . . .	-	-	2,300	52	-	-
FLOUNDERS:						
BLACKBACK . . . . .	-	-	162,100	8,472	-	-
DAB . . . . .	-	-	2,500	45	-	-
FLUKE . . . . .	-	-	4,391,000	1,033,086	-	-
GRAY SOLE . . . . .	-	-	27,200	1,665	-	-
YELLOWTAIL . . . . .	-	-	12,700	479	-	-
UNCLASSIFIED . . . . .	-	-	300	9	-	-
HAODOCK . . . . .	-	-	3,200	247	-	-
HAKE:						
RED . . . . .	-	-	741,200	19,319	-	-
WHITE . . . . .	-	-	115,500	6,182	-	-
HERRING, SEA . . . . .	-	-	17,600	359	-	-
KING WHITING OR "KINGFISH" . . . . .	-	-	11,100	951	-	-
MACKEREL . . . . .	-	-	19,100	2,645	-	-
MENHADEN . . . . .	-	-	-	-	100	3
POLLOCK . . . . .	-	-	1,900	136	-	-
SCUP OR PORGY . . . . .	-	-	6,627,700	534,922	-	-
SEA BASS . . . . .	-	-	929,600	109,690	-	-
SEA TROUT OR WEAKFISH, GRAY . . . . .	-	-	278,600	26,656	-	-
SHAD . . . . .	-	-	3,800	204	-	-
SHARKS:						
GRAYFISH . . . . .	-	-	3,700	123	-	-
UNCLASSIFIED . . . . .	-	-	2,200	68	-	-
STRIPED BASS . . . . .	-	-	644,200	67,530	-	-
STURGEON . . . . .	-	-	9,100	1,346	-	-
SWELLFISH . . . . .	-	-	146,800	5,368	-	-
SWORDFISH . . . . .	-	-	100	32	-	-
TAUTOG . . . . .	-	-	4,600	119	-	-
TJLEFISH . . . . .	-	-	30,700	2,747	-	-
WHITE PERCH . . . . .	-	-	1,700	294	-	-
WHITING . . . . .	-	-	3,402,600	142,654	-	-
UNCLASSIFIED:						
FOR FOOD . . . . .	-	-	7,100	337	-	-
BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	-	-	32,600	559	-	-
CRABS:						
BLUE, HARD . . . . .	-	-	200	16	-	-
ROCK . . . . .	-	-	20,000	542	-	-
HORSHOE CRABS . . . . .	-	-	-	-	201,200	1,007
LOBSTERS, NORTHERN . . . . .	-	-	705,100	311,289	-	-

(CONTINUED ON NEXT PAGE)

# MIDDLE ATLANTIC FISHERIES

161

## NEW JERSEY - CATCH BY GEAR, 1963 - Continued

SPECIES	BEAM TRAWLS		OTTER TRAWLS		WEIRS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
SHRIMP . . . . .	6,000	\$6,000	-	-	-	-
CONCHS . . . . .	-	-	58,000	\$10,072	-	-
SCALLOPS, SEA . . . . .	-	-	3,900	1,939	-	-
SQUID . . . . .	-	-	795,900	41,689	-	-
TOTAL . . . . .	6,000	6,000	20,810,000	2,485,314	205,800	\$2,810

SPECIES	POUND NETS		FYKE AND HOOP NETS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH . . . . .	197,500	\$26,407	-	-	-	-
BUTTERFISH . . . . .	149,600	12,699	-	-	-	-
COD . . . . .	-	-	-	-	200	\$23
DRUM, BLACK . . . . .	3,700	187	-	-	-	-
EELS:						
COMMON . . . . .	700	103	-	-	17,300	2,749
CONGER . . . . .	-	-	-	-	100	2
FLOUNDERS:						
BLACKBACK . . . . .	1,800	168	19,600	\$1,960	-	-
FLUKE . . . . .	34,700	9,130	-	-	-	-
GRUNTS . . . . .	-	-	-	-	100	4
HAKE, RED . . . . .	6,400	170	-	-	20,800	454
HERRING, SEA . . . . .	132,600	2,449	-	-	-	-
MENHADEN . . . . .	12,111,800	163,169	-	-	-	-
SCUP OR PORGY . . . . .	250,300	17,044	-	-	13,500	1,515
SEA BASS . . . . .	-	-	-	-	1,876,600	223,283
SEA ROBIN . . . . .	19,700	333	-	-	-	-
SEA TROUT OR WEAKFISH, GRAY . . . . .	15,200	2,805	-	-	-	-
SHAD . . . . .	105,800	17,278	300	40	-	-
SHARKS, UNCLASSIFIED . . . . .	500	10	-	-	-	-
STRIPED BASS . . . . .	3,100	600	-	-	-	-
STURGEON . . . . .	3,500	804	-	-	-	-
SWELLFISH . . . . .	12,500	500	-	-	900	33
TAUTOG . . . . .	2,900	101	-	-	43,000	906
WHITE PERCH . . . . .	100	12	5,900	1,488	-	-
WHITING . . . . .	2,600	107	-	-	-	-
UNCLASSIFIED, FOR FOOD . . . . .	300	20	400	32	3,800	174
CRABS:						
BLUE:						
HARD . . . . .	-	-	-	-	694,200	88,631
SOFT AND PEELER . . . . .	-	-	-	-	33,200	6,640
ROCK . . . . .	-	-	-	-	2,800	170
LOBSTERS, NORTHERN . . . . .	-	-	-	-	45,200	25,442
CONCHS . . . . .	-	-	-	-	200	38
TURTLES:						
LOGGERHEAD . . . . .	700	70	-	-	-	-
SNAPPER . . . . .	-	-	200	20	38,800	4,656
TOTAL . . . . .	13,056,000	254,166	26,400	3,540	2,790,700	354,720

SPECIES	GILL NETS					
	ANCHOR, SET OR STAKE		DRIFT		RUNAROUND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH . . . . .	-	-	241,500	\$26,756	296,100	\$31,503
BONITO . . . . .	-	-	50,000	3,788	4,400	550
BUTTERFISH . . . . .	-	-	1,700	213	200	17
DRUM, BLACK . . . . .	-	-	600	42	100	8
HERRING, SEA . . . . .	-	-	200	5	-	-
KING WHITING OR "KINGFISH" . . . . .	-	-	400	61	100	10
MACKEREL . . . . .	-	-	64,600	14,110	-	-
MENHADEN . . . . .	22,000	\$440	94,900	2,814	300	15
SCUP OR PORGY . . . . .	-	-	1,100	55	4,500	604
SEA TROUT OR WEAKFISH, GRAY . . . . .	-	-	3,000	584	33,800	6,557
SHAD . . . . .	299,100	64,663	22,100	6,331	-	-
SHARKS, UNCLASSIFIED . . . . .	-	-	700	24	-	-
STRIPED BASS . . . . .	42,400	5,932	900	165	2,900	516
STURGEON . . . . .	-	-	100	32	200	29
TUNA, BLUEFIN . . . . .	-	-	300	39	-	-
WHITE PERCH . . . . .	4,400	384	7,500	1,126	1,200	144
WHITING . . . . .	-	-	3,600	111	-	-
UNCLASSIFIED, FOR FOOD . . . . .	-	-	200	14	-	-
TOTAL . . . . .	367,900	71,419	493,400	56,270	343,800	39,953

(CONTINUED ON NEXT PAGE)

## MIDDLE ATLANTIC FISHERIES

## NEW JERSEY - CATCH BY GEAR, 1963 - Continued

SPECIES	LINES							
	HAND		TROLL		LONG OR SET WITH HOOKS		TROT WITH BAITS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH . . . . .	1,000	\$117	3,800	\$507	800	\$76	-	-
BONITO . . . . .	-	-	100	11	-	-	-	-
CATFISH . . . . .	1,500	150	-	-	-	-	-	-
COD . . . . .	1,600	201	-	-	977,900	127,215	-	-
HAKE, RED . . . . .	1,200	4	-	-	-	-	-	-
MACKEREL . . . . .	16,900	3,379	-	-	-	-	-	-
SCUP OR PORGY . . . . .	500	44	-	-	-	-	-	-
SEA BASS . . . . .	3,100	325	-	-	-	-	-	-
SEA TROUT OR WEAKFISH, GRAY, SHARKS:	800	183	800	102	-	-	-	-
GRAYFISH . . . . .	-	-	-	-	400	15	-	-
UNCLASSIFIED . . . . .	-	-	-	-	700	32	-	-
STRIPED BASS . . . . .	2,100	415	27,700	4,025	4,200	761	-	-
SWELLFISH . . . . .	400	14	-	-	-	-	-	-
SWORDFISH . . . . .	-	-	-	-	186,500	86,872	-	-
TAUTOG . . . . .	300	10	-	-	-	-	-	-
TUNA, BLUEFIN . . . . .	100	24	200	10	16,000	1,909	-	-
WHITE PERCH . . . . .	200	34	-	-	-	-	-	-
WHITING . . . . .	100	3	-	-	-	-	-	-
UNCLASSIFIED, FOR FOOD . . . . .	-	-	-	-	300	14	-	-
CRABS, BLUE, HARD . . . . .	-	-	-	-	-	-	36,200	\$4,525
TOTAL . . . . .	30,400	5,006	32,600	4,655	1,186,800	216,894	36,200	4,525

SPECIES	PUSH NETS		HARPOONS		SPEARS		DREDGES	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
EELS, COMMON . . . . .	-	-	-	-	1,200	\$230	-	-
FLOUNDER:	-	-	-	-	-	-	-	-
BLACKBACK . . . . .	-	-	-	-	-	-	400	\$22
FLUKE . . . . .	-	-	-	-	-	-	16,400	4,332
SWORDFISH . . . . .	-	-	6,300	\$2,648	-	-	-	-
CRABS, BLUE, HARD . . . . .	-	-	-	-	-	-	130,400	11,622
LOBSTERS, NORTHERN . . . . .	-	-	-	-	-	-	100	38
SHRIMP . . . . .	1,000	\$1,000	-	-	-	-	-	-
CLAMS:	-	-	-	-	-	-	-	-
HARD, PRIVATE . . . . .	-	-	-	-	-	-	13,200	4,605
SURF . . . . .	-	-	-	-	-	-	37,548,400	2,580,151
CONCHS . . . . .	-	-	-	-	-	-	465,400	102,058
OYSTERS, MARKET:	-	-	-	-	-	-	-	-
PUBLIC:	-	-	-	-	-	-	-	-
SPRING . . . . .	-	-	-	-	-	-	400	542
FALL . . . . .	-	-	-	-	-	-	2,100	2,850
PRIVATE:	-	-	-	-	-	-	-	-
SPRING . . . . .	-	-	-	-	-	-	11,100	13,169
FALL . . . . .	-	-	-	-	-	-	434,200	465,963
SCALLOPS:	-	-	-	-	-	-	-	-
BAY . . . . .	-	-	-	-	-	-	273,900	112,172
SEA . . . . .	-	-	-	-	-	-	169,800	81,309
TOTAL . . . . .	1,000	1,000	6,300	2,648	1,200	230	39,065,600	3,378,833

SPECIES	TONGS		RAKES		HOCS		BY HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CLAMS:	-	-	-	-	-	-	-	-
HARD, PUBLIC . . . . .	619,300	\$236,189	432,400	\$178,796	-	-	519,500	\$214,762
SOFT, PUBLIC . . . . .	-	-	-	-	9,900	\$4,109	5,500	2,283
OYSTERS, MARKET:	-	-	-	-	-	-	-	-
PUBLIC:	-	-	-	-	-	-	-	-
SPRING . . . . .	3,400	3,888	-	-	-	-	-	-
FALL . . . . .	59,400	65,818	-	-	-	-	-	-
PRIVATE:	-	-	-	-	-	-	-	-
SPRING . . . . .	3,000	4,066	-	-	-	-	-	-
FALL . . . . .	1,800	2,441	-	-	-	-	-	-
TERRAPIN . . . . .	-	-	3,400	1,190	-	-	-	-
TURTLES:	-	-	-	-	-	-	-	-
SNAPPER . . . . .	-	-	4,300	516	-	-	-	-
UNCLASSIFIED . . . . .	-	-	1,800	90	-	-	-	-
TOTAL . . . . .	686,900	312,402	441,900	180,592	9,900	4,109	525,000	217,045

# MIDDLE ATLANTIC FISHERIES

163

## DELAWARE

### OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	PURSE SEINES, MENHADEN	OTTER TRAWLS, FISH	FYKE AND HOOP NETS	
				FISH	TURTLE
FISHERMEN:	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
ON VESSELS . . . . .	-	357	6	-	-
ON BOATS AND SHORE:					
REGULAR . . . . .	-	-	2	10	2
CASUAL . . . . .	18	-	-	35	5
TOTAL . . . . .	18	357	8	45	7
VESSELS, MOTOR . . . . .	-	21	3	-	-
GROSS TONNAGE . . . . .	-	4,203	78	-	-
BOATS:					
MOTOR . . . . .	2	42	1	23	6
OTHER . . . . .	4	-	-	-	-
GEAR:					
NUMBER . . . . .	2	21	4	63	129
LENGTH, YARDS . . . . .	1,250	7,420	-	-	-
YARDS AT MOUTH . . . . .	-	-	86	-	-

ITEM	POTS AND TRAPS		ANCHOR, SET OR STAKE	GILL NETS	
	CRAB	EEL		DRIFT	
				SHAD	OTHER
FISHERMEN, ON BOATS AND SHORE:	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
REGULAR . . . . .	18	2	26	-	-
CASUAL . . . . .	6	2	52	7	2
TOTAL . . . . .	24	4	78	7	2
BOATS, MOTOR . . . . .	15	2	40	5	1
GEAR:					
NUMBER . . . . .	1,469	80	40	5	1
SQUARE YARDS . . . . .	-	-	49,010	3,800	3,600

ITEM	LINES, LONG OR SET WITH HOOKS	DREDGES		
		CLAM	CRAB	OYSTER, COMMON
FISHERMEN:	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
ON VESSELS . . . . .	6	24	28	12
ON BOATS AND SHORE:				
REGULAR . . . . .	-	-	-	5
CASUAL . . . . .	2	-	-	-
TOTAL . . . . .	8	24	28	17
VESSELS, MOTOR . . . . .	2	8	11	3
GROSS TONNAGE . . . . .	24	303	284	98
BOATS, MOTOR . . . . .	1	-	-	2
GEAR:				
NUMBER . . . . .	6	15	15	9
YARDS AT MOUTH . . . . .	-	19	29	13
HOOKS OR BAITS . . . . .	4,020	-	-	-

ITEM	TONGS	RAKES	TOTAL, EXCLUSIVE OF DUPLI- CATION
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:			
ON VESSELS . . . . .	-	-	409
ON BOATS AND SHORE:			
REGULAR . . . . .	25	15	71
CASUAL . . . . .	20	84	182
TOTAL . . . . .	45	99	662
VESSELS, MOTOR . . . . .	-	-	39
GROSS TONNAGE . . . . .	-	-	4,689
BOATS:			
MOTOR . . . . .	28	-	141
OTHER . . . . .	10	-	14
GEAR, NUMBER . . . . .	45	99	-

## MIDDLE ATLANTIC FISHERIES

## DELAWARE - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		PURSE SEINES		OTTER TRAWLS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUTTERFISH	-	-	-	-	2,300	\$233
FLOUNDERS, FLUKE	-	-	-	-	14,800	3,254
KING WHITING OR "KINGFISH"	-	-	-	-	5,800	415
MENHADEN	-	-	102,823,600	\$1,059,083	-	-
SEA TROUT OR WEAKFISH, GRAY	23,000	\$2,760	-	-	104,800	9,674
STRIPED BASS	-	-	-	-	1,000	258
WHITE PERCH	-	-	-	-	7,000	439
CONCHS	-	-	-	-	6,000	525
TOTAL	23,000	2,760	102,823,600	1,059,083	141,700	14,798

SPECIES	FYKE AND HOOP NETS		POTS AND TRAPS		GILL NETS ANCHOR, SET OR STAKE	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH	-	-	-	-	21,300	\$3,195
CARP	-	-	-	-	7,500	750
CATFISH	1,500	\$150	-	-	-	-
CELLS, COMMON	-	-	12,000	\$840	-	-
FLOUNDERS:						
BLACKBACK	37,000	2,960	-	-	-	-
FLUKE	2,000	160	-	-	-	-
HERRING, SEA	300	6	-	-	-	-
KING WHITING OR "KINGFISH"	-	-	-	-	1,000	150
SEA TROUT OR WEAKFISH, GRAY	100	8	-	-	19,700	4,125
SHAD	-	-	-	-	97,900	12,862
SPOT	500	100	-	-	-	-
STRIPED BASS	-	-	-	-	46,700	8,709
SWELLFISH	7,000	140	-	-	-	-
WHITE PERCH	2,000	240	-	-	12,400	1,398
CRABS, BLUE:						
HARD	-	-	256,100	19,392	-	-
SOFT AND PEELER	-	-	3,400	1,207	-	-
TURTLES, SNAPPER	9,800	920	-	-	-	-
TOTAL	60,200	4,684	271,500	21,439	206,500	31,189

SPECIES	GILL NETS- CONTINUED DRIFT		LINES, LONG OR SET WITH HOOKS		DREDGES	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
COD, RED	-	-	87,900	\$10,931	-	-
HARE, RED	-	-	800	23	-	-
SHAD	2,200	\$538	-	-	-	-
STURGEON	1,700	504	-	-	-	-
CRABS, BLUE, HARD	-	-	-	-	266,200	\$14,238
CLAMS, HARD:						
PUBLIC	-	-	-	-	37,400	15,190
PRIVATE	-	-	-	-	143,100	58,143
OYSTERS, MARKET, PRIVATE:						
SPRING	-	-	-	-	11,800	7,200
FALL	-	-	-	-	28,600	17,886
TOTAL	3,900	1,042	89,700	10,954	467,100	112,657

SPECIES	TONGS		RAKES	
	POUNDS	VALUE	POUNDS	VALUE
CLAMS, HARD, PUBLIC	24,500	\$9,936	57,100	\$23,186
TOTAL	24,500	9,936	57,100	23,186



MENHADEN

# MIDDLE ATLANTIC FISHERIES

165

## HUDSON RIVER SHAD FISHERY

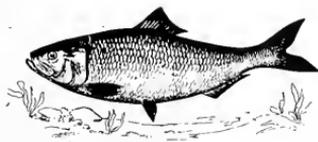
In 1963, the spring run of shad in the Hudson River yielded a commercial catch of 98,074 fish weighing 348,018 pounds, valued at \$81,825 to the fishermen. Compared with the previous year, the poundage declined 34 percent but the value increased 5 percent. Fishermen received an average of nearly 24 cents per pound for shad during 1963 compared with about 15 cents in 1962.

During 1963, there were 142 fishermen employed in the Hudson River shad fishery--26 less than in 1962. Statistics on the 1963 operating units and catch of shad in the Hudson River by New York and New Jersey fishermen are included in the operating unit and catch data for those States.

### SUMMARY OF OPERATING UNITS AND CATCH, 1963

ITEM	NEW YORK			NEW JERSEY			TOTAL		
	NUMBER			NUMBER			NUMBER		
OPERATING UNITS									
FISHERMEN:									
ON BOATS AND SHORE:									
REGULAR . . . . .	6			6			12		
CASUAL . . . . .	102			26			130		
TOTAL . . . . .	108			34			142		
BOATS:									
MOTOR . . . . .	56			21			77		
OTHER . . . . .	-			6			6		
GEAR:									
HAUL SEINES . . . . .	3			-			3		
LENGTH, YARDS . . . . .	393			-			393		
GILL NETS:									
ANCHOR, SET OR STAKE . . . . .	37			9			46		
SQUARE YARDS . . . . .	66,434			19,243			85,677		
DRIFT . . . . .	35			2			37		
SQUARE YARDS . . . . .	101,784			3,554			105,338		
CATCH	NUMBER	POUNDS	VALUE	NUMBER	POUNDS	VALUE	NUMBER	POUNDS	VALUE
SHAD:									
HAUL SEINES . . . . .	500	1,700	\$290	-	-	-	500	1,700	\$290
GILL NETS:									
ANCHOR, SET OR STAKE . . . . .	16,950	61,519	14,569	57,496	208,854	\$54,302	74,446	270,373	66,871
DRIFT . . . . .	21,261	69,345	10,948	1,867	6,600	1,716	23,126	75,945	12,654
TOTAL . . . . .	38,711	132,564	25,807	59,363	215,454	56,018	98,074	348,018	81,825

NOTE:--THESE DATA REFLECT THE CATCH OF SHAD IN THE HUDSON RIVER BETWEEN WEEHAWKEN, N. J. AND ALBANY, N. Y.



SHAD

# SECTION 4 - CHESAPEAKE FISHERIES

The commercial catch of fish and shellfish landed in Maryland and Virginia during 1963 totaled 430 million pounds, valued at \$30 million to the fishermen. Compared with 1962, this was a decrease of 91 million pounds (18 percent), and \$3.8 million (11 percent). The decline in menhaden and hard blue crabs was the principal cause of the lower landings. Landings of oysters, spot, shad, white perch, and fluke were down also, while tuna, soft clams, hard clams, and striped bass were up.

The landings were divided between Virginia, 375 million pounds, 87 percent; and Maryland, 55 million pounds, 13 percent. In value, the disparity was less, with Virginia landings worth \$19 million, 64 percent; and Maryland, \$11 million, 36 percent. The great difference in poundage was due to the Virginia menhaden fishery, which accounted for 68 percent of that State's catch.

Fishermen and vessels. There were 17,784 fishermen engaged in the fisheries of the Chesapeake area during 1963--978 more than in 1962--1,274 vessels of 5 net tons and over, 9,495 motor boats, and 888 other boats. There was a total increase of 662 craft, principally in the Potomac River oyster fishery.

Processing. The value of the 1963 manufactured fishery products in the Chesapeake States was \$58.1--\$3.5 million less than in 1962. This decrease was due mainly to a decline in the value of menhaden meal and scrap, picked crabmeat, and shucked oysters in Virginia. Of the total value, Maryland had 62 percent and Virginia 38 percent.

Weather. Weather was an unusually strong controlling factor in the fisheries in 1963. January and February were exceptionally cold, with harbors, rivers and portions of the Chesapeake Bay freezing over so that fishermen had to be inactive. Principally affected was the oyster industry. The severe cold was also blamed for the late and small spring runs of fish. The poor hard crab season was attributed to the cold, as many crabs died during these months.

Labor. The wage-hour law of 1961 continued in effect, with packers having adjusted to the higher minimum wage. In most instances, dealers were able to obtain exemption certificates for slower or older workers. There were no great changes in automation of the crab meat or oyster industries during the year.

Legislation. The Potomac River Fisheries Commission was organized and assumed regulation of the fisheries in the Potomac River in June 1963. It has six members--three from Maryland and three from Virginia--who are responsible for the duties of law making, licensing, and taxing, previously performed by the State of Maryland which owns the river and which formerly had granted fishing privileges to Virginia fishermen. Officers and boats from the fishery departments of both States engage in enforcement activities.

After extensive legislative consideration, the James River channel-dredging project was delayed until reports from engineering experts could be submitted. Those in favor of the project were industrialists wishing to make the City of Richmond accessible to deep-draft vessels; those opposed were a group of Hampton Roads industrialists and a large group of oyster tongers both of whom feared that the oyster beds would be damaged by the project. The State of Virginia provided money for a working model of the river.

Oysters. Oyster landings of 18 million pounds of meats were down 8 percent from the 1962 total, a continuation of the decline of the past few years. This was a new low in catch for the Chesapeake area. The adverse winter weather, poor sets of spat, and losses in Virginia due to the MSX organism caused the reduced catch. Prices remained steady and fairly high throughout the year, and the quality of the meats was generally excellent.

The Maryland efforts at rehabilitation of the oyster industry by dredging and scattering old shells to catch spat began to show results in the autumn catch. Unfortunately, results were not as good as anticipated because the first year (1960) in which shells were distributed was a very poor year for setting. During the spring, packers with little local production purchased shellstock and some shucked oysters from Gulf Coast States to fill orders and meet competition. During 1963, Virginia continued its rehabilitation program. The production of seed oysters was nearly one million State bushels valued at \$1.3 million, which was a 27-percent drop in volume and 11-percent in value from the 1962 harvest. The decrease was due to a poor set of spat.

Blue Crabs. Hard blue crab production of 63 million pounds was a 22-percent decline from the record catch of 81 million pounds taken in 1962. The catch of peeler and soft crabs also declined from over 5 million pounds in 1962 to 3 million pounds in 1963. Adverse weather during the winter and spring was considered partially responsible for the decline. Catches were very poor all spring, and it was August before near normal landings were made. Crab pot fishermen were also plagued all season by being unable to obtain a regular supply of menhaden, the most commonly used bait.

Clams. Hard clam production of 2.6 million pounds of meats was a 25-percent increase over the 1962 total. A portion of the increase can be attributed to the fact that the 1962 production was held down by a spring storm which disturbed the clam beds.

Soft clam landings of 6.9 million pounds of meats were up a modest 1 percent over the 1962 record catch. All the production was from Maryland. As in past years, locating new markets was a problem. This resource is capable of yielding far more than can be marketed at the present time.

Menhaden. Menhaden landings were 259 million pounds--69 million (21 percent) below the 1962 total. Purse seiners landed 219 million pounds, and fishermen using other gears landed 40 million. The menhaden industry is concentrated in Virginia, where purse seining is allowed for industrial processing. Menhaden reduction products in 1963 were valued at \$5 million. Part of the catch was used for bait. Menhaden for bait were so scarce in the summer that the price more than doubled that at the beginning of the season.

Alewives. The catch of alewives was 27.6 million pounds--only 100,000 pounds below the bumper crop of 1962. The production was used principally for canning, curing, and reduction into meal and oil. There were signs in the Chesapeake of the growing importance of alewives in pet food. The pet food pack was up in 1963 and is expected to expand further. The value of the canned alewife production, including the pack for pet food, was close to \$1 million.

Tuna. For the first time, West Coast purse seine vessels landed Pacific tuna in Maryland. These vessels also landed Atlantic-caught tuna in the State and at other ports on the East Coast. Three million pounds of bluefin, skipjack, and yellowfin tuna were landed in Maryland. Most of the tuna landed on the East Coast was canned in the Maryland canneries.

Swordfish. This new Virginia fishery promised to be a year-round activity for fishing crews and dealers. At the outset, favorable prices induced Virginia boats to outfit with the necessary longlines, but later in the year, heavy landings in New England drove prices down, causing some Virginia vessels to withdraw. At the close of the year, however, all signs pointed to a continuing and thriving fishery as dealers sought new markets outside New England.

Croakers. Croakers almost disappeared from the Chesapeake area in 1963. Only 124,000

# CHESAPEAKE FISHERIES

pounds were landed--a drop of 90 percent from the previous year and the lowest catch ever recorded. In 1945, the catch was a record 57.7 million pounds.

Fresh-water fish. Many Chesapeake tributaries have extensive fresh-water areas. In some localities there is a year-round fishery for catfish, the principal species taken from these waters. The fish are handled in two principal ways--live and dressed (skinned). Live are for stocking farm and recreation impoundments; and dressed, for the active demand of out-of-State markets. Carp, eels, white and yellow perch, and snapper turtles are the more plentiful of the remaining fresh-water species that are regularly fished. In 1963, the catfish catch was 2 million pounds--a drop of 700,000 pounds (25 percent) below 1962. The other species were minor in quantity compared with catfish but found ready acceptance in specialized outlets.

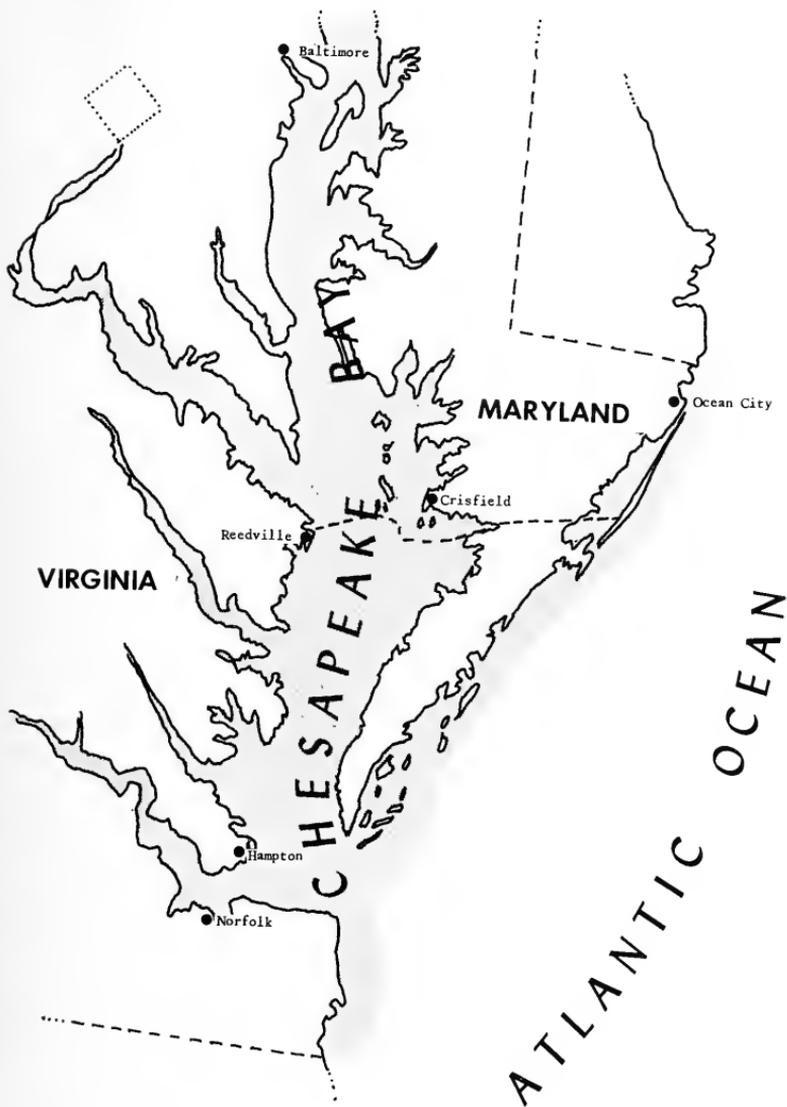
Fish kills. Extensive fish kills occurred during the summer. White perch was the dominant species in the kills, with a few striped bass and other species reported. The kills started on the western shore of the bay and traveled up that side to the head of the bay and then down the eastern shore. Biologists working on the problem attributed the kill, in some instances, to bacteria found in the kidneys and blood stream of the affected fish.

Other information. Condensed summary data on the operating units and catch, by States, appearing on the following pages have been previously published in Current Fishery Statistics No. 3616. The catch of fish and shellfish in the bay and ocean areas of Maryland and Virginia is shown at the end of this section. Additional data may be found in the Maryland and Virginia monthly and annual landing bulletins published by the Branch of Fishery Statistics in cooperation with the respective States. Information on the daily, monthly, and annual production of fishery products in selected areas of these States is available in reports published by the Bureau's Fishery Market News Office at Hampton, Va.

Acknowledgments. The following organizations helped collect the data appearing in this section: Maryland Department of Tidewater Fisheries, Natural Resources Institute of the University of Maryland, Potomac River Fisheries Commission, Virginia Commission of Fisheries, and Virginia Institute of Marine Science.



# CHESAPEAKE FISHERIES



CHESAPEAKE STATES

## CHESAPEAKE FISHERIES

## SECTIONAL SUMMARIES

## SUMMARY OF CATCH, 1963

(MILLIONS OF POUNDS AND MILLIONS OF DOLLARS)

STATE	FISH		SHELLFISH, ETC.		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
MARYLAND . . . . .	21	1	34	10	55	11
VIRGINIA . . . . .	314	7	61	12	375	19
TOTAL . . . . .	335	8	95	22	430	30

## SUMMARY OF OPERATING UNITS, 1963

ITEM	MARYLAND	VIRGINIA	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER
FISHERMEN:			
ON VESSELS . . . . .	1,382	2,434	3,795
ON BOATS AND SHORE:			
REGULAR . . . . .	4,109	3,970	8,079
CASUAL . . . . .	3,266	2,644	5,910
TOTAL . . . . .	8,757	9,048	17,784
VESSELS:			
MOTOR . . . . .	457	759	1,209
GROSS TONNAGE . . . . .	6,104	20,363	26,281
SAIL . . . . .	65	-	65
GROSS TONNAGE . . . . .	720	-	720
TOTAL VESSELS . . . . .	522	759	1,274
TOTAL GROSS TONNAGE . . . . .	6,824	20,363	27,001
BOATS:			
MOTOR . . . . .	5,650	3,846	9,495
OTHER . . . . .	269	619	888
GEAR:			
HAUL SEINES, COMMON	112	140	252
LENGTH, YARDS . . . . .	48,900	82,200	131,100
PURSE SEINES:			
MENHADEN . . . . .	1	39	39
LENGTH, YARDS . . . . .	375	14,510	14,510
TUNA . . . . .	5	-	5
LENGTH, YARDS . . . . .	3,960	-	3,960
OTTER TRAWLS, FISH . . . . .	18	65	83
YARDS AT MOUTH . . . . .	472	1,670	2,142
POUND NETS:			
CRAB . . . . .	6	2,799	2,805
FISH . . . . .	264	711	975
FYKE AND HOOP NETS, FISH . . . . .	719	479	1,198
POTS AND TRAPS:			
CRAB . . . . .	59,983	132,100	192,083
EEL . . . . .	6,020	1,013	7,033
FISH . . . . .	687	4,091	4,778
TURTLE . . . . .	185	62	247
BOX TRAPS . . . . .	-	4	4
SLAT TRAPS . . . . .	-	3	3
GILL NETS:			
ANCHDR, SET OR STAKE . . . . .	1,619	1,279	2,898
SQUARE YARDS . . . . .	1,738,615	745,720	2,484,335
DRIFT . . . . .	492	552	1,044
SQUARE YARDS . . . . .	773,144	672,300	1,445,444
LINEs:			
HAND . . . . .	210	1,186	1,396
HOOKS . . . . .	210	1,186	1,396
LONG OR SET WITH HOOKS . . . . .	9	71	80
HOOKS . . . . .	10,750	14,690	25,440
TROT WITH BAITS . . . . .	2,160	145	2,305
BAITS . . . . .	850,675	83,710	934,385
DIP NETS, COMMON . . . . .	167	248	415
SCRAPES . . . . .	454	160	614
YARDS AT MOUTH . . . . .	475	252	727
DREDGES:			
CLAM . . . . .	276	37	312
YARDS AT MOUTH . . . . .	278	30	307
CRAB . . . . .	1	406	407
YARDS AT MOUTH . . . . .	2	664	666
OYSTER, COMMON . . . . .	190	505	695
YARDS AT MOUTH . . . . .	206	585	791
SCALLOP . . . . .	-	6	6
YARDS AT MOUTH . . . . .	-	21	21
TONGS:			
OYSTER . . . . .	3,915	2,630	6,544
OTHER . . . . .	99	931	1,030
RAKES:			
OYSTER . . . . .	-	35	35
OTHER . . . . .	-	738	738

# CHESAPEAKE FISHERIES

171

## CATCH BY STATES, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	MARYLAND		VIRGINIA		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH						
ALEWIVES . . . . .	1,466	22	26,085	459	27,551	481
BLUEFISH . . . . .	42	5	632	79	674	84
BONITO . . . . .	-	-	6	1	6	1
BUTTERFISH . . . . .	44	4	1,378	106	1,422	110
CABIO . . . . .	-	-	33	3	33	2
CARP . . . . .	164	21	327	11	491	15
CATFISH AND BULLHEADS . . . . .	292	4	1,754	116	2,046	137
COO . . . . .	150	15	50	5	200	20
CRAPPIE . . . . .	3	(1)	-	-	3	(1)
CROAKER . . . . .	2	(1)	122	31	124	31
DRUM:						
BLACK . . . . .	22	1	328	3	350	15
RED . . . . .	-	-	-	(1)	3	(1)
EELS, COMMON . . . . .	133	13	441	55	574	68
FLOUNDERS:						
BLACKBACK . . . . .	10	1	2	(1)	12	1
FLUKE . . . . .	550	123	1,720	345	2,270	468
GRAY SOLE . . . . .	1	(1)	-	-	1	(1)
UNCLASSIFIED . . . . .	-	-	25	3	25	3
GARFISH . . . . .	-	-	5	(1)	5	(1)
GIZZARD SHAD . . . . .	6	(1)	20	-	26	(1)
HAKE:						
RED . . . . .	53	1	3	(1)	56	1
WHITE . . . . .	(1)	(1)	5	(1)	5	(1)
HARVESTFISH . . . . .	-	-	108	9	108	9
HERRING, SEA . . . . .	8	(1)	11	(1)	19	(1)
HICKORY SHAD . . . . .	7	(1)	26	1	33	1
HOGCHOKER . . . . .	-	-	-	-	10	(1)
KING MACKEREL . . . . .	-	-	10	1	10	1
KING WHITING OR "KINGFISH" . . . . .	14	1	66	6	80	7
MACKEREL . . . . .	4	1	77	17	81	18
MENHADEN . . . . .	3,293	54	255,722	3,295	259,015	3,349
MULLET . . . . .	3	(1)	44	4	47	4
PIGFISH . . . . .	(1)	(1)	4	(1)	4	(1)
PIKE OR PICKEREL . . . . .	4	1	-	-	4	1
POUP OR PORGY . . . . .	68	3	9,551	598	9,619	601
SEA BASS . . . . .	304	26	4,316	356	4,620	382
SEA ROBIN . . . . .	72	1	3	(1)	75	1
SEA TROUT OR WEAKFISH:						
GRAY . . . . .	94	8	1,098	122	1,192	130
SPOTTED . . . . .	-	-	26	7	26	7
SHAD . . . . .	827	132	2,312	347	3,139	479
SHARKS:						
GRAYFISH . . . . .	36	1	-	12	94	13
UNCLASSIFIED . . . . .	94	2	468	(1)	97	2
SKATES . . . . .	2	(1)	3	-	2	(1)
SPADEFISH . . . . .	-	-	(1)	(1)	-	(1)
SPANISH MACKEREL . . . . .	-	-	79	10	79	10
SPOT . . . . .	15	2	1,475	236	1,490	238
STRIPED BASS . . . . .	3,749	534	2,747	356	6,496	890
STURGEON . . . . .	7	1	4	1	11	2
SUCKERS . . . . .	(1)	(1)	1	(1)	1	(1)
SUNFISH . . . . .	9	-	-	-	9	(1)
SWELLFISH . . . . .	1,004	26	1,121	22	2,125	48
SWORDFISH . . . . .	-	-	183	79	183	79
TAUTOG . . . . .	2	(1)	1	(1)	3	(1)
TILEFISH . . . . .	-	-	14	1	14	1
TUNA:						
BLUEFIN . . . . .	571	50	-	(1)	571	50
LITTLE . . . . .	-	-	4	-	4	(1)
SKIPJACK . . . . .	2,073	198	-	-	2,073	198
YELLOWFIN . . . . .	439	54	17	2	456	56
UNCLASSIFIED . . . . .	-	-	3	(1)	3	(1)
TOTAL TUNA . . . . .	3,083	302	24	2	3,107	304
WHITE PERCH . . . . .	1,372	103	342	28	1,714	131
WHITING . . . . .	190	5	117	5	307	10
YELLOW PERCH . . . . .	94	7	12	1	106	8
UNCLASSIFIED:						
FOR FOOD . . . . .	(1)	(1)	89	8	89	8
BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	3,819	20	1,294	21	5,113	41
TOTAL FISH . . . . .	21,116	1,440	314,287	6,972	335,403	8,412
SHELLFISH, ETC.						
CRABS, BLUE:						
HARD . . . . .	16,934	1,151	46,138	2,546	63,072	3,697
SOFT AND PEELER . . . . .	2,108	753	949	329	3,057	1,082
TOTAL CRABS . . . . .	19,042	1,904	47,087	2,875	66,129	4,779
LOBSTERS, NORTHERN . . . . .	2	1	22	9	24	10

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## CHESAPEAKE FISHERIES

## CATCH BY STATES, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	MARYLAND		VIRGINIA		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
SHELLFISH, ETC. - CONTINUED						
CLAMS:						
HARD:						
PUBLIC . . . . .	489	265	1,720	829	2,209	1,094
PRIVATE . . . . .	-	-	376	183	376	183
SOFT, PUBLIC . . . . .	6,859	1,499	-	-	6,859	1,499
SURF . . . . .	84	5	-	-	84	5
TOTAL CLAMS . . . . .	7,412	1,769	2,096	1,012	9,508	2,781
CONCHS. . . . .	29	4	318	26	347	30
OYSTERS, MARKET:						
PUBLIC:						
SPRING . . . . .	2,133	1,418	612	641	2,945	2,059
FALL . . . . .	4,275	3,103	1,181	917	5,456	4,020
PRIVATE:						
SPRING . . . . .	391	353	3,943	3,059	4,334	3,412
FALL . . . . .	957	744	4,582	3,493	5,539	4,237
TOTAL OYSTERS . . . . .	7,756	5,618	10,518	8,110	18,274	13,728
SCALLOPS, SEA . . . . .	-	-	46	22	46	22
SOUID . . . . .	39	3	253	13	292	16
TERRAPIN . . . . .	6	3	6	1	14	4
TURTLES, SNAPPER . . . . .	53	6	113	16	166	22
TOTAL SHELLFISH, ETC. . . . .	34,341	9,306	60,459	12,084	94,800	21,992
GRAND TOTAL . . . . .	55,457	10,748	374,746	19,056	430,203	29,804

1/ LESS THAN 500 POUNDS OR \$500.

NOTE:--STATISTICS ON THE CATCH ARE SHOWN IN ROUND (LIVE) WEIGHT EXCEPT FOR SHELL MOLLUSKS. CLAMS, CONCHS, AND OYSTERS ARE REPORTED IN WEIGHT OF TOTAL MEATS. SCALLOPS ARE REPORTED IN WEIGHT OF EDIBLE MEATS.

## CATCH OF CERTAIN SHELLFISH, 1963

(NUMBER AND BUSHELS)

SPECIES	MARYLAND		VIRGINIA		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
CRABS, BLUE:						
HARD . . . . .	NUMBER					
SOFT AND PEELER . . . . .	DO					
CLAMS:	U. S.					
HARD:	STANDARD					
PUBLIC . . . . .	BUSHELS	61,162	265,366	214,975	829,098	276,137
PRIVATE . . . . .	DO	-	-	46,962	182,592	46,962
SOFT, PUBLIC . . . . .	DO	571,542	1,499,405	-	-	571,542
SURF . . . . .	DO	3,771	5,225	-	-	3,771
CONCHS. . . . .	DO	1,470	3,517	15,920	26,195	17,390
OYSTERS, MARKET:						
PUBLIC:						
SPRING . . . . .	DO	447,233	1,417,486	188,860	641,184	636,093
FALL . . . . .	DO	909,574	3,103,662	270,963	916,722	1,180,537
PRIVATE:						
SPRING . . . . .	DO	76,758	352,543	966,348	3,059,369	1,043,106
FALL . . . . .	DO	193,606	744,391	1,072,998	3,492,914	1,266,604
SCALLOPS, SEA . . . . .	DO	-	-	7,633	22,236	7,633

NOTE:--THE CAPACITY OF U. S. STANDARD BUSHEL IS 2,150.4 CUBIC INCHES.

## AVERAGE WEIGHTS OF CERTAIN SHELLFISH, 1963

SPECIES	MARYLAND		VIRGINIA	
	QUANTITY	QUANTITY	QUANTITY	QUANTITY
CRABS, BLUE:				
HARD . . . . .	NUMBER PER POUND	2.40	2.99	
SOFT AND PEELER . . . . .	DO	4.00	5.99	
CLAMS:	POUNDS OF MEATS			
HARD:	PER U. S.			
PUBLIC . . . . .	STANDARD BUSHEL	8.00	8.00	
PRIVATE . . . . .	DO	-	8.00	
SOFT, PUBLIC . . . . .	DO	12.00	-	
SURF . . . . .	DO	17.00	-	
CONCHS. . . . .	DO	20.00	20.00	
OYSTERS, MARKET:				
PUBLIC:				
SPRING . . . . .	DO	4.77	4.30	
FALL . . . . .	DO	4.70	4.36	
PRIVATE:				
SPRING . . . . .	DO	5.09	4.08	
FALL . . . . .	DO	4.94	4.27	
SCALLOPS, SEA . . . . .	DO	-	6.00	

NOTE:--THE CAPACITY OF A U. S. STANDARD BUSHEL IS 2,150.4 CUBIC INCHES.

# CHESAPEAKE FISHERIES

173

## MANUFACTURED FISHERY PRODUCTS, 1963

ITEM	MARYLAND		VIRGINIA	
	QUANTITY	VALUE	QUANTITY	VALUE
ALEWIVES:				
CANNED:				
FISH . . . . .	STANDARD CASES	(1)	(1)	88,476
ROE . . . . .	DO	(1)	(1)	\$350,259
SALTED AND PICKLED . . . . .	POUNDS	744,424	\$99,902	2,860,525
MEAL AND SCRAP . . . . .	TONS	-	-	713
OIL . . . . .	1,000 POUNDS	(1)	(1)	314
SOLUBLES . . . . .	TONS	-	-	434
ANCHOVY PASTE, CANNED . . . . .	STANDARD CASES	(1)	(1)	-
BUTTERFISH, SMOKED . . . . .	POUNDS	50,000	32,500	-
CARP, SMOKED . . . . .	DO	5,000	3,500	-
CHUBS, SMOKED . . . . .	DO	50,000	31,000	-
EELS, SMOKED . . . . .	DO	25,000	17,000	27,000
FLounder FILLETS, FROZEN . . . . .	DO	-	-	6,000
HALIBUT STEAKS, FROZEN . . . . .	DO	-	-	(1)
MENHADEN:				
MEAL AND SCRAP . . . . .	TONS	-	-	22,708
OIL . . . . .	1,000 POUNDS	-	-	14,473
SOLUBLES . . . . .	TONS	-	-	14,062
SABLEFISH, SMOKED . . . . .	POUNDS	125,000	-	-
SALMON:				
STEAKS, FROZEN . . . . .	DO	-	-	(1)
SMOKED . . . . .	DO	188,000	208,400	-
SEA HERRING:				
SALTED AND PICKLED . . . . .	DO	120,000	43,000	-
SMOKED . . . . .	DO	179,000	54,020	-
SPECIALTIES, CURED AND REFRIG- ERATED (PARTY SNACKS, LUNCH HERRING, ETC.) . . . . .	DO	(1)	(1)	-
SHAD, SMOKED . . . . .	DO	4,000	1,600	-
STURGEON, SMOKED . . . . .	DO	10,000	22,500	-
SWORDFISH STEAKS, FROZEN . . . . .	DO	-	-	74,000
TUNA:				
SPECIALTIES, FROZEN (CAKES, BREADED RAW AND COOKED) . . . . .	DO	-	-	(1)
CANNED . . . . .	STANDARD CASES	(1)	(1)	-
MEAL AND SCRAP . . . . .	TONS	(1)	(1)	-
WHITESH, SMOKED . . . . .	POUNDS	150,000	120,000	-
CRABS, BLUE:				
FRESH AND FROZEN:				
COOKED MEAT . . . . .	DO	4,113,107	4,502,272	3,670,300
SPECIALTIES (CAKES, BREADED AND COOKED, ETC.) . . . . .	DO	1,464,367	1,023,189	327,800
SPECIALTIES, CANNED (SOUPS AND SOFT SHELL) . . . . .	STANDARD CASES	(1)	(1)	-
MEAL AND SCRAP . . . . .	TONS	3,462	155,359	1,976
LOBSTER SOUP, CANNED . . . . .	STANDARD CASES	(1)	(1)	-
SHRIMP FROZEN:				
BREADED . . . . .	POUNDS	-	-	(1)
SPECIALTIES:				
FROZEN . . . . .	DO	29,928	30,051	101,000
CANNED (SOUPS) . . . . .	STANDARD CASES	(1)	(1)	-
CLAMS, SOFT:				
SHUCKED FRESH . . . . .	GALLONS	487,450	2,439,482	8,023
SPECIALTIES, FROZEN (BREADED, ETC.) . . . . .	POUNDS	442,507	415,226	-
CANNED:				
REGULAR . . . . .	STANDARD CASES	(1)	(1)	-
SPECIALTIES (STEAMED AND SOFT IN SHELL) . . . . .	DO	(1)	(1)	-
OYSTERS:				
FRESH AND FROZEN:				
SHUCKED . . . . .	GALLONS	819,880	6,544,317	1,037,362
STEAMED . . . . .	POUNDS	-	-	747,100
BREADED AND COOKED . . . . .	DO	226,224	242,036	576,871
STEWES . . . . .	DO	105,000	35,000	-
SPECIALTIES, CANNED (STEWES) SHELL, GRIT AND LIME . . . . .	STANDARD CASES	(1)	(1)	-
SCALLOPS, SEA, BREADED AND COOKED . . . . .	POUNDS	90,000	76,500	163,948
SEE FOOTNOTES AT END OF TABLE.				

(CONTINUED ON NEXT PAGE)

## CHESAPEAKE FISHERIES

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

ITEM	MARYLAND		VIRGINIA	
	QUANTITY	VALUE	QUANTITY	VALUE
UNCLASSIFIED:				
FRESH AND FROZEN PACKAGED:				
FISH:				
STICKS:				
RAW . . . . .	00	{1}	652,562	\$217,263
COOKED . . . . .	00	{1}	-	-
PORTIONS:				
RAW . . . . .	00	{1}	399,465	133,745
BREADED AND COOKED . . . . .	00	{1}	-	-
UNBREADED . . . . .	00	{1}	-	-
FISH AND SHELLFISH . . . . .	00	25,097,252	474,905	220,863
CANNED . . . . .	STANDARD CASES	773,777	47,060	209,254
INDUSTRIAL . . . . .	-	-	-	177,000
TOTAL . . . . .	-	-	-	22,049,419

1/ INCLUDED WITH UNCLASSIFIED ITEMS.

NOTE:--SOME OF THE ABOVE PRODUCTS MAY HAVE BEEN MANUFACTURED FROM RAW PRODUCTS IMPORTED FROM ANOTHER STATE OR A FOREIGN COUNTRY; THEREFORE, THEY CANNOT BE CORRELATED DIRECTLY WITH THE CATCH WITHIN THE STATE. CERTAIN ITEMS MAY BE SHOWN IN AN INTERMEDIATE AND ALSO IN A MORE ADVANCED STAGE OF PROCESSING.

## SUMMARY OF MANUFACTURED PRODUCTS, 1963

(VALUE IN THOUSANDS OF DOLLARS)

ITEM	QUANTITY	VALUE
PACKAGED, FRESH AND FROZEN:		
NOT BREADED:		
FISH . . . . .	1,000 POUNDS	576
SHELLFISH . . . . .	00	29,269
BREADED:		
FISH . . . . .	00	19,276
SHELLFISH . . . . .	00	1,261
SPECIALTIES . . . . .	00	3,776
CANNED . . . . .	1,000 STANDARD CASES	941
CURED . . . . .	1,000 POUNDS	10,625
INDUSTRIAL . . . . .	-	-
TOTAL . . . . .	-	56,108

## VALUE OF MANUFACTURED PRODUCTS, BY STATES, 1963

(THOUSANDS OF DOLLARS)

STATE	VALUE
MARYLAND . . . . .	36,059
VIRGINIA . . . . .	22,049
TOTAL . . . . .	58,108

## WHOLESALE AND MANUFACTURING, 1963

ITEM	MARYLAND	VIRGINIA	TOTAL
	NUMBER	NUMBER	NUMBER
WHOLESALE AND MANUFACTURING:			
ESTABLISHMENTS . . . . .	298	357	655
PERSONS ENGAGED:			
AVERAGE FOR SEASON . . . . .	6,096	4,853	10,949
AVERAGE FOR YEAR . . . . .	4,254	3,130	7,384

# CHESAPEAKE FISHERIES

175

## MARYLAND

### OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	PURSE SEINES		OTTER TRAWLS, FISH	POUND NETS		FYKE AND HOOP NETS, FISH
		MENHADEN	TUNA		CRAB	FISH	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:							
ON VESSELS . . . . .	134	9	80	38	-	102	8
ON BOATS AND SHORE:							
REGULAR . . . . .	340	-	-	4	2	312	66
CASUAL . . . . .	100	-	-	-	-	6	40
TOTAL . . . . .	574	9	80	42	2	422	114
VESSELS, MOTOR . . . . .	25	1	5	16	-	20	4
GROSS TONNAGE . . . . .	236	123	1,862	407	-	169	38
BOATS:							
MOTOR . . . . .	108	1	5	2	2	83	59
OTHER . . . . .	100	-	-	-	-	74	-
GEAR:							
NUMBER . . . . .	112	1	5	18	6	264	719
LENGTH, YARDS . . . . .	48,900	375	3,960	-	-	-	-
YARDS AT MOUTH . . . . .	-	-	-	472	-	-	-

ITEM	POTS AND TRAPS				GILL NETS	
	CRAB	EEL	FISH	TURTLE	ANCHOR, SET OR STAKE	DRIFT
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	139	-	2	-	217	138
ON BOATS AND SHORE:						
REGULAR . . . . .	373	129	16	17	863	329
CASUAL . . . . .	134	69	2	2	659	408
TOTAL . . . . .	646	198	20	19	1,739	875
VESSELS, MOTOR . . . . .	117	-	1	-	111	68
GROSS TONNAGE . . . . .	938	-	14	-	1,028	553
BOATS:						
MOTOR . . . . .	472	141	18	18	696	406
OTHER . . . . .	-	-	-	-	35	-
GEAR:						
NUMBER . . . . .	59,983	6,020	667	185	1,619	492
SQUARE YARDS . . . . .	-	-	-	-	1,738,615	773,144

ITEM	LINES			DIP NETS, COMMON	SCRAPES	DREDGES
	HAND	LONG OR SET WITH HOOKS	TROT WITH BAITS			CLAM
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	2	8	76	-	-	186
ON BOATS AND SHORE:						
REGULAR . . . . .	2	9	1,071	33	227	297
CASUAL . . . . .	6	1	1,011	134	4	-
TOTAL . . . . .	10	18	2,160	167	231	483
VESSELS, MOTOR . . . . .	1	3	74	-	-	93
GROSS TONNAGE . . . . .	10	60	572	-	-	785
BOATS:						
MOTOR . . . . .	8	6	1,966	127	230	162
OTHER . . . . .	-	-	7	40	-	-
GEAR:						
NUMBER . . . . .	210	9	2,160	167	454	276
YARDS AT MOUTH . . . . .	210	-	-	-	475	276
HOOKS OR BAITS . . . . .	210	10,750	850,675	-	-	-

(CONTINUED ON NEXT PAGE)

## CHESAPEAKE FISHERIES

## MARYLAND - OPERATING UNITS BY GEAR, 1963 - Continued

ITEM	DREDGES - CONTINUED		TONGS		BY HAND	TOTAL, EXCLUSIVE OF DUPLICATION
	CRAB	OYSTER, COMMON	OYSTER	OTHER		
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	-	407	394	15	-	1,362
ON BOATS AND SHORE:						
REGULAR . . . . .	-	59	2,724	64	15	4,109
CASUAL . . . . .	2	-	857	3	79	3,266
TOTAL . . . . .	2	466	3,915	102	94	8,757
VESSELS, MOTOR . . . . .	-	15	239	12	-	457
GROSS TONNAGE . . . . .	-	176	1,922	95	-	6,104
VESSELS, SAIL . . . . .	-	65	-	-	-	65
GROSS TONNAGE . . . . .	-	720	-	-	-	720
TOTAL VESSELS . . . . .	-	80	239	12	-	522
TOTAL GROSS TONNAGE . . . . .	-	896	1,922	95	-	6,824
BOATS:						
MOTOR . . . . .	1	24	3,019	82	-	5,650
OTHER . . . . .	-	-	32	-	-	269
GEAR:						
NUMBER . . . . .	1	190	3,915	99	-	-
YARDS AT MOUTH . . . . .	2	206	-	-	-	-

## MARYLAND - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		PURSE SEINES		OTTER TRAWLS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	6,200	\$92	-	-	-	-
BLUEFISH . . . . .	1,800	202	-	-	4,600	\$347
BUTTERFISH . . . . .	-	-	-	-	41,700	3,765
CARP . . . . .	127,400	3,237	-	-	-	-
CATFISH AND BULLHEADS . . . . .	59,600	4,260	-	-	-	-
COD . . . . .	-	-	-	-	2,700	305
CROAKER . . . . .	100	26	-	-	-	-
DRUM, BLACK . . . . .	-	-	-	-	9,000	544
EELS, COMMON . . . . .	300	37	-	-	600	19
FLOUNDER:						
BLACKBACK . . . . .	-	-	-	-	9,200	541
FLUKE . . . . .	-	-	-	-	536,400	120,332
UNCLASSIFIED . . . . .	-	-	-	-	1,300	42
GIZZARD SHAD . . . . .	200	5	-	-	-	-
HAKE:						
RED . . . . .	-	-	-	-	51,500	854
WHITE . . . . .	-	-	-	-	100	2
HERRING, SEA . . . . .	-	-	-	-	7,700	146
KING WHITING OR "KINGFISH" . . . . .	-	-	-	-	14,200	1,083
MACKEREL . . . . .	-	-	-	-	100	13
MENHADEN . . . . .	3,600	56	1,909,500	\$31,825	-	-
PIGFISH . . . . .	-	-	-	-	200	5
SCUP OR PORGY . . . . .	-	-	-	-	67,800	3,402
SEA BASS . . . . .	-	-	-	-	139,200	10,522
SEA ROBIN . . . . .	-	-	-	-	72,100	848
SEA TROUT OR WEAKFISH, GRAY SHAD . . . . .	200	20	-	-	88,600	7,641
SHAD . . . . .	400	50	-	-	100	9
SHARKS:						
GRAYFISH . . . . .	-	-	-	-	36,300	1,441
UNCLASSIFIED . . . . .	-	-	-	-	94,300	1,863
SKATES . . . . .	-	-	-	-	1,500	8
SPOT . . . . .	5,000	600	-	-	4,100	120
STRIPED BASS . . . . .	377,800	53,330	-	-	6,000	832
STURGEON . . . . .	-	-	-	-	7,100	1,039
SUCKERS . . . . .	200	4	-	-	-	-
SUNFISH . . . . .	1,300	62	-	-	-	-
SWELLFISH . . . . .	-	-	-	-	-	-
TALITOG . . . . .	-	-	-	-	34,700	888
TUNA:						
BLUEFIN . . . . .	-	-	571,000	49,677	-	-
SKIPJACK . . . . .	-	-	2,073,100	198,351	-	-
YELLOWFIN . . . . .	-	-	438,800	53,751	-	-
WHITE PERCH . . . . .	126,500	9,491	-	-	-	-
WHITING . . . . .	-	-	-	-	190,400	5,380

(CONTINUED ON NEXT PAGE)

# CHESAPEAKE FISHERIES

177

## MARYLAND - CATCH BY GEAR, 1963 - Continued

SPECIES	HAUL SEINES		PURSE SEINES		OTTER TRAWLS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
YELLOW PERCH. . . . .	6,300	\$426	-	-	-	-
UNCLASSIFIED: FOR FOOD. . . . .	-	-	-	-	200	\$11
BAIT, REDUCTION, AND ANIMAL FOOD. . . . .	-	-	-	-	3,618,500	19,507
LOBSTERS, NORTHERN. . . . .	-	-	-	-	800	313
CONCHS. . . . .	-	-	-	-	29,400	3,517
SQUID. . . . .	-	-	-	-	36,900	2,611
TERRAPIN. . . . .	300	125	-	-	-	-
TURTLES, SNAPPER. . . . .	800	96	-	-	-	-
<b>TOTAL. . . . .</b>	<b>716,000</b>	<b>72,121</b>	<b>4,992,400</b>	<b>\$333,604</b>	<b>5,311,400</b>	<b>166,199</b>

SPECIES	POUND NETS		FYKE AND HOOP NETS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES. . . . .	1,253,300	\$18,840	5,500	\$62	-	-
BLUEFISH. . . . .	31,100	3,546	100	17	-	-
BUTTERFISH. . . . .	1,800	126	-	-	-	-
CARP. . . . .	6,600	170	2,800	70	-	-
CATFISH AND BULLHEADS	37,900	2,710	61,600	4,452	29,200	\$2,086
CRAPPIE. . . . .	300	16	2,300	131	-	-
CROAKER. . . . .	1,400	359	-	-	-	-
DRUM, BLACK. . . . .	13,200	724	-	-	-	-
EELS, COMMON. . . . .	3,400	366	500	58	127,500	12,642
FLOUNDERS:						
BLACKBACK. . . . .	100	11	-	-	-	-
FLUKE. . . . .	13,400	2,229	300	52	-	-
GIZZARD SHAD. . . . .	-	-	100	2	-	-
HAKE, RED. . . . .	-	-	-	-	1,500	30
HICKORY SHAD. . . . .	200	11	-	-	-	-
HOGCHOKER. . . . .	3,700	74	-	-	-	-
MACKEREL. . . . .	500	105	-	-	-	-
MENHADEN. . . . .	1,361,300	21,336	900	15	-	-
PIKE OR PICKEREL. . . . .	800	162	400	62	164,400	15,512
SEA BASS. . . . .	-	-	-	-	-	-
SEA TROUT OR WEAFFISH, GRAY	5,400	537	-	-	-	-
SHAD. . . . .	132,100	10,776	-	-	-	-
SPOT. . . . .	4,400	526	-	-	-	-
STRIPED BASS. . . . .	440,300	62,152	1,900	266	-	-
SUCKERS. . . . .	-	5	100	2	-	-
SUNFISH. . . . .	100	-	3,600	171	-	-
SWELLFISH. . . . .	47,100	940	-	-	921,000	24,319
TAUTOGS. . . . .	-	-	-	-	100	4
WHITE PERCH. . . . .	100,500	7,536	41,600	3,120	-	-
YELLOW PERCH. . . . .	4,700	320	43,200	2,934	-	-
CRABS, BLUE:						
HARD. . . . .	300	20	-	-	8,480,500	576,161
SOFT AND PEELER. . . . .	100	36	-	-	196,100	70,721
LOBSTERS, NORTHERN. . . . .	-	-	-	-	1,300	753
TERRAPIN. . . . .	500	200	-	-	-	-
TURTLES, SNAPPER. . . . .	-	-	-	-	50,100	5,671
<b>TOTAL. . . . .</b>	<b>3,464,700</b>	<b>133,860</b>	<b>164,900</b>	<b>11,456</b>	<b>9,973,700</b>	<b>708,299</b>

SPECIES	GILL NETS				LINES	
	ANCHOR, SET OR STAKE		DRIFT		HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES. . . . .	184,800	\$2,780	16,200	\$244	-	-
BLUEFISH. . . . .	1,100	117	1,600	205	1,000	\$165
CARP. . . . .	17,700	440	9,100	228	-	-
CATFISH AND BULLHEADS	61,900	4,470	13,300	955	-	-
CRAPPIE. . . . .	100	5	-	-	-	-
EELS, COMMON. . . . .	700	61	-	-	-	-
FLOUNDERS:						
BLACKBACK. . . . .	800	63	-	-	-	-
FLUKE. . . . .	300	33	-	-	-	-
GIZZARD SHAD. . . . .	5,500	165	300	9	-	-
HICKORY SHAD. . . . .	6,200	371	400	25	-	-
MACKEREL. . . . .	-	-	3,600	731	-	-
MENHADEN. . . . .	17,600	279	-	-	-	-
MULLET, BLACK. . . . .	3,400	269	-	-	-	-
PIKE OR PICKEREL. . . . .	2,500	507	200	40	-	-
SEA BASS. . . . .	-	-	-	-	600	75

(CONTINUED ON NEXT PAGE)

## CHESAPEAKE FISHERIES

## MARYLAND - CATCH BY GEAR, 1963 - Continued

SPECIES	GILL NETS				LINES	
	ANCHOR, SET OR STAKE		DRIFT		HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
SEA TROUT OR WEAKFISH, GRAY . . . . .	200	\$22	-	-	-	-
SHAD . . . . .	394,000	67,626	300,000	\$53,582	-	-
SPOT . . . . .	100	12	1,600	192	-	-
STRIPED BASS . . . . .	2,045,700	291,673	677,200	125,307	100	\$16
SUNFISH . . . . .	4,000	178	-	-	-	-
SWELLFISH . . . . .	-	-	-	-	1,000	17
TUNA, BLUEFIN . . . . .	-	-	-	-	300	29
WHITE PERCH . . . . .	666,200	51,291	414,600	31,012	-	-
YELLOW PERCH . . . . .	37,400	3,175	2,100	166	-	-
TURTLES, SNAPPER . . . . .	-	-	-	-	1,600	216
TOTAL . . . . .	3,472,200	423,997	1,640,600	212,696	4,800	518

SPECIES	LINES - CONTINUED				DIP NETS	
	LONG OR SET WITH HOOKS		TROT WITH BAITS			
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CATFISH AND BULLHEADS . . . . .	26,400	\$2,077	-	-	-	-
COO . . . . .	147,400	14,140	-	-	-	-
HAKE, RED . . . . .	200	6	-	-	-	-
CRABS, BLUE:						
HARD . . . . .	-	-	6,321,000	\$565,626	4,600	\$312
SOFT AND PEELER . . . . .	-	-	121,600	43,411	5,600	1,996
TOTAL . . . . .	176,000	16,223	6,442,600	609,237	10,200	2,310

SPECIES	SCRAPES		DREDGES		TDNGS		BY HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CRABS, BLUE:								
HARD . . . . .	97,400	\$6,623	30,100	\$2,047	-	-	-	-
SDFT AND PEELER . . . . .	1,762,700	636,425	-	-	-	-	-	-
CLAMS:								
HARD, PUBLIC . . . . .	-	-	314,400	174,238	143,700	\$75,054	31,200	\$16,076
SOFT, PUBLIC . . . . .	-	-	6,856,500	1,499,405	-	-	-	-
SURF . . . . .	-	-	64,100	5,225	-	-	-	-
OYSTERS, MARKET:								
PUBLIC:								
SPRING . . . . .	-	-	550,600	393,098	1,562,500	1,024,386	-	-
FALL . . . . .	-	-	1,076,500	869,865	3,196,500	2,233,797	-	-
PRIVATE:								
SPRING . . . . .	-	-	308,600	300,706	61,900	51,637	-	-
FALL . . . . .	-	-	669,500	553,627	267,900	190,564	-	-
TERRAPIN . . . . .	1,400	529	-	-	5,400	2,161	-	-
TOTAL . . . . .	1,861,500	643,577	9,894,700	3,796,411	5,277,900	3,577,601	31,200	16,076



# CHESAPEAKE FISHERIES

179

## VIRGINIA

### OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	PURSE SEINES, MENHADEN	OTTER TRAWLS, FISH	POUND NETS		FYKE AND HOOP NETS, FISH
				CRAB	FISH	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	31	631	248	12	33	8
ON BOATS AND SHORE:						
REGULAR . . . . .	294	-	2	359	780	130
CASUAL . . . . .	201	-	-	104	402	63
TOTAL . . . . .	526	631	250	475	1,215	201
VESSLS, MOTOR . . . . .	11	39	64	5	12	3
GROSS TONNAGE . . . . .	96	8,942	3,601	45	126	26
BOATS:						
MOTOR . . . . .	176	82	1	427	355	124
OTHER . . . . .	96	-	-	8	271	24
GEAR:						
NUMBER . . . . .	140	39	65	2,799	711	479
LENGTH, YARDS . . . . .	92,200	14,510	-	-	-	-
YARDS AT MOUTH . . . . .	-	-	1,670	-	-	-
ITEM	POTS AND TRAPS					SLAT TRAPS
	CRAB	EEL	FISH	TURTLE	BOX	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	323	11	5	-	3	-
ON BOATS AND SHORE:						
REGULAR . . . . .	757	34	69	1	-	-
CASUAL . . . . .	274	26	57	5	-	3
TOTAL . . . . .	1,354	71	131	6	3	3
VESSLS, MOTOR . . . . .	205	4	2	-	1	-
GROSS TONNAGE . . . . .	1,693	33	22	-	15	-
BOATS:						
MOTOR . . . . .	940	47	86	3	-	-
OTHER . . . . .	7	2	8	1	-	3
GEAR, NUMBER . . . . .	132,100	1,013	4,091	62	4	3
ITEM	GILL NETS			LINES		
	ANCHOR, SET OR STAKE	DRIFT	HAND	LONG OR SET WITH HOOKS	TROT WITH BAITS	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN:						
ON VESSELS . . . . .	32	85	17	33	2	
ON BOATS AND SHORE:						
REGULAR . . . . .	637	486	26	42	134	
CASUAL . . . . .	423	448	51	21	29	
TOTAL . . . . .	1,092	1,019	94	96	165	
VESSLS, MOTOR . . . . .	14	38	7	7	1	
GROSS TONNAGE . . . . .	102	414	77	294	6	
BOATS:						
MOTOR . . . . .	725	484	51	55	144	
OTHER . . . . .	38	20	10	22	-	
GEAR:						
NUMBER . . . . .	1,279	552	1,186	71	145	
SQUARE YARDS . . . . .	745,720	672,300	-	-	-	
HOOKS AND BAITS . . . . .	-	-	1,186	14,690	83,710	

(CONTINUED ON NEXT PAGE)

## CHESAPEAKE FISHERIES

## VIRGINIA - OPERATING UNITS BY GEAR, 1963 - Continued

ITEM	DIP NETS, COMMON	SCRAPES	DREDGES			
			CLAM	CRAB	OYSTER, COMMON	SCALLOP
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	-	40	8	443	514	31
ON BOATS AND SHORE:						
REGULAR . . . . .	109	62	40	55	255	-
CASUAL . . . . .	139	31	12	44	88	-
TOTAL . . . . .	248	133	60	542	857	31
VESSELS, MOTOR . . . . .	-	19	3	168	193	3
GROSS TONNAGE . . . . .	-	202	25	3,046	2,314	480
BOATS:						
MOTOR . . . . .	246	73	33	56	173	-
OTHER . . . . .	2	-	-	-	-	-
GEAR:						
NUMBER . . . . .	248	160	37	406	505	6
YARDS AT MOUTH . . . . .	-	252	30	664	585	21

ITEM	TONGS		RAKES		BY HAND		TOTAL, EXCLUSIVE OF DUPLI- CATION
	OYSTER	OTHER	OYSTER	OTHER	OYSTER	OTHER	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:							
ON VESSELS . . . . .	548	99	-	6	-	-	2,434
ON BOATS AND SHORE:							
REGULAR . . . . .	1,256	553	20	451	80	320	3,970
CASUAL . . . . .	826	279	15	281	25	80	2,544
TOTAL . . . . .	2,630	931	35	738	105	400	9,048
VESSELS, MOTOR . . . . .	263	47	-	2	-	-	759
GROSS TONNAGE . . . . .	2,078	433	-	20	-	-	20,363
BOATS:							
MOTOR . . . . .	1,495	517	19	413	29	80	3,846
OTHER . . . . .	22	73	4	72	11	20	619
GEAR, NUMBER . . . . .	2,630	931	35	738	-	-	-



CRAB TROT LINE

# CHESAPEAKE FISHERIES

181

## VIRGINIA - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		PURSE SEINES		OTTER TRAWLS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	1,041,700	\$15,270	-	-	-	-
BLUEFISH . . . . .	151,200	18,724	-	-	26,900	\$3,425
BONITO . . . . .	2,300	174	-	-	-	-
BUTTERFISH . . . . .	336,800	27,889	-	-	681,600	48,453
CABIO . . . . .	2,900	205	-	-	-	-
CARP . . . . .	278,500	8,694	-	-	-	-
CATFISH AND BULLHEADS . . . . .	133,800	8,521	-	-	-	-
COD . . . . .	-	-	-	-	300	29
CROAKER . . . . .	11,500	3,044	-	-	95,900	23,588
DRUM:						
BLACK . . . . .	28,100	879	-	-	1,400	106
RED . . . . .	1,700	142	-	-	-	-
EELS, COMMON . . . . .	38,500	4,645	-	-	-	-
FLOUNDERS:						
BLACKBACK . . . . .	-	-	-	-	400	43
FLUKE . . . . .	59,600	11,780	-	-	1,444,900	283,645
UNCLASSIFIED . . . . .	1,200	118	-	-	19,400	1,900
GARFISH . . . . .	5,300	102	-	-	-	-
GIZZARD SHAD . . . . .	10,300	191	-	-	-	-
HAKE:						
RED . . . . .	-	-	-	-	2,800	130
WHITE . . . . .	-	-	-	-	5,000	360
HARVESTFISH . . . . .	41,800	3,670	-	-	22,800	1,823
HICKORY SHAD . . . . .	1,100	53	-	-	-	-
KING MACKEREL . . . . .	3,700	508	-	-	-	-
KING WHITTING OR "KINGFISH" . . . . .	10,200	864	-	-	34,200	2,854
MACKEREL . . . . .	-	-	-	-	1,400	306
MENHADEN . . . . .	7,719,800	107,530	217,153,400	\$2,779,563	-	-
MULLET, BLACK . . . . .	7,400	586	-	-	5,600	466
PIGFISH . . . . .	700	37	-	-	200	10
SCUP OR PORGY . . . . .	400	22	-	-	9,549,400	597,507
SEA BASS . . . . .	1,700	156	-	-	4,000,600	521,357
SEA ROBIN . . . . .	-	-	-	-	3,100	58
SEA TROUT OR WEAKFISH:						
GRAY . . . . .	349,800	39,222	-	-	84,000	8,814
SPOTTED . . . . .	13,300	3,648	-	-	-	-
SHAD . . . . .	4,700	727	-	-	-	-
SHARKS:						
GRAYFISH . . . . .	26,300	642	-	-	100,100	2,384
UNCLASSIFIED . . . . .	-	-	-	-	2,800	112
SPANISH MACKEREL . . . . .	13,800	1,765	-	-	-	-
SPOT . . . . .	774,800	120,612	-	-	17,700	770
STRIPED BASS . . . . .	1,084,600	139,551	-	-	1,400	215
STURGEON . . . . .	200	51	-	-	2,200	428
SUCKERS . . . . .	200	10	-	-	-	-
SWELLFISH . . . . .	160,600	3,200	-	-	20,500	395
TAUTOG . . . . .	500	25	-	-	-	-
TILEFISH . . . . .	-	-	-	-	14,100	1,141
TUNA, LITTLE . . . . .	2,200	44	-	-	-	-
WHITE PERCH . . . . .	122,700	10,223	-	-	-	-
WHITING . . . . .	-	-	-	-	117,100	4,486
YELLOW PERCH . . . . .	3,500	385	-	-	-	-
UNCLASSIFIED:						
FOR FOOD . . . . .	8,000	689	-	-	27,300	2,629
FOR BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	93,800	1,692	-	-	52,900	789
LOBSTERS, NORTHERN . . . . .	-	-	-	-	18,000	7,037
CONCHS . . . . .	-	-	-	-	32,600	2,339
SQUID . . . . .	-	-	-	-	252,900	12,779
TERRAPIN . . . . .	600	300	-	-	-	-
<b>TOTAL . . . . .</b>	<b>12,549,800</b>	<b>536,790</b>	<b>217,153,400</b>	<b>2,779,563</b>	<b>16,639,500</b>	<b>1,530,378</b>

SPECIES	POUND NETS		FYKE AND HOOP NETS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	23,653,000	\$424,801	1,309,400	\$17,794	-	-
BLUEFISH . . . . .	429,500	53,500	-	-	-	-
BONITO . . . . .	3,300	270	-	-	-	-
BUTTERFISH . . . . .	359,200	29,611	600	46	-	-
CABIO . . . . .	20,600	1,472	100	7	-	-
CARP . . . . .	4,100	108	40,500	1,313	-	-
CATFISH AND BULLHEADS . . . . .	20,200	1,326	287,500	18,510	1,144,100	\$77,193
CROAKER . . . . .	11,200	2,872	-	-	-	-
DRUM:						
BLACK . . . . .	285,000	11,956	-	-	-	-
RED . . . . .	800	67	-	-	-	-

(CONTINUED ON NEXT PAGE)

## CHESAPEAKE FISHERIES

## VIRGINIA - CATCH BY GEAR, 1963 - Continued

SPECIES	POUND NETS		FYKE AND HOOP NETS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
EELS, COMMON . . . . .	23,600	\$2,562	48,200	\$5,169	329,700	\$42,846
FLOUNDERS:						
BLACKBACK . . . . .	100	14	-	-	-	-
FLUKE . . . . .	209,600	48,254	-	-	-	-
UNCLASSIFIED . . . . .	4,300	412	-	-	-	-
GIZZARD SHAD . . . . .	300	4	9,600	158	-	-
HARVESTFISH . . . . .	43,400	3,909	-	-	-	-
HICKORY SHAD . . . . .	14,900	671	900	41	-	-
KING MACKEREL . . . . .	6,000	808	-	-	-	-
KING WHITING OR "KINGFISH" . . . . .	18,300	1,522	-	-	-	-
MACKEREL . . . . .	2,300	433	-	-	-	-
MEMPHADEN . . . . .	30,706,900	405,872	141,600	2,066	-	-
MULLET, BLACK . . . . .	5,100	405	1,800	139	-	-
PIGFISH . . . . .	2,300	127	-	-	-	-
SCUP OR PORGY . . . . .	1,200	92	-	-	-	-
SEA BASS . . . . .	600	79	-	-	310,300	33,502
SEA TROUT OR WEAKFISH:						
GRAY . . . . .	605,500	67,401	-	-	-	-
SPOTTED . . . . .	12,200	3,278	-	-	-	-
SHAD . . . . .	1,459,300	218,187	32,000	4,836	-	-
SHARKS, GRAYFISH . . . . .	32,700	714	-	-	-	-
SPACEFISH . . . . .	100	6	-	-	-	-
SPANISH MACKEREL . . . . .	65,500	8,139	-	-	-	-
SPOT . . . . .	387,300	64,896	-	-	-	-
STRIPED BASS . . . . .	788,900	103,506	129,100	16,434	2,100	300
STURGEON . . . . .	1,600	421	-	-	-	-
SUCKERS . . . . .	-	-	500	27	-	-
SWELLFISH . . . . .	939,000	18,139	-	-	-	-
TAUTOG . . . . .	400	20	-	-	-	-
TUNA, LITTLE . . . . .	1,900	38	-	-	-	-
WHITE PERCH . . . . .	86,200	6,640	108,500	9,132	-	-
YELLOW PERCH . . . . .	2,900	342	5,400	631	-	-
UNCLASSIFIED:						
FOR FOOD . . . . .	52,000	4,536	400	35	-	-
FOR BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	1,126,900	18,016	13,600	219	-	-
CRABS, BLUE:						
HARD . . . . .	154,500	8,063	-	-	27,470,600	1,541,315
SOFT . . . . .	499,600	151,301	-	-	238,800	96,986
LOBSTERS, NORTHERN . . . . .	-	-	-	-	3,700	1,455
CONCHS . . . . .	-	-	-	-	29,100	2,852
TERRAPIN . . . . .	2,800	622	400	105	-	-
TURTLES, SNAPPER . . . . .	-	-	-	-	8,700	1,249
TOTAL . . . . .	62,041,400	1,665,612	2,130,100	76,602	29,537,100	1,797,698

SPECIES	SLAT TRAPS		GILL NETS			
			ANCHOR, SET OR STAKE		DRIFT	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	20,100	\$300	61,200	\$888	-	-
BLUEFISH . . . . .	-	-	14,900	1,751	8,800	\$1,059
CARP . . . . .	-	-	2,200	62	1,300	41
CATFISH AND BULLHEADS . . . . .	-	-	2,300	121	-	-
CROAKER . . . . .	-	-	1,500	346	-	-
DRUM, BLACK . . . . .	-	-	500	25	2,300	570
FLOUNDERS, BLACKBACK . . . . .	-	-	-	-	1,000	60
HERRING, SEA . . . . .	-	-	11,000	330	-	-
HICKORY SHAD . . . . .	100	4	5,600	247	3,000	125
KING WHITING OR "KINGFISH" . . . . .	-	-	1,000	81	2,400	213
MACKEREL . . . . .	-	-	-	-	73,700	15,872
MEMPHADEN . . . . .	-	-	300	4	-	-
MULLET, BLACK . . . . .	-	-	12,700	1,177	10,100	917
PIGFISH . . . . .	-	-	1,300	63	-	-
SEA TROUT OR WEAKFISH:						
GRAY . . . . .	-	-	35,300	4,074	21,500	2,289
SPOTTED . . . . .	-	-	200	50	-	-
SHAD . . . . .	100	13	539,600	81,238	281,800	42,255
SHARKS, GRAYFISH . . . . .	-	-	3,800	59	304,800	7,834
SPOT . . . . .	-	-	134,200	22,927	158,300	26,090
STRIPED BASS . . . . .	-	-	697,900	90,866	42,500	5,334
SUCKERS . . . . .	100	5	100	6	-	-
SWELLFISH . . . . .	-	-	-	-	300	8
WHITE PERCH . . . . .	-	-	25,100	2,053	-	-
WHITING . . . . .	-	-	-	-	100	10
YELLOW PERCH . . . . .	-	-	500	59	-	-
UNCLASSIFIED:						
FOR FOOD . . . . .	-	-	-	-	300	30
FOR BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	-	-	400	6	4,700	78
TOTAL . . . . .	20,400	322	1,551,600	206,433	916,900	102,785

(CONTINUED ON NEXT PAGE)

# CHESAPEAKE FISHERIES

183

## VIRGINIA - CATCH BY GEAR, 1963 - Continued

SPECIES	LINES					
	HAND		LONG OR SET WITH HOOKS		TROT WITH BAITS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH. . . . .	1,200	\$108	-	-	-	-
CABIO . . . . .	9,300	405	-	-	-	-
CATFISH AND BULLHEADS . . . . .	-	-	166,200	\$10,726	-	-
COO . . . . .	-	-	50,200	5,341	-	-
DRUM:						
BLACK . . . . .	12,600	605	-	-	-	-
RED . . . . .	200	16	-	-	-	-
EELS, COMMON. . . . .	-	-	800	62	-	-
FLOUNDERS, FLUKE. . . . .	2,600	550	-	-	-	-
MULLET, BLACK . . . . .	1,100	180	-	-	-	-
SCUP OR PORGY . . . . .	100	10	-	-	-	-
SEA BASS. . . . .	3,000	371	-	-	-	-
SEA TROUT OR WEAKFISH, GRAY . . . . .	2,100	340	-	-	-	-
SPOT. . . . .	2,500	625	-	-	-	-
SWELLFISH . . . . .	700	12	-	-	-	-
SWORDFISH . . . . .	-	-	183,200	76,740	-	-
TUNA:						
YELLOWFIN . . . . .	-	-	16,800	2,060	-	-
UNCLASSIFIED. . . . .	-	-	3,000	376	-	-
UNCLASSIFIED, FOR FOOD. . . . .	900	73	-	-	-	-
CRABS, BLUE:					1,959,300	\$100,703
HARD. . . . .	-	-	-	-	19,200	6,673
SOFT. . . . .	-	-	-	-	-	-
TURTLES, SNAPPER. . . . .	99,500	14,562	4,700	679	-	-
TOTAL . . . . .	135,800	17,859	424,900	98,024	1,978,500	107,374

SPECIES	DIP NETS		SCRAPES		DREDGES	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
FLOUNDERS, FLUKE. . . . .	-	-	-	-	3,100	\$600
CRABS, BLUE:						
HARD. . . . .	28,700	\$1,525	-	-	16,525,400	893,933
SOFT. . . . .	63,100	19,980	106,500	\$43,800	600	266
LOBSTERS, NORTHERN. . . . .	-	-	-	-	-	-
CLAMS, HARD:						
PUBLIC. . . . .	-	-	-	-	245,700	129,544
PRIVATE . . . . .	-	-	-	-	45,900	25,657
CONCHS. . . . .	-	-	-	-	249,500	20,262
OYSTERS, MARKET, PRIVATE:						
SPRING. . . . .	-	-	-	-	3,725,400	2,891,938
FALL. . . . .	-	-	-	-	4,363,700	3,326,460
SCALLOPS, SEA . . . . .	-	-	-	-	45,800	22,236
TERRAPIN. . . . .	1,300	266	-	-	400	150
TOTAL . . . . .	93,100	21,793	106,500	43,600	25,205,500	7,311,086

SPECIES	TONGS		RAKES		BY HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CRABS, BLUE, SOFT . . . . .	-	-	-	-	21,600	\$10,058
CLAMS, HARD:						
PUBLIC. . . . .	1,274,900	\$605,658	131,000	\$62,278	68,200	31,618
PRIVATE . . . . .	244,600	115,612	85,200	41,323	-	-
CONCHS. . . . .	-	-	-	-	7,200	722
OYSTERS, MARKET:						
PUBLIC:						
SPRING. . . . .	792,000	624,925	19,400	15,749	700	510
FALL. . . . .	1,116,300	867,622	65,100	48,900	-	-
PRIVATE:						
SPRING. . . . .	217,300	167,431	-	-	-	-
FALL. . . . .	218,000	166,434	-	-	-	-
TERRAPIN. . . . .	-	-	100	26	-	-
TOTAL . . . . .	3,863,100	2,547,662	300,800	166,278	97,700	42,906

## CHESAPEAKE FISHERIES

## CHESAPEAKE STATES - CATCH BY WATERS, 1963

SPECIES	MARYLAND				VIRGINIA	
	OCEAN 1/		CHESAPEAKE BAY		OCEAN 1/	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	100	\$2	1,465,900	\$22,036	-	-
BLUEFISH . . . . .	5,700	520	35,800	4,081	46,600	\$5,663
BUTTERFISH . . . . .	41,700	3,765	1,800	126	664,700	48,744
CARP . . . . .	-	-	163,800	4,145	167,600	5,587
CATFISH AND BULLHEADS . . . . .	-	-	291,900	21,010	-	-
COD . . . . .	150,100	14,445	-	-	50,500	5,370
CRAPPIE . . . . .	-	-	2,700	152	-	-
CROAKER . . . . .	-	-	1,500	365	96,000	23,610
CRUM:						
BLACK . . . . .	9,000	544	13,200	724	5,300	299
RED . . . . .	-	-	132,200	13,400	700	59
EELS, COMMON . . . . .	800	-	-	-	500	25
FLOUNDERS:						
BLACKBACK . . . . .	9,200	541	900	94	1,500	117
FLUKE . . . . .	536,400	120,332	14,000	2,333	1,535,500	303,614
GRAY SOLE . . . . .	1,300	42	-	-	-	-
UNCLASSIFIED . . . . .	-	-	-	-	19,400	1,900
GARFISH . . . . .	-	-	-	-	3,500	68
GIZZARD SHAD . . . . .	-	-	6,100	181	-	-
HAKE:						
RED . . . . .	53,200	890	-	-	2,800	130
WHITE . . . . .	100	2	-	-	5,000	360
HARVESTFISH . . . . .	-	-	-	-	22,800	1,823
HERRING, SEA . . . . .	7,700	146	-	-	-	-
HICKORY SHAD . . . . .	-	-	6,800	407	-	-
HOGCHOKER . . . . .	-	-	3,700	74	-	-
KING WHITING OR "KINGFISH" . . . . .	14,200	1,083	-	-	37,500	3,131
MACKEREL . . . . .	3,900	744	500	105	75,100	16,176
MENHADEN . . . . .	-	-	3,292,900	53,511	29,120,000	372,736
MULLET . . . . .	3,400	269	-	-	10,500	924
PIG FISH . . . . .	200	5	-	-	1,600	68
PIKE OR PICKEREL . . . . .	-	-	3,900	791	-	-
SCUP OR PORGY . . . . .	67,800	3,402	-	-	9,550,300	597,585
SEA BASS . . . . .	304,200	26,109	-	-	4,311,600	554,980
SEA ROBIN . . . . .	72,100	848	-	-	3,100	58
SEA TROUT OR WEAKFISH:						
GRAY . . . . .	68,700	7,653	5,700	567	91,100	10,024
SPOTTED . . . . .	-	-	-	-	200	50
SHAD . . . . .	300	41	826,300	132,202	2,400	520
SHARKS:						
GRAYFISH . . . . .	36,300	1,441	-	-	409,300	10,301
UNCLASSIFIED . . . . .	94,300	1,863	-	-	2,800	112
SKATES . . . . .	1,500	8	-	-	-	-
SPANISH MACKEREL . . . . .	-	-	-	-	100	13
SPOT . . . . .	4,100	120	11,100	1,332	80,800	12,962
SPOT TAIL . . . . .	6,400	695	3,742,600	532,889	3,100	494
STRIPE BASS . . . . .	7,100	1,039	-	-	2,200	426
STURGEON . . . . .	-	-	-	-	-	-
SUCKERS . . . . .	-	-	300	6	-	-
SUNFISH . . . . .	-	-	9,000	416	-	-
SWELLFISH . . . . .	35,700	905	966,100	25,259	138,400	2,352
SWORDFISH . . . . .	-	-	-	-	183,200	76,740
TAUTOG . . . . .	2,200	47	-	-	-	-
TITLEFISH . . . . .	-	-	-	-	14,100	1,141
TUNA:						
SKIPJACK . . . . .	2,073,100	196,351	-	-	-	-
BLUEFIN . . . . .	571,300	49,706	-	-	-	-
YELLOWFIN . . . . .	438,800	53,751	-	-	16,800	2,080
UNCLASSIFIED . . . . .	-	-	-	-	3,000	376
WHITE PERCH . . . . .	100	10	1,371,300	102,442	100	10
WHITING . . . . .	190,400	5,380	-	-	117,200	4,496
YELLOW PERCH . . . . .	300	24	93,400	6,999	-	-
UNCLASSIFIED:						
FOR FOOD . . . . .	200	11	-	-	31,000	2,949
BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	3,616,500	19,507	-	-	294,500	6,711
CRABS, BLUE:						
HARD . . . . .	202,200	13,750	16,731,700	1,137,239	4,021,200	221,895
SOFT AND PEELER . . . . .	3,300	1,178	2,104,800	751,413	118,600	61,313
LOBSTERS, NORTHERN . . . . .	2,100	1,066	-	-	22,300	8,798
CLAMS:						
HARD:						
PUBLIC . . . . .	465,600	253,144	23,700	12,224	928,700	451,869
PRIVATE . . . . .	-	-	-	-	161,500	79,614
SOFT, PUBLIC . . . . .	-	-	6,856,500	1,499,405	-	-
SURF . . . . .	64,100	5,225	-	-	-	-
CONCHS . . . . .	29,400	3,517	-	-	-	-
OYSTERS, MARKET:						
PUBLIC:						
SPRING . . . . .	-	-	2,133,300	1,417,486	10,500	8,438
FALL . . . . .	-	-	4,275,000	3,103,662	13,100	9,699
PRIVATE:						
SPRING . . . . .	97,600	162,400	293,100	190,143	529,800	429,138
FALL . . . . .	108,800	163,176	848,600	581,215	1,279,000	959,250

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# CHESAPEAKE FISHERIES

185

## CHESAPEAKE STATES - CATCH BY WATERS, 1963 - Continued

SPECIES	MARYLAND				VIRGINIA	
	OCEAN 1/		CHESAPEAKE BAY		OCEAN 1/	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
SCALLOPS, SEA . . . . .	-	-	-	-	45,600	\$22,236
SQUID . . . . .	38,900	\$2,811	-	-	252,900	12,779
TERRAPIN . . . . .	-	-	7,600	\$3,015	1,000	450
TURTLES, SNAPPER . . . . .	-	-	52,700	6,183	-	-
<b>TOTAL . . . . .</b>	<b>9,662,400</b>	<b>1,120,733</b>	<b>45,794,400</b>	<b>9,627,652</b>	<b>54,568,600</b>	<b>4,347,747</b>

SPECIES	VIRGINIA - CONTINUED		TOTAL			
	CHESAPEAKE BAY		OCEAN 1/		CHESAPEAKE BAY	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	26,085,400	\$458,993	100	\$2	27,551,300	\$481,029
BLUEFISH . . . . .	585,900	72,904	52,300	6,182	621,700	76,985
BONITO . . . . .	5,600	444	-	-	5,600	444
BUTTERFISH . . . . .	693,500	57,255	726,400	52,509	695,300	57,381
CABIO . . . . .	32,900	2,089	-	-	32,900	2,089
CARP . . . . .	159,000	4,831	167,600	5,587	322,800	8,976
CATFISH AND BULLHEADS . . . . .	1,754,100	116,397	-	-	2,046,000	137,407
COD . . . . .	-	-	200,600	19,815	-	-
CRAPPIE . . . . .	-	-	-	-	2,700	152
CROAKER . . . . .	26,400	6,810	96,000	23,610	27,900	7,195
DRUM:						
BLACK . . . . .	322,300	13,272	14,300	843	335,500	13,996
RED . . . . .	2,000	168	700	59	2,000	168
EELS, COMMON . . . . .	440,300	55,279	1,300	50	572,500	68,679
FLOUNDERS:						
BLACKBACK . . . . .	-	-	10,700	658	900	94
FLUKE . . . . .	184,500	41,215	2,071,900	423,946	198,500	43,548
GRAY SOLE . . . . .	-	-	1,300	42	-	-
UNCLASSIFIED . . . . .	5,500	530	19,400	1,900	5,500	530
GARFISH . . . . .	1,800	34	3,500	68	1,600	34
GIZZARD SHAD . . . . .	20,200	353	-	-	26,300	534
HAKE:						
RED . . . . .	-	-	56,000	1,020	-	-
WHITE . . . . .	-	-	5,100	362	-	-
HARVESTFISH . . . . .	85,200	7,579	22,800	1,823	85,200	7,579
HERRING, SEA . . . . .	11,000	330	7,700	146	11,000	330
HICKORY SHAD . . . . .	25,600	1,141	-	-	32,400	1,548
HOGCHOKER . . . . .	-	-	-	-	3,700	74
KING MACKEREL . . . . .	9,700	1,316	-	-	9,700	1,316
KING WHITING OR "KINGFISH" . . . . .	26,600	2,403	51,700	4,214	26,600	2,403
MACKEREL . . . . .	2,300	433	79,000	16,922	2,800	538
MENHADEN . . . . .	226,601,900	2,922,299	29,120,000	372,736	229,894,800	2,975,810
MULLET . . . . .	33,300	2,946	13,900	1,193	33,300	2,946
PIGFISH . . . . .	2,700	149	2,000	93	2,700	149
PIKE OR PICKEREL . . . . .	-	-	-	-	3,900	791
SCUP OR PORGY . . . . .	800	46	9,618,100	600,987	800	46
SEA BASS . . . . .	4,800	485	4,613,800	581,089	4,600	485
SEA ROBIN . . . . .	-	-	75,200	906	-	-
SEA TROUT OR WEAKFISH:						
GRAY . . . . .	1,007,100	112,116	179,800	17,677	1,012,800	112,693
SPOTTED . . . . .	25,500	6,926	200	50	25,500	6,926
SHAD . . . . .	2,309,100	346,736	2,700	561	3,135,400	478,938
SHARKS:						
GRAYFISH . . . . .	58,400	1,332	445,600	11,742	58,400	1,332
UNCLASSIFIED . . . . .	-	-	97,100	1,975	-	-
SKATES . . . . .	-	-	1,500	8	-	-
SPADEFISH . . . . .	100	6	-	-	100	6
SPANISH MACKEREL . . . . .	79,200	9,891	100	13	79,200	9,891
SPOT . . . . .	1,394,000	222,958	84,900	13,082	1,405,100	224,200
STRIPED BASS . . . . .	2,743,400	355,712	9,500	1,389	6,486,000	888,601
STURGEON . . . . .	1,800	472	9,300	1,467	1,800	472
SUCKERS . . . . .	900	48	-	-	1,200	54
SUNFISH . . . . .	-	-	-	-	9,000	416
SWELLFISH . . . . .	982,700	19,402	174,100	3,257	1,050,800	44,661
SWORDFISH . . . . .	-	-	183,200	78,740	-	-
TAUTOG . . . . .	900	45	2,200	47	900	45
TILEFISH . . . . .	-	-	14,100	1,141	-	-
TUNA:						
SKIPJACK . . . . .	-	-	2,073,100	198,351	-	-
BLUEFIN . . . . .	-	-	571,300	49,706	-	-
LITTLE . . . . .	4,100	82	-	-	4,100	82
YELLOWFIN . . . . .	-	-	455,600	55,831	-	-
UNCLASSIFIED . . . . .	-	-	3,000	376	-	-
WHITE PERCH . . . . .	342,400	26,238	200	20	1,713,700	130,680
WHITING . . . . .	-	-	307,600	9,876	-	-
YELLOW PERCH . . . . .	12,300	1,417	300	24	105,700	8,416
UNCLASSIFIED:						
FOR FOOD . . . . .	57,900	5,043	31,200	2,960	57,900	5,043
BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	999,800	14,089	4,113,000	26,218	999,800	14,089

SEE FOOTNOTE AT END OF TABLE.

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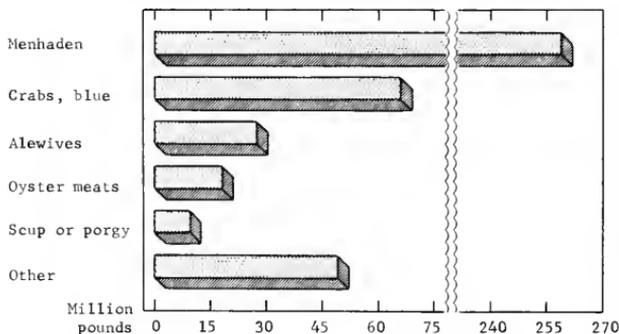
## CHESAPEAKE FISHERIES

## CHESAPEAKE STATES - CATCH BY WATERS, 1963 - Continued

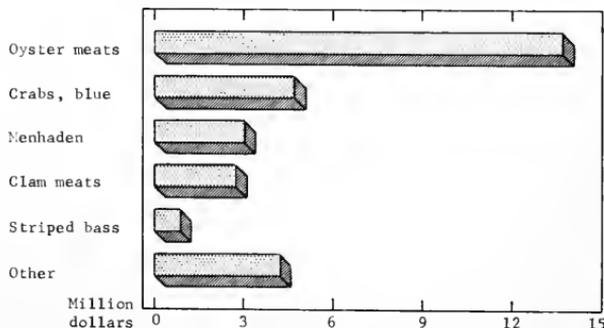
SPECIES	VIRGINIA - CONTINUED		TOTAL			
	CHESAPEAKE BAY		OCEAN 1/		CHESAPEAKE BAY	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CRABS, BLUE:						
HARD:						
SOFT AND PEELER	42,117,300	\$2,323,642	4,223,400	\$235,645	56,649,000	\$3,460,681
LOBSTERS, NORTHERN	630,800	267,485	121,300	62,491	2,935,600	1,016,698
CLAMS:	-	-	24,400	9,624	-	-
HARD:						
PUBLIC	791,100	377,229	1,394,300	705,013	614,800	389,453
PRIVATE	214,200	102,978	161,500	79,614	214,200	102,978
SOFT, PUBLIC	-	-	-	-	6,856,500	1,499,405
SURF	-	-	64,100	5,225	-	-
CONCHS:	256,000	20,895	91,800	8,617	256,000	20,895
OYSTERS, MARKET:						
PUBLIC:						
SPRING	801,600	632,746	10,500	8,438	2,934,900	2,050,232
FALL	1,168,300	906,823	13,100	9,899	5,443,300	4,010,485
PRIVATE:						
SPRING	3,412,900	2,630,231	627,400	591,536	3,706,000	2,820,374
FALL	3,302,700	2,533,664	1,367,600	1,122,426	4,151,300	3,114,879
SCALLOPS, SEA	-	-	45,600	22,236	-	-
SQUID	-	-	291,800	15,590	-	-
TERRAPIN	4,600	1,043	1,000	450	12,200	4,058
TURTLES, SNAPPER	112,900	16,490	-	-	165,600	22,673
TOTAL	320,157,300	14,707,440	64,251,200	5,466,480	365,951,700	24,335,092

1/ INCLUDES BAYS AND CREEKS, EXCLUSIVE OF CHESAPEAKE BAY, WHICH DRAIN INTO THE ATLANTIC OCEAN.

## CHESAPEAKE STATES CATCH, 1963



## VALUE OF CHESAPEAKE STATES CATCH, 1963



# CHESAPEAKE FISHERIES

187

## POTOMAC RIVER SHAD AND ALEWIFE FISHERY

The 1963 shad catch in the Potomac River was 214,900 pounds (87,605 fish) valued at \$35,797 to the fishermen. This was a decline of 18 percent in poundage, 6 percent in number, and 4 percent in value compared with the previous year.

In 1963, the Potomac River alewife catch of 8 million pounds (17 million fish) valued at \$136,499 was down 27 percent in poundage, 34 percent in number, and 37 percent in value compared with 1962.

There were 432 fishermen in the Potomac River shad and alewife fisheries during 1963--25 less than in the previous year. Statistics on the catch and operating units of these fisheries are included in data for Maryland and Virginia.



### SUMMARY OF OPERATING UNITS AND CATCH, 1963

ITEM	MARYLAND			VIRGINIA			TOTAL		
	NUMBER			NUMBER			NUMBER		
OPERATING UNITS									
FISHERMEN, ON BOATS AND SHORE:									
REGULAR . . . . .	75			130			205		
CASUAL . . . . .	106			121			227		
TOTAL . . . . .	181			251			432		
BOATS:									
MOTOR . . . . .	102			97			199		
OTHER . . . . .	17			39			56		
GEAR:									
HAUL SEINES, COMMON .	1			5			6		
LENGTH, YARDS . . . .	500			2,700			3,200		
POUND NETS . . . . .	1			140			141		
FYKE AND HOOP NETS . .	1			48			49		
GILL NETS:									
ANCHOR, SET OR STAKE	182			-			182		
SQUARE YARDS . . . . .	152,300			-			152,300		
DRIFT . . . . .	1			19			20		
SQUARE YARDS . . . . .	1,000			25,000			26,000		
CATCH									
	NUMBER	POUNDS	VALUE	NUMBER	POUNDS	VALUE	NUMBER	POUNDS	VALUE
SHAD:									
HAUL SEINES . . . . .	-	-	-	375	900	\$150	375	900	\$150
POUND NETS . . . . .	-	-	-	43,611	104,600	17,863	43,611	104,600	17,863
FYKE AND HOOP NETS . .	-	-	-	1,550	3,700	600	1,550	3,700	600
GILL NETS:									
ANCHOR, SET OR STAKE	30,321	77,700	\$12,411	-	-	-	30,321	77,700	12,411
DRIFT . . . . .	56	100	23	11,692	27,900	4,750	11,748	28,000	4,773
TOTAL . . . . .	30,377	77,800	12,434	57,228	137,100	23,363	87,605	214,900	35,797
ALEWIVES:									
HAUL SEINES . . . . .	208	100	2	12,900	6,200	100	13,108	6,300	102
POUND NETS . . . . .	1,040	500	8	16,410,210	7,761,400	131,907	16,411,250	7,761,900	131,915
FYKE AND HOOP NETS . .	2,080	1,000	15	304,171	146,000	2,433	306,251	147,000	2,448
GILL NETS, ANCHOR									
SET OR STAKE . . . . .	15,806	7,600	114	239,588	115,000	1,920	255,396	122,600	2,034
TOTAL . . . . .	19,136	9,200	139	16,966,869	8,028,600	136,360	16,986,005	8,037,800	136,499

NOTE:--EXCLUDES TRIBUTARIES OF THE POTOMAC RIVER, BEGINNING JULY 1963.

## SECTION 5 - SOUTH ATLANTIC FISHERIES

The 1963 commercial catch of fish and shellfish landed at ports of the South Atlantic States (North Carolina, South Carolina, Georgia, and the East Coast of Florida), including the commercial catch from fresh-water areas of Florida, was 371 million pounds, valued at \$19.5 million. Compared with the previous year, this was an increase of over 65 million pounds, but a decrease of nearly \$4 million. Record landings of blue crabs and larger catches of menhaden in North Carolina waters were the major factors in the increased landings. The decrease in value was due to an almost complete "crop failure" of shrimp in nearly all South Atlantic waters. In addition to poor catches, the ex-vessel prices for shrimp were relatively low during the peak production periods. Compared with 1962, North Carolina total landings increased 41 percent; and the value, 4 percent. In other States, the volume and value declined from 1962--South Carolina, 3 and 31; Georgia, 5 and 43; and Florida, East Coast 9 and 12 percent, respectively.

Fishermen and vessels. There were 11,940 commercial fishermen in the South Atlantic area--569 less than in 1962. Most of the decrease was among fishermen in the shore and boat category. Over the past several years, the fisheries prosecuted by these small craft and by gear operated from shore have become less remunerative, and fishermen have shifted to industries which appeared to offer more stable employment and higher income. Vessels of 5 net tons and over numbered 1,157--an increase of 16 over the previous year. In December, a North Atlantic vessel, using longlines, caught swordfish about 40 miles off Oregon Inlet on the western edge of the Gulf Stream. This interested North Carolina fishermen, several of whom made plans to rig their vessels for taking swordfish during 1964.

Processing. The value of processed fishery products during 1963 was \$40.1 million--\$5.3 million less than the previous year. Processed shrimp items, production of which is centered in Georgia and Florida, accounted for nearly one-half of the total value.

Weather. There was no unusual curtailment of fishing because of weather. No damage was caused by hurricane Ginny, which swept the offshore waters of the South Atlantic coast during October, although side effects--heavy rains, ground swells, and gusty winds--reduced fishing for a 4-to-5-day period. While not directly affecting fishing, wide variation in norms was reported in two States--North Carolina had the driest April, while South Carolina had the wettest June on record. •

Shrimp. Fishermen of the South Atlantic States had a disastrous year. Total landings were the lowest recorded by the Bureau since 1908. In addition to the apparent "crop failure" of the major species within each State, ex-vessel prices were low. Major factors in the price decline were the greatly increased landings at Gulf ports and record imports. In comparison with 1962, South Carolina suffered most with a decline of 66 percent in volume of landings and 75 percent in value. North Carolina landings declined 42 percent in volume, and 52 percent in value; and Georgia landings were down 37 percent, and value, 54 percent. Florida, East Coast fared best with a decline of only 13 percent and 32 percent in landings and value, respectively. Additional information concerning the South Atlantic shrimp fishery appears on pages 214 to 216.

Menhaden. An increase of over 67 million pounds in the North Carolina catch was a welcome improvement over the disastrously low landings during 1962. Florida, East Coast landings were nearly 9 million pounds less than those of 1962. Almost all of the menhaden were used to produce meal, oil, and solubles. The eight reduction plants in North Carolina were supplied by a fleet of 54 vessels, while the one plant in Florida was supplied by 3 vessels. Market conditions for menhaden meal, oil, and solubles were good throughout the year. The average price for fish meal and scrap was \$125 per ton--the same as the previous year. Most of the solubles were sold at an average of \$54 per ton--\$6 less than in 1962. Oil prices averaged 50 cents per gallon--an increase of about 18 cents over 1962. The oil yield at North Carolina plants was lower than usual because of a greater proportion of small fish.

Oysters. Landings were about 1 million pounds of meats (26 percent) more than during 1962. South Carolina continued to be the major producer, accounting for 79 percent of the total. Increased landings were also recorded at Georgia and Florida, East Coast ports. North Carolina catches continued on a downward trend and prompted the State Department of Conservation and Development to initiate a program of oyster shell planting to maintain this important fishery. While there were some market problems, overall demand was good, and most oyster shuckers found ready markets for their production. Quantities of oysters from the Gulf States were again trucked to the South Atlantic area for processing.

Blue crabs. Crab fishermen experienced an excellent year as evidenced by the record landings in every State except Georgia. Total landings of 50.9 million pounds surpassed by 6.0 million pounds the 1960 record. Production of picked crab meat--4.8 million pounds during 1963--was 722,000 pounds more than in 1962. Some of the landings were shipped to processing plants in the Chesapeake States. The excellent market demand for crab meat throughout the year afforded fishermen a ready market for their catches. Production of soft blue crabs, centered in North Carolina, continued to decline, with landings 15 percent less than in 1962.

Hard clams. The scarcity of shrimp in North Carolina and South Carolina waters prompted more fishermen to enter the clam fishery to maintain their income. The additional fishermen resulted in an increase of nearly 100,000 pounds (31 percent) of meats, compared with 1962. Catches from the offshore waters of North Carolina were very poor in volume and quality of meats.

Bay scallops. This species was landed only at North Carolina ports. Production for the State was 150,000 pounds of meats greater than in 1962. Impetus for the increased production was supplied through the creation of greater demand by more aggressive marketing and tighter quality controls.

Food finfish. Total landings of finfish for human consumption were 68.5 million pounds, with a dockside value of \$6.3 million--only a minor change from the previous year, when landings were 69.4 million pounds valued at \$6.5 million. Compared with 1962, there was a decline of only 1 percent in the total landings of 14 species which normally comprise over 90 percent of the edible finfish landings. Of these 14 species, landings of king whiting, gray sea trout, sea bass, shad, spot, and Spanish mackerel were considerably less than in 1962. Compensating in part for this decline were increases in croakers and flounders. Landings of flounders established a new record for the area.

Other fisheries. There were three rather unusual developments during the year--the previously mentioned discovery of swordfish concentrations off Oregon Inlet in North Carolina, an unprecedented run of bluefish off the coast of South Carolina during November, and quantities of mullet (Mugil cephalus) caught in shrimp trawls by vessels fishing Georgia waters during the autumn.

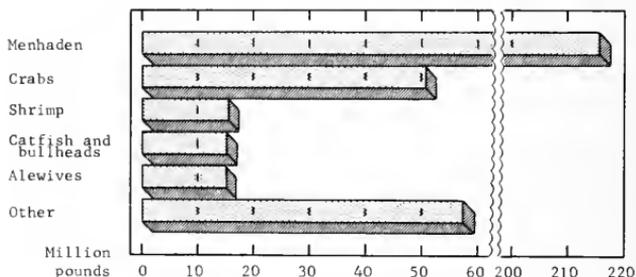
Research. A new 52-foot research vessel for the Bears Bluff Laboratory, Wadmalaw Island, S.C., was launched during September. In trial runs during December, the vessel, designed for use in estuarine and offshore programs, met all expectations. Of interest is the fact that the stem of the vessel was milled from a live oak tree growing in the woods near the laboratory. The Bureau of Commercial Fisheries and the various State agencies continued their research and service programs on the major fisheries of the South Atlantic States. Specific and detailed accomplishments by the Bureau are contained in Report of the Bureau of Commercial Fisheries, Calendar Year 1963, and Operations of the Bureau of Commercial Fisheries Under the Saltonstall-Kennedy Act, Fiscal Year 1963.

# SOUTH ATLANTIC FISHERIES

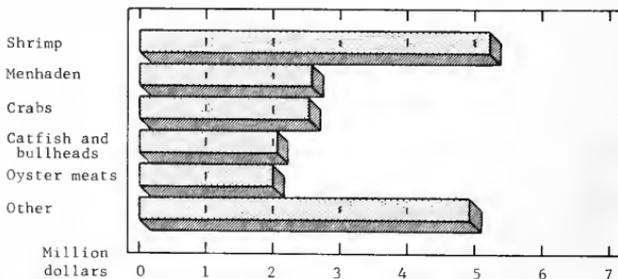
Other information. Condensed summary data on the operating units and catch of the South Atlantic section appearing on the following pages have been previously published in Current Fishery Statistics No. 3666. Seasonal variations in the catch of fish and shellfish in North Carolina, South Carolina, Georgia, and Florida can be ascertained from the 1963 monthly and annual landing bulletins issued for each of these States. Additional data on many aspects of the South Atlantic fisheries may be found in the daily, monthly, and annual reports published by the Hampton, Va., Fishery Market News Office of the Bureau.

Acknowledgments. The following organizations assisted the Bureau to collect the data appearing in this section: North Carolina Department of Conservation and Development, Division of Commercial Fisheries; South Carolina Wildlife Resources Department, Division of Commercial Fisheries; Georgia Game and Fish Commission, Coastal Fisheries Division; Florida State Board of Conservation; and Marine Laboratory, University of Miami.

## SOUTH ATLANTIC STATES CATCH, 1963



## VALUE OF SOUTH ATLANTIC STATES CATCH, 1963



# SOUTH ATLANTIC FISHERIES



## SOUTH ATLANTIC FISHERIES

## SECTIONAL SUMMARIES

## SUMMARY OF CATCH, 1963

(MILLIONS OF POUNDS AND MILLIONS OF DOLLARS)

STATE	FISH		SHELLFISH, ETC.		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
NORTH CAROLINA . . . . .	233	4	24	3	257	7
SOUTH CAROLINA . . . . .	7	1	15	2	22	3
GEORGIA . . . . .	1	(1)	20	3	21	3
FLORIDA, EAST COAST . . . . .	57	4	14	3	71	7
TOTAL . . . . .	296	9	73	11	371	20

1/ LESS THAN \$500,000.

NOTE:--THE CATCH FOR THE INLAND LAKES OF FLORIDA IS INCLUDED WITH THE CATCH FOR THE EAST COAST OF FLORIDA. FOR THE PURPOSE OF THIS REPORT THE "EAST COAST OF FLORIDA" INCLUDES THE COASTAL COUNTIES FROM NASSAU TO DADE, INCLUSIVE.

## SUMMARY OF OPERATING UNITS, 1963

ITEM	NORTH CAROLINA	SOUTH CAROLINA	GEORGIA	FLORIDA, EAST COAST	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	1,696	465	727	924	3,414
ON BOATS AND SHORE:					
REGULAR . . . . .	2,502	823	445	1,447	5,217
CASUAL . . . . .	1,402	669	711	527	3,309
TOTAL . . . . .	5,602	1,957	1,883	2,898	11,940
VESSELS, MOTOR . . . . .	475	222	363	393	1,453
GROSS TONNAGE . . . . .	20,905	5,790	10,523	14,407	41,611
BOATS:					
MOTOR . . . . .	2,267	960	854	1,610	5,711
OTHER . . . . .	706	22	42	49	819
GEAR:					
HAUL SEINES:					
COMMON . . . . .	62	15	4	11	92
LENGTH, YARDS . . . . .	17,170	3,180	600	4,700	25,650
LONG . . . . .	40	-	-	-	40
LENGTH, YARDS . . . . .	57,650	-	-	-	57,650
PURSE SEINES:					
MENHADEN . . . . .	54	-	-	3	57
LENGTH, YARDS . . . . .	21,600	-	-	1,200	22,800
OTHER . . . . .	2	-	-	-	2
LENGTH, YARDS . . . . .	400	-	-	-	400
BAG NETS . . . . .	20	-	-	-	20
YARDS AT MOUTH . . . . .	500	-	-	-	500
OTTER TRAWLS:					
CRAB . . . . .	234	27	78	-	337
YARDS AT MOUTH . . . . .	3,603	491	1,137	-	5,204
FISH . . . . .	101	-	-	-	101
YARDS AT MOUTH . . . . .	2,448	-	-	-	2,448
SHRIMP . . . . .	619	484	916	722	2,445
YARDS AT MOUTH . . . . .	13,951	9,361	12,343	10,262	36,263
POUND NETS, FISH . . . . .	646	-	-	9	655
FYKE AND HOOP NETS, FISH . . . . .	60	-	-	200	260
POTS AND TRAPS:					
CRAB:					
BLUE . . . . .	23,500	9,275	6,900	12,815	54,490
OTHER . . . . .	-	-	-	4,380	4,380
EEL . . . . .	410	-	-	-	410
FISH . . . . .	4,468	3,548	412	7,175	15,623
LOBSTER . . . . .	-	-	-	20,240	20,240
TURTLE . . . . .	25	-	-	-	25
GILL NETS:					
ANCHOR, SET OR STAKE . . . . .	2,720	275	163	16	3,194
SQUARE YARDS . . . . .	676,980	36,612	49,703	16,600	982,295
DRIFT:					
SHAD . . . . .	166	106	312	15	619
SQUARE YARDS . . . . .	51,200	14,196	158,525	17,600	241,521
OTHER . . . . .	44	-	-	12	56
SQUARE YARDS . . . . .	26,960	-	-	19,200	46,160
RUNAROUND . . . . .	192	-	-	267	479
SQUARE YARDS . . . . .	155,160	-	-	580,050	735,210
TRAWL NETS . . . . .	-	-	-	5	5
SQUARE YARDS . . . . .	-	-	-	6,950	6,950

SEE NOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# SOUTH ATLANTIC FISHERIES

193

## SUMMARY OF OPERATING UNITS, 1963 - Continued

ITEM	NORTH CAROLINA	SOUTH CAROLINA	GEORGIA	FLORIDA, EAST COAST	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
<b>GEAR - CONTINUED:</b>					
<b>LINES:</b>					
HAND . . . . .	524	20	30	636	1,210
HOOKS . . . . .	548	40	60	962	1,630
TROLL . . . . .	-	-	-	571	571
HOOKS . . . . .	-	-	-	571	571
LONG OR SET WITH HOOKS . . . . .	9	1	398	694	1,102
HOOKS . . . . .	2,128	200	19,887	577,800	600,015
TROT WITH BAITS . . . . .	374	108	3	25	510
BAITS . . . . .	587,000	81,000	2,150	12,500	682,650
<b>OIP NETS:</b>					
COMMON . . . . .	150	-	-	-	150
DROP . . . . .	-	-	2,400	-	2,400
CAST NETS . . . . .	-	4	4	9	17
SPEARS . . . . .	123	7	-	5	135
<b>DREGGES:</b>					
CLAM . . . . .	26	-	-	-	26
YARDS AT MOUTH . . . . .	34	-	-	-	34
OYSTER, COMMON . . . . .	171	-	-	-	171
YARDS AT MOUTH . . . . .	231	-	-	-	231
SCALLOP . . . . .	70	-	-	-	70
YARDS AT MOUTH . . . . .	70	-	-	-	70
TONGS . . . . .	80	-	-	11	91
GRASS . . . . .	-	217	58	-	275
RAKES . . . . .	260	42	-	-	302

NOTE:--THE OPERATING UNITS FOR THE INLAND LAKES OF FLORIDA ARE INCLUDED WITH THE DATA FOR THE EAST COAST OF FLORIDA.

## CATCH BY STATES, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	NORTH CAROLINA		SOUTH CAROLINA		GEORGIA	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
<b>FISH</b>						
ALEWIVES . . . . .	15,100	151	-	-	-	-
BLUEFISH . . . . .	813	97	114	18	(1)	(1)
BOWFIN . . . . .	(1)	(1)	-	-	(1)	(1)
BUTTERFISH . . . . .	202	14	-	-	-	-
CABIO . . . . .	17	1	-	-	-	-
CARP . . . . .	166	5	-	-	2	(1)
CATFISH AND BULLHEADS . . . . .	1,230	110	368	34	89	19
CROAKER . . . . .	2,276	152	36	1	1	(1)
<b>DRUM:</b>						
BLACK . . . . .	50	3	3	(1)	-	(1)
RED . . . . .	71	5	-	-	-	-
EELS, COMMON . . . . .	39	2	-	-	1	(1)
FLOUNDERS . . . . .	2,674	443	125	30	22	-
GROUPERS . . . . .	(1)	(1)	-	-	(1)	(1)
GRUNTS . . . . .	2	(1)	10	1	-	-
HARVESTFISH . . . . .	20	2	-	-	-	-
HICKORY SHAD . . . . .	292	.9	4	(1)	1	(1)
KING MACKEREL . . . . .	53	10	1	1	1	(1)
KING WHITING OR "KINGFISH" . . . . .	1,071	11	246	32	125	11
MACKEREL . . . . .	1	(1)	-	-	-	-
MENHADEN . . . . .	190,214	2,326	-	-	-	-
MULLET . . . . .	1,911	122	2,211	166	26	3
PIGFISH . . . . .	62	5	-	-	-	-
POMPANO . . . . .	11	3	130	55	-	-
SAND PERCH . . . . .	26	1	-	-	-	-
SCUP OR PORGY . . . . .	192	11	4	(1)	-	-
SEA BASS . . . . .	739	77	265	40	2	(1)
<b>SEA TROUT OR WEAKFISH:</b>						
GRAY . . . . .	1,761	134	6	(1)	(1)	(1)
SPOTTED . . . . .	232	74	48	11	5	2
SHAD . . . . .	693	168	120	33	331	68
SHARKS, UNCLASSIFIED . . . . .	4	(1)	37	4	(1)	(1)
SHEEPSHEAD, SALT-WATER . . . . .	8	1	3	(1)	(1)	(1)
<b>SNAPPER:</b>						
RED . . . . .	2	1	(1)	(1)	2	1
VERMILION . . . . .	-	-	10	1	-	-
SPADEFISH . . . . .	10	1	-	-	-	-

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## SOUTH ATLANTIC FISHERIES

## CATCH BY STATES, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	NORTH CAROLINA		SOUTH CAROLINA		GEORGIA	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH - CONTINUED						
SPANISH MACKEREL . . . . .	135	20	6	1	1	(1)
SPOT . . . . .	916	84	2,719	146	4	1
STRIPED BASS . . . . .	736	115	-	-	1	(1)
STURGEON . . . . .	43	9	53	8	3	1
SUCKERS . . . . .	-	-	-	-	5	(1)
SWELLFISH . . . . .	466	10	-	-	-	-
SWORDFISH . . . . .	1	-	-	-	-	-
TILEFISH . . . . .	(1)	(1)	-	-	-	-
WHITE PERCH . . . . .	259	26	-	-	-	-
WHITING . . . . .	1	(1)	-	-	-	-
YELLOW PERCH . . . . .	43	3	-	-	-	-
UNCLASSIFIED, FOR BAIT, REDUCTION, AND ANIMAL FOOD.	10,403	78	554	7	204	4
TOTAL FISH . . . . .	232,965	4,385	7,075	589	827	133
SHELLFISH, ETC.						
CRABS, BLUE:						
HARD . . . . .	18,835	945	8,839	423	14,500	596
SOFT AND PEELER . . . . .	83	38	-	-	-	-
TOTAL CRABS . . . . .	18,918	983	8,839	423	14,500	596
SHRIMP.						
HARD . . . . .	3,374	1,065	2,201	643	5,448	1,802
CLAMS, HARD, PUBLIC . . . . .	332	130	73	25	-	-
OCTOPUS . . . . .	1	(1)	-	-	-	-
OYSTERS, MARKET:						
PUBLIC:						
SPRING . . . . .	307	149	-	-	-	-
FALL . . . . .	309	166	-	-	-	-
PRIVATE:						
SPRING . . . . .	32	17	2,394	973	166	58
FALL . . . . .	46	25	1,433	583	70	24
TQTL OYSTERS . . . . .	694	357	3,827	1,556	236	82
SCALLOPS, BAY						
SQUID . . . . .	321	122	-	-	-	-
TERRAPIN . . . . .	29	2	-	-	-	-
TURTLES, SNAPPER . . . . .	(1)	(1)	-	-	-	-
TOTAL SHELLFISH, ETC. . . . .	23,687	2,662	14,940	2,647	20,184	2,480
GRAND TOTAL . . . . .	256,652	7,047	22,015	3,236	21,011	2,613

SPECIES	FLORIDA, EAST COAST		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE
FISH				
ALEWIVES . . . . .	23	1	15,123	152
AMBERJACK . . . . .	6	(1)	6	(1)
BARRACUOA . . . . .	(1)	(1)	(1)	(1)
BLUEFISH . . . . .	1,362	114	2,269	229
BLUE RUNNER . . . . .	25	1	25	1
BONITO . . . . .	1	(1)	1	(1)
BOWFIN . . . . .	-	-	(1)	(1)
BUTTERFISH . . . . .	-	-	202	14
CABLO . . . . .	6	1	23	2
CARP . . . . .	-	-	168	5
CATFISH AND BULLHEADS . . . . .	13,704	1,931	15,391	2,094
CREVALLE . . . . .	77	2	77	2
CROAKER . . . . .	114	17	2,427	170
DOLPHIN . . . . .	4	1	4	1
DRUM:				
BLACK . . . . .	116	9	170	12
RED . . . . .	134	20	205	25
EELS, COMMON . . . . .	-	-	40	2
FLOUNDERS . . . . .	190	30	3,011	506
GROUPERS . . . . .	200	21	200	21
GRUNTS . . . . .	22	2	34	3
HARVESTFISH . . . . .	-	-	20	2
HICKORY SHAD . . . . .	-	-	294	9
HOGFISH . . . . .	4	1	17	4
JEWFISH . . . . .	17	1	17	1
KING MACKEREL . . . . .	2,173	248	2,231	259
KING WHITING OR "KINGFISH" . . . . .	1,146	95	2,588	249
MACKEREL . . . . .	-	-	1	(1)

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# SOUTH ATLANTIC FISHERIES

195

## CATCH BY STATES, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	FLORIDA, EAST COAST		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE
<b>FISH - CONTINUED</b>				
MENHADEN . . . . .	25,672	263	215,866	2,589
MOJARRA . . . . .	151	11	151	11
MULLET . . . . .	3,379	156	7,527	447
PERMIT . . . . .	4	(1)	4	(1)
PIGFISH . . . . .	3	(1)	85	5
POMPANO . . . . .	183	120	324	178
SAND PERCH . . . . .	-	-	26	1
SCUP OR PORGY . . . . .	40	3	236	14
SEA BASS . . . . .	63	6	1,069	123
SEA CATFISH . . . . .	8	1	8	1
SEA TROUT OR WEAKFISH:				
GRAY . . . . .	72	8	1,839	142
SPOTTED . . . . .	801	192	1,086	279
SHAD . . . . .	590	63	1,734	352
SHARKS, UNCLASSIFIED . . . . .	-	-	41	4
SHEEPSHEAD, SALT-WATER . . . . .	71	5	82	6
SNAPPER:				
MANGROVE . . . . .	84	15	84	15
MUTTON . . . . .	83	17	83	17
RED . . . . .	485	151	489	153
VERMILION . . . . .	8	2	18	3
YELLOWTAIL . . . . .	103	24	103	24
SPADEFISH . . . . .	-	-	10	1
SPANISH MACKEREL . . . . .	2,123	193	2,267	214
SPOT . . . . .	1,127	141	4,766	372
STRIPED BASS . . . . .	-	-	737	115
STURGEON . . . . .	-	-	99	18
SUCKERS . . . . .	-	-	5	(1)
SWELLFISH . . . . .	-	-	466	10
SWORDFISH . . . . .	-	-	1	1
TILEFISH . . . . .	-	-	(1)	(1)
TRIGGERFISH . . . . .	7	(1)	7	(1)
TRIPLETAIL . . . . .	2	(1)	2	(1)
WARSAW . . . . .	10	1	10	1
WHITE PERCH . . . . .	-	-	259	26
WHITING . . . . .	-	-	1	(1)
YELLOW PERCH . . . . .	-	-	43	3
UNCLASSIFIED:				
FOR FOOD . . . . .	243	16	243	16
BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	2,094	29	13,255	118
<b>TOTAL FISH . . . . .</b>	<b>56,730</b>	<b>3,912</b>	<b>297,597</b>	<b>9,019</b>
<b>SHELLFISH, ETC.</b>				
<b>CRABS:</b>				
BLUE:				
HARD . . . . .	8,595	490	50,769	2,454
SOFT AND PEELER . . . . .	(1)	(1)	83	38
STONE . . . . .	157	63	157	63
<b>TOTAL CRABS . . . . .</b>	<b>8,752</b>	<b>553</b>	<b>51,009</b>	<b>2,555</b>
<b>LOBSTERS, SPINY . . . . .</b>	<b>815</b>	<b>328</b>	<b>815</b>	<b>328</b>
<b>SHRIMP . . . . .</b>	<b>4,506</b>	<b>1,736</b>	<b>15,529</b>	<b>5,246</b>
<b>CLAMS, HARD, PUBLIC . . . . .</b>	<b>1</b>	<b>(1)</b>	<b>406</b>	<b>155</b>
<b>OCTOPUS . . . . .</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>(1)</b>
<b>OYSTERS, MARKET:</b>				
PUBLIC:				
SPRING . . . . .	45	14	352	163
FALL . . . . .	30	9	339	175
PRIVATE:				
SPRING . . . . .	2	1	2,594	1,049
FALL . . . . .	3	1	1,552	633
<b>TOTAL OYSTERS . . . . .</b>	<b>80</b>	<b>25</b>	<b>4,837</b>	<b>2,020</b>
<b>SCALLOPS, BAY . . . . .</b>	<b>-</b>	<b>-</b>	<b>321</b>	<b>122</b>
<b>SQUID . . . . .</b>	<b>2</b>	<b>(1)</b>	<b>31</b>	<b>2</b>
<b>TERRAPIN . . . . .</b>	<b>-</b>	<b>-</b>	<b>(1)</b>	<b>(1)</b>
<b>TURTLES:</b>				
GREEN . . . . .	1	(1)	1	(1)
SNAPPER . . . . .	-	-	18	3
SOFT-SHELL . . . . .	152	18	152	18
<b>TOTAL SHELLFISH, ETC. . . . .</b>	<b>14,309</b>	<b>2,660</b>	<b>73,120</b>	<b>10,449</b>
<b>GRAND TOTAL . . . . .</b>	<b>71,039</b>	<b>6,572</b>	<b>370,717</b>	<b>19,468</b>

1/ LESS THAN 500 POUNDS OR \$500.

NOTE:--STATISTICS ON THE CATCH ARE SHOWN IN ROUND (LIVE) WEIGHT EXCEPT FOR SHELL MOLLUSKS. CLAMS AND OYSTERS ARE REPORTED IN WEIGHT OF TOTAL MEATS. SCALLOPS ARE REPORTED IN WEIGHT OF EDIBLE MEATS.

## SOUTH ATLANTIC FISHERIES

## CATCH OF CERTAIN SHELLFISH, 1963

(NUMBER AND BUSHELS)

SPECIES	NORTH CAROLINA		SOUTH CAROLINA		GEORGIA	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
CRABS:						
BLUE:						
HARD . . . . . NUMBER	56,506,200	\$945,064	26,517,600	\$423,026	29,000,000	\$596,071
SOFT AND PEELER, DO	250,200	37,530	-	-	-	-
STONE, . . . . . DO	-	-	-	-	-	-
CLAMS, HARD, PUBLIC, U.S. STD. BUSHEL	38,436	129,808	8,343	24,497	-	-
OYSTERS, MARKET:						
PUBLIC:						
SPRING . . . . . DO	60,472	149,061	-	-	-	-
FALL . . . . . DO	57,757	165,920	-	-	-	-
PRIVATE:						
SPRING . . . . . DO	6,307	16,910	736,677	973,431	45,273	57,995
FALL . . . . . DO	8,919	24,814	457,796	583,059	28,606	24,430
SCALLOPS, BAY, . . . . . DO	53,517	121,914	-	-	-	-

SPECIES	FLORIDA, EAST COAST		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE
CRABS:				
BLUE:				
HARD . . . . . NUMBER	17,190,400	\$489,925	129,214,200	\$2,454,086
SOFT AND PEELER, DO	800	86	251,000	37,616
STONE, . . . . . DO	157,400	62,804	157,400	62,804
CLAMS, HARD, PUBLIC, U.S. STD. BUSHEL	88	224	46,867	154,529
OYSTERS, MARKET:				
PUBLIC:				
SPRING . . . . . DO	10,318	13,620	70,790	162,681
FALL . . . . . DO	8,389	9,060	66,146	174,980
PRIVATE:				
SPRING . . . . . DO	545	720	788,802	1,049,056
FALL . . . . . DO	750	810	496,071	633,113
SCALLOPS, BAY, . . . . . DO	-	-	53,517	121,914

NOTE:--THE CAPACITY OF A U. S. STANDARD BUSHEL IS 2,150.4 CUBIC INCHES.

## AVERAGE WEIGHTS OF CERTAIN SHELLFISH, 1963

SPECIES	NORTH CAROLINA	SOUTH CAROLINA	GEORGIA	FLORIDA, EAST COAST
	QUANTITY	QUANTITY	QUANTITY	QUANTITY
CRABS:				
BLUE:				
HARD . . . . . NUMBER PER POUND	3.00	3.00	2.00	2.00
SOFT AND PEELER, DO	3.00	-	-	4.00
STONE, . . . . . DO	-	-	-	1.00
CLAMS, HARD, PUBLIC, U.S. STANDARD BUSHEL	8.63	8.75	-	8.00
OYSTERS, MARKET:				
PUBLIC:				
SPRING . . . . . DO	5.08	-	-	4.40
FALL . . . . . DO	5.35	-	-	3.60
PRIVATE:				
SPRING . . . . . DO	5.01	3.25	3.66	4.40
FALL . . . . . DO	5.18	3.13	2.44	3.60
SCALLOPS, BAY, . . . . . DO	6.00	-	-	-

NOTE:--THE CAPACITY OF A U. S. STANDARD BUSHEL IS 2,150.4 CUBIC INCHES.

# SOUTH ATLANTIC FISHERIES

197

## MANUFACTURED FISHERY PRODUCTS, 1963

ITEM	NORTH CAROLINA		SOUTH CAROLINA	
	QUANTITY	VALUE	QUANTITY	VALUE
ALEWIVES:				
CANNED:				
FISH: . . . . .	STANDARD CASES	(1)	-	-
ROE . . . . .	DO	8,700	-	-
SALTED. . . . .	POUNDS	4,116,500	-	-
BLUEFISH FILLETS, FRESH				
AND FROZEN . . . . .	DO	(1)	-	-
FLOUNDER:				
FILLETS, FRESH. . . . .	DO	(1)	-	-
SPECIALTIES, FROZEN (BREADED	DO	(1)	-	-
AND STUFFED) . . . . .	DO	(1)	-	-
MENHADEN:				
MEAL. . . . .	TONS	19,772	-	-
OIL . . . . .	1,000 POUNDS	15,328	-	-
SOLUBLES. . . . .	TONS	7,707	-	-
MULLET, SALTED. . . . .	POUNDS	(1)	-	-
SCUP, FILLETS, FRESH. . . . .	DO	(1)	-	-
SEA BASS FILLETS, FRESH . . . . .	DO	(1)	-	-
SEA TROUT FILLETS, FRESH AND				
FROZEN . . . . .	DO	(1)	-	-
SHAD, CANNED. . . . .	STANDARD CASES	(1)	-	-
SPANISH MACKEREL FILLETS, FRESH				
AND FROZEN . . . . .	POUNDS	(1)	-	-
STRIPED BASS FILLETS, FRESH . . . . .	DO	(1)	-	-
CRAES, BLUE:				
FRESH AND FROZEN:				
COOKED MEAT . . . . .	DO	1,799,180	295,300	\$376,605
SPECIALTIES (DEVILED, CAKES,	DO	(1)	(1)	(1)
ETC.) . . . . .	DO	(1)	(1)	(1)
CANNED:				
REGULAR MEAT. . . . .	STANDARD CASES	(1)	(1)	(1)
SPECIALTIES (DEVILED) . . . . .	DO	(1)	(1)	(1)
MEAL AND SCRAP. . . . .	TONS	(1)	(1)	(1)
SHRIMP, FRESH AND FROZEN:				
RAW, HEADLESS . . . . .	POUNDS	(1)	(1)	(1)
PEELED AND DEVEINED, RAW. . . . .	DO	(1)	(1)	(1)
COOKED AND PEELED . . . . .	DO	(1)	(1)	(1)
BREADED, RAW AND COOKED . . . . .	DO	(1)	(1)	(1)
SPECIALTIES (CREOLE, COCKTAILS,	DO	(1)	(1)	(1)
STUFFED, ETC.) . . . . .	DO	(1)	(1)	(1)
CLAMS, SHUCKED, FRESH . . . . .	GALLONS	(1)	(1)	(1)
OYSTERS:				
SHUCKED, FRESH. . . . .	DO	66,786	87,415	546,124
BREADED, FRESH AND FROZEN . . . . .	POUNDS	(1)	(1)	(1)
CANNED:				
REGULAR . . . . .	STANDARD CASES	-	(1)	(1)
SPECIALTIES (STEWES) . . . . .	DO	-	(1)	(1)
SCALLOPS:				
BAY, SHUCKED, FRESH . . . . .	GALLONS	(1)	(1)	(1)
BREADED, RAW AND COOKED . . . . .	POUNDS	(1)	(1)	(1)
UNCLASSIFIED:				
FRESH AND FROZEN PACKAGED:				
FILLETS AND STEAKS, STICKS,				
PORTIONS, AND OTHER FISH				
AND SHELLFISH . . . . .	DO	300,550	32,350	32,445
SHELLFISH, SHUCKED. . . . .	GALLONS	20,400	-	-
CANNED. . . . .	STANDARD CASES	25,309	83,496	1,393,291
CURED . . . . .	POUNDS	225,000	-	-
INDUSTRIAL. . . . .	-	-	-	-
TOTAL . . . . .	-	-	-	-
		7,433,716		2,350,465

ITEM	GEORGIA		FLORIDA, EAST COAST	
	QUANTITY	VALUE	QUANTITY	VALUE
BLUEFISH FILLETS, FRESH AND				
FROZEN . . . . .	POUNDS	-	(1)	(1)
BUTTERFISH, SMOKED. . . . .	DO	-	(1)	(1)
CHUBS, SMOKED . . . . .	DO	-	(1)	(1)
FLOUNDER, SPECIALTIES, FROZEN				
(BREADED AND STUFFED) . . . . .	DO	(1)	-	-
GROUPER FILLETS, FRESH AND				
FROZEN . . . . .	DO	-	143,000	\$64,210
HALIBUT STEAKS, FROZEN. . . . .	DO	-	(1)	(1)
KING MACKEREL, PASTE, CANNED. . . . .	STANDARD CASES	-	(1)	(1)
KING WHITING:				
FILLETS, FROZEN . . . . .	POUNDS	-	(1)	(1)
STEAKS, FRESH AND FROZEN. . . . .	DO	-	(1)	(1)
SMOKED. . . . .	DO	-	(1)	(1)
MARLIN, SMOKED. . . . .	DO	-	(1)	(1)

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## SOUTH ATLANTIC FISHERIES

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

ITEM	GEORGIA		FLORIDA, EAST COAST	
	QUANTITY	VALUE	QUANTITY	VALUE
MENHADEN:				
MEAL . . . . .	TONS	-	(1)	(1)
OIL . . . . .	1,000 POUNDS	-	(1)	(1)
SOLUBLES . . . . .	TONS	-	(1)	(1)
MULLET, SMOKED . . . . .	POUNDS	-	(1)	(1)
POMPANO FILLETS, FRESH AND FROZEN . . . . .	DO	-	(1)	(1)
RED SNAPPER FILLETS, FRESH AND FROZEN . . . . .	DO	-	237,940	\$166,824
SABLEFISH, SMOKED . . . . .	DO	-	(1)	(1)
SALMON, SMOKED . . . . .	DO	-	(1)	(1)
SEA TROUT FILLETS, FRESH AND FROZEN . . . . .	DO	-	(1)	(1)
SPANISH MACKEREL FILLETS, FRESH AND FROZEN . . . . .	DO	-	134,000	45,510
STURGEON, SMOKED . . . . .	DO	-	(1)	(1)
WHITFISH, SMOKED . . . . .	DO	-	(1)	(1)
CRABS:				
BLUE:				
FRESH AND FROZEN:				
COOKED MEAT . . . . .	DO	1,265,068	\$1,248,600	1,473,479
SPECIALTIES (DEVILED, CAKES, ETC.) . . . . .	DO	(1)	(1)	(1)
MEAL AND SCRAP . . . . .	TONS	(1)	(1)	(1)
STONE, COOKED CLAWS . . . . .	POUNDS	-	(1)	(1)
LOBSTERS, SPINY:				
WHOLE, COOKED, FRESH AND FROZEN . . . . .	POUNDS	-	1,120,080	608,547
TAILS, RAW, FRESH AND FROZEN . . . . .	DO	-	420,622	57,332
SHRIMP, FRESH AND FROZEN:				
RAW, HEADLESS . . . . .	DO	910,641	511,601	966,822
PEELED AND DEVILED, RAW . . . . .	DO	2,933,211	3,706,235	83,026
BREADED, RAW AND COOKED . . . . .	DO	14,297,588	8,477,162	6,563,638
SPECIALTIES (CREOLE, COCKTAILS, STUFFED, ETC.) . . . . .	DO	1,039,603	758,205	487,892
CLAMS, BREADED . . . . .	DO	-	-	(1)
OYSTERS:				
SHUCKED, FRESH . . . . .	GALLONS	24,022	133,410	(1)
BREADED, FRESH AND FROZEN . . . . .	POUNDS	(1)	(1)	(1)
SHELL GRIT AND LIME . . . . .	TONS	-	-	(1)
SCALLOPS, BREADED, RAW AND COOKED . . . . .	POUNDS	740,085	401,512	(1)
UNCLASSIFIED:				
FRESH AND FROZEN PACKAGED: FILLETS AND STEAKS, STICKS, PORTIONS, AND OTHER FISH AND SHELLFISH . . . . .	DO	7,537,157	2,826,058	1,775,426
SHELLFISH, SHUCKED . . . . .	GALLONS	-	-	5,454
CANNED . . . . .	STANDARD CASES	-	-	1,168
CURED . . . . .	POUNDS	-	-	554,750
INDUSTRIAL . . . . .	-	-	22,724	-
TOTAL . . . . .	-	-	18,085,507	12,181,405

1/ INCLUDED WITH UNCLASSIFIED ITEMS. NOTE:--SOME OF THE ABOVE PRODUCTS MAY HAVE BEEN MANUFACTURED FROM RAW PRODUCTS IMPORTED FROM ANOTHER STATE OR A FOREIGN COUNTRY; THEREFORE, THEY CANNOT BE CORRELATED DIRECTLY WITH THE CATCH WITHIN THE STATE. CERTAIN ITEMS MAY BE SHOWN IN AN INTERMEDIATE AND ALSO IN A MORE ADVANCED STAGE OF PROCESSING.

## SUMMARY OF MANUFACTURED PRODUCTS, 1963

(VALUE IN THOUSANDS OF DOLLARS)

ITEM	QUANTITY	VALUE
PACKAGED, FRESH AND FROZEN:		
NOT BREADED:		
FISH . . . . .	1,000 POUNDS	916
SHELLFISH . . . . .	DO	13,151
BREADED:		
FISH . . . . .	DO	7,181
SHELLFISH . . . . .	DO	21,933
SPECIALTIES (FISH AND SHELLFISH) . . . . .	DO	3,241
CANNED FISH AND SHELLFISH . . . . .	1,000 STANDARD CASES	119
CURED:		
SALTED . . . . .	1,000 POUNDS	4,342
SMOKED . . . . .	DO	555
INDUSTRIAL PRODUCTS . . . . .	-	-
TOTAL . . . . .	-	40,051

# SOUTH ATLANTIC FISHERIES

199

## VALUE OF MANUFACTURED PRODUCTS, BY STATES, 1963

(THOUSANDS OF DOLLARS)

STATE	VALUE
NORTH CAROLINA . . . . .	7,434
SOUTH CAROLINA . . . . .	2,350
GEORGIA . . . . .	18,086
FLORIDA, EAST COAST . . . . .	12,181
<b>TOTAL . . . . .</b>	<b>40,051</b>

## WHOLESALE AND MANUFACTURING, 1963

ITEM	NORTH CAROLINA	SOUTH CAROLINA	GEORGIA	FLORIDA, EAST COAST	TOTAL
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
WHOLESALE AND MANUFACTURING: ESTABLISHMENTS . . . . .	165	67	52	131	415
PERSONS ENGAGED: AVERAGE FOR SEASON . . . . .	2,664	871	2,560	1,322	7,617
AVERAGE FOR YEAR . . . . .	974	579	1,845	1,184	4,582



SHUCKING OYSTERS

## SOUTH ATLANTIC FISHERIES

## NORTH CAROLINA

## OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES		PURSE SEINES		SAG NETS	OTTER TRAWLS		
	COMMON	LONG	MENHADEN	OTHER		CRAB	FISH	SHRIMP
	NUMBER	NUMBER	NUMBER	NUMBER		NUMBER	NUMBER	NUMBER
FISHERMEN:								
ON VESSELS	-	60	939	-	-	66	206	647
ON BOATS AND SHORE:								
REGULAR	119	161	-	-	20	215	50	498
CASUAL	243	-	-	12	-	43	-	4
TOTAL	362	221	939	12	20	344	256	1,349
VESSELS, MOTOR	-	20	54	-	-	43	76	383
GROSS TONNAGE	-	165	11,859	-	-	493	2,975	8,181
BOATS:								
MOTOR	38	60	108	4	20	191	25	319
OTHER	47	80	54	-	-	-	-	-
GEAR:								
NUMBER	62	40	54	2	20	234	101	819
LENGTH, YARDS	17,170	57,650	21,600	400	-	-	-	-
YARDS AT MOUTH	-	-	-	-	500	3,603	2,448	13,951

ITEM	POUND NETS, FISH	FYKE AND HOOP NETS, FISH	POTS AND TRAPS				GILL NETS	
			CRAB	EEL	FISH	TURTLE	ANCHOR, SET OR STAKE	DRIFT
			NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:								
ON VESSELS	-	-	-	-	65	-	23	-
ON BOATS AND SHORE:								
REGULAR	115	-	366	-	54	-	433	-
CASUAL	71	10	67	26	73	4	353	186
TOTAL	186	10	433	26	192	4	809	186
VESSELS, MOTOR	-	-	-	-	32	-	9	-
GROSS TONNAGE	-	-	-	-	481	-	70	-
BOATS:								
MOTOR	80	6	372	26	85	4	518	98
OTHER	-	-	-	-	43	-	100	68
GEAR:								
NUMBER	646	80	23,500	410	4,466	25	2,720	186
SQUARE YARDS	-	-	-	-	-	-	876,960	51,200

ITEM	GILL NETS - CONTINUED		HAND 1/	LINES		DIP NETS, COMMON	SPEARS
	DRIFT-CONTINUED	RUNA-ROUND		LONG OR SET WITH HOOKS	TROT WITH BAITTS		
	NUMBER	NUMBER		NUMBER	NUMBER		
FISHERMEN:							
ON VESSELS	2	-	6	5	-	-	-
ON BOATS AND SHORE:							
REGULAR	-	246	-	-	292	-	-
CASUAL	42	90	26	8	87	150	123
TOTAL	44	336	32	13	379	150	123
VESSELS, MOTOR	1	-	2	1	-	-	-
GROSS TONNAGE	21	-	167	19	-	-	-
BOATS:							
MOTOR	5	175	17	8	364	150	-
OTHER	37	31	-	-	10	-	123
GEAR:							
NUMBER	44	192	524	9	374	150	123
SQUARE YARDS	28,960	155,160	-	-	-	-	-
HOOKS OR BAITTS	-	-	548	2,128	587,000	-	-

ITEM	DREDGES			TONGS	RAKES	BY HAND	TOTAL, EXCLUSIVE OF DUPLICATION
	CLAM	OYSTER, COMMON	SCALLOP				
	NUMBER	NUMBER	NUMBER				
FISHERMEN:							
ON VESSELS	5	24	-	-	-	-	1,898
ON BOATS AND SHORE:							
REGULAR	36	294	35	44	-	60	2,502
CASUAL	-	24	-	36	260	216	1,402
TOTAL	41	342	35	80	260	276	5,802
VESSELS, MOTOR	2	12	-	-	-	-	475
GROSS TONNAGE	75	102	-	-	-	-	20,905
BOATS:							
MOTOR	24	159	35	47	75	90	2,267
OTHER	-	-	-	33	165	186	708
GEAR:							
NUMBER	26	171	70	80	260	-	-
YARDS AT MOUTH	34	231	70	-	-	-	-

1/ APPROXIMATELY 400 LINES WERE FISHED FROM RIVER BANKS FOR SHAPPER TURTLES.

# SOUTH ATLANTIC FISHERIES

201

## NORTH CAROLINA - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		PURSE SEINES		BAG NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	301,200	\$3,012	-	-	-	-
BLUEFISH . . . . .	527,400	61,680	-	-	-	-
BUTTERFISH . . . . .	75,000	5,250	-	-	-	-
CABIO . . . . .	13,400	938	-	-	-	-
CARP . . . . .	14,800	444	-	-	-	-
CATFISH AND BULLHEADS . . . . .	43,900	3,950	-	-	-	-
CROAKER . . . . .	466,700	35,600	-	-	-	-
DRUM:						
BLACK . . . . .	1,100	66	-	-	-	-
RED . . . . .	69,700	4,707	-	-	-	-
FLOUNDERS . . . . .	194,600	32,440	-	-	-	-
HARVESTFISH . . . . .	14,200	1,136	-	-	-	-
HICKORY SHAD . . . . .	7,700	231	-	-	-	-
KING MACKEREL . . . . .	3,400	680	-	-	-	-
KING WHITING OR "KINGFISH" . . . . .	134,700	13,370	-	-	-	-
MENHADEN . . . . .	93,300	1,091	190,120,500	\$2,324,914	-	-
MULLET . . . . .	1,135,600	66,711	-	-	-	-
PIGFISH . . . . .	47,500	2,919	-	-	-	-
POMPANO . . . . .	10,900	2,725	-	-	-	-
SEA TROUT OR WEAKFISH:						
GRAY . . . . .	147,700	11,576	-	-	-	-
SPOTTED . . . . .	159,300	50,512	-	-	-	-
SHAD . . . . .	22,100	5,437	-	-	-	-
SHARKS, UNCLASSIFIED . . . . .	2,500	225	-	-	-	-
SHEEPSHEAD, SALT-WATER . . . . .	5,600	448	-	-	-	-
SPADEFISH . . . . .	6,600	528	-	-	-	-
SPANISH MACKEREL . . . . .	89,200	13,380	-	-	-	-
SPOT . . . . .	705,400	65,297	-	-	-	-
STRIPED BASS . . . . .	100,600	14,416	10,000	1,600	-	-
STURGEON . . . . .	10,700	2,140	-	-	-	-
WHITE PERCH . . . . .	15,200	1,520	-	-	-	-
YELLOW PERCH . . . . .	2,300	138	-	-	-	-
SHRIMP . . . . .	-	-	-	-	125,000	\$37,500
TURTLES, SNAPPER . . . . .	1,100	196	-	-	-	-
<b>TOTAL . . . . .</b>	<b>4,423,400</b>	<b>402,765</b>	<b>190,130,500</b>	<b>2,326,514</b>	<b>125,000</b>	<b>37,500</b>

SPECIES	OTTER TRAWLS		POUND NETS		FYKE AND HOOP NETS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	-	-	12,941,200	\$129,412	11,600	\$118	-	-
BLUEFISH . . . . .	4,000	\$400	40,000	4,800	-	-	-	-
BUTTERFISH . . . . .	110,600	7,525	16,000	1,120	-	-	-	-
CABIO . . . . .	-	-	1,500	105	-	-	-	-
CARP . . . . .	-	-	52,600	1,584	75,800	2,274	20,400	\$612
CATFISH AND BULLHEADS . . . . .	-	-	138,600	12,492	46,100	4,149	956,300	85,361
CROAKER . . . . .	1,547,600	97,251	155,900	11,751	-	-	-	-
DRUM:								
BLACK . . . . .	42,900	2,574	-	-	-	-	-	-
RED . . . . .	1,500	105	-	-	-	-	-	-
EELS, COMMON . . . . .	-	-	100	5	-	-	36,500	1,925
FLOUNDERS . . . . .	2,276,600	373,452	66,800	10,438	-	-	-	-
GRUNTS . . . . .	100	6	-	-	-	-	-	-
HARVESTFISH . . . . .	-	-	6,200	496	-	-	-	-
HICKORY SHAD . . . . .	-	-	133,000	3,990	-	-	-	-
KING WHITING OR "KINGFISH" . . . . .	729,300	77,067	-	-	-	-	-	-
PIGFISH . . . . .	29,500	1,770	2,500	150	-	-	-	-
SAND PERCH . . . . .	26,100	783	-	-	-	-	-	-
SCUP OR PORGY . . . . .	179,400	10,960	-	-	-	-	-	-
SEA BASS . . . . .	525,900	55,032	-	-	-	-	155,000	16,325
SEA TROUT OR WEAKFISH:								
GRAY . . . . .	1,411,300	106,149	40,000	3,200	-	-	-	-
SPOTTED . . . . .	-	-	7,000	2,210	-	-	-	-
SHAD . . . . .	-	-	396,700	95,520	-	-	-	-
SHARKS, UNCLASSIFIED . . . . .	1,600	128	-	-	-	-	-	-
SHEEPSHEAD, SALT-WATER . . . . .	2,000	160	-	-	-	-	-	-
SPADEFISH . . . . .	3,300	260	-	-	-	-	-	-
SPANISH MACKEREL . . . . .	-	-	13,900	2,085	-	-	-	-
SPOT . . . . .	125,000	10,900	-	-	-	-	-	-
STRIPED BASS . . . . .	-	-	180,400	28,864	-	-	-	-
STURGEON . . . . .	1,300	260	17,600	3,520	-	-	-	-
SWELLFISH . . . . .	466,000	10,015	-	-	-	-	-	-
TILEFISH . . . . .	200	16	-	-	-	-	-	-
WHITE PERCH . . . . .	-	-	137,900	14,190	-	-	-	-
WHITING . . . . .	500	30	-	-	-	-	-	-
YELLOW PERCH . . . . .	-	-	14,400	864	24,700	1,602	-	-
UNCLASSIFIED, FOR BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	10,403,000	78,363	-	-	-	-	-	-
CRABS, BLUE:								
HARD . . . . .	3,525,000	141,750	-	-	-	-	11,755,300	614,716
SOFT AND PEELER . . . . .	77,900	35,085	-	-	-	-	-	-
SHRIMP . . . . .	3,248,900	1,027,331	-	-	-	-	-	-
OCTOPUS . . . . .	-	-	-	-	-	-	500	75
SQUID . . . . .	29,300	2,082	-	-	-	-	3,600	648
TURTLES, SNAPPER . . . . .	-	-	-	-	-	-	-	-
<b>TOTAL . . . . .</b>	<b>24,769,400</b>	<b>2,039,424</b>	<b>14,362,700</b>	<b>326,796</b>	<b>158,400</b>	<b>8,143</b>	<b>12,929,600</b>	<b>719,662</b>

## SOUTH ATLANTIC FISHERIES

## NORTH CAROLINA - CATCH BY GEAR, 1963 - Continued

SPECIES	GILL NETS					
	ANCHOR, SET OR STAKE		DRIFT		RUNAROUND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	1,798,900	\$17,989	43,000	\$430	3,500	\$35
BLUEFISH . . . . .	112,200	13,879	-	-	123,100	15,423
BOWFIN . . . . .	-	-	400	20	-	-
CABIO . . . . .	2,100	147	-	-	-	-
CARP . . . . .	1,800	54	200	6	-	-
CATFISH AND BULLHEADS . . . . .	19,200	1,728	700	63	500	45
CROAKER . . . . .	55,300	4,050	-	-	52,000	3,790
FLOUNDERS . . . . .	10,300	2,036	-	-	5,000	1,000
HICKORY SHAD . . . . .	142,800	4,284	8,900	267	-	-
KING MACKEREL . . . . .	-	-	-	-	4,300	860
KING WHITING DR "KINGFISH" . . . . .	144,300	14,570	-	-	58,000	5,800
MACKEREL . . . . .	-	-	1,400	72	-	-
MULLET . . . . .	375,000	26,781	8,000	560	392,400	28,569
PIG FISH . . . . .	-	-	-	-	2,400	144
SEA TROUT OR WEAKFISH:						
GRAY . . . . .	57,900	4,524	-	-	104,000	8,316
SPOTTED . . . . .	23,600	7,456	1,500	480	39,500	12,640
SHAD . . . . .	247,600	60,211	22,500	5,493	4,300	1,032
SPANISH MACKEREL . . . . .	4,700	705	-	-	12,500	1,875
SPOT . . . . .	36,400	3,470	-	-	46,700	4,354
STRIPED BASS . . . . .	438,400	69,004	3,600	576	2,800	448
STURGEON . . . . .	3,200	640	500	100	10,000	2,000
WHITE PERCH . . . . .	104,400	10,610	1,000	100	800	80
YELLOW PERCH . . . . .	1,900	114	-	-	-	-
TOTAL . . . . .	3,580,200	242,252	91,700	8,167	861,800	86,411

SPECIES	LINES					
	HAND		LONG OR SET WITH HOOKS		TROT WITH BAITS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH . . . . .	6,000	\$840	-	-	-	-
CATFISH AND BULLHEADS . . . . .	-	-	24,200	\$2,178	-	-
DRUM, BLACK . . . . .	6,100	366	-	-	-	-
GROUPERS . . . . .	400	24	-	-	-	-
GRUNTS . . . . .	1,800	126	-	-	-	-
KING MACKEREL . . . . .	44,900	8,980	-	-	-	-
KING WHITING DR "KINGFISH" . . . . .	5,000	500	-	-	-	-
SCUP OR PORGY . . . . .	12,300	738	-	-	-	-
SEA BASS . . . . .	57,600	6,048	-	-	-	-
SEA TROUT OR WEAKFISH:						
SPOTTED . . . . .	1,500	480	-	-	-	-
SNAPPER, RED . . . . .	2,200	616	-	-	-	-
SPANISH MACKEREL . . . . .	15,000	2,250	-	-	-	-
SWORDFISH . . . . .	-	-	1,200	648	-	-
CRABS, BLUE, HARD . . . . .	-	-	-	-	3,555,100	\$168,598
TURTLES, SNAPPER . . . . .	12,900	2,322	-	-	-	-
TOTAL . . . . .	165,700	23,290	25,400	2,826	3,555,100	188,598

SPECIES	OIP NETS		SPEARS		DREDGES	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
FLOUNDERS . . . . .	-	-	120,400	\$23,620	-	-
CRABS, BLUE, SOFT AND PEELER . . . . .	5,500	\$2,475	-	-	-	-
CLAMS, HARD, PUBLIC . . . . .	-	-	-	-	67,900	\$26,862
OYSTERS, MARKET, PUBLIC:						
SPRING . . . . .	-	-	-	-	71,300	49,910
FALL . . . . .	-	-	-	-	93,100	65,170
SCALLOPS, BAY . . . . .	156,100	59,274	-	-	150,000	56,940
TERRAPIN . . . . .	100	30	-	-	-	-
TOTAL . . . . .	161,700	61,779	120,400	23,620	382,300	198,882

SPECIES	TONGS		RAKES		BY HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CLAMS, HARD, PUBLIC . . . . .	5,000	\$1,956	258,800	\$100,990	-	-
OYSTERS, MARKET:						
PUBLIC:						
SPRING . . . . .	50,000	32,296	-	-	185,900	\$66,855
FALL . . . . .	75,300	48,732	-	-	140,600	52,018
PRIVATE:						
SPRING . . . . .	20,300	11,571	-	-	11,300	5,339
FALL . . . . .	29,200	16,644	-	-	17,000	8,170
SCALLOPS, BAY . . . . .	-	-	15,000	5,700	-	-
TOTAL . . . . .	179,800	111,199	273,800	106,690	354,800	132,382

# SOUTH ATLANTIC FISHERIES

203

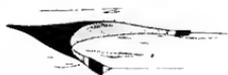
## SOUTH CAROLINA

### OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	OTTER TRAWLS		POTS AND TRAPS	
		CRAB	SHRIMP	CRAB	FISH
FISHERMEN:	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
ON VESSELS . . . . .	-	24	453	-	32
ON BOATS AND SHORE:					
REGULAR . . . . .	-	30	212	159	64
CASUAL . . . . .	372	-	-	-	-
TOTAL . . . . .	372	54	665	159	96
VESSELS, MOTOR . . . . .	-	12	221	-	11
GROSS TONNAGE . . . . .	-	298	5,762	-	271
BOATS:					
MOTOR . . . . .	3	15	106	140	57
OTHER . . . . .	12	-	-	-	-
GEAR:					
NUMBER . . . . .	15	27	484	9,275	3,548
LENGTH, YARDS . . . . .	3,180	-	-	-	-
YARDS AT MOUTH . . . . .	-	491	9,361	-	-

ITEM	GILL NETS		LINES		
	ANCHOR, SET OR STAKE	DRIFT, SHAD	HAND	LONG OR SET WITH HOOKS	TROT WITH BAITS
FISHERMEN, ON BOATS AND SHORE:	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
REGULAR . . . . .	10	10	8	-	88
CASUAL . . . . .	145	96	12	1	-
TOTAL . . . . .	155	106	20	1	88
BOATS, MOTOR . . . . .	155	106	10	1	80
GEAR:					
NUMBER . . . . .	275	106	20	1	108
SQUARE YARDS . . . . .	38,812	14,196	-	-	-
HOOKS OR BAITS . . . . .	-	-	40	200	81,000

ITEM	CAST NETS	SPEARS	GRABS	RAKES	BY HAND	TOTAL, EXCLUSIVE, OF DUPLI- CATION
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:						
ON VESSELS . . . . .	-	-	-	-	-	465
ON BOATS AND SHORE:						
REGULAR . . . . .	-	-	197	12	98	823
CASUAL . . . . .	4	7	20	30	13	669
TOTAL . . . . .	4	7	217	42	111	1,957
VESSELS, MOTOR . . . . .	-	-	-	-	-	222
GROSS TONNAGE . . . . .	-	-	-	-	-	5,790
BOATS:						
MOTOR . . . . .	4	4	207	34	103	980
OTHER . . . . .	-	-	10	-	-	22
GEAR, NUMBER . . . . .	4	7	217	42	-	-



## SOUTH ATLANTIC FISHERIES

## SOUTH CAROLINA - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		OTTER TRAWLS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH	112,000	\$17,920	1,900	\$244	-	-
CATFISH AND BULLHEADS	-	-	-	-	367,600	\$33,893
CROAKER	600	24	35,600	1,449	-	-
FLDUNDERS	-	-	98,600	23,022	-	-
KING WHITING OR "KINGFISH"	78,300	10,210	77,700	10,132	-	-
MULLET	2,211,300	165,707	-	-	-	-
POMPANO	119,500	50,548	10,300	4,357	-	-
SCUP OR PORGY	100	4	4,000	139	-	-
SEA BASS	-	-	-	-	232,700	34,612
SEA TROUT OR WEAKFISH:	-	-	-	-	-	-
GRAY	-	-	5,700	440	-	-
SPOTTED	42,800	9,788	3,000	686	-	-
SHAD	1,600	440	-	-	-	-
SHARKS, UNCLASSIFIED	14,300	1,430	14,300	1,430	-	-
SPOT	2,662,400	142,971	56,800	3,050	-	-
UNCLASSIFIED, FOR BAIT, REDUCTION, AND ANIMAL FOOD	501,200	6,516	52,800	666	-	-
CRABS, BLUE, HARD	-	-	998,800	39,202	6,333,100	312,755
SHRIMP	-	-	2,199,100	642,352	-	-
TOTAL	5,744,100	405,558	3,558,600	729,189	6,933,400	381,460

SPECIES	GILL NETS				LINES	
	ANCHOR, SET OR STAKE		DRIFT		HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
DRUM, BLACK	-	-	-	-	3,400	\$205
FLDUNDERS	-	-	-	-	1,000	210
GRUNTS	-	-	-	-	9,900	578
HICKORY SHAD	700	\$24	-	-	-	-
KING MACKEREL	-	-	-	-	4,000	600
KING WHITING OR "KINGFISH"	-	-	-	-	90,000	11,736
SEA BASS	-	-	-	-	31,900	4,772
SEA TROUT OR WEAKFISH, GRAY	-	-	-	-	400	16
SHAD	64,100	17,648	54,500	\$15,002	-	-
SHARKS, UNCLASSIFIED	-	-	-	-	8,000	800
SHEEPSHEAD, SALT-WATER	-	-	-	-	2,800	221
SNAPPER:	-	-	-	-	-	-
RED	-	-	-	-	300	66
VERMILION	-	-	-	-	10,000	1,200
SPANISH MACKEREL	-	-	-	-	8,300	1,091
STURGEON	52,600	8,121	-	-	-	-
TOTAL	117,400	25,793	54,500	15,002	170,000	21,495

SPECIES	LINES - CONTINUED				CAST NETS	
	LONG OR SET WITH HOOKS		TROT WITH BAITS			
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CATFISH AND BULLHEADS	600	\$55	-	-	-	-
CRABS, BLUE, HARD	-	-	1,507,300	\$71,069	-	-
SHRIMP	-	-	-	-	1,600	\$448
TOTAL	600	55	1,507,300	71,069	1,600	448

SPECIES	SPEARS		GRABS		RAKES		BY HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
FLDUNDERS	25,500	\$4,328	-	-	-	-	-	-
SEA TROUT OR WEAKFISH, SPOTTED	2,000	457	-	-	-	-	-	-
CLAMS, HARD, PUBLIC	-	-	-	-	73,000	\$24,497	-	-
OYSTERS, MARKET, PRIVATE:	-	-	-	-	-	-	-	-
SPRING	-	-	1,638,700	\$667,526	-	-	755,500	\$305,905
FALL	-	-	847,900	345,689	-	-	585,000	237,370
TOTAL	27,500	4,785	2,486,600	1,013,215	73,000	24,497	1,340,500	543,275

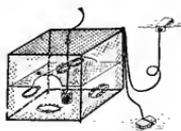
## GEORGIA

## OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	OTTER TRAWLS		POTS AND TRAPS	
		CRAB	SHRIMP	CRAB	FISH
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN: ON VESSELS . . . . .	-	60	727	-	-
ON BOATS AND SHORE:					
REGULAR . . . . .	-	56	129	149	16
CASUAL . . . . .	10	3	300	9	44
TOTAL . . . . .	10	119	1,156	158	60
VESSELS, MOTOR . . . . .	-	30	363	-	-
GROSS TONNAGE . . . . .	-	793	10,523	-	-
BOATS, MOTOR . . . . .	4	30	264	143	54
GEAR:					
NUMBER . . . . .	4	78	918	8,900	412
LENGTH, YARDS . . . . .	600	-	-	-	-
YARDS AT MOUTH . . . . .	-	1,137	12,343	-	-

ITEM	GILL NETS		LINES		
	ANCHOR, SET OR STAKE	DRIFT, SHAD	HAND	LONG OR SET WITH HOOKS	TROT WITH BAITS
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:					
REGULAR . . . . .	25	135	-	16	2
CASUAL . . . . .	163	228	28	66	-
TOTAL . . . . .	188	363	28	82	2
BOATS:					
MOTOR . . . . .	146	287	14	75	2
OTHER . . . . .	-	10	-	-	-
GEAR:					
NUMBER . . . . .	183	312	30	398	3
SQUARE YARDS . . . . .	49,703	158,525	-	-	-
HOOKS OR BAITS . . . . .	-	-	60	19,887	2,150

ITEM	DIP NETS, DROP	CAST NETS	GRABS	BY HAND	TOTAL, EXCLUSIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	-	-	-	-	727
ON BOATS AND SHORE:					
REGULAR . . . . .	12	-	48	49	445
CASUAL . . . . .	20	4	10	14	711
TOTAL . . . . .	32	4	58	63	1,883
VESSELS, MOTOR . . . . .	-	-	-	-	363
GROSS TONNAGE . . . . .	-	-	-	-	10,523
BOATS:					
MOTOR . . . . .	32	4	26	29	854
OTHER . . . . .	-	-	32	32	42
GEAR, NUMBER . . . . .	2,400	4	58	-	-



## SOUTH ATLANTIC FISHERIES

## GEORGIA - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		OTTER TRAWLS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH . . . . .	-	-	100	\$12	-	-
CATFISH AND BULLHEADS . . . . .	-	-	-	-	45,500	\$10,010
CROAKER . . . . .	-	-	700	84	-	-
DRUM, BLACK . . . . .	-	-	1,400	168	-	-
EELS, COMMON . . . . .	-	-	-	-	1,100	66
FLOUNDERS . . . . .	6,700	\$1,340	15,200	1,520	-	-
KING WHITING OR "KINGFISH" . . . . .	-	-	125,200	11,027	-	-
MULLET . . . . .	400	40	19,900	1,990	-	-
SEA BASS . . . . .	-	-	2,000	300	-	-
SEA TROUT OR WEAKFISH:						
GRAY . . . . .	-	-	100	10	-	-
SPOTTED . . . . .	4,200	1,470	-	-	-	-
SHEEPSHEAD, SALT-WATER . . . . .	-	-	100	8	-	-
SPOT . . . . .	-	-	4,100	316	-	-
UNCLASSIFIED FOR BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	-	-	204,000	4,060	-	-
CRABS, BLUE, HARD . . . . .	-	-	5,286,000	186,499	8,022,300	361,904
SHRIMP . . . . .	-	-	5,443,100	1,800,728	-	-
TOTAL . . . . .	11,300	2,850	11,101,900	2,006,742	8,068,900	371,980

SPECIES	GILL NETS				LINES	
	ANCHOR, SET OR STAKE		DRIFT		HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	-	-	100	\$6	-	-
CARP . . . . .	-	-	2,000	100	-	-
GROUPERS . . . . .	-	-	-	-	300	\$30
HICKORY SHAD . . . . .	400	\$16	800	32	-	-
KING MACKEREL . . . . .	-	-	-	-	1,300	65
MULLET . . . . .	5,800	580	-	-	900	315
SEA TROUT OR WEAKFISH, SPOTTED SHAD . . . . .	136,800	35,944	194,500	51,534	1,700	425
SNAPPER, RED . . . . .	-	-	-	-	900	270
SPANISH MACKEREL . . . . .	1,100	165	-	-	300	45
STRIPED BASS . . . . .	-	-	2,700	486	-	-
STURGEON . . . . .	-	-	4,600	276	-	-
SUCKERS . . . . .	-	-	-	-	-	-
TOTAL . . . . .	144,100	36,705	204,700	52,434	5,400	1,150

SPECIES	LINES - CONTINUED				OIP NETS	
	LONG OR SET WITH HOOKS		TROT WITH BAITS			
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CATFISH AND BULLHEADS . . . . .	43,400	\$9,292	-	-	-	-
CRABS, BLUE, HARD . . . . .	-	-	221,300	\$8,852	970,400	\$36,816
TOTAL . . . . .	43,400	9,292	221,300	8,852	970,400	36,816

SPECIES	CAST NETS		GRABS		BY HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
SHRIMP . . . . .	4,300	\$1,401	-	-	-	-
OYSTERS, MARKET, PRIVATE:						
SPRING . . . . .	-	-	64,000	\$22,400	101,700	\$35,595
FALL . . . . .	-	-	34,700	12,145	35,100	12,285
TOTAL . . . . .	4,300	1,401	98,700	34,545	136,800	47,880



SHRIMP

# SOUTH ATLANTIC FISHERIES FLORIDA, EAST COAST

207

## OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	PURSE SEINES, MENHADEN	OTTER TRAWLS, SHRIMP	POUND NETS	FYKE AND HOOP NETS, FISH
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	-	54	759	-	-
ON BOATS AND SHORE:					
REGULAR . . . . .	45	-	24	6	11
CASUAL . . . . .	10	-	30	-	-
TOTAL . . . . .	55	54	813	6	11
VESSELS, MOTOR . . . . .	-	3	350	-	-
GROSS TONNAGE . . . . .	-	383	13,811	-	-
BOATS, MOTOR . . . . .	13	6	47	4	11
GEAR:					
NUMBER . . . . .	11	3	722	9	200
LENGTH, YARDS . . . . .	4,700	1,200	-	-	-
YARDS AT MOUTH . . . . .	-	-	10,282	-	-

ITEM	POTS AND TRAPS				GILL NETS	
	CRAB		FISH	LOBSTER, SPINY	ANCHOR, SET OR STAKE	DRIFT
	BLUE	OTHER				
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	-	2	-	25	-	-
ON BOATS AND SHORE:						
REGULAR . . . . .	121	14	186	83	20	26
CASUAL . . . . .	14	-	-	8	-	2
TOTAL . . . . .	135	16	186	116	20	28
VESSELS, MOTOR . . . . .	-	1	-	10	-	-
GROSS TONNAGE . . . . .	-	21	-	148	-	-
BOATS, MOTOR . . . . .	135	14	186	50	16	15
GEAR:						
NUMBER . . . . .	12,815	4,380	7,175	20,240	16	15
SQUARE YARDS . . . . .	-	-	-	-	16,800	17,600

ITEM	GILL NETS-CONTINUED			LINES			
	DRIFT- CONTINUED	RUNAROUND	TRAMMEL NETS	HAND	TROLL	LONG OR SET WITH HOOKS	TROT WITH BAITS
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:							
ON VESSELS . . . . .	-	49	3	124	7	-	-
ON BOATS AND SHORE:							
REGULAR . . . . .	22	325	6	190	172	536	10
CASUAL . . . . .	-	48	-	322	145	67	15
TOTAL . . . . .	22	422	9	636	324	603	25
VESSELS, MOTOR . . . . .	-	19	2	49	3	-	-
GROSS TONNAGE . . . . .	-	263	31	1,103	35	-	-
BOATS:							
MOTOR . . . . .	12	219	3	348	234	603	25
OTHER . . . . .	-	49	-	-	-	-	-
GEAR:							
NUMBER . . . . .	12	287	5	636	571	694	25
SQUARE YARDS . . . . .	19,200	580,050	6,950	-	571	577,800	12,500
HOOKS OR BAITS . . . . .	-	-	-	982	-	-	-

ITEM	CAST NETS	SPEARS	TONGS	BY HAND		TOTAL, EXCLUSIVE OF DUPLI- CATION
				OYSTER	OTHER	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	-	-	-	-	-	924
ON BOATS AND SHORE:						
REGULAR . . . . .	3	-	11	30	2	1,447
CASUAL . . . . .	6	5	-	-	1	527
TOTAL . . . . .	9	5	11	30	3	2,898
VESSELS, MOTOR . . . . .	-	-	-	-	-	393
GROSS TONNAGE . . . . .	-	-	-	-	-	14,407
BOATS:						
MOTOR . . . . .	9	5	10	29	3	1,610
OTHER . . . . .	-	-	-	-	-	49
GEAR, NUMBER . . . . .	9	5	-	-	-	-

NOTE: --INCLUDES OPERATING UNITS FOR THE INLAND LAKES OF FLORIDA.

## SOUTH ATLANTIC FISHERIES

## FLORIDA, EAST COAST - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		PURSE SEINES		OTTER TRAWLS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	22,700	\$454	-	-	-	-
AMBERJACK . . . . .	200	7	-	-	-	-
BLUEFISH . . . . .	42,500	3,570	-	-	400	\$34
CABIO . . . . .	1,600	48	-	-	1,000	100
CREVALLE . . . . .	72,300	11,062	-	-	-	-
CROAKER . . . . .	-	-	-	-	-	-
DRUM:						
BLACK . . . . .	79,100	5,853	-	-	3,200	237
RED . . . . .	11,500	1,690	-	-	-	-
FLOUNDERS . . . . .	4,900	774	-	-	178,100	28,140
KING WHITING OR "KINGFISH" . . . . .	221,200	18,360	-	-	867,100	71,969
MENHADEN . . . . .	-	-	25,254,300	\$252,543	-	-
MOJARRA . . . . .	129,800	9,086	-	-	-	-
MULLET . . . . .	800	37	-	-	-	-
POMPANO . . . . .	600	393	-	-	-	-
SEA BASS . . . . .	-	-	-	-	1,100	109
SEA CATFISH . . . . .	900	54	-	-	-	-
SEA TROUT OR WEAKFISH:						
GRAY . . . . .	14,100	1,622	-	-	2,900	334
SPOTTED . . . . .	700	168	-	-	-	-
SHAD . . . . .	239,000	25,573	-	-	-	-
SHEEPSHEAD, SALT-WATER . . . . .	300	21	-	-	-	-
SPANISH MACKEREL . . . . .	-	-	-	-	1,500	136
SPOT . . . . .	87,800	10,975	-	-	1,200	150
TRIGGERFISH . . . . .	500	32	-	-	500	32
TRIPLETAIL . . . . .	1,000	52	-	-	-	-
UNCLASSIFIED:						
FOR FOOD . . . . .	-	-	-	-	10,000	640
BAIT, REDUCTION, OR ANIMAL FOOD . . . . .	232,200	4,875	1,535,400	16,960	265,100	5,567
CRABS, BLUE, HARD . . . . .	-	-	-	-	528,600	30,130
SHRIMP . . . . .	-	-	-	-	4,488,200	1,729,608
SQUID . . . . .	-	-	-	-	2,400	360
TOTAL . . . . .	1,163,700	94,706	26,789,700	269,523	6,351,300	1,867,546

SPECIES	POUND NETS		FYKE AND HOOP NETS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CATFISH AND BULLHEADS . . . . .	223,900	\$31,868	167,800	\$23,995	3,213,100	\$454,150
CRABS:						
BLUE:						
HARD . . . . .	-	-	-	-	7,726,600	440,415
SOFT AND PEELER . . . . .	-	-	-	-	200	86
STONE . . . . .	-	-	-	-	157,400	62,804
LOBSTERS, SPINY . . . . .	-	-	-	-	814,600	327,469
TOTAL . . . . .	223,900	31,868	167,800	23,995	11,911,900	1,284,924

SPECIES	GILL NETS					
	ANCHOR, SET OR STAKE		DRIFT		RUNAROUND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH . . . . .	-	-	25,200	\$2,117	1,201,000	\$100,883
BLUE RUNNER . . . . .	-	-	-	-	1,500	63
CATFISH AND BULLHEADS . . . . .	-	-	-	-	6,200	887
CREVALLE . . . . .	-	-	-	-	13,100	393
CROAKER . . . . .	-	-	-	-	23,900	3,656
DRUM:						
BLACK . . . . .	-	-	-	-	21,200	1,570
RED . . . . .	-	-	-	-	89,500	13,156
FLOUNDERS . . . . .	-	-	-	-	4,000	633
KING MACKEREL . . . . .	-	-	-	-	526,500	60,022
KING WHITING OR "KINGFISH" . . . . .	-	-	-	-	37,700	3,129
MENHADEN . . . . .	-	-	-	-	418,100	10,452
MOJARRA . . . . .	-	-	-	-	12,100	847
MULLET:						
BLACK . . . . .	-	-	-	-	3,310,700	152,294
SILVER . . . . .	-	-	-	-	59,900	2,995
PIGFISH . . . . .	-	-	-	-	2,900	250
POMPANO . . . . .	-	-	-	-	143,400	94,071
SEA CATFISH . . . . .	-	-	-	-	4,800	288
SEA TROUT:						
GRAY . . . . .	1,000	\$115	2,000	230	40,500	4,661
SPOTTED . . . . .	-	-	2,500	600	667,100	160,104
SHAD . . . . .	186,900	19,998	164,000	17,548	-	-
SHEEPSHEAD, SALT-WATER . . . . .	-	-	-	-	51,100	3,475

(CONTINUED ON NEXT PAGE)

# SOUTH ATLANTIC FISHERIES

209

## FLORIDA, EAST COAST - CATCH BY GEAR, 1963 - Continued

SPECIES	GILL NETS					
	ANCHOR, SET OR STAKE		DRIFT		RUNAROUND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
SPANISH MACKEREL . . . . .	-	-	40,000	\$3,640	2,030,400	\$184,767
SPOT . . . . .	-	-	-	-	1,026,300	128,287
TRIGGERFISH . . . . .	-	-	-	-	200	13
TRIPLETAIL . . . . .	-	-	-	-	400	21
UNCLASSIFIED: FOR FOOD . . . . .	-	-	-	-	173,700	11,214
BAIT, REDUCTION, OR ANIMAL FOOD . . . . .	-	-	-	-	57,400	1,334
<b>TOTAL . . . . .</b>	<b>187,900</b>	<b>\$20,113</b>	<b>233,700</b>	<b>24,135</b>	<b>9,923,200</b>	<b>939,465</b>

SPECIES	TRAMMEL NETS		LINES			
			HAND		TROLL	
			POUNDS	VALUE	POUNDS	VALUE
AMBERJACK . . . . .	-	-	5,600	\$195	-	-
BARRACUDA . . . . .	-	-	300	9	-	-
BLUEFISH . . . . .	-	-	51,600	4,336	41,800	\$3,512
BLUE RUNNER . . . . .	-	-	22,900	962	500	25
BONITO . . . . .	-	-	-	-	500	25
CABIO . . . . .	-	-	4,700	470	800	80
CATFISH AND BULLHEADS . . . . .	-	-	100	14	-	-
CREVALLE . . . . .	-	-	62,300	1,869	-	-
CROAKER . . . . .	500	\$76	17,000	2,600	-	-
DOLPHIN . . . . .	-	-	-	-	3,700	518
DRUM:						
BLACK . . . . .	500	37	11,500	850	-	-
RED . . . . .	1,000	147	31,800	4,674	200	29
FLOUNDERS . . . . .	-	-	1,600	233	-	-
GROUPERS . . . . .	-	-	197,100	21,089	-	-
GRUNTS . . . . .	-	-	20,300	1,542	-	-
HOGFISH . . . . .	-	-	4,500	733	-	-
JEWFISH . . . . .	-	-	16,700	1,169	-	-
KING MACKEREL . . . . .	-	-	39,600	4,514	1,607,000	183,198
KING WHITING OR "KINGFISH" . . . . .	-	-	20,200	1,676	-	-
MOJARRA . . . . .	1,000	70	7,400	518	-	-
PERMIT . . . . .	-	-	3,700	444	-	-
PIGFISH . . . . .	-	-	800	80	-	-
POMPANO . . . . .	31,900	20,926	7,300	4,790	-	-
SCUP . . . . .	-	-	40,500	3,118	-	-
SEA BASS . . . . .	-	-	62,300	6,168	-	-
SEA CATFISH . . . . .	-	-	2,100	126	-	-
SEA TROUT OR WEAKFISH:						
GRAY . . . . .	-	-	8,500	981	2,900	335
SPOTTED . . . . .	2,500	600	113,000	27,120	15,300	3,672
SHEEPSHEAD, SALT-WATER . . . . .	-	-	19,100	1,298	-	-
SNAPPER:						
MANGROVE . . . . .	-	-	81,900	14,823	-	-
MUTTON . . . . .	-	-	83,300	17,242	-	-
RED . . . . .	-	-	485,200	150,896	-	-
VERMILION . . . . .	-	-	7,700	1,725	-	-
YELLOWTAIL . . . . .	-	-	102,700	24,443	-	-
SPANISH MACKEREL . . . . .	-	-	22,200	2,021	29,300	2,667
SPOT . . . . .	500	62	11,200	1,398	-	-
TRIGGERFISH . . . . .	-	-	5,700	371	-	-
TRIPLETAIL . . . . .	-	-	800	41	-	-
WARSAW . . . . .	-	-	9,900	822	-	-
UNCLASSIFIED: FOR FOOD . . . . .	-	-	58,300	3,772	-	-
BAIT, REDUCTION, OR ANIMAL FOOD . . . . .	-	-	3,400	71	-	-
<b>TOTAL . . . . .</b>	<b>37,900</b>	<b>21,918</b>	<b>1,644,800</b>	<b>309,223</b>	<b>1,702,000</b>	<b>194,057</b>

SPECIES	LINES - CONTINUED					
	LONG OR SET WITH HOOKS		TROT WITH BAITS		CAST NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CATFISH AND BULLHEADS . . . . .	10,092,500	\$1,420,537	-	-	-	-
GROUPERS . . . . .	3,000	321	-	-	-	-
GRUNTS . . . . .	1,500	114	-	-	500	\$35
MOJARRA . . . . .	-	-	-	-	7,500	345
MULLET, BLACK . . . . .	-	-	-	-	-	-
SNAPPER, MANGROVE . . . . .	2,000	362	-	-	-	-
UNCLASSIFIED, FOR FOOD . . . . .	1,000	65	-	-	-	-
CRABS, BLUE, HARD . . . . .	-	-	340,000	\$19,380	-	-
SHRIMP . . . . .	-	-	-	-	18,100	6,791
TURTLES:						
GREEN . . . . .	500	125	-	-	-	-
SOFT-SHELL . . . . .	151,500	18,240	-	-	-	-
<b>TOTAL . . . . .</b>	<b>10,252,000</b>	<b>1,439,764</b>	<b>340,000</b>	<b>19,380</b>	<b>26,100</b>	<b>7,171</b>

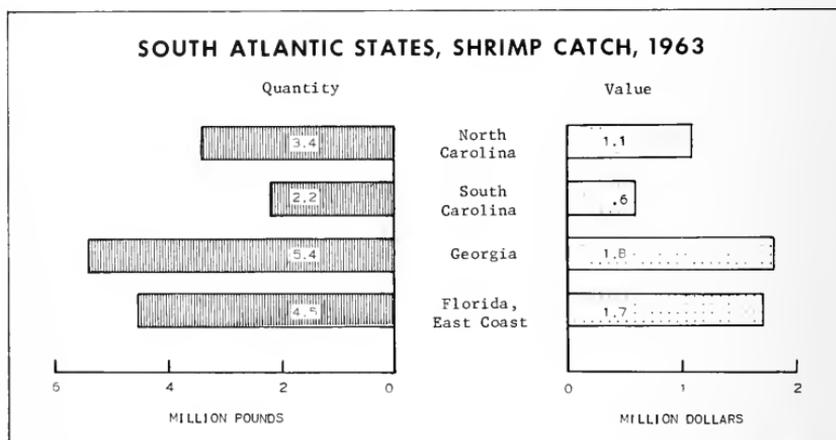
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## SOUTH ATLANTIC FISHERIES

## FLORIDA, EAST COAST - CATCH BY GEAR, 1963 - Continued

SPECIES	SPEARS		TONGS		BY HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
DRUM:						
BLACK . . . . .	200	\$15	-	-	-	-
RED . . . . .	200	29	-	-	-	-
FLOUNDERS . . . . .	900	142	-	-	-	-
SEA TROUT OR WEAKFISH, SPOTTED. . . . .	200	48	-	-	-	-
CLAMS, HARD, PUBLIC . . . . .	-	-	-	-	700	\$224
OYSTERS, MARKET:						
PUBLIC:						
SPRING. . . . .	-	-	13,200	\$3,960	32,200	9,660
FALL. . . . .	-	-	7,000	2,100	23,200	6,960
PRIVATE:						
SPRING. . . . .	-	-	2,400	720	-	-
FALL. . . . .	-	-	2,700	810	-	-
TOTAL . . . . .	1,500	234	25,300	7,590	56,100	16,844

NOTE: -- INCLUDES THE CATCH FOR THE INLAND LAKES OF FLORIDA.



# SOUTH ATLANTIC FISHERIES

211

## SUPPLEMENTARY TABLES

### FLORIDA - OPERATING UNITS BY DISTRICTS, 1963

ITEM	EAST COAST	WEST COAST	TOTAL, EXCLUSIVE OF DUPLICATION
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:			
ON VESSELS . . . . .	924	3,478	4,152
ON BOATS AND SHORE:			
REGULAR . . . . .	1,447	3,058	4,505
CASUAL . . . . .	527	1,299	1,826
TOTAL . . . . .	2,898	7,835	10,483
VESSELS, MOTOR . . . . .	393	1,148	1,423
GROSS TONNAGE . . . . .	14,407	45,542	54,886
BOATS:			
MOTOR . . . . .	1,610	3,072	4,682
OTHER . . . . .	49	224	273
GEAR:			
HAUL SEINES, COMMON	11	87	98
LENGTH, YARDS . . . . .	4,700	72,360	77,060
PURSE SEINES:			
MENHADEN . . . . .	3	-	3
LENGTH, YARDS . . . . .	1,200	-	1,200
OTHER . . . . .	-	4	4
LENGTH, YARDS . . . . .	-	800	800
OTTER TRAWLS:			
CRAB . . . . .	-	5	5
YARDS AT MOUTH . . . . .	-	91	91
SHRIMP . . . . .	722	1,726	2,235
YARDS AT MOUTH . . . . .	10,262	26,393	33,585
POUND NETS, FISH . . . . .	9	-	9
FYKE AND HOOP NETS, FISH . . . . .	200	-	200
POTS AND TRAPS:			
CRAB:			
BLUE . . . . .	12,815	31,530	44,345
OTHER . . . . .	4,360	14,960	19,040
FISH . . . . .	7,175	25	7,200
LOBSTER, SPINY . . . . .	20,240	60,050	79,840
GILL NETS:			
ANCHOR, SET OR STAKE . . . . .	16	12	28
SQUARE YARDS . . . . .	16,800	8,920	25,720
DRIFT:			
SHAD . . . . .	15	-	15
SQUARE YARDS . . . . .	17,600	-	17,600
OTHER . . . . .	12	11	23
SQUARE YARDS . . . . .	19,200	34,000	53,200
RUNAROUND . . . . .	267	1,089	1,370
SQUARE YARDS . . . . .	580,050	1,602,597	2,146,347
TRAMMEL NETS . . . . .	5	291	295
SQUARE YARDS . . . . .	6,950	386,886	393,236
LINES:			
HAND . . . . .	636	2,696	3,332
HOOKS . . . . .	982	6,806	7,788
TROLL . . . . .	571	965	1,536
HOOKS . . . . .	571	965	1,536
LONG OR SET WITH HOOKS . . . . .	694	35	729
HOOKS . . . . .	577,800	1,800	579,600
TROT WITH BAITS . . . . .	25	17	42
BAITS . . . . .	12,500	10,600	23,100
DIP NETS:			
COMMON . . . . .	-	17	17
DROP . . . . .	-	219	219
CAST NETS . . . . .	9	23	32
SPEARS . . . . .	5	44	49
DREDGES . . . . .	-	101	101
SCALLOP . . . . .	-	106	106
YARDS AT MOUTH . . . . .	-	-	-
TONGS:			
OYSTER . . . . .	11	801	812
OTHER . . . . .	-	2	2
HOOKS, SPONGE . . . . .	-	69	69
DIVING OUTFITS . . . . .	-	18	18

NOTE:--A TOTAL OF 454 FISHERMEN UTILIZING 454 MOTOR BOATS FISHED 5,755 FISH POTS AND TRAPS, 3 POUND NETS, AND 519 LONG OR SET LINES WITH 396,850 HOOKS, IN THE INLAND LAKES OF FLORIDA. THESE OPERATING UNITS ARE INCLUDED WITH THOSE OF THE EAST COAST OF FLORIDA.

## SOUTH ATLANTIC FISHERIES

## FLORIDA - CATCH BY DISTRICTS, 1963

SPECIES	EAST COAST		WEST COAST		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
FISH						
ALEEVES	22,700	\$454	836,100	\$25,083	858,800	\$25,537
AMBERJACK	5,800	202	14,100	608	19,900	810
BALLYHOO	-	-	81,600	12,240	81,600	12,240
BARRACUDA	300	9	1,700	34	2,000	43
BLUEFISH	1,362,500	114,452	889,100	77,355	2,251,600	191,607
BLUE RUNNER	24,900	1,046	1,494,600	29,892	1,519,500	30,938
EDONITO	500	25	1,200	48	1,700	73
CATFISH AND BULLHEADS	6,500	650	9,700	621	16,200	1,271
CIGARFISH	13,703,600	1,931,451	66,200	11,519	13,769,800	1,942,970
CREVALLE	-	-	389,400	24,921	389,400	24,921
CROAKER	77,000	2,310	725,100	16,681	802,100	18,991
DOLPHIN	113,700	17,394	98,500	7,880	212,200	25,274
DRUM:	3,700	518	4,500	307	8,500	625
BLACK	115,700	8,562	99,800	4,081	215,500	12,643
RED	134,200	19,725	968,000	110,353	1,102,200	130,078
FLOUNDERS	189,500	29,942	257,500	51,251	447,000	81,193
GROUPERS	200,100	21,410	6,578,700	651,293	6,778,800	672,703
GRUNTS	21,800	1,556	59,600	4,292	81,400	5,948
HOGFISH	4,500	733	16,400	2,346	20,900	3,079
JEWFISH	16,700	1,169	65,500	3,930	82,200	5,099
KING MACKEREL	2,173,100	247,734	2,819,900	295,777	4,993,000	543,511
KING WHITING OR "KINGFISH"	1,146,200	95,134	194,800	8,184	1,341,000	103,318
MENHADEN	25,672,400	262,995	44,500	1,780	25,716,900	264,775
MOJARRA	150,800	10,556	75,000	5,099	225,800	15,655
MULLET:						
BLACK	3,319,000	152,676	32,611,700	1,728,422	35,930,700	1,881,098
SILVER	59,900	2,995	664,700	39,220	724,600	42,215
PERMIT	3,700	444	13,700	1,413	17,400	1,857
PIPIFISH	3,300	330	7,100	639	10,400	969
POMPADOUR	183,200	120,180	592,600	410,075	775,800	530,255
SCUP OR PORGY	40,500	3,118	55,000	4,289	95,500	7,407
SEA BASS	63,400	6,277	-	-	63,400	6,277
SEA CATFISH	7,800	468	121,000	6,894	128,800	7,362
SEA TROUT OR WEAKFISH:						
GRAY	71,900	8,278	-	-	71,900	8,278
SPOTTED	801,300	192,312	2,571,400	601,708	3,372,700	794,020
WHITE	-	-	68,500	7,332	68,500	7,332
SHAD	589,900	63,119	-	-	589,900	63,119
SHEEPSHEAD, SALT-WATER	70,500	4,794	138,800	10,975	209,300	15,769
SNAPPER:						
MANGROVE	83,900	15,185	311,500	52,955	395,400	68,140
MUTTON	83,300	17,242	117,700	25,187	201,000	42,429
RED	485,200	190,896	5,917,800	1,562,299	6,403,000	1,713,195
VERMILION	7,700	1,725	68,200	10,778	75,900	12,503
YELLOWTAIL	102,700	24,443	729,000	153,090	831,700	177,533
SPANISH MACKEREL	2,123,400	193,231	5,404,800	491,833	7,528,200	685,064
SPOT	1,127,000	140,872	358,200	22,933	1,485,200	163,805
STURGEON	-	-	29,700	3,623	29,700	3,623
TENPOUNDER	-	-	1,191,900	27,412	1,191,900	27,412
TILEFISH	-	-	3,400	272	3,400	272
TRIGGERFISH	6,900	448	11,500	575	18,400	1,023
TRIPLITALIL	2,200	114	4,500	206	6,700	320
WARSAW	9,900	822	162,800	10,783	192,700	11,605
UNCLASSIFIED:						
FOR FOOD	243,000	15,691	1,082,100	72,134	1,325,100	87,825
BAIT, REDUCTION, AND ANIMAL FOOD	2,093,500	28,827	453,800	11,344	2,547,300	40,171
TOTAL FISH	56,729,300	3,912,614	68,500,200	6,601,966	125,229,500	10,514,580
SHELLFISH, ETC.						
CRABS:						
BLUE:						
HARD	8,595,200	489,925	13,148,400	644,273	21,743,600	1,134,198
SOFT AND PEELER	200	86	4,000	2,000	4,200	2,086
STONE	157,400	62,804	659,800	207,177	817,200	299,981
TOTAL CRABS	8,752,800	552,815	13,812,200	853,450	22,565,000	1,406,265

SEE NOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# SOUTH ATLANTIC FISHERIES

## FLORIDA - CATCH BY DISTRICTS, 1963 - Continued

SPECIES	EAST COAST		WEST COAST		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
<b>SHELLFISH, ETC.-CONTINUED</b>						
LOGSTERS, SPINY . . . . .	814,600	\$327,469	2,770,600	\$1,080,534	3,585,200	\$1,408,003
SHRIMP . . . . .	4,506,300	1,736,399	34,941,300	12,259,734	39,447,600	13,992,133
CLAMS, HARD, PUBLIC . . . . .	700	224	7,400	2,331	8,100	2,555
OYSTERS, MARKET:						
PUBLIC:						
SPRING . . . . .	45,400	13,620	2,452,900	701,529	2,498,300	715,149
FALL . . . . .	30,200	9,060	1,696,000	485,055	1,726,200	494,115
PRIVATE:						
SPRING . . . . .	2,400	720	85,600	24,482	88,000	25,202
FALL . . . . .	2,700	810	47,600	13,614	50,300	14,424
TOTAL OYSTERS . . . . .	80,700	24,210	4,282,100	1,224,680	4,362,800	1,248,890
SCALLOPS:						
BAY . . . . .	-	-	227,800	58,772	227,800	58,772
CALICO . . . . .	-	-	200	44	200	44
SQUID . . . . .	2,400	360	26,000	2,001	28,400	2,361
TURTLES:						
GREEN . . . . .	500	125	51,500	9,116	52,000	9,241
LOGGERHEAD . . . . .	-	-	8,100	1,029	8,100	1,029
SOFT-SHELL . . . . .	151,500	18,240	-	-	151,500	18,240
SPONGES:						
GRASS . . . . .	-	-	2,000	5,160	2,000	5,160
SHEEPSWOOD . . . . .	-	-	41,800	361,733	41,800	361,733
YELLOW . . . . .	-	-	11,400	20,368	11,400	20,368
TOTAL SHELLFISH, ETC. . . . .	14,309,500	2,659,842	56,182,400	15,874,952	70,491,900	18,534,794
GRAND TOTAL . . . . .	71,038,800	6,572,456	124,682,600	22,476,918	195,721,400	29,049,374

NOTE:--THE CATCH OF 9,388,300 POUNDS OF CATFISH AND BULLHEADS (VALUED AT \$1,314,362) AND 122,900 POUNDS OF SOFT-SHELL TURTLES (VALUED AT \$14,800) TAKEN FROM THE INLAND LAKES IS INCLUDED WITH THE CATCH FOR THE EAST COAST OF FLORIDA. FOR THE PURPOSE OF THIS REPORT THE "EAST COAST OF FLORIDA" INCLUDES THE COASTAL COUNTIES FROM NASSAU TO DADE, INCLUSIVE, WHILE THE "WEST COAST OF FLORIDA" INCLUDES THOSE FROM MONROE TO ESCAMBAIA, INCLUSIVE.



SHRIMP TRAWLER

# SOUTH ATLANTIC FISHERIES

## SOUTH ATLANTIC SHRIMP FISHERY

Nineteen hundred and sixty-three was one of the poorest shrimp years on record for the South Atlantic States. Total landings of 9.8 million pounds, heads-off weight, were 6.7 million pounds less than in 1962 and were the lowest recorded since 1908. The dockside value (\$5.2 million) was \$6.0 million less than 1962 and the lowest value recorded since 1945.

Landings of all species in the commercial catches were substantially below the levels of the previous year. The significance of these changes are more apparent when viewed on an individual State basis, as different species normally predominate in the landings within each State.

In North Carolina, most of the 1.5-million-pound decline was due to a disastrous shortage of pink shrimp. Landings of this species were only slightly over one-fourth of those in 1962 and the lowest since the Bureau began collecting detailed shrimp statistics in 1957. While brown shrimp landings were nearly 1/2 million pounds less than in 1962, they were considerably better than the previous low production of 1958 and 1961. The shrimp season for inside waters opened on May 26, about 2 weeks later than in 1962. The quantity and size of shrimp taken during the opening weeks of the season were most disappointing. Inside waters were temporarily closed during the week of June 27 because the shrimp, in most waters, were not large enough for commercial use. The inside waters were reopened on July 17, but while the size of the shrimp had improved, the volume was far below normal. Catches from offshore waters were also much less than for many years. The average ex-vessel price was 51 cents per pound (heads-off weight)--11 cents per pound less than the 1962 average.

A great shortage of white shrimp in South Carolina waters was the major factor in decreased shrimp landings. Total landings of this species (184,000 pounds) were about one-tenth the poundage landed during 1962. The first substantial catches in South Carolina waters were made during the week of June 20 and were brown shrimp. Catches for the first 10 to 15 days compared favorably with those of 1962, but declined rapidly in July, with most vessels averaging less than one-half box (50 pounds, heads-off weight) per day's fishing. The lack of any quantity of white shrimp containing roe, normally mixed with brown shrimp catches during this summer period, caused industry members to be concerned over prospects for the fall run of white shrimp. This concern became a reality when white shrimp were found to be almost nonexistent in most South Carolina waters during the autumn. A decline of 17 cents per pound (heads-off) in the average ex-vessel price, compared with 1962, was an additional blow to the fishing segment of the shrimp industry.

Georgia experienced a situation similar to that of South Carolina. Catches of white shrimp, which were about one-third less than those of 1962, were the major factor in the decline. Adverse weather conditions during October, usually a peak production month for white shrimp, played an important part in decreased catches of this species. While landings of brown shrimp were 662,000 pounds less than in 1962, they were over three times greater than the record low of 1961. Sporadic fishing for royal red shrimp continued, but landings were only about one-half the quantity taken during 1962. Georgia fishermen experienced the sharpest decline in average ex-vessel price--52 cents per pound (heads-off) during 1963, compared with 71 cents during 1962.

Florida, East Coast fared better than the other South Atlantic States with a decline of only 13 percent in total shrimp production. White shrimp landings were 135,000 pounds less than in 1962. The average ex-vessel price was 60 cents per pound (heads-off)--16 cents less than the 1962 average.

# SOUTH ATLANTIC FISHERIES

The quantities shown in the following tables are heads-off weight of the shrimp and are not directly comparable with the volume data published in the General Review, regional tables, or the Review of Certain Major Fisheries, which represent the round weight of the catch. The pounds of heads-off shrimp may be converted to heads-on (round) weight by multiplying brown by 1.61; pink, 1.60; white, 1.54; sea bobs, 1.53; and royal red, by 1.80.

Detailed information on 1963 landings of shrimp in the South Atlantic States, by months for each State, was published in Current Fishery Statistics No. 3520.

## SUMMARY OF SHRIMP LANDINGS, 1963

SIZE	BROWN		PINK		WHITE	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
15 - 20 . . . . .	306,622	\$202,172	50,672	\$34,456	206,667	\$136,122
21 - 25 . . . . .	377,965	243,683	27,717	17,165	842,402	571,395
26 - 30 . . . . .	820,306	499,695	40,282	23,153	954,740	603,049
31 - 40 . . . . .	1,917,212	984,079	66,507	34,633	1,350,048	714,001
41 - 50 . . . . .	992,401	407,726	90,320	39,343	805,466	357,939
51 - 57 . . . . .	274,511	91,146	44,180	15,513	427,125	171,089
68 AND OVER . . . . .	60,210	15,459	26,784	6,925	133,634	43,265
TOTAL . . . . .	4,749,249	2,444,360	346,462	171,206	4,720,062	2,606,860

SIZE	ROYAL RED		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE
15 - 20 . . . . .	3,629	\$2,831	567,590	\$375,581
21 - 25 . . . . .	19,781	16,375	1,267,885	848,638
26 - 30 . . . . .	1,161	656	1,616,491	1,126,953
31 - 40 . . . . .	460	304	3,334,227	1,733,017
41 - 50 . . . . .	5,105	2,737	1,893,292	817,745
51 - 67 . . . . .	2,606	983	748,422	278,731
68 AND OVER . . . . .	-	-	220,628	65,649
TOTAL . . . . .	32,742	24,086	9,848,535	5,246,514

## SOUTH ATLANTIC SHRIMP LANDINGS, BY SPECIES AND SIZE, 1963

SPECIES AND SIZE	NORTH CAROLINA		SOUTH CAROLINA		GEORGIA	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
<b>BROWN:</b>						
15 - 20 . . . . .	306,355	\$201,977	-	-	-	-
21 - 25 . . . . .	213,448	129,319	32,023	\$21,911	60,902	\$43,036
26 - 30 . . . . .	226,321	126,635	169,989	101,993	253,103	165,090
31 - 40 . . . . .	513,721	253,860	577,373	275,978	609,834	339,463
41 - 50 . . . . .	383,259	148,532	300,619	116,815	216,349	96,344
51 - 67 . . . . .	69,420	27,189	101,500	33,865	34,160	11,529
68 AND OVER . . . . .	16,812	4,138	9,500	2,375	1,254	455
TOTAL . . . . .	1,751,336	893,650	1,191,204	554,937	1,175,602	655,917
<b>PINK:</b>						
15 - 20 . . . . .	50,672	34,456	-	-	-	-
21 - 25 . . . . .	27,717	17,165	-	-	-	-
26 - 30 . . . . .	40,282	23,153	-	-	-	-
31 - 40 . . . . .	66,507	34,633	-	-	-	-
41 - 50 . . . . .	90,320	39,343	-	-	-	-
51 - 67 . . . . .	44,180	15,513	-	-	-	-
68 AND OVER . . . . .	26,784	6,925	-	-	-	-
TOTAL . . . . .	346,462	171,206	-	-	-	-

SEE NOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## SOUTH ATLANTIC FISHERIES

SOUTH ATLANTIC SHRIMP LANDINGS, BY SPECIES AND SIZE,  
1963 - Continued

SPECIES AND SIZE	NORTH CAROLINA		SOUTH CAROLINA		GEORGIA	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
WHITE:						
15 - 20	-	-	-	-	700	\$509
21 - 25	-	-	-	-	73,900	50,628
26 - 30	-	-	50,236	\$30,140	292,529	176,327
31 - 40	-	-	100,939	46,023	855,589	448,624
41 - 50	-	-	32,500	11,700	612,182	277,778
51 - 67	-	-	-	-	335,788	134,597
68 AND OVER	-	-	-	-	99,262	33,791
TOTAL	-	-	183,675	87,863	2,269,950	1,122,454
ROYAL RED:						
15 - 20	-	-	-	-	3,629	2,831
21 - 25	-	-	-	-	19,781	16,375
26 - 30	-	-	-	-	1,161	856
31 - 40	-	-	-	-	460	304
41 - 50	-	-	-	-	5,105	2,737
51 - 67	-	-	-	-	2,606	983
TOTAL	-	-	-	-	32,742	24,066
GRAND TOTAL	2,097,798	\$1,064,858	1,374,879	642,600	3,478,294	1,802,457
SPECIES AND SIZE	FLORIDA, EAST COAST		TOTAL			
	POUNDS	VALUE	POUNDS	VALUE		
BROWN:						
15 - 20	267	\$195	306,622	\$202,172		
21 - 25	71,612	49,617	377,985	243,883		
26 - 30	170,895	104,177	820,308	499,895		
31 - 40	216,284	114,778	1,917,212	984,079		
41 - 50	91,974	44,035	992,401	407,726		
51 - 67	49,431	18,563	274,511	91,146		
68 AND OVER	30,644	8,491	60,210	15,459		
TOTAL	631,107	339,856	4,749,249	2,444,360		
PINK:						
15 - 20	-	-	50,672	34,456		
21 - 25	-	-	27,717	17,185		
26 - 30	-	-	40,282	23,153		
31 - 40	-	-	66,507	34,633		
41 - 50	-	-	90,320	39,343		
51 - 67	-	-	44,180	15,513		
68 AND OVER	-	-	26,784	6,925		
TOTAL	-	-	346,462	171,208		
WHITE:						
15 - 20	205,967	135,613	206,667	136,122		
21 - 25	768,502	520,567	842,402	571,395		
26 - 30	611,975	396,582	954,740	603,049		
31 - 40	393,520	219,354	1,350,048	714,001		
41 - 50	160,784	78,461	805,466	367,939		
51 - 67	91,337	36,492	427,125	171,089		
68 AND OVER	34,372	9,474	133,634	43,265		
TOTAL	2,266,457	1,396,543	4,720,062	2,606,860		
ROYAL RED:						
15 - 20	-	-	3,629	2,831		
21 - 25	-	-	19,781	16,375		
26 - 30	-	-	1,161	856		
31 - 40	-	-	460	304		
41 - 50	-	-	5,105	2,737		
51 - 67	-	-	2,606	983		
TOTAL	-	-	32,742	24,066		
GRAND TOTAL	2,897,564	1,736,399	9,848,535	5,246,514		

NOTE:--ALL WEIGHTS ARE ON HEADS-OFF BASIS. THE SIZE INDICATES THE NUMBER OF HEADS-OFF SHRIMP TO THE POUND. TO CONVERT TO HEADS-ON MULTIPLY BY 1.61 FOR BROWN, 1.60 FOR PINK, 1.54 FOR WHITE, 1.53 FOR SEA BOBS, AND 1.80 FOR ROYAL RED. THE AREAS LISTED REPRESENT THE STATES WHERE THE SHRIMP WERE LANDED REGARDLESS OF WHERE CAUGHT. THE NAMES OF THE SPECIES USED IN THESE TABLES ARE AS FOLLOWS: WHITE SHRIMP (MOSTLY PENAEUS SETIFERUS), BROWN SHRIMP (PENAEUS AZTECUS, AND IN SOME CASES PENAEUS BRASILIENSIS), PINK SHRIMP (PENAEUS DUROSSII), SEA BOBS (MOSTLY XIPHOPEANUS KROYERI), AND ROYAL RED (HYMENOPENAEUS ROBUSTUS). THE VALUE REPORTED IS THE AMOUNT RECEIVED BY THE OWNERS OR OPERATORS OF THE VESSEL FOR THE FIRST SALL AT THE DOCK. ANY EXPENSES INVOLVED IN HANDLING OR PROCESSING ASHORE ARE NOT INCLUDED, EVEN THOUGH CHARGEABLE TO THE VESSEL. THE SIZE REPORTED GENERALLY IS THAT USED AS OF THE FIRST SALE. SIZE GRADING IN VARYING DEGREES OF UNIFORMITY MAY OR MAY NOT OCCUR AT OR PRIOR TO, THE TIME FIRST SALES ARE MADE. IF GRADING IS NOT DONE AT THIS TIME, THE SIZE REPORTED IS AN AVERAGE SIZE AND MAY INCLUDE SEVERAL SIZE CLASSIFICATIONS.

# SOUTH ATLANTIC FISHERIES

217

## SURVEY PROCEDURE IN THE SOUTH ATLANTIC STATES

Statistical programs in the South Atlantic States are under the general supervision of the Bureau's Regional Office in St. Petersburg Beach, Fla., and direct supervision of a Regional Supervisor stationed in New Orleans, La. Collection of data is carried out by Fishery Reporting Specialists trained in obtaining and reporting fishery statistical data. They are stationed in Beaufort, N.C.; Charleston, S.C.; Brunswick, Ga.; and Miami, Fla. Supervisory field personnel are also stationed in Beaufort, N.C. and Miami, Fla.

Catch Statistics: The collection of catch statistics is a joint venture of the Bureau of Commercial Fisheries and the States of North Carolina, South Carolina, Georgia, and Florida. Standard forms designed for the needs of each State, the Bureau, and industry are used to collect catch data in each State. Forms are mailed to dealers or buyers each month with a request that they be completed and returned by a specified date. The forms provide for reporting the pounds and value of the species purchased from fishermen, or caught by the producers' fleets. Forms not returned by the deadline date are picked up by Bureau or State employees. The data, which are tabulated for publication in monthly landings bulletins for the various States, show the volume of the catch of each species by county or district and the total value of each species.

When there are revisions in the monthly data already published, corrections are made in the cumulative totals in the current monthly bulletin. The revised figures for the individual months appear in the annual bulletin. Field reporting specialists interview fishermen and dealers to obtain annual information on the quantity of each species taken by the types of gear operated and the various bodies of water in which the catch was made. When the interviewing has been completed and the catch has been credited to the respective gears and water areas, an annual report is prepared on a specially designed form showing volume and value of the catch by species, gear, and area of capture. The forms are then forwarded to the Washington Office where the data are machine processed. The figures are reviewed in the Central office and by field personnel concerned with the survey. When all discrepancies have been reconciled, the data are published in a sectional summary in the Current Fishery Statistics series entitled "South Atlantic Fisheries" and, subsequently, in the Digest, "Fishery Statistics of the United States."

Data on the catch by water area for the South Atlantic States are not published. However, the information is machine processed and supplied to State and federal offices and laboratories in the area. Information on the catch by counties has not been published in the Digest since 1960. However, the data are prepared and copies of the tabulations are maintained in the Central office.

Operating Units: Field reporting specialists are supplied with a set of prepunched IBM vessel cards obtained from the Bureau of Customs. The cards are prepunched with the following information: name, official number, rig code, gross tonnage, length, and year built. The reporting specialist, through interviews, obtains data on the number of crew; and number, type, and quantity of gear utilized by the vessel during the year. The number and quantity of gear is the greatest quantity fished at one time. It does not include replacement gear aboard the vessel or ashore.

When the reporter has completed the entries on the vessel cards, they are forwarded to the Regional Supervisor who arranges for the punching and tabulating of the data. The tabulations are then forwarded to the reporter who prepares operating unit tables for the State. Data on the shore and boat fishery (those craft of less than 5 net tons and fishermen operating without benefit of craft along the shore) which have been assembled by the reporter by personal interview and from State records are entered on the State operating unit tables in much the same manner as for the vessel fishery. Lists of boat and shore fishermen are usually maintained in the files of the reporter.

When all reconciliation of the data has been accomplished in the Region, the operating unit tabulations are forwarded to the Washington office. If discrepancies are discovered, these are reconciled. Summary operating unit data are then published in a section CFS bulletin entitled "South Atlantic Fisheries." These data and detailed information on the operating units by gear are published in the annual Digest. Information on the operating units by counties is prepared but has not been published in the Digest since 1960. Copies of the tabulations are prepared each year and are on file in the Central office.

Processed Fishery Products: Information on the production of processed fishery products (canned, fresh and frozen packaged fish and shellfish, "cured" items, and industrial

# SOUTH ATLANTIC FISHERIES

fishery products) is obtained from processors through the use of especially designed questionnaires. Data are obtained on the monthly production of fish meal, oil, and solubles, fish sticks, portions, and breaded shrimp and published currently during the year. Statistics on the production of other processed products are obtained annually.

Individual monthly and annual reports are forwarded to the Washington office for tabulation and publication of the data. Monthly data are published in bulletins entitled "Fish Meal and Oil" and "Fish Sticks, Fish Portions, and Breaded Shrimp." The latter is released quarterly. Annual data are released in bulletins entitled "Canned Fishery Products;" "Industrial Fishery Products" (fish meal, oil, and solubles, etc.); "Packaged Fishery Products" (fresh and frozen fillets and steaks); and "Manufactured Fishery Products." The latter report contains a summary of the data contained in the monthly and annual processed bulletins and also information on the annual production of packaged shellfish and cured fishery products.

The Fishery Market News office in Hampton, Va., covers part of the North Carolina area on a daily basis. Persons interested in current day-to-day trends should consult that office. The monthly landings bulletins represent the best available information on a monthly and seasonal basis and the Statistical Digest represents the most complete annual data available in Bureau records.

Annual statistical surveys of the fisheries of the South Atlantic States have been made for the following years:

Data for:	Title of Publication
1880	The Fisheries and Fishery Industries of the United States, Section II, Senate Document No. 124, 47th Congress, 1887
1887	Report of the Commissioner of Fisheries for 1888
1888	Report of the Commissioner of Fisheries for 1888
1889	Bulletin of the United States Fish Commission, 1891
1890	Bulletin of the United States Fish Commission, 1891
1897	Report of the Commissioner of Fisheries for the Year Ending June 30, 1889
1902	Report of the Commissioner of Fisheries for the Year Ending June 30, 1903
1908	Fisheries of the United States, 1908, Bureau of the Census
1918	Fishery Industries of the United States, 1920
1923	Fishery Industries of the United States, 1924
1927	Fishery Industries of the United States, 1928
1928	Fishery Industries of the United States, 1929
1929	Fishery Industries of the United States, 1930
1930	Fishery Industries of the United States, 1931
1931	Fishery Industries of the United States, 1932
1932	Fishery Industries of the United States, 1932
1934	Fishery Industries of the United States, 1935
1936	Fishery Industries of the United States, 1937
1937	Fishery Industries of the United States, 1938
1938	Fishery Industries of the United States, 1939
1939	Fishery Statistics of the United States, 1939
1940	Fishery Statistics of the United States, 1940
1945	Fishery Statistics of the United States, 1945
1950	Fishery Statistics of the United States, 1950
1951	Fishery Statistics of the United States, 1951
1952	Fishery Statistics of the United States, 1952
1953	Fishery Statistics of the United States, 1953
1954	Fishery Statistics of the United States, 1954
1955	Fishery Statistics of the United States, 1955
1956	Fishery Statistics of the United States, 1956
1957	Fishery Statistics of the United States, 1957
1958	Fishery Statistics of the United States, 1958
1959	Fishery Statistics of the United States, 1959
1960	Fishery Statistics of the United States, 1960
1961	Fishery Statistics of the United States, 1961
1962	Fishery Statistics of the United States, 1962
1963	Fishery Statistics of the United States, 1963

# SECTION 6 - GULF FISHERIES

The 1963 commercial catch of fish and shellfish landed at ports of the Gulf States (West Coast of Florida, Alabama, Mississippi, Louisiana, and Texas) totaled nearly 1.4 billion pounds, with a dockside value of \$98.8 million. Compared with 1962, landings decreased 37.9 million pounds, while the value increased \$4.3 million. For the second consecutive year a new value record was established for the area. Industrial fish (menhaden and other species used for bait, reduction, and animal food) yielded landings 9 percent less than in 1962 and was responsible for the decrease in the total. Although the ex-vessel price for shrimp was substantially below that of the previous year, a 43-percent increase in the catch of this "money crop" accounted for the gain in value.

The decline in industrial fish landings was reflected in the total for the States where this fishery is concentrated; thus, Louisiana landings were down 2 percent; Texas, 3 percent; and Mississippi, 8 percent. West Coast of Florida landings were 4 percent more than in 1962, while Alabama registered a gain of 64 percent. The value of landings increased 48 percent in Alabama; 17 percent in Louisiana; and 8 percent in Mississippi. The value of Florida landings was 10 percent less than in 1962, while Texas showed little change.

Fishermen and Vessels. The number of fishermen (24,483) increased 1,271 over the previous year. There were increases of 676 fishermen aboard vessels and 595 employed in the boat and shore fisheries. There were 150 more vessels (craft of over 5 net tons) than in 1962. Accounting for the increase were newly constructed vessels and a greater than usual number of trawlers from the South Atlantic States, which migrated to Gulf waters as a result of the very poor shrimp season in those States. Bureau of Customs records indicate that 239 vessels were issued first documents as fishing craft in the Gulf area--about 25 percent going directly to fishing grounds off the coast of Central and South America. Most of these vessels were engaged in the shrimp fishery and landed catches at American-owned or-operated plants in Barbados, British Guiana, French Guiana, and Surinam; however, in addition, 8 purse seiners journeyed to Chile and Peru to fish anchovies for U.S.-operated reduction plants in those countries.

Processing. The upward trend in the value of processed fishery products continued, with the 1963 value of \$174 million surpassing that of the previous year by more than \$4 million and establishing a new record. The value of edible items was \$138 million in 1963. These items included shrimp products, accounting for 78 percent, and oysters as principal ingredient 8 percent. Industrial products (mainly menhaden meal, oil and solubles) accounted for 14 percent of the total value of manufactured products.

Weather. Fishing was curtailed a little more than usual during 1963 as a result of adverse weather. A severe freeze enveloped much of the coastal areas for extended periods during February. Quantities of choice fish (red drum, spotted sea trout, etc.) were stunned by the cold and floated to the surface where they were quickly gathered up by Texas and Louisiana fishermen.

Major fisheries which reach peak production during the summer were harassed by severe afternoon thundershowers throughout most of June and July. One hurricane (*Cindy*) swept along the Texas coast in mid-September; damage to gear and craft was very light, but some shore plant installations were damaged by high water. On the last day of the year, nearly the entire mid-Gulf coastal area (Alabama, Mississippi, and Louisiana) was covered with an unprecedented blanket of snow.

Labor. Processing plants of the Gulf States were closely scrutinized by the U.S. Department of Labor to ensure that all were complying with the new minimum wage standards. Members of the industry had mixed feelings on the matter--those utilizing both fresh and frozen seafoods in their processing, thus assuring a fairly constant source of supply, found little

## GULF FISHERIES

difficulty in meeting the minimum standards. Those whose operations were dependent solely upon supplies of fresh seafoods had difficulty since the sporadic nature of landings made it difficult to establish a standard workday or workweek. A labor union began organizing activities among menhaden fishermen on vessels supplying the Sabine, Tex., and Cameron, La., processing plants, and plans were announced for extending the organizing activities to the remainder of the Gulf menhaden fleets.

Legislation. The Texas legislature enacted a bill that provided an additional shrimp season for inside waters, May 15 through July 15, with a daily possession limit of 300 pounds of heads-on shrimp for each boat per day. Included in the same bill was a minimum count size of 65 headless or 39 heads-on for all shrimp taken during the open fall season. Previously, the minimum size was 50 headless or 30 heads-on for brown or pink shrimp during the fall season. Not under the minimum count size requirements are seabobs or shrimp taken during the spring commercial season, taken for bait or landed graded. Another enactment of the Texas legislature of interest to the fishing industry was a bill that combined the Texas Game and Fish Commission and the State Parks Board to form a new agency "Texas Parks and Wildlife Department," which began operating in August.

Shrimp. Total landings, while not at record levels, were over 61 million pounds (heads-on weight) greater than in 1962. Substantial increases were recorded in each of the States. Louisiana (81 million pounds) regained its position as volume leader, with an increase of over 37 million pounds, while Alabama (8 million) and Texas (70 million) had gains of 4 and 14 million pounds, respectively. Mississippi landings were up over 3 million pounds; and Florida (West Coast), about 2.8 million pounds. A sharp decline in ex-vessel prices during the last half of the year partially offset the economic gain to fishermen and processors resulting from the increased catches. This is well illustrated by the fact that compared with 1962, Gulf landings of shrimp were up 43 percent, while the value rose only 5 percent. Crews of 80 to 90 Campeche shrimp trawlers stopped fishing for a short period during October and November in protest against steadily declining ex-vessel prices. The vessels left the distant Campeche grounds empty and returned to Florida ports, and no vessels sailed from Florida ports for about 1 week. The crews hoped that their demonstration would focus national attention on the fact that there had not been a drop in retail shrimp prices commensurate with the lower ex-vessel prices. A secondary purpose was to point out the need for Federal action to provide for tariffs or quotas on imported shrimp, since the crews considered the record volume of imports to be a major factor in ex-vessel price reductions.

Processing plants at Louisiana ports were unable to handle all the shrimp landed during the first few weeks of the spring season. In some instances, fishermen peddled their catches from door to door in nearby cities, and many individuals purchased shrimp at bargain prices directly from the boats.

Canning plants, which use the bulk of the smaller size shrimp, operated at full capacity during the spring. As the fall season progressed, with even greater landings, some canners became apprehensive about the rapid growth of their inventories and curtailed operations for as long as 3 weeks. In an effort to stimulate sales of canned shrimp, the Gulf Shrimp Canners Association, assisted by the Bureau of Commercial Fisheries, launched an intensive advertising campaign during October. Canners were also faced with stiff competition from foreign countries in both domestic and foreign markets. At the close of the year, processors of raw headless, peeled and deveined, and breaded shrimp also were concerned over large cold storage inventories and rather little market demand. It is probable the apparent light demand resulted from the large supply of shrimp, since supplies were 17 percent greater than in 1962, the previous record year and consumption was at a high level.

Trading in shrimp futures began on November 11 at the Chicago Mercantile Exchange. All transactions were in units of 5,000 pounds of 15 to 20 count heads-off frozen brown shrimp meeting U.S. Department of the Interior Grade A standards. First trades were scheduled for delivery during January 1964.

Menhaden. While landings were 89 million pounds less than the 1962 record, prices for solubles and oil increased, and fishermen and processors had a good year. An important factor in the decreased landings was the unfavorable weather throughout most of June and July. Recurring afternoon thunder squalls dispersed menhaden schools, making large catches difficult. Prices for meal and scrap averaged \$120 per ton, about the same as the previous year; however, solubles sold at an average of \$59 per ton--\$9 per ton more than during 1962. Markets for oil, which were unstable at the beginning of the year, strengthened as the season progressed, and the average price was 46 cents per gallon--about 12 cents over the average 1962 price. A Louisiana firm announced development of a new type seine boat of bow and stern construction rather than the "double ender" of the past. The manufacturer claimed that, with the advent of power blocks, seine boats needed greater stability and this was achieved with the new design. More knotless nylon webbing was used in seines during the year. This type netting permits the use of larger seines, while adding little to the overall bulk or weight. The same Gulf firm that took delivery of several new seiners to be used in South American waters also assembled and shipped two complete processing plants, which were to be erected in Iquique, Chile, and Planchade, Peru.

Other Industrial Fish. Landings of fish, other than menhaden, for industrial use (bait, reduction, or animal food), amounting to 80.1 million pounds, were 16.8 million pounds less than in 1962. Some processors of pet food, the major users of these landings, replaced fish with chicken offal obtained from the vast broiler industry in nearby areas, and some imported fish was also used for pet food.

Oysters. Landings of 24 million pounds were 240,000 pounds of meats less than the record 1939 production. Compared with the previous year, this was a gain of over 5 million pounds. All States except Florida (West Coast) participated in this increase. Alabama, Mississippi, and Texas landings were more than double those of 1962, while Louisiana landings were up 14 percent. Most of the increase in Mississippi and Louisiana was used by canners and resulted in a pack of 313,000 standard cases--118,000 cases over the 1962 pack. Production of shucked oysters (1,454,000 gallons) was 19 percent greater than in 1962. Periods of weak market demand resulted in shuckers receiving an average of \$6.20 per gallon compared with \$6.32 the previous year.

Crabs. The blue crab fishery improved only slightly: total landings of 26.9 million pounds were only 612,000 pounds greater than those of 1962. This was the second consecutive year in which landings were substantially below the 35-million-pound level recorded for 1960 and 1961. The volume of catch within each of the States varied: landings on the West Coast of Florida, Alabama, and Mississippi, were greater than the previous year while those in Texas and Louisiana were 1.5 and 1.6 million pounds less, respectively, than in 1962. Since the number of fishermen, craft, and gear used was nearly the same as the previous year, and as there was good market demand for crabs, it appeared that the environment in these two States was not favorable for the crab populations. Otter trawls, used exclusively for taking crabs, were used for the first time in Florida waters by fishermen of the northwest coastal area. This venture was not particularly successful, and probably this type gear will not be used in the future. Production of fresh and frozen crab meat was 24 percent greater than in 1962, despite the fact that landings increased only 3 percent. Three factors explain this apparently paradoxical situation--more crabs were used for processing rather than live sales, there was a slight increase in the yield of meat in some areas, and Florida (West Coast) landings were supplemented with crabs shipped in from the South Atlantic area. The crab meat market was strong despite the increased production: the average price was \$1.15 per pound--a gain of 10 cents per pound over 1962.

# GULF FISHERIES

Edible Finfish. There was little change in the total quantity of finfish landed for human consumption--92.8 million pounds during 1963 compared with 92.6 million pounds the previous year. Of the five species that normally account for over 75 percent of the volume and value of landings, only two were received in greater quantities than in 1962--red snapper increased 7 percent; and spotted sea trout, 5 percent. Species registering declines were: fresh-water catfish, down 3 percent; mullet, 1 percent; groupers, 4 percent; and spanish mackerel, 21 percent.

Compared with 1962, red snapper landings increased 796,000 pounds to about 12.7 million pounds--the highest, according to Bureau records since 1902, when 13.6 million pounds were landed. The snapper fleet continued to grow with 11 new vessels entering the fishery during 1963. Snapper fishermen became quite concerned over the number of vessels (American and foreign) fishing the Campeche grounds. They considered this to be the reason for a lower total catch that included a larger portion of small fish.

Activities of Foreign Vessels. Russian trawlers were present in the international waters off the Florida and Louisiana coasts during the year. Specific information on the volume of their catches and type of gear used is not available, but it is presumed that the fishing activity was primarily exploratory. The activities of Russian trawlers and some Cuban fishing craft prompted the Florida legislature to enact a law commonly known as the "Alien Fishery Law". The law prohibits the granting or issuing of licenses for commercial fishing in Florida territorial waters to any vessel owned in whole or part by any alien power which subscribes to the doctrine of Communism.

Research. Programs of both the Bureau and State conservation agencies, designed to provide a scientific basis for the sound management of fishery resources, were maintained at the same level as the previous year.

A research project of the Bureau's Branch of Exploratory Fishing and Gear Research commanded the immediate attention of the shrimp industry. The aim of the project is to develop an otter trawl with an electrical stimulus capable of harvesting burrowed shrimp during daylight. This shrimp research program progressed from laboratory and controlled field experiments to an actual field test which produced promising results during October.

An application of research findings occurred in Texas where the minimum size limit of oysters was reduced from 3-1/2 to 3 inches. Research by the Texas Parks and Wildlife Department showed that about 70 percent of the oysters of 3 inches and larger were lost because of the parasitic fungus, Dermocystidium marinum. Reduction of the size limit permitted fishermen to harvest oysters prior to the summer loss due to the disease.

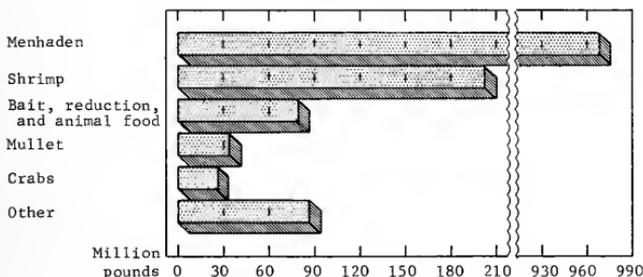
General. A massive fish kill took place in portions of the Mississippi River within the State of Louisiana during the autumn. The kill was much greater than that which had been noted during the same period in each of the 3 previous years. While the greatest mortality involved nearly all major fresh-water species of commercial importance, quantities of salt-water species, particularly menhaden, were also killed in many of the passes at the mouth of the river. The U.S. Public Health Service stated that its initial findings indicated the pesticide endrin was responsible for the kills. Commercial fishermen also reported similar kills of fresh-water species in many streams of the Atchafalaya basin. The widespread publicity given the fish kills had a disturbing influence on the sale of fish at the retail and wholesale level.

Other information. Condensed summary data on operating units and catch by States appearing on the following pages have been previously published in Current Fishery Statistics No. 3679. Data on the catch and operating units of the east coast of Florida and the entire State of

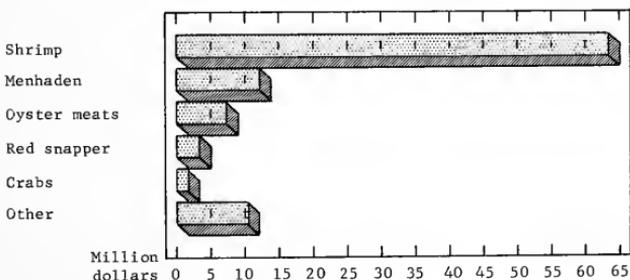
Florida may be found in Section 5 of this Digest. Seasonal variations in the catch of fish and shellfish in Florida, Alabama, Mississippi, Louisiana, and Texas can be ascertained from monthly landing bulletins issued currently for these States in cooperation with the fishery agencies of each State. Additional aspects of the Gulf fisheries may be found in daily, monthly, and annual reports published by the Bureau's Fishery Market News Service, Federal Building, 600 South Street, New Orleans, La., 70130. Specific and detailed accomplishments of the Bureau are contained in, Report of the Bureau of Commercial Fisheries, Calendar Year 1963, and Operations of the Bureau of Commercial Fisheries under the Saltonstall-Kennedy Act, Fiscal Year 1963.

**Acknowledgments.** The following organizations assisted the Bureau to collect the data appearing in this section: Florida State Board of Conservation; Marine Laboratory, University of Miami; Alabama Department of Conservation, Commercial Seafoods Division; Mississippi Marine Conservation Commission; Louisiana Wild Life and Fisheries Commission; and Texas Parks and Wildlife Department.

## GULF STATES CATCH, 1963



## VALUE OF GULF STATES CATCH, 1963



# GULF FISHERIES



GULF STATES

# GULF FISHERIES

225

## SECTIONAL SUMMARIES SUMMARY OF CATCH, 1963

(MILLIONS OF POUNDS AND MILLIONS OF DOLLARS)

STATE	FISH		SHELLFISH, ETC.		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FLORIDA, WEST COAST. . . . .	69	7	56	15	125	22
ALABAMA. . . . .	5	1	10	3	15	4
MISSISSIPPI. . . . .	326	5	15	4	341	9
LOUISIANA. . . . .	650	10	102	24	752	34
TEXAS. . . . .	90	2	76	26	166	30
TOTAL. . . . .	1,140	25	259	74	1,399	99

NOTE:--FOR THE PURPOSE OF THIS REPORT THE "WEST COAST OF FLORIDA" INCLUDES THE COASTAL COUNTIES FROM MONROE TO ESCAMBAIA, INCLUSIVE.

## SUMMARY OF OPERATING UNITS, 1963

ITEM	FLORIDA, WEST COAST	ALABAMA	MISSISSIPPI	LOUISIANA	TEXAS	TOTAL, EXCLUSIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	3,478	862	2,017	4,640	4,474	11,374
ON BOATS AND SHORE:						
REGULAR. . . . .	3,058	740	698	3,812	822	8,953
CASUAL. . . . .	1,299	189	406	1,553	709	4,156
TOTAL. . . . .	7,835	1,791	3,121	10,205	6,005	24,483
VESSELS, MOTOR . . . . .	1,148	268	593	1,498	1,419	3,369
GROSS TONNAGE. . . . .	45,542	10,077	23,970	62,703	70,406	142,809
BOATS:						
MOTOR. . . . .	3,072	632	940	4,212	1,276	9,992
OTHER. . . . .	224	117	129	114	42	626
GEAR:						
HAUL SEINES, COMMON . . . . .	87	4	-	17	20	128
LENGTH, YARDS. . . . .	72,380	1,200	-	5,516	4,475	83,571
PURSE SEINES:						
MENHADEN . . . . .	-	-	16	48	8	72
LENGTH, YARDS. . . . .	-	-	8,995	20,905	4,000	33,900
OTHER. . . . .	4	-	-	-	-	4
LENGTH, YARDS. . . . .	800	-	-	-	-	800
OTTER TRAWLS:						
CRAB. . . . .	5	-	-	-	-	5
YARDS AT MOUTH. . . . .	91	-	-	-	-	91
FISH. . . . .	-	-	102	8	-	110
YARDS AT MOUTH. . . . .	-	-	1,967	132	-	2,119
SHRIMP. . . . .	1,726	660	1,033	5,020	3,475	9,224
YARDS AT MOUTH. . . . .	26,393	9,300	14,816	67,369	47,752	125,914
FYKE AND HOOP NETS, FISH . . . . .	-	476	-	12,336	10	12,822
POTS AND TRAPS:						
CRAB:						
BLUE. . . . .	31,530	5,900	1,870	3,010	9,668	51,978
OTHER. . . . .	14,960	-	-	-	-	14,960
CRAWFISH. . . . .	-	-	-	6,680	-	6,680
FISH. . . . .	25	250	-	-	-	275
LOBSTER, SPINY. . . . .	60,050	-	-	-	-	60,050
GILL NETS:						
ANCHOR, SET OR STAKE . . . . .	12	-	-	142	85	239
SQUARE YARDS. . . . .	8,920	-	-	56,408	51,700	119,028
DRIFT. . . . .	11	-	-	-	-	11
SQUARE YARDS. . . . .	34,000	-	-	-	-	34,000
RUNAROUND. . . . .	1,089	11	4	3	-	1,107
SQUARE YARDS. . . . .	1,602,597	5,800	2,400	1,350	-	1,612,147
TRAWL NETS. . . . .	291	122	38	110	83	644
SQUARE YARDS. . . . .	386,986	122,000	29,400	35,765	53,557	627,608
LINES:						
HAND. . . . .	2,696	204	181	1,388	786	5,020
HOOKS. . . . .	6,806	1,104	923	2,393	4,643	14,214
TROLL. . . . .	965	-	-	-	-	965
HOOKS. . . . .	965	-	-	-	-	965
LONG OR SET WITH HOOKS . . . . .	35	5	-	1,923	134	2,097
HOOKS. . . . .	1,800	1,500	-	676,920	197,100	877,320
TROT WITH BAITS. . . . .	17	4	11	743	-	775
BAITS. . . . .	10,600	2,000	5,500	456,640	-	474,940

(CONTINUED ON NEXT PAGE)

## GULF FISHERIES

## SUMMARY OF OPERATING UNITS, 1963 - Continued

ITEM	FLORIDA, WEST COAST	ALABAMA	MISSIS- SIPPI	LOUISI- IANA	TEXAS	TOTAL, EXCLUS- IVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
GEAR - CONTINUED: LINES - CONTINUED:						
SNAG . . . . .	-	50	-	-	-	50
HOOKS . . . . .	-	15,000	-	-	-	15,000
DIP NETS:						
COMMON . . . . .	17	-	-	30	15	62
DROP . . . . .	219	-	-	22,792	-	23,011
CAST NETS . . . . .	23	-	6	-	-	29
SPEARS . . . . .	44	23	16	9	165	257
DREDGES:						
OYSTER, COMMON . . . . .	-	10	452	752	241	1,341
YARDS AT MOUTH . . . . .	-	11	547	665	241	1,532
SCALLOP . . . . .	101	-	-	-	-	101
YARDS AT MOUTH . . . . .	106	-	-	-	-	106
TONGS:						
OYSTER . . . . .	801	666	648	473	46	2,526
OTHER . . . . .	2	-	-	-	-	2
BRUSH TRAPS . . . . .	-	-	-	43,160	-	43,160
GRASS, FROG . . . . .	-	-	-	54	-	54
HOOKS, SPONGE . . . . .	69	-	-	-	-	69
DIVING OUTFITS . . . . .	18	-	-	-	-	18

## CATCH BY STATES, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	FLORIDA, WEST COAST		ALABAMA		MISSISSIPPI	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH						
ALEVINYES . . . . .	836	25	-	-	-	-
AMBERJACK . . . . .	14	1	-	-	-	-
BALLYHOO . . . . .	82	12	-	-	-	-
BARRACUDA . . . . .	2	(1)	-	-	-	-
BLUEFISH . . . . .	889	77	4	(1)	5	1
BLUE RUNNER . . . . .	1,495	30	1	(1)	-	-
BONITO . . . . .	1	(1)	-	-	-	-
BUFFALOFISH . . . . .	-	-	64	7	-	-
CABIO . . . . .	10	1	1	(1)	3	(1)
CATTISH AND BULLHEADS . . . . .	66	12	44	11	-	-
CIGARFISH . . . . .	389	25	-	-	-	-
CREVALLE . . . . .	725	17	-	-	-	-
CROAKER . . . . .	97	6	47	3	3	(1)
DOLPHIN . . . . .	5	(1)	-	-	-	-
DRUM:						
BLACK . . . . .	100	4	10	1	17	1
RED . . . . .	968	110	20	3	59	8
FLOUNDERS . . . . .	257	51	107	20	59	7
GROUPERS . . . . .	6,579	61	295	42	271	30
GRUNTS . . . . .	60	4	-	-	-	-
HOGFISH . . . . .	16	2	-	-	-	-
JEWFISH . . . . .	65	4	41	4	-	-
KING MACKEREL . . . . .	2,817	296	-	-	-	-
KING WHITING OR "KINGFISH"	195	5	238	14	257	16
MENHADEN . . . . .	44	2	-	-	250,429	3,276
MOJARRA . . . . .	75	5	-	-	-	-
MULLET:						
BLACK . . . . .	32,612	1,729	1,390	71	382	20
SILVER . . . . .	665	39	-	-	-	-
PADDLEFISH . . . . .	-	-	11	1	-	-
PERMIT . . . . .	14	2	-	-	-	-
PILCHER . . . . .	7	1	-	-	-	-
POMPANO . . . . .	593	410	1	1	(1)	(1)
SCUP OR PORGY . . . . .	55	4	-	-	-	-
SEA CATFISH . . . . .	121	7	6	(1)	13	1
SEA TROUT OR WEAKFISH:						
SPOTTED . . . . .	2,571	602	54	14	80	20
WHITE . . . . .	68	7	78	4	68	4
SHEEPSHEAD:						
FRESH-WATER . . . . .	-	-	15	2	-	-
SALT-WATER . . . . .	139	11	14	1	30	2

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## CATCH BY STATES, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	FLORIDA, WEST COAST		ALABAMA		MISSISSIPPI	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
<b>FISH - CONTINUED</b>						
SNAPPER:						
MANGROVE . . . . .	311	53	-	-	-	-
MUTTON . . . . .	118	25	-	-	-	-
RED . . . . .	5,918	1,562	2,315	663	1,886	471
VERMILION . . . . .	68	11	-	-	-	-
YELLOWTAIL . . . . .	729	153	-	-	-	-
SPANISH MACKEREL . . . . .	5,405	492	39	4	1	(1)
SPOT . . . . .	358	23	36	2	4	(1)
STURGEON . . . . .	30	4	1	(1)	-	-
TENPOUNDER . . . . .	1,192	27	-	-	-	-
TILEFISH . . . . .	3	(1)	-	-	-	-
TRIGGERFISH . . . . .	12	1	-	-	-	-
TRIPLETAIL . . . . .	5	(1)	-	-	-	-
WARSAW . . . . .	183	11	-	-	-	-
UNCLASSIFIED:						
FOR FOOD . . . . .	1,082	72	-	-	-	-
BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	454	11	-	-	72,576	1,210
TOTAL FISH . . . . .	68,300	6,602	4,832	868	326,143	5,067
<b>SHELLFISH, ETC.</b>						
<b>CRABS:</b>						
BLUE:						
HARD . . . . .	13,148	644	1,297	75	1,112	64
SOFT AND PEELER . . . . .	4	2	-	-	3	1
STONE . . . . .	660	207	-	-	-	-
TOTAL CRABS . . . . .	13,812	853	1,297	75	1,115	65
LOBSTERS, SPINY . . . . .	2,771	1,081	-	-	-	-
SHRIMP . . . . .	34,941	12,256	7,760	2,419	9,375	2,484
CLAMS, HARD, PUBLIC . . . . .	7	2	-	-	-	-
<b>OYSTERS, MARKET:</b>						
PUBLIC:						
SPRING . . . . .	2,453	792	361	133	3,903	738
FALL . . . . .	1,696	485	528	189	359	119
PRIVATE:						
SPRING . . . . .	86	24	92	25	68	13
FALL . . . . .	48	14	14	5	350	105
TOTAL OYSTERS . . . . .	4,283	1,225	995	352	4,680	973
<b>SCALLOPS:</b>						
BAY . . . . .	228	59	-	-	-	-
CALICO . . . . .	(1)	(1)	-	-	-	-
SQUID . . . . .	26	2	4	(1)	-	-
<b>TURTLES:</b>						
GREEN . . . . .	52	9	-	-	-	-
LOGGERHEAD . . . . .	8	1	-	-	-	-
TOTAL TURTLES . . . . .	60	10	-	-	-	-
<b>SPONGES:</b>						
GRASS . . . . .	2	5	-	-	-	-
SHEEPSWOL . . . . .	42	362	-	-	-	-
YELLOW . . . . .	11	20	-	-	-	-
TOTAL SHELLFISH . . . . .	56,183	15,875	10,056	2,846	15,170	3,524
GRAND TOTAL . . . . .	124,683	22,477	14,888	3,714	341,313	8,591

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)



## GULF FISHERIES

## CATCH BY STATES, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	LOUISIANA		TEXAS		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH						
ALEWIVES	-	-	-	-	836	25
AMBERJACK	-	-	-	-	14	1
BALLYHOOD	-	-	-	-	62	12
BARRACUDA	-	-	-	-	2	(1)
BLUEFISH	-	-	-	-	898	78
BLUE RUNNER	-	-	-	-	1,496	30
BONITO	-	-	-	-	1	(1)
BOWFIN	7	(1)	-	-	7	(1)
BUFFALOFISH	767	81	94	14	925	102
CABIO	7	(1)	18	2	39	3
CARP	24	1	17	2	41	3
CATFISH AND BULLHEADS	6,006	1,229	41	13	6,157	1,265
CIGARFISH	-	-	-	-	389	25
CREVALLE	-	-	-	-	725	17
CROAKER	25	2	(1)	(1)	172	13
DOLPHIN	-	-	-	-	5	(1)
DRUM:						
BLACK	344	22	1,363	107	1,834	135
RED	466	79	685	166	2,198	366
FLOUNDERS	162	26	276	69	861	173
GARFISH	528	28	85	4	613	32
GROUPERS	23	2	156	15	7,324	740
GRUNTS	-	-	-	-	60	4
HOGFISH	-	-	-	-	16	2
JEWFISH	8	1	8	1	122	10
KING MACKEREL	-	-	-	-	2,817	296
KING WHITING OR "KINGFISH"	372	19	147	8	1,209	65
MENHADEN	633,484	7,862	83,736	1,034	957,693	12,174
MOJARRA	-	-	-	-	75	5
MULLET:						
BLACK	19	1	9	(1)	34,412	1,821
SILVER	-	-	-	-	665	39
PADDLEFISH	6	1	-	-	17	2
PERMIT	-	-	-	-	14	2
PIG FISH	-	-	-	-	7	1
POMPANO	1	1	2	1	597	413
SAWFISH	4	(1)	-	-	4	(1)
SCUP OR PORGY	-	-	-	-	55	4
SEA CATFISH	59	3	53	4	252	15
SEA TROUT OR WEAKFISH:						
SPOTTED	380	88	1,190	302	4,275	1,026
WHITE	80	6	-	-	294	21
SHARKS, UNCLASSIFIED	4	(1)	-	-	4	(1)
SHEEPSHEAD:						
FRESH-WATER	343	31	2	(1)	360	33
SALT-WATER	177	13	120	11	480	38
SNAPPER:						
MANGROVE	-	-	-	-	311	53
MUTTON	-	-	-	-	118	23
RED	388	95	2,169	590	12,676	3,381
VERMILION	-	-	-	-	66	11
YELLOWTAIL	-	-	-	-	729	153
SPANISH MACKEREL	2	(1)	-	-	5,447	496
SPOT	7	1	-	-	405	26
STURGEON	-	-	-	-	31	4
TENPOUNDER	-	-	-	-	1,192	27
TILEFISH	-	-	-	-	3	(1)
TRIGGERFISH	-	-	-	-	12	1
TRIPLETAIL	3	(1)	-	-	8	(1)
WARSAW	5	(1)	39	4	227	15
UNCLASSIFIED:						
FOR FOOD	-	-	158	8	1,240	80
BAIT, REDUCTION, AND ANIMAL FOOD	6,971	87	108	5	80,109	1,313
TOTAL FISH	650,672	9,679	90,476	2,360	1,140,623	24,576

SEE FOOTNOTE AT END OF TABLE.

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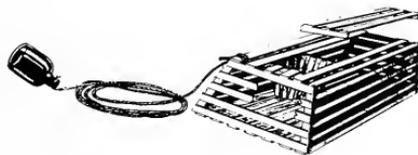
## CATCH BY STATES, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	LOUISIANA		TEXAS		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
<b>SHELLFISH, ETC.</b>						
<b>CRABS:</b>						
<b>BLUE:</b>						
HARD . . . . .	7,982	447	2,980	199	26,519	1,429
SOFT AND PEELER . . . . .	329	164	2	(1)	338	167
STONE . . . . .	-	-	-	-	660	207
TOTAL CRABS . . . . .	8,311	611	2,982	199	27,517	1,803
CRAWFISH, FRESH-WATER . . . . .	892	134	-	-	892	134
LOBSTERS, SPINY . . . . .	-	-	-	-	2,771	1,081
SHRIMP . . . . .	80,809	19,789	70,221	26,591	203,116	63,539
CLAMS, HARD, PUBLIC . . . . .	-	-	-	-	7	2
<b>OYSTERS, MARKET:</b>						
<b>PUBLIC:</b>						
SPRING . . . . .	2,415	751	1,550	524	10,682	2,948
FALL . . . . .	382	147	990	354	3,955	1,294
<b>PRIVATE:</b>						
SPRING . . . . .	6,418	1,929	57	22	6,721	2,013
FALL . . . . .	2,348	894	21	13	2,781	1,031
TOTAL OYSTERS . . . . .	11,563	3,721	2,618	913	24,139	7,186
<b>SCALLOPS:</b>						
BAY . . . . .	-	-	-	-	228	59
CALICO . . . . .	-	-	-	-	(1)	(1)
SQUID . . . . .	6	(1)	37	4	73	7
TERRAPIN . . . . .	1	(1)	-	-	1	(1)
<b>TURTLES:</b>						
GREEN . . . . .	2	(1)	-	-	54	9
LOGGERHEAD . . . . .	-	-	-	-	8	1
SNAPPER . . . . .	22	4	-	-	22	4
TOTAL TURTLES . . . . .	24	4	-	-	84	14
<b>FROGS</b> . . . . .	6	2	-	-	6	2
<b>SPONGES:</b>						
GRASS . . . . .	-	-	-	-	2	5
SHEEPSWOL . . . . .	-	-	-	-	42	362
YELLOW . . . . .	-	-	-	-	11	20
TOTAL SHELLFISH . . . . .	101,612	24,262	75,968	27,707	258,889	74,214
<b>GRAND TOTAL</b> . . . . .	752,284	33,941	166,344	30,067	1,399,512	98,790

1/ LESS THAN 500 POUNDS OR \$500.

NOTE:--STATISTICS ON THE CATCH ARE SHOWN IN ROUND (LIVE) WEIGHT EXCEPT FOR SHELL MOLLUSKS AND SPONGES. CLAMS AND OYSTERS ARE REPORTED IN WEIGHT OF TOTAL MEATS. SCALLOPS ARE REPORTED IN WEIGHT OF EDIBLE MEATS. SPONGES ARE REPORTED AS MARKETED WEIGHT.



Spiny lobster trap

## GULF FISHERIES

## CATCH OF CERTAIN SHELLFISH, 1963

(NUMBER AND BUSHELS)

SPECIES	FLORIDA, WEST COAST		ALABAMA		MISSISSIPPI		
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	
CRABS:							
BLUE:							
HARD . . . . .	NUMBER	26,296,800	\$644,273	2,593,600	\$74,736	2,424,160	\$63,633
SOFT AND PEELER . . . . .	DO	16,000	2,000	-	-	8,100	466
STONE . . . . .	DO	659,800	207,177	-	-	-	-
CLAMS, HARD, PUBLIC:	U.S. STD. BUSHEL	874	2,331	-	-	-	-
OYSTERS, MARKET:							
PUBLIC:							
SPRING . . . . .	DO	611,696	701,529	91,807	132,989	990,634	737,979
FALL . . . . .	DO	538,413	485,055	123,054	189,035	86,182	119,385
PRIVATE:							
SPRING . . . . .	DO	21,400	24,482	23,183	25,229	17,132	12,751
FALL . . . . .	DO	15,355	13,614	3,310	5,324	85,995	105,000
SCALLOPS:							
BAY . . . . .	DO	42,185	58,772	-	-	-	-
CALICO . . . . .	DO	50	44	-	-	-	-
SPECIES	LOUISIANA		TEXAS		TOTAL		
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	
CRABS:							
BLUE:							
HARD . . . . .	NUMBER	16,043,619	\$447,096	5,364,720	\$199,608	52,722,899	\$1,429,346
SOFT AND PEELER . . . . .	DO	966,378	164,350	4,320	360	994,798	167,176
STONE . . . . .	DO	-	-	-	-	659,600	207,177
CLAMS, HARD, PUBLIC:	U.S. STD. BUSHEL	-	-	-	-	874	2,331
OYSTERS, MARKET:							
PUBLIC:							
SPRING . . . . .	DO	485,020	750,695	362,741	524,507	2,561,898	2,847,899
FALL . . . . .	DO	86,948	146,982	249,899	333,943	1,086,496	1,234,400
PRIVATE:							
SPRING . . . . .	DO	1,315,266	1,926,902	14,564	22,117	1,391,545	2,013,481
FALL . . . . .	DO	600,409	892,334	5,784	13,268	710,853	1,030,540
SCALLOPS:							
BAY . . . . .	DO	-	-	-	-	42,185	58,772
CALICO . . . . .	DO	-	-	-	-	50	44

NOTE:--THE CAPACITY OF A U. S. STANDARD BUSHEL IS 2,150.4 CUBIC INCHES.

## AVERAGE WEIGHTS OF CERTAIN SHELLFISH, 1963

SPECIES	FLORIDA, WEST COAST	ALABAMA	MISSISSIPPI	LOUISIANA	TEXAS
	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
CLAMS:					
BLUE:					
HARD . . . . .	NUMBER PER POUND	2.00	2.00	2.18	2.01
SOFT AND PEELER . . . . .	DO	4.00	-	3.00	2.94
STONE . . . . .	DO	1.00	-	-	2.40
CLAMS, HARD, PUBLIC:	LBS. MEATS PER U.S. STD. BUSHEL	8.47	-	-	-
OYSTERS, MARKET:					
PUBLIC:					
SPRING . . . . .	DO	4.01	3.93	3.94	4.98
FALL . . . . .	DO	3.15	4.29	4.07	4.39
PRIVATE:					
SPRING . . . . .	DO	4.00	3.99	3.94	4.88
FALL . . . . .	DO	3.10	4.29	4.07	3.91
SCALLOPS:					
BAY . . . . .	DO	5.40	-	-	-
CALICO . . . . .	DO	4.00	-	-	-

NOTE:--THE CAPACITY OF A U. S. STANDARD BUSHEL IS 2,150.4 CUBIC INCHES.

# GULF FISHERIES

231

## MANUFACTURED FISHERY PRODUCTS, 1963

ITEM	FLORIDA, WEST COAST		ALABAMA		MISSISSIPPI	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
COD, FILLETS:						
FROZEN . . . . .	POUNDS	(1)	(1)	-	-	-
BREADED . . . . .	DO	(1)	(1)	-	-	-
GROUPER, FRESH AND FROZEN:						
FILLETS . . . . .	DO	376,618	\$181,978	(1)	(1)	-
STEAKS . . . . .	DO	197,110	54,749	(1)	(1)	(1)
MENHADEN:						
MEAL AND SCRAP . . . . .	TONS	-	-	-	-	25,121
OIL . . . . .	1,000 POUNDS	-	-	-	-	\$3,027,079
SOLUBLES . . . . .	TONS	-	-	-	-	1,705,634
TOTAL . . . . .						12,055
TOTAL . . . . .						727,646
MULLET:						
CANNED . . . . .	STANDARD CASES	(1)	(1)	-	-	-
SALTED:						
FISH . . . . .	POUNDS	401,500	40,150	-	-	-
ROE . . . . .	DO	(1)	(1)	-	-	-
SMOKED . . . . .	DO	(1)	(1)	-	-	-
SEA TROUT FILLETS, FROZEN . . . . .	DO	(1)	(1)	-	-	-
SNAPPER, RED, FRESH AND FROZEN:						
FILLETS . . . . .	DO	150,006	130,515	(1)	(1)	-
STEAKS . . . . .	DO	(1)	(1)	(1)	(1)	-
SPANISH MACKEREL FILLETS, FRESH AND FROZEN . . . . .	DO	757,534	246,242	-	-	-
CRABS:						
BLUE:						
COOKED MEAT, FRESH . . . . .	DO	1,893,823	2,245,712	201,936	\$222,129	150,205
SPECIALTIES, FROZEN (CAKES, ROLLS, STUFFED, ETC.) . . . . .	DO	17,158	11,684	(1)	(1)	(1)
CANNED, MEAT . . . . .	STANDARD CASES	-	-	(1)	(1)	(1)
STONE, CLAWS, COOKED, FROZEN . . . . .	POUNDS	30,674	26,431	-	-	-
BACK SHELLS, CLEANED AND POLISHED . . . . .	-	-	(1)	-	-	-
MEAL AND SCRAP . . . . .	TONS	(1)	(1)	-	-	-
LOBSTERS, SPINY, WHOLE COOKED, FROZEN . . . . .	POUNDS	(1)	(1)	-	-	-
SHRIMP:						
FRESH AND FROZEN:						
RAW, HEADLESS . . . . .	DO	5,982,592	4,913,818	1,517,967	1,080,591	(1)
PEELED (INCLUDING DEVEINED), RAW . . . . .	DO	5,496,010	8,319,568	(1)	(1)	-
BREADED, RAW . . . . .	DO	16,498,529	12,370,634	(1)	(1)	-
SPECIALTIES, FROZEN (BURGERS, STUFFED, GUMBO, ETC.) . . . . .	DO	(1)	(1)	(1)	(1)	-
CANNED, MEAT . . . . .	STANDARD CASES	(1)	(1)	(1)	(1)	199,499
CLAMS, HARD, SHUCKED, FRESH.	GALLONS	(1)	(1)	(1)	(1)	4,069,341
CONCH CHOWDER, CANNED . . . . .	STANDARD CASES	(1)	(1)	-	-	-
OYSTERS:						
SHUCKED, FRESH . . . . .	GALLONS	367,448	2,245,934	193,456	1,309,376	101,322
BREADED, FROZEN . . . . .	POUNDS	91,000	66,625	-	-	-
CANNED, MEAT . . . . .	STANDARD CASES	-	-	(1)	(1)	139,494
TOTAL . . . . .						1,646,583
SCALLOPS:						
SEA:						
SHUCKED, FROZEN . . . . .	POUNDS	(1)	(1)	-	-	-
BREADED, FROZEN . . . . .	DO	(1)	(1)	-	-	-
BAY:						
SHUCKED, FRESH . . . . .	GALLONS	28,396	154,162	-	-	-
BREADED, FROZEN . . . . .	DO	(1)	(1)	-	-	-
TURTLES: CANNED SPECIALTIES (CHOWDER, CONSOMME AND SOUP) . . . . .	STANDARD CASES	(1)	(1)	-	-	-
UNCLASSIFIED PRODUCTS:						
FRESH AND FROZEN, PACKAGED, FISH FILLETS AND STEAKS, STICKS, PORTIONS, AND OTHER FISH AND SHELLFISH.	POUNDS	2,146,178	428,095	4,397,342	2,630,383	2,301,000
CANNED . . . . .	STANDARD CASES	1,671	22,260	25,255	639,824	2,626,923
CURED . . . . .	DO	104,800	59,460	-	-	-
INDUSTRIAL . . . . .	-	-	52,250	-	1,760,000	-
TOTAL . . . . .	-	-	31,570,297	-	7,642,303	26,198,706

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## GULF FISHERIES

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

ITEM		LOUISIANA		TEXAS	
		QUANTITY	VALUE	QUANTITY	VALUE
CATFISH, BREADED, FROZEN, . . . . .	POUNDS	(1)	(1)	-	-
FLOUNDER, FROZEN:					
FILLETS . . . . .	DO	-	-	(1)	(1)
SPECIALTIES (STUFFED) . . . . .	DO	(1)	(1)	(1)	(1)
MENHADEN:					
MEAL AND SCRAP. . . . .	TONS	66,185	\$7,992,696	(1)	(1)
OIL . . . . .	1,000 POUNDS	61,169	3,625,347	(1)	(1)
SOLUBLES, . . . . .	TONS	25,390	1,485,076	(1)	(1)
SNAPPER, RED:					
FRESH AND FROZEN, FILLETS . . . . .	POUNDS	(1)	(1)	(1)	(1)
SPECIALTIES, FROZEN (STUFFED) . . . . .	DO	-	-	-	-
CRABS:					
BLUE:					
COOKED MEAT:					
FRESH . . . . .	DO	343,566	372,013	330,400	\$341,863
FROZEN . . . . .	DO	227,144	301,310	-	-
SPECIALTIES, FROZEN (CAKES, ROLLS, STUFFED, ETC.) . . . . .	DO	153,996	108,242	(1)	(1)
CANNED:					
MEAT . . . . .	STANDARD CASES	(1)	(1)	(1)	(1)
SPECIALTIES (BISQUE) . . . . .	DO	(1)	(1)	-	-
KING, MEAT, FREEZE-DRIED . . . . .	POUNDS	-	-	(1)	(1)
BACK SHELLS, CLEANED AND POLISHED . . . . .	-	-	-	-	(1)
CRAWFISH, SPECIALTIES:					
FROZEN (BISQUE) . . . . .	DO	(1)	(1)	-	-
CANNED (BISQUE) . . . . .	STANDARD CASES	(1)	(1)	-	-
SHRIMP:					
FRESH AND FROZEN:					
RAW, HEADLESS . . . . .	POUNDS	25,845,819	17,478,414	28,797,420	21,275,783
PEELED (INCLUDING DEVEINED):					
RAW . . . . .	DO	1,233,465	949,116	6,861,800	7,989,775
COOKED . . . . .	DO	1,393,214	2,465,426	-	-
BREADED, RAW . . . . .	DO	3,894,917	2,228,057	22,610,242	15,838,326
SPECIALTIES, FROZEN (BURGERS, STUFFED, GUMBO, ETC.) . . . . .	DO	336,237	262,691	(1)	(1)
CANNED:					
MEAT . . . . .	STANDARD CASES	716,844	12,757,839	36,287	675,784
SPECIALTIES (CREOLES, BISQUES, GUMBO, ETC.) . . . . .	DO	(1)	(1)	(1)	(1)
FREEZE-DRIED . . . . .	POUNDS	-	-	-	-
SUN-DRIED . . . . .	DO	454,146	379,667	-	-
MEAL AND SCRAP . . . . .	TONS	(1)	(1)	-	-
OYSTERS:					
SHUCKED, FRESH . . . . .	GALLONS	550,678	3,389,378	221,010	1,410,666
SHUCKED, FROZEN . . . . .	POUNDS	(1)	(1)	(1)	(1)
BREADED, FROZEN . . . . .	DO	(1)	(1)	(1)	(1)
SPECIALTIES FROZEN (BURGERS, DRESSED AND STUFFED) . . . . .	DO	15,116	10,550	-	-
CANNED:					
MEAT . . . . .	STANDARD CASES	173,410	2,101,753	-	-
SPECIALTIES (SOUP) . . . . .	DO	(1)	(1)	(1)	(1)
SHELL LIME AND GRIT . . . . .	TONS	-	-	(1)	(1)
TURTLES:					
CANNED, SPECIALTIES (CHOWDER, CONSUME AND SOUP) . . . . .	STANDARD CASES	(1)	(1)	-	-
UNCLASSIFIED PRODUCTS:					
FRESH AND FROZEN PACKAGED, FISH FILLETS AND STEAKS, STICKS, PORTIONS, AND OTHER FISH AND SHELLFISH . . . . .	POUNDS	122,354	51,908	568,011	1,657,787
CANNED . . . . .	STANDARD CASES	6,929	132,572	3,135	52,981
CURED . . . . .	DO	3,090	2,210	-	-
INDUSTRIAL . . . . .	-	-	13,057	-	3,420,010
TOTAL . . . . .	-	-	56,127,322	-	52,662,975

1/ INCLUDED WITH UNCLASSIFIED ITEMS.

NOTE:--SOME OF THE ABOVE PRODUCTS MAY HAVE BEEN MANUFACTURED FROM RAW PRODUCTS IMPORTED FROM ANOTHER STATE OR A FOREIGN COUNTRY; THEREFORE, THEY CANNOT BE CORRELATED DIRECTLY WITH THE CATCH WITHIN THE STATE. CERTAIN ITEMS MAY BE SHOWN IN AN INTERMEDIATE AND ALSO IN A MORE ADVANCED STAGE OF PROCESSING.

## SUMMARY OF MANUFACTURED PRODUCTS, 1963

(VALUE IN THOUSANDS OF DOLLARS)

ITEM	QUANTITY	VALUE
PACKAGED, FRESH AND FROZEN:		
NOT BREADED:		
FISH . . . . .	1,000 POUNDS	1,623
SHELLFISH . . . . .	00	97,842
BREADED FISH AND SHELLFISH . . . . .	00	47,986
SPECIALTIES (FISH AND SHELLFISH) . . . . .	00	2,476
CANNED . . . . .	1,000 STANDARD CASES	3,030
CURED . . . . .	1,000 POUNDS	964
INDUSTRIAL . . . . .	-	-
TOTAL . . . . .	-	174,201

## VALUE OF MANUFACTURED PRODUCTS, BY STATES, 1963

(THOUSANDS OF DOLLARS)

STATE	VALUE
FLORIDA, WEST COAST . . . . .	31,570
ALABAMA . . . . .	7,642
MISSISSIPPI . . . . .	26,199
LOUISIANA . . . . .	56,127
TEXAS . . . . .	52,663
TOTAL . . . . .	174,201

## WHOLESALE AND MANUFACTURING, 1963

ITEM	FLORIDA, WEST COAST	ALABAMA	MISSIS- SIPPI	LOUISIANA	TEXAS	TOTAL
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
WHOLESALE AND MANUFACTURING:						
ESTABLISHMENTS . . . . .	342	55	60	202	150	809
PERSONS ENGAGED:						
AVERAGE FOR SEASON . . . . .	3,776	1,055	1,391	5,958	5,607	18,287
AVERAGE FOR YEAR . . . . .	2,914	664	1,199	2,717	2,932	10,446



# GULF FISHERIES

## FLORIDA, WEST COAST

### OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	PURSE SEINES	OTTER TRAWLS		POTS AND TRAPS		FISH
			CRAB	SHRIMP	CRAB		
					BLUE	OTHER	
NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN:							
ON VESSELS . . . . .	84	-	10	2,061	4	2	-
ON BOATS AND SHORE:							
REGULAR . . . . .	241	8	-	203	194	65	2
CASUAL . . . . .	43	-	-	18	24	15	-
TOTAL . . . . .	368	8	10	2,282	222	82	2
VESSELS, MOTOR . . . . .	12	-	5	647	2	1	-
GROSS TONNAGE . . . . .	134	-	67	39,867	18	21	-
BOATS:							
MOTOR . . . . .	62	4	-	127	202	65	1
OTHER . . . . .	42	-	-	-	-	-	-
GEAR:							
NUMBER . . . . .	67	4	5	1,726	31,530	14,960	25
LENGTH, YARDS . . . . .	72,360	800	-	-	-	-	-
YARDS AT MOUTH . . . . .	-	-	91	26,393	-	-	-
ITEM	POTS AND TRAPS - CONTINUED		GILL NETS		TRAMMEL NETS	LINES	
	LOBSTER, SPINY	ANCHOR, SET OR STAKE	DRIFT	RUN-ROUND		HAND	TROLL
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:							
ON VESSELS . . . . .	44	-	3	157	23	1,218	40
ON BOATS AND SHORE:							
REGULAR . . . . .	233	12	20	1,181	422	461	234
CASUAL . . . . .	12	3	-	150	19	864	254
TOTAL . . . . .	289	15	23	1,488	464	2,543	528
VESSELS, MOTOR . . . . .	24	-	1	44	6	260	22
GROSS TONNAGE . . . . .	261	-	9	563	85	6,897	249
BOATS:							
MOTOR . . . . .	162	10	10	922	263	947	340
OTHER . . . . .	-	-	-	145	-	-	-
GEAR:							
NUMBER . . . . .	60,050	12	11	1,089	291	2,696	965
SQUARE YARDS . . . . .	-	8,920	34,000	1,602,597	386,886	-	-
HOOKS OR BAITS . . . . .	-	-	-	-	-	6,806	965
ITEM	LINES - CONTINUED		DIP NETS		CAST NETS	SPEARS	DREDGES, SCALLOP
	LONG OR SET WITH HOOKS	TROT WITH BAITS	COMMON	DROP			
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:							
ON VESSELS . . . . .	-	-	-	-	-	-	12
ON BOATS AND SHORE:							
REGULAR . . . . .	8	19	6	7	12	35	42
CASUAL . . . . .	3	-	11	33	11	9	10
TOTAL . . . . .	11	19	17	40	23	44	64
VESSELS, MOTOR . . . . .	-	-	-	-	-	-	5
GROSS TONNAGE . . . . .	-	-	-	-	-	-	58
BOATS, MOTOR . . . . .	11	17	17	17	23	44	35
GEAR:							
NUMBER . . . . .	35	17	17	219	23	44	101
YARDS AT MOUTH . . . . .	-	-	-	-	-	-	106
HOOKS OR BAITS . . . . .	1,800	10,600	-	-	-	-	-
ITEM	TONGS		HOOKS, SPONGE	DIVING OUTFITS, SPONGE	BY HAND		TOTAL, EXCLUSIVE OF DUPLICATION
	OYSTER	OTHER			OYSTER	OTHER	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:							
ON VESSELS . . . . .	12	-	13	91	-	-	3,478
ON BOATS AND SHORE:							
REGULAR . . . . .	752	1	71	18	24	6	3,056
CASUAL . . . . .	37	1	30	-	9	-	1,299
TOTAL . . . . .	801	2	114	109	33	6	7,835
VESSELS, MOTOR . . . . .	6	-	3	15	-	-	1,148
GROSS TONNAGE . . . . .	72	-	25	212	-	-	45,542
BOATS:							
MOTOR . . . . .	623	2	29	3	27	4	3,072
OTHER . . . . .	-	-	49	-	1	-	224
GEAR, NUMBER . . . . .	801	2	69	18	-	-	-

# GULF FISHERIES

235

## FLORIDA, WEST COAST - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		PURSE SEINES		OTTER TRAWLS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	252,500	\$7,575	-	-	-	-
BALLYHOO . . . . .	-	-	81,600	\$12,240	-	-
BLUEFISH . . . . .	217,900	18,959	-	-	-	-
BLUE RUNNER . . . . .	917,500	18,350	-	-	-	-
CABIQ . . . . .	300	19	-	-	300	\$19
CIGARFISH . . . . .	389,400	24,921	-	-	-	-
CREVALLE . . . . .	329,100	7,569	-	-	-	-
CROAKER . . . . .	31,500	2,520	-	-	10,300	824
DRUM:						
BLACK . . . . .	22,700	930	-	-	-	-
RED . . . . .	186,500	21,261	-	-	-	-
FLOUNDERS . . . . .	74,000	14,727	-	-	71,600	14,249
GRUNTS . . . . .	100	7	-	-	-	-
KING MACKEREL . . . . .	19,700	2,067	-	-	-	-
KING WHITING OR "KINGFISH" . . . . .	40,800	1,714	-	-	111,300	4,676
MENHADEN . . . . .	35,300	1,412	-	-	-	-
MOJARRA . . . . .	39,800	2,706	-	-	-	-
MULLET:						
BLACK . . . . .	7,455,400	395,136	-	-	-	-
SILVER . . . . .	19,300	1,140	-	-	-	-
PERMIT . . . . .	2,000	206	-	-	-	-
PIGFISH . . . . .	800	72	-	-	-	-
POMPANO . . . . .	18,900	13,079	-	-	-	-
SEA CATFISH . . . . .	41,800	2,383	-	-	23,100	1,317
SEA TROUT OR WEAKFISH:						
SPOTTED . . . . .	307,700	72,000	-	-	-	-
WHITE . . . . .	11,300	1,209	-	-	-	-
SHEEPSHEAD, SALT-WATER . . . . .	57,500	4,545	-	-	-	-
SNAPPER, MANGROVE . . . . .	500	85	-	-	-	-
SPANISH MACKEREL . . . . .	204,600	18,618	-	-	-	-
SPOT . . . . .	103,000	6,593	-	-	50,500	3,232
STURGEON . . . . .	-	-	-	-	100	12
TENPOUNDER . . . . .	818,200	18,818	-	-	-	-
TRIPLETAIL . . . . .	2,800	128	-	-	700	32
UNCLASSIFIED:						
FOR FOOD . . . . .	248,800	16,607	-	-	16,100	1,059
BAIT, REDUCTION, OR ANIMAL FOOD . . . . .	181,000	4,524	-	-	28,600	714
CRABS, BLUE, HARD . . . . .	-	-	-	-	80,500	3,946
LOBSTERS, SPINY . . . . .	-	-	-	-	12,500	4,875
SHRIMP . . . . .	-	-	-	-	34,941,300	12,255,734
SQUID . . . . .	-	-	-	-	26,000	2,001
<b>TOTAL . . . . .</b>	<b>12,030,700</b>	<b>679,880</b>	<b>81,600</b>	<b>12,240</b>	<b>35,372,900</b>	<b>12,292,690</b>

SPECIES	POTS AND TRAPS		GILL NETS			
			ANCHOR, SET OR STAKE		DRIFT	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH . . . . .	-	-	-	-	29,000	\$2,523
BLUE RUNNER . . . . .	8,000	\$160	-	-	1,000	20
CREVALLE . . . . .	500	12	-	-	500	12
GROUPERS . . . . .	2,000	198	-	-	-	-
MULLET, BLACK . . . . .	-	-	-	-	1,000	53
SEA TROUT OR WEAKFISH, SPOTTED . . . . .	-	-	-	-	9,000	2,106
SPANISH MACKEREL . . . . .	-	-	-	-	325,000	29,575
STURGEON . . . . .	-	-	27,100	\$3,306	-	-
UNCLASSIFIED, FOR FOOD . . . . .	2,000	134	-	-	1,600	108
CRABS:						
BLUE:						
HARD . . . . .	12,827,800	628,562	-	-	-	-
SOFT AND PEELER . . . . .	4,000	2,000	-	-	-	-
STONE . . . . .	659,800	207,177	-	-	-	-
LOBSTERS, SPINY . . . . .	2,748,600	1,071,954	-	-	-	-
TURTLES:						
GREEN . . . . .	-	-	20,000	3,540	-	-
LOGGERHEAD . . . . .	-	-	4,100	521	-	-
<b>TOTAL . . . . .</b>	<b>16,252,700</b>	<b>1,910,197</b>	<b>51,200</b>	<b>7,367</b>	<b>367,100</b>	<b>34,397</b>

(CONTINUED ON NEXT PAGE)

## GULF FISHERIES

## FLORIDA, WEST COAST - CATCH BY GEAR, 1963 - Continued

SPECIES	GILL NETS - CONTINUED		TRAMMEL NETS		LINES	
	RUNAROUND				HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	537,700	\$16,131	45,900	\$1,377	-	-
AMBERJACK . . . . .	-	-	-	-	14,100	\$608
BARRACUDA . . . . .	-	-	-	-	1,700	34
BLUEFISH . . . . .	443,500	36,563	128,300	11,162	45,400	3,953
BLUE RUNNER . . . . .	455,500	9,110	65,500	1,310	46,100	922
CABIO . . . . .	100	6	-	-	9,000	577
CATFISH AND BULLHEADS . . . . .	-	-	-	-	1,700	296
CREVALLE . . . . .	267,400	6,611	33,000	760	70,000	1,611
CROAKER . . . . .	42,600	3,424	11,600	944	2,100	168
DRUM:						
BLACK . . . . .	36,100	1,556	19,300	789	19,700	804
RED . . . . .	596,100	67,954	74,200	8,460	110,600	12,610
FLOUNDERS . . . . .	25,600	5,138	18,200	3,622	16,600	3,306
GROUPERS . . . . .	-	-	-	-	6,552,300	648,679
GRUNTS . . . . .	-	-	-	-	59,500	4,265
HOGFISH . . . . .	-	-	-	-	16,400	2,346
JEWFISH . . . . .	-	-	-	-	65,500	3,930
KING MACKEREL . . . . .	2,133,700	224,040	7,600	798	75,900	7,972
KING WHITING OR "KINGFISH" . . . . .	33,100	1,391	8,700	366	900	37
MENHADEN . . . . .	1,200	48	6,000	320	-	-
MOJARRA . . . . .	30,700	2,086	300	20	4,200	285
MULLET:						
BLACK . . . . .	23,482,400	1,244,567	1,656,500	87,796	-	-
SILVER . . . . .	636,100	37,648	7,300	432	-	-
PERMIT . . . . .	5,900	609	-	-	5,600	598
PIGFISH . . . . .	3,700	333	1,200	108	1,400	126
POMPANO . . . . .	55,000	36,056	516,200	357,210	2,500	1,730
SCUP . . . . .	-	-	-	-	55,000	4,289
SEA CATFISH . . . . .	42,100	2,396	9,400	535	3,600	204
SEA TROUT OR WEAKFISH:						
SPOTTED . . . . .	1,529,100	357,811	433,200	101,370	251,400	58,828
WHITE . . . . .	37,100	3,969	7,900	847	11,300	1,209
SHEEPSHEAD, SALT-WATER . . . . .	46,500	3,677	6,100	642	26,700	2,111
SNAPPERS:						
MANGROVE . . . . .	7,100	1,207	1,600	306	302,100	51,357
MUTTON . . . . .	-	-	-	-	117,700	25,187
RED . . . . .	-	-	-	-	5,916,300	1,561,903
VERMILION . . . . .	-	-	-	-	68,200	10,778
YELLOWTAIL . . . . .	-	-	-	-	729,000	153,090
SPANISH MACKEREL . . . . .	4,518,400	411,174	61,600	5,604	65,700	5,976
SPOT . . . . .	147,200	9,425	36,700	2,351	20,600	1,332
STURGEON . . . . .	-	-	2,900	305	-	-
TENPOUNDER . . . . .	102,900	2,366	253,500	5,630	17,200	396
TILEFISH . . . . .	-	-	-	-	3,400	272
TRIGGERFISH . . . . .	-	-	-	-	11,500	575
TRIPLETAIL . . . . .	600	27	-	-	400	19
WARSAW . . . . .	-	-	-	-	182,600	10,763
UNCLASSIFIED:						
FOR FOOD . . . . .	561,500	37,421	23,600	1,570	224,500	14,968
BAIT, REDUCTION, OR ANIMAL FOOD . . . . .	179,400	4,466	61,600	1,540	1,200	30
TURTLES:						
GREEN . . . . .	31,500	5,576	-	-	-	-
LOGGERHEAD . . . . .	4,000	508	-	-	-	-
TOTAL . . . . .	36,018,200	2,537,340	3,501,900	596,374	15,130,200	2,598,184

## LINES - CONTINUED

SPECIES	TROLL		LONG OR SET WITH HOOKS		TROT WITH BAITS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH . . . . .	25,000	\$2,175	-	-	-	-
BLUE RUNNER . . . . .	1,000	20	-	-	-	-
BONITO . . . . .	1,200	48	-	-	-	-
CATFISH AND BULLHEADS . . . . .	-	-	64,500	\$11,223	-	-
CREVALLE . . . . .	4,600	106	-	-	-	-
COLPHIN . . . . .	4,600	307	-	-	-	-
GROUPERS . . . . .	-	-	24,400	2,416	-	-
KING MACKEREL . . . . .	580,000	60,900	-	-	-	-
SEA CATFISH . . . . .	-	-	1,000	57	-	-
SEA TROUT OR WEAKFISH:						
SPOTTED . . . . .	41,000	9,593	-	-	-	-
WHITE . . . . .	900	96	-	-	-	-
SNAPPER, RED . . . . .	-	-	1,500	396	-	-
SPANISH MACKEREL . . . . .	229,500	20,886	-	-	-	-
TENPOUNDER . . . . .	100	2	-	-	-	-
UNCLASSIFIED, FOR FOOD . . . . .	2,000	134	-	-	-	-
CRABS, BLUE, HARD . . . . .	-	-	-	-	240,100	\$11,765
TOTAL . . . . .	890,100	94,266	91,400	14,092	240,100	11,765

(CONTINUED ON NEXT PAGE)

# GULF FISHERIES

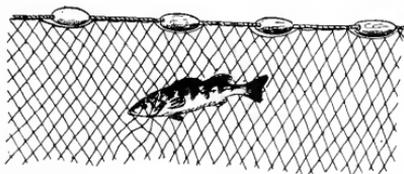
237

## FLORIDA, WEST COAST - CATCH BY GEAR, 1963 - Continued

SPECIES	DIP NETS		CAST NETS		SPEARS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ORUM, RED. . . . .	-	-	-	-	600	\$68
FLOWNERS . . . . .	-	-	-	-	51,300	10,209
MULLET, BLACK. . . . .	-	-	16,400	\$870	-	-
UNCLASSIFIED:						
FOR FOOD . . . . .	-	-	2,000	133	-	-
BAIT, REDUCTION, OR						
ANIMAL FOOD . . . . .	-	-	2,000	50	-	-
LOBSTERS, SPINY . . . . .	9,300	\$3,627	-	-	-	-
TOTAL . . . . .	9,300	3,627	20,400	1,053	51,900	10,277

SPECIES	DREDGES		TONGS		HOOKS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CLAMS, HARD, PUBLIC. . . . .	-	-	6,300	\$1,985	-	-
OYSTERS, MARKET:						
PUBLIC:						
SPRING . . . . .	-	-	2,450,800	700,930	-	-
FALL . . . . .	-	-	1,694,400	484,597	-	-
PRIVATE:						
SPRING . . . . .	-	-	85,600	24,482	-	-
FALL . . . . .	-	-	47,600	13,614	-	-
SCALLOPS:						
BAY . . . . .	227,800	\$58,772	-	-	-	-
CALICO . . . . .	200	44	-	-	-	-
SPONGES:						
GRASS . . . . .	-	-	-	-	1,800	\$4,341
SHEEPSWOL . . . . .	-	-	-	-	16,900	99,447
YELLOW . . . . .	-	-	-	-	10,600	16,022
TOTAL . . . . .	228,000	58,816	4,284,700	1,225,608	29,300	119,810

SPECIES	DIVING OUTFITS		BY HAND	
	POUNDS	VALUE	POUNDS	VALUE
LOBSTERS, SPINY . . . . .	-	-	200	\$78
CLAMS, HARD, PUBLIC. . . . .	-	-	1,100	346
OYSTERS, MARKET, PUBLIC:				
SPRING . . . . .	-	-	2,100	599
FALL . . . . .	-	-	1,600	458
SPONGES:				
GRASS . . . . .	200	\$819	-	-
SHEEPSWOL . . . . .	24,900	262,286	-	-
YELLOW . . . . .	800	4,346	-	-
TOTAL . . . . .	25,900	267,451	5,000	1,481



GILL NET

## GULF FISHERIES

ALABAMA  
OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	OTTER TRAWLS, SHRIMP	FYKE AND HOOP NETS, FISH	POTS AND TRAPS	
				CRAB	FISH
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	-	659	-	-	-
ON BOATS AND SHORE:					
REGULAR . . . . .	13	395	11	64	6
CASUAL . . . . .	-	26	6	-	6
TOTAL . . . . .	13	1,080	17	64	12
VESSELS, MOTOR . . . . .	-	247	-	-	-
GROSS TONNAGE . . . . .	-	8,977	-	-	-
BOATS:					
MOTOR . . . . .	4	247	17	59	12
OTHER . . . . .	2	-	-	-	-
GEAR:					
NUMBER . . . . .	4	660	476	5,900	250
LENGTH, YARDS . . . . .	1,200	-	-	-	-
YARDS AT MOUTH . . . . .	-	9,500	-	-	-

ITEM	GILL NETS, RUNAROUND	TRAMMEL NETS	LINES		
			HAND	LONG OR SET WITH HOOKS	TROT WITH BAITS
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	-	-	201	-	-
ON BOATS AND SHORE:					
REGULAR . . . . .	9	122	6	4	4
CASUAL . . . . .	2	-	18	1	-
TOTAL . . . . .	11	122	225	5	4
VESSELS, MOTOR . . . . .	-	-	22	-	-
GROSS TONNAGE . . . . .	-	-	1,154	-	-
BOATS:					
MOTOR . . . . .	9	67	24	5	4
OTHER . . . . .	2	55	-	-	-
GEAR:					
NUMBER . . . . .	11	122	204	5	4
SQUARE YARDS . . . . .	5,600	122,000	-	-	-
HOOKS OR BAITS . . . . .	-	-	1,104	1,500	2,000

ITEM	LINES- CONTINUED	SPEARS	DREDGES	TONGS	TOTAL, EXCLUSIVE OF DUPLI- CATION
	SNAG				
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	-	-	12	-	662
ON BOATS AND SHORE:					
REGULAR . . . . .	2	15	8	521	740
CASUAL . . . . .	2	8	2	156	189
TOTAL . . . . .	4	23	22	677	1,791
VESSELS, MOTOR . . . . .	-	-	3	-	268
GROSS TONNAGE . . . . .	-	-	93	-	10,077
BOATS:					
MOTOR . . . . .	4	23	2	384	632
OTHER . . . . .	-	-	-	60	117
GEAR:					
NUMBER . . . . .	50	23	10	666	-
YARDS AT MOUTH . . . . .	-	-	11	-	-
HOOKS OR BAITS . . . . .	15,000	-	-	-	-



# GULF FISHERIES

239

## ALABAMA CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		OTTER TRAWLS		FYKE AND HOOP NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH . . . . .	1,800	\$150	-	-	-	-
BLUE RUNNER . . . . .	500	29	-	-	-	-
BUFFALOFISH . . . . .	-	-	-	-	63,500	\$6,643
CABIO . . . . .	-	-	300	\$27	-	-
CROAKER . . . . .	17,800	1,479	100	4	-	-
DRUM:						
BLACK . . . . .	2,000	130	300	16	-	-
RED . . . . .	2,600	394	400	68	-	-
FLOUNDERS . . . . .	-	-	67,800	9,207	-	-
GROUPERS . . . . .	-	-	1,000	92	-	-
JEWFISH . . . . .	-	-	100	6	-	-
KING WHITING OR "KINGFISH" . . . . .	-	-	237,800	13,665	-	-
MULLET . . . . .	10,400	521	-	-	-	-
PADDFISH . . . . .	-	-	-	-	10,300	1,230
POMPANO . . . . .	100	54	-	-	-	-
SEA CATFISH . . . . .	-	-	4,500	222	-	-
SEA TROUT:						
SPOTTED . . . . .	14,100	3,572	300	71	-	-
WHITE . . . . .	-	-	77,900	4,109	-	-
SHEEPSHEAD:						
FRESH-WATER . . . . .	-	-	-	-	14,800	1,945
SALT-WATER . . . . .	-	-	2,800	187	-	-
SNAPPER, RED . . . . .	-	-	11,900	1,785	-	-
SPANISH MACKEREL . . . . .	17,500	1,586	300	30	-	-
SPOT . . . . .	16,300	814	100	13	-	-
STURGEON . . . . .	-	-	-	-	700	95
CRABS, BLUE, HARD . . . . .	-	-	500	35	-	-
SHRIMP . . . . .	-	-	7,760,000	2,419,219	-	-
SQUID . . . . .	-	-	4,100	309	-	-
<b>TOTAL . . . . .</b>	<b>83,100</b>	<b>6,729</b>	<b>6,170,200</b>	<b>2,449,065</b>	<b>69,300</b>	<b>9,913</b>

SPECIES	POTS AND TRAPS		GILL NETS, RUNAROUND		TRAMMEL NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH . . . . .	-	-	1,500	\$137	500	\$38
CATFISH AND BULLHEADS . . . . .	41,900	\$10,481	-	-	-	-
CROAKER . . . . .	-	-	-	-	28,700	1,669
DRUM:						
BLACK . . . . .	-	-	-	-	7,900	493
RED . . . . .	-	-	3,100	465	14,300	2,177
MULLET . . . . .	-	-	-	-	1,379,200	70,278
PADDFISH . . . . .	900	106	-	-	-	-
SEA CATFISH . . . . .	-	-	-	-	1,300	105
SEA TROUT, SPOTTED . . . . .	-	-	4,100	1,030	31,900	8,046
SHEEPSHEAD, SALT-WATER . . . . .	-	-	-	-	11,700	769
SPANISH MACKEREL . . . . .	-	-	18,900	1,716	300	41
SPOT . . . . .	-	-	-	-	19,200	939
STURGEON . . . . .	-	-	300	47	-	-
CRABS, BLUE, HARD . . . . .	1,292,600	74,495	-	-	-	-
<b>TOTAL . . . . .</b>	<b>1,335,400</b>	<b>85,062</b>	<b>27,900</b>	<b>3,395</b>	<b>1,495,000</b>	<b>64,555</b>

SPECIES	LINES							
	HAND		LONG OR SET WITH HOOKS		TROT WITH BAITS		SNAG	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CABIO . . . . .	500	\$32	-	-	-	-	-	-
CATFISH AND BULLHEADS . . . . .	-	-	2,200	\$537	-	-	-	-
GROUPERS . . . . .	294,500	42,175	-	-	-	-	-	-
JEWFISH . . . . .	41,300	3,811	-	-	-	-	-	-
POMPANO . . . . .	1,000	621	-	-	-	-	-	-
SEA TROUT, SPOTTED . . . . .	3,100	817	-	-	-	-	-	-
SNAPPER, RED . . . . .	2,303,000	661,637	-	-	-	-	-	-
SPANISH MACKEREL . . . . .	2,000	176	-	-	-	-	400	\$56
STURGEON . . . . .	-	-	-	-	-	-	-	-
CRABS, BLUE, HARD . . . . .	-	-	-	-	3,700	\$206	-	-
<b>TOTAL . . . . .</b>	<b>2,645,400</b>	<b>709,269</b>	<b>2,200</b>	<b>537</b>	<b>3,700</b>	<b>206</b>	<b>400</b>	<b>56</b>

SPECIES	SPEARS		DREDGES		TONGS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
FLOUNDERS . . . . .	39,600	\$11,071	-	-	-	-
OYSTERS, MARKET:						
PUBLIC:						
SPRING . . . . .	-	-	-	-	360,800	\$132,989
FALL . . . . .	-	-	-	-	527,900	189,035
PRIVATE:						
SPRING . . . . .	-	-	-	-	92,500	25,229
FALL . . . . .	-	-	3,400	\$1,372	10,800	3,952
<b>TOTAL . . . . .</b>	<b>39,600</b>	<b>11,071</b>	<b>3,400</b>	<b>1,372</b>	<b>992,000</b>	<b>351,205</b>

# GULF FISHERIES

## MISSISSIPPI

### OPERATING UNITS BY GEAR, 1963

ITEM	PURSE SEINES, MENHADEN	OTTER TRAWLS		POTS AND TRAPS, CRAB	GILL NETS, RUNAROUND
		FISH	SHRIMP		
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:					
ON VESSELS . . . . .	282	194	1,157	-	-
ON BOATS AND SHORE:					
REGULAR . . . . .	-	-	220	19	4
CASUAL . . . . .	-	-	220	3	-
TOTAL . . . . .	282	194	1,597	22	4
VESSELS, MOTOR . . . . .	16	82	432	-	-
GROSS TONNAGE . . . . .	4,996	3,204	15,025	-	-
BOATS, MOTOR . . . . .	32	-	357	22	4
GEAR:					
NUMBER . . . . .	16	102	1,033	1,870	4
LENGTH, YARDS . . . . .	6,995	-	-	-	-
SQUARE YARDS . . . . .	-	-	-	-	2,400
YARDS AT MOUTH . . . . .	-	1,987	14,816	-	-

ITEM	TRAMMEL NETS	LINES		CAST NETS
		HAND	TROT WITH BAITS	
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:				
ON VESSELS . . . . .	25	117	-	-
ON BOATS AND SHORE:				
REGULAR . . . . .	29	-	9	-
CASUAL . . . . .	6	75	2	6
TOTAL . . . . .	60	192	11	6
VESSELS, MOTOR . . . . .	6	13	-	-
GROSS TONNAGE . . . . .	105	534	-	-
BOATS:				
MOTOR . . . . .	36	69	11	-
OTHER . . . . .	18	-	-	-
GEAR:				
NUMBER . . . . .	38	181	11	6
SQUARE YARDS . . . . .	29,400	-	-	-
HOOKS OR BAITS . . . . .	-	923	5,500	-

ITEM	SPEARS	DREDGES, OYSTER, COMMON	TONGS, OYSTER	TOTAL, EXCLUSIVE OF DUPLI- CATION
				<u>NUMBER</u>
FISHERMEN:				
ON VESSELS . . . . .	-	591	-	2,017
ON BOATS AND SHORE:				
REGULAR . . . . .	-	40	489	698
CASUAL . . . . .	16	20	160	406
TOTAL . . . . .	16	651	648	3,121
VESSELS, MOTOR . . . . .	-	196	-	593
GROSS TONNAGE . . . . .	-	4,440	-	23,970
BOATS:				
MOTOR . . . . .	-	30	522	940
OTHER . . . . .	-	-	111	129
GEAR:				
NUMBER . . . . .	16	452	648	-
YARDS AT MOUTH . . . . .	-	547	-	-



# GULF FISHERIES

241

## MISSISSIPPI - CATCH BY GEAR, 1963

SPECIES	PURSE SEINES		OTTER TRAWLS	
	POUNDS	VALUE	POUNDS	VALUE
CROAKER . . . . .	-	-	600	\$30
DRUM:				
BLACK . . . . .	-	-	900	45
RED . . . . .	-	-	400	20
FLOUNDERS . . . . .	-	-	56,700	6,703
KING WHITING OR "KINGFISH" . . . . .	-	-	256,300	16,049
MENHADEN . . . . .	250,429,200	\$3,276,215	-	-
SEA CATFISH . . . . .	-	-	11,700	568
SEA TROUT OR WEAKFISH, WHITE . . . . .	-	-	66,400	3,649
SHEEPSHEAD, SALT-WATER . . . . .	-	-	1,000	66
SNAPPER, RED . . . . .	-	-	4,000	397
UNCLASSIFIED, FOR BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	-	-	72,576,600	1,210,320
SHRIMP . . . . .	-	-	9,374,700	2,484,195
<b>TOTAL . . . . .</b>	<b>250,429,200</b>	<b>3,276,215</b>	<b>82,349,300</b>	<b>3,722,042</b>

SPECIES	POTS AND TRAPS		GILL NETS, RUNAROUND		TRAMMEL NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUEFISH . . . . .	-	-	4,000	\$400	600	\$60
CROAKER . . . . .	-	-	-	-	2,000	111
DRUM:						
BLACK . . . . .	-	-	-	-	16,000	1,213
RED . . . . .	-	-	-	-	56,100	7,069
KING WHITING OR "KINGFISH" . . . . .	-	-	-	-	300	28
MULLET, BLACK . . . . .	-	-	3,700	185	375,000	19,202
POMPANO . . . . .	-	-	-	-	300	66
SEA CATFISH . . . . .	-	-	-	-	1,000	50
SEA TROUT OR WEAKFISH:						
SPOTTED . . . . .	-	-	2,100	525	72,000	18,002
WHITE . . . . .	-	-	-	-	1,400	84
SHEEPSHEAD, SALT-WATER . . . . .	-	-	-	-	28,000	2,217
SPANISH MACKEREL . . . . .	-	-	1,100	107	-	-
SPOT . . . . .	-	-	-	-	4,400	257
CRABS, BLUE:						
HARD . . . . .	1,029,300	\$59,426	-	-	-	-
SOFT AND PEELER . . . . .	2,700	466	-	-	-	-
<b>TOTAL . . . . .</b>	<b>1,032,000</b>	<b>59,892</b>	<b>10,900</b>	<b>1,217</b>	<b>557,100</b>	<b>48,379</b>

SPECIES	LINES				CAST NETS	
	HAND		TROT WITH BAITS			
	POUNDS	VALUE	POUNDS	VALUE		
CABIO . . . . .	2,900	\$227	-	-	-	-
DRUM, RED . . . . .	2,500	382	-	-	-	-
GROUPERS . . . . .	271,400	29,859	-	-	-	-
MULLET, BLACK . . . . .	-	-	-	-	3,500	\$174
SEA TROUT OR WEAKFISH:						
SPOTTED . . . . .	6,200	1,547	-	-	-	-
WHITE . . . . .	400	12	-	-	-	-
SHEEPSHEAD, SALT-WATER . . . . .	700	38	-	-	-	-
SNAPPER, RED . . . . .	1,661,800	471,000	-	-	-	-
SPANISH MACKEREL . . . . .	400	44	-	-	-	-
CRABS, BLUE, HARD . . . . .	-	-	82,700	\$4,207	-	-
<b>TOTAL . . . . .</b>	<b>2,166,300</b>	<b>503,129</b>	<b>82,700</b>	<b>4,207</b>	<b>3,500</b>	<b>174</b>

SPECIES	SPEARS		DREDGES		TONGS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
FLOUNDERS . . . . .	2,600	\$500	-	-	-	-
OYSTERS, MARKET:						
PUBLIC:						
SPRING . . . . .	-	-	3,400,000	\$631,000	503,100	\$106,979
FALL . . . . .	-	-	243,500	80,068	115,400	39,317
PRIVATE:						
SPRING . . . . .	-	-	67,500	12,751	-	-
FALL . . . . .	-	-	350,000	105,000	-	-
<b>TOTAL . . . . .</b>	<b>2,600</b>	<b>500</b>	<b>4,061,000</b>	<b>828,619</b>	<b>618,500</b>	<b>146,296</b>

# GULF FISHERIES

## LOUISIANA

### OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	PURSE SEINES, MENHADEN	OTTER TRAWLS		FYKE AND HOOP NETS, FISH
			FISH	SHRIMP	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	-	879	12	3,380	-
ON BOATS AND SHORE:					
REGULAR . . . . .	47	-	-	3,098	238
CASUAL . . . . .	19	-	-	1,046	135
TOTAL . . . . .	66	879	12	7,524	373
VESSELS, MOTOR . . . . .	-	48	4	1,262	-
GROSS TONNAGE . . . . .	-	11,454	178	47,599	-
BOATS:					
MOTOR . . . . .	31	96	-	2,867	373
OTHER . . . . .	13	-	-	-	-
GEAR:					
NUMBER . . . . .	17	48	8	5,020	12,336
LENGTH, YARDS . . . . .	5,516	20,905	-	67,389	-
YARDS AT MOUTH . . . . .	-	-	132	-	-

ITEM	POTS AND TRAPS		GILL NETS		TRAMMEL NETS
	CRAB	CRAW- FISH	ANCHOR, SET OR STAKE	RUNAROUND	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	-	-	2	-	8
ON BOATS AND SHORE:					
REGULAR . . . . .	21	83	102	6	127
CASUAL . . . . .	12	35	52	-	34
TOTAL . . . . .	33	118	156	6	169
VESSELS, MOTOR . . . . .	-	-	1	-	3
GROSS TONNAGE . . . . .	-	-	12	-	46
BOATS:					
MOTOR . . . . .	33	118	141	3	104
OTHER . . . . .	-	-	-	-	24
GEAR:					
NUMBER . . . . .	3,010	6,680	142	3	110
SQUARE YARDS . . . . .	-	-	58,408	1,350	35,765

ITEM	LINES			DIP NETS		SPEARS
	HAND	LONG OR SET WITH HOOKS	TROT WITH BAITS	COMMON	DROP	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	172	-	-	-	-	-
ON BOATS AND SHORE:						
REGULAR . . . . .	37	800	587	30	285	-
CASUAL . . . . .	90	389	122	-	59	9
TOTAL . . . . .	299	1,189	709	30	344	9
VESSELS, MOTOR . . . . .	30	-	-	-	-	-
GROSS TONNAGE . . . . .	1,223	-	-	-	-	-
BOATS:						
MOTOR . . . . .	81	1,183	664	15	296	-
OTHER . . . . .	-	1	-	-	1	-
GEAR:						
NUMBER . . . . .	1,388	1,923	743	30	22,792	9
HOOKS OR BAITS . . . . .	2,393	676,920	456,840	-	-	-

ITEM	DREGES, OYSTER, COMMON	TONGS, OYSTER	BRUSH TRAPS	GRABS	BY HAND	TOTAL, EXCLUSIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	513	-	-	-	-	4,640
ON BOATS AND SHORE:						
REGULAR . . . . .	361	459	88	30	70	3,812
CASUAL . . . . .	51	14	16	24	-	1,553
TOTAL . . . . .	925	473	104	54	70	10,205
VESSELS, MOTOR . . . . .	202	-	-	-	-	1,498
GROSS TONNAGE . . . . .	3,695	-	-	-	-	62,703
BOATS:						
MOTOR . . . . .	212	190	104	48	32	4,212
OTHER . . . . .	-	56	-	6	11	114
GEAR:						
NUMBER . . . . .	752	473	43,160	54	-	-
YARDS AT MOUTH . . . . .	665	-	-	-	-	-

# GULF FISHERIES

243

## LOUISIANA - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		PURSE SEINES		OTTER TRAWLS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	300	\$12	-	-	-	-
BUFFALOFISH . . . . .	61,000	6,100	-	-	-	-
CARP . . . . .	1,100	44	-	-	-	-
CATFISH AND BULLHEADS . . . . .	75,000	17,250	-	-	-	-
CROAKER . . . . .	800	40	-	-	500	\$35
DRUM:						
BLACK . . . . .	32,300	2,584	-	-	12,100	938
RED . . . . .	59,700	11,940	-	-	400	72
FLOUNDERS . . . . .	1,900	342	-	-	150,400	23,599
GARFISH . . . . .	121,300	7,209	-	-	-	-
GROUPERS . . . . .	-	-	-	-	4,800	177
JEWFISH . . . . .	-	-	-	-	2,400	106
KING WHITING OR "KINGFISH" . . . . .	3,200	160	-	-	355,600	17,726
MENHADEN . . . . .	-	-	633,484,300	\$7,861,871	-	-
MULLET, BLACK . . . . .	3,100	131	-	-	300	12
POMPANO . . . . .	100	60	-	-	800	520
SAWFISH . . . . .	500	25	-	-	3,800	162
SEA CATFISH . . . . .	4,700	470	-	-	33,100	1,655
SEA TROUT OR WEAKFISH:						
SPOTTED . . . . .	56,000	14,000	-	-	-	-
WHITE . . . . .	8,200	480	-	-	33,200	1,660
SHARKS, UNCLASSIFIED . . . . .	600	30	-	-	3,300	146
SHEEPSHEAD:						
FRESH-WATER . . . . .	3,600	288	-	-	-	-
SALT-WATER . . . . .	15,500	1,240	-	-	32,300	2,054
SNAPPER, RED . . . . .	-	-	-	-	78,800	13,669
SPANISH MACKEREL . . . . .	-	-	-	-	1,900	170
SPOT . . . . .	1,200	60	-	-	5,300	385
TRIPLETAIL . . . . .	-	-	-	-	2,200	120
UNCLASSIFIED, FOR BAIT, REDUCTION, AND ANIMAL FOOD . . . . .	-	-	-	-	6,970,800	87,400
CRABS, BLUE, HARD . . . . .	-	-	-	-	568,100	30,001
SHRIMP . . . . .	-	-	-	-	80,797,400	19,786,626
SQUID . . . . .	-	-	-	-	5,500	530
TURTLES, GREEN . . . . .	-	-	-	-	2,200	223
<b>TOTAL . . . . .</b>	<b>450,100</b>	<b>62,465</b>	<b>633,484,300</b>	<b>7,861,871</b>	<b>89,065,200</b>	<b>19,968,206</b>

SPECIES	FYKE AND HOOP NETS		POTS AND TRAPS		GILL NETS	
	POUNDS	VALUE	POUNDS	VALUE	ANCHOR, SET OR STAKE	
					POUNDS	VALUE
BOWFIN . . . . .	6,900	\$276	-	-	-	-
BUFFALOFISH . . . . .	334,500	34,520	-	-	313,100	\$34,952
CARP . . . . .	14,300	706	-	-	9,000	513
CATFISH AND BULLHEADS . . . . .	854,100	187,188	-	-	298,800	66,009
DRUM:						
BLACK . . . . .	-	-	-	-	4,300	215
RED . . . . .	6,000	1,080	-	-	6,900	1,602
GARFISH . . . . .	2,800	168	-	-	279,900	14,102
PADOLEFISH . . . . .	100	5	-	-	3,000	280
SHEEPSHEAD, FRESH-WATER . . . . .	278,600	24,059	-	-	44,500	4,990
CRABS, BLUE, HARD . . . . .	-	-	81,600	\$5,380	-	-
CRAWFISH, FRESH-WATER . . . . .	-	-	860,300	129,288	-	-
TURTLES, SNAPPER . . . . .	2,200	340	-	-	-	-
<b>TOTAL . . . . .</b>	<b>1,499,500</b>	<b>248,342</b>	<b>941,900</b>	<b>134,668</b>	<b>961,500</b>	<b>122,663</b>

SPECIES	GILL NETS - CONTINUED		TRAMMEL NETS		LINES, HAND	
	RUNAROUND		POUNDS	VALUE	POUNDS	VALUE
	POUNDS	VALUE				
BUFFALOFISH . . . . .	-	-	58,800	\$5,680	-	-
CABIO . . . . .	-	-	-	-	6,800	\$345
CATFISH AND BULLHEADS . . . . .	-	-	91,800	20,979	11,200	2,576
CROAKER . . . . .	-	-	23,600	1,483	-	-
DRUM:						
BLACK . . . . .	-	-	291,200	18,194	200	10
RED . . . . .	-	-	383,800	63,039	2,600	442
FLOUNDERS . . . . .	-	-	7,300	1,093	200	36
GARFISH . . . . .	67,700	\$3,385	14,600	742	15,200	760
GROUPERS . . . . .	-	-	-	-	18,600	1,663
JEWFISH . . . . .	-	-	-	-	5,900	592
KING WHITING OR "KINGFISH" . . . . .	-	-	9,900	495	2,000	100
MULLET, BLACK . . . . .	-	-	15,500	572	-	-
POMPANO . . . . .	-	-	-	-	200	130
SEA CATFISH . . . . .	-	-	21,100	1,055	-	-
SEA TROUT OR WEAKFISH:						
SPOTTED . . . . .	-	-	302,400	68,590	14,700	3,605
WHITE . . . . .	-	-	32,900	3,691	3,100	180

(CONTINUED ON NEXT PAGE)

## GULF FISHERIES

## LOUISIANA - CATCH BY GEAR, 1963 - Continued

SPECIES	GILL NETS, CONTINUED		TRAMMEL NETS		LINES	
	RUNAROUND		POUNDS	VALUE	HAND	
	POUNDS	VALUE			POUNDS	VALUE
SHEEPSHEAD:						
FRESH-WATER . . . . .	-	-	10,900	\$1,164	-	-
SALT-WATER . . . . .	-	-	126,500	9,832	700	\$56
SNAPPER, RED . . . . .	-	-	-	-	309,100	81,533
SPOT . . . . .	-	-	1,000	50	-	-
TRIPLETAIL . . . . .	-	-	600	30	-	-
WARSAW . . . . .	-	-	-	-	5,000	480
TERRAPIN . . . . .	-	-	-	-	700	140
TURTLES, SNAPPER . . . . .	-	-	-	-	5,100	920
TOTAL . . . . .	67,700	\$3,385	1,391,900	196,889	401,300	93,768

SPECIES	LINES - CONTINUED				DIP NETS	
	LONG DR SET WITH HOOKS		TROT WITH BAITS		POUNDS	VALUE
	POUNDS	VALUE	POUNDS	VALUE		
CATFISH AND BULLHEADS . . . . .	4,675,500	\$935,092	-	-	-	-
GRUB:						
BLACK . . . . .	3,500	280	-	-	-	-
RED . . . . .	2,400	500	-	-	1,800	\$360
GARFISH . . . . .	26,400	1,320	-	-	-	-
KING WHITING OR "KINGFISH" . . . . .	-	-	-	-	1,100	55
PACCLEFISH . . . . .	3,100	275	-	-	-	-
SEA TROUT OR WEAKFISH:						
SPOTTED . . . . .	2,400	600	-	-	4,900	1,225
WHITE . . . . .	-	-	-	-	2,200	110
SHEEPSHEAD:						
FRESH-WATER . . . . .	5,300	560	-	-	-	-
SALT-WATER . . . . .	2,100	168	-	-	-	-
CRABS, BLUE:						
HARD . . . . .	-	-	5,901,500	\$315,231	1,430,700	96,484
SOFT AND PEELER . . . . .	-	-	64,000	32,000	213,100	106,550
CRAWFISH, FRESH-WATER . . . . .	-	-	-	-	31,500	5,175
TURTLES, SNAPPER . . . . .	14,800	2,544	-	-	-	-
TOTAL . . . . .	4,735,500	941,339	5,965,500	347,231	1,685,300	209,959

SPECIES	SPEARS		DREDGES		TONGS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
	FLOUNGERS . . . . .	2,400	\$432	-	-	-
OYSTERS, MARKET:						
PUBLIC:						
SPRING . . . . .	-	-	1,494,800	\$465,509	920,600	\$285,386
FALL . . . . .	-	-	251,500	102,774	130,200	44,208
PRIVATE:						
SPRING . . . . .	-	-	6,209,000	1,861,918	186,900	59,752
FALL . . . . .	-	-	2,212,800	839,551	130,800	52,183
TOTAL . . . . .	2,400	432	10,168,100	3,269,752	1,368,500	441,529

SPECIES	BRUSH TRAPS		GRABS		BY HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
	CRABS, BLUE, SOFT . . . . .	51,600	\$25,800	-	-	-
SHRIMP . . . . .	11,300	2,260	-	-	-	-
OYSTERS, MARKET:						
PRIVATE:						
SPRING . . . . .	-	-	-	-	22,600	\$7,232
FALL . . . . .	-	-	-	-	4,000	1,600
FROGS . . . . .	-	-	5,800	\$1,966	-	-
TOTAL . . . . .	62,900	28,060	5,800	1,966	26,600	8,832



# GULF FISHERIES TEXAS

## OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	PURSE SEINES, MENHADEN	OTTER TRAWLS, SHRIMP	FYKE AND HOOP NETS, FISH	POTS, CRAB
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:					
ON VESSELS . . . . .	-	168	3,824	-	-
ON BOATS AND SHORE:					
REGULAR . . . . .	33	-	594	1	80
CASUAL . . . . .	16	-	473	-	2
TOTAL . . . . .	51	168	4,891	1	82
VESSELS, MOTOR . . . . .	-	8	1,356	-	-
GROSS TONNAGE . . . . .	-	1,329	67,327	-	-
BOATS:					
MOTOR . . . . .	20	16	919	1	70
OTHER . . . . .	-	8	-	-	-
GEAR:					
NUMBER . . . . .	20	8	3,475	10	9,668
LENGTH, YARDS . . . . .	4,475	4,000	-	-	-
YARDS AT MOUTH . . . . .	-	-	47,752	-	-

ITEM	GILL NETS, ANCHOR, SET OR STAKE	TRAMMEL NETS	LINES		DIP NETS, COMMON
			HAND	LONG OR SET WITH HOOKS	
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:					
ON VESSELS . . . . .	-	6	545	-	-
ON BOATS AND SHORE:					
REGULAR . . . . .	93	97	10	117	10
CASUAL . . . . .	16	1	241	17	5
TOTAL . . . . .	109	104	796	134	15
VESSELS, MOTOR . . . . .	-	3	119	-	-
GROSS TONNAGE . . . . .	-	40	4,940	-	-
BOATS:					
MOTOR . . . . .	85	83	212	134	15
OTHER . . . . .	14	20	-	-	-
GEAR:					
NUMBER . . . . .	85	83	786	134	15
SQUARE YARDS . . . . .	51,700	53,557	-	-	-
HOOKS OR BAITS . . . . .	-	-	4,643	197,100	-

ITEM	SPEARS	DREDGES, OYSTER, COMMON	TONGS, OYSTER	BY HAND, OYSTER	TOTAL, EXCLUSIVE OF DUPLI- CATION
					<u>NUMBER</u>
FISHERMEN:					
ON VESSELS . . . . .	-	261	2	-	4,474
ON BOATS AND SHORE:					
REGULAR . . . . .	48	379	44	11	822
CASUAL . . . . .	117	-	-	10	709
TOTAL . . . . .	165	640	46	21	6,005
VESSELS, MOTOR . . . . .	-	65	1	-	1,419
GROSS TONNAGE . . . . .	-	1,008	8	-	70,406
BOATS:					
MOTOR . . . . .	20	176	44	21	1,276
OTHER . . . . .	-	-	-	-	42
GEAR:					
NUMBER . . . . .	165	241	46	-	-
YARDS AT MOUTH . . . . .	-	241	-	-	-



## GULF FISHERIES

## TEXAS - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		PURSE SEINES		OTTER TRAWLS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
DRUM:						
BLACK . . . . .	21,800	\$1,128	-	-	11,200	\$475
RED . . . . .	17,500	3,838	-	-	1,100	220
FLOUNDERS . . . . .	-	-	-	-	158,600	39,632
GROUPERS . . . . .	-	-	-	-	4,100	379
JEW FISH . . . . .	-	-	-	-	300	30
KING WHITING OR "KINGFISH"	-	-	-	-	146,900	7,700
MENHADEN . . . . .	-	-	83,735,900	\$1,034,170	-	-
MULLET, BLACK . . . . .	-	-	-	-	8,700	261
POMPANO . . . . .	500	175	-	-	-	-
SEA CATFISH . . . . .	2,900	145	-	-	28,100	2,087
SEA TROUT OR WEAKFISH,						
SPOTTED . . . . .	148,900	38,997	-	-	200	50
SHEEPSHEAD, SALT-WATER . . . . .	15,700	1,570	-	-	48,000	4,505
SNAPPER, RED . . . . .	-	-	-	-	53,200	14,094
WARSAW . . . . .	-	-	-	-	700	56
UNCLASSIFIED:						
FOR FOOD . . . . .	1,300	90	-	-	150,500	7,525
BAIT, REDUCTION, AND						
ANIMAL FOOD . . . . .	16,800	336	-	-	88,600	4,313
CRABS: BLUE, HARD . . . . .	-	-	-	-	179,700	10,618
SHRIMP . . . . .	-	-	-	-	70,231,400	26,591,493
SQUID . . . . .	-	-	-	-	37,400	3,884
TOTAL . . . . .	225,400	46,279	83,735,900	1,034,170	71,148,700	26,687,322

SPECIES	FYKE AND HOOP NETS		POTS AND TRAPS		GILL NETS, ANCHOR, SET OR STAKE	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALO FISH . . . . .	20,400	\$2,448	-	-	74,100	\$11,088
CARP . . . . .	-	-	-	-	16,800	1,848
CATFISH AND BULLHEADS . . . . .	-	-	-	-	1,600	400
DRUM:						
BLACK . . . . .	-	-	-	-	459,700	36,094
RED . . . . .	-	-	-	-	4,600	1,081
FLOUNDERS . . . . .	-	-	-	-	37,200	9,300
GARFISH . . . . .	12,000	480	-	-	70,100	3,707
POMPANO . . . . .	-	-	-	-	100	35
SEA CATFISH . . . . .	-	-	-	-	4,100	328
SEA TROUT OR WEAKFISH,						
SPOTTED . . . . .	-	-	-	-	105,800	26,450
SHEEPSHEAD, SALT-WATER . . . . .	-	-	-	-	800	64
CRABS:						
BLUE, HARD . . . . .	-	-	2,800,700	\$188,990	-	-
SOFT AND PEELER . . . . .	-	-	1,800	360	-	-
TOTAL . . . . .	32,400	2,928	2,802,500	189,350	774,900	90,395

SPECIES	TRAMMEL NETS		LINES			
			HAND		LONG OR SET WITH HOOKS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CABIO . . . . .	-	-	18,100	\$1,669	-	-
CATFISH AND BULLHEADS . . . . .	-	-	-	-	39,400	\$12,323
CROAKER . . . . .	-	-	-	-	200	8
DRUM:						
BLACK . . . . .	496,000	\$39,673	14,700	1,140	341,500	27,001
RED . . . . .	183,300	42,908	24,600	5,815	451,300	111,280
FLOUNDERS . . . . .	2,700	675	5,300	1,325	4,800	1,200
GARFISH . . . . .	-	-	151,500	14,914	3,000	120
GROUPERS . . . . .	-	-	7,500	714	-	-
JEW FISH . . . . .	-	-	-	-	-	-
MULLET, BLACK . . . . .	200	6	-	-	-	-
POMPANO . . . . .	300	105	400	120	400	140
SEA CATFISH . . . . .	9,500	751	800	55	8,000	640
SEA TROUT OR WEAKFISH,						
SPOTTED . . . . .	501,400	125,359	51,200	12,921	365,800	93,599
SHEEPSHEAD:						
FRESH-WATER . . . . .	-	-	-	-	1,900	185
SALT-WATER . . . . .	25,200	2,022	5,400	496	24,800	1,984
SNAPPER, RED . . . . .	-	-	2,115,500	576,346	-	-
WARSAW . . . . .	-	-	37,900	3,498	-	-
UNCLASSIFIED:						
FOR FOOD . . . . .	3,700	185	100	5	2,200	110
BAIT, REDUCTION, AND						
ANIMAL FOOD . . . . .	2,500	75	-	-	-	-
TOTAL . . . . .	1,224,800	211,759	2,433,000	619,018	1,243,300	248,590

(CONTINUED ON NEXT PAGE)

# GULF FISHERIES

247

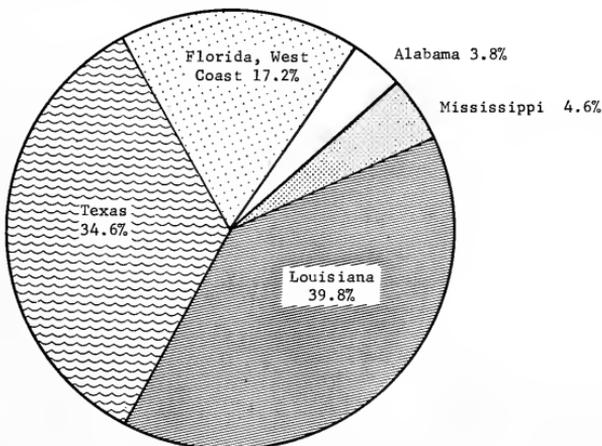
## TEXAS - CATCH BY GEAR, 1963 - Continued

SPECIES	OIP NETS		SPEARS		DREDGES	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
DRUM:						
BLACK . . . . .	17,800	\$1,424	-	-	-	-
RED . . . . .	3,200	736	-	-	-	-
FLOWNERS . . . . .	-	-	67,500	\$16,875	-	-
SEA TROUT OR WEAKFISH	-	-	-	-	-	-
SPOTTED . . . . .	16,900	4,225	-	-	-	-
OYSTERS, MARKET:						
PUBLIC:						
SPRING . . . . .	-	-	-	-	1,509,600	\$509,993
FALL . . . . .	-	-	-	-	971,000	347,434
PRIVATE:						
SPRING . . . . .	-	-	-	-	56,300	21,957
FALL . . . . .	-	-	-	-	21,400	13,268
TOTAL . . . . .	37,900	6,385	67,500	16,875	2,558,300	892,652

SPECIES	TONGS		BY HAND	
	POUNDS	VALUE	POUNDS	VALUE
OYSTERS, MARKET:				
PUBLIC:				
SPRING . . . . .	25,800	\$8,328	14,700	\$5,186
FALL . . . . .	10,800	3,404	7,800	3,105
PRIVATE, SPRING . . . . .	-	-	500	160
TOTAL . . . . .	36,600	11,732	23,000	9,451

## GULF STATES SHRIMP CATCH, 1963

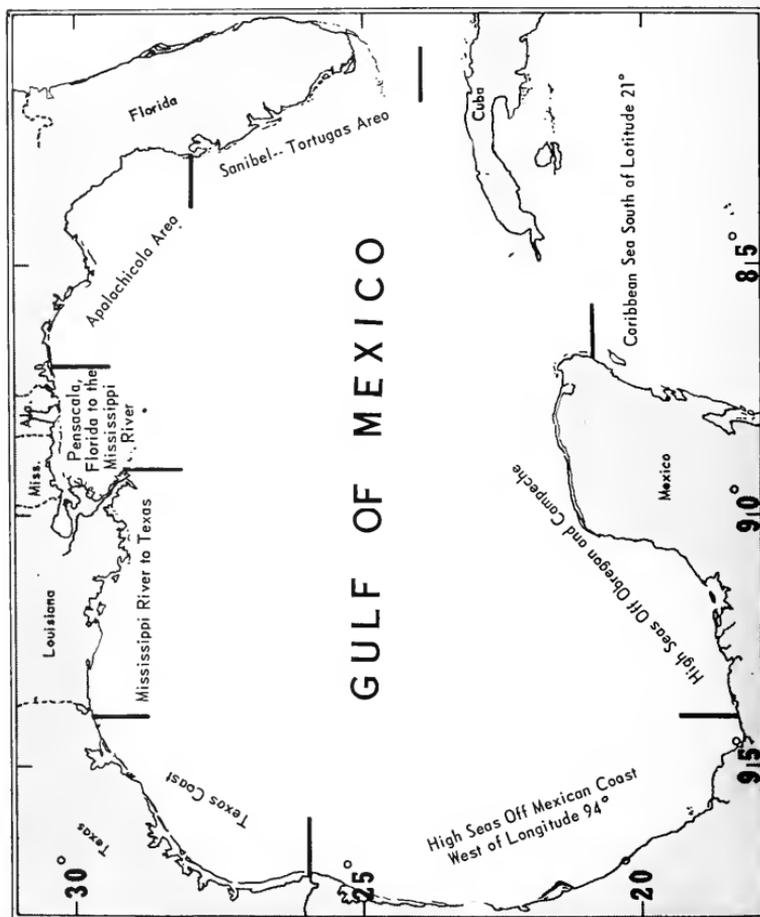
(Heads-on)



Total - 203,116,000 pounds

## GULF FISHERIES

Chart depicting the major statistical areas used in reporting the shrimp catch by fishing craft on trips completed during 1963.



## GULF SHRIMP FISHERY

Greater abundance of shrimp on all major fishing grounds of the northern Gulf in 1963 resulted in an increase of over 39 million pounds (heads-off weight) in total landings at Gulf ports compared with the previous year. Fishing grounds located between the Mississippi River and the Louisiana-Texas border were again the most productive, yielding 26 million pounds more than in 1962 and approximately 41 percent of the total 1963 Gulf landings. Other areas with increases over 1962 were Sanibel-Tortugas, up 1.8 million pounds; northwest Florida, up 1.1 million; Pensacola to Mississippi River, up 5.3 million; and the Texas coast, up 8.7 million pounds. There was a decrease of about 5.9 million pounds in catches from the high seas off foreign coasts. The abundance of shrimp in nearby waters precluded the necessity for fishing more distant grounds. In all northern Gulf areas except northwest Florida, the increased catches were accomplished by craft making fewer trips than during the previous year.

For the second successive year, an excellent run of white shrimp in Louisiana waters was a major factor in a change in the species composition of the Gulf landings. This species comprised 37 percent of the 1963 landings compared with 26 percent the previous year. Brown shrimp accounted for 43 percent of the landings--3 percent less than 1962--and pink shrimp, 19 percent compared with 25 percent during 1962. Seabobs and royal red shrimp accounted for 1 percent compared with 3 percent the previous year. There were no significant changes from 1962 in the count size (number of heads-off shrimp per pound) composition of landings--the smaller count sizes (31 and over) continued to predominate.

The ex-vessel value of landings did not increase in the same magnitude as the volume. The value of catches from the West Coast of Florida and Texas was less than that of the previous year despite increases in volume. Ex-vessel prices for smaller size shrimp (over 31 count) began a downward trend following an exceptional run of shrimp in the Tarpon springs-Cedar Keys area during April. Large catches of small shrimp in Louisiana inside waters after the opening of the season on May 15 accelerated the downward trend. Relatively large year-end inventories of canned and frozen small shrimp, which remained unsold at the close of 1962, also contributed to the price decline. The ex-vessel prices for large shrimp (under 25 count) remained at comparatively high levels with no appreciable weakening until July. The lowest prices for the year for these sizes were paid during October. At the close of the year, ex-vessel prices on all sizes were stable and on a general upward trend. The average annual ex-vessel price per pound (heads-off weight) was 49 cents, about 18 cents per pound less than the 1962 average. There was a decline of 16 cents in the average ex-vessel price for shrimp landed at West Coast of Florida, Mississippi, and Louisiana ports, a 17-cent decline in Texas, and a 20-cent-per-pound decline in Alabama.

The following tabulations include information on the species of shrimp taken in the Gulf by size; the number of fishing trips; and the catch by area, depth, and size. Catch figures represent the heads-off weight and, therefore, are not directly comparable with the heads-on (live weight) quantities published in the General Review, regional tables, or the Review of Certain Major Fisheries. The pounds of heads-off shrimp may be converted to heads-on weight by multiplying brown shrimp poundage by 1.61; white, 1.54; pink, 1.60; seabobs, 1.53; and royal red, 1.80.

Information on the landings and catch of shrimp in the Gulf area in the following tables has been previously published in Current Fishery Statistics No. 3520. Data on landings and value of shrimp by species and size for the South Atlantic States are included in Section 5 of this Digest.

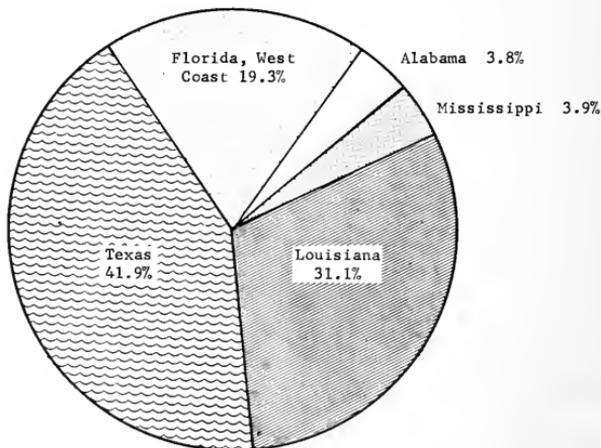
# GULF FISHERIES

## SUMMARY OF GULF SHRIMP LANDINGS, 1963

SIZE	BROWN		PINK		WHITE	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
UNCER 15 . . . . .	1,941,364	\$1,658,050	77,757	\$70,725	110,528	\$91,870
15 - 20 . . . . .	7,840,562	6,217,679	903,196	800,974	3,044,464	2,542,620
21 - 25 . . . . .	6,319,406	4,429,206	3,171,656	2,637,985	4,519,907	3,004,233
26 - 30 . . . . .	5,956,398	3,675,640	3,544,114	2,581,485	5,896,495	3,245,932
31 - 40 . . . . .	14,126,710	7,266,072	6,936,649	4,296,548	10,266,480	4,848,361
41 - 50 . . . . .	5,426,769	2,282,160	3,937,394	2,051,502	5,822,414	2,269,054
51 - 67 . . . . .	4,827,536	1,627,126	3,068,102	1,316,293	9,640,435	2,541,191
68 AND OVER . . . . .	9,541,857	1,937,155	2,523,360	640,435	7,762,045	1,366,856
TOTAL . . . . .	55,960,564	29,113,490	24,162,426	14,395,947	47,066,788	19,930,119

SIZE	SEA BOBS		ROYAL RED		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
UNDER 15 . . . . .	-	-	300	\$156	2,129,949	\$1,820,801
15 - 20 . . . . .	-	-	-	-	11,766,262	9,561,473
21 - 25 . . . . .	-	-	-	-	14,004,969	10,071,424
26 - 30 . . . . .	-	-	1,665	1,144	15,402,612	9,504,401
31 - 40 . . . . .	-	-	4,260	2,341	31,358,319	16,433,322
41 - 50 . . . . .	-	-	-	-	15,186,577	6,602,716
51 - 67 . . . . .	-	-	-	-	17,556,075	5,484,612
68 AND OVER . . . . .	1,149,867	\$94,290	-	-	20,977,129	4,058,736
TOTAL . . . . .	1,149,867	94,290	6,245	3,641	126,405,692	63,537,487

## VALUE OF THE GULF STATES SHRIMP CATCH, 1963



Total - \$63,537,000

# GULF FISHERIES

251

## GULF SHRIMP LANDINGS, BY SPECIES AND SIZE, 1963

SPECIES AND SIZE	FLORIDA, WEST COAST		ALABAMA		MISSISSIPPI	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
<b>BROWN:</b>						
UNDER 15 . . . . .	-	-	14, 128	\$11, 830	60, 630	\$58, 719
15 - 20 . . . . .	31, 389	\$23, 971	344, 626	292, 485	119, 709	93, 917
21 - 25 . . . . .	27, 330	18, 941	303, 885	220, 024	108, 343	74, 690
26 - 30 . . . . .	22, 316	14, 906	309, 501	198, 072	333, 122	173, 855
31 - 40 . . . . .	93, 112	51, 710	654, 680	336, 387	993, 082	460, 298
41 - 50 . . . . .	37, 680	17, 933	628, 098	267, 754	1, 005, 191	407, 174
51 - 67 . . . . .	200, 240	77, 387	984, 641	351, 627	653, 044	299, 315
68 AND OVER . . . . .	87, 126	30, 074	265, 807	78, 587	302, 757	86, 300
TOTAL . . . . .	499, 193	234, 922	3, 515, 366	1, 756, 766	3, 775, 878	1, 656, 268
<b>PINK:</b>						
UNDER 15 . . . . .	558, 376	490, 103	-	-	1, 757	1, 663
15 - 20 . . . . .	2, 425, 802	1, 990, 236	41	37	7, 251	6, 193
26 - 30 . . . . .	2, 998, 250	2, 139, 941	1, 595	1, 257	18, 994	14, 153
31 - 40 . . . . .	5, 948, 617	3, 638, 701	747	407	54, 569	29, 178
41 - 50 . . . . .	3, 426, 096	1, 769, 583	5, 478	3, 032	75, 472	31, 336
51 - 67 . . . . .	2, 701, 691	1, 126, 354	34, 172	14, 257	2, 832	1, 085
68 AND OVER . . . . .	2, 511, 711	639, 944	10, 949	4, 290	-	-
TOTAL . . . . .	20, 580, 543	11, 790, 862	52, 982	23, 280	160, 875	83, 608
<b>WHITE:</b>						
UNDER 15 . . . . .	-	-	1, 728	1, 272	290	180
15 - 20 . . . . .	13, 024	10, 443	143, 738	101, 753	58, 374	39, 011
21 - 25 . . . . .	35, 437	23, 141	164, 508	99, 490	144, 151	78, 237
26 - 30 . . . . .	94, 637	51, 435	281, 354	150, 196	297, 447	138, 181
31 - 40 . . . . .	97, 759	47, 819	317, 794	145, 568	559, 641	235, 138
41 - 50 . . . . .	42, 948	16, 772	224, 913	87, 411	255, 830	92, 245
51 - 67 . . . . .	49, 094	13, 997	137, 855	44, 372	225, 646	68, 869
68 AND OVER . . . . .	444, 493	65, 556	36, 893	9, 111	431, 372	92, 443
TOTAL . . . . .	777, 392	229, 163	1, 308, 783	639, 173	1, 972, 751	744, 304
<b>SEA BOBS.</b>	7, 567	807	-	-	68	15
<b>GRAND TOTAL . . . . .</b>	<b>21, 864, 695</b>	<b>12, 255, 754</b>	<b>4, 877, 131</b>	<b>2, 419, 219</b>	<b>5, 909, 572</b>	<b>2, 484, 195</b>

SPECIES AND SIZE	LOUISIANA		TEXAS		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
<b>BROWN:</b>						
UNDER 15 . . . . .	174, 654	\$153, 782	1, 691, 952	\$1, 433, 719	1, 941, 364	\$1, 658, 050
15 - 20 . . . . .	831, 002	762, 490	6, 513, 656	5, 045, 016	7, 840, 582	6, 217, 879
21 - 25 . . . . .	777, 760	573, 419	5, 096, 088	3, 542, 132	6, 313, 406	4, 429, 209
26 - 30 . . . . .	790, 591	481, 412	4, 502, 808	2, 807, 595	5, 998, 338	3, 675, 840
31 - 40 . . . . .	3, 056, 514	1, 521, 905	9, 321, 322	4, 915, 772	14, 128, 710	7, 285, 072
41 - 50 . . . . .	1, 434, 098	603, 857	2, 323, 702	985, 442	5, 428, 769	2, 282, 160
51 - 67 . . . . .	1, 488, 383	460, 628	1, 301, 030	438, 171	4, 827, 538	1, 627, 128
68 AND OVER . . . . .	6, 331, 008	1, 646, 829	555, 159	93, 365	9, 541, 857	1, 937, 155
TOTAL . . . . .	16, 884, 210	6, 204, 322	31, 305, 917	19, 261, 212	55, 980, 564	29, 113, 490
<b>PINK:</b>						
UNDER 15 . . . . .	-	-	77, 757	70, 725	77, 757	70, 725
15 - 20 . . . . .	1, 530	1, 530	331, 533	307, 678	903, 196	800, 974
21 - 25 . . . . .	1, 720	1, 553	736, 842	639, 966	3, 171, 656	2, 637, 985
26 - 30 . . . . .	2, 020	1, 776	523, 255	424, 358	3, 544, 114	2, 981, 485
31 - 40 . . . . .	1, 750	1, 331	931, 166	626, 931	6, 936, 849	4, 296, 548
41 - 50 . . . . .	215	138	430, 133	247, 413	3, 937, 394	2, 051, 502
51 - 67 . . . . .	470	235	348, 937	174, 362	3, 088, 102	1, 316, 293
68 AND OVER . . . . .	-	-	700	201	2, 523, 360	640, 435
TOTAL . . . . .	7, 705	6, 563	3, 380, 323	2, 491, 634	24, 182, 428	14, 395, 947
<b>WHITE:</b>						
UNDER 15 . . . . .	84, 572	69, 869	23, 938	20, 549	110, 528	91, 870
15 - 20 . . . . .	1, 769, 685	1, 555, 242	1, 059, 663	836, 171	3, 044, 484	2, 542, 620
21 - 25 . . . . .	2, 630, 256	1, 831, 384	1, 545, 555	971, 981	4, 519, 907	3, 004, 233
26 - 30 . . . . .	3, 286, 752	1, 850, 979	1, 938, 305	1, 055, 141	5, 898, 495	3, 245, 362
31 - 40 . . . . .	6, 601, 813	3, 087, 363	2, 711, 473	1, 332, 273	10, 288, 480	4, 848, 931
41 - 50 . . . . .	4, 395, 875	1, 705, 744	902, 648	366, 882	5, 822, 414	2, 269, 054
51 - 67 . . . . .	8, 720, 164	2, 239, 207	507, 676	174, 746	9, 640, 435	2, 541, 191
68 AND OVER . . . . .	6, 630, 020	1, 171, 743	219, 267	48, 005	7, 762, 045	1, 366, 838
TOTAL . . . . .	34, 119, 137	13, 511, 731	8, 908, 725	4, 805, 748	47, 086, 788	19, 930, 119
<b>SEA BOBS.</b>	689, 594	63, 294	452, 638	30, 174	1, 149, 667	94, 290
<b>ROYAL RED:</b>						
UNDER 15 . . . . .	-	-	300	156	300	156
25 - 30 . . . . .	1, 040	669	625	475	1, 665	1, 144
31 - 40 . . . . .	558	247	3, 722	2, 094	4, 280	2, 341
TOTAL . . . . .	1, 598	916	4, 647	2, 725	6, 245	3, 641
<b>GRAND TOTAL . . . . .</b>	<b>51, 702, 244</b>	<b>19, 786, 826</b>	<b>44, 052, 250</b>	<b>26, 591, 493</b>	<b>128, 405, 892</b>	<b>63, 537, 487</b>

SEE NOTE ON PAGE 254.

## GULF COAST SHRIMP CATCH BY AREA, DEPTH, AND SIZE, 1963

MAJOR WATER AREAS, DEPTH, AND SPECIES	SIZE (HEADS-OFF PER POUND)											TOTAL POUNDS		
	TRIPS													
	UNDER 15	15 - 20	21 - 25	26 - 30	31 - 40	41 - 50	51 - 67	68 & OVER			TOTAL			
	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS
SABIEL AND TORTUGAS AREA 0 - 5 FATHOMS: PINK 6 - 20 FATHOMS: PINK 21 - 35 FATHOMS: PINK														
	8,795.1	132,989	691,183	915,198	2,496,762	2,180,354	1,940,999	2,137,341	2,139,257	1,000	22,696	10,614	1,916	1,620
		21,403	42,972	22,351	37,476	22,696	10,614	1,916						10,494,826
TOTAL, . . . . .		154,392	734,155	937,529	2,534,858	2,204,250	1,951,613	2,139,257						10,656,054
APALACHICOLA AREA 0 - 5 FATHOMS: BROWN PINK 328 2,434 6,143 SEA BOBS BROWN 6 - 20 FATHOMS: BROWN WHITE														
		124	4,555	7,304	41,454	25,989	199,170	86,954						365,560
		328	2,434	7,304	112,898	188,713	244,953	628,292						628,292
		6,143	7,894	64,523	77,719	40,512	444,493							690,378
				410	674	489	7,567							7,567
		7,698	52,824	164,456	292,012	188,133	308,260							1,313,988
		1,025	535	2,523	86		299,305							3,968
TOTAL, . . . . .		15,318	68,242	232,619	525,045	443,846	802,600	904,254						3,011,924
PENSACOLA TO MISSISSIPPI RIVER 0 - 5 FATHOMS: BROWN PINK 290 112,809 304,785 6,993 2,338 54,027 PINK WHITE ROYAL REC														
	611	11,377	18,761	100,656	527,840	655,802	1,106,205	564,591						3,045,843
	290	112,809	341,135	502,070	9,666	12,127	1,701	1,199,649						29,000
														4,316,842
														216
														4,792,929
														181,737
														1,113,078
														8,786
														235,540
														2,897
														1,839
														1,998
TOTAL, . . . . .		610,374	805,961	1,271,272	3,223,059	2,812,383	2,907,122	2,035,405						13,791,705
MISSISSIPPI RIVER TO TEXAS 0 - 5 FATHOMS: BROWN PINK 24,102 87,233 61,997 99,851 165 SEA BOBS														
	403	9,914	8,444	9,639	50,820	172,504	1,003,050	8,010,949						9,265,723
	24,102	714,556	1,807,743	2,947,543	5,348,184	3,694,707	7,847,267	5,428,371						27,722,524
														2,477,520
														5,983,980
														340
														6,647,882
														38,853
														1,690,937
														25,142
														5,129
TOTAL, . . . . .		2,942,176	3,687,070	4,821,028	10,225,944	5,647,916	9,720,185	15,079,340						52,397,470
TEXAS COAST 0 - 5 FATHOMS: BROWN WHITE SEA BOBS 6 - 20 FATHOMS: BROWN PINK 25 18,677 444,952 BROWN WHITE ROYAL REC														
	20	306	654	1,519	24,156	44,560	93,054	541,547						705,826
	2,070	266,332	627,614	804,213	1,344,304	476,815	407,759	163,840						4,092,947
														64,394
														17,176,013
														11,807
														2,398,487
														8,962
														30
														50,639
TOTAL, . . . . .		50,021.6	6,267,361	5,470,251	5,235,550	9,763,593	2,514,701	1,548,199						32,459,278

(CONTINUED ON NEXT PAGE)

SEE NOTE AT END OF TABLE.

GULF COAST SHRIMP CATCH BY AREA, DEPTH, AND SIZE, 1963 - Continued

MAJOR WATER AREAS, DEPTH, AND SPECIES	TRIPS	SIZE (HEADS-OFF PER POUND)											TOTAL		
		POUNDS													
		UNDER 15	15 - 20	21 - 25	26 - 30	31 - 40	41 - 50	51 - 67	68 & OVER						
OFF MEXICO WEST 94° LONGITUDE 0 - 5 FATHOMS: 6 - 20 FATHOMS: 21 - 45 FATHOMS: TOTAL, . . . . .	NUMBER	920	1,160	945	480	1,670	220	-	-	-	-	-	-	5,395	
	BROWN	390	1,005	1,423	1,674	1,138	177	-	-	-	-	-	-	5,849	
	WHITE	31,354	60,279	48,121	30,914	85,279	39,613	42	-	-	-	-	-	310,990	
	PINK	320	1,462	3,582	3,707	7,151	1,293	580	-	-	-	-	-	31,707	
	BROWN	785,403	993,479	695,323	5,016	866,624	184,411	23,169	-	-	-	-	-	3,807,051	
	PINK	89	89	443	178	642	248	230	-	-	-	-	-	2,682	
	WHITE	5	265	-	-	-	-	-	-	-	-	-	-	255	
	TOTAL, . . . . .	819,434	998,226	749,853	406,903	956,504	225,902	39,367	-	-	-	-	-	4,155,209	
	OFF OREGON AND CAMPECHE 0 - 5 FATHOMS: 6 - 20 FATHOMS: 21 - 40 FATHOMS: TOTAL, . . . . .	NUMBER	-	35	-	1,005	4,785	-	-	-	-	-	-	-	10,365
		WHITE	16,356	28,927	36,694	31,916	67,644	43,852	33,079	-	-	-	-	-	279,729
BROWN		29,476	328,540	1,564,136	1,762,312	3,022,050	1,069,654	414,732	50	-	-	-	-	8,210,950	
PINK		5	7,425	1,175	27,787	68,914	20,012	5,904	-	-	-	-	-	84,803	
WHITE		49,959	62,681	58,660	37,787	602,211	176,306	11,864	-	-	-	-	-	264,807	
BROWN		46,064	376,063	701,596	501,266	602,211	176,306	11,864	-	-	-	-	-	2,582,169	
PINK		114	4,702	-	-	-	-	-	-	-	-	-	-	2,816	
TOTAL, . . . . .		1,433,6	142,534	606,960	2,422,281	2,324,236	3,785,604	1,334,401	571,599	961	-	-	-	11,369,576	
CARIBBEAN SEA SOUTH LATITUDE 21° NORTH 6 - 20 FATHOMS: TOTAL, . . . . .		NUMBER	-	-	-	-	-	-	-	-	-	-	-	-	44,887
		BROWN	-	-	1,120	6,822	36,945	3,746	-	-	-	-	-	-	126,774
	PINK	-	-	2,829	54,675	67,524	1,735	-	-	-	-	-	-	19,058	
	WHITE	-	-	12,111	5,212	1,735	-	-	-	-	-	-	-	192,719	
	TOTAL, . . . . .	34,1	-	16,050	66,709	106,204	3,746	-	-	-	-	-	-	192,719	
	ATLANTIC OCEAN 6 - 10 FATHOMS: 21 - 35 FATHOMS: TOTAL, . . . . .	NUMBER	-	-	-	-	-	-	-	-	-	-	-	-	11,995
		PINK	-	-	1,332	-	13	-	5,624	6,358	-	-	-	-	1,912
		WHITE	-	263	-	35	262	-	364	1,100	-	-	-	-	3,414
		PINK	-	-	-	-	857	-	-	-	-	-	-	-	17,321
		TOTAL, . . . . .	44,0	263	1,332	35	1,152	1,073	6,008	7,458	-	-	-	-	300
UNCLASSIFIED GULF 246 - 250 FATHOMS: TOTAL, . . . . .		NUMBER	300	-	-	-	-	-	-	-	-	-	-	-	300
		ROYAL RED	300	-	-	-	-	-	-	-	-	-	-	-	300
		TOTAL, . . . . .	300	-	-	-	-	-	-	-	-	-	-	-	300
		GRAND TOTAL, . . . . .	244,487,0	2,127,117	11,755,070	13,985,505	15,315,681	31,121,933	15,198,218	17,546,703	20,977,129	127,987,556			

NOTE: THESE DATA REPRESENT THE CATCHES OF VESSELS COMPLETING TRIPS DURING THE YEAR, REGARDLESS OF WHEN LANDINGS OCCURRED. CONSEQUENTLY, THE DATA ARE NOT INCLUSIVE OF THE CATCHES OF VESSELS WHICH REPRESENT LANDINGS. A SINGLE TRIP IS SHOWN FOR EACH VOYAGE. ADDITIONAL TABULATIONS CONCERNING THE GULF OF MEXICO CATCH OF SHRIMP IN MORE DETAIL BY AREA, DEPTH, SIZE, AND FISHING EFFORT MAY BE OBTAINED UPON REQUEST FROM THE U. S. FISH AND WILDLIFE SERVICE, BUREAU OF COMMERCIAL FISHERIES, BRANCH OF FISHERY STATISTICS, WASHINGTON, D. C. 20240.

## GULF FISHERIES

## SOUTH ATLANTIC AND GULF COAST SHRIMP LANDINGS, 1963

SPECIES AND SIZE	SOUTH ATLANTIC		GULF		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
<b>BROWN:</b>						
UNDER 15 . . . . .	-	-	1,941,364	\$1,658,050	1,941,364	\$1,658,050
15 - 20 . . . . .	306,622	\$202,172	7,840,582	6,217,879	8,147,204	6,420,051
21 - 25 . . . . .	377,985	243,883	6,313,406	4,429,206	6,691,391	4,173,089
26 - 30 . . . . .	820,308	499,895	5,959,336	3,675,840	6,778,646	4,173,735
31 - 40 . . . . .	1,917,212	984,079	14,128,710	7,286,072	16,045,922	8,270,151
41 - 50 . . . . .	992,401	407,726	5,428,769	2,282,160	6,421,170	2,689,886
51 - 67 . . . . .	274,511	91,146	4,827,536	1,627,128	5,102,049	1,718,274
68 AND OVER . . . . .	60,210	15,459	9,541,857	1,937,155	9,602,067	1,952,614
TOTAL . . . . .	4,749,249	2,444,360	55,980,564	29,113,490	60,729,813	31,557,850
<b>PINK:</b>						
UNDER 15 . . . . .	-	-	77,757	70,725	77,757	70,725
15 - 20 . . . . .	50,672	34,456	903,196	800,974	953,868	835,430
21 - 25 . . . . .	27,717	17,185	3,171,656	2,637,985	3,199,373	2,695,170
26 - 30 . . . . .	40,282	23,153	3,544,114	2,581,485	3,584,396	2,604,638
31 - 40 . . . . .	66,507	34,633	6,936,849	4,296,548	7,003,356	4,331,181
41 - 50 . . . . .	30,320	39,343	3,937,394	2,051,502	4,027,714	2,090,845
51 - 67 . . . . .	44,180	15,513	3,088,102	1,136,293	3,132,282	1,331,806
68 AND OVER . . . . .	26,784	6,925	2,523,360	640,435	2,950,144	647,360
TOTAL . . . . .	346,462	171,208	24,182,428	14,395,947	24,526,890	14,567,155
<b>WHITE:</b>						
UNDER 15 . . . . .	-	-	110,528	91,870	110,528	91,870
15 - 20 . . . . .	206,667	136,122	3,044,484	2,542,620	3,251,151	2,678,742
21 - 25 . . . . .	842,402	571,395	4,519,907	3,004,233	5,362,309	3,575,628
26 - 30 . . . . .	954,740	603,049	5,898,495	3,245,932	6,853,235	3,848,981
31 - 40 . . . . .	1,350,048	714,001	10,288,480	4,848,361	11,638,528	5,562,362
41 - 50 . . . . .	805,466	367,939	5,822,414	2,269,054	6,627,880	2,636,993
51 - 67 . . . . .	427,125	171,089	9,640,435	2,541,191	10,067,560	2,712,280
68 AND OVER . . . . .	133,634	43,265	7,762,045	1,386,858	7,895,679	1,430,123
TOTAL . . . . .	4,720,082	2,606,860	47,086,788	19,930,119	51,806,870	22,536,979
<b>SEA BOBS:</b>	-	-	1,149,867	94,290	1,149,867	94,290
<b>ROYAL RED:</b>						
15 - 20 . . . . .	3,629	2,831	300	156	3,929	2,987
21 - 25 . . . . .	19,781	16,375	-	-	19,781	16,375
26 - 30 . . . . .	1,161	856	1,665	1,144	2,826	2,000
31 - 40 . . . . .	460	304	4,280	2,341	4,740	2,645
41 - 50 . . . . .	5,105	2,737	-	-	5,105	2,737
51 - 67 . . . . .	2,606	983	-	-	2,606	983
TOTAL . . . . .	32,742	24,086	6,245	3,641	38,987	27,727
<b>GRAND TOTAL . . . . .</b>	<b>9,848,535</b>	<b>5,246,514</b>	<b>128,405,892</b>	<b>63,537,487</b>	<b>138,254,427</b>	<b>68,784,001</b>

NOTE:--ALL WEIGHTS ARE ON HEADS-OFF BASIS. THE SIZE INDICATES THE NUMBER OF HEADS-OFF SHRIMP TO THE POUND. TO CONVERT TO HEADS-ON WEIGHT MULTIPLY BY 1.61 FOR BROWN, 1.60 FOR PINK, 1.54 FOR WHITE, 1.53 FOR SEA BOBS, AND 1.80 FOR ROYAL RED. THE AREAS LISTED REPRESENT THE STATES WHERE THE SHRIMP WERE LANDED REGARDLESS OF WHERE CAUGHT. THE NAMES OF THE SPECIES USED IN THESE TABLES ARE AS FOLLOWS: WHITE SHRIMP (MOSTLY *PENAEUS SETIFERUS*), BROWN SHRIMP (*PENAEUS AZTECUS*, AND IN SOME CASES *PENAEUS BRASILIENSIS*), PINK SHRIMP (*PENAEUS DUORARUM*), SEA BOBS (MOSTLY *ALPHAPENAEUS KROYERI*), AND ROYAL RED (*HYMENOPENAEUS ROBUSTUS*). THE VALUE REPORTED IS THE AMOUNT RECEIVED BY THE OWNERS OR OPERATORS OF THE VESSEL FOR THE FIRST SALE AT THE DOCK. ANY EXPENSES INVOLVED IN HANDLING OR PROCESSING ASHORE ARE NOT INCLUDED, EVEN THOUGH CHARGEABLE TO THE VESSEL. THE SIZE REPORTED GENERALLY IS THAT USED AS OF THE FIRST SALE. SIZE GRADING IN VARYING DEGREES OF UNIFORMITY MAY OR MAY NOT OCCUR AT, OR PRIOR TO, THE TIME FIRST SALES ARE MADE. IF GRADING IS NOT DONE AT THIS TIME, THE SIZE REPORTED IS AN AVERAGE SIZE AND MAY INCLUDE SEVERAL SIZE CLASSIFICATIONS.



## SURVEY PROCEDURE IN THE GULF OF MEXICO

The statistical program in the Gulf States is under the general direction of the Bureau's Regional Office in St. Petersburg Beach, Fla., with direct supervision by a regional supervisor of statistics and market news in New Orleans, La. The program is prosecuted by field reporters stationed at Key West, Miami, Fort Myers, Tampa, and Apalachicola, Fla.; Bayou LaBatre, Ala.; Ocean Springs, Miss.; New Orleans, Galiano, Houma, and Morgan City, La.; and Port Arthur, Galveston, Freeport, Aransas Pass, Brownsville, and Port Isabel, Texas. These field reporters are specialists trained in obtaining and reporting fishery statistical data on a daily, monthly, and annual basis.

Statistics assembled by the Bureau on the fisheries of the Gulf States Coastal area include data on employment of fishermen, shoreworkers, fishing craft and gear, the volume and value of the catch, and the volume and value of processed fishery products. The data are assembled from all available sources including records maintained by State fishery agencies, fishermen, and fish wholesale dealers, buyers, and processors.

Catch. Cooperative programs of differing magnitudes have been established with the fishery agencies of each of the five Gulf States. Texas and Florida have State monthly reporting systems, whereby dealers and buyers are required to submit a monthly report on forms supplied by the State, listing the quantity of fish and shellfish by species purchased from fishermen. Field reporters of the Bureau of Commercial Fisheries assist in the collection and tabulation of data for publishing in monthly landing bulletins for these States. In Alabama, Mississippi, and Louisiana, tax records are utilized by Bureau employees in obtaining landing data on oysters. Certain catch records on fish landed in Louisiana are also obtained from records of that State. Data on receipts in the New Orleans French Market are collected by reporting specialists of the Bureau on a daily basis for use in the daily reports published by the Fishery Market News Service and are supplied the State of Louisiana at the end of each month. Information on all finfish, crab, and shrimp landings in Alabama and Mississippi is collected by Bureau employees.

Shortly after the close of each year, a revised tabulation is prepared listing the species catch by volume and value by county. Shrimp are excluded since they have been recorded on punch cards each month. Such revisions as are necessary in the daily or monthly data previously published are made in the annual tabulation. Fishermen and dealers are interviewed to determine the area of capture (water body) and the type of gear utilized for taking each species. When the interview is completed, the landings (or catches) totals are prorated to the proper waters and gear within each county, and catch statistics by waters and gear for each county are forwarded to the Washington office. The data are transferred to punch cards and machine processed. Detailed information on the shrimp catch, which had previously been entered on punch cards is now integrated with the figures for other species. Processed data are forwarded to field reporters for examination, auditing, and necessary revisions, after which they are returned to the Washington office for final review and publication.

Throughout the Gulf, shrimp data are obtained daily by Bureau reporting specialists and recorded on individual landing reports that list the name of the vessel and the volume and ex-vessel value of the catch by species, size, and area of capture. A schedule is prepared for each vessel for each trip. These are forwarded to the Washington office, about 2 weeks after the end of the month in which the landings occurred. The data are machine processed to provide the detailed statistical information required by those interested in the shrimp fishery.

During recent years, there has been a trend toward obtaining catch data on a monthly basis in sufficient detail to permit their direct use in the annual Statistical Digest. In the States of Alabama and Mississippi, data on the catch by gear, water, and species are ob-

# GULF FISHERIES

tained on a monthly basis and entered on punch cards from which are prepared the monthly landing bulletins. The punch cards are then utilized to prepare the annual tabulations for publication in Fishery Statistics of the United States. Considerably more detail on the catch by waters and gear is available than is published in this report.

Operating units. Prepunched vessel cards containing the name of the vessel, the official number, rig code, gross tons, length, and year built are furnished field reporters each year. These cards are obtained from the Bureau of Customs and are checked out by field personnel. Reporters interview the vessel captains to obtain number of crew, and number, type, and quantity of gear utilized in each fishery. The number of crew reported is the greatest number of crewmen aboard the vessel for each gear operated at any one time. Number and quantity of gear are represented by the greatest amount of gear the craft utilized at one time. The data do not include gear ashore or carried aboard the vessel for replacement. Field reporters maintain a list of the fishing vessels obtained from the State records to ensure completeness in the operating unit survey. Machine tabulations of shrimp landings are utilized to obtain the vessels fishing this species during the year. A vessel is reported once for each type of gear fished in each State.

Data on crew and gear are recorded directly on the prepunched cards. (Data on all craft of less than 5 net tons are classified as shore and boat craft, and a single card is prepared for the total number of boats using each type of gear in each county). The field entries are punched and processed in the Region under contract by a service agency and the tabulations are returned to each reporter who prepares the State operating unit tables. After review by the Regional Supervisor, they are forwarded to the Washington Office.

Processing and Manufacturing. Data on the production of processed fishery and manufactured products are obtained from individual firms, on forms designed for the collection of these data. Much of the information on the pack of canned shrimp, oyster, and crab meat by can size and number of cases is obtained and published each week in the New Orleans Market News report. Subsequently, revisions are made, and a yearly annual total by firm is submitted to the Central Office for publication in the Canned Fishery Products bulletin. Information on the production of fish meal, oil, and solubles is obtained each month for publication in monthly Fish Meal and Oil bulletins and in the annual report, Industrial Fishery Products. Data on the monthly production of fish sticks and portions and breaded shrimp are collected quarterly for publication in Fish Sticks and Portions and Breaded Shrimp. Packaged fish and shellfish data are obtained on an annual basis from each firm, and summaries are published in the annual Packaged Fishery Products bulletin. A summary of the production of all processed fishery items, including shellfish, is contained in the Gulf States sectional annual bulletin.

Data on freezings and holdings of fishery products are collected monthly on a special form which is mailed at the end of the month to each cold storage warehouse in the Gulf States. After auditing, the completed reports are returned to the New Orleans office. The schedules are then mailed to the Washington Office where they are again reviewed before tabulation and publication in monthly and annual frozen fishery products bulletins.

General. A considerable quantity of current fishery data are available in the daily report issued by the New Orleans Fishery Market News Office. Persons interested in day-to-day fluctuations should consult these reports. Those interested in seasonal fluctuations should refer to the monthly landing bulletins. The Statistical Digest, Fishery Statistics of the United States contains the most complete annual data. Information on the catch by waters is tabulated and supplied to State and Federal laboratories along the Gulf Coast.

In 1963, commercial fishermen of the Pacific Coast States (Alaska, Washington, Oregon, and California) caught 1.1 billion pounds of fish and shellfish worth \$124 million. Landings were down 9 million pounds and sold for \$15 million less than in 1962. Species with the smaller catches were salmon, halibut, and sardines. Total value declined principally because of lower values of salmon, tuna, and halibut.

The Pacific Coast States accounted for 23 percent of the volume and 33 percent of the value of the total U.S. catch. While the area was second only to the Gulf States in quantity, it led all areas in value. Although California landings of 514 million pounds were the lowest since 1932, they were 46 percent of the Pacific Coast total. Alaska was next with 392 million pounds (35 percent), followed by Washington and Oregon with 150 and 61 million pounds, respectively, accounting for the remaining 19 percent. California was also the leader in value with \$49 million (40 percent of the Pacific Coast total). Alaska was a close second with a value of \$46 million (37 percent). Washington and Oregon, with \$21 and \$8 million, respectively, accounted for the remaining 23 percent.

Fishermen and vessels. In 1963, there were 33,612 fishermen on the Pacific Coast--1,015 more than in 1962. There were 4,791 vessels of 5 net tons or more--205 over 1962. Most of the increase was in the numbers of salmon purse seiners and trollers.

Processing. Processed fishery products on the Pacific Coast were worth \$325 million in 1963--down 32 million from 1962. California and Alaska had declines while Washington and Oregon had slight increases. The principal cause of the overall decline was that smaller packs of canned Alaska salmon and California tuna resulted in a lower total value.

High seas fishery. Fish taken on the high seas off the coast of foreign countries by Pacific Coast fishermen totaled 283 million pounds--25 percent of the total catch for the four States and 1.6 million pounds more than in 1962. This increase was accounted for principally by improved bottomfish catches off the Canadian coast. Searching the ocean from the Bering Sea to the waters off Peru, Pacific Coast fishermen continued to range farther for their catch than fishermen in any other areas. Also in 1963, Pacific Coast fishermen again entered the Atlantic Ocean to fish for tuna off the Middle Atlantic and New England coasts.

Tuna. Tuna was 27 percent of the volume and 30 percent of the value of all Pacific Coast fisheries in 1963. The catch of 297 million pounds was 3.5 million pounds more than in 1962. The value was only \$37.5 million compared with \$42.6 million in 1962--a decline despite a 14.8-million-pound increase in albacore, the more expensive species. Skipjack landings were up, while bluefin and yellowfin were down.

Unfavorable publicity from a few cans of contaminated tuna early in the year resulted in a temporary setback in the increase in consumption of canned tuna.

In general, tuna prices declined after the adverse publicity. At the beginning of the year, the price of yellowfin was \$290 per ton, and skipjack, \$250, but effective the latter part of April, after the unfavorable publicity of contaminated tuna, the price was reduced \$20 a ton for each species. During early May, there were further reductions--yellowfin dropped to \$250 and skipjack to \$210 a ton. Later in the month, prices again declined so that offers for yellowfin were down to \$240 and skipjack, \$200 a ton--the lowest ex-vessel price for tuna since the Office of Price Administration ceiling in 1945. For the remainder of the year, yellowfin prices fluctuated between \$240 and \$250 and skipjack, \$190 and \$207. Auctions, which had been discontinued since early 1960, were reestablished at San Diego in mid-October in an effort to boost prices. To counteract the decline, the industry accelerated canned tuna promotion.

## PACIFIC COAST FISHERIES

Albacore fishing along the Pacific Coast was the most successful segment of the tuna fishery in 1963, and the catch of 60.8 million pounds was 14.8 million pounds greater than in the previous year. The California albacore season started on July 5 with ex-vessel prices of \$275 to \$300 a ton in contrast to \$400 a ton at the start of the 1962 season. By July 16, the price was stable at about \$300 a ton. On August 23, it advanced to \$325 a ton and remained at that level for the rest of the season. The 1963 average price of albacore was \$318 a ton--\$12 a ton less than in 1962 and \$38 a ton less than in 1961. In the Pacific northwest, albacore fishermen averaged \$309 a ton for their catch--\$26 a ton less than in the previous year. Sport fishermen made the first California catches, from large schools of albacore about 100 miles due west of San Diego. Fishermen were optimistic about an early season, but the fish remained scattered throughout July. Although catches were below normal at the outset, they increased considerably in all areas during August. At the end of the month, large schools were off the northern California coast. Vessels from Seattle, Wash., to San Diego, Calif., converged on the area, and individual trollers reported catches of up to 5 tons per day. Landings rose sharply in September to an alltime high for the month.

Albacore fishing in California continued good throughout most of October but fell off as the month ended, and only small landings were made during November and December. However, total landings were 48.7 million pounds--the third highest on record for the State. The ex-vessel price advanced from an opening of \$275 to \$325 per ton during August, and this price held during the remainder of the season.

Albacore landings in Oregon were 11.4 million pounds--up 2.4 million pounds over a year earlier. The fish were in good supply off Oregon during August, when fishermen's prices ranged from \$275 to \$300 per ton. Later in the season, plants on the Columbia River paid up to \$330 compared with a high of \$340 per ton in 1962.

Albacore again failed to appear in abundance north of the Columbia River. Washington landings were only 527,000 pounds--a slight increase over the poor 1962 season.

The bluefin fishery started well with the appearance of this tuna off San Clemente and Catalina Islands at the end of July. A sizeable run developed, and prospects appeared bright for an excellent season. By the end of July, good catches were being made by purse seiners off Guadalupe Island and Baja California. Seiners were returning to port after 3 to 5 days' fishing with capacity, or near capacity, loads. The regular San Pedro purse seining fleet, as well as several converted seiners, fished profitably during August and September. Several trips of over 100 tons were made in August, and a record bluefin trip of 245 tons was landed by the converted seiner, Constitution, during the month.

California bluefin landings of 30.4 million pounds (the third highest on record) were less than 1 million pounds below the peak landings of 1962. The value of the 1963 bluefin catch was considerably below that of 1962, with an ex-vessel price of \$230 per ton at the beginning of the season, compared with \$300 in 1962. The price was further reduced during the season to \$210 to \$220, compared with \$250 to \$280 during 1962.

Receipts of tuna for canning in California tuna plants--domestic catch, transshipments, and imports--totalled 182,600 tons--the lowest since 1952. The decrease was due to a 27,500-ton decline in imports.

The corporate structure of several tuna companies changed during the year. Early in 1963, it was announced that the H.J. Heinz Company, Pittsburgh, Pa., a major food packing concern, had acquired Star Kist Foods, Inc., a large tuna packer with plants in California, Puerto Rico, and American Samoa. In February, the Van Camp Seafood Company merged with the Ralston-Purina Company, packers of cereal products and animal food. In midyear, C.H.B. Foods of Pico Rivera, Calif., acquired the Franco-Italian Packing Company of Terminal Island.

Several large tuna vessels were added to the fleet in 1963. The San Juan, an 845-gross-ton converted military craft built in 1943, joined the fleet and made a record landing for a U.S. fishing craft when it unloaded 1,025 tons of tuna at San Pedro in the fall.

The 803-gross-ton Caribbean--the newest and most modern tuna purse seiner built during the year--had a number of innovations including a double crow's nest, aligned fore and aft, used by two mast men with ship's controls; an electric fuel pump for refueling the ship's helicopter, which is housed atop the wheelhouse; and air-conditioned quarters for the crew. This vessel operated primarily out of Puerto Rico for a West Coast firm; however, it did land one trip in California.

Salmon. During 1963, the total catch of salmon on the Pacific Coast was 294.2 million pounds valued at \$49 million. This was 26 percent of the total Pacific Coast volume of all fish and shellfish and 39 percent of the total value. Among the species of salmon, pinks were most important, with 156.6 million pounds (worth over \$18 million) landed in Alaska, Washington, and Oregon--53 percent of the total Pacific Coast salmon catch. The chinook catch was second in value--\$10.9 million--and the sockeye or red salmon, third--\$10.3 million. Alaska led the States with 223.1 million pounds (76 percent of the Pacific Coast salmon volume) and \$31.3 million (64 percent of the total value).

The 1963 salmon catch was below that of 1962--down 6 percent in volume and 13 percent in value. In Alaska, only kings and silvers were taken in larger quantity. The increase in king salmon was in Southeastern Alaska, where trollers landed almost 1 million pounds more than in the previous year. The catch of this species in Central and Western Alaska was less than in 1962. Chum salmon landings were down in all three regions of Alaska for a total decline of 21.9 million pounds.

The Alaska catch of pink salmon was 18.2 million pounds less than the 143.3 million pounds taken in 1962. Landings were lower in Central and Western Alaska but showed surprising strength in Southeastern Alaska, where the catch was 24.3 million pounds higher than in 1962.

The large Icy Strait pink salmon run of 1963 was notable for more than its volume. The fish were of fine quality, and the run was extended over a lengthy period. Both the fishermen and packers benefited, and considerable quantities of fish were transported to canneries in other districts. At the peak of the run, daily seiner catches of as many as 20,000 fish were common. Immediately preceding the onset of the big run, fishermen and cannery operators had a short price dispute that halted canning operations for a few days.

During the height of the Icy Strait pink salmon run, the Alaska Department of Fish and Game permitted fishing for 24 hours on alternate days. This move was designed, essentially, to allow time to process all fish while they were in prime condition and to provide an opportunity for effective distribution of escapement during the run.

Red salmon landings were lower in all areas of Alaska compared with the previous year. Bristol Bay, which depends almost entirely on red salmon, was declared a disaster area by the Governor. The 218,000-case-pack was the lowest since 1897--the beginning of salmon canning in Bristol Bay.

The disappointing run of red salmon in Bristol Bay in 1963 represented the first forecasting error in a decade or more of biological predictions on the species. Investigation failed to substantiate initial suspicion that Japanese operations on the high seas may have been responsible.

Silver salmon landings in Alaska were 17.6 million pounds in 1963--an increase of 2.3

# PACIFIC COAST FISHERIES

million pounds over the previous year. The gain was spread over the Southeastern, Central, and Western regions.

From the Fraser River system, a catch of slightly more than 1 million sockeye salmon and 2 million pinks had been forecast for both United States and Canadian fishermen. As a result of a work stoppage by Canadian fishermen during the peak of the July sockeye run, however, United States fishermen were given additional fishing time to prevent overseeding of the spawning beds by the excellent run. Thus, United States fishermen caught over 1.3 million sockeyes in convention waters, compared with over 600,000 by Canadian fishermen. The catch could have been larger but United States fishermen were restricted to United States waters, and a considerable part of the run escaped through Canadian waters during the work stoppage.

During the October spawning period, sockeye suffered heavy losses from Columnaris infection--some streams lost as much as 90 percent of the spawning run. The larger number of spawners and the abnormally warm water were suggested as possible factors in precipitating the epidemic.

The 1963 pink salmon catch in Washington was larger than expected. While the return of Fraser River pinks was somewhat less than had been forecast Puget Sound streams had surprisingly large runs. Another unexpected development was the extent to which pinks were taken in the troll fishery, which took about 3.0 million pounds more than in any recent year. The United States--Canadian pink salmon run was twice as large as expected. United States fishermen landed 4.3 million fish and the Canadians, 3.9 million.

Silver salmon landings in Washington and Oregon in 1963 decreased nearly 3 million pounds. The Oregon troll fishery catch, which was up 40 percent from 1962, was more than offset by the significantly smaller troll catch of Washington. The Columbia River silver salmon catch increased slightly, but the gill net catch in the Puget Sound and along the coast was less than half that of the previous year.

The 1963 landings of chinook salmon in Washington and Oregon increased slightly more than 1 million pounds over the previous year. The Columbia River catch of chinook was 4.8 million pounds, down 16 percent from the 5.7 million pounds captured in 1962. The chinook run in Puget Sound was one of the best. The Oregon troll fishery produced 1.6 million pounds of king (chinook) salmon--more than twice that of the previous year. Landings of troll king salmon in Washington also improved, totaling 2.9 million pounds compared with 2.4 million in 1962. Chum salmon production of 3.1 million pounds in Washington was slightly improved from the previous year, while the Oregon chum catch was negligible.

Total salmon and steelhead production by the Indian fisheries in Washington and Oregon was 5.7 million pounds worth \$1.2 million compared with 2.9 million pounds and nearly \$900,000 in 1962. In the Columbia River Indian fishery, considerable gear change was made in 1963, with numerous Indians changing from dip nets to set gill nets. Salmon and steelhead production by the Indian fishery of the Columbia River and its tributaries was over 690,000 pounds worth about \$160,000 compared with a 119,000-pound-catch in 1962, worth \$35,000.

The Puget Sound Indian fisheries also were more productive in 1963. The catch was 3.9 million pounds worth \$604,000 compared with 1.8 million pounds worth \$510,000 in 1962. Pink salmon accounted for the gain. The late fall and winter set net catch of silver and chum salmon was only half that of 1962.

The coastal Indian fishery in Washington also was productive; its salmon and steelhead catch was 1.1 million pounds worth \$404,000. The sockeye or blueback catch by coastal Indians was 341,000 pounds--more than four times that of 1962. The main sockeye run usually occurs in April or May when premium prices, sometimes as high as 75 cents a pound, are paid the Indians.

Fresh salmon prices in 1963 suffered from the 1962 carryover of frozen stocks. The long established Fishermen's Cooperative Association Exchange Board for troll salmon was abandoned in favor of "port prices," which apparently were set, to a great extent, by the larger buyers. These prices proved to be quite uniform and steady throughout the season. In Washington, trollers received about 67 cents a pound, dressed weight, for large red kings (chinook) and 30.5 cents for silvers compared with 74.6 and 35.1 cents during 1962.

Columbia River gill netters also took a cut in price, with chinooks averaging 32.6 cents a pound, round weight, compared with 38 cents in 1962.

Demand for Puget Sound sockeyes was strong following the shortage in Alaska, and seiners and gill netters averaged 33 cents a pound, round weight--about the same as in 1962. Anticipating the big pink run, Washington prices were scaled down, averaging about 12 cents a pound, round weight, compared with 20 cents in 1962.

Canned salmon was the leading processed fishery product in Washington and Oregon, with a pack of 639,000 standard cases worth \$21 million.

Halibut. Halibut landings by U.S. fishermen on the Pacific Coast in 1963 were 45,569,000 pounds (round weight) valued at \$6,883,000--down 15 percent in volume and 41 percent in value compared with 1962. The Alaska catch of 29.9 million pounds valued at \$4,161,000 was 66 percent of the total volume and 60 percent of the total value of the domestic Pacific Coast halibut catch.

Contributing to the reduced landings in Alaska were a price disagreement and lower ex-vessel prices, adverse weather, and fewer fish. Of these, the lower ex-vessel prices, with the corresponding reduced effort, were believed to be the major cause of the decline.

A change in the North Pacific Treaty, which became effective when ratified by Canada on May 9, 1963, permitted Japanese fishermen, for the first time, to take halibut in the eastern Bering Sea triangular area. The triangle is roughly outlined by a line drawn from longitude 170° W. to the Pribilof Islands, to Unimak Pass, to the Aleutian Chain, and along the Aleutian Islands to longitude 170° W. The triangular-area catch limit of 11 million pounds (dressed weight) set by the International North Pacific Fisheries Commission proved to be too optimistic, even with the considerable effort exerted by the Japanese. The catch totaled 10.5 million pounds, of which the Japanese took 3.9 million pounds. In May, when the grounds were officially opened to them, five Japanese longliners were in the triangle. These vessels landed only 38,000 pounds in the first 3 days of fishing, but by June, the Asian halibut fleet on the the Bering Sea grounds had grown to 6 freezing vessels and 75 fishing craft.

Area 2, from Willapa Bay to Cape Spencer, was closed on November 30, 1963, before the catch limit of 28 million pounds (dressed weight) set by the International Pacific Halibut Commission had been taken. A combination of factors was responsible for the reduced catch of 25.8 million pounds--down almost 3 million pounds from the 1962 level. Although halibut were less abundant, the limit could probably have been taken under more normal conditions. Weather, price disagreements, and more attractive fisheries in other areas combined to keep the Area 2 catch low. During the latter part of the season, sablefish were bringing from 2 to 3 cents a pound more than halibut, and many longliners left the halibut grounds and moved to the deeper sablefish grounds. A work stoppage by the Fishermen and Allied Workers Union in British Columbia restricted activity of the Canadian fleet late in the season. To further complicate matters, the worst weather in Area 2 in many years kept much of both the United States and Canadian fleets in port after the latter part of September. These factors, combined with ex-vessel prices well below those in 1962, diverted many of the smaller vessels, which make up a large portion of the Area 2 fleet, to the salmon and albacore fisheries, both of which were more productive during 1963.

## PACIFIC COAST FISHERIES

Landings of halibut by the combined United States--Canadian fleets, in 1963, were 95 million pounds (round weight)--down 4.9 million pounds from the record 1962 catch. The decline was largely offset by the Japanese catch in the Bering Sea. For the first time, Canadian fishermen took the largest share of the United States--Canadian total--52 percent.

Halibut landings in Alaska by U.S. fishermen were 7 million pounds less than in 1962. Most of the decline was in Ketchikan. Both United States and Canadian landings were heavy at Central Alaska ports, where an effort was made to get as much of the Area 3B North halibut catch as possible before the area was opened to Japanese fishermen. Seattle halibut landings gained nearly 1 million pounds over 1962.

Early in the season, halibut moved slowly at the high price level set in 1962. The large carryover of frozen stocks from the 1962 catch eventually caused prices to decline sharply.

Mackerel. From the beginning of the year, mackerel--particularly jack--was plentiful in southern California waters, and nightly limits of 20 to 30 tons were imposed on the fleet. Mackerel canning operations were halted in early June and were not resumed until the middle of August. Meanwhile, the canneries were processing the backlog of tuna that had accumulated because of a price dispute. A catch limit of 20 to 30 tons per night remained in effect after resumption of fishing on August 1; however, bad weather and lack of sales curtailed fishing operations to some extent during the last 2 months of the year.

Sardines. The Pacific Coast catch of sardines in 1963, continuing a downward trend, declined to a record low for the past half century. Landings of 7.1 million pounds were only one-half of 1 percent of the record high landings of 1.5 billion pounds in 1936. The 1963 sardine season opened in central California on August 1, and in southern California on September 1. The bulk of the catch was taken incidental to the mackerel fishery, and very few loads of only sardines were landed. The canned pack of 57,000 cases was the lowest since the sardine fishery became prominent during World War I. Since anchovies seem to have replaced sardines in California waters, it has been suggested by members of the industry that an active anchovy fishery might help restore the sardines and also foster a new industry. The California Fish and Game Commission was petitioned to amend its law against reduction of fish to allow the reduction of a specified tonnage of anchovies on a trial basis, but this was not granted.

Crabs. Landings of crabs in the Pacific Coast States in 1963 were 103.8 million pounds worth \$11.9 million--an increase of 36 percent in volume and 28 percent in value compared with 1962. Alaska led all other States with 90.8 million pounds worth \$9.0 million--87 percent of the volume and 75 percent of the value.

In Alaska, king crabs continued to account for most of the crab landings. During the 5 years 1959-63, king crab landings have increased an average of nearly 50 percent each year. Landings were 79 million pounds in 1963--up 26 million pounds from 1962. Healthy market conditions, considerable growth in the size of the fishing fleet, improved crab pot design, and better knowledge of seasonal migrations have all contributed to the large increase in the catch. Following an upward trend in consumption, canned king crab production rose 37 percent and fresh and frozen production was up 65 percent.

Landings of Dungeness crabs in Alaska during the 1963 season were 12 million pounds--an increase of 3 million pounds (34 percent) compared with 1962. Due to reduced availability of Dungeness crabs along the Oregon and California coast, the Alaska crab industry experienced a strong demand for fresh and frozen crab meat. Prices offered for fresh crabs in the shell or fresh crab meat were so strong that canning was virtually suspended. An important development in the industry was the expanded use of air transportation for shipping crabs. Large quantities of live Dungeness crabs were flown from Metlakatla, near Ketchikan, to Honolulu, via Seattle. Air shipments of fresh cooked crab from Kodiak, Yakutat, and other coastal

points to Seattle also developed to a considerable degree. Despite record landings and good prices, there were reports that several crab fishing vessels were planning to abandon the fishery and convert to other forms of gear.

Crab production improved in Washington in 1963, totaling 6.7 million pounds--up 1.3 million pounds from the previous year. A sharp gain in Puget Sound crab catches accounted for most of the increase. However, the Coastal and Columbia River districts also had sizeable gains.

The ocean crab fishery was poor in Oregon. The catch was only 4.2 million pounds--down 1.6 million pounds from 1962. In previous years, the closed season for crabs in northern Oregon and Washington extended until January 1, but a new Oregon regulation permitted crab fishing along the Oregon coast during December 1963. To protect their fishing interests, Washington also permitted crabbers to operate during December.

Crabs were abundant off the Columbia River in December, and a large fleet of crab boats congregated there, taking more than one-half the 1963 Oregon-Columbia River crab landings. The Washington coastal crab price averaged 22.6 cents per pound in 1963--up 2.6 cents from 1962. A small quantity of rock crabs was taken in California.

In California, Dungeness crab landings were 1,952,000 pounds worth \$688,000. This was the lowest catch since 1937. Compared with 1962, the volume declined 39 percent and the value, 21 percent. Because of the scarcity of crabs, the average price for live crabs rose from 27 cents per pound in 1962 to 35 cents in 1963.

Oysters. In 1963, landings of oysters on the Pacific Coast were 9.8 million pounds of meats worth \$2.5 million--a decline of 9 percent in volume and 6 percent in value compared with the previous year. Washington led all other States in 1963 landings, with 8.1 million pounds worth \$2.1 million--a decline of 9 percent in volume and 2 percent in value.

The supply of oysters in Willapa Harbor was seriously affected by severe wind storms that damaged the oyster beds late in 1962. Also relatively few seed oysters had been planted during the previous 4 years. There have been no significant natural sets in Washington since 1958, and purchases of Japanese oyster seed have declined because of increasing costs and high mortality when the oysters are about 3 years old. A considerable amount of oyster seed was obtained from British Columbia during 1963.

Market demand for fresh oysters has been good, but Japanese canned oyster imports have cut deeply into the market for domestically canned oysters.

Foreign fishing activities. The Japanese fishing fleet operating in the general Alaska area in 1963 totaled over 340 vessels consisting of 22 factory ships, 252 catcher vessels, 21 whale killers, 3 stern trawlers, 3 fishery patrol vessels, 1 fishery training ship, and more than 40 support vessels such as tankers, refrigerated fish transports, and cargo supply ships. Including the salmon fleet, which operated west of the 175th parallel, the entire Japanese fishing strength in the Bering Sea and the Gulf of Alaska was estimated at about 730 vessels. The Japanese salmon fleet--11 factory ships, 369 catcher vessels, and 4 support vessels--entered the Bering Sea briefly in June and July, but did not fish farther east than longitude 180°.

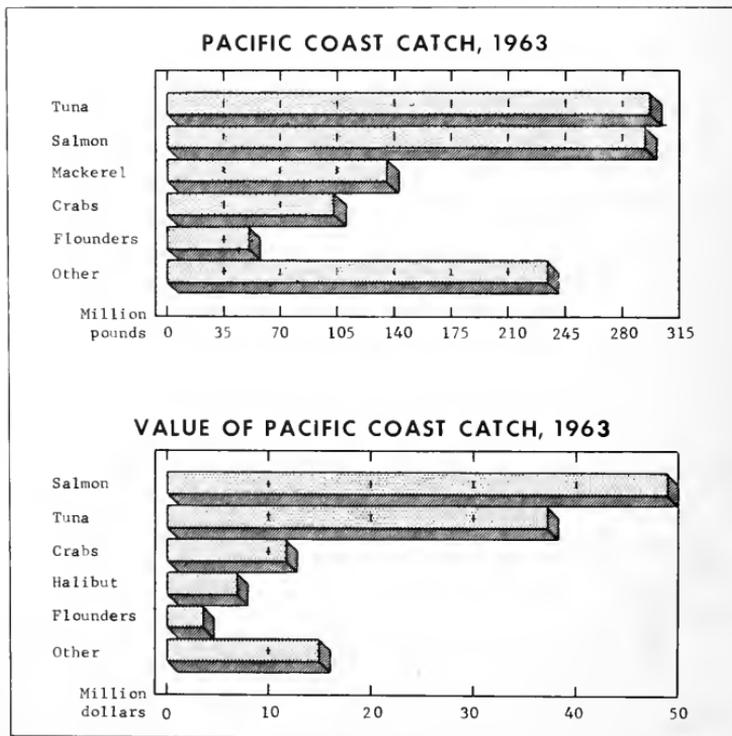
The Russian fishing fleet in the Bering Sea, North Pacific, and the Gulf of Alaska in 1963 had about 380 vessels. Those identified by type were 50 refrigerated fish transports or cargo vessels, 6 combination passenger-cargo vessels, 42 whale killer vessels, 19 large refrigerated stern trawlers, 20 medium refrigerated trawlers, 17 tankers, 4 research vessels, and 178 medium trawlers.

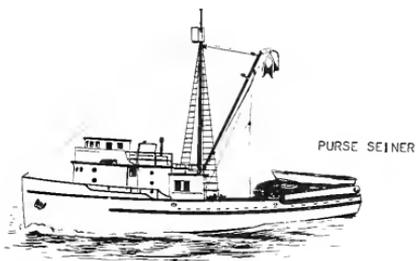
# PACIFIC COAST FISHERIES

**Whales.** A total of 259 whales was taken by six catcher vessels operating from two whaling stations in the San Francisco Bay area and one in Oregon. This was an increase of 11 whales over the 1962 total. The production of whale meat, meal, and oil was 7.7 million pounds--down 2.1 million pounds from 1962. The value of whale products was \$544,000--a drop of \$162,000. The lower value was the result of taking a large number of the less valuable species, such as the sperm whale, which yields more oil and less meat. One of the processing firms installed a whale butchering machine called the "whale breaker", which breaks bones, shells, and cartilage, thus reducing butchering labor by 50 percent.

**Other information.** Condensed summary data on the operating units and catch by States for the Pacific coast fisheries appearing on the following pages have been previously published in Current Fishery Statistics No. 3694. Additional data on many aspects of the Pacific coast fisheries appear in daily, monthly, and annual reports published by the Bureau's Fishery Market News Service offices in San Pedro, Calif., and Seattle, Wash. Specific data on several of the major fisheries of the Pacific coast may be found in Section 12 of this publication.

**Acknowledgments.** The following organizations assisted the Bureau to collect the data appearing in this section: Alaska Department of Fish and Game, Washington Department of Fisheries, Oregon Fish Commission, and California Department of Fish and Game.



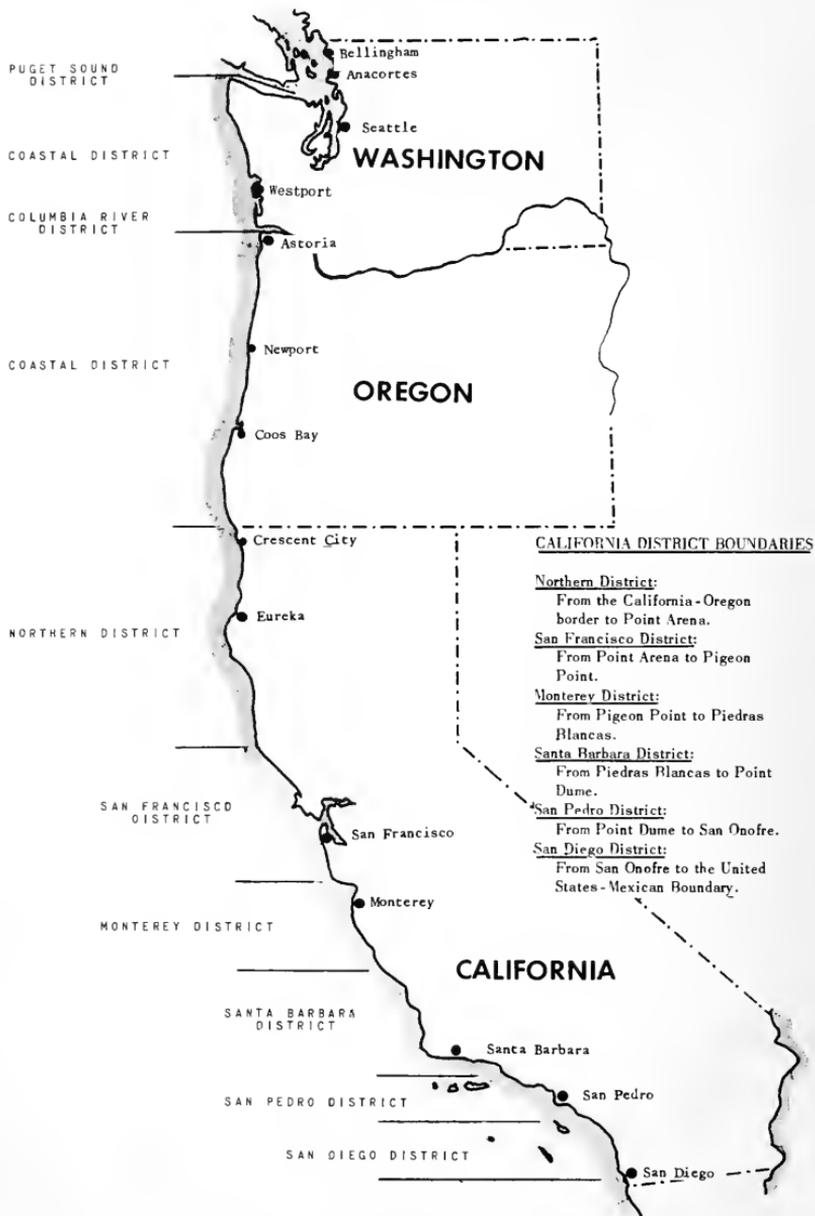


## PACIFIC COAST STATES



# PACIFIC COAST FISHERIES

## PACIFIC COAST STATES - Continued



# PACIFIC COAST FISHERIES

## SECTIONAL SUMMARIES SUMMARY OF CATCH, 1963

(MILLIONS OF POUNDS AND MILLIONS OF DOLLARS)

STATE	FISH		SHELLFISH, ETC.	
	QUANTITY	VALUE	QUANTITY	VALUE
ALASKA . . . . .	266	36	106	10
WASHINGTON . . . . .	133	17	17	4
OREGON . . . . .	54	7	7	1
CALIFORNIA . . . . .	487	46	19	2
TOTAL . . . . .	960	106	149	17

STATE	WHALE PRODUCTS		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE
ALASKA . . . . .	-	-	392	46
WASHINGTON . . . . .	-	-	150	21
OREGON . . . . .	(1)	(1)	61	8
CALIFORNIA . . . . .	8	1	514	49
TOTAL . . . . .	8	1	1,117	124

✓ LESS THAN 500,000 POUNDS OR \$500,000.

## SUMMARY OF OPERATING UNITS, 1963

ITEM	ALASKA	WASHINGTON	OREGON	CALIFORNIA	TOTAL, EXCLUSIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	6,914	4,871	1,370	5,175	15,191
ON BOATS AND SHORE . . . . .	10,100	4,694	1,337	2,368	18,421
TOTAL . . . . .	17,014	9,565	2,707	7,563	33,612
VESSELS, MOTOR . . . . .	2,296	1,423	631	1,484	4,791
GROSS TONNAGE . . . . .	51,565	35,618	14,427	71,350	143,046
BOATS:					
MOTOR . . . . .	7,970	2,918	1,003	1,731	13,269
OTHER . . . . .	-	269	14	-	303
GEAR:					
HAUL SEINES . . . . .	-	105	3	9	117
LENGTH, YARDS . . . . .	-	8,225	300	2,000	10,525
PURSE SEINES AND LAMPARA NETS:					
ANCHOVY . . . . .	-	-	-	23	23
LENGTH, YARDS . . . . .	-	-	-	7,800	7,800
HERRING . . . . .	8	7	-	-	15
LENGTH, YARDS . . . . .	4,100	2,975	-	-	7,075
MACKEREL AND SARDINE . . . . .	-	-	-	90	90
LENGTH, YARDS . . . . .	-	-	-	42,800	42,800
SALMON . . . . .	1,565	406	-	-	1,699
LENGTH, YARDS . . . . .	620,000	216,945	-	-	705,445
SQUID . . . . .	-	-	-	24	24
LENGTH, YARDS . . . . .	-	-	-	8,000	8,000
TUNA . . . . .	-	-	-	134	134
LENGTH, YARDS . . . . .	-	-	-	97,460	97,460
OTHER . . . . .	-	-	-	6	6
LENGTH, YARDS . . . . .	-	-	-	2,450	2,450
BEAM TRAWLS, SHRIMP . . . . .	15	3	-	19	37
YARDS AT MOUTH . . . . .	180	23	-	133	336
OTTER TRAWLS:					
FISH . . . . .	2	113	57	71	233
YARDS AT MOUTH . . . . .	30	2,500	1,261	1,889	5,474
SHRIMP . . . . .	10	5	27	16	49
YARDS AT MOUTH . . . . .	151	95	513	233	862
BRUSH WEIRS . . . . .	-	1	-	-	1
POUND NETS . . . . .	-	2	-	-	2
FLOATING TRAPS . . . . .	4	-	-	-	4

(CONTINUED ON NEXT PAGE)

## PACIFIC COAST FISHERIES

## SUMMARY OF OPERATING UNITS, 1963 - Continued

ITEM	ALASKA	WASHINGTON	OREGON	CALIFORNIA	TOTAL, EXCLUSIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
GEAR - CONTINUED:					
POTS AND TRAPS:					
CRAB:					
DUNGENESS . . . . .	12,000	23,670	32,935	23,570	87,485
KING . . . . .	16,000	-	-	-	16,000
CRAWFISH . . . . .	-	40	560	-	600
FISH . . . . .	-	-	-	100	100
LOBSTER, SPINY . . . . .	-	-	-	12,730	12,730
OCTOPUS . . . . .	-	175	-	100	275
SHRIMP . . . . .	-	190	-	-	190
GILL NETS:					
ANCHOR, SET OR STAKE:					
SALMON . . . . .	2,220	293	40	-	2,553
SQUARE YARDS . . . . .	1,631,000	70,000	12,000	-	1,713,000
OTHER . . . . .	-	4	142	-	146
SQUARE YARDS . . . . .	-	4,000	56,800	-	60,800
DRIFT:					
BARRACUDA . . . . .	-	-	-	19	19
SQUARE YARDS . . . . .	-	-	-	53,700	53,700
SALMON . . . . .	3,450	1,238	570	-	5,162
SQUARE YARDS . . . . .	4,474,000	6,147,000	1,738,000	-	12,140,000
SEA BASS . . . . .	-	-	-	110	110
SQUARE YARDS . . . . .	-	-	-	317,400	317,400
OTHER . . . . .	-	10	101	15	116
SQUARE YARDS . . . . .	-	9,000	152,500	41,900	194,400
TRAMMEL NETS . . . . .	-	-	-	8	8
SQUARE YARDS . . . . .	-	-	-	44,000	44,000
LINES:					
HAND:					
ROCKFISHES . . . . .	-	-	-	436	436
HOOKS . . . . .	-	-	-	872	872
TUNA:					
ALBACORE . . . . .	-	-	-	648	648
HOOKS . . . . .	-	-	-	648	648
YELLOWFIN AND SKIPJACK . . . . .	-	-	-	402	402
HOOKS . . . . .	-	-	-	402	402
OTHER . . . . .	-	32	-	338	370
HOOKS . . . . .	-	64	-	676	740
TROLL:					
ALBACORE . . . . .	-	878	3,962	8,604	11,734
HOOKS . . . . .	-	878	3,962	8,604	11,734
SALMON . . . . .	4,340	5,783	3,394	9,396	20,881
HOOKS . . . . .	26,100	26,120	15,960	37,584	96,708
OTHER . . . . .	-	78	42	1,116	1,236
HOOKS . . . . .	-	156	84	1,116	1,356
LONG OR SET WITH HOOKS . . . . .	9,650	4,093	148	426	11,069
HOOKS . . . . .	776,495	371,550	15,075	42,600	922,925
DIP NETS, COMMON . . . . .	-	206	-	-	206
DIP, BRAIL, OR SCOOP NETS . . . . .	-	-	-	89	89
REEF NETS . . . . .	-	83	-	-	83
WHEELS . . . . .	6	-	-	-	6
HARPOONS:					
SHOROFISH . . . . .	-	-	-	18	18
WHALE . . . . .	-	-	1	5	6
DREDGES:					
CLAM . . . . .	-	4	-	-	4
YARDS AT MOUTH . . . . .	-	4	-	-	4
OYSTER:					
COMMON . . . . .	-	74	6	4	84
YARDS AT MOUTH . . . . .	-	148	12	4	164
SUCTION . . . . .	-	1	-	1	2
TONGS, OYSTER . . . . .	-	-	-	30	30
SHOVELS . . . . .	202	1,344	200	4	1,750
OIVING OUTFITS:					
ABALONE . . . . .	-	-	-	129	129
CLAM . . . . .	-	-	1	-	1

# PACIFIC COAST FISHERIES

269

## CATCH BY STATES, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	ALASKA		WASHINGTON		OREGON	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH						
CARP . . . . .	-	-	1,174	7	-	-
COD . . . . .	-	-	6,302	347	67	3
DOLLY VARDEN TROUT . . . . .	5	1	-	-	-	-
FLOUNDERS:						
"SOLE" . . . . .	-	-	12,220	911	15,932	922
UNCLASSIFIED . . . . .	-	-	1,066	54	573	20
HAKE . . . . .	-	-	400	8	-	-
HALIBUT . . . . .	29,896	4,161	15,416	2,678	263	43
HERRING, SEA . . . . .	31,216	468	6,972	160	16	6
LAKE TROUT . . . . .	2	1	-	-	-	-
LINGCOD . . . . .	-	-	3,099	178	558	27
OCEAN PERCH . . . . .	-	-	15,567	809	8,011	363
PERCH . . . . .	-	-	150	16	-	-
RATFISH . . . . .	-	-	1,095	7	-	-
ROCKFISHES . . . . .	91	6	8,028	410	5,162	230
SABLEFISH . . . . .	1,360	126	2,744	377	551	53
SALMON:						
CHINOOK OR KING . . . . .	9,161	3,127	6,410	2,447	4,768	1,714
CHUM OR KETA . . . . .	35,748	3,046	3,083	579	9	1
PINK . . . . .	125,117	14,472	31,462	3,814	24	3
RED OR SOCKEYE . . . . .	35,456	7,644	7,938	2,682	30	11
SILVER OR COHO . . . . .	17,581	3,009	6,100	1,625	3,431	877
TOTAL SALMON . . . . .	223,063	31,298	54,993	11,147	8,262	2,606
SEA BASS, WHITE . . . . .	-	-	-	-	7	(2)
SHAD . . . . .	-	-	193	9	1,310	95
SHARKS:						
GRAYFISH . . . . .	-	-	867	4	-	-
SOUPFIN . . . . .	-	-	2	(2)	2	(2)
TOTAL SHARKS . . . . .	-	-	869	4	2	(2)
SKATES						
SMELTS:						
EULACHON . . . . .	-	-	906	65	173	23
SURF OR SILVER . . . . .	-	-	226	22	(2)	(2)
STEELHEAD TROUT . . . . .	20	4	535	172	798	219
STRIPED BASS . . . . .	-	-	-	-	69	10
STURGEON . . . . .	-	-	211	26	190	25
SUCKERS . . . . .	-	-	13	(2)	-	-
TOMCOD . . . . .	-	-	5	(2)	-	-
TUNA, ALBACORE . . . . .	-	-	527	85	11,400	1,757
WHITEFISH . . . . .	1	(2)	-	-	-	-
TOTAL FISH . . . . .	285,644	36,065	133,193	17,498	53,590	6,408
SHELLFISH, ETC.						
CRAB:						
DUNGENESS . . . . .	12,084	1,358	6,674	1,390	4,153	870
KING . . . . .	78,740	7,607	-	-	-	-
TOTAL CRABS . . . . .	90,824	8,965	6,674	1,390	4,153	870
CRAWFISH, FRESH-WATER . . . . .	-	-	1	(2)	15	4
SHRIMP . . . . .	15,127	605	1,002	105	3,028	263
CLAMS:						
HARD . . . . .	-	-	385	182	-	-
RAZOR . . . . .	144	52	223	110	10	5
MIXED . . . . .	-	-	-	-	21	10
TOTAL CLAMS . . . . .	144	52	608	292	31	15
OCTOPUS . . . . .	-	-	74	9	(2)	(2)
OYSTERS, MARKET:						
PACIFIC . . . . .	-	-	8,103	2,042	387	109
WESTERN . . . . .	-	-	31	101	-	-
TOTAL OYSTERS . . . . .	-	-	8,134	2,143	387	109

SEE FOOTNOTES AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## PACIFIC COAST FISHERIES

## CATCH BY STATES, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	ALASKA		WASHINGTON		OREGON	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
SHELLFISH, ETC. - CONTINUED						
SQUID	-	-	1	(2)	-	-
KELP (WITH HERRING EGGS) . . .	199	16	-	-	-	-
TOTAL SHELLFISH, ETC. . . . .	106,294	9,638	16,494	3,939	7,614	1,261
WHALE PRODUCTS:						
MEAL . . . . .	-	-	-	-	21	1
MEAT . . . . .	-	-	-	-	97	6
OIL, WHALE . . . . .	-	-	-	-	26	3
SOLUBLES . . . . .	-	-	-	-	14	(2)
TOTAL WHALE PRODUCTS. . . . .	-	-	-	-	158	10
GRAND TOTAL . . . . .	391,938	45,703	149,687	21,437	61,362	7,679
SPECIES	CALIFORNIA 1/			TOTAL		
FISH	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
ANCHOVIES. . . . .	4,570	78	4,570	78		
BARRACUDA. . . . .	379	62	379	62		
BONITO . . . . .	4,022	113	4,022	113		
CABEZONE . . . . .	3	(2)	3	(2)		
CABRILLA . . . . .	37	6	37	6		
CARP . . . . .	255	12	1,429	19		
COH. . . . .	-	-	6,369	350		
DOLLY VARDEN TROUT . . . . .	-	-	5	1		
FLOUNDERS:						
ARROWTOOTH HALIBUT . . . . .	17	1	17	1		
CALIFORNIA HALIBUT . . . . .	3/1,120	3/244	1,120	244		
SAND DABS. . . . .	556	37	556	37		
"SOLE" . . . . .	19,294	1,477	47,446	3,310		
UNCLASSIFIED . . . . .	3/521	3/30	2,160	104		
FLYING FISH. . . . .	47	3	47	3		
GROUPEFS . . . . .	234	51	234	51		
HAKE . . . . .	140	2	540	10		
HALFMOON . . . . .	9	2	9	2		
HALIBUT. . . . .	4	1	45,569	6,883		
HARDHEAD . . . . .	148	30	148	30		
HERRING, SEA . . . . .	630	22	38,834	656		
KING CROAKER . . . . .	551	33	551	33		
LAKE TROUT . . . . .	-	-	2	1		
LINGCOD. . . . .	1,133	68	4,790	293		
MACKEREL:						
JACK . . . . .	95,442	1,989	95,442	1,989		
PACIFIC. . . . .	40,243	861	40,243	861		
OCEAN PERCH. . . . .	-	-	23,578	1,172		
OPALEYE. . . . .	4	1	4	1		
PERCH. . . . .	173	25	323	41		
POKPOUD. . . . .	58	18	58	18		
RATFISH. . . . .	-	-	1,095	7		
ROCKFISHES . . . . .	11,747	682	25,030	1,328		
SABLEFISH. . . . .	1,809	98	6,464	654		
SALMON:						
CHINOOK OR KING. . . . .	6,840	3,623	27,179	10,911		
CHUM OR KETA . . . . .	-	-	38,840	3,626		
PINK . . . . .	-	-	156,603	18,289		
RED DR SOCKEYE . . . . .	-	-	43,424	10,337		
SILVER DR COHD . . . . .	1,019	337	28,131	5,848		
TOTAL SALMON . . . . .	7,859	3,960	294,177	49,011		
SARDINE, PACIFIC . . . . .	7,131	299	7,131	299		
SCULPIN . . . . .	76	22	76	22		
SEA BASS:						
BLACK . . . . .	304	48	304	48		
WHITE. . . . .	891	242	898	242		
SHAD . . . . .	-	-	1,503	104		
SHARKS:						
GRAYFISH . . . . .	-	-	867	4		
SOUPFIN. . . . .	-	-	4	(2)		
UNCLASSIFIED . . . . .	665	62	665	62		
TOTAL SHARKS. . . . .	665	62	1,536	66		

SEE FOOTNOTES AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# PACIFIC COAST FISHERIES

271

## CATCH BY STATES, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	CALIFORNIA 1/		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE
FISH - CONTINUED				
SHEEPSHEAD . . . . .	28	2	28	2
SKATES . . . . .	217	3	945	15
SMELT:				
EULACHON . . . . .	-	-	1,079	88
SURF OR SILVER . . . . .	358	22	584	44
SPLITTAIL . . . . .	5	1	5	1
STEELHEAD TROUT . . . . .	-	-	1,353	395
STRIPED BASS . . . . .	-	-	69	10
STURGEON . . . . .	-	-	401	51
SUCKERS . . . . .	-	-	13	(2)
SWORDFISH . . . . .	98	58	98	58
TOMCOD . . . . .	-	-	5	(2)
TUNA:				
ALBACORE . . . . .	48,860	7,317	60,787	9,159
BLUEFIN . . . . .	30,353	3,392	30,353	3,392
SKIPJACK . . . . .	96,620	10,374	96,620	10,374
YELLOWFIN . . . . .	109,583	14,530	109,583	14,530
TOTAL TUNA . . . . .	285,416	35,613	297,343	37,455
TURBOT . . . . .	97	6	97	6
WAHOO . . . . .	22	7	22	7
WHITEBAIT . . . . .	148	11	148	11
WHITEFISH . . . . .	-	-	1	(2)
YELLOWTAIL . . . . .	70	7	70	7
UNCLASSIFIED:				
FOR FOOD . . . . .	16	1	16	1
BAIT AND ANIMAL FOOD . . . . .	1,034	21	1,034	21
TOTAL FISH . . . . .	487,583	46,351	960,010	106,322
SHELLFISH, ETC.				
CRABS:				
DUNGINESS . . . . .	1,952	688	24,863	4,306
KING . . . . .	-	-	76,740	7,607
ROCK . . . . .	241	22	241	22
TOTAL CRABS . . . . .	2,193	710	103,844	11,935
CRAWFISH, FRESH-WATER . . . . .	-	-	16	4
LOBSTERS, SPINY . . . . .	584	381	584	381
SHRIMP . . . . .	2,103	208	21,260	1,181
ABALONE . . . . .	869	626	869	626
CLAMS:				
HARD . . . . .	1	1	386	183
RAZOR . . . . .	-	-	377	167
MIXED . . . . .	-	-	21	10
TOTAL CLAMS . . . . .	1	1	784	360
OCTOPUS . . . . .	75	4	149	13
OYSTERS, MARKET:				
EASTERN . . . . .	14	5	14	5
PACIFIC . . . . .	1,256	226	9,746	2,377
WESTERN . . . . .	-	-	31	101
TOTAL OYSTERS . . . . .	1,270	231	9,791	2,483
SOLID . . . . .	11,561	240	11,562	240
KELP (WITH HERRING EGGS) . . . . .	-	-	199	16
TOTAL SHELLFISH, ETC. . . . .	18,656	2,401	149,058	17,239
WHALE PRODUCTS:				
MEAL . . . . .	2,617	152	2,638	153
MEAT . . . . .	2,787	236	2,884	242
OIL:				
SPERM . . . . .	700	58	700	58
WHALE . . . . .	1,403	88	1,429	91
SOLUBLES . . . . .	-	-	14	(2)
TOTAL WHALE PRODUCTS . . . . .	7,507	534	7,665	544
GRAND TOTAL . . . . .	513,746	49,286	1,116,733	124,105

1/ INCLUDES THE CATCH TAKEN OFF LATIN AMERICA AND LANDED AT CALIFORNIA PORTS. 2/ LESS THAN 500 POUNDS OR \$500.  
3/ SOME HALIBUT MAY BE INCLUDED WITH "CALIFORNIA HALIBUT" AND "UNCLASSIFIED FLOUNDERS."

NOTE:--ALASKA DATA INCLUDE THE CATCH OF HALIBUT, SABLEFISH, LINGCOD, AND ROCKFISHES LANDED BY U.S. VESSELS AT BRITISH COLUMBIA PORTS. STATISTICS ON THE CATCH ARE SHOWN IN ROUND (LIVE) WEIGHT, EXCEPT FOR SHELL MOLLUSKS. CLAMS AND OYSTERS ARE REPORTED IN WEIGHT OF TOTAL MEATS. ABALONE IS REPORTED IN WEIGHT OF EDIBLE MEAT.

## PACIFIC COAST FISHERIES

## MANUFACTURED FISHERY PRODUCTS, 1963

ITEM		ALASKA		WASHINGTON	
		QUANTITY	VALUE	QUANTITY	VALUE
CARP, MEAL AND SCRAP. . . . .	TONS	-	-	(1)	(1)
COD:					
FILLETS, FRESH AND FROZEN . . . . .	POUNDS	-	-	1,920,576	\$454,371
SALTED. . . . .	DO	-	-	(1)	(1)
LUTEFISK. . . . .	DO	-	-	(1)	(1)
FLOUNDER FILLETS, FRESH AND FROZEN.	DO	-	-	3,406,282	1,231,207
HALIBUT:					
FRESH AND FROZEN:					
FILLETS . . . . .	DO	264,200	\$152,150	1,765,013	991,617
STEAKS. . . . .	DO	-	-	5,214,430	2,485,324
CHEEKS, FROZEN. . . . .	DO	19,700	7,290	-	-
CANNED:					
REGULAR . . . . .	STANDARD CASES	-	-	(1)	(1)
SMOKED. . . . .	DO	11	1,330	-	-
SMOKED. . . . .	POUNDS	-	-	227,500	65,850
HERRING, SEA:					
SALTED EGGS (WITH KELP) . . . . .	DO	184,500	79,350	-	-
MEAL AND SCRAP. . . . .	TONS	2,229	285,100	430	55,000
OIL . . . . .	THOUSAND POUNDS	-	-	-	-
LINGCOD, FILLETS, FRESH AND FROZEN.	POUNDS	4,433	222,390	(1)	(1)
OCEAN PERCH FILLETS, FRESH AND FROZEN	POUNDS	-	-	907,821	216,060
FROZEN . . . . .	DO	-	-	4,624,706	1,056,366
ROCKFISH FILLETS, FRESH AND FROZEN.	DO	-	-	2,372,848	500,223
SABLEFISH:					
FROZEN, STEAKS. . . . .	DO	-	-	(1)	(1)
SALTED. . . . .	DO	-	-	15,800	6,400
SMOKED. . . . .	DO	900	230	121,612	49,718
SALMON:					
FRESH AND FROZEN:					
FILLETS . . . . .	DO	-	-	(1)	(1)
STEAKS. . . . .	DO	-	-	796,114	579,359
CANNED:					
CHINOOK OR KING . . . . .	STANDARD CASES	-	-	-	-
CHUM OR KETA. . . . .	DO	38,867	1,467,290	14,505	493,569
PINK. . . . .	DO	432,685	6,674,530	27,848	582,875
RED OR SOCKEYE. . . . .	DO	1,570,291	33,937,530	385,975	9,301,133
SILVER OR COHO. . . . .	DO	483,343	19,562,300	120,940	6,302,668
	DO	130,293	3,792,380	20,311	702,635
TOTAL CANNED SALMON . . . . .	DO	2,655,479	67,434,050	569,579	17,382,900
EGGS FOR BAIT . . . . .	DO	-	-	16,321	1,235,808
SMOKED. . . . .	DO	530	36,860	790	69,803
SPECIALTIES (ROE, SALTED LIVERS, ETC.) . . . . .	DO	151	6,190	(1)	(1)
CURED:					
SALTED:					
MILD-CURED. . . . .	POUNDS	2,421,100	2,118,850	1,305,150	1,152,480
EGGS FOR FOOD AND BAIT. . . . .	DO	594,300	231,770	523,332	298,581
SPECIALTIES . . . . .	DO	-	-	(1)	(1)
SMOKED. . . . .	DO	6,300	8,660	431,966	312,776
MEAL AND SCRAP. . . . .	TONS	-	-	(1)	(1)
OIL . . . . .	THOUSAND POUNDS	-	-	-	-
SHAD, CANNED:					
FISH. . . . .	STANDARD CASES	-	-	529	31,516
ROE . . . . .	DO	-	-	(1)	(1)
STURGEON:					
CANNED, SMOKED, AND SPECIALTIES .	DO	-	-	308	18,364
SMOKED AND KIPPED . . . . .	POUNDS	-	-	2,300	2,270
SWORDFISH, STEAKS, FROZEN . . . . .	DO	-	-	684,831	347,565
TUNA:					
CANNED, ALBACORE. . . . .	STANDARD CASES	-	-	3/407,085	3/4,229,642
TOTAL CANNED TUNA. . . . .	DO	-	-	3/407,085	3/4,229,642
SMOKED. . . . .	DO	-	-	(1)	(1)
CRABS:					
DUNGENESS:					
FRESH AND FROZEN:					
COOKED MEAT . . . . .	POUNDS	2,730,900	1,674,760	1,176,689	1,595,644
SECTIONS. . . . .	DO	1,620,500	776,190	-	-
CANNED:					
MEAT. . . . .	STANDARD CASES	15,659	580,990	14,142	409,363
SPECIALTIES (SMOKED, SPREADS, ETC.) . . . . .	DO	-	-	(1)	(1)
MEAL AND SCRAP. . . . .	TONS	-	-	(1)	(1)

SEE FOOTNOTES AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

ITEM	ALASKA		WASHINGTON	
	QUANTITY	VALUE	QUANTITY	VALUE
CRABS - CONTINUED:				
KING:				
FRESH AND FROZEN:				
COOKED MEAT . . . . .	POUNDS	10,549,300	-	-
SECTIONS AND LEGS . . . . .	DO	860,600	-	-
CANNED . . . . .	STANDARD CASES	-	-	-
SHRIMP:				
MEAT, RAW AND COOKED, FRESH AND FROZEN . . . . .	POUNDS	2,881,400	-	-
CANNED:				
MEAT . . . . .	STANDARD CASES	61,949	(1)	(1)
SPECIALTIES (COCKTAILS, SPREADS, ETC.) . . . . .	DO	-	(1)	(1)
CLAMS:				
HARD (INCLUDING PISMO), CANNED:				
WHOLE AND MINCED . . . . .	DO	-	1,238	\$26,600
CHOWDER AND JUICE . . . . .	DO	-	14,851	74,349
SPECIALTIES, (IN THE SHELL) . . . . .	DO	-	(1)	(1)
RAZOR (INCLUDING COCKLES IN ALASKA):				
SHUCKED FRESH AND FROZEN . . . . .	GALLONS	-	4,262	37,750
CANNED:				
WHOLE AND MINCED . . . . .	STANDARD CASES	6,014	-	-
SMOKED . . . . .	DO	-	661	14,524
OYSTERS:				
SHUCKED, FRESH AND FROZEN:				
PACIFIC . . . . .	GALLONS	-	778,752	3,041,597
WESTERN . . . . .	DO	-	3,656	186,946
CANNED:				
MEAT . . . . .	STANDARD CASES	-	-	-
SMOKED . . . . .	DO	-	73,588	1,079,833
SPECIALTIES (STEMS, SOUP ETC.) . . . . .	DO	-	890	92,739
SHELL, GRIT AND LIME . . . . .	TONS	-	167,750	2,334,623
UNCLASSIFIED:				
FRESH AND FROZEN, PACKAGED:				
STICKS:				
RAW . . . . .	POUNDS	-	(1)	(1)
COOKED . . . . .	DO	-	(1)	(1)
PORTIONS:				
RAW . . . . .	DO	-	80,402	32,079
COOKED . . . . .	DO	-	(1)	(1)
FISH AND SHELLFISH . . . . .	DO	-	755,771	294,981
CANNED:				
FISH AND SHELLFISH . . . . .	STANDARD CASES	-	-	-
ANIMAL FOOD . . . . .	DO	-	49,094	1,268,291
CURED . . . . .	POUNDS	-	66,956	425,888
INDUSTRIAL . . . . .	-	-	81,132	16,711
MISCELLANEOUS . . . . .	-	-	-	183,914
TOTAL . . . . .	-	-	-	123,584
TOTAL . . . . .	-	94,681,780	-	43,834,343

ITEM	OREGON		CALIFORNIA	
	QUANTITY	VALUE	QUANTITY	VALUE
ANCHOVIES, CANNED . . . . .	STANDARD CASES	-	(1)	(1)
BARRACUDA, SMOKED . . . . .	POUNDS	-	3,570	\$2,647
BUTTERFISH, SMOKED . . . . .	DO	-	(1)	(1)
COD:				
FILLETS, FRESH AND FROZEN . . . . .	POUNDS	25,081	(2)	(2)
SPECIALTIES, FROZEN (FISH AND CHIPS) . . . . .	DO	\$6,178	(1)	(1)
SALTED . . . . .	DO	-	(1)	(1)
SMOKED . . . . .	DO	-	251,966	122,309
CHUBS, SMOKED . . . . .	DO	-	(1)	(1)
FLOUNDER, FILLETS, FRESH AND FROZEN . . . . .	DO	3,187,942	-	-
HAKE FILLETS, FROZEN . . . . .	DO	-	(1)	(1)
HALIBUT:				
FRESH AND FROZEN:				
FILLETS . . . . .	DO	(2)	1,504,373	815,784
STEAKS . . . . .	DO	(2)	(2)	(2)
SPECIALTIES, FROZEN (FISH AND CHIPS) . . . . .	DO	-	(1)	(1)
SMOKED . . . . .	POUNDS	-	77,150	22,478

SEE FOOTNOTES AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## PACIFIC COAST FISHERIES

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

ITEM	OREGON		CALIFORNIA	
	QUANTITY	VALUE	QUANTITY	VALUE
LINGCOD:				
FILLETS, FRESH AND FROZEN . . . . .	POUNDS	190,862	75,000	\$21,750
SMOKED AND KIPPERED . . . . .	DO	-	(1)	(1)
MACKEREL:				
CANNED:				
JACK . . . . .	STANDARD			
PACIFIC . . . . .	CASES	-	877,925	5,244,374
SMOKED . . . . .	DO	-	397,527	2,359,055
OCEAN PERCH, FILLETS, FRESH AND	POUNDS		(1)	(1)
FROZEN . . . . .	DO	2,369,937	589,522	(2)
ROCKFISH FILLETS, FRESH AND FROZEN	DO	1,278,410	296,871	1,619,000
SABLEFISH:				
FROZEN, FILLETS . . . . .	DO	(1)	(1)	(1)
SMOKED . . . . .	DO	(1)	(1)	(1)
SALMON:				
FRESH AND FROZEN:				
FILLETS . . . . .	DO	(1)	(1)	-
STEAKS . . . . .	DO	(2)	(2)	212,029
CANNED:				
CHINOOK OR KING . . . . .	STANDARD			
CHUM OR KETA . . . . .	CASES	43,471	2,027,283	(2)
PINK . . . . .	DO	1,842	33,546	-
RED OR SOCKEYE . . . . .	DO	216	5,992	-
SILVER OR COHO . . . . .	DO	1,664	95,836	-
STEELHEAD . . . . .	DO	14,952	657,107	-
	DO	7,654	326,085	-
TOTAL CANNED SALMON . . . . .		69,799	3,145,649	-
SMOKED . . . . .	DO	85	6,486	(2)
SPECIALTIES, (ROE, SALTED				
LIVERS, ETC.) . . . . .	DO	(1)	(1)	-
CURED:				
SALTED, MILD-CURED . . . . .	POUNDS	-	-	1,443,615
SMOKED . . . . .	DO	(1)	(1)	1,065,987
OIL . . . . .	THOUSAND			
POUNDS		116	21,830	-
SARDINES, PACIFIC:				
CANNED . . . . .	STANDARD			
SALTED . . . . .	CASES	-	-	57,072
SEA BASS:	POUNDS			
FILLETS, FROZEN . . . . .	DO	-	-	(1)
STEAKS, FROZEN . . . . .	DO	-	-	(1)
SMOKED . . . . .	DO	-	-	(1)
SHAD:				
CANNED:				
FISH . . . . .	STANDARD			
ROE . . . . .	CASES	9,662	94,754	(1)
SMOKED . . . . .	DO	2,010	137,878	(1)
SMOKED . . . . .	DO	(1)	(1)	(1)
SHARK:	POUNDS			
SMOKED . . . . .	DO	-	-	(1)
OIL . . . . .	THOUSAND			
POUNDS		(1)	(1)	(1)
SMELT, SMOKED . . . . .	POUNDS	(1)	(1)	-
STURGEON:				
FILLETS, FROZEN . . . . .	DO	(1)	(1)	-
CANNED:				
SMOKED AND SPECIALTIES . . . . .	STANDARD			
SMOKED AND KIPPERED . . . . .	CASES	413	29,818	-
SMOKED . . . . .	POUNDS	(1)	(1)	(1)
SWORDFISH:				
STEAKS, FROZEN . . . . .	DO	-	-	(2)
SMOKED . . . . .	DO	-	-	(1)
TUNA:				
CANNED:				
ALBACORE . . . . .	STANDARD			
LIGHT MEAT . . . . .	CASES	3/1,093,374	3/14,646,718	1,686,125
TONNO . . . . .	DO	-	-	7,254,452
	DO	-	-	120,754
TOTAL CANNED TUNA . . . . .		3/1,093,374	3/14,646,718	9,061,331
				21,594,934
				85,603,540
				1,650,495
				108,848,969

SEE FOOTNOTES AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# PACIFIC COAST FISHERIES

275

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

ITEM	OREGON		CALIFORNIA	
	QUANTITY	VALUE	QUANTITY	VALUE
TUNA - CONTINUED:				
CANNED - CONTINUED:				
SPECIALTIES (WITH NOODLES CREAMED, ETC.). . . . .	STANDARD CASES	-	35,909	\$417,815
SMOKED . . . . .	DO	(1)	-	-
SMOKED AND KIPPERED. . . . .	POUNDS	(1)	21,170	21,159
TUNALIKE FISH (BONITO AND YELLOWTAIL):				
FILLETS, FROZEN. . . . .	DO	-	(1)	(1)
CANNED . . . . .	STANDARD CASES	-	71,541	570,403
SMOKED . . . . .	POUNDS	-	2,818	2,765
WAHOO, SMOKED. . . . .	DO	-	(1)	(1)
WHITEFISH, SMOKED. . . . .	DO	-	(1)	(1)
WHITING, SMOKED. . . . .	DO	-	(1)	(1)
CRABS:				
QUINCESS:				
FRESH AND FROZEN:				
COOKED MEAT. . . . .	DO	642,552	\$878,482	278,895
SPECIALTIES (COCKTAILS). . .	DO	-	(1)	473,785
CANNED:				
MEAT . . . . .	STANDARD CASES	(1)	(1)	-
SPECIALTIES (SMOKED, SPREADS, ETC.). . . . .	DO	55	5,023	-
MEAL AND SCRAP. . . . .	TONS	(1)	-	-
LOBSTER, COCKTAILS, FROZEN . . .	POUNDS	-	(1)	(1)
SHRIMP:				
FRESH AND FROZEN:				
RAW, HEADLESS . . . . .	DO	-	(1)	(1)
MEAT, RAW AND COOKED . . . . .	DO	352,803	382,092	813,681
BREADED. . . . .	DO	-	-	813,205
SPECIALTIES (COCKTAILS). . . .	DO	-	(1)	3,334,727
CANNED:				
MEAT . . . . .	STANDARD CASES	(1)	(1)	-
SPECIALTIES (COCKTAILS, SPREADS, ETC.). . . . .	DO	(1)	(1)	-
SMOKED . . . . .	POUNDS	(1)	(1)	(1)
MEAL AND SCRAP . . . . .	TONS	(1)	(1)	-
ABALONE, FROZEN:				
STEAKS:				
NOT BREADED. . . . .	POUNDS	-	-	420,101
BREADED. . . . .	DO	-	-	(1)
SPECIALTIES . . . . .	DO	-	-	(1)
CLAMS, RAZOR (INCLUDING COCKLES IN ALASKA):				
SHUCKED, FRESH AND FROZEN. . .	GALLONS	8,770	77,562	-
CANNED:				
WHOLE AND MINCED . . . . .	STANDARD CASES	-	-	-
SMOKED . . . . .	DO	(1)	10,930	-
OYSTERS:				
SHUCKED, FRESH AND FROZEN:				
PACIFIC. . . . .	GALLONS	105,530	411,692	145,278
WESTERN. . . . .	DO	(1)	(1)	-
BREADED, FROZEN. . . . .	POUNDS	-	-	50,396
CANNED:				
MEAT . . . . .	STANDARD CASES	(1)	(1)	-
SPECIALTIES (STEWES, SOUP, ETC.). . . . .	DO	(1)	(1)	-
SHELL, GRIT, AND LIME. . . . .	TONS	(1)	(1)	(1)
SCALLOPS, BREADED; COOKED AND RAW, FROZEN . . . . .	POUNDS	-	-	339,158
SQUID, CANNED. . . . .	STANDARD CASES	-	-	147,957
WHALE:				
MEAT, FROZEN (FOR ANIMAL FOOD) . . . . .	POUNDS	97,000	5,820	2,786,713
MEAL AND SCRAP . . . . .	TONS	10	1,384	1,308
OIL:				
SPERM. . . . .	1000 POUNDS	-	-	700
OTHER. . . . .	DO	26	2,860	1,403
SOLUBLES . . . . .	TONS	7	428	-

SEE FOOTNOTES AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## PACIFIC COAST FISHERIES

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

ITEM	OREGON		CALIFORNIA	
	QUANTITY	VALUE	QUANTITY	VALUE
UNCLASSIFIED:				
FRESH AND FROZEN PACKAGED FISH:				
STICKS:				
RAW . . . . .	POUNDS	-	628,490	\$254,419
COOKED . . . . .	DO	-	5,362,005	2,345,674
PORTIONS:				
RAW . . . . .	DO	-	709,290	250,405
COOKED . . . . .	DO	-	2,116,856	1,473,161
UNBREADED . . . . .	DO	-	149,109	52,901
CAKES . . . . .	DO	-	269,554	244,023
FISH AND SHELLFISH . . . . .	DO	6,164	1,190,928	833,491
CANNED:				
FISH AND SHELLFISH . . . . .	STANDARD			
CASES	15,290	313,717	(4)	(4)
DO	227,601	1,371,785	1,585,997	12,728,779
CURED . . . . .	POUNDS	19,520	25,010	424,166
INDUSTRIAL . . . . .	-	-	-	4,031,423
MISCELLANEOUS . . . . .	-	-	-	9,102,661
TOTAL . . . . .	-	-	-	162,466,459

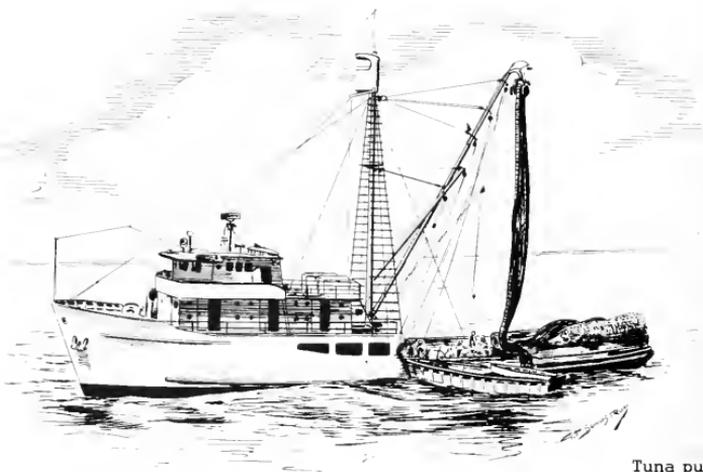
1/ INCLUDED WITH UNCLASSIFIED PRODUCTS.

2/ THE PRODUCTION OF CERTAIN ITEMS IN OREGON AND CALIFORNIA HAVE BEEN INCLUDED WITH THE WASHINGTON PRODUCTION.

3/ THE PACK OF LIGHT MEAT TUNA HAS BEEN INCLUDED WITH ALBACORE.

4/ INCLUDED WITH ANIMAL FOOD.

NOTE:--THIS TABLE WILL NOT ADD. INDIVIDUAL STATE TOTALS ARE CORRECT BUT SMALL QUANTITIES PRODUCED IN OREGON AND CALIFORNIA ARE INCLUDED IN THE PRODUCTION FOR WASHINGTON. SOME OF THE ABOVE PRODUCTS MAY HAVE BEEN MANUFACTURED FROM RAW PRODUCTS IMPORTED FROM ANOTHER STATE OR A FOREIGN COUNTRY; THEREFORE, THEY CANNOT BE CORRELATED DIRECTLY WITH THE CATCH WITHIN THE STATE.



Tuna purse seiner

## SUMMARY OF OPERATING UNITS, 1963

(VALUE IN THOUSANDS OF DOLLARS)

ITEM		QUANTITY	VALUE
PACKAGED, FRESH AND FROZEN:			
NOT BREADED:			
FISH . . . . .	1,000 POUNDS	36,136	12,978
SHELLFISH . . . . .	DO	31,602	24,564
BREADED:			
FISH . . . . .	DO	9,810	4,696
SHELLFISH . . . . .	DO	4,914	3,624
SPECIALTIES . . . . .	DO	1,023	839
WHALE MEAT (FOR ANIMAL FOOD) . . . . .	DO	2,884	241
CANNED . . . . .	1,000 STANDARD CASES	18,033	256,147
CURED . . . . .	1,000 POUNDS	9,678	7,385
INDUSTRIAL . . . . .	-	-	15,062
TOTAL . . . . .	-	-	325,535

## VALUE OF MANUFACTURED PRODUCTS, BY STATES, 1963

(THOUSANDS OF DOLLARS)

ITEM	VALUE
ALASKA . . . . .	94,682
WASHINGTON . . . . .	43,834
OREGON . . . . .	24,553
CALIFORNIA . . . . .	162,466
TOTAL . . . . .	325,535

## WHOLESALE AND MANUFACTURING, 1963

ITEM	ALASKA	WASHINGTON	OREGON	CALIFORNIA	TOTAL
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
WHOLESALE AND MANUFACTURING ESTABLISHMENTS . . . . .	181	177	57	178	593
PERSONS ENGAGED:					
AVERAGE FOR SEASON . . . . .	7,907	4,099	1,994	9,737	23,737
AVERAGE FOR YEAR . . . . .	2,609	1,971	1,191	7,032	12,803



## PACIFIC COAST FISHERIES

## ALASKA FISHERIES

## CATCH BY REGIONS, 1963

SPECIES	SOUTHEASTERN ALASKA		CENTRAL ALASKA	
	POUNDS	VALUE	POUNDS	VALUE
FISH				
HALIBUT 1/	21,986,200	\$3,136,270	7,900,200	\$1,024,720
HERRING.	31,213,700	468,200	2,500	40
ROCKFISHES 2/	86,300	6,190	2,200	150
SABLEFISH.	1,357,600	125,340	1,700	200
SALMON: 3/				
CHINOOK OR KING.	4,497,600	2,208,540	693,200	186,270
CHUM OR KETA	12,649,600	1,174,960	18,766,000	1,556,590
PINK	70,054,600	8,276,680	54,599,600	6,149,450
RED OR SOCKEYE	3,905,800	1,074,350	13,751,000	3,220,740
SILVER OR COHO	11,304,600	2,109,590	5,444,900	792,600
TOTAL SALMON.	102,412,400	14,844,120	93,254,700	11,905,850
TROUT:				
DOLLY VARDEN	-	-	4,800	960
LAKE	-	-	2,200	440
STEELHEAD.	19,700	3,940	-	-
WHITEFISH.	-	-	600	130
TOTAL FISH.	157,078,100	18,584,060	101,168,900	12,932,490
SHELLFISH, ETC.				
CLAM MEATS, RAZOR.	-	-	143,600	51,950
CRABS:				
DUNGENESS.	4,679,700	561,560	7,404,400	795,980
KING	1,112,200	111,220	50,786,600	5,080,410
SHRIMP	3,110,300	124,410	12,016,600	480,670
KELP (WITH HERRING EGGS)	199,100	15,920	-	-
TOTAL SHELLFISH, ETC.	9,101,300	813,110	70,617,900	6,409,010
GRAND TOTAL	166,179,400	19,397,170	171,786,800	19,341,500

SPECIES	WESTERN ALASKA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE
FISH				
HALIBUT 1/	-	-	29,886,400	\$4,160,990
HERRING.	-	-	31,216,200	468,200
ROCKFISHES 2/	-	-	90,500	6,340
SABLEFISH.	-	-	1,359,500	125,540
SALMON: 3/				
CHINOOK OR KING.	3,969,800	\$731,830	9,160,600	3,126,640
CHUM OR KETA	4,332,800	315,000	35,748,400	3,046,550
PINK	465,200	46,250	125,117,400	14,472,380
RED OR SOCKEYE	17,798,800	3,346,770	36,455,600	7,643,860
SILVER OR COHO	831,500	106,430	17,581,200	3,008,820
TOTAL SALMON.	27,396,100	4,548,280	223,063,200	31,298,250
TROUT:				
DOLLY VARDEN	-	-	4,800	960
LAKE	-	-	2,200	440
STEELHEAD.	-	-	19,700	3,940
WHITEFISH.	-	-	600	130
TOTAL FISH.	27,396,100	4,548,280	285,643,100	36,064,830
SHELLFISH, ETC.				
CLAM MEATS, RAZOR.	-	-	143,600	51,950
CRABS:				
DUNGENESS.	-	-	12,084,100	1,357,540
KING	26,841,500	2,415,730	78,740,300	7,607,360
SHRIMP	-	-	15,126,900	605,080
KELP (WITH HERRING EGGS)	-	-	199,100	15,920
TOTAL SHELLFISH, ETC.	26,841,500	2,415,730	106,294,000	9,637,850
GRAND TOTAL	54,237,600	6,964,010	391,937,100	45,702,680

1/ INCLUDES THE VALUE OF HALIBUT LIVERS AND VISCERA AMOUNTING TO \$6,500.

2/ INCLUDES LINGCOD.

3/ THE ROUND WEIGHTS USED IN CATCH TABLES WERE OBTAINED BY MULTIPLYING NUMBER OF FISH BY THEIR AVERAGE WEIGHT.

NOTE:--THE ABOVE DATA INCLUDE CATCHES OF HALIBUT, SABLEFISH, LINGCOD, AND ROCKFISHES LANDED BY VESSELS OF U. S. REGISTRY IN BRITISH COLUMBIA PORTS. ROUND WEIGHTS OF FISH TAKEN BY HALIBUT VESSELS WERE OBTAINED BY MULTIPLYING REPORTED WEIGHTS, REPRESENTING POUNDAGE OF FISH EVISCARATED AND WITH HEADS-OFF, BY THE FOLLOWING FACTORS: HALIBUT 1.33, SABLEFISH AND ROCKFISHES 1.43.

# PACIFIC COAST FISHERIES ALASKA

279

## SUMMARY OF PRODUCTS AS PREPARED FOR MARKET, 1963

ITEM	SOUTHEASTERN ALASKA		CENTRAL ALASKA	
	POUNDS	VALUE	POUNDS	VALUE
HALIBUT . . . . .	17,090,000	\$4,904,280	10,218,000	\$3,024,530
HERRING . . . . .	13,021,000	676,810	-	-
ROCKFISHES . . . . .	42,800	7,200	400	40
SABLEFISH . . . . .	1,086,100	248,120	-	-
SALMON . . . . .	71,142,300	34,855,240	56,493,700	29,611,210
TROUT:				
DOLLY VARDEN . . . . .	-	-	3,600	1,570
LAKE . . . . .	-	-	1,600	820
STEELHEAD . . . . .	16,300	5,490	-	-
WHITFISH . . . . .	-	-	500	230
CLAMS, RAZOR . . . . .	-	-	107,500	136,700
CRABS:				
DUNGENESS . . . . .	1,415,000	1,309,620	3,441,800	1,722,320
KING . . . . .	241,600	309,130	13,591,400	13,707,330
SHRIMP . . . . .	606,700	635,810	3,203,900	3,527,470
KELP (WITH HERRING EGGS) . . . . .	184,500	78,350	-	-
<b>TOTAL . . . . .</b>	<b>104,846,300</b>	<b>43,030,050</b>	<b>87,062,400</b>	<b>51,732,220</b>

ITEM	WESTERN ALASKA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE
HALIBUT . . . . .	-	-	27,308,000	\$7,928,810
HERRING . . . . .	-	-	13,021,000	676,810
ROCKFISHES . . . . .	-	-	43,200	7,240
SABLEFISH . . . . .	-	-	1,066,100	248,120
SALMON . . . . .	15,978,600	\$11,521,350	143,614,600	75,967,800
TROUT:				
DOLLY VARDEN . . . . .	-	-	3,600	1,570
LAKE . . . . .	-	-	1,600	820
STEELHEAD . . . . .	-	-	16,300	5,490
WHITFISH . . . . .	-	-	500	230
CLAMS, RAZOR . . . . .	-	-	107,500	136,700
CRABS:				
DUNGENESS . . . . .	-	-	4,656,600	3,031,940
KING . . . . .	2,566,800	2,754,180	16,399,800	16,770,640
SHRIMP . . . . .	-	-	3,810,600	4,163,260
KELP (WITH HERRING EGGS) . . . . .	-	-	184,500	78,350
<b>TOTAL . . . . .</b>	<b>18,545,400</b>	<b>14,275,530</b>	<b>210,454,100</b>	<b>109,037,800</b>

NOTE:--DATA ON PRODUCTS AS PREPARED FOR MARKET INCLUDE THE PRODUCTION OF CANADIAN-CAUGHT HALIBUT LANDED IN ALASKA. THE QUANTITY OF FISH LANDED BY HALIBUT CRAFT OF U.S. REGISTRY AT BRITISH COLUMBIA PORTS IS INCLUDED IN THE CATCH CREDITED TO SOUTHEASTERN ALASKA, BUT IS NOT INCLUDED IN DATA ON PRODUCTS AS PREPARED FOR MARKET.

## PRODUCTS AS PREPARED FOR MARKET, 1963

ITEM	SOUTHEASTERN ALASKA		CENTRAL ALASKA		WESTERN ALASKA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
<b>FRESH</b>								
ROCKFISHES, DRESSED . . . . .	-	-	400	\$40	-	-	400	\$40
SALMON, DRESSED . . . . .	-	-	8,500	4,400	2,000	\$970	10,500	5,370
CRABS:								
DUNGENESS:								
WHOLE . . . . .	900	\$260	11,600	4,010	-	-	12,500	4,270
SECTIONS . . . . .	27,100	6,780	-	-	-	-	27,100	6,780
MEAT . . . . .	-	-	1,000	1,360	-	-	1,000	1,360
KING:								
WHOLE . . . . .	100	30	2,200	830	-	-	2,300	860
SECTIONS . . . . .	-	-	200,000	80,000	-	-	200,000	80,000
MEAT . . . . .	-	-	700	930	-	-	700	930
SHRIMP, MEAT . . . . .	-	-	300	340	-	-	300	340
<b>TOTAL FRESH . . . . .</b>	<b>28,100</b>	<b>7,070</b>	<b>224,700</b>	<b>91,910</b>	<b>2,000</b>	<b>970</b>	<b>254,800</b>	<b>99,950</b>
<b>FROZEN</b>								
HALIBUT, DRESSED . . . . .	16,818,800	4,761,030	10,115,100	3,000,510	-	-	26,933,900	7,761,540

(CONTINUED ON NEXT PAGE)

## PACIFIC COAST FISHERIES

## PRODUCTS AS PREPARED FOR MARKET, 1963 - Continued

ITEM	SOUTHEASTERN ALASKA		CENTRAL ALASKA		WESTERN ALASKA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
FROZEN - CONT'D.								
HALIBUT - CONT'D.								
FLETCHEES . . .	222,200	\$131,170	42,000	\$20,960	-	-	264,200	\$152,150
CHEEKS . . .	19,700	7,290	-	-	-	-	19,700	7,290
LIVERS AND VISCERA . . .	26,800	3,460	60,900	3,040	-	-	89,700	6,500
HERRING, FOR BAIT . . .	4,129,000	169,320	-	-	-	-	4,129,000	169,320
ROCKFISHES, DRESSED . . .	42,800	7,200	-	-	-	-	42,800	7,200
SABLEFISH, DRESSED . . .	1,085,200	247,890	-	-	-	-	1,085,200	247,890
SALMON: DRESSED . . .	10,730,600	5,354,140	1,625,200	658,140	261,400	\$112,780	12,617,200	6,125,060
VISCERA . . .	456,400	21,450	14,100	420	-	-	470,500	21,870
TROUT:								
DOLLY VADEN, DRESSED . . .	-	-	3,600	1,570	-	-	3,600	1,570
LAKE TROUT, DRESSED . . .	-	-	1,600	820	-	-	1,600	820
STEELHEAD, DRESSED . . .	15,300	4,610	-	-	-	-	15,300	4,610
WHITEFISH, DRESSED . . .	-	-	500	230	-	-	500	230
CLAMS . . .	-	-	17,300	4,000	-	-	17,300	4,000
CRABS:								
DUNGENESS:								
WHOLE . . .	143,900	62,320	1,766,800	610,450	-	-	1,930,700	672,770
SECTIONS . . .	510,800	256,360	1,262,600	513,030	-	-	1,793,400	769,410
MEAT . . .	602,700	754,610	184,000	241,750	-	-	786,700	996,360
KING:								
WHOLE . . .	4,200	2,160	3,525,000	1,657,000	-	-	3,529,200	1,659,160
SECTIONS . . .	-	-	660,600	348,380	-	-	660,600	348,380
MEAT . . .	234,400	301,700	4,215,900	4,409,540	2,566,800	2,754,180	7,017,100	7,465,420
SHRIMP:								
WHOLE . . .	30,300	11,720	-	-	-	-	30,300	11,720
MEAT . . .	337,200	338,720	2,513,600	2,764,930	-	-	2,850,800	3,103,650
TOTAL FROZEN	35,412,300	12,435,190	26,046,800	14,434,790	2,826,200	2,866,960	64,269,300	29,736,940
CURED								
KELP (WITH HERRING EGGS), SALTED . . .	184,500	78,350	-	-	-	-	184,500	78,350
SABLEFISH, SMOKED . . .	900	230	-	-	-	-	900	230
SALMON:								
MILD CURED . . .	1,276,000	1,233,900	46,000	41,250	799,600	634,990	2,121,600	1,910,140
PICKLED . . .	-	-	36,500	22,030	251,000	186,680	299,500	208,710
SMOKED OR KIPPERED . . .	1,600	2,230	3,500	5,550	-	-	5,300	7,780
EGGS, SALTED . . .	302,500	120,160	291,600	111,610	-	-	594,300	231,770
TROUT, STEEL-HEAD, SMOKED . . .	1,000	860	-	-	-	-	1,000	860
TOTAL CURED . . .	1,766,700	1,435,750	379,600	180,440	1,060,600	821,670	3,207,100	2,437,860
CANNED								
HALIBUT, SMOKED	500	1,330	-	-	-	-	500	1,330
SALMON:								
CHINOOK OR KING . . .	19,200	11,690	566,800	446,490	1,279,500	1,009,110	1,865,500	1,467,290
CHUM OR KETA . . .	7,160,400	3,079,550	11,068,300	4,542,510	2,520,200	1,052,470	20,768,900	8,674,530
PINK . . .	46,039,100	21,374,330	29,243,300	12,525,720	91,600	37,500	75,374,000	33,937,550
RED OR SOCKEYE . . .	2,496,700	2,017,280	10,218,400	9,223,430	10,485,400	8,321,590	23,200,500	19,562,300
SILVER OR COHO . . .	2,649,600	1,625,720	3,326,600	2,001,400	277,900	165,260	6,254,100	3,792,380
TOTAL . . .	56,365,000	26,108,570	54,443,400	26,739,550	14,654,600	10,585,930	127,463,000	67,434,050
SALMON, SMOKED:								
CHINOOK OR KING . . .	3,200	7,820	3,500	4,970	-	-	6,700	12,790
CHUM OR KETA . . .	3,600	3,990	1,400	1,940	-	-	5,200	5,930
RED OR SOCKEYE . . .	-	-	2,300	3,320	-	-	2,300	3,320
SILVER OR COHO . . .	3,000	2,960	8,300	11,840	-	-	11,300	14,820
TOTAL . . .	10,000	14,790	15,500	22,070	-	-	25,500	36,860

(CONTINUED ON NEXT PAGE)

# PACIFIC COAST FISHERIES

281

## PRODUCTS AS PREPARED FOR MARKET, 1963 - Continued

ITEM	SOUTHEASTERN ALASKA		CENTRAL ALASKA		WESTERN ALASKA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CANNED—CONTINUED								
SALMON, EGGS . .	-	-	7,200	\$6,190	-	-	7,200	\$6,190
CLAMS, RAZOR . .	-	-	90,200	132,700	-	-	90,200	132,700
CRAB:								
DUNGNESS . . .	129,600	\$229,270	175,800	351,720	-	-	305,400	580,990
KING . . . . .	2,900	5,220	4,987,000	7,010,650	-	-	4,989,900	7,015,870
SHRIMP . . . . .	239,200	285,370	690,000	762,200	-	-	929,200	1,047,570
TOTAL CANNED	58,747,200	28,644,550	60,409,100	37,025,080	14,654,600	\$10,585,930	133,810,900	76,255,560
INDUSTRIAL PRODUCTS								
HERRING:								
MEAL . . . . .	4,458,000	285,100	-	-	-	-	4,458,000	285,100
OIL . . . . .	4,434,000	222,390	-	-	-	-	4,434,000	222,390
TOTAL INDUSTRIAL PRODUCTS . .	8,892,000	507,490	-	-	-	-	8,892,000	507,490
GRAND TOTAL . . . . .	104,846,300	43,030,050	87,062,400	51,732,220	18,545,400	14,275,530	210,454,100	109,037,800

## PRODUCTION OF CANNED PRODUCTS, 1963

(IN STANDARD CASES)

ITEM	SOUTHEASTERN ALASKA		CENTRAL ALASKA		WESTERN ALASKA		TOTAL	
	CASES	VALUE	CASES	VALUE	CASES	VALUE	CASES	VALUE
FISH								
HALIBUT, SMOKED . .	11	\$1,330	-	-	-	-	11	\$1,330
SALMON:								
CHINOOK OR KING . .	401	11,690	11,809	\$446,490	26,657	\$1,009,110	39,867	1,467,290
CHUM OR KETA . . .	149,175	3,079,550	231,006	4,542,510	52,504	1,052,470	432,685	8,674,530
PINK . . . . .	999,148	21,374,330	609,234	12,525,720	1,909	37,500	1,570,291	33,937,550
RED OR SOCKEYE . .	52,014	2,017,280	212,884	9,223,430	216,445	6,321,590	483,343	19,562,300
SILVER OR COHO . .	55,199	1,625,720	69,304	2,001,400	5,790	165,260	130,293	3,792,360
TOTAL . . . . .	1,215,937	26,106,570	1,134,237	26,739,550	305,305	10,585,930	2,655,479	67,434,050
SALMON, SMOKED:								
CHINOOK OR KING . .	67	7,820	72	4,970	-	-	139	12,790
CHUM OR KETA . . .	79	3,990	29	1,940	-	-	108	5,930
RED OR SOCKEYE . .	-	-	47	3,320	-	-	47	3,320
SILVER OR COHO . .	62	2,980	174	11,840	-	-	236	14,820
TOTAL . . . . .	208	14,790	322	22,070	-	-	530	36,860
SALMON EGGS . . . . .	-	-	151	6,190	-	-	151	6,190
SHELLFISH								
CLAMS, RAZOR . . . .	-	-	6,014	132,700	-	-	6,014	132,700
CRAB MEAT:								
DUNGNESS . . . . .	6,645	229,270	9,013	351,720	-	-	15,659	580,990
KING . . . . .	147	5,220	255,743	7,010,650	-	-	255,890	7,015,870
SHRIMP . . . . .	15,950	285,370	45,999	762,200	-	-	61,949	1,047,570
GRAND TOTAL . . . . .	1,236,899	28,644,550	1,451,479	37,025,080	305,305	10,585,930	2,995,683	76,255,560

NOTE:—STANDARD CASES REPRESENT THE VARIOUS SIZE PACKS CONVERTED AS FOLLOWS: SALMON, 48 CANS, EACH CONTAINING 16 OUNCES; CLAMS, 48 CANS, EACH CONTAINING 5 OUNCES OF MEATS (DRAINED WEIGHT); CRAB MEAT, 48 CANS, EACH CONTAINING 6-1/2 OUNCES; AND SHRIMP, 48 CANS, EACH CONTAINING 5 OUNCES OF MEAT (DRAINED WEIGHT).

## PRODUCTION OF INDUSTRIAL PRODUCTS, 1963

ITEM	SOUTHEASTERN ALASKA	
	QUANTITY	VALUE
HERRING:		
MEAL . . . . . TONS	2,229	\$285,100
OIL . . . . . POUNDS	4,434,000	222,390
TOTAL . . . . .	-	507,490

NOTE:—PRODUCTION OF INDUSTRIAL PRODUCTS WAS CONFINED TO SOUTHEASTERN ALASKA.

# PACIFIC COAST FISHERIES

## SOUTHEASTERN REGION OF ALASKA

### OPERATING UNITS BY GEAR, 1963

ITEM	PURSE SEINES 1/		BEAM TRAWLS, SHRIMP	OTTER TRAWLS, FISH	FLOATING TRAPS	POTS, CRAB	
	HERRING	SALMON				DUNGENESS	KING
	NUMBER	NUMBER				NUMBER	NUMBER
FISHERMEN: ON VESSELS . . . . .	49	2,144	49	10	-	106	27
ON BOATS AND SHORE, REGULAR . . . . .	-	15	-	-	8	46	20
TOTAL . . . . .	49	2,159	49	10	8	154	47
VESSELS, MOTOR . . . . .	8	465	15	2	-	35	9
GROSS TONNAGE . . . . .	589	14,060	442	73	-	937	291
BOATS, MOTOR . . . . .	8	475	-	-	-	23	10
GEAR: NUMBER . . . . .	8	470	15	2	4	4,450	1,280
LENGTH, YARDS . . . . .	4,100	229,000	-	-	-	-	-
SQUARE YARDS . . . . .	-	-	160	30	-	-	-
HOOKS AT MOUTH . . . . .	-	-	-	-	-	-	-

ITEM	GILL NETS, SALMON		LINES		BY HAND	TOTAL, EXCLUSIVE OF DUPLI- CATION
	ANCHOR, SET OR STAKE	DRIFT	TROLL, SALMON	LONG OR SET AND HAND		
	NUMBER	NUMBER	NUMBER	NUMBER		
FISHERMEN: ON VESSELS . . . . .	2	262	712	1,080	-	3,930
ON BOATS AND SHORE, REGULAR . . . . .	200	300	670	200	75	1,350
TOTAL . . . . .	202	562	1,382	1,280	75	5,280
VESSELS, MOTOR . . . . .	1	135	511	249	-	1,279
GROSS TONNAGE . . . . .	43	1,426	6,692	7,745	-	26,460
BOATS, MOTOR . . . . .	169	250	589	100	25	1,530
GEAR: NUMBER . . . . .	170	365	4,320	8,200	150	-
LENGTH, YARDS . . . . .	22,000	192,000	-	-	-	-
SQUARE YARDS . . . . .	89,000	1,155,000	-	-	-	-
HOOKS . . . . .	-	-	26,000	668,000	-	-

1/ INCLUDES HAUL SEINES.

## SOUTHEASTERN REGION OF ALASKA

### CATCH BY GEAR, 1963

SPECIES	PURSE SEINES 1/		BEAM TRAWLS		OTTER TRAWLS		FLOATING TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
HERRING, SEA . . . . .	31,213,700	\$468,200	-	-	-	-	-	-
ROCKFISHES 2/ . . . . .	-	-	-	-	30,500	\$2,140	-	-
SALMON:								
CHINOOK OR KING . . . . .	74,300	11,970	-	-	-	-	-	-
CHUM OR KETA . . . . .	9,912,300	926,180	-	-	-	-	16,800	\$1,720
PINK . . . . .	56,038,300	7,833,200	-	-	-	-	363,800	37,340
RED OR SOCKEYE . . . . .	2,297,000	634,490	-	-	-	-	19,800	6,250
SILVER OR COHO . . . . .	2,693,200	255,720	-	-	-	-	14,900	1,320
TOTAL SALMON . . . . .	81,015,100	9,663,560	-	-	-	-	417,300	46,630
TROUT, STEELHEAD . . . . .	1,100	220	-	-	-	-	-	-
SHRIMP . . . . .	-	-	3,110,300	\$124,410	-	-	-	-
TOTAL . . . . .	112,229,900	10,131,960	3,110,300	124,410	30,500	2,140	417,300	46,630

SPECIES	POTS		GILL NETS			
	POUNDS	VALUE	ANCHOR, SET OR STAKE		DRIFT	
			POUNDS	VALUE	POUNDS	VALUE
SALMON:						
CHINOOK OR KING . . . . .	-	-	14,200	\$5,100	98,400	\$34,830
CHUM OR KETA . . . . .	-	-	131,200	8,890	2,533,600	226,510
PINK . . . . .	-	-	319,600	20,110	2,661,300	315,290
RED OR SOCKEYE . . . . .	-	-	300,500	63,920	1,276,400	366,160
SILVER OR COHO . . . . .	-	-	1,357,600	122,690	1,063,600	151,930
TOTAL SALMON . . . . .	-	-	2,123,300	220,910	7,833,500	1,094,740

SEE FOOTNOTES AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# PACIFIC COAST FISHERIES

283

## SOUTHEASTERN REGION OF ALASKA

### CATCH BY GEAR, 1963 - Continued

SPECIES	POTS		GILL NETS			
			ANCHOR, SET OR STAKE		DRIFT	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
TROUT, STEELHEAD. . . . .	-	-	-	-	18,600	\$3,720
CRABS:						
DUNGENESS . . . . .	4,679,700	\$561,560	-	-	-	-
KING. . . . .	1,112,200	111,220	-	-	-	-
TOTAL . . . . .	5,791,900	672,780	2,123,300	\$220,910	7,852,100	1,098,460
SPECIES	LINES				BY HAND	
	TROLL		LONG OR SET AND HAND			
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
HALIBUT . . . . .	-	-	21,986,200	\$3,136,270	-	-
ROCKFISHES <sup>2/</sup> . . . . .	-	-	57,800	4,050	-	-
SABLEFISH . . . . .	-	-	1,357,800	125,340	-	-
SALMON:						
CHINOOK OR KING . . . . .	4,310,700	\$2,156,640	-	-	-	-
CHUM OR KETA. . . . .	53,700	9,660	-	-	-	-
PINK. . . . .	471,600	70,740	-	-	-	-
RED OR SOCKEYE. . . . .	12,100	3,510	-	-	-	-
SILVER OR COHO. . . . .	6,175,100	1,577,730	-	-	-	-
TOTAL SALMON. . . . .	11,023,200	3,818,280	-	-	-	-
KELP (WITH HERRING EGGS). . . . .	-	-	-	-	199,100	\$15,920
TOTAL . . . . .	11,023,200	3,818,280	23,401,800	3,265,660	199,100	15,920

1/ INCLUDES HAUL SEINES.

2/ INCLUDES LINGCOD.

## CENTRAL REGION OF ALASKA

### OPERATING UNITS BY GEAR, 1963

ITEM	PURSE SEINES, SALMON <sup>1/</sup>	OTTER TRAWLS, SHRIMP	POTS		GILL NETS, SALMON ANCHOR, SET OR STAKE
			CRAB		
			DUNGENESS	KING	NUMBER
FISHERMEN:					
ON VESSELS. . . . .	1,521	46	184	958	8
ON BOATS AND SHORE, REGULAR. . . . .	1,600	-	82	54	1,000
TOTAL . . . . .	3,121	46	266	1,012	1,008
VESSELS, MOTOR:					
GROSS TONNAGE . . . . .	498	10	64	256	3
BOATS, MOTOR. . . . .	7,409	775	1,506	13,352	52
GEAR:	1,642	-	41	27	677
NUMBER. . . . .	1,070	10	8,000	13,000	680
LENGTH, YARDS . . . . .	382,000	-	-	-	158,000
SQUARE YARDS. . . . .	-	-	-	-	562,000
YARDS AT MOUTH. . . . .	-	151	-	-	-
ITEM	GILL NETS, SALMON-CONTINUED	LINES		SHOVELS, CLAM	TOTAL, EXCLUSIVE OF DUPLICATION
		TROLL, SALMON	LONG OR SET AND HAND		
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS. . . . .	377	23	499	-	3,075
ON BOATS AND SHORE, REGULAR. . . . .	1,400	8	150	202	4,100
TOTAL . . . . .	1,777	31	649	202	7,175
VESSELS, MOTOR:					
GROSS TONNAGE . . . . .	188	13	100	-	932
BOATS, MOTOR. . . . .	2,030	317	4,161	-	25,542
GEAR:	982	5	75	-	3,350
NUMBER. . . . .	1,180	72	4,100	202	-
LENGTH, YARDS . . . . .	354,000	-	-	-	-
SQUARE YARDS. . . . .	1,537,000	-	-	-	-
HOOKS . . . . .	-	430	333,000	-	-

1/ INCLUDES HAUL SEINES.

## PACIFIC COAST FISHERIES

## CENTRAL REGION OF ALASKA - CATCH BY GEAR, 1963

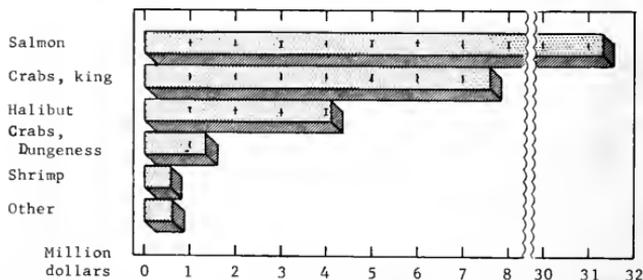
SPECIES	PURSE SEINES 1/		OTTER TRAWLS		POTS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
HERRING, SEA. . . . .	2,500	\$40	-	-	-	-
SALMON:						
CHINOOK OR KING . . . . .	21,300	13,950	-	-	-	-
CHUM OR KETA. . . . .	15,228,700	1,266,870	-	-	-	-
PINK. . . . .	53,168,000	5,974,360	-	-	-	-
RED OR SOCKEYE. . . . .	5,083,500	1,028,560	-	-	-	-
SILVER OR COHO. . . . .	935,200	122,750	-	-	-	-
TOTAL SALMON. . . . .	74,436,700	8,406,490	-	-	-	-
CRAB:						
DUNGENESS . . . . .	-	-	-	-	7,404,400	\$795,980
KING. . . . .	-	-	-	-	50,786,600	5,080,410
SHRIMP. . . . .	-	-	12,016,600	\$480,670	-	-
TOTAL . . . . .	74,439,200	8,406,530	12,016,600	480,670	58,191,000	5,876,390

SPECIES	GILL NETS				LINES	
	ANCHOR, SET OR STAKE		DRIFT		TROLL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
SALMON:						
CHINOOK OR KING . . . . .	331,700	\$85,600	310,900	\$72,060	29,300	\$14,660
CHUM OR KETA. . . . .	907,500	72,920	2,629,300	216,700	500	100
PINK. . . . .	1,390,400	170,060	37,200	4,430	4,000	600
RED OR SOCKEYE. . . . .	3,016,400	762,190	5,651,100	1,429,990	-	-
SILVER OR COHO. . . . .	1,066,800	146,270	3,268,600	484,360	154,300	39,420
TOTAL SALMON. . . . .	6,732,800	1,237,040	11,697,100	2,207,540	188,100	54,780
TROUT:						
DOLLY VARDEN. . . . .	-	-	4,800	960	-	-
LAKE TROUT. . . . .	-	-	2,200	440	-	-
WHITEFISH . . . . .	-	-	600	130	-	-
TOTAL . . . . .	6,732,800	1,237,040	11,904,700	2,209,070	188,100	54,780

SPECIES	LINES - CONTINUED		SHOVELS	
	LONG OR SET AND HAND			
	POUNDS	VALUE	POUNDS	VALUE
HALIBUT . . . . .	7,900,200	\$1,024,720	-	-
ROCKFISHES 2/ . . . . .	2,200	150	-	-
SABLEFISH . . . . .	1,700	200	-	-
CLAMS, RAZOR. . . . .	-	-	143,600	\$51,950
TOTAL . . . . .	7,904,100	1,025,070	143,600	51,950

1/ INCLUDES HAUL SEINES.  
2/ INCLUDES LINGCOD.

## VALUE OF ALASKA CATCH, 1963



# PACIFIC COAST FISHERIES

285

## WESTERN REGION OF ALASKA OPERATING UNITS BY GEAR, 1963

ITEM	PURSE SEINES, 1/ SALMON	POTS, CRAB, KING	GILL NETS, SALMON		FISH WHEELS	TOTAL, EXCLUSIVE OF DUPLI- CATION
			ANCHOR, SET OR STAKE	DRIFT		
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN: ON VESSELS . . . . .	69	131	-	312	-	510
ON BOATS AND SHORE, REGULAR . . . . .	50	14	1,500	3,200	6	4,670
<b>TOTAL . . . . .</b>	<b>119</b>	<b>145</b>	<b>1,500</b>	<b>3,512</b>	<b>6</b>	<b>5,180</b>
VESSELS, MOTOR . . . . .	20	25	-	156	7	200
GROSS TONNAGE . . . . .	446	2,702	-	1,305	-	4,445
BOATS, MOTOR . . . . .	52	7	1,370	1,729	-	3,100
GEAR:						
NUMBER . . . . .	36	3,200	1,370	1,895	6	-
LENGTH, YARDS . . . . .	14,000	-	205,000	510,000	-	-
SQUARE YARDS . . . . .	-	-	980,000	1,782,000	-	-

1/ INCLUDES HAUL SEINES.

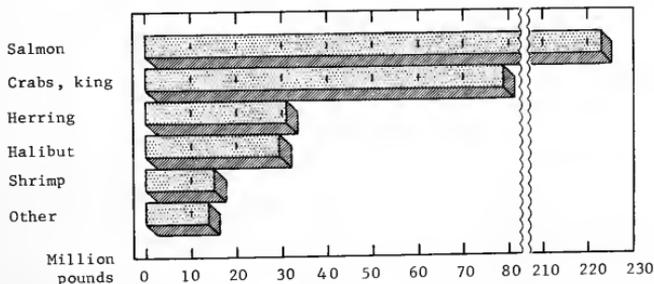
## WESTERN REGION OF ALASKA - CATCH BY GEAR, 1963

SPECIES	PURSE SEINES 1/		POTS	
	POUNDS	VALUE	POUNDS	VALUE
SALMON:				
CHINOOK OR KING . . . . .	400	\$100	-	-
CHUM OR KETA . . . . .	311,900	21,770	-	-
PINK . . . . .	311,500	31,800	-	-
RED OR SOCKEYE . . . . .	92,300	18,040	-	-
SILVER OR COHO . . . . .	1,500	190	-	-
TOTAL SALMON . . . . .	<b>717,600</b>	<b>71,900</b>	-	-
CRABS, KING . . . . .	-	-	26,841,500	\$2,415,730
<b>TOTAL . . . . .</b>	<b>717,600</b>	<b>71,900</b>	<b>26,841,500</b>	<b>2,415,730</b>

SPECIES	GILL NETS				FISH WHEELS	
	ANCHOR, SET OR STAKE		DRIFT		POUNDS	VALUE
	POUNDS	VALUE	POUNDS	VALUE		
SALMON:						
CHINOOK OR KING . . . . .	2,212,600	\$386,240	1,739,000	\$342,480	17,800	\$3,010
CHUM OR KETA . . . . .	1,799,200	106,470	2,221,700	186,760	-	-
PINK . . . . .	149,000	14,210	2,700	240	-	-
RED OR SOCKEYE . . . . .	2,588,000	487,790	15,118,500	2,842,940	-	-
SILVER OR COHO . . . . .	478,300	63,720	351,700	42,520	-	-
TOTAL SALMON . . . . .	<b>7,227,100</b>	<b>1,058,430</b>	<b>19,433,600</b>	<b>3,414,940</b>	<b>17,800</b>	<b>3,010</b>

1/ INCLUDES HAUL SEINES.

### ALASKA CATCH, 1963



# PACIFIC COAST FISHERIES ALASKA

## NUMBER OF SALMON CAUGHT, BY REGIONS, 1963

SPECIES	SOUTHEASTERN ALASKA		CENTRAL ALASKA	
	NUMBER	VALUE	NUMBER	VALUE
CHINOOK OR KING. . . . .	258,482	\$2,208,540	34,621	\$186,270
CHUM OR KETA . . . . .	1,478,744	1,174,960	2,350,340	1,556,590
PINK . . . . .	19,145,299	8,276,680	14,976,583	6,149,450
RED OR SOCKEYE . . . . .	677,921	1,074,350	2,436,594	3,220,740
SILVER OR COHO . . . . .	1,274,508	2,109,590	627,226	792,800
TOTAL. . . . .	22,834,954	14,644,120	20,425,564	11,905,850

SPECIES	WESTERN ALASKA		TOTAL	
	NUMBER	VALUE	NUMBER	VALUE
CHINOOK OR KING. . . . .	206,123	\$731,830	501,425	\$3,126,640
CHUM OR KETA . . . . .	635,212	315,000	4,464,296	3,046,550
PINK . . . . .	153,771	46,250	34,275,653	14,472,360
RED OR SOCKEYE . . . . .	3,100,932	3,348,770	6,215,447	7,643,860
SILVER OR COHO . . . . .	120,556	106,430	2,022,292	3,008,620
TOTAL. . . . .	4,216,596	4,546,280	47,479,114	31,298,250

NOTE:--THE SALMON CATCH IS REPORTED IN NUMBERS OF FISH. THE ROUND WEIGHTS USED IN CATCH TABLES WERE OBTAINED BY MULTIPLYING NUMBER OF FISH BY THEIR AVERAGE WEIGHT.

## AVERAGE WEIGHTS OF SALMON, BY REGIONS, 1963, 1962, AND 1961

SPECIES	1963			ALL REGIONS		
	SOUTHEASTERN	CENTRAL	WESTERN	1963	1962	1961
	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS	POUNDS
CHINOOK OR KING. . . . .	17.4	19.9	19.1	18.3	19.0	17.0
CHUM OR KETA . . . . .	8.6	8.0	6.8	6.0	8.1	8.2
PINK . . . . .	3.7	3.6	3.0	3.6	3.3	4.8
RED OR SOCKEYE . . . . .	5.8	5.6	5.7	5.7	5.7	5.9
SILVER OR COHO . . . . .	8.9	6.7	6.9	6.7	7.5	6.7

## WHOLESALE AND MANUFACTURING, 1963

ITEM	SOUTHEASTERN ALASKA	CENTRAL ALASKA	WESTERN ALASKA	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER
WHOLESALE AND MANUFACTURING, PERSONS ENGAGED . . . . .	2,332	3,535	2,107	7,907
ESTABLISHMENTS:				
HANDLING FRESH AND FROZEN FISH AND SHELLFISH. . . . .	26	35	10	66
CURING FISH. . . . .	25	19	15	59
CANNING FISH AND SHELLFISH MANUFACTURING INDUSTRIAL PRODUCTS. . . . .	29	51	21	100
	1	-	-	1
TOTAL ESTABLISHMENTS, (EXCLUSIVE OF DUPLICATION)	54	69	43	181

# PACIFIC COAST FISHERIES

287

## WASHINGTON CATCH BY DISTRICTS, 1963

SPECIES	PUGET SOUND		COASTAL		COLUMBIA RIVER	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
FISH						
CARP . . . . .	-	-	-	-	1,173,600	\$7,042
COD . . . . .	6,300,000	\$346,500	1,900	\$98	-	-
FLOUNDERS:						
"SOLE" . . . . .	11,986,600	891,758	231,100	19,188	-	-
OTHER . . . . .	1,020,200	52,315	19,500	976	26,000	598
HAKE . . . . .	999,900	8,019	-	-	-	-
HALIBUT . . . . .	15,395,100	2,675,746	20,600	2,474	300	41
HERRING, SEA . . . . .	6,971,900	160,352	-	-	-	-
LINGCOD . . . . .	2,937,600	170,624	159,000	7,303	2,300	101
OCEAN PERCH . . . . .	15,565,100	809,387	1,900	82	-	-
PERCH . . . . .	149,900	15,756	-	-	-	-
RATFISH . . . . .	1,094,800	6,981	-	-	-	-
ROCKFISHES . . . . .	7,409,100	389,785	-	-	-	-
SABLEFISH . . . . .	2,726,200	375,350	571,500	25,042	47,800	1,386
			17,900	1,289	-	-
SALMON:						
CHINOOK OR KING . . . . .	2,733,900	963,140	2,208,800	972,797	1,467,700	511,383
CHUM OR KETA . . . . .	2,530,600	546,749	245,500	31,154	6,300	614
PINK . . . . .	30,318,600	3,666,420	1,141,800	147,360	1,100	138
RED OR SOCKEYE . . . . .	7,577,700	2,508,236	341,400	167,286	19,200	6,597
SILVER OR COHO . . . . .	3,076,100	817,819	1,937,200	525,771	1,086,300	281,187
TOTAL SALMON . . . . .	46,536,900	8,502,364	5,675,000	1,844,378	2,580,600	800,119
SHAD . . . . .	300	15	1,100	80	191,300	8,563
SHARKS:						
GRAYFISH . . . . .	867,100	4,335	-	-	-	-
SOUFFIN . . . . .	1,900	62	-	-	-	-
TOTAL SHARKS . . . . .	869,000	4,397	-	-	-	-
SKATES . . . . .	482,400	5,990	-	-	-	-
SMELT:						
EULACHON . . . . .	2,300	1,397	-	-	904,000	63,279
SURF OR SILVER . . . . .	159,900	17,300	70,200	4,846	-	-
STEELHEAD TROUT . . . . .	102,400	35,800	257,100	89,979	175,900	46,405
STURGEON . . . . .	9,600	1,085	124,600	13,072	77,200	12,119
SUCKERS . . . . .	-	-	-	-	13,300	200
TOMCOD . . . . .	4,800	92	-	-	-	-
TUNA, ALBACORE . . . . .	35,700	5,458	185,400	27,776	305,800	51,684
TOTAL FISH . . . . .	120,157,700	14,470,541	7,536,800	2,036,583	5,498,100	991,537
SHELLFISH						
CRABS, DUNGENESS 1/ . . . . .	1,529,300	235,508	4,675,600	1,057,478	469,500	96,724
CRAWFISH, FRESH-WATER . . . . .	-	-	-	-	1,100	208
SHRIMP:						
BAY . . . . .	46,000	23,678	-	-	-	-
OCEAN . . . . .	-	-	956,100	81,269	-	-
CLAMS:						
HARD: 2/ . . . . .						
BUTTER . . . . .	51,100	11,648	100	62	-	-
LITTLE NECK . . . . .	214,400	107,194	-	-	-	-
MANILA . . . . .	105,000	55,863	14,600	6,893	-	-
RAZOR 3/ . . . . .	-	-	223,200	110,026	-	-
TOTAL CLAMS . . . . .	370,500	174,705	237,900	116,981	-	-
OCTOPUS . . . . .	74,500	8,672	-	-	-	-
OYSTERS, MARKET: 4/ . . . . .						
PACIFIC . . . . .	3,422,400	910,350	4,680,200	1,131,401	-	-
WESTERN . . . . .	31,000	100,860	-	-	-	-
TOTAL OYSTERS . . . . .	3,453,400	1,011,210	4,680,200	1,131,401	-	-
SQUID . . . . .	600	45	-	-	-	-
TOTAL SHELLFISH . . . . .	5,474,300	1,453,818	10,549,800	2,387,129	470,600	96,932
GRAND TOTAL . . . . .	125,632,000	15,924,359	18,086,600	4,423,712	5,968,700	1,088,469

1/ BASED ON AN AVERAGE YIELD OF 22 POUNDS PER DOZEN IN THE PUGET SOUND DISTRICT AND 24 POUNDS PER DOZEN IN THE COASTAL AND COLUMBIA RIVER DISTRICTS.

2/ BASED ON A YIELD OF 25 PERCENT MEATS.

3/ BASED ON A YIELD OF 42 PERCENT MEATS.

4/ BASED ON A YIELD OF 10 PERCENT MEATS IN THE PUGET SOUND DISTRICT AND 12 PERCENT MEATS IN THE COASTAL DISTRICT.

# PACIFIC COAST FISHERIES

## PUGET SOUND DISTRICT OF WASHINGTON

### OPERATING UNITS, 1963

ITEM	HAUL SEINES 1/	PURSE SEINES		BEAM TRAWLS	OTTER TRAWLS	BRUSH WEIRS
		HERRING	SALMON			
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS . . . . .	33	52	2,763	5	398	-
ON BOATS AND SHORE . . . . .	215	-	4	2	-	6
TOTAL . . . . .	248	52	2,767	7	398	6
VESSELS, MOTOR . . . . .	11	7	405	2	108	-
GROSS TONNAGE . . . . .	103	266	15,463	35	5,268	-
BOATS:						
MOTOR . . . . .	60	7	407	1	-	1
OTHER . . . . .	25	-	-	-	-	-
GEAR:						
NUMBER . . . . .	96	7	406	3	108	1
LENGTH, YARDS . . . . .	7,325	2,975	216,945	-	-	-
YARDS AT MOUTH . . . . .	-	-	-	23	2,368	-

ITEM	POUND NETS 2/	POTS			GILL NETS		DRIFT, SALMON
		CRAB	OCTOPUS	SHRIMP	ANCHOR SET OR STAKE		
					SALMON 2/	SHARK	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN:							
ON VESSELS . . . . .	-	46	-	1	-	-	267
ON BOATS AND SHORE . . . . .	6	95	6	5	143	4	725
TOTAL . . . . .	6	143	6	6	143	4	992
VESSELS, MOTOR . . . . .	-	23	-	1	-	-	209
GROSS TONNAGE . . . . .	-	514	-	10	-	-	2,287
BOATS:							
MOTOR . . . . .	2	66	5	5	113	4	658
OTHER . . . . .	-	1	-	-	30	-	3
GEAR:							
NUMBER . . . . .	2	6,255	175	190	143	4	870
SQUARE YARDS . . . . .	-	-	-	-	36,000	4,000	5,254,000

ITEM	HAND	LINES				LONG OR SET WITH HOOKS	DIP NETS	REEF NETS
		TROLL						
		SALMON	ALBACORE	LINGCOD				
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER		
FISHERMEN:								
ON VESSELS . . . . .	-	472	26	22	569	12	-	
ON BOATS AND SHORE . . . . .	10	370	-	17	2	17	332	
TOTAL . . . . .	10	842	26	39	571	29	332	
VESSELS, MOTOR . . . . .	-	326	9	22	96	4	-	
GROSS TONNAGE . . . . .	-	5,103	408	264	4,715	35	-	
BOATS:								
MOTOR . . . . .	10	311	-	17	1	7	-	
OTHER . . . . .	-	-	-	-	-	-	166	
GEAR:								
NUMBER . . . . .	20	2,900	106	76	4,081	29	83	
HOOKS . . . . .	40	13,170	106	156	365,550	-	-	

ITEM	CLAM	DREDGES		SHOVELS	BY HAND, OYSTER	TOTAL, EXCLUSIVE OF DUPLICATION
		OYSTER				
		COMMON	SUCTION			
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN:						
ON VESSELS . . . . .	5	19	3	-	-	4,284
ON BOATS AND SHORE . . . . .	4	6	-	266	150	2,305
TOTAL . . . . .	9	27	3	266	150	6,590
VESSELS, MOTOR . . . . .	2	7	1	-	-	1,095
GROSS TONNAGE . . . . .	22	115	41	-	-	30,431
BOATS:						
MOTOR . . . . .	2	4	-	-	35	1,647
OTHER . . . . .	-	-	-	-	15	239
GEAR:						
NUMBER . . . . .	4	22	1	258	-	-
YARDS AT MOUTH . . . . .	4	44	-	-	-	-

1/ INCLUDES 20 HAUL SEINES OPERATED ON INDIAN RESERVATIONS.

2/ FISHERD ONLY ON INDIAN RESERVATIONS.

# PACIFIC COAST FISHERIES

289

## PUGET SOUND DISTRICT OF WASHINGTON - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES <u>1/</u>		PURSE SEINES		BEAM TRAWLS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
FLOUNDERS:						
"SOLE" . . . . .	200	\$15	-	-	-	-
OTHER . . . . .	600	313	-	-	-	-
HERRING, SEA. . . . .	284,500	56,900	6,552,400	\$75,252	-	-
LINGCOD . . . . .	1,300	65	300	14	-	-
PERCH . . . . .	139,400	14,631	-	-	-	-
ROCKFISHES. . . . .	7,100	356	-	-	-	-
SALMON:						
CHINOOK OR KING . . . . .	46,800	12,390	647,400	148,899	-	-
CHUM OR KETA. . . . .	3,000	750	1,220,800	244,150	-	-
PINK. . . . .	1,475,400	177,042	19,915,400	2,389,843	-	-
RED OR SOCKEYE. . . . .	100	33	4,917,400	1,627,700	-	-
SILVER OR COHO. . . . .	29,400	7,047	600,700	147,164	-	-
SMELT:						
EULACHON. . . . .	2,300	1,397	-	-	-	-
SURF OR SILVER. . . . .	155,900	17,300	-	-	-	-
STURGEON. . . . .	100	12	-	-	-	-
SHRIMP, BAY . . . . .	-	-	-	-	12,800	\$4,560
OCTOPUS . . . . .	1,500	195	-	-	-	-
TOTAL. . . . .	2,149,600	288,446	33,854,400	4,633,022	12,800	4,560

SPECIES	OTTER TRAWLS		BRUSH WEIRS		POUND NETS <u>2/</u>	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
COD . . . . .	6,300,000	\$346,500	-	-	-	-
FLOUNDERS:						
"SOLE" . . . . .	11,987,800	891,678	-	-	-	-
OTHER . . . . .	1,019,600	52,002	-	-	-	-
HAKE. . . . .	399,900	8,019	-	-	-	-
HERRING, SEA. . . . .	-	-	20,000	\$3,993	-	-
LINGCOD . . . . .	2,440,500	134,230	-	-	-	-
OCEAN PERCH . . . . .	15,565,100	809,387	-	-	-	-
PERCH . . . . .	10,500	1,125	-	-	-	-
RATFISH . . . . .	1,094,800	6,981	-	-	-	-
ROCKFISHES. . . . .	7,291,600	379,166	-	-	-	-
SABLEFISH . . . . .	578,300	60,875	-	-	-	-
SALMON:						
CHINOOK OR KING . . . . .	-	-	-	-	48,800	\$15,131
CHUM OR KETA. . . . .	-	-	-	-	2,400	360
PINK. . . . .	-	-	-	-	475,300	57,030
RED OR SOCKEYE. . . . .	-	-	-	-	18,100	5,985
SILVER OR COHO. . . . .	-	-	-	-	60,600	15,144
SHAD. . . . .	300	15	-	-	-	-
SHARKS:						
GRAYFISH. . . . .	867,100	4,335	-	-	-	-
SOUPFIN <u>3/</u> . . . . .	1,900	62	-	-	-	-
SKATES. . . . .	482,400	5,990	-	-	-	-
STURGEON. . . . .	9,300	1,031	-	-	-	-
TOMCOD. . . . .	4,800	92	-	-	-	-
OCTOPUS . . . . .	45,600	4,922	-	-	-	-
SQUID . . . . .	600	45	-	-	-	-
TOTAL. . . . .	48,100,100	2,706,375	20,000	3,993	605,200	93,650

SPECIES	POTS		GILL NETS			
			ANCHOR, SET OR STAKE			
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
LINGCOD . . . . .	-	-	-	-	4,400	\$221
ROCKFISHES. . . . .	-	-	-	-	2,400	120
SALMON:						
CHINOOK OR KING . . . . .	-	-	330,400	\$84,245	-	-
CHUM OR KEAT. . . . .	-	-	412,300	57,720	-	-
PINK. . . . .	-	-	658,900	79,063	-	-
RED OR SOCKEYE. . . . .	-	-	1,900	620	-	-
SILVER OR COHO. . . . .	-	-	220,600	57,366	-	-
STEELHEAD TROUT <u>2/</u> . . . . .	-	-	97,800	34,200	-	-
STURGEON. . . . .	-	-	100	11	-	-
CRABS, DUNGNESS <u>4/</u> . . . . .	1,529,300	\$235,508	-	-	-	-
SHRIMP, BAY . . . . .	33,200	19,118	-	-	-	-
OCTOPUS . . . . .	26,700	3,469	-	-	-	-
TOTAL. . . . .	1,589,200	258,095	1,722,000	313,225	6,800	341

SEE FOOTNOTES AT END OF TABLE.

# PACIFIC COAST FISHERIES

## PUGET SOUND DISTRICT OF WASHINGTON

### CATCH BY GEAR, 1963 - Continued

SPECIES	GILL NETS - CONTINUED		LINES			
	DRIFT, SALMON		HAND		TROLL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
FLOUNDERS, "SOLE" . . . . .	-	-	-	-	100	\$10
HALIBUT . . . . .	-	-	1,300	\$158	179,400	24,281
LINGCOD . . . . .	-	-	23,500	2,135	442,000	36,976
ROCKFISHES . . . . .	100	\$5	9,200	460	29,400	1,178
SABLEFISH . . . . .	-	-	-	-	900	63
SALMON:						
CHINOOK OR KING . . . . .	557,900	178,537	-	-	1,076,200	517,656
CHUM OR KETA . . . . .	1,178,100	241,506	-	-	1,400	243
PINK . . . . .	5,436,100	652,567	-	-	1,695,000	255,616
RED OR SOCKEYE . . . . .	2,156,200	713,705	-	-	2,700	890
SILVER OR COHO . . . . .	742,900	196,680	-	-	1,395,000	337,490
STEELHEAD, TROUT 2/ . . . . .	4,600	1,600	-	-	-	-
SURGEON . . . . .	100	11	-	-	-	-
TUNA, ALBACORE . . . . .	-	-	-	-	35,700	5,458
OCTOPUS . . . . .	-	-	700	86	-	-
TOTAL . . . . .	10,078,000	1,984,611	34,700	2,639	5,057,800	1,226,063

SPECIES	LINES - CONTINUED		DIP NETS		REEF NETS	
	LONG OR SET		POUNDS	VALUE	POUNDS	VALUE
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
FLOUNDERS, "SOLE" . . . . .	500	\$55	-	-	-	-
HALIBUT . . . . .	15,214,400	2,651,307	-	-	-	-
HERRING, SEA . . . . .	-	-	115,000	\$24,207	-	-
LINGCOD . . . . .	25,600	983	-	-	-	-
ROCKFISHES . . . . .	69,300	2,470	-	-	-	-
SABLEFISH . . . . .	2,147,000	314,612	-	-	-	-
SALMON:						
CHINOOK OR KING . . . . .	-	-	-	-	26,400	\$6,060
CHUM OR KETA . . . . .	-	-	-	-	10,600	2,020
PINK . . . . .	-	-	-	-	460,500	55,259
RED OR SOCKEYE . . . . .	-	-	-	-	481,300	159,303
SILVER OR COHO . . . . .	-	-	-	-	26,900	6,728
TOTAL . . . . .	17,456,800	2,969,427	115,000	24,207	1,005,700	229,390

SPECIES	DREDGES AND BY HAND <sup>1</sup>		SHOVELS	
	POUNDS	VALUE	POUNDS	VALUE
	POUNDS	VALUE	POUNDS	VALUE
CLAMS, HARD: 5/				
BUTTER . . . . .	27,800	\$6,337	23,300	\$5,311
LITTLENECK . . . . .	9,300	4,647	205,100	102,547
MANILA . . . . .	-	-	105,000	55,863
OYSTERS, MARKET 6/				
PACIFIC . . . . .	3,422,400	910,350	-	-
WESTERN . . . . .	31,000	100,860	-	-
TOTAL . . . . .	3,490,500	1,022,194	333,400	163,721

<sup>1</sup> THE SALMON CAUGHT BY HAUL SEINES WERE TAKEN ON INDIAN RESERVATIONS.

<sup>2</sup> FISHERY ONLY ON INDIAN RESERVATIONS.

<sup>3</sup> THE POUNDAGE SHOWN INCLUDES THE TOTAL VOLUME OF SHARKS CAUGHT. THE CARCASSES WERE DISCARDED AT SEA.

<sup>4</sup> BASED ON AN AVERAGE OF 22 POUNDS PER DOZEN.

<sup>5</sup> BASED ON A YIELD OF 25 PERCENT MEATS.

<sup>6</sup> BASED ON A YIELD OF 10 PERCENT MEATS FOR PACIFIC OYSTERS AND 18 PERCENT FOR WESTERN OR NATIVE OYSTERS.

NOTE:--THE POUNDAGE AND VALUE OF THE CATCH SHOWN ABOVE INCLUDE THE FOLLOWING ITEMS: HALIBUT LIVERS, 241 POUNDS, VALUE \$84; LINGCOD LIVERS, 2,060 POUNDS, VALUE \$232; SABLEFISH LIVERS, 153 POUNDS, VALUE \$37; AND SOUFFIN SHARK LIVERS 233 POUNDS, VALUE \$62.

# PACIFIC COAST FISHERIES

291

## COASTAL DISTRICT OF WASHINGTON - OPERATING UNITS, 1963

ITEM	HAUL SEINES 1/	OTTER TRAWLS	
		FISH	SHRIMP
	NUMBER	NUMBER	NUMBER
FISHERMEN:			
ON VESSELS . . . . .	-	21	15
ON BOATS AND SHORE . . . . .	20	-	-
TOTAL . . . . .	20	21	15
VESSELS, MOTOR . . . . .	-	6	5
GROSS TONNAGE . . . . .	-	274	192
BOATS:			
MOTOR . . . . .	6	-	-
OTHER . . . . .	2	-	-
GEAR:			
NUMBER . . . . .	6	6	5
LENGTH, YARDS . . . . .	600	-	-
YARDS AT MOUTH . . . . .	-	135	95

ITEM	POTS, CRAB	GILL NETS		LINES
		ANCHOR, SET OR STAKE 1/	DRIFT	HAND
	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:				
ON VESSELS . . . . .	158	-	15	-
ON BOATS AND SHORE . . . . .	45	135	220	6
TOTAL . . . . .	203	135	235	6
VESSELS, MOTOR . . . . .	63	-	11	-
GROSS TONNAGE . . . . .	1,378	-	115	-
BOATS:				
MOTOR . . . . .	25	110	202	3
OTHER . . . . .	-	20	15	3
GEAR:				
NUMBER . . . . .	15,540	130	228	12
SQUARE YARDS . . . . .	-	29,000	464,250	-
HOOKS . . . . .	-	-	-	24

ITEM	LINES - CONTINUED			DIP NETS 2/
	TROLL		LONG OR SET WITH HOOKS	
	SALMON	ALBACORE	STURGEON	
	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:				
ON VESSELS . . . . .	575	82	1	-
ON BOATS AND SHORE . . . . .	280	2	5	21
TOTAL . . . . .	855	84	6	21
VESSELS, MOTOR . . . . .	387	43	1	-
GROSS TONNAGE . . . . .	5,851	789	7	-
BOATS:				
MOTOR . . . . .	237	1	3	5
OTHER . . . . .	-	-	-	2
GEAR:				
NUMBER . . . . .	3,072	422	12	21
HOOKS . . . . .	14,580	422	6,000	-

ITEM	DREDGES, OYSTER	SHOVELS, CLAM	BY HAND, OYSTER	TOTAL, EXCLUSIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:				
ON VESSELS . . . . .	62	-	-	778
ON BOATS AND SHORE . . . . .	8	1,076	160	1,944
TOTAL . . . . .	70	1,076	160	2,722
VESSELS, MOTOR . . . . .	22	-	-	455
GROSS TONNAGE . . . . .	467	-	-	7,520
BOATS:				
MOTOR . . . . .	4	-	-	587
OTHER . . . . .	-	-	-	42
GEAR:				
NUMBER . . . . .	52	1,076	-	-
YARDS AT MOUTH . . . . .	104	-	-	-

1/ OPERATED ON INDIAN RESERVATIONS.

2/ INCLUDES 20 DIP NETS OPERATED ON INDIAN RESERVATIONS.

## PACIFIC COAST FISHERIES

## COASTAL DISTRICT OF WASHINGTON - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES <sup>1/</sup>		OTTER TRAWLS		POTS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
COD	-	-	1,900	\$96	-	-
FLOUNDER: "SOLE"	-	-	231,100	19,188	-	-
OTHER	-	-	19,500	976	-	-
LINGCOD	-	-	59,200	2,780	-	-
OCEAN PERCH	-	-	1,900	82	-	-
ROCKFISHES	-	-	439,500	19,768	-	-
SABLEFISH	-	-	17,900	1,289	-	-
SMELT, SURF OR SILVER	53,100	\$3,676	-	-	-	-
CRABS, DUNGENESS <sup>2/</sup>	-	-	-	-	4,675,600	\$1,057,478
SHRIMP, OCEAN	-	-	956,100	81,269	-	-
TOTAL	53,100	3,676	1,727,100	128,450	4,675,600	1,057,478

SPECIES	GILL NETS				LINES	
	ANCHOR, SET OR STAKE <sup>1/</sup>		DRIFT		HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
LINGCOD	-	-	-	-	3,100	\$128
ROCKFISHES	-	-	-	-	200	10
SALMON:						
CHINOOK OR KING	308,100	\$86,271	337,800	\$106,485	-	-
CHUM OR KETA	30,800	4,007	214,700	27,094	-	-
RED OR SOCKEYE	341,400	167,256	-	-	-	-
SILVER OR COHO	193,700	55,922	143,300	43,152	-	-
SHAD	1,100	80	-	-	-	-
STEELHEAD TROUT <sup>1/</sup>	257,100	89,979	-	-	-	-
STURGEON	200	35	114,200	11,092	-	-
TOTAL	1,138,400	403,580	810,000	187,823	3,300	138

SPECIES	LINES - CONTINUED				DIP NETS <sup>1/</sup>	
	TROLL		LONG OR SET WITH HOOKS		POUNDS	VALUE
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
HALIBUT	20,600	\$2,474	-	-	-	-
LINGCOD	96,700	4,395	-	-	-	-
ROCKFISHES	131,800	5,264	-	-	-	-
SALMON:						
CHINOOK OR KING	1,562,900	780,041	-	-	-	-
CHUM OR KETA	300	53	-	-	-	-
PINK	1,141,800	147,360	-	-	-	-
SILVER OR COHO	1,594,200	426,707	-	-	-	-
SMELT, SURF OR SILVER	-	-	-	-	17,100	\$1,170
STURGEON	-	-	10,200	\$1,945	-	-
TUNA, ALBACORE	185,400	27,776	-	-	-	-
TOTAL	4,733,700	1,394,070	10,200	1,945	17,100	1,170

SPECIES	DREDGES AND BY HAND		SHOVELS	
	POUNDS	VALUE	POUNDS	VALUE
CLAMS:				
BUTTER <sup>3/</sup>	-	-	100	\$62
MANILA <sup>3/</sup>	-	-	14,600	6,893
RAZOR <sup>4/</sup>	-	-	223,200	110,026
OYSTERS, MARKET, PACIFIC <sup>5/</sup>	4,680,200	\$1,131,401	-	-
TOTAL	4,680,200	1,131,401	237,900	116,981

- <sup>1/</sup> FISHED ONLY ON INDIAN RESERVATIONS.  
<sup>2/</sup> BASED ON AN AVERAGE OF 24 POUNDS PER DOZEN.  
<sup>3/</sup> BASED ON A YIELD OF 25 PERCENT MEATS.  
<sup>4/</sup> BASED ON A YIELD OF 42 PERCENT EDIBLE MEATS.  
<sup>5/</sup> BASED ON A YIELD OF 12 PERCENT MEATS.



# PACIFIC COAST FISHERIES

293

## COLUMBIA RIVER DISTRICT OF WASHINGTON OPERATING UNITS, 1963

ITEM	HAUL SEINES	POTS		GILL NETS	
		CRAB	CRAWFISH	ANCHOR, SET OR STAKE 1/	DRIFT SALMON
FISHERMEN:	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
ON VESSELS . . . . .	-	34	-	-	-
ON BOATS AND SHORE . . . . .	8	4	1	20	165
TOTAL . . . . .	8	36	1	20	165
VESSELS, MOTOR . . . . .	-	13	-	-	-
GROSS TONNAGE . . . . .	-	219	-	-	-
BOATS:					
MOTOR . . . . .	2	2	1	15	158
OTHER . . . . .	1	-	-	5	-
GEAR:					
NUMBER . . . . .	3	2,575	40	20	156
LENGTH, YARDS . . . . .	300	-	-	-	-
SQUARE YARDS . . . . .	-	-	-	5,000	482,000

ITEM	GILL NETS - CONTINUED		LINES		DIP NETS 2/	TOTAL, EXCLUSIVE OF DUPLICATION
	DRIFT		TROLL			
	SMELT	SALMON	ALBACORE			
FISHERMEN:	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
ON VESSELS . . . . .	-	101	65	-	-	151
ON BOATS AND SHORE . . . . .	10	20	6	156	-	529
TOTAL . . . . .	10	310	71	156	-	680
VESSELS, MOTOR . . . . .	-	73	36	-	-	91
GROSS TONNAGE . . . . .	-	966	544	-	-	1,292
BOATS:						
MOTOR . . . . .	10	174	4	39	-	361
OTHER . . . . .	-	-	-	2	-	8
GEAR:						
NUMBER . . . . .	10	1,055	360	156	-	-
SQUARE YARDS . . . . .	9,000	-	-	-	-	-
HOOKS . . . . .	-	4,550	360	-	-	-

1/ OPERATED BY INDIANS. 2/ INCLUDES 51 DIP NETS OPERATED BY INDIANS.

## COLUMBIA RIVER DISTRICT OF WASHINGTON - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		POTS		GILL NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CARP . . . . .	1,173,600	\$7,042	-	-	-	-
SALMON:						
CHINOOK OR KING . . . . .	-	-	-	-	313,000	\$70,427
RED OR SOCKEYE . . . . .	-	-	-	-	13,900	4,641
SILVER OR COHO . . . . .	-	-	-	-	100	22
SHAD . . . . .	-	-	-	-	1,600	71
STEELHEAD TROUT . . . . .	-	-	-	-	5,800	1,405
STURGEON . . . . .	-	-	-	-	2,200	409
SUCKERS . . . . .	13,300	200	-	-	-	-
CRABS, DUNGENESS 2/ . . . . .	-	-	469,500	\$96,724	-	-
CRAWFISH, FRESH-WATER . . . . .	-	-	1,100	208	-	-
TOTAL . . . . .	1,186,900	7,242	470,600	96,932	336,600	76,975

SPECIES	GILL NETS - CONTINUED		LINES, TROLL		DIP NETS	
	DRIFT					
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
FLOUNDER . . . . .	26,000	\$598	-	-	-	-
HALIBUT . . . . .	-	-	300	\$41	-	-
LINGCOD . . . . .	-	-	2,300	101	-	-
ROCKFISHES . . . . .	-	-	47,800	1,366	-	-
SALMON:						
CHINOOK OR KING . . . . .	889,000	324,486	212,300	100,185	53,400	\$16,285
CHUM OR KETA . . . . .	6,300	814	-	-	-	-
PINK . . . . .	-	-	1,100	138	-	-
RED OR SOCKEYE . . . . .	5,300	1,956	-	-	-	-
SILVER OR COHO . . . . .	94,100	22,573	991,500	258,460	600	132
SHAD . . . . .	189,700	8,492	-	-	-	-
SMELT, EULACHON . . . . .	49,200	4,923	-	-	654,800	58,356
STEELHEAD TROUT . . . . .	169,900	44,956	-	-	200	34
TURGEON . . . . .	74,900	11,696	100	14	-	-
TUNA, ALBACORE . . . . .	-	-	305,800	51,684	-	-
TOTAL . . . . .	1,504,400	420,504	1,561,200	412,009	909,000	74,807

1/ FISHED ONLY ON INDIAN RESERVATIONS. 2/ BASED ON AN AVERAGE OF 24 POUNDS PER DOZEN.

# PACIFIC COAST FISHERIES

## OREGON

### CATCH BY DISTRICTS, 1963

SPECIES	COLUMBIA RIVER		COASTAL	
	POUNDS	VALUE	POUNDS	VALUE
FISH				
COD . . . . .	67,200	\$3,359	-	-
FLOUNDERS:				
"SOLE" . . . . .	9,804,400	578,731	6,127,900	\$343,607
OTHER . . . . .	476,100	15,489	96,800	4,254
HALIBUT . . . . .	106,200	17,102	157,100	25,761
HERRING, SEA . . . . .	-	-	15,500	6,217
LINGCOD . . . . .	400,100	19,857	157,400	7,235
OCEAN PERCH . . . . .	5,177,100	243,262	2,833,700	120,187
ROCKFISHES . . . . .	3,356,100	155,487	1,806,200	74,734
SABLEFISH . . . . .	211,200	15,909	340,200	36,605
SALMON:				
CHINOOK OR KING . . . . .	3,334,500	1,108,441	1,433,200	605,665
CHUM OR KETA . . . . .	9,000	1,172	-	-
PINK . . . . .	3,900	513	19,800	2,579
RED OR SOCKEYE . . . . .	30,200	10,538	-	-
SILVER OR COHO . . . . .	939,700	229,218	2,491,300	647,750
TOTAL SALMON . . . . .	4,317,300	1,349,882	3,944,300	1,255,994
SEA BASS, WHITE . . . . .	-	-	7,100	285
SHAD . . . . .	668,000	30,667	642,200	64,222
SHARKS, SOUFFIN . . . . .	1,900	20	100	3
SKATES . . . . .	11,100	277	235,200	5,860
SMELT:				
EULACHON . . . . .	173,100	22,678	-	-
SILVER . . . . .	-	-	400	100
STEELHEAD TROUT . . . . .	797,700	219,380	-	-
STRIPED BASS . . . . .	-	-	68,800	9,632
STURGEON . . . . .	188,800	25,095	1,300	40
TUNA, ALBACORE . . . . .	8,282,500	1,305,748	3,117,000	450,991
TOTAL FISH . . . . .	34,038,800	4,002,943	19,551,200	2,405,747
SHELLFISH				
CRABS, DUNGENESS 1/ . . . . .	1,854,000	387,486	2,298,900	482,366
CRAWFISH, FRESH-WATER . . . . .	15,000	4,000	-	-
SHRIMP, OCEAN . . . . .	1,075,900	96,830	1,951,900	165,908
CLAMS:				
RAZOR 2/ . . . . .	-	-	9,900	4,708
MIXED 3/ . . . . .	-	-	20,800	9,735
OCTOPUS . . . . .	-	-	400	36
OYSTERS, MARKET, PACIFIC 4/ . . . . .	-	-	387,000	108,700
TOTAL SHELLFISH . . . . .	2,944,900	488,316	4,668,900	771,453
WHALE PRODUCTS:				
MEAL . . . . .	20,500	1,384	-	-
MEAT . . . . .	97,000	5,820	-	-
OIL . . . . .	26,000	2,860	-	-
SOLUBLES . . . . .	14,200	428	-	-
TOTAL WHALE PRODUCTS . . . . .	157,700	10,492	-	-
GRAND TOTAL . . . . .	37,141,400	4,501,751	24,220,100	3,177,200

1/ BASED ON AN AVERAGE OF 25 POUNDS PER DOZEN.

2/ BASED ON A YIELD OF 42 PERCENT MEATS.

3/ PRINCIPALLY EASTERN SOFT CLAMS. BASED ON A YIELD OF 21 PERCENT MEATS.

4/ BASED ON A YIELD OF 12 PERCENT MEATS.



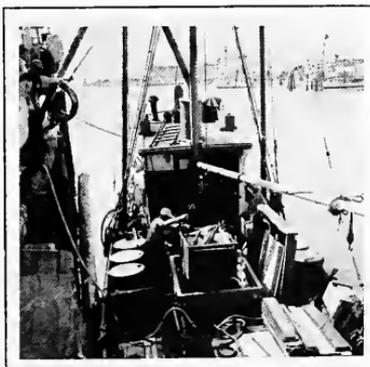
## COLUMBIA RIVER DISTRICT OF OREGON - OPERATING UNITS, 1963

ITEM	OTTER TRAWLS		POTS	
	FISH	SHRIMP	CRAB	CRAWFISH
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:				
ON VESSELS . . . . .	132	36	97	-
ON BOATS AND SHORE . . . . .	-	-	31	15
TOTAL . . . . .	132	36	128	15
VESSELS, MOTOR . . . . .	35	10	43	-
GROSS TONNAGE . . . . .	1,878	590	770	-
BOATS, MOTOR . . . . .	-	-	16	14
GEAR:				
NUMBER . . . . .	35	10	10,475	560
YARDS AT MOUTH . . . . .	790	190	-	-

ITEM	GILL NETS			LINES	
	ANCHOR, SET OR STAKE 1/	DRIFT		TROLL	
		SALMON	SMELT	SALMON	ALBACORE
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:					
ON VESSELS . . . . .	-	-	-	162	506
ON BOATS AND SHORE . . . . .	40	625	45	60	16
TOTAL . . . . .	40	625	45	222	522
VESSELS, MOTOR . . . . .	-	-	-	96	224
GROSS TONNAGE . . . . .	-	-	-	1,369	7,010
BOATS:					
MOTOR . . . . .	30	570	45	50	11
OTHER . . . . .	10	-	-	-	-
GEAR:					
NUMBER . . . . .	40	570	45	750	2,410
SQUARE YARDS . . . . .	12,000	1,738,000	40,500	-	-
HOOKS . . . . .	-	-	-	3,600	2,410

ITEM	LINES - CONTINUED			HARPOONS, WHALE	TOTAL, EXCLUSIVE OF DUPLI- CATION
	TROLL-CONT'D.	LONG OR SET			
	LINGCOD	HALIBUT	STURGEON		
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:					
ON VESSELS . . . . .	2	12	-	3	743
ON BOATS AND SHORE . . . . .	1	-	4	-	756
TOTAL . . . . .	3	12	4	3	1,499
VESSELS, MOTOR . . . . .	2	3	-	1	322
GROSS TONNAGE . . . . .	22	70	-	96	9,225
BOATS:					
MOTOR . . . . .	1	-	2	-	665
OTHER . . . . .	-	-	-	-	10
GEAR:					
NUMBER . . . . .	6	65	6	1	-
HOOKS . . . . .	12	5,550	3,000	-	-

1/ OPERATED BY INDIANS.



UNLOADING ALBACORE TROLLER

## PACIFIC COAST FISHERIES

## COLUMBIA RIVER DISTRICT OF OREGON - CATCH BY GEAR, 1963

SPECIES	OTTER TRAWLS		POTS	
	POUNDS	VALUE	POUNDS	VALUE
COD . . . . .	67,200	\$3,359	-	-
FLOUNDERS: "SOLE" . . . . .	9,804,400	578,731	-	-
OTHER . . . . .	235,300	10,674	-	-
LINGCOD . . . . .	359,700	19,338	-	-
OCEAN PERCH . . . . .	5,177,100	243,262	-	-
ROCKFISHES . . . . .	3,323,900	154,119	-	-
SABLEFISH . . . . .	176,000	11,852	-	-
SHARKS, SOUFFIN . . . . .	1,900	20	-	-
SKATES . . . . .	11,100	277	-	-
STURGEON . . . . .	2,800	121	-	-
CRABS, DUNGENESS . . . . .	-	-	1,854,000	\$387,486
CRAWFISH, FRESH-WATER . . . . .	-	-	15,000	4,000
SHRIMP, OCEAN . . . . .	1,075,900	96,830	-	-
TOTAL . . . . .	20,266,200	1,116,583	1,869,000	391,486

SPECIES	GILL NETS			
	ANCHOR, SET OR STAKE 1/		DRIFT	
	POUNDS	VALUE	POUNDS	VALUE
FLOUNDERS, OTHER . . . . .	-	-	240,800	\$4,815
SALMON: CHINOOK OR KING . . . . .	230,700	\$47,296	2,913,800	973,197
CHUM OR KETA . . . . .	-	-	9,000	1,172
RED OR SOCKEYE . . . . .	15,500	5,113	14,700	5,425
SILVER OR COHO . . . . .	300	71	406,500	89,847
SHAD . . . . .	59,600	2,681	608,400	27,966
SMILT, EULACHON . . . . .	-	-	173,100	22,678
STEELHEAD, TROUT . . . . .	58,900	14,714	738,000	204,435
STURGEON . . . . .	2,100	288	182,900	24,550
TOTAL . . . . .	367,100	70,163	5,287,200	1,354,105

SPECIES	LINES				HARPOONS	
	TROLL		LONG OR SET		POUNDS	VALUE
	POUNDS	VALUE	POUNDS	VALUE		
HALIBUT . . . . .	1,400	\$167	104,800	\$16,935	-	-
LINGCOD . . . . .	4,900	243	5,500	276	-	-
ROCKFISHES . . . . .	19,000	655	10,300	513	-	-
SABLEFISH . . . . .	-	-	35,200	4,057	-	-
SALMON: CHINOOK OR KING . . . . .	190,000	87,948	-	-	-	-
PINK . . . . .	3,900	513	-	-	-	-
SILVER OR COHO . . . . .	532,900	139,300	-	-	-	-
STEELHEAD TROUT . . . . .	800	231	-	-	-	-
STURGEON . . . . .	-	-	1,000	136	-	-
TUNA, ALBACORE . . . . .	8,282,500	1,305,748	-	-	-	-
WHALE PRODUCTS: MEAL . . . . .	-	-	-	-	20,500	\$1,384
MEAT . . . . .	-	-	-	-	97,000	5,820
OIL . . . . .	-	-	-	-	26,000	2,860
SDLUBLES . . . . .	-	-	-	-	14,200	428
TOTAL . . . . .	9,035,400	1,535,005	156,800	21,917	157,700	10,492

1/ FISHED ONLY ON INDIAN RESERVATIONS.

NOTE:--THE FOLLOWING SPECIES LANDED IN THE COLUMBIA RIVER DISTRICT WERE CAUGHT OFF THE COAST: COD, "SOLE", HALIBUT, LINGCOD, OCEAN PERCH, ROCKFISHES, SHARKS, SKATES, TUNA, CRAB, SHRIMP, WHALES, THE OTTER TRAWL CATCH OF FLOUNDERS AND STURGEON, AND MOST OF THE TROLL CATCH OF SALMON.

# PACIFIC COAST FISHERIES

297

## COASTAL DISTRICT OF OREGON - OPERATING UNITS, 1963

ITEM	HAUL SEINES	OTTER TRAWLS	
		FISH	SHRIMP
	NUMBER	NUMBER	NUMBER
FISHERMEN:			
ON VESSELS . . . . .	-	108	58
ON BOATS AND SHORE . . . . .	9	-	-
TOTAL . . . . .	9	108	58
VESSELS, MOTOR . . . . .	-	31	19
GROSS TONNAGE . . . . .	-	1,370	517
BOATS:			
MOTOR . . . . .	3	-	-
OTHER . . . . .	1	-	-
GEAR:			
NUMBER . . . . .	3	31	19
LENGTH, YARDS . . . . .	300	-	-
YARDS AT MOUTH . . . . .	-	695	361

ITEM	POTS, CRAB	GILL NETS	
		ANCHOR, SET OR STAKE	DRIFT
	NUMBER	NUMBER	NUMBER
FISHERMEN:			
ON VESSELS . . . . .	226	-	-
ON BOATS AND SHORE . . . . .	53	36	59
TOTAL . . . . .	279	36	59
VESSELS, MOTOR . . . . .	99	-	-
GROSS TONNAGE . . . . .	2,032	-	-
BOATS:			
MOTOR . . . . .	35	31	56
OTHER . . . . .	-	1	-
GEAR:			
NUMBER . . . . .	23,900	142	56
SQUARE YARDS . . . . .	-	56,800	112,000

ITEM	LINES			LONG OR SET WITH HOOKS
	SALMON	ALBACORE	LINGCOD	
	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:				
ON VESSELS . . . . .	601	391	11	15
ON BOATS AND SHORE . . . . .	318	25	7	-
TOTAL . . . . .	919	416	18	15
VESSELS, MOTOR . . . . .	347	205	11	5
GROSS TONNAGE . . . . .	5,172	3,677	173	83
BOATS, MOTOR . . . . .	265	18	7	-
GEAR:				
NUMBER . . . . .	3,044	2,087	36	97
HOOKS . . . . .	14,320	2,087	72	8,525

ITEM	DREDGES, OYSTER, COMMON	SHOVELS	GIVING OUTFITS, CLAM	BY HAND, OYSTER	TOTAL, EXCLUSIVE OF DUPLICATION
FISHERMEN:					
ON VESSELS . . . . .	5	-	-	-	905
ON BOATS AND SHORE . . . . .	2	200	2	25	626
TOTAL . . . . .	7	200	2	25	1,531
VESSELS, MOTOR . . . . .	2	-	-	-	448
GROSS TONNAGE . . . . .	26	-	-	-	8,112
BOATS:					
MOTOR . . . . .	1	-	1	3	361
OTHER . . . . .	-	-	-	2	4
GEAR:					
NUMBER . . . . .	6	200	1	-	-
YARDS AT MOUTH . . . . .	12	-	-	-	-

## PACIFIC COAST FISHERIES

## COASTAL DISTRICT OF OREGON - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		OTTER TRAWLS		POTS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
FLOUNDERS:						
"SOLE" . . . . .	-	-	6,126,600	\$343,481	-	-
OTHER . . . . .	-	-	95,800	4,254	-	-
HERRING, SEA . . . . .	15,500	\$6,217	-	-	-	-
LINGCOD . . . . .	-	-	126,900	5,711	-	-
OCEAN PERCH . . . . .	-	-	2,833,700	120,187	-	-
ROCKFISHES . . . . .	-	-	1,775,900	73,217	-	-
SABLEFISH . . . . .	-	-	127,100	12,014	-	-
SHARKS, SOUFFIN . . . . .	-	-	100	3	-	-
SKATES . . . . .	-	-	235,200	5,880	-	-
SMELT, SURF OR SILVER . . . . .	400	100	-	-	-	-
STURGEON . . . . .	-	-	1,300	40	-	-
CRABS, DUNGENESS . . . . .	-	-	-	-	2,298,900	\$482,366
SHRIMP, OCEAN . . . . .	-	-	1,951,900	165,908	-	-
OCTOPUS . . . . .	-	-	400	36	-	-
TOTAL . . . . .	15,900	6,317	13,275,900	730,731	2,298,900	482,366

SPECIES	GILL NETS		LINES			
			TROLL		LONG OR SET	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
FLOUNDERS "SOLE" . . . . .	-	-	100	\$9	1,200	\$117
HALIBUT . . . . .	-	-	5,300	644	151,800	25,117
LINGCOD . . . . .	-	-	28,100	1,405	2,400	119
ROCKFISHES . . . . .	-	-	13,500	675	16,800	842
SABLEFISH . . . . .	-	-	-	-	213,100	24,591
SALMON:						
CHINOOK OR KING . . . . .	-	-	1,433,200	605,665	-	-
PINK . . . . .	-	-	19,800	2,579	-	-
SILVER OR COHO . . . . .	-	-	2,491,300	647,750	-	-
SEA BASS, WHITE . . . . .	-	-	7,100	285	-	-
SHAD . . . . .	642,200	\$64,222	-	-	-	-
STRIPED BASS . . . . .	68,800	9,632	-	-	-	-
TUNA, ALBACORE . . . . .	-	-	3,117,000	450,931	-	-
TOTAL . . . . .	711,000	73,854	7,115,400	1,710,003	365,300	50,786

SPECIES	DREDGES AND BY HAND		SHOVELS		DIVING OUTFITS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CLAMS:						
RAZOR . . . . .	-	-	9,900	\$4,708	-	-
MIXED . . . . .	-	-	19,300	9,255	1,500	\$480
OYSTERS, MARKET, PACIFIC . . . . .	387,000	\$108,700	-	-	-	-
TOTAL . . . . .	387,000	108,700	29,200	13,963	1,500	480



# PACIFIC COAST FISHERIES

299

## CALIFORNIA

### CALIFORNIA - CATCH BY DISTRICTS, 1963

SPECIES  FISH	NORTHERN		SAN FRANCISCO		MONTEREY	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ANCHOVIES . . . . .	-	-	27,800	\$2,900	3,360,200	\$49,396
BONITO . . . . .	-	-	-	-	1,200	66
CABEZONE . . . . .	-	-	200	13	1,700	142
CARP . . . . .	-	-	255,100	12,052	-	-
FLOUNDERS:						
ARROWTOOTH HALIBUT . . . . .	13,400	\$667	3,900	143	-	-
CALIFORNIA HALIBUT . . . . .	400	95	125,800	27,802	62,400	14,704
SAND DABS . . . . .	112,800	9,224	310,500	20,960	130,400	6,847
"SOLE":						
DOVER . . . . .	7,533,800	473,878	2,030,600	113,106	82,400	4,052
ENGLISH . . . . .	1,486,200	117,707	1,902,800	148,612	390,500	29,675
PETRALE . . . . .	1,845,000	214,389	922,400	119,171	233,600	29,763
REX . . . . .	621,800	45,452	514,600	34,894	105,600	5,288
SAND . . . . .	37,700	4,101	244,400	25,202	300	21
UNCLASSIFIED . . . . .	600	26	300	18	23,900	2,342
OTHER . . . . .	174,900	8,729	259,200	14,514	70,700	6,402
HAKE . . . . .	-	-	71,700	1,083	68,000	1,143
HALIBUT . . . . .	4,500	1,220	-	-	-	-
HAROHAD . . . . .	-	-	148,200	29,648	-	-
HERRING, SEA . . . . .	4,400	221	377,000	3,393	248,600	18,071
KING CROAKER . . . . .	-	-	11,900	650	49,800	3,452
LINGCOD . . . . .	648,700	49,816	315,900	24,198	90,100	8,604
MACKEREL:						
JACK . . . . .	-	-	1,000	29	1,652,200	38,514
PACIFIC . . . . .	-	-	-	-	300	38
PERCH . . . . .	84,900	11,552	32,300	3,587	13,300	1,679
POMPANO . . . . .	-	-	-	-	24,600	8,607
ROCKFISHES . . . . .	3,373,300	167,450	2,358,600	121,750	2,466,700	134,095
SABLEFISH . . . . .	637,900	55,818	840,600	26,747	271,200	11,012
SALMON:						
CHINOOK OR KING . . . . .	2,961,500	1,406,654	3,306,400	1,687,537	498,900	284,655
SILVER OR COHO . . . . .	816,900	261,408	187,200	69,264	13,500	4,995
TOTAL SALMON . . . . .	3,778,400	1,668,062	3,493,600	1,956,801	512,400	289,650
SARDINE, PACIFIC . . . . .	-	-	29,700	8,936	1,340,200	63,794
SEA BASS, WHITE . . . . .	300	15	152,600	7,171	3,900	1,324
SHARKS, UNCLASSIFIED . . . . .	3,600	132	113,400	1,340	45,300	2,263
SKATES . . . . .	230,100	11,900	51,100	6,316	33,200	2,511
SPLITTAIL . . . . .	-	-	5,400	1,163	-	-
SWORFISH . . . . .	-	-	-	-	11,800	6,334
TUNA:						
ALBACORE . . . . .	6,689,600	916,481	3,424,500	474,634	5,840,800	803,108
BLUEFIN . . . . .	-	-	88,000	9,900	-	-
SKIPJACK . . . . .	-	-	212,000	21,332	-	-
YELLOWFIN . . . . .	-	-	1,397,500	185,314	-	-
TOTAL TUNA . . . . .	6,689,600	916,481	5,122,000	691,180	5,840,800	803,108
TURBOT . . . . .	6,000	415	55,100	3,221	300	14
WHITEBAIT . . . . .	129,400	8,810	18,700	1,897	-	-
UNCLASSIFIED:						
FOR FOOD . . . . .	100	5	100	13	1,600	45
BAIT AND ANIMAL FOOD . . . . .	19,300	387	2,000	31	83,400	1,601
TOTAL FISH . . . . .	27,437,300	3,766,552	19,794,900	3,410,541	17,317,300	1,545,840
SHELLFISH						
CRAB:						
DUNGENESS . . . . .	730,000	242,369	1,210,300	441,525	8,800	3,670
ROCK . . . . .	26,900	1,748	-	-	1,100	62
TOTAL CRABS . . . . .	756,900	244,117	1,210,300	441,525	9,900	3,732
SHRIMP:						
BAY . . . . .	-	-	1,200	368	-	-
OCEAN . . . . .	1,887,900	181,239	205,000	20,578	8,400	5,868
TOTAL SHRIMP . . . . .	1,887,900	181,239	206,200	20,946	8,400	5,868
ABALONE 1/ . . . . .	-	-	16,900	14,987	400	413
CLAMS, HARD 2/ . . . . .	900	600	-	-	-	-
OCTOPUS . . . . .	8,500	392	50,800	2,166	13,200	1,434
OYSTERS, MARKET: 3/						
EASTERN . . . . .	-	-	13,500	4,726	-	-
PACIFIC . . . . .	942,400	169,634	172,200	31,001	4,000	709
TOTAL OYSTERS . . . . .	942,400	169,634	185,700	35,727	4,000	709
SQUID . . . . .	-	-	-	-	6,754,500	176,966
TOTAL SHELLFISH . . . . .	3,596,600	595,982	1,669,900	515,351	6,790,400	189,122

SEE FOOTNOTES AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## PACIFIC COAST FISHERIES

## CALIFORNIA - CATCH BY DISTRICTS, 1963 - Continued

SPECIES	NORTHERN		SAN FRANCISCO		MONTEREY	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
WHALE PRODUCTS						
MEAL . . . . .	-	-	2,616,800	\$151,656	-	-
MEAT . . . . .	37,500	5,852	2,786,700	235,671	-	-
OIL:						
SPERM. . . . .	-	-	700,300	57,943	-	-
WHALE. . . . .	-	-	1,402,900	87,613	-	-
TOTAL WHALE PRODUCTS. .	-	-	7,506,700	532,863	-	-
GRAND TOTAL . . . . .	31,033,900	\$4,362,534	28,971,100	4,458,775	24,107,700	\$1,734,962
SPECIES	SANTA BARBARA		SAN PEDRO		SAN DIEGO	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
FISH						
ANCHOVIES. . . . .	11,400	\$933	1,171,000	\$24,356	-	-
BARRACUDA. . . . .	37,500	5,852	315,600	51,404	25,700	\$4,762
BONITO . . . . .	15,000	381	3,915,400	108,459	90,900	3,780
CABEZONE . . . . .	900	50	-	-	-	-
CABRILLA . . . . .	-	-	25,000	4,299	12,100	1,980
FLOUNDER:						
CALIFORNIA HALIBUT . . . .	278,000	62,003	279,800	66,202	374,000	73,379
SAND DABS . . . . .	400	8	500	101	1,200	251
"SOLE":						
DOVER. . . . .	134,900	8,069	-	-	-	-
ENGLISH. . . . .	474,300	32,964	700	43	-	-
PETRALE. . . . .	316,800	37,069	100	13	-	-
REX. . . . .	323,700	22,464	-	-	-	-
SAND. . . . .	48,800	5,356	-	-	-	-
UNCLASSIFIED . . . . .	4,900	288	700	98	13,000	2,855
OTHER . . . . .	16,500	857	-	-	-	-
FLYING FISH. . . . .	-	-	46,600	3,436	-	-
GROUPERS . . . . .	-	-	179,600	38,368	53,900	12,561
HALMOON . . . . .	-	-	8,700	1,873	-	-
HERRING, SEA . . . . .	100	7	-	-	-	-
KING CROAKER . . . . .	4,100	134	482,100	27,991	3,200	368
LINGCOD. . . . .	77,300	5,626	900	101	100	15
MACKEREL:						
JACK . . . . .	7,021,300	128,490	86,767,800	1,822,113	-	-
PACIFIC. . . . .	2,430,800	43,755	37,787,300	816,206	24,100	1,362
OPALEYE. . . . .	-	-	4,100	694	300	29
PERCH. . . . .	27,400	6,064	15,000	2,598	-	-
POMPANO. . . . .	900	171	32,600	8,716	100	11
ROCKFISHES . . . . .	2,602,300	144,101	585,900	70,328	362,700	44,260
SABLEFISH. . . . .	57,400	2,539	400	35	1,800	189
SALMON:						
CHINOOK OR KING. . . . .	72,000	43,766	800	587	-	-
SILVER OR COHO . . . . .	2,000	740	-	-	-	-
TOTAL SALMON. . . . .	74,000	44,506	800	587	-	-
SARDINE, PACIFIC . . . . .	400,200	20,532	5,390,800	214,553	-	-
SCULPIN. . . . .	-	-	21,100	6,936	54,400	14,626
SEA BASS:						
BLACK. . . . .	1,000	104	244,700	38,645	57,900	9,100
WHITE. . . . .	71,100	20,587	645,500	177,176	145,000	33,832
SHARKS, UNCLASSIFIED . . . .	85,700	8,898	257,100	32,070	124,400	11,839
SHEEPSHEAD . . . . .	100	4	4,600	357	23,300	1,929
SKATES . . . . .	2,300	118	118	68	-	-
SMELT. . . . .	500	49	43,600	1,538	-	-
SWORDFISH. . . . .	27,000	16,237	48,300	29,343	11,000	6,556
TUNA:						
ALBACORE . . . . .	3,608,400	510,947	23,599,000	3,756,954	5,697,300	854,597
BLUEFIN. . . . .	-	-	26,278,800	2,961,621	3,986,600	420,586
SKIPJACK . . . . .	-	-	71,619,300	7,720,558	24,788,600	2,632,552
YELLOWFIN. . . . .	-	-	63,129,400	11,014,640	25,056,300	3,329,978
TOTAL TUNA. . . . .	3,608,400	510,947	204,626,500	25,453,773	59,528,800	7,237,713
TURBOT . . . . .	35,000	1,896	400	29	-	-
Wahoo. . . . .	-	-	20,200	7,079	1,700	309
YELLOWTAIL . . . . .	900	96	53,400	5,466	15,400	1,391
UNCLASSIFIED:						
FOR FOOD . . . . .	500	38	11,600	818	2,500	152
BAIT AND ANIMAL FOOD . . . .	929,300	18,587	-	-	-	-
TOTAL FISH. . . . .	19,120,700	1,149,780	342,989,200	29,015,909	60,927,500	7,463,249

SEE FOOTNOTES AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## CALIFORNIA - CATCH BY DISTRICTS, 1963 - Continued

SPECIES	SANTA BARBARA		SAN PEDRO		SAN DIEGO	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
SHELLFISH						
CRAB:						
DUNGENSEN . . . . .	2,400	\$935	-	-	-	-
ROCK . . . . .	100,400	7,150	107,900	\$12,743	4,300	\$139
TOTAL CRAB . . . . .	102,800	8,085	107,900	12,743	4,300	139
LOBSTERS, SPINY . . . . .	123,300	78,922	252,200	167,624	208,700	134,829
SHRIMP, OCEAN . . . . .	200	36	-	-	-	-
ABALONE <sup>1/</sup> . . . . .	560,500	432,660	247,800	158,813	43,200	18,841
OCTOPUS . . . . .	1,800	112	300	54	-	-
OYSTERS, MARKET, PACIFIC <sup>3/</sup> . . . . .	136,900	24,649	-	-	-	-
SQUID . . . . .	674,200	8,024	4,131,900	55,367	300	9
TOTAL SHELLFISH . . . . .	1,599,700	552,510	4,740,100	394,601	256,500	153,818
GRAND TOTAL . . . . .	20,720,400	1,702,290	347,729,300	29,410,510	61,184,000	7,617,067

<sup>1/</sup> BASED ON YIELDS OF 20 PERCENT MEATS.

<sup>2/</sup> BASED ON YIELDS OF 24 PERCENT MEATS.

<sup>3/</sup> BASED ON YIELDS OF 14 PERCENT MEATS.



VESSELS AT SAN PEDRO

## PACIFIC COAST FISHERIES

## CALIFORNIA - CATCH BY WATERS, 1963

SPECIES	OFF UNITED STATES		OFF LATIN AMERICA	
	POUNDS	VALUE	POUNDS	VALUE
ANCHOVIES . . . . .	4,570,400	\$77,585	-	-
BARRACUDA . . . . .	347,400	56,878	31,400	\$5,140
BONITO . . . . .	4,013,500	112,434	9,000	252
CABEZONE . . . . .	2,800	205	-	-
CABRILLA . . . . .	-	-	37,100	6,279
CARP . . . . .	255,100	12,052	-	-
FLOUNDERS:				
ARROWTOOTH HALIBUT . . . . .	17,300	610	-	-
CALIFORNIA HALIBUT . . . . .	855,100	186,366	265,300	57,819
SAND DABS . . . . .	555,600	37,391	-	-
"SOLE":				
DOVER . . . . .	9,781,700	599,105	-	-
ENGLISH . . . . .	4,254,500	329,001	-	-
PETRALE . . . . .	3,317,900	400,405	-	-
REX . . . . .	1,565,700	105,098	-	-
SAND . . . . .	331,200	34,680	-	-
UNCLASSIFIED . . . . .	43,400	5,627	-	-
OTHER . . . . .	521,300	30,502	-	-
FLYING FISH . . . . .	46,600	3,436	-	-
GROUPERS . . . . .	-	-	233,500	50,949
HAKE . . . . .	139,700	2,226	-	-
HALFMOON . . . . .	6,700	1,673	-	-
HALIBUT . . . . .	4,500	1,220	-	-
HARDHEAD . . . . .	145,200	29,648	-	-
HERRING, SEA . . . . .	630,100	21,692	-	-
KING CROAKER . . . . .	550,700	32,571	400	24
LINGCOD . . . . .	1,132,500	88,321	500	39
MACKEREL:				
JACK . . . . .	95,442,300	1,989,146	-	-
PACIFIC . . . . .	40,241,900	861,344	600	17
OPALEYE . . . . .	4,400	723	-	-
PERCH . . . . .	171,700	25,303	1,200	177
POMPANO . . . . .	58,200	17,505	-	-
ROCKFISHES . . . . .	11,534,400	669,500	215,100	12,484
SABLEFISH . . . . .	1,809,300	98,340	-	-
SALMON:				
CHINOOK OR KING . . . . .	6,839,600	3,623,199	-	-
SILVER OR COHO . . . . .	1,019,600	336,407	-	-
SARLINE, PACIFIC . . . . .	7,131,200	296,679	-	-
SCULPIN . . . . .	75,200	21,476	-	-
SEA BASS:				
BLACK . . . . .	14,000	2,206	289,600	45,643
WHITE . . . . .	372,500	101,090	518,700	140,765
SHARKS, UNCLASSIFIED . . . . .	605,300	56,633	60,100	5,623
SHEEPSHEAD . . . . .	29,200	2,061	2,800	229
SKATES . . . . .	216,600	2,961	-	-
SMELT . . . . .	358,500	22,311	-	-
SPLITTAIL . . . . .	5,400	1,163	-	-
SWORDFISH . . . . .	95,700	57,040	2,400	1,430
TUNA:				
ALBACORE . . . . .	41,925,800	6,278,384	6,933,800	1,036,337
BLUEFIN . . . . .	7,131,000	796,890	23,222,400	2,595,217
SKIPJACK . . . . .	2,224,100	238,802	94,395,800	10,135,640
YELLOWFIN . . . . .	60,300	7,999	109,522,900	14,521,933
TURBOT . . . . .	96,800	5,575	-	-
WAHD . . . . .	-	-	21,900	7,388
WHITESAIT . . . . .	148,100	10,707	-	-
YELLOWTAIL . . . . .	25,400	2,534	44,300	4,419
UNCLASSIFIED:				
FOR FOOD . . . . .	13,300	869	3,100	202
BAIT AND ANIMAL FOOD . . . . .	1,034,000	20,606	-	-
CRAB:				
DUNGENESS . . . . .	1,951,500	688,499	-	-
ROCK . . . . .	240,600	21,842	-	-
LOBSTERS, SPINY . . . . .	584,200	381,375	-	-
SHRIMP:				
BAY . . . . .	1,200	368	-	-
OCEAN . . . . .	2,101,500	207,723	-	-
ABALONE . . . . .	868,600	623,734	-	-
CLAMS, HARD . . . . .	900	600	-	-
OCTOPUS . . . . .	74,600	4,158	-	-
OYSTERS, MARKET:				
EASTERN . . . . .	13,500	4,726	-	-
PACIFIC . . . . .	1,255,500	225,993	-	-
SQUID . . . . .	11,560,900	240,366	-	-
WHALE PRODUCTS:				
MEAL . . . . .	2,616,800	151,656	-	-
MEAT . . . . .	2,786,700	235,671	-	-
OIL:				
SPERM . . . . .	700,300	57,943	-	-
WHALE . . . . .	1,402,900	87,613	-	-
TOTAL . . . . .	277,934,000	20,656,046	235,812,400	28,630,092

# PACIFIC COAST FISHERIES

303

## NORTHERN DISTRICT OF CALIFORNIA - OPERATING UNITS, 1963

ITEM	HAUL SEINES, COMMON	BEAM TRAWLS, SHRIMP	OTTER TRAWLS	
			FISH	SHRIMP
			NUMBER	NUMBER
FISHERMEN: ON VESSELS . . . . .	-	48	140	43
ON BOATS AND SHORE . . . . .	6	2	-	-
TOTAL . . . . .	6	50	140	43
VESSLS, MOTOR . . . . .	-	14	38	13
GROSS TONNAGE . . . . .	-	362	1,673	304
BOATS, MOTOR . . . . .	3	1	-	-
GEAR:				
NUMBER . . . . .	3	15	38	13
LENGTH, YARDS . . . . .	600	-	-	-
YARDS AT MOUTH . . . . .	-	105	1,026	188

ITEM	POTS, CRAB	LINES		
		HAND	TROLL	
			ALBACORE	SALMON
	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN: ON VESSELS . . . . .	239	4	645	971
ON BOATS AND SHORE . . . . .	51	2	50	593
TOTAL . . . . .	290	6	695	1,564
VESSLS, MOTOR . . . . .	110	2	284	450
GROSS TONNAGE . . . . .	1,850	34	6,138	7,694
BOATS, MOTOR . . . . .	34	1	33	395
GEAR:				
NUMBER . . . . .	12,010	5	2,853	5,070
HOOKS OR BAI TS . . . . .	-	12	2,853	20,280

ITEM	LINES - CONTINUED		OREDGES, OYSTER	
	TROLL-CONTINUED	LONG OR SET WITH HOOKS	COMMON	SUCTION
	OTHER			
	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN: ON VESSELS . . . . .	39	2	-	-
ON BOATS AND SHORE . . . . .	38	2	4	3
TOTAL . . . . .	77	4	4	3
VESSLS, MOTOR . . . . .	18	1	-	-
GROSS TONNAGE . . . . .	261	15	-	-
BOATS, MOTOR . . . . .	25	1	2	1
GEAR:				
NUMBER . . . . .	367	18	2	1
YARDS AT MOUTH . . . . .	-	-	2	-
HOOKS OR BAI TS . . . . .	387	1,800	-	-

ITEM	TONGS, OYSTER	SHOVELS, CLAM	BY HAND, OYSTERS	TOTAL, EXCLUSIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN: ON VESSELS . . . . .	-	-	-	1,367
ON BOATS AND SHORE . . . . .	10	4	10	635
TOTAL . . . . .	10	4	10	2,002
VESSLS, MOTOR . . . . .	-	-	-	595
GROSS TONNAGE . . . . .	-	-	-	12,262
BOATS, MOTOR . . . . .	10	2	10	423
GEAR, NUMBER . . . . .	10	4	-	-

## PACIFIC COAST FISHERIES

## NORTHERN DISTRICT OF CALIFORNIA - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		BEAM TRAWLS	
	POUNDS	VALUE	POUNDS	VALUE
HERRING, SEA . . . . .	4,400	\$221	-	-
PERCH, . . . . .	64,900	11,552	-	-
SMELT, . . . . .	230,100	11,900	-	-
WHITETAIT, . . . . .	129,400	8,810	-	-
SHRIMP, OCEAN, . . . . .	-	-	150,400	\$14,438
TOTAL . . . . .	448,800	32,483	150,400	14,438

SPECIES	OTTER TRAWLS		POTS	
	POUNDS	VALUE	POUNDS	VALUE
FLOUNDER:				
ARROWTOOTH HALIBUT . . . . .	13,400	\$667	-	-
CALIFORNIA HALIBUT . . . . .	300	70	-	-
SAND GABS . . . . .	112,800	9,224	-	-
"SOLE":				
COVER, . . . . .	7,533,800	473,878	-	-
ENGLISH, . . . . .	1,486,200	117,707	-	-
PETRALE, . . . . .	1,645,000	214,389	-	-
REX, . . . . .	621,600	45,452	-	-
SAND . . . . .	37,700	4,101	-	-
UNCLASSIFIED . . . . .	600	26	-	-
OTHER, . . . . .	174,900	8,729	-	-
HALIBUT, . . . . .	100	20	-	-
LINGCOD, . . . . .	490,700	37,176	-	-
ROCKFISHES . . . . .	3,276,200	162,595	-	-
SABLEFISH, . . . . .	574,300	50,094	-	-
SALMON, CHINOOK OR KING, . . . . .	1,000	400	-	-
SHARKS, UNCLASSIFIED . . . . .	300	15	-	-
SKATES . . . . .	3,800	132	-	-
TURBOT . . . . .	6,000	415	-	-
UNCLASSIFIED:				
FOR FOOD . . . . .	100	5	-	-
BAIT AND ANIMAL FOOD . . . . .	19,300	387	-	-
CRAB:				
DUNGENESS, . . . . .	300	100	729,700	\$242,269
ROCK . . . . .	-	-	26,900	1,748
SHRIMP, OCEAN, . . . . .	1,737,500	166,801	-	-
OCTOPUS . . . . .	8,500	392	-	-
TOTAL . . . . .	17,944,600	1,292,775	756,600	244,017

SPECIES	LINES		DREGGES	
	POUNDS	VALUE	POUNDS	VALUE
FLOUNDERS, CALIFORNIA HALIBUT . . . . .	100	\$25	-	-
HALIBUT, . . . . .	4,400	1,200	-	-
LINGCOD, . . . . .	158,000	12,640	-	-
ROCKFISHES . . . . .	97,100	4,855	-	-
SABLEFISH, . . . . .	63,600	5,724	-	-
SALMON:				
CHINOOK OR KING, . . . . .	2,960,500	1,406,254	-	-
SILVER OR COHO . . . . .	816,900	261,408	-	-
TUNA, ALBACORE . . . . .	6,689,600	916,481	-	-
OYSTERS, PACIFIC . . . . .	-	-	914,000	\$164,522
TOTAL . . . . .	10,790,200	2,608,587	914,000	164,522

SPECIES	TONGS AND BY HAND		SHOVELS	
	POUNDS	VALUE	POUNDS	VALUE
CLAMS, HARD, . . . . .	-	-	900	\$600
OYSTERS, PACIFIC . . . . .	28,400	\$5,112	-	-
TOTAL . . . . .	28,400	5,112	900	600

# PACIFIC COAST FISHERIES

305

## SAN FRANCISCO DISTRICT OF CALIFORNIA OPERATING UNITS, 1963

ITEM	HAUL SEINES, COMMON NUMBER	PURSE SEINES AND LAMPARA NETS			BEAM TRAWLS NUMBER
		ANCHOVY NUMBER	TUNA NUMBER	OTHER NUMBER	
FISHERMEN: ON VESSELS . . . . .	7	7	26	3	24
ON BOATS AND SHORE . . . . .	4	-	-	-	2
TOTAL . . . . .	11	7	26	3	26
VESSELS, MOTOR . . . . .	3	2	2	1	7
GROSS TONNAGE . . . . .	32	23	1,167	17	163
BOATS, MOTOR . . . . .	2	-	4	-	1
GEAR: NUMBER . . . . .	5	2	2	1	8
LENGTH, YARDS . . . . .	1,150	500	1,900	200	-
YARDS AT MOUTH . . . . .	-	-	-	-	56

ITEM	OTTER TRAWLS		POTS		GILL NETS, DRIFT, SEA BASS NUMBER	LINES
	FISH NUMBER	SHRIMP NUMBER	CRAB, DUNGESS NUMBER	FISH NUMBER		HANO ROCKFISH NUMBER
FISHERMEN: ON VESSELS . . . . .	83	12	245	-	3	15
ON BOATS AND SHORE . . . . .	2	-	110	4	4	2
TOTAL . . . . .	85	12	355	4	7	17
VESSELS, MOTOR . . . . .	21	3	116	-	1	7
GROSS TONNAGE . . . . .	982	90	1,792	-	11	108
BOATS, MOTOR . . . . .	1	-	73	2	2	1
GEAR: NUMBER . . . . .	22	3	14,880	100	3	17
SQUARE YARDS . . . . .	-	-	-	-	10,600	-
YARDS AT MOUTH . . . . .	587	45	-	-	-	-

ITEM	LINES - CONTINUED					LONG OR SET WITH HOOKS NUMBER
	HAND - CONTINUED		TROLL			
	YELLOWFIN NUMBER	OTHER NUMBER	ALBACORE NUMBER	SALMON NUMBER	OTHER NUMBER	
FISHERMEN: ON VESSELS . . . . .	11	5	481	982	10	6
ON BOATS AND SHORE . . . . .	-	14	23	526	15	2
TOTAL . . . . .	11	19	504	1,510	25	8
VESSELS, MOTOR . . . . .	1	2	206	447	5	3
GROSS TONNAGE . . . . .	199	31	4,657	7,697	66	33
BOATS, MOTOR . . . . .	1	7	15	352	10	1
GEAR: NUMBER . . . . .	9	19	1,989	4,794	135	38
HOOKS . . . . .	9	38	1,989	19,176	135	3,800

ITEM	DIP, BRAIL OR SCOOP NETS NUMBER	HARPOONS, WHALE NUMBER	DREDGES, OYSTERS, COMMON NUMBER	TONGS, OYSTER NUMBER	DIVING OUTFITS, ABALONE NUMBER	TOTAL, EXCLUSIVE OF DUPLICATION NUMBER
	FISHERMEN: ON VESSELS . . . . .	-	27	-	-	2
ON BOATS AND SHORE . . . . .	2	-	4	8	10	591
TOTAL . . . . .	2	27	4	8	12	1,958
VESSELS, MOTOR . . . . .	-	5	-	-	1	573
GROSS TONNAGE . . . . .	-	972	-	-	12	13,444
BOATS, MOTOR . . . . .	1	-	2	8	5	395
GEAR: NUMBER . . . . .	2	5	2	8	6	-
YARDS AT MOUTH . . . . .	-	-	2	-	-	-

## PACIFIC COAST FISHERIES

## SAN FRANCISCO DISTRICT OF CALIFORNIA - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		PURSE SEINES AND LAMPARA NETS		BEAM TRAWLS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ANCHOVIES . . . . .	-	-	27,800	\$2,900	-	-
CARP . . . . .	223,600	\$10,540	-	-	-	-
HARDHEAD . . . . .	148,200	29,648	-	-	-	-
HERRING, SEA . . . . .	177,000	1,593	193,000	1,737	-	-
PERCH . . . . .	31,800	3,531	-	-	-	-
SMELT . . . . .	17,000	2,101	34,100	4,215	-	-
TUNA:	-	-	-	-	-	-
BLUEFIN . . . . .	-	-	68,000	9,900	-	-
SKIPJACK . . . . .	-	-	190,300	19,162	-	-
YELLOWFIN . . . . .	-	-	1,142,400	151,488	-	-
WHITETAIT . . . . .	-	-	18,000	1,827	-	-
SHRIMP:	-	-	-	-	-	-
BAY . . . . .	-	-	-	-	1,200	\$368
OCEAN . . . . .	-	-	-	-	31,600	3,160
TOTAL . . . . .	597,600	47,413	1,693,600	191,229	33,000	3,548

SPECIES	OTTER TRAWLS		POTS AND TRAPS		GILL NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CARP . . . . .	-	-	31,500	\$1,512	-	-
FLOUNDERS:	-	-	-	-	-	-
ARROWTOOTH HALIBUT . . . . .	3,900	\$143	-	-	-	-
CALIFORNIA HALIBUT . . . . .	120,000	26,520	-	-	5,000	\$1,105
SAND DABS . . . . .	310,500	20,960	-	-	-	-
"SOLE":	-	-	-	-	-	-
DOVER . . . . .	2,030,600	113,106	-	-	-	-
ENGLISH . . . . .	1,902,600	148,612	-	-	-	-
PETRALE . . . . .	1,922,400	119,171	-	-	-	-
REX . . . . .	514,600	34,894	-	-	-	-
SAND . . . . .	244,400	25,202	-	-	-	-
UNCLASSIFIED . . . . .	100	6	-	-	-	-
OTHER . . . . .	259,100	14,508	-	-	-	-
HAKE . . . . .	71,700	1,093	-	-	-	-
KING CROAKER . . . . .	11,600	645	-	-	100	5
LINGCOD . . . . .	275,600	18,801	-	-	-	-
MACKEREL, JACK . . . . .	600	23	-	-	200	6
PERCH . . . . .	500	56	-	-	-	-
ROCKFISHES . . . . .	2,258,600	116,550	-	-	-	-
SABLEFISH . . . . .	840,200	28,733	-	-	-	-
SALMON, CHINOOK OR KING . . . . .	200	112	-	-	-	-
SEA BASS, WHITE . . . . .	-	-	-	-	25,700	8,936
SHARKS, UNCLASSIFIED . . . . .	52,000	2,392	-	-	100,600	4,779
SKATES . . . . .	113,400	1,340	-	-	-	-
TURBOT . . . . .	55,000	3,215	-	-	-	-
UNCLASSIFIED:	-	-	-	-	-	-
FOR FOOD . . . . .	100	13	-	-	-	-
BAIT AND ANIMAL FOOD . . . . .	2,000	31	-	-	-	-
CRABS, DUNGENSESS . . . . .	11,400	3,990	1,198,900	437,535	-	-
SHRIMP, OCEAN . . . . .	173,200	17,398	-	-	-	-
OCTOPUS . . . . .	49,200	2,096	-	-	1,600	70
TOTAL . . . . .	10,224,300	699,600	1,230,400	439,047	133,200	14,901

SPECIES	LINES		DIP, BRAIL OR SCOOP NETS		HARPOONS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CABEZONE . . . . .	200	\$13	-	-	-	-
FLOUNDERS:	-	-	-	-	-	-
CALIFORNIA HALIBUT . . . . .	600	177	-	-	-	-
"SOLE", UNCLASSIFIED . . . . .	200	12	-	-	-	-
OTHER . . . . .	100	6	-	-	-	-
HERRING, SEA . . . . .	-	-	7,000	\$63	-	-
LINGCOD . . . . .	40,100	5,397	-	-	-	-
ROCKFISHES . . . . .	100,000	5,200	-	-	-	-
SABLEFISH . . . . .	400	14	-	-	-	-
SALMON:	-	-	-	-	-	-
CHINOOK OR KING . . . . .	3,306,200	1,887,425	-	-	-	-
SILVER OR COHO . . . . .	187,200	69,264	-	-	-	-
SPLITTAIL . . . . .	5,400	1,163	-	-	-	-

(CONTINUED ON NEXT PAGE)

# PACIFIC COAST FISHERIES

307

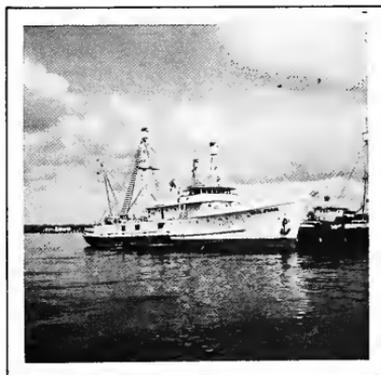
## SAN FRANCISCO DISTRICT OF CALIFORNIA

### CATCH BY GEAR, 1963 - Continued

SPECIES	LINES		DIP, BRAIL OR SCOOP NETS		HARPOONS	
	<u>POUNDS</u>	<u>VALUE</u>	<u>POUNDS</u>	<u>VALUE</u>	<u>POUNDS</u>	<u>VALUE</u>
TUNA:						
ALBACORE . . . . .	3,424,500	\$474,634	-	-	-	-
SKIPJACK . . . . .	21,700	2,170	-	-	-	-
YELLOWFIN . . . . .	255,100	33,826	-	-	-	-
TURBOT . . . . .	100	6	-	-	-	-
WHITETAIT . . . . .	-	-	700	\$70	-	-
WHALE PRODUCTS:						
MEAL . . . . .	-	-	-	-	2,616,800	\$151,656
MEAT . . . . .	-	-	-	-	2,786,700	235,671
OIL:						
SPERM . . . . .	-	-	-	-	700,300	57,943
WHALE . . . . .	-	-	-	-	1,402,900	67,613
TOTAL . . . . .	7,342,000	2,479,307	7,700	133	7,506,700	532,883

SPECIES	DREDGES		TONGS		DIVING OUTFITS	
	<u>POUNDS</u>	<u>VALUE</u>	<u>POUNDS</u>	<u>VALUE</u>	<u>POUNDS</u>	<u>VALUE</u>
ABALONE . . . . .	-	-	-	-	16,900	\$14,987
OYSTERS, MARKET:						
EASTERN . . . . .	-	-	13,500	\$4,726	-	-
PACIFIC . . . . .	32,700	\$5,886	139,500	25,115	-	-
TOTAL . . . . .	32,700	5,886	153,000	29,841	16,900	14,987



TUNA SEINER

## PACIFIC COAST FISHERIES

## MONTEREY DISTRICT OF CALIFORNIA, OPERATING UNITS, 1963

ITEM	HAUL SEINES, COMMON	PURSE SEINES AND LAMPARA NETS			
		ANCHOVY	MACKEREL AND SARDINE	SQUID	OTHER
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	6	33	81	59	12
ON BOATS AND SHORE . . . . .	-	18	6	15	-
TOTAL . . . . .	6	51	87	73	12
VESSELS, MOTOR . . . . .	2	5	15	12	2
GROSS TONNAGE . . . . .	29	272	476	260	43
BOATS, MOTOR . . . . .	-	8	5	5	-
GEAR:					
NUMBER . . . . .	2	11	17	17	2
LENGTH, YARDS . . . . .	500	3,750	6,150	5,400	650

ITEM	OTTER TRAWLS, FISH	POTS AND TRAPS			GILL NETS, DRIFT SEA BASS
		CRAB, DUNGNESS	LOBSTER, SPINY	OCTOPUS	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	23	6	-	9	-
ON BOATS AND SHORE . . . . .	4	11	6	2	22
TOTAL . . . . .	27	17	6	11	22
VESSELS, MOTOR . . . . .	6	3	-	4	-
GROSS TONNAGE . . . . .	228	44	-	56	-
BOATS, MOTOR . . . . .	2	7	3	1	11
GEAR:					
NUMBER . . . . .	8	690	195	100	11
SQUARE YARDS . . . . .	-	-	-	-	27,500
YARDS AT MOUTH . . . . .	202	-	-	-	-

ITEM	GILL NETS, DRIFT-CONT'D	TRAMMEL NETS	LINES		
			HAND		
	OTHER		ALBACORE	ROCKFISH	OTHER
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	-	3	72	16	6
ON BOATS AND SHORE . . . . .	4	4	-	92	32
TOTAL . . . . .	4	7	72	108	38
VESSELS, MOTOR . . . . .	-	1	19	7	3
GROSS TONNAGE . . . . .	-	16	524	100	36
BOATS, MOTOR . . . . .	2	2	4	46	16
GEAR:					
NUMBER . . . . .	2	3	72	108	38
SQUARE YARDS . . . . .	5,000	16,500	-	-	-
HOOKS . . . . .	-	-	72	216	76

ITEM	LINES - CONTINUED				DIP, BRAIL OR SCOOP NETS
	TROLL			LONG OR SET WITH HOOKS	
	SALMON	ALBACORE	OTHER		
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	287	630	25	4	-
ON BOATS AND SHORE . . . . .	254	111	23	8	10
TOTAL . . . . .	541	741	48	12	10
VESSELS, MOTOR . . . . .	129	263	11	2	-
GROSS TONNAGE . . . . .	2,199	5,569	198	55	-
BOATS, MOTOR . . . . .	169	74	15	4	5
GEAR:					
NUMBER . . . . .	1,788	3,033	234	52	10
HOOKS . . . . .	7,152	3,033	234	5,200	-

(CONTINUED ON NEXT PAGE)

# PACIFIC COAST FISHERIES

309

## MONTEREY DISTRICT OF CALIFORNIA OPERATING UNITS, 1963 - Continued

ITEM	TONGS, OYSTER	DIVING OUTFITS, ABALONE	BY HAND, OYSTER	TOTAL, EXCLUSIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:				
ON VESSELS . . . . .	-	2	-	910
ON BOATS AND SHORE . . . . .	2	2	2	420
TOTAL . . . . .	2	4	2	1,330
VESSELS, MOTOR . . . . .	-	1	-	349
GROSS TONNAGE . . . . .	-	12	-	7,507
BOATS, MOTOR . . . . .	2	1	2	264
GEAR, NUMBER . . . . .	2	2	-	-

## MONTEREY DISTRICT OF CALIFORNIA - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		PURSE SEINES AND LAMPARA NETS		OTTER TRAWLS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ANCHOVIES . . . . .	-	-	3,360,200	\$49,396	-	-
FLOUNDERS:						
CALIFORNIA HALIBUT . . . . .	-	-	-	-	1,200	\$263
SAND DABS . . . . .	-	-	-	-	125,200	6,574
"SOLE":						
DOVER . . . . .	-	-	-	-	62,400	4,052
ENGLISH . . . . .	-	-	-	-	390,500	29,675
PETRALE . . . . .	-	-	-	-	223,400	26,437
REX . . . . .	-	-	-	-	105,600	5,265
SANO . . . . .	-	-	-	-	300	21
UNCLASSIFIED . . . . .	-	-	-	-	20,000	1,952
OTHER . . . . .	-	-	-	-	60,400	5,372
HAKE . . . . .	-	-	-	-	67,600	1,135
HERRING, SEA . . . . .	90,000	\$6,541	80,000	5,816	-	-
KING CROAKER . . . . .	-	-	26,800	1,858	1,000	69
LINGCOD . . . . .	-	-	-	-	26,100	2,663
MACKEREL:						
JACK . . . . .	-	-	1,648,800	36,434	800	19
PACIFIC . . . . .	-	-	500	38	-	-
PERCH . . . . .	1,600	203	-	-	700	68
POMPANO . . . . .	-	-	20,000	6,997	-	-
ROCKFISHES . . . . .	-	-	-	-	1,922,800	104,507
SABLEFISH . . . . .	-	-	-	-	167,600	7,616
SARDINES, PACIFIC . . . . .	-	-	1,340,200	63,794	-	-
SHARKS, UNCLASSIFIED . . . . .	-	-	-	-	11,200	558
SKATES . . . . .	-	-	-	-	71,000	952
SMELT . . . . .	6,000	455	17,500	1,323	-	-
TURBOT . . . . .	-	-	-	-	300	14
UNCLASSIFIED:						
FOR FOOD . . . . .	-	-	-	-	1,100	30
BAIT AND ANIMAL FOOD . . . . .	-	-	-	-	63,400	1,601
OCTOPUS . . . . .	-	-	-	-	200	20
SQUID . . . . .	-	-	6,750,000	176,850	-	-
TOTAL . . . . .	97,600	7,199	13,244,000	344,506	3,364,800	200,946

(CONTINUED ON NEXT PAGE)

# PACIFIC COAST FISHERIES

## MONTEREY DISTRICT OF CALIFORNIA

### CATCH BY GEAR, 1963 - Continued

SPECIES	POTS		GILL AND TRAMMEL NETS		LINES	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BONITO . . . . .	-	-	-	-	1,200	\$66
CABEZONE . . . . .	-	-	-	-	1,700	142
FOUNDERS:						
CALIFORNIA HALIBUT . . . . .	-	-	50,000	\$11,782	11,200	2,639
SAND DABS . . . . .	-	-	-	-	5,200	273
"SOLE":						
PETRALE . . . . .	-	-	-	-	10,200	1,326
UNCLASSIFIED . . . . .	-	-	2,900	290	1,000	100
OTHER . . . . .	-	-	5,300	530	5,000	500
HAKE . . . . .	-	-	-	-	400	8
HERRING, SEA . . . . .	-	-	60,000	4,362	-	-
KING CROAKER . . . . .	-	-	22,000	1,525	-	-
LINGCOD . . . . .	-	-	-	-	62,000	5,921
PERCH . . . . .	-	-	8,500	1,073	-	-
POMPANO . . . . .	-	-	-	-	4,600	1,610
ROCKFISHES . . . . .	-	-	-	-	543,900	29,588
SABLEFISH . . . . .	-	-	-	-	83,600	3,396
SALMON:						
CHINOOK OR KING . . . . .	-	-	-	-	498,900	284,655
SILVER OR COHO . . . . .	-	-	-	-	13,900	4,995
SEA BASS, WHITE . . . . .	-	-	3,200	1,065	700	259
SHARKS, UNCLASSIFIED . . . . .	-	-	34,100	1,705	-	-
SKATES . . . . .	-	-	25,000	299	2,500	32
SWORDFISH . . . . .	-	-	-	-	11,600	6,334
TUNA, ALBACORE . . . . .	-	-	-	-	5,840,600	803,108
UNCLASSIFIED, FOR FOOD . . . . .	-	-	500	15	-	-
CRABS:						
DUNGENESS . . . . .	8,600	\$3,670	-	-	-	-
ROCK . . . . .	1,100	62	-	-	-	-
SHRIMP, OCEAN . . . . .	8,400	5,868	-	-	-	-
OCTOPUS . . . . .	13,000	1,414	-	-	-	-
<b>TOTAL . . . . .</b>	<b>31,300</b>	<b>11,014</b>	<b>209,500</b>	<b>22,646</b>	<b>7,098,200</b>	<b>1,144,952</b>

SPECIES	DIP, BRAIL OR SCOOP NETS		TONGS	
	POUNDS	VALUE	POUNDS	VALUE
HERRING, SEA . . . . .	18,600	\$1,352	-	-
MACKEREL, JACK . . . . .	2,600	61	-	-
PERCH . . . . .	2,500	315	-	-
SMELT . . . . .	9,700	733	-	-
OYSTERS, MARKET, PACIFIC . . . . .	-	-	1,900	\$337
SQUID . . . . .	4,500	116	-	-
<b>TOTAL . . . . .</b>	<b>37,900</b>	<b>2,577</b>	<b>1,900</b>	<b>337</b>

SPECIES	DIVING OUTFITS		BY HAND	
	POUNDS	VALUE	POUNDS	VALUE
ABALONE . . . . .	400	\$413	-	-
OYSTERS, MARKET, PACIFIC . . . . .	-	-	2,100	\$372
<b>TOTAL . . . . .</b>	<b>400</b>	<b>413</b>	<b>2,100</b>	<b>372</b>



# PACIFIC COAST FISHERIES

311

## SANTA BARBARA DISTRICT OF CALIFORNIA OPERATING UNITS, 1963

ITEM	PURSE SEINES AND LAMPARA NETS			OTTER TRAWLS, FISH	POTS AND TRAPS	
	ANCHOVY	MACKEREL AND SARDINE	SQUID		CRAB, DUNGENESS	LOBSTER, SPINY
	NUMBER	NUMBER	NUMBER			
FISHERMEN: ON VESSELS . . . . .	-	88	8	58	3	24
ON BOATS AND SHORE . . . . .	3	-	-	2	5	42
TOTAL . . . . .	3	88	8	60	8	66
VESSELS, MOTOR . . . . .	-	12	2	15	1	10
GROSS TONNAGE . . . . .	-	869	49	680	17	174
BOATS, MOTOR . . . . .	1	8	-	1	3	21
GEAR: NUMBER . . . . .	1	12	2	16	270	2,115
LENGTH, YARDS . . . . .	250	5,950	800	-	-	-
YARDS AT MOUTH . . . . .	-	-	-	425	-	-

ITEM	GILL NETS, DRIFT			TRAMMEL NETS	LINES	
	BARRACUDA	SEA BASS	OTHER		HAND	
	NUMBER	NUMBER	NUMBER		NUMBER	NUMBER
FISHERMEN: ON VESSELS . . . . .	9	23	3	-	119	43
ON BOATS AND SHORE . . . . .	6	26	6	2	4	60
TOTAL . . . . .	15	49	9	2	123	103
VESSELS, MOTOR . . . . .	3	8	1	-	38	18
GROSS TONNAGE . . . . .	50	140	17	-	626	267
BOATS, MOTOR . . . . .	3	13	3	1	4	30
GEAR: NUMBER . . . . .	6	21	4	1	121	103
SQUARE YARDS . . . . .	18,200	60,500	11,000	5,500	-	-
HOOKS . . . . .	-	-	-	-	121	206

ITEM	LINES - CONTINUED				LONG OR SET WITH HOOKS
	HAND-CONT'D.	TROLL			
	OTHER	SALMON	ALBACORE	OTHER	
FISHERMEN: ON VESSELS . . . . .	-	70	480	12	2
ON BOATS AND SHORE . . . . .	24	59	80	21	14
TOTAL . . . . .	24	129	560	33	16
VESSELS, MOTOR . . . . .	-	31	200	6	1
GROSS TONNAGE . . . . .	-	570	4,412	81	13
BOATS, MOTOR . . . . .	12	39	53	14	7
GEAR: NUMBER . . . . .	24	420	2,277	180	66
HOOKS . . . . .	48	1,680	2,277	180	6,600

ITEM	HARPOONS, SWORDFISH	TONGS, OYSTER	DIVING OUTFITS, ABALONE	BY HAND, OYSTER	TOTAL, EXCLUSIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
	FISHERMEN: ON VESSELS . . . . .	7	-	24	-
ON BOATS AND SHORE . . . . .	6	10	131	10	411
TOTAL . . . . .	13	10	155	10	1,197
VESSELS, MOTOR . . . . .	3	-	9	-	283
GROSS TONNAGE . . . . .	41	-	217	-	7,059
BOATS, MOTOR . . . . .	3	10	87	10	241
GEAR, NUMBER . . . . .	6	10	98	-	-

## PACIFIC COAST FISHERIES

## SANTA BARBARA DISTRICT OF CALIFORNIA - CATCH BY GEAR, 1963

SPECIES	PURSE SEINES AND LAMPARA NETS		OTTER TRAWLS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ANCHOVIES . . . . .	11,400	\$933	-	-	-	-
BONITO . . . . .	15,000	381	-	-	-	-
FLOUNDER:						
CALIFORNIA HALIBUT . . . . .	-	-	195,600	\$43,628	-	-
SAND OABS . . . . .	-	-	400	8	-	-
"SOLE":						
DOVER . . . . .	-	-	134,900	8,069	-	-
ENGLISH . . . . .	-	-	474,300	32,964	-	-
PETRALE . . . . .	-	-	316,800	37,069	-	-
REX . . . . .	-	-	323,700	22,464	-	-
SAND . . . . .	-	-	48,800	5,356	-	-
UNCLASSIFIED . . . . .	-	-	800	47	-	-
OTHER . . . . .	-	-	16,400	852	-	-
HERRING, SEA . . . . .	100	7	-	-	-	-
LINGCOD . . . . .	-	-	60,800	4,425	-	-
HACKEREL:						
JACK . . . . .	7,021,300	128,490	-	-	-	-
PACIFIC . . . . .	2,430,800	43,755	-	-	-	-
PERCH . . . . .	-	-	2,600	575	-	-
POMPANO . . . . .	400	76	400	76	-	-
ROCKFISHES . . . . .	-	-	2,385,900	132,112	-	-
SABLEFISH . . . . .	-	-	57,400	2,539	-	-
SARDINE, PACIFIC . . . . .	400,200	20,532	-	-	-	-
SEA BASS, WHITE . . . . .	-	-	200	58	-	-
SHARKS, UNCLASSIFIED . . . . .	-	-	5,400	560	-	-
SKATES . . . . .	-	-	2,300	118	-	-
SMELT . . . . .	500	49	-	-	-	-
TURBOT . . . . .	-	-	32,500	1,760	-	-
UNCLASSIFIED, BAIT AND ANIMAL FOOD . . . . .	-	-	929,300	18,587	-	-
CRAB:						
DUNGENESS . . . . .	-	-	-	-	2,400	\$935
ROCK . . . . .	-	-	-	-	100,400	7,150
LOBSTERS, SPINY . . . . .	-	-	-	-	123,300	78,922
SHRIMP, OCEAN . . . . .	-	-	200	38	-	-
OCTOPUS . . . . .	-	-	1,800	112	-	-
SQUID . . . . .	674,000	8,022	200	2	-	-
TOTAL . . . . .	10,553,700	202,245	4,990,700	311,419	226,100	87,007

SPECIES	GILL AND TRAMMEL NETS		LINES		HARPOONS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BARRACUDA . . . . .	36,000	\$5,618	1,500	\$234	-	-
CABEZONE . . . . .	-	-	900	50	-	-
FLOUNDER:						
CALIFORNIA HALIBUT . . . . .	81,000	18,063	1,400	312	-	-
"SOLE", UNCLASSIFIED . . . . .	2,000	118	2,100	123	-	-
OTHER . . . . .	-	-	100	5	-	-
KING CROAKER . . . . .	3,500	114	600	20	-	-
LINGCOD . . . . .	-	-	16,500	1,201	-	-
PERCH . . . . .	24,800	5,489	-	-	-	-
POMPANO . . . . .	-	-	100	19	-	-
ROCKFISHES . . . . .	-	-	216,400	11,989	-	-
SALMON:						
CHINOOK OR KING . . . . .	-	-	72,000	43,766	-	-
SILVER OR COHO . . . . .	-	-	2,000	740	-	-
SEA BASS:						
BLACK . . . . .	-	-	1,000	104	-	-
WHITE . . . . .	66,000	19,111	4,900	1,418	-	-
SHARKS, UNCLASSIFIED . . . . .	76,000	7,892	4,300	446	-	-
SHEEPSHEAD . . . . .	-	-	100	4	-	-
SWORDFISH . . . . .	-	-	2,000	1,200	25,000	\$15,037
TUNA, ALBACORE . . . . .	-	-	3,608,400	510,947	-	-
TURBOT . . . . .	-	-	2,500	136	-	-
YELLOWTAIL . . . . .	-	-	900	96	-	-
UNCLASSIFIED, FOR FOOD . . . . .	500	36	-	-	-	-
TOTAL . . . . .	289,800	56,443	3,937,700	572,810	25,000	15,037

SPECIES	TONGS AND BY HAND		DIVING OUTFITS	
	POUNDS	VALUE	POUNDS	VALUE
ABALONE . . . . .	-	-	560,500	\$432,680
OYSTERS, MARKET, PACIFIC . . . . .	136,900	\$24,649	-	-
TOTAL . . . . .	136,900	24,649	560,500	432,680

# PACIFIC COAST FISHERIES

313

## SAN PEDRO DISTRICT OF CALIFORNIA - OPERATING UNITS, 1963

ITEM	PURSE SEINES AND LAMPARA NETS				
	ANCHOVY	MACKEREL AND SARDINE	SQUID	TUNA	OTHER
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN: ON VESSELS . . . . .	34	545	22	1,367	13
ON BOATS AND SHORE . . . . .	9	12	3	-	-
TOTAL . . . . .	43	557	25	1,369	13
VESSELS, MOTOR . . . . .	7	66	6	120	3
GROSS TONNAGE . . . . .	156	4,890	148	33,155	84
BOATS, MOTOR . . . . .	3	49	1	218	1
GEAR: NUMBER . . . . .	10	72	7	120	3
LENGTH, YARDS . . . . .	3,550	35,750	2,600	85,710	1,200

ITEM	POTS, LOBSTER	GILL NETS, DRIFT			TRAMMEL NETS
		BARRACUDA	SEA BASS	OTHER	
		<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	
FISHERMEN: ON VESSELS . . . . .	48	12	94	88	4
ON BOATS AND SHORE . . . . .	136	18	70	4	6
TOTAL . . . . .	184	30	164	12	10
VESSELS, MOTOR . . . . .	19	4	33	3	1
GROSS TONNAGE . . . . .	349	62	553	56	8
BOATS, MOTOR . . . . .	66	9	35	2	3
GEAR: NUMBER . . . . .	5,670	13	68	5	4
SQUARE YARDS . . . . .	-	36,500	201,300	15,200	22,000

ITEM	LINES					
	HAND				TROLL	
	ALBACORE	ROCK FISH	YELLOWFIN	OTHER	SALMON	ALBACORE
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN: ON VESSELS . . . . .	540	47	370	-	7	646
ON BOATS AND SHORE . . . . .	20	70	6	102	3	89
TOTAL . . . . .	560	117	376	171	10	735
VESSELS, MOTOR . . . . .	163	19	66	23	3	261
GROSS TONNAGE . . . . .	4,931	452	4,748	560	47	6,431
BOATS, MOTOR . . . . .	29	35	33	51	2	59
GEAR: NUMBER . . . . .	550	117	348	170	30	2,680
HOOKS . . . . .	550	234	348	340	120	2,680

ITEM	LINES - CONTINUED					TOTAL EXCLUSIVE OF DUPLI- CATION
	TROLL- CONTINUED	LONG OR SET WITH HOOKS	DIP, BRAIL OR SCOOP NETS	HARPOONS, SWORDFISH	DIVING OUTFITS, ABALONE	
	OTHER					
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN: ON VESSELS . . . . .	13	23	50	14	15	2,644
ON BOATS AND SHORE . . . . .	21	18	26	16	86	545
TOTAL . . . . .	34	41	76	30	103	3,389
VESSELS, MOTOR . . . . .	6	9	19	5	6	576
GROSS TONNAGE . . . . .	107	201	413	104	184	47,367
BOATS, MOTOR . . . . .	14	9	13	8	44	543
GEAR: NUMBER . . . . .	180	162	75	13	51	-
HOOKS . . . . .	180	16,200	-	-	-	-

## PACIFIC COAST FISHERIES

## SAN PEDRO DISTRICT OF CALIFORNIA - CATCH BY GEAR, 1963

SPECIES	PURSE SEINES AND LAMPARA NETS		POTS		GILL AND TRAMMEL NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ANCHOVIES . . . . .	1,171,000	\$24,356	-	-	-	-
BARRACUDA . . . . .	-	-	-	-	284,000	\$46,256
BONITO . . . . .	3,264,000	90,415	-	-	-	-
FLOUNDERS, CALIFORNIA HALIBUT . . . . .	-	-	-	-	94,800	22,431
FLYING FISH . . . . .	11,600	656	-	-	26,000	2,064
HALF MOON . . . . .	-	-	-	-	4,000	851
KING CROAKER . . . . .	159,100	9,225	-	-	323,000	18,766
MACKEREL:						
JACK . . . . .	86,766,700	1,822,090	-	-	-	-
PACIFIC . . . . .	36,954,900	798,227	-	-	9,900	213
OPALEYE . . . . .	1,100	187	-	-	-	-
PERCH . . . . .	-	-	-	-	15,000	2,598
POMPANO . . . . .	27,000	7,219	-	-	-	-
SARDINE, PACIFIC . . . . .	5,390,600	214,553	-	-	-	-
SEA BASS:						
BLACK . . . . .	-	-	-	-	100,000	15,790
WHITE . . . . .	-	-	-	-	600,000	164,686
SHARKS, UNCLASSIFIED . . . . .	-	-	-	-	232,000	28,930
SMELT . . . . .	30,000	1,193	-	-	13,600	342
TUNA:						
ALBACORE . . . . .	2,604,300	414,605	-	-	-	-
BLUEFIN . . . . .	26,278,600	2,961,621	-	-	-	-
SKIPJACK . . . . .	62,727,800	6,762,343	-	-	-	-
YELLOWFIN . . . . .	75,454,300	9,997,690	-	-	-	-
YELLOWTAIL . . . . .	40,000	4,093	-	-	-	-
UNCLASSIFIED, FOR FOOD . . . . .	-	-	-	-	5,600	395
CRABS, ROCK . . . . .	-	-	107,900	\$12,743	-	-
LOBSTERS, SPINY . . . . .	-	-	252,200	167,624	-	-
OCTOPUS . . . . .	-	-	-	-	300	-
SQUID . . . . .	4,000,000	53,587	-	-	-	54
TOTAL . . . . .	304,881,400	23,162,860	360,100	180,367	1,710,200	303,386

SPECIES	LINES		DIP, BRAIL OR SCOOP NETS		HARPOONS		DIVING OUTFITS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BARRACUDA . . . . .	31,600	\$5,148	-	-	-	-	-	-
BONITO . . . . .	651,400	18,044	-	-	-	-	-	-
CABRILLA . . . . .	25,000	4,299	-	-	-	-	-	-
FLOUNDERS:								
CALIFORNIA HALIBUT . . . . .	185,000	43,771	-	-	-	-	-	-
SAND OABS . . . . .	500	101	-	-	-	-	-	-
"SOLE":								
ENGLISH . . . . .	700	43	-	-	-	-	-	-
PETRALE . . . . .	100	13	-	-	-	-	-	-
UNCLASSIFIED . . . . .	700	98	-	-	-	-	-	-
FLYING FISH . . . . .	-	-	7,000	\$516	-	-	-	-
GROUPERS . . . . .	179,600	38,388	-	-	-	-	-	-
HALFMOON . . . . .	4,700	1,012	-	-	-	-	-	-
LINGCOD . . . . .	900	101	-	-	-	-	-	-
MACKEREL:								
JACK . . . . .	-	-	1,100	23	-	-	-	-
PACIFIC . . . . .	11,000	238	811,500	17,528	-	-	-	-
OPALEYE . . . . .	3,000	507	-	-	-	-	-	-
POMPANO . . . . .	5,600	1,497	-	-	-	-	-	-
ROCKFISHES . . . . .	585,900	70,328	-	-	-	-	-	-
SABLEFISH . . . . .	400	35	-	-	-	-	-	-
SALMON, CHINOOK OR KING . . . . .	800	867	-	-	-	-	-	-
SCULPIN . . . . .	21,100	6,936	-	-	-	-	-	-
SEA BASS:								
BLACK . . . . .	144,700	22,855	-	-	-	-	-	-
WHITE . . . . .	45,500	12,490	-	-	-	-	-	-
SHARKS, UNCLASSIFIED . . . . .	25,100	3,140	-	-	-	-	-	-
SHEEPSHEAD . . . . .	4,600	357	-	-	-	-	-	-
SKATES . . . . .	800	88	-	-	-	-	-	-
SWORDFISH . . . . .	8,300	5,042	-	-	40,000	\$24,301	-	-
TUNA:								
ALBACORE . . . . .	20,994,700	3,342,349	-	-	-	-	-	-
SKIPJACK . . . . .	8,891,500	957,615	-	-	-	-	-	-
YELLOWFIN . . . . .	7,675,100	1,016,950	-	-	-	-	-	-
TURBOT . . . . .	400	29	-	-	-	-	-	-
WAHOO . . . . .	20,200	7,079	-	-	-	-	-	-
YELLOWTAIL . . . . .	13,400	1,373	-	-	-	-	-	-
UNCLASSIFIED, FOR FOOD . . . . .	6,000	423	-	-	-	-	-	-
ABALONE . . . . .	-	-	-	-	-	-	247,800	\$158,813
SQUID . . . . .	-	-	131,900	1,780	-	-	-	-
TOTAL . . . . .	39,538,300	5,560,936	951,500	19,847	40,000	24,301	247,800	158,813

# PACIFIC COAST FISHERIES

315

## SAN DIEGO DISTRICT OF CALIFORNIA - OPERATING UNITS, 1963

ITEM	PURSE SEINES AND LAMPARA NETS			
	MACKEREL AND SARDINE	SQUID	TUNA	OTHER
	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:				
ON VESSELS . . . . .	3	-	393	-
ON BOATS AND SHORE . . . . .	-	3	-	6
TOTAL . . . . .	3	3	393	6
VESSLS, MOTOR . . . . .	1	-	32	-
GROSS TONNAGE . . . . .	20	-	10,986	-
BOATS, MOTOR . . . . .	-	1	63	2
GEAR:				
NUMBER . . . . .	1	1	32	2
LENGTH, YARDS . . . . .	400	250	25,500	400

ITEM	POTS, LOSSTER, SPINY	GILL NETS, DRIFT			LINES
		BARRACUDA	SEA BASS	OTHER	HAND
		NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	10	-	31	3	15
ON BOATS AND SHORE . . . . .	150	4	38	10	86
TOTAL . . . . .	160	4	69	13	101
VESSLS, MOTOR . . . . .	4	-	11	1	5
GROSS TONNAGE . . . . .	174	-	180	21	200
BOATS, MOTOR . . . . .	75	2	19	5	43
GEAR:					
NUMBER . . . . .	5,200	2	30	6	101
SQUARE YARDS . . . . .	-	5,000	85,400	15,700	-
HOOKS . . . . .	-	-	-	-	202

ITEM	LINES - CONTINUED				
	HAND - CONTINUED			TROLL	
	ALBACORE	YELLOWFIN	OTHER	ALBACORE	OTHER
FISHERMEN:					
ON VESSELS . . . . .	267	157	26	207	-
ON BOATS AND SHORE . . . . .	24	10	58	68	3
TOTAL . . . . .	291	167	84	275	3
VESSLS, MOTOR . . . . .	80	24	11	87	-
GROSS TONNAGE . . . . .	2,366	2,146	216	2,086	-
BOATS, MOTOR . . . . .	22	17	29	45	2
GEAR:					
NUMBER . . . . .	284	150	84	1,188	18
HOOKS . . . . .	284	150	168	1,188	18

ITEM	LINES-CONT'D	OIP, BRAIL OR SCOOP NETS	HARPOONS, SWORDFISH	OIVING OUTFITS, AGALONE	TOTAL, EXCLUSIVE OF DUPLICATION
	LONG OR SET WITH HOOKS				
	NUMBER				
FISHERMEN:					
ON VESSELS . . . . .	2	2	-	6	946
ON BOATS AND SHORE . . . . .	22	-	4	36	352
TOTAL . . . . .	24	2	4	44	1,298
VESSLS, MOTOR . . . . .	1	1	-	2	203
GROSS TONNAGE . . . . .	14	12	-	27	16,706
BOATS, MOTOR . . . . .	11	-	2	19	265
GEAR:					
NUMBER . . . . .	98	2	2	23	-
HOOKS . . . . .	9,800	-	-	-	-

## PACIFIC COAST FISHERIES

## SAN DIEGO DISTRICT OF CALIFORNIA - CATCH BY GEAR, 1963

SPECIES	PURSE SEINES AND LAMPARA NETS		POTS		GILL NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BARRACUDA . . . . .	10,700	\$1,982	-	-	9,000	\$1,668
BONITO . . . . .	90,900	3,780	-	-	-	-
FLOUNDERS, CALIFORNIA HALIBUT . . . . .	-	-	-	-	124,000	24,329
KING CROAKER . . . . .	-	-	-	-	2,200	368
MACKEREL, PACIFIC . . . . .	20,000	1,130	-	-	-	-
SEA BASS:						
BLACK . . . . .	-	-	-	-	7,900	1,240
WHITE . . . . .	-	-	-	-	121,000	26,232
SHARKS, UNCLASSIFIED . . . . .	-	-	-	-	104,000	9,897
TUNA:						
ALBACORE . . . . .	137,300	20,597	-	-	-	-
BLUEFIN . . . . .	3,986,600	420,586	-	-	-	-
SKIPJACK . . . . .	21,867,900	2,322,374	-	-	-	-
YELLOWFIN . . . . .	20,648,300	2,744,155	-	-	-	-
YELLOWTAIL . . . . .	10,400	939	-	-	-	-
UNCLASSIFIED, FOR FOOD . . . . .	-	-	-	-	2,000	121
CRABS, ROCK . . . . .	-	-	4,300	\$139	-	-
LOBSTER, SPINY . . . . .	-	-	208,700	134,829	-	-
SQUID . . . . .	300	9	-	-	-	-
TOTAL . . . . .	46,772,400	5,515,552	213,000	134,968	371,100	65,655

SPECIES	LINES		DIP, BRAIL OR SCOOP NETS	
	POUNDS	VALUE	POUNDS	VALUE
BARRACUDA . . . . .	6,000	\$1,112	-	-
CABRILLA . . . . .	12,100	1,980	-	-
FLOUNDERS:				
CALIFORNIA HALIBUT . . . . .	250,000	49,050	-	-
SAND DABS . . . . .	1,200	251	-	-
"SOLE", UNCLASSIFIED . . . . .	13,000	2,855	-	-
GROUPERS . . . . .	53,900	12,561	-	-
KING CROAKER . . . . .	100	15	-	-
MACKEREL, PACIFIC . . . . .	-	-	4,100	\$232
OPALEYE . . . . .	300	29	-	-
POMPANO . . . . .	100	11	-	-
ROCKFISHES . . . . .	362,700	44,260	-	-
SABLEFISH . . . . .	1,800	189	-	-
SCULPIN . . . . .	54,400	14,626	-	-
SEA BASS:				
BLACK . . . . .	50,000	7,860	-	-
WHITE . . . . .	24,000	5,600	-	-
SHARKS, UNCLASSIFIED . . . . .	20,400	1,942	-	-
SHEEPSHEAD . . . . .	23,300	1,929	-	-
SWORFISH . . . . .	1,000	596	-	-
TUNA:				
ALBACORE . . . . .	5,560,000	834,000	-	-
SKIPJACK . . . . .	2,920,700	310,178	-	-
YELLOWFIN . . . . .	4,408,000	585,823	-	-
WALDO . . . . .	1,700	309	-	-
YELLOWTAIL . . . . .	5,000	452	-	-
UNCLASSIFIED, FOR FOOD . . . . .	500	31	-	-
TOTAL . . . . .	13,770,200	1,875,659	4,100	232

SPECIES	HARPOONS		DIVING OUTFITS	
	POUNDS	VALUE	POUNDS	VALUE
SWORFISH . . . . .	10,000	\$5,960	-	-
ABALONE . . . . .	-	-	43,200	\$18,841
TOTAL . . . . .	10,000	5,960	43,200	18,841



## LANDINGS BY HALIBUT FLEET AT SEATTLE, WASHINGTON

Halibut landings at Seattle in 1963 totaled 10.5 million pounds valued at \$2.4 million. Compared with 1962, this was an increase of 538,000 pounds (5 percent) in volume but a decline of \$803,000 (25 percent) in value.

Landings of halibut from fishing grounds west of Cape Spencer (8.2 million pounds) were about the same as in the previous year, while those from south of Cape Spencer (2.3 million pounds) were up nearly 500,000 pounds. Landings of sablefish from grounds off Cape Spencer (1.3 million pounds) showed a small decline from 1962.

The following tables contain a summary of the landings of dressed halibut and sablefish at Seattle by the U.S. halibut fleet. These data are not directly comparable with the State and sectional tabulations, since the weights in those tables represent the round weight of fish landed.

### LANDINGS BY THE HALIBUT FLEET AT SEATTLE, BY FISHING GROUNDS, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

FISHING GROUNDS	TRIPS	HALIBUT (DRESSED)						
		CHICKEN			MEDIUM		LARGE	
		NUMBER	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
WEST OF CAPE SPENCER . . .	129	102	19	5,023	1,174	2,613	618	
SOUTH OF CAPE SPENCER . . .	165	284	57	1,683	409	306	74	
TOTAL . . . . .	294	386	76	6,706	1,583	2,919	692	

FISHING GROUNDS	HALIBUT (DRESSED) - CONTINUED				SABLEFISH		TOTAL	
	NO. 2 MEDIUM		NO. 2 LARGE		QUANTITY	VALUE	QUANTITY	VALUE
	QUANTITY	VALUE	QUANTITY	VALUE				
WEST OF CAPE SPENCER . . .	361	68	59	12	1	8,159	1,891	
SOUTH OF CAPE SPENCER . . .	68	14	6	1	1,285	271	826	
TOTAL . . . . .	429	82	65	13	1,286	271	2,717	

1/ LESS THAN \$500.

SEE NOTE AT END OF NEXT TABLE.

### LANDINGS BY THE HALIBUT FLEET AT SEATTLE, BY MONTHS, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

MONTHS	TRIPS	HALIBUT (DRESSED)						
		CHICKEN			MEDIUM		LARGE	
		NUMBER	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
APRIL . . . . .	29	50	10	1,642	406	86	22	
MAY . . . . .	42	65	12	1,463	343	608	146	
JUNE . . . . .	38	76	15	989	241	591	144	
JULY . . . . .	43	112	23	1,045	245	470	113	
AUGUST . . . . .	54	45	8	1,040	220	800	183	
SEPTEMBER . . . . .	38	33	6	294	72	83	20	
OCTOBER . . . . .	40	5	1	197	46	248	56	
NOVEMBER . . . . .	10	(1)	1	36	10	33	8	
TOTAL . . . . .	294	386	76	6,706	1,583	2,919	692	

MONTHS	HALIBUT (DRESSED) - CONTINUED				SABLEFISH		TOTAL	
	NO. 2 MEDIUM		NO. 2 LARGE		QUANTITY	VALUE	QUANTITY	VALUE
	QUANTITY	VALUE	QUANTITY	VALUE				
APRIL . . . . .	61	13	5	1	-	1,844	452	
MAY . . . . .	62	12	7	1	2	2,219	516	
JUNE . . . . .	65	13	9	2	17	1,747	418	
JULY . . . . .	63	12	6	1	31	1,727	400	
AUGUST . . . . .	110	19	15	3	220	2,230	477	
SEPTEMBER . . . . .	15	3	1	(1)	515	941	208	
OCTOBER . . . . .	51	9	17	4	402	920	206	
NOVEMBER . . . . .	3	1	4	1	87	163	40	
TOTAL . . . . .	430	82	64	13	1,286	271	2,717	

1/ LESS THAN 500 POUNDS OR \$500. NOTE:--THE 1963 PACIFIC HALIBUT FISHING SEASON OPENED ON MARCH 25 IN AREA 3B (NORTH) AND CLOSED ON OCTOBER 15. AREA 3B (SOUTH) OPENED TO HALIBUT FISHING ON APRIL 19 AND CLOSED ON OCTOBER 15. AREAS 1 AND 2 OPENED TO HALIBUT FISHING ON MAY 9 AND CLOSED ON NOVEMBER 30. AREA 3A OPENED TO HALIBUT FISHING ON MAY 9 AND CLOSED ON AUGUST 9.

## PACIFIC COAST FISHERIES

## WHALING

During the 1963 season, three whaling stations operated--the same as in 1962. The three companies were the Del Monte and the Golden Gate Fishing Companies of Richmond, Calif., and Bioproducts, Inc., of Warrenton, Oreg. The California stations operated the same five catcher vessels as in the previous year--Lynnann and Sioux City for the Golden Gate Fishing Company and Dennis Gayle, Donna Mae, and Allen Cody for the Del Monte Company. At the Oregon station, Tom and Al replaced the catcher boat used in 1962.

In 1963, the catch of whales was 259--11 more than in the previous year. The catch of 97 sei whales was 75 more than in 1962 and the largest number captured since the fishery was reactivated in 1956. Fifty-five humpback whales were taken in 1963--16 more than in the previous year but 18 less than the 1959-63 average of 73. The catch of 77 sperm whales was 17 more than in 1962 and 22 more than the 1959-63 average. The valuable fin whale fishery, however, declined from 124 taken in 1962 to 21 in 1963.

The open season remained the same--April 1 to November 30, inclusive, for sperm whales and April 16 to October 15, inclusive, for other whales.

The whale catch in 1963 was processed into 2.6 million pounds of meal, nearly 2.2 million pounds of oil, and 2.9 million pounds of meat (for use as canned or frozen animal food). In 1963, for the first time, there was a small production (14,000 pounds) of whale solubles. At the producer's level the value of all products was \$544,000. Compared with 1962, the volume declined 21 percent and the value, 23 percent.

## WHALE CATCH, 1963

MONTH	BLUE	BOTTLE- NOSE	FIN	HUMP- BACK	KILLER	SEI	SPERM	TOTAL
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
APRIL . . . . .	-	-	1	15	-	-	11	27
MAY . . . . .	-	1	2	20	-	-	12	35
JUNE . . . . .	-	1	4	9	-	9	2	25
JULY . . . . .	1	-	7	2	1	55	4	70
AUGUST . . . . .	-	-	1	3	-	19	13	36
SEPTEMBER . . . . .	4	-	5	5	-	8	19	41
OCTOBER . . . . .	1	-	1	1	-	6	16	25
TOTAL . . . . .	6	2	21	55	1	97	77	259

NOTE:--THE OREGON FIRM TOOK 5 FIN WHALES.

## WHALE PRODUCTS, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

ITEM	QUANTITY	VALUE
MEAL . . . . .	2,636	153
MEAT . . . . .	2,884	242
OIL:		
SPERM . . . . .	700	58
WHALE . . . . .	1,429	91
SOLUBLES . . . . .	14	(1)
TOTAL . . . . .	7,665	544

1/ LESS THAN \$500.

NOTE:--TO CONVERT POUNDS OF OIL TO GALLONS, DIVIDE BY 7.75.

FUR SEAL INDUSTRY OF THE PRIBILOF ISLANDS

Fur sealing operations on the Pribilof Islands produced 85,254 commercial sealskins during 1963--an increase of 7,339 skins above the 1962 harvest. The 42,278 take of male seals was below average as a result of lower abundance of the normally predominant 3-year-old class. Three-year-old seals normally outnumber 4-year-olds two to one, but in 1963, these two year-classes each comprised 45 percent of the total male harvest. The 48-3/4-inch maximum length was waived shortly after the season started, and all available males were taken that had not yet developed mature bull characteristics. This produced an additional 3,150 pelts beyond the previous size limit. The cropping of these larger animals revealed previously unknown extremes of size variation in the 4- and 5-year-age-groups; many bachelor seals over 49 inches long were found to be no older than those taken within the previously acceptable size range. Taking the larger sizes was justified by the biological surplus of idle bulls.

The kill of females for herd reduction purposes totaled 43,952 animals, of which 15,299 were immatures, whose pelts are dressed, dyed, machined and finished the same as males; while the remainder were mature cows, about half of which were suitable for an alternate process of close shearing. Only 976 female pelts were rejected because of poor quality. None were lost because of lack of manpower or plant capacity.

For the first time in history, Government employees supervised and performed the blubbering and curing of the skins. This was necessitated by cancellation of the 40-year-old processing contract of the Fouke Fur Company. While the rate of production was somewhat below that of previous years, workmanship of the largely inexperienced crew was judged by experts to be at least equal and often superior. As in previous years, killing and skinning was performed mostly by Pribilof residents and curing by native labor imported from Aleutian villages. The regular male sealing season extended from July 2 through August 5, while the special female killing season lasted from August 13 through September 12.

Seal pup mortality on the rookeries, an indicator of subsequent survival at sea, was checked in mid-August. Deaths on St. Paul Island were calculated to be 34,228, while St. George Island totaled 5,011. Both are well below the 1962 counts and indicate an improving trend in the subsequent return of 3-year-old seals.

One firm operating under a 2-year agreement was again active on St. Paul Island processing seal carcasses. An initial shipment of 150 tons of frozen seal meat and 11 tons of livers found a ready market as mink feed and for vitamin extraction, respectively. A second shipment was beset with many delays, and difficulty was experienced in marketing products that arrived in poor condition. Aside from this limited operation, seal carcasses were dumped on remote grounds as in the previous year.

CLASSES OF SEALS TAKEN ON THE PRIBILOF ISLANDS,  
BY AGE GROUP, 1963

ITEM	ST. PAUL ISLAND		ST. GEORGE ISLAND	
	MALE	FEMALE	MALE	FEMALE
	. . . . PERCENTAGE OF KILL . . . .			
BY AGE:				
2-YEAR-OLDS . . . . .	2	1	5	2
3-YEAR-OLDS . . . . .	47	6	42	10
4-YEAR-OLDS . . . . .	46	17	48	23
5-YEAR-OLDS . . . . .	5	20	5	18
6-YEAR-OLDS . . . . .	-	9	-	10
7-YEAR-OLDS . . . . .	-	4	-	4
8-YEAR-OLDS AND OLDER . . . . .	-	43	-	33
TOTAL . . . . .	100	100	100	100

NOTE: --PERCENTAGE OF MALE SEALS FOR SEASON JULY TO AUGUST 5. PERCENTAGE OF FEMALE SEALS FOR SEASON AUGUST 13 TO SEPTEMBER 12.

# PACIFIC COAST FISHERIES

## DISTRIBUTION OF TAKE OF SEALSKINS, 1963

The fur seal treaty specifies that Canada and Japan are to receive 15 percent of each of the skins taken on the Pribilof Islands. To insure an impartial selection of their respective 15 percent, Canada made a random choice of numbers 4, 10, and 14, while Japan selected numbers 3, 7, and 15 out of each series of 20 barrels of sealskins. This resulted in the following allocation of skins to the United States, Canada, and Japan:

ITEM	UNITED STATES	CANADA	JAPAN	TOTAL
	NUMBER	NUMBER	NUMBER	NUMBER
FROM ST. PAUL ISLAND:				
MALE SKINS . . . . .	22,243	4,767	4,767	31,777
FEMALE SKINS . . . . .	23,953	5,132	5,132	34,217
TOTAL SKINS . . . . .	46,196	9,899	9,899	65,994
FROM ST. GEORGE ISLAND:				
MALE SKINS . . . . .	7,351	1,575	1,575	10,501
FEMALE SKINS . . . . .	6,131	1,314	1,314	8,759
TOTAL SKINS . . . . .	13,482	2,889	2,889	19,260
FROM BOTH ISLANDS:				
MALE SKINS . . . . .	29,594	6,342	6,342	42,276
FEMALE SKINS . . . . .	30,084	6,446	6,446	42,976
GRAND TOTAL . . . . .	59,678	12,788	12,788	85,254

As a result of taking oversize male pelts suitable for processing, it was necessary to reduce the standard packing count to 80 skins per barrel from the 85 used when only the smaller animals were taken. A total of 273 barrels of blubber was also salted and barreled for subsequent extraction of oil for tanning sealskins.

## SALE OF SEALSKINS, 1963

Two public and four special sealskin auctions were held in Greenville, S. C., in 1963. A total of 61,965 skins was sold for the account of the U. S. Government. Gross receipts for the six auctions held during calendar year 1963 yielded \$6,005,835. The offerings consisted of 46,784 conventionally processed skins which yielded \$5,406,985 and 15,181 female skins which sold for \$598,850. The latter included 14,140 LAKODA sheared skins which brought \$585,022 and 1,041 natural sheared skins which yielded \$13,828. LAKODA skins averaged \$41.37 compared with \$115.57 for conventionally processed skins.

## DISTRIBUTION OF PRIBILOF ISLANDS RECEIPTS, FISCAL YEAR, 1963

ITEM	AMOUNT
COST OF HANDLING, PROCESSING, DYEING AND DRESSING . . . . .	\$1,749,709
COST OF ADMINISTRATION OF PRIBILOF ISLANDS . . . . .	2,217,481
PAYMENT TO THE STATE OF ALASKA . . . . .	589,300
NET RECEIPTS TO U.S. GOVERNMENT . . . . .	252,557
TOTAL . . . . .	4,609,047

NOTE:--FIGURES SHOWN IN THE ABOVE TABLE ARE COMPUTED ON A FISCAL YEAR BASIS. THOSE QUOTED IN THE PRECEDING NARRATIVE ARE ON A CALENDAR YEAR BASIS.

In 1963, United States and Canadian commercial fishermen in the five Great Lakes, Lake St. Clair, and the International Lakes of northern Minnesota produced 106 million pounds of fish--a decrease of more than 17 million pounds compared with 1962. Only three species showed an appreciable increase: alewives, up nearly 700,000 pounds; sheepshead, 1.0 million pounds; and yellow pike, 1.8 million pounds. Major decreases were noted for carp, 1.1 million pounds; chubs, 3.9; lake herring, 1.8; smelt, 8.2 million pounds; tullibee, 600,000 pounds; white bass, 700,000 pounds; and yellow perch, 3.7 million pounds.

Production in Canadian waters dropped almost 11 million pounds because of a 10-million-pound decline in Lake Erie, where smelt and yellow perch landings were down 8.6 and 2.9 million pounds, respectively. Canadian Lake Erie yellow pike catches of 1,875,000 pounds were 560 percent greater than in 1962. Of the four Great Lakes fished by Canadians, only Lake Ontario showed an increase in landings. In Lake Huron, the catch decreased 588,000 pounds, chiefly because of a decline in the chub production. Smaller catches of lake herring accounted for the Canadian decrease in Lake Superior landings.

The commercial catch in the U.S. waters of the Great Lakes and International Lakes was 59 million pounds--10 percent less than in 1962 and the lowest yield since 1913. The value of the U.S. catch decreased \$244,000 (4 percent) compared with 1962. The State of Michigan was the largest producer with 20.3 million pounds, followed by Wisconsin, 16.9; Ohio, 14.2; Minnesota, 5.3; and Pennsylvania, 1.4 million pounds. New York, Indiana, and Illinois accounted for the remainder. The lakes, in order of production, were: Michigan, 21.0; Erie, 17.2; Superior, 12.1; Huron, 5.2; International Lakes of Minnesota, 3.2; St. Clair, 1.0; and Ontario, 233,000 pounds.

Fishermen and vessels. In 1963, 2,704 fishermen, 396 vessels of 5 net tons and over, and 1,251 other craft were employed in the U.S. commercial fisheries of the Great Lakes. Compared with 1962, this was a decrease of 386 fishermen, 28 vessels, and 76 other craft. Fishermen on vessels averaged 101 man-days of fishing, while in 1962, the average was 106 days. Fishermen days of operation on vessels decreased from 124,323 in 1962 to 90,674 in 1963, while the number of vessel-days fished dropped from 42,905 to 38,373. Fishermen on boats and shore fished 80,314 man-days in 1963 and 86,552 man-days in 1962. Motor boat operations totaled 43,356 boat-days in 1963, compared with 46,519 in 1962.

Fishing effort. The total fishing effort by U.S. Great Lakes fishermen in 1963 was less than in 1962 for nearly all gears. Only three gears showed an increased use: 1-1/4- to 2-inch mesh gill net lifts increased 40,000 linear yards; 7-1/8- to 14-inch mesh gill net lifts increased 336,000 linear yards; and otter trawl operations increased 1,361 hours, even though only 14 vessels operated--2 less than in 1962. The total lifts for 2-1/8- to 3-7/8-inch mesh gill nets decreased 15.6 million linear yards compared with 1962. Other decreases noted were: 4- to 7-inch mesh gill nets, down 12.6 million linear yard-lifts; trap nets, down 15,799 lifts; set line hooks, down 2,383,000 hook-lifts; pound nets, down 2,045 lifts; fyke and hoop nets, down 693 lifts; and haul seines, down 518,000 linear yard-hauls.

Weather. A severe freeze in the Great Lakes area in February and March curtailed fishing. The Weather Bureau reported that Lakes Superior, Michigan, Huron, and Ontario were completely frozen over in February. This was the severest winter recorded in the area since 1936.

Species by lake. Alewives, chubs, and yellow perch landings accounted for 84 percent of the 1963 production from Lake Michigan. Catches of alewives (5.4 million pounds) and yellow perch, (4.9 million pounds) increased 14 and 20 percent, respectively, while chub landings (7.5 million pounds) decreased 33 percent. Total production for the lake was 2.5 million pounds less than in 1962.

# GREAT LAKES FISHERIES

Lake Erie landings in 1963 were 2.4 million pounds less than the preceding year. Carp landings decreased 1.4 million pounds, and yellow perch, 1.7 million pounds, while sheepshead catches were up 603,000 pounds. U.S. fishermen caught 367,000 pounds more yellow pike in 1963 than in 1962, an increase of 85 percent; however, the total catch was only 800,000 pounds compared with an average of 3.6 million pounds during 1953-62. Production from Lake Huron decreased 674,000 pounds compared with 1962. Catches of whitefish, chubs, and suckers declined, while yellow perch landings increased.

Lake Superior landings decreased 477,000 pounds compared with 1962. While chub and smelt increased over 500,000 pounds each, lake herring production declined 1.4 million pounds. Smaller catches of tullibee accounted for the decrease in the landings from the International Lakes of Minnesota.

Lake Ontario landings of 233,000 pounds were the same as in 1962.

Sea lamprey control. During 1963, the catch of adult sea lampreys continued to be low at the 26 accessment barriers in streams along the south shore of Lake Superior. The number of spawning-run lamprey taken (11,117) was higher than the previous year, but was 83 percent less than in 1961. Twenty-six streams along the south shore of Lake Superior and 22 tributaries of Lake Michigan were treated with a selective lampricide. In addition, 187 streams were surveyed in the continuing surveillance of the treated and potential lamprey-producing streams.

Under the coordination of the Great Lakes Fishery Commission, the United States and Canada planted 2,310,748 fingerling and yearling lake trout in Lake Superior. Assessment of lake trout populations showed that the average size and abundance of this species were increasing.

Research. In the latter part of 1963, seven deaths occurred in Michigan, Tennessee, and Alabama from type E botulism poisoning, attributed to eating contaminated smoked whitefish and chubs. Because of the botulism poisonings, 1.6 million pounds of chubs for use as smoked fish for human consumption could not be sold and were held in freezers. Under section 4b of Public Law 88-309, "The Commercial Fisheries Research and Development Act of 1964", holders of these frozen chubs were paid to remove these fish from human food channels. The resulting publicity had a disastrous effect on the commercial fishing industry in the Great Lakes area. Smoked fish production virtually stopped, and consumer misunderstanding of the smoked fish warning released by the U.S. Food and Drug Administration (FDA) had a serious effect on fresh and frozen fish sales as well. A group of Bureau technologists met in Ann Arbor and prepared an immediate and long-range program to revive the industry. Studies were made to evaluate product quality as affected by interim processing guidelines provided by FDA and States concerned with the subject.

In 1963, four vessels of the Bureau of Commercial Fisheries operated on the Great Lakes, collecting data on environment, growth, distribution, abundance, and other factors that influence fish stocks and conducting exploratory and gear research.

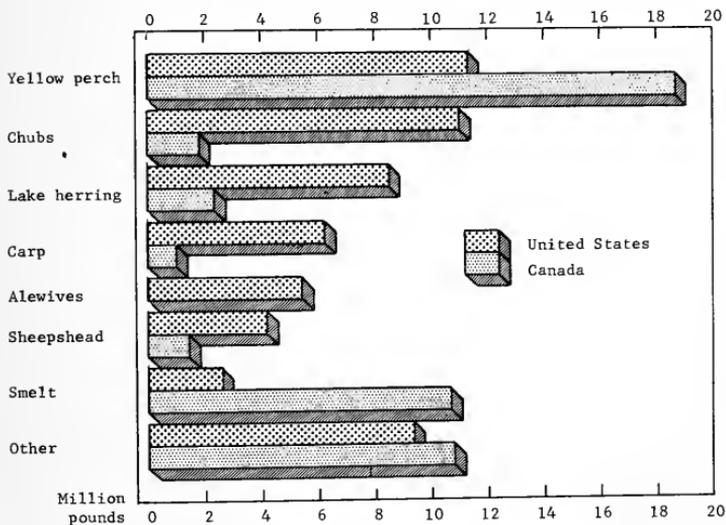
In October, a contract for \$1,308,830 was issued for construction of a new Bureau laboratory at Ann Arbor, Mich. When completed in 1965, the laboratory will house Bureau research operations and the supporting statistical unit.

Other information. Condensed summary data on the catch of the Great Lakes fisheries appearing on the following pages have been previously published in Current Fishery Statistics No. 3624. Seasonal variations in the catch of fish landed in Wisconsin, Michigan, and Ohio can be ascertained from monthly landings bulletins issued currently in cooperation with the fishery department of these States. Additional specific data on many aspects of the Great Lakes fisheries may be found in the daily, monthly, and annual reports published by the Bureau's Fishery Market News Service office in Chicago, Ill.

Acknowledgments. The following organizations assisted in collecting the data appearing in this section: Dominion Bureau of Statistics of Canada; Illinois Department of Conservation; Indiana Department of Conservation, Division of Fish and Game; Michigan Department of Conservation; Minnesota Department of Conservation; New York Conservation Department, Division of Fish and Game; Ohio Department of Natural Resources, Division of Wildlife, Section of Fish Management; Pennsylvania Fish Commission; and the Wisconsin Conservation Department.



## UNITED STATES AND CANADIAN CATCH, 1963



## GREAT LAKES FISHERIES

## SUMMARY OF UNITED STATES AND CANADIAN CATCH, 1963

(THOUSANDS OF POUNDS)

SPECIES	LAKE ONTARIO			LAKE ERIE			LAKE ST. CLAIR
	UNITED STATES	CANADA	TOTAL	UNITED STATES	CANADA	TOTAL	CANADA
	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
BLUE PIKE . . . . .	(1)	(1)	(1)	(1)	(1)	(1)	-
BOWFIN . . . . .	1	20	21	-	26	26	5
BUFFALOFISH . . . . .	-	-	-	64	-	64	-
BULLHEADS . . . . .	44	209	253	125	63	188	15
BURBOT . . . . .	1	-	1	2	2	4	-
CARP . . . . .	36	417	453	3,338	195	3,533	284
CATFISH . . . . .	2	20	22	1,090	156	1,246	83
CHUBS . . . . .	-	(1)	(1)	-	(1)	(1)	-
CISCO . . . . .	5	-	5	1	-	1	-
CRAPPIE . . . . .	1	-	1	-	-	-	-
EELS, COMMON . . . . .	19	169	188	-	(1)	(1)	-
GARFISH . . . . .	(1)	-	(1)	-	-	-	-
GIZZARD SHAO . . . . .	-	-	-	5	-	5	-
GOLDFISH . . . . .	-	-	-	172	-	172	-
LAKE HERRING . . . . .	-	38	38	-	2	2	-
LAKE TROUT . . . . .	-	1	1	-	(1)	(1)	-
MOONEYE OR GOLDEYE . . . . .	-	-	-	1	-	1	-
PIKE OR PICKEREL . . . . .	(1)	33	33	(1)	2	2	19
QUILLBACK . . . . .	-	-	-	1	-	1	-
ROCK BASS . . . . .	7	30	37	(1)	47	47	19
SAUGER . . . . .	(1)	(1)	(1)	(1)	-	(1)	(1)
SHEEPSHEAD . . . . .	(1)	23	23	4,127	1,412	5,539	17
SMELT . . . . .	(1)	170	170	306	10,524	10,830	-
STURGEON . . . . .	(1)	7	7	1	2	3	13
SUCKERS . . . . .	11	43	54	224	57	281	108
SUNFISH . . . . .	9	175	184	-	41	41	46
WHITE BASS . . . . .	4	67	91	1,153	1,855	3,008	27
WHITEFISH:							
COMMON . . . . .	32	354	386	6	11	17	-
MENOMINEE . . . . .	-	(1)	(1)	-	(1)	(1)	-
WHITE PERCH . . . . .	6	-	6	-	-	-	-
YELLOW PERCH . . . . .	53	144	197	5,822	17,963	23,785	16
YELLOW PIKE . . . . .	2	68	70	800	1,875	2,675	329
TOTAL . . . . .	233	2,008	2,241	17,236	34,233	51,471	961

SPECIES	LAKE HURON			LAKE MICHIGAN	LAKE SUPERIOR		
	UNITED STATES	CANADA	TOTAL	UNITED STATES	UNITED STATES	CANADA	TOTAL
	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
ALWIVES . . . . .	2	-	2	5,396	(1)	-	(1)
BOWFIN . . . . .	1	-	1	(1)	-	-	(1)
BULLHEADS . . . . .	6	(1)	6	43	(1)	-	(1)
BURBOT . . . . .	(1)	1	1	4	10	3	13
CARP . . . . .	1,647	90	1,737	1,277	-	(1)	(1)
CATFISH . . . . .	172	22	194	2	-	(1)	(1)
CHUBS . . . . .	1,975	1,773	3,748	7,460	1,568	81	1,669
CRAPPIE . . . . .	2	-	2	-	(1)	-	(1)
GIZZARD SHAO . . . . .	(1)	-	(1)	-	-	-	-
LAKE HERRING . . . . .	17	9	26	41	8,419	2,319	10,738
LAKE TROUT . . . . .	(1)	1	1	26	101	112	213
PIKE OR PICKEREL . . . . .	22	46	68	33	1	2	3
QUILLBACK . . . . .	4	-	4	-	-	-	-
ROCK BASS . . . . .	9	-	9	(1)	(1)	-	(1)
SAUGER . . . . .	(1)	1	1	(1)	(1)	63	63
SCULPIN . . . . .	-	-	-	3	-	-	-
SHEEPSHEAD . . . . .	25	37	62	(1)	-	-	-
SMELT . . . . .	13	2	15	1,203	1,493	4	1,497
STURGEON . . . . .	1	18	19	3	(1)	2	2
SUCKERS . . . . .	509	135	644	299	53	25	78
SUNFISH . . . . .	-	(1)	(1)	-	-	-	-
WHITE BASS . . . . .	17	17	34	(1)	-	-	-
WHITEFISH:							
COMMON . . . . .	113	511	624	265	442	161	603
MENOMINEE . . . . .	6	8	14	13	15	11	26
YELLOW PERCH . . . . .	507	562	1,069	4,872	2	16	18
YELLOW PIKE . . . . .	158	353	511	61	1	167	168
TOTAL . . . . .	5,206	3,567	8,793	21,021	12,125	2,966	15,091

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# GREAT LAKES FISHERIES

325

## SUMMARY OF UNITED STATES AND CANADIAN CATCH, 1963 - Continued

(THOUSANDS OF POUNDS)

SPECIES	TOTAL, GREAT LAKES			LAKE OF THE WOODS		
	UNITED STATES	CANADA	TOTAL	UNITED STATES	CANADA	TOTAL
	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
ALEWIVES . . . . .	5,398	-	5,398	-	-	-
BLUE PIKE . . . . .	(1)	(1)	(1)	-	-	-
BOWFIN . . . . .	2	51	53	-	-	-
BUFFALOFISH . . . . .	64	-	64	-	-	-
BULLHEADS . . . . .	218	287	505	-	160	172
BURBOT . . . . .	17	6	23	342	292	634
CARP . . . . .	6,298	986	7,284	-	-	-
CATFISH . . . . .	1,266	281	1,547	-	(1)	(1)
CHUBS . . . . .	11,023	1,854	12,877	-	-	-
CISCO . . . . .	6	-	6	-	-	-
CRAPPIE . . . . .	3	-	3	-	-	-
EELS, COMMON . . . . .	19	169	188	-	-	-
GARFISH . . . . .	-	-	-	-	-	-
GIZZARD SHAD . . . . .	5	-	5	-	-	-
GOLDFISH . . . . .	172	-	172	-	-	-
LAKE HERRING . . . . .	8,477	2,368	10,845	-	-	-
LAKE TROUT . . . . .	127	114	241	-	-	-
MOONEYE OR GOLDEYE . . . . .	1	-	1	(1)	-	(1)
PIKE OR PICKEREL . . . . .	56	102	158	74	342	416
QUILLBACK . . . . .	5	-	5	-	-	-
ROCK BASS . . . . .	16	97	113	-	57	(1)
SAUGER . . . . .	-	64	64	85	44	129
SCULPIN . . . . .	3	-	3	-	-	-
SHEEPSHEAD . . . . .	4,152	1,489	5,641	-	-	-
SMELT . . . . .	3,015	10,700	13,715	-	-	-
STURGEON . . . . .	5	42	47	-	(1)	(1)
SUCKERS . . . . .	1,096	368	1,464	249	444	693
SUNFISH . . . . .	9	262	271	-	-	-
TULLIBEE . . . . .	-	-	-	2,030	271	2,301
WHITE BASS . . . . .	1,174	1,986	3,160	-	-	-
WHITEFISH:						
COMMON . . . . .	878	1,037	1,915	-	64	64
MEMONINEE . . . . .	34	19	53	-	-	-
WHITE PERCH . . . . .	6	-	6	-	-	-
YELLOW PERCH . . . . .	11,256	18,701	29,957	19	13	32
YELLOW PIKE . . . . .	1,022	2,792	3,814	225	620	845
<b>TOTAL . . . . .</b>	<b>55,823</b>	<b>43,775</b>	<b>99,598</b>	<b>3,036</b>	<b>2,309</b>	<b>5,345</b>

SPECIES	NAMAKAN LAKE			RAINY LAKE		
	UNITED STATES	CANADA	TOTAL	UNITED STATES	CANADA	TOTAL
	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
BURBOT . . . . .	3	2	5	39	94	133
PIKE OR PICKEREL . . . . .	-	-	-	10	153	163
ROCK BASS . . . . .	-	(1)	(1)	-	7	7
SAUGER . . . . .	-	-	-	(1)	(1)	(1)
STURGEON . . . . .	-	1	1	-	4	4
SUCKERS . . . . .	5	14	19	23	306	329
SUNFISH . . . . .	-	-	-	-	(1)	(1)
TULLIBEE . . . . .	4	4	8	24	103	127
WHITEFISH, COMMON . . . . .	10	-	14	12	29	41
YELLOW PERCH . . . . .	-	-	-	(1)	3	3
YELLOW PIKE . . . . .	-	4	4	17	117	134
<b>TOTAL . . . . .</b>	<b>22</b>	<b>29</b>	<b>51</b>	<b>125</b>	<b>816</b>	<b>941</b>

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## GREAT LAKES FISHERIES

## SUMMARY OF UNITED STATES AND CANADIAN CATCH, 1963 - Continued

(THOUSANDS OF POUNDS)

SPECIES	TOTAL, INTERNATIONAL LAKES			GRAND TOTAL, ALL LAKES		
	UNITED STATES	CANADA	TOTAL	UNITED STATES	CANADA	TOTAL
	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
ALEWIVES . . . . .	-	-	-	5,396	-	5,396
BLUE PIKE . . . . .	-	-	-	(1)	(1)	(1)
BOWFIN . . . . .	-	-	-	2	51	53
BUFFALOFISH . . . . .	-	-	-	64	-	64
BULLHEADS . . . . .	12	160	172	230	447	677
BURBOT . . . . .	364	388	772	401	394	795
CARP . . . . .	-	(1)	(1)	6,296	966	7,264
CATFISH . . . . .	-	-	-	1,266	281	1,547
CHUBS . . . . .	-	-	-	11,023	1,654	12,677
CISCO . . . . .	-	-	-	6	-	6
CRAPPIE . . . . .	-	-	-	3	-	3
EELS, COMMON . . . . .	-	-	-	19	169	188
GARFISH . . . . .	-	-	-	(1)	-	(1)
GIZZARD SHAD . . . . .	-	-	-	5	-	5
GOLDFISH . . . . .	-	-	-	172	-	172
LAKE HERRING . . . . .	-	-	-	8,477	2,368	10,845
LAKE TROUT . . . . .	-	2	2	127	116	243
MOONEYE OR GOLDEYE . . . . .	(1)	-	(1)	1	-	1
PIKE OR PICKEREL . . . . .	84	495	579	140	597	737
QUILLBACK . . . . .	(1)	-	(1)	5	-	5
ROCK BASS . . . . .	-	64	64	16	161	177
SAUGER . . . . .	85	44	129	85	108	193
SCULPIN . . . . .	-	-	-	3	-	3
SHEEPSHEAD . . . . .	-	-	-	4,152	1,489	5,641
SMELT . . . . .	-	-	-	3,015	10,700	13,715
STURGEON . . . . .	-	5	5	5	47	52
SUCKERS . . . . .	277	764	1,041	1,373	1,132	2,505
SUNFISH . . . . .	-	(1)	(1)	9	262	271
TULLIBEE . . . . .	2,058	378	2,436	2,058	378	2,436
WHITE BASS . . . . .	-	-	-	1,174	1,966	3,160
WHITEFISH:						
COMMON . . . . .	22	97	119	900	1,134	2,034
MENOMINEE . . . . .	-	-	-	34	19	53
WHITE PERCH . . . . .	-	-	-	6	-	6
YELLOW PERCH . . . . .	19	16	35	11,275	18,717	29,992
YELLOW PIKE . . . . .	242	741	983	1,264	3,533	4,797
TOTAL . . . . .	3,183	3,154	6,337	59,006	46,929	105,935

1/ LESS THAN 500 POUNDS.

NOTE---IN CANADA THE CATCHES OF ALEWIVES AND GARFISH HAVE BEEN INCLUDED WITH BOWFIN AND THE CATCH OF CRAPPIES WITH ROCK BASS.



## SUMMARY OF U. S. CATCH, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

STATE	TOTAL	
	QUANTITY	VALUE
NEW YORK . . . . .	502	91
PENNSYLVANIA . . . . .	1,412	105
OHIO . . . . .	14,223	1,151
MICHIGAN . . . . .	20,326	2,322
INDIANA . . . . .	6	1
ILLINOIS . . . . .	265	32
WISCONSIN . . . . .	16,916	1,332
MINNESOTA . . . . .	5,336	255
TOTAL . . . . .	59,006	5,289

# GREAT LAKES FISHERIES

327

## SECTIONAL SUMMARIES

### SUMMARY OF U.S. OPERATING UNITS AND FISHING EFFORT, BY LAKES, 1963

ITEM	LAKE ONTARIO	LAKE ERIE	LAKE HURON	LAKE MICHIGAN	LAKE SUPERIOR	LAKE OF THE WOODS, NAMAKAN LAKE, AND RAINY LAKE	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
<b>FISHERMEN:</b>							
<b>ON VESSELS:</b>							
REGULAR . . . . .	-	30	6	99	45	3	183
PART-TIME . . . . .	3	113	72	153	101	3	431
CASUAL . . . . .	-	61	70	100	67	-	280
<b>ON BOATS AND SHORE:</b>							
REGULAR . . . . .	-	5	3	9	19	6	42
PART-TIME . . . . .	-	140	97	124	129	48	538
CASUAL . . . . .	68	295	178	426	247	16	1,230
TOTAL FISHERMEN . . . . .	71	644	426	911	608	76	2,704
<b>VESSELS, MOTOR:</b>							
REGULAR . . . . .	-	10	2	33	15	1	61
PART-TIME . . . . .	1	50	36	75	50	1	206
CASUAL . . . . .	-	26	33	47	32	-	129
TOTAL VESSELS . . . . .	1	86	71	155	97	2	1/396
TOTAL GROSS TONNAGE . . . . .	10	1,118	1,211	3,500	1,570	49	7,132
<b>BOATS:</b>							
<b>MOTOR:</b>							
REGULAR . . . . .	-	1	1	3	8	2	15
PART-TIME . . . . .	-	49	47	61	64	24	245
CASUAL . . . . .	37	211	134	296	206	12	896
TOTAL MOTOR BOATS . . . . .	37	261	182	360	278	38	1,156
<b>OTHER:</b>							
REGULAR . . . . .	-	1	-	-	-	-	1
PART-TIME . . . . .	-	20	1	-	-	-	21
CASUAL . . . . .	3	36	18	15	1	-	73
TOTAL OTHER BOATS . . . . .	3	57	19	15	1	-	95
<b>DAYS OPERATED:</b>							
<b>FISHERMEN:</b>							
ON VESSELS . . . . .	465	19,180	9,922	38,862	21,459	786	90,674
ON BOATS AND SHORE . . . . .	1,240	19,744	12,694	20,237	19,575	6,824	80,314
TOTAL FISHERMEN DAYS . . . . .	1,705	38,924	22,616	59,099	41,034	7,610	170,988
<b>CRAFT:</b>							
VESSELS . . . . .	155	7,908	4,786	16,090	9,172	262	38,373
BOATS, MOTOR . . . . .	633	8,487	7,147	12,329	11,379	3,381	43,356
TOTAL CRAFT DAYS . . . . .	788	16,395	11,933	28,419	20,551	3,643	81,729
<b>FISHING EFFORT:</b>							
<b>LIFTS:</b>							
POUND NETS . . . . .	-	-	344	3,224	1,849	47	5,464
TRAP NETS . . . . .	1,346	53,018	12,185	1,336	1,980	845	70,710
FYKE AND HOOP NETS . . . . .	968	302	887	13,190	25	2,017	17,389
LIFTS PER 1,000 LINEAR YARDS:							
HAUL SEINES . . . . .	4	3,390	270	104	1	-	3,769
<b>GILL NETS:</b>							
1-1/4 - 2 INCH MESH . . . . .	1	-	23	249	198	-	471
2-1/8 - 3-7/8 INCH MESH . . . . .	317	12,351	17,871	50,605	27,767	-	108,931
4 - 7 INCH MESH . . . . .	487	1,962	914	4,869	6,505	2,897	11,634
7-1/8 - 14 INCH MESH . . . . .	15	41	1,390	234	-	-	1,680
LIFTS PER 1,000 HOOKS,							
LINES, LONG OR SET . . . . .	-	1,744	1,894	30	-	-	3,668
HOURS TRAWLED . . . . .	-	839	-	9,250	-	1,312	11,401
DAYS FISHED:							
LINES, HAND . . . . .	-	-	-	24	-	-	24
DIP NETS . . . . .	-	29	-	-	-	-	29

1/ DOES NOT INCLUDE 4 VESSELS OPERATED IN LAKE WINNEBAGO.

NOTE:--THE NUMBER OF DAYS INDICATES THAT FISHING OCCURRED REGARDLESS OF THE AMOUNT OF TIME FISHED DURING A DAY. THE NUMBER OF FISHERMEN AND CRAFT OPERATING AS REGULAR, PART-TIME, AND CASUAL IS BASED ON DAYS OF OPERATION AS FOLLOWS: REGULAR--MORE THAN 161 DAYS, PART-TIME 54 TO 161 DAYS (INCLUSIVE), AND CASUAL--LESS THAN 54 DAYS.

## GREAT LAKES FISHERIES

## SUMMARY OF U. S. OPERATING UNITS AND FISHING EFFORT, BY STATES, 1963

ITEM	NEW YORK	PENNSYLVANIA	OHIO	MICHIGAN	INDIANA	ILLINOIS	WISCONSIN	MINNESOTA	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:									
ON VESSELS:									
REGULAR . . . . .	-	12	18	69	-	3	78	9	189
PART-TIME . . . . .	13	12	87	232	-	-	101	6	431
CASUAL . . . . .	4	12	53	142	-	4	84	5	280
ON BOATS AND SHORE:									
REGULAR . . . . .	-	-	5	15	-	3	3	16	42
PART-TIME . . . . .	-	4	129	208	-	-	70	127	538
CASUAL . . . . .	72	8	252	620	2	-	203	73	1,230
TOTAL FISHERMEN . . . . .	89	48	544	1,266	2	10	539	230	2,704
VESSELS, MOTOR:									
REGULAR . . . . .	-	4	6	23	-	1	26	1	61
PART-TIME . . . . .	6	6	37	117	-	-	43	2	206
CASUAL . . . . .	2	6	22	69	-	2	38	2	129
TOTAL VESSELS . . . . .	8	16	65	209	-	3	113	5	396
TOTAL GROSS TONNAGE . . . . .	103	212	855	3,834	-	83	2,385	93	7,132
BOATS:									
MOTOR:									
REGULAR . . . . .	-	-	1	5	-	1	1	7	15
PART-TIME . . . . .	-	2	45	101	-	-	34	63	245
CASUAL . . . . .	41	7	184	475	2	-	120	67	696
TOTAL MOTOR BOATS . . . . .	41	9	230	581	2	1	155	137	1,156
OTHER:									
REGULAR . . . . .	-	-	1	-	-	-	-	-	1
PART-TIME . . . . .	-	-	20	1	-	-	-	-	21
CASUAL . . . . .	3	-	21	35	-	-	14	-	73
TOTAL OTHER BOATS . . . . .	3	-	42	36	-	-	14	-	95
DAYS OPERATED:									
FISHERMEN:									
ON VESSELS . . . . .	1,693	3,760	13,464	40,814	-	596	28,806	1,541	90,674
ON BOATS AND SHORE . . . . .	1,335	408	18,323	31,492	51	582	11,086	17,037	80,314
TOTAL FISHERMEN DAYS . . . . .	3,028	4,168	31,787	72,306	51	1,178	39,892	18,578	170,988
CRAFT:									
VESSELS . . . . .	769	1,542	5,388	18,247	-	203	11,692	592	38,373
BOATS, MOTOR . . . . .	726	240	7,714	18,577	51	194	6,787	9,065	43,356
TOTAL CRAFT DAYS . . . . .	1,497	1,782	13,102	36,824	51	397	18,479	9,597	81,729
FISHING EFFORT:									
LIFTS:									
ROUND NETS . . . . .	-	-	-	3,671	-	-	1,549	244	5,464
TRAP NETS . . . . .	1,346	- 42	50,301	18,176	-	-	-	845	70,710
FYKE AND HOOP NETS . . . . .	968	-	151	1,063	-	-	13,190	2,017	17,389
LIFTS PER 1,000 LINEAR YARDS:									
HAUL SEINES . . . . .	4	-	3,111	551	-	-	103	-	3,769
GILL NETS:									
1-1/4 - 2 INCH MESH . . . . .	1	-	-	327	-	-	143	-	471
2 1/8 - 3 7/8 INCH MESH . . . . .	1,846	6,742	4,080	58,886	13	1,080	32,307	3,977	108,931
4 - 7 INCH MESH . . . . .	1,138	252	1,052	9,739	-	-	2,556	2,897	17,634
7-1/8 - 14 INCH MESH . . . . .	44	-	12	1,443	-	-	181	-	1,680
LIFT PER 1,000 HOOKS,									
LINE, LONG OR SET . . . . .	-	-	1,743	1,925	-	-	-	-	3,668
HOURS TRAWLED . . . . .	-	839	-	2,014	-	-	7,236	1,312	11,401
DAYS FISHED:									
LINE, HAND . . . . .	-	-	-	24	-	-	-	-	24
DIP NETS . . . . .	-	-	29	-	-	-	-	-	29

1/ DOES NOT INCLUDE 4 VESSELS OPERATED IN LAKE WINNEBAGO.  
SEE NOTE ON PAGE 327

# GREAT LAKES FISHERIES

329

## SUMMARY OF U.S. OPERATING UNITS AND FISHING EFFORT, BY STATES AND LAKES, 1963

ITEM	NEW YORK		PENN- SYLVANIA	OHIO	MICHIGAN			
	LAKE ONTARIO	LAKE ERIE	LAKE ERIE	LAKE ERIE	LAKE ERIE	LAKE HURON	LAKE MICHIGAN	LAKE SUPERIOR
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
<b>FISHERMEN:</b>								
<b>ON VESSELS:</b>								
REGULAR . . . . .	-	-	12	18	-	6	24	39
PART-TIME . . . . .	3	10	12	87	6	72	86	72
CASUAL . . . . .	-	4	12	53	8	70	58	30
<b>ON BOATS AND SHORE:</b>								
REGULAR . . . . .	-	-	-	5	-	3	3	9
PART-TIME . . . . .	-	-	4	129	7	97	60	44
CASUAL . . . . .	68	4	8	252	31	178	250	161
<b>TOTAL FISHERMEN . . . . .</b>	<b>71</b>	<b>18</b>	<b>48</b>	<b>544</b>	<b>52</b>	<b>426</b>	<b>481</b>	<b>355</b>
<b>VESSELS, MOTOR:</b>								
REGULAR . . . . .	-	-	4	6	-	2	8	13
PART-TIME . . . . .	1	5	6	37	3	36	43	36
CASUAL . . . . .	-	2	6	22	4	39	29	15
<b>TOTAL VESSELS . . . . .</b>	<b>1</b>	<b>7</b>	<b>16</b>	<b>65</b>	<b>7</b>	<b>71</b>	<b>80</b>	<b>64</b>
<b>TOTAL GROSS TONNAGE . . . . .</b>	<b>10</b>	<b>93</b>	<b>212</b>	<b>855</b>	<b>83</b>	<b>1,211</b>	<b>1,768</b>	<b>1,038</b>
<b>BOATS:</b>								
<b>MOTOR:</b>								
REGULAR . . . . .	-	-	-	1	-	1	1	3
PART-TIME . . . . .	-	-	2	45	2	47	30	22
CASUAL . . . . .	37	4	7	184	16	134	193	132
<b>TOTAL MOTOR BOATS . . . . .</b>	<b>37</b>	<b>4</b>	<b>9</b>	<b>230</b>	<b>18</b>	<b>182</b>	<b>224</b>	<b>157</b>
<b>OTHER:</b>								
REGULAR . . . . .	-	-	-	1	-	-	-	-
PART-TIME . . . . .	-	-	-	20	-	18	-	-
CASUAL . . . . .	3	-	-	21	15	1	1	1
<b>TOTAL OTHER BOATS . . . . .</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>42</b>	<b>15</b>	<b>19</b>	<b>1</b>	<b>1</b>
<b>DAYS OPERATED:</b>								
<b>FISHERMEN:</b>								
ON VESSELS . . . . .	465	1,228	3,760	13,464	728	9,922	14,187	15,977
ON BOATS AND SHORE . . . . .	1,240	95	408	18,323	918	12,694	9,486	8,394
<b>TOTAL FISHERMEN DAYS . . . . .</b>	<b>1,705</b>	<b>1,323</b>	<b>4,168</b>	<b>31,787</b>	<b>1,646</b>	<b>22,616</b>	<b>23,673</b>	<b>24,371</b>
<b>CRAFT:</b>								
VESSELS . . . . .	155	614	1,542	5,388	364	4,766	6,375	6,722
BOATS, MOTOR . . . . .	633	95	240	7,714	438	7,147	5,903	5,089
<b>TOTAL CRAFT DAYS . . . . .</b>	<b>788</b>	<b>709</b>	<b>1,782</b>	<b>13,102</b>	<b>802</b>	<b>11,933</b>	<b>12,278</b>	<b>11,811</b>
<b>FISHING EFFORT:</b>								
<b>LIFTS:</b>								
POUND NETS . . . . .	-	-	-	-	-	344	2,461	866
TRAP NETS . . . . .	1,346	-	42	50,301	2,675	12,185	1,336	1,980
FYKE AND HOOP NETS . . . . .	968	-	-	151	151	887	-	25
<b>LIFTS PER 1,000 LINEAR YARDS:</b>								
HAUL SEINES . . . . .	4	-	-	3,111	279	270	1	1
<b>GILL NETS:</b>								
1-1/4 - 2 INCH MESH . . . . .	1	-	-	-	-	23	147	157
2-1/8 - 3-7/8 INCH MESH . . . . .	317	1,529	6,742	4,080	-	17,871	22,323	18,692
4 - 7 INCH MESH . . . . .	487	651	252	1,052	7	914	3,875	4,943
7-1/8 - 14 INCH MESH . . . . .	15	29	-	12	-	1,390	53	-
<b>LIFTS PER 1,000 HOOKS,</b>								
LINES, LONG OR SET . . . . .	-	-	-	1,743	1	1,894	30	-
<b>HOURS TRAWLED . . . . .</b>	<b>-</b>	<b>-</b>	<b>839</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,014</b>	<b>-</b>
<b>DAYS FISHED:</b>								
LINES, HAND . . . . .	-	-	-	-	-	-	24	-
DIP NETS . . . . .	-	-	-	29	-	-	-	-

(CONTINUED ON NEXT PAGE)

## GREAT LAKES FISHERIES

SUMMARY OF U. S. OPERATING UNITS AND FISHING EFFORT,  
BY STATES AND LAKES, 1963 - Continued

ITEM	INDIANA	ILLINOIS	WISCONSIN		MINNESOTA	
	LAKE MICHIGAN	LAKE MICHIGAN	LAKE MICHIGAN	LAKE SUPERIOR	LAKE SUPERIOR	LAKE OF THE WOODS, NAMAKAN LAKE, AND RAINY LAKE
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:						
ON VESSELS:						
REGULAR . . . . .	-	3	72	6	-	3
PART-TIME . . . . .	-	-	73	28	3	3
CASUAL . . . . .	-	4	52	32	5	-
ON BOATS AND SHORE:						
REGULAR . . . . .	-	3	3	-	10	6
PART-TIME . . . . .	-	-	64	6	79	48
CASUAL . . . . .	2	-	174	29	57	16
TOTAL FISHERMEN . . . . .	2	10	438	101	154	76
VESSELS, MOTOR:						
REGULAR . . . . .	-	1	24	2	-	1
PART-TIME . . . . .	-	-	35	14	1	1
CASUAL . . . . .	-	2	23	15	2	-
TOTAL VESSELS . . . . .	-	3	82	31	3	2
TOTAL GROSS TONNAGE . . . . .	-	83	1,674	511	44	49
BOATS:						
MOTOR:						
REGULAR . . . . .	-	1	1	-	5	2
PART-TIME . . . . .	-	-	31	3	39	24
CASUAL . . . . .	2	-	101	19	55	12
TOTAL MOTOR BOATS . . . . .	2	1	133	22	99	38
OTHER, CASUAL . . . . .	-	-	14	-	-	-
TOTAL OTHER BOATS . . . . .	-	-	14	-	-	-
DAYS OPERATED:						
FISHERMEN:						
ON VESSELS . . . . .	-	596	24,079	4,727	755	786
ON BOATS AND SHORE . . . . .	51	582	10,118	968	10,213	6,824
TOTAL FISHERMEN DAYS . . . . .	51	1,178	34,197	5,695	10,963	7,610
CRAFT:						
VESSELS . . . . .	-	203	9,512	2,180	270	262
BOATS, MOTOR . . . . .	51	194	6,181	606	5,684	3,381
TOTAL CRAFT DAYS . . . . .	51	397	15,693	2,786	5,954	3,643
FISHING EFFORT:						
LIFTS:						
POUNO NETS . . . . .	-	-	763	766	197	47
TRAP NETS . . . . .	-	-	-	-	-	845
FYKE AND HOOP NETS . . . . .	-	-	13,190	-	-	2,017
LIFTS PER 1,000 LINEAR YARDS:						
HAUL SEINES . . . . .	-	-	103	-	-	-
GILL NETS:						
1-1/4 - 2 INCH MESH . . . . .	-	-	102	41	-	-
1-1/8 - 5-7/8 INCH MESH . . . . .	13	1,080	27,182	5,118	3,977	-
4 - 7 INCH MESH . . . . .	-	-	994	1,562	-	2,897
7-1/8 - 14 INCH MESH . . . . .	-	-	181	-	-	-
LIFTS PER 1,000 HOOKS, HOURS						
TRAWLED . . . . .	-	-	7,236	-	-	1,312

# GREAT LAKES FISHERIES

331

## CATCH BY STATES, 1963

SPECIES	NEW YORK		PENNSYLVANIA		OHIO	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUE PIKE . . . . .	(1)	\$12	(1)	\$26	200	\$92
BOWFIN . . . . .	1,300	26	-	-	-	-
BUFFALOFISH . . . . .	-	-	-	-	50,400	6,046
BULLHEADS . . . . .	44,300	12,397	100	3	120,300	13,296
BURBOT . . . . .	800	28	1,800	38	100	3
CARP . . . . .	36,400	1,105	100	7	2,504,200	92,655
CATFISH . . . . .	2,500	518	300	66	1,049,100	251,793
CISCO . . . . .	5,800	1,372	100	38	500	192
CRAPPIE . . . . .	1,100	216	-	-	-	-
EELS, COMMON . . . . .	18,700	4,669	-	-	-	-
GARFISH . . . . .	(1)	(1)	-	-	-	-
GIZZARD SHAD . . . . .	-	-	-	-	4,700	142
GOLDFISH . . . . .	-	-	-	-	172,400	5,172
MOONEYE OR GOLDOYE . . . . .	-	-	-	-	700	14
PIKE OR PICKEREL . . . . .	100	10	-	-	-	-
QUILLBACK . . . . .	-	-	-	-	1,000	29
ROCK BASS . . . . .	6,400	445	-	-	-	-
SAUGER . . . . .	(1)	3	-	-	100	21
SHEEPSHEAD . . . . .	6,000	238	4,200	96	4,044,600	80,894
SMELT . . . . .	300	21	306,100	9,377	-	37
STURGEON . . . . .	800	741	-	-	200	212
SUCKERS . . . . .	11,600	231	900	27	161,000	4,828
SUNFISH . . . . .	8,800	1,140	-	-	-	-
WHITE BASS . . . . .	11,300	1,670	6,000	681	1,013,200	131,722
WHITEFISH, COMMON . . . . .	31,800	13,302	5,500	3,218	700	345
WHITE PERCH . . . . .	5,700	398	-	-	-	-
YELLOW PERCH . . . . .	198,500	17,343	1,062,400	85,255	4,523,500	351,680
YELLOW PIKE . . . . .	109,800	35,212	24,300	6,256	575,200	201,325
TOTAL . . . . .	502,000	91,097	1,411,800	105,088	14,223,200	1,150,700

SPECIES	MICHIGAN		INDIANA		ILLINOIS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	1,580,100	\$25,893	(1)	(1)	(1)	(1)
BOWFIN . . . . .	1,400	46	-	-	-	-
BUFFALOFISH . . . . .	13,900	1,390	-	-	-	-
BULLHEADS . . . . .	10,500	1,280	-	-	-	-
BURBOT . . . . .	3,300	89	-	-	-	-
CARP . . . . .	2,506,600	143,959	-	-	-	-
CATFISH . . . . .	212,500	57,415	-	-	-	-
CHUBS . . . . .	4,890,600	897,897	-	-	24,300	\$3,397
CRAPPIE . . . . .	2,300	565	-	-	-	-
GIZZARD SHAD . . . . .	200	5	-	-	-	-
LAKE HERRING . . . . .	6,195,500	343,230	-	-	300	36
LAKE TROUT . . . . .	87,800	55,463	-	-	-	-
PIKE OR PICKEREL . . . . .	28,900	5,660	-	-	-	-
QUILLBACK . . . . .	3,700	103	-	-	-	-
ROCK BASS . . . . .	9,500	1,778	-	-	-	-
SAUGER . . . . .	200	20	-	-	-	-
SHEEPSHEAD . . . . .	95,700	2,760	-	-	-	-
SMELT . . . . .	1,139,400	44,078	-	-	42,300	4,652
STURGEON . . . . .	4,100	3,671	-	-	-	-
SUCKERS . . . . .	672,500	29,971	(1)	\$2	(1)	4
WHITE BASS . . . . .	143,300	17,979	-	-	-	-
WHITEFISH:						
COMMON . . . . .	712,100	373,692	-	-	-	-
MICHIGANEE . . . . .	29,700	6,912	-	-	-	-
YELLOW PERCH . . . . .	1,672,400	185,951	5,700	689	218,500	24,035
YELLOW PIKE . . . . .	306,500	122,853	-	-	-	-
TOTAL . . . . .	20,325,700	2,322,660	5,700	691	265,400	32,124

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## GREAT LAKES FISHERIES

## CATCH BY STATES, 1963 - Continued

SPECIES	WISCONSIN		MINNESOTA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	3,616,300	\$76,366	-	-	5,398,400	\$102,259
BLUE PIKE . . . . .	-	-	-	-	200	130
BOWFIN . . . . .	100	2	-	-	2,800	74
BUFFALOFISH . . . . .	-	-	(1)	\$1	64,300	7,437
BULLHEADS . . . . .	41,600	4,985	12,400	800	229,800	32,763
BURBOT . . . . .	10,100	496	384,700	6,198	400,800	6,852
CARP . . . . .	1,250,500	37,520	-	-	6,297,900	275,246
CATFISH . . . . .	1,600	442	-	-	1,266,000	310,234
CHUBS . . . . .	5,952,300	653,128	155,600	15,000	11,022,800	1,569,422
CISCO . . . . .	-	-	-	-	6,400	1,602
CRAPPIE . . . . .	(1)	(1)	-	-	3,400	781
EELS, COMMON . . . . .	-	-	-	-	18,700	4,669
GARFISH . . . . .	-	-	-	-	(1)	(1)
GIZZARD SHAD . . . . .	-	-	-	-	4,900	147
GOLDFISH . . . . .	-	-	-	-	172,400	5,172
LAKE HERRING . . . . .	956,000	49,152	1,323,200	85,300	8,477,000	477,718
LAKE TROUT . . . . .	39,400	23,479	-	-	127,200	78,942
MOONEYE OR GOLDEYE . . . . .	-	-	100	1	800	15
PIKE OR PICKEREL . . . . .	26,500	4,752	84,600	5,200	140,100	15,622
QUILLBACK . . . . .	-	-	100	(1)	4,800	132
ROCK BASS . . . . .	-	-	-	-	15,900	2,223
SAUGER . . . . .	-	-	84,400	10,001	84,700	10,045
SCULPIN . . . . .	3,300	66	-	-	3,300	66
SHEEPSHEAD . . . . .	200	5	-	-	4,151,900	83,993
SMELT . . . . .	853,600	15,575	673,500	13,000	3,015,500	86,740
STURGEON . . . . .	-	-	-	-	5,100	4,624
SUCKERS . . . . .	250,500	7,144	276,200	2,919	1,372,700	45,126
SUNFISH . . . . .	-	-	-	-	8,800	1,140
TULLIBEE . . . . .	-	-	2,057,700	60,321	2,057,700	60,321
WHITE BASS . . . . .	200	27	-	-	1,174,000	152,079
WHITEFISH, COMMON . . . . .	126,400	63,286	21,700	5,436	900,200	459,279
WENONKINEE . . . . .	3,200	484	900	14	39,800	7,410
WHITE PERCH . . . . .	-	-	-	-	5,700	398
YELLOW PERCH . . . . .	3,573,900	393,147	19,700	1,520	11,274,600	1,069,820
YELLOW PIKE . . . . .	4,400	1,774	241,700	48,842	1,263,900	416,262
TOTAL . . . . .	16,916,200	1,331,830	5,336,500	254,553	59,006,500	5,288,743

1/ LESS THAN 50 POUNDS OR 50 CENTS.

## CATCH BY LAKES AND STATES, 1963

SPECIES	LAKE ONTARIO		LAKE E R E			
	NEW YORK		NEW YORK		PENNSYLVANIA	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUE PIKE . . . . .	(1)	\$10	(1)	\$2	(1)	\$26
BOWFIN . . . . .	1,300	26	-	-	-	-
BULLHEADS . . . . .	44,300	12,396	(1)	1	100	3
BURBOT . . . . .	800	24	(1)	4	1,800	38
CARP . . . . .	36,200	1,065	200	20	100	7
CATFISH . . . . .	2,100	420	400	98	300	66
CISCO . . . . .	5,000	1,044	500	328	100	38
CRAPPIE . . . . .	1,100	216	-	-	-	-
EELS, COMMON . . . . .	18,700	4,669	-	-	-	-
GARFISH . . . . .	(1)	(1)	-	-	-	-
PIKE OR PICKEREL . . . . .	100	10	-	-	-	-
ROCK BASS . . . . .	6,400	444	(1)	1	-	-
SAUGER . . . . .	(1)	3	-	-	-	-
SHEEPSHEAD . . . . .	(1)	1	6,000	237	4,200	96
SMELT . . . . .	200	14	100	7	306,100	9,377
STURGEON . . . . .	400	367	400	374	-	-
SUCKERS . . . . .	11,000	220	600	11	-	-
SUNFISH . . . . .	6,800	1,140	-	-	900	27

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# GREAT LAKES FISHERIES

333

## CATCH BY LAKES AND STATES, 1963 - Continued

SPECIES	LAKE ONTARIO		LAKE ERIE			
	NEW YORK		NEW YORK		PENNSYLVANIA	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
WHITE BASS . . . . .	4,000	\$643	7,300	\$1,027	6,000	\$681
WHITEFISH, COMMON . . . . .	31,700	13,280	100	22	5,500	3,218
WHITE PERCH . . . . .	5,700	398	-	-	-	-
YELLOW PERCH . . . . .	52,500	4,204	146,000	13,139	1,062,400	85,255
YELLOW PIKE . . . . .	2,500	865	107,300	34,347	24,300	6,256
	232,800	41,479	269,200	49,618	1,411,800	105,088

SPECIES	LAKE ERIE - CONTINUED					
	OHIO		MICHIGAN		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUE PIKE . . . . .	200	\$92	-	-	200	\$120
BUFFALO FISH . . . . .	50,400	6,046	13,900	\$1,390	64,300	7,436
BULLHEADS . . . . .	120,900	13,296	3,600	489	124,500	13,791
BURBOT . . . . .	100	3	(1)	(1)	1,900	45
CARP . . . . .	2,504,200	92,655	833,200	63,512	3,337,700	155,194
CATFISH . . . . .	1,049,100	251,793	40,500	10,987	1,090,300	262,944
CISCO . . . . .	500	192	-	-	1,400	558
GIZZARD SHAD . . . . .	4,700	142	-	-	4,700	142
GOLDFISH . . . . .	172,400	5,172	-	-	172,400	5,172
MOONEYE OR GOLDEYE . . . . .	700	14	-	-	700	14
PIKE OR PICKEREL . . . . .	-	-	100	7	100	7
QUILLBACK . . . . .	1,000	29	-	-	1,000	29
ROCK BASS . . . . .	-	-	(1)	(1)	-	-
SAUGER . . . . .	100	21	-	-	100	21
SHEEPSHEAD . . . . .	4,044,800	80,894	71,300	1,997	4,126,300	83,224
SMELT . . . . .	300	37	-	-	306,500	9,421
STURGEON . . . . .	200	212	100	48	700	634
SUCKERS . . . . .	161,000	4,828	61,900	1,300	224,400	6,165
WHITE BASS . . . . .	1,013,200	131,722	126,100	14,863	1,152,600	148,313
WHITEFISH, COMMON . . . . .	700	345	-	-	6,300	3,585
YELLOW PERCH . . . . .	4,523,200	361,880	89,700	6,996	5,821,600	467,270
YELLOW PIKE . . . . .	575,200	201,325	93,100	32,379	799,900	274,307
TOTAL . . . . .	14,223,200	1,150,700	1,333,500	133,988	17,237,700	1,439,394

SPECIES	LAKE HURON		LAKE MICHIGAN			
	MICHIGAN		MICHIGAN		INDIANA	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	1,900	\$38	1,578,100	\$25,854	(1)	(1)
BOWFIN . . . . .	1,400	46	-	-	-	-
BULLHEADS . . . . .	5,800	732	1,100	59	-	-
BURBOT . . . . .	(1)	2	-	(1)	-	-
CARP . . . . .	1,646,800	79,652	26,600	795	-	-
CATFISH . . . . .	172,000	46,428	-	(1)	-	-
CHUBS . . . . .	1,974,600	420,583	2,329,200	384,302	-	-
CRAPPIE . . . . .	2,300	565	-	-	-	-
GIZZARD SHAD . . . . .	200	5	-	-	-	-
LAKE HERRING . . . . .	16,600	2,919	23,600	1,769	-	-
LAKE TROUT . . . . .	(1)	2	26,000	13,276	-	-
PIKE OR PICKEREL . . . . .	22,300	4,675	6,400	962	-	-
QUILLBACK . . . . .	3,700	103	-	-	-	-
ROCK BASS . . . . .	9,200	1,764	(1)	(1)	-	-
SAUGER . . . . .	100	14	-	(1)	-	-
SHEEPSHEAD . . . . .	25,400	763	-	-	-	-
SMELT . . . . .	12,600	640	926,500	29,235	-	-
STURGEON . . . . .	900	778	3,100	2,820	-	-
SUCKERS . . . . .	509,000	24,433	76,700	3,069	(1)	\$2
WHITE BASS . . . . .	17,200	3,096	-	-	-	-
WHITEFISH:						
COMMON . . . . .	112,800	63,164	242,700	128,661	-	-
MEMONINEE . . . . .	5,900	1,926	11,600	3,256	-	-
YELLOW PERCH . . . . .	507,100	65,924	1,074,200	112,794	5,700	669
YELLOW PIKE . . . . .	156,400	66,521	56,400	23,692	-	-
TOTAL . . . . .	5,206,400	784,773	6,382,200	730,544	5,700	691

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## GREAT LAKES FISHERIES

## CATCH BY LAKES AND STATES, 1963 - Continued

SPECIES	LAKE MICHIGAN - CONTINUED					
	ILLINOIS		WISCONSIN		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	-	-	3,816,300	\$76,366	5,396,400	\$102,220
BOWFIN . . . . .	-	-	100	2	100	2
BULLHEADS . . . . .	-	-	41,500	4,975	42,600	5,034
BURBOT . . . . .	-	-	3,600	108	3,600	108
CARP . . . . .	-	-	1,250,600	37,520	1,277,200	38,315
CATFISH . . . . .	-	-	1,600	442	1,600	442
CHUBS . . . . .	24,300	\$3,397	5,106,400	548,208	7,459,900	935,907
LAKE HERRING . . . . .	300	36	16,900	268	40,800	3,833
LAKE TROUT . . . . .	-	-	900	268	26,400	13,544
PIKE OR PICKEREL . . . . .	-	-	26,100	4,700	32,500	5,662
ROCK BASS . . . . .	-	-	-	-	{1}	{1}
SAUGER . . . . .	-	-	-	-	{1}	{1}
SCULPIN . . . . .	-	-	3,300	66	3,300	66
SHEEPSHEAD . . . . .	-	-	200	5	200	5
SMELT . . . . .	42,300	4,652	234,600	9,385	1,203,400	43,272
STURGEON . . . . .	-	-	-	-	3,100	2,820
SUCKERS . . . . .	{1}	4	222,400	6,302	299,100	9,377
WHITE BASS . . . . .	-	-	200	27	200	27
WHITEFISH:						
COMMON . . . . .	-	-	42,200	21,892	284,900	150,553
MENOMINEE . . . . .	-	-	1,800	404	13,400	3,660
YELLOW PERCH . . . . .	216,500	24,035	3,573,600	393,096	4,872,000	530,614
YELLOW PIKE . . . . .	-	-	4,200	1,680	60,600	25,372
TOTAL . . . . .	285,400	32,124	14,348,000	1,107,474	21,021,300	1,870,833

SPECIES	LAKE SUPERIOR							
	MICHIGAN		WISCONSIN		MINNESOTA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	100	\$1	-	-	-	-	100	\$1
BULLHEADS . . . . .	-	-	100	\$10	-	-	100	\$10
BURBOT . . . . .	3,300	87	6,500	368	-	-	9,800	475
CHUBS . . . . .	586,800	93,012	845,900	104,920	155,600	\$15,000	1,588,300	212,932
CRAPPIE . . . . .	-	-	{1}	{1}	-	-	{1}	{1}
LAKE HERRING . . . . .	6,155,300	338,542	941,100	47,124	1,323,200	85,300	8,418,600	470,966
LAKE TROUT . . . . .	61,800	42,185	39,000	23,211	-	-	100,800	65,396
PIKE OR PICKEREL . . . . .	100	16	400	52	-	-	500	68
ROCK BASS . . . . .	300	14	-	-	-	-	300	14
SAUGER . . . . .	100	6	-	-	-	-	100	6
SMELT . . . . .	200,100	14,203	619,000	6,190	673,500	13,000	1,492,600	33,393
STURGEON . . . . .	{1}	25	-	-	-	-	{1}	25
SUCKERS . . . . .	24,900	1,169	28,100	842	200	2	53,200	2,013
WHITEFISH:								
COMMON . . . . .	356,600	181,667	86,200	41,394	-	-	442,800	223,261
MENOMINEE . . . . .	12,200	1,730	1,400	80	900	14	14,500	1,824
YELLOW PERCH . . . . .	1,400	237	300	51	-	-	1,700	288
YELLOW PIKE . . . . .	600	261	200	94	-	-	800	355
TOTAL . . . . .	7,403,600	673,355	2,568,200	224,356	2,153,400	113,316	12,125,200	1,011,027

SPECIES	LAKE OF THE WOODS		NAMAKAN LAKE		RAINY LAKE		TOTAL, ALL LAKES	
	MINNESOTA		MINNESOTA		MINNESOTA			
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	-	-	-	-	-	-	5,396,400	\$102,259
BLUE PIKE . . . . .	-	-	-	-	-	-	200	130
BOWFIN . . . . .	-	-	-	-	-	-	2,800	74
BUFFALO FISH . . . . .	{1}	\$1	-	-	-	-	64,300	7,437
BULLHEADS . . . . .	12,400	800	-	-	-	-	229,800	32,763
BURBOT . . . . .	342,200	5,698	3,600	\$46	38,900	\$454	400,800	6,852
CARP . . . . .	-	-	-	-	-	-	6,297,900	275,246
CATFISH . . . . .	-	-	-	-	-	-	1,266,000	310,234
CHUBS . . . . .	-	-	-	-	-	-	11,022,800	1,569,422
CISCO . . . . .	-	-	-	-	-	-	6,400	1,602
CRAPPIE . . . . .	-	-	-	-	-	-	3,400	781
EELS, COMMON . . . . .	-	-	-	-	-	-	18,700	4,669

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

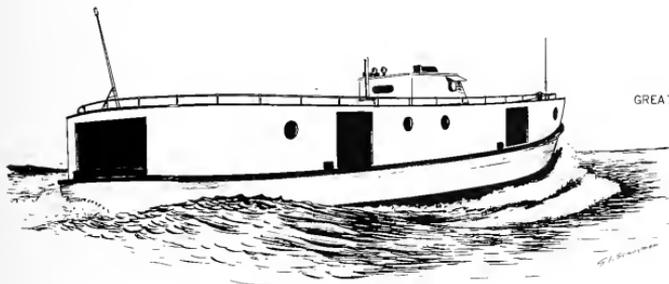
# GREAT LAKES FISHERIES

335

## CATCH BY LAKES AND STATES, 1963 - Continued

SPECIES	LAKE OF THE WOODS		NAMAKAN LAKE		RAINY LAKE		TOTAL, ALL LAKES	
	MINNESOTA		MINNESOTA		MINNESOTA		POUNDS	VALUE
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE		
GARFISH . . . . .	-	-	-	-	-	-	(1)	(1)
GIZZARD SHAD. . . . .	-	-	-	-	-	-	4,900	\$147
GOLDFISH . . . . .	-	-	-	-	-	-	172,400	5,172
LAKE HERRING . . . . .	-	-	-	-	-	-	8,477,000	477,718
LAKE TROUT . . . . .	-	-	-	-	-	-	127,200	78,942
MOONEYE OR GOLDEYE . . . . .	100	\$1	-	-	-	-	800	15
PIKE OR PICKEREL . . . . .	74,300	4,600	-	-	10,300	\$600	140,100	15,622
QUILLBACK . . . . .	100	(1)	-	-	-	-	4,800	132
ROCK BASS . . . . .	-	-	-	-	-	-	15,900	2,223
SAUGER . . . . .	84,400	10,000	-	-	(1)	1	84,700	10,045
SCULPIN . . . . .	-	-	-	-	-	-	3,300	66
SHEEPSHEAD . . . . .	-	-	-	-	-	-	4,151,900	83,993
SMELT . . . . .	-	-	-	-	-	-	3,015,500	86,740
STURGEON . . . . .	-	-	-	-	-	-	5,100	4,624
SUCKERS . . . . .	248,400	2,500	4,900	\$73	22,800	344	1,372,700	45,126
SUNFISH . . . . .	-	-	-	-	-	-	8,800	1,140
TULLIBEE . . . . .	2,029,800	60,000	4,000	46	23,900	275	2,057,700	60,321
WHITE BASS . . . . .	-	-	-	-	-	-	1,174,000	152,079
WHITEFISH:								
COMMON . . . . .	(1)	(1)	9,600	2,436	12,100	3,000	900,200	459,279
MENOMINEE . . . . .	-	-	-	-	-	-	33,800	7,410
WHITE PERCH . . . . .	19,500	1,500	-	-	200	20	11,274,600	1,069,820
YELLOW PERCH . . . . .	224,900	44,000	-	-	16,800	4,842	1,263,900	416,262
YELLOW PIKE . . . . .	-	-	-	-	-	-	-	-
TOTAL . . . . .	3,035,100	129,100	22,000	2,601	125,000	9,536	59,006,500	5,288,743

1/ LESS THAN 50 POUNDS OR 50 CENTS.



GREAT LAKES TUG

## GREAT LAKES FISHERIES

## MANUFACTURED FISHERY PRODUCTS, 1963

ITEM	NEW YORK		PENNSYLVANIA		OHIO	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
CHUBBS, SMOKED. . . . .	POUNDS (1)	(1)	-	-	(1)	(1)
CISCO, SMOKED. . . . .	DO (1)	(1)	-	-	(1)	(1)
COD FILLETS, BREADED, FROZEN	DO -	-	-	-	(1)	(1)
EELS, SMOKED. . . . .	DO (1)	(1)	-	-	(1)	(1)
HALIBUT, STEAKS, FROZEN . . . . .	DO (1)	(1)	-	-	-	-
HERRING, LAKE:						
FILLETS, FRESH AND FROZEN. . . . .	DO -	-	(1)	(1)	(1)	(1)
SMOKED. . . . .	DO -	-	(1)	(1)	(1)	(1)
HERRING, SEA, SALTED AND PICKLED . . . . .	DO (1)	(1)	-	-	(1)	(1)
LAKE TROUT, FILLETS, FRESH AND FROZEN. . . . .	DO (1)	(1)	-	-	(1)	(1)
PIKE OR PICKEREL FILLETS, FRESH OR FROZEN . . . . .	DO (1)	(1)	(1)	(1)	(1)	(1)
SABLEFISH, SMOKED. . . . .	DO (1)	(1)	-	-	(1)	(1)
SALMON:						
STEAKS, FROZEN . . . . .	DO (1)	(1)	-	-	(1)	(1)
SMOKED . . . . .	DO (1)	(1)	-	-	(1)	(1)
SAUGER FILLETS, FRESH AND FROZEN . . . . .	DO (1)	(1)	-	-	412,300	\$362,506
SNAPPER, RED, FILLETS, FRESH OR FROZEN. . . . .	DO -	-	-	-	(1)	(1)
SMOKEFISH, STEAKS, FROZEN . . . . .	DO (1)	(1)	(1)	(1)	104,000	57,825
WHITE BASS FILLETS, FRESH AND FROZEN	DO (1)	(1)	(1)	(1)	77,450	63,174
WHITEFISH:						
FILLETS, FRESH AND FROZEN . . . . .	DO (1)	(1)	(1)	(1)	(1)	(1)
SMOKED . . . . .	DO (1)	(1)	(1)	(1)	(1)	(1)
WHITING, SMOKED. . . . .	DO (1)	(1)	-	-	-	-
YELLOW PERCH FILLETS:						
FRESH AND FROZEN . . . . .	DO 110,170	\$44,763	125,000	\$62,270	1,399,700	570,235
BREADED, FROZEN. . . . .	DO -	-	-	-	(1)	(1)
YELLOW PIKE, FILLETS, FRESH AND FROZEN. . . . .	DO 104,600	80,790	(1)	(1)	309,850	269,645
SHRIMP:						
COOKED, FRESH AND FROZEN . . . . .	DO (1)	(1)	-	-	(1)	(1)
BREADED, FROZEN. . . . .	DO (1)	(1)	-	-	(1)	(1)
OYSTERS, BREADED, FROZEN . . . . .	DO -	-	-	-	(1)	(1)
SCALLOPS, BREADED, FROZEN . . . . .	DO (1)	(1)	-	-	-	-
UNCLASSIFIED:						
FROZEN, PACKAGED STICKS AND PORTIONS. . . . .	DO -	-	-	-	-	(2)
CANNED . . . . .	STANDARD CASES -	-	-	-	-	(2)
MISCELLANEDUS. . . . .	-	430,900	-	22,317	-	11,904,603
TOTAL . . . . .	-	556,453	-	84,587	-	13,227,988

ITEM	MICHIGAN		ILLINOIS	
	QUANTITY	VALUE	QUANTITY	VALUE
ANCHOVY PASTE, CANNED. . . . .	STANDARD CASES (1)	(1)	-	(1)
BUTTERFISH, SMOKED . . . . .	POUNDS (1)	(1)	-	(1)
CARP, SMOKED . . . . .	DO (1)	(1)	-	(1)
CHUBBS, SMOKED . . . . .	DO 582,000	\$254,300	1,279,400	\$669,120
EELS, SMOKED . . . . .	DO -	-	(1)	(1)
HERRING, LAKE:				
FILLETS, FRESH AND FROZEN. . . . .	DO 39,150	10,288	-	-
SALTED . . . . .	DO (1)	(1)	-	-
SMOKED . . . . .	DO (1)	(1)	-	-
HERRING SEA, SALTED AND PICKLED. . . . .	DO (1)	(1)	6,353,101	2,738,441
LAKE TROUT:				
FILLETS, FRESH AND FROZEN. . . . .	DO 21,000	16,960	(1)	(1)
SMOKED . . . . .	DO 53,000	35,900	17,600	16,310
MACKEREL, SALTED . . . . .	DO -	-	(1)	(1)
OCEAN PERCH, BREADED, FROZEN . . . . .	DO -	-	(1)	(1)
PIKE OR PICKEREL, FILLETS FRESH OR FROZEN. . . . .	DO (1)	(1)	-	-
SABLEFISH, SMOKED. . . . .	DO 159,000	85,500	330,000	177,800
SALMON, SMOKED . . . . .	DO 327,000	270,200	515,250	591,000
SAUGER, FILLETS, FRESH AND FROZEN . . . . .	DO 200,000	141,500	(1)	(1)
SNAPPER, RED, FILLETS, FRESH OR FROZEN. . . . .	DO -	-	(1)	(1)
SMOKEFISH, STEAKS, FROZEN . . . . .	DO (1)	(1)	(1)	(1)
STURGEON . . . . .	DO (1)	(1)	-	-
WHITE BASS, FILLETS, FRESH OR FROZEN . . . . .	DO (1)	(1)	-	-
WHITEFISH:				
FILLETS, FRESH AND FROZEN. . . . .	DO 109,089	67,416	96,902	61,019
SMOKED . . . . .	DO 133,000	73,400	27,800	23,725

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# GREAT LAKES FISHERIES

337

## MANUFACTURED FISHERY PRODUCTS, 1963 - Continued

ITEM	MICHIGAN		ILLINOIS	
	QUANTITY	VALUE	QUANTITY	VALUE
YELLOW PERCH FILLETS:				
FRESH AND FROZEN . . . . .	POUNDS	1,328,720	66,963	\$42,590
BREADED FROZEN . . . . .	DO	(1)	-	-
YELLOW PIKE, FILLETS:				
FRESH AND FROZEN . . . . .	DO	544,330	141,264	112,058
BREADED, FROZEN . . . . .	DO	-	(1)	(1)
SHRIMP, BREADED, FROZEN . . . . .	DO	-	(1)	(1)
OYSTERS, BREADED, FROZEN . . . . .	DO	-	(1)	(1)
SCALLOPS, BREADED, FROZEN . . . . .	DO	-	(1)	(1)
UNCLASSIFIED:				
FROZEN, PACKAGED STICKS AND PORTIONS . . . . .	DO	-	-	-
CANNED . . . . .	STANDARD CASES	-	(2)	-
MISCELLANEOUS . . . . .	-	-	-	(2)
		2,020,130	-	662,832
<b>TOTAL . . . . .</b>	-	3,900,358	-	5,114,895

ITEM	WISCONSIN		MINNESOTA	
	QUANTITY	VALUE	QUANTITY	VALUE
CHUBS, SMOKED . . . . .	POUNDS	1,193,055	-	-
HERRING, LAKE:				
SALTED . . . . .	DO	(1)	(1)	(1)
SMOKED . . . . .	DO	71,000	-	-
HERRING, SEA, SALTED AND PICKLED . . . . .	DO	(1)	(1)	(1)
LAKE TROUT:				
FILLETS, FRESH AND FROZEN . . . . .	DO	17,650	-	-
SMOKED . . . . .	DO	31,000	-	-
PIKE OR PICKEREL FILLETS, FRESH OR FROZEN . . . . .	DO	(1)	(1)	-
SABLEFISH, SMOKED . . . . .	DO	56,700	-	-
SALMON, SMOKED . . . . .	DO	55,000	-	-
SAUGER FILLETS, FRESH AND FROZEN . . . . .	DO	10,000	-	-
WHITEFISH:				
FILLETS, FRESH AND FROZEN . . . . .	DO	85,870	-	-
CANNED CAVIAR . . . . .	STANDARD CASES	-	(1)	-
SMOKED . . . . .	POUNDS	65,720	-	-
YELLOW PERCH, FILLETS, FRESH AND FROZEN . . . . .	DO	1,107,000	-	-
YELLOW PIKE, FILLETS, FRESH AND FROZEN . . . . .	DO	25,240	-	-
UNCLASSIFIED:				
FROZEN, PACKAGED STICKS AND PORTIONS . . . . .	DO	554,400	-	-
MISCELLANEOUS . . . . .	-	-	-	\$99,095
<b>TOTAL . . . . .</b>	-	2,951,490	-	99,095

1/ INCLUDED WITH UNCLASSIFIED ITEMS.

2/ INCLUDED WITH MISCELLANEOUS.

NOTE:--SOME OF THE ABOVE PRODUCTS MAY HAVE BEEN MANUFACTURED FROM RAW PRODUCTS IMPORTED FROM ANOTHER STATE OR FOREIGN COUNTRY. THEREFORE, THEY CANNOT BE CORRELATED DIRECTLY WITH THE CATCH WITHIN THE STATE. CERTAIN ITEMS ARE SHOWN IN AN INTERMEDIATE OR MORE ADVANCED STAGE OR PROCESSING.

## WHOLESALE AND MANUFACTURING, 1963

ITEM	NEW YORK	PENN-SYLVANIA	OHIO	INDIANA	ILLINOIS
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
WHOLESALE AND MANUFACTURING:					
ESTABLISHMENTS . . . . .	28	6	53	7	44
PERSONS ENGAGED:					
AVERAGE FOR SEASON . . . . .	205	32	516	21	914
AVERAGE FOR YEAR . . . . .	113	20	315	12	805

ITEM	MICHIGAN	MINNESOTA	WISCONSIN	TOTAL
	NUMBER	NUMBER	NUMBER	NUMBER
WHOLESALE AND MANUFACTURING:				
ESTABLISHMENTS . . . . .	66	11	47	124
PERSONS ENGAGED:				
AVERAGE FOR SEASON . . . . .	716	173	602	1,511
AVERAGE FOR YEAR . . . . .	471	40	329	840

# GREAT LAKES FISHERIES

## SUMMARY OF MANUFACTURED PRODUCTS, 1963

(VALUE IN THOUSANDS OF DOLLARS)

ITEM	QUANTITY	VALUE
FRESH AND FROZEN PACKAGED:		
NOT BREADED, FISH AND SHELLFISH		
FILLETS, STEAKS AND PORTIONS . . .	1,000 POUNDS	4,100
BREADED . . . . .	DO	11,875
CANNED . . . . .	STANDARD	
CURED . . . . .	CASES	1,520
	1,000 POUNDS	8,440
TOTAL . . . . .	-	25,935

## VALUE OF MANUFACTURED PRODUCTS, BY STATES, 1963

(THOUSANDS OF DOLLARS)

STATE	VALUE
NEW YORK . . . . .	556
PENNSYLVANIA . . . . .	85
OHIO . . . . .	13,228
MICHIGAN . . . . .	3,900
ILLINOIS . . . . .	5,115
MINNESOTA . . . . .	99
WISCONSIN . . . . .	2,952
TOTAL . . . . .	25,935



# GREAT LAKES FISHERIES

339

## LAKE ONTARIO - OPERATING UNITS AND FISHING EFFORT BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	TRAP NETS	FYKE AND HOOP NETS	GILL NETS			
				1-1/4 - 2 1 INCH MESH	2-1/8 - 3-7/8 1 INCH MESH	4 - 7 1 INCH MESH	7-1/8 - 14 1 INCH MESH
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:							
ON VESSELS:							
PART-TIME . . . . .	-	-	-	-	3	3	-
CASUAL . . . . .	-	-	-	-	-	-	3
ON BOATS AND SHORE:							
CASUAL . . . . .	6	36	24	1	5	-	1
TOTAL FISHERMEN . . . . .	6	36	24	1	8	3	4
VESSELS, MOTOR:							
PART-TIME . . . . .	-	-	-	-	1	1	-
CASUAL . . . . .	-	-	-	-	-	-	1
TOTAL VESSELS . . . . .	-	-	-	-	1	1	1
TOTAL GROSS TONNAGE . . . . .	-	-	-	-	10	10	10
BOATS:							
MOTOR, CASUAL, TOTAL . . . . .	3	18	12	1	5	-	1
OTHER, CASUAL, TOTAL . . . . .	3	-	-	-	-	-	-
DAYS OPERATED:							
FISHERMEN:							
ON VESSELS . . . . .	30	760	424	4	189	267	9
ON BOATS AND SHORE . . . . .	-	-	-	-	21	-	1
TOTAL FISHERMEN DAYS . . . . .	30	760	424	4	210	267	10
CRAFT:							
VESSELS . . . . .	-	-	-	-	63	89	3
BOATS, MOTOR . . . . .	15	360	212	4	21	-	1
TOTAL CRAFT DAYS . . . . .	15	360	212	4	64	89	4
FISHING EFFORT:							
LIFTS . . . . .	-	1,346	968	-	-	-	-
LIFTS PER 1,000 LINEAR YARDS . . . . .	4	-	-	1	317	487	15

SEE NOTE ON PAGE 327.

## LAKE ERIE - OPERATING UNITS AND FISHING EFFORT BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	OTTER TRAWLS, FISH	TRAP NETS	FYKE AND HOOP NETS
FISHERMEN:				
ON VESSELS:				
REGULAR . . . . .	-	-	12	-
PART-TIME . . . . .	-	7	75	-
CASUAL . . . . .	5	-	32	-
ON BOATS AND SHORE:				
REGULAR . . . . .	5	-	-	-
PART-TIME . . . . .	81	-	6	-
CASUAL . . . . .	97	-	23	6
TOTAL FISHERMEN . . . . .	188	7	148	6
VESSELS, MOTOR:				
REGULAR . . . . .	-	-	4	-
PART-TIME . . . . .	-	3	34	-
CASUAL . . . . .	1	-	16	-
TOTAL VESSELS . . . . .	1	3	54	-
TOTAL GROSS TONNAGE . . . . .	13	40	696	-

(CONTINUED ON NEXT PAGE)

## GREAT LAKES FISHERIES

LAKE ERIE - OPERATING UNITS AND FISHING  
EFFORT BY GEAR, 1963 - Continued

ITEM	HAUL SEINES, COMMON	OTTER TRAWLS, FISH	TRAP NETS	FYKE AND HOOP NETS	
	NUMBER	NUMBER	NUMBER	NUMBER	
BOATS:					
MOTOR:					
REGULAR . . . . .	1	-	-	-	
PART-TIME . . . . .	20	-	2	-	
CASUAL . . . . .	33	-	12	4	
TOTAL MOTOR BOATS . . . . .	56	-	14	4	
OTHER:					
REGULAR . . . . .	1	-	-	-	
PART-TIME . . . . .	20	-	-	-	
CASUAL . . . . .	36	-	-	-	
TOTAL OTHER BOATS . . . . .	57	-	-	-	
DAYS OPERATED:					
FISHERMEN:					
ON VESSELS . . . . .	265	532	10,079	-	
ON BOATS AND SHORE . . . . .	10,828	-	904	114	
TOTAL FISHERMEN DAYS . . . . .	11,093	532	10,983	114	
CRAFT:					
VESSELS . . . . .	53	226	4,336	-	
BOATS, MOTOR . . . . .	2,748	-	458	74	
TOTAL CRAFT DAYS . . . . .	2,801	226	4,794	74	
FISHING EFFORT:					
LIFTS . . . . .	-	-	53,018	302	
LIFTS PER 1,000 LINEAR YARDS . . . . .	3,390	-	-	-	
HOURS TRAWLED . . . . .	-	839	-	-	
	GILL NETS			LINES, LONG OR SET WITH HOOKS	DIP NETS
	2-1/8 - 3-7/8 INCH MESH	4 - 7 INCH MESH	7-1/8 - 14 INCH MESH		
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS:					
REGULAR . . . . .	18	-	-	-	-
PART-TIME . . . . .	34	2	-	-	-
CASUAL . . . . .	40	49	-	-	-
ON BOATS AND SHORE:					
PART-TIME . . . . .	10	-	-	45	-
CASUAL . . . . .	24	35	3	151	5
TOTAL FISHERMEN . . . . .	126	86	3	196	5
VESSELS, MOTOR:					
REGULAR . . . . .	6	-	-	-	-
PART-TIME . . . . .	14	1	-	-	-
CASUAL . . . . .	18	21	-	-	-
TOTAL VESSELS . . . . .	38	22	-	-	-
TOTAL GROSS TONNAGE . . . . .	521	285	-	-	-
BOATS, MOTOR:					
PART-TIME . . . . .	5	-	-	23	-
CASUAL . . . . .	17	23	2	146	4
TOTAL MOTOR BOATS . . . . .	22	23	2	169	4
DAYS OPERATED:					
FISHERMEN:					
ON VESSELS . . . . .	7,445	859	-	-	-
ON BOATS AND SHORE . . . . .	1,078	675	75	6,038	32
TOTAL FISHERMEN DAYS . . . . .	8,523	1,534	75	6,038	32

(CONTINUED ON NEXT PAGE)

# GREAT LAKES FISHERIES

341

## LAKE ERIE - OPERATING UNITS AND FISHING EFFORT BY GEAR, 1963 - Continued

ITEM	GILL NETS			LINES, LONG OR SET WITH HOOKS	DIP NETS
	2-1/8 - 3-7/8 INCH MESH	4 - 7 INCH MESH	7-1/8 - 14 INCH MESH		
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
DAYS OPERATED - CONTINUED:					
CRAFT:					
VESSELS . . . . .	2,903	390	-	-	-
BOATS, MOTOR. . . . .	616	420	56	4,086	29
TOTAL CRAFT DAYS. . . . .	3,519	810	56	4,086	29
FISHING EFFORT:					
LIFTS PER 1,000 LINEAR YARDS. . . . .	12,351	1,962	41	-	-
LIFTS PER 1,000 HOOKS . . . . .	-	-	-	1,744	-
DAYS FISHED . . . . .	-	-	-	-	29

SEE NOTE ON PAGE 327.

## LAKE HURON - OPERATING UNITS AND FISHING EFFORT BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	POUND NETS	TRAP NETS	FYKE AND HOOP NETS
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:				
ON VESSELS:				
PART-TIME . . . . .	-	-	12	-
CASUAL . . . . .	-	-	40	-
ON BOATS AND SHORE:				
PART-TIME . . . . .	3	2	12	2
CASUAL . . . . .	41	10	68	11
TOTAL FISHERMEN . . . . .	44	14	132	13
VESSELS, MOTOR:				
PART-TIME . . . . .	-	-	6	-
CASUAL . . . . .	-	1	20	-
TOTAL VESSELS . . . . .	-	1	26	-
TOTAL GROSS TONNAGE . . . . .	-	19	260	-
BOATS:				
MOTOR:				
PART-TIME . . . . .	1	1	6	1
CASUAL . . . . .	18	5	34	9
TOTAL MOTOR BOATS . . . . .	19	6	40	10
OTHER:				
PART-TIME . . . . .	1	-	-	-
CASUAL . . . . .	18	-	-	-
TOTAL OTHER BOATS . . . . .	19	-	-	-
DAYS OPERATED:				
FISHERMEN:				
ON VESSELS. . . . .	-	26	2,196	-
ON BOATS AND SHORE. . . . .	918	188	2,578	243
TOTAL FISHERMEN DAYS. . . . .	918	216	4,776	243
CRAFT:				
VESSELS . . . . .	-	14	1,099	-
BOATS, MOTOR. . . . .	349	94	1,276	173
TOTAL CRAFT DAYS. . . . .	349	108	2,377	173

(CONTINUED ON NEXT PAGE)

## GREAT LAKES FISHERIES

LAKE HURON - OPERATING UNITS AND  
FISHING EFFORT BY GEAR, 1963 - Continued

ITEM	HAUL SEINES, COMMON	POUND NETS	TRAP NETS	FYKE AND HOOP NETS	
	NUMBER	NUMBER	NUMBER	NUMBER	
FISHING EFFORT:					
LIFTS . . . . .	-	344	12,185	887	
LIFTS PER 1,000 LINEAR YARDS. . . . .	270	-	-	-	
ITEM	GILL NETS				LINES, LONG OR SET WITH HOOKS
	1-1/4 - 2 INCH MESH	2-1/8 - 3-7/8 INCH MESH	4 - 7 INCH MESH	7-1/8 - 14 INCH MESH	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS:					
REGULAR . . . . .	-	6	-	-	-
PART-TIME . . . . .	-	60	-	-	-
CASUAL . . . . .	2	28	24	6	4
ON BOATS AND SHORE:					
REGULAR . . . . .	-	-	-	3	-
PART-TIME . . . . .	-	6	2	30	40
CASUAL . . . . .	-	48	40	19	55
TOTAL FISHERMEN . . . . .	2	148	66	58	99
VESSELS, MOTOR:					
REGULAR . . . . .	-	2	-	-	-
PART-TIME . . . . .	-	30	-	-	-
CASUAL . . . . .	1	14	12	3	2
TOTAL VESSELS . . . . .	1	46	12	3	2
TOTAL GROSS TONNAGE . . . . .	14	949	178	24	39
BOATS, MOTOR:					
REGULAR . . . . .	-	-	-	1	-
PART-TIME . . . . .	-	3	1	15	20
CASUAL . . . . .	-	45	29	15	45
TOTAL MOTOR BOATS . . . . .	-	48	30	31	65
DAYS OPERATED:					
FISHERMEN:					
ON VESSELS . . . . .	54	7,232	328	54	28
ON BOATS AND SHORE . . . . .	-	1,104	596	2,557	4,510
TOTAL FISHERMEN DAYS . . . . .	54	8,336	924	2,611	4,538
CRAFT:					
VESSELS . . . . .	27	3,441	164	27	14
BOATS, MOTOR . . . . .	-	845	406	1,338	2,664
TOTAL CRAFT DAYS . . . . .	27	4,286	570	1,365	2,678
FISHING EFFORT:					
LIFTS PER 1,000 LINEAR YARDS. . . . .	23	17,871	914	1,390	-
LIFTS PER 1,000 HOURS . . . . .	-	-	-	-	1,894

SEE NOTE ON PAGE 327.

# GREAT LAKES FISHERIES

343

## LAKE MICHIGAN - OPERATING UNITS AND FISHING EFFORT BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	OTTER TRAWLS, FISH	POUND NETS	TRAP NETS	FYKE AND HOOP NETS
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
<b>FISHERMEN:</b>					
<b>ON VESSELS:</b>					
REGULAR . . . . .	-	9	-	-	3
PART-TIME . . . . .	-	12	-	2	3
CASUAL . . . . .	9	-	26	4	-
<b>ON BOATS AND SHORE:</b>					
PART-TIME . . . . .	-	-	6	-	22
CASUAL . . . . .	23	-	100	14	16
<b>TOTAL FISHERMEN . . . . .</b>	<b>32</b>	<b>21</b>	<b>136</b>	<b>20</b>	<b>44</b>
<b>VESSELS, MOTOR:</b>					
REGULAR . . . . .	-	3	-	-	1
PART-TIME . . . . .	-	6	-	1	1
CASUAL . . . . .	3	-	12	2	-
<b>TOTAL VESSELS . . . . .</b>	<b>3</b>	<b>9</b>	<b>12</b>	<b>3</b>	<b>2</b>
<b>TOTAL GROSS TONNAGE . . . . .</b>	<b>47</b>	<b>236</b>	<b>195</b>	<b>42</b>	<b>36</b>
<b>BOATS:</b>					
<b>MOTOR:</b>					
PART-TIME . . . . .	-	-	4	-	11
CASUAL . . . . .	12	-	47	7	9
<b>TOTAL MOTOR BOATS . . . . .</b>	<b>12</b>	<b>-</b>	<b>51</b>	<b>7</b>	<b>19</b>
<b>OTHER, CASUAL, TOTAL . . . . .</b>	<b>15</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>DAYS OPERATED:</b>					
<b>FISHERMEN:</b>					
ON VESSELS . . . . .	123	3,582	581	244	579
ON BOATS AND SHORE . . . . .	219	-	2,414	212	2,320
<b>TOTAL FISHERMEN DAYS . . . . .</b>	<b>342</b>	<b>3,582</b>	<b>2,995</b>	<b>456</b>	<b>2,699</b>
<b>CRAFT:</b>					
VESSELS . . . . .	41	1,410	270	122	193
BOATS, MOTOR . . . . .	114	-	1,207	106	1,160
<b>TOTAL CRAFT DAYS . . . . .</b>	<b>155</b>	<b>1,410</b>	<b>1,477</b>	<b>228</b>	<b>1,353</b>
<b>FISHING EFFORT:</b>					
LIFTS . . . . .	-	-	3,224	1,336	13,190
LIFTS PER 1,000 LINEAR YARDS . . . . .	104	-	-	-	-
HOURS TRAWLED . . . . .	-	9,250	-	-	-

ITEM	GILL NETS				LINES	
	1-1/4 - 2 INCH MESH	2-1/8 - 3-7/8 INCH MESH	4 - 7- INCH MESH	7-1/8 - 14 INCH MESH	HAND	LONG OR SET WITH HOOKS
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
<b>FISHERMEN:</b>						
<b>ON VESSELS:</b>						
REGULAR . . . . .	-	67	-	-	-	-
PART-TIME . . . . .	-	137	10	-	-	-
CASUAL . . . . .	12	101	84	-	-	-
<b>ON BOATS AND SHORE:</b>						
REGULAR . . . . .	-	9	-	-	-	-
PART-TIME . . . . .	-	84	6	4	-	-
CASUAL . . . . .	44	270	105	19	1	4
<b>TOTAL FISHERMEN . . . . .</b>	<b>56</b>	<b>688</b>	<b>205</b>	<b>23</b>	<b>1</b>	<b>4</b>
<b>VESSELS, MOTOR:</b>						
REGULAR . . . . .	-	29	-	-	-	-
PART-TIME . . . . .	-	67	5	-	-	-
CASUAL . . . . .	5	48	38	-	-	-
<b>TOTAL VESSELS . . . . .</b>	<b>5</b>	<b>144</b>	<b>43</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>TOTAL GROSS TONNAGE . . . . .</b>	<b>79</b>	<b>3,241</b>	<b>871</b>	<b>-</b>	<b>-</b>	<b>-</b>

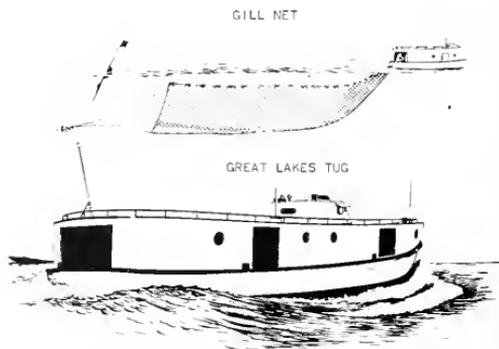
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## GREAT LAKES FISHERIES

LAKE MICHIGAN - OPERATING UNITS AND  
FISHING EFFORT BY GEAR, 1963 - Continued

ITEM	GILL NETS				LINES	
	1-1/4 - 2 INCH MESH	2-1/8 - 3-7/8 INCH MESH	4 - 7 INCH MESH	7-1/8 - 14 INCH MESH	HAND	LONG OR SET WITH HOOKS
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
BOATS, MOTOR:						
REGULAR . . . . .	-	3	-	-	-	-
PART-TIME . . . . .	-	42	3	1	-	-
CASUAL . . . . .	34	219	69	9	1	4
TOTAL MOTOR BOATS . . . .	34	264	72	10	1	4
DAYS OPERATED:						
FISHERMEN:						
ON VESSELS . . . . .	147	31,971	1,635	-	-	-
ON BOATS AND SHORE . . . .	393	12,458	1,644	481	24	72
TOTAL FISHERMEN DAYS . . .	540	44,429	3,279	481	24	72
CRAFT:						
VESSELS . . . . .	64	13,218	772	-	-	-
BOATS, MOTOR . . . . .	348	7,786	1,197	315	24	72
TOTAL CRAFT DAYS . . . . .	412	21,004	1,969	315	24	72
FISHING EFFORT:						
LIFTS PER 1,000 LINEAR YARDS . . . . .	249	50,605	4,869	234	-	-
LIFTS PER 1,000 HOURS . . . .	-	-	-	-	-	30
DAYS FISHED . . . . .	-	-	-	-	24	-

SEE NOTE ON PAGE 327.



# GREAT LAKES FISHERIES

345

## LAKE SUPERIOR - OPERATING UNITS AND FISHING EFFORT BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	POUND NETS	TRAP NETS	FYKE AND HOOP NETS	GILL NETS		
					1-1/4 - 2 INCH MESH	2-1/8 - 3-7/8 INCH MESH	4 - 7 INCH MESH
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN; ON VESSELS:							
REGULAR . . . . .	-	-	-	-	42	3	
PART-TIME . . . . .	-	2	2	-	87	22	
CASUAL . . . . .	-	19	5	10	64	82	
ON BOATS AND SHORE:							
REGULAR . . . . .	-	-	-	-	19	-	
PART-TIME . . . . .	-	-	-	-	117	18	
CASUAL . . . . .	2	32	16	2	169	87	
TOTAL FISHERMEN . . . . .	2	53	23	2	498	212	
VESSELS, MOTOR:							
REGULAR . . . . .	-	-	-	-	14	1	
PART-TIME . . . . .	-	1	1	-	43	10	
CASUAL . . . . .	-	9	2	4	31	39	
TOTAL VESSELS . . . . .	-	10	3	-	88	50	
TOTAL GROSS TONNAGE . . . . .	-	135	55	-	74	821	
BOATS:							
MOTOR:							
REGULAR . . . . .	-	-	-	-	8	-	
PART-TIME . . . . .	-	-	-	-	58	8	
CASUAL . . . . .	1	17	8	1	152	70	
TOTAL MOTOR BOATS . . . . .	1	17	8	1	218	78	
OTHER, CASUAL, TOTAL . . . . .	1	-	-	-	-	-	
DAYS OPERATED:							
FISHERMEN:							
ON VESSELS . . . . .	-	487	325	-	154	3,330	
ON BOATS AND SHORE . . . . .	6	421	264	50	324	2,415	
TOTAL FISHERMEN DAYS . . . . .	6	908	609	50	478	5,745	
CRAFT:							
VESSELS . . . . .	-	238	157	-	64	1,466	
BOATS, MOTOR . . . . .	3	217	142	25	268	1,570	
TOTAL CRAFT DAYS . . . . .	3	455	299	25	332	3,036	
FISHING EFFORT:							
LIFTS . . . . .	-	1,849	1,980	25	-	-	
LIFTS PER 1,000 LINEAR YARDS . . . . .	1	-	-	-	198	6,505	

SEE NOTE ON PAGE 327.

## LAKE OF THE WOODS, NAMAKAN LAKE, AND RAINY LAKE OPERATING UNITS AND FISHING EFFORT BY GEAR, 1963

ITEM	OTTER TRAWLS, FISH	POUND NETS	TRAP NETS	FYKE AND HOOP NETS	GILL NETS, 4 - 7 INCH MESH
					NUMBER
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN; ON VESSELS:					
REGULAR . . . . .	3	-	-	-	-
PART-TIME . . . . .	3	-	-	-	-
ON BOATS AND SHORE:					
REGULAR . . . . .	-	-	-	-	6
PART-TIME . . . . .	-	2	2	4	40
CASUAL . . . . .	-	2	2	4	8
TOTAL FISHERMEN . . . . .	6	4	4	8	54

(CONTINUED ON NEXT PAGE)

## GREAT LAKES FISHERIES

LAKE OF THE WOODS, NAMAKAN LAKE, AND RAINY LAKE  
OPERATING UNITS AND FISHING EFFORT BY GEAR, 1963 - Continued

ITEM	OTTER TRAWLS, FISH	POUND NETS	TRAP NETS	FYKE AND HOOP NETS	GILL NETS, 4 - 7 INCH MESH
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
VESSELS, MOTOR:					
REGULAR . . . . .	1	-	-	-	-
PART-TIME . . . . .	1	-	-	-	-
TOTAL VESSELS . . . . .	2	-	-	-	-
TOTAL GROSS TONNAGE . . . . .	49	-	-	-	-
BOATS, MOTOR:					
REGULAR . . . . .	-	1	1	3	2
PART-TIME . . . . .	-	1	1	1	19
CASUAL . . . . .	-	-	-	-	9
TOTAL MOTOR BOATS . . . . .	-	2	2	4	30
DAYS OPERATED:					
FISHERMEN:					
ON VESSELS . . . . .	786	-	-	-	-
ON BOATS AND SHORE . . . . .	-	94	282	482	5,966
TOTAL FISHERMEN DAYS . . . . .	786	94	282	482	5,966
CRAFT:					
VESSELS . . . . .	262	-	-	-	-
BOATS, MOTOR . . . . .	-	47	141	241	2,952
TOTAL CRAFT DAYS . . . . .	262	47	141	241	2,952
FISHING EFFORT:					
LIFTS . . . . .	-	47	845	2,017	-
LIFTS PER 1,000 LINEAR YARDS . . . . .	-	-	-	-	2,697
HOURS TRAWLED . . . . .	1,312	-	-	-	-

SEE NOTE ON PAGE 327.



# GREAT LAKES FISHERIES

## CATCH BY LAKE, STATE, AND GEAR, 1963

SPECIES	LAKE ONTARIO							
	NEW YORK							
	HAUL SEINES		TRAP NETS		FYKE AND HOOP NETS		GILL NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	1-1/4 - 2 INCH MESH	VALUE
BLUE PIKE . . . . .	-	-	(1)	\$10	-	-	-	-
BOWFIN . . . . .	100	\$2	1,200	24	(1)	(1)	-	-
BULLHEADS . . . . .	1,600	452	37,500	10,527	5,000	\$1,386	-	-
BURBOT . . . . .	-	-	800	24	-	-	-	-
CARP . . . . .	4,000	119	32,100	963	100	3	-	-
CATFISH . . . . .	-	-	2,100	420	-	-	-	-
CISCO . . . . .	-	-	1,300	279	-	-	-	-
CRAPPIE . . . . .	-	-	1,100	216	-	-	-	-
EELS . . . . .	-	-	18,400	4,604	300	65	-	-
GARFISH . . . . .	-	-	(1)	(1)	-	-	-	-
ROCK BASS . . . . .	-	-	6,300	441	100	2	-	-
SAUGER . . . . .	-	-	(1)	3	-	-	-	-
SHEEPSHEAD . . . . .	-	-	(1)	1	-	-	100	\$10
SMELT . . . . .	-	-	-	-	-	-	-	-
SUCKERS . . . . .	200	4	10,500	210	300	6	-	-
SUNFISH . . . . .	-	-	6,600	1,116	200	24	-	-
WHITE BASS . . . . .	-	-	1,500	239	-	-	-	-
WHITEFISH, COMMON . . . . .	-	-	200	45	-	-	-	-
YELLOW PERCH . . . . .	200	16	5,400	375	-	-	-	-
YELLOW PERCH . . . . .	(1)	(1)	12,300	964	200	16	-	-
YELLOW PIKE . . . . .	-	-	900	312	-	-	-	-
TOTAL . . . . .	6,100	593	140,300	20,794	6,200	1,502	100	10

SPECIES	LAKE ONTARIO - CONTINUED							
	NEW YORK - CONTINUED							
	GILL NETS - CONTINUED							
	2-1/8 - 3-7/8 INCH MESH		4 - 7 INCH MESH		7-1/8 - 14 INCH MESH		TOTAL	
POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	
BLUE PIKE . . . . .	-	-	-	-	-	(1)	\$10	
BOWFIN . . . . .	-	-	-	-	-	1,300	26	
BULLHEADS . . . . .	100	\$31	-	-	-	44,300	12,396	
BURBOT . . . . .	-	-	-	-	-	800	24	
CARP . . . . .	-	-	-	-	-	36,200	1,085	
CATFISH . . . . .	-	-	-	-	-	2,100	420	
CISCO . . . . .	400	74	3,300	\$691	-	5,000	1,044	
CRAPPIE . . . . .	-	-	-	-	-	1,100	216	
EELS . . . . .	-	-	-	-	-	18,700	4,669	
GARFISH . . . . .	-	-	-	-	-	(1)	(1)	
PIKE OR PICKEREL . . . . .	100	10	-	-	-	100	10	
ROCK BASS . . . . .	(1)	1	-	-	-	6,400	444	
SAUGER . . . . .	-	-	-	-	-	(1)	3	
SHEEPSHEAD . . . . .	-	-	-	-	-	(1)	1	
SMELT . . . . .	100	4	-	-	-	200	14	
STURGEON . . . . .	-	-	-	-	400	\$367	400	
SUCKERS . . . . .	(1)	(1)	-	-	-	11,000	220	
SUNFISH . . . . .	-	-	-	-	-	6,800	1,140	
WHITE BASS . . . . .	2,900	404	-	-	-	4,000	643	
WHITEFISH, COMMON . . . . .	(1)	4	31,500	13,230	-	31,700	13,280	
WHITE PERCH . . . . .	100	7	-	-	-	5,700	398	
YELLOW PERCH . . . . .	40,000	3,204	-	-	-	52,500	4,204	
YELLOW PERCH . . . . .	1,600	553	-	-	-	2,500	865	
YELLOW PIKE . . . . .	-	-	-	-	-	-	-	
TOTAL . . . . .	44,900	4,292	34,600	13,921	400	367	232,800	41,479

SPECIES	LAKE ERIE							
	NEW YORK							
	GILL NETS							
	2-1/8 - 3 7/8 INCH MESH		4 - 7 INCH MESH		7-1/8 - 14 INCH MESH		TOTAL	
POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	
BLUE PIKE . . . . .	(1)	-	(1)	\$2	-	-	(1)	\$2
BULLHEADS . . . . .	(1)	-	(1)	-	-	(1)	1	
BURBOT . . . . .	(1)	-	(1)	4	-	(1)	1	
CARP . . . . .	200	20	(1)	(1)	-	200	20	
CATFISH . . . . .	(1)	4	400	94	-	400	96	
CISCO . . . . .	600	327	(1)	1	-	600	328	
ROCK BASS . . . . .	(1)	1	-	-	-	(1)	1	
SHEEPSHEAD . . . . .	1,600	62	4,400	175	-	6,000	237	
SMELT . . . . .	100	7	-	-	-	100	7	
STURGEON . . . . .	-	-	-	-	400	\$374	400	374

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## GREAT LAKES FISHERIES

## CATCH BY LAKE, STATE, AND GEAR, 1963 - Continued

SPECIES	LAKE ERIE - CONTINUED							
	NEW YORK - CONTINUED							
	GILL NETS - CONTINUED						TOTAL	
	2 1/8 - 3 7/8 INCH MESH		4 - 7 INCH MESH		7 1/8 - 14 INCH MESH			
POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	
SUCKERS . . . . .	600	\$11	-	-	-	-	600	\$11
WHITE BASS . . . . .	2,500	356	4,600	\$669	-	-	7,300	1,027
WHITEFISH, COMMON . . . . .	(1)	7	100	15	-	-	100	22
YELLOW PERCH . . . . .	140,500	12,640	5,500	499	-	-	146,000	13,139
YELLOW PIKE . . . . .	31,100	9,940	76,200	24,407	-	-	107,300	34,347
TOTAL . . . . .	177,400	23,378	91,400	25,866	400	\$374	269,200	49,618

SPECIES	LAKE ERIE - CONTINUED					
	PENNSYLVANIA					
	OTTER TRAWLS, FISH FOR HUMAN FOOD		SHALLOW TRAPS		GILL NETS	
					2-1/8 - 3-7/8 INCH MESH	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUE PIKE . . . . .	-	-	(1)	(1)	(1)	\$26
BULLHEADS . . . . .	-	-	-	-	100	3
BURBOT . . . . .	-	-	-	-	200	5
CARP . . . . .	-	-	100	-	-	-
CATFISH . . . . .	-	-	100	-	100	22
CISCO . . . . .	(1)	\$2	-	-	100	36
SHEEPSHEAD . . . . .	1,200	23	(1)	(1)	2,700	65
SHELT . . . . .	304,100	9,271	-	-	2,000	106
SUCKERS . . . . .	-	-	100	2	600	19
WHITE BASS . . . . .	100	18	100	2	4,500	513
WHITEFISH, COMMON . . . . .	3,100	1,774	-	-	300	180
YELLOW PERCH . . . . .	9,400	994	1,300	120	1,051,700	84,141
YELLOW PIKE . . . . .	(1)	4	400	93	15,000	3,865
TOTAL . . . . .	317,900	12,086	2,100	246	1,077,300	88,981

SPECIES	LAKE ERIE - CONTINUED					
	PENNSYLVANIA - CONTINUED				OHIO	
	GILL NETS - CONTINUED		TOTAL		HAUL SEINES	
	4 - 7 INCH MESH					
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUE PIKE . . . . .	-	-	(1)	\$26	-	-
BUFFALOFISH . . . . .	-	-	-	-	35,200	\$4,221
BULLHEADS . . . . .	-	-	100	3	84,200	9,263
BURBOT . . . . .	1,600	\$33	1,600	38	-	-
CARP . . . . .	-	-	100	7	2,305,300	85,295
CATFISH . . . . .	100	22	300	66	735,300	176,478
CISCO . . . . .	-	-	100	38	-	-
GIZZARD SHAD . . . . .	-	-	-	-	500	16
GOLDFISH . . . . .	-	-	-	-	159,300	4,779
MOONEYE OR GOLDEYE . . . . .	-	-	-	-	600	13
QUILLBACK . . . . .	-	-	-	-	(1)	(1)
SHEEPSHEAD . . . . .	300	8	4,200	96	2,762,900	55,258
SHELT . . . . .	-	-	306,100	9,377	100	1
SUCKERS . . . . .	200	6	300	27	26,300	849
WHITE BASS . . . . .	1,300	148	6,000	681	243,600	31,669
WHITEFISH, COMMON . . . . .	2,100	1,264	5,500	3,218	-	-
YELLOW PERCH . . . . .	-	-	1,062,400	85,255	90,200	7,219
YELLOW PIKE . . . . .	8,900	2,294	24,300	6,256	27,500	9,642
TOTAL . . . . .	14,500	3,775	1,411,800	105,068	6,473,000	384,703

SPECIES	LAKE ERIE - CONTINUED							
	OHIO - CONTINUED							
	SHALLOW TRAPS		FYKE AND HOOP NETS		GILL NETS			
					2-1/8 - 3-7/8 INCH MESH		4 - 7 INCH MESH	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BLUE PIKE . . . . .	100	\$38	-	-	100	\$54	-	-
BUFFALOFISH . . . . .	15,000	1,802	100	\$14	-	-	(1)	-

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# GREAT LAKES FISHERIES

349

## CATCH BY LAKE, STATE, AND GEAR, 1963 - Continued

SPECIES	LAKE ERIE - CONTINUED							
	OHIO - CONTINUED							
	SHALLOW TRAPS		FYKE AND HOOP NETS		GILL NETS			
	POUNDS	VALUE	POUNDS	VALUE	2-1/8 - 3-7/8 INCH MESH		POUNDS	VALUE
BULLHEADS . . . . .	31,000	\$3,410	400	\$39	100	\$15	-	-
BURBOT . . . . .	(1)	-	-	-	-	-	100	\$2
CARP . . . . .	163,000	6,029	900	32	800	31	20,700	768
CATFISH . . . . .	160,100	38,431	1,700	403	6,200	1,460	6,500	1,557
CISCO . . . . .	200	74	-	-	200	77	-	100
GIZZARD SHAD . . . . .	4,200	126	-	-	-	-	(1)	(1)
GOLDFISH . . . . .	13,100	393	-	-	-	-	-	-
MOONEYE OR GOLDEYE . . . . .	100	1	-	-	-	-	-	-
QUILLBACK . . . . .	1,000	29	-	-	-	-	-	-
SAUGER . . . . .	(1)	(1)	-	-	100	21	-	-
SHEEPSHEAD . . . . .	1,239,600	24,791	4,900	99	16,400	328	16,300	326
SMELT . . . . .	-	-	-	-	200	36	-	-
STURGEON . . . . .	200	212	-	-	-	-	-	-
SUCKERS . . . . .	124,900	3,746	1,800	54	3,300	100	2,600	78
WHITE BASS . . . . .	699,100	90,879	16,800	2,438	19,200	2,491	32,500	4,245
WHITEFISH, COMMON . . . . .	600	310	-	-	(1)	(1)	100	35
YELLOW PERCH . . . . .	3,358,700	266,694	14,100	1,132	1,052,800	84,222	7,300	591
YELLOW PIKE . . . . .	269,900	101,474	700	233	178,900	62,615	76,200	27,361
<b>TOTAL . . . . .</b>	<b>6,100,800</b>	<b>540,439</b>	<b>43,400</b>	<b>4,444</b>	<b>1,278,300</b>	<b>151,470</b>	<b>164,400</b>	<b>34,997</b>

SPECIES	LAKE ERIE - CONTINUED							
	OHIO - CONTINUED							
	GILL NETS - CONTINUED						TOTAL	
	7-1/8 - 14 INCH MESH		LINES, LONG OR SET WITH HOOKS		DIP NETS		POUNDS	VALUE
BLUE PIKE . . . . .	-	-	-	-	-	-	200	\$92
BUFFALOFISH . . . . .	100	\$5	(1)	\$1	-	-	50,400	6,046
BULLHEADS . . . . .	-	-	5,200	569	(1)	\$2	120,900	13,298
BURBOT . . . . .	-	-	(1)	1	-	-	100	3
CARP . . . . .	1,900	69	11,300	420	300	11	2,504,200	92,655
CATFISH . . . . .	-	-	139,300	33,444	-	-	1,049,100	251,793
CISCO . . . . .	-	-	-	-	-	-	500	192
GIZZARD SHAD . . . . .	-	-	-	-	-	-	4,700	142
GOLDFISH . . . . .	-	-	-	-	(1)	(1)	172,400	5,172
MOONEYE OR GOLDEYE . . . . .	-	-	-	-	-	-	700	14
QUILLBACK . . . . .	-	-	-	-	-	-	1,000	29
SAUGER . . . . .	-	-	-	-	-	-	100	21
SHEEPSHEAD . . . . .	-	-	4,600	92	100	(1)	4,044,800	80,894
SMELT . . . . .	-	-	-	-	-	-	300	37
STURGEON . . . . .	-	-	-	-	-	-	200	212
SUCKERS . . . . .	-	-	(1)	(1)	100	1	161,000	4,626
WHITE BASS . . . . .	-	-	(1)	(1)	(1)	(1)	1,013,200	131,722
WHITEFISH, COMMON . . . . .	-	-	-	-	-	-	700	345
YELLOW PERCH . . . . .	-	-	300	28	100	4	4,523,500	361,880
YELLOW PIKE . . . . .	-	-	-	-	-	-	575,200	201,325
<b>TOTAL . . . . .</b>	<b>2,000</b>	<b>74</b>	<b>160,700</b>	<b>34,555</b>	<b>600</b>	<b>16</b>	<b>14,223,200</b>	<b>1,150,700</b>

SPECIES	LAKE ERIE - CONTINUED					
	MICHIGAN					
	HAUL SEINES		TRAP NETS		FYKE AND HOOP NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	-	-	13,900	\$1,390	-	-
BULLHEADS . . . . .	1,900	\$267	1,000	133	700	\$89
BURBOT . . . . .	-	-	-	-	(1)	(1)
CARP . . . . .	674,800	19,570	150,600	43,733	6,200	160
CATFISH . . . . .	23,600	6,386	16,900	4,593	(1)	1
PIKE OR PICKEREL . . . . .	-	-	100	7	-	-
ROCK BASS . . . . .	-	-	-	-	(1)	(1)
SHEEPSHEAD . . . . .	1,300	37	69,200	1,938	800	22
STURGEON . . . . .	-	-	100	42	(1)	6
SUCKERS . . . . .	-	-	61,800	1,297	-	-
WHITE BASS . . . . .	2,600	311	122,700	14,476	800	96
WHITEFISH . . . . .	600	46	87,700	6,839	1,400	111
YELLOW PERCH . . . . .	100	44	91,100	31,695	-	-
<b>TOTAL . . . . .</b>	<b>704,900</b>	<b>26,661</b>	<b>615,300</b>	<b>106,143</b>	<b>9,900</b>	<b>505</b>

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## GREAT LAKES FISHERIES

## CATCH BY LAKE, STATE, AND GEAR, 1963 - Continued

SPECIES	LAKE ERIE - CONTINUED					
	MICHIGAN - CONTINUED				TOTAL	
	GILL NETS, 4 - 7 INCH MESH		LINES, LONG OR SET WITH HOOKS			
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH	-	-	-	-	13,900	\$1,990
BULLHEADS	-	-	-	-	3,600	489
BURBOT	-	-	-	-	(1)	(1)
CARP	1,400	\$29	-	-	833,200	63,512
CATFISH	-	-	(1)	\$7	40,500	10,987
PIKE OR PICKEREL	-	-	-	-	100	7
ROCK BASS	-	-	-	-	(1)	(1)
SHEEPSHEAD	-	-	(1)	(1)	71,300	1,997
STURGEON	-	-	-	-	100	48
SUCKERS	100	3	(1)	(1)	61,900	1,300
WHITE BASS	-	-	-	-	126,100	14,883
YELLOW PERCH	-	-	-	-	89,700	6,996
YELLOW PIKE	1,900	640	-	-	93,100	32,379
TOTAL	3,400	672	(1)	7	1,333,500	133,988

SPECIES	LAKE HURON					
	MICHIGAN					
	HAUL SEINES		POUND NETS		TRAP NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES	-	-	-	-	1,600	\$32
BOWFIN	400	\$15	-	-	900	30
BULLHEADS	300	34	-	-	3,300	418
CARP	586,600	28,742	-	-	147,300	7,216
CATFISH	11,700	3,160	-	-	52,400	14,165
CRAPPIE	-	-	-	-	2,200	554
GIZZARD SHAD	-	-	-	-	(1)	(1)
LAKE HERRING	-	-	-	-	1,300	220
LAKE TROUT	-	-	-	-	(1)	2
PIKE OR PICKEREL	1,200	243	-	-	14,700	3,080
QUILLBACK	-	-	-	-	3,600	102
ROCK BASS	-	-	-	-	5,800	1,112
SAUGER	-	-	-	-	(1)	(1)
SHEEPSHEAD	-	-	-	-	25,000	750
SMELT	-	-	11,900	\$594	-	-
STURGEON	100	63	-	-	800	715
SUCKERS	36,200	1,740	-	-	438,800	21,062
WHITE BASS	-	-	-	-	16,900	3,045
WHITEFISH:	-	-	-	-	-	-
COMMON	-	-	15,000	8,371	86,600	48,496
MENOMINEE	-	-	-	-	100	8
YELLOW PERCH	-	-	-	-	192,700	25,054
YELLOW PIKE	500	183	-	-	140,900	59,184
TOTAL	637,000	34,180	26,900	8,965	1,134,900	185,245

SPECIES	LAKE HURON - CONTINUED					
	MICHIGAN - CONTINUED					
	FYKE AND HOOP NETS		GILL NETS			
			1-1/4 - 2 INCH MESH		2-1/8 - 3-7/8 INCH MESH	
POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	
ALEWIVES	-	-	-	-	300	\$6
BOWFIN	100	\$1	-	-	-	-
BULLHEADS	2,200	278	-	-	-	-
BURBOT	(1)	2	-	-	-	-
CARP	5,400	265	-	-	300	13
CATFISH	500	124	-	-	100	23
CHUBS	-	-	-	-	1,974,600	420,563
CRAPPIE	100	11	-	-	-	-
LAKE HERRING	-	-	-	-	15,300	2,694
PIKE OR PICKEREL	1,200	241	-	-	700	156
QUILLBACK	100	1	-	-	-	-
ROCK BASS	3,200	610	-	-	-	-
SAUGER	-	-	-	-	100	14
SHEEPSHEAD	100	4	-	-	-	-
SMELT	-	-	-	-	800	42
SUCKERS	13,500	646	-	-	3,000	144
WHITEFISH:	-	-	-	-	-	-
COMMON	-	-	-	-	(1)	(1)
MENOMINEE	-	-	-	-	5,800	1,913
YELLOW PERCH	15,400	2,007	10,500	\$1,365	288,300	37,473
YELLOW PIKE	(1)	(1)	-	-	100	42
TOTAL	41,800	4,190	10,500	1,365	2,289,400	463,103

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# GREAT LAKES FISHERIES

351

## CATCH BY LAKE, STATE, AND GEAR, 1963 - Continued

SPECIES	LAKE HURON - CONTINUED							
	MICHIGAN - CONTINUED							
	GILL NETS - CONTINUED				LINES, LONG OR SET WITH HOOKS		TOTAL	
	4 - 7 INCH MESH		7-1/8 - 14 INCH MESH					
POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	
ALEWIVES. . . . .	-	-	-	-	(1)	(1)	1,900	\$38
BOWFIN. . . . .	-	-	-	-	(1)	-	1,400	46
BULLHEADS. . . . .	-	-	-	-	-	\$2	5,800	732
BURBOT. . . . .	-	-	-	-	-	-	(1)	2
CARP. . . . .	1,700	\$84	904,600	\$43,268	900	44	1,645,600	79,652
CATFISH. . . . .	500	121	2,400	655	104,400	26,180	172,000	46,428
CHUBS. . . . .	-	-	-	-	-	-	1,974,600	420,583
CRAPPIE. . . . .	-	-	-	-	-	-	2,300	565
GIZZARD SHAD. . . . .	-	-	200	5	-	-	200	5
LAKE HERRING. . . . .	(1)	5	-	-	-	-	16,600	2,919
LAKE TROUT. . . . .	-	-	-	-	-	-	(1)	2
PIKE OR PICKEREL. . . . .	4,100	869	400	86	-	-	22,300	4,675
QUILLBACK. . . . .	-	-	-	-	-	-	3,700	103
ROCK BASS. . . . .	100	14	100	28	-	-	9,200	1,764
SAUGER. . . . .	-	-	-	-	-	-	100	14
SHEEPSHEAD. . . . .	200	7	(1)	(1)	100	2	25,400	763
SMELT. . . . .	100	4	-	-	-	-	12,800	640
STURGEON. . . . .	-	-	-	-	-	-	900	778
SUCKERS. . . . .	15,600	750	1,900	91	-	-	509,000	24,433
WHITE BASS. . . . .	300	51	-	-	-	-	17,200	3,096
WHITEFISH:								
COMMON. . . . .	11,200	6,297	-	-	-	-	112,800	63,164
MENOMINEE. . . . .	(1)	5	-	-	-	-	5,900	1,926
YELLOW PERCH. . . . .	200	23	(1)	1	(1)	1	507,100	65,924
YELLOW PIKE. . . . .	16,000	6,728	900	382	(1)	2	158,400	66,521
<b>TOTAL. . . . .</b>	<b>50,000</b>	<b>14,958</b>	<b>910,500</b>	<b>44,536</b>	<b>105,400</b>	<b>28,231</b>	<b>5,206,400</b>	<b>784,773</b>

SPECIES	LAKE MICHIGAN							
	MICHIGAN							
	HAUL SEINES		OTTER TRAWLS				POUND NETS	
			FISH FOR ANIMAL FOOD		FISH FOR HUMAN FOOD			
POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	
ALEWIVES. . . . .	-	-	545,900	\$10,372	-	-	1,031,000	\$15,464
CARP. . . . .	4,000	\$120	-	-	-	-	(1)	(1)
CATFISH. . . . .	-	-	-	-	-	-	(1)	(1)
CHUBS. . . . .	-	-	453,000	9,060	76,000	\$15,200	100	20
LAKE HERRING. . . . .	-	-	100	3	1,800	135	(1)	3
LAKE TROUT. . . . .	-	-	-	-	(1)	(1)	(1)	-
PIKE OR PICKEREL. . . . .	-	-	-	-	-	-	(1)	1
SMELT. . . . .	-	-	58,500	585	800	32	837,200	27,625
STURGEON. . . . .	-	-	-	-	-	-	200	164
WHITEFISH:								
COMMON. . . . .	-	-	-	-	200	106	103,600	54,922
MENOMINEE. . . . .	-	-	-	-	-	-	(1)	5
YELLOW PERCH. . . . .	-	-	-	-	9,800	1,029	100	10
YELLOW PIKE. . . . .	-	-	-	-	-	-	500	230
<b>TOTAL. . . . .</b>	<b>4,000</b>	<b>120</b>	<b>1,057,500</b>	<b>20,020</b>	<b>88,600</b>	<b>16,502</b>	<b>1,972,700</b>	<b>98,445</b>

SPECIES	LAKE MICHIGAN - CONTINUED							
	MICHIGAN - CONTINUED							
	TRAP NETS		GILL NETS					
			1-1/4 - 2 INCH MESH		2-1/8 - 3-7/8 INCH MESH		4 - 7 INCH MESH	
POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	
ALEWIVES. . . . .	-	-	300	\$5	800	\$12	100	\$1
BULLHEADS. . . . .	-	-	-	-	1,100	59	-	-
BURBOT. . . . .	-	-	-	-	(1)	(1)	-	-
CARP. . . . .	100	\$2	-	-	-	-	4,300	128
CHUBS. . . . .	-	-	-	-	1,800,100	360,022	-	-
LAKE HERRING. . . . .	800	57	-	-	20,900	1,568	(1)	3
LAKE TROUT. . . . .	-	-	-	-	(1)	19	26,000	13,257
PIKE OR PICKEREL. . . . .	2,300	341	-	-	800	123	3,200	486
ROCK BASS. . . . .	-	-	-	-	(1)	(1)	(1)	(1)
SAUGER. . . . .	-	-	-	-	(1)	(1)	(1)	(1)
SMELT. . . . .	-	-	30,000	991	(1)	1	(1)	(1)
STURGEON. . . . .	200	204	-	-	-	-	-	-
SUCKERS. . . . .	65,000	2,601	-	-	6,700	268	5,000	200

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## GREAT LAKES FISHERIES

## CATCH BY LAKE, STATE, AND GEAR, 1963 - Continued

SPECIES	LAKE MICHIGAN - CONTINUED							
	MICHIGAN - CONTINUED							
	TRAP NETS		GILL NETS					
	POUNDS	VALUE	1-1/4 - 2 INCH MESH		2-1/8 - 3-7/8 INCH MESH		4 - 7 INCH MESH	
POUNDS			VALUE	POUNDS	VALUE	POUNDS	VALUE	
WHITEFISH, COMMON . . . . .	34,900	\$18,523	-	-	100	\$54	103,900	\$55,056
MEMONINEE . . . . .	-	-	-	-	11,600	3,291	-	-
YELLOW PERCH . . . . .	18,100	1,905	700	\$74	1,044,900	109,713	-	-
YELLOW PIKE . . . . .	18,300	7,685	-	-	100	20	36,100	15,168
TOTAL . . . . .	139,700	31,318	31,000	1,070	2,887,100	475,110	178,600	84,299

SPECIES	LAKE MICHIGAN - CONTINUED							
	GILL NETS - CONTINUED				LINES			
	7-1/8 - 14 INCH MESH		HAND		LONG OR SET WITH HOOKS		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	-	-	-	-	-	-	1,578,100	\$25,854
BULLHEADS . . . . .	-	-	-	-	-	-	1,100	59
BURBOT . . . . .	-	-	-	-	-	-	(1)	(1)
CARP . . . . .	16,200	\$545	-	-	-	-	26,600	795
CATFISH . . . . .	-	-	-	-	-	-	(1)	(1)
CHUBS . . . . .	-	-	-	-	-	-	2,329,200	394,302
LAKE HERRING . . . . .	-	-	-	-	-	-	23,600	1,769
LAKE TROUT . . . . .	-	-	-	-	-	-	25,000	13,276
PIKE OR PICKEREL . . . . .	100	11	-	-	-	-	6,400	962
ROCK BASS . . . . .	-	-	-	-	-	-	(1)	(1)
SAUGER . . . . .	-	-	-	-	-	-	(1)	(1)
SMELT . . . . .	-	-	-	-	-	-	926,500	29,235
STURGEON . . . . .	1,600	1,483	-	-	1,100	\$969	3,100	2,820
SUCKERS . . . . .	(1)	(1)	-	-	-	-	76,700	3,069
WHITEFISH, COMMON . . . . .	-	-	-	-	-	-	242,700	126,661
MEMONINEE . . . . .	-	-	-	-	-	-	11,600	3,256
YELLOW PERCH . . . . .	-	-	600	\$63	-	-	1,074,200	112,794
YELLOW PIKE . . . . .	1,400	569	-	-	-	-	56,400	23,692
TOTAL . . . . .	21,300	2,628	600	63	1,100	969	6,382,200	730,544

SPECIES	LAKE MICHIGAN - CONTINUED					
	INDIANA		ILLINOIS		WISCONSIN	
	GILL NETS		GILL NETS		HAUL SEINES	
	2-1/8 - 3-7/8 INCH MESH		2-1/8 - 3-7/8 INCH MESH			
POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	
ALEWIVES . . . . .	(1)	(1)	-	-	-	-
CARP . . . . .	-	-	-	-	1,008,400	\$30,251
CATFISH . . . . .	-	-	-	-	1,200	324
CHUBS . . . . .	-	-	24,300	\$3,397	-	-
LAKE HERRING . . . . .	-	-	300	36	-	-
SMELT . . . . .	-	-	42,300	4,652	-	-
SUCKERS . . . . .	(1)	\$2	(1)	4	-	-
YELLOW PERCH . . . . .	5,700	669	218,500	24,035	-	-
TOTAL . . . . .	5,700	691	285,400	32,124	1,009,600	30,575

SPECIES	LAKE MICHIGAN - CONTINUED					
	WISCONSIN - CONTINUED					
	OTTER TRAWLS				POUND NETS	
	FISH FOR ANIMAL FOOD		FISH FOR HUMAN FOOD		POUNDS	VALUE
POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	
ALEWIVES . . . . .	2,947,200	\$58,944	-	-	866,400	\$17,329
BURBOT . . . . .	-	-	-	-	2,100	63
CHUBS . . . . .	2,684,400	80,532	196,300	\$39,246	-	-
LAKE HERRING . . . . .	-	-	800	96	300	34
LAKE TROUT . . . . .	-	-	(1)	1	-	-
SCULPIN . . . . .	3,300	66	-	-	-	-
SMELT . . . . .	-	-	61,500	2,460	146,500	5,862
SUCKERS . . . . .	-	-	-	-	10,100	403
WHITEFISH, COMMON . . . . .	-	-	-	-	9,800	5,087
YELLOW PERCH . . . . .	-	-	10,600	1,163	1,700	190
YELLOW PIKE . . . . .	-	-	-	-	(1)	16
TOTAL . . . . .	5,634,900	139,542	269,200	42,966	1,036,900	28,984

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# GREAT LAKES FISHERIES

## CATCH BY LAKE, STATE, AND GEAR, 1963 - Continued

SPECIES	LAKE MICHIGAN - CONTINUED					
	WISCONSIN - CONTINUED					
	GILL NETS					
	FYKE AND HOOP NETS		1-1/4 - 2 INCH MESH		2-1/8 - 3-7/8 INCH MESH	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	(1)	(1)	-	-	4,500	\$90
BULLHEADS . . . . .	41,500	\$4,972	-	-	100	2
BURBOT . . . . .	1,300	39	-	-	(1)	(1)
CARP . . . . .	43,000	1,292	-	-	100	3
CATFISH . . . . .	400	118	-	-	-	-
CHUBS . . . . .	-	-	-	-	2,225,700	428,422
LAKE HERRING . . . . .	-	-	-	-	15,700	1,864
LAKE TROUT . . . . .	-	-	-	-	400	263
PIKE OR PICKEREL . . . . .	15,100	2,725	-	-	200	41
SHEEPSHEAD . . . . .	200	5	-	-	-	-
SMELT . . . . .	400	15	24,600	\$992	800	34
SUCKERS . . . . .	135,500	5,422	-	-	3,200	127
WHITE BASS . . . . .	200	27	-	-	-	-
WHITEFISH:						
COMMON . . . . .	-	-	-	-	100	6
MENOMINEE . . . . .	-	-	-	-	1,800	404
YELLOW PERCH . . . . .	799,500	87,943	-	-	2,761,400	303,756
YELLOW PIKE . . . . .	1,500	592	-	-	(1)	7
<b>TOTAL . . . . .</b>	<b>1,038,600</b>	<b>103,150</b>	<b>24,600</b>	<b>992</b>	<b>5,013,900</b>	<b>735,040</b>

SPECIES	LAKE MICHIGAN - CONTINUED					
	WISCONSIN - CONTINUED					
	GILL NETS - CONTINUED					
	4 - 7 INCH MESH		7-1/8 - 14 INCH MESH		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ALEWIVES . . . . .	200	\$3	-	-	3,818,300	\$76,366
BOWFIN . . . . .	100	2	-	-	100	2
BULLHEADS . . . . .	-	-	-	-	41,500	4,975
BURBOT . . . . .	200	6	-	-	3,600	108
CARP . . . . .	500	16	198,600	\$5,958	1,250,600	37,520
CATFISH . . . . .	-	-	-	-	1,600	442
CHUBS . . . . .	(1)	8	-	-	5,106,400	548,208
LAKE HERRING . . . . .	100	14	-	-	16,900	2,028
LAKE TROUT . . . . .	-	-	-	-	400	268
PIKE OR PICKEREL . . . . .	10,800	1,924	-	-	26,100	4,700
SCULPIN . . . . .	-	-	-	-	3,300	66
SHEEPSHEAD . . . . .	-	-	-	-	200	5
SMELT . . . . .	600	22	-	-	234,600	9,385
SUCKERS . . . . .	72,100	288	1,500	62	222,400	6,302
WHITE BASS . . . . .	-	-	-	-	200	27
WHITEFISH:						
COMMON . . . . .	32,300	16,799	-	-	42,200	21,892
MENOMINEE . . . . .	-	-	-	-	1,800	404
YELLOW PERCH . . . . .	400	44	-	-	3,573,600	393,096
YELLOW PIKE . . . . .	2,700	1,065	-	-	4,200	1,660
<b>TOTAL . . . . .</b>	<b>120,000</b>	<b>20,205</b>	<b>200,100</b>	<b>6,020</b>	<b>14,348,000</b>	<b>1,107,474</b>

SPECIES	LAKE SUPERIOR							
	MICHIGAN							
	HAUL SEINES		POUND NETS		TRAP NETS		FYKE AND HOOP NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
LAKE HERRING . . . . .	-	-	100	\$6	(1)	\$2	-	-
PIKE OR PICKEREL . . . . .	-	-	-	-	-	-	(1)	(1)
SALGER . . . . .	-	-	-	-	-	-	100	\$3
SMELT . . . . .	-	-	124,200	8,815	-	-	-	-
STURGEON . . . . .	-	-	(1)	25	-	-	-	-
SUCKERS . . . . .	-	-	4,400	208	5,300	249	100	2
WHITEFISH:								
COMMON . . . . .	-	-	38,600	19,685	123,900	63,204	-	-
MENOMINEE . . . . .	200	\$23	-	-	-	-	-	-
YELLOW PERCH . . . . .	-	-	-	-	(1)	4	-	-
YELLOW PIKE . . . . .	-	-	100	42	100	31	(1)	12
<b>TOTAL . . . . .</b>	<b>200</b>	<b>23</b>	<b>167,400</b>	<b>28,781</b>	<b>129,300</b>	<b>63,490</b>	<b>200</b>	<b>17</b>

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## GREAT LAKES FISHERIES

## CATCH BY LAKE, STATE, AND GEAR, 1963 - Continued

SPECIES	LAKE SUPERIOR - CONTINUED							
	MICHIGAN - CONTINUED							
	GILL NETS							
	1-1/4 - 2 INCH MESH		2-1/8 - 3-7/8 INCH MESH		4 - 7 INCH MESH		TOTAL	
POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	
ALEWIVES . . . . .	-	-	100	\$1	-	-	100	\$1
BURBOT . . . . .	-	-	2,100	54	1,200	\$33	3,300	87
CHUBS . . . . .	-	-	586,800	93,012	-	18	586,800	93,012
LAKE HERRING . . . . .	-	-	6,154,600	338,516	300	-	6,155,300	338,542
LAKE TROUT . . . . .	-	-	(1)	-	61,800	42,184	61,800	42,185
PIKE OR PICKEREL . . . . .	-	-	(1)	-	100	15	100	16
ROCK BASS . . . . .	-	-	300	14	-	-	300	14
SAUGER . . . . .	-	-	(1)	1	(1)	2	100	6
SMELT . . . . .	71,300	\$5,062	4,500	320	100	6	200,100	14,203
STURGEON . . . . .	-	-	-	-	-	-	(1)	25
SUCKERS . . . . .	-	-	4,500	212	10,600	498	24,900	1,169
WHITEFISH:								
COMMON . . . . .	-	-	100	63	194,000	98,915	356,600	181,867
MENOMINEE . . . . .	-	-	12,000	1,705	(1)	2	12,200	1,730
YELLOW PERCH . . . . .	-	-	1,300	226	100	7	1,400	237
YELLOW PIKE . . . . .	-	-	(1)	5	400	171	600	261
TOTAL . . . . .	71,300	5,062	6,766,600	434,131	268,600	141,851	7,403,600	673,355

SPECIES	LAKE SUPERIOR - CONTINUED					
	WISCONSIN					
	POUND NETS		GILL NETS			
			1-1/4 - 2 INCH MESH		2-1/8 - 3-7/8 INCH MESH	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BULLHEADS . . . . .	100	\$10	-	-	-	-
BURBOT . . . . .	1,100	68	-	-	2,900	\$174
CHUBS . . . . .	(1)	(1)	-	-	845,500	104,869
CRAPPIE . . . . .	(1)	(1)	-	-	-	-
LAKE HERRING . . . . .	300	18	(1)	(1)	934,400	46,719
LAKE TROUT . . . . .	-	-	-	-	300	20
PIKE OR PICKEREL . . . . .	400	52	-	-	-	-
SMELT . . . . .	614,300	6,143	4,500	\$45	-	-
SUCKERS . . . . .	23,200	694	(1)	(1)	200	7
WHITEFISH:						
COMMON . . . . .	28,300	13,606	-	-	(1)	11
MENOMINEE . . . . .	100	2	-	-	1,100	65
YELLOW PERCH . . . . .	300	51	-	-	-	-
YELLOW PIKE . . . . .	200	94	-	-	-	-
TOTAL . . . . .	668,300	20,740	4,500	45	1,784,400	151,865

SPECIES	LAKE SUPERIOR - CONTINUED			
	WISCONSIN - CONTINUED			
	GILL NETS - CONTINUED		TOTAL	
	4 - 7 INCH MESH			
	POUNDS	VALUE	POUNDS	VALUE
BULLHEADS . . . . .	-	-	100	\$10
BURBOT . . . . .	2,500	\$146	6,500	388
CHUBS . . . . .	400	49	845,900	104,920
CRAPPIE . . . . .	-	-	(1)	(1)
LAKE HERRING . . . . .	6,400	387	941,100	47,124
LAKE TROUT . . . . .	38,700	23,191	39,000	23,211
PIKE OR PICKEREL . . . . .	-	-	400	52
SMELT . . . . .	200	2	619,000	6,190
SUCKERS . . . . .	4,700	141	28,100	842
WHITEFISH:				
COMMON . . . . .	57,900	27,777	86,200	41,394
MENOMINEE . . . . .	200	13	1,400	80
YELLOW PERCH . . . . .	-	-	300	51
YELLOW PIKE . . . . .	-	-	200	94
TOTAL . . . . .	111,000	51,706	2,568,200	224,356

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# GREAT LAKES FISHERIES

355

## CATCH BY LAKE, STATE, AND GEAR, 1963 - Continued

SPECIES	LAKE SUPERIOR - CONTINUED					
	MINNESOTA					
	GILL NETS				TOTAL	
	POUND NETS		2-1/8 - 3-7/8 INCH MESH			
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CHUBS . . . . .	-	-	155,600	\$15,000	155,600	\$15,000
LAKE HERRING . . . . .	-	-	1,323,200	85,300	1,323,200	85,300
SMELT . . . . .	673,400	\$12,997	100	3	673,500	13,000
SUCKERS . . . . .	-	-	200	2	200	2
WHITEFISH, MENOMINEE . . . . .	-	-	900	14	900	14
<b>TOTAL . . . . .</b>	<b>673,400</b>	<b>12,997</b>	<b>1,480,000</b>	<b>100,319</b>	<b>2,153,400</b>	<b>113,316</b>

SPECIES	LAKE OF THE WOODS					
	MINNESOTA - CONTINUED					
	OTTER TRAWLS		TRAP NETS		FYKE AND HOOP NETS	
		POUNDS	VALUE	POUNDS	VALUE	POUNDS
BUFFALOFISH . . . . .	-	-	-	-	(1)	\$1
BULLHEADS . . . . .	(1)	-	500	\$32	10,900	701
BURBOT . . . . .	62,200	\$1,032	225,000	3,754	33,400	554
MOONEYE OR GOLDEYE . . . . .	-	-	100	1	-	-
PIKE OR PICKEREL . . . . .	-	-	11,300	699	3,300	204
QUILLBACK . . . . .	100	(1)	-	-	-	-
SAUGER . . . . .	30,000	3,554	14,800	1,755	2,200	263
SUCKERS . . . . .	8,300	84	5,800	58	1,500	15
TULLIBEE . . . . .	737,100	21,781	375,500	11,100	200	6
WHITEFISH, COMMON . . . . .	-	-	(1)	(1)	(1)	(1)
YELLOW PERCH . . . . .	8,400	646	2,000	154	2,600	200
YELLOW PIKE . . . . .	6,100	1,196	27,700	5,429	3,200	627
<b>TOTAL . . . . .</b>	<b>852,200</b>	<b>26,293</b>	<b>662,700</b>	<b>22,962</b>	<b>57,300</b>	<b>2,571</b>

SPECIES	LAKE OF THE WOODS - CONTINUED					
	MINNESOTA - CONTINUED					
	GILL NETS, 4 - 7 INCH MESH		TOTAL		GILL NETS, 4 - 7 INCH MESH	
		POUNDS	VALUE	POUNDS	VALUE	POUNDS
BUFFALOFISH . . . . .	(1)	-	(1)	\$1	-	-
BULLHEADS . . . . .	1,000	\$67	12,400	800	-	-
BURBOT . . . . .	21,600	358	342,200	5,698	3,600	\$46
MOONEYE OR GOLDEYE . . . . .	(1)	(1)	100	1	-	-
PIKE OR PICKEREL . . . . .	59,700	3,697	74,300	4,600	-	-
QUILLBACK . . . . .	(1)	(1)	100	(1)	-	-
SAUGER . . . . .	37,400	4,428	84,400	10,600	-	-
SUCKERS . . . . .	232,800	2,343	248,400	2,500	4,800	73
TULLIBEE . . . . .	917,000	27,113	2,029,800	60,000	4,000	46
WHITEFISH, COMMON . . . . .	(1)	(1)	(1)	(1)	9,600	2,436
YELLOW PERCH . . . . .	6,500	500	19,500	1,500	-	-
YELLOW PIKE . . . . .	187,900	36,748	224,900	44,000	-	-
<b>TOTAL . . . . .</b>	<b>1,463,900</b>	<b>75,254</b>	<b>3,036,100</b>	<b>129,100</b>	<b>22,000</b>	<b>2,601</b>

SPECIES	RAINY LAKE					
	MINNESOTA - CONTINUED					
	POUND NETS		GILL NETS, 4 - 7 INCH MESH		TOTAL	
		POUNDS	VALUE	POUNDS	VALUE	POUNDS
BURBOT . . . . .	-	-	24,700	\$312	38,900	\$454
PIKE OR PICKEREL . . . . .	-	-	10,300	600	10,300	600
SAUGER . . . . .	-	-	(1)	1	-	-
SUCKERS . . . . .	1,300	19	21,500	325	22,800	344
TULLIBEE . . . . .	1,000	10	22,900	265	23,900	275
WHITEFISH, COMMON . . . . .	(1)	(1)	12,100	3,000	12,100	3,000
YELLOW PERCH . . . . .	(1)	(1)	200	20	200	20
YELLOW PIKE . . . . .	-	-	16,800	4,842	16,800	4,842
<b>TOTAL . . . . .</b>	<b>16,500</b>	<b>171</b>	<b>108,500</b>	<b>9,365</b>	<b>125,000</b>	<b>9,536</b>

1/ LESS THAN 50 POUNDS OR 50 CENTS.

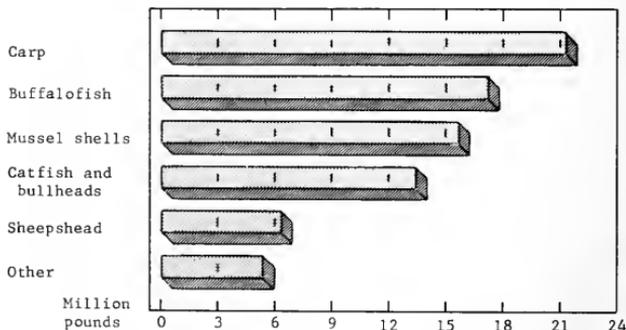
# SECTION 9 - MISSISSIPPI RIVER FISHERIES

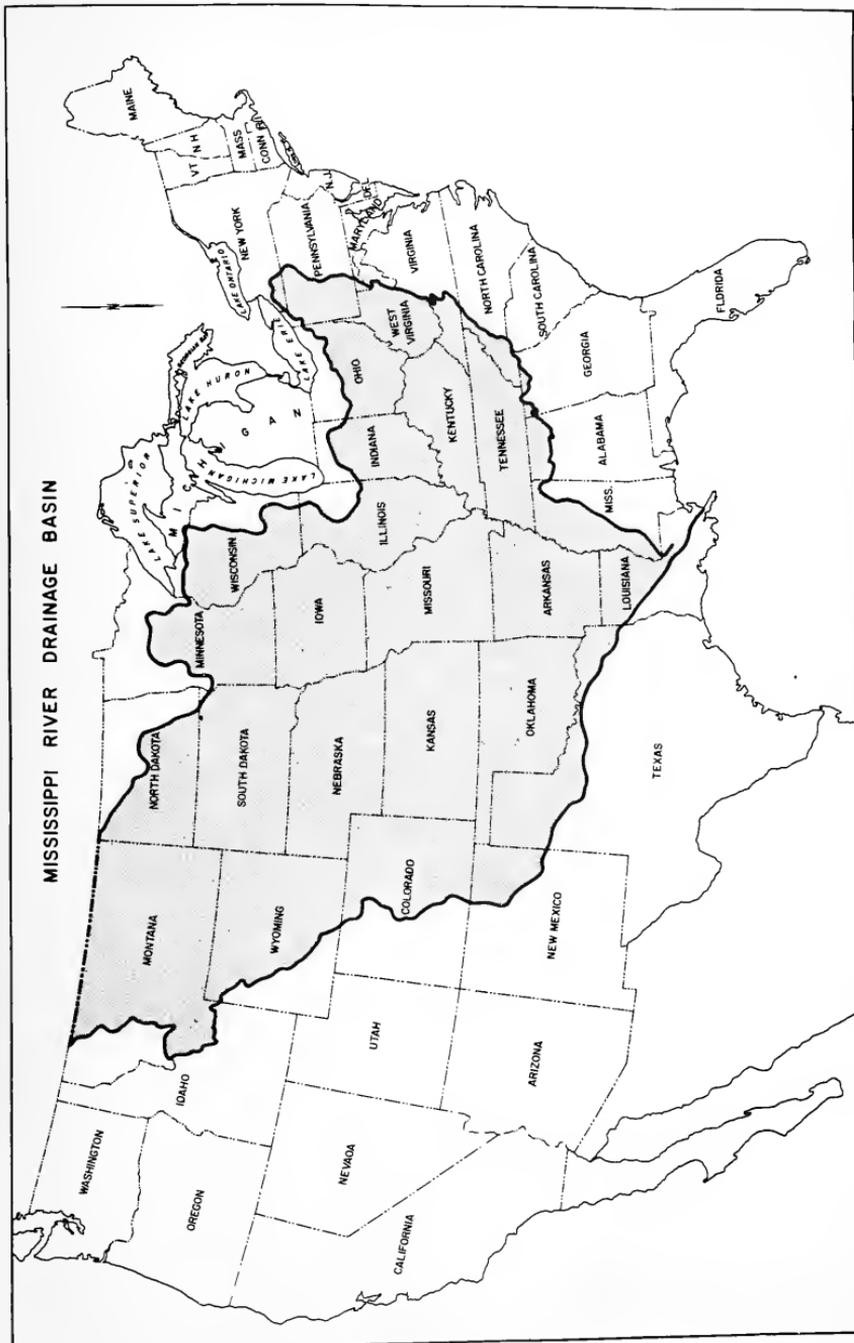
A complete survey of the Mississippi River and its tributaries was made for 1963. The commercial catch of fish and shellfish was 79.8 million pounds valued at \$7.4 million. Compared with 1962, this was an increase of 10.5 million pounds and \$878,000. Largely accountable for the increase in volume and value were greater landings of catfish and bullheads, sheepshead, and mussel shells--up 2.4, 3.2 and 4.8 million pounds, respectively. Buffalo fish, carp, catfish and bullheads, and mussel shells accounted for 85 percent of the total volume and 87 percent of the total value. The Mississippi River and Tennessee River were the leading producing waters in 1963, accounting for 51 million pounds (64 percent) of the total catch.

Condensed summary data on the operating units and catch by States of the Mississippi River fisheries appearing on the following pages have been previously published in Current Fishery Statistics No. 3726.

The following organizations assisted in collecting the data appearing in this section: Alabama Department of Conservation, Division of Game and Fish; Arkansas Game and Fish Commission; Illinois Department of Conservation; Indiana Department of Conservation; Iowa State Conservation Commission; Kansas Forestry, Fish and Game Commission; Kentucky Department of Fish and Wildlife Resources; Louisiana Wild Life and Fisheries Commission; Minnesota Department of Conservation; Mississippi Game and Fish Commission; Missouri State Conservation Commission; Montana State Fish and Game Commission; Nebraska Game, Forestation and Parks Commission; North Dakota State Game and Fish Department; Oklahoma Game and Fish Department; South Dakota Department of Game, Fish and Parks; Tennessee Game and Fish Commission; Texas Game and Fish Commission; Wisconsin Conservation Department, Wyoming Game and Fish Commission; and the Tennessee Valley Authority, Fish and Game Branch.

### MISSISSIPPI RIVER CATCH, 1963





## MISSISSIPPI RIVER FISHERIES

SECTIONAL SUMMARIES  
SUMMARY OF CATCH, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

STATE	FISH		SHELLFISH, ETC.		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
ALABAMA . . . . .	3,715	692	3,031	303	6,746	985
ARKANSAS . . . . .	3,648	434	510	23	4,158	457
ILLINOIS . . . . .	6,438	613	1,823	76	8,261	689
INDIANA . . . . .	28	5	1,600	98	1,628	103
IOWA . . . . .	2,438	173	-	-	2,438	173
KANSAS . . . . .	44	12	-	-	44	12
KENTUCKY . . . . .	2,110	379	1,860	113	3,970	492
LOUISIANA . . . . .	6,929	960	1,449	294	8,378	1,294
MINNESOTA . . . . .	9,422	631	-	(1)	9,423	631
MISSISSIPPI . . . . .	2,961	323	4	2	2,965	325
MISSOURI . . . . .	349	40	-	-	349	40
MONTANA . . . . .	268	32	-	-	268	32
NEBRASKA . . . . .	472	42	-	-	472	42
NORTH DAKOTA . . . . .	263	21	-	-	263	21
OKLAHOMA . . . . .	444	57	-	-	444	57
SOUTH DAKOTA . . . . .	3,719	157	-	-	3,719	157
TENNESSEE . . . . .	5,708	738	6,961	489	12,669	1,227
TEXAS . . . . .	782	96	(1)	(1)	782	96
WISCONSIN . . . . .	12,669	594	4	1	12,673	595
WYOMING . . . . .	180	5	-	-	180	5
TOTAL . . . . .	62,607	5,994	17,243	1,399	79,850	7,393

1/ LESS THAN 500 POUNDS OR \$500.

## SUMMARY OF OPERATING UNITS, 1963

ITEM	ALABAMA	ARKANSAS	ILLINOIS	INDIANA	IOWA	KANSAS
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:						
REGULAR . . . . .	320	305	138	-	88	-
CASUAL . . . . .	369	894	466	141	269	43
TOTAL . . . . .	689	1,199	604	141	377	43
BOATS:						
MOTOR . . . . .	688	1,074	484	67	373	34
OTHER . . . . .	-	32	20	-	14	1
GEAR:						
HAUL SEINES, COMMON . . . . .	-	29	39	-	20	2
LENGTH, YARDS . . . . .	-	6,480	8,250	-	6,167	140
WEIRS . . . . .	-	-	-	-	9	-
POUND NETS . . . . .	-	-	-	-	12	-
FYKE AND HOOP NETS . . . . .	105	5,862	5,761	201	2,337	114
POTS AND TRAPS, FISH . . . . .	-	-	-	-	2,601	-
WIRE BASKETS . . . . .	-	-	2,602	-	-	-
GILL NETS, ANCHOR, SET OR STAKE . . . . .	445	694	109	-	272	1
SQUARE YARDS . . . . .	118,370	141,720	10,382	-	20,133	210
TRAMMEL NETS . . . . .	75	515	381	-	182	27
SQUARE YARDS . . . . .	19,950	105,532	71,325	-	36,400	2,800
LINES:						
LONG OR SET WITH HOOKS . . . . .	3,314	4,022	770	56	1,200	98
HOOKS . . . . .	333,900	180,160	63,225	3,690	120,000	784
SNAG . . . . .	843	488	14	-	-	-
HOOKS . . . . .	403,000	188,400	5,800	-	-	-
OIP NETS, COMMON . . . . .	-	29	-	-	-	-
CRDFOOT BARS . . . . .	550	47	49	31	-	-
ITEM	KENTUCKY	LOUISIANA	MINNESOTA	MISSISSIPPI	MISSOURI	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN, ON BOATS AND SHORE:						
REGULAR . . . . .	183	643	273	223	35	
CASUAL . . . . .	687	910	308	381	208	
TOTAL . . . . .	870	1,553	581	604	243	
BOATS:						
MOTOR . . . . .	633	1,531	277	545	234	
OTHER . . . . .	18	-	46	18	8	
GEAR:						
HAUL SEINES, COMMON . . . . .	22	3	31	21	4	
LENGTH, YARDS . . . . .	2,048	2,200	22,792	7,200	750	
WEIRS . . . . .	-	-	40	-	-	
POUND NETS . . . . .	-	-	25	-	-	
FYKE AND HOOP NETS . . . . .	2,865	25,009	1,209	3,090	1,171	
POTS AND TRAPS:						
CRAWFISH . . . . .	-	15,230	-	-	-	
SHRIMP . . . . .	-	125	-	-	-	

(CONTINUED ON NEXT PAGE)

# MISSISSIPPI RIVER FISHERIES

359

## SUMMARY OF OPERATING UNITS, 1963 - Continued

ITEM	KENTUCKY	LOUISIANA	MINNESOTA	MISSISSIPPI	MISSOURI
GEAR - CONTINUED:	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
GILL NETS, ANCHOR, SET					
OR STAKE . . . . .	101	3,364	263	924	-
SQUARE YARDS . . . . .	19,941	443,533	387,200	361,670	-
TRAMMEL NETS . . . . .	263	1,258	-	215	189
SQUARE YARDS . . . . .	47,130	134,185	-	69,400	35,715
LINES:					
HAND . . . . .	-	12	-	-	-
HOOKS . . . . .	-	12	-	-	-
LONG OR SET WITH HOOKS . . . . .	1,387	3,164	63	1,364	141
HOOKS . . . . .	100,753	306,186	15,723	328,925	13,759
SNAG . . . . .	237	-	-	341	-
HOOKS . . . . .	99,169	-	-	474,500	-
DIP NETS:					
COMMON . . . . .	-	229	-	27	-
DROP . . . . .	-	990	-	-	-
CROWFOOT BARS . . . . .	204	-	-	-	-
GRABS, FROG . . . . .	-	159	-	-	-

ITEM	MONTANA	NEBRASKA	NORTH DAKOTA	OKLAHOMA	SOUTH DAKOTA
FISHERMEN, ON BOATS AND SHORE:	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
REGULAR . . . . .	3	44	6	30	6
CASUAL . . . . .	4	81	15	24	49
TOTAL . . . . .	7	125	21	54	55
BOATS:					
MOTOR . . . . .	7	114	4	54	17
OTHER . . . . .	-	20	-	-	10
GEAR:					
HAUL SEINES, COMMON . . . . .	-	23	1	-	7
LENGTH, YARDS . . . . .	-	2,882	1,000	-	6,666
FYKE AND HOOP NETS . . . . .	-	787	90	-	50
WIRE BASKETS . . . . .	-	206	-	-	-
GILL NETS, ANCHOR, SET					
OR STAKE . . . . .	28	-	12	148	22
SQUARE YARDS . . . . .	5,300	-	1,700	78,900	16,000
TRAMMEL NETS . . . . .	-	165	-	33	-
SQUARE YARDS . . . . .	-	21,867	-	8,745	-

ITEM	TENNESSEE	TEXAS	WISCONSIN 1/	WYOMING	TOTAL
FISHERMEN, ON BOATS AND SHORE:	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
REGULAR . . . . .	615	84	139	-	3,135
CASUAL . . . . .	698	152	431	2	6,152
TOTAL . . . . .	1,313	236	570	2	9,287
BOATS:					
MOTOR . . . . .	1,297	208	416	2	8,059
OTHER . . . . .	2	-	48	-	237
GEAR:					
HAUL SEINES, COMMON . . . . .	1	-	46	1	250
LENGTH, YARDS . . . . .	1,800	-	23,123	100	93,598
OTTER TRAWLS, FISH	-	-	1	-	1
YARDS AT MOUTH . . . . .	-	-	17	-	17
WEIRS . . . . .	-	-	3	-	52
ROUND NETS . . . . .	-	-	-	-	37
TRAP NETS . . . . .	-	-	237	-	237
FYKE AND HOOP NETS . . . . .	4,852	519	932	-	54,954
POTS AND TRAPS:					
CRAWFISH . . . . .	-	-	-	-	15,230
FISH . . . . .	-	-	1,111	-	3,712
SHRIMP . . . . .	-	-	-	-	125
WIRE BASKETS . . . . .	-	-	-	-	2,808
GILL NETS, ANCHOR, SET					
OR STAKE . . . . .	206	449	129	-	7,167
SQUARE YARDS . . . . .	53,073	87,120	50,630	-	1,794,882
TRAMMEL NETS . . . . .	665	54	11	-	4,033
SQUARE YARDS . . . . .	174,910	11,165	1,793	-	740,917
LINES:					
HAND . . . . .	-	-	-	-	12
HOOKS . . . . .	-	-	-	-	12
LONG OR SET WITH HOOKS . . . . .	5,262	585	258	-	21,694
HOOKS . . . . .	490,390	45,375	82,952	-	2,085,822
SNAG . . . . .	1,611	-	-	-	3,534
HOOKS . . . . .	805,500	-	-	-	1,976,369
DIP NETS:					
COMMON . . . . .	2	-	-	-	267
DROP . . . . .	-	-	-	-	990
CROWFOOT BARS . . . . .	502	-	-	-	1,383
GRABS, FROG . . . . .	-	-	-	-	159

1/ SEVEN VESSELS TOTALING 104 GROSS TONS EMPLOYING 16 FISHERMEN OPERATED IN LAKE WINNEBAGO. FOUR OF THESE VESSELS OPERATED ONLY IN LAKE WINNEBAGO, THE REMAINING 3 OPERATED ALSO IN THE GREAT LAKES.

## MISSISSIPPI RIVER FISHERIES

## CATCH BY STATES, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	ALABAMA		ARKANSAS		ILLINOIS	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH						
BOWFIN . . . . .	-	-	3	(1)	4	(1)
BUFFALOFISH . . . . .	564	56	2,345	250	2,170	198
CARP . . . . .	486	19	468	18	2,638	133
CATFISH AND BULLHEADS . . . . .	2,313	578	491	144	912	227
CRAPPIE . . . . .	-	-	-	-	7	1
EELS, COMMON . . . . .	-	-	-	-	(1)	(1)
GARFISH . . . . .	-	-	133	6	4	(1)
PADDOLEFISH . . . . .	234	19	23	2	62	6
QUILLBACK . . . . .	-	-	16	1	106	4
SHEEPSHEAD . . . . .	118	10	152	11	498	39
STURGEON, SHOVELNOSE, ETC. . . . .	-	-	7	1	25	5
SUCKERS . . . . .	-	-	10	1	12	(1)
TOTAL FISH . . . . .	3,715	682	3,648	434	6,438	613
SHELLFISH, ETC.						
MUSSEL SHELLS . . . . .	3,031	299	481	(1) 15	1,812	73
PEARLS AND SLUGS . . . . .	-	4	-	-	-	1
TURTLES:						
BABY . . . . .	-	-	2	7	-	-
SLIDER . . . . .	-	-	9	(1)	-	-
SNAPPER . . . . .	-	-	15	1	11	2
SOFT-SHELL . . . . .	-	-	3	(1)	-	-
TOTAL SHELLFISH, ETC. . . . .	3,031	303	510	23	1,823	76
GRAND TOTAL . . . . .	6,746	985	4,158	457	8,261	689
SPECIES	INDIANA		ICWA		KANSAS	
FISH	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
BUFFALOFISH . . . . .	12	2	665	57	5	1
CARP . . . . .	2	(1)	1,009	30	32	8
CATFISH AND BULLHEADS . . . . .	11	3	393	72	5	2
PADDOLEFISH . . . . .	(1)	(1)	4	(1)	(1)	(1)
QUILLBACK . . . . .	-	-	-	-	2	1
SHEEPSHEAD . . . . .	2	(1)	316	12	(1)	(1)
STURGEON, SHOVELNOSE, ETC. . . . .	1	(1)	6	1	(1)	(1)
SUCKERS . . . . .	(1)	(1)	43	-	-	-
TOTAL FISH . . . . .	28	5	2,438	173	44	12
SHELLFISH						
MUSSEL SHELLS . . . . .	1,600	96	-	-	-	-
PEARLS AND SLUGS . . . . .	-	2	-	-	-	-
TOTAL SHELLFISH . . . . .	1,600	98	-	-	-	-
GRAND TOTAL . . . . .	1,628	103	2,438	173	44	12
SPECIES	KENTUCKY		LOUISIANA		MINNESOTA	
FISH	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
BOWFIN . . . . .	-	-	52	2	10	(1)
BUFFALOFISH . . . . .	440	53	2,720	317	730	(1)
BURBOT . . . . .	-	-	-	-	10	(1)
CARP . . . . .	356	18	185	7	5,170	166
CATFISH AND BULLHEADS . . . . .	1,189	297	2,659	538	1,765	233
GARFISH . . . . .	-	-	628	31	3	(1)
GIZZARD SHAD . . . . .	-	-	-	-	1	(1)
HERRING, LAKE . . . . .	-	-	-	-	1	(1)
MOONEYE . . . . .	-	-	-	-	18	-
PADDOLEFISH . . . . .	52	6	28	1	-	2
PIKE OR PICKEREL . . . . .	-	-	-	-	29	2
QUILLBACK . . . . .	20	1	-	-	3	(1)
SHEEPSHEAD . . . . .	25	3	657	64	665	31
STURGEON, SHOVELNOSE, ETC. . . . .	2	(1)	-	-	-	-
SUCKERS . . . . .	26	1	-	-	90	2
TULLIBEE . . . . .	-	-	-	-	1	(1)
WHITEFISH, COMMON . . . . .	-	-	-	-	147	26
YELLOW PERCH . . . . .	-	-	-	-	316	72
YELLOW PIKE . . . . .	-	-	-	-	463	26
TOTAL FISH . . . . .	2,110	379	6,929	960	9,422	631

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# MISSISSIPPI RIVER FISHERIES

361

## CATCH BY STATES, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	KENTUCKY		LOUISIANA		MINNESOTA	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
SHELLFISH, ETC.						
CRAWFISH . . . . .	-	-	1,227	166	-	-
SHRIMP . . . . .	-	-	5	2	-	-
MUSSEL SHELLS . . . . .	1,860	108	-	-	-	-
PEARLS AND SLUGS . . . . .	-	5	-	-	-	-
TURTLES:						
BABY . . . . .	-	-	22	88	-	-
SNAPPER . . . . .	-	-	141	17	1	(1)
FROGS . . . . .	-	-	54	21	-	-
TOTAL SHELLFISH, ETC. . . . .	1,860	113	1,449	294	1	(1)
GRAND TOTAL . . . . .	3,970	492	8,378	1,254	9,423	631

SPECIES	MISSISSIPPI		MISSOURI		MONTANA	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH						
BOWFIN . . . . .	2	(1)	-	-	-	-
BUFFALOFISH . . . . .	1,790	171	127	18	218	27
CARP . . . . .	479	18	121	6	2	(1)
CATFISH AND BULLHEADS . . . . .	535	125	49	12	13	3
EELS, COMMON . . . . .	-	-	(1)	(1)	-	-
GARFISH . . . . .	69	4	-	-	-	-
PADOLEFISH . . . . .	27	2	5	(1)	-	-
QUILLBACK . . . . .	2	(1)	13	1	33	2
SHEEPSHEAD . . . . .	50	3	25	2	1	(1)
STURGEON, SHOVELNOSE, ETC. . . . .	1	(1)	5	1	-	-
SUCKERS . . . . .	6	(1)	4	(1)	1	(1)
TOTAL FISH . . . . .	2,961	323	349	40	268	32
SHELLFISH, ETC.						
BABY . . . . .	1	2	-	-	-	-
SNAPPER . . . . .	2	(1)	-	-	-	-
SOFT-SHELL . . . . .	1	(1)	-	-	-	-
TOTAL SHELLFISH, ETC. . . . .	4	2	-	-	-	-
GRAND TOTAL . . . . .	2,965	325	349	40	268	32

SPECIES	NEBRASKA		NORTH DAKOTA		OKLAHOMA	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH						
BUFFALOFISH . . . . .	9	2	106	8	223	27
CARP . . . . .	350	24	31	1	102	5
CATFISH AND BULLHEADS . . . . .	71	15	141	12	49	15
PADOLEFISH . . . . .	-	-	1	(1)	8	1
QUILLBACK . . . . .	36	1	-	-	-	-
SHEEPSHEAD . . . . .	4	(1)	-	-	38	4
STURGEON, SHOVELNOSE, ETC. . . . .	(1)	(1)	-	-	-	-
SUCKERS . . . . .	-	-	4	(1)	-	-
WHITE BASS . . . . .	-	-	-	-	24	5
YELLOW PERCH . . . . .	2	(1)	(1)	(1)	-	-
TOTAL FISH . . . . .	472	42	283	21	444	57
GRAND TOTAL . . . . .	472	42	283	21	444	57

SPECIES	SOUTH DAKOTA		TENNESSEE		TEXAS	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH						
BUFFALOFISH . . . . .	1,642	115	1,744	140	595	66
CARP . . . . .	1,520	15	1,058	23	53	2
CATFISH AND BULLHEADS . . . . .	76	7	2,093	523	88	25
GARFISH . . . . .	-	-	-	(1)	16	1
PADOLEFISH . . . . .	-	-	281	34	-	-
QUILLBACK . . . . .	-	-	427	13	7	(1)
SHEEPSHEAD . . . . .	391	12	103	5	23	2
SUCKERS . . . . .	30	1	-	-	(1)	(1)
WHITE BASS . . . . .	60	7	-	-	-	-
TOTAL FISH . . . . .	3,719	157	5,708	738	782	96

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

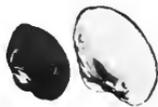
## MISSISSIPPI RIVER FISHERIES

## CATCH BY STATES, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	SOUTH DAKOTA		TENNESSEE		TEXAS	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
SHELLFISH, ETC.						
MUSSEL SHELLS . . . . .	-	-	6,959	471	-	-
PEARLS AND SLUGS . . . . .	-	-	-	15	-	-
TURTLES:						
BABY . . . . .	-	-	1	3	-	-
SNAPPER . . . . .	-	-	1	(1)	(1)	(1)
TOTAL SHELLFISH, ETC. . . . .	-	-	6,961	489	(1)	(1)
GRAND TOTAL . . . . .	3,719	157	12,669	1,227	782	96
SPECIES	WISCONSIN		WYOMING		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH						
BOWFIN . . . . .	11	(1)	-	-	82	2
BUFFALOFISH . . . . .	1,201	126	-	-	17,306	1,705
BURBOT . . . . .	39	3	-	-	49	3
CARP . . . . .	7,246	251	180	5	21,488	749
CATFISH AND BULLHEADS . . . . .	624	101	-	-	13,477	2,932
CRAPPIE . . . . .	-	-	-	-	7	1
EELS, COMMON . . . . .	(1)	(1)	-	-	(1)	(1)
GARFISH . . . . .	12	(1)	-	-	867	42
GIZZARD SHAD . . . . .	-	-	-	-	1	(1)
HERRING, LAKE . . . . .	-	-	-	-	1	(1)
MOONEYE . . . . .	15	(1)	-	-	33	2
PADDLEFISH . . . . .	-	-	-	-	725	71
PIKE OR PICKEREL . . . . .	-	-	-	-	29	2
QUILLBACK . . . . .	12	(1)	-	-	677	24
SHEEPSHEAD . . . . .	3,393	110	-	-	6,461	308
STURGEON, SHOVELNOSE, ETC. . . . .	4	1	-	-	53	9
SUCKERS . . . . .	112	2	-	-	338	8
TULLIBEE . . . . .	-	-	-	-	1	(1)
WHITE BASS . . . . .	-	-	-	-	84	12
WHITEFISH, COMMON . . . . .	-	-	-	-	147	26
YELLOW PERCH . . . . .	-	-	-	-	318	26
YELLOW PIKE . . . . .	-	-	-	-	463	72
TOTAL FISH . . . . .	12,669	594	180	5	62,607	5,994
SHELLFISH, ETC.						
CRAWFISH . . . . .	-	-	-	-	1,227	166
SHRIMP . . . . .	-	-	-	-	5	2
MUSSEL SHELLS . . . . .	-	-	-	-	15,743	1,062
PEARLS AND SLUGS . . . . .	-	-	-	-	-	27
TURTLES:						
BABY . . . . .	-	-	-	-	26	100
SLIDER . . . . .	-	-	-	-	9	(1)
SNAPPER . . . . .	4	1	-	-	175	21
SOFT-SHELL . . . . .	-	-	-	-	4	(1)
FROGS . . . . .	-	-	-	-	54	21
TOTAL SHELLFISH, ETC. . . . .	4	1	-	-	17,243	1,399
GRAND TOTAL . . . . .	12,673	595	180	5	79,850	7,393

1/ LESS THAN 500 POUNDS OR \$500.



MUSSEL SHELLS

# MISSISSIPPI RIVER FISHERIES

363

## CATCH BY WATERS, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	MISSISSIPPI RIVER AND TRIBUTARIES		ARKANSAS RIVER AREA		ATCHAFALAYA RIVER AREA		CROW RIVER AREA	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH								
BOWFIN . . . . .	30	1	1	(1)	13	(1)	-	-
BUFFALOFISH . . . . .	7,414	740	985	104	894	100	3	(1)
BURBOT . . . . .	45	3	-	-	-	-	-	-
CARP . . . . .	15,362	543	261	10	40	2	361	11
CATFISH AND BULLHEADS	4,322	821	310	92	1,577	315	-	-
CRAPPIE . . . . .	2	(1)	-	-	-	-	-	-
EELS, COMMON . . . . .	(1)	(1)	-	-	-	-	-	-
GARFISH . . . . .	191	9	36	2	355	18	-	-
GIZZARD SHAD . . . . .	1	(1)	-	-	-	-	-	-
MOONEYE . . . . .	15	(1)	-	-	-	-	-	-
PADDLEFISH . . . . .	136	13	20	2	3	(1)	-	-
QUILLBACK . . . . .	87	3	10	1	-	-	-	-
SHEEPSHEAD . . . . .	1,954	111	109	10	385	39	17	1
STURGEON, SHOVELNOSE, ETC..	39	7	5	1	-	-	-	-
SUCKERS . . . . .	215	5	4	(1)	-	-	-	-
TULLIBEE . . . . .	1	(1)	-	-	-	-	-	-
WHITE BASS . . . . .	-	-	22	4	-	-	-	-
YELLOW PERCH . . . . .	13	1	-	-	-	-	-	-
TOTAL FISH . . . . .	29,847	2,257	1,763	226	3,267	474	381	12
SHELLFISH, ETC.								
CRAWFISH . . . . .	11	1	-	-	1,054	140	-	-
SHRIMP . . . . .	5	2	-	-	-	-	-	-
MUSSEL SHELLS . . . . .	46	1	435	14	-	-	-	-
TURTLES:								
BABY . . . . .	5	19	-	-	12	48	-	-
SLIDER . . . . .	9	(1)	-	-	-	-	-	-
SNAPPER . . . . .	56	7	(1)	(1)	12	1	-	-
SOFT-SHELL . . . . .	4	(1)	(1)	(1)	-	-	-	-
FROGS . . . . .	8	3	-	-	15	6	-	-
TOTAL SHELLFISH, ETC..	144	33	436	14	1,093	195	-	-
GRAND TOTAL . . . . .	29,991	2,290	2,199	240	4,360	669	381	12

SPECIES	CUMBERLAND RIVER AREA		ILLINOIS RIVER AREA		KAHASIA RIVER AREA		MINNESOTA RIVER AREA	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH								
BOWFIN . . . . .	-	-	1	(1)	-	-	-	-
BUFFALOFISH . . . . .	94	10	986	75	8	1	39	3
CARP . . . . .	176	8	1,072	45	41	5	1,129	11
CATFISH AND BULLHEADS	61	15	132	31	1	(1)	-	-
CRAPPIE . . . . .	-	-	5	1	-	-	-	-
GARFISH . . . . .	-	-	1	(1)	-	-	-	-
PADDLEFISH . . . . .	30	3	(1)	(1)	-	-	-	-
QUILLBACK . . . . .	2	(1)	3	(1)	(1)	(1)	-	-
SHEEPSHEAD . . . . .	3	(1)	40	3	1	(1)	386	12
SUCKERS . . . . .	1	(1)	-	-	-	-	31	1
WHITE BASS . . . . .	-	-	-	-	-	-	60	7
TOTAL FISH . . . . .	367	36	2,240	155	51	6	1,647	34
SHELLFISH, ETC.								
MUSSEL SHELLS . . . . .	250	10	900	23	-	-	-	-
TURTLES, SNAPPER . . . . .	-	-	4	1	-	-	-	-
TOTAL SHELLFISH, ETC..	250	10	904	24	-	-	-	-
GRAND TOTAL . . . . .	617	46	3,144	179	51	6	1,647	34

SPECIES	MISSOURI RIVER AREA		OHIO RIVER AREA		RED RIVER AREA	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH						
BOWFIN . . . . .	-	-	-	-	34	1
BUFFALOFISH . . . . .	1,956	152	274	33	2,079	248
CARP . . . . .	745	36	230	12	227	10
CATFISH AND BULLHEADS	216	38	205	52	854	193
GARFISH . . . . .	-	-	-	-	277	13
PADDLEFISH . . . . .	3	(1)	16	2	21	1
QUILLBACK . . . . .	37	3	6	1	1	(1)
SHEEPSHEAD . . . . .	8	1	24	2	244	23
STURGEON, SHOVELNOSE, ETC..	1	(1)	3	(1)	-	-
SUCKERS . . . . .	2	(1)	26	1	(1)	(1)
WHITE BASS . . . . .	-	-	-	-	2	1
TOTAL FISH . . . . .	2,968	230	784	103	3,769	490

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## MISSISSIPPI RIVER FISHERIES

## CATCH BY WATERS, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	MISSOURI RIVER AREA		OHIO RIVER AREA		RED RIVER AREA	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
SHELLFISH, ETC.						
CRAWFISH . . . . .	-	-	-	-	162	25
MUSSEL SHELLS . . . . .	-	-	112	2	-	-
TURTLES:						
BABY . . . . .	-	-	-	-	9	33
SNAPPER . . . . .	-	-	-	-	100	12
FROGS . . . . .	-	-	-	-	31	12
TOTAL SHELLFISH, ETC..	-	-	112	2	302	82
GRAND TOTAL . . . . .	2,968	230	896	105	4,071	572
SPECIES	ROCK RIVER AREA		ST. FRANCIS RIVER AREA		TENNESSEE RIVER AREA	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
FISH						
BUFFALOFISH . . . . .	115	11	56	8	2,014	177
CARP . . . . .	81	2	20	1	1,155	34
CATFISH AND BULLHEADS . . . . .	-	-	1	(1)	5,224	1,306
GARFISH . . . . .	(1)	(1)	-	-	2	(1)
PADDLEFISH . . . . .	-	-	-	-	496	50
QUILLBACK . . . . .	92	3	(1)	(1)	429	13
SHEEPSHEAD . . . . .	-	-	1	(1)	210	15
SUCKERS . . . . .	-	-	1	(1)	-	-
TOTAL FISH . . . . .	288	16	79	9	9,530	1,595
SHELLFISH, ETC.						
MUSSEL SHELLS . . . . .	-	-	-	-	11,600	868
PEARLS AND SLUGS . . . . .	-	-	-	-	-	24
TURTLES, SNAPPER . . . . .	-	-	-	-	1	(1)
TOTAL SHELLFISH, ETC..	-	-	-	-	11,601	892
GRAND TOTAL . . . . .	288	16	79	9	21,131	2,487
SPECIES	WABASH RIVER AREA		OTHERS			
	QUANTITY	VALUE	WATERS DRAINING INTO CANADA		WATERS DRAINING INTO GULF OF MEXICO	
FISH			QUANTITY	VALUE	QUANTITY	VALUE
BOWFIN . . . . .	(1)	(1)	3	(1)	-	-
BUFFALOFISH . . . . .	20	2	18	2	351	39
BURBOT . . . . .	-	-	4	(1)	-	-
CARP . . . . .	32	2	502	16	34	1
CATFISH AND BULLHEADS . . . . .	20	5	524	64	-	-
GARFISH . . . . .	-	-	-	-	5	(1)
HERRING, LAKE . . . . .	-	-	1	(1)	-	-
MOONEYE . . . . .	-	-	18	2	-	-
PADDLEFISH . . . . .	(1)	(1)	-	-	-	-
PIKE OR PICKEREL . . . . .	-	-	29	2	-	-
QUILLBACK . . . . .	4	(1)	-	-	-	-
SHEEPSHEAD . . . . .	3	1	3,070	90	6	(1)
STURGEON, SHOVELNOSE, ETC..	5	1	-	-	4	(1)
SUCKERS . . . . .	(1)	(1)	56	1	(1)	(1)
TULLIBEE . . . . .	-	-	(1)	(1)	-	-
WHITEFISH, COMMON . . . . .	-	-	147	26	-	-
YELLOW PERCH . . . . .	-	-	305	25	-	-
YELLOW PIKE . . . . .	-	-	463	72	-	-
TOTAL FISH . . . . .	84	11	5,142	300	401	40
SHELLFISH, ETC.						
MUSSEL SHELLS . . . . .	2,400	144	-	-	-	-
PEARLS AND SLUGS . . . . .	-	3	-	-	-	-
TURTLES, SNAPPER . . . . .	-	-	-	-	1	(1)
TOTAL SHELLFISH, ETC..	2,400	147	-	-	1	(1)
GRAND TOTAL . . . . .	2,484	158	5,142	300	401	40

1/ LESS THAN 500 POUNDS OR \$500.

# MISSISSIPPI RIVER FISHERIES

365

## MANUFACTURED FISHERY PRODUCTS, 1963

ITEM	STATE	QUANTITY	VALUE
BUFFALOFISH, SMOKED . . . . .	IOWA	POUNDS (1)	(1)
CARP, SMOKED. . . . .	IOWA, ILLINOIS, MINNESOTA, WISCONSIN	DO 131,600	\$39,273
CATFISH, SMOKED . . . . .	IOWA	DO (1)	(1)
CODE:			
FILLETS, BREADED, FROZEN. . . . .	TENNESSEE	DO -	(2)
SMOKED. . . . .	NORTH DAKOTA	DO (1)	(1)
LUTEFISK. . . . .	MINNESOTA	DO -	(2)
FLOUNDER, SPECIALTIES, FROZEN (STUFFED). . . . .	TEXAS	DO -	(2)
HALIBUT, SMOKED . . . . .	IOWA, NORTH DAKOTA, NEBRASKA	DO 24,500	18,785
HERRING, PICKLED. . . . .	MINNESOTA	DO 1,281,800	356,081
LAKE TROUT, SMOKED. . . . .	MINNESOTA	DO (1)	(1)
SALMON, SMOKED. . . . .	IOWA, NORTH DAKOTA, NEBRASKA	DO 43,500	45,340
PADDLEFISH, SMOKED. . . . .	IOWA, MINNESOTA	DO 17,550	10,335
STURGEON, SMOKED. . . . .	IOWA, ILLINOIS	DO 35,050	31,882
WHITEFISH, SMOKED . . . . .	MINNESOTA, NORTH DAKOTA	DO (1)	(1)
WHITING, SMOKED . . . . .	IOWA, NEBRASKA	DO 73,750	30,612
CRABS, DEVILED, FROZEN. . . . .	TEXAS	DO -	(2)
SHRIMP:			
PEELED AND DEVEINED, FROZEN . . . . .	TEXAS	DO -	(2)
BREADED, FRESH AND FROZEN . . . . .	TEXAS	DO 5,081,110	3,939,929
SPECIALTIES, FROZEN (STUFFED). . . . .	TEXAS, TENNESSEE	DO -	(2)
TURTLE SOUP, CANNED . . . . .	OHIO	STANDARD CASES (2)	(2)
MUSSEL SHELL BUTTONS. . . . .	IOWA	GROSS 276,547	328,020
UNCLASSIFIED:			
PACKAGED FISH, FROZEN, STICKS AND PORTIONS . . . . .	MISSOURI, KENTUCKY, ARIZONA	POUNDS -	(2)
SMOKED. . . . .	IOWA, NORTH DAKOTA, MINNESOTA	DO 39,000	26,324
ANIMAL FOOD, CANNED . . . . .	NEBRASKA, KANSAS	STANDARD CASES 69,242	261,194
MISCELLANEOUS . . . . .		-	4,513,251
TOTAL . . . . .		-	9,601,226

1/ INCLUDED IN UNCLASSIFIED. 2/ INCLUDED IN MISCELLANEOUS.

NOTE:--SOME OF THE ABOVE PRODUCTS MAY HAVE BEEN MANUFACTURED FROM RAW PRODUCTS IMPORTED FROM ANOTHER STATE OR A FOREIGN COUNTRY, THEREFORE, THEY CANNOT BE CORRELATED DIRECTLY WITH THE CATCH WITHIN THE STATE. CERTAIN ITEMS MAY BE SHOWN IN AN INTERMEDIATE AND ALSO IN A MORE ADVANCED STAGE OF PROCESSING.

## VALUE OF MANUFACTURED PRODUCTS, BY STATES, 1963

(THOUSANDS OF DOLLARS)

STATE	VALUE
IOWA . . . . .	448
ILLINOIS AND KENTUCKY. . . . .	413
MINNESOTA. . . . .	535
WISCONSIN. . . . .	18
NEBRASKA, MISSOURI, NORTH DAKOTA, ARIZONA. . . . .	4,752
TENNESSEE, TEXAS, OHIO, AND KANSAS . . . . .	3,415
TOTAL. . . . .	9,601

## WHOLESALE AND MANUFACTURING, 1963

ITEM	ALABAMA	ARKANSAS	ILLINOIS	INDIANA	IOWA	KANSAS	KENTUCKY
WHOLESALE AND MANUFACTURING: ESTABLISHMENTS . . . . .	NUMBER 17	NUMBER 48	NUMBER 49	NUMBER 12	NUMBER 32	NUMBER 6	NUMBER 21
PERSONS ENGAGED: AVERAGE FOR SEASON . . . . .	92	65	144	86	570	44	132
AVERAGE FOR YEAR . . . . .	84	64	129	78	220	44	132
ITEM	LOUISIANA	MINNESOTA	MISSISSIPPI	MISSOURI	NEBRASKA	NORTH DAKOTA	OHIO
WHOLESALE AND MANUFACTURING: ESTABLISHMENTS . . . . .	NUMBER 22	NUMBER 15	NUMBER 22	NUMBER 36	NUMBER 6	NUMBER 2	NUMBER 1
PERSONS ENGAGED: AVERAGE FOR SEASON . . . . .	134	147	36	239	47	16	9
AVERAGE FOR YEAR . . . . .	103	109	36	224	33	12	2
ITEM	OKLAHOMA	SOUTH DAKOTA	TENNESSEE	TEXAS	WISCONSIN	ARIZONA	TOTAL
WHOLESALE AND MANUFACTURING: ESTABLISHMENTS . . . . .	NUMBER 15	NUMBER 2	NUMBER 34	NUMBER 33	NUMBER 31	NUMBER 1	NUMBER 405
PERSONS ENGAGED: AVERAGE FOR SEASON . . . . .	70	4	137	416	227	48	2,663
AVERAGE FOR YEAR . . . . .	70	2	136	333	217	36	2,064

## MISSISSIPPI RIVER FISHERIES

## ALABAMA

## OPERATING UNITS BY GEAR, 1963

ITEM	FYKE AND HOOP NETS	GILL NETS, ANCHOR SET OR STAKE	TRAMMEL NETS	LINES		CROWFOOT BARS	TOTAL, EXCLUSIVE OF DUPLICATION
				LONG OR SET WITH HOOKS	SNAG		
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:							
REGULAR . . . . .	17	34	22	171	67	125	320
CASUAL . . . . .	18	14	15	193	51	150	369
TOTAL . . . . .	35	48	37	364	138	275	689
BOATS, MOTOR GEAR:	35	48	36	364	138	275	688
NUMBER . . . . .	105	445	75	3,314	643	550	-
SQUARE YARDS . . . . .	-	118,370	19,950	-	-	-	-
HOOKS . . . . .	-	-	-	333,900	403,000	-	-

## ALABAMA - CATCH BY GEAR, 1963

SPECIES	FYKE AND HOOP NETS		GILL NETS, ANCHOR SET OR STAKE		TRAMMEL NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	18,500	\$1,650	326,000	\$32,600	195,600	\$19,560
CARP . . . . .	8,300	332	175,000	7,000	265,600	11,424
CATFISH AND BULLHEADS . . . . .	19,500	4,875	35,000	6,750	26,000	6,500
PADDLEFISH . . . . .	2,000	160	25,000	2,000	26,500	2,260
SHEEPSHEAD . . . . .	7,500	600	67,000	5,360	21,500	1,720
TOTAL . . . . .	55,800	7,617	630,000	55,910	557,200	41,484

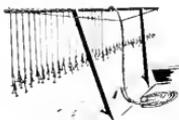
  

SPECIES	LINES			
	LONG OR SET WITH HOOKS		SNAG	
	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	15,000	\$1,500	7,000	\$700
CARP . . . . .	12,000	480	5,000	200
CATFISH AND BULLHEADS . . . . .	1,609,000	402,250	623,400	155,650
PADDLEFISH . . . . .	1,000	80	177,200	14,176
SHEEPSHEAD . . . . .	17,500	1,400	5,000	400
TOTAL . . . . .	1,654,500	405,710	617,600	171,326

SPECIES	CROWFOOT BARS		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	-	-	564,100	\$56,410
CARP . . . . .	-	-	485,900	19,436
CATFISH AND BULLHEADS . . . . .	-	-	2,312,900	576,225
PADDLEFISH . . . . .	-	-	233,700	16,696
SHEEPSHEAD . . . . .	-	-	118,500	9,480
MUSSEL SHELLS . . . . .	3,031,000	\$299,423	3,031,000	299,423
PEARLS AND SLUGS . . . . .	-	3,748	-	3,748
TOTAL . . . . .	3,031,000	303,171	6,746,100	965,418

NOTE:--THE INLAND COMMERCIAL FISHERIES OF ALABAMA ARE CONFINED TO THE TENNESSEE RIVER AREA.



CROWFOOT BAR

# MISSISSIPPI RIVER FISHERIES ARKANSAS

367

## OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES	FYKE AND HOOP NETS	GILL NETS, ANCHOR SET OR STAKE	TRAMMEL NETS	LINES	
					LONG OR SET WITH HOOKS	OTHER
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:						
REGULAR . . . . .	35	203	138	148		205
CASUAL . . . . .	34	363	137	74		488
TOTAL . . . . .	69	566	275	222		693
BOATS:						
MOTOR . . . . .	44	572	271	205		667
OTHER . . . . .	17	-	-	-		-
GEAR:						
NUMBER . . . . .	29	5,662	694	515		4,022
LENGTH, YARDS . . . . .	8,480	-	-	-		-
SQUARE YARDS . . . . .	-	-	141,720	105,532		-
HOOKS . . . . .	-	-	-	-		180,160

ITEM	LINES - CONTINUED		CROWFOOT BARS	BY HAND	TOTAL, EXCLUSIVE OF DUPLI-CATION
	SNAG	DIP NETS, COMMON			
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:					
REGULAR . . . . .	71	13	-	-	305
CASUAL . . . . .	65	15	47	50	694
TOTAL . . . . .	136	29	47	50	1,199
BOATS:					
MOTOR . . . . .	134	19	47	-	1,074
OTHER . . . . .	-	10	-	5	32
GEAR:					
NUMBER . . . . .	488	29	47	-	-
HOOKS . . . . .	158,400	-	-	-	-

## ARKANSAS - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		FYKE AND HOOP NETS		GILL NETS, ANCHOR, SET OR STAKE	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	-	-	2,000	\$90	-	-
BUFFALOFISH . . . . .	194,600	\$20,073	549,200	59,547	776,300	\$83,773
CARP . . . . .	53,500	2,112	142,500	5,552	126,400	5,044
CATFISH AND BULLHEADS . . . . .	4,400	1,299	55,100	16,554	14,200	4,241
GARFISH . . . . .	17,700	626	18,400	897	31,100	1,491
PADDFISH . . . . .	-	-	2,700	242	1,400	130
QUILLBACK . . . . .	2,200	93	11,500	469	1,300	48
SHEEPSHEAD . . . . .	7,900	573	44,100	3,176	26,700	1,885
STURGEON, SHOVELNOSE . . . . .	-	-	2,700	268	-	-
SUCKERS . . . . .	2,100	101	6,300	307	1,000	50
TURTLES:						
SLIDER . . . . .	1,500	30	6,600	132	300	6
SNAPPER . . . . .	-	-	6,400	635	300	30
SOFT-SHELL . . . . .	-	-	1,900	186	500	50
TOTAL . . . . .	285,900	25,109	850,400	88,075	979,500	96,748

SPECIES	TRAMMEL NETS		LINES			
			LONG OR SET WITH HOOKS		SNAG	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	-	-	600	\$26	-	-
BUFFALOFISH . . . . .	801,500	\$83,900	15,500	1,666	7,500	\$761
CARP . . . . .	121,800	4,553	16,000	623	5,500	200
CATFISH AND BULLHEADS . . . . .	38,600	11,584	312,300	91,517	65,300	18,953
GARFISH . . . . .	44,000	2,055	20,500	997	1,600	75
PADDFISH . . . . .	5,700	509	-	-	13,000	1,190
QUILLBACK . . . . .	400	20	200	10	700	28
SHEEPSHEAD . . . . .	33,400	2,261	34,900	2,483	5,100	377
STURGEON, SHOVELNOSE . . . . .	1,000	122	2,800	316	500	54
SUCKERS . . . . .	800	37	-	-	-	-
TURTLES:						
SLIDER . . . . .	500	10	-	-	400	8
SNAPPER . . . . .	1,500	150	6,500	645	300	30
SOFT-SHELL . . . . .	500	50	-	-	-	-
TOTAL . . . . .	1,049,700	105,291	409,500	98,283	99,900	21,696

## MISSISSIPPI RIVER FISHERIES

## ARKANSAS - CATCH BY GEAR, 1963 - Continued

SPECIES	DIP NETS		CROWFOOT BARS		BY HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
MUSSELS SHELLS . . . . .	-	-	456,500	\$14,502 <sup>96</sup>	23,000	\$360
PEARLS AND SLUGS . . . . .	-	-	-	-	-	3,000
TURTLES, BABY . . . . .	900	\$3,914	-	-	600	-
TOTAL . . . . .	900	3,914	456,500	14,600	23,600	3,360

## ARKANSAS - CATCH BY WATERS, 1963

SPECIES	MISSISSIPPI RIVER AND TRIBUTARIES		ARKANSAS RIVER AREA	
	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	700	\$31	500	\$15
BUFFALOFISH . . . . .	1,193,500	125,011	880,500	91,484
CARP . . . . .	213,400	8,536	189,000	6,319
CATFISH AND BULLHEADS . . . . .	178,300	51,047	269,700	79,876
GARFISH . . . . .	57,000	2,657	36,600	1,731
PADDLEFISH . . . . .	10,300	966	11,900	1,043
QUILLBACK . . . . .	6,300	260	9,800	388
SHEEPSHEAD . . . . .	64,100	4,125	72,100	5,128
STURGEON, COMMON . . . . .	2,300	230	4,700	550
SUCKERS . . . . .	6,000	300	3,800	175
MUSSEL SHELLS . . . . .	46,500	712	435,000	14,150
PEARLS AND SLUGS . . . . .	-	-	-	96
TURTLES:				
BABY . . . . .	1,500	6,914	-	-
SLIDER . . . . .	9,300	186	-	-
SNAPPER . . . . .	14,000	1,400	1,000	90
SOFT-SHELL . . . . .	2,500	250	400	36
TOTAL . . . . .	1,605,900	202,647	1,915,000	201,063

SPECIES	RED RIVER AREA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	1,400	\$70	2,600	\$116
BUFFALOFISH . . . . .	270,600	33,245	2,344,600	249,740
CARP . . . . .	65,300	3,229	467,700	16,064
CATFISH AND BULLHEADS . . . . .	43,100	13,225	491,100	144,148
GARFISH . . . . .	39,700	1,965	133,300	6,373
PADDLEFISH . . . . .	600	60	22,800	2,071
QUILLBACK . . . . .	-	-	16,300	668
SHEEPSHEAD . . . . .	15,900	1,502	132,100	10,755
STURGEON, COMMON . . . . .	-	-	7,000	780
SUCKERS . . . . .	400	20	10,200	495
MUSSEL SHELLS . . . . .	-	-	481,500	14,662
PEARLS AND SLUGS . . . . .	-	-	-	98
TURTLES:				
BABY . . . . .	-	-	1,500	6,914
SLIDER . . . . .	-	-	9,300	186
SNAPPER . . . . .	-	-	15,000	1,490
SOFT-SHELL . . . . .	-	-	2,900	286
TOTAL . . . . .	437,000	53,336	4,157,900	457,066

# MISSISSIPPI RIVER FISHERIES

369

## ILLINOIS

### OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	FYKE AND HOOP NETS	POTS AND TRAPS, WIRE BASKETS	GILL NETS, ANCHOR, SET OR STAKE	TRAMMEL NETS
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:					
REGULAR . . . . .	28	100	74	17	96
CASUAL . . . . .	40	249	126	24	154
TOTAL . . . . .	68	349	200	41	250
BOATS:					
MOTOR . . . . .	42	295	162	33	205
OTHER . . . . .	15	2	11	-	2
GEAR:					
NUMBER . . . . .	39	5,761	2,602	109	381
LENGTH, YARDS . . . . .	8,250	-	-	-	-
SQUARE YARDS . . . . .	-	-	-	10,382	71,325

ITEM	LINES		CROWFOOT BARS	BY HAND	TOTAL, EXCLUSIVE OF DUPLI- CATION
	LONG OR SET WITH HOOKS	SNAG			
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:					
REGULAR . . . . .	47	1	1	-	138
CASUAL . . . . .	141	8	48	55	466
TOTAL . . . . .	188	9	49	55	604
BOATS:					
MOTOR . . . . .	154	8	49	-	484
OTHER . . . . .	2	-	-	-	20
GEAR:					
NUMBER . . . . .	770	14	49	-	-
HOOKS . . . . .	63,225	5,800	-	-	-

### ILLINOIS - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		FYKE AND HOOP NETS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	600	\$22	1,700	\$188	-	-
BUFFALOFISH . . . . .	134,500	11,584	1,006,200	92,737	-	-
CARP . . . . .	323,200	14,800	1,397,800	71,359	4,400	\$237
CATFISH AND BULLHEADS . . . . .	7,400	1,814	323,900	80,226	390,700	96,937
CRAPPIE . . . . .	-	-	6,100	1,102	-	-
EELS, COMMON . . . . .	-	-	100	15	300	49
GARFISH . . . . .	500	20	1,800	80	-	-
PADDLEFISH . . . . .	7,600	791	4,300	472	-	-
QUILLBACK . . . . .	18,000	583	70,000	2,434	-	-
SHEEPSHEAD . . . . .	47,600	3,682	390,700	30,371	1,600	129
STURGEON, SHOVELNOSE, ETC. . . . .	-	-	7,300	971	-	-
SUCKERS . . . . .	-	-	11,100	426	-	-
TURTLES, SNAPPER . . . . .	3,400	573	2,300	382	-	-
TOTAL . . . . .	542,800	33,869	3,223,300	280,763	397,000	97,352

SPECIES	GILL NETS, ANCHOR, SET OR STAKE		TRAMMEL NETS		LINES	
	POUNDS	VALUE	POUNDS	VALUE	LONG OR SET WITH HOOKS	VALUE
BOWFIN . . . . .	300	\$43	1,600	\$91	-	-
BUFFALOFISH . . . . .	40,800	4,105	985,000	89,857	2,100	\$215
CARP . . . . .	24,200	1,264	871,200	43,987	16,600	904
CATFISH AND BULLHEADS . . . . .	300	75	30,700	7,732	158,300	39,632
CRAPPIE . . . . .	-	-	1,200	224	-	-
EELS, COMMON . . . . .	300	14	1,800	75	100	4
GARFISH . . . . .	-	-	1,200	80	-	-
PADDLEFISH . . . . .	14,900	1,551	33,300	3,466	100	10
QUILLBACK . . . . .	100	3	17,400	573	-	-
SHEEPSHEAD . . . . .	400	31	42,300	3,310	14,800	1,170
STURGEON, SHOVELNOSE, ETC. . . . .	200	44	16,700	3,567	300	55
SUCKERS . . . . .	-	-	600	25	-	-
TURTLES, SNAPPER . . . . .	-	-	100	30	5,400	865
TOTAL . . . . .	81,500	7,130	2,002,900	152,937	197,700	42,855

(CONTINUED ON NEXT PAGE)

## MISSISSIPPI RIVER FISHERIES

## ILLINOIS - CATCH BY GEAR, 1963 - Continued

SPECIES	LINES - CONTINUED		CROWFOOT BARS		BY HAND	
	SNAG		POUNDS	VALUE	POUNDS	VALUE
	POUNDS	VALUE				
BUFFALOFISH . . . . .	200	\$21	-	-	-	-
CARP . . . . .	200	10	-	-	-	-
CATFISH AND BULLHEADS . . . . .	1,000	256	-	-	-	-
PADDLEFISH . . . . .	1,800	198	-	-	-	-
SHEEPSHEAD . . . . .	500	47	-	-	-	-
MUSSEL SHELLS . . . . .	-	-	1,252,000	\$39,140	560,000	\$33,600
PEARLS AND SLUGS . . . . .	-	-	-	240	-	560
TOTAL . . . . .	3,700	532	1,252,000	39,380	560,000	34,160

## ILLINOIS - CATCH BY WATERS, 1963

SPECIES	MISSISSIPPI RIVER AND TRIBUTARIES		ILLINOIS RIVER AREA		KAHASIA RIVER AREA		OHIO RIVER AREA	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	3,000	\$274	1,100	\$55	-	-	-	-
BUFFALOFISH . . . . .	1,009,200	106,991	965,500	74,725	8,100	\$1,053	39,500	\$4,148
CARP . . . . .	1,398,300	77,061	1,072,000	45,512	41,200	5,300	14,000	700
CATFISH AND BULLHEADS . . . . .	713,300	179,338	131,700	30,154	800	248	51,200	13,107
CRAPPIE . . . . .	2,200	374	5,100	952	-	-	-	-
EELS, COMMON . . . . .	300	49	-	-	-	-	-	-
GARFISH . . . . .	3,200	131	1,000	53	-	-	-	-
PADDLEFISH . . . . .	58,900	6,131	400	48	-	-	2,400	264
QUILLBACK . . . . .	6,400	374	2,500	175	400	72	500	25
SHEEPSHEAD . . . . .	446,200	34,251	40,500	3,268	600	96	8,300	780
STURGEON, SHOVELNOSE, ETC. . . . .	18,500	4,026	-	-	-	-	1,700	181
SUCKERS . . . . .	9,800	321	-	-	-	-	1,800	90
MUSSEL SHELLS . . . . .	-	-	900,000	22,500	-	-	112,000	2,240
TURTLES, SNAPPER . . . . .	7,200	1,180	4,000	670	-	-	-	-
TOTAL . . . . .	3,676,500	410,501	3,143,800	178,112	51,100	6,769	231,100	21,535

SPECIES	ROCK RIVER AREA		WABASH RIVER AREA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	-	-	100	\$15	4,200	\$344
BUFFALOFISH . . . . .	114,800	\$10,332	12,700	1,270	2,169,800	198,519
CARP . . . . .	80,800	2,424	31,300	1,564	2,637,600	132,561
CATFISH AND BULLHEADS . . . . .	-	-	15,300	3,825	912,300	226,672
CRAPPIE . . . . .	-	-	-	-	7,300	1,325
EELS, COMMON . . . . .	-	-	100	15	400	64
GARFISH . . . . .	300	9	-	-	4,500	193
PADDLEFISH . . . . .	-	-	300	45	62,000	6,488
QUILLBACK . . . . .	91,800	2,752	3,900	195	105,800	3,593
SHEEPSHEAD . . . . .	-	-	2,300	345	497,900	38,740
STURGEON, SHOVELNOSE, ETC. . . . .	-	-	4,300	430	24,500	4,637
SUCKERS . . . . .	-	-	400	40	11,700	451
MUSSEL SHELLS . . . . .	-	-	800,000	48,000	1,812,000	72,740
PEARLS AND SLUGS . . . . .	-	-	-	800	-	800
TURTLES, SNAPPER . . . . .	-	-	-	-	11,200	1,850
TOTAL . . . . .	287,700	15,517	870,700	56,544	8,260,900	688,978

# MISSISSIPPI RIVER FISHERIES

371

## INDIANA

### OPERATING UNITS BY GEAR, 1963

ITEM	FYKE AND HOOP NETS, FISH	LINES, LONG OR SET WITH HOOKS	CROWFOOT BARS	BY HAND	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE, CASUAL, TOTAL. . . . .	31	22	31	105	141
BOATS, MOTOR . . . . .	31	22	31	-	67
GEAR:					
NUMBER . . . . .	201	66	31	-	-
HOOKS. . . . .	-	3,690	-	-	-

### INDIANA - CATCH BY GEAR, 1963

SPECIES	FYKE AND HOOP NETS		LINES, LONG OR SET WITH HOOKS	
	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH. . . . .	11,600	\$1,596	400	\$54
CARP . . . . .	1,500	75	200	10
CATFISH AND BULLHEADS. . . . .	8,800	2,200	2,500	625
PADDLEFISH . . . . .	200	24	-	-
SHEEPSHEAD . . . . .	1,200	159	500	66
STURGEON, SHOVELNOSE, ETC. . . . .	400	60	100	15
SUCKERS. . . . .	200	10	-	-
TOTAL . . . . .	23,900	4,124	3,700	770

SPECIES	CROWFOOT BARS		BY HAND	
	POUNDS	VALUE	POUNDS	VALUE
MUSSEL SHELLS. . . . .	412,000	\$24,720	1,188,000	\$71,280
PEARLS AND SLUGS . . . . .	-	576	-	1,544
TOTAL . . . . .	412,000	25,296	1,188,000	72,824

### INDIANA - CATCH BY WATERS, 1963

SPECIES	OHIO RIVER AREA		WABASH RIVER AREA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH. . . . .	5,000	\$600	7,000	\$1,050	12,000	\$1,650
CARP . . . . .	1,000	50	700	35	1,700	85
CATFISH AND BULLHEADS. . . . .	6,300	1,575	5,000	1,250	11,300	2,825
PADDLEFISH . . . . .	200	24	-	-	200	24
SHEEPSHEAD . . . . .	1,000	120	700	105	1,700	225
STURGEON, SHOVELNOSE, ETC. . . . .	-	-	500	75	500	75
SUCKERS. . . . .	200	10	-	-	200	10
MUSSEL SHELLS. . . . .	-	-	1,600,000	96,000	1,600,000	96,000
PEARLS AND SLUGS . . . . .	-	-	-	2,120	-	2,120
TOTAL . . . . .	13,700	2,379	1,613,900	100,635	1,627,600	103,014

## MISSISSIPPI RIVER FISHERIES

## IOWA

## OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	WEIRS	POUND NETS	FYKE AND HOOP NETS	POTS AND TRAPS, FISH
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:					
REGULAR . . . . .	18	8	8	56	69
CASUAL . . . . .	31	-	-	201	226
TOTAL . . . . .	49	8	8	257	295
BOATS:					
MOTOR . . . . .	17	-	4	257	295
OTHER . . . . .	14	-	-	-	-
GEAR:					
NUMBER . . . . .	20	9	12	2,337	2,601
LENGTH, YARDS . . . . .	6,167	-	-	-	-

ITEM	GILL NETS, ANCHOR, SET OR STAKE	TRAMMEL NETS	LINES, LONG OR SET WITH HOOKS	TOTAL, EXCLUSIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:				
REGULAR . . . . .	32	25	58	88
CASUAL . . . . .	73	107	191	289
TOTAL . . . . .	105	132	249	377
BOATS:				
MOTOR . . . . .	101	132	249	373
OTHER . . . . .	-	-	-	14
GEAR:				
NUMBER . . . . .	272	182	1,200	-
SQUARE YARDS . . . . .	20,133	36,400	-	-
HOOKS . . . . .	-	-	120,000	-



FYKE NET

## IOWA - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		WEIRS		POUND NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	216,900	\$9,916	-	-	600	\$12
CARP . . . . .	477,000	12,816	45,100	\$361	21,500	161
CATFISH AND BULLHEADS . . . . .	19,000	3,542	-	-	-	-
PADDLEFISH . . . . .	2,300	274	-	-	-	-
SHEEPSHEAD . . . . .	72,400	2,553	-	-	-	-
STURGEON, SHOVELNOSE, ETC. . . . .	200	39	-	-	-	-
SUCKERS . . . . .	6,300	112	-	-	-	-
TOTAL . . . . .	794,100	29,252	45,100	361	22,100	173

(CONTINUED ON NEXT PAGE)

# MISSISSIPPI RIVER FISHERIES

373

## IOWA - CATCH BY GEAR, 1963 - Continued

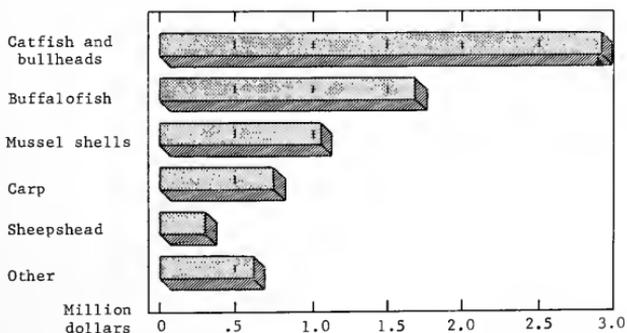
SPECIES	FYKE AND HOOP NETS		POTS AND TRAPS		GILL NETS, ANCHOR SET OR STAKE	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH. . . . .	338,400	\$35,532	100	\$9	69,900	\$7,312
CARP . . . . .	255,300	8,934	29,100	1,020	116,400	3,960
CATFISH AND BULLHEADS. . . . .	77,500	14,068	227,700	41,723	2,700	469
PADDFISH . . . . .	500	62	-	-	500	55
SHEEPSHEAD . . . . .	176,500	7,060	-	-	27,800	1,109
STURGEON, SHOVELNOSE, ETC. . . . .	4,300	669	-	-	2,300	354
SUCKERS. . . . .	35,200	861	-	-	500	13
TOTAL . . . . .	887,700	67,206	256,900	42,752	220,100	13,273

SPECIES	TRAMMEL NETS		LINES, LONG OR SET WITH HOOKS	
	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH. . . . .	37,600	\$3,954	1,100	\$115
CARP . . . . .	56,300	1,971	8,200	288
CATFISH AND BULLHEADS. . . . .	2,100	373	63,800	11,501
PADDFISH . . . . .	700	83	-	-
SHEEPSHEAD . . . . .	15,100	604	24,300	974
STURGEON, SHOVELNOSE, ETC. . . . .	1,300	201	400	56
SUCKERS. . . . .	700	18	-	-
TOTAL . . . . .	113,800	7,204	97,800	12,934

## IOWA - CATCH BY WATERS, 1963

SPECIES	MISSISSIPPI RIVER AND TRIBUTARIES		MISSOURI RIVER AREA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH. . . . .	663,600	\$56,750	1,000	\$100	664,600	\$56,850
CARP . . . . .	1,002,900	29,300	6,030	211	1,008,900	29,511
CATFISH AND BULLHEADS. . . . .	390,900	71,310	1,900	356	392,800	71,676
PADDFISH . . . . .	3,400	406	600	69	4,000	475
SHEEPSHEAD . . . . .	315,800	12,287	300	13	316,100	12,300
STURGEON, SHOVELNOSE, ETC. . . . .	8,300	1,295	200	24	8,500	1,319
SUCKERS. . . . .	42,200	1,011	500	13	42,700	1,024
TOTAL . . . . .	2,427,100	172,359	10,500	796	2,437,600	173,155

## VALUE OF MISSISSIPPI RIVER CATCH, 1963



## MISSISSIPPI RIVER FISHERIES

## KANSAS

## OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	FYKE AND HOOP NETS, FISH	GILL NETS, ANCHOR SET OR STAKE	TRAMMEL NETS	LINES, LONG OR SET WITH HOOKS	TOTAL EXCLUSIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE, CASUAL . . . . .	3	17	1	28	19	43
TOTAL . . . . .	3	17	1	28	19	43
BOATS:						
MOTOR . . . . .	3	17	1	23	19	34
OTHER . . . . .	-	-	-	1	-	1
GEAR:						
NUMBER . . . . .	2	114	1	27	98	-
LENGTH, YARDS . . . . .	140	-	-	-	-	-
SQUARE YARDS . . . . .	-	-	210	2,800	-	-
HOOKS . . . . .	-	-	-	-	784	-

## KANSAS - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		FYKE AND HOOP NETS		GILL NETS, ANCHOR SET OR STAKE	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	400	\$120	1,600	\$480	200	\$60
CARP . . . . .	5,800	1,450	9,600	2,400	400	100
CATFISH AND BULLHEADS . . . . .	400	200	1,400	700	-	-
QUILLBACK . . . . .	-	-	1,300	390	300	90
TOTAL . . . . .	6,600	1,770	13,900	3,970	900	250
SPECIES	TRAMMEL NETS		LINES, LONG OR SET WITH HOOKS		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	2,200	\$660	-	-	4,400	\$1,320
CARP . . . . .	15,700	3,925	700	\$175	32,200	8,050
CATFISH AND BULLHEADS . . . . .	1,500	750	1,400	700	4,700	2,350
PACOLEFISH . . . . .	200	70	-	-	200	70
QUILLBACK . . . . .	400	120	-	-	2,000	600
SHEEPSHEAD . . . . .	100	25	-	-	100	25
STURGEON, SHOVELNOSE, ETC..	-	-	100	30	100	30
TOTAL . . . . .	20,100	5,550	2,200	905	43,700	12,445

NOTE:--THE COMMERCIAL FISHERIES OF KANSAS ARE CONFINED TO THE MISSOURI RIVER AREA.

## KENTUCKY

## OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	FYKE AND HOOP NETS, FISH	GILL NETS, ANCHOR SET OR STAKE	TRAMMEL NETS
	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:				
REGULAR . . . . .	4	184	61	105
CASUAL . . . . .	18	369	4	123
TOTAL . . . . .	22	553	65	228
BOATS:				
MOTOR . . . . .	18	373	31	140
OTHER . . . . .	18	-	-	-
GEAR:				
NUMBER . . . . .	22	2,865	101	263
LENGTH, YARDS . . . . .	2,048	-	-	-
SQUARE YARDS . . . . .	-	-	11,241	47,130

# MISSISSIPPI RIVER FISHERIES

375

## KENTUCKY - OPERATING UNITS BY GEAR, 1963 - Continued

ITEM	LINES		CROWFOOT BARS	TOTAL, EXCLUSIVE OF DUPLI- CATION
	LONG OR SET WITH HOOKS	SNAG		
	NUMBER	NUMBER		
FISHERMEN, ON BOATS AND SHORE:				
REGULAR . . . . .	149	26	-	183
CASUAL . . . . .	342	57	102	667
TOTAL . . . . .	491	83	102	870
BOATS:				
MOTOR . . . . .	325	61	-	633
OTHER . . . . .	-	-	-	18
GEAR:				
NUMBER . . . . .	1,367	237	204	-
HOOKS . . . . .	100,753	99,169	-	-

## KENTUCKY - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		FYKE AND HOOP NETS		GILL NETS, ANCHOR SET OR STAKE		TRAMMEL NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	2,400	\$293	74,700	\$8,966	100	\$9	340,300	\$40,832
CARP . . . . .	3,400	170	120,500	6,022	86,400	4,322	135,500	6,774
CATFISH AND BULLHEADS . . . . .	3,700	920	369,100	92,292	29,100	7,283	6,600	1,645
PADDLEFISH . . . . .	100	7	3,100	370	200	36	2,000	236
QUILLBACK . . . . .	-	-	5,700	228	13,200	526	100	4
SHEEPSHEAD . . . . .	-	-	17,900	1,788	-	-	1,100	106
STURGEON, SHOVELNOSE, ETC.	-	-	-	-	-	-	1,700	204
SUCKERS . . . . .	-	-	21,300	851	2,300	93	2,300	99
TOTAL . . . . .	9,600	1,390	612,300	110,517	131,300	12,269	489,600	49,899

SPECIES	LINES					
	LONG OR SET WITH HOOKS		SNAG		CROWFOOT BARS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	14,300	\$1,720	7,700	\$923	-	-
CARP . . . . .	8,900	445	1,400	69	-	-
CATFISH AND BULLHEADS . . . . .	462,200	115,551	318,300	79,573	-	-
PADDLEFISH . . . . .	4,800	577	41,900	5,025	-	-
QUILLBACK . . . . .	400	17	600	25	-	-
SHEEPSHEAD . . . . .	5,800	579	-	-	-	-
STURGEON, SHOVELNOSE, ETC.	400	46	-	-	-	-
SUCKERS . . . . .	100	1	-	-	-	-
MUSSEL SHELLS . . . . .	-	-	-	-	1,660,000	\$108,450
PEARLS AND SLUGS . . . . .	-	-	-	-	-	5,145
TOTAL . . . . .	496,900	116,936	369,900	85,615	1,660,000	113,595

## KENTUCKY - CATCH BY WATERS, 1963

SPECIES	MISSISSIPPI RIVER AND TRIBUTARIES		CUMBERLAND RIVER AREA		OHIO RIVER AREA	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	29,400	\$3,526	56,000	\$6,723	230,000	\$27,597
CARP . . . . .	36,200	1,609	71,200	3,561	215,300	10,762
CATFISH AND BULLHEADS . . . . .	5,600	1,396	6,200	1,539	147,200	36,631
PADDLEFISH . . . . .	800	96	1,100	124	13,600	1,637
QUILLBACK . . . . .	500	20	-	-	5,400	216
SHEEPSHEAD . . . . .	100	16	-	-	14,800	1,470
STURGEON, SHOVELNOSE, ETC.	400	40	-	-	1,700	210
SUCKERS . . . . .	400	17	1,100	44	24,500	978
TOTAL . . . . .	73,400	6,920	135,600	11,991	652,500	79,701

SPECIES	TENNESSEE RIVER AREA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	124,100	\$14,897	439,500	\$52,743
CARP . . . . .	33,400	1,670	356,100	17,602
CATFISH AND BULLHEADS . . . . .	1,030,000	257,498	1,189,000	297,264
PADDLEFISH . . . . .	36,600	4,396	52,100	6,253
QUILLBACK . . . . .	14,100	564	20,000	800
SHEEPSHEAD . . . . .	9,900	969	24,600	2,475
STURGEON, SHOVELNOSE, ETC.	-	-	2,100	250
SUCKERS . . . . .	-	-	26,000	1,039
MUSSEL SHELLS . . . . .	1,860,000	108,450	1,860,000	108,450
PEARLS AND SLUGS . . . . .	-	5,145	-	5,145
TOTAL . . . . .	3,108,100	393,609	3,969,600	492,221

# MISSISSIPPI RIVER FISHERIES

## LOUISIANA

### OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	FYKE AND HOOP NETS, FISH	POTS AND TRAPS		GILL NETS, ANCHOR SET OR STAKE	TRAMMEL NETS
			CRAWFISH	SHRIMP		
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:						
REGULAR . . . . .	9	625	92	-	552	316
CASUAL . . . . .	-	350	342	5	410	175
TOTAL . . . . .	9	1,175	434	5	962	491
BOATS, MOTOR . . . . .	3	1,150	434	5	951	486
GEAR:						
NUMBER . . . . .	3	25,009	15,230	125	3,364	1,258
LENGTH, YARDS . . . . .	2,200	-	-	-	-	-
SQUARE YARDS . . . . .	-	-	-	-	443,533	134,185

ITEM	LINES		DIP NETS		GRABS, FROG	TOTAL, EXCLUSIVE OF DUPLI- CATION
	HAND	LONG OR SET WITH HOOKS	COMMON	DROP		
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:						
REGULAR . . . . .	6	627	18	8	34	643
CASUAL . . . . .	3	641	217	25	125	710
TOTAL . . . . .	9	1,468	235	33	159	1,553
BOATS, MOTOR . . . . .	12	1,461	207	-	159	1,531
GEAR:						
NUMBER . . . . .	12	3,164	229	990	159	-
HOOKS . . . . .	12	306,186	-	-	-	-

### LOUISIANA - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		FYKE AND HOOP NETS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	3,400	\$140	10,600	\$496	-	-
BUFFALOFISH . . . . .	58,500	6,644	1,001,100	114,836	-	-
CARP . . . . .	6,300	169	57,100	2,186	-	-
CATFISH AND BULLHEADS . . . . .	24,200	4,930	1,055,300	212,780	-	-
CRAWFISH . . . . .	7,100	355	18,000	920	-	-
PADDLEFISH . . . . .	1,100	55	5,900	275	-	-
SHEEPSHEAD . . . . .	16,100	1,386	236,400	23,362	-	-
CRAWFISH . . . . .	-	-	-	-	1,054,600	\$141,363
SHRIMP . . . . .	-	-	-	-	5,300	1,590
TURTLES, SNAPPER . . . . .	17,200	2,064	25,700	3,084	-	-
TOTAL . . . . .	133,900	15,763	2,410,100	357,939	1,069,900	142,953

SPECIES	GILL NETS, ANCHOR SET OR STAKE		TRAMMEL NETS		LINES HAND	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	22,400	\$1,027	15,900	\$699	-	-
BUFFALOFISH . . . . .	1,123,900	132,298	535,700	63,306	-	-
CARP . . . . .	67,500	2,766	93,600	2,201	-	-
CATFISH AND BULLHEADS . . . . .	567,300	114,795	242,000	49,116	-	-
CRAWFISH . . . . .	294,100	14,705	104,500	5,225	-	-
PADDLEFISH . . . . .	7,000	350	5,000	250	-	-
SHEEPSHEAD . . . . .	245,600	23,722	157,300	15,218	-	-
TURTLES, SNAPPER . . . . .	23,600	2,832	11,200	1,344	5,100	\$612
TOTAL . . . . .	2,351,400	292,446	1,128,200	137,557	5,100	612

SPECIES	LINES - CONTINUED LONG OR SET WITH HOOKS		DIP NETS		GRABS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
CATFISH AND BULLHEADS . . . . .	770,100	\$155,970	-	-	-	-
CRAWFISH . . . . .	204,300	10,215	-	-	-	-
PADDLEFISH . . . . .	8,900	445	-	-	-	-
CRAWFISH . . . . .	-	-	162,000	\$24,300	-	-
TURTLES:						
BABY . . . . .	-	-	22,000	88,000	-	-
SNAPPER . . . . .	58,600	7,032	-	-	53,700	\$20,720
FROGS . . . . .	-	-	-	-	-	-
TOTAL . . . . .	1,041,900	173,662	184,000	112,300	53,700	20,720

# MISSISSIPPI RIVER FISHERIES

377

## LOUISIANA - CATCH BY WATERS, 1963

SPECIES	MISSISSIPPI RIVER AND TRIBUTARIES		ATCHAFALAYA RIVER AREA	
	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	6,700	\$335	13,500	\$603
BUFFALOFISH . . . . .	379,500	43,760	894,300	99,956
CARP . . . . .	32,000	1,372	40,300	1,735
CATFISH AND BULLHEADS . . . . .	338,700	69,430	1,576,700	315,340
GARFISH . . . . .	46,800	2,340	355,100	17,755
PADDOLEFISH . . . . .	4,200	210	3,400	170
SHEEPSHEAD . . . . .	64,700	5,814	384,600	39,460
CRAWFISH . . . . .	10,900	1,338	1,053,700	140,055
SHRIMP . . . . .	5,300	1,590	-	-
TURTLES:				
BABY . . . . .	1,800	7,200	12,000	48,000
SNAPPER . . . . .	28,500	3,420	12,300	1,476
FROGS . . . . .	8,200	3,280	14,600	5,840
TOTAL . . . . .	927,300	140,059	4,360,500	669,390

SPECIES	RED RIVER AREA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	32,100	\$1,424	52,300	\$2,362
BUFFALOFISH . . . . .	1,446,400	173,568	2,720,200	317,284
CARP . . . . .	112,200	4,225	184,500	7,332
CATFISH AND BULLHEADS . . . . .	743,500	152,782	2,658,900	537,552
GARFISH . . . . .	226,100	11,305	628,000	31,400
PADDOLEFISH . . . . .	20,300	1,015	27,900	1,395
SHEEPSHEAD . . . . .	208,100	19,414	657,400	63,688
CRAWFISH . . . . .	162,000	24,300	1,226,600	165,663
SHRIMP . . . . .	-	-	5,300	1,590
TURTLES:				
BABY . . . . .	8,200	32,800	22,000	88,000
SNAPPER . . . . .	100,600	12,072	141,400	16,968
FROGS . . . . .	30,900	11,600	53,700	20,720
TOTAL . . . . .	3,090,400	444,505	8,378,200	1,253,954

# MINNESOTA

## OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	WEIRS	POUND NETS	FYKE AND HOOP NETS, FISH	GILL NETS, ANCHOR SET OR STAKE.	LINES, LONG OR SET WITH HOOKS	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:							
REGULAR . . . . .	110	45	5	86	165	10	273
CASUAL . . . . .	137	7	14	113	102	53	308
TOTAL . . . . .	247	52	19	199	267	63	581
BOATS:							
MOTOR . . . . .	55	-	5	54	153	63	277
OTHER . . . . .	43	-	-	3	-	-	46
GEAR:							
NUMBER . . . . .	31	40	25	1,209	263	63	-
LENGTH, YARDS . . . . .	21,792	-	-	-	-	-	-
SQUARE YARDS . . . . .	-	-	-	-	387,200	-	-
HOOKS . . . . .	-	-	-	-	-	15,723	-

## MISSISSIPPI RIVER FISHERIES

## MINNESOTA - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		WEIRS		POUND NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	600	\$13	-	-	100	\$1
BUFFALOFISH . . . . .	567,000	55,000	2,700	\$261	40,800	3,961
BURBOT . . . . .	-	-	-	-	500	7
CARP . . . . .	3,973,800	127,163	338,600	10,836	36,700	1,175
CATFISH AND BULLHEADS . . . . .	615,500	80,068	24,700	3,209	-	-
GARFISH . . . . .	2,600	40	-	-	100	1
GIZZARD SHAD . . . . .	1,300	12	-	-	-	-
QUILLBACK . . . . .	200	6	-	-	-	-
SHEEPSHEAD . . . . .	526,200	27,993	-	-	-	-
SUCKERS . . . . .	19,200	577	9,700	291	-	-
WHITEFISH . . . . .	-	-	-	-	5,800	2,783
YELLOW PERCH . . . . .	-	-	100	7	-	-
TURTLES, SNAPPER . . . . .	200	20	-	-	-	-
TOTAL . . . . .	5,706,600	290,892	375,800	14,604	84,000	7,928

SPECIES	FYKE NETS		GILL NETS, ANCHOR SET OR STAKE		LINES, LONG OR SET WITH HOOKS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	9,800	\$207	-	-	-	-
BUFFALOFISH . . . . .	76,000	7,375	43,100	\$4,180	500	\$44
BURBOT . . . . .	9,000	136	300	4	-	-
CARP . . . . .	698,800	22,351	116,100	3,714	5,900	188
CATFISH AND BULLHEADS . . . . .	1,095,100	142,370	5,400	1,209	24,400	5,903
HERRING, LAKE . . . . .	-	-	1,000	68	-	-
MOONEYE . . . . .	-	-	18,000	2,254	-	-
PIKE OR PICKEREL . . . . .	-	-	28,600	2,230	-	-
QUILLBACK . . . . .	-	-	2,300	94	200	7
SHEEPSHEAD . . . . .	3,400	180	127,600	2,218	6,200	331
SUCKERS . . . . .	7,900	235	52,900	841	300	10
TULLIBEE . . . . .	1,000	29	-	-	-	-
WHITEFISH . . . . .	-	-	140,900	23,294	-	-
YELLOW PERCH . . . . .	11,400	1,269	334,800	24,803	-	-
YELLOW PIKE . . . . .	-	-	463,100	71,603	-	-
TURTLES, SNAPPER . . . . .	300	33	-	-	-	-
TOTAL . . . . .	1,912,700	174,195	1,304,200	136,515	37,500	6,483

## MINNESOTA - CATCH BY WATERS, 1963

SPECIES	MISSISSIPPI RIVER AND TRIBUTARIES		CROW RIVER AREA		WATERS DRAINING INTO CANADA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	7,200	\$151	-	-	3,300	\$70	10,500	\$221
BUFFALOFISH . . . . .	715,500	69,407	3,300	\$318	11,300	1,096	730,100	70,821
BURBOT . . . . .	6,100	91	-	-	3,700	56	9,800	147
CARP . . . . .	4,331,200	139,558	-	-	447,400	14,317	5,169,900	165,437
CATFISH AND BULLHEADS . . . . .	1,310,900	173,659	361,300	11,552	454,200	59,090	1,765,100	232,759
GARFISH . . . . .	2,700	41	-	-	-	-	2,700	41
GIZZARD SHAD . . . . .	1,300	12	-	-	-	-	1,300	12
HERRING, LAKE . . . . .	-	-	-	-	1,000	68	1,000	68
MOONEYE . . . . .	-	-	-	-	18,000	2,254	18,000	2,254
PIKE OR PICKEREL . . . . .	-	-	-	-	28,600	2,230	28,600	2,230
QUILLBACK . . . . .	2,700	107	-	-	-	-	2,700	107
SHEEPSHEAD . . . . .	526,200	27,659	17,400	922	121,800	1,911	665,400	30,722
SUCKERS . . . . .	36,000	1,082	-	-	54,000	872	90,000	1,954
TULLIBEE . . . . .	1,000	29	-	-	100	3	1,100	32
WHITEFISH, COMMON . . . . .	-	-	-	-	145,700	26,077	146,700	26,077
YELLOW PERCH . . . . .	11,100	1,231	-	-	305,200	24,848	316,300	26,079
YELLOW PIKE . . . . .	-	-	-	-	463,100	71,603	463,100	71,603
TURTLES, SNAPPER . . . . .	500	53	-	-	-	-	500	53
TOTAL . . . . .	6,982,400	413,320	352,000	12,802	2,056,400	204,495	9,422,800	630,617

# MISSISSIPPI RIVER FISHERIES

379

## MISSISSIPPI

### OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES		FYKE AND HOOP NETS, FISH		GILL NETS, ANCHOR SET OR STAKE		TRAMMEL NETS	
	NUMBER		NUMBER		NUMBER		NUMBER	
FISHERMEN, ON BOATS AND SHORE:								
REGULAR . . . . .	50		120		195		78	
CASUAL . . . . .	15		220		174		18	
TOTAL . . . . .	65		340		369		96	
BOATS:								
MOTOR . . . . .	37		311		351		95	
OTHER . . . . .	18		-		-		-	
GEAR:								
NUMBER . . . . .	21		3,090		924		215	
LENGTH, YARDS . . . . .	7,200		-		-		-	
SQUARE YARDS . . . . .	-		-		361,670		69,400	
LINES								
ITEM	LONG OR SET WITH HOOKS		SNAG		DIP NETS, COMMON		TOTAL, EXCLUSIVE OF DUPLICATION	
	NUMBER		NUMBER		NUMBER		NUMBER	
FISHERMEN, ON BOATS AND SHORE:								
REGULAR . . . . .	194		75		17		223	
CASUAL . . . . .	250		60		10		391	
TOTAL . . . . .	444		135		27		604	
BOATS:								
MOTOR . . . . .	408		126		22		545	
OTHER . . . . .	-		-		-		18	
GEAR:								
NUMBER . . . . .	1,354		341		27		-	
HOOKS . . . . .	328,925		474,500		-		-	

### MISSISSIPPI - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		FYKE AND HOOP NETS		GILL NETS, ANCHOR SET OR STAKE		TRAMMEL NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	-	-	1,500	\$75	-	-	-	-
BUFFALOFISH . . . . .	150,000	\$13,500	477,700	46,803	987,000	\$94,544	165,000	\$14,850
CARP . . . . .	40,000	1,350	155,600	6,228	205,900	8,055	70,000	2,380
CATFISH AND BULLHEADS . . . . .	4,000	833	45,500	11,058	75,000	17,482	18,500	3,853
GARFISH . . . . .	8,500	425	5,000	250	18,500	925	10,000	500
PADDLEFISH . . . . .	1,500	114	2,000	152	3,500	273	2,500	190
QUILLBACK . . . . .	500	25	1,100	55	-	-	500	25
SHEEPSHEAD . . . . .	2,000	96	14,800	724	18,000	873	6,900	331
STURGEON, SHOVELNOSES, ETC. . . . .	-	-	500	50	-	-	-	-
SUCKERS . . . . .	1,000	48	3,700	178	-	-	1,200	58
TURTLES:								
SNAPPER . . . . .	-	-	-	-	700	53	300	23
SOFT-SHELL . . . . .	-	-	-	-	300	20	-	-
TOTAL . . . . .	207,500	16,401	707,400	65,573	1,308,900	122,225	274,900	22,210
LINES								
SPECIES	LONG OR SET WITH HOOKS		SNAG		DIP NETS, COMMON		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	500	\$25	-	-	-	-	2,000	\$100
BUFFALOFISH . . . . .	6,000	556	4,700	446	-	-	1,700,400	170,699
CARP . . . . .	4,000	152	3,500	135	-	-	479,000	18,310
CATFISH AND BULLHEADS . . . . .	292,300	68,902	99,500	23,174	-	-	534,800	125,302
GARFISH . . . . .	15,000	750	12,000	600	-	-	69,000	3,450
PADDLEFISH . . . . .	-	-	17,700	1,410	-	-	27,200	2,139
QUILLBACK . . . . .	-	-	-	-	-	-	2,100	105
SHEEPSHEAD . . . . .	8,000	385	500	24	-	-	50,200	2,433
STURGEON, SHOVELNOSE, ETC. . . . .	-	-	-	-	-	-	500	50
SUCKERS . . . . .	-	-	-	-	-	-	5,900	284
TURTLES:								
BABY . . . . .	-	-	-	-	600	\$2,220	600	2,220
SNAPPER . . . . .	1,000	75	-	-	-	-	2,000	151
SOFT-SHELL . . . . .	700	46	-	-	-	-	1,000	66
TOTAL . . . . .	327,500	70,891	137,900	25,789	600	2,220	2,964,700	325,309

NOTE:--THE COMMERCIAL CATCH FOR MISSISSIPPI IS CONFINED TO THE MISSISSIPPI RIVER AND TRIBUTARIES.

## MISSISSIPPI RIVER FISHERIES

## MISSOURI

## OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	FYKE AND HOOP NETS, FISH	TRAMMEL NETS	LINES, LONG OR SET WITH HOOKS	TOTAL, EXCLUSIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:					
REGULAR . . . . .	2	26	28	9	35
CASUAL . . . . .	3	110	111	62	208
TOTAL . . . . .	5	136	139	71	243
BOATS:					
MOTOR . . . . .	4	132	137	68	234
OTHER . . . . .	-	4	1	3	8
GEAR:					
NUMBER . . . . .	4	1,171	189	141	-
LENGTH, YARDS . . . . .	750	-	-	-	-
SQUARE YARDS . . . . .	-	-	35,715	-	-
HOOKS . . . . .	-	-	-	13,759	-

## MISSOURI - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		FYKE AND HOOP NETS		TRAMMEL NETS		LINES, LONG OR SET WITH HOOKS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	200	\$28	35,700	\$4,998	90,200	\$12,628	600	\$84
CARP . . . . .	400	20	57,400	2,870	60,700	3,035	2,600	130
CATFISH AND BULLHEADS . . . . .	-	-	21,500	5,375	15,600	3,900	11,600	2,900
EELS, COMMON . . . . .	-	-	-	-	-	-	300	48
PADDLEFISH . . . . .	200	20	1,300	130	3,200	320	100	10
QUILLBACK . . . . .	500	25	3,600	180	8,600	430	-	-
SHEEPSHEAD . . . . .	-	-	14,600	1,460	8,900	890	1,800	180
STURGEON, SHOVELNOSE, ETC. . . . .	-	-	200	20	4,300	430	300	30
SUCKERS . . . . .	-	-	3,000	150	1,400	70	-	-
TOTAL . . . . .	1,300	93	137,300	15,183	192,900	21,703	17,300	3,382

## MISSOURI - CATCH BY WATERS, 1963

SPECIES	MISSISSIPPI RIVER AND TRIBUTARIES		MISSOURI RIVER AREA		ST. FRANCIS RIVER AREA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	51,200	\$7,168	19,300	\$2,702	56,200	\$7,868	126,700	\$17,738
CARP . . . . .	56,400	2,820	45,100	2,255	19,600	960	121,100	6,055
CATFISH AND BULLHEADS . . . . .	32,300	8,075	15,600	3,900	800	200	48,700	12,175
EELS, COMMON . . . . .	200	32	100	16	-	-	300	48
PADDLEFISH . . . . .	3,400	340	1,400	140	-	-	4,800	480
QUILLBACK . . . . .	11,400	570	1,200	60	100	5	12,700	635
SHEEPSHEAD . . . . .	20,600	2,060	3,500	350	1,200	120	25,300	2,530
STURGEON, SHOVELNOSE, ETC. . . . .	4,500	450	300	30	-	-	4,800	480
SUCKERS . . . . .	3,500	175	800	40	100	5	4,400	220
TOTAL . . . . .	183,500	21,690	87,300	9,493	78,000	9,178	348,800	40,361

## MONTANA

THE COMMERCIAL FISHERIES OF MONTANA, IN THE TRIBUTARIES OF THE MISSISSIPPI RIVER, ARE CONFINED TO THE MISSOURI RIVER AREA. THREE REGULAR AND FOUR CASUAL FISHERMEN, EMPLOYING SEVEN MOTOR BOATS, FISHED 28 ANCHOR, SET OR STAKE GILL NETS (5,300 SQUARE YARDS). THE CATCH CONSISTED OF BUFFALOFISH, 218,400 POUNDS, \$26,634; CARP, 2,400 POUNDS, \$61; CATFISH AND BULLHEADS, 12,700 POUNDS, \$3,192; QUILLBACK, 33,400 POUNDS, \$2,388; SHEEPSHEAD, 1,000 POUNDS, \$84; AND SUCKERS, 500 POUNDS, \$34.

# MISSISSIPPI RIVER FISHERIES

361

## NEBRASKA

### OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	FYKE AND HOOP NETS, FISH	POTS AND TRAPS, WIRE BASKETS	TRAMMEL NETS	TOTAL, EXCLUSIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:					
REGULAR . . . . .	19	44	16	25	44
CASUAL . . . . .	12	64	16	76	81
TOTAL . . . . .	31	108	32	101	125
BOATS:					
MOTOR . . . . .	28	97	26	93	114
OTHER . . . . .	20	-	-	-	20
GEAR:					
NUMBER . . . . .	23	787	206	165	-
LENGTH, YARDS . . . . .	2,862	-	-	-	-
SQUARE YARDS . . . . .	-	-	-	21,867	-

### NEBRASKA - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		FYKE AND HOOP NETS		POTS AND TRAPS		TRAMMEL NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	600	\$102	3,600	\$820	1,400	\$318	4,000	\$774
CARP . . . . .	200,700	6,127	104,000	9,293	10,600	2,322	35,400	6,300
CATFISH AND BULLHEADS . . . . .	4,700	394	49,100	7,238	3,700	1,684	13,400	5,053
QUILLBACK . . . . .	10,700	269	25,100	627	-	-	-	-
SHEEPSHEAD . . . . .	700	22	3,000	89	-	-	-	-
STURGEON, SHOVELNOSE, ETC. . . . .	-	-	100	70	-	-	-	-
YELLOW PERCH . . . . .	-	-	1,900	45	-	-	-	-
TOTAL . . . . .	217,400	6,914	186,800	18,183	15,700	4,324	52,800	12,137

### NEBRASKA - CATCH BY WATERS, 1963

SPECIES	MISSISSIPPI RIVER AND TRIBUTARIES		MISSOURI RIVER AREA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	-	-	9,600	\$2,014	9,600	\$2,014
CARP . . . . .	252,900	\$7,641	87,800	16,401	350,700	24,042
CATFISH AND BULLHEADS . . . . .	37,400	1,075	33,500	13,304	70,900	14,379
QUILLBACK . . . . .	35,800	896	-	-	35,800	896
SHEEPSHEAD . . . . .	3,700	111	-	-	3,700	111
STURGEON, SHOVELNOSE, ETC. . . . .	-	-	100	70	100	70
YELLOW PERCH . . . . .	1,900	46	-	-	1,900	46
TOTAL . . . . .	341,700	9,769	131,000	31,789	472,700	41,558



## MISSISSIPPI RIVER FISHERIES

## NORTH DAKOTA

## OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	FYKE AND HOOP NETS, FISH	GILL NETS, ANCHOR SET OR STAKE	TOTAL, EXCLUSIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:				
REGULAR . . . . .	1	6	2	6
CASUAL . . . . .	12	2	2	15
TOTAL . . . . .	13	8	4	21
BOATS, MOTOR . . . . .	-	4	2	4
GEAR:				
NUMBER . . . . .	1	90	12	-
LENGTH, YARDS . . . . .	1,000	-	-	-
SQUARE YARDS . . . . .	-	-	1,700	-

## NORTH DAKOTA - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		FYKE AND HOOP NETS		GILL NETS, ANCHOR SET OR STAKE	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	4,300	\$291	53,600	\$3,650	48,700	\$3,314
CARP . . . . .	30,200	1,181	-	-	500	15
CATFISH AND BULLHEADS . . . . .	31,900	2,522	106,300	9,280	2,600	307
PADDLEFISH . . . . .	-	-	100	11	500	96
SUCKERS . . . . .	3,600	189	-	-	-	-
YELLOW PERCH . . . . .	300	9	-	-	-	-
TOTAL . . . . .	70,300	4,192	160,000	12,941	52,600	3,732

## NORTH DAKOTA - CATCH BY WATERS, 1963

SPECIES	MISSOURI RIVER AREA		WATERS DRAINING INTO CANADA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	100,300	\$6,824	6,300	\$431	106,600	\$7,255
CARP . . . . .	500	15	30,200	1,181	30,700	1,196
CATFISH AND BULLHEADS . . . . .	72,200	6,917	66,600	5,192	140,800	12,109
PADDLEFISH . . . . .	900	107	-	-	900	107
SUCKERS . . . . .	-	-	3,600	189	3,600	189
YELLOW PERCH . . . . .	-	-	300	9	300	9
TOTAL . . . . .	173,900	13,863	109,000	7,002	262,900	20,865

# MISSISSIPPI RIVER FISHERIES

383

## OKLAHOMA

### OPERATING UNITS BY GEAR, 1963

ITEM	GILL NETS, ANCHOR, SET OR STAKE	TRAMMEL NETS	TOTAL, EXCLUSIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:			
REGULAR . . . . .	30	26	30
CASUAL . . . . .	24	-	24
TOTAL . . . . .	54	26	54
BOATS, MOTOR . . . . .	54	26	54
GEAR:			
NUMBER . . . . .	148	33	-
SQUARE YARDS . . . . .	78,900	6,745	-

### OKLAHOMA - CATCH BY GEAR, 1963

SPECIES	GILL NETS, ANCHOR SET OR STAKE		TRAMMEL NETS	
	POUNDS	VALUE	POUNDS	VALUE
	BUFFALOFISH . . . . .	179,300	\$21,516	43,100
CARP . . . . .	84,000	4,200	18,300	915
CATFISH AND BULLHEADS . . . . .	41,000	12,300	8,400	2,520
PADDLEFISH . . . . .	5,000	500	2,800	280
SHEEPSHEAD . . . . .	30,300	3,636	8,100	972
WHITE BASS . . . . .	19,200	3,840	4,600	960
TOTAL . . . . .	358,800	45,992	85,500	10,819

### OKLAHOMA - CATCH BY WATERS, 1963

SPECIES	ARKANSAS RIVER AREA		RED RIVER AREA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
	BUFFALOFISH . . . . .	104,500	\$12,540	117,900	\$14,148	222,400
CARP . . . . .	71,700	3,585	30,600	1,530	102,300	5,115
CATFISH AND BULLHEADS . . . . .	40,400	12,120	9,000	2,700	49,400	14,820
PADDLEFISH . . . . .	7,800	780	-	-	7,800	780
SHEEPSHEAD . . . . .	36,700	4,404	1,700	204	38,400	4,608
WHITE BASS . . . . .	21,600	4,320	2,400	480	24,000	4,800
TOTAL . . . . .	282,700	37,749	161,600	19,062	444,300	56,811



# MISSISSIPPI RIVER FISHERIES SOUTH DAKOTA

## OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	FYKE AND HOOP NETS, FISH	GILL NETS, ANCHOR SET OR STAKE	TOTAL, EXCLUSIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:				
REGULAR . . . . .	5	-	1	6
CASUAL . . . . .	43	4	6	49
TOTAL . . . . .	48	4	7	55
BOATS:				
MOTOR . . . . .	15	2	2	17
OTHER . . . . .	10	-	-	10
GEAR:				
NUMBER . . . . .	7	50	22	-
LENGTH, YARDS . . . . .	6,666	-	-	-
SQUARE YARDS . . . . .	-	-	16,000	-

## SOUTH DAKOTA - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		FYKE AND HOOP NETS		GILL NETS, ANCHOR SET OR STAKE	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	1,250,800	\$67,555	-	-	391,100	\$27,360
CARP . . . . .	1,513,900	15,139	3,300	\$33	3,100	31
CATFISH AND BULLHEADS . . . . .	2,200	197	61,500	5,536	12,000	1,675
SHEEPSHEAD . . . . .	367,700	11,630	-	-	3,100	93
SUCKERS . . . . .	30,600	613	-	-	300	5
WHITE BASS . . . . .	59,600	6,560	-	-	-	-
TOTAL . . . . .	3,244,800	121,694	64,800	5,571	409,600	29,184

## SOUTH DAKOTA - CATCH BY WATERS, 1963

SPECIES	MINNESOTA RIVER AREA		MISSOURI RIVER AREA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	36,700	\$2,708	1,603,200	\$112,227	1,641,900	\$114,935
CARP . . . . .	1,126,800	11,288	391,500	3,915	1,520,300	15,203
CATFISH AND BULLHEADS . . . . .	-	-	75,700	7,410	75,700	7,410
SHEEPSHEAD . . . . .	367,700	11,630	3,100	93	390,800	11,723
SUCKERS . . . . .	30,600	613	300	5	30,900	618
WHITE BASS . . . . .	59,600	6,560	-	-	59,600	6,560
TOTAL . . . . .	1,645,400	32,799	2,073,800	123,650	3,719,200	156,449

# MISSISSIPPI RIVER FISHERIES

395

## TENNESSEE

### OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	FYKE AND HOOP NETS, FISH	GILL NETS, ANCHOR SET OR STAKE	TRAMMEL NETS
	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:				
REGULAR . . . . .	4	219	80	155
CASUAL . . . . .	1	285	70	90
TOTAL . . . . .	5	504	150	245
BOATS:				
MOTOR . . . . .	2	500	150	245
OTHER . . . . .	2	-	-	-
GEAR:				
NUMBER . . . . .	1	4,852	206	665
LENGTH, YARDS . . . . .	1,800	-	-	-
SQUARE YARDS . . . . .	-	-	53,073	174,910

ITEM	LINES		DIP NETS, COMMON	CROWFOOT BARS	TOTAL, EXCLUSIVE OF DUPLI- CATION
	LONG OR SET WITH HOOKS	SNAG			
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:					
REGULAR . . . . .	225	125	1	208	615
CASUAL . . . . .	406	175	1	49	698
TOTAL . . . . .	631	300	2	257	1,313
BOATS:					
MOTOR . . . . .	612	295	2	257	1,297
OTHER . . . . .	-	-	-	-	2
GEAR:					
NUMBER . . . . .	5,262	1,611	2	502	-
HOOKS . . . . .	490,390	805,500	-	-	-

### TENNESSEE - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		FYKE AND HOOP NETS		GILL NETS, ANCHOR SET OR STAKE		TRAMMEL NETS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	43,600	\$3,488	345,000	\$27,700	129,000	\$10,370	1,203,900	\$96,521
CARP . . . . .	29,800	476	242,700	5,584	51,500	1,160	721,500	15,540
CATFISH AND BULLHEADS . . . . .	4,300	1,075	239,500	59,875	18,700	4,675	322,800	80,700
GARFISH . . . . .	-	-	200	6	700	21	700	21
PADDLEFISH . . . . .	-	-	6,400	768	18,900	2,268	42,600	5,112
QUILLBACK . . . . .	6,100	183	42,500	1,285	11,000	333	367,800	11,043
SHEEPSHEAD . . . . .	5,400	270	49,300	2,489	4,100	211	26,700	1,465
TURTLES, SNAPPER . . . . .	-	-	-	-	-	-	600	60
TOTAL . . . . .	83,200	5,492	925,600	97,707	233,900	19,038	2,688,600	210,462

SPECIES	LINES				DIP NETS, COMMON		CROWFOOT BARS	
	LONG OR SET WITH HOOKS		SNAG		POUNDS	VALUE	POUNDS	VALUE
	POUNDS	VALUE	POUNDS	VALUE				
BUFFALOFISH . . . . .	12,800	\$1,034	9,700	\$786	-	-	-	-
CARP . . . . .	10,500	270	7,500	210	-	-	-	-
CATFISH AND BULLHEADS . . . . .	996,600	249,150	511,000	127,750	-	-	-	-
GARFISH . . . . .	300	15	-	-	-	-	-	-
PADDLEFISH . . . . .	2,300	300	210,900	25,308	-	-	-	-
SHEEPSHEAD . . . . .	13,200	696	2,600	139	-	-	-	-
MUSSEL SHELLS . . . . .	-	-	-	-	-	-	6,959,000	\$470,565
PEARLS AND SLUGS . . . . .	-	-	-	-	-	-	-	15,026
TURTLES:								
BABY . . . . .	-	-	-	-	600	\$3,000	-	-
SNAPPER . . . . .	300	30	-	-	-	-	-	-
TOTAL . . . . .	1,036,400	251,495	741,700	154,193	600	3,000	6,959,000	485,591

## MISSISSIPPI RIVER FISHERIES

## TENNESSEE - CATCH BY WATERS, 1963

SPECIES	MISSISSIPPI RIVER AND TRIBUTARIES		CUMBERLAND RIVER AREA	
	POUNDS	VALUE	POUNDS	VALUE
BUFFALDFISH . . . . .	380,400	\$30,432	37,900	\$3,411
CARP . . . . .	317,300	6,346	104,500	4,160
CATFISH AND BULLHEADS . . . . .	157,600	39,400	54,400	13,600
PADDOLEFISH . . . . .	27,500	3,300	28,300	3,396
QUILLBACK . . . . .	9,900	297	2,200	88
SHEEPSHEAD . . . . .	17,800	890	3,500	280
MUSSEL SHELLS . . . . .	-	-	250,000	10,500
TURTLES, BABY . . . . .	600	3,000	-	-
TOTAL . . . . .	911,100	83,665	480,800	35,455

SPECIES	TENNESSEE RIVER AREA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	1,325,700	\$106,056	1,744,000	\$139,899
CARP . . . . .	635,700	12,714	1,057,500	23,240
CATFISH AND BULLHEADS . . . . .	1,880,900	470,225	2,092,900	523,225
GARFISH . . . . .	2,100	63	2,100	63
PADDOLEFISH . . . . .	225,500	27,060	281,300	33,756
QUILLBACK . . . . .	415,300	12,459	427,400	12,844
SHEEPSHEAD . . . . .	82,000	4,100	103,300	5,270
MUSSEL SHELLS . . . . .	6,709,000	460,065	6,959,000	470,565
PEARLS AND SLUGS . . . . .	-	15,026	-	15,026
TURTLES:				
BABY . . . . .	-	-	600	3,000
SNAPPER . . . . .	900	90	900	90
TOTAL . . . . .	11,277,100	1,107,858	12,669,000	1,226,978

## TEXAS

## OPERATING UNITS BY GEAR, 1963

ITEM	FYKE AND HOOP NETS, FISH	GILL NETS, ANCHOR SET OR STAKE	TRAMMEL NETS	LINES, LONG OR SET WITH HOOKS	TOTAL, EXCLUSIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:					
REGULAR . . . . .	34	82	18	63	84
CASUAL . . . . .	39	119	1	132	152
TOTAL . . . . .	73	201	19	195	236
BOATS, MOTOR . . . . .	73	173	19	170	208
GEAR:					
NUMBER . . . . .	519	449	54	585	-
SQUARE YARDS . . . . .	-	87,120	11,165	-	-
HOOKS . . . . .	-	-	-	45,375	-

# MISSISSIPPI RIVER FISHERIES

387

## TEXAS - CATCH BY GEAR, 1963

SPECIES	FYKE AND HOOP NETS		GILL NETS, ANCHOR SET OR STAKE	
	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	83,900	\$9,229	465,800	\$53,438
CARP . . . . .	15,200	608	32,000	1,280
CATFISH AND BULLHEADS . . . . .	15,600	4,368	21,600	6,048
GARFISH . . . . .	3,000	150	7,000	350
QUILLBACK . . . . .	1,400	56	5,500	220
SHEEPSHEAD . . . . .	8,500	650	4,600	460
SUCKERS . . . . .	200	8	100	4
TURTLES, SNAPPER . . . . .	-	-	500	50
TOTAL . . . . .	127,900	15,269	557,100	61,850

SPECIES	TRAMMEL NETS		LINES, LONG OR SET WITH HOOKS	
	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	20,500	\$2,255	5,000	\$550
CARP . . . . .	4,400	176	1,000	40
CATFISH AND BULLHEADS . . . . .	4,000	1,120	46,800	13,104
GARFISH . . . . .	1,100	55	4,400	220
SHEEPSHEAD . . . . .	1,500	150	8,400	840
TOTAL . . . . .	31,500	3,756	65,600	14,754

## TEXAS - CATCH BY WATERS, 1963

SPECIES	RED RIVER AREA		WATERS DRAINING INTO GULF OF MEXICO		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BUFFALOFISH . . . . .	244,000	\$26,840	351,200	\$38,632	595,200	\$65,472
CARP . . . . .	19,100	764	33,500	1,340	52,600	2,104
CATFISH AND BULLHEADS . . . . .	88,000	24,640	-	-	88,000	24,640
GARFISH . . . . .	11,000	550	4,500	225	15,500	775
QUILLBACK . . . . .	1,000	40	5,900	236	6,900	276
SHEEPSHEAD . . . . .	18,700	1,870	4,300	430	23,000	2,300
SUCKERS . . . . .	-	-	300	12	300	12
TURTLES, SNAPPER . . . . .	-	-	500	50	500	50
TOTAL . . . . .	381,800	54,704	400,200	40,925	782,000	95,629

# MISSISSIPPI RIVER FISHERIES WISCONSIN

## OPERATING UNITS BY GEAR, 1963

ITEM	HAUL SEINES, COMMON	OTTER TRAWLS, FISH 1/	WEIRS	TRAP NETS, FISH	FYKE AND HOOP NETS
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:					
REGULAR . . . . .	64	4	6	25	33
CASUAL . . . . .	106	-	2	6	13
TOTAL . . . . .	170	4	8	31	46
BOATS:					
MOTOR . . . . .	68	1	-	13	30
OTHER . . . . .	48	-	-	-	-
GEAR:					
NUMBER . . . . .	46	1	3	237	932
LENGTH, YARDS . . . . .	23,123	-	-	-	-
YARDS AT MOUTH . . . . .	-	17	-	-	-

ITEM	POTS AND TRAPS, FISH	GILL NETS, ANCHOR SET OR STAKE	TRAMMEL NETS	LINES, LONG OR SET WITH HOOKS	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE:					
REGULAR . . . . .	20	86	10	50	139
CASUAL . . . . .	29	105	9	212	431
TOTAL . . . . .	49	191	19	262	570
BOATS:					
MOTOR . . . . .	35	120	11	257	416
OTHER . . . . .	-	-	-	-	48
GEAR:					
NUMBER . . . . .	1,111	129	11	258	-
SQUARE YARDS . . . . .	-	50,630	1,793	-	-
HOOKS . . . . .	-	-	-	82,952	-

1/ A TOTAL OF 7 VESSELS OPERATED IN LAKE WINNEBAGO. FOUR OF THESE VESSELS OPERATED ONLY IN LAKE WINNEBAGO, THE REMAINING 3 OPERATED ALSO IN THE GREAT LAKES.

## WISCONSIN - CATCH BY GEAR, 1963

SPECIES	HAUL SEINES		OTTER TRAWLS		WEIRS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	4,700	\$84	-	-	-	-
BUFFALOFISH . . . . .	586,200	62,758	-	-	190,500	\$20,955
BURBOT . . . . .	24,700	1,729	200	\$16	-	-
CARP . . . . .	5,623,900	190,099	17,400	522	228,700	6,861
CATFISH AND BULLHEADS . . . . .	15,300	1,767	1,100	46	-	-
GARFISH . . . . .	8,300	92	-	-	-	-
MOONEYE . . . . .	14,500	419	-	-	-	-
QUILLBACK . . . . .	2,100	65	-	-	-	-
SHEEPSHEAD . . . . .	285,200	13,575	2,211,400	66,341	-	-
SUCKERS . . . . .	48,500	1,061	200	4	600	11
TURTLES, SNAPPER . . . . .	1,200	135	-	-	-	-
TOTAL . . . . .	6,614,600	271,795	2,230,300	66,929	419,800	27,827

SPECIES	TRAP NETS		FYKE AND HOOP NETS		POTS AND TRAPS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	1,100	\$23	200	\$2	-	-
BUFFALOFISH . . . . .	-	-	100,700	10,074	-	-
BURBOT . . . . .	14,200	935	-	-	-	-
CARP . . . . .	125,200	3,757	99,800	3,982	-	-
CATFISH AND BULLHEADS . . . . .	110,500	4,419	109,200	20,751	113,400	\$21,537
EELS, COMMON . . . . .	-	-	100	18	-	-
GARFISH . . . . .	400	4	300	3	-	-
MOONEYE . . . . .	-	-	200	5	-	-
QUILLBACK . . . . .	100	-	5,500	165	-	-
SHEEPSHEAD . . . . .	730	21,918	83,400	4,022	-	-
STURGEON, SHOVELNOSE, ETC. . . . .	400	37	200	41	-	-
SUCKERS . . . . .	56,400	1,129	2,200	57	-	-
TURTLES, SNAPPER . . . . .	100	9	500	56	-	-
TOTAL . . . . .	1,039,000	32,313	402,300	39,176	113,400	21,537

(CONTINUED ON NEXT PAGE)

# MISSISSIPPI RIVER FISHERIES

369

## WISCONSIN - CATCH BY GEAR, 1963 - Continued

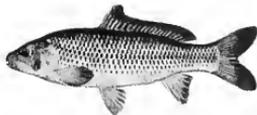
SPECIES	GILL NETS, ANCHOR SET OR STAKE		TRAMMEL NETS		LINES, LONG OR SET WITH HOOKS	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	800	\$16	-	-	4,000	\$40
BUFFALOFISH . . . . .	312,500	31,296	7,900	\$790	3,400	335
CARP . . . . .	1,100,500	43,455	4,800	191	46,200	1,848
CATFISH AND BULLHEADS . . . . .	21,500	4,081	1,100	216	251,700	47,821
GARFISH . . . . .	2,600	26	300	3	100	1
MOONEYE . . . . .	700	16	-	-	-	-
QUILLBACK . . . . .	3,800	113	-	-	-	-
SHEEPSHEAD . . . . .	35,500	1,714	3,200	162	43,700	2,184
STURGEON . . . . .	-	-	-	-	3,500	500
SUCKERS . . . . .	600	15	2,400	72	700	22
TURTLES, SNAPPER . . . . .	2,300	249	-	-	-	-
TOTAL . . . . .	1,480,800	80,981	19,700	1,434	353,300	52,751

## WISCONSIN - CATCH BY WATERS, 1963

SPECIES	MISSISSIPPI RIVER AND TRIBUTARIES		WATERS DRAINING INTO CANADA		TOTAL	
	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
BOWFIN . . . . .	10,800	\$165	-	-	10,800	\$165
BUFFALOFISH . . . . .	1,201,200	126,208	-	-	1,201,200	126,208
BURBOT . . . . .	38,800	2,719	300	\$21	39,100	2,740
CARP . . . . .	7,222,400	249,993	24,100	722	7,246,500	250,715
CATFISH AND BULLHEADS . . . . .	622,300	100,577	1,500	61	623,800	100,638
EELS, COMMON . . . . .	100	18	-	-	100	18
GARFISH . . . . .	12,000	117	-	-	12,000	119
MOONEYE . . . . .	15,300	432	100	-	15,400	440
QUILLBACK . . . . .	11,500	345	-	2	11,500	345
SHEEPSHEAD . . . . .	444,500	21,462	2,948,500	88,455	3,393,000	109,917
STURGEON, SHOVELNOSE, ETC. . . . .	4,100	598	-	-	4,100	598
SUCKERS . . . . .	111,300	2,385	300	6	111,600	2,391
TURTLES, SNAPPER . . . . .	4,100	449	-	-	4,100	449
TOTAL . . . . .	9,698,400	505,476	2,974,800	89,267	12,673,200	594,743

## WYOMING

THE COMMERCIAL FISHERIES OF WYOMING ARE CONFINED TO THE MISSOURI RIVER AREA. THE CATCH CONSISTED OF 180,000 POUNDS OF CARP, VALUED AT \$5,400. TWO CASUAL FISHERMEN EMPLOYING 2 MOTOR BOATS FISHED 1 HAUL SEINE WITH A TOTAL OF 100 YARDS.



CARP

## MISSISSIPPI RIVER FISHERIES

## GREAT LAKES AND MISSISSIPPI RIVER CATCH - BY STATES, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

STATE	GREAT LAKES		MISSISSIPPI RIVER AND TRIBUTARIES		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
ALABAMA . . . . .	-	-	6,746	985	6,746	985
ARKANSAS . . . . .	-	-	4,158	457	4,158	457
ILLINOIS . . . . .	285	32	8,261	689	8,546	721
INDIANA . . . . .	6	1	1,628	103	1,634	104
IOWA . . . . .	-	-	2,438	173	2,438	173
KANSAS . . . . .	-	-	44	12	44	12
KENTUCKY . . . . .	-	-	3,970	492	3,970	492
LOUISIANA . . . . .	-	-	8,378	1,254	8,378	1,254
MICHIGAN . . . . .	20,326	2,322	-	-	20,326	2,322
MINNESOTA . . . . .	5,336	255	9,423	631	14,759	886
MISSISSIPPI . . . . .	-	-	2,965	325	2,965	325
MISSOURI . . . . .	-	-	349	40	349	40
MONTANA . . . . .	-	-	268	32	268	32
NEW YORK . . . . .	502	91	-	-	502	91
NEBRASKA . . . . .	-	-	472	42	472	42
NORTH DAKOTA . . . . .	-	-	283	21	283	21
OHIO . . . . .	14,223	1,151	-	-	14,223	1,151
OKLAHOMA . . . . .	-	-	444	57	444	57
PENNSYLVANIA . . . . .	1,412	105	-	-	1,412	105
SOUTH DAKOTA . . . . .	-	-	3,719	157	3,719	157
TENNESSEE . . . . .	-	-	12,669	1,227	12,669	1,227
TEXAS . . . . .	-	-	762	96	762	96
WISCONSIN . . . . .	16,916	1,332	12,673	595	29,589	1,927
WYOMING . . . . .	-	-	180	5	180	5
TOTAL . . . . .	59,006	5,289	79,850	7,393	138,856	12,682

## GREAT LAKES AND MISSISSIPPI RIVER CATCH - BY SPECIES, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	GREAT LAKES		MISSISSIPPI RIVER AND TRIBUTARIES		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
ALEWIVES . . . . .	5,398	102	-	-	5,398	102
BLUE PIKE . . . . .	(1)	(1)	-	-	(1)	(1)
BOWFIN . . . . .	2	(1)	82	2	84	2
BUFFALOFISH . . . . .	64	8	17,306	1,705	17,370	1,713
BURBOT . . . . .	401	7	49	3	450	10
CARP . . . . .	6,298	275	21,488	749	27,786	1,024
CATFISH AND BULLHEADS . . . . .	1,496	343	13,477	2,932	14,973	3,275
CHUBS . . . . .	11,023	1,569	-	-	11,023	1,569
CISCO . . . . .	6	2	-	-	6	2
CRAPPIE . . . . .	3	1	7	1	10	2
EELS, COMMON . . . . .	19	5	(1)	(1)	19	5
GARFISH . . . . .	(1)	(1)	867	42	867	42
GIZZARD SHAD . . . . .	5	(1)	1	(1)	6	(1)
GOLDFISH . . . . .	172	5	-	-	172	5
HERRINGS, LAKE . . . . .	8,477	479	-	(1)	8,478	479
LAKE TROUT . . . . .	127	79	-	-	127	79
MOONEYE OR GOLDEYE . . . . .	1	(1)	33	2	34	2
PADDFISH . . . . .	-	(1)	725	71	725	71
PIKE OR PICKEREL . . . . .	140	16	29	2	169	18
QUILLBACK . . . . .	5	(1)	677	24	682	24
ROCK BASS . . . . .	16	2	-	-	16	2
SAUGER . . . . .	85	10	-	-	85	10
SCULPIN . . . . .	3	(1)	-	-	3	(1)
SHEEPSHEAD . . . . .	4,152	84	6,461	308	10,613	392
SMELT . . . . .	3,015	87	-	-	3,015	87
STURGEON . . . . .	5	5	53	9	58	14
SUCKERS . . . . .	1,373	45	296	7	1,669	52
SUNFISH . . . . .	9	1	-	-	9	1
TULLIBEE . . . . .	2,058	60	1	(1)	2,059	60
WHITE BASS . . . . .	1,174	152	126	13	1,300	165
WHITEFISH:						
COMMON . . . . .	900	459	147	26	1,047	485
MEMMINEE . . . . .	34	7	-	-	34	7
WHITE PERCH . . . . .	6	(1)	-	-	6	(1)
YELLOW PERCH . . . . .	11,275	1,070	318	26	11,593	1,096
YELLOW PIKE . . . . .	1,264	416	463	72	1,727	488
CRAWFISH . . . . .	-	-	1,227	166	1,227	166
SHRIMP . . . . .	-	-	5	2	5	2
MUSSEL SHELLS . . . . .	-	-	15,743	1,062	15,743	1,062
PEARLS AND SLUGS . . . . .	-	-	-	27	-	27
TURTLES:						
BABY . . . . .	-	-	26	100	26	100
SLIDER . . . . .	-	-	9	(1)	9	(1)
SNAPPER . . . . .	-	-	175	21	175	21
SOFT-SHELL . . . . .	-	-	4	(1)	4	(1)
FROGS . . . . .	-	-	54	21	54	21
TOTAL . . . . .	59,006	5,289	79,850	7,393	138,856	12,682

1/ LESS THAN 500 POUNDS OR \$500.

NOTE:--INCLUDES THE CATCH FROM THE INTERNATIONAL LAKES OF NORTHERN MINNESOTA, THE ALABAMA RIVER, AND THE RED LAKE.

# SECTION 10 - HAWAII FISHERIES

The 1963 landings of commercially caught fish and shellfish at ports in the State of Hawaii were 11.7 million pounds worth \$2.7 million to the fishermen. Compared with 1962 this catch was a decrease of 1.4 million pounds and \$140,700--due largely to reduced skipjack landings, which were 1.3 million pounds less. The catch of bigeye tuna decreased nearly 300,000 pounds and bigeye scad decreased almost 70,000 pounds. Species showing increases were striped marlin, dolphin, amberjack, pink snapper, and little tuna.

Since 1959, the Bureau's Biological Laboratory in Honolulu has used a temperature index to predict conditions in the ocean environment that affect the skipjack fishery. Early in the year, a prediction was released indicating that the availability of skipjack would be better than average. Although the annual catch per boat was above average, the total landings of skipjack were slightly less than had been predicted. The reduced landings were attributed to the occurrence of waters unfavorable to skipjack around the Islands during the fishing season.

Uncertainties in predicting the catch have been caused by lack of information on the processes and forces that produce the seasonal and long-term changes in the ocean environment near Hawaii. To overcome this deficiency, the Bureau of Commercial Fisheries has initiated the Trade Wind Zone Oceanographic Program. Seasonal and long-term changes in the distribution of temperature and salinity will be studied in terms of the currents, the processes of heating and cooling, and the evaporation and precipitation at the sea surface. The knowledge gained should permit more reliable prediction of fishing conditions in Hawaii. The Bureau's new research vessel, the Townsend Cromwell, is expected to devote most of her time to this important program.

Fishery products were landed at six of the eight islands that form the State of Hawaii. Oahu led the islands in landings with 8.7 million pounds, or nearly 75 percent of the total. The Island of Hawaii was next with 1.6 million pounds, followed by Maui with 1.2 million pounds. The remainder of the catch was landed at ports in the islands of Molokai, Kauai, and Lanai. Tuna (albacore, bigeye, bluefin, little, skipjack, and yellowfin) accounted for 81 percent of the quantity and 66 percent of the value of all fishery products landed in Hawaii. The 1963 catch was taken by 820 fishermen. Fishing craft operated during the year included 56 vessels of 5 net tons and over, 360 motor boats, and 23 other boats.

The data in this section were assembled and prepared for publication by the Bureau's area office, Honolulu, Hawaii, largely from information collected by the Hawaii Department of Land and Natural Resources, Division of Fish and Game.

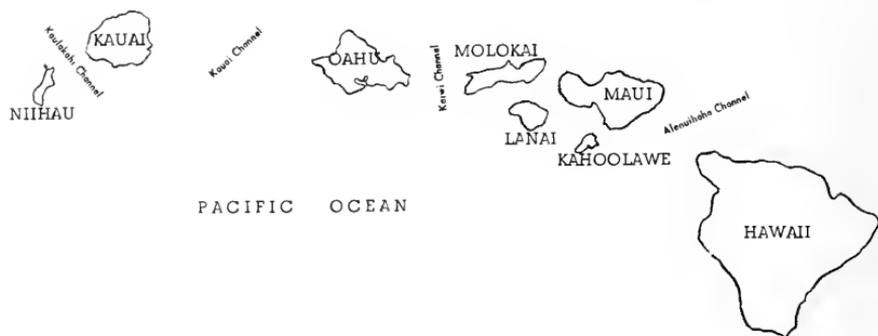
The following tables contain summarized and detailed information on the 1963 operating units and catch by islands of the State of Hawaii. Condensed summary data on the operating units and catch of Hawaii, appearing on the following pages, have been published previously in Current Fishery Statistics No. 3601.



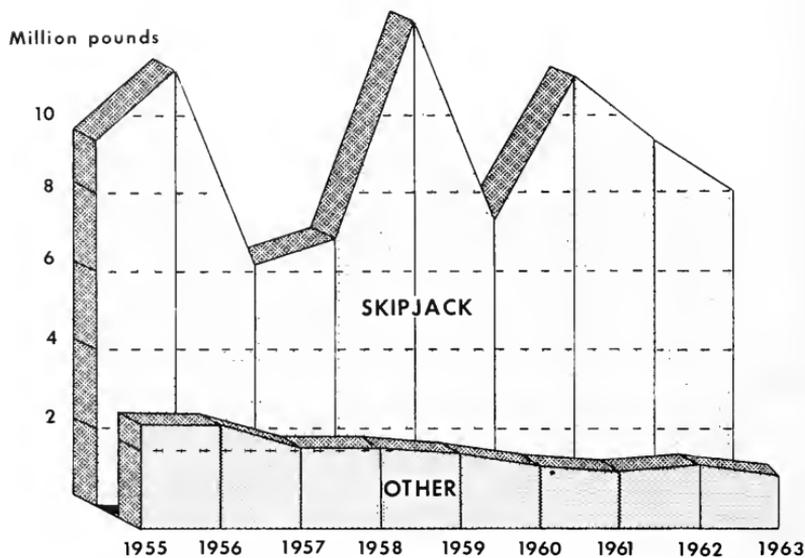
SKIPJACK TUNA

# HAWAII FISHERIES

## STATE OF HAWAII



## HAWAII TUNA CATCH, 1955-63



# HAWAII FISHERIES

393

## SECTIONAL SUMMARIES SUMMARY OF CATCH, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

ISLAND	FISH		SHELLFISH, ETC.		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
HAWAII . . . . .	1,633	365	11	6	1,644	373
MOLOKAI . . . . .	13	7	2	5	15	12
OAHU . . . . .	8,640	2,006	31	18	8,671	2,026
KAUAI . . . . .	161	67	11	7	172	74
MAUI . . . . .	1,212	184	(1)	5	1,217	189
LANA'I . . . . .	16	5			16	5
TOTAL . . . . .	11,675	2,636	60	43	11,735	2,679

1/ LESS THAN 500 POUNDS OR \$500.

## SUMMARY OF OPERATING UNITS, 1963

ITEM	TOTAL
	NUMBER
FISHERMEN:	
ON VESSELS . . . . .	266
ON BOATS AND SHORE . . . . .	554
TOTAL . . . . .	820
VESSELS, MOTOR . . . . .	56
GROSS TONNAGE . . . . .	1,728
BOATS:	
MOTOR . . . . .	360
OTHER . . . . .	23

NOTE: --DATA ARE NOT AVAILABLE ON THE NUMBER AND SIZE OF GEAR USED IN THE HAWAII FISHERIES. THERE ARE 16 FISHERY WHOLESALE AND MANUFACTURING ESTABLISHMENTS IN THE STATE OF HAWAII IN 1963. PEAK EMPLOYMENT IN THESE PLANTS TOTALED 324 PERSONS.

## HAWAII - CATCH BY SPECIES, 1963

SPECIES		TOTAL	
ENGLISH	HAWAIIAN	POUNDS	VALUE
<b>OCEAN CATCH:</b>			
FISH			
AMBERJACK . . . . .	KAHALA . . . . .	105,623	\$29,149
BARRACUDA . . . . .	KAKU . . . . .	2,245	584
BARRACUDA, JAPANESE . . . . .	KAWALEA . . . . .	7,570	2,919
BIGEYE SCAD . . . . .	AKULE . . . . .	150,665	112,182
BONEFISH . . . . .	OIO . . . . .	25,283	6,501
CREVALLE:			
BLUE . . . . .	OMILU . . . . .	9,461	5,470
JACK . . . . .	ULUA . . . . .	87,208	33,862
DAMSELFISH . . . . .	KUPIPI . . . . .	3,691	1,453
DOLPHIN . . . . .	MAHIMAHU . . . . .	127,233	52,002
EELS:			
CONGER . . . . .	PUHI . . . . .	3,501	460
MORAY . . . . .	PUHI . . . . .	2,606	162
GOATFISHES:			
	KUMU . . . . .	11,461	10,978
	MALU . . . . .	1,934	1,179
	MOANO . . . . .	13,788	6,208
	MOELUA . . . . .	6,092	3,381
	WEKE . . . . .	80,702	33,352
	WEKE-ULU . . . . .	14,181	8,678
MACKEREL, JACK . . . . .	OPELU . . . . .	401,136	129,381
MARLIN:			
BLACK . . . . .	A'U . . . . .	190,330	56,159
SAILFISH . . . . .	A'U LEPE . . . . .	5,865	933
SILVER . . . . .	A'U . . . . .	1,369	530
STRIPED . . . . .	A'U . . . . .	334,410	97,643
MILKFISH . . . . .	AWA . . . . .	6,904	2,596
MOUNTAIN BASS . . . . .	AHOLEHOLE . . . . .	1,946	1,379
MULLET . . . . .	AMAAMA . . . . .	16,385	12,474
PARROT FISH . . . . .	UHU . . . . .	2,204	736
RED BIGEYE . . . . .	AWEOWEO . . . . .	2,463	1,035
RUDDERFISH . . . . .	NENU . . . . .	2,294	1,012
RUNNER . . . . .	LAI . . . . .	293	82
SARDINE . . . . .	MAKIAWA . . . . .	402	165
SEA BASS, BLACK . . . . .	HAPUJUU . . . . .	32,718	12,967
SNAPPER:			
GRAY . . . . .	UKU . . . . .	65,029	27,919
PINK . . . . .	KALIKALI . . . . .	24,325	11,767
PINK . . . . .	OPAKAPAKA . . . . .	121,118	57,249
RED . . . . .	ULAU . . . . .	28,066	21,238
RED . . . . .	ULAU LA KOAE . . . . .	53,919	49,825
SPOT . . . . .	A'WA . . . . .	2,271	363
SQUIDRIFISH . . . . .	UU . . . . .	15,816	11,306

(CONTINUED ON NEXT PAGE)

## HAWAII FISHERIES

## HAWAII - CATCH BY SPECIES, 1963 - Continued

SPECIES		TOTAL	
ENGLISH	HAWAIIAN	POUNDS	VALUE
<u>OCEAN CATCH - CONTINUED:</u>			
SURGEON FISH:			
	KALA . . . . .	39,239	\$3,661
	MAI KO . . . . .	629	76
	PALANI . . . . .	4,308	956
	PUALU . . . . .	14,860	3,185
	A'U . . . . .	21,660	3,679
SWORDFISH . . . . .			
TANG:			
	MANINI . . . . .	6,430	2,965
	ORANGE SPOT . . . . .	1,015	75
	AWA'AWA . . . . .	4,335	1,215
	MOI . . . . .	12,315	9,769
	HUMUHUMU . . . . .	1,241	348
TUNA:			
	AHI PALAHA . . . . .	15,048	4,679
	BIGEYE AND BLUEFIN . . . . .	946,253	501,726
	KAWAKAWA . . . . .	60,219	8,349
	AHI . . . . .	8,099,341	1,069,820
	YELLOWFIN . . . . .	384,858	153,165
	TOTAL TUNA . . . . .	9,507,719	1,757,759
WAHOO . . . . .		29,633	5,473
UNCLASSIFIED . . . . .		27,458	9,031
	TOTAL FISH . . . . .	11,633,779	2,605,752
SHELLFISH, ETC.			
CRABS:			
	KONA . . . . .	17,865	10,560
	KUAHONU . . . . .	2,287	1,425
	MOALA . . . . .	798	254
	PAPA'I . . . . .	1,422	405
	SAMOAN . . . . .	173	114
	OPIHI . . . . .	4,010	8,755
LIMPET . . . . .			
LOBSTERS:			
	ULAPAPAPA . . . . .	32	24
	SLIPPER . . . . .		
	ULA . . . . .	10,262	7,834
	HEE . . . . .	7,649	4,252
	LIMU . . . . .	4,738	1,729
	OPAE . . . . .	492	1,459
	MUHEE . . . . .	5,246	1,601
	TREPANG (SEA CUCUMBER) . . . . .	512	450
	HONU . . . . .	360	75
	WANA . . . . .	7	2
	TOTAL SHELLFISH, ETC. . . . .	55,873	39,139
	TOTAL OCEAN CATCH . . . . .	11,669,652	2,644,891
POND CATCH: 1/			
FISH			
	KAKU . . . . .	1,017	769
	O'IO . . . . .	749	285
	ULUA . . . . .	1,845	1,576
	WEKE . . . . .	47	14
	AWA . . . . .	7,007	3,767
	AHOLEHOLE . . . . .	2,373	937
	AMAAMA . . . . .	23,092	21,674
	LA'I . . . . .	97	30
	PUALU . . . . .	88	23
	AWA'AWA . . . . .	3,679	1,202
	MOI . . . . .	694	481
	UNCLASSIFIED . . . . .	96	26
	TOTAL FISH . . . . .	40,764	30,784
SHELLFISH, ETC.			
CLAMS, HARD . . . . .		1,185	2,133
CRABS:			
	KUAHONU . . . . .	701	525
	MOALA . . . . .	34	12
	PAPA'I . . . . .	1,641	509
	SAMOAN . . . . .	632	475
	HONU . . . . .	41	4
	TOTAL SHELLFISH, ETC. . . . .	4,234	3,658
	TOTAL POND CATCH . . . . .	45,018	34,442
	GRAND TOTAL . . . . .	11,734,670	2,679,333

1/ SALT-WATER.

NOTE:--STATISTICS ON THE CATCH ARE SHOWN IN ROUND (LIVE) WEIGHT EXCEPT FOR SHELL MOLLUSKS. THE WEIGHT OF MEATS FOR MOLLUSKS IS BASED ON A YIELD OF 25 PERCENT FOR HARD CLAMS AND 20 PERCENT FOR LIMPETS.

# HAWAII FISHERIES

395

## HAWAII - OPERATING UNITS BY ISLAND AND GEAR, 1963

ITEM	HAWAII					
	BAG NETS	POTS AND TRAPS	GILL NETS	LINES		
				HAND	POLE AND LINE	TROLL
NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN: ON VESSELS. . . . .	-	-	-	-	30	1
ON BOATS AND SHORE. . . . .	2	2	4	77	7	18
TOTAL. . . . .	2	2	4	77	37	19
VESSELS, MOTOR. . . . .	-	-	-	-	3	1
GROSS TONNAGE. . . . .	-	-	-	-	121	9
BOATS, MOTOR. . . . .	2	2	3	58	3	15

ITEM	HAWAII - CONTINUED					
	LINES-CONTINUED	LIFT NETS	CAST NETS	BY HAND	POND 1/	TOTAL, EXCLUSIVE OF DUPLICATION
	LONG OR SET WITH HOOKS					
NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN: ON VESSELS. . . . .	7	-	-	-	-	38
ON BOATS AND SHORE. . . . .	29	25	4	3	1	136
TOTAL. . . . .	36	25	4	3	1	174
VESSELS, MOTOR. . . . .	2	-	-	-	-	6
GROSS TONNAGE. . . . .	32	-	-	-	-	162
BOATS, MOTOR. . . . .	19	18	-	-	-	95

ITEM	MOLOKAI					
	HAUL SEINES	POTS AND TRAPS	GILL NETS	LINES		
				BY HAND	TROLL	LONG OR SET WITH HOOKS
NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN, ON BOATS AND SHORE. . . . .	1	1	34	1	4	2
BOATS, MOTOR. . . . .	-	-	9	1	5	2

ITEM	MOLOKAI - CONTINUED				
	SPEARS	BY HAND	POND 1/	UNCLASSIFIED	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN, ON BOATS AND SHORE. . . . .	4	2	4	3	47
BOATS: MOTOR. . . . .	1	1	-	1	16
OTHER. . . . .	-	-	1	-	1

ITEM	OAHU						
	HAUL SEINES	BAG NETS	POTS AND TRAPS	GILL NETS	LINES		
					HAND	POLE AND LINE	TROLL
NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN: ON VESSELS. . . . .	2	10	-	6	-	110	4
ON BOATS AND SHORE. . . . .	3	-	24	58	86	6	15
TOTAL. . . . .	5	10	24	64	86	116	19
VESSELS, MOTOR. . . . .	1	2	-	2	-	12	4
GROSS TONNAGE. . . . .	17	52	-	52	-	562	93
BOATS: MOTOR. . . . .	2	1	18	39	67	14	13
OTHER. . . . .	-	-	-	4	-	-	-

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## HAWAII FISHERIES

## HAWAII - OPERATING UNITS BY ISLAND AND GEAR, 1963 - Continued

ITEM	OAHU - CONTINUED							TOTAL, EXCLUSIVE OF DUPLI- CATION
	LINES- CONTINUED	LIFT NETS	CAST NETS	SPEARS	BY HAND	POND 1/		
	LONG OR SET WITH HOOKS							
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN: ON VESSELS . . . . .	54	2	-	-	-	-	7	180
ON BOATS AND SHORE . . . . .	58	15	3	2	1	-	-	216
TOTAL . . . . .	112	17	3	2	1	-	7	396
VESSELS, MOTOR . . . . .	26	1	-	-	-	-	-	45
GROSS TONNAGE . . . . .	603	18	-	-	-	-	-	1,327
BOATS: MOTOR . . . . .	49	11	2	1	-	-	2	159
OTHER . . . . .	-	1	-	-	-	-	3	8

ITEM	KAUAI								TOTAL, EXCLUSIVE OF DUPLI- CATION
	HAUL SEINES	BAG NETS	GILL NETS	LINES			LIFT NETS	CAST NETS	
				HAND	TROLL	LONG OR SET WITH HOOKS			
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN, ON BOATS AND SHORE . . . . .	4	4	23	4	15	23	3	3	52
BOATS: MOTOR . . . . .	4	-	6	3	15	20	4	-	32
OTHER . . . . .	-	4	10	1	2	1	-	2	14

ITEM	MAUI								
	HAUL SEINES	BAG NETS	POTS AND TRAPS	GILL NETS	LINES				
					HAND	POLE AND LINE	TROLL	LONG OR SET WITH HOOKS	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN: ON VESSELS . . . . .	-	-	1	9	3	48	-	7	29
ON BOATS AND SHORE . . . . .	4	9	-	-	-	-	-	-	-
TOTAL . . . . .	4	9	1	9	3	48	7	29	
VESSELS, MOTOR . . . . .	-	-	-	-	-	5	-	-	-
GROSS TONNAGE . . . . .	-	-	-	-	-	239	-	-	-
BOATS, MOTOR . . . . .	3	3	1	5	2	6	8	25	

ITEM	MAUI - CONTINUED				LANAI				
	LIFT NETS	SPEARS	BY HAND	TOTAL, EXCLUSIVE OF DUPLI- CATION	GILL NETS	LINES		CAST NETS	TOTAL, EXCLUSIVE OF DUPLI- CATION
						HAND	TROLL		
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
FISHERMEN: ON VESSELS . . . . .	14	3	8	48 B1	6	12	12	2	22
ON BOATS AND SHORE . . . . .	-	-	-	-	-	-	-	-	-
TOTAL . . . . .	14	3	8	129	6	12	12	2	22
VESSELS, MOTOR . . . . .	-	-	-	5	-	-	-	-	-
GROSS TONNAGE . . . . .	-	-	-	239	-	-	-	-	-
BOATS, MOTOR . . . . .	9	1	-	51	-	7	10	-	7

1/ SEINES, MISCELLANEOUS NETS, AND BY HAND.

NOTE:--NUMBER AND QUANTITY OF GEAR NOT AVAILABLE. DATA ON OPERATING UNITS ARE NOT COMPLETE.

# HAWAII FISHERIES

397

## HAWAII - CATCH BY ISLANDS, 1963

SPECIES		HAWAII		MOLOKAI		OAHU	
ENGLISH	HAWAIIAN	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
<b>OCEAN CATCH; FISH</b>							
AMBERJACK . . . . .	KAHALA . . . . .	8,219	\$1,715	-	-	70,851	\$19,056
BARRACUDA . . . . .	KAKU . . . . .	306	59	20	\$1	1,268	316
BARRACUDA, JAPANESE . . . . .	KAWELEA . . . . .	5,381	2,072	-	-	1,648	688
BIGEYE SCAD . . . . .	AKULE . . . . .	27,222	16,835	659	454	61,935	54,050
BONEFISH . . . . .	OIO . . . . .	7,678	1,715	75	26	11,603	3,589
<b>CREVALLE:</b>							
BLUE . . . . .	OMILU . . . . .	6	2	-	-	8,971	5,169
JACK . . . . .	ULUA . . . . .	10,879	3,662	593	292	66,214	25,633
DAMSELFISH . . . . .	KUPIPI . . . . .	94	52	-	-	3,713	1,355
DOLPHIN . . . . .	MAHIMAH . . . . .	19,407	5,857	-	-	100,934	44,227
<b>EELS:</b>							
CONGER . . . . .	PUHI . . . . .	118	34	-	-	3,383	426
MORAY . . . . .	PUHI . . . . .	10	2	-	-	2,596	160
<b>GOATFISHES:</b>							
	KUMU . . . . .	1,435	870	14	8	9,423	9,689
	MALU . . . . .	-	-	-	-	1,934	1,179
	MOANO . . . . .	2,234	1,286	-	-	11,346	6,824
	MOELUA . . . . .	-	-	-	-	4	2
	WEKE . . . . .	2,501	1,567	1,148	321	71,448	28,934
	WEKE-ULA . . . . .	1,062	688	-	-	10,672	6,839
MACKEREL, JACK . . . . .	OPELU . . . . .	182,234	50,407	1,168	404	120,143	31,751
<b>MARLIN:</b>							
BLACK . . . . .	A'U . . . . .	51,654	9,313	-	-	138,676	46,846
SAILFISH . . . . .	A'U LEPE . . . . .	1,149	234	-	-	4,716	699
SILVER . . . . .	A'U . . . . .	192	96	-	-	1,177	484
STRIPED . . . . .	A'U . . . . .	48,130	12,667	-	-	285,951	84,919
MILKFISH . . . . .	AWA . . . . .	601	240	598	261	4,428	1,782
MOUNTAIN BASS . . . . .	AMOLEHOLE . . . . .	104	87	9	4	226	176
MULLET . . . . .	AMAAMA . . . . .	502	343	3,647	2,752	7,403	5,735
PARROT FISH . . . . .	UHU . . . . .	79	38	-	-	1,997	654
RED BIGEYE . . . . .	AWEMEO . . . . .	1,533	663	-	-	429	176
RUDDERFISH . . . . .	NEHUE . . . . .	426	181	89	31	1,385	616
RUNNER . . . . .	LA I . . . . .	61	26	-	-	65	9
SARDINE . . . . .	MAI IAWA . . . . .	-	-	-	-	402	165
SEA BASS, BLACK . . . . .	HAPU'U . . . . .	737	340	-	-	28,525	11,554
<b>SNAFFERS:</b>							
GRAY . . . . .	UKU . . . . .	2,928	1,079	-	-	50,452	21,357
PINK . . . . .	KALIKALI . . . . .	1,295	605	-	-	22,734	11,049
PINK . . . . .	OPAKAPAKA . . . . .	8,372	3,604	30	9	70,643	35,125
RED . . . . .	ULAU . . . . .	2,907	1,806	-	-	22,508	17,979
RED . . . . .	ULAU . . . . .	2,640	1,920	-	-	48,758	46,475
SPOT . . . . .	A'AWA . . . . .	1,599	244	-	-	599	104
SQUIRRELFISH . . . . .	U'U . . . . .	5,181	3,418	451	331	7,886	6,276
<b>SURGEON FISH:</b>							
	KALA . . . . .	-	-	140	40	38,474	3,495
	MAIKO . . . . .	95	46	-	-	534	32
	PALANI . . . . .	176	29	-	-	3,984	896
	PUALU . . . . .	9	1	-	-	14,858	3,178
	A'U . . . . .	1,356	198	-	-	20,324	3,681
<b>SWORDFISH . . . . .</b>							
<b>TANG:</b>							
CONVICT . . . . .	MANINI . . . . .	754	490	410	130	4,109	1,747
ORANGE SPOT . . . . .	NAENAE . . . . .	-	-	-	-	1,015	75
TENPOUNDER . . . . .	AWA . . . . .	-	-	-	-	4,328	1,213
THREADFIN . . . . .	MOI . . . . .	393	396	7	5	7,846	6,528
TRIGGERFISH . . . . .	HUMUHUMU . . . . .	686	135	-	-	527	205
<b>TUNA:</b>							
ALBACORE . . . . .	ZHI'PALAHA . . . . .	1,659	645	-	-	13,389	4,034
BIGEYE AND BLUEFIN . . . . .	AHI . . . . .	211,706	100,260	-	-	735,719	401,171
LITTLE . . . . .	KAWAKAWA . . . . .	427	52	490	158	43,262	5,510
SKIPJACK . . . . .	AKU . . . . .	901,311	100,341	54	17	6,167,800	873,996
YELLOWFIN . . . . .	AHI . . . . .	97,985	32,656	-	-	260,844	114,427
TOTAL TUNA . . . . .		1,213,088	233,954	544	175	7,221,014	1,399,138
<b>WAHOO . . . . .</b>							
UNCLASSIFIED . . . . .	ONO . . . . .	10,839	1,585	157	8	10,868	1,684
		5,705	1,872	20	5	17,599	5,633
TOTAL FISH . . . . .		1,632,177	364,434	9,779	5,227	8,602,536	1,979,773
<b>SHELLFISH, ETC.</b>							
<b>CRABS:</b>							
	KONA . . . . .	3,166	1,768	-	-	8,013	5,412
	KUAHONU . . . . .	-	-	-	-	2,184	1,372
	MOALA . . . . .	-	-	-	-	798	254
	PAPA I . . . . .	27	10	-	-	1,368	381
	SAMOAN . . . . .	-	-	-	-	3	3
LIMPET . . . . .	OPIHI . . . . .	2,155	4,427	230	626	-	-
<b>LOBSTERS:</b>							
SLIPPER . . . . .	ULAPAPAPA . . . . .	-	-	-	-	32	24
SPINY . . . . .	ULA . . . . .	74	44	-	-	8,173	6,368

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## HAWAII FISHERIES

## HAWAII - CATCH BY ISLANDS, 1963 - Continued

SPECIES		HAWAII		MOLOKAI		OAHU	
ENGLISH	HAWAIIAN	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
SHELLFISH - CONTINUED							
OCEAN CATCH - CONTINUED:							
OCTOPUS . . . . .	HEE . . . . .	212	\$117	910	\$465	3,213	\$1,607
SEAWEED . . . . .	LIMU . . . . .	-	-	-	-	3,777	755
SHRIMP . . . . .	OPAE . . . . .	-	-	278	1,330	-	-
SQUID . . . . .	MUHEE . . . . .	4,979	1,653	-	-	5	3
TREPANG (SEA CUCUMBER)	. . . . .	-	-	-	-	512	450
TURTLES . . . . .	HONU . . . . .	-	-	-	-	156	15
SEA URCHIN . . . . .	WANA . . . . .	7	2	-	-	-	-
TOTAL SHELLFISH, ETC. . . . .		10,620	8,021	1,418	2,421	28,234	16,644
TOTAL OCEAN CATCH . . . . .		1,642,797	372,455	11,197	7,648	8,630,770	1,996,417
POND CATCH 1/: FISH							
BARRACUDA . . . . .	KAKU . . . . .	-	-	67	20	950	749
BONEFISH . . . . .	OIO . . . . .	-	-	493	182	256	103
CREVALLE, JACK . . . . .	ULUA . . . . .	-	-	133	31	1,712	1,545
GOATFISH . . . . .	WEKE . . . . .	-	-	-	40	6	14
MILKFISH . . . . .	AWA . . . . .	-	-	66	6,041	3,727	780
MOUNTAIN BASS . . . . .	AHOLEHOLE . . . . .	-	-	157	157	2,216	20,026
MULLET . . . . .	AMAAMA . . . . .	-	-	1,783	1,648	21,309	19
RUNNER . . . . .	LA I . . . . .	-	-	29	11	68	23
SURGEON FISH . . . . .	PAJULU . . . . .	-	-	-	88	3,679	1,202
TENPOUNDER . . . . .	AWAAWA . . . . .	-	-	-	-	300	298
THREAFIN . . . . .	MOI . . . . .	359	171	25	12	61	8
UNCLASSIFIED . . . . .	. . . . .	-	-	35	18	-	-
TOTAL FISH . . . . .		369	171	2,788	2,119	37,627	28,494
SHELLFISH, ETC.							
CLAMS, HARD . . . . .	OLEPE . . . . .	-	-	1,185	2,133	-	-
CRABS:							
	KUAHONU . . . . .	-	-	-	-	701	525
	MOALA . . . . .	-	-	-	-	34	12
	PAPA I . . . . .	-	-	-	-	1,641	909
	SAMOAN . . . . .	-	-	-	-	632	475
	HONU . . . . .	-	-	-	-	41	4
TOTAL SHELLFISH . . . . .		-	-	1,185	2,133	3,049	1,525
TOTAL POND CATCH . . . . .		369	171	3,973	4,252	40,676	30,019
GRAND TOTAL . . . . .		1,643,166	372,626	15,170	11,900	8,671,446	2,026,436

SPECIES		KAUAI		MAUI		LANAI	
ENGLISH	HAWAIIAN	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
OCEAN CATCH: FISH							
AMBERJACK . . . . .	KAHALA . . . . .	22,277	\$7,503	3,993	\$758	283	\$117
BARRACUDA . . . . .	KAKU . . . . .	318	110	118	13	215	85
BARRACUDA, JAPANESE . . . . .	KAWELEA . . . . .	83	28	458	131	-	-
BIGEYE SCAD . . . . .	AKULE . . . . .	41,729	26,040	18,594	12,465	526	338
BONEFISH . . . . .	OIO . . . . .	2,476	477	3,092	656	159	38
CREVALLE:							
BLUE . . . . .	OMILU . . . . .	101	91	383	208	-	-
JACK . . . . .	ULUA . . . . .	2,267	756	6,524	3,112	731	407
DAMSELFISH . . . . .	KUUPI . . . . .	-	-	34	21	50	25
DOLPHIN . . . . .	MAHIMAI . . . . .	1,456	404	5,208	1,440	228	74
GOATFISHES:							
	KUMU . . . . .	26	17	563	394	-	-
	MOANO . . . . .	60	30	148	68	-	-
	MOELUA . . . . .	-	-	5,998	3,327	80	52
	WEKE . . . . .	4,360	2,058	1,245	472	-	-
	NEKE-ULA . . . . .	1,434	640	1,013	511	-	-
MACKEREL, JACK . . . . .	OPELU . . . . .	19,580	6,451	77,071	20,032	940	336
MARLIN, STRIPED . . . . .	A'U . . . . .	329	57	-	-	-	-
MILKFISH . . . . .	AWA . . . . .	-	-	1,277	315	-	-
MOUNTAIN BASS . . . . .	AHOLEHOLE . . . . .	852	597	755	515	-	-
MULLET . . . . .	AMAAMA . . . . .	4,585	3,471	248	172	-	-
PARROT FISH . . . . .	UHU . . . . .	43	17	85	27	-	-
RED BIGEYE . . . . .	AWAWEO . . . . .	136	54	386	138	9	4
RUDDERFISH . . . . .	NENU . . . . .	309	143	85	41	-	-
RUNNER . . . . .	LA I . . . . .	109	32	58	15	-	-
SEA BASS, BLACK . . . . .	HAPUUPU . . . . .	1,241	435	2,105	567	110	70

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# HAWAII FISHERIES

399

## HAWAII - CATCH BY ISLANDS, 1963 - Continued

SPECIES		KAUAI		MAUI		LANAI	
ENGLISH	HAWAIIAN	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
FISH - CONTINUED							
OCEAN CATCH - CONTINUED:							
SNAPPER:							
GRAY . . . . .	UKU . . . . .	6,635	\$3,003	4,230	\$1,998	773	\$482
PINK . . . . .	KALIKALI . . . . .	203	78	93	35	-	-
PINK . . . . .	OPAKAPAKA . . . . .	312	103	41,499	18,279	262	129
RED . . . . .	ULAULA . . . . .	1,021	493	1,524	891	106	69
RED . . . . .	ULAULA KOAE . . . . .	-	-	2,490	1,410	31	20
SPOT . . . . .	A'AWA . . . . .	-	-	73	15	-	-
SQUIRREL FISH . . . . .	UU . . . . .	1,600	901	484	299	214	111
SURGEON FISH:							
	KALA . . . . .	526	114	99	19	-	-
	PALANI . . . . .	-	-	132	29	16	2
	PUALU . . . . .	-	-	13	6	-	-
TANG, CONVICT . . . . .	MANINI . . . . .	892	450	185	108	80	40
TENPOUNDER . . . . .	AWAAWA . . . . .	-	-	7	2	-	-
THREADFIN . . . . .	MOI . . . . .	3,135	2,267	933	593	-	-
TRIGGERFISH . . . . .	HUMUHUMU . . . . .	28	7	-	-	-	-
TUNA:							
BIGEYE AND BLUEFIN . . . . .	AHI . . . . .	800	285	28	10	-	-
LITTLE . . . . .	KAWAKAWA . . . . .	5,270	944	7,452	987	3,318	698
SKIPJACK . . . . .	AKU . . . . .	7,974	1,722	1,015,194	111,828	7,008	1,916
YELLOWFIN . . . . .	AHI . . . . .	22,042	5,708	3,987	394	-	-
TOTAL TUNA . . . . .		36,086	8,659	1,026,661	113,219	10,326	2,614
WAHOO . . . . .	ONO . . . . .	6,277	1,491	1,325	358	367	147
UNCLASSIFIED . . . . .		893	290	3,147	1,181	94	50
TOTAL FISH . . . . .		161,381	67,268	1,212,306	183,840	15,600	5,210
SHELLFISH, ETC.							
CRABS:							
	KONA . . . . .	5,836	2,992	850	388	-	-
	KUAHONU . . . . .	7	5	96	48	-	-
	PAPA I . . . . .	-	-	27	14	-	-
	SAMDAN . . . . .	170	111	-	-	-	-
LIMPET . . . . .	OPIHI . . . . .	296	930	1,329	2,772	-	-
LOBSTERS, SPIRY . . . . .	ULA . . . . .	1,284	976	731	446	-	-
OCTOPUS . . . . .	HEE . . . . .	1,860	1,296	1,445	763	9	4
SEAWEED . . . . .	LIMU . . . . .	961	974	-	-	-	-
SHRIMP . . . . .	OPAE . . . . .	-	-	214	129	-	-
SQUID . . . . .	MUHEE . . . . .	252	145	-	-	-	-
TURTLES . . . . .	HONU . . . . .	-	-	224	60	-	-
TOTAL SHELLFISH . . . . .		10,676	7,429	4,916	4,620	9	4
TOTAL OCEAN CATCH . . . . .		172,057	74,697	1,217,222	188,460	15,609	5,214
GRAND TOTAL . . . . .		172,057	74,697	1,217,222	188,460	15,609	5,214

1/ SALT-WATER.

NOTE:--THE WEIGHT OF MEATS FOR MOLLUSKS IS BASED ON A YIELD OF 25 PERCENT FOR HARD CLAMS AND 20 PERCENT FOR LIMPETS.



## HAWAII FISHERIES

## HAWAII - CATCH BY GEAR, 1963

SPECIES		HAUL SEINES		BAG NETS	
	HAWAIIAN	POUNDS	VALUE	POUNDS	VALUE
ENGLISH					
BARRACUDA, JAPANESE . . .	KAWELEA . . . . .	270	\$87	-	-
BIGEYE SCAD . . . . .	AKULE . . . . .	-	-	83,169	\$56,291
BONEFISH . . . . .	OIO . . . . .	670	221	7,147	1,617
CREVALLE, JACK . . . . .	ULUA . . . . .	19	10	-	-
DAMSELFISH . . . . .	KUPIPI . . . . .	1,689	695	-	-
GOATFISHES:					
	KUMU . . . . .	645	901	-	-
	MOANO . . . . .	3	2	-	-
	WEKE . . . . .	17,690	7,067	1,796	700
	WEKE-ULA . . . . .	6	5	-	-
MILKFISH . . . . .	AWA . . . . .	4	2	1,105	314
MOUNTAIN BASS . . . . .	AHOLEHOLE . . . . .	57	49	453	317
MULLET . . . . .	AMAAMA . . . . .	12	10	-	-
ORANGE SPOT . . . . .	NAENAE . . . . .	656	26	-	-
PARROT FISH . . . . .	UHU . . . . .	871	193	-	-
RED BIGEYE . . . . .	AWEOEWO . . . . .	2	1	-	-
RUDDERFISH . . . . .	NENUE . . . . .	588	201	230	94
SPOT . . . . .	A'AWA . . . . .	4	1	-	-
SQUIRRELFISH . . . . .	UU . . . . .	70	55	-	-
SURGEON FISH:					
	KALA . . . . .	4,462	627	1,700	223
	HAIKO . . . . .	530	32	-	-
	PALANI . . . . .	776	153	-	-
	PUALU . . . . .	5,331	1,034	630	86
TANG, CONVICT . . . . .	MANINI . . . . .	662	348	-	-
TENPOUNDER . . . . .	AWAAWA . . . . .	-	-	116	30
THREADFIN . . . . .	MOI . . . . .	1,418	1,253	5,332	4,199
TRIGGERFISH . . . . .	HUMUHUMU . . . . .	23	10	-	-
UNCLASSIFIED . . . . .	ULA . . . . .	76	43	25	11
LOBSTERS . . . . .	HEE . . . . .	4	3	-	-
OCTOPUS . . . . .		6	6	-	-
TOTAL . . . . .		36,726	13,065	101,705	63,882

SPECIES	HAWAIIAN	POTS AND TRAPS		GILL NETS, ANCHOR, SET OR STAKE		LINES	
		POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ENGLISH							
AMBERJACK . . . . .	KAHALA . . . . .	994	\$316	-	-	4,238	\$970
BARRACUDA . . . . .	KAKU . . . . .	14	6	80	\$61	248	86
BARRACUDA, JAPANESE . . . . .	KAWELEA . . . . .	-	-	79	32	6,276	2,456
BIGEYE SCAD . . . . .	AKULE . . . . .	-	-	2,426	1,016	63,608	53,757
BONEFISH . . . . .	OIO . . . . .	22	19	649	197	9,625	2,245
CREVALLE:							
BLUE . . . . .	OMILU . . . . .	2,017	1,211	112	97	2,220	1,466
JACK . . . . .	ULUA . . . . .	5,485	2,759	616	530	11,924	5,341
DAMSELFISH . . . . .	KUPIPI . . . . .	1,240	326	483	211	347	170
DOLPHIN . . . . .	MAHIMAHU . . . . .	44	27	-	-	36,067	12,954
EELS:							
CONGER . . . . .	PUHI . . . . .	3,351	423	52	7	66	24
MORAY . . . . .	PUHI . . . . .	2,547	143	-	-	45	11
GOATFISHES:							
	KUMU . . . . .	7,756	7,998	894	662	1,633	1,056
	MALU . . . . .	1,886	1,153	-	-	48	26
	MOANO . . . . .	10,568	6,398	44	14	3,037	1,692
	MOELUA . . . . .	-	-	-	-	1,110	624
	WEKE . . . . .	26,724	10,919	9,811	4,181	4,546	2,650
	WEKE-ULA . . . . .	2,910	1,742	-	-	5,548	3,141
MACKEREL, JACK . . . . .	OPELU . . . . .	-	-	-	-	212,612	79,851
MARLIN:							
BLACK . . . . .	A'U . . . . .	-	-	-	-	160	74
SAILFISH . . . . .	A'U LEPE . . . . .	-	-	-	-	65	13
STRIPED . . . . .	A'U . . . . .	-	-	-	-	1,303	322
MILKFISH . . . . .	AWA . . . . .	-	-	3,917	1,516	1,040	344
MOUNTAIN BASS . . . . .	AHOLEHOLE . . . . .	3	1	1,055	722	185	174
MULLET . . . . .	AMAAMA . . . . .	364	216	15,751	12,097	48	24
PARROT FISH . . . . .	UHU . . . . .	794	305	104	38	285	136
RED BIGEYE . . . . .	AWEOEWO . . . . .	127	48	337	127	1,799	766
RUDDERFISH . . . . .	NENUE . . . . .	65	28	259	96	387	157
RUNNER . . . . .	LAI . . . . .	-	-	205	51	88	31
SARDINE . . . . .	MIKI'AWA . . . . .	-	-	-	-	364	159
SEA BASS, BLACK . . . . .	HAPUUPUU . . . . .	-	-	-	-	427	194
SNAPPER:							
GRAY . . . . .	UKU . . . . .	663	375	11	2	7,443	3,165
PINK . . . . .	KALIKALI . . . . .	54	19	-	-	733	346
RED . . . . .	OPAKAPAKA . . . . .	651	335	-	-	5,677	2,616
	ULAULA . . . . .	-	-	-	-	2,054	1,181
	ULAULA KDAE . . . . .	-	-	-	-	1,030	614
SPOT . . . . .	A'AWA . . . . .	107	18	25	7	1,823	291
SQUIRRELFISH . . . . .	UU . . . . .	2,371	1,882	656	329	12,399	6,800

(CONTINUED ON NEXT PAGE)

# HAWAII FISHERIES

401

## HAWAII - CATCH BY GEAR, 1963 - Continued

ENGLISH	HAWAIIAN	POTS AND TRAPS		GILL NETS, ANCHOR, SET OR STAKE		LINES	
		POUNDS	VALUE	POUNDS	VALUE	POLE & LINE (AND HAND)	VALUE
SURGEONFISH:							
	KALA . . . . .	17,600	\$963	5,314	\$803	8	\$1
	MAIKO . . . . .	4	1	57	25	-	-
	PALANI . . . . .	3,211	746	36	9	126	13
	PUALU . . . . .	3,041	645	55	10	109	19
TANG:							
CONVICT . . . . .	MANINI . . . . .	2,623	991	767	461	10	8
ORANGE SPOT . . . . .	NAENAE . . . . .	357	49	-	-	-	-
TENPOUNDER . . . . .	AWAANA . . . . .	-	-	233	39	2,446	737
THREADFIN . . . . .	MOI . . . . .	2	1	3,960	2,797	378	375
TRIGGERFISH . . . . .	HUMUHUMU . . . . .	484	153	9	2	725	153
TUNA:							
BIGEYE AND BLUEFIN . . . . .	AHI . . . . .	-	-	-	-	8,059	2,751
LITTLE . . . . .	KAWAKAWA . . . . .	-	-	-	-	42,155	4,952
SKIPJACK . . . . .	AKU . . . . .	-	-	-	-	5,087,300	1,086,971
YELLOWFIN . . . . .	AHI . . . . .	-	-	-	-	64,416	8,893
WAHOO . . . . .	ONO . . . . .	-	-	-	-	953	133
UNCLASSIFIED CRABS:		2,414	924	2,859	1,205	9,316	2,485
LOBSTERS:							
SLIPPER . . . . .	KUAHONU . . . . .	1,930	1,264	44	8	-	-
	MOALA . . . . .	679	201	-	-	-	-
	PAPA I . . . . .	-	-	15	6	-	-
LOBSTERS:							
SLIPPER . . . . .	ULAPAPAPA . . . . .	28	21	-	-	4	3
SPINY . . . . .	ULA . . . . .	4,543	3,488	5,573	4,246	6	5
OCTOPUS . . . . .	HEE . . . . .	1,702	904	128	61	435	21
SQUID . . . . .	MUHEE . . . . .	5	3	-	-	5,165	1,771
TURTLE . . . . .	HONU . . . . .	47	5	155	32	-	-
TOTAL . . . . .		109,827	47,056	56,996	31,719	8,624,539	1,297,418

ENGLISH	HAWAIIAN	LINES - CONTINUED					
		TROLL		LONG OR SET WITH HOOKS		LIFT NETS	
		POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
AMBERJACK . . . . .	KAHALA . . . . .	-	-	100,391	\$27,863	-	-
BARRACUDA . . . . .	KAKU . . . . .	165	\$11	1,735	420	-	-
BARRACUDA, JAPANESE . . . . .	KAWELEA . . . . .	-	-	1,678	312	-	-
BIGEYE SCAD . . . . .	AKULE . . . . .	-	-	1,185	961	-	-
BONEFISH . . . . .	OIO . . . . .	-	-	2,108	795	-	-
CREVALLE:							
BLUE . . . . .	OMILU . . . . .	-	-	5,112	2,696	-	-
JACK . . . . .	ULUA . . . . .	541	234	66,141	23,589	1,704	\$1,036
DOLPHIN . . . . .	MAHIMAH I . . . . .	6,060	856	83,022	38,165	-	-
EELS, MORAY . . . . .	PUHI . . . . .	-	-	14	8	-	-
GOATFISHES:							
	KUMU . . . . .	-	-	241	301	-	-
	MOANO . . . . .	-	-	99	80	-	-
	MOELUA . . . . .	-	-	4,910	2,726	54	27
	WEKE . . . . .	-	-	382	168	-	-
	WEKE-ULA . . . . .	-	-	5,717	3,790	-	-
	OPELU . . . . .	-	-	1,905	810	166,564	48,706
MACKEREL, JACK							
MARLIN:							
BLACK . . . . .	A'IU . . . . .	21,429	2,426	168,741	53,659	-	-
SAILFISH . . . . .	A'IU LEPE . . . . .	-	-	5,800	920	-	-
SILVER . . . . .	A'IU . . . . .	-	-	1,369	550	-	-
STRIPED . . . . .	A'IU . . . . .	611	88	332,496	97,233	-	-
MILKFISH . . . . .	AWA . . . . .	-	-	6	2	-	-
PARROT FISH . . . . .	UHU . . . . .	-	-	57	29	-	-
RED BIGEYE . . . . .	AWEOEWO . . . . .	-	-	196	93	-	-
RUDDERFISH . . . . .	NENUE . . . . .	-	-	2	1	-	-
SARDINE . . . . .	MAK IAWA . . . . .	-	-	38	6	-	-
SEA BASS, BLACK	HAPUUPUU . . . . .	-	-	32,291	12,773	-	-
SNAPPER:							
GRAY . . . . .	UKU . . . . .	-	-	56,445	24,266	-	-
PINK . . . . .	KALIKALI . . . . .	-	-	23,515	11,387	-	-
PINK . . . . .	OPAKAPAKA . . . . .	-	-	114,390	54,296	-	-
RED . . . . .	ULAULA . . . . .	-	-	26,012	20,057	-	-
RED . . . . .	ULAULA KOAE . . . . .	-	-	52,889	49,011	-	-
SPOT . . . . .	A'AWA . . . . .	-	-	312	46	-	-
SQUIRELFISH	UU . . . . .	-	-	309	230	-	-
SURGEON FISH:							
	KALA . . . . .	-	-	64	9	149	39
	PALANI . . . . .	-	-	103	15	-	-
	PUALU . . . . .	-	-	480	117	-	-
	A'IU . . . . .	-	-	21,680	3,879	-	-
	MOI . . . . .	-	-	7	2	-	-
TUNA:							
ALBACORE . . . . .	AHI-PALAHA . . . . .	-	-	15,048	4,679	-	-
BIGEYE AND BLUEFIN . . . . .	AHI . . . . .	724	203	939,440	498,772	-	-
LITTLE . . . . .	KAWAKAWA . . . . .	6,807	1,129	11,257	2,266	-	-
SKIPJACK . . . . .	AKU . . . . .	8,480	1,915	3,561	934	-	-
YELLOWFIN . . . . .	AHI . . . . .	20,896	4,795	299,546	139,497	-	-

(CONTINUED ON NEXT PAGE)

## HAWAII FISHERIES

## HAWAII - CATCH BY GEAR, 1963 - Continued

SPECIES		LINES - CONTINUED				LIFT NETS	
		TROLL		LONG OR SET WITH HOOKS			
ENGLISH	HAWAIIAN	POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
WAHOO . . . . .	ONO . . . . .	3,765	\$458	25,115	\$4,862	-	-
UNCLASSIFIED		639	65	11,367	3,651	-	-
CRABS:	KONA . . . . .	-	-	-	-	17,865	\$10,560
	KUAHONU . . . . .	-	-	-	-	236	123
	MOALA . . . . .	-	-	-	-	119	53
	PAPAI . . . . .	-	-	-	-	1,218	345
	SAMOAN . . . . .	-	-	-	-	173	114
OCTOPUS . . . . .	HEE . . . . .	-	-	29	15	-	-
TOTAL . . . . .		70,140	12,180	2,416,407	1,086,035	206,084	61,003

SPECIES		CAST NETS		SPEARS		BY HAND	
		POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ENGLISH	HAWAIIAN						
CREVALLE, JACK	ULUA . . . . .	10	\$5	-	-	-	-
GOATFISH	WEKE . . . . .	155	87	-	-	-	-
MOUNTAIN BASS	AHOLEHOLE . . . . .	148	86	-	-	-	-
MULLET	AMAAMA . . . . .	122	56	-	-	-	-
RUDDERFISH	NENUJE . . . . .	-	-	3	\$2	-	-
SURGEON FISH	PALANI . . . . .	-	-	10	4	-	-
TANG, CONVICT	MANINI . . . . .	1,402	699	-	-	-	-
THREADFIN	MOI . . . . .	420	351	-	-	-	-
UNCLASSIFIED		86	49	-	-	-	-
LIMPET	OPIHI . . . . .	-	-	-	-	4,010	\$8,755
LOBSTERS, SPINY	ULA . . . . .	-	-	-	-	136	92
OCTOPUS	HEE . . . . .	-	-	5,215	3,161	-	-
TREPANG (SEA CUCUMBER)		5	4	-	-	-	-
SEAWEED	LIMU . . . . .	-	-	-	-	4,738	1,729
TOTAL . . . . .		2,348	1,337	5,228	3,167	8,884	10,576

SPECIES		NETS, UNCLASSIFIED		OTHER GEAR		VARIOUS GEAR, FISH POND	
		POUNDS	VALUE	POUNDS	VALUE	POUNDS	VALUE
ENGLISH	HAWAIIAN						
BARRACUDA	KAKU . . . . .	-	-	-	-	1,017	\$769
BARRACUDA, JAPANESE	KAWALEA . . . . .	67	\$32	-	-	-	-
BIGEYE SCAD	AKULE . . . . .	275	157	-	-	-	-
BONEFISH	OIO . . . . .	4,862	1,407	-	-	749	285
CREVALLE, JACK	ULUA . . . . .	566	358	-	-	1,845	1,576
DAMSELFISH	KUPIPI . . . . .	132	51	-	-	-	-
EELS, CONGER	PUHI . . . . .	32	6	-	-	-	-
GOATFISHES:							
	KUMU . . . . .	92	60	-	-	-	-
	MOANO . . . . .	37	22	-	-	-	-
	MOILUA . . . . .	8	4	-	-	-	-
	WEKE . . . . .	19,638	7,540	-	-	47	14
MACKEREL, JACK	OPELU . . . . .	55	14	-	-	-	-
MILKFISH	AWA . . . . .	832	420	-	-	7,007	3,767
MOUNTAIN BASS	AHOLEHOLE . . . . .	45	30	-	-	2,373	937
MULLET	AMAAMA . . . . .	86	71	-	-	23,092	21,674
PARROT FISH	UHU . . . . .	93	35	-	-	-	-
RUDDERFISH	NENUJE . . . . .	790	431	-	-	-	-
RUNNER	LAI . . . . .	-	-	-	-	97	30
SNAPPER:							
	GRAY . . . . .	267	91	-	-	-	-
	PINK . . . . .	23	15	-	-	-	-
	SQUIRRELFISH	11	10	-	-	-	-
SURGEON FISH:							
	KALA . . . . .	9,942	1,003	-	-	-	-
	MAIKO . . . . .	38	20	-	-	-	-
	PALANI . . . . .	44	16	-	-	-	-
	PUALU . . . . .	5,233	1,274	-	-	88	23
	MANINI . . . . .	946	456	-	-	-	-
	AWAAWA . . . . .	1,538	409	-	-	3,679	1,202
	MOI . . . . .	778	601	-	-	694	481
	HEE . . . . .	674	598	-	-	96	26
	OLEPE . . . . .	-	-	-	-	1,165	2,133
CLAMS, HARD							
CRABS:							
	KUAHONU . . . . .	-	-	75	\$30	701	525
	MOALA . . . . .	-	-	-	-	34	12
	PAPAI . . . . .	12	4	177	50	1,641	509
	SAMOAN . . . . .	-	-	-	-	632	475
OCTOPUS	HEE . . . . .	133	63	1	1	-	-
SEA URCHIN	WANA . . . . .	-	-	7	2	-	-
SHRIMP	OPAE . . . . .	492	1,459	-	-	-	-
SQUID	MUHEE . . . . .	-	-	76	27	-	-
TREPANG (SEA CUCUMBER)		336	308	171	138	-	-
TURTLE	HONU . . . . .	-	-	178	38	41	4
TOTAL . . . . .		48,079	17,167	685	286	45,018	34,442

NOTE:--THE WEIGHT OF MEATS FOR MOLLUSKS IS BASED ON A YIELD OF 25 PERCENT FOR HARD CLAMS AND 20 PERCENT FOR LIMPETS.

# SECTION 11 - PUERTO RICO FISHERIES

The catch for Puerto Rico has not been shown previously in Fishery Statistics of the United States, and is not included in any of the U.S. catch tables.

The catch in 1963 totaled 46.3 million pounds valued at nearly \$5.7 million to fishermen. This consisted of tuna landings of 37.0 million pounds (\$3.7 million) and the other fisheries catch of 9.3 million pounds (nearly \$2.0 million). The following tables present available data on annual landings for the period 1953-63. The catch by local fishermen was reported by the Food and Agriculture Organization of the United Nations. Landings of tuna were obtained by the Bureau.

The catch by local fishermen, consisting principally of marine fish, increased from 5.3 million pounds in 1953 to about 9.3 million pounds in 1963. Fishermen utilized various gear, consisting principally of gill nets, haul seines, hooks (hand, troll and long or set lines), cast nets, fish pots, and weirs.

The tuna fisheries got underway with the establishment of a cannery in 1953. An additional cannery began operations in 1960 and by 1963, 4 plants were in operation. Tuna landings increased from nearly 2.7 million pounds in 1953 to 37.0 million pounds in 1963. Until 1962, the catch was taken entirely from the Pacific Ocean. The total U.S. catch of tuna landed in Puerto Rico in 1962 and 1963 included significant quantities from the Atlantic Ocean, 9 percent and 13 percent, respectively.

## PUERTO RICO CATCH, 1953-63

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

YEAR	TUNA							
	BLUEFIN		SKIPJACK		YELLOWFIN		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
1953	-	-	(1)	(1)	(1)	(1)	2,704	(1)
1954	-	-	(1)	(1)	(1)	(1)	6,368	(1)
1955	-	-	(1)	(1)	(1)	(1)	9,549	(1)
1956	-	-	(1)	(1)	(1)	(1)	12,000	(1)
1957	-	-	(1)	(1)	(1)	(1)	18,393	(1)
1958	-	-	(1)	(1)	(1)	(1)	16,652	(1)
1959	-	-	(1)	(1)	(1)	(1)	22,090	(1)
1960	-	-	5,692	(1)	15,216	(1)	20,910	(1)
1961	-	-	10,392	(1)	20,633	(1)	31,025	(1)
1962	1,676	(1)	20,066	(1)	7,028	(1)	28,790	(1)
1963 3/	2,494	254	30,454	2,966	4,076	500	37,026	3,720

YEAR	FRESH-WATER FISH		UNCLASSIFIED FISH		CRUSTACEANS		MOLLUSKS	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
	1953	441	(1)	4,409	(1)	441	(1)	(2)
1954	441	(1)	4,630	(1)	441	(1)	(2)	(1)
1955	441	(1)	4,630	(1)	661	(1)	(2)	(1)
1956	441	(1)	4,850	(1)	661	(1)	(2)	(1)
1957	441	(1)	4,850	(1)	661	(1)	(2)	(1)
1958	441	(1)	5,071	(1)	661	(1)	(2)	(1)
1959	441	(1)	5,291	(1)	661	(1)	(2)	(1)
1960	441	(1)	5,512	(1)	651	(1)	(2)	(1)
1961	441	(1)	5,952	(1)	661	(1)	(2)	(1)
1962	441	(1)	6,614	(1)	661	(1)	(2)	(1)
1963 3/	441	68	7,496	1,357	1,102	431	(2)	-

SEE FOOTNOTES AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# PUERTO RICO FISHERIES

## PUERTO RICO CATCH, 1953-63 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

YEAR	OTHER		TOTAL		GRAND TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
1953. . . . .	(2)	(1)	5,291	(1)	7,995	(1)
1954. . . . .	(2)	(1)	5,512	(1)	11,900	(1)
1955. . . . .	(2)	(1)	5,732	(1)	15,261	(1)
1956. . . . .	(2)	(1)	5,952	(1)	17,952	(1)
1957. . . . .	(2)	(1)	5,952	(1)	24,345	(1)
1958. . . . .	(2)	(1)	6,173	(1)	22,825	(1)
1959. . . . .	(2)	(1)	6,393	(1)	28,463	(1)
1960. . . . .	220	(1)	6,834	(1)	27,744	(1)
1961. . . . .	220	(1)	7,274	(1)	38,324	(1)
1962. . . . .	(2)	(1)	7,716	(1)	36,506	(1)
1963 <sup>3/</sup> . . . . .	220	66	9,259	1,942	46,285	5,662

1/ NOT AVAILABLE.

2/ LESS THAN 110,000 POUNDS OR NEGLIGIBLE.

3/ THERE WAS AN ADDITIONAL U.S. CATCH OF BLUEFIN (640,000 POUNDS) AND SKIPJACK (596,000 POUNDS) LANDED AT U.S. ATLANTIC COAST PORTS AND TRANSHIPPED TO PUERTO RICO.

NOTE:--DATA FROM YEARBOOK OF FISHERY STATISTICS (VARIOUS YEARS), FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS. DATA PUBLISHED IN METRIC TONS -- CONVERTED TO POUNDS BY MULTIPLYING BY 2,204.6.



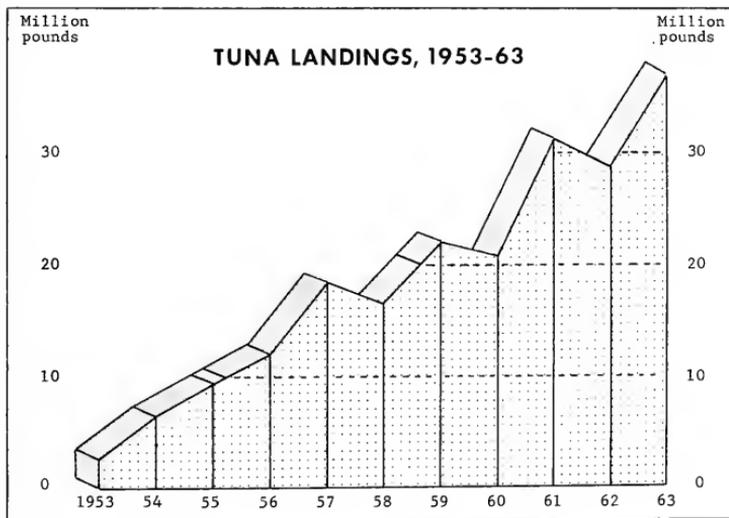
## PUERTO RICO U. S. TUNA CATCH BY ATLANTIC AND PACIFIC OCEANS, 1953-63

(THOUSANDS OF POUNDS)

YEAR	BLUEFIN	SKIPJACK		YELLOWFIN	TOTAL		GRAND TOTAL
	ATLANTIC	ATLANTIC	PACIFIC	PACIFIC	ATLANTIC	PACIFIC	
	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	
1953. . . . .	-	-	(1)	(1)	-	2,704	2,704
1954. . . . .	-	-	(1)	(1)	-	6,388	6,388
1955. . . . .	-	-	(1)	(1)	-	9,549	9,549
1956. . . . .	-	-	(1)	(1)	-	12,000	12,000
1957. . . . .	-	-	(1)	(1)	-	18,393	18,393
1958. . . . .	-	-	(1)	(1)	-	16,652	16,652
1959. . . . .	-	-	(1)	(1)	-	22,090	22,090
1960. . . . .	-	-	5,692	15,218	-	20,910	20,910
1961. . . . .	-	-	10,392	20,658	-	31,050	31,050
1962. . . . .	1,676	936	19,130	7,028	2,612	26,178	26,790
1963 <sup>2/</sup> . . . . .	2,494	2,326	26,128	4,078	4,620	32,206	37,026

1/ NOT AVAILABLE.

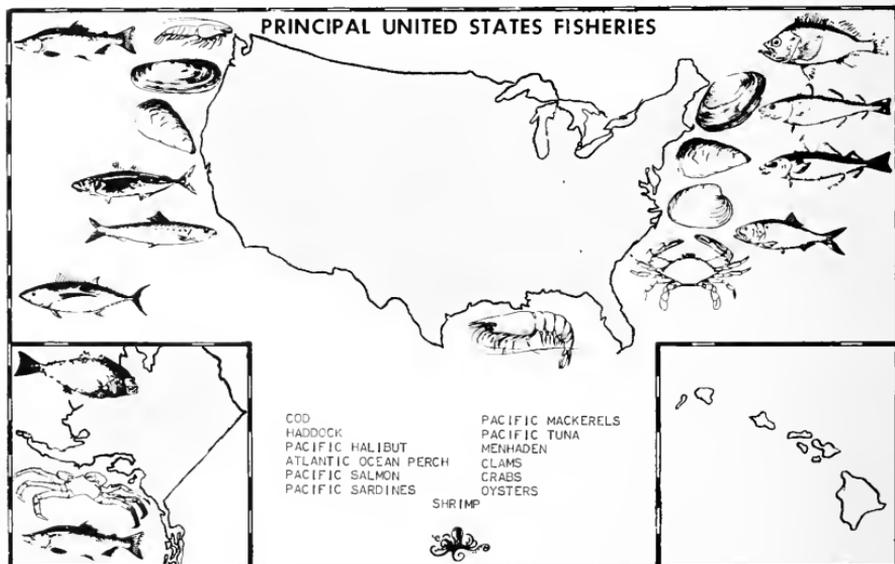
2/ THERE WAS AN ADDITIONAL CATCH OF BLUEFIN (640,000 POUNDS) AND SKIPJACK (596,000 POUNDS) LANDED AT U.S. ATLANTIC COAST PORTS AND TRANSHIPPED TO PUERTO RICO.



## SECTION 12

## REVIEW OF CERTAIN MAJOR FISHERIES

There are presented in this Section of the Digest complete data on the catch of certain major species of fish and shellfish taken on a commercial scale in the United States. Additional information is presented on the operating units engaged in the menhaden purse seine, salmon troll, the shrimp and fish otter trawl, and the tuna fisheries. Although the data on catch are included in the detailed catch tables of the various States, they have been repeated in individual fishery tables in this portion of the report to provide readers with a single source of catch data for cod, haddock, halibut, Pacific mackerel, jack mackerel, menhaden, Atlantic ocean perch, Pacific sardines, salmon, tuna, oysters, clams, crabs, and shrimp. Most of the above species are taken by several types of fishing gear. Because of this, the casual reader of the Digest often experiences difficulty in locating complete data on the catch of the species in individual State catch tables. The information contained in this Section includes the volume and value of the catch by individual types of gear and by States and districts.



## U. S. COD FISHERY

During 1963, U. S. fishermen landed 48.5 million pounds of cod valued at \$3.5 million--a decrease of 1.5 million pounds but an increase of \$3,000, compared with the previous year.

Otter trawls accounted for 85 percent of the catch; lines, 12 percent; and gill nets, 2 percent. The remaining 1 percent was taken in pound nets, floating traps, pots and traps, and dredges.

Landings at Massachusetts ports (37 million pounds) accounted for 77 percent of the total catch. The State of Washington was second with 6.3 million pounds, followed by Maine, 2 million and New Jersey, 1 million pounds. The remaining catch was landed in eight other Atlantic and Pacific Coast States.

# REVIEW OF CERTAIN MAJOR FISHERIES

407

## SUMMARY OF COD CATCH, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

AREA AND STATE	OTTER TRAWLS		POUND NETS		FLOATING TRAPS	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
NEW ENGLAND:						
MAINE . . . . .	1,122	50	-	-	1	(1)
MASSACHUSETTS . . . . .	32,684	2,344	2	(1)	1	(1)
RHODE ISLAND . . . . .	406	38	-	-	33	3
CONNECTICUT . . . . .	120	11	-	-	-	-
TOTAL . . . . .	34,532	2,443	2	(1)	35	3
MIDDLE ATLANTIC:						
NEW YORK . . . . .	350	55	-	-	-	-
NEW JERSEY . . . . .	126	16	-	-	-	-
TOTAL . . . . .	476	71	-	-	-	-
CHESAPEAKE:						
MARYLAND . . . . .	3	(1)	-	-	-	-
VIRGINIA . . . . .	(1)	(1)	-	-	-	-
TOTAL . . . . .	3	(1)	-	-	-	-
PACIFIC:						
WASHINGTON . . . . .	6,302	347	-	-	-	-
OREGON . . . . .	67	3	-	-	-	-
TOTAL . . . . .	6,369	350	-	-	-	-
GRAND TOTAL . . . . .	41,360	2,864	2	(1)	35	3

AREA AND STATE	POTS AND TRAPS		GILL NETS		LINES	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
NEW ENGLAND:						
MAINE . . . . .	-	-	443	26	84	2
NEW HAMPSHIRE . . . . .	-	-	-	-	45	3
MASSACHUSETTS . . . . .	-	-	690	45	2,145	128
RHODE ISLAND . . . . .	-	-	-	-	70	7
CONNECTICUT . . . . .	-	-	-	-	16	2
TOTAL . . . . .	-	-	1,133	71	2,360	142
MIDDLE ATLANTIC:						
NEW YORK . . . . .	-	-	-	-	26	4
NEW JERSEY . . . . .	(1)	(1)	-	-	2	(1)
TOTAL . . . . .	(1)	(1)	-	-	28	4
GRAND TOTAL . . . . .	(1)	(1)	1,133	71	2,366	146

AREA AND STATE	LINES - CONTINUED		DREDGES		TOTAL	
	LONG OR SET WITH HOOKS		QUANTITY	VALUE	QUANTITY	VALUE
NEW ENGLAND:						
MAINE . . . . .	310	10	-	-	1,960	68
NEW HAMPSHIRE . . . . .	30	2	-	-	75	5
MASSACHUSETTS . . . . .	1,498	123	1	(1)	37,221	2,640
RHODE ISLAND . . . . .	(1)	(1)	-	-	509	48
CONNECTICUT . . . . .	-	-	-	-	136	13
TOTAL . . . . .	1,838	135	1	(1)	39,901	2,794
MIDDLE ATLANTIC:						
NEW YORK . . . . .	506	79	-	-	662	136
NEW JERSEY . . . . .	978	127	-	-	1,105	143
DELAWARE . . . . .	88	11	-	-	86	11
TOTAL . . . . .	1,572	217	-	-	2,076	292
CHESAPEAKE:						
MARYLAND . . . . .	147	15	-	-	150	15
VIRGINIA . . . . .	50	5	-	-	50	5
TOTAL . . . . .	197	20	-	-	200	20
PACIFIC:						
WASHINGTON . . . . .	-	-	-	-	6,302	347
OREGON . . . . .	-	-	-	-	67	3
TOTAL . . . . .	-	-	-	-	6,369	350
GRAND TOTAL . . . . .	3,607	372	1	(1)	48,546	3,456

1/ LESS THAN 500 POUNDS OR \$500.

# REVIEW OF CERTAIN MAJOR FISHERIES

## ATLANTIC COAST HADDOCK FISHERY

The 1963 commercial catch of haddock totaled nearly 124 million pounds valued at \$11.7 million. Compared with the previous year, this was a decrease of 10.3 million pounds, but an increase of \$792,000. The average price paid for haddock increased from 8.1 cents per pound in 1962 to 9.4 cents in 1963.

Haddock landings at Massachusetts ports, which accounted for 98 percent of the catch, totaled 120.9 million pounds--8 percent less than in the previous year. The catch by otter trawls was 98 percent of the landings, while the remaining 2 percent was taken by gill nets, lines, and dredges.

Almost 87 percent of the catch was taken from waters off New England--mainly on Georges South Channel and eastern Massachusetts banks. Waters off Nova Scotia yielded nearly all the remaining 13 percent.



### SUMMARY OF HADDOCK CATCH, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

AREA AND STATE	OTTER TRAWLS		GILL NETS		LINES	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
NEW ENGLAND:						
MAINE . . . . .	2,663	226	54	5	9	1
MASSACHUSETTS . . . . .	118,160	11,168	121	10	550	43
RHODE ISLAND . . . . .	21	2	-	-	-	-
CONNECTICUT . . . . .	3	(1)	-	-	-	-
TOTAL . . . . .	120,847	11,396	175	15	559	44
MIDDLE ATLANTIC:						
NEW YORK . . . . .	68	10	-	-	-	-
NEW JERSEY . . . . .	3	(1)	-	-	-	-
TOTAL . . . . .	91	10	-	-	-	-
GRAND TOTAL . . . . .	120,938	11,406	175	15	559	44

AREA AND STATE	LINES - CONTINUED		DREDGES		TOTAL	
	LONG OR SET WITH HOOKS		QUANTITY	VALUE	QUANTITY	VALUE
NEW ENGLAND:						
MAINE . . . . .	151	13	-	-	2,677	245
NEW HAMPSHIRE . . . . .	40	4	-	-	40	4
MASSACHUSETTS . . . . .	2,109	223	(1)	(1)	120,940	11,444
RHODE ISLAND . . . . .	-	-	-	-	21	2
CONNECTICUT . . . . .	-	-	-	-	3	(1)
TOTAL . . . . .	2,300	240	(1)	(1)	123,681	11,695
MIDDLE ATLANTIC:						
NEW YORK . . . . .	-	-	-	-	68	10
NEW JERSEY . . . . .	-	-	-	-	3	(1)
TOTAL . . . . .	-	-	-	-	91	10
GRAND TOTAL . . . . .	2,300	240	(1)	(1)	123,972	11,705

## PACIFIC COAST HALIBUT FISHERY

Halibut landings by the combined United States and Canadian fleets in 1963 totaled 71.4 million pounds (landed weight)--3.7 million pounds less than the record catch taken the previous year. U. S. fishermen accounted for 34.3 million pounds (48 percent) of the total and received nearly \$7 million for their catch--\$4.7 million less than in 1962. The U. S. halibut fleet operating out of Pacific Coast ports numbered 319 vessels--10 less than in 1962. Canadian fishermen took a record 37.1 million pounds, 2.5 million pounds more than the previous year. Several large, new vessels were added to the Canadian fleet which contributed to the increase.

The catch limit of 28 million pounds set by the International Pacific Halibut Commission for Area 2 was unchanged from 1962. The catch limit for Area 3A, however, was increased to 34 million pounds, and a limit of 11 million pounds was set, for the first time, in Area 3B, North Triangle in the Bering Sea. There was no catch limit imposed in Area 1 and Area 3B outside the North Triangle. In Area 2, the scarcity of halibut soon caused several vessels to change to other fisheries. As a result, the catch was 2.2 million pounds under the established quota (for Area 2) despite extension of the season to November 30 (for a total of 205 days).

Data on the landings of halibut in the following tables represent the dressed weight of fish, i. e., the weight by which the quota is determined. The dressed weight of halibut can be converted to round weight by multiplying by 1.33. Halibut landed in Canada by vessels of U. S. registry is credited to Alaska.

### SUMMARY OF U. S. HALIBUT FLEET OPERATING UNITS, 1963

ITEM	WASHINGTON AND OREGON FLEET	ALASKA FLEET	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER
<b>REGULAR HALIBUT VESSELS:</b>			
NUMBER . . . . .	101	289	319
GROSS TONNAGE . . . . .	4,829	9,084	10,281
CREW . . . . .	568	1,235	1,393
SKATES OF LINES . . . . .	4,214	8,969	9,945
<b>REGULAR HALIBUT BOATS:</b>			
NUMBER . . . . .	-	41	41
CREW . . . . .	-	72	72
SKATES OF LINES . . . . .	-	250	250
<b>BOATS PRIMARILY IN OTHER FISHERIES BUT LANDING SMALL FARES OF HALIBUT 1/2:</b>			
NUMBER . . . . .	-	61	61
CREW . . . . .	-	92	92
SKATES OF LINES . . . . .	-	305	305

1/ DOES NOT INCLUDE TROLLERS OR OTHER BOATS CATCHING HALIBUT INCIDENTAL TO OTHER FISHING OPERATIONS.

NOTE:--U. S. VESSELS LANDING HALIBUT AT PRINCE RUPERT, B. C., HAVE BEEN INCLUDED WITH THOSE LANDING IN ALASKA.

### CATCH BY U. S. HALIBUT FLEET, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	LANDED IN						TOTAL	
	WASHINGTON AND OREGON		BRITISH COLUMBIA		ALASKA		QUANTITY	VALUE
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE		
HALIBUT . . . . .	11,789	2,721	733	150	21,738	4,005	34,260	6,876
SABLEFISH . . . . .	1,675	343	-	-	951	126	2,626	469
LINGCOD . . . . .	23	1	-	-	17	1	40	2
ROCKFISHES . . . . .	67	4	-	-	27	2	94	6
<b>TOTAL . . . . .</b>	<b>13,554</b>	<b>3,069</b>	<b>733</b>	<b>150</b>	<b>22,733</b>	<b>4,134</b>	<b>37,020</b>	<b>7,353</b>

NOTE:--IN ADDITION THERE WERE APPROXIMATELY 30,000 POUNDS OF "NORTHERN" HALIBUT LANDED IN CALIFORNIA. MOST OF THIS CATCH WAS INCLUDED UNDER "CALIFORNIA HALIBUT" AND "UNCLASSIFIED FLOUNDERS". LANDINGS OF HALIBUT LIVERS AND VISCERA DURING 1963 TOTALLED 69,941 POUNDS VALUED AT \$6,584. THE QUANTITIES SHOWN ABOVE REPRESENT DRESSED WEIGHT OF FISH. TO CONVERT TO ROUND WEIGHT, MULTIPLY THE WEIGHT OF HALIBUT BY 1.33 AND OTHER SPECIES BY 1.43.

# REVIEW OF CERTAIN MAJOR FISHERIES

## SUMMARY OF UNITED STATES AND CANADIAN HALIBUT CATCH, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

FLEET CLASSIFICATION	LANDED IN						TOTAL	
	WASHINGTON AND OREGON		BRITISH COLUMBIA		ALASKA		QUANTITY	VALUE
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE		
UNITED STATES FLEET 1/ . .	11,789	2,721	733	150	21,738	4,005	34,260	6,876
BRITISH COLUMBIA FLEET. .	4,292	964	25,810	5,694	7,031	1,273	37,133	7,951
TOTAL . . . . .	16,081	3,705	26,543	5,844	28,769	5,278	71,393	14,827

1/ IN ADDITION THERE WERE APPROXIMATELY 30,000 POUNDS OF "NORTHERN" HALIBUT LANDED IN CALIFORNIA. MOST OF THIS CATCH WAS INCLUDED UNDER "CALIFORNIA HALIBUT" AND "UNCLASSIFIED FLOWNDERS".

NOTE:--HALIBUT STATISTICS IN THESE TABLES WERE COMPILED FROM DATA COLLECTED BY THE INTERNATIONAL PACIFIC HALIBUT COMMISSION. STATISTICS FOR OTHER SPECIES WERE FURNISHED BY THE STATES.



HALIBUT SCHOONER

## ATLANTIC OCEAN PERCH FISHERY

The 1963 catch of Atlantic ocean perch was 108.3 million pounds valued at \$5.1 million--a decline of 15.7 million pounds (13 percent) and \$76,000 (2 percent) compared with 1962.

Maine and Massachusetts otter trawlers accounted for almost the entire catch, while only a negligible amount was taken by longlines. Maine landings of 64 million pounds valued at \$3 million accounted for 59 percent of the volume and 57 percent of the value.

Of the total catch, 51.3 million pounds (47 percent) were taken from the Nova Scotia banks. The Grand Bank was next with 26.7 million pounds (25 percent), followed by the New England coast, 19.6 million pounds (18 percent); and the Gulf of St. Lawrence, 10.7 million pounds (10 percent).

## PACIFIC COAST SALMON FISHERY

The Pacific Coast salmon catch amounted to 294.2 million pounds, valued at \$49 million during 1963. The catch represented 26 percent of the volume and 39 percent of the value of the total Pacific Coast commercial catch. Pink salmon were landed in larger quantity than any other species of salmon, accounting for 156.6 million pounds. A surprising development was the extent to which this species was taken in the troll fishery, accounting for about 3 million pounds more than in any recent year. Of significant importance was the disappointing run of red salmon in Bristol Bay, and the unusually large run of pinks in the Puget Sound District of Washington and the Icy Straits of Alaska. A price disagreement among Canadian fishermen at a time when the sockeye run was in full swing on the Fraser River resulted in the United States fishermen being allotted an additional quantity of fish to prevent overseeding of the spawning grounds. Purse seines, the most important gear used in taking salmon, accounted for 183.5 million pounds (62 percent) of the total catch. Gill nets were next with 73.4 million pounds (25 percent). The remainder was taken by lines, floating traps, reef nets, pound nets, dip nets, haul seines, and fish wheels.



### SUMMARY OF PACIFIC COAST SALMON TROLL LINE OPERATING UNITS, 1963

ITEM	ALASKA	WASHINGTON	OREGON	CALIFORNIA	TOTAL, EXCLUSIVE OF DUPLI- CATION
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>
FISHERMEN:					
ON VESSELS . . . . .	714	868	668	1,652	3,277
ON BOATS AND SHORE . . .	678	579	378	1,437	3,023
TOTAL . . . . .	1,392	1,447	1,046	3,089	6,300
VESSELS, MOTOR:					
5 - 9 TONS . . . . .	168	162	90	119	489
10 - 19 TONS . . . . .	278	309	217	424	1,048
20 - 29 TONS . . . . .	56	90	62	148	274
30 - 39 TONS . . . . .	6	33	9	48	80
40 - 49 TONS . . . . .	4	2	5	13	23
50 - 59 TONS . . . . .	-	1	1	2	4
60 - 69 TONS . . . . .	-	1	1	-	2
70 - 79 TONS . . . . .	-	-	-	1	1
100 - 109 TONS . . . . .	-	-	-	1	1
260 - 269 TONS . . . . .	-	-	-	1	1
TOTAL VESSELS . . . . .	512	598	385	757	1,923
TOTAL GROSS TONNAGE . . . . .	6,711	9,008	5,772	12,870	28,948
BOATS, MOTOR . . . . .	574	485	315	957	2,290
GEAR:					
NUMBER OF LINES . . . . .	4,340	5,783	3,394	9,396	20,661
HOOKS . . . . .	26,100	26,120	15,960	37,584	96,708

## REVIEW OF CERTAIN MAJOR FISHERIES

## SALMON CATCH BY DISTRICT AND GEAR, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

GEAR AND SPECIES	ALASKA			
	SOUTHEASTERN	CENTRAL	WESTERN	TOTAL
	QUANTITY	QUANTITY	QUANTITY	QUANTITY
PURSE SEINES:				
CHINOOK OR KING . . . . .	75	21	(1)	96
CHUM OR KETA . . . . .	9,912	15,229	312	25,453
PINK . . . . .	66,036	53,166	312	119,516
RED OR SOCKEYE . . . . .	2,297	5,064	92	7,473
SILVER OR COHO . . . . .	2,693	935	2	3,630
TOTAL . . . . .	61,015	74,437	718	156,170
FLOATING TRAPS:				
CHUM OR KETA . . . . .	19	-	-	19
PINK . . . . .	363	-	-	363
RED OR SOCKEYE . . . . .	20	-	-	20
SILVER OR COHO . . . . .	15	-	-	15
TOTAL . . . . .	417	-	-	417
GILL NETS, ANCHOR, SET OR STAKE:				
CHINOOK OR KING . . . . .	14	332	2,213	2,559
CHUM OR KETA . . . . .	131	906	1,799	2,838
PINK . . . . .	320	1,390	149	1,859
RED OR SOCKEYE . . . . .	301	3,016	2,588	5,905
SILVER OR COHO . . . . .	1,358	1,067	478	2,923
TOTAL . . . . .	2,124	6,733	7,227	16,084
GILL NETS, DRIFT:				
CHINOOK OR KING . . . . .	98	311	1,739	2,148
CHUM OR KETA . . . . .	2,533	2,629	2,222	7,384
PINK . . . . .	2,861	37	3	2,901
RED OR SOCKEYE . . . . .	1,277	5,651	15,116	22,046
SILVER OR COHO . . . . .	1,064	3,269	352	4,685
TOTAL . . . . .	7,833	11,897	19,434	39,164
LINES, TROLL:				
CHINOOK OR KING . . . . .	4,311	30	-	4,341
CHUM OR KETA . . . . .	54	(1)	-	54
PINK . . . . .	472	4	-	476
RED OR SOCKEYE . . . . .	12	-	-	12
SILVER OR COHO . . . . .	6,174	154	-	6,328
TOTAL . . . . .	11,023	168	-	11,211
WHEELS, CHINOOK OR KING, TOTAL . . . . .	-	-	17	17
GRAND TOTAL . . . . .	102,412	93,255	27,396	223,063

GEAR AND SPECIES	WASHINGTON							
	PUGET SOUND		WASHINGTON COAST		COLUMBIA RIVER		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
HAUL SEINES:								
CHINOOK OR KING . . . . .	47	12	-	-	-	-	47	12
CHUM OR KETA . . . . .	5	1	-	-	-	-	5	1
PINK . . . . .	1,476	177	-	-	-	-	1,476	177
RED OR SOCKEYE . . . . .	(1)	(1)	-	-	-	-	(1)	(1)
SILVER OR COHO . . . . .	29	7	-	-	-	-	29	7
TOTAL . . . . .	1,557	197	-	-	-	-	1,557	197
PURSE SEINES:								
CHINOOK OR KING . . . . .	647	149	-	-	-	-	647	149
CHUM OR KETA . . . . .	1,221	244	-	-	-	-	1,221	244
PINK . . . . .	19,915	2,390	-	-	-	-	19,915	2,390
RED OR SOCKEYE . . . . .	4,916	1,628	-	-	-	-	4,916	1,628
SILVER OR COHO . . . . .	601	147	-	-	-	-	601	147
TOTAL . . . . .	27,302	4,556	-	-	-	-	27,302	4,556

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# REVIEW OF CERTAIN MAJOR FISHERIES

413

## SALMON CATCH BY DISTRICT AND GEAR, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

GEAR AND SPECIES	WASHINGTON							
	PUGET SOUND		WASHINGTON COAST		COLUMBIA RIVER		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
<b>POUND NETS:</b>								
CHINOOK OR KING. . . . .	49	15	-	-	-	-	49	15
CHUM OR KETA . . . . .	2	1	-	-	-	-	2	1
PINK . . . . .	475	57	-	-	-	-	475	57
RED OR SOCKEYE . . . . .	16	6	-	-	-	-	16	6
SILVER OR COHO . . . . .	61	15	-	-	-	-	61	15
TOTAL . . . . .	605	94	-	-	-	-	605	94
<b>GILL NETS:</b>								
CHINOOK OR KING. . . . .	888	263	646	193	1,202	395	2,736	651
CHUM OR KETA . . . . .	1,591	299	246	31	6	1	1,843	331
PINK . . . . .	6,097	732	-	-	-	-	6,097	732
RED OR SOCKEYE . . . . .	2,158	714	341	167	19	6	2,518	887
SILVER OR COHO . . . . .	964	254	343	99	94	23	1,401	376
TOTAL . . . . .	11,698	2,262	1,576	490	1,321	425	14,595	3,177
<b>LINES:</b>								
CHINOOK OR KING. . . . .	1,076	516	1,563	780	212	100	2,851	1,398
CHUM OR KETA . . . . .	1	(1)	(1)	(1)	-	-	1	(1)
PINK . . . . .	1,895	256	1,142	147	1	(1)	3,038	403
RED OR SOCKEYE . . . . .	3	1	-	-	-	-	3	1
SILVER OR COHO . . . . .	1,395	387	1,594	427	992	259	3,981	1,073
TOTAL . . . . .	4,370	1,162	4,299	1,354	1,205	359	9,874	2,875
<b>DIP NETS:</b>								
CHINOOK OR KING. . . . .	-	-	-	-	54	16	54	16
SILVER OR COHO . . . . .	-	-	-	-	(1)	(1)	(1)	(1)
TOTAL . . . . .	-	-	-	-	54	16	54	16
<b>REEF NETS:</b>								
CHINOOK OR KING. . . . .	26	6	-	-	-	-	26	6
CHUM OR KETA . . . . .	11	2	-	-	-	-	11	2
PINK . . . . .	461	55	-	-	-	-	461	55
RED OR SOCKEYE . . . . .	481	160	-	-	-	-	481	160
SILVER OR COHO . . . . .	27	7	-	-	-	-	27	7
TOTAL . . . . .	1,006	230	-	-	-	-	1,006	230
<b>GRAND TOTAL . . . . .</b>	<b>46,538</b>	<b>8,503</b>	<b>5,875</b>	<b>1,844</b>	<b>2,580</b>	<b>800</b>	<b>54,993</b>	<b>11,147</b>

GEAR AND SPECIES	OREGON					
	COLUMBIA RIVER		OREGON COAST		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
<b>GILL NETS:</b>						
CHINOOK OR KING. . . . .	3,145	1,020	-	-	3,145	1,020
CHUM OR KETA . . . . .	9	1	-	-	9	1
RED OR SOCKEYE . . . . .	30	11	-	-	30	11
SILVER OR COHO . . . . .	407	90	-	-	407	90
TOTAL . . . . .	3,591	1,122	-	-	3,591	1,122
<b>LINES:</b>						
CHINOOK OR KING. . . . .	190	88	1,433	606	1,623	694
PINK . . . . .	4	1	20	2	24	3
SILVER OR COHO . . . . .	533	139	2,491	646	3,024	787
TOTAL . . . . .	727	228	3,944	1,256	4,671	1,484
<b>GRAND TOTAL . . . . .</b>	<b>4,318</b>	<b>1,350</b>	<b>3,944</b>	<b>1,256</b>	<b>8,262</b>	<b>2,606</b>

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# REVIEW OF CERTAIN MAJOR FISHERIES

## SALMON CATCH BY DISTRICT AND GEAR, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

GEAR AND SPECIES	CALIFORNIA					
	NORTHERN		SAN FRANCISCO		MONTEREY	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
OTTER TRAWLS, CHINOOK OR KING . . . . .	1	(1)	(1)	(1)	-	-
LINES:						
CHINOOK OR KING . . . . .	2,961	1,406	3,306	1,888	499	285
SILVER OR COHO . . . . .	817	262	167	69	13	5
TOTAL . . . . .	3,778	1,668	3,493	1,957	512	290
GRAND TOTAL . . . . .	3,779	1,668	3,493	1,957	512	290

GEAR AND SPECIES	CALIFORNIA - CONTINUED					
	SANTA BARBARA		SAN PEDRO		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
OTTER TRAWLS, CHINOOK OR KING . . . . .	-	-	-	-	1	(1)
LINES:						
CHINOOK OR KING . . . . .	72	43	1	1	6,899	3,623
SILVER OR COHO . . . . .	2	1	-	-	1,019	337
TOTAL . . . . .	74	44	1	1	7,858	3,960
GRAND TOTAL . . . . .	74	44	1	1	7,859	3,960

1/ LESS THAN 500 POUNDS OR \$500.

NOTE:--IN ALASKA, THE CATCH TAKEN BY HAUL SEINES IS INCLUDED WITH THAT TAKEN BY PURSE SEINES.

## SUMMARY OF SALMON CATCH BY DISTRICTS, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	ALASKA							
	SOUTHEASTERN		CENTRAL		WESTERN		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
CHINOOK OR KING . . . . .	4,498	2,209	694	186	3,969	732	9,161	3,127
CHUM OR KETA . . . . .	12,649	1,175	18,766	1,556	4,333	315	35,748	3,046
PINK . . . . .	70,054	8,277	54,599	6,149	464	46	125,117	14,472
RED OR SOCKEYE . . . . .	3,907	1,074	13,751	3,221	17,799	3,349	35,456	7,644
SILVER OR COHO . . . . .	11,304	2,110	5,445	793	832	106	17,581	3,009
TOTAL . . . . .	102,412	14,845	93,255	11,905	27,396	4,548	223,063	31,298

SPECIES	WASHINGTON							
	PUGET SOUND		WASHINGTON COAST		COLUMBIA RIVER		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
CHINOOK OR KING . . . . .	2,734	963	2,209	973	1,467	511	6,410	2,447
CHUM OR KETA . . . . .	2,831	547	246	31	6	1	3,083	579
PINK . . . . .	30,319	3,666	1,142	148	1	(1)	31,462	3,814
RED OR SOCKEYE . . . . .	7,578	2,508	341	167	19	7	7,938	2,682
SILVER OR COHO . . . . .	3,076	818	1,937	526	1,087	281	6,100	1,625
TOTAL . . . . .	46,538	8,502	5,875	1,845	2,560	800	54,993	11,147

SPECIES	OREGON					
	COLUMBIA RIVER		OREGON COAST		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
CHINOOK OR KING . . . . .	3,335	1,106	1,433	506	4,768	1,714
CHUM OR KETA . . . . .	9	1	-	-	9	1
PINK . . . . .	4	1	20	2	24	3
RED OR SOCKEYE . . . . .	30	11	2,491	648	3,030	11
SILVER OR COHO . . . . .	940	229	-	-	940	877
TOTAL . . . . .	4,318	1,350	3,944	1,256	8,262	2,606

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# REVIEW OF CERTAIN MAJOR FISHERIES

415

## SUMMARY OF SALMON CATCH BY DISTRICTS, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	CALIFORNIA					
	NORTHERN		SAN FRANCISCO		MONTEREY	
	<u>QUANTITY</u>	<u>VALUE</u>	<u>QUANTITY</u>	<u>VALUE</u>	<u>QUANTITY</u>	<u>VALUE</u>
CHINOOK OR KING . . . .	2,962	1,406	3,306	1,668	499	285
SILVER OR COHO . . . .	817	262	187	69	13	5
TOTAL . . . . .	3,779	1,668	3,493	1,957	512	290

SPECIES	CALIFORNIA - CONTINUED					
	SANTA BARBARA		SAN PEDRO		TOTAL	
	<u>QUANTITY</u>	<u>VALUE</u>	<u>QUANTITY</u>	<u>VALUE</u>	<u>QUANTITY</u>	<u>VALUE</u>
CHINOOK OR KING . . . .	72	43	1	1	6,840	3,623
SILVER OR COHO . . . .	2	1	-	-	1,019	337
TOTAL . . . . .	74	44	1	1	7,859	3,960

1/ LESS THAN \$500.

## SUMMARY OF SALMON CATCH BY GEAR, 1963

(THOUSANDS OF POUNDS)

STATE AND DISTRICT	HAUL SEINES	PURSE SEINES	OTTER TRAWLS	POUND NETS	FLOATING TRAPS	GILL NETS
	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>
ALASKA:						
SOUTHEASTERN . . . .	-	81,015	-	-	417	9,957
CENTRAL . . . . .	-	74,437	-	-	-	18,630
WESTERN . . . . .	-	718	-	-	-	26,661
TOTAL . . . . .	-	156,170	-	-	417	55,248
WASHINGTON:						
PUGET SOUND . . . .	1,557	27,302	-	605	-	11,698
WASHINGTON COAST . .	-	-	-	-	-	1,576
COLUMBIA RIVER . . .	-	-	-	-	-	1,321
TOTAL . . . . .	1,557	27,302	-	605	-	14,595
OREGON, COLUMBIA RIVER, TOTAL . . . .	-	-	-	-	-	3,591
CALIFORNIA:						
NORTHERN . . . . .	-	-	1	-	-	-
SAN FRANCISCO . . . .	-	-	(1)	-	-	-
TOTAL . . . . .	-	-	1	-	-	-
GRAND TOTAL . . . . .	1,557	183,472	1	605	417	73,434

STATE AND DISTRICT	LINES	DIP NETS	REEF NETS	FISH WHEELS	TOTAL
	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>
ALASKA:					
SOUTHEASTERN . . . .	11,023	-	-	-	102,412
CENTRAL . . . . .	188	-	-	-	93,255
WESTERN . . . . .	-	-	-	17	27,396
TOTAL . . . . .	11,211	-	-	17	223,063
WASHINGTON:					
PUGET SOUND . . . .	4,370	-	1,006	-	46,538
WASHINGTON COAST . .	4,299	-	-	-	5,875
COLUMBIA RIVER . . .	1,205	54	-	-	2,580
TOTAL . . . . .	9,874	54	1,006	-	54,993

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## REVIEW OF CERTAIN MAJOR FISHERIES

## SUMMARY OF SALMON CATCH BY GEAR, 1963 - Continued

(THOUSANDS OF POUNDS)

STATE AND DISTRICT	LINES	DIP NETS	REEF NETS	FISH WHEELS	TOTAL
	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
OREGON:					
COLUMBIA RIVER . . . .	727	-	-	-	4,318
OREGON COAST . . . . .	3,944	-	-	-	3,944
TOTAL . . . . .	4,671	-	-	-	8,262
CALIFORNIA:					
NORTHERN . . . . .	3,778	-	-	-	3,779
SAN FRANCISCO . . . . .	3,493	-	-	-	3,493
MONTEREY . . . . .	512	-	-	-	512
SANTA BARBARA . . . . .	74	-	-	-	74
SAN PEDRO . . . . .	1	-	-	-	1
TOTAL . . . . .	7,858	-	-	-	7,859
GRAND TOTAL . . . . .	33,614	54	1,006	17	294,177

1/ LESS THAN 500 POUNDS.

## SUMMARY OF SALMON CATCH BY SPECIES, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	QUANTITY	VALUE
CHINOOK OR KING . . . . .	27,179	10,911
CHUM OR KETA . . . . .	38,840	3,626
PINK . . . . .	156,603	16,289
RED OR SOCKEYE . . . . .	43,424	10,337
SILVER OR COHO . . . . .	28,131	5,848
TOTAL . . . . .	294,177	49,011



## PACIFIC COAST SARDINE FISHERY

Landings of sardines at California ports in 1963 totaled over 7 million pounds--8.2 million pounds (54 percent) less than the previous year and the lowest catch since 1915. Few sardines appeared and it seemed possible that the constantly increasing number of anchovies had almost eliminated sardines in the competition for food.

The entire sardine catch was taken with purse seines. The San Pedro district accounted for 75 percent of the landings; Santa Barbara, 19 percent; and Monterey, 6 percent.

The 1963 sardine fishery opened August 1 in central California and September 1 in Southern California. As in 1961 and 1962, the State legislature extended the sardine fishing season 2 months to permit taking sardines in January and February.

# REVIEW OF CERTAIN MAJOR FISHERIES

417

## MACKEREL FISHERIES OF THE PACIFIC COAST

Landings of jack mackerel totaled 95.8 million pounds in 1963--an increase of 5.5 million pounds (6 percent) compared with the previous year, while those of Pacific mackerel amounted to 40.2 million pounds--a decline of 8.3 million pounds (17 percent). The combined mackerel catch (136 million pounds, valued at nearly \$3 million) was about 3 million pounds less than in the previous year; while there was little change in value. As in former years, most of the catch of jack mackerel (91 percent) and Pacific mackerel (94 percent) was landed in the San Pedro district of California. Purse seines and lampara nets were the principal gear used in this fishery. Mackerel were abundant during most of the year, and a much larger catch could have been made had there been a market for the fish.

### SUMMARY OF JACK MACKEREL CATCH, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

STATE AND DISTRICT	PURSE SEINES AND LAMPARA NETS		OTTER TRAWLS		GILL AND TRAMMEL NETS	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
CALIFORNIA:						
SAN FRANCISCO . . . . .	-	-	1	(2)	(2)	(2)
MONTEREY . . . . .	1,649	38	1	(2)	-	-
SANTA BARBARA . . . . .	7,021	129	-	-	-	-
SAN PEDRO . . . . .	86,767	1,822	-	-	-	-
TOTAL . . . . .	95,437	1,989	2	(2)	(2)	(2)
GRAND TOTAL . . . . .	95,437	1,989	2	(2)	(2)	(2)

STATE AND DISTRICT	LINES		DIP, BRAIL OR SCOOP NETS 1/		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
CALIFORNIA:						
SAN FRANCISCO . . . . .	-	-	-	-	1	(2)
MONTEREY . . . . .	-	-	2	(2)	1,652	38
SANTA BARBARA . . . . .	-	-	1	(2)	7,021	129
SAN PEDRO . . . . .	-	-	-	-	86,768	1,822
TOTAL . . . . .	-	-	3	(2)	95,442	1,989
HAWAII . . . . .	214	80	187	49	401	129
GRAND TOTAL . . . . .	214	80	190	49	95,843	2,118

1/ INCLUDES THE CATCH BY LIFT NETS IN HAWAII.

2/ LESS THAN 500 POUNDS OR \$500.

### SUMMARY OF PACIFIC MACKEREL CATCH, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

STATE AND DISTRICT	PURSE SEINES AND LAMPARA NETS		GILL AND TRAMMEL NETS	
	QUANTITY	VALUE	QUANTITY	VALUE
CALIFORNIA:				
MONTEREY . . . . .	(1)	(1)	-	-
SANTA BARBARA . . . . .	2,431	44	-	-
SAN PEDRO . . . . .	36,955	798	10	(1)
SAN DIEGO . . . . .	20	1	-	-
TOTAL . . . . .	39,406	843	10	(1)

STATE AND DISTRICT	LINES		DIP, BRAIL OR SCOOP NETS		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
CALIFORNIA:						
MONTEREY . . . . .	-	-	-	-	(1)	(1)
SANTA BARBARA . . . . .	-	-	-	-	2,431	44
SAN PEDRO . . . . .	11	(1)	812	18	37,788	816
SAN DIEGO . . . . .	-	-	4	(1)	24	1
TOTAL . . . . .	11	(1)	816	18	40,243	861

1/ LESS THAN 500 POUNDS OR \$500.

# REVIEW OF CERTAIN MAJOR FISHERIES

## PACIFIC TUNA FISHERY

The 1963 domestic catch of tuna landed at Pacific Coast and Hawaii ports totaled 306.9 million pounds valued at \$39.2 million--an increase of 2 million pounds (1 percent) but a decline of \$5.4 million (12 percent) compared with the previous year. The reduced value of the 1963 tuna catch resulted principally from ex-vessel price disputes and from a general price decline which followed adverse publicity when a few cans of contaminated tuna were marketed early in the year.

Albacore landings of 60.8 million pounds, second only to the record catch of 1950, were nearly 15 million pounds more than in 1962. This gain, however, was offset by a yellowfin production (110 million pounds) which declined 14.5 million pounds and bluefin landings (31.3 million pounds) which were down 1.1 million pounds. Skipjack landings totaling 104.7 million pounds increased 2.6 million pounds over the previous year.

Conversion of the clipper fleet in California to purse seiners had almost been completed in 1963. Several new large tuna vessels were added to the fleet during the year, but most of these craft landed their catch in Puerto Rico. One of the vessels, the Nautilus, an 811-gross-ton converted military craft, landed 790 tons of tuna at San Pedro, Calif., in the fall of 1963, a record catch for one fishing trip.

### SUMMARY OF PACIFIC COAST TUNA OPERATING UNITS, 1963

ITEM	PURSE SEINERS	LINES, HAND			TOTAL, EXCLUSIVE OF DUPLICATION
		ALBACORE BAIT BOATS	YELLOW-FIN 1/	ALBACORE TROLLERS	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
FISHERMEN:					
ON VESSELS . . . . .	1,547	627	425	2,269	4,269
ON BOATS AND SHORE . . . . .	-	46	30	467	534
TOTAL . . . . .	1,547	675	455	2,776	4,823
VESSELS, MOTOR:					
5 - 9 TONS . . . . .	-	1	1	96	96
10 - 15 TONS . . . . .	-	75	15	461	467
20 - 29 TONS . . . . .	1	46	13	248	267
30 - 39 TONS . . . . .	1	39	10	121	134
40 - 49 TONS . . . . .	1	16	11	44	53
50 - 59 TONS . . . . .	2	5	4	20	27
60 - 69 TONS . . . . .	2	4	3	11	15
70 - 79 TONS . . . . .	3	1	1	5	9
80 - 89 TONS . . . . .	4	2	1	3	9
90 - 99 TONS . . . . .	6	2	3	1	10
100 - 109 TONS . . . . .	2	-	1	1	4
110 - 119 TONS . . . . .	5	-	-	1	6
120 - 129 TONS . . . . .	5	-	-	1	6
130 - 139 TONS . . . . .	3	-	-	1	4
140 - 149 TONS . . . . .	1	-	-	-	1
150 - 159 TONS . . . . .	2	-	-	-	2
160 - 169 TONS . . . . .	2	-	3	-	5
170 - 179 TONS . . . . .	1	-	-	-	1
180 - 189 TONS . . . . .	3	-	1	-	4
190 - 199 TONS . . . . .	5	-	6	-	11
200 - 209 TONS . . . . .	-	-	1	-	1
210 - 219 TONS . . . . .	2	-	-	-	2
220 - 229 TONS . . . . .	1	-	-	-	1
230 - 239 TONS . . . . .	1	-	-	-	1
250 - 259 TONS . . . . .	3	-	-	-	3
260 - 269 TONS . . . . .	3	-	-	-	3
270 - 279 TONS . . . . .	3	-	1	-	4
290 - 299 TONS . . . . .	2	-	-	-	2
300 - 309 TONS . . . . .	1	-	-	-	1
310 - 319 TONS . . . . .	4	-	-	-	4
320 - 329 TONS . . . . .	2	-	-	-	2
330 - 339 TONS . . . . .	2	-	-	-	2
340 - 349 TONS . . . . .	3	-	-	-	3
350 - 359 TONS . . . . .	7	-	-	-	7
360 - 369 TONS . . . . .	4	-	-	-	4
370 - 379 TONS . . . . .	10	-	1	-	10
380 - 389 TONS . . . . .	3	-	-	-	3
390 - 399 TONS . . . . .	2	-	-	-	2

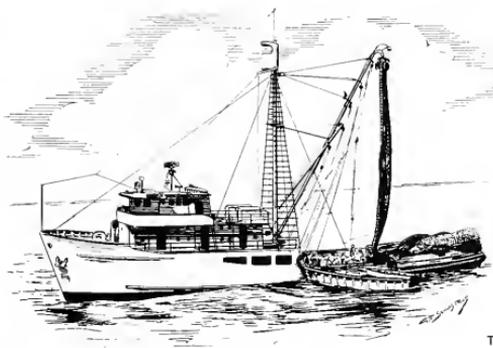
SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

SUMMARY OF PACIFIC COAST TUNA  
OPERATING UNITS, 1963 - Continued

ITEM	PURSE SEINES	LINES, HAND			TOTAL, EXCLUSIVE OF DUPLI- CATION
		ALBACORE BAIT BOATS	YELLOWFIN <sup>1/</sup>	ALBACORE TROLLERS	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
VESSELS, MOTOR (GROSS TONS):					
400 - 409 TONS . . . . .	1	-	-	-	1
410 - 419 TONS . . . . .	2	-	-	-	2
420 - 429 TONS . . . . .	2	-	-	-	2
430 - 439 TONS . . . . .	3	1	1	-	4
440 - 449 TONS . . . . .	4	-	-	-	4
450 - 459 TONS . . . . .	2	-	-	-	2
460 - 469 TONS . . . . .	2	-	-	-	2
470 - 479 TONS . . . . .	3	-	-	-	3
480 - 489 TONS . . . . .	3	-	-	-	3
490 - 499 TONS . . . . .	1	-	-	-	1
500 - 509 TONS . . . . .	1	-	-	-	1
510 - 519 TONS . . . . .	1	-	-	-	1
520 - 529 TONS . . . . .	1	-	-	-	1
530 - 539 TONS . . . . .	1	-	-	-	1
540 - 549 TONS . . . . .	1	-	-	-	1
550 - 559 TONS . . . . .	1	-	-	-	1
TOTAL VESSELS . . . . .	134	192	77	1,014	1,239
TOTAL GROSS TONNAGE . .	36,513	5,638	5,471	22,263	66,204
BOATS, MOTOR . . . . .	246	55	46	312	633
GEAR:					
NUMBER . . . . .	134	648	402	11,734	-
LENGTH, YARDS . . . . .	97,460	-	-	-	-
HOOKS . . . . .	-	648	402	11,734	-

<sup>1/</sup> VESSELS OF 50 TONS OR MORE CAPACITY ARE CONSIDERED CLIPPER CRAFT.



TUNA PURSE SEINER

## REVIEW OF CERTAIN MAJOR FISHERIES

## SUMMARY OF PACIFIC TUNA CATCH, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES, STATE, AND DISTRICT	PURSE SEINES		LINES		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
ALBACORE:						
WASHINGTON:						
PUGET SOUND . . . . .	-	-	36	5	36	5
COASTAL . . . . .	-	-	185	28	185	28
COLUMBIA RIVER . . . . .	-	-	306	52	306	52
TOTAL . . . . .	-	-	527	85	527	85
OREGON:						
COLUMBIA RIVER . . . . .	-	-	8,283	1,306	8,283	1,306
COASTAL . . . . .	-	-	3,117	451	3,117	451
TOTAL . . . . .	-	-	11,400	1,757	11,400	1,757
CALIFORNIA:						
NORTHERN . . . . .	-	-	6,690	916	6,690	916
SAN FRANCISCO . . . . .	-	-	3,425	475	3,425	475
MONTEREY . . . . .	-	-	5,841	803	5,841	803
SANTA BARBARA . . . . .	-	-	3,608	511	3,608	511
SAN PEDRO . . . . .	2,604	415	20,995	3,342	23,599	3,757
SAN DIEGO . . . . .	137	21	5,560	634	5,697	835
TOTAL . . . . .	2,741	436	46,119	6,881	48,860	7,317
HAWAII . . . . .	-	-	15	5	15	5
GRAND TOTAL, ALBACORE . . . . .	2,741	436	58,061	8,728	60,802	9,164
BLUEFIN:						
CALIFORNIA:						
SAN FRANCISCO . . . . .	88	10	-	-	88	10
SAN PEDRO . . . . .	26,279	2,962	-	-	26,279	2,962
SAN DIEGO . . . . .	3,986	420	-	-	3,986	420
TOTAL . . . . .	30,353	3,392	-	-	30,353	3,392
HAWAII 1/ . . . . .	-	-	948	502	948	502
GRAND TOTAL, BLUEFIN . . . . .	30,353	3,392	948	502	31,301	3,894
LITTLE, HAWAII . . . . .	-	-	60	8	60	8
SKIPJACK:						
CALIFORNIA:						
SAN FRANCISCO . . . . .	190	19	22	2	212	21
SAN PEDRO . . . . .	62,728	6,763	8,892	958	71,620	7,721
SAN DIEGO . . . . .	21,868	2,322	2,920	310	24,788	2,632
TOTAL . . . . .	84,786	9,104	11,834	1,270	96,620	10,374
HAWAII . . . . .	-	-	8,100	1,090	8,100	1,090
GRAND TOTAL, SKIPJACK . . . . .	84,786	9,104	19,934	2,360	104,720	11,464
YELLOWFIN:						
CALIFORNIA:						
SAN FRANCISCO . . . . .	1,143	151	255	34	1,398	185
SAN PEDRO . . . . .	75,454	9,998	7,675	1,017	83,129	11,015
SAN DIEGO . . . . .	20,648	2,744	4,408	586	25,056	3,330
TOTAL . . . . .	97,245	12,893	12,338	1,637	109,583	14,530
HAWAII . . . . .	-	-	385	153	385	153
GRAND TOTAL, YELLOWFIN . . . . .	97,245	12,893	12,723	1,790	109,968	14,683
GRAND TOTAL, ALL SPECIES . . . . .	215,125	25,825	91,726	13,388	306,851	39,213

1/ INCLUDES THE CATCH OF BIGEYE TUNA.

## U. S. MENHADEN FISHERY

U. S. menhaden landings totaled 1.8 billion pounds in 1963--37 percent of the total U. S. production of all species. The catch declined 532 million pounds compared with the record 1962 landings.

Of the total, 53 percent was landed in the Gulf of Mexico; 21, in the Middle Atlantic States; 14, in the Chesapeake States; and 12 percent in the South Atlantic States. Less than 1/2 of 1 percent was taken in the New England States.

Purse seines accounted for 97 percent of the 1963 catch. The remainder was taken by pound nets, haul seines, gill nets, fyke and hoop nets, trammel nets, floating traps, and weirs.

During 1963, a total of 3,140 fishermen, 179 vessels, 362 motorboats, and 62 other boats engaged in the menhaden purse seine fishery.

### SUMMARY OF MENHADEN PURSE SEINE VESSELS, BY TONNAGE GROUPS, 1963

GROSS TONNAGE	MIDDLE ATLANTIC				CHESAPEAKE		
	NEW YORK	NEW JERSEY	DELA- WARE	TOTAL, EXCLU- SIVE OF DUPLI- CATION	MARY- LAND	VIR- GINIA	TOTAL, EXCLU- SIVE OF DUPLI- CATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
20 - 29. . . . .	-	-	-	-	-	1	1
110 - 119. . . . .	-	1	-	-	-	-	-
120 - 129. . . . .	-	-	-	-	1	-	2
140 - 149. . . . .	-	-	1	1	-	2	4
150 - 159. . . . .	-	1	-	1	-	3	3
160 - 169. . . . .	-	-	1	1	-	1	1
170 - 179. . . . .	-	4	1	5	-	-	-
180 - 189. . . . .	1	2	1	4	-	2	2
190 - 199. . . . .	-	16	15	30	-	8	8
220 - 229. . . . .	4	-	-	4	-	1	1
230 - 239. . . . .	1	-	-	1	-	1	1
240 - 249. . . . .	-	-	1	1	-	2	2
250 - 259. . . . .	-	-	-	-	-	3	3
260 - 269. . . . .	-	-	-	-	-	4	4
280 - 289. . . . .	-	-	-	-	-	1	1
290 - 299. . . . .	1	3	-	3	-	1	1
300 - 309. . . . .	2	-	-	2	-	-	-
310 - 319. . . . .	1	-	1	2	-	-	-
320 - 329. . . . .	-	-	-	-	-	1	1
370 - 379. . . . .	-	-	-	-	-	1	1
390 - 399. . . . .	-	-	-	-	-	1	1
530 - 539. . . . .	-	-	-	-	-	1	1
540 - 549. . . . .	-	-	-	-	-	1	1
TOTAL VESSELS. . .	10	27	21	57	1	39	39
TOTAL GROSS TONNAGE . . . . .	2,540	5,348	4,203	11,893	123	8,942	8,942

(CONTINUED ON NEXT PAGE)

## REVIEW OF CERTAIN MAJOR FISHERIES

SUMMARY OF MENHADEN PURSE SEINE VESSELS,  
BY TONNAGE GROUPS, 1963 - Continued

GROSS TONNAGE	SOUTH ATLANTIC			GULF				GRAND TOTAL, EXCLUSIVE OF DUPLICATION
	NORTH CAROLINA	FLORIDA, EAST COAST	TOTAL, EXCLUSIVE OF DUPLICATION	MISSISSIPPI	LOUISIANA	TEXAS	TOTAL, EXCLUSIVE OF DUPLICATION	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
20 - 29, . . . . .	-	-	-	-	-	-	-	1
40 - 49, . . . . .	1	-	1	-	-	-	-	1
50 - 59, . . . . .	2	-	2	-	-	-	-	2
60 - 69, . . . . .	2	-	2	-	-	-	-	2
70 - 79, . . . . .	-	-	1	-	-	-	-	1
90 - 99, . . . . .	1	-	1	-	1	-	1	1
100 - 109, . . . . .	-	-	-	-	2	-	2	2
110 - 119, . . . . .	1	1	2	-	1	-	1	3
120 - 129, . . . . .	-	1	1	-	1	-	1	4
130 - 139, . . . . .	-	-	-	-	-	1	1	1
140 - 149, . . . . .	1	1	2	-	4	1	5	11
150 - 159, . . . . .	1	-	1	-	-	-	-	4
160 - 169, . . . . .	-	-	-	-	2	2	6	11
170 - 179, . . . . .	2	-	1	1	5	-	7	13
180 - 189, . . . . .	1	-	2	2	1	4	7	13
190 - 199, . . . . .	15	-	15	3	6	-	11	44
210 - 219, . . . . .	-	-	-	-	3	-	3	3
220 - 229, . . . . .	3	-	3	2	2	-	4	9
230 - 239, . . . . .	2	-	2	1	3	-	4	6
240 - 249, . . . . .	4	-	4	-	1	-	1	7
250 - 259, . . . . .	6	-	6	-	3	-	3	9
260 - 269, . . . . .	4	-	4	1	2	-	3	9
260 - 269, . . . . .	1	-	1	-	-	-	-	3
290 - 299, . . . . .	2	-	2	1	-	-	1	3
300 - 309, . . . . .	2	-	2	-	1	-	1	3
310 - 319, . . . . .	-	-	-	-	1	-	1	3
320 - 329, . . . . .	1	-	1	-	-	-	-	1
370 - 379, . . . . .	-	-	-	-	-	-	-	1
390 - 399, . . . . .	-	-	-	-	-	-	-	1
410 - 419, . . . . .	-	-	-	-	1	-	1	1
460 - 469, . . . . .	-	-	-	-	1	-	1	1
470 - 479, . . . . .	-	-	-	3	2	-	5	5
480 - 489, . . . . .	-	-	-	-	2	-	2	2
530 - 539, . . . . .	1	-	1	-	-	-	-	1
540 - 549, . . . . .	1	-	1	-	-	-	-	1
600 - 609, . . . . .	-	-	-	1	-	-	1	1
610 - 619, . . . . .	-	-	-	1	-	-	1	1
640 - 649, . . . . .	-	-	-	-	1	-	1	1
TOTAL VESSELS, . . . . .	54	3	57	16	48	8	72	179
TOTAL GROSS TONNAGE . . . . .	11,856	363	12,241	4,996	11,454	1,329	17,781	40,129

# REVIEW OF CERTAIN MAJOR FISHERIES

423

## SUMMARY OF MENHADEN PURSE SEINE OPERATING UNITS, 1963

AREA AND STATE	VESSELS		BOATS		FISHERMEN	PURSE SEINES	
			MOTOR	OTHER			
	NUMBER	GROSS TONNAGE	NUMBER	NUMBER	NUMBER	NUMBER	LENGTH IN YARDS
MIDDLE ATLANTIC:							
NEW YORK . . . . .	10	2,540	20	-	170	10	4,360
NEW JERSEY . . . . .	27	5,348	54	-	459	27	10,540
DELAWARE . . . . .	21	4,203	42	-	357	21	7,420
TOTAL, EXCLUSIVE OF DUPLICATION . .	57	11,893	114	-	969	57	21,990
CHESAPEAKE:							
MARYLAND . . . . .	1	123	1	-	9	1	375
VIRGINIA . . . . .	39	8,942	82	-	631	39	14,510
TOTAL, EXCLUSIVE OF DUPLICATION . .	39	8,942	82	-	631	39	14,510
SOUTH ATLANTIC:							
NORTH CAROLINA . . . . .	54	11,858	108	54	939	54	21,600
FLORIDA, EAST COAST . . . . .	3	363	6	-	54	3	1,200
TOTAL, EXCLUSIVE OF DUPLICATION . .	57	12,241	114	54	993	57	22,600
GULF:							
MISSISSIPPI . . . . .	16	4,998	32	-	282	16	6,995
LOUISIANA . . . . .	48	11,454	96	-	879	48	20,905
TEXAS . . . . .	8	1,329	16	8	168	8	4,000
TOTAL, EXCLUSIVE OF DUPLICATION . .	72	17,781	144	8	1,329	72	33,900
GRAND TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	179	40,129	362	62	3,140	179	75,220

## SUMMARY OF MENHADEN CATCH, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

AREA AND STATE	HAUL SEINES		PURSE SEINES	
	QUANTITY	VALUE	QUANTITY	VALUE
NEW ENGLAND, MASSACHUSETTS . . . . .	-	-	324	4
MIDDLE ATLANTIC:				
NEW YORK . . . . .	-	-	90,600	1,003
NEW JERSEY . . . . .	-	-	166,148	2,031
DELAWARE . . . . .	-	-	102,624	1,059
TOTAL . . . . .	-	-	359,372	4,093
CHESAPEAKE:				
MARYLAND . . . . .	4	(1)	1,909	32
VIRGINIA . . . . .	7,720	107	217,153	2,780
TOTAL . . . . .	7,724	107	219,062	2,812
SOUTH ATLANTIC:				
NORTH CAROLINA . . . . .	93	1	190,121	2,325
FLORIDA, EAST COAST . . . . .	-	-	25,254	253
TOTAL . . . . .	93	1	215,375	2,578
GULF:				
FLORIDA, WEST COAST . . . . .	35	2	-	-
MISSISSIPPI . . . . .	-	-	250,429	3,276
LOUISIANA . . . . .	-	-	633,484	7,862
TEXAS . . . . .	-	-	83,736	1,034
TOTAL . . . . .	35	2	967,649	12,172
GRAND TOTAL . . . . .	7,852	110	1,761,982	21,659

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## REVIEW OF CERTAIN MAJOR FISHERIES

## SUMMARY OF MENHADEN CATCH, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

AREA AND STATE	WEIRS		POUND NETS		FLOATING TRAPS	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
NEW ENGLAND:						
MASSACHUSETTS . . . . .	-	-	21	(1)	-	-
RHODE ISLAND . . . . .	-	-	-	-	3	(1)
TOTAL . . . . .	-	-	21	(1)	3	(1)
MIDDLE ATLANTIC:						
NEW YORK . . . . .	-	-	1,050	11	-	-
NEW JERSEY . . . . .	(1)	(1)	12,112	163	-	-
TOTAL . . . . .	(1)	(1)	13,162	174	-	-
CHESAPEAKE:						
MARYLAND . . . . .	-	-	1,361	22	-	-
VIRGINIA . . . . .	-	-	30,707	406	-	-
TOTAL . . . . .	-	-	32,068	428	-	-
GRAND TOTAL . . . . .	(1)	(1)	45,251	602	3	(1)

AREA AND STATE	FYKE AND HOOP NETS		GILL NETS		TRAMMEL NETS		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
NEW ENGLAND:								
MASSACHUSETTS . . . . .	-	-	-	-	-	-	345	4
RHODE ISLAND . . . . .	-	-	-	-	-	-	3	(1)
CONNECTICUT . . . . .	-	-	5	(1)	-	-	5	(1)
TOTAL . . . . .	-	-	5	(1)	-	-	353	4
MIDDLE ATLANTIC:								
NEW YORK . . . . .	-	-	-	-	-	-	91,650	1,014
NEW JERSEY . . . . .	-	-	117	3	-	-	176,377	2,197
DELAWARE . . . . .	-	-	-	-	-	-	102,624	1,059
TOTAL . . . . .	-	-	117	3	-	-	372,851	4,270
CHESAPEAKE:								
MARYLAND . . . . .	1	(1)	18	(1)	-	-	3,293	54
VIRGINIA . . . . .	142	2	(1)	(1)	-	-	255,722	3,295
TOTAL . . . . .	143	2	18	(1)	-	-	259,015	3,349
SOUTH ATLANTIC:								
NORTH CAROLINA . . . . .	-	-	-	-	-	-	190,214	2,326
FLORIDA, EAST COAST. . . . .	-	-	418	10	-	-	25,672	263
TOTAL . . . . .	-	-	418	10	-	-	215,886	2,589
GULF:								
FLORIDA, WEST COAST. . . . .	-	-	1	(1)	8	(1)	44	2
MISSISSIPPI . . . . .	-	-	-	-	-	-	250,429	3,276
LOUISIANA . . . . .	-	-	-	-	-	-	633,484	7,862
TEXAS . . . . .	-	-	-	-	-	-	83,736	1,034
TOTAL . . . . .	-	-	1	(1)	8	(1)	967,693	12,174
GRAND TOTAL . . . . .	143	2	559	13	8	(1)	1,615,798	22,366

1/ LESS THAN 500 POUNDS OR \$500.

## U. S. CLAM FISHERY

The 1963 clam fishery produced a record 63.4 million pounds of meats valued at \$14.2 million--an increase of 9.2 million pounds and \$2.4 million compared with 1962, the former record year. Surf clams, landed principally in New Jersey, accounted for 61 percent of the catch; hard clams, 23 percent; and soft clams, 15 percent. The remainder consisted of ocean quahogs, razor, and mixed clams. The Middle Atlantic led all other areas with 72 percent of catch. The Chesapeake area accounted for 15 percent, New England, 11 percent, and the South Atlantic, Gulf, Pacific states, and Hawaii, the remaining 2 percent.

Clam dredges took 49.5 million pounds (78 percent); tongs, 5.9 million (9 percent), and rakes 3.9 million (6 percent). The remainder of the catch was taken with hoes, forks, shovels, or gathered by hand.

In Section 14 of this Digest, under the heading "Conversion Factors", there is a table which gives the average State yield per U.S. standard bushel for the clams taken on the Atlantic and Gulf Coasts. Supplementary shellfish tables appear after the summary tables for each Atlantic and Gulf Regional section.

## SUMMARY OF CLAM CATCH, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

AREA AND STATE	HARD		OCEAN QUAHOG		RAZOR		SOFT	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
NEW ENGLAND:								
MAINE . . . . .	2	2	-	-	-	-	1,832	786
MASSACHUSETTS . . . . .	1,474	1,039	-	-	24	8	948	606
RHODE ISLAND . . . . .	2,224	1,295	104	10	-	-	1	1
CONNECTICUT . . . . .	287	126	-	-	-	-	-	-
TOTAL . . . . .	3,987	2,462	104	10	24	8	2,781	1,393
MIDDLE ATLANTIC:								
NEW YORK . . . . .	5,311	3,381	-	-	8	2	99	28
NEW JERSEY . . . . .	1,564	635	-	-	-	-	15	6
DELAWARE . . . . .	262	106	-	-	-	-	-	-
TOTAL . . . . .	7,137	4,322	-	-	8	2	114	34
CHESAPEAKE:								
MARYLAND . . . . .	489	265	-	-	-	-	6,859	1,499
VIRGINIA . . . . .	2,096	1,012	-	-	-	-	-	-
TOTAL . . . . .	2,585	1,277	-	-	-	-	6,859	1,499
SOUTH ATLANTIC:								
NORTH CAROLINA . . . . .	332	130	-	-	-	-	-	-
SOUTH CAROLINA . . . . .	73	25	-	-	-	-	-	-
FLORIDA, EAST COAST . . . . .	1	(1)	-	-	-	-	-	-
TOTAL . . . . .	406	155	-	-	-	-	-	-
GULF, FLORIDA, WEST COAST . . . . .	7	2	-	-	-	-	-	-
PACIFIC:								
ALASKA . . . . .	-	-	-	-	144	52	-	-
WASHINGTON . . . . .	385	182	-	-	223	110	-	-
OREGON . . . . .	-	-	-	-	10	5	-	-
CALIFORNIA . . . . .	1	1	-	-	-	-	-	-
TOTAL . . . . .	386	183	-	-	377	167	-	-
HAWAII . . . . .	1	2	-	-	-	-	-	-
GRAND TOTAL . . . . .	14,529	8,403	104	10	409	177	9,754	2,926

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## REVIEW OF CERTAIN MAJOR FISHERIES

## SUMMARY OF CLAM CATCH, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

AREA AND STATE	SURF		MIXED		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
NEW ENGLAND:						
MAINE . . . . .	-	-	-	-	1,834	788
MASSACHUSETTS . . . . .	-	-	-	-	2,446	1,653
RHODE ISLAND . . . . .	-	-	-	-	2,329	1,306
CONNECTICUT . . . . .	-	-	-	-	287	126
TOTAL . . . . .	-	-	-	-	6,896	3,873
MIDDLE ATLANTIC:						
NEW YORK . . . . .	974	91	-	-	6,392	3,702
NEW JERSEY . . . . .	37,548	2,580	-	-	39,147	3,221
DELAWARE . . . . .	-	-	-	-	262	106
TOTAL . . . . .	38,522	2,671	-	-	45,801	7,029
CHESAPEAKE:						
MARYLAND . . . . .	64	5	-	-	7,412	1,769
VIRGINIA . . . . .	-	-	-	-	2,096	1,012
TOTAL . . . . .	64	5	-	-	9,508	2,781
SOUTH ATLANTIC:						
NORTH CAROLINA . . . . .	-	-	-	-	332	130
SOUTH CAROLINA . . . . .	-	-	-	-	73	25
FLORIDA, EAST COAST . . . . .	-	-	-	-	1	(1)
TOTAL . . . . .	-	-	-	-	406	155
GULF, FLORIDA, WEST COAST . . . . .	-	-	-	-	7	2
PACIFIC:						
ALASKA . . . . .	-	-	-	-	144	52
WASHINGTON . . . . .	-	-	-	-	608	292
OREGON . . . . .	-	-	21	10	31	15
CALIFORNIA . . . . .	-	-	-	-	1	1
TOTAL . . . . .	-	-	21	10	784	360
HAWAII . . . . .	-	-	-	-	1	2
GRAND TOTAL . . . . .	38,586	2,676	21	10	63,403	14,202

1/ LESS THAN \$500.

## SUMMARY OF CLAM CATCH BY GEAR, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

GEAR	HARD		OCEAN QUAHOG		RAZOR		SOFT	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
DREDGES . . . . .	3,922	2,161	104	10	-	-	6,859	1,499
TONGS . . . . .	5,909	3,414	-	-	-	-	-	-
RAKES . . . . .	3,675	2,352	-	-	8	2	156	76
HOES . . . . .	52	40	-	-	24	8	2,732	1,348
FORKS . . . . .	-	-	-	-	-	-	-	-
SHOVELS . . . . .	349	171	-	-	377	167	1	1
BY HAND . . . . .	621	263	-	-	-	-	6	2
UNCLASSIFIED . . . . .	1	2	-	-	-	-	-	-
TOTAL . . . . .	14,529	8,403	104	10	409	177	9,754	2,926
GEAR	SURF		MIXED		TOTAL			
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE		
DREDGES . . . . .	38,566	2,674	-	-	49,451	6,344		
TONGS . . . . .	-	-	-	-	5,909	3,414		
RAKES . . . . .	20	2	-	-	3,859	2,432		
HOES . . . . .	-	-	-	-	2,808	1,396		
FORKS . . . . .	-	-	-	-	1	1		
SHOVELS . . . . .	-	-	19	9	745	347		
DIVING, OUTFITS . . . . .	-	-	2	1	2	1		
BY HAND . . . . .	-	-	-	-	627	265		
UNCLASSIFIED . . . . .	-	-	-	-	1	2		
TOTAL . . . . .	38,586	2,676	21	10	63,403	14,202		

# REVIEW OF CERTAIN MAJOR FISHERIES

427

## U. S. CRAB FISHERY

The U. S. catch of crabs in 1963 totaled a record 252.3 million pounds valued at \$21.4 million--a gain of 18 million pounds (6 percent) and \$3 million (14 percent) compared with 1962.

The Pacific Coast States led in volume with 103.8 million pounds (41 percent) followed by the Chesapeake States with 66.1 million pounds (26 percent). The South Atlantic States accounted for 51 million pounds (20 percent) and the Gulf States, 27.5 million pounds (11 percent). The remainder was landed in the New England and Middle Atlantic States and Hawaii.

In 1963, landings of Alaska king crabs totaled a record 78.7 million pounds--26 million pounds more than in 1962. Hard and soft blue crab landings of 145.3 million pounds were 10 million pounds below the record 1962 catch. Dungeness crab landings (24.9 million pounds) were 1.5 million pounds greater than in 1962, but only 54 percent of the record 1948 catch of 45.8 million pounds.

In Section 14 under the heading "Conversion Factors", is a table which gives the average number of crabs per pound by species for each of the Atlantic and Gulf States. Supplementary shellfish tables are shown after the summary catch tables for the Atlantic and Gulf States.

### SUMMARY OF CRAB CATCH, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

AREA AND STATE	BLUE				DUNGENESS	
	HARD		SOFT AND PEELER		QUANTITY	VALUE
	QUANTITY	VALUE	QUANTITY	VALUE		
NEW ENGLAND, CONNECTICUT . . .	(1)	(1)	-	-	-	-
MIDDLE ATLANTIC:						
NEW JERSEY . . . . .	861	105	33	7	-	-
DELAWARE . . . . .	522	34	3	1	-	-
TOTAL . . . . .	1,383	139	36	8	-	-
CHESAPEAKE:						
MARYLAND . . . . .	16,934	1,151	2,108	753	-	-
VIRGINIA . . . . .	46,138	2,346	949	329	-	-
TOTAL . . . . .	63,072	3,697	3,057	1,082	-	-
SOUTH ATLANTIC:						
NORTH CAROLINA . . . . .	18,835	945	83	38	-	-
SOUTH CAROLINA . . . . .	8,839	423	-	-	-	-
GEORGIA . . . . .	14,500	596	-	-	-	-
FLORIDA, EAST COAST . . . . .	8,595	490	(1)	(1)	-	-
TOTAL . . . . .	50,769	2,454	83	38	-	-
GULF:						
FLORIDA, WEST COAST . . . . .	13,148	644	4	2	-	-
ALABAMA . . . . .	1,297	75	-	-	-	-
MISSISSIPPI . . . . .	1,112	64	3	1	-	-
LOUISIANA . . . . .	7,982	447	329	164	-	-
TEXAS . . . . .	2,980	199	2	(1)	-	-
TOTAL . . . . .	26,519	1,429	338	167	-	-
PACIFIC COAST:						
ALASKA . . . . .	-	-	-	-	12,084	1,358
WASHINGTON . . . . .	-	-	-	-	6,574	1,390
OREGON . . . . .	-	-	-	-	4,153	870
CALIFORNIA . . . . .	-	-	-	-	1,952	685
TOTAL . . . . .	-	-	-	-	24,863	4,306
GRAND TOTAL . . . . .	141,743	7,719	3,514	1,295	24,863	4,306

SEE FOOTNOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## REVIEW OF CERTAIN MAJOR FISHERIES

## SUMMARY OF CRAB CATCH, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

AREA AND STATE	GREEN		KING		ROCK	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
NEW ENGLAND:						
MAINE . . . . .	-	-	-	-	2,011	84
NEW HAMPSHIRE . . . . .	45	2	-	-	25	1
MASSACHUSETTS . . . . .	18	2	-	-	33	5
RHODE ISLAND . . . . .	8	1	-	-	227	25
TOTAL . . . . .	71	5	-	-	2,296	115
MIDDLE ATLANTIC, NEW JERSEY . . . . .	-	-	-	-	23	1
PACIFIC COAST:						
ALASKA . . . . .	-	-	78,740	7,607	-	-
CALIFORNIA . . . . .	-	-	-	-	241	22
TOTAL . . . . .	-	-	78,740	7,607	241	22
GRAND TOTAL . . . . .	71	5	78,740	7,607	2,560	138
AREA AND STATE	STONE		OTHER		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
NEW ENGLAND:						
MAINE . . . . .	-	-	-	-	2,011	84
NEW HAMPSHIRE . . . . .	-	-	-	-	70	3
MASSACHUSETTS . . . . .	-	-	-	-	51	7
RHODE ISLAND . . . . .	-	-	-	-	235	26
CONNECTICUT . . . . .	-	-	-	-	(1)	(1)
TOTAL . . . . .	-	-	-	-	2,367	120
MIDDLE ATLANTIC:						
NEW JERSEY . . . . .	-	-	-	-	917	113
DELAWARE . . . . .	-	-	-	-	525	35
TOTAL . . . . .	-	-	-	-	1,442	148
CHESAPEAKE:						
MARYLAND . . . . .	-	-	-	-	19,042	1,904
VIRGINIA . . . . .	-	-	-	-	47,067	2,675
TOTAL . . . . .	-	-	-	-	66,129	4,779
SOUTH ATLANTIC:						
NORTH CAROLINA . . . . .	-	-	-	-	18,918	983
SOUTH CAROLINA . . . . .	-	-	-	-	8,839	423
GEORGIA . . . . .	-	-	-	-	14,500	596
FLORIDA, EAST COAST . . . . .	157	63	-	-	8,752	553
TOTAL . . . . .	157	63	-	-	51,009	2,555
GULF:						
FLORIDA, WEST COAST . . . . .	660	207	-	-	13,612	853
ALABAMA . . . . .	-	-	-	-	1,297	75
MISSISSIPPI . . . . .	-	-	-	-	1,115	65
LOUISIANA . . . . .	-	-	-	-	8,311	611
TEXAS . . . . .	-	-	-	-	2,982	199
TOTAL . . . . .	660	207	-	-	27,517	1,803
PACIFIC COAST:						
ALASKA . . . . .	-	-	-	-	90,824	8,965
WASHINGTON . . . . .	-	-	-	-	6,674	1,390
OREGON . . . . .	-	-	-	-	4,153	870
CALIFORNIA . . . . .	-	-	-	-	2,193	710
TOTAL . . . . .	-	-	-	-	103,844	11,935
HAWAII . . . . .	-	-	26	14	26	14
GRAND TOTAL . . . . .	817	270	26	14	252,334	21,354

1/ LESS THAN 500 POUNDS OR \$500.

# REVIEW OF CERTAIN MAJOR FISHERIES

429

## SUMMARY OF CRAB CATCH BY GEAR, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

GEAR	BLUE				OUNGENESS	
	HARD		SOFT AND PEELER			
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
OTTER TRAWLS . . . . .	11,167	442	78	35	12	4
POUND NETS . . . . .	155	8	500	152	-	-
POTS . . . . .	88,770	4,912	482	179	24,851	4,302
LINES, TROT WITH BAITS . . . . .	22,168	1,291	205	52	-	-
DIP NETS . . . . .	2,434	137	287	131	-	-
SCRAPES . . . . .	97	7	1,889	680	-	-
CREGGES . . . . .	16,952	922	-	-	-	-
BRUSH TRAPS . . . . .	-	-	51	26	-	-
BY HAND . . . . .	-	-	22	10	-	-
TOTAL . . . . .	141,743	7,719	3,514	1,295	24,863	4,306

GEAR	GREEN		KING		ROCK	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
OTTER TRAWLS . . . . .	-	-	-	-	20	1
POTS . . . . .	71	5	78,740	7,607	2,540	137
TOTAL . . . . .	71	5	78,740	7,607	2,560	138

GEAR	STONE		OTHER		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
OTTER TRAWLS . . . . .	-	-	-	-	11,277	482
POUND NETS . . . . .	-	-	-	-	655	160
POTS . . . . .	817	270	3	1	196,274	17,413
LINES, TROT WITH BAITS . . . . .	-	-	-	-	22,373	1,373
DIP NETS . . . . .	-	-	-	-	2,721	268
LIFT NETS . . . . .	-	-	20	11	20	11
SCRAPES . . . . .	-	-	-	-	1,986	657
CREGGES . . . . .	-	-	-	-	16,952	922
BRUSH TRAPS . . . . .	-	-	-	-	51	26
BY HAND . . . . .	-	-	-	-	22	10
UNCLASSIFIED . . . . .	-	-	3	2	3	2
TOTAL . . . . .	817	270	26	14	252,334	21,354



DUNGENESS CRAB POT

# REVIEW OF CERTAIN MAJOR FISHERIES

## U. S. OYSTER FISHERY

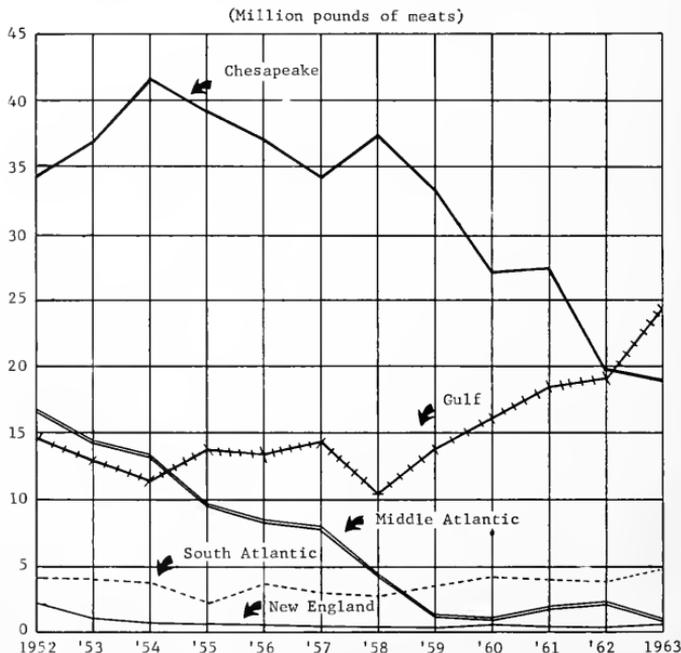
The oyster fishery in 1963 produced 56.4 million pounds of meats valued at \$27.1 million--a gain of 2.4 million pounds (4 percent) but a decline of \$2 million (7 percent) compared with the previous year. The increased production occurred principally in the Gulf States, where the 24-million-pound catch was 5.3 million pounds more than in 1962. In 1963, the Chesapeake, Middle Atlantic, and Pacific areas showed a marked decrease in both volume and value of the oyster catch. The lower value occurred chiefly in the Chesapeake States, (\$13.7 million), and the Middle Atlantic States (\$1.2 million) which were \$2.2 and \$1.4 million respectively less than in 1962.

The Gulf States led in the production of oyster meats with a yield of 24 million pounds--41 percent of the total catch. The Chesapeake Bay area was second with 18.3 million pounds (31 percent), followed by the Pacific area with 9.8 million pounds (17 percent). The New England, Middle Atlantic, and South Atlantic States accounted for the remainder.

Dredges were used to take 38.4 million pounds (66 percent) of the oyster harvest, while tongs accounted for 15.5 million pounds (27 percent). The remainder of the catch was taken with grabs, rakes, and forks, or was gathered by hand.

In Section 14 of this Digest is a table which gives the volume of the bushel measures used for oysters in the various Atlantic and Gulf States and the average yield per bushel. Supplementary shellfish tables appear after the summary tables for each Atlantic and Gulf regional section.

### ATLANTIC AND GULF COAST OYSTER PRODUCTION, 1952-63



## SUMMARY OF OYSTER CATCH, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

AREA AND STATE	DREDGES		TONGS		GRABS		RAKES	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
<b>NEW ENGLAND:</b>								
MAINE . . . . .	2	2	-	-	-	-	-	-
MASSACHUSETTS . . . . .	9	10	28	33	-	-	-	-
RHODE ISLAND . . . . .	-	-	11	12	-	-	-	-
CONNECTICUT . . . . .	393	462	2	1	-	-	-	-
TOTAL . . . . .	404	474	41	46	-	-	-	-
<b>MIDDLE ATLANTIC:</b>								
NEW YORK . . . . .	394	572	-	-	-	-	-	-
NEW JERSEY . . . . .	449	482	67	76	-	-	-	-
DELAWARE . . . . .	41	25	-	-	-	-	-	-
TOTAL . . . . .	884	1,079	67	76	-	-	-	-
<b>CHESAPEAKE:</b>								
MARYLAND . . . . .	2,627	2,117	5,129	3,501	-	-	-	-
VIRGINIA . . . . .	8,089	6,218	2,344	1,827	-	-	84	65
TOTAL . . . . .	10,716	8,335	7,473	5,328	-	-	84	65
<b>SOUTH ATLANTIC:</b>								
NORTH CAROLINA . . . . .	164	115	175	109	-	-	-	-
SOUTH CAROLINA . . . . .	-	-	-	-	2,487	1,013	-	-
GEORGIA . . . . .	-	-	99	34	-	-	-	-
FLORIDA, EAST COAST . . . . .	-	-	25	8	-	-	-	-
TOTAL . . . . .	164	115	299	151	2,487	1,013	-	-
<b>GULF:</b>								
FLORIDA, WEST COAST . . . . .	-	-	4,279	1,224	-	-	-	-
ALABAMA . . . . .	3	1	992	351	-	-	-	-
MISSISSIPPI . . . . .	4,061	829	619	146	-	-	-	-
LOUISIANA . . . . .	10,168	3,270	1,368	442	-	-	-	-
TEXAS . . . . .	2,558	892	37	12	-	-	-	-
TOTAL . . . . .	16,790	4,992	7,295	2,175	-	-	-	-
<b>PACIFIC:</b>								
WASHINGTON . . . . .	8,103	2,042	-	-	-	-	-	-
PACIFIC . . . . .	31	101	-	-	-	-	-	-
WESTERN . . . . .	-	-	-	-	-	-	-	-
TOTAL . . . . .	8,134	2,143	-	-	-	-	-	-
OREGON, PACIFIC . . . . .	387	109	-	-	-	-	-	-
<b>CALIFORNIA:</b>								
EASTERN . . . . .	-	-	14	5	-	-	-	-
PACIFIC . . . . .	947	171	307	55	-	-	-	-
TOTAL . . . . .	947	171	321	60	-	-	-	-
TOTAL PACIFIC STATES . . . . .	9,468	2,423	321	60	-	-	-	-
GRAND TOTAL . . . . .	38,426	17,418	15,496	7,836	2,487	1,013	84	65

AREA AND STATE	FORKS		BY HAND		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
<b>NEW ENGLAND:</b>						
MAINE . . . . .	-	-	-	-	2	2
MASSACHUSETTS . . . . .	7	13	-	-	44	56
RHODE ISLAND . . . . .	-	-	-	-	11	12
CONNECTICUT . . . . .	-	-	-	-	395	463
TOTAL . . . . .	7	13	-	-	452	533
<b>MIDDLE ATLANTIC:</b>						
NEW YORK . . . . .	-	-	-	-	394	572
NEW JERSEY . . . . .	-	-	-	-	516	558
DELAWARE . . . . .	-	-	-	-	41	25
TOTAL . . . . .	-	-	-	-	951	1,155

SEE NOTE AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

## REVIEW OF CERTAIN MAJOR FISHERIES

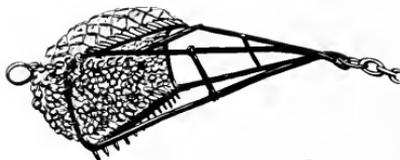
## SUMMARY OF OYSTER CATCH, 1963 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

AREA AND STATE	FORKS		BY HAND		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
CHESAPEAKE:						
MARYLAND . . . . .	-	-	-	-	7,756	5,618
VIRGINIA . . . . .	-	-	1	(1)	10,518	8,110
TOTAL . . . . .	-	-	1	(1)	18,274	13,728
SOUTH ATLANTIC:						
NORTH CAROLINA . . . . .	-	-	355	133	694	357
SOUTH CAROLINA . . . . .	-	-	1,340	543	3,827	1,556
GEORGIA . . . . .	-	-	137	48	236	82
FLORIDA, EAST COAST . . . . .	-	-	55	17	80	25
TOTAL . . . . .	-	-	1,887	741	4,837	2,020
GULF:						
FLORIDA, WEST COAST . . . . .	-	-	4	1	4,283	1,225
ALABAMA . . . . .	-	-	-	-	995	352
MISSISSIPPI . . . . .	-	-	-	-	4,680	975
LOUISIANA . . . . .	-	-	27	9	11,563	3,721
TEXAS . . . . .	-	-	23	9	2,618	913
TOTAL . . . . .	-	-	54	19	24,139	7,186
PACIFIC:						
WASHINGTON:						
PACIFIC . . . . .	-	-	-	-	8,103	2,042
WESTERN . . . . .	-	-	-	-	31	101
TOTAL . . . . .	-	-	-	-	8,134	2,143
OREGON, PACIFIC . . . . .	-	-	-	-	387	109
CALIFORNIA:						
EASTERN . . . . .	-	-	-	-	14	5
PACIFIC . . . . .	-	-	2	(1)	1,256	226
TOTAL . . . . .	-	-	2	(1)	1,270	231
TOTAL PACIFIC STATES . . . . .	-	-	2	(1)	9,791	2,483
GRAND TOTAL . . . . .	7	13	1,944	760	58,444	27,105

1/ LESS THAN \$500.

NOTE:--THE CATCH BY HAND IN WASHINGTON AND OREGON HAS BEEN INCLUDED WITH THE CATCH BY DREDGES. IN CALIFORNIA, IT HAS BEEN INCLUDED WITH TONGS.



OYSTER DREDGE

## SUMMARY OF ATLANTIC AND GULF COAST OYSTER CATCH, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

AREA AND STATE	PUBLIC		PRIVATE	
	<u>QUANTITY</u>	<u>VALUE</u>	<u>QUANTITY</u>	<u>VALUE</u>
<b>NEW ENGLAND:</b>				
MAINE . . . . .	2	2	-	-
MASSACHUSETTS . . . . .	18	24	26	32
RHODE ISLAND . . . . .	11	12	-	-
CONNECTICUT . . . . .	2	1	393	462
<b>TOTAL . . . . .</b>	<b>33</b>	<b>39</b>	<b>419</b>	<b>494</b>
<b>MIDDLE ATLANTIC:</b>				
NEW YORK . . . . .	-	-	394	572
NEW JERSEY . . . . .	66	73	450	485
DELAWARE . . . . .	-	-	41	25
<b>TOTAL . . . . .</b>	<b>66</b>	<b>73</b>	<b>885</b>	<b>1,082</b>
<b>CHESAPEAKE</b>				
MARYLAND . . . . .	6,408	4,521	1,348	1,097
VIRGINIA . . . . .	1,993	1,558	8,525	6,552
<b>TOTAL . . . . .</b>	<b>8,401</b>	<b>6,079</b>	<b>9,873</b>	<b>7,649</b>
<b>SOUTH ATLANTIC:</b>				
NORTH CAROLINA . . . . .	616	315	78	42
SOUTH CAROLINA . . . . .	-	-	3,827	1,556
GEORGIA . . . . .	-	-	236	82
FLORIDA, EAST COAST . . . . .	75	23	5	2
<b>TOTAL . . . . .</b>	<b>691</b>	<b>338</b>	<b>4,146</b>	<b>1,682</b>
<b>GULF:</b>				
FLORIDA, WEST COAST . . . . .	4,149	1,187	134	36
ALABAMA . . . . .	889	322	106	30
MISSISSIPPI . . . . .	4,262	857	418	118
LOUISIANA . . . . .	2,797	898	8,766	2,823
TEXAS . . . . .	2,540	878	78	35
<b>TOTAL . . . . .</b>	<b>14,637</b>	<b>4,142</b>	<b>9,502</b>	<b>3,044</b>
<b>GRAND TOTAL . . . . .</b>	<b>23,828</b>	<b>10,671</b>	<b>24,825</b>	<b>13,951</b>

## SUMMARY OF OYSTER CATCH BY SPECIES, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

SPECIES	QUANTITY	VALUE
<b>EASTERN:</b>		
PUBLIC . . . . .	23,828	10,671
PRIVATE <sup>1/</sup> . . . . .	24,839	13,956
<b>TOTAL . . . . .</b>	<b>48,667</b>	<b>24,627</b>
<b>PACIFIC . . . . .</b>		
	9,746	2,377
<b>WESTERN . . . . .</b>	<b>31</b>	<b>101</b>
<b>GRAND TOTAL . . . . .</b>	<b>58,444</b>	<b>27,105</b>

<sup>1/</sup> EASTERN, PRIVATE, INCLUDES 13,500 POUNDS OF OYSTERS, VALUED AT \$4,726 HARVESTED IN CALIFORNIA.

# REVIEW OF CERTAIN MAJOR FISHERIES

## U. S. SHRIMP FISHERY

U. S. shrimp landings in 1963 amounted to 240.5 million pounds valued at \$70 million-- a gain of 49.4 million pounds (26 percent) but a decline of more than \$3 million (4 percent) compared with the previous year. The increased production occurred chiefly in the Gulf States, where the 203-million-pound catch was 61.4 million pounds more than in 1962. In 1963, shrimp landings in the South Atlantic States (15.5 million pounds) and in the Pacific area (21.3 million pounds) were 10.5 and 1.6 million pounds less respectively, than in 1962. The price paid fishermen for the South Atlantic and Gulf catch averaged 31.5 cents per pound (heads-on-weight)--11.3 cents less than in 1962.

The otter trawlfleet took 237 million pounds--99 percent of the catch. An additional 3.5 million pounds were taken by beam trawls, bag nets, pots and traps, cast nets, brush traps, and push nets.

In 1963, there were 16,528 fishermen employed on 3,553 vessels and 5,245 boats which operated in the U. S. shrimp otter trawl fishery. Texas led in the number of vessels (craft of 5 net tons and over) with 1,366, while Louisiana was first in boats with 2,867.

### SUMMARY OF SHRIMP OTTER TRAWL VESSELS, BY TONNAGE GROUPS, 1963

GROSS TONNAGE	SOUTH ATLANTIC					TOTAL, EXCLUSIVE OF DUPLICATION
	NORTH CAROLINA	SOUTH CAROLINA	GEORGIA	FLORIDA, EAST COAST		
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
5 - 9 . . . . .	149	22	41	8		193
10 - 19 . . . . .	76	74	82	39		228
20 - 29 . . . . .	43	40	71	52		156
30 - 39 . . . . .	10.5	35	80	89		179
40 - 49 . . . . .	45	38	50	67		152
50 - 59 . . . . .	19	9	24	29		58
60 - 69 . . . . .	4	3	11	31		36
70 - 79 . . . . .	-	-	3	8		12
80 - 89 . . . . .	-	-	-	1		1
90 - 99 . . . . .	-	-	-	1		1
100 - 109 . . . . .	-	-	1	2		2
110 - 119 . . . . .	-	-	-	1		1
120 - 129 . . . . .	-	-	-	1		1
140 - 149 . . . . .	-	-	-	1		1
TOTAL VESSELS . . . . .	383	221	363	350		1,023
TOTAL GROSS TONNAGE . . . . .	8,181	5,762	10,523	13,811		28,501

GROSS TONNAGE	GULF					TOTAL, EXCLUSIVE OF DUPLICATION
	FLORIDA, WEST COAST	ALABAMA	MISSISSIPPI	LOUISIANA	TEXAS	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
5 - 9 . . . . .	23	6	8	56	18	94
10 - 19 . . . . .	66	50	75	252	137	463
20 - 29 . . . . .	57	40	112	187	88	343
30 - 39 . . . . .	155	40	93	197	180	396
40 - 49 . . . . .	166	47	64	200	199	396
50 - 59 . . . . .	71	30	33	138	173	262
60 - 69 . . . . .	237	24	30	158	367	518
70 - 79 . . . . .	57	7	11	55	131	168
80 - 89 . . . . .	10	2	3	12	29	37
90 - 99 . . . . .	2	-	1	4	6	10
100 - 109 . . . . .	2	1	2	1	4	6
110 - 119 . . . . .	1	-	-	1	1	1
130 - 139 . . . . .	-	-	-	1	1	1
140 - 149 . . . . .	-	-	-	-	1	1
160 - 169 . . . . .	-	-	-	-	1	1
TOTAL VESSELS . . . . .	847	247	432	1,262	1,356	2,697
TOTAL GROSS TONNAGE . . . . .	39,867	8,977	15,025	47,599	67,327	112,032

(CONTINUED ON NEXT PAGE)

# REVIEW OF CERTAIN MAJOR FISHERIES

## SUMMARY OF SHRIMP OTTER TRAWL VESSELS, BY TONNAGE GROUPS, 1963 - Continued

GROSS TONNAGE	SOUTH ATLANTIC AND GULF	PACIFIC					GRAND TOTAL, EXCLUSIVE OF DUPLICATION
	TOTAL, EXCLUSIVE OF DUPLICATION	ALASKA	WASHINGTON	OREGON	CALIFORNIA	TOTAL, EXCLUSIVE OF DUPLICATION	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	
5 - 9 . . . . .	286	-	-	-	-	-	286
10 - 19 . . . . .	688	1	-	2	3	5	693
20 - 29 . . . . .	475	-	-	12	11	16	491
30 - 39 . . . . .	508	-	2	4	1	6	514
40 - 49 . . . . .	481	-	3	4	1	8	489
50 - 59 . . . . .	297	1	-	1	-	2	299
60 - 69 . . . . .	535	1	-	1	-	2	538
70 - 79 . . . . .	172	2	-	-	-	3	175
80 - 89 . . . . .	37	2	-	-	-	2	39
90 - 99 . . . . .	11	-	-	1	-	1	12
100 - 109 . . . . .	6	2	-	1	-	3	9
110 - 119 . . . . .	2	1	-	-	-	1	3
120 - 129 . . . . .	1	-	-	-	-	-	1
130 - 139 . . . . .	1	-	-	-	-	-	1
140 - 149 . . . . .	2	-	-	-	-	-	2
160 - 169 . . . . .	1	-	-	-	-	-	1
TOTAL VESSELS . . . . .	3,504	10	5	27	16	49	3,553
TOTAL GROSS TONNAGE . . . . .	131,139	775	192	1,028	394	2,168	133,307

## SUMMARY OF SHRIMP OTTER TRAWL OPERATING UNITS, 1963

AREA AND STATE	BOAT FISHERY				
	BOATS	FISHERMEN		OTTER TRAWLS	
		REGULAR	CASUAL	NUMBER	YARDS AT MOUTH
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
NEW ENGLAND, MAINE . . . . .	28	28	2	28	532
SOUTH ATLANTIC:					
NORTH CAROLINA . . . . .	319	498	4	319	4,680
SOUTH CAROLINA . . . . .	106	212	-	106	1,955
GEORGIA . . . . .	264	129	300	264	3,039
FLORIDA, EAST COAST . . . . .	47	24	30	47	445
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	736	863	334	736	10,119
GULF:					
FLORIDA, WEST COAST . . . . .	127	203	18	127	1,734
ALABAMA . . . . .	247	395	26	247	2,964
MISSISSIPPI . . . . .	357	220	220	357	3,540
LOUISIANA . . . . .	2,867	3,098	1,046	2,867	33,702
TEXAS . . . . .	919	594	473	919	9,794
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	4,481	4,443	1,783	4,481	51,169
SOUTH ATLANTIC AND GULF, TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	5,217	5,306	2,117	5,217	61,288
GRAND TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	5,245	5,334	2,119	5,245	61,820

(CONTINUED ON NEXT PAGE)

# REVIEW OF CERTAIN MAJOR FISHERIES

## SUMMARY OF SHRIMP OTTER TRAWL OPERATING UNITS, 1963 - Continued

AREA AND STATE	VESSEL FISHERY				
	VESSELS		FISHERMEN	OTTER TRAWLS	
	NUMBER	GROSS TONNAGE	NUMBER	NUMBER	YARDS AT MOUTH
SOUTH ATLANTIC:					
NORTH CAROLINA . . . . .	383	8,181	847	500	9,271
SOUTH CAROLINA . . . . .	221	5,762	453	378	7,406
GEORGIA . . . . .	363	10,523	727	654	9,304
FLORIDA, EAST COAST . . . . .	350	13,811	759	675	9,837
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	1,023	26,501	2,171	1,709	28,144
GULF:					
FLORIDA, WEST COAST . . . . .	847	39,887	2,061	1,599	24,659
ALABAMA . . . . .	247	8,977	659	413	6,536
MISSISSIPPI . . . . .	432	15,025	1,157	676	11,276
LOUISIANA . . . . .	1,262	47,599	3,380	2,153	33,659
TEXAS . . . . .	1,356	67,327	3,824	2,556	37,958
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	2,697	112,032	7,252	4,743	74,745
SOUTH ATLANTIC AND GULF, TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	3,504	131,139	8,897	6,031	95,924
PACIFIC:					
ALASKA . . . . .	10	775	46	10	151
WASHINGTON . . . . .	5	192	15	5	95
OREGON . . . . .	27	1,028	88	27	513
CALIFORNIA . . . . .	16	394	55	16	233
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	49	2,168	178	49	862
GRAND TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	3,553	133,307	9,075	6,080	96,786
	TOTAL (BOAT AND VESSEL FISHERY)				
AREA AND STATE	BOATS AND VESSELS	FISHERMEN	OTTER TRAWLS		
	NUMBER	NUMBER	NUMBER	YARDS AT MOUTH	
NEW ENGLAND, MAINE . . . . .	28	30	28	532	
SOUTH ATLANTIC:					
NORTH CAROLINA . . . . .	702	1,349	819	13,951	
SOUTH CAROLINA . . . . .	327	665	484	9,361	
GEORGIA . . . . .	627	1,156	918	12,343	
FLORIDA, EAST COAST . . . . .	397	813	722	10,282	
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	1,759	3,368	2,445	38,263	
GULF:					
FLORIDA, WEST COAST . . . . .	974	2,282	1,726	26,393	
ALABAMA . . . . .	494	1,080	660	9,500	
MISSISSIPPI . . . . .	789	1,597	1,033	14,816	
LOUISIANA . . . . .	4,129	7,524	5,020	67,389	
TEXAS . . . . .	2,275	4,891	3,475	47,752	
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	7,178	13,478	9,224	125,914	
SOUTH ATLANTIC AND GULF, TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	8,721	16,320	11,248	157,212	
PACIFIC:					
ALASKA . . . . .	10	46	10	151	
WASHINGTON . . . . .	5	15	5	95	
OREGON . . . . .	27	88	27	513	
CALIFORNIA . . . . .	16	55	16	233	
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	49	178	49	862	
GRAND TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	8,798	16,528	11,325	158,606	

# REVIEW OF CERTAIN MAJOR FISHERIES

437

## SUMMARY OF SHRIMP CATCH, 1963

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

AREA AND STATE	BAG NETS		BEAM TRAWLS		OTTER TRAWLS	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
NEW ENGLAND:						
MAINE . . . . .	-	-	-	-	538	64
MASSACHUSETTS . . . . .	-	-	-	-	23	3
TOTAL . . . . .	-	-	-	-	561	67
MIDDLE ATLANTIC, NEW JERSEY . . . . .	-	-	6	6	-	-
SOUTH ATLANTIC:						
NORTH CAROLINA . . . . .	125	38	-	-	3,249	1,027
SOUTH CAROLINA . . . . .	-	-	-	-	2,199	642
GEORGIA . . . . .	-	-	-	-	5,443	1,801
FLORIDA, EAST COAST . . . . .	-	-	-	-	4,488	1,729
TOTAL . . . . .	125	38	-	-	15,379	5,199
GULF:						
FLORIDA, WEST COAST . . . . .	-	-	-	-	34,941	12,256
ALABAMA . . . . .	-	-	-	-	7,760	2,419
MISSISSIPPI . . . . .	-	-	-	-	9,375	2,484
LOUISIANA . . . . .	-	-	-	-	80,798	19,787
TEXAS . . . . .	-	-	-	-	70,231	26,591
TOTAL . . . . .	-	-	-	-	203,105	63,537
PACIFIC:						
ALASKA . . . . .	-	-	3,110	124	12,017	481
WASHINGTON . . . . .	-	-	13	5	956	81
OREGON . . . . .	-	-	-	-	3,028	263
CALIFORNIA . . . . .	-	-	184	18	1,911	184
TOTAL . . . . .	-	-	3,307	147	17,912	1,009
GRAND TOTAL . . . . .	125	38	3,313	153	236,957	69,812

AREA AND STATE	POTS AND TRAPS		PUSH NETS		CAST NETS	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
MIDDLE ATLANTIC, NEW JERSEY . . . . .	-	-	1	1	-	-
SOUTH ATLANTIC:						
SOUTH CAROLINA . . . . .	-	-	-	-	2	1
GEORGIA . . . . .	-	-	-	-	5	1
FLORIDA, EAST COAST . . . . .	-	-	-	-	18	7
TOTAL . . . . .	-	-	-	-	25	9
PACIFIC:						
WASHINGTON . . . . .	33	19	-	-	-	-
CALIFORNIA . . . . .	8	6	-	-	-	-
TOTAL . . . . .	41	25	-	-	-	-
GRAND TOTAL . . . . .	41	25	1	1	25	9

AREA AND STATE	BRUSH TRAPS		UNCLASSIFIED		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
NEW ENGLAND:						
MAINE . . . . .	-	-	-	-	538	64
MASSACHUSETTS . . . . .	-	-	-	-	23	3
TOTAL . . . . .	-	-	-	-	561	67
MIDDLE ATLANTIC, NEW JERSEY . . . . .	-	-	-	-	7	7
SOUTH ATLANTIC:						
NORTH CAROLINA . . . . .	-	-	-	-	3,374	1,065
SOUTH CAROLINA . . . . .	-	-	-	-	2,201	643
GEORGIA . . . . .	-	-	-	-	5,448	1,802
FLORIDA, EAST COAST . . . . .	-	-	-	-	4,506	1,736
TOTAL . . . . .	-	-	-	-	15,529	5,246
GULF:						
FLORIDA, WEST COAST . . . . .	-	-	-	-	34,941	12,256
ALABAMA . . . . .	-	-	-	-	7,760	2,419
MISSISSIPPI . . . . .	-	-	-	-	9,375	2,484
LOUISIANA . . . . .	11	2	-	2	80,809	19,789
TEXAS . . . . .	-	-	-	-	70,231	26,591
TOTAL . . . . .	11	2	-	-	203,116	63,539
PACIFIC:						
ALASKA . . . . .	-	-	-	-	15,127	605
WASHINGTON . . . . .	-	-	-	-	1,002	105
OREGON . . . . .	-	-	-	-	3,028	263
CALIFORNIA . . . . .	-	-	-	-	2,103	208
TOTAL . . . . .	-	-	-	-	21,260	1,181
HAWAII . . . . .	-	-	(1)	2	(1)	2
GRAND TOTAL . . . . .	11	2	(1)	2	240,473	70,042

1/ LESS THAN 500 POUNDS.

# REVIEW OF CERTAIN MAJOR FISHERIES

## U. S. FISH OTTER TRAWL FLEET

The following tables contain information on the U. S. fish otter trawl fleet. The data include detailed information on the operating units engaged in this fishery and a breakdown of vessels by area, State, and gross tonnage. In 1963, a total of 1,171 vessels of over 5 net tons and 129 motor boats operated in the fish otter trawl fleet. A total of 5,042 fishermen was employed on these craft. Two trawls were used by 24 of the vessels, bringing a total number of trawls credited to the fleet to 1,324.

### SUMMARY OF FISH OTTER TRAWL VESSELS, BY TONNAGE GROUPS, 1963

GROSS TONNAGE	NEW ENGLAND				TOTAL, EXCLUSIVE OF DUPLI- CATION
	MAINE	MASSACHUSETTS	RHOODE ISLAND	CONNEC- TICUT	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
5 - 9 . . . . .	-	4	-	2	6
10 - 19 . . . . .	12	34	15	6	66
20 - 29 . . . . .	11	40	15	6	67
30 - 39 . . . . .	6	56	11	9	71
40 - 49 . . . . .	3	42	15	2	54
50 - 59 . . . . .	7	31	8	3	41
60 - 69 . . . . .	4	35	2	1	39
70 - 79 . . . . .	5	33	4	1	42
80 - 89 . . . . .	-	17	-	-	17
90 - 99 . . . . .	2	9	-	-	10
100 - 109 . . . . .	2	9	-	-	11
110 - 119 . . . . .	3	18	1	-	20
120 - 129 . . . . .	-	9	-	-	9
130 - 139 . . . . .	2	8	-	-	10
140 - 149 . . . . .	1	5	-	-	6
150 - 159 . . . . .	2	9	1	-	12
160 - 169 . . . . .	4	7	-	-	9
170 - 179 . . . . .	2	4	-	-	6
180 - 189 . . . . .	-	2	-	-	2
190 - 199 . . . . .	1	5	-	-	6
200 - 209 . . . . .	-	1	-	-	1
210 - 219 . . . . .	-	3	-	-	3
220 - 229 . . . . .	-	3	-	-	3
230 - 239 . . . . .	1	2	-	-	3
240 - 249 . . . . .	1	3	-	-	3
250 - 259 . . . . .	-	2	-	-	2
260 - 269 . . . . .	1	1	-	-	2
290 - 299 . . . . .	-	2	-	-	2
300 - 309 . . . . .	2	-	-	-	2
310 - 319 . . . . .	2	-	-	-	2
320 - 329 . . . . .	2	-	-	-	2
450 - 459 . . . . .	-	1	-	-	1
TOTAL VESSELS . . . . .	76	395	72	30	530
TOTAL GROSS TONNAGE . . . . .	7,075	29,026	2,738	927	37,290

(CONTINUED ON NEXT PAGE)

# REVIEW OF CERTAIN MAJOR FISHERIES

439

## SUMMARY OF FISH OTTER TRAWL VESSELS, BY TONNAGE GROUPS, 1963 - Continued

GROSS TONNAGE	MIDDLE ATLANTIC				CHESAPEAKE		
	NEW YORK	NEW JERSEY	DELAWARE	TOTAL, EXCLUSIVE OF DUPLICATION	MARYLAND	VIRGINIA	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
5 - 9 . . . . .	5	7	-	12	-	3	3
10 - 19 . . . . .	38	29	1	67	8	8	16
20 - 29 . . . . .	43	23	1	64	4	7	9
30 - 39 . . . . .	24	14	1	39	2	7	9
40 - 49 . . . . .	12	18	-	29	1	8	9
50 - 59 . . . . .	11	15	-	21	-	8	8
60 - 69 . . . . .	5	11	-	12	-	5	5
70 - 79 . . . . .	9	16	-	21	1	9	10
80 - 89 . . . . .	6	2	-	7	-	-	-
90 - 99 . . . . .	1	1	-	2	-	-	-
100 - 109 . . . . .	2	2	-	3	-	2	2
110 - 119 . . . . .	3	3	-	4	-	4	4
120 - 129 . . . . .	2	-	-	2	-	2	2
130 - 139 . . . . .	1	-	-	1	-	2	2
140 - 149 . . . . .	1	2	-	3	-	1	1
150 - 159 . . . . .	1	-	-	1	-	-	-
160 - 169 . . . . .	1	-	-	1	-	-	-
190 - 199 . . . . .	1	-	-	1	-	-	-
TOTAL VESSELS . . . . .	166	143	3	290	16	64	80
TOTAL GROSS TONNAGE . . . . .	6,771	6,141	78	11,601	407	3,601	4,008

GROSS TONNAGE	SOUTH ATLANTIC		GULF	
	NORTH CAROLINA, TOTAL, EXCLUSIVE OF DUPLICATION	MISSISSIPPI	LOUISIANA	TOTAL, EXCLUSIVE OF DUPLICATION
	NUMBER	NUMBER	NUMBER	NUMBER
5 - 9 . . . . .	6	-	-	-
10 - 19 . . . . .	6	8	-	8
20 - 29 . . . . .	13	24	-	24
30 - 39 . . . . .	13	23	1	24
40 - 49 . . . . .	21	9	2	11
50 - 59 . . . . .	9	6	1	7
60 - 69 . . . . .	4	5	-	5
70 - 79 . . . . .	2	4	-	4
80 - 89 . . . . .	-	1	-	1
100 - 109 . . . . .	-	1	-	1
120 - 129 . . . . .	2	-	-	-
150 - 159 . . . . .	-	1	-	1
TOTAL VESSELS . . . . .	76	82	4	86
TOTAL GROSS TONNAGE . . . . .	2,975	3,204	178	3,382

(CONTINUED ON NEXT PAGE)

## REVIEW OF CERTAIN MAJOR FISHERIES

SUMMARY OF FISH OTTER TRAWL VESSELS,  
BY TONNAGE GROUPS, 1963 - Continued

GROSS TONNAGE	PACIFIC					GREAT LAKES	GRAND TOTAL, EXCLUSIVE OF DUPLICATION
	ALASKA	WASHINGTON	OREGON	CALIFORNIA	TOTAL, EXCLUSIVE OF DUPLICATION	TOTAL, EXCLUSIVE OF DUPLICATION	
	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
5 - 9 . . . . .	-	1	-	1	2	3	31
10 - 19 . . . . .	- 1	10	- 1	5	17	7	184
20 - 29 . . . . .	-	10	-	17	37	5	203
30 - 39 . . . . .	-	18	- 10	13	38	1	176
40 - 49 . . . . .	-	28	- 21	20	52	3	163
50 - 59 . . . . .	- 1	18	- 11	9	33	-	105
60 - 69 . . . . .	-	10	- 3	2	14	-	67
70 - 79 . . . . .	-	8	- 1	4	12	-	63
80 - 89 . . . . .	-	5	- 3	4	11	-	32
90 - 99 . . . . .	-	4	- 3	-	6	-	16
100 - 109 . . . . .	-	- 2	- 1	- 3	- 5	-	17
110 - 119 . . . . .	-	-	- 2	- 2	- 2	-	24
120 - 129 . . . . .	-	-	-	-	-	-	12
130 - 139 . . . . .	-	-	-	-	-	-	10
140 - 149 . . . . .	-	-	-	-	-	-	6
150 - 159 . . . . .	-	-	-	-	-	-	13
160 - 169 . . . . .	-	-	-	-	-	-	9
170 - 179 . . . . .	-	-	-	-	-	-	6
180 - 189 . . . . .	-	-	-	-	-	-	2
190 - 199 . . . . .	-	-	-	-	-	-	6
200 - 209 . . . . .	-	-	-	-	-	-	1
210 - 219 . . . . .	-	-	-	-	-	-	3
220 - 229 . . . . .	-	-	-	-	-	-	3
230 - 239 . . . . .	-	-	-	-	-	-	3
240 - 249 . . . . .	-	-	-	-	-	-	2
250 - 259 . . . . .	-	-	-	-	-	-	2
260 - 269 . . . . .	-	-	-	-	-	-	2
290 - 299 . . . . .	-	-	-	-	-	-	2
300 - 309 . . . . .	-	-	-	-	-	-	2
310 - 319 . . . . .	-	-	-	-	-	-	2
320 - 329 . . . . .	-	-	-	-	-	-	2
450 - 459 . . . . .	-	-	-	-	-	-	1
TOTAL VESSELS . . . . .	2	114	66	80	229	19	1,171
TOTAL GROSS TONNAGE . . . . .	73	5,562	3,246	3,563	10,641	397	61,205



FISH OTTER TRAWL

## SUMMARY OF FISH OTTER TRAWL OPERATING UNITS, 1963

AREA AND STATE	BOAT FISHERY				
	BOATS	FISHERMEN		OTTER TRAWLS	
		REGULAR	CASUAL	NUMBER	YARDS AT MOUTH
	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>YARDS AT MOUTH</u>
<b>NEW ENGLAND:</b>					
MAINE . . . . .	43	49	20	43	860
MASSACHUSETTS . . . . .	7	6	4	7	96
RHODE ISLAND . . . . .	11	12	8	11	174
CONNECTICUT . . . . .	22	10	21	22	332
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	83	77	53	83	1,462
<b>MIDDLE ATLANTIC:</b>					
NEW YORK . . . . .	6	8	4	6	100
NEW JERSEY . . . . .	6	13	-	6	98
DELAWARE . . . . .	1	2	-	1	19
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	13	23	4	13	217
<b>CHESAPEAKE:</b>					
MARYLAND . . . . .	2	4	-	2	47
VIRGINIA . . . . .	1	2	-	1	10
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	3	6	-	3	57
<b>SOUTH ATLANTIC, NORTH CAROLINA . . . . .</b>					
	25	50	-	25	400
<b>PACIFIC, CALIFORNIA . . . . .</b>					
	4	8	-	4	80
<b>MISSISSIPPI RIVER AND TRIBUTARIES . . . . .</b>					
	1	4	-	1	17
GRAND TOTAL, EXCLU- SIVE OF DUPLICATION . . . . .	129	168	57	129	2,233

AREA AND STATE	VESSEL FISHERY				
	VESSELS		FISHERMEN	OTTER TRAWLS	
	<u>NUMBER</u>	<u>GROSS TONNAGE</u>	<u>NUMBER</u>	<u>NUMBER</u>	<u>YARDS AT MOUTH</u>
<b>NEW ENGLAND:</b>					
MAINE . . . . .	76	7,075	335	76	1,768
MASSACHUSETTS . . . . .	395	29,026	2,461	395	10,660
RHODE ISLAND . . . . .	72	2,738	253	72	1,862
CONNECTICUT . . . . .	30	927	78	30	690
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	530	37,290	2,928	530	13,920
<b>MIDDLE ATLANTIC:</b>					
NEW YORK . . . . .	166	6,771	511	166	3,874
NEW JERSEY . . . . .	143	6,141	471	143	3,552
DELAWARE . . . . .	3	78	6	3	67
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	290	11,601	892	290	6,893
<b>CHESAPEAKE:</b>					
MARYLAND . . . . .	16	407	38	16	425
VIRGINIA . . . . .	64	3,601	248	64	1,660
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	80	4,008	286	80	2,085
<b>SOUTH ATLANTIC, NORTH CAROLINA . . . . .</b>					
	76	2,975	206	76	2,048
<b>GULF:</b>					
MISSISSIPPI . . . . .	82	3,204	194	102	1,987
LOUISIANA . . . . .	4	178	12	8	132
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	86	3,382	206	110	2,119

(CONTINUED ON NEXT PAGE)

## REVIEW OF CERTAIN MAJOR FISHERIES

SUMMARY OF FISH OTTER TRAWL OPERATING UNITS,  
1963 - Continued

AREA AND STATE	VESSEL FISHERY				
	VESSELS		FISHERMEN	OTTER TRAWLS	
	NUMBER	GROSS TONNAGE	NUMBER	NUMBER	YARDS AT MOUTH
PACIFIC:					
ALASKA . . . . .	2	73	10	2	30
WASHINGTON . . . . .	113	5,484	414	113	2,500
OREGON . . . . .	57	2,709	206	57	1,281
CALIFORNIA . . . . .	67	2,882	252	67	1,809
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	229	10,641	844	229	5,394
GREAT LAKES AND MISSISSIPPI RIVER AND TRIBUTARIES, TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	19	389	48	19	420
GRAND TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	1,171	61,205	4,817	1,195	29,137
AREA AND STATE	TOTAL (BOAT AND VESSEL FISHERY)				
	BOATS AND VESSELS	FISHERMEN	OTTER TRAWLS		
	NUMBER	NUMBER	NUMBER	YARDS AT MOUTH	
NEW ENGLAND:					
MAINE . . . . .	119	404	119	2,628	
MASSACHUSETTS . . . . .	402	2,471	402	10,756	
RHODE ISLAND . . . . .	83	273	83	2,036	
CONNECTICUT . . . . .	52	109	52	1,022	
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	613	3,058	613	15,382	
MIDDLE ATLANTIC:					
NEW YORK . . . . .	172	523	172	3,974	
NEW JERSEY . . . . .	149	484	149	3,650	
DELAWARE . . . . .	4	8	4	86	
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	303	919	303	7,110	
CHESAPEAKE:					
MARYLAND . . . . .	18	42	18	472	
VIRGINIA . . . . .	65	250	65	1,670	
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	83	292	83	2,142	
SOUTH ATLANTIC, NORTH CAROLINA . . . . .	101	256	101	2,448	
GULF:					
MISSISSIPPI . . . . .	82	194	102	1,987	
LOUISIANA . . . . .	4	12	8	132	
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	86	206	110	2,119	
PACIFIC:					
ALASKA . . . . .	2	10	2	30	
WASHINGTON . . . . .	113	414	113	2,500	
OREGON . . . . .	57	206	57	1,281	
CALIFORNIA . . . . .	71	260	71	1,889	
TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	233	852	233	5,474	
GREAT LAKES AND MISSISSIPPI RIVER AND TRIBUTARIES, TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	20	52	20	437	
GRAND TOTAL, EXCLUSIVE OF DUPLICATION . . . . .	1,300	5,042	1,324	31,370	

# HISTORICAL FISHERY STATISTICS

Statistics of the fisheries of the United States are necessary for the best use of the Nation's aquatic resources. As series of data for extended periods of time are accumulated, the information becomes increasingly more valuable in indicating trends in the supply and utilization of fishery products. The extent to which these data are used is frequently dependent upon the ready availability of needed information to researchers, management officials, and members of the fishing industry.

Periodically, there are published in "Fishery Statistics of the United States" historical data for each State on the catch of important species. The most recent publication of these data was in Statistical Digest No. 43 entitled "Fishery Statistics of the United States, 1956."

The Bureau of Commercial Fisheries has in its files and in various Bureau reports or publications of other organizations a large volume of historical data. These statistics would be of considerable use to researchers and others interested in the fisheries. Unfortunately, few know of these records. To make the series readily available to researchers and others interested in the fisheries, a section entitled "Historical Fishery Statistics" has been published, since 1951, in "Fishery Statistics of the United States." The titles of the series published, and the identifying number of the Digest in which each appears, follow:

	Published in Statistical Digest <u>Number</u>	Revised and updated in Statistical Digest <u>Number</u>
Menhaden Fishery, 1873-1951 . . . . .	30	57
Oyster Fishery, 1880-1952 . . . . .	34	-
Pacific Sardine Fishery, 1915-53. . . . .	36	57
Atlantic Ocean Perch Fishery, 1930-54. . . . .	39	57
Pacific Herring Fishery, 1881-1955 . . . . .	41	-
United States Haddock Fishery, 1880-1956 . . . . .	43	-
United States Tuna Fishery, 1911-57. . . . .	44	<u>1/</u> 57
United States Atlantic Cod Fishery, 1893-1958 . . . . .	49	-
Fur Seal Industry of the Pribilof Islands, 1786-1959 . . . . .	51	-
Eastern Pacific Halibut Fishery, 1888-1960 . . . . .	53	-
California Mackerel Fisheries, 1889-1961 . . . . .	54	-
Atlantic Mackerel Fishery, 1804-1962 . . . . .	56	-
Commercial Fisheries of the Great Lakes, 1879-1963. . . . .	57	

The following pages include historical data on the Great Lakes Fishery followed by revised data as shown in the above table.

1/ Included is data only for the Pacific Coast States.

# HISTORICAL FISHERY STATISTICS

## COMMERCIAL FISHERIES OF THE GREAT LAKES, 1879-1963

By

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This report presents available catch data in a manner that provides an easy reference to information that heretofore has appeared in various publications. The U.S. catch of fourteen species is shown separately because of their abundance or economic importance to the fisheries. Data appearing in this report are for the five Great Lakes. Production from Lake St. Clair, the International lakes of northern Minnesota, and connecting waters are not shown. The data on catch were obtained from Commercial Fish Production in the Great Lakes, 1867-1960, Technical Report No. 3, (Baldwin and Saalfeld, 1962). The catch of species not listed in the publication, as well as production during 1961-63, were obtained from various reports and bulletins of the Bureau of Commercial Fisheries, and its predecessors. As the data have been rounded to the nearest thousand, the figures will not necessarily correspond to the total.

The accuracy of the early records is questionable as the production of various species frequently had not been separated, either by failure to classify part of the catch or through misidentification of some species. Tables 1 through 6 contain available data for those U.S. catches that were separated and are, to our best knowledge, landings of those species. Generally, when catches of two or more species were combined, their production was placed in the miscellaneous column along with the landings of incidental and unidentified species.

The first complete U.S. statistical survey of these fisheries was made in 1879, and subsequent canvasses were made intermittently until 1913, after which surveys were conducted each year. Biologists recognized the need for sound statistics on both the catch and the fishing effort expended to produce that catch. A reporting form was developed and the State of Michigan placed it in use in 1927. The remaining seven Great Lakes States and the Province of Ontario are now collecting statistics by the same method, and all data are treated by the same analytical procedure. (See Hile, 1962, for an account of the collection and analysis of these statistics.) State laws make it mandatory for fishermen to report their catch at the close of each month's fishing operations. All States except Minnesota turn these reports over to the Bureau's Branch of Fishery Statistics for compilation. Data on catch, value, employment, and operating units are released annually in a Bureau publication entitled Fishery Statistics of the United States. Beginning with the 1962 report, fishing effort data were included.

It is not the intent of this report to discuss the biological or economic conditions of these fisheries. However, a variety of conditions, such as supply, demand, and operational costs, have affected production.

References to fishes throughout the report are by common names. Most of these names conform with the approved list of the American Fisheries Society (1960) but a few are according to local or trade usage. The following list of common and scientific names is offered. If the names used in this paper differ from the Society's approved common name, the latter is given in parentheses.

# HISTORICAL FISHERY STATISTICS

<u>Common name</u>	<u>Scientific name</u>
Alewife	<u>Alosa pseudoharengus</u>
Blue pike 1/	<u>Stizostedion vitreum glaucum</u>
Bowfin	<u>Amia calva</u>
Buffalo	<u>Ictiobus spp.</u>
Bullhead	<u>Ictalurus spp.</u>
Burbot	<u>Lota lota</u>
Carp 1/, 2/	<u>Cyprinus carpio</u>
Catfish (channel catfish) 1/	<u>Ictalurus punctatus</u>
Chubs (deepwater ciscoes) 1/	<u>Coregonus spp.</u>
Crappie	<u>Pomoxis spp.</u>
Eels (American eel)	<u>Anguilla rostrata</u>
Garfish (longnose gar)	<u>Lepisosteus osseus</u>
Gizzard shad	<u>Dorosoma cepedianum</u>
Goldfish	<u>Carassius auratus</u>
Lake herring (cisco) 1/	<u>Coregonus artedii</u>
Lake trout 1/	<u>Salvelinus namaycush</u>
Lake whitefish or common whitefish 1/	<u>Coregonus clupeaformis</u>
Mooneye	<u>Hiodon tergisus</u>
Northern pike	<u>Esox lucius</u>
Quillback	<u>Carpiodes cyprinus</u>
Rock bass	<u>Ambloplites rupestris</u>
Round whitefish or menominee whitefish	<u>Prosopium cylindraceum</u>
Sauger 1/	<u>Stizostedion canadense</u>
Sheepshead (freshwater drum) 1/	<u>Aplodinotus grunniens</u>
Smelt (American smelt) 1/, 2/	<u>Osmerus mordax</u>
Sturgeon (lake sturgeon)	<u>Acipenser fulvescens</u>
Suckers: 1/	
Longnose	<u>Catostomus catostomus</u>
Redhorse	<u>Moxostoma spp.</u>
White	<u>Catostomus commersoni</u>
Sunfish	<u>Lepomis spp.</u>
White bass 1/	<u>Roccus chrysops</u>
White perch	<u>Roccus americanus</u>
Yellow perch 1/	<u>Perca flavescens</u>
Yellow pike (walleye) 1/	<u>Stizostedion vitreum vitreum</u>

1/ Separate production data in this report are limited to these 14 major species.

2/ Species introduced into Great Lakes waters.

Note:--Common names do not agree with our Glossary--they are names used by researchers in the Great Lakes area.

General. The five Great Lakes and their connecting waters have a combined surface area of nearly 95,000 square miles and form the largest group of lakes in the world. The information below was prepared from data published in the Great Lakes Pilot by the U.S. Army, Corps of Engineers in 1963.

Lake	Maximum length	Maximum width	Maximum depth	Area		
				U.S.	Canada	Total
	<u>Miles</u>	<u>Miles</u>	<u>Feet</u>	<u>Square miles</u>	<u>Square miles</u>	<u>Square miles</u>
Superior	383	160	1,333	20,700	11,100	31,800
Michigan	321	118	923	22,400	---	22,400
Huron	247	101	750	9,100	13,900	23,000
Erie	241	57	210	4,980	4,930	9,910
Ontario	193	53	802	3,600	4,000	7,600
Total	---	---	---	60,780	33,930	94,710

## HISTORICAL FISHERY STATISTICS

The abundant supply of fish played an important part in the settlement and development of the land areas that border these lakes. From the earliest settlements to about 1830, commercial fishing was confined almost exclusively to the Indians and employees of the Hudson Bay Company and the American and Northwest Fur Company (Bissel, 1887). An excellent review of the history and general conditions of these early fisheries can be found in two publications by Koelz (1926) and Van Oosten (1936).

From 1959-63, the Great Lakes fleet averaged 458 vessels (5 net tons and over), 1,109 smaller motor craft, and 220 nonmotor boats. Although some of the larger craft operate in the trap net, pound net, and trawl fisheries, most fished gill nets. Many fish stocks occur in the deeper regions of the lakes, and these vessels are ideally suited to make the necessary long runs to the fishing grounds and to weather the severe storms that develop. Operators of smaller craft (less than 5 net tons) also fish gill nets but of shorter lengths than carried by vessels. Generally these small craft fish in the shallow waters, but it is not uncommon to find some operating miles from shore. Many of these smaller boats also operate in the long-line and fyke net fisheries in bays and shallow water areas.

Craft usually return to port at the end of each day's fishing operation at which time fish are weighed, packed, and shipped; and crews perform various shore duties. Prior to the mid-1950's, when lake trout were plentiful, many of the larger operators employed shore crews for maintenance of gear. In the past 10 years, however, the poor economic condition of these fisheries has reduced the number of employees, especially those on shore. In periods of good fishing, a vessel employed three to five fishermen, but in recent years most of them operate with a crew of two or three. Many one-man operations are known.

Many changes, some bordering on disasters, have occurred in the Great Lakes fisheries. Among the major ones may be listed: the collapse of the lake herring fishery; and more recently, the whitefish, blue pike, sauger, and yellow pike or walleye fisheries in Lake Erie; the 1942-43 mortality that all but exterminated the smelt in Lakes Huron and Michigan; the recent great abundance of low value alewife in these lakes; and the consequences of the penetration of the sea lamprey into the three upper lakes. Other factors have changed and may have adversely affected the fisheries. Increase in the development of agricultural areas and timber cutting has resulted in soil erosion; use of fertilizers, insecticides and herbicides on farms; increases in human population; increased boat use; beach and channel improvements; and industrial and sewage wastes. All of these have played some role in the conditions that now exist in many of our fisheries. These events, rising costs, and an adverse market structure have brought the industry into severe economic distress.

Perhaps the greatest damage dealt the Great Lakes fisheries was the invasion of the sea lamprey. This parasite, shaped like an eel, is one of a primitive group of fishes. Instead of jaws it has a circular mouth containing horny teeth; this arrangement permits firm attachment to fish. It feeds on fish by rasping a hole in the flesh with the teeth on its tongue and sucks the blood and other body fluids. Fish normally die after one attack or become greatly weakened. The sea lamprey, an ocean inhabitant, became landlocked in Lake Ontario many years ago. Around 1921, the sea lamprey found its way into the other Great Lakes through the Welland Canal. It was never plentiful in Lake Erie where spawning conditions were not suitable (the sea lamprey spawns in cool-flowing water and builds its nest in rubble). They moved into Lakes Huron and Michigan and finally into Lake Superior, where the population became extremely plentiful. Lampreys destroyed stocks of lake trout in Lakes Huron and Michigan and did great damage in Lake Superior. The lake trout fishery which once yielded U. S. fishermen an annual catch valued at \$4.1 million was worth only \$79,000 in 1963. The reduction of the sea lamprey is being carried out by treatment of streams with a specific toxicant by the Bureau of Commercial Fisheries and the Fisheries Research Board of Canada under contract with the Great Lakes Fishery Commission. The probability of effective control of the sea lamprey by chemical treatment appears excellent. Rehabilitation of lake trout should follow reduction of lamprey stocks.

Landings of fish in the Great Lakes are small in comparison with most coastal fisheries; yet the lakes are the principal or only commercial source of fresh-water fishery products in the United States. Some Great Lakes species, such as lake trout, whitefish, and yellow pike are gourmet items that bring high prices. The value of the lake fisheries has been considerable until the recent declines of the choicer species. To give just one example, when the Pacific sardine fishery was at its height--annual catches in excess of a billion pounds--the landings of Great Lakes fish had a value equal to that of the sardines.

Development of the Fisheries. In nearly all lakes, the earliest fisheries were prosecuted by haul seines (in Lake Huron this gear did not become important until 1912.) Although seines were believed to be the initial gear in Lake Michigan, little is known of these early operations. The haul seine fishery was seasonal, usually carried on in the spring and fall when the fish entered shallower waters.

As more people moved into the Great Lakes area, there was increased demand for fishery products, and fishermen extended operations to the deeper waters. At this time, gill nets and then pound nets became popular; trap nets and longlines or setlines followed.

Dates for the first operation of each gear vary for the individual lakes. Haul seines were known to be used as early as 1807 in Lake Ontario, while in Lake Erie, the first records of this gear are for 1815. Gill nets were fished in Lake Huron in 1835. The pound net was used in Lake Huron in 1854, and in Lakes Michigan and Superior, records show this gear was in use in 1860. In Lake Michigan, the trap net appeared around 1885, and longlines or setlines were recorded in 1870.

At present, nine types of gear are fished commercially on the Great Lakes. In addition to the five gears mentioned above, fyke nets, trolling or handlines, dip nets, and trawls  $\frac{1}{2}$ , are also used. For purposes of analysis of catch and effort, gill nets are subdivided into four mesh size groups: 1- $\frac{1}{4}$  to 2 inches; 2- $\frac{1}{8}$  to 3 inches; 4 to 7 inches; and 7- $\frac{1}{8}$  to 14 inches. The gill net is highly selective, and each mesh size group is used for the capture of certain species. A 1- $\frac{1}{4}$  to 2 inch mesh net is used to catch bait fish for longline fishing and will also capture large quantities of smelt as they enter the shallow water in the spring. A size of 2- $\frac{1}{8}$  to 3 inches is used primarily for the capture of chubs, lake herring, and yellow perch. A 4 to 7 inch net is fished for lake trout, whitefish, yellow pike, and suckers. The larger 7- $\frac{1}{8}$  to 14 inch net is designed to catch carp and sturgeon.

The following list of gear, in descending order, is based on the number of fishermen employed in the Great Lakes fisheries: 2- $\frac{1}{8}$  to 3 inch mesh gill nets; 4- $\frac{1}{8}$  to 7 inch mesh gill nets; trap nets; longlines or setlines; haul seines; pound nets; 1- $\frac{1}{4}$  to 2 inch mesh gill nets; fyke and hoop nets; 7- $\frac{1}{8}$  to 14 inch mesh gill nets; otter trawls; dip nets; and trolling or handlines. This order changes in Lake Erie where haul seines, longlines or setlines, and trap nets are the predominant gears; but in other water areas gill nets are the principal method of fishing. Excepting employment in related industries (processing, canning, wholesaling, etc.), the Great Lakes fleet in 1959-63 provided employment for an average of 3,367 fishermen.

The entire roster of species taken in the early fisheries is not known. As the use of haul seines was widespread, however, it is assumed that the major portion of the catch consisted of those fish found in shallow water such as catfish and suckers (lake herring in Lake Superior). It is possible that some deep- and cold-water species were taken by this gear (a substantial lake trout and whitefish fishery existed in the Detroit River as early as 1885); but knowledge of these early fisheries does not allow further inferences to be made.

$\frac{1}{2}$  The otter trawl was introduced in 1958. New York, Michigan, Illinois, and Wisconsin have issued permits for the experimental use of this gear in Lakes Ontario and Michigan. In the State of Pennsylvania waters of Lake Erie, trawls are a licensed fishing gear.

# HISTORICAL FISHERY STATISTICS

Sufficient data for later years are available to enable biologists to trace the abundance of fish stocks in relation to production and fishing pressure for entire lakes or specific areas. Within this period, production of the high-value fish has tended to decline, while the low-value fish have increased.

In the last 35 years, Federal and State research groups have made numerous investigations of these fisheries. It appears, however, that effective conservation of these fisheries requires more knowledge, especially in waters where low-priced species are overly abundant. It may be necessary, someday, to set quotas on production of certain species and to limit the number of fishermen.

United States and Canadian Production. The United States owns 64 percent of the water area in the Great Lakes and has outproduced Canada every year. The differences in the landings of the two countries, however, have been growing smaller, and in 1963 the U.S. production was only 13 million pounds more than landings in Canada. In 1962, Canadian landings were below the United States catch by only 8 million pounds. The catches from both countries were more nearly equal that year than for any other.

To demonstrate declines in landings for all lakes, data have been separated into three periods: early, 1879-1908; middle, 1914-28; and late, 1929-63. As complete U.S. data were not available for some lakes for early years, figures used for the fisheries are for the years 1879, 1885, 1889-90, 1893, 1897, 1899, 1903, 1908, and 1914-63. Figures for the following years are complete for only certain lakes (see individual lake tables): 1891-92, 1894-96, 1898, 1900-02, 1904-07, and 1911-13.

From 1879-1908, the United States accounted for 82 percent of the Great Lakes landings. This percentage dropped to 73 percent in 1914-28 and to 71 percent in 1929-63. The average annual landings in the United States during these periods were 102.3 million, 85.3 million, and 75.9 million pounds, respectively. Canada's average catch was 23.0 million, 31.9 million, and 31.1 million pounds, respectively, for the same periods. The total U.S. catch in 1963 was the lowest on record--55,823,000 pounds.

Lake Ontario. U.S. production in Lake Ontario (table 2) has always been small in comparison with landings in the other lakes. The presence of the parasitic sea lamprey in Lake Ontario may have reduced the stocks of the deep-water fishes. A relatively deep lake, maximum depth 802 feet, it contains lake trout and lake whitefish stocks; however, in recent years, the landings of these species have decreased.

Catches of blue pike, although never large compared with landings of this species in Lake Erie, accounted for at least 25 percent of the total annual lake catch during the period 1946-54 (as high as 70 percent in 1952). Since that time, landings have decreased and in 1963, less than 50 pounds were produced.

Although the reported U.S. catches were high during the early recorded history, mixed catches make it impossible to trace the trends of some species. We believe that large quantities of lake herring were landed during the early years.

The rise in U.S. production to 1,914,000 pounds in 1921 resulted from increased landings of chubs and lake herring (cisco). The catches of these species were mixed, but we believe that the bulk of this production was lake herring.

Total production has declined since the earliest recorded landings; catches since 1941 have exceeded 1/2 million pounds in only one year, 1952.

For the period records are available, Canada has outproduced the United States every year, except in 1879. Since 1929 to the present time, Canada has accounted for at least 69 percent of the total production of Lake Ontario, ranging from 69 percent in 1940 to 94 percent in 1956.

The 1879-1908 U.S. catches in Lake Ontario averaged slightly over 2 million pounds. Production in 1913-28 averaged 669,000 pounds; in the period 1929-63, landings averaged 491,000 pounds. The major portion of the present day U.S. production is landed at ports on Chaumont Bay, the extreme eastern end of Lake Ontario.

Lake Erie. In Lake Erie, a shallow warm-water lake, U.S. fishermen produced an average of 32.6 million pounds annually over a 59-year period (table 3). In the early fishery, blue pike, lake herring (cisco), saugers, yellow perch, and yellow pike were landed in large quantities. These species, considered to be choice, brought a high dollar return to the producer. As with any warm-water area, however, considerable quantities of carp, suckers, and sheepshead also were available although little used.

The lake herring has almost vanished from Lake Erie. In 1924, production exceeded 21 million pounds, yet in 1925, landings were only 2,817,000 pounds. In 1926, catches dropped to 1,449,000 pounds, rose to 2,350,000 pounds in 1927, and declined to 618,000 pounds in 1928. Landings remained at very low levels for the next 9 years, rose to about 3/4 million pounds in 1938-39; but from 1940-44 catches were very small. Production in 1945 increased to 2,765,000 pounds, jumped to 6,638,000 pounds in 1946; landings declined to 1,177,000 pounds in 1947; and since that year have decreased until in 1963 the yield was only 1,000 pounds.

Blue pike landings have declined drastically; in 1963 only 200 pounds were caught. Yellow perch, a consistently abundant species in all lakes except Lake Superior, is still produced in large amounts. The catch of yellow pike has dropped sharply in the last 5 years, and in 1962 reached an alltime low of 433,000 pounds. In 1963, the production of this species increased to 800,000 pounds, well below the landings during 1940-58. Production of whitefish has been sporadic. Catches of this species since 1879 have shown considerable decrease for 1 or more years and then have increased for a period. The lowest yield of whitefish occurred in 1962 when only 3,000 pounds were taken. The sauger, once an important commercial fish, has steadily decreased in production, and in the last 9 years landings have been insignificant.

As supplies of blue pike, lake herring, lake whitefish, saugers, and yellow pike dwindled, the total U.S. catch decreased until the lowest yield (17,238,000 pounds) was reported in 1963.

Although other species such as carp, sheepshead, suckers, and white bass are available, their production does not make up for the loss of the high-priced species as the market can absorb only limited amounts of these low-value fish.

In 1879-1908 U.S. catches averaged 46.0 million pounds; in 1914-28, 38.9 million pounds; and in 1929-63, 26.4 million pounds annually. From 1879-1953, the United States outproduced Canada; however, from 1954 to the present time, Canada's landings have accounted for the major portion of the total Lake Erie production.

Lake Huron. The total U.S. production in Lake Huron was fairly steady until 1939. Since that year, landings have been declining (table 4). The sea lamprey has brought the production of lake trout to an end and affected adversely the stocks of whitefish, suckers, and yellow pike. Lake herring have not reproduced successfully in recent years. The failure of these species has dealt the industry a severe blow. On the other hand, chubs, never landed in large quantities, are now produced at a high rate.

# HISTORICAL FISHERY STATISTICS

The last good catches of whitefish were in 1947-48. In 1949, the take dropped to 530,000 pounds and it reached an alltime low of only 30,000 pounds in 1956. Since that year, it has increased slightly but never exceeded 500,000 pounds.

Since 1879, U.S. production has exceeded Canada's landings in all but 6 years-- 1890, 1892, and 1951-54. Total U.S. catches averaged 14.5 million pounds in 1879-1908; in 1912-28, 12.3 million pounds; and in 1929-63, 8.6 million pounds.

Lake Michigan. Lake Michigan (table 5) is the only Great Lake lying entirely within the boundaries of the United States. Four States--Michigan, Indiana, Illinois, and Wisconsin--control the lake's fisheries.

Here, the effect of the sea lamprey depredation was widespread and catastrophic. First hit were the lake trout. Landings dropped from 5,437,000 pounds in 1945 to 4,000 pounds in 1952. At the same time, the take of chubs increased to reach an alltime high of 12,659,000 pounds in 1960.

Unquestionably, other species were affected by the sea lamprey. Principal among them have been whitefish, suckers, and the large chubs. With the disappearance of the lake trout, small chubs (bloaters) increased in abundance. Changes in these waters appear to be following those of Lake Ontario where the sea lamprey has been known to exist for numerous years and where production is low. When it was no longer profitable to fish for lake trout and lake whitefish, fishermen turned their efforts to catching yellow perch and chubs.

The effect of the 1942-43 smelt mortality was relatively shortlived. The catch for 1944 was only 5,000 pounds, but by 1958 production rose to over 9 million pounds.

In 1879-1908, total landings averaged 35.1 million pounds; in 1911-28, 23.4 million pounds; and in the remaining 35 years, catches averaged 24.9 million pounds annually.

Lake Superior. Lake Superior produces only lake trout, lake whitefish, and lake herring in quantity (table 6). In recent years the catch of chubs and smelt has increased. This was the last lake invaded by the sea lamprey. As in Lakes Huron and Michigan, chub catches increased with the loss of lake trout production.

The yearly averages of the total U.S. catch for the periods 1879-1908, 1913-28, and 1929-63 were 7.8, 10.5, and 15.6 million pounds, respectively. This longterm increase is largely due to production of lake herring. Because the sea lamprey's heavy predation started much later than in Lakes Huron and Michigan, lake trout landings were fairly consistent until 1952. Some quantities of native lake trout remained in Lake Superior at the time the Bureau began its attempt to control the sea lamprey. Even though production of this species is low, now controlled by quota, biologists report that the abundance of lake trout is increasing.

Production by State. Complete data for all States are not available prior to 1935 (table 7). The States in order of total production generally have been Michigan, Ohio, Wisconsin, Minnesota, Pennsylvania, New York, Illinois, and Indiana. In the last 4 years, Wisconsin has occupied second place because of the large catches made in the otter trawl fishery.

That portion of Lake Michigan over which Indiana has control is not especially productive. Some Indiana fishermen purchase licenses from the State of Michigan and fish in that State's waters. These catches were reported by the State of Indiana from 1935-43. Beginning in 1944, catches made in Michigan waters by Indiana fishermen were added to production of the State of Michigan.

The production of Ohio, Michigan, and Wisconsin has accounted for at least 80 percent of the total U.S. Great Lakes landings from 1935-63 (as high as 93 percent in 1960 and 1961). Monthly landing bulletins for these three States are published by the Bureau.

It is evident that commercial fish landings in all States are decreasing. The average production for each State during the 29 years of record is: New York, 1.4 million; Pennsylvania, 2.3 million; Ohio, 21.3 million; Indiana, 0.2 million; Michigan, 25.7 million; Illinois, 1.3 million; Wisconsin, 18.5 million; and Minnesota, 4.2 million pounds. The average total U.S. catch during this period was 74.8 million pounds.

The data appearing in this report make it clear that the Great Lakes fisheries are in severe economic distress. The choice, high-value species have become scarce. Although the supply of low-value fish is large, the production of these species is limited by the demand, which is relatively light. No single factor brought about the conditions that now prevail.

### LITERATURE CITED

American Fisheries Society.

1960. A list of common and scientific names of fishes from the United States and Canada. (2d ed.) Its Special Publication No. 2, 102 p.

Baldwin, Norman S., and Robert W. Saalfeld.

1962. Commercial fish production in the Great Lakes 1867-1960. Great Lakes Fishery Commission, Technical Report No. 3, 166 p.

Bissel, John H.

1887. Fish and fish-culture in Michigan. Seventh Biennial Report, Michigan State Board of Fish Commissioners, appendix pp. 94-108.

Hile, Ralph.

1962. Collection and analysis of commercial fishery statistics in the Great Lakes. Great Lakes Fishery Commission, Technical Report No. 5, 31 p.

Koelz, Walter.

1926. Fishing industry of the Great Lakes. U.S. Bureau of Fisheries, Report of the Commissioner of Fisheries for the fiscal year 1925, appendix 11 (Document 1001), pp. 553-617.

Van Oosten, John.

1936. Fishing industry of the Great Lakes. U.S. Bureau of Fisheries, Memoranda, I-63, 13 pp. (Mimeographed).

## HISTORICAL FISHERY STATISTICS

TABLE 1.--UNITED STATES GREAT LAKES CATCH BY SPECIES AND TOTAL CANADIAN CATCH, VARIOUS YEARS, 1879-1963

YEAR	BLUE PINE		CARP		CATFISH		CHUBS		LAKE HERRING		LAKE TROUT		LAKE WHITEFISH		SAUGER		SHEEPSHEAD	
	QUANTITY	(THOUSANDS OF FOUNDS)	QUANTITY	(THOUSANDS OF FOUNDS)	QUANTITY	(THOUSANDS OF FOUNDS)	QUANTITY	(THOUSANDS OF FOUNDS)	QUANTITY	(THOUSANDS OF FOUNDS)	QUANTITY	(THOUSANDS OF FOUNDS)	QUANTITY	(THOUSANDS OF FOUNDS)	QUANTITY	(THOUSANDS OF FOUNDS)	QUANTITY	(THOUSANDS OF FOUNDS)
1879.	(1)								3/2,15,716		6,905							(1)
1883.	(1)								3/2,662		12,597							(1)
1890.	(1)								3/2,531,110		11,202							(1)
1891.	(1)								3/49,959		12,889							(1)
1893.	(1)								(1)		16,183							(1)
1897.	(1)								3/49,140		12,949							(1)
1899.	(1)								3/64,771		6,605							(1)
1903.	(1)								3/39,051		5,037							(1)
1908.	(1)								3/49,218		12,957							(1)
1914.	(1)								3/26,605		10,898							(1)
1915.	(1)								3/30,463		4,031							(1)
1916.	(1)								3/30,463		9,994							(1)
1917.	(1)								3/46,720		11,027							(1)
1918.	(1)								3/63,720		10,793							(1)
1919.	(1)								3/40,516		12,407							(1)
1920.	(1)								3/20,800		10,250							(1)
1921.	(1)								3/28,449		15,302							(1)
1922.	(1)								3/28,153		11,372							(1)
1923.	(1)								3/37,025		3,487							(1)
1924.	(1)								3/26,711		11,230							(1)
1925.	(1)								3/23,859		11,559							(1)
1926.	(1)								3/30,996		10,493							(1)
1927.	(1)								3/20,427		9,425							(1)
1928.	(1)								3/25,936		10,544							(1)
1929.	(1)								3/29,061		9,688							(1)
1930.	(1)								3/21,967		10,791							(1)
1931.	(1)								3/18,568		10,564							(1)
1932.	(1)								3/18,568		9,691							(1)
1933.	(1)								3/18,568		9,691							(1)
1934.	(1)								3/31,206		9,922							(1)
1935.	(1)								3/29,319		10,099							(1)
1936.	(1)								3/4,953		9,406							(1)
1937.	(1)								3/27,190		9,406							(1)
1938.	(1)								3/27,204		9,429							(1)
1939.	(1)								3/29,149		9,782							(1)
1940.	(1)								3/25,068		3,905							(1)
1941.	(1)								3/25,068		1,856							(1)
1942.	(1)								3/31,114		10,174							(1)
1943.	(1)								3/20,695		10,375							(1)
1944.	(1)								3/20,096		10,605							(1)
1945.	(1)								3/26,957		8,980							(1)
1946.	(1)								3/31,730		7,457							(1)
1947.	(1)								3/24,293		5,402							(1)
1948.	(1)								3/30,501		4,155							(1)
1949.	(1)								3/27,900		3,207							(1)
1951.	(1)								3/20,333		2,924							(1)
1952.	(1)								3/23,595		2,844							(1)
1953.	(1)								3/11,343		2,416							(1)
1954.	(1)								3/16,647		2,948							(1)
1955.	(1)								3/20,878		2,257							(1)
1956.	(1)								3/16,684		2,101							(1)
1957.	(1)								3/16,390		1,813							(1)
1958.	(1)								3/14,853		1,462							(1)
1959.	(1)								3/17,600		1,911							(1)
1960.	(1)								3/12,302		1,578							(1)
1961.	(1)								3/15,534		1,668							(1)
1962.	(1)								3/11,111		984							(1)
1963.	(1)								3/11,710		328							(1)
1964.	(1)								3/10,058		1,002							(1)
1965.	(1)								3/8,483		1,27							(1)

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTES AT END OF TABLE.

# HISTORICAL FISHERY STATISTICS

TABLE 1.--UNITED STATES GREAT LAKES CATCH BY SPECIES AND TOTAL CANADIAN CATCH, VARIOUS YEARS, 1879-1963 - Continued

YEAR	SHELL		SUCKERS		WHITE BASS		YELLOW PERCH		YELLOW PIKE (WALLEYE)		MISCELLANEOUS		TOTAL	
	QUANTITY	UNITED STATES AND CANADA	QUANTITY	UNITED STATES AND CANADA	QUANTITY	UNITED STATES AND CANADA	QUANTITY	UNITED STATES AND CANADA	QUANTITY	UNITED STATES AND CANADA	QUANTITY	UNITED STATES AND CANADA	QUANTITY	UNITED STATES AND CANADA
1879.	-	-	1	1	1	1	1	1	1	1	44,370	66,891	9,347	76,236
1885.	-	-	1	1	1	1	1	1	1	1	54,908	97,623	23,668	121,590
1889.	-	-	3,683	3,683	1	1	1	1	1	1	23,677	115,575	26,362	143,937
1890.	-	-	1	1	1	1	1	1	1	1	37,501	111,550	26,646	146,196
1893.	-	-	1	1	2	2	1	1	1	1	83,467	107,882	26,629	134,211
1897.	-	-	1	1	1	1	1	1	1	1	6,328	94,930	20,541	115,470
1899.	-	-	7,911	7,911	1,579	1,579	1	1	1	1	10,177	119,424	26,107	145,530
1900.	-	-	1,901	1,901	35	35	7,007	7,007	3,768	3,768	3,236	194,165	16,659	113,024
1901.	-	-	1	1	1	1	1	1	1	1	3,488	103,473	34,773	137,789
1904.	-	-	476	476	5,790	5,790	5,790	5,790	1,149	1,149	24,748	111,587	38,279	145,665
1915.	-	-	694	694	1,118	1,118	3,194	3,194	3,194	3,194	19,091	69,085	32,900	121,987
1916.	-	-	9,918	9,918	343	343	5,702	5,702	3,188	3,188	19,091	69,085	32,900	121,987
1917.	-	-	1	1	333	333	4,259	4,259	2,992	2,992	6,374	37,798	37,798	135,237
1918.	-	-	1	1	129	129	3,972	3,972	2,902	2,902	15,822	106,181	39,187	145,367
1919.	-	-	1	1	193	193	6,668	6,668	12,713	12,713	85,400	30,546	115,947	145,947
1920.	-	-	1	1	304	304	4,391	4,391	1,873	1,873	13,105	31,680	31,680	104,848
1921.	-	-	1	1	1,945	1,945	3,562	3,562	7,741	7,741	6,659	87,741	29,683	117,625
1922.	-	-	1	1	621	621	3,562	3,562	1,945	1,945	32,140	115,457	34,492	145,460
1923.	-	-	7,793	7,793	300	300	3,577	3,577	10,542	10,542	76,285	76,285	76,285	115,457
1924.	-	-	1	1	182	182	3,626	3,626	1,710	1,710	7,449	77,959	34,492	115,460
1925.	-	-	1	1	232	232	4,509	4,509	2,030	2,030	10,009	73,566	26,466	100,030
1926.	-	-	1	1	158	158	5,385	5,385	2,218	2,218	12,747	73,182	24,718	107,900
1927.	-	-	1	1	121	121	4,976	4,976	2,367	2,367	12,318	79,508	27,847	107,354
1928.	-	-	1	1	287	287	5,764	5,764	1,767	1,767	18,105	65,027	27,015	89,040
1929.	-	-	5,866	5,866	1,355	1,355	7,972	7,972	1,737	1,737	1,767	27,216	27,216	95,388
1930.	-	-	6,520	6,520	1,416	1,416	6,109	6,109	1,645	1,645	1,645	26,984	26,984	115,435
1931.	-	-	1	1	416	416	11,109	11,109	1,632	1,632	87,541	70,370	24,945	104,313
1932.	-	-	96	96	253	253	11,421	11,421	1,559	1,559	5,380	70,751	23,703	94,454
1933.	-	-	1	1	5,332	5,332	3,915	3,915	3,018	3,018	1,961	70,751	23,703	94,454
1934.	-	-	1,031	1,031	5,563	5,563	16,071	16,071	3,159	3,159	1,950	90,880	25,269	116,149
1935.	-	-	5,826	5,826	739	739	11,849	11,849	3,494	3,494	1,693	87,011	29,132	116,143
1936.	-	-	5,675	5,675	664	664	5,797	5,797	6,298	6,298	90,570	27,794	118,363	118,363
1937.	-	-	1,428	1,428	5,707	5,707	4,846	4,846	6,877	6,877	81,001	30,998	30,998	111,099
1938.	-	-	1,838	1,838	4,820	4,820	7,15	7,15	1,709	1,709	65,229	95,259	95,259	105,258
1939.	-	-	4,209	4,209	4,267	4,267	6,173	6,173	5,498	5,498	76,588	21,770	98,359	98,359
1940.	-	-	4,795	4,795	4,135	4,135	6,699	6,699	4,494	4,494	2,332	76,429	20,935	97,365
1941.	-	-	3,355	3,355	4,312	4,312	5,211	5,211	5,112	5,112	2,395	73,563	20,657	94,228
1942.	-	-	2,225	2,225	4,439	4,439	5,403	5,403	4,969	4,969	2,813	76,667	24,959	101,827
1943.	-	-	4,114	4,114	860	860	5,696	5,696	4,754	4,754	2,292	74,167	25,145	99,312
1944.	-	-	104	104	4,658	4,658	3,266	3,266	6,202	6,202	74,167	28,128	28,128	105,341
1945.	-	-	271	271	4,215	4,215	4,337	4,337	7,472	7,472	1,658	77,413	27,109	105,341
1946.	-	-	3,165	3,165	4,916	4,916	3,165	3,165	1,950	1,950	61,961	61,961	61,961	95,301
1948.	-	-	1,131	1,131	3,557	3,557	4,924	4,924	1,387	1,387	81,961	23,140	23,140	103,100
1949.	-	-	1,537	1,537	807	807	4,574	4,574	6,662	6,662	1,206	67,460	27,660	95,120
1950.	-	-	2,963	2,963	1,142	1,142	4,448	4,448	7,060	7,060	6,775	66,906	26,502	93,408
1951.	-	-	3,625	3,625	2,912	2,912	1,036	1,036	6,419	6,419	795	68,623	24,147	95,771
1952.	-	-	5,387	5,387	2,679	2,679	4,199	4,199	5,613	5,613	932	79,663	30,333	110,017
1953.	-	-	5,420	5,420	2,370	2,370	6,116	6,116	79,325	79,325	36,949	36,949	36,949	112,473
1954.	-	-	6,002	6,002	2,224	2,224	6,042	6,042	9,104	9,104	910	79,748	39,866	119,614
1955.	-	-	2,027	2,027	2,973	2,973	6,355	6,355	5,914	5,914	79,748	39,866	39,866	119,614
1956.	-	-	1,837	1,837	2,679	2,679	10,948	10,948	6,355	6,355	78,507	59,312	59,312	131,116
1957.	-	-	7,255	7,255	1,307	1,307	4,431	4,431	74,046	74,046	995	43,743	43,743	117,783
1958.	-	-	9,537	9,537	1,441	1,441	10,915	10,915	4,293	4,293	2,141	68,897	36,405	107,303
1959.	-	-	6,890	6,890	1,441	1,441	11,710	11,710	1,930	1,930	1,790	63,464	40,098	103,562
1960.	-	-	4,320	4,320	1,551	1,551	10,223	10,223	1,427	1,427	3,065	65,936	37,918	103,854
1961.	-	-	3,540	3,540	1,441	1,441	9,324	9,324	965	965	4,148	45,368	67,140	112,508
1962.	-	-	2,604	2,604	1,292	1,292	11,995	11,995	5,625	5,625	61,830	55,334	55,334	115,369
1963.	-	-	1,096	1,096	1,174	1,174	11,255	11,255	1,022	1,022	6,034	42,794	42,794	96,617

1/ NOT AVAILABLE. 2/ LESS THAN 300 POUNDS. 3/ CHUBS INCLUDED WITH LAKE HERRING.  
 NOTE: --PRODUCTION OF SAUGER AND WHITE BASS IS CONFINED TO THE CATCH IN LAKE ERIE DURING THE PERIOD 1865-1927.

TABLE 2.--UNITED STATES LAKE ONTARIO CATCH BY SPECIES AND TOTAL CANADIAN CATCH, VARIOUS YEARS, 1879-1963

YEAR	(THOUSANDS OF POUNDS)								
	BLUE PIKE	CARP	CATFISH	CHUBS	LAKE HERRING	LAKE TROUT	LAKE WHITEFISH	SAUGER	SHEEPSHEAD
	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
1879	{1}		{1}	{3}	3/6,11	570	1,064	{1}	{1}
1885	{1}	{1}	{1}	{3}	3/404	21	93	{1}	{1}
1890	{1}	{1}	{1}	{3}	3/850	21	21	{1}	{1}
1893	{1}	{1}	{1}	{3}	3/599	41	149	{1}	{1}
1897	{1}	{1}	{1}	{3}	3/165	6	45	{1}	{1}
1899	49			{3}	3/46	3	162	{1}	{1}
1903	187	1		{3}	3/87	15	25	{1}	
1904	61	4		{3}	3/121	4	16	{1}	
1908	100	5		{3}	3/35	27	16	{1}	
1913	39	1		{3}	3/159	21	21	{1}	
1915	39	1		{3}	3/232	31	27	{1}	
1916	50	1		{3}	3/188	14	38	{1}	
1917	22	7		{3}	3/381	24	116	{1}	
1918	50	(2)		{3}	3/206	22	101	{1}	
1919	108	3		{3}	3/181	28	76	{1}	
1920	35	(2)		{3}	3/44	28	44	{1}	
1921	62	17		{3}	3/144	37	109	{1}	
1922	137	32		{3}	3/321	54	106	{1}	
1924	109	261		{3}	3/59	36	130	{1}	
1925	109	221		{3}	3/394	45	134	{1}	
1926	35	1		{3}	3/47	70	111	{1}	
1927	22	18		{3}	3/192	61	179	{1}	
1928	22	18		{3}	3/102	42	166	{1}	
1929	14	24		{3}	3/342	43	116	{1}	
1930	31	26		{3}	3/416	52	87	{1}	
1931	61	31		{3}	3/159	14	67	{1}	
1932	61	54		{3}	3/73	18	55	{1}	
1933	227	54		{3}	3/42	12	40	{1}	
1934	153	17		{3}	3/126	14	84	{1}	
1935	136	24		{3}	3/167	7	41	{1}	
1936	28	86		{3}	3/223	8	53	{1}	
1937	60	35		{3}	3/124	13	57	{1}	
1938	59	192		{3}	3/42	17	106	{1}	
1939	192	784		{3}	3/99	14	104	{1}	
1941	96	94		{3}	3/72	14	111	{1}	
1942	40	52		{3}	3/74	3	60	{1}	
1943	45	65		{3}	3/58	3	26	{1}	
1944	56	16		{3}	3/108	4	57	{1}	
1945	77	105		{3}	3/78	1	44	{1}	
1946	128	16		{3}	3/17	1	44	{1}	
1947	209	16		{3}	3/17	1	28	{1}	
1948	111	21		{3}	3/46	1	8	{1}	
1949	189	21		{3}	3/46	2	2	{1}	
1950	47	3		{3}	3/11	11	21	{1}	
1951	252	10		{3}	3/39	2	33	{1}	
1952	468	14		{3}	3/5	2	23	{1}	
1953	60	13		{3}	3/9	2	23	{1}	
1954	116	11		{3}	3/1	3	32	{1}	
1955	30	10		{3}	3/1	1	10	{1}	
1956	13	9		{3}	3/2	2	12	{1}	
1957	10	10		{3}	3/2	2	13	{1}	
1958	5	18		{3}	3/2	2	12	{1}	
1959	3	16		{3}	3/1	1	6	{1}	
1960	22	22		{3}	3/5	5	20	{1}	
1961	49	49		{3}	3/2	2	59	{1}	
1962	{2}	39		{3}	3/3	3	27	{1}	
1963	{2}	36		{3}	3/5	5	31	{1}	

SEE FOOTNOTES AT END OF TABLE (CONTINUED ON NEXT PAGE)

## HISTORICAL FISHERY STATISTICS

TABLE 2.--UNITED STATES LAKE ONTARIO CATCH BY SPECIES AND TOTAL CANADIAN CATCH, VARIOUS YEARS, 1879-1963 - Continued

YEAR	SHELT	SUCKERS	WHITE BASS	YELLOW PERCH		YELLOW PIKE (WALLEYE)	MISCELLANEOUS	TOTAL		UNITED STATES AND CANADA
				QUANTITY	QUANTITY			UNITED STATES	CANADA	
1879.	.	(1)	(1)	(1)			1,995	3,640	3,238	6,876
1885.	.	(1)	(1)	(1)			1,863	4,204	4,204	6,062
1890.	.	74		65			2,019	2,446	2,446	7,335
1893.	.	279		359			2,593	3,670	4,069	7,639
1897.	.	48		131			928	3,670	4,598	8,268
1899.	.	53		169			414	2,753	2,753	3,674
1899.	.	264		367	5	10	1,187	2,310	2,761	5,071
1903.	.	73		122	8	8	655	1,073	2,662	3,754
1908.	.	128		35	54	54	990	617	3,199	4,016
1913.	.	9		4	208	208	23	208	3,153	3,361
1914.	.	16		9	5	5	96	4,364	4,364	8,728
1915.	.	27		4	5	5	27	3,444	5,253	8,697
1917.	.	13		4	5	5	55	6,600	6,600	13,200
1918.	.	20		5	12	12	50	5,464	5,103	10,567
1919.	.	40		3	8	8	99	5,504	6,048	11,552
1920.	.	17		3	9	9	49	4,968	4,968	9,936
1921.	.	20		10	23	23	914	1,914	4,577	6,491
1922.	.	6		35	136	136	85	4,352	4,352	8,704
1923.	.	20		9	32	32	150	4,975	5,068	10,033
1924.	.	94		9	36	36	903	4,975	5,878	10,853
1925.	.	40		9	29	29	104	4,446	4,250	8,696
1926.	.	66		34	22	22	194	788	4,118	4,905
1927.	.	71		39	19	19	228	696	3,731	4,429
1928.	.	62		45	20	20	175	854	3,477	4,330
1929.	.	51		36	11	11	225	948	3,610	4,557
1930.	.	51	(2)	30	16	16	62	5,021	4,703	9,724
1931.	.	52		24	12	12	165	2,932	2,932	5,864
1932.	.	23		35	7	7	134	527	2,851	3,378
1933.	.	23		35	25	25	200	717	2,231	2,948
1934.	.	47		51	80	80	245	770	2,723	3,493
1935.	.	51		80	18	18	205	601	3,126	3,727
1936.	.	36		49	9	9	174	618	3,330	3,948
1937.	.	49		49	4	4	176	618	3,068	3,686
1938.	.	129		58	6	6	187	950	3,728	4,678
1939.	.	54		33	6	6	152	4,381	3,525	7,906
1940.	.	52		46	9	9	175	3,126	3,126	6,252
1942.	.	19		23	3	3	93	325	2,468	2,793
1943.	.	45	(2)	32	3	3	118	395	2,311	2,707
1944.	.	33	(2)	28	4	4	94	400	2,637	3,037
1945.	.	29	(2)	36	3	3	130	492	2,338	2,830
1946.	.	14		34	4	4	125	384	2,059	2,442
1947.	.	23	(2)	25	2	2	94	364	2,042	2,406
1948.	.	29	(2)	16	2	2	143	351	2,005	2,357
1950.	.	26	(2)	16	3	3	93	189	2,219	2,408
1951.	.	22	(2)	10	1	1	116	498	2,410	2,908
1952.	.	19	(2)	9	2	2	116	668	2,281	2,950
1953.	.	15		4	(2)	(2)	54	196	2,059	2,256
1954.	.	15	35	1	1	1	111	311	1,814	2,125
1955.	.	11	31	1	2	2	124	235	1,573	1,808
1956.	.	9	21	1	1	1	146	200	1,967	2,203
1957.	.	12	9	1	(2)	(2)	171	263	2,361	2,632
1958.	.	18	6	35	2	2	145	226	2,051	2,277
1959.	.	14	4	28	1	1	138	258	1,958	2,216
1960.	.	12	8	37	1	1	137	209	1,958	2,167
1961.	.	19	9	68	1	1	99	233	1,748	1,981
1962.	.	16	8	23	14	14	233	233	1,748	1,981
1963.	.	11	4	52	2	2	90	233	2,008	2,241

1/ NOT AVAILABLE. 2/ LESS THAN 500 POUNDS. 3/ CHUBS INCLUDED WITH LAKE HERRING.

## HISTORICAL FISHERY STATISTICS

TABLE 3.--UNITED STATES LAKE ERIE CATCH BY SPECIES AND TOTAL CANADIAN CATCH, VARIOUS YEARS, 1879-1963

YEAR	BLUE PIKE		CARP		CATFISH		LAKE HERRING		LAKE TROUT		LAKE WHITEFISH		SAUGER		SHEEPSHEAD		SMELT	
	QUANTITY	(THOUSANDS OF POUNDS)	QUANTITY	(THOUSANDS OF POUNDS)	QUANTITY	(THOUSANDS OF POUNDS)	QUANTITY	(THOUSANDS OF POUNDS)	QUANTITY	(THOUSANDS OF POUNDS)	QUANTITY	(THOUSANDS OF POUNDS)	QUANTITY	(THOUSANDS OF POUNDS)	QUANTITY	(THOUSANDS OF POUNDS)	QUANTITY	(THOUSANDS OF POUNDS)
1879.	(1)				(1)	11,774	26	3,334	(1)		(1)		(1)		(1)		(1)	
1885.	7,889				(1)	19,355	07	3,532	(1)		(1)		(1)		(1)		(1)	
1889.	(1)		(1)		(1)	37,201	07	3,532	(1)		(1)		(1)		(1)		(1)	
1890.	1,489		(1)		(1)	21,065	10	1,180	(1)		(1)		(1)		(1)		(1)	
1897.	4,652		(1)	136	(1)	19,567	23	2,982	(1)		(1)		(1)		(1)		(1)	
1899.	4,545		(1)		(1)	33,428	32	1,774	(1)		(1)		(1)		(1)		(1)	
1903.	4,915		3,634		(1)	33,428	32	2,153	(1)		(1)		(1)		(1)		(1)	
1906.	8,734		3,547		(1)	6,794	15	335	(1)		(1)		(1)		(1)		(1)	
1914.	11,859		8,693		(1)	10,599	7	1,546	(1)		(1)		(1)		(1)		(1)	
1915.	18,761		12,024		(1)	14,108	6	2,133	(1)		(1)		(1)		(1)		(1)	
1916.	9,381		9,615		(1)	15,978	16	1,145	(1)		(1)		(1)		(1)		(1)	
1917.	1,225		3,539		(1)	16,337	5	1,731	(1)		(1)		(1)		(1)		(1)	
1918.	1,225		3,539		(1)	17,843	5	1,600	(1)		(1)		(1)		(1)		(1)	
1919.	1,675		4,171		(1)	35,293	21	1,711	(1)		(1)		(1)		(1)		(1)	
1920.	3,965		2,961		563	17,646	12	1,600	(1)		(1)		(1)		(1)		(1)	
1921.	8,944		4,102		557	12,693	46	1,426	(1)		(1)		(1)		(1)		(1)	
1922.	10,359		6,542		1,198	14,964	2	922	(1)		(1)		(1)		(1)		(1)	
1923.	9,663		3,887		553	14,022	2	787	(1)		(1)		(1)		(1)		(1)	
1924.	8,967		3,215		(1)	20,930	1	489	(1)		(1)		(1)		(1)		(1)	
1925.	10,778		1,261		248	21,293	1	331	(1)		(1)		(1)		(1)		(1)	
1926.	7,301		2,339		(1)	2,447	3	963	(1)		(1)		(1)		(1)		(1)	
1927.	1,204		1,698		(1)	2,350	3	624	(1)		(1)		(1)		(1)		(1)	
1928.	4,819		1,031		(1)	2,350	3	624	(1)		(1)		(1)		(1)		(1)	
1929.	2,620		963		221	616	3	974	(1)		(1)		(1)		(1)		(1)	
1930.	11,792		1,898		215	128	5	1,079	(1)		(1)		(1)		(1)		(1)	
1931.	12,643		2,404		178	346	5	1,522	(1)		(1)		(1)		(1)		(1)	
1932.	9,867		2,913		118	160	3	1,273	(1)		(1)		(1)		(1)		(1)	
1933.	8,766		2,067		264	136	4	1,169	(1)		(1)		(1)		(1)		(1)	
1934.	8,356		1,609		(1)	172	4	997	(1)		(1)		(1)		(1)		(1)	
1935.	18,900		2,687		(1)	66	2	919	(2)		(2)		(2)		(2)		(2)	
1936.	10,961		2,153		437	64	3	1,158	(1)		(1)		(1)		(1)		(1)	
1937.	10,961		2,153		(1)	64	3	1,158	(1)		(1)		(1)		(1)		(1)	
1938.	8,659		2,209		(1)	810	2	911	(2)		(2)		(2)		(2)		(2)	
1939.	9,049		2,445		(1)	717	2	2,098	(2)		(2)		(2)		(2)		(2)	
1940.	4,951		2,486		(1)	62	2	2,486	(2)		(2)		(2)		(2)		(2)	
1941.	3,287		2,955		(1)	48	2	2,446	(2)		(2)		(2)		(2)		(2)	
1942.	6,222		2,448		(1)	25	2	2,448	(2)		(2)		(2)		(2)		(2)	
1943.	11,228		2,232		(1)	26	2	2,232	(2)		(2)		(2)		(2)		(2)	
1944.	7,353		3,152		(1)	2,765	4	907	(2)		(2)		(2)		(2)		(2)	
1945.	3,012		1,581		(1)	6,636	3	797	(2)		(2)		(2)		(2)		(2)	
1946.	3,120		1,881		695	6,636	3	797	(2)		(2)		(2)		(2)		(2)	
1947.	3,120		1,881		(1)	1,177	388	1,774	(2)		(2)		(2)		(2)		(2)	
1948.	9,003		1,596		653	213	2,769	1,774	(2)		(2)		(2)		(2)		(2)	
1949.	14,000		2,234		867	88	3,479	2,769	(2)		(2)		(2)		(2)		(2)	
1950.	6,190		1,679		990	246	1,605	3,900	(2)		(2)		(2)		(2)		(2)	
1951.	2,150		2,231		1,283	150	866	487	(2)		(2)		(2)		(2)		(2)	
1952.	6,771		3,002		1,323	96	1,359	397	(2)		(2)		(2)		(2)		(2)	
1953.	8,245		3,759		1,570	104	1,385	397	(2)		(2)		(2)		(2)		(2)	
1954.	7,648		3,306		1,947	34	375	1,730	(2)		(2)		(2)		(2)		(2)	
1955.	6,655		3,425		1,660	59	375	1,730	(2)		(2)		(2)		(2)		(2)	
1956.	6,655		3,425		1,660	59	375	1,730	(2)		(2)		(2)		(2)		(2)	
1957.	3,961		3,768		1,554	23	754	1,924	(2)		(2)		(2)		(2)		(2)	
1958.	576		4,880		1,472	14	177	1,924	(2)		(2)		(2)		(2)		(2)	
1959.	32		4,015		1,429	16	46	1,924	(2)		(2)		(2)		(2)		(2)	
1960.	7		4,572		1,619	12	5	1,924	(2)		(2)		(2)		(2)		(2)	
1961.	44		4,598		1,625	6	6	1,924	(2)		(2)		(2)		(2)		(2)	
1962.	44		4,598		1,625	6	6	1,924	(2)		(2)		(2)		(2)		(2)	
1963.	(2)		3,338		1,090	1	9	1,924	(2)		(2)		(2)		(2)		(2)	

SEE FOOTNOTES AT END OF TABLE. (CONTINUED ON NEXT PAGE)

# HISTORICAL FISHERY STATISTICS

TABLE 3.---UNITED STATES LAKE ERIE CATCH BY SPECIES AND TOTAL CANADIAN CATCH, VARIOUS YEARS, 1879-1963 - Continued

YEAR	(THOUSANDS OF POUNDS)					TOTAL		UNITED STATES AND CANADA	
	WHITE BASS	YELLOW PERCH	YELLOW PIKE (WALLEYE)	MISCEL-LANEANUS	UNITED STATES	CANADA	UNITED STATES	CANADA	
	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	
1879	(1)	(1)	(1)	13,953	29,087	1,560	30,647		
1885	(1)	1,601	2,705	10,802	51,457	7,686	59,142		
1889	(1)	3,630	18,069	16,062	63,563	9,626	73,189		
1890	(1)	1,072	(1)	1,835	43,126	9,445	52,571		
1893	(1)	2,595	1,182	15,967	43,126	9,445	52,571		
1897	(1)	3,253	1,529	1,035	35,954	8,654	44,607		
1899	(1)	3,340	1,845	2,514	58,912	10,063	68,975		
1903	1,579	3,340	947	945	23,937	5,403	29,340		
1908	33	877	2,215	2,215	42,466	10,746	53,212		
1914	222	1,756	2,733	1,437	54,144	17,130	71,274		
1915	1,350	2,039	1,867	1,937	59,773	16,940	76,713		
1916	694	1,835	1,855	1,957	53,818	12,922	66,746		
1917	1,124	2,036	2,384	2,384	51,900	11,772	63,672		
1917	333	1,927	1,854	1,957	51,900	11,772	63,672		
1917	1,058	1,927	1,854	1,957	51,900	11,772	63,672		
1918	911	1,668	1,148	1,148	47,479	14,127	61,606		
1919	129	1,193	600	1,105	35,165	16,812	51,977		
1920	953	2,775	890	1,105	32,232	16,812	49,044		
1921	1,061	1,259	1,036	764	46,717	15,409	62,126		
1922	1,420	2,192	2,265	506	40,898	17,685	58,583		
1923	821	1,926	1,137	946	44,377	17,772	62,149		
1924	300	1,670	1,080	227	40,273	18,976	59,249		
1925	941	2,022	1,020	227	40,273	18,976	59,249		
1926	262	2,625	1,273	1,952	20,057	8,797	28,854		
1926	136	1,336	1,273	1,952	20,057	8,797	28,854		
1927	1,045	2,746	1,364	1,952	23,795	10,067	33,862		
1928	1,142	1,211	1,314	1,314	19,762	10,294	30,056		
1928	286	4,275	934	480	18,646	29,905	48,551		
1929	1,293	6,043	1,869	687	29,584	12,680	42,264		
1930	1,555	4,341	2,644	821	34,800	13,807	48,606		
1931	484	9,062	2,024	743	33,761	12,733	46,494		
1931	1,416	9,741	2,024	743	33,761	12,733	46,494		
1932	253	9,741	1,345	1,945	33,050	10,231	43,281		
1932	1,351	1,345	1,345	1,945	33,050	10,231	43,281		
1933	1,024	1,216	1,364	1,364	30,237	14,426	44,663		
1934	685	1,416	1,764	615	30,237	14,426	44,663		
1935	759	9,045	2,051	1,369	26,925	11,953	38,878		
1936	1,066	664	3,060	1,476	26,925	14,664	41,590		
1937	946	2,051	3,060	1,476	27,619	14,664	42,283		
1937	1,103	5,187	969	869	27,619	14,664	42,283		
1938	727	5,187	4,767	1,025	28,663	14,263	42,927		
1939	1,008	1,608	3,870	1,148	22,944	9,767	32,711		
1939	712	3,030	2,910	1,420	22,944	9,767	32,711		
1940	469	2,910	2,910	1,420	20,063	8,990	31,013		
1941	579	1,420	3,222	1,610	17,115	4,456	21,571		
1942	698	1,253	3,468	2,337	26,837	15,295	42,132		
1943	576	4,660	3,468	2,337	26,837	15,295	42,132		
1944	456	1,868	5,319	1,613	28,631	18,949	47,580		
1945	426	883	6,219	914	29,121	18,949	48,070		
1946	435	2,585	4,914	848	19,818	12,334	32,152		
1946	727	1,797	3,914	694	26,502	14,926	41,428		
1947	568	4,021	5,922	592	34,249	19,093	53,342		
1948	469	2,640	5,314	692	30,249	19,093	49,342		
1949	901	2,640	5,314	692	30,249	19,093	49,342		
1950	694	1,927	5,682	429	25,351	17,174	42,525		
1951	538	1,036	5,682	429	25,351	17,174	42,525		
1952	538	1,036	5,682	429	25,351	17,174	42,525		
1952	627	1,738	5,147	471	27,347	23,369	50,716		
1953	352	3,418	6,167	438	26,340	28,912	55,252		
1954	361	4,835	5,219	453	26,340	30,285	56,625		
1955	256	2,408	5,795	465	26,796	30,285	57,080		
1956	269	7,054	6,130	543	30,744	44,662	75,406		
1957	328	9,593	5,035	442	37,105	66,811	103,916		
1958	328	9,593	5,035	442	37,105	66,811	103,916		
1959	249	1,618	1,618	238	30,551	50,326	80,877		
1960	250	1,618	1,618	238	22,435	29,219	51,654		
1961	1,779	6,390	1,171	315	21,258	50,477	71,735		
1961	330	3,694	1,805	424	19,563	35,698	55,261		
1962	261	7,548	433	530	19,660	64,124	83,784		
1963	224	5,822	800	372	17,238	34,233	51,471		

(1) NOT AVAILABLE. (2) LESS THAN 500 POUNDS. NOTE:---CHUBS DO NOT OCCUR IN LAKE ERIE.

## HISTORICAL FISHERY STATISTICS

TABLE 4.--UNITED STATES LAKE HURON CATCH BY SPECIES AND TOTAL CANADIAN CATCH, VARIOUS YEARS, 1879-1963  
(THOUSANDS OF POUNDS)

YEAR	CARP	CATFISH	CHUBS	LAKE HERRING	LAKE TROUT	LAKE WHITEFISH	SAUGER	SHEEPSHEAD	SHELT
	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
1879.		(1)	(3)	3,247	2,085	2,701	(1)	(1)	
1885.	(1)	(1)	(3)	3,126	2,540	1,425	(1)	(1)	
1889.	(1)	(1)	(3)	4,108	2,181	2,392	(1)	(1)	
1890.	(1)	(1)	(3)	2,515	1,750	1,033	(1)	(1)	
1891.	(1)	(1)	(3)	3,405	2,816	1,625	(1)	(1)	
1892.	(1)	(1)	(3)	2,676	2,066	1,376	(1)	(1)	
1893.	(1)	(1)	(3)	2,299	2,106	1,576	(1)	(1)	
1894.	(1)	(1)	(3)	3,829	2,039	1,218	(1)	(1)	
1895.	(1)	(1)	(3)	5,005	1,875	946	(2)	(2)	
1896.	(1)	(1)	(3)	6,574	1,006	1,006	(2)	(2)	
1897.	(1)	(1)	(3)	5,019	1,292	866	(2)	(2)	
1898.	(1)	(1)	(3)	5,406	1,259	593	(1)	(1)	161
1899.	(1)	(1)	(3)	4,936	1,450	646	(1)	(1)	
1900.	(1)	(1)	(3)	4,996	1,732	555	(1)	(1)	
1901.	(1)	(1)	(3)	4,722	1,732	555	(1)	(1)	
1902.	(1)	(1)	(3)	6,731	1,739	914	(2)	(2)	
1903.	(1)	(1)	(3)	6,597	1,724	937	(1)	(1)	47
1904.	(1)	(1)	106	7,279	2,016	767	(1)	(1)	
1905.	(1)	(1)	1,163	5,043	1,987	675	(1)	(1)	
1906.	(1)	(1)	1,490	4,361	1,966	792	(1)	(1)	
1907.	(1)	(1)	1,136	5,645	1,133	1,133	(1)	(1)	
1908.	407	(1)	291	5,736	1,362	974	(1)	(1)	B
1910.	232	(1)	252	4,999	1,050	762	(1)	(1)	
1911.	176	(1)	165	4,845	1,050	762	(1)	(1)	
1912.	314	(1)	75	2,357	2,165	1,393	(1)	(1)	
1913.	314	(1)	75	2,357	2,165	1,393	(1)	(1)	
1915.	516	(1)	513	1,431	1,774	1,812	(1)	(1)	
1916.	(1)	(1)	24	7,674	1,798	1,919	(1)	(1)	
1917.	1,145	(1)	214	4,411	2,111	1,889	(1)	(1)	18
1918.	643	(1)	742	5,044	2,614	1,102	(1)	(1)	
1919.	1,109	(1)	531	4,636	2,322	727	(1)	(1)	13
1920.	1,721	13	525	3,367	1,220	647	(1)	(1)	42
1921.	657	17	770	2,164	1,358	736	(1)	(1)	47
1922.	297	31	450	3,039	1,827	1,190	(1)	(1)	42
1924.	407	17	450	2,879	1,627	1,392	(1)	(1)	156
1925.	427	40	375	5,146	1,395	1,466	(1)	(1)	
1926.	414	82	1,531	4,311	1,615	1,203	(1)	(1)	46
1928.	1,939	118	1,534	5,604	1,685	1,723	(1)	(1)	51
1929.	1,939	177	827	5,604	1,677	1,677	(1)	(1)	92
1930.	390	163	477	2,709	1,598	1,469	(1)	(1)	40
1931.	390	167	352	2,239	1,283	1,469	(1)	(1)	13
1932.	895	52	4,637	4,637	1,455	34	(1)	(1)	8
1933.	1,011	31	543	2,181	1,729	1,455	(1)	(1)	3
1934.	972	43	593	2,411	2,071	1,455	(1)	(1)	2
1935.	1,023	36	447	4,336	2,165	1,455	(1)	(1)	2
1936.	1,079	55	367	3,866	1,970	3,334	(1)	(1)	2
1937.	770	98	335	3,952	1,576	2,568	(1)	(1)	2
1938.	631	115	190	4,151	1,743	1,695	(1)	(1)	11
1939.	631	135	192	3,952	1,442	1,442	(1)	(1)	8
1940.	624	145	192	5,429	1,340	1,400	(1)	(1)	4
1941.	669	205	146	4,637	1,270	558	(1)	(1)	20
1942.	669	366	126	4,303	1,942	468	(1)	(1)	2
1943.	753	397	80	3,159	1,462	114	(2)	(2)	1
1944.	1,243	395	128	2,408	728	95	(2)	(2)	20
1945.	1,151	325	128	2,009	459	149	(2)	(2)	4
1946.	2,370	364	221	1,073	363	185	(2)	(2)	3
1947.	1,669	254	190	1,373	363	185	(2)	(2)	3
1948.	1,327	271	126	1,462	38	545	(2)	(2)	1
1949.	1,932	193	126	1,071	12	3,023	(2)	(2)	2
1950.	1,932	146	146	1,932	4	2,550	(2)	(2)	12

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTES AT END OF TABLE.

# HISTORICAL FISHERY STATISTICS

TABLE 4.--UNITED STATES LAKE HURON CATCH BY SPECIES AND TOTAL CANADIAN CATCH, VARIOUS YEARS, 1879-1963 - Continued

YEAR	(THOUSANDS OF POUNDS)										TOTAL		UNITED STATES AND CANADA
	CARP	CATFISH	CHUBS	LAKE HERRING	LAKE TROUT	LAKE WHITEFISH	SAUGER	SHEEPSHEAD	SHELT			QUANTITY	
1950.	1,181	162	83	1,748	(2)	114	1	5	116				
1951.	1,677	114	227	1,379	(2)	143	1	1	218				
1952.	1,657	303	63	1,792	(2)	168	4	7	227				
1953.	1,421	258	208	1,226	-	153	1	4	211				
1954.	1,432	258	208	1,226	-	153	1	4	211				
1955.	1,373	355	317	1,368	(2)	6	12	12	161				
1956.	1,216	338	301	1,221	(2)	30	6	26	161				
1957.	1,309	271	507	1,211	-	41	1	24	206				
1958.	2,212	286	1,343	48	(2)	72	23	24	91				
1959.	1,304	330	2,151	48	-	103	49	49	101				
1960.	1,333	277	2,936	45	-	338	52	52	70				
1961.	1,437	240	3,197	68	-	438	32	32	78				
1962.	1,500	172	1,973	17	(2)	305	28	28	29				
1963.	1,647					113	1	26	13				

YEAR	YELLOW PERCH	WHITE BASS	SUCKERS	YELLOW PINE (WALLEYE)	MISCELLANEOUS	UNITED STATES	CANADA	UNITED STATES AND CANADA
	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
1879.	(1)	(1)	(1)	(1)	2,172	7,205	4,197	11,402
1885.	(1)	(1)	(1)	(1)	3,326	11,457	10,136	21,593
1889.	2,417	(1)	(1)	(1)	3,321	1,459	14,549	27,449
1890.	1,818	(1)	(1)	(1)	2,104	10,333	14,180	27,550
1891.	1,295	(1)	(1)	1,659	666	12,702	12,219	24,921
1892.	1,636	(1)	(1)	1,405	511	11,776	14,691	26,467
1893.	1,752	(1)	(1)	1,099	637	14,816	11,312	26,128
1894.	2,343	(1)	(1)	1,989	598	14,677	9,938	24,615
1895.	2,029	(1)	(1)	1,038	470	14,470	9,501	23,971
1896.	1,771	(1)	(1)	1,388	624	13,941	9,127	22,668
1897.	1,397	(1)	(1)	1,299	513	13,541	6,732	20,273
1898.	1,600	(1)	(1)	1,938	725	13,448	10,276	24,724
1899.	1,317	(1)	(1)	1,789	1,007	14,320	7,452	24,597
1900.	1,710	(1)	(1)	983	883	14,151	10,603	24,754
1901.	1,745	(1)	(1)	945	884	16,813	7,623	24,436
1902.	2,814	(1)	(1)	1,359	794	20,003	6,047	26,050
1903.	2,413	(1)	(1)	2,406	774	18,566	6,341	26,907
1904.	2,628	(1)	(1)	2,628	660	17,969	9,475	27,464
1905.	3,458	(1)	(1)	1,860	1,860	16,895	8,227	25,122
1906.	4,020	(1)	(1)	1,263	1,860	16,895	7,247	24,142
1907.	3,646	(1)	(1)	1,221	861	17,821	7,247	25,068
1908.	1,671	(1)	(1)	670	271	13,642	20,718	34,360
1912.	1,320	(1)	(1)	398	347	13,676	7,060	20,737
1913.	1,580	(1)	(1)	416	296	11,258	6,816	18,074
1915.	1,501	(1)	(1)	340	249	11,258	15,354	26,607
1916.	2,266	(1)	(1)	1,067	395	10,245	8,795	19,040
1917.	1,465	(1)	(1)	1,386	286	17,212	9,395	26,607
1918.	1,779	(1)	(1)	1,447	265	14,977	7,685	22,662
1919.	2,714	(1)	(1)	1,904	215	14,977	6,619	21,661
1920.	1,900	(1)	(1)	1,388	227	15,242	6,324	21,566
1921.	1,803	(1)	(1)	844	191	11,541	6,324	17,865
1922.	1,968	(1)	(1)	724	164	9,607	6,437	16,044
1923.	1,445	(1)	(1)	1,284	106	13,279	7,192	20,471
		(1)	(1)	809	102	10,102	6,841	16,943

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTES AT END OF TABLE.

## HISTORICAL FISHERY STATISTICS

TABLE 4.--UNITED STATES LAKE HURON CATCH BY SPECIES AND TOTAL CANADIAN CATCH, VARIOUS YEARS, 1879-1963 - Continued  
(THOUSANDS OF POUNDS)

YEAR	SICKERS	WHITE BASS	YELLOW PERCH	YELLOW PIKE (WALLEYE)	MISCELLANEOUS	TOTAL		
						UNITED STATES	CANADA	UNITED STATES AND CANADA
						QUANTITY	QUANTITY	QUANTITY
1924.	1,073		54	503	143	8,877	16,202	
1925.	1,374	(1)	526	458	182	12,600	20,254	
1926.	1,627	(1)	458	816	123	13,128	20,667	
1927.	2,461	-	204	901	157	15,706	24,603	
1928.	1,673	1	281	899	181	7,844	17,836	
1929.	1,576	-	507	717	150	6,829	16,319	
1930.	2,237	-	719	1,109	211	15,317	22,209	
1931.	2,132	-	731	825	173	16,407	23,004	
1932.	2,403	-	690	1,536	144	7,697	23,004	
1933.	2,123	-	627	1,536	105	13,471	21,284	
1934.	1,935	(2)	523	1,603	84	14,390	21,940	
1935.	1,766	(2)	953	1,574	87	13,640	22,042	
1936.	1,814	(2)	1,175	1,565	106	12,734	20,548	
1937.	1,726	-	548	1,627	140	11,844	19,438	
1938.	1,788	-	500	1,356	152	7,595	19,336	
1939.	1,362	(2)	565	1,641	121	13,333	19,777	
1940.	1,343	1	528	1,573	121	9,012	14,454	
1941.	1,512	-	416	2,104	57	8,562	14,154	
1942.	1,414	(2)	575	1,650	124	8,466	13,244	
1943.	1,414	(2)	604	1,138	169	6,610	13,028	
1944.	1,236	(2)	407	1,138	130	6,433	9,925	
1945.	1,554	1	407	678	152	7,475	10,504	
1946.	1,646	(2)	341	974	168	7,147	9,683	
1947.	1,282	(2)	291	485	139	2,536	2,040	
1948.	1,305	(2)	694	225	183	8,034	10,074	
1949.	1,022	(2)	518	200	76	2,796	11,654	
1950.	977	(2)	365	200	69	3,070	6,835	
1951.	1,199	(2)	494	114	48	5,742	8,376	
1952.	1,144	(2)	458	153	77	6,118	11,264	
1953.	1,185	4	458	177	115	5,498	13,646	
1954.	1,024	28	507	164	110	6,750	14,227	
1955.	585	11	507	142	110	5,421	11,571	
1956.	611	15	415	142	156	6,150	6,500	
1957.	353	3	377	124	111	4,561	3,604	
1958.	451	1	377	113	67	3,635	6,398	
1959.	506	13	377	103	57	3,841	2,764	
1960.	464	12	377	136	57	3,044	2,600	
1961.	551	12	598	136	164	3,338	7,641	
1962.	707	10	372	156	232	6,918	3,913	
1963.	509	17	507	158	129	5,880	12,125	
				158	52	5,206	10,055	
							3,887	
							5,793	

J/ NOT AVAILABLE. 2/ LESS THAN 500 POUNDS. 3/ CHUBS INCLUDED WITH LAKE HERRING. NOTE:--BLUE PINE DO NOT OCCUR IN LAKE HURON.

# HISTORICAL FISHERY STATISTICS

**TABLE 5.--UNITED STATES LAKE MICHIGAN CATCH BY SPECIES, VARIOUS YEARS, 1879-1963**

(THOUSANDS OF POUNDS)

YEAR	CARP QUANTITY	CATFISH QUANTITY	CHUBS QUANTITY	LAKE HERRING QUANTITY	LAKE TROUT QUANTITY	LAKE WHITEFISH QUANTITY	SAUGER QUANTITY	SHEEPSHEAD QUANTITY
1879.				3/3,050	2,659			(1)
1885.	(1)	(1)	(3)	3/3,312	6,431			(1)
1889.	(1)	(1)	(3)	3/9,569	5,360			(1)
1890.	(1)	(1)	(3)	6,082	8,364			(1)
1892.	(1)	(1)	(3)	3/10,208	6,437			(1)
1893.	(1)	(1)	(3)	3/20,083	8,526			(1)
1895.	(1)	(1)	(3)	3/24,254	9,333			(1)
1896.	(1)	(1)	(3)	3/22,846	1,543			(1)
1898.	(1)	(1)	(3)	3/23,893	9,020			(1)
1897.	(1)	(1)	(3)	3/23,814	7,823			(1)
1899.	(1)	(1)	(3)	2,462	5,286			(1)
1903.	535		1,331	15,351	8,943			55
1908.	483		28,191	8,631	3,288			42
1911.	(1)	(1)	2,561	9,752	8,166			67
1912.	(1)	(1)	2,820	8,184	6,361			(1)
1913.	(1)	(1)	3,848	7,872	1,338			(1)
1915.	(1)	(1)	2,912	10,456	6,835			(1)
1916.	(1)	(1)	1,786	7,137	7,704			(1)
1917.	247		3,742	11,325	5,999			(1)
1918.	(1)	(1)	5,763	8,330	5,810			(1)
1919.	(1)	(1)	4,927	5,777	1,489			(1)
1920.	(1)	(1)	2,306	5,061	6,964			18
1921.	749		1,346	2,675	1,749			16
1922.	(1)	(1)	1,237	3,190	1,740			6
1923.	(1)	(1)	1,273	3,190	1,505			9
1924.	(1)	(1)	2,273	3,629	6,177			6
1925.	(1)	(1)	3,840	4,323	7,224			5
1926.	(1)	(1)	3,840	3,284	6,894			5
1927.	(1)	(1)	4,765	3,842	6,530			12
1928.	608		3,752	5,599	2,581			20
1929.	32	3	4,338	3,033	4,819			2
1930.	631	2	1,008	5,223	3,969			3
1931.	284	2	3,123	5,951	6,394			17
1932.	284	5	3,123	5,432	4,675			17
1933.	919	5	4,032	2,943	5,470			14
1934.	1,320	3	6,237	4,009	5,212			14
1935.	1,486	(1)	5,794	6,415	4,957			10
1936.	1,925	23	5,674	5,425	4,873			12
1937.	1,873	10	5,579	4,796	1,026			11
1938.	1,873	2	4,494	5,500	4,868			6
1940.	1,979	2	2,607	2,607	5,600			6
1941.	2,057	46	1,648	2,675	4,931			14
1942.	1,745	36	1,630	1,703	6,266			23
1943.	1,511	67	1,735	1,426	6,787			52
1944.	1,217	96	2,214	1,932	6,484			82
1945.	1,632	(1)	2,607	1,383	6,860			133
1946.	1,273	91	4,221	4,080	6,498			139
1947.	1,082	26	5,930	3,374	5,437			137
1948.	1,082	26	5,930	2,225	2,635			178
1949.	1,361	27	6,029	1,197	5,247			76
1950.	1,146	22	7,411	6,778	3,492			57
1951.	1,135	10	10,301	7,492	1,342			41
				6,574	54			24
					11			22

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTES AT END OF TABLE.

## HISTORICAL FISHERY STATISTICS

TABLE 5.--UNITED STATES LAKE MICHIGAN CATCH BY SPECIES, VARIOUS YEARS, 1879-1963 - Continued

YEAR	CARP	CATFISH	CHUBS	LAKE HERRING	LAKE TROUT	LAKE WHITEFISH	SAUGER	SHEEPSHEAD
1952.	1,106	9	11,098	9,691		1,770	(2)	18
1953.	1,347	5	10,551	7,725	(2)	1,076	(2)	16
1954.	1,247	4	10,895	6,087	(2)	788	1	6
1955.	1,856	9	10,913	5,731		376	(3)	7
1956.	1,851	5	10,546	3,385		25	(2)	2
1957.	1,957	(2)	9,563	2,026		49	(2)	3
1958.	1,242		7,796	968		31	(1)	2
1959.	1,937	2	12,659	233	(2)	124	(2)	7
1960.	1,416	(2)	12,177	177	(2)	295	(2)	2
1961.	1,842	(2)	11,445	16	(2)	266	(2)	2
1962.	1,276	2	7,463	41	(2)	289	(2)	1
1963.	1,277				26			
YEAR	SMELT	SUCKERS	WHITE BASS	YELLOW PERCH	YELLOW PIKE (WALLEYE)	MISCELLANEOUS	TOTAL	
							QUANTITY	QUANTITY
1879.	-	(1)	(1)	(1)	(1)	17,433	23,142	
1885.	-	252	(1)	(1)	(1)	13,490	23,485	
1890.	1,229	1,801	(1)	2,61	(1)	1,624	50,007	
1892.	-	1,601	(1)	2,944	(1)	5,893	28,030	
1893.	-	1,691	(1)	2,645	(1)	5,293	40,723	
1894.	-	1,691	(1)	3,452	(1)	6,603	42,728	
1895.	-	(1)	(1)	6,515	(1)	2,792	38,212	
1896.	-	(1)	(1)	5,959	(1)	3,727	47,004	
1897.	-	(1)	(1)	6,364	(1)	1,573	39,634	
1898.	1,119	(1)	(1)	3,234	284	1,069	37,547	
1899.	1,199	(1)	(1)	3,543	209	1,353	45,363	
1908.	2,609	2,609	(1)	3,557	204	1,027	45,363	
1911.	1,609	(1)	(1)	2,072	164	2,208	26,493	
1912.	(1)	(1)	(1)	2,368	164	3,359	24,614	
1913.	(1)	(1)	(1)	2,935	165	3,674	27,091	
1914.	(1)	(1)	(1)	2,731	225	5,696	28,201	
1915.	(1)	(1)	(1)	2,790	216	6,084	31,642	
1916.	(1)	(1)	(1)	2,263	275	2,984	31,984	
1917.	4,035	(1)	(1)	4,101	196	501	31,574	
1918.	(1)	(1)	(1)	2,460	122	2,032	31,574	
1919.	(1)	(1)	(1)	2,064	116	2,515	23,022	
1920.	(1)	(1)	(1)	2,105	141	2,515	19,999	
1921.	(1)	(1)	(1)	967	64	2,423	21,978	
1922.	1,536	(1)	(1)	873	99	2,067	19,394	
1923.	(1)	(1)	(1)	1,083	118	2,292	15,380	
1924.	(1)	(1)	(1)	1,512	93	2,591	16,316	
1925.	(1)	(1)	(1)	2,266	82	3,012	21,341	
1926.	(1)	(1)	(1)	1,170	52	2,697	20,494	
1927.	(1)	(1)	(1)	1,170	52	2,697	20,494	
1928.	(1)	(1)	(1)	1,379	53	1,663	17,998	
1929.	2,709	(1)	(2)	1,467	53	504	26,186	
1930.	2,281	(1)	(1)	1,288	64	486	26,962	
1931.	2,785	(1)	(1)	1,288	56	309	24,374	
1932.	2,224	(1)	(1)	935	105	247	19,305	
1933.	1,890	(2)	(2)	1,009	167	261	21,002	
1934.	1,031	2,206	(1)	1,276	161	253	26,055	
1935.	1,835	2,686	(1)	1,740	99	205	24,452	
1936.	1,202	2,686	(1)	2,368	116	184	24,476	

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTES AT END OF TABLE.

**TABLE 5.--UNITED STATES LAKE MICHIGAN CATCH BY SPECIES, VARIOUS YEARS, 1879-1963 - Continued**  
(THOUSANDS OF POUNDS)

YEAR	SMELT QUANTITY	SUCKERS QUANTITY	WHITE BASS QUANTITY	YELLOW PERCH QUANTITY	YELLOW PIKE (WALLEYE) QUANTITY	MISCEL- LANEOUS QUANTITY	TOTAL UNITED STATES QUANTITY
1927		2,382	(2)	2,490	76	143	25,602
1928	1,428	1,896		2,204	50	199	24,101
1929	1,884	1,856	3	3,090	45	234	22,485
1930	1,991	1,854	1	2,576	43	160	22,601
1940	4,200	2,017		2,416	44	229	22,931
1941	4,775	1,935		2,648	31	229	21,413
1942	3,353	2,251	(2)	3,135	51	390	22,179
1943	2,201	2,251	(2)	1,462	177	485	22,632
1944	2,225	2,273	(2)	1,469	172	430	22,632
1945	107	1,895	(2)	1,473	237	658	22,392
1946	786	1,621	2	1,599	367	464	24,958
1947	1,131	1,806		1,513	636	357	27,023
1948	1,540	1,810		1,378	1,120	273	25,573
1949	2,417	1,228	(2)	1,484	1,349	210	27,078
1950	3,999	1,008	(2)	1,441	560	172	27,648
1951	5,111	744	(2)	2,257	301	232	32,061
1952	5,191	620	(2)	2,296	471	184	32,416
1953	5,191	620	(2)	3,690	509	217	30,291
1954	5,416	684		3,550	976	186	30,036
1955	5,416	640		3,320	801	101	30,798
1956	7,368	641		2,988	266	300	27,223
1957	7,024	641		3,441	217	1,422	27,771
1958	9,102	665		1,977	182	1,501	20,606
1959	6,004	612		3,285	118	2,430	24,311
1960	3,267	767	3	4,059	67	1,059	23,459
1961	2,152	293	(2)	4,059	67	4,805	23,459
1962	1,206	293	(2)	4,872	61	5,495	21,021
1963	1,203	293	(2)	4,872	61	5,495	21,021

1/ NOT AVAILABLE. 2/ LESS THAN 500 POUNDS. 3/ CHUBS INCLUDED WITH LAKE HERRING.  
NOTE:---BLUE PIKE DO NOT OCCUR IN LAKE MICHIGAN.



## HISTORICAL FISHERY STATISTICS

TABLE 6.--UNITED STATES LAKE SUPERIOR CATCH BY SPECIES AND TOTAL CANADIAN CATCH, VARIOUS YEARS, 1879-1963  
(THOUSANDS OF POUNDS)

YEAR	CARP	CATFISH	CHUBS	LAKE HERRING	LAKE TROUT	LAKE WHITEFISH	SAUGER	SMELT
	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
1879.			3	34	1,465	2,257		
1885.	(1)	1	3	34	3,469	4,856	1	
1889.	(1)	1	3	362	3,869	5,056	1	
1890.	(1)	1	3	382	3,613	3,213	1	
1893.	(1)	1	3	199	4,342	2,170	1	
1897.	(1)	1	3	(1)	3,794	1,438	1	
1899.		1	3	694	3,625	1,132	1	
1900.		1	3	1,515	5,592	1,335	1	
1903.		1	3	6,751	2,903	942	1	
1913.		1	3	5,310	2,366	1,113	1	
1914.		1	3	6,878	1,579	1,113	1	
1915.		1	3	7,626	1,579	567	1	
1916.		1	3	7,623	1,579	567	1	
1917.		1	3	5,317	2,178	1,175	1	
1918.		1	3	7,194	1,963	257	1	
1919.		1	3	6,344	2,326	327	1	
1920.		1	3	6,418	3,463	240	1	
1921.	(2)	1	3	6,484	2,016	221	1	
1922.		1	3	4,809	2,124	285	1	
1923.		1	3	3,736	2,175	319	1	
1924.		1	3	5,271	1,446	1,071	1	
1925.		1	3	7,555	2,595	236	1	
1926.		1	3	9,002	2,695	247	1	
1927.		1	3	9,949	3,280	260	1	
1928.		1	3	11,506	3,051	328	2	
1929.	3	1	3	9,496	2,962	286	9	
1930.	1	1	3	13,288	2,804	166	4	
1931.	(2)	1	3	11,937	2,489	252	1	
1932.		1	3	7,963	2,993	474	1	
1933.		1	3	7,385	2,493	485	1	
1934.	(2)	1	3	7,335	2,493	520	6	
1935.	(2)	1	3	13,535	3,374	488	2	
1936.	(2)	1	3	13,588	3,476	512	2	
1937.	2		3	12,112	3,233	374	1	
1938.	(2)		3	12,059	3,085	364		4
1939.	(2)		3	10,850	3,167	495		
1940.	(2)		3	13,307	2,744	477		
1941.			3	17,117	2,677	926		
1942.			3	14,846	2,677	926		
1943.		(1)	3	14,846	2,959	791		(2)
1944.			3	13,874	3,053	732		(2)
1945.			3	14,227	3,740	663		(2)
1946.			3	14,045	3,369	717		(2)
1947.			3	13,142	3,444	915		(2)
1948.	(2)		3	10,808	2,964	951		(2)
1949.			3	14,705	2,954	1,201		(2)
1950.			3	13,204	2,965	1,288		(2)
1951.			3	15,126	2,965	1,288		(2)
1952.			3	6,126	2,911	1,442		(2)
1953.			3	12,021	2,638	351		45
1954.			3	10,439	2,413	607		21
1955.			3	11,823	2,256	1,005		25
1956.			3	10,134	2,101	1,004		74
1957.			3	10,478	1,813	917		118
1958.			3	11,395	1,911	523		136
1959.	(2)		3	10,216	1,060	309		802
1960.			3	10,812	1,060	309		607
1961.			3	10,812	390	284		947
1962.			3	11,457	323	343		1,340
1963.			3	9,906	257	401		955
			3	8,419	101	443		1,493

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTES AT END OF TABLE.

# HISTORICAL FISHERY STATISTICS

TABLE 6.--UNITED STATES LAKE SUPERIOR CATCH BY SPECIES AND TOTAL CANADIAN CATCH, VARIOUS YEARS, 1879-1963 - Continued

YEAR	SUCKERS QUANTITY	YELLOW PERCH QUANTITY	YELLOW PIKE (WALLEYE) QUANTITY	MISCEL- LANEOUS QUANTITY	UNITED STATES		TOTAL CANADA		UNITED STATES AND CANADA	
					QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
1879	(1)	(1)	(1)	51	3,817	952	4,149			
1880	(1)	(1)	(1)	826	9,826	1,642	10,468			
1881	(1)	(1)	(1)	441	3,826	1,883	5,709			
1889	(1)	28	(1)	207	7,864	1,183	9,047			
1890	(1)	(1)	(1)	91	6,116	1,943	8,059			
1893	(1)	2	(1)	1,455	7,979	2,235	10,214			
1897	(1)	(1)	(1)	102	6,028	2,382	8,410			
1899	(1)	4	13	46	13,886	3,005	16,891			
1903	(1)	2	32	59	13,986	2,413	16,399			
1908	(1)	4	17	72	2,866	12,467	15,333			
1913	(1)	7	10	107	10,511	2,846	13,357			
1914	(1)	17	72	537	10,475	15,986	26,461			
1915	(1)	17	61	543	9,217	8,217	17,434			
1916	(1)	3	30	647	8,350	13,981	22,331			
1917	(1)	3	25	102	9,911	5,653	15,564			
1918	(1)	19	45	492	11,553	7,734	19,287			
1919	(1)	3	17	386	10,527	4,296	14,823			
1920	(1)	15	14	318	9,056	3,956	13,012			
1921	(1)	10	22	305	6,275	2,440	8,715			
1922	(1)	17	22	340	7,585	2,410	9,995			
1923	(1)	16	22	281	9,510	4,588	14,098			
1924	(1)	49	23	421	9,510	3,216	12,726			
1925	(1)	2	630	776	12,555	3,565	16,119			
1926	(1)	5	25	776	13,715	4,311	18,026			
1927	(1)	15	24	706	15,630	5,152	20,781			
1928	(1)	12	33	626	13,420	5,400	18,820			
1929	(1)	7	22	42	10,565	4,957	15,522			
1930	(1)	10	22	35	11,263	4,160	15,423			
1931	(1)	8	25	32	11,263	3,160	14,423			
1932	(1)	8	25	143	10,369	2,488	12,857			
1933	(1)	6	(1)	43	10,631	3,108	13,739			
1934	(1)	3	27	29	17,620	3,988	21,608			
1935	(1)	1	19	48	17,872	3,578	21,450			
1936	(1)	8	48	87	16,008	4,900	20,908			
1937	(1)	9	48	48	16,012	4,509	20,521			
1938	(1)	8	35	35	14,785	16,163	30,948			
1939	(1)	3	36	14,785	16,955	3,977	20,932			
1940	(1)	8	36	16	20,672	3,319	23,991			
1941	(1)	6	5	24	22,111	3,436	25,547			
1942	(1)	6	3	14	19,228	3,363	22,590			
1943	(1)	8	3	35	18,372	3,347	21,719			
1944	(1)	4	37	39	19,245	3,761	23,006			
1945	(1)	2	29	32	18,725	3,812	22,537			
1946	(1)	2	38	71	16,465	2,839	19,304			
1947	(1)	3	33	19	17,917	1,817	19,734			
1948	(1)	5	33	22	19,221	3,371	22,592			
1949	(1)	2	26	27	17,730	3,188	20,919			
1950	(1)	3	34	27	14,594	2,655	17,249			
1951	(1)	2	22	30	14,035	2,851	16,886			
1952	(1)	3	16	16	15,465	3,127	18,592			
1953	(1)	1	12	33	13,650	2,771	16,420			
1954	(1)	2	16	19	15,385	2,890	18,275			
1955	(1)	2	21	36	13,885	2,145	16,030			
1956	(1)	1	21	36	13,591	2,145	15,736			
1957	(1)	3	1	19	13,565	2,797	16,361			
1958	(1)	2	(2)	40	13,194	2,671	15,865			
1959	(1)	1	(2)	52	13,194	2,671	15,865			
1960	(1)	1	1	76	14,956	3,850	18,806			
1961	(1)	2	1	18	13,771	2,828	16,599			
1962	(1)	5	1	47	14,749	2,354	17,103			
1963	(1)	2	1	22	12,502	1,447	13,949			
1963	(1)	2	25	25	15,125	2,966	18,091			

(THOUSANDS OF POUNDS)      NOTE: --BLUE PIKE, SHEEPSHEAD, AND WHITE BASS DO NOT OCCUR IN LAKE SUPERIOR.

# HISTORICAL FISHERY STATISTICS

## TABLE 7.--UNITED STATES GREAT LAKES CATCH BY STATES, 1935-63

(THOUSANDS OF POUNDS)

YEAR	NEW YORK	PENNSYLVANIA	OHIO	MICHIGAN 1/	INDIANA 1/
	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>
1935.	1,475	3,271	25,191	30,621	435
1936.	1,290	3,899	31,083	28,972	544
1937.	2,451	3,007	21,087	26,409	781
1938.	2,377	2,674	22,040	26,682	763
1939.	2,595	2,762	23,512	26,898	605
1940.	1,970	2,295	18,996	26,044	524
1941.	1,100	1,794	18,642	26,132	286
1942.	897	1,901	20,338	26,279	139
1943.	1,402	2,975	21,872	25,700	120
1944.	2,023	2,685	23,371	22,111	49
1945.	2,281	3,514	22,172	23,960	54
1946.	2,640	3,665	21,774	24,159	33
1947.	1,045	1,357	16,689	25,545	16
1948.	1,309	2,534	21,796	30,136	24
1949.	2,305	4,436	26,682	25,534	30
1950.	374	2,236	20,225	23,153	34
1951.	800	736	18,700	25,020	90
1952.	1,265	2,112	21,247	29,232	21
1953.	891	1,903	22,949	25,013	21
1954.	1,214	2,232	23,435	27,231	21
1955.	2,079	3,056	20,398	25,439	13
1956.	1,347	2,135	25,085	24,636	8
1957.	911	1,778	25,964	22,477	7
1958.	653	1,010	19,419	25,487	6
1959.	500	1,071	19,518	22,323	1
1960.	589	1,015	18,011	25,021	16
1961.	897	1,286	15,810	24,535	14
1962.	680	2,150	15,225	22,121	6
1963.	502	1,412	14,223	20,326	6

YEAR	ILLINOIS	WISCONSIN	MINNESOTA	TOTAL
	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>	<u>QUANTITY</u>
1935.	1,300	16,330	8,390	87,011
1936.	1,369	17,740	5,676	90,570
1937.	1,462	17,757	6,047	81,001
1938.	1,156	15,348	6,261	79,299
1939.	1,259	16,082	7,007	82,720
1940.	1,943	17,006	7,811	76,588
1941.	1,555	18,719	6,202	76,429
1942.	1,777	17,093	5,140	73,563
1943.	1,909	17,028	5,659	76,667
1944.	1,657	16,675	5,595	74,167
1945.	1,621	19,044	4,768	77,413
1946.	1,505	19,635	3,781	77,192
1947.	1,832	18,615	3,162	68,261
1948.	1,620	20,372	4,177	81,968
1949.	1,497	18,606	4,395	83,483
1950.	1,576	18,400	2,708	68,906
1951.	1,050	19,731	2,497	68,623
1952.	1,233	21,613	2,940	79,663
1953.	1,323	20,528	2,897	75,525
1954.	1,668	20,854	3,092	79,748
1955.	1,521	20,196	2,516	75,207
1956.	1,567	20,444	2,726	78,948
1957.	1,160	18,480	3,262	74,041
1958.	801	18,250	3,270	68,897
1959.	245	16,833	2,973	63,464
1960.	324	18,394	2,565	65,936
1961.	340	21,925	2,334	67,140
1962.	289	19,075	2,303	61,850
1963.	285	16,916	2,153	55,823

1/ BEGINNING WITH 1944, THE CATCH BY INDIANA FISHERMEN IN MICHIGAN WATERS, IS INCLUDED WITH THE PRODUCTION FOR THE STATE OF MICHIGAN.

# HISTORICAL FISHERY STATISTICS

## ATLANTIC AND GULF COASTS MENHADEN FISHERY

The menhaden is taken in greater quantities than any fish occurring off the Atlantic and Gulf Coasts of the United States. The Indians are known to have used menhaden for fertilizer before the settlement of North America by the white man. Colonists soon recognized the value of the fish for this purpose and the use of whole fish for fertilizer was continued into the nineteenth century. The production of menhaden oil is reported to have been undertaken in Rhode Island in 1812 and in Maine about 1850. Rapid growth of an industry for producing both menhaden scrap and oil occurred between 1865 and 1875. In recent years menhaden have been landed in greater volume than any other fish taken by U. S. fishermen. The total catch since the establishment of the United States has exceeded 62 billion pounds, more than the production of any other species. Nearly the entire catch of menhaden is now used in the manufacture of meal and solubles used for animal feeding, and oil used in the manufacture of margarine and a wide variety of industrial products and processes.

Data on the catch of menhaden and on the production of menhaden products are available for most of the years following 1872. Since menhaden are landed at relatively few plants, the collection of data on the catch and production of menhaden products is relatively simple. It is therefore believed that the following data have a high degree of accuracy.

### SUMMARY OF THE MENHADEN FISHERY, 1873-1963

YEAR	PLANTS	FISH RECEIVED	DRY SCRAP AND MEAL		ACIDULATED SCRAP	
	NUMBER	THOUSAND POUNDS	TONS	VALUE	TONS	VALUE
1873	62	266,459	-	-	36,299	(1)
1874	64	330,228	-	-	50,976	(1)
1875	60	377,429	-	-	53,625	(1)
1876	64	343,342	-	-	51,245	(1)
1877	56	393,720	5,700	(1)	49,744	(1)
1878	56	514,412	19,377	(1)	64,342	(1)
1879	60	426,833	29,563	(1)	37,496	(1)
1880	79	520,506	25,800	(1)	19,020	(1)
1881	97	304,309	25,027	(1)	7,592	(1)
1882	97	232,248	17,552	(1)	10,029	(1)
1883	78	411,019	34,216	(1)	10,920	(1)
1884	52	575,257	58,433	(1)	10,430	(1)
1885	50	321,074	33,910	(1)	7,225	(1)
1886	26	189,681	14,597	(1)	4,298	(1)
1887	28	223,488	17,262	(1)	5,366	(1)
1888	24	294,391	15,638	(1)	12,406	(1)
1889	29	372,064	24,359	(1)	25,859	(1)
1890	28	357,570	20,339	(1)	21,173	(1)
1891	27	237,943	12,608	(1)	15,069	(1)
1892	29	149,828	6,400	(1)	10,815	(1)
1893	33	245,492	13,150	(1)	15,465	(1)
1894	44	357,352	20,057	(1)	27,582	(1)
1895	42	309,370	18,682	(1)	21,965	(1)
1896	35	268,955	14,280	(1)	21,484	(1)
1897	41	391,483	18,430	(1)	34,372	(1)
1898	40	363,475	17,360	(1)	34,120	(1)
1899	(1)	(1)	(1)	(1)	(1)	(1)
1900	(1)	(1)	(1)	(1)	(1)	(1)
1901 2/	36	609,744	36,977	\$909,505	48,653	\$630,305
1902	(1)	(1)	(1)	(1)	(1)	(1)
1903	(1)	(1)	(1)	(1)	(1)	(1)
1904	(1)	(1)	(1)	(1)	(1)	(1)
1905	(1)	(1)	(1)	(1)	(1)	(1)
1906	(1)	(1)	(1)	(1)	(1)	(1)
1907	(1)	(1)	(1)	(1)	(1)	(1)
1908	(1)	(1)	(1)	(1)	(1)	(1)
1909	(1)	(1)	(1)	(1)	(1)	(1)
1910	(1)	(1)	(1)	(1)	(1)	(1)
1911	(1)	(1)	(1)	(1)	(1)	(1)
1912	48	3,711,435	50,885	1,532,994	37,635	605,171
1913	(1)	(1)	(1)	(1)	(1)	(1)

(CONTINUED ON NEXT PAGE)

SEE FOOTNOTES AT END OF TABLE.

## HISTORICAL FISHERY STATISTICS

## SUMMARY OF THE MENHADEN FISHERY, 1873-1963 - Continued

YEAR	PLANTS	FISH RECEIVED		DRY SCRAP AND MEAL		ACCUMULATED SCRAP	
		NUMBER	THOUSAND POUNDS	TONS	VALUE	TONS	VALUE
1914	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1915	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1916	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1917	(1)	306, 146	20, 825	(1)	(1)	16, 316	(1)
1918	(1)	359, 292	16, 017	(1)	(1)	33, 187	(1)
1919	(1)	436, 520	15, 103	(1)	(1)	47, 915	(1)
1920	(1)	(1)	(1)	(1)	(1)	(1)	(1)
1921	40	69, 132	37, 856	\$1, 380, 455	44, 604	\$905, 640	(1)
1922	45	812, 342	67, 821	2, 665, 441	25, 755	556, 317	(1)
1923	50	743, 895	43, 452	2, 029, 406	44, 935	1, 064, 870	(1)
1924	45	344, 284	21, 008	996, 866	24, 409	495, 684	(1)
1925	43	532, 118	30, 177	1, 519, 458	41, 463	1, 102, 051	(1)
1926	41	382, 781	24, 255	1, 164, 396	23, 553	548, 204	(1)
1927	39	392, 763	26, 417	1, 406, 915	18, 984	566, 590	(1)
1928	34	362, 213	24, 681	1, 453, 651	20, 028	531, 238	(1)
1929	37	442, 443	33, 041	1, 625, 694	23, 089	622, 544	(1)
1930	33	409, 513	32, 418	1, 629, 471	15, 725	395, 295	(1)
1931	27	236, 432	21, 093	701, 541	8, 771	136, 393	(1)
1932	24	375, 479	36, 544	833, 689	6, 841	72, 892	(1)
1933	30	357, 726	31, 453	962, 612	9, 481	173, 280	(1)
1934	27	517, 403	37, 935	1, 247, 697	22, 051	381, 559	(1)
1935	27	434, 366	30, 416	932, 685	29, 890	524, 870	(1)
1936	29	516, 104	42, 411	1, 411, 710	23, 482	359, 615	(1)
1937	32	529, 202	35, 801	1, 581, 219	31, 600	618, 104	(1)
1938	32	517, 530	39, 274	1, 576, 620	21, 814	418, 936	(1)
1939	33	574, 825	52, 950	2, 224, 920	15, 853	265, 850	(1)
1940	30	634, 589	56, 249	2, 423, 229	15, 520	271, 533	(1)
1941	29	775, 087	75, 316	4, 008, 355	11, 029	242, 792	(1)
1942	30	482, 644	50, 504	3, 362, 279	2, 594	80, 520	(1)
1943	25	615, 554	65, 357	4, 548, 025	1, 555	58, 857	(1)
1944	27	685, 980	69, 170	4, 913, 224	2, 922	111, 104	(1)
1945	24	759, 074	77, 451	5, 483, 377	1, 577	62, 200	(1)
1946	25	916, 013	94, 622	8, 605, 118	2, 022	78, 475	(1)
1947	31	948, 156	98, 602	10, 683, 852	6, 632	26, 863	(1)
1948	31	1, 007, 889	104, 056	11, 560, 914	(4)	(4)	(1)
1949	31	1, 072, 630	113, 393	17, 813, 339	(4)	(4)	(1)
1950	35	1, 000, 498	103, 365	12, 864, 751	(4)	(4)	(1)
1951	35	1, 103, 915	115, 464	13, 879, 523	(4)	(4)	(1)
1952	40	1, 386, 281	114, 025	17, 847, 361	(4)	(4)	(1)
1953	36	1, 683, 406	174, 752	21, 767, 205	-	-	(1)
1954	34	1, 740, 600	183, 091	23, 783, 364	-	-	(1)
1955	35	1, 848, 299	190, 628	25, 457, 512	-	-	(1)
1956	38	2, 076, 588	210, 562	27, 439, 634	-	-	(1)
1957	41	1, 681, 560	172, 388	21, 725, 888	-	-	(1)
1958	38	1, 544, 683	158, 074	20, 698, 929	-	-	(1)
1959	40	2, 193, 864	223, 893	26, 391, 987	-	-	(1)
1960	38	1, 999, 036	216, 423	19, 201, 716	-	-	(1)
1961	35	2, 290, 936	247, 551	25, 852, 498	-	-	(1)
1962	33	2, 227, 316	239, 707	28, 249, 566	-	-	(1)
1963	32	1, 787, 638	184, 205	22, 263, 520	-	-	(1)

YEAR	OIL			SOLUBLES			TOTAL
	GALLONS	POUNDS	VALUE	TONS	POUNDS	VALUE	
1873	2, 214, 800	16, 611, 000	(1)	-	-	-	(1)
1874	3, 372, 847	25, 296, 352	(1)	-	-	-	(1)
1875	2, 681, 482	20, 111, 115	(1)	-	-	-	(1)
1876	2, 992, 000	22, 440, 000	(1)	-	-	-	(1)
1877	2, 426, 569	18, 199, 418	(1)	-	-	-	(1)
1878	3, 609, 233	26, 569, 248	(1)	-	-	-	(1)
1879	2, 236, 901	16, 941, 758	(1)	-	-	-	(1)
1880	2, 034, 940	15, 262, 050	(1)	-	-	-	(1)
1881	1, 266, 549	9, 499, 118	(1)	-	-	-	(1)
1882	2, 021, 316	15, 159, 870	(1)	-	-	-	(1)
1883	2, 166, 320	16, 247, 400	(1)	-	-	-	(1)
1884	3, 722, 927	27, 921, 952	(1)	-	-	-	(1)
1885	2, 346, 319	17, 597, 392	(1)	-	-	-	(1)
1886	1, 605, 544	13, 541, 580	(1)	-	-	-	(1)
1887	2, 273, 566	17, 051, 745	(1)	-	-	-	(1)
1888	2, 051, 128	15, 383, 460	(1)	-	-	-	(1)
1889	3, 327, 030	24, 952, 725	(1)	-	-	-	(1)
1890	2, 939, 217	22, 044, 128	(1)	-	-	-	(1)
1891	1, 946, 642	14, 599, 815	(1)	-	-	-	(1)
1892	1, 329, 644	9, 972, 330	(1)	-	-	-	(1)
1893	1, 269, 002	9, 517, 515	(1)	-	-	-	(1)
1894	1, 939, 506	14, 996, 295	(1)	-	-	-	(1)
1895	1, 757, 754	13, 289, 155	(1)	-	-	-	(1)
1896	1, 741, 530	13, 061, 475	(1)	-	-	-	(1)
1897	2, 147, 113	16, 103, 348	(1)	-	-	-	(1)

SEE FOOTNOTES AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# HISTORICAL FISHERY STATISTICS

469

## SUMMARY OF THE MENHADEN FISHERY, 1873-1963 - Continued

YEAR	OIL			SOLUBLES			TOTAL
	GALLONS	POUNDS	VALUE	TONS	POUNDS	VALUE	VALUE
1898	2,450,000	18,375,000	(1)	-	-	-	(1)
1899	(1)	(1)	(1)	-	-	-	(1)
1900	(1)	(1)	(1)	-	-	-	(1)
1901 2/	3,812,335	28,592,512	\$933,679	-	-	-	\$2,473,489
1902	(1)	(1)	(1)	-	-	-	(1)
1903	(1)	(1)	(1)	-	-	-	(1)
1904	(1)	(1)	(1)	-	-	-	(1)
1905	(1)	(1)	(1)	-	-	-	(1)
1906	3,004,050	22,530,375	(1)	-	-	-	(1)
1907	1,243,800	9,328,500	(1)	-	-	-	(1)
1908	3,096,850	23,226,375	(1)	-	-	-	(1)
1909	3,015,800	22,618,500	(1)	-	-	-	(1)
1910	3,778,600	28,339,500	(1)	-	-	-	(1)
1911	3,974,250	29,806,875	(1)	-	-	-	(1)
1912	6,651,203	49,884,022	1,551,990	-	-	-	3,690,155
1913	4,768,050	35,760,375	(1)	-	-	-	(1)
1914	3,563,650	26,721,375	(1)	-	-	-	(1)
1915	2,727,750	20,458,125	(1)	-	-	-	(1)
1916	4,011,500	30,086,250	(1)	-	-	-	(1)
1917	3,619,700	27,147,750	(1)	-	-	-	(1)
1918	3,943,100	29,573,250	(1)	-	-	-	(1)
1919	5,415,600	40,617,000	(1)	-	-	-	(1)
1920	5,842,300	43,817,250	(1)	-	-	-	(1)
1921	6,260,478	46,953,585	1,719,892	-	-	-	4,005,987
1922	7,102,677	53,270,078	2,904,833	-	-	-	6,126,591
1923	7,461,365	55,960,238	3,316,277	-	-	-	6,410,553
1924	3,923,905	29,429,288	1,817,626	-	-	-	3,310,176
1925	6,023,108	45,173,310	3,001,106	-	-	-	5,622,615
1926	3,942,821	29,571,158	1,729,160	-	-	-	3,441,760
1927	3,957,068	29,678,010	1,716,474	-	-	-	3,689,979
1928	3,585,569	26,891,768	1,455,376	-	-	-	3,440,265
1929	3,172,735	23,795,512	1,381,816	-	-	-	3,630,054
1930	3,191,265	23,934,468	648,954	-	-	-	2,673,720
1931	1,981,790	14,863,425	302,308	-	-	-	1,140,242
1932	2,997,098	22,478,325	273,486	-	-	-	1,180,067
1933	3,344,343	25,082,572	450,970	-	-	-	1,586,862
1934	3,612,364	27,092,730	705,657	-	-	-	2,334,913
1935	4,066,159	30,496,192	1,178,337	-	-	-	2,635,892
1936	4,880,879	36,606,592	1,249,708	-	-	-	3,021,033
1937	3,895,613	29,217,098	1,456,333	-	-	-	3,655,656
1938	4,189,129	31,418,468	1,173,667	-	-	-	3,179,223
1939	6,005,414	45,040,605	1,624,024	-	-	-	4,114,794
1940	5,774,671	43,310,032	1,304,720	-	-	-	3,999,482
1941	6,034,050	45,255,375	2,829,441	-	-	-	7,080,588
1942	5,128,760	38,465,700	3,200,129	-	-	-	6,642,928
1943	5,734,668	43,010,010	3,871,539	-	-	-	8,478,421
1944	6,067,111	45,503,332	3,725,498	-	-	-	8,749,826
1945	8,335,094	62,513,205	5,656,550	-	-	-	11,202,127
1946	9,786,648	73,189,860	9,033,032	-	-	-	17,716,625
1947	8,473,371	63,550,282	11,425,497	-	-	-	22,336,212
1948	8,763,939	65,729,542	10,132,179	-	-	-	21,693,093
1949	8,293,911	62,204,332	3,407,510	-	-	-	21,220,849
1950	10,209,958	76,574,685	5,866,554	-	-	-	18,731,305
1951	12,537,115	94,028,362	9,771,154	-	-	-	23,650,677
1952	12,888,646	96,664,845	5,785,395	-	-	-	23,632,576
1953	17,824,477	135,683,578	8,606,317	39,038	78,076,523	\$3,592,951	34,166,073
1954	18,641,433	139,810,748	9,755,320	56,274	112,547,095	5,564,717	39,103,401
1955	21,232,141	159,241,058	12,195,454	61,938	123,876,901	4,396,642	42,044,608
1956	22,428,082	168,210,615	14,092,275	72,852	145,704,750	5,339,834	46,871,743
1957	15,797,919	118,484,392	9,466,198	69,399	138,797,027	5,615,490	36,807,576
1958	17,064,818	127,986,135	9,434,108	72,471	144,941,679	6,282,986	36,386,263
1959	20,626,278	154,712,085	10,743,761	108,079	216,158,510	5,852,514	42,988,282
1960	24,453,736	183,403,020	11,582,027	65,850	131,700,000	2,299,209	33,082,952
1961	31,355,570	235,166,775	12,913,447	73,305	146,610,000	3,142,397	41,908,342
1962	31,015,855	232,618,912	10,059,839	85,200	170,400,000	4,120,050	42,429,855
1963	21,630,273	167,634,616	8,853,302	74,831	149,662,000	4,465,957	36,602,579

1/ DATA NOT AVAILABLE. 2/ DATA FOR CONNECTICUT ARE FOR 1900, WHILE THOSE FOR RHODE ISLAND, NEW YORK, DELAWARE, AND NORTH CAROLINA ARE FOR 1902. 3/ IN ADDITION 5,096,000 MISCELLANEOUS FISH WERE UTILIZED; THIS INCLUDES 180,000 IN CONNECTICUT AND NEW YORK, 4,900,000 IN MARYLAND AND VIRGINIA, 16,000 IN NORTH CAROLINA AND FLORIDA. 4/ A SMALL PRODUCTION OF ACIDULATED SCRAP HAS BEEN INCLUDED WITH DRY SCRAP AND MEAL.

NOTE:--THE FACTOR 7.75 HAS BEEN USED TO CONVERT GALLONS OF OIL TO POUNDS FOR 1963; 7.5 HAS BEEN USED FOR PRIOR YEARS.

SOURCES--DATA FOR 1873 TO 1898, AND 1901 ARE FROM "AQUATIC PRODUCTS IN ARTS AND INDUSTRIES," BY CHARLES H. STEVENSON, REPORT OF THE COMMISSIONER OF FISHERIES, 1902; FOR 1906 TO 1911, 1913, 1914, AND 1920 FROM INFORMATION ON FILE IN THE BUREAU'S BRANCH OF FISHERY STATISTICS, WHICH WAS SUPPLIED BY AN IMPORTANT MENHADEN PRODUCTS BROKER; FOR 1912, FROM "THE MENHADEN INDUSTRY OF THE ATLANTIC COAST," BY ROBERT LEON GREER, BUREAU OF FISHERIES DOCUMENT NO. 811; FOR 1915 TO 1919, FROM "CHEMICAL TECHNOLOGY AND ANALYSIS OF OILS, FATS AND WAXES," BY DR. J. LENKOWITSCHE, M.A. F.I.C., SIXTH EDITION, VOL. 11; FOR 1921 TO 1938, "FISHERY INDUSTRIES OF THE UNITED STATES,"; FOR 1939 TO 1963, "FISHERY STATISTICS OF THE UNITED STATES,"; AND UNPUBLISHED BUREAU RECORDS.

FOR THE YEARS FOLLOWING 1920, INFORMATION COLLECTED IN THE SERVICE'S ANNUAL INDUSTRIAL FISHERIES SURVEYS HAS BEEN USED RATHER THAN THE SLIGHTLY MORE COMPLETE INFORMATION ASSEMBLED IN THE GENERAL CANNASS SURVEYS OF THE ATLANTIC AND GULF STATES SINCE RELATIVELY FOR COMPLETE GENERAL CANNASS SURVEYS WERE MADE FOR ALL AREAS DURING THIS PERIOD.

# HISTORICAL FISHERY STATISTICS

## PACIFIC SARDINE FISHERY, 1915-63

The Pacific sardine fishery is an outstanding example of a "boom" and "bust" industry. In less than 20 years these fish moved from a position of minor importance in the Pacific Coast fisheries to that of the leading species taken by United States fishermen, and then in an even shorter period, the catch dropped to less than 1 percent of peak production. Pacific sardines were first taken in large numbers during World War I to supply the expanding market for canned sardines. Adoption of the screw press in the 1920's permitted utilization of cannery waste and whole fish for processing of fish meal and oil. Rapid growth of the domestic and export markets for canned sardines, and the domestic market for fish meal and oil resulted in a large expansion of the sardine fishing fleet and in processing facilities.

The catch underwent phenomenal growth, increasing from only 4 million pounds in 1915 to 158 million pounds in 1918. By 1929, landings totaled 652 million pounds, and a peak of 1.5 billion pounds was reached in 1936. The decline in the great sardine fishery was even more spectacular than its rapid growth. After 1936, catches decreased sharply, and 1944 was the last year production exceeded a billion pounds. Production dropped to 256 million pounds in 1947, recovered somewhat in the next 4 years, and then in 1952 plunged to only 14 million pounds. In 1963, landings amounted to a little over 7 million pounds.

Early in its management program, the State of California had adopted a policy that fish landed in the State should be used for food. However, an exception was made in the case of sardines. Use of the fish for processing into meal and oil was more profitable than canning, and great pressure had been exerted to use whole fish for reduction. In an attempt to restrict the reduction of whole fish, it was originally required that 20 cases of sardines be canned from each ton landed. This requirement was reduced to 18, then 15, and finally to 13.5 cases per ton. The operation of reduction ships outside territorial waters off San Francisco Bay evaded this restriction, and the State was forced to adopt a system of "special permits" under which specified quantities of whole fish could be taken by permit holders for processing into meal and oil. Issuance of these permits was continued until the shortage of fish forced their discontinuance in 1953.

In the early years of the fishery, the entire catch was canned, and although taking of the fish for direct reduction increased rapidly in the 1920's, canning remained the principal use of sardines through 1931. In the following year, however, about two-thirds of the 312 million-pound catch was used for straight reduction. Use of whole fish for this purpose continued to increase, and in both 1934 and 1936, over 80 percent of the catch was used as whole fish for manufacture into meal and oil. Most of the catch continued to be used directly for reduction through 1944, and possibly 1945.

The catch in the San Francisco District increased to 789 million pounds in 1936--over half of the entire receipts of these fish in the Pacific Coast States. In this year receipts of sardines by reduction ships reached a peak of 508 million pounds. This District dominated the fishery until 1940, when Monterey moved into first place. In 1946, the fishery in the San Francisco District was almost a complete failure with receipts amounting to only 6.4 million pounds. Since that year, landings in this District have been insignificant, and in 1963 no landings were reported.

Monterey became an important sardine port in the early 1920's. Peak landings occurred in 1944, when receipts totaled over 500 million pounds. Following 1945, the catch dropped rapidly and amounted to less than 2,000 pounds in 1953. Since that date it climbed erratically to 1,300,200 pounds in 1963.

The San Pedro area had the most consistent landings of any of the California Districts. Receipts increased steadily from the inception of the fishery to a peak of 547 million pounds in 1950. However, the catch in the following year was less than half this amount, and the 1953 receipts were less than 8 million pounds.

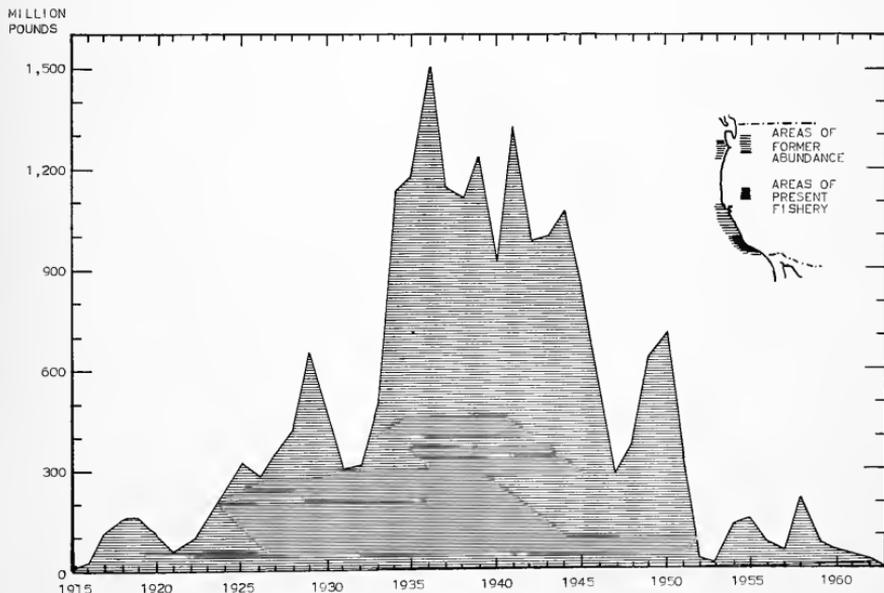
# HISTORICAL FISHERY STATISTICS

In 1935, fishing for sardines was undertaken off the Oregon coast and a catch of over 52 million pounds was landed at coastal and Columbia River reduction plants. The Oregon fishery declined following 1935, and reduction operations were discontinued after 1943. In 1936, sardine reduction plants began operating on the Washington coast and the fishery reached a peak of 53 million pounds in 1938. Production declined rapidly following that year, and only insignificant quantities have been taken since 1947. None have been reported in either Washington or Oregon since 1951.

The canning of Pacific sardines has been the most important use of the fish with respect to value of the products produced, and in all but eight years, the value of the canned pack exceeded that for meal and oil. The pack of canned sardines first exceeded 1 million cases in 1923. Three years later it passed the 2 million mark, and by 1929 reached 3.8 million cases. Loss of the export market and the domestic depression caused canning to decline, and in 1932 less than 1 million cases were packed. Following that year, the pack increased rapidly and in 2 years--1941 and 1950--exceeded 5 million cases. After 1950, the canning declined sharply due to disappearance of the fish, and in 1963 only 121,000 cases were packed.

The major portion of the catch of Pacific sardines has been used to produce meal and oil since in addition to the whole fish used for reduction, the offal from canning operations, broken, crushed, and off-sized fish have likewise been used for this purpose. It is estimated that of the total catch of 21.8 billion pounds of sardines taken by United States fishermen during the years from 1915 to 1960, about 14 billion pounds of whole sardines, offal, etc., were made into meal and oil. Production of sardine meal reached a peak of 121,739 tons in 1936 and the record production of oil (26 million gallons) occurred in the same year.

## CATCH OF PACIFIC SARDINE FISHERY, 1915-63



## HISTORICAL FISHERY STATISTICS

## SUMMARY OF PACIFIC SARDINE FISHERY, 1915-63

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

YEAR	CALIFORNIA							
	NORTHERN DISTRICT		SAN FRANCISCO DISTRICT		MONTEREY DISTRICT		SANTA BARBARA DISTRICT	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
1915.	-	-	31	1	4,029	20	1	(1)
1916.	-	-	-	-	10,649	(2)	-	-
1917.	-	-	3/1,478	(2)	41,125	(2)	-	-
1918.	-	-	3,776	(2)	66,250	(2)	-	-
1919.	-	-	86,300	(2)	86,300	(2)	-	-
1920.	-	-	3/1,221	(2)	77,000	(2)	-	-
1921.	-	-	3/1,832	(2)	32,500	(2)	-	-
1922.	(1)	(1)	170	3	44,679	694	(1)	(1)
1923.	(1)	(1)	340	1	86,061	344	1	-
1924.	(1)	(1)	1,091	16	117,529	823	-	-
1925.	-	-	464	9	124,756	786	-	-
1926.	-	-	7,057	48	155,162	822	-	-
1927.	(1)	(1)	18,742	117	173,956	877	-	-
1928.	-	-	26,966	145	221,568	1,221	-	-
1929.	-	-	41,092	216	323,381	1,788	-	-
1930.	-	-	48,469	196	259,098	1,178	-	-
1931.	-	-	50,661	166	153,432	618	-	-
1932.	(1)	(1)	29,358	74	168,284	422	-	-
1933.	-	-	62,214	196	254,312	784	-	-
1934.	-	-	367,801	1,359	478,928	1,775	-	-
1935.	-	-	433,481	1,725	376,151	1,484	-	-
1936.	-	-	789,056	3,856	402,943	1,941	-	-
1937.	-	-	435,550	2,727	279,194	1,694	-	-
1938.	-	-	446,631	2,501	311,386	1,755	-	-
1939.	-	-	491,843	2,708	429,600	2,374	-	-
1940.	-	-	231,359	1,204	363,115	1,930	-	-
1941.	1	(1)	395,325	3,291	522,805	3,390	-	-
1942.	(1)	(1)	210,688	2,325	332,491	3,589	-	-
1943.	-	-	244,636	2,708	439,702	4,893	-	-
1944.	1	(1)	284,494	3,135	500,066	5,575	-	-
1945.	-	-	185,200	2,056	316,980	3,562	-	-
1946.	-	-	6,401	149	71,742	1,155	-	-
1947.	-	-	626	17	36,773	916	-	-
1948.	7	1	230	6	95,514	3,161	-	-
1949.	15	1	33,874	578	262,376	4,565	-	-
1950.	1	(1)	26,443	461	41,685	784	95,024	1,416
1951.	-	-	165	3	1,757	53	74,973	1,567
1952.	-	-	-	-	1,24	-	2,610	113
1953.	-	-	(1)	(1)	1	(1)	973	54
1954.	-	-	-	-	12	1	24,433	951
1955.	-	-	-	-	937	22	39,732	675
1956.	-	-	-	-	1	(1)	15,446	294
1957.	-	-	-	-	32	1	23,978	934
1958.	-	-	-	-	16,784	509	47,110	1,083
1959.	-	-	-	-	29,685	598	5,526	137
1960.	-	-	-	-	3,003	65	15,231	425
1961.	-	-	-	-	1,110	34	8,582	242
1962.	-	-	(1)	(1)	2,592	82	2,175	78
1963.	-	-	-	-	1,340	64	400	20

## CALIFORNIA - CONTINUED

YEAR	CALIFORNIA - CONTINUED						OREGON	
	SAN PEDRO DISTRICT		SAN DIEGO DISTRICT		TOTAL CALIFORNIA		COASTAL DISTRICT	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
1915.	329	7	-	-	4,390	28	-	-
1916.	2,500	(2)	2,500	(2)	15,649	(2)	-	-
1917.	52,500	(2)	5,000	(2)	104,103	(2)	-	-
1918.	77,500	(2)	13,125	(2)	160,653	(2)	-	-
1919.	55,000	(2)	11,250	(2)	153,877	(2)	-	-
1920.	27,800	(2)	12,500	(2)	118,521	(2)	-	-
1921.	23,000	(2)	2,000	(2)	59,332	(2)	-	-
1922.	44,558	282	2,707	22	92,114	1,201	-	-
1923.	67,493	338	5,302	21	159,197	704	-	-
1924.	116,957	1,170	7,109	71	242,686	2,080	-	-
1925.	174,406	1,186	15,669	107	315,215	2,088	-	-
1926.	124,522	658	(4)	(4)	286,741	1,828	-	-
1927.	143,549	790	6,028	44	342,275	1,828	-	-
1928.	164,619	909	7,117	49	420,270	2,324	-	-
1929.	283,369	1,559	3,930	26	651,772	3,589	30	(1)
1930.	182,712	978	4,172	26	494,451	2,378	-	-
1931.	95,979	400	132	1	300,204	1,185	-	-
1932.	113,985	325	545	4	312,172	825	-	-
1933.	192,737	522	533	3	509,798	1,505	7	(1)
1934.	285,181	1,030	4,054	13	1,135,959	4,177	-	-
1935.	292,002	1,111	14,102	50	1,115,736	4,370	52,464	236
1936.	252,937	1,050	15,856	64	1,460,792	6,891	28,393	142
1937.	347,461	1,903	9,408	49	1,071,613	6,373	33,463	218
1938.	259,659	1,550	5,513	26	1,023,389	5,832	34,036	187
1939.	238,520	1,329	831	4	1,160,794	6,415	44,653	246
1940.	309,391	1,653	2,107	9	905,972	4,796	6,325	32
1941.	341,408	2,439	2,941	21	1,262,479	9,141	31,698	247

SEE FOOTNOTES AT END OF TABLE.

(CONTINUED ON NEXT PAGE)

# HISTORICAL FISHERY STATISTICS

473

## SUMMARY OF PACIFIC SARDINE FISHERY, 1915-63 - Continued

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

YEAR	CALIFORNIA - CONTINUED						OREGON	
	SAN PEORO DISTRICT		SAN DIEGO DISTRICT		TOTAL CALIFORNIA		COASTAL DISTRICT	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
1942.	421,619	4,402	4,949	54	969,747	10,370	3,765	38
1943.	282,710	3,123	5,161	58	972,269	10,782	3,649	40
1944.	359,050	3,965	3,598	40	1,147,208	12,715	4	(2)
1945.	337,490	3,730	5,393	59	845,063	9,407	7	(2)
1946.	423,992	5,395	8,624	154	510,759	6,853	27	1
1947.	212,439	4,743	5,676	126	255,514	5,802	20	1
1948.	256,281	7,415	8,005	149	362,037	10,732	1	(1)
1949.	331,502	5,554	5,703	59	633,475	10,757	9	(1)
1950.	547,412	9,437	3,957	42	619,498	12,140	-	-
1951.	246,573	5,548	5,425	76	328,893	7,247	-	-
1952.	11,642	407	54	2	14,330	523	-	-
1953.	7,849	447	646	27	9,469	528	-	-
1954.	111,039	2,732	1,020	17	136,504	3,701	-	-
1955.	104,939	2,372	-	-	145,608	3,069	-	-
1956.	54,089	1,379	18	1	69,554	1,674	-	-
1957.	21,837	851	15	1	45,862	1,787	-	-
1958.	143,541	3,947	11	(1)	207,446	5,439	-	-
1959.	38,954	740	2	(1)	74,367	1,475	-	-
1960.	39,139	693	160	3	57,533	1,186	-	-
1961.	33,429	867	48	3	43,169	1,146	-	-
1962.	10,596	330	-	-	15,363	490	-	-
1963.	5,391	215	-	-	7,131	299	-	-

YEAR	OREGON - CONTINUED		WASHINGTON				TOTAL PACIFIC COAST STATES	
	COLUMBIA RIVER DISTRICT		PUGET SOUND DISTRICT		COASTAL DISTRICT		QUANTITY	VALUE
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
1915.	-	-	-	-	-	-	4,390	-
1916.	-	-	-	-	-	-	15,649	(2)
1917.	-	-	-	-	-	-	104,103	(2)
1918.	-	-	-	-	-	-	160,653	(2)
1919.	-	-	-	-	-	-	153,877	(2)
1920.	-	-	-	-	-	-	118,521	(2)
1921.	-	-	-	-	-	-	59,332	-
1922.	-	-	-	-	-	-	92,114	1,201
1923.	-	-	-	-	-	-	159,197	-
1924.	-	-	-	-	-	-	242,589	2,080
1925.	-	-	-	-	-	-	315,295	2,088
1926.	-	-	-	-	-	-	286,741	1,528
1927.	-	-	-	-	-	-	342,275	1,828
1928.	-	-	-	-	-	-	420,270	2,324
1929.	-	-	-	-	-	-	651,772	3,589
1930.	-	-	-	-	-	-	494,451	2,378
1931.	-	-	-	-	-	-	300,204	1,185
1932.	-	-	-	-	-	-	312,172	825
1933.	-	-	-	-	-	-	509,798	1,505
1934.	-	-	-	-	-	-	1,135,959	4,177
1935.	-	-	-	-	13	(1)	1,168,213	4,606
1936.	-	-	6	(1)	13,108	66	1,502,299	7,099
1937.	-	-	22	-	34,407	224	1,139,505	6,815
1938.	-	-	10	1	52,966	291	1,110,401	6,311
1939.	-	-	2	(1)	35,526	195	1,240,975	6,856
1940.	-	-	13	(1)	1,633	8	913,943	4,836
1941.	-	-	1	(1)	34,189	268	1,328,377	9,656
1942.	-	-	31	1	1,137	11	974,680	10,420
1943.	-	-	114	7	20,968	231	997,000	11,060
1944.	-	-	43	2	40	(2)	1,147,295	12,717
1945.	-	-	29	1	4,697	52	849,971	9,462
1946.	175	2	7	(1)	12,283	268	530,594	7,295
1947.	7,918	173	29	1	2,821	77	272,935	6,140
1948.	13,852	259	108	5	-	-	373,159	11,010
1949.	11,013	275	56	3	-	-	633,540	10,760
1950.	-	-	-	-	-	-	619,498	12,140
1951.	-	-	1	(2)	-	-	328,894	7,247
1952.	-	-	-	-	-	-	14,330	523
1953.	-	-	-	-	-	-	9,469	528
1954.	-	-	-	-	-	-	136,504	3,701
1955.	-	-	-	-	-	-	145,608	3,069
1956.	-	-	-	-	-	-	69,554	1,674
1957.	-	-	-	-	-	-	45,862	1,787
1958.	-	-	-	-	-	-	207,446	5,439
1959.	-	-	-	-	-	-	74,367	1,475
1960.	-	-	-	-	-	-	57,533	1,186
1961.	-	-	-	-	-	-	43,169	1,146
1962.	-	-	-	-	-	-	15,363	490
1963.	-	-	-	-	-	-	7,131	299

1/ LESS THAN 500 POUNDS OR \$500. 2/ DATA NOT AVAILABLE. 3/ DATA ARE PARTLY ESTIMATED. 4/ THE CATCH IN THE SAN DIEGO DISTRICT HAS BEEN INCLUDED WITH THAT FOR SAN PEORO.

## HISTORICAL FISHERY STATISTICS

## PACIFIC SARDINES, CANNED AND INDUSTRIAL PRODUCTS, 1921-63

YEAR	CANNED		MEAL		OIL	
	1,000 CASES	1,000 DOLLARS	1,000 TONS	1,000 DOLLARS	1,000 POUNDS	1,000 DOLLARS
1921.	399	2,346	(1)	(1)	1,282	36
1922.	715	3,361	(1)	(1)	3,218	146
1923.	1,100	4,608	(1)	(1)	7,245	424
1924.	1,367	5,445	(1)	(1)	17,542	1,077
1925.	1,715	6,361	(1)	(1)	23,400	1,569
1926.	2,093	7,807	(1)	(1)	15,848	933
1927.	2,563	9,269	(1)	(1)	18,652	1,117
1928.	2,772	9,659	(1)	850	28,695	1,621
1929.	3,631	11,997	37	1,961	48,202	2,816
1930.	2,979	8,742	26	1,415	43,522	1,826
1931.	1,713	4,715	16	610	29,370	808
1932.	954	2,358	25	588	41,468	705
1933.	1,539	3,805	51	1,530	76,980	1,593
1934.	1,970	5,481	89	2,878	156,338	4,414
1935.	2,420	6,237	96	2,538	163,012	6,659
1936.	2,617	7,302	122	3,968	195,982	8,336
1937.	2,812	8,592	89	3,325	119,948	6,204
1938.	2,262	7,102	90	3,438	131,550	5,205
1939.	3,108	9,554	97	4,104	149,970	6,078
1940.	2,946	8,975	70	3,008	94,702	3,761
1941.	5,007	18,092	98	5,942	135,939	9,879
1942.	3,745	15,510	72	5,310	93,817	8,068
1943.	3,355	14,352	76	5,776	104,605	9,302
1944.	3,651	15,226	86	6,383	135,742	11,723
1945.	3,766	15,346	61	4,644	68,898	7,926
1946.	2,977	19,896	37	5,233	36,499	6,843
1947.	1,653	16,538	17	2,556	15,780	2,677
1948.	2,654	21,893	19	2,615	17,464	2,458
1949.	3,768	21,535	39	6,220	45,924	2,873
1950.	5,071	26,346	43	5,270	46,415	4,694
1951.	2,865	19,383	17	2,267	14,569	1,546
1952.	107	918	(2)	52	1157	11
1953.	64	653	(2)	19	98	6
1954.	1,338	9,818	7	843	5,669	421
1955.	1,415	10,014	7	969	6,733	522
1956.	755	5,734	3	370	2,530	181
1957.	498	4,721	1	183	656	55
1958.	2,223	16,437	11	1,390	5,556	427
1959.	755	5,999	3	324	1,409	92
1960.	616	4,659	4	316	1,201	78
1961.	419	3,664	3	257	646	36
1962.	137	1,300	1	73	161	10
1963.	57	685	(3)	(3)	(3)	(3)

1/ DATA NOT AVAILABLE.

2/ LESS THAN 500 TONS.

3/ NEGLIGIBLE.



SARDINE, PACIFIC

## ATLANTIC OCEAN PERCH FISHERY, 1930-63

The ocean perch supports a fishery that has grown spectacularly in the 29 years since the inception of the fishery. Although long familiar to New England fishermen, they were practically unknown to the fish-eating public until 1934. In 1933 when only 257 thousand pounds were landed, the catch ranked one hundred and sixth in volume of production among United States fisheries. In 1951 the catch totaled 258 million pounds and ranked fifth. Only menhaden, salmon, tuna and Pacific sardine were taken in greater volume.

Prior to 1934, small catches of ocean perch made incidentally to the capture of other species were usually disregarded. In that year landings of haddock, the principal fish used for filleting, were down sharply and fishermen and dealers were searching for a fish suitable for filleting to augment the dwindling supplies of haddock. Ocean perch were available in large quantities and were found to yield attractive fillets of a rich and agreeable flavor suitable for shipping to inland markets. Demand for the fillets was developed, at first in the Midwest and later in other sections of the country, and landings increased from 257 thousand pounds in 1933 to nearly 67 million pounds in 1936 and to a peak of more than 258 million pounds in 1951. Since then the fishery has declined, except for occasional fluctuations, to 108 million pounds in 1963, the lowest since 1940.

In the early years of the fishery, most of the catch was landed at Boston, Mass. However, deliveries to Gloucester, Mass. grew rapidly, and in each year since 1938 it has been the largest landing port for these fish. In 1951 nearly 178 million pounds of ocean perch were landed at Gloucester. Portland and Rockland, Me. also became important ocean perch ports. Portland was the principal Maine port of landing until 1944 when Rockland moved into first place. In 1954, however, Portland landings once again exceeded those at Rockland.

Ocean perch is one of few commercial species giving birth to live young instead of eggs. Therefore the number of young spawned each year is comparatively low. The fish grow slowly at the rate of about an inch a year until around their eleventh year when they mature. Because of the few young and slow rate of growth, the rapid expansion of the ocean perch fleet and catch has resulted in a considerable decline in the yield from the nearby grounds as the accumulated stocks of older fish were caught. In order to supply the market, the fleet expanded operations to more distant grounds progressively and concentrated increasingly on smaller fish.

In the early years of the ocean perch fishery the entire catch was taken on grounds off the coast of New England and Nova Scotia. Most of the catch was taken off New England until about 1948 when the Nova Scotia banks began yielding the major portion of the production. In 1951 important catches were made in the Gulf of St. Lawrence and on the Grand Banks of Newfoundland. In both 1953 and 1954 the major portion of the catch for which area of capture is known, was taken from the Gulf of St. Lawrence and the Grand Bank of Newfoundland.

The entire catch of ocean perch is filleted, and most of the fillets are frozen. Some of the waste from filleting is processed into fish meal and the remainder is used as lobster bait. Practically the entire catch is taken with otter trawls.



## HISTORICAL FISHERY STATISTICS

## CATCH OF ATLANTIC OCEAN PERCH, BY YEAR AND PORT, 1930-63

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

YEAR	MASSACHUSETTS					
	BOSTON		GLOUCESTER		NEW BEDFORD	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
1930	88	2	21	(1)	(1)	(1)
1931	175	3	48	(1)	-	-
1932 2/	(2)	(2)	(2)	(2)	(2)	(2)
1933	221	2	34	(1)	-	-
1934	1,288	14	539	5	-	-
1935	14,144	150	2,896	33	-	-
1936	49,419	720	17,094	243	-	-
1937	41,175	641	17,023	246	-	-
1938	34,141	442	29,408	330	-	-
1939	29,319	459	44,424	588	-	-
1940	19,727	330	57,977	845	-	-
1941	24,783	573	99,877	2,008	-	-
1942	9,949	360	91,285	3,740	5	(1)
1943	5,087	249	83,992	3,999	-	-
1944	2,032	84	91,579	3,561	7	(1)
1945	1,377	55	102,037	3,957	15	1
1946	5,219	238	130,899	5,840	195	9
1947	10,526	478	95,357	4,200	498	14
1948	11,383	498	176,801	7,406	350	14
1949	12,113	498	169,281	7,304	80	3
1950	7,740	326	120,291	5,692	474	17
1951	6,598	335	177,694	8,829	47	2
1952	6,945	303	121,586	5,294	3,690	128
1953	4,920	201	88,329	3,408	4	(1)
1954	3,097	141	98,679	4,029	(1)	(1)
1955	3,040	133	86,249	3,327	12	(1)
1956	2,839	116	83,303	3,142	1	(1)
1957	3,819	168	65,389	2,525	-	-
1958	2,625	142	74,951	3,132	-	-
1959	3,280	172	58,197	2,377	-	-
1960	1,481	70	61,673	2,339	-	-
1961	700	40	53,991	2,132	15	(1)
1962	900	49	53,619	2,307	-	-
1963	1,146	67	43,239	2,144	(1)	(1)

YEAR	MAINE				OTHER MAINE AND MASSACHUSETTS PORTS		TOTAL	
	PORTLAND		ROCKLAND		QUANTITY	VALUE	QUANTITY	VALUE
	QUANTITY	VALUE	QUANTITY	VALUE				
1930	4	(1)	-	-	-	-	113	2
1931	10	(1)	-	-	-	-	233	3
1932 2/	(2)	(2)	(2)	(2)	(1)	(1)	120	1
1933	-	(1)	-	-	-	-	257	2
1934	2	-	-	-	-	-	1,841	19
1935	70	1	-	(1)	-	-	17,112	184
1936	79	1	-	-	-	-	66,592	964
1937	129	1	16	(1)	-	-	58,343	888
1938	1,155	13	4	(1)	-	-	64,708	785
1939	3,870	43	1,549	19	-	-	79,162	1,109
1940	6,657	81	1,235	15	-	-	85,016	1,271
1941	14,693	250	6,034	101	-	-	145,387	2,932
1942	13,913	366	12,241	269	673	19	128,066	3,754
1943	12,253	451	11,144	379	2,252	78	114,728	4,956
1944	10,470	378	12,459	433	3,632	125	120,179	4,581
1945	11,231	419	12,345	477	4,604	212	131,811	5,121
1946	20,892	821	15,944	641	4,968	169	178,117	7,718
1947	13,244	423	24,045	723	2,916	86	146,586	5,924
1948	19,942	683	25,359	914	4,257	115	238,092	9,630
1949	24,239	873	30,342	1,109	930	33	236,985	9,820
1950	37,184	1,447	38,950	1,549	3,154	106	207,793	9,137
1951	30,642	1,401	41,816	1,958	1,510	71	258,307	12,596
1952	28,039	1,212	28,941	1,250	3,644	152	192,715	8,339
1953	28,383	1,146	28,939	1,101	3,918	116	153,893	5,972
1954	43,916	1,798	34,884	1,375	672	32	181,448	7,375
1955	34,297	1,248	33,377	1,330	12	(1)	156,987	6,038
1956	33,903	1,239	31,027	1,224	40	1	151,113	5,722
1957	37,107	1,334	27,563	1,060	53	1	133,931	5,088
1958	32,990	1,354	38,028	1,647	50	1	148,644	6,276
1959	36,393	1,466	38,812	1,650	20	(1)	136,702	5,665
1960	37,585	1,429	40,626	1,579	58	3	141,433	5,420
1961	35,782	1,358	41,548	1,584	12	(1)	132,063	5,115
1962	30,741	1,307	38,702	1,559	12	(1)	123,974	5,222
1963	26,680	1,276	37,199	1,659	28	1	108,292	5,147

1/ LESS THAN 500 POUNDS OR \$500.

2/ DATA NOT AVAILABLE BY PORTS.

# HISTORICAL FISHERY STATISTICS

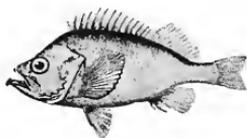
477

## CATCH OF ATLANTIC OCEAN PERCH, BY AREAS, 1935-63

(THOUSANDS OF POUNDS)

YEAR	NEW ENGLAND BANKS	NOVA SCOTIA BANKS	GRAND BANK OF NEW-FOUNDLAND	GULF OF ST. LAWRENCE	AREA NOT KNOWN 1/	TOTAL
	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
1935	16,542	570	-	-	-	17,112
1936	50,967	15,625	-	-	-	66,592
1937	32,065	26,262	-	-	16	58,343
1938	45,231	19,473	-	-	4	64,708
1939	56,010	21,603	-	-	1,549	79,162
1940	58,056	25,725	-	-	1,235	85,016
1941	118,646	20,707	-	-	6,034	145,387
1942	110,762	4,365	-	-	12,919	128,056
1943	94,144	7,189	-	-	13,395	114,728
1944	96,290	7,798	-	-	16,091	120,179
1945	72,669	41,977	-	-	17,165	131,811
1946	82,953	75,016	-	-	20,148	178,117
1947	64,337	42,260	-	-	39,989	146,586
1948	76,361	112,580	110	-	49,041	238,092
1949	51,984	129,498	-	-	55,503	236,985
1950	46,818	81,367	326	-	79,232	207,793
1951	42,310	119,418	16,665	5,973	73,941	258,307
1952	28,794	57,569	34,305	7,893	60,468	189,029
1953	16,090	26,015	36,654	14,512	60,622	153,893
1954	12,576	35,640	22,896	30,665	79,671	181,448
1955	12,773	17,593	11,707	47,230	67,684	156,987
1956	15,927	28,879	11,924	29,416	64,967	151,113
1957	16,546	33,610	1,896	17,157	64,722	133,931
1958	13,035	54,660	2,419	6,911	71,619	148,644
1959	11,639	39,264	6,301	4,274	75,224	136,702
1960	8,537	50,493	3,916	229	78,258	141,433
1961	9,708	41,316	3,570	118	77,351	132,063
1962	10,928	42,165	1,288	149	69,453	123,983
1963	7,693	29,232	742	6,720	63,905	108,292

1/ CONSISTS PRINCIPALLY OF LANDINGS AT ROCKLAND, ME., DURING THE YEARS PRIOR TO 1947 AND AT ROCKLAND AND PORTLAND, ME., FOR THE YEARS FROM 1947 TO 1954, INCLUSIVE. DATA FOR 1958 INCLUDE LANDINGS AT ROCKLAND AND PORTLAND, ME., AND OFF LABRADOR. DATA WERE NOT COLLECTED ON THE AREA OF CAPTURE FOR THESE LANDINGS.



OCEAN PERCH

# HISTORICAL FISHERY STATISTICS

## CONVERSION OF PACIFIC COAST TUNA CLIPPERS TO PURSE SEINERS

The California skipjack and yellowfin tuna fisheries were, until recent years, largely a pole and line fishery. Vessels used in the early fishery were small flush-deck craft, with the wheelhouse forward and low freeboard aft. A bait tank was mounted on the stern, and fishing was carried out from the deck. As the size of the craft increased, the engine was moved forward and the house enlarged. Eventually, the pilothouse was constructed atop the main house. The size and range of the vessels increased, and the term "tuna clipper" became synonymous with fast far-ranging vessels highly successful in the pursuit of tuna. Although purse seining for tuna by medium-sized vessels on a seasonal basis had been practiced, and albacore were taken largely by trollers, the pole and line method dominated the fishery until 1959.

From its early history, the U.S. tuna fishery experienced a steady rise, reaching a peak in 1950, but since then, economic difficulties in the industry have led to a decline in the number of vessels and the catch.

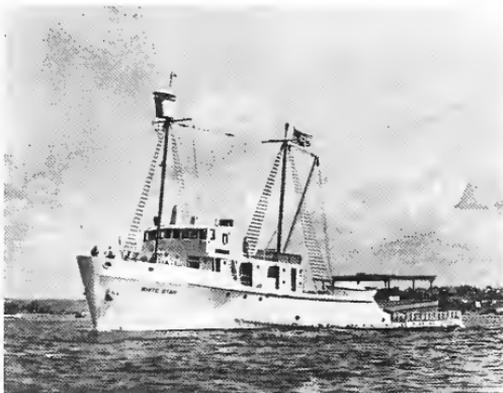
Early attempts at conversion to purse seine were largely unsuccessful; however, in the fall of 1957, the large steel tuna clipper, Sun King, converted to a purse seine, and for the first time, used a powerblock and a nylon net. This first conversion of a vessel to the present method of purse seining had a tremendous impact on tuna fishing throughout the world. While details of the conversion of the Sun King are not available, the modifications consist essentially of removing bait tanks, circulation pumps, fishing racks, and certain piping. The success of the Sun King was immediate, and other vessels began to convert to purse seining, using the powerblock and nylon net. The use of the nylon net was most important because cotton nets deteriorate rapidly in tropical waters.

Conversion of bait craft to purse seines continued during 1958, and by 1959 the California clipper fleet was undergoing the most radical modification in the history of the fishery, involving wholesale conversion of clippers to purse seines. By the end of 1959, 15 active converted tuna seiners were operating, 20 were in various stages of conversion, and 23 were planned for conversion as soon as space became available in the shipyards. The wholesale modification of the clipper fleet to purse seiners continued through 1960, with conversions completed for 52 such vessels during that year. By the end of 1960, the active fleet had 67 large converted tuna seiners, with a total fish capacity of 17,442 tons, and 7 vessels were in various stages of conversion. It appeared that the only drawback to complete conversion in 1960 was that the shipyards could not handle the entire fleet.

During 1961, there were 21 large tuna clipper bait boats converted to purse seiners. Two surplus military craft of 550 tons and 800 tons, respectively, were modified and equipped with purse seine gear, and one purse seiner, the Royal Pacific, of 450-gross ton capacity, was completed and joined the fleet. These 24 vessels, with an estimated capacity of 6,400 tons, increased the large purse seine fleet to 90, with an estimated capacity of 24,125 tons. At the end of the year, 22 vessels of the converted purse seine fleet were fishing out of foreign ports and Puerto Rico. The once mighty pole and line clipper fleet had only 37 vessels. (Clipper bait boats are limited to craft having a carrying capacity of 50 or more tons.) Of the remaining bait fishing vessels, four, with a total capacity of 870 tons, were inactive; three were fishing outside continental United States; and two were being converted to tuna purse seiners.

The year 1962 marked the end of large-scale conversions from clippers to seiners, with only one vessel making the change. The clipper fleet had about disappeared as a source of vessels for conversion to seiners; however, the use of other craft increased the number and capacity of the fleet. For example, the Day Island was converted in 1962 from an Army mine-layer to a purse seiner. The vessel was reported to have a capacity of 1,000 tons of frozen tuna. By 1963, the conversion of clipper bait boats to purse seiners had been almost completed and, again, only one vessel was converted from the clipper fleet to purse seining. During 1963, other additions to the fleet consisted of one converted military craft and a newly

constructed vessel, the Caribbean, with a carrying capacity of 760 tons, scheduled to fish out of Puerto Rico. At the end of the year, the California-owned converted tuna purse seine fleet totaled 92 vessels converted from tuna bait boats, 10 from surplus military craft, and 3 newly constructed large tuna purse seiners--a total fleet of 105 seiners, with a carrying capacity of 35,380 tons. Conversely, the tuna bait boat fleet (of over 50 tons capacity) had shrunk to 20 vessels, with a total tuna capacity of 2,505 tons. Historical data on Pacific Coast tuna appear in the following tables.



THE ABOVE PHOTOGRAPH IS OF A TUNA CLIPPER BEFORE CONVERSION TO A PURSE SEINER.



THE SAME VESSEL AFTER CONVERSION TO A PURSE SEINER.

NOTE:--THE ABOVE PHOTOGRAPHS ARE COURTESY OF VAN CAMP SEA FOOD COMPANY, TERMINAL ISLAND, CALIFORNIA.

## HISTORICAL FISHERY STATISTICS

## TUNA CATCH BY SPECIES, PACIFIC COAST STATES, 1911-63

(THOUSANDS OF POUNDS AND THOUSANDS OF DOLLARS)

YEAR	ALBACORE		BLUEFIN		SKIPJACK		YELLOWFIN		TOTAL	
	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
1911	1/ 850	5	-	-	-	-	-	-	1/ 850	5
1912	1/ 3,400	20	-	-	-	-	-	-	1/ 3,400	20
1913	1/ 6,600	53	-	-	-	-	-	-	1/ 6,600	53
1914	1/ 16,470	222	-	-	-	-	-	-	1/ 16,470	222
1915	21,074	316	-	-	-	-	-	-	21,074	316
1916	22,899	2/ 800	3/ 20,540	3/ 700	(3)	(3)	(3)	(3)	43,439	1,500
1917	30,556	2/ 1,222	1,150	25	420	11	-	-	32,126	1,258
1918	7,265	400	6,240	218	3,024	91	-	-	16,529	709
1919	13,631	845	14,991	(4)	6,897	241	(4)	(4)	35,867	(4)
1920	18,877	1,982	10,530	(4)	7,957	378	1,965	(4)	39,329	(4)
1921	15,277	1,222	2,032	(4)	1,139	25	1,238	(4)	19,686	(4)
1922	13,232	1,151	2,838	(4)	11,862	270	7,337	(4)	35,269	(4)
1923	12,515	1,627	3,301	(4)	11,463	298	10,837	(4)	38,116	(4)
1924	17,695	1,629	3,241	(4)	3,781	179	3,063	(4)	27,780	(4)
1925	22,207	2,333	3,804	(4)	14,235	752	13,238	(4)	53,484	(4)
1926	2,469	2/ 222	6,527	(4)	20,995	873	12,565	591	42,556	(4)
1927	4,579	517	4,898	312	33,807	1,261	25,934	1,304	69,218	3,394
1928	283	42	13,701	823	15,815	562	32,251	1,774	62,050	3,201
1929	269	40	7,527	490	26,998	1,081	37,399	2,200	72,153	3,811
1930	286	24	21,921	1,238	20,486	790	56,654	3,386	99,347	5,448
1931	37	3	3,534	169	16,507	504	36,580	1,979	56,658	2,655
1932	620	31	1,071	51	21,637	751	35,923	1,505	60,251	2,338
1933	2	(5)	560	29	16,687	613	51,076	2,275	68,225	2,917
1934	121	9	18,358	846	14,830	594	60,913	3,053	94,222	4,502
1935	2,448	200	25,173	1,145	17,197	688	72,252	3,620	117,070	5,653
1936	984	91	18,925	922	26,992	1,191	78,353	4,139	125,254	6,343
1937	3,520	287	12,694	725	47,104	2,319	91,523	3,458	154,641	8,789
1938	17,726	966	17,728	985	22,654	1,133	78,318	4,705	136,426	7,787
1939	18,927	1,009	11,836	602	30,121	1,300	110,416	5,912	171,297	8,823
1940	14,502	995	19,970	1,117	56,550	2,743	113,760	6,707	204,882	11,563
1941	11,932	1,123	9,519	581	25,586	1,362	76,702	4,851	123,939	8,506
1942	23,540	4,566	12,845	1,159	38,735	3,335	41,467	3,636	116,587	12,896
1943	37,518	6,104	10,178	967	28,894	2,583	49,262	4,881	125,852	14,535
1944	52,795	8,666	20,344	1,939	30,037	2,694	63,144	6,269	166,320	19,568
1945	39,483	7,697	20,594	1,984	33,348	2,982	67,448	6,718	180,873	21,381
1946	24,142	4,784	22,032	2,246	41,085	4,283	127,247	14,614	214,509	25,927
1947	26,644	6,780	20,838	3,321	52,749	7,628	153,510	23,519	253,941	41,648
1948	6/ 49,493	14,659	6,529	1,096	60,554	9,534	199,427	33,406	316,003	58,695
1949	54,794	10,039	4,389	713	80,512	11,923	190,544	30,999	330,239	53,674
1950	7/ 72,453	13,839	2,762	426	126,786	18,131	187,890	28,823	339,891	61,219
1951	34,491	5,403	3,862	604	116,599	16,655	161,481	24,961	316,433	47,623
1952	52,558	9,146	4,577	733	84,844	10,908	178,819	29,275	320,798	49,062
1953	34,700	6,920	9,773	1,550	122,978	16,943	133,340	21,313	300,791	46,726
1954	26,998	5,426	21,025	3,553	153,756	23,345	119,402	20,575	321,181	52,899
1955	29,738	4,826	13,609	1,941	102,807	13,799	123,208	18,869	269,362	39,435
1956	41,339	7,082	12,626	1,650	123,717	14,189	150,923	20,369	328,604	43,290
1957	46,659	6,732	20,315	2,417	90,821	9,991	137,240	18,194	295,035	37,334
1958	38,445	7,897	30,719	4,029	123,372	14,239	123,727	16,727	316,263	42,892
1959	46,284	8,631	15,194	1,876	98,482	10,424	108,370	14,069	268,330	35,000
1960	40,202	5,939	11,952	1,456	46,304	4,791	189,337	23,566	287,765	35,752
1961	32,830	5,863	20,883	2,708	65,403	7,219	191,854	24,439	310,970	40,226
1962	45,938	7,602	31,200	4,368	92,721	11,922	124,021	18,752	293,880	42,644
1963	60,787	9,159	30,353	3,392	96,620	10,374	109,583	14,530	297,343	37,455

1/ ESTIMATED ON THE BASIS OF PACK AS REPORTED BY TUNA CANNERS.

2/ ESTIMATED.

3/ THE CATCH OF SKIPJACK AND YELLOWFIN HAS BEEN INCLUDED WITH THAT OF BLUEFIN.

4/ DATA NOT AVAILABLE.

5/ LESS THAN \$'00.

6/ INCLUDES 132,000 POUNDS, VALUED AT \$32,000 LANDED IN ALASKA.

7/ INCLUDES 39,000 POUNDS, VALUED AT \$4,000 LANDED IN ALASKA.

NOTE:--HAWAII LANDINGS OF TUNA ARE NOT INCLUDED IN THIS TABLE. DATA FROM 1911 TO 1923 BASED ON STATISTICS PUBLISHED BY THE BUREAU OF FISHERIES, THE CALIFORNIA BUREAU OF MARINE FISHERIES (FISH BULLETIN NO. 74), AND THE U. S. TARIFF COMMISSION IN THEIR REPORT TO THE U. S. SENATE ON TUNA FISH, REPORT NO 109, SECOND SERIES.

# HISTORICAL FISHERY STATISTICS

## TUNA CATCH BY SPECIES AND GEAR, PACIFIC COAST STATES, 1936-63

(THOUSANDS OF POUNDS)

481

YEAR	ALBACORE				BLUEFIN			
	SEINES	LINES	OTHER	TOTAL	SEINES	LINES	OTHER	TOTAL
	QUANTITY							
1935	33	951	-	984	18,422	503	-	18,925
1937	87	3,433	(1)	3,520	12,521	173	(1)	12,694
1938	14	17,712	(1)	17,726	17,249	480	(1)	17,728
1939	169	18,753	(1)	18,922	11,678	157	-	11,836
1940	157	14,345	-	14,502	19,904	60	1	19,970
1941	7	11,923	- 2	11,932	9,107	411	-	9,519
1942	10	23,530	-	23,540	12,820	24	1	12,845
1943	8	37,510	-	37,518	10,154	24	(1)	10,178
1944	9	52,773	- 13	52,795	20,319	25	(1)	20,344
1945	5	39,478	-	39,483	20,441	150	3	20,594
1946	53	24,089	-	24,142	21,944	88	(1)	22,032
1947	41	26,803	-	26,844	20,706	132	-	20,838
1948	32	2/49,461	-	2/49,493	6,519	10	-	6,529
1949	215	54,579	-	54,794	4,307	82	-	4,389
1950	8	3/72,445	-	3/72,453	2,722	40	-	2,762
1951	12	34,479	-	34,491	3,858	4	-	3,862
1952	7	52,551	-	52,558	4,575	2	-	4,577
1953	1	34,699	-	34,700	9,754	19	-	9,773
1954	-	26,998	-	26,998	21,008	17	-	21,025
1955	-	29,736	-	29,738	14,479	130	-	14,609
1956	-	41,338	-	41,338	12,126	-	-	12,626
1957	36	46,623	-	46,659	20,315	-	-	20,315
1958	-	38,445	-	38,445	30,667	52	-	30,719
1959	2	46,282	-	46,284	15,194	-	-	15,194
1960	30	40,172	-	40,202	11,952	-	-	11,952
1961	2,000	30,830	-	32,830	20,883	-	-	20,883
1962	732	45,206	-	45,938	31,200	-	-	31,200
1963	2,741	58,046	-	60,787	30,353	-	-	30,353

YEAR	SKIPJACK				YELLOWFIN			
	SEINES	LINES	OTHER	TOTAL	SEINES	LINES	OTHER	TOTAL
	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
1936	2,268	24,724	-	26,992	5,002	73,351	-	78,353
1937	6,523	40,581	-	47,104	9,247	82,276	-	91,523
1938	1,442	21,212	-	22,654	4,013	74,305	-	78,318
1939	6,169	23,952	-	30,121	19,344	91,074	-	110,418
1940	13,098	43,552	-	56,650	15,237	98,523	-	113,760
1941	1,802	23,794	-	25,596	5,431	71,271	-	76,702
1942	1,258	37,477	-	38,735	4,257	37,210	-	41,467
1943	1,123	27,771	-	28,894	6,912	42,350	-	49,262
1944	3,730	26,307	-	30,037	10,105	53,039	-	63,144
1945	4,240	29,108	-	33,348	18,175	69,273	(1)	87,448
1946	9,656	31,422	(1)	41,088	27,978	99,269	-	127,247
1947	8,284	44,465	-	52,749	29,414	124,096	-	153,510
1948	5,935	54,619	-	60,594	39,939	159,488	-	199,427
1949	4,155	76,357	-	80,512	26,543	164,001	-	190,544
1950	11,875	114,911	-	126,786	39,679	148,211	-	187,890
1951	12,854	103,745	-	116,599	14,530	145,951	-	161,481
1952	10,764	74,080	-	84,844	30,748	148,071	-	178,819
1953	11,654	111,324	-	122,978	37,440	95,900	-	133,340
1954	18,664	135,092	-	153,756	22,089	97,313	-	119,402
1955	13,760	89,047	-	102,807	26,325	93,883	-	123,208
1956	6,973	116,744	-	123,717	40,105	110,818	-	150,923
1957	6,290	84,331	-	90,621	35,230	104,010	-	137,240
1958	11,658	111,714	-	123,372	34,449	89,278	-	123,727
1959	10,918	87,564	-	98,482	51,304	57,065	-	108,370
1960	18,284	28,200	-	46,304	143,873	45,434	-	189,307
1961	46,436	18,967	-	65,403	164,995	26,859	-	191,854
1962	79,006	13,715	-	92,721	105,473	18,548	-	124,021
1963	84,786	11,834	-	96,620	97,245	12,338	-	109,583

1/ LESS THAN 500 POUNDS.

2/ INCLUDES 132,000 POUNDS LANDED IN ALASKA.

3/ INCLUDES 39,000 POUNDS LANDED IN ALASKA.

# HISTORICAL FISHERY STATISTICS

## TUNA CATCH BY SPECIES AND AREA OF CAPTURE, PACIFIC COAST STATES, 1911-63

(THOUSANDS OF POUNDS)

YEAR	ALBACORE		BLUEFIN		SKIPJACK		YELLOWFIN		TOTAL		
	OFF PACIFIC COAST STATES	OFF LATIN AMERICA	OFF PACIFIC COAST STATES	OFF LATIN AMERICA	OFF PACIFIC COAST STATES	OFF LATIN AMERICA	OFF PACIFIC COAST STATES	OFF LATIN AMERICA	OFF PACIFIC COAST STATES	OFF LATIN AMERICA	TOTAL
	QUANTITY	QUANTITY	QUANTITY								
1911	2/ 850	-	-	-	-	-	-	-	2/ 850	-	2/ 850
1912	2/ 3,400	-	-	-	-	-	-	-	2/ 3,400	-	2/ 3,400
1913	2/ 6,600	-	-	-	-	-	-	-	2/ 6,600	-	2/ 6,600
1914	2/ 16,470	-	-	-	-	-	-	-	2/ 16,470	-	2/ 16,470
1915	21,074	-	-	-	-	-	-	-	21,074	-	21,074
1916	22,899	-	3/20,540	-	(3)	-	(3)	-	43,439	-	43,439
1917	30,556	-	1,150	-	420	-	-	-	32,126	-	32,126
1918	7,263	2	6,240	-	3,024	-	-	-	16,527	2	16,529
1919	13,551	80	14,991	-	6,882	15	348	-	35,772	95	35,867
1920	18,877	-	10,530	-	7,939	18	1,465	500	38,811	518	39,329
1921	15,275	-	1,972	60	1,139	(4)	1,188	50	19,574	112	19,686
1922	13,232	-	2,811	27	10,117	1,745	1,177	6,160	27,337	7,932	35,269
1923	12,488	27	3,218	83	4,579	6,884	194	10,643	20,479	17,637	38,116
1924	17,280	415	3,241	-	1,356	2,425	619	2,444	22,486	5,284	27,780
1925	21,685	522	3,804	-	8,768	5,467	2,923	10,315	37,180	16,304	53,484
1926	2,469	(4)	6,527	-	14,261	6,734	2,695	9,870	25,952	16,604	42,556
1927	4,455	124	4,898	(4)	5,804	28,003	595	25,339	15,752	53,466	69,218
1928	283	-	13,701	-	4,263	11,552	83	32,168	18,330	43,720	62,050
1929	269	(4)	7,477	50	8,032	18,966	199	37,200	15,977	56,216	72,193
1930	286	-	15,599	6,322	3,015	17,471	36	56,618	18,936	80,411	99,347
1931	37	-	2,358	1,176	11,966	4,541	155	36,425	14,516	42,142	56,658
1932	620	-	460	511	375	21,262	165	36,768	1,620	86,631	60,251
1933	2	-	324	236	(4)	16,687	7	51,069	333	67,992	68,325
1934	121	-	18,292	66	-	14,830	19	60,894	18,432	75,790	94,222
1935	2,387	61	18,496	6,677	1,908	15,289	529	71,723	23,320	93,750	117,070
1936	984	-	13,809	5,116	8,457	18,535	767	77,586	24,017	101,237	125,254
1937	3,520	-	10,822	1,872	1,884	45,220	188	91,335	16,414	138,427	154,841
1938	17,696	30	16,512	1,216	3	22,651	11	78,307	34,222	102,204	136,426
1939	16,918	4	9,319	2,517	2,719	27,402	457	101,961	31,413	139,684	171,297
1940	14,501	-	18,850	1,120	2,985	53,664	238	113,522	36,947	166,308	204,882
1941	11,932	-	8,848	671	4,215	21,371	2	76,700	24,997	98,742	123,739
1942	20,916	2,624	10,332	2,513	218	38,517	1	41,466	31,467	85,120	116,587
1943	28,019	9,499	7,664	2,514	18	28,876	2	49,260	35,703	90,149	125,852
1944	43,020	9,775	16,084	4,260	4	30,033	(4)	63,144	59,108	107,212	166,320
1945	27,221	12,262	14,139	6,455	93	33,255	5	87,443	41,458	139,415	180,873
1946	15,180	8,962	15,523	6,503	1,747	39,341	33	127,214	32,489	182,020	214,509
1947	21,082	5,762	14,756	6,082	893	51,856	3	153,507	36,734	217,207	253,941
1948	5/23,567	25,926	1,694	4,835	319	60,235	(4)	199,427	25,580	290,423	316,003
1949	31,217	23,577	2,266	2,123	27	80,485	10	190,534	33,520	296,719	330,239
1950	5/48,877	23,576	32	2,730	2,281	124,505	6,520	181,370	57,710	332,181	389,891
1951	16,859	17,622	837	3,025	706	115,893	1,235	160,245	19,647	296,785	316,433
1952	25,860	26,696	907	3,670	109	84,735	381	178,438	27,257	293,541	320,798
1953	14,209	20,491	3,904	5,869	669	122,309	1,254	132,086	20,036	280,755	300,791
1954	15,180	11,818	5,648	15,377	14	153,742	-	119,402	20,842	300,339	321,181
1955	10,048	19,690	2,670	10,939	970	101,837	916	122,292	14,604	254,758	269,362
1956	20,274	21,064	2,612	10,014	3,565	120,152	1,642	149,281	28,093	300,511	328,604
1957	25,747	20,912	10,486	9,829	676	90,145	355	138,885	37,264	257,771	295,035
1958	37,720	725	15,280	15,439	3,016	120,356	727	123,000	56,743	289,520	316,263
1959	46,284	-	13,025	2,169	1,382	97,100	82	108,288	60,773	207,557	268,330
1960	37,215	2,987	4,339	7,614	24	46,280	10	189,296	41,588	246,717	287,765
1961	24,445	8,385	13,763	7,120	-	65,402	-	191,854	38,209	272,761	310,970
1962	41,362	6,576	17,340	14,160	-	92,721	(4)	124,021	58,402	235,478	293,880
1963	53,653	4,934	7,131	23,222	2,224	94,396	60	109,523	63,268	234,075	297,343

1/ INCLUDES THE CATCH TAKEN OFF BRITISH COLUMBIA.

2/ ESTIMATED ON THE BASIS OF PACK AS REPORTED BY TUNA CANNERS.

3/ THE CATCH OF SKIPJACK AND YELLOWFIN HAS BEEN INCLUDED WITH THAT OF BLUEFIN.

4/ LESS THAN 500 POUNDS.

5/ INCLUDES A CATCH OF 132,000 POUNDS LANDED IN ALASKA.

6/ INCLUDES A CATCH OF 39,000 POUNDS LANDED IN ALASKA.

NOTE:---DATA FROM 1911 TO 1923 BASED ON STATISTICS PUBLISHED BY THE BUREAU OF FISHERIES, THE CALIFORNIA BUREAU OF MARINE FISHERIES (FISH BULLETIN NO. 74), AND THE U. S. TARIFF COMMISSION IN THEIR REPORT TO THE U. S. SENATE ON TUNA FISH, REPORT NO. 109, SECOND SERIES.

# SECTION 14

## STATISTICAL SURVEY PROCEDURE

This is another in a series of annual reports containing detailed statistics, analytic textual reviews, and graphic presentations on the commercial fisheries of the United States. Included are data on the quantity and value of the commercial yield of fishery products by States, sections, and gear; and the number of persons and operating units engaged in the fisheries. In the Great Lakes and Mississippi River Sections, the catch is also tabulated by water bodies. The publication contains data on the volume and value of processed fishery products, freezings and cold storage holdings, foreign trade, and other related information. The report has been prepared and published by the Bureau of Commercial Fisheries, Fish and Wildlife Service, U. S. Department of the Interior, and is a continuation of a series inaugurated by its predecessor organizations in the Department of Interior, Commerce, Commerce and Labor, and the U. S. Fish Commission.

In order that those who use the statistical data contained in this and previous reports may be informed as to the source of the figures and methods for their collection, it has been deemed advisable to outline, in moderate detail, the survey procedure followed. This procedure has been developed over many years, and changes in methods have been made at times when such changes have appeared to work toward general improvement. While the surveys in different sections are not made in the same manner, owing to varying facilities and records, an attempt has been made to make the data collected by various methods comparable with respect to the same year as well as over a period of years. Throughout the entire plan, it has been the intention to coordinate State and federal fishery statistical work so that there will be as little duplication of effort as possible.

### SECTIONAL SURVEYS

Statistical surveys of the fisheries and fishery industries of the various sections of the United States occupy by far the greatest part of the time of the personnel of the Branch of Statistics. At frequent intervals, field representatives visit the individual fishing localities of the various States to collect statistics on the volume and value of the catch of fish and shellfish, employ-

ment in the fisheries, quantity of fishing gear, number and classification of fishing craft, and the volume and value of processed fishery products. The various phases of these surveys are discussed in detail in the sections following.

**History** -- The first comprehensive statistical study of the fisheries and fishery industries of the United States was made for the year 1880 by George Brown Goode, Assistant Director of the U. S. National Museum, and associates, with the cooperation of the Commissioner of Fisheries and the Superintendent of the Tenth Census. Data for specific fisheries, or restricted sections for years prior to 1880, also were collected in the early survey and recorded in Mr. Goode's reports. The survey for 1880, however, did not include the Mississippi River and its tributaries. Periodic general surveys of a limited number of States or limited areas of the United States were made for the years from 1880 to 1907 and from 1909 to 1928. The first complete statistical canvass of the entire United States was made for 1908 by the Bureau of the Census. The next general survey of the entire United States was not made until 1931, although complete data for all sections, excluding the Mississippi River and its tributaries, were collected for 1929 and 1930. Complete data on the catch and operating units for these same sections were also collected for 1932. In the latter survey, however, lack of sufficient funds prohibited collection of data on the wholesale and manufacturing operations except those data collected as a part of the canned fishery products and byproducts survey. Various sections were surveyed during the years from 1933 to 1949, inclusive. A complete survey of all sections of the country was made for 1950. Since 1951, all of the coastal areas have been canvassed annually, and catch records have been obtained for the Lakes section. Complete operating unit and catch data have been obtained for all areas since 1954, except that only a partial survey of the Mississippi River and its tributaries was made for 1961. Data on the wholesale and manufacturing industries were collected in all of the surveys from 1933 to 1940, inclusive. In the years from 1941 to 1949, inclusive, and in 1951, lack of experienced personnel and budgetary limitations precluded the collection of data on wholesale and manufacturing firms except for those data collected as part of the canned fishery products, industrial products, and packaged fish surveys.

# STATISTICAL SURVEY PROCEDURE

The chart on page 485 indicates the years for which surveys have been made in the various sections. Figures for recent years are available from the Bureau in bulletin form, but data for the earlier years are available only in the Fish Commission and Bureau of Fisheries printed reports. These reports are on file in the Department of the Interior library and in many public libraries.

Since the surveys of the fisheries have varied in completeness, three legends have been used for the years shown in the chart to indicate whether complete, partial, or no surveys were conducted in the individual regions. The designation "complete survey" has been used to indicate that basic operating unit and catch data were obtained and that complete information was collected on employment in wholesale and manufacturing establishments and on the production of manufactured fishery products. The legend "partial survey" usually indicates that operating unit and catch statistics were collected, but that no information was obtained on employment in wholesale and manufacturing establishments and that only partial data were obtained on the production of manufactured fishery products. In some instances the designation "partial survey" is used for regions in which only catch statistics were collected. The legend "no survey" indicates that a general canvass was not conducted to obtain operating unit, catch, employment in wholesale and manufacturing plants, and complete manufactured products data. Although the chart indicates that in certain regions no surveys were conducted, some information may be available on the landings at certain important ports. Likewise, information on the catch of certain species, such as menhaden, may be available as a result of data collected in connection with the annual canned fish and byproducts survey. Data on the annual production of canned fishery products and byproducts have been collected for all regions since 1921, while information has been obtained on the production of packaged fish for 1926 and annually since 1928.

A bibliography listing the various surveys made since 1880 and the publications in which the results were published appeared in Statistical Digest No. 43, "Fishery Statistics of the United States, 1956." A list of the statistical bulletins in the Current Fishery Statistics series published during 1963 may be found in Section 17 of this Digest.

Field Personnel--The statistics contained in this volume have been collected by a group of trained fishery reporting specialists of the Bureau.

Period Covered--These specialists are assigned to field stations, generally in the principal port within their field, and travel from that station in conducting their various surveys. Most of the reporting agents collect statistics on landings for the current year, and assemble final operating unit, catch, and processed products data for the previous year. It is usually 3 to 10 months after the end of the calendar year for which they are collecting data before the final figures for the digest are available. The data are tabulated and prepared for publication before the end of the year. The figures are collected and published on a calendar year basis. Prior to 1930, statistics on the catch of oysters in the Atlantic and Gulf States were collected for the oyster season; that is, from September to April, inclusive. Since 1930, they have been collected on a calendar year basis.

Scope--The coastal statistical surveys include canvasses of the commercial fisheries of the oceans, bays, and coastal rivers as far inland as commercial fishing is important. This usually coincides with the range of commercial fishing for anadromous species. Statistics on the fisheries of the Mississippi River include those of the Mississippi River proper as well as all of its tributaries wherein commercial fishing for either fish, crustaceans, or mollusks is carried on. Statistics on the fisheries of the Great Lakes cover canvasses of the fisheries in the lakes proper, adjacent bays, the International Lakes of northern Minnesota, and rivers which sustain a commercial fishery having outlets into these waters. Statistics on the fisheries of Florida include the commercial fisheries in Lake Okeechobee and other inland lakes. Surveys for statistics of the wholesale and processing fishery industries cover plants located in the coastal, river, and lake areas adjacent to the waters mentioned above.

Methods of Collection--There are several methods used in the collection of fishery statistics, each of which has been carefully

# STATISTICAL SURVEY PROCEDURE

## SURVEYS OF THE FISHERIES OF THE UNITED STATES

AREA:	'1860	'81	'82	'83	'84	'85	'86	'87	'88	'89	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	1900	'01	'02	
NEW ENGLAND	Complete																							
MIDDLE ATLANTIC	Complete																							
CHESAPEAKE	Complete																							
SOUTH ATLANTIC	Complete																							
GULF	Complete																							
ALASKA																								
WASH., ORE., CALIF.	Complete																							
GREAT LAKES	Complete																							
MISSISSIPPI RIVER																								

AREA:	1903	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23	'24	'25	
NEW ENGLAND						Complete																		
MIDDLE ATLANTIC						Complete																		
CHESAPEAKE						Complete																		Complete
SOUTH ATLANTIC						Complete																		
GULF						Complete																		
ALASKA						Complete																		
WASH., ORE., CALIF.						Complete																		
GREAT LAKES						Complete																		
MISSISSIPPI RIVER						Complete																		

AREA:	1926	'27	'28	'29	'30	'31	'32	'33	'34	'35	'36	'37	'38	'39	'40	'41	'42	'43	'44	'45	'46	'47	'48	
NEW ENGLAND																								
MIDDLE ATLANTIC																								
CHESAPEAKE																								
SOUTH ATLANTIC																								
GULF																								
ALASKA																								
WASH., ORE., CALIF.																								
GREAT LAKES																								
MISSISSIPPI RIVER																								
HAWAII																								

AREA:	1949	'50	'51	'52	'53	'54	'55	'56	'57	'58	'59	'60	'61	'62	'63
NEW ENGLAND															
MIDDLE ATLANTIC															
CHESAPEAKE															
SOUTH ATLANTIC															
GULF															
ALASKA															
WASH., ORE., CALIF.															
GREAT LAKES															
MISSISSIPPI RIVER															
HAWAII															



COMPLETE SURVEY



PARTIAL SURVEY



NO SURVEY

# STATISTICAL SURVEY PROCEDURE

studied to obtain the best results with available personnel and funds. In the preparation of operating unit data, the field personnel are supplied with a deck of prepunched vessel cards obtained from the Bureau of Customs. These cards indicate the name, official number, rig code, gross tonnage, length, and year built. Field personnel enter the number of crewmen, and number and type of gear used by the vessel. These data are obtained by interview. Data on the craft of less than 5 net tons are obtained from State conservation agencies and by contact with firms purchasing fish or shellfish from fishermen. The data thus obtained are machine processed to ensure accuracy.

Data on over 96 percent of the catch are available from summaries of monthly landings bulletins and other current records assembled by the Bureau or the various States. If complete catch data are not available from central sources, wholesale dealers and manufacturers of fishery products are visited, and data are obtained from them on their purchases of fish and shellfish. It is impossible for the few Bureau representatives available for this work to interview each fisherman in a given locality. However, the more important areas and a sufficient number of areas of lesser importance are visited to obtain reliable information on production, the number of fishing craft engaged, the quantity of gear operated, catch by gear and waters, and the number of persons employed as fishermen.

The Bureau's role with regard to fishery statistics is principally that of coordinating the collection of information, assembling, analyzing, publishing, and disseminating fishery data. The collection of basic operating unit and catch statistics is primarily a State function. The State fishery agencies in a number of States have developed relatively complete statistical systems which greatly facilitate the Bureau's surveys in these States. In such instances, the Bureau conducts only such surveys as may be necessary to make the data comparable with those of other States.

The Bureau obtains from the records of the State fishery agencies most of the catch statistics for the fisheries of the Great Lakes, the northern Mississippi River area, and the International Lakes of northern Minnesota. To obtain data on the number of fishermen, boats, vessels, and gear, the Bureau conducts such personal surveys among the fishermen as may be necessary

to supplement the State records.

Bureau statistical personnel are stationed at Seattle, Wash. and San Pedro, Calif. for the purpose of surveying the fisheries of Washington, Oregon, and California. They obtain from the records of the State fishery departments figures on the volume of the catch and operating units. The value of the catch is derived from State and dealers' records. In Washington and Oregon, data for operating units in the offshore fisheries are obtained from the records of various fishery organizations as well as from records of the State fishery agencies. Statistics of the wholesale fishery industry for this section are obtained largely by personal interviews.

In many States, the Bureau and the fishery agency of the respective States cooperate in the collection and publication of current monthly and annual data on the catch. These data form the basis of the annual catch figures published in this report for the following States: Maine, Massachusetts, Rhode Island, New York, New Jersey, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Texas, California, Ohio, Michigan, and Wisconsin.

In the administration of the Alaska fisheries, the State requires that copies of all receipts for fish and shellfish purchases from fishermen be furnished to the Alaska Department of Fish and Game. The data on these tickets are compiled and made available to the Bureau. The summary data, by districts, are reproduced in this report.

Statistics on the volume of the catch of fish in the Great Lakes States usually are shown in weights as landed, which may be in the round or drawn condition. Statistics on the volume of the catch of fish taken in the remainder of the United States are usually shown in round weight.

The figures in the tables for shellfish represent the weight of the meats in the cases of univalve and bivalve mollusks, and the round weight of crustaceans and such cephalopods as squid and octopus.

Shore and Vessel Fisheries--In general, statistics of the shore fisheries, as collected by the Bureau's representatives, include

data on the number of casual and regular fishermen; number of motor and other fishing boats (craft of less than 5 net tons capacity are called "boats"); type and quantity of gear used; and the volume, value, and method of capture of each species for each locality or group of localities. This method is not followed in some sections where the availability of data collected by the State fishery agencies obviates the necessity of detailed locality surveys.

Statistics of the vessel fisheries include data on the number in the crew; rig of vessels; gross tonnage; kind and quantity of gear used; and volume, value, and method of capture of each species. Craft having a capacity of 5 net tons or over are called "vessels." As in the shore fisheries, the availability of figures collected by State fishery agencies may eliminate the necessity of Bureau agents collecting these data for individual vessels. Information on the year vessels were built was assembled for 1961.

Statistics on the quantity of gear operated indicate the maximum number of units fished at any one time during the year. Gear carried in reserve for replacement is not reported.

All persons engaged in commercial fishing operations are included as fishermen. In most areas, fishermen not on vessels have been divided into "regular" and "casual". Regular fishermen are defined as those who receive more than one-half their annual income from fishing, whereas casual fishermen are those who receive less than one-half their annual compensation from fishing. It has not been possible to separate regular from casual fishermen on the Pacific Coast.

Since 1942, the catch of fish and shellfish has been credited to the port at which it was landed. Prior to the survey for that year, it was the practice of the Bureau to credit the entire catch of a vessel to the principal port at which fish or shellfish were unloaded, regardless of the actual point of landing. This policy was discontinued since it quite often resulted in inconsistencies by crediting catches of some species to areas far removed from localities in which they are commonly taken. An outstanding example of this is the southern trawl fishery conducted off the New Jersey, Maryland, Virginia, and North Carolina coasts. Some fishing vessels from New England operate in this fishery for 6 to 10 weeks during the winter season. Prior to the survey for 1942, the catch of these vessels, consisting principally of fish common to Middle Atlantic waters,

was credited to Massachusetts. Under the present system, this catch is credited to the Middle Atlantic ports where it is landed.

Since 1949 on the Pacific Coast and 1951 for the remainder of the country, craft, fishermen, and gear have been reported for each State in which they fished. A total exclusive of duplication is shown for each section and for the United States as a whole. Prior to the surveys for 1949, each craft on the Pacific Coast was credited to its home port unless it did not fish from that port during the year. In that case, it was credited to the locality where it landed the greatest portion of its catch. Prior to the survey for 1951, each craft on the Atlantic and Gulf Coasts and interior waters was credited to the port where it landed the greatest portion of its catch during the year. This system was changed to provide more accurate data on the total number of craft operating in a given State. With the increased mobility of the fishing fleet in recent years, the number of vessels fishing in more than one State has increased greatly.

Beginning with data for 1951, the reporting of units of gear was standardized so that nets or lines made up of small units for ease in handling, but fastened together in fishing, were counted as a single unit rather than as a number of smaller units. Prior to 1951, the small units were sometimes counted as individual pieces of gear even though they were combined for fishing. This rule does not apply to halibut longlines or setlines on the Pacific Coast. In this fishery, each skate of gear is counted as one line, even though fastened together in fishing, because the International Pacific Halibut Commission uses a skate of gear as a unit in its studies of fishing intensity.

Beginning with 1962, only summary data have been shown on the number of fishing gear operated in the Great Lakes and the International Lakes of northern Minnesota. These data appear in the General Review section of the Digest in the table "Summary of Operating Units." In detailed operating unit tables for these lakes, the number and size of gear have been replaced by information on the fishing effort expended in the operation of each gear.

Publication of Data--Statistics on employment in the fisheries, craft and gear engaged, quantity and value of catch, and certain data on industries related to the fisheries are summarized according to geographic divisions and published in bulletin form as soon as possible after the completion of each survey. Later, the figures, in more detail, are included in the

# STATISTICAL SURVEY PROCEDURE

annual statistical report of the Bureau entitled "Fishery Statistics of the United States."

Data on the operating units (fishermen, fishing craft, and gear) and catch by counties for the Atlantic and Gulf States have been included in these annual statistical reports for the years from 1928 to 1938 except for 1932. These data have also been published in the digests for the years 1945, 1950, 1955, and 1960. County data were collected for the State in which surveys were conducted during the years since 1938, except for Maryland. Between 1942 and 1959, only operating unit data by counties have been obtained for Maryland. Complete data were obtained for 1960. County data assembled for the years since 1938, which were not published in the Digest, are on file in the Washington office of the Bureau.

## LOCAL AND SPECIAL SURVEYS

Landings at Certain Massachusetts Ports -- Detailed statistics are collected on the landings of aquatic products by individual fishing craft at Boston, Gloucester, New Bedford, Plymouth, Provincetown, and other Cape Cod ports. Bureau representatives are stationed at the principal ports. They obtain figures on the quantity and value of fish landed daily by fishing craft, the dates of departure and arrival of the craft, the gear used in their capture, the grounds from which the fish were taken, and other related information. The Bureau's Division of Biological Research and Branch of Market News cooperate in the collection of these data.

Statistics on landings at the above ports are released monthly and annually in bulletin form, and summary data are published in the annual statistical digest. Products of American fisheries received duty free at Boston and Gloucester from the treaty coasts of Newfoundland, Magdalen Islands, and Labrador have not been included in the landings at these ports since 1938. Data on the landings at Boston and Gloucester have been collected annually since 1893. Information on landings at New Bedford has been collected annually since 1938; and at Plymouth, Provincetown, and other Cape Cod ports, since 1945.

Shad and Alewife Fisheries -- Owing to the importance of the Hudson and Potomac

Rivers in the production of shad, surveys for statistics on the catch, value of the catch, and operating units are made annually. On the Potomac River, similar statistics are also obtained for the alewife fishery. Much of the data required for these surveys is available from the States fishery agencies.

Annual data on the shad and alewife fisheries are not published separately in bulletin form. However, a summary is published in the annual statistical digest.

Statistics on the Hudson River shad fishery are available for 1896, 1897, 1898, 1901, 1904, 1910, and continuously since 1915. Data for the Potomac River shad fishery are available for 1896, 1901, 1904, 1909, 1915, from 1919 to 1942, inclusive, and continuously since 1944. Statistics on the Potomac River alewife fishery are available for 1896, 1909, 1915, from 1919 to 1942, inclusive, and continuously since 1944.

Pacific Halibut Fishery -- Statistics on the Pacific halibut fishery are obtained primarily from the International Pacific Halibut Commission. Beginning with data for 1956, the fleet classification of halibut craft was revised and vessels were credited in operating unit tables to each district in which they landed fish; the only exception being that U.S. vessels landing at Prince Rupert, British Columbia, are credited to Southeastern Alaska. Duplication of halibut craft which operated in more than one district has been eliminated in regional and national totals. The catch by the halibut fleet is credited to the port of landing except that fish landed by U.S. halibut craft in British Columbia is credited to Southeastern Alaska. Halibut statistics are also included in the monthly and annual summaries published by the Seattle Fishery Market News Office. Statistics on the landings of halibut at Pacific Coast ports have been collected since 1925.

South Atlantic and Gulf of Mexico Shrimp Fishery -- Detailed statistics on the quantity and value of shrimp, by variety and size, landed at South Atlantic and Gulf ports, have been collected for the Gulf area since 1956 and the South Atlantic since 1957. Since 1956, Bureau personnel have also obtained daily information on the number of fishing trips, area and

depth fished, and time spent in fishing by craft landing at U.S. ports in the Gulf of Mexico. The Branch of Market News, the Bureau's Branch of Marine Fisheries of the Division of Biological Research, and various fishery agencies of the southern States cooperate in the collection of these data.

Detailed monthly and annual summaries of the statistics on shrimp catch and landings are published in bulletin form and are summarized in the annual statistical digests.

Hawaiian Fisheries-- The common and scientific names of the species of fish and shellfish landed in Hawaii are not included in Section 15 of this report.

Historical Fishery Statistics-- The Bureau of Commercial Fisheries has in its files and in various Bureau reports or publications of other organizations a large volume of historical data on fisheries. Beginning with the 1951 Digest, a section entitled "Historical Fishery Statistics," which includes complete historical information on selected species, has been carried. There is published each year a listing of the titles of the series of data appearing in earlier editions.

Review of Certain Major Fisheries-- Beginning with 1942, tabulations containing complete data on the catch of certain major species have been included in a section of the Digest entitled "Review of Certain Major Fisheries." Although the data are included in the detailed catch tables of the various States, they are consolidated in this section to provide a single source of data for cod, haddock, halibut, Pacific mackerel, jack mackerel, menhaden, Atlantic ocean perch, Pacific sardines, salmon, tuna, oysters, clams, crabs, and shrimp. Data on operating units in the following fisheries have likewise been consolidated in this section: halibut, salmon troll line, Pacific Coast tuna, menhaden purse seine, fish and shrimp otter trawl.

Canned Fishery Products and Industrial Products-- Since 1921, the Bureau has made annual sectional surveys for statistics on canned and industrial fishery products. These surveys are started the first week in January of each year for statistics on the production in the preceding year. So far as possible, the Bureau obtains by mail statistics on the annual production of each domestic canned and industrial fishery products plant. If it is impossible to obtain the information by mail, the report is secured by a Bureau representative. Included in the data obtained are statistics on the yield and value of the canned products by type of commodity, can size, and area of production. Data on industrial products are obtained by commodity and area of production. The value shown for canned and industrial products is the gross amount received by the packer at the production point. No deductions are made for commissions or expenses.

Annual statistical bulletins are issued on this trade, and detailed data are published in the statistical Digest. Prior to 1921, canned and industrial products data were not collected for the entire country. However, data on the production of these products were usually obtained for the areas in which general canvass surveys were conducted.

Fish Meal and Oil-- Data are collected monthly on the domestic production of fish meal, body oil, fish solubles, and homogenized condensed fish. This information is released monthly and annually in the Bureau's Current Fishery Statistics series of bulletins.

Packaged Fish Trade-- Statistics on the annual production and value of fish packaged in the United States, excluding the States of Alaska and Hawaii, are obtained in conjunction with the canned and industrial fishery products survey. These data are released annually in bulletin form and in the annual statistical digest. Statistics on the production of packaged fish are available for 1926 and annually since 1928, except that no data were collected in California for the years 1941 to 1946, inclusive.

Fish Sticks and Portions-- Quarterly information is collected and published on

# STATISTICAL SURVEY PROCEDURE

the production and value of cooked and raw fish sticks and breaded, cooked, and raw fish portions, and unbreaded fish portions. The data are released in the Bureau's Current Fishery Statistics series of bulletins.

Cold-Storage Holdings of Fish--Information on the monthly freezings and holdings of fishery products is obtained from cold storage warehouses by mail and by Bureau employees. Data are also obtained on the holdings of certain cured fish. Bulletins showing these statistics are issued monthly and annually.

Detailed cold-storage statistics also are published in the Bureau's annual statistical digest. Information regarding cold-storage holdings of fishery products has been published since 1917, while data on the quantity of fish frozen have been released for the years from 1920 to 1925, inclusive, and continuously since 1928.

Foreign Fishery Trade--Statistics on foreign fishery trade are obtained from compilations made by the Bureau of the Census, Department of Commerce. Statistics on all known imported or exported fishery products have been assembled and published annually since 1926 in the Bureau's statistical digest. For earlier years, figures are available in the reports of the Bureau of the Census, Bureau of Foreign and Domestic Commerce, the Bureau of Statistics, the Department of Commerce and Labor, or the Treasury Department.

## PRACTICES AND TERMS

Certain practices and terms used in this report are explained below.

Operating Units--Operating units include persons employed in the fisheries, and craft and gear engaged in the fisheries.

Vessel--A craft having a capacity of 5 net tons or over.

Boat--A craft having a capacity of less than 5 net tons.

Days Absent--In computing "days absent" for vessels landing fares at certain Mas-

sachusetts ports, the day of arrival, but not the day of departure, is included; thus, a vessel leaving port on the 8th of the month and returning on the 15th of the month will be credited with 7 days absence. Prior to 1944, "days absent" included both the day of departure and the day of arrival.

Days Fished--In computing "days fished" for fishing craft landing shrimp at Gulf of Mexico ports, the total number of hours spent in fishing effort has been divided by 24.

Fish--The term "fish" as used in this report includes all species belonging to the class Pisces.

Shellfish, etc.--A shellfish is an aquatic invertebrate animal having a shell, such as a mollusk or crustacean. However, in order to reduce the classifications appearing in the catch tables, all items not properly listed as "Fish" or "Whale Products" have been included under "Shellfish, etc." Accordingly, turtles, frogs, sponges, seaweed, and worms are included under this classification.

Whale Products--Since data are not available on the poundage of whales taken, statistics appearing in catch tables on the yield of these mammals represent the weight of products produced such as meal, sperm oil, whale oil, etc. The values shown represent the amount received by the manufacturer for the products.

Incidental Catch--The term "incidental catch" refers to the catch of certain species by a type of gear which ordinarily does not capture such species.

Percentages--Percentages are usually shown as whole numbers. Fractions of percents are dropped if less than five-tenths, and the percentage is raised to the next higher integer if the fraction is greater than five-tenths. If the fraction is exactly five-tenths, odd integers are raised to the next even figure while even integers remain unchanged.

Converting--Many of the figures shown in the summary tables published herewith have been converted to thousands of pounds or thousands of dollars. In making these conversions the sum of the items in a table is raised or low-

ered to the nearest thousand in accordance with standard statistical procedures. The individual items are adjusted to conform to the total thus obtained.

Confidential Data-- The statistical data collected by the Bureau are confidential, and unless specific authorization is given, are not released in a manner that would divulge private enterprise.

## CONVERSION FACTORS

It is the policy of the Bureau to show detailed catch figures of all products in pounds for the sake of uniformity and for purposes of comparison. This represents little difficulty in the case of fish, since in very rare instances are fish reported in units of measure other than pounds. For shellfish, however, the units of measure may be bushels, sacks, barrels, numbers, gallons of meats, etc. So many units make standardization difficult, and when combined with the wide variation in the requirements or definitions of some of these units in the various states, the problem becomes even more complex.

All univalve and bivalve mollusks (except fresh-water mussel shells) are reported in pounds

of meats in the detailed catch tables presented in this report. In addition, there are included supplementary tables for most of the sections, which give data on the production in bushels. These supplementary tables also give the production in number of certain other shellfish, such as crabs. There also is included in the General Review section of this report a table containing data on the shell weight of univalve and bivalve mollusks taken.

Oysters-- Probably the greatest problem in the presentation of fishery statistics in uniform units of measure is in the case of oysters. Usually the production of oysters on the Atlantic and Gulf Coasts is reported to Bureau personnel in bushels. Prior to the data obtained for the year 1930, bushels were converted to pounds of meats on the basis of a uniform yield of 7 pounds of meats to the bushel. However, it was found that there was considerable variation in the yield of oysters per bushel particularly in southern states where the yield has ranged as low as half the conversion factor used prior to 1930. There follows a table which gives the measures used for oysters in the various States and the average yields per bushel. The statistical tables in this report are based on these average yields.



# STATISTICAL SURVEY PROCEDURE

## COASTLINE OF THE UNITED STATES

Graphic measurements on lengths of coastline and tidal shoreline of the United States have been made from time to time by the U.S. Coast and Geodetic Survey on maps of various scales and in units of various lengths. The three types of measurement are explained in the following paragraphs.

**GENERAL COASTLINE.**--The figures under this heading are lengths of the general outline of the seacoast. The measurements were made with a unit measure of 30 minutes of latitude on charts as near the scale of 1:1,200,000 as possible. The shoreline of bays and sounds is included to a point where such waters narrow to the width of the unit measure, and the distance across at such point is included.

**TIDAL SHORELINE, GENERAL.**--Measurements under this heading were made with a unit measure of 3 statute miles on charts of 1:200,000 and 1:400,000 scale when available. The shoreline of bays, sounds, and other bodies of water is included to a point where such waters narrow to a width of 3 statute miles, and the distance across at such point is included.

**TIDAL SHORELINE, DETAILED.**--The figures under this heading were obtained in 1939-40 with a recording measure on the largest scale maps and charts then available. Shoreline of bays, sounds, and other bodies of water is included to the head of tidewater, or to a point where such waters narrow to a width of 100 feet.

### LENGTH OF COASTLINE

LOCALITY	LENGTHS IN STATUTE MILES			LOCALITY	LENGTHS IN STATUTE MILES		
	GENERAL COASTLINE	TIDAL SHORELINE, GENERAL	TIDAL SHORELINE, DETAILED		GENERAL COASTLINE	TIDAL SHORELINE, GENERAL	TIDAL SHORELINE, DETAILED
NEW ENGLAND:				GULF:			
MAINE . . . . .	226	676	3,476	FLORIDA, WEST COAST	770	1,658	5,095
NEW HAMPSHIRE . . . . .	13	14	131	ALABAMA . . . . .	53	199	607
MASSACHUSETTS . . . . .	192	453	1,519	MISSISSIPPI . . . . .	44	155	359
RHODE ISLAND . . . . .	40	156	364	LOUISIANA . . . . .	397	965	7,721
CONNECTICUT . . . . .	-	96	618	TEXAS . . . . .	367	1,100	3,359
TOTAL NEW ENGLAND . . . . .	473	1,395	6,130	TOTAL GULF COAST	1,631	4,097	17,141
MIDDLE ATLANTIC:				PACIFIC:			
NEW YORK . . . . .	127	470	1,650	ALASKA . . . . .	6,640	15,132	33,904
NEW JERSEY . . . . .	130	398	1,792	WASHINGTON . . . . .	157	908	3,026
PENNSYLVANIA . . . . .	-	-	89	OREGON . . . . .	296	312	1,410
DELAWARE . . . . .	26	79	381	CALIFORNIA . . . . .	840	1,190	3,427
TOTAL MIDDLE ATLANTIC . . . . .	285	947	4,112	TOTAL PACIFIC COAST . . . . .	7,933	17,542	41,767
CHESAPEAKE:				HAWAII . . . . .	750	900	1,052
MARYLAND . . . . .	31	452	3,190	TOTAL UNITED STATES . . . . .	12,383	28,909	88,633
VIRGINIA . . . . .	112	567	3,315	U.S. TERRITORIES,			
TOTAL CHESAPEAKE . . . . .	143	1,019	6,505	POSSESSIONS, ETC.:			
SOUTH ATLANTIC:				BAKER ISLAND . . . . .	3	3	3
NORTH CAROLINA . . . . .	301	1,030	3,375	CHRISTMAS ISLAND . . . . .	60	90	188
SOUTH CAROLINA . . . . .	167	758	2,676	GUAM ISLANDS . . . . .	78	84	110
GEORGIA . . . . .	100	603	2,344	HOWLAND ISLAND . . . . .	4	4	4
FLORIDA, EAST COAST	560	616	3,331	JARVIS ISLAND . . . . .	5	5	5
TOTAL SOUTH ATLANTIC . . . . .	1,168	3,009	11,926	JOHNSTON ISLAND . . . . .	3	3	3
TOTAL ATLANTIC COAST . . . . .	2,069	6,370	26,673	NAVASSA ISLAND . . . . .	5	5	16
				PALMYRA ISLAND . . . . .	20	20	126
				PANAMA CANAL ZONE . . . . .	311	362	700
				PUERTO RICO . . . . .	76	91	126
				SAMOA ISLANDS . . . . .	6	6	6
				SWAN ISLANDS . . . . .	117	126	175
				VIRGIN ISLANDS . . . . .	12	12	20
				WAKE ISLAND . . . . .			

SOURCE:--U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

# STATISTICAL SURVEY PROCEDURE

493

## INLAND WATER AREAS BY STATES

Available information on the inland water surface area by States is listed below. These data include lakes, reservoirs and ponds having 40 acres or more of area; streams, sloughs, estuaries, and canals one-eighth of a statute mile or more in width; deeply indented embayments and sounds, and other coastal waters behind or sheltered by headlands or islands separated by less than 1 nautical mile of water; and islands having less than 40 acres of area; does not include water surface of the oceans, bays, the Gulf of Mexico, Long Island Sound, Puget Sound, and the Straits of Juan de Fuca and Georgia.

Most of the inland waters are fresh water. There is no specific criterion for distinguishing between fresh water and saline water. The saline lakes are mainly in the Great Basin (nearly all of Nevada, the western half of Utah, and parts of Oregon, California, Idaho, and Wyoming,) which has no outlet to the ocean. In addition much of the water near the coast may range from fresh to salty, depending upon the geography of the area and to fluctuations in the tide.

## INLAND WATER AREA BY STATES AND SQUARE MILES

STATES	SQUARE MILES	STATES	SQUARE MILES
		<u>INLAND - CONTINUED</u>	
<u>COASTAL</u>		<u>INLAND - CONTINUED</u>	
NEW ENGLAND:		EAST NORTH CENTRAL - CONTINUED:	
MAINE . . . . .	2,203	ILLINOIS:	
NEW HAMPSHIRE . . . . .	290	LAKE MICHIGAN . . . . .	1,526
MASSACHUSETTS . . . . .	390	OTHER . . . . .	470
RHODE ISLAND . . . . .	156	MICHIGAN:	
CONNECTICUT . . . . .	110	LAKE SUPERIOR, MICHIGAN, HURON,	
TOTAL NEW ENGLAND . . . . .	3,149	AND ERIE . . . . .	39,459
MIDDLE ATLANTIC:		OTHER . . . . .	1,313
NEW YORK:		WISCONSIN:	
LAKE ONTARIO AND ERIE . . . . .	3,627	LAKE MICHIGAN AND SUPERIOR . . . . .	10,062
OTHER . . . . .	1,637	OTHER . . . . .	1,449
NEW JERSEY . . . . .	315	TOTAL EAST NORTH CENTRAL . . . . .	57,653
PENNSYLVANIA:		WEST NORTH CENTRAL:	
LAKE ERIE . . . . .	735	MINNESOTA:	
OTHER . . . . .	326	LAKE SUPERIOR . . . . .	2,212
DELAWARE . . . . .	79	OTHER . . . . .	4,059
TOTAL MIDDLE ATLANTIC . . . . .	6,719	IOWA . . . . .	258
CHESAPEAKE:		MISSOURI . . . . .	548
MARYLAND . . . . .	703	NORTH DAKOTA . . . . .	1,208
DISTRICT OF COLUMBIA . . . . .	8	SOUTH DAKOTA . . . . .	669
VIRGINIA . . . . .	977	NEBRASKA . . . . .	615
TOTAL CHESAPEAKE . . . . .	1,688	KANSAS . . . . .	216
SOUTH ATLANTIC AND GULF:		TOTAL WEST NORTH CENTRAL . . . . .	9,785
NORTH CAROLINA . . . . .	3,645	EAST SOUTH CENTRAL:	
SOUTH CAROLINA . . . . .	783	WEST VIRGINIA . . . . .	102
GEORGIA . . . . .	602	KENTUCKY . . . . .	532
FLORIDA . . . . .	4,308	TENNESSEE . . . . .	482
ALABAMA . . . . .	549	TOTAL EAST SOUTH CENTRAL . . . . .	1,116
MISSISSIPPI . . . . .	493	WEST SOUTH CENTRAL:	
LOUISIANA . . . . .	3,417	ARKANSAS . . . . .	605
TEXAS . . . . .	4,499	OKLAHOMA . . . . .	1,032
TOTAL SOUTH ATLANTIC AND GULF . . . . .	18,296	TOTAL WEST SOUTH CENTRAL . . . . .	1,637
PACIFIC:		MONTANA MOUNTAIN:	
ALASKA . . . . .	15,335	MONTANA . . . . .	1,402
WASHINGTON . . . . .	1,483	IDAHO . . . . .	849
OREGON . . . . .	733	WYOMING . . . . .	503
CALIFORNIA . . . . .	2,120	COLORADO . . . . .	363
HAWAII . . . . .	9	NEW MEXICO . . . . .	156
TOTAL PACIFIC . . . . .	19,680	ARIZONA . . . . .	334
<u>INLAND</u>		UTAH . . . . .	2,577
EAST NORTH CENTRAL:		NEVADA . . . . .	752
VERMONT . . . . .	353	TOTAL MONTANA MOUNTAIN . . . . .	6,936
OHIO:		TOTAL:	
LAKE ERIE . . . . .	3,457	GREAT LAKES . . . . .	60,306
OTHER . . . . .	250	OTHER . . . . .	66,353
INDIANA . . . . .		GRAND TOTAL . . . . .	126,659
LAKE MICHIGAN . . . . .	228		
OTHER . . . . .	106		

## STATISTICAL SURVEY PROCEDURE

## MEASURES AND YIELDS OF OYSTERS

STATE	CAPACITY OF STATE BUSHEL	VARIATION FROM U. S. STANDARD BUSHEL		YIELD OF MARKET OYSTERS, 1963	
				STATE BUSHEL	U. S. STANDARD BUSHEL
	CUBIC INCHES	CUBIC INCHES	PERCENT	POUNDS OF MEATS	POUNDS OF MEATS
MAINE . . . . .	2,150.4	-	-	7.50	7.50
MASSACHUSETTS . . . . .	2,150.4	-	-	6.50	6.50
RHODE ISLAND . . . . .	2,150.4	-	-	7.00	7.00
CONNECTICUT . . . . .	2,150.4	-	-	7.70	7.70
NEW YORK . . . . .	2,150.4	-	-	7.50	7.50
NEW JERSEY . . . . .	2,257.3	+ 106.9	+ 5.0	7.89	7.51
DELAWARE . . . . .	2,257.3	+ 106.9	+ 5.0	6.96	6.63
MARYLAND . . . . .	2,600.7	+ 650.3	+ 30.2	6.21	4.77
VIRGINIA . . . . .	3,003.9	+ 853.5	+ 39.7	5.88	4.21
NORTH CAROLINA . . . . .	2,801.9	+ 651.5	+ 33.3	6.78	5.20
SOUTH CAROLINA . . . . .	4,071.5	+ 1,921.1	+ 89.3	6.06	3.20
GEORGIA . . . . .	5,343.9	+ 3,193.5	+ 148.5	7.93	3.19
FLORIDA, EAST COAST . . . . .	3,214.1	+ 1,063.7	+ 49.5	5.98	4.00
FLORIDA, WEST COAST . . . . .	3,214.1	+ 1,063.7	+ 49.5	5.40	3.61
ALABAMA . . . . .	2,626.2	+ 675.8	+ 31.4	5.41	4.12
MISSISSIPPI . . . . .	2,626.2	+ 675.8	+ 31.4	5.20	3.96
LOUISIANA . . . . .	2,148.4	- 2.0	- 0.1	4.65	4.65
TEXAS . . . . .	2,700.0	+ 549.6	+ 25.6	5.04	4.01

NOTE:--THE CAPACITY OF A U. S. STANDARD BUSHEL IS 2,150.4 CUBIC INCHES.

## AVERAGE YIELDS OF CERTAIN MOLLUSKS, 1963

(POUNDS OF MEATS PER U. S. STANDARD BUSHEL)

STATE	CLAMS						CONCHS	MUSSELS, SEA	PERI-WINKLES AND COCKLES	SCALLOPS		
	HARD		OCEAN QUAHOG	RAZOR	SOFT	SURF				BAY	CALI-CO	SEA
	PUBLIC	PRIVATE										
MAINE . . . . .	11.00	-	-	-	15.00	-	-	15.00	18.00	-	-	6.00
MASSACHUSETTS . . . . .	11.00	11.00	-	16.00	13.00	-	15.00	10.00	-	6.00	-	6.00
RHODE ISLAND . . . . .	12.00	-	10.00	-	13.00	-	15.00	10.00	-	6.00	-	6.00
CONNECTICUT . . . . .	12.00	12.00	-	-	-	-	15.00	-	-	6.20	-	-
NEW YORK . . . . .	12.00	12.00	-	16.00	16.00	17.00	15.00	10.00	-	6.00	-	6.00
NEW JERSEY . . . . .	10.00	10.00	-	-	12.00	17.00	20.00	-	-	6.50	-	6.00
DELAWARE . . . . .	8.00	8.00	-	-	-	-	20.00	-	-	-	-	-
MARYLAND . . . . .	8.00	-	-	-	12.00	17.00	20.00	-	-	-	-	-
VIRGINIA . . . . .	8.00	8.00	-	-	-	-	20.00	-	-	-	-	6.00
NORTH CAROLINA . . . . .	8.63	-	-	-	-	-	-	-	-	6.00	-	-
SOUTH CAROLINA . . . . .	8.75	-	-	-	-	-	-	-	-	-	-	-
FLORIDA, EAST COAST . . . . .	8.00	-	-	-	-	-	-	-	-	-	-	-
FLORIDA, WEST COAST . . . . .	8.47	-	-	-	-	-	-	-	-	5.40	4.00	-

## AVERAGE NUMBER OF CRABS PER POUND, 1963

STATE	BLUE		GREEN	ROCK	STONE	HORSESHOE
	HARD	SOFT AND PEELER				
	NUMBER	NUMBER				
MAINE . . . . .	-	-	-	3.00	-	-
NEW HAMPSHIRE . . . . .	-	-	14.29	3.00	-	-
MASSACHUSETTS . . . . .	-	-	14.29	3.00	-	-
RHODE ISLAND . . . . .	-	-	13.79	4.00	-	-
CONNECTICUT . . . . .	2.40	-	-	-	-	-
NEW JERSEY . . . . .	2.40	3.44	-	3.00	-	4.00
DELAWARE . . . . .	2.40	3.00	-	-	-	-
MARYLAND . . . . .	2.40	4.00	-	-	-	-
VIRGINIA . . . . .	2.99	5.99	-	-	-	-
NORTH CAROLINA . . . . .	3.00	3.00	-	-	-	-
SOUTH CAROLINA . . . . .	3.00	-	-	-	-	-
GEORGIA . . . . .	2.00	-	-	-	-	-
FLORIDA, EAST COAST . . . . .	2.00	4.00	-	-	1.00	-
FLORIDA, WEST COAST . . . . .	2.00	4.00	-	-	1.00	-
ALABAMA . . . . .	2.00	-	-	-	-	-
MISSISSIPPI . . . . .	2.16	3.00	-	-	-	-
LOUISIANA . . . . .	2.01	2.94	-	-	-	-
TEXAS . . . . .	1.80	2.40	-	-	-	-

# STATISTICAL SURVEY PROCEDURE

495

## RECOVERY OF SHRIMP PRODUCTS AND FACTORS FOR CONVERTING THEM TO HEADS-ON WEIGHT

ITEM	SOUTH ATLANTIC AND GULF CATCH		PACIFIC AND NORTH ATLANTIC CATCH	
	PERCENT RECOVERY FROM HEADS-ON WEIGHT	TO CONVERT TO HEADS-ON WEIGHT, MULTIPLY BY:	PERCENT RECOVERY FROM HEADS-ON WEIGHT	TO CONVERT TO HEADS-ON WEIGHT, MULTIPLY BY:
HEADLESS:				
BROWN (PENAEUS AZTECUS) . . . . .	62.1	1.61	-	-
PINK (PENAEUS DUORARUM) . . . . .	62.5	1.60	-	-
WHITE (PENAEUS SETIFERUS) . . . . .	64.9	1.54	-	-
ROYAL RED (HYMENOPENAEUS ROBUSTUS) . . . . .				
SEA BOBS (XIPHOPENAEUS KROYERI) . . . . .	55.6	1.60	-	-
OTHER (MOSTLY PANDULUS SPECIES) . . . . .	65.4	1.53	-	-
ALL SPECIES (WEIGHTED AVERAGE)	-	-	57.0	1.75
PEELED FANTAIL, RAW 1/ . . . . .	62.9	1.59	57.0	1.75
PEELED, RAW 1/ . . . . .	50.0	2.00	-	-
PEELED, COOKED 1/ . . . . .	49.0	2.04	26.0	3.57
BREADED, RAW (INCLUDING FANTAIL) 1/ . . . . .	31.9	3.13	-	-
DRIED 1/ . . . . .	100.0	1.00	-	-
CANNED 1/ . . . . .	13.0	7.69	-	-
	31.2	3.21	16.0	6.25

1/ AVERAGE FOR ALL SPECIES.

NOTE:--EFFECTIVE IN 1962, THE CONVERSION FACTORS LISTED ABOVE BECAME THE BRANCH OF STATISTICS' FACTORS FOR CONVERTING VARIOUS SHRIMP PRODUCTS TO HEADS-ON (ROUND) WEIGHT.

## RECOVERY OF PROCESSED SHRIMP PRODUCTS AND FACTORS FOR CONVERTING THEM TO WEIGHT OF RAW BASIC PRODUCT, SOUTH ATLANTIC AND GULF STATES

BASIC PRODUCT, RAW	PROCESSED PRODUCT						
	HEADLESS RAW	PEELED FANTAIL RAW	PEELED RAW	PEELED COOKED	BREADED RAW	CANNED	DRIED
HEADS-ON (ROUND) . . . . .	62.0%	50.0%	49.0%	31.9%	100.0%	31.2%	13.0%
FACTOR . . . . .	1.59	2.00	2.04	3.13	1.00	3.21	7.69
HEADLESS . . . . .	100.0%	79.6%	77.9%	50.7%	159.0%	49.6%	20.7%
FACTOR . . . . .	1.00	1.26	1.28	1.97	0.63	2.02	4.83
PEELED . . . . .	-	-	100.0%	65.1%	204.1%	63.7%	26.5%
FACTOR . . . . .	-	-	1.00	1.54	0.49	1.57	3.77

SEE NOTE BELOW FOLLOWING TABLE.

## RECOVERY OF PROCESSED SHRIMP PRODUCTS AND FACTORS FOR CONVERTING THEM TO WEIGHT OF RAW BASIC PRODUCT, PACIFIC AND NORTH ATLANTIC STATES

BASIC PRODUCT, RAW	PROCESSED PRODUCT		
	HEADLESS RAW	PEELED RAW	CANNED
HEADS-ON (ROUND) . . . . .	57.0%	26.0%	16.0%
FACTOR . . . . .	1.75	3.57	6.25
HEADLESS . . . . .	100.0%	49.1%	26.1%
FACTOR . . . . .	1.00	2.04	3.56
PEELED . . . . .	-	100.0%	57.1%
FACTOR . . . . .	-	1.00	1.75

NOTE:--THE QUANTITY OF PROCESSED PRODUCT MULTIPLIED BY THE FACTOR LISTED YIELDS THE WEIGHT OF BASIC PRODUCT REQUIRED TO PRODUCE THE PROCESSED PRODUCT.

## OTHER CONVERSION FACTORS

ITEM	WHEN REPORTED AS	TO CONVERT TO:	MULTIPLY BY
OYSTERS . . . . .	GALLONS OF SHUCKED MEATS	POUNDS OF SHUCKED MEATS	8.75
CLAMS . . . . .	"	"	8.75
SCALLOPS . . . . .	"	"	8.75
OILS, FISH AND WHALE . . . . .	GALLONS	POUNDS	7.75
CRAB MEAT:			
BLUE . . . . .	POUNDS	LIVE WEIGHT	7.14
DUNGENESS . . . . .	"	"	4.17

## SECTION 15 - GLOSSARY

In order to prevent misunderstanding in the use of common names employed in the tables and discussions, the following list of common and scientific names is given for fish, shellfish, and other aquatic products taken by United States fishermen.

Common names as shown in Bureau reports	Other common names	Scientific names
<b>FISH</b>		
Alewives .....	{ Branch herring, big-eyed herring, river herring ..... } Blueback, glut herring, shad herring .....	<i>Alosa pseudoharengus</i>
Amberjack .....		Jack .....
Anchovies .....	.....	{ <i>Pomacanthus</i> species <i>Angelichthys</i> species
Angelfish .....	.....	<i>Lophius americanus</i>
Anglerfish .....	{ Goosefish, allmouth, headfish, monkfish, bellyfish ..... }	<i>Hemiramphus brasiliensis</i>
Ballyhoo .....		Balao .....
Barracuda .....	.....	<i>Pomatomus saltatrix</i>
Bluefish .....	Tailor, skipjack .....	<i>Stizostedion vitreum glaucum</i>
Blue pike .....	{ Pike perch, hard pike, blue pickerel (Canada) ..... }	<i>Caranx crysos</i>
Blue runner .....		Runner, hardtail, crevalle .....
Bonito .....	.....	<i>Amia calva</i>
Bowfin .....	Fresh-water dogfish, grindle .....	<i>Salmo trutta</i>
Brown trout .....	.....	<i>Ictalurus</i> species
Buffalofish .....	Winter carp .....	<i>Lota lota</i>
Buffbot .....	Lawyer, ling .....	<i>Poronotus triacanthus</i>
Butterfish .....	.....	<i>Scorpaenichthys marmoratus</i>
Cabezone .....	Marbled sculpin .....	<i>Rachycentron canadus</i>
Cabo .....	Black bonito, cobia, ling, lemonfish .....	<i>Epinephelus analogus</i> (Pacific)
Cabrilla .....	Rock bass .....	<i>Cyprinus carpio</i>
Carp .....	German carp, summer carp .....	<i>Ictalurus</i> species
Catfish and bullheads ..	.....	<i>Pyloodictis olivaris</i>
Chubs .....	{ Longjaw, bluefin, blackfin (United States), tullibee (Canada) ..... }	All <i>Leucichthys</i> except <i>artedi</i> (Great Lakes)
Cigarfish .....		Scad .....
Cisco .....	Herring (Canada) .....	<i>Leucichthys artedi</i> (Lake Erie only)
Cod .....	Codfish .....	<i>Gadus morhua</i> (Atlantic)
Crappie .....	White crappie, calico bass .....	<i>Gadus macrocephalus</i> (Pacific)
Crevalle .....	Black crappie .....	<i>Pomoxis annularis</i>
Croaker .....	Common jack, jackfish .....	<i>Pomoxis nigromaculatus</i>
Cunner .....	Crocus, hardhead .....	<i>Caranx hippos</i>
Cutlassfish .....	Chogset, blue perch, bergall .....	<i>Micropogon undulatus</i>
Cusk .....	Silver eel .....	<i>Tautoglabrus adspersus</i>
Dolly Varden trout .....	.....	<i>Trichiurus lepturus</i>
Dolphin .....	Salmon trout, bull trout .....	<i>Brosme brosme</i>
Drum:	.....	<i>Salvelinus malma</i>
Black .....	Oyster cracker, oyster drum, sea drum .....	<i>Corphaena hippurus</i>
Red .....	Channel bass, redfish, spotted bass .....	<i>Pogonias cromis</i>
		<i>Sciaenops ocellata</i>

(Continued on next page)

Common names as shown in Bureau reports	Other common names	Scientific names
FISH - Continued		
Eel:		
Common .....	.....	<i>Anguilla rostrata</i>
Conger .....	.....	<i>Conger oceanicus</i>
Flounders:		
Atlantic and Gulf Coasts:		
Gray sole .....	.....	<i>Glyptocephalus cynoglossus</i>
Lemon sole .....	(weighing over 3-1/2 pounds each) .....	
Blackback .....	{ Winter flounder (weighing under 3-1/2 pounds each) .....	<i>Pseudopleuronectes americanus</i>
Yellowtail .....	Dab .....	<i>Limanda ferruginea</i>
Dab .....	Sea dab .....	<i>Hippoglossoides platessoides</i>
Fluke .....	Summer flounder, gulf flounder, flounder..	<i>Paralichthys</i> species
Pacific Coast:		
Arrowtooth halibut .....	.....	<i>Atheresthes stomias</i>
California halibut .....	.....	<i>Paralichthys californicus</i>
Sand dabs .....	.....	<i>Citharichthys sordidus</i>
"Sole":		
Dover .....	.....	<i>Microstomus pacificus</i>
English .....	.....	<i>Parophrys vetulus</i>
Petrale .....	.....	<i>Eopsetta jordani</i>
Rex .....	.....	<i>Glyptocephalus zachirus</i>
Sand .....	.....	<i>Psettichthys melanostictus</i>
Unclassified .....		
Flying fish .....	.....	Pleuronectidae and Bothidae
Garfish .....	Gar, sea gar .....	<i>Cypselurus</i> species
Gizzard shad .....	Nanny shad, mud shad, winter shad .....	<i>Lepisosteus</i> species
Goldfish .....	Sand perch, gold perch .....	<i>Dorosoma cepedianum</i>
Groupers .....	"Sea bass" .....	<i>Carassius auratus</i>
Grunts .....	Margate fish, sailors' choice .....	{ <i>Epinephelus</i> species
Haddock .....	.....	<i>Mycteropora</i> species
Hake:		
Red .....	Squirrel hake, ling, black hake, mud hake	<i>Haemulon</i> species
White .....	Hake .....	<i>Melanogrammus aeglefinus</i>
Pacific .....	Merluccio .....	<i>Urophycis chuss</i> (Atlantic)
Halfmoon .....	Rudder fish .....	<i>Urophycis tenuis</i> (Atlantic)
Halibut .....	.....	<i>Merluccius productus</i> (Pacific)
Hardhead .....	Sacramento rockfish .....	<i>Medialuna californiensis</i>
Harvestfish .....	{ Starfish, dollarfish, pappyfish, butterfish (N.C.) .....	{ <i>Hippoglossus hippoglossus</i> (Atlantic)
Herring:		
Lake .....	Herring .....	<i>Hippoglossus stenolepis</i> (Pacific)
Sea .....	.....	<i>Orthodon microlepidotus</i> (Pacific)
Thread .....	.....	<i>Peprilus paru</i>
.....	.....	{ <i>Leucichthys artedi</i> (Great Lakes except Erie)
.....	.....	<i>Clupea harengus</i> (Atlantic)
.....	.....	<i>Clupea pallasii</i> (Pacific)
.....	.....	<i>Opisthonema oglinum</i>

(Continued on next page)

## GLOSSARY

Common names as shown in Bureau reports	Other common names	Scientific names
FISH - Continued		
Hickory shad .....	Tailor shad, skip, autumnal herring.....	<i>Alosa mediocris</i>
Hogchoker.....		<i>Trinectes maculatus</i>
Hogfish.....	Capitaine, perro perro.....	<i>Lachnolaimus maximus</i>
Jack mackerel.....	Horse mackerel.....	<i>Trachurus symmetricus</i>
Jewish.....		<i>Promicrops itaiaro</i>
King croaker.....	Kingfish, white croaker.....	<i>Cenyonemus lineatus</i>
King mackerel.....	Cero, kingfish.....	<ul style="list-style-type: none"> <li>{ <i>Scomberomorus cavalla</i></li> <li>{ <i>Scomberomorus regalis</i></li> </ul>
King whiting or "kingfish"	Whiting, sea mink, ground mullet.....	<i>Menticirrhus</i> species
Lake trout.....		<i>Salvelinus namaycush</i>
Lamprey.....		<ul style="list-style-type: none"> <li>{ <i>Petromyzon marinus</i> (Atlantic)</li> <li>{ <i>Lampetra tridentata</i> (Pacific)</li> </ul>
Launce.....	Sand eel, lant, sand launce.....	<i>Ammodytes americanus</i>
Lingcod.....	Cultus cod, blue cod, buffalo cod, ling.....	<i>Ophiodon elongatus</i>
Boston mackerel.....		<i>Scomber scombrus</i> (Atlantic)
Pacific mackerel.....		<i>Scomber japonicus</i>
Menhaden.....	Mossbunker, poggy, fatback.....	<i>Brevoortia</i> species
Minnows.....		Cyprinidae
Mojarra.....	Sand perch, sand bream.....	Gerridae
Mooneye.....	Goldeye, toothed herring.....	<i>Hiodon</i> species
Mullet.....	Jumping mullet, striped mullet, silver mullet	<i>Mugil</i> species
Muttonfish.....	Mutton snapper.....	<i>Lutjanus analis</i>
Ocean perch:		
Atlantic.....	Rosefish, redfish, red perch.....	<i>Sebastes marinus</i>
Pacific.....		<i>Sebastes alutus</i>
Ocean pout.....	Eelpout, sea pout.....	<i>Macrozoarces americanus</i>
Opaleye.....		<i>Cirella nigricans</i>
Paddlefish.....	Spoonbill cat.....	<i>Polyodon spathula</i>
Perch.....	Surffish.....	Embiotocidae (Pacific)
Permit.....		<i>Trachinotus goodei</i>
Pigfish.....	Hogfish (N.C.).....	<i>Orthopristis chrysopterus</i>
Pike or pickerel.....	Great Lakes pike.....	<i>Esox</i> species
Pinfish.....	Bream, salt-water bream.....	<i>Lagodon rhomboides</i>
Pollock.....	Boston bluefish.....	<i>Pollockius virens</i> (Atlantic)
Pompano.....		<ul style="list-style-type: none"> <li>{ <i>Trachinotus</i> species (Atlantic)</li> <li>{ <i>Palometa similima</i> (Pacific)</li> </ul>
Quillback.....	Spearfish or skimpfish.....	<i>Carpiodes</i> species
Ratfish.....		<i>Hydrologus coliei</i>
Rock bass.....	Redeye, goggle-eye, groupers, sand bass...	<ul style="list-style-type: none"> <li>{ <i>Ambloplites rupestris</i> (fresh-water)</li> <li>{ <i>Paralabrax nebulifer</i> (Pacific)</li> </ul>
Rockfishes.....	Rock cod, snapper.....	<i>Sebastes</i> species (Pacific)
Sablefish.....	Black cod.....	<i>Anoplopoma fimbria</i>
Salmon:		
Atlantic.....		<i>Salmo salar</i> (Atlantic)
Pacific:		
Chinook or king.....	Tye, spring.....	<i>Oncorhynchus tshawytscha</i>
Chum or keta.....	Fall, dog.....	<i>Oncorhynchus keta</i>
Pink.....	Humpback.....	<i>Oncorhynchus gorbuscha</i>
Red or sockeye.....	Blueback.....	<i>Oncorhynchus nerka</i>
Silver or coho.....		<i>Oncorhynchus kisutch</i>

(Continued on next page)

Common names as shown in Bureau reports	Other common names	Scientific names
<b>FISH - Continued</b>		
Sand perch .....	Yellowtail, silver perch .....	<i>Bairdiella chrysur</i>
Sardine (Pacific).....	Pilchard .....	<i>Sardinops caerulea</i> (Pacific)
Sauger .....	Sand pike .....	<i>Stizostedion canadense</i>
Saury .....	Mackerel-pike.....	<i>Colalabis saira</i>
Sawfish .....	.....	<i>Pristis pectinatus</i>
Sculpin .....	Scorpionfish .....	<i>Myoxocephalus</i> species
Scup or porgy.....	Porgee, paugy, fair maid.....	<i>Calamus</i> and <i>Stenotomus</i> species
Sea bass:		
Black .....	{ Black jewfish (Pacific)..... Blackfish (Atlantic).....	<i>Stereolepis gigas</i>
White .....		<i>Centropristes striatus</i>
Sea catfish.....	Gafftopsail .....	<i>Cynoscion nobilis</i> (Pacific)
Sea robin .....	.....	<i>Bagre marinus</i>
Sea trout or weakfish:		<i>Prionotus</i> species
Gray .....	Gray trout, squeteague .....	<i>Cynoscion regalis</i>
Spotted .....	Spotted trout, speckled trout.....	<i>Cynoscion nebulosus</i>
White .....	White trout, sand trout.....	<i>Cynoscion arenarius</i>
Shad .....	American shad, white shad .....	<i>Alosa sapidissima</i>
Sharks:		
Grayfin .....	Dogfish, spiny and smooth dog.....	<i>Squalus</i> and <i>Mustelus</i> species
Soupfin .....	.....	<i>Galeorhinus zyopterus</i>
Other .....	.....	{ <i>Carcharodon</i> , <i>Carcharias</i> , <i>Sphryna</i> , <i>Prionace</i> and <i>Lamna</i> species
Sheepshead:		
Fresh-water .....	Fresh-water drum, gaspergou, gou.....	<i>Aplodinotus grunniens</i>
Salt-water .....	California redfish, fathead.....	<i>Archosargus</i> species (Atlantic)
Sierra .....	.....	<i>Pimelometapon pulcher</i> (Pacific)
Silversides .....	Spearing .....	<i>Scomberomorus sierra</i> (Pacific)
Skates .....	Ray, rajafish .....	<i>Menidia</i> species
		<i>Raja</i> species
Smelt .....	{ ..... Eulachon.....	{ <i>Osmerus mordax</i> (Atlantic and Great Lakes), <i>Atherinidae</i> and <i>Osmeridae</i> (Pacific) <i>Thaleichthys pacificus</i>
Snapper:		
Mangrove .....	Gray snapper .....	<i>Lutjanus griseus</i>
Red .....	.....	<i>Lutjanus blackfordii</i>
Vermilion .....	.....	<i>Rhomboplites</i> species
Yellowtail .....	.....	<i>Ocyurus chrysurus</i>
Snook .....	Robalo, sergeantfish, pike.....	<i>Centropomus undecimalis</i>
Spadefish .....	Angelfish .....	<i>Chaetodipterus faber</i>
Spanish mackerel .....	Mackerel .....	<i>Scomberomorus maculatus</i>
Spanish sardine .....	.....	<i>Sardinella anchovia</i>
Splittail .....	.....	<i>Pogonichthys macrolepidotus</i>
Spot .....	Lafayette, goody .....	<i>Leiostomus xanthurus</i>
Steelhead trout .....	Salmon trout.....	<i>Salmo gairdneri</i>

(Continued on next page)

## GLOSSARY

Common names as shown in Bureau reports	Other common names	Scientific names
<b>FISH - Continued</b>		
Striped bass.....	Rockfish, rock.....	<i>Roccus saxatilis</i>
Sturgeon:		
Common.....	.....	<i>Acipenser</i> species
Shovelnose.....	.....	<i>Scophirhynchus platyrhynchus</i>
Suckers.....	Fresh-water mullet, redbfin, bayfish.....	<i>Catostomus</i> species
Sunfish.....	Bream, perch, bluegill.....	<i>Lepomis</i> species
Swellfish.....	Puffer, swell toad, globefish, blowfish.....	<i>Sphaeroides maculatus</i>
Swordfish.....	.....	<i>Xiphias gladius</i>
Tautog.....	Blackfish, oysterfish.....	<i>Tautoga onitis</i>
Tenpounder.....	Big-eyed herring, ladyfish.....	<i>Elops saurus</i>
Thimble-eyed mackerel.....	Chub mackerel, bullseye mackerel.....	<i>Pneumatophorus colias</i>
Tilefish.....	.....	<i>Lopholatilus chamaeleonticeps</i>
Tomcod.....	Frost fish.....	<i>Microgodus tomcod</i> (Atlantic)
		<i>Microgodus proximus</i> (Pacific)
Triggerfish.....	.....	<i>Balistes</i> species
Tripletail.....	Sunfish (N.C.), blackfish.....	<i>Lobotes surinamensis</i>
Tullibee.....	(See chubs).....	.....
Tuna:		
Albacore.....	Longfin tuna.....	<i>Thunnus alalunga</i>
Bluefin.....	Horse mackerel.....	<i>Thunnus thynnus</i>
Little.....	Bonito, albacore, false albacore.....	<i>Euthynnus alletteratus</i>
Skipjack.....	Striped tuna.....	<i>Katsuwonus pelamis</i>
Yellowfin.....	.....	<i>Thunnus albacares</i>
Turbot.....	.....	Pleuronectidae (Pacific)
Wahoo.....	.....	<i>Acanthocybium solondri</i>
Warsaw.....	Black Jewfish.....	<i>Garrupa nigrita</i>
Whitebait.....	Silversides.....	<i>Menidia beryllina</i> (Atlantic)
		Small fry of several species (Pacific)
White bass.....	White lake bass.....	<i>Roccus chrysops</i>
Whitefish:		
Common.....	.....	<i>Coregonus clupeaformis</i>
Menominee.....	.....	<i>Prosopium quadrilaterale</i>
White perch.....	.....	<i>Morone americana</i>
Whiting.....	Silver hake.....	<i>Merluccius bilinearis</i>
Wolfish.....	Ocean catfish (New England).....	<i>Anorhichas lupus</i>
Yellow bass.....	Bar fish.....	<i>Roccus mississippiensis</i>
Yellow perch.....	Ringed perch, perch.....	<i>Perca flavescens</i>
Yellow pike.....	Wall-eyed pike, pike perch, dore (Canadian).....	<i>Stizostedion vitreum vitreum</i>
Yellowtail.....	(For Atlantic, see snapper, yellowtail).....	<i>Seriola dorsalis</i> (Pacific)
<b>CRUSTACEANS</b>		
Crabs:		
Blue:		
Hard.....	Hard-shell crab.....	} <i>Callinectes sapidus</i>
Soft and peeler.....	Soft-shell crab.....	
Dungeness.....	.....	<i>Cancer magister</i>
King.....	Alaska king crab.....	<i>Paralithodes camtschatica</i>

(Continued on next page)

# GLOSSARY

501

Common names as shown in Bureau reports	Other common names	Scientific names
<b>CRUSTACEANS - Continued</b>		
Crabs: - Continued		
Rock.....	.....	{ <i>Cancer irroratus</i> (New England) <i>Cancer</i> species (California)
Stone.....	.....	
Crawfish:		
Fresh-water.....	Crayfish.....	{ <i>Cambarus</i> species (Atlantic) <i>Astacus</i> species (Pacific)
Salt-water.....	(See lobsters, spiny).....	
Horseshoe crab.....	King crab.....	<i>Limulus</i> species
Lobsters:		
Northern.....	.....	<i>Homarus americanus</i> (Atlantic)
Spiny.....	Sea crawfish, rock lobster.....	{ <i>Panulirus argus</i> (Atlantic) <i>Panulirus interruptus</i> (Pacific)
.....	.....	
Shrimp.....	Prawn.....	.....
<b>MOLLUSKS</b>		
Abalone.....	.....	<i>Haliotis</i> species
Clams:		
Cockle.....	.....	<i>Cardium corbis</i> (Pacific)
Hard.....	{ Butter..... Little neck..... Round clam, cherrystone, quahog, little neck...	<i>Saxidomus nuttalli</i> (Pacific)
		<i>Protothaca staminea</i> (Pacific)
		<i>Venus mercenaria</i> , <i>Mercenaria mercenaria</i>
Ocean quahog.....	.....	<i>Arctica islandica</i>
Razor.....	.....	{ <i>Ensis</i> species (Atlantic) <i>Siliqua patula</i> (Pacific)
Soft.....	Soft-shell clam, sand clam, nannynose, maninose	
Surf.....	Skimmer.....	<i>Spisula solidissima</i>
Conchs.....	.....	<i>Strombus</i> species
Mussels:		
Sea.....	.....	{ <i>Mytilus californianus</i> (Pacific) <i>Mytilus edulis</i> (Atlantic)
Fresh-water:	.....	
Mussel shells.....	.....	.....
Pearls and slugs.....	.....	.....
Octopus.....	Devilfish.....	<i>Paroctopus appollyon</i>
Oysters:		
Eastern.....	Cove.....	<i>Crassostrea virginica</i>
Pacific.....	Japanese.....	<i>Crassostrea gigas</i>
Western.....	Olympia, native.....	<i>Ostræa lurida</i>
Periwinkles or cockles.....	.....	<i>Littorina</i> species
Scallops:		
Bay.....	.....	{ <i>Pecten</i> species (Atlantic) <i>Pecten caurinus</i> (Pacific)
Sea.....	.....	

(Continued on next page)

## GLOSSARY

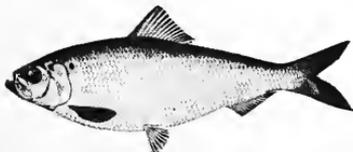
Common names as shown in Bureau reports	Other Common names	Scientific names
MOLLUSKS - Continued		
Squid.....	Inkfish, bone squid, taw tau.....	{ <i>Loligo opalescens</i> (Pacific) <i>Loligo pealii</i> (Atlantic)
OTHER		
Sea urchins.....	Sea eggs.....	<i>Strongylocentrotus drobachiensis</i>
Terrapin.....	Diamond-back terrapin.....	<i>Malaclemys</i> species
Turtles:		
Baby.....	.....	(Young of fresh-water species)
Green.....	.....	<i>Chelonia mydas</i>
Loggerhead.....	.....	<i>Caretta</i> species
Sliders.....	.....	<i>Pseudemys</i> species
Snapper.....	Hard-shell, alligator turtle.....	{ <i>Chelydra serpentina</i> <i>Macrochelys temnickii</i>
Soft-shell.....	.....	<i>Amyda</i> species
Frogs.....	.....	<i>Rana</i> species
Irish moss.....	.....	<i>Chondrus crispus</i>
Kelp.....	.....	<i>Macrocystis</i> species
Sponges:		
Glove.....	.....	<i>Hippispongia conaliculata</i>
Grass.....	.....	<i>Spongia graminea</i>
Sheepswool.....	Wool.....	<i>Hippispongia lachne</i>
Yellow.....	.....	<i>Spongia barbara</i>
Whales:		
Blue.....	.....	<i>Balaenoptera musculus</i>
Bottlenose.....	.....	<i>Berardius bairdi</i>
Fin.....	.....	<i>Balaenoptera physalus</i>
Humpback.....	.....	<i>Megaptera</i> species
Sei.....	.....	<i>Balaenoptera borealis</i>
Sperm.....	.....	<i>Physeter catodon</i>
Bloodworms.....	.....	Glyceridae
Sandworms.....	.....	<i>Nereis</i> species



# SECTION 16 - PICTORIAL SECTION

As many of the readers of this publication may not be familiar with all of the species of fish and shellfish, etc., taken commercially in the United States, illustrations of many of the various species are included in the following pages. The descriptive material appearing with each species includes the areas in which commercial landings are made in the United States and does not constitute the extreme limits in which they occur. Similarly, the gear listed for each species do not represent the only types of apparatus by which these species are obtained, but represent those types which are normally used in their capture. The gear do not necessarily appear in the order of their importance. Illustrations of species landed in Hawaii are not included in this section.

For more detailed information on the nomenclature of the fishery products listed below, the reader is referred to Section 15 of this publication entitled, "Glossary."



ALEWIFE  
 RANGE - FLORIDA TO NEW ENGLAND  
 GEAR - POUND NETS, GILL NETS, WEIRS,  
 DIP NETS, HAUL SEINES, FLOATING TRAPS,  
 FYKE NETS



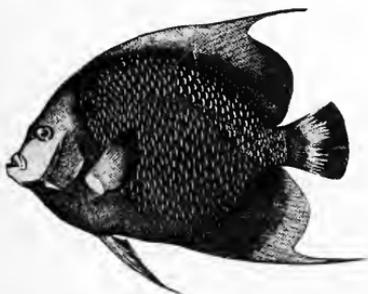
ANGLERFISH  
 RANGE - NEW JERSEY TO MASSACHUSETTS  
 GEAR - OTTER TRAWLS, POUND NETS



AMBERJACK  
 RANGE - FLORIDA  
 GEAR - HANDLINES, TROLL LINES



ANCHOVY  
 RANGE - CALIFORNIA TO WASHINGTON  
 GEAR - PURSE SEINES AND HAUL SEINES



ANGELFISH  
 RANGE - FLORIDA  
 GEAR - HAUL SEINES

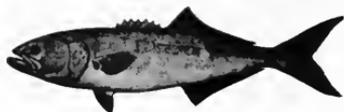


BARRACUDA (ATLANTIC)  
 RANGE - FLORIDA  
 GEAR - TROLL LINES, HANDLINES

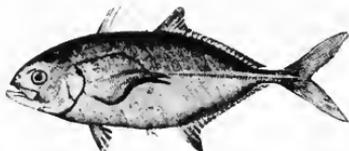


BARRACUDA (PACIFIC)  
 RANGE - CALIFORNIA  
 GEAR - PURSE SEINES, LONGLINES, HANDLINES,  
 TROLL LINES, GILL AND TRAMMEL NETS

# PICTORIAL SECTION



**BLUEFISH**  
 RANGE - GULF OF MEXICO TO NEW ENGLAND  
 GEAR - HAUL SEINES, GILL NETS, POUND NETS,  
 TROLL LINES, PURSE SEINES



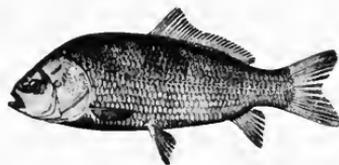
**BLUE RUNNER OR HARDTAIL**  
 RANGE - GULF OF MEXICO  
 GEAR - HAUL SEINES, GILL NETS, POTS



**BONITO (ATLANTIC)**  
 RANGE - NORTH CAROLINA TO MASSACHUSETTS  
 GEAR - POUND NETS, TROLL LINES, GILL NETS



**BOWFIN**  
 RANGE - FRESH-WATER  
 GEAR - HAUL SEINES, TRAP NETS, FYKE NETS



**BUFFALO FISH**  
 RANGE - FRESH-WATER  
 GEAR - HAUL SEINES, FYKE NETS, TRAMMEL  
 NETS, TROT LINES



**BURBOT**  
 RANGE - GREAT LAKES  
 GEAR - GILL NETS, FYKE NETS, POUND  
 NETS, TRAP NETS



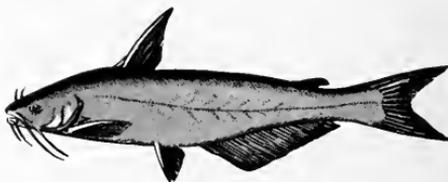
**BUTTERFISH**  
 RANGE - FLORIDA TO NEW ENGLAND  
 GEAR - POUND NETS, HAUL SEINES, OTTER TRAWLS



**CARID**  
 RANGE - FLORIDA TO VIRGINIA  
 GEAR - HANDLINES, POUND NETS



**CARP**  
 RANGE - FRESH-WATER  
 GEAR - HAUL SEINES, GILL NETS, TRAP NETS,  
 FYKE NETS, POUND NETS, TROT LINES



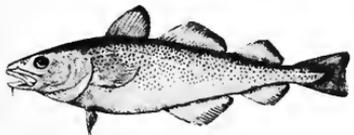
**CATFISH**  
 RANGE - FRESH-WATER  
 GEAR - HAUL SEINES, TROT LINES, POUND  
 NETS, POTS, FYKE NETS



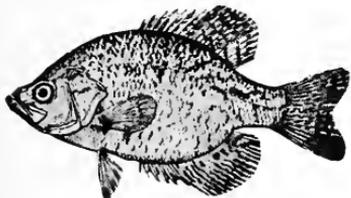
CHUB  
 RANGE - GREAT LAKES  
 GEAR - GILL NETS



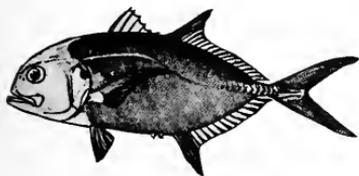
CIGARFISH  
 RANGE - FLORIDA  
 GEAR - HAUL SEINES



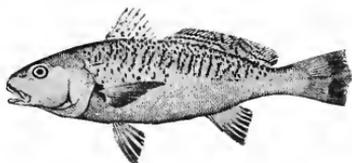
COD  
 RANGE - VIRGINIA TO MAINE, WASHINGTON,  
 AND ALASKA  
 GEAR - OTTER TRAWLS, LONGLINES, GILL NETS



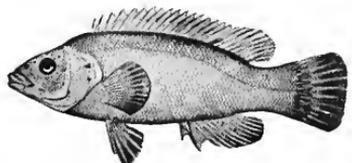
CRAPPIE  
 RANGE - FRESH-WATER LAKES  
 GEAR - HAUL SEINES, LINES, POTS



CREVALLE  
 RANGE - SOUTH ATLANTIC AND GULF STATES  
 GEAR - HAUL SEINES, GILL NETS, LINES



CROAKER  
 RANGE - GULF OF MEXICO TO NEW YORK  
 GEAR - POUND NETS, OTTER TRAWLS, HAUL SEINES;  
 GILL NETS



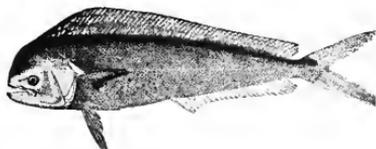
CUNNER  
 RANGE - NEW ENGLAND  
 GEAR - OTTER TRAWLS, HANDLINES



CUSK  
 RANGE - NEW ENGLAND  
 GEAR - OTTER TRAWLS, LONGLINES

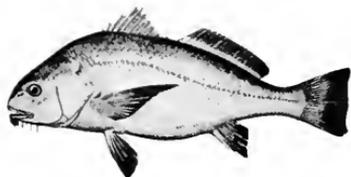


DOLLY VARDEN TROUT  
 RANGE - PACIFIC  
 GEAR - POUND NETS, GILL NETS, LINES

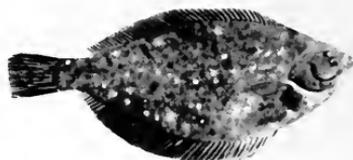


DOLPHIN  
 RANGE - FLORIDA TO NORTH CAROLINA  
 GEAR - TROLL LINES

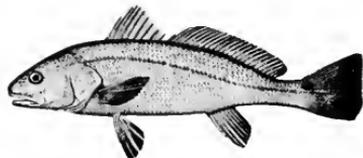
# PICTORIAL SECTION



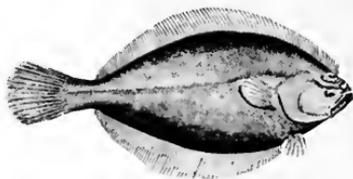
DRUM, BLACK  
 RANGE - TEXAS TO NORTH CAROLINA  
 GEAR - HAUL SEINES, POUND NETS, LINES



LEMON SOLE  
 RANGE - NEW YORK TO MAINE  
 GEAR - OTTER TRAWLS



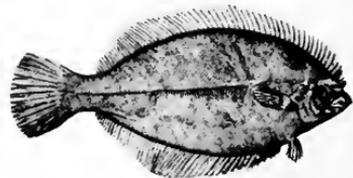
DRUM, RED  
 RANGE - TEXAS - MARYLAND  
 GEAR - POUND NETS, HAUL SEINES, GILL NETS,  
 LINES



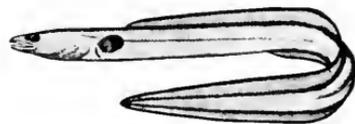
DAB  
 RANGE - MASSACHUSETTS TO NOVA SCOTIA  
 GEAR - OTTER TRAWLS, LONGLINES



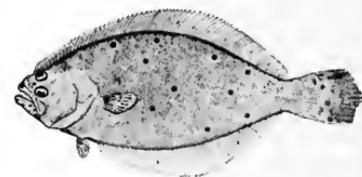
EEL, COMMON  
 RANGE - FLORIDA TO NEW ENGLAND AND IN  
 MISSISSIPPI RIVER, LAKE ONTARIO  
 GEAR - POTS, SPEARS, POUND NETS



BLACKBACK OR WINTER FLOUNDER  
 RANGE - NORTH CAROLINA TO MAINE  
 GEAR - OTTER TRAWLS, POUND NETS, FYKE NETS,  
 SPEARS, LINES



EEL, CONGER  
 RANGE - FLORIDA TO NEW ENGLAND  
 GEAR - OTTER TRAWLS



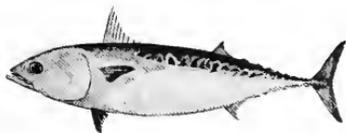
FLUKE  
 RANGE - TEXAS TO MASSACHUSETTS  
 GEAR - OTTER TRAWL, SPEARS, LINES



GRAY SOLE  
 RANGE - MASSACHUSETTS TO MAINE  
 GEAR - OTTER TRAWLS



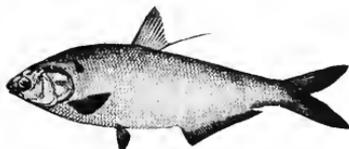
FLYING FISH  
 RANGE - PACIFIC AND ATLANTIC OCEANS  
 GEAR - GILL NETS



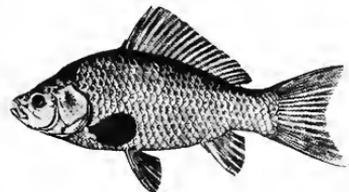
FRIGATE MACKEREL  
 RANGE - MIDDLE ATLANTIC  
 GEAR - POUND NETS



GARFISH  
 RANGE - FRESH-WATER  
 GEAR - HAUL SEINES, LINES



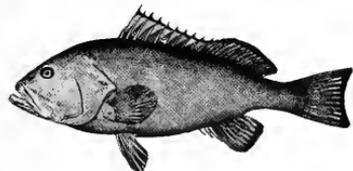
GIZZARD SHAD  
 RANGE - NORTH CAROLINA TO MARYLAND,  
 GREAT LAKES  
 GEAR - HAUL SEINES, POUND NETS, GILL NETS



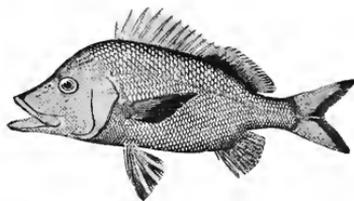
GOLDFISH  
 RANGE - LAKES AND RIVERS  
 GEAR - HAUL SEINES, TRAP NETS, FYKE NETS



GRAYFISH  
 RANGE - PACIFIC  
 GEAR - LONGLINES, OTTER TRAWLS, GILL NETS



GRROUPER  
 RANGE - TEXAS TO SOUTH CAROLINA  
 GEAR - HANDLINES, POTS



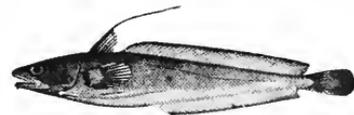
GRUNT  
 RANGE - FLORIDA  
 GEAR - POTS, GILL NETS, LINES



HADDOCK  
 RANGE - NEW ENGLAND STATES  
 GEAR - OTTER TRAWLS, GILL NETS, LONGLINES



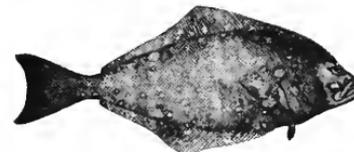
HAKE, RED  
 RANGE - CHESAPEAKE BAY TO NEW ENGLAND  
 GEAR - GILL NETS, OTTER TRAWLS, LONGLINES



HAKE, WHITE  
 RANGE - CHESAPEAKE BAY TO NEW ENGLAND  
 GEAR - GILL NETS, OTTER TRAWLS, LONGLINES



HAKE (PACIFIC)  
 RANGE - PACIFIC  
 GEAR - OTTER TRAWLS

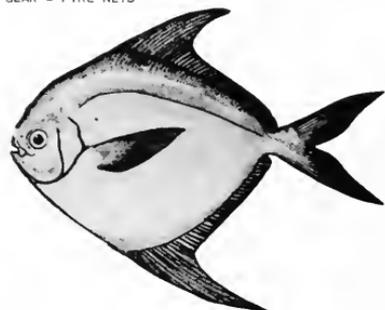


HALIBUT  
 RANGE - PACIFIC COAST - NEW ENGLAND  
 GEAR - LONGLINES, OTTER TRAWLS

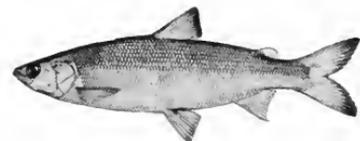
# PICTORIAL SECTION



HARDHEAD  
 RANGE - CALIFORNIA  
 GEAR - FYKE NETS



HARVESTFISH OR "STARFISH"  
 RANGE - NORTH CAROLINA TO CHESAPEAKE BAY  
 GEAR - HAUL SEINES, POUND NETS



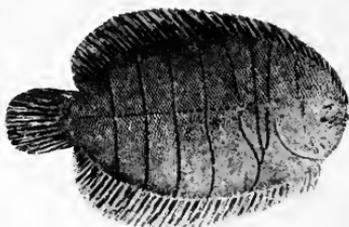
HERRING, LAKE  
 RANGE - GREAT LAKES  
 GEAR - GILL NETS, HAUL SEINES, POUND NETS,  
 TRAP NETS



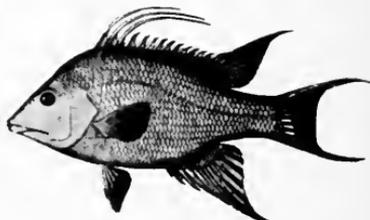
HERRING, SEA  
 RANGE - NEW JERSEY TO NEW ENGLAND, PACIFIC  
 COAST STATES AND ALASKA  
 GEAR - PURSE SEINES, WEIRS, FLOATING TRAPS,  
 STOP SEINES



HICKORY SHAD  
 RANGE - FLORIDA TO RHODE ISLAND  
 GEAR - POUND NETS, HAUL SEINES, GILL NETS  
 FLOATING TRAPS



HOGCHOKER  
 RANGE - CHESAPEAKE BAY  
 GEAR - POUND NETS, HAUL SEINES



HOGFISH  
 RANGE - FLORIDA  
 GEAR - LINES



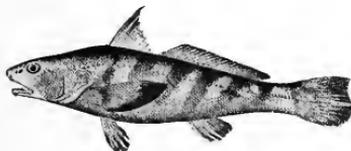
JEWFISH  
 RANGE - FLORIDA  
 GEAR - HANDLINES



JOHN DORY  
 RANGE - MIDDLE ATLANTIC STATES  
 GEAR - OTTER TRAWLS



KING MACKEREL  
 RANGE - TEXAS TO NEW YORK  
 GEAR - TROLL LINES, GILL NETS, HANDLINES



KING WHITING  
 RANGE - TEXAS TO MASSACHUSETTS  
 GEAR - OTTER TRAWLS, HAUL SEINES, POUND NETS



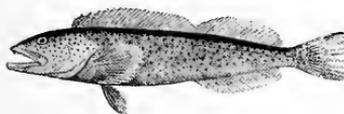
LAKE TROUT  
 RANGE - GREAT LAKES  
 GEAR - GILL NETS, LINES, POUND NETS (TRAP NETS)



LAMPREY  
 RANGE - FRESH-WATER  
 GEAR - POTS, FYKE NETS



LAUNCE  
 RANGE - NEW ENGLAND  
 GEAR - HAUL SEINES



LINGCOD  
 RANGE - CALIFORNIA TO ALASKA  
 GEAR - OTTER TRAWLS, LONGLINES, HANDLINES



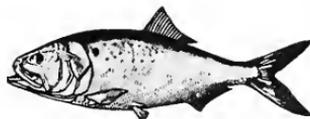
MACKEREL, ATLANTIC  
 RANGE - CHESAPEAKE BAY TO MAINE  
 GEAR - PURSE SEINES, GILL NETS, POUND NETS,  
 FLOATING TRAPS



MACKEREL, JACK  
 RANGE - CALIFORNIA  
 GEAR - LINES, SEINES, LAMPARA NETS



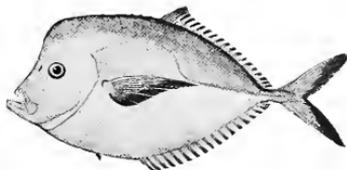
MACKEREL, PACIFIC  
 RANGE - CALIFORNIA  
 GEAR - LINES, SEINES, LAMPARA NETS



MENHADEN  
 RANGE - GULF OF MEXICO TO NEW ENGLAND  
 GEAR - PURSE SEINES, POUND NETS



MOONEYE  
 RANGE - GREAT LAKES  
 GEAR - HAUL SEINES



MOONFISH  
 RANGE - FLORIDA  
 GEAR - HANDLINES, HAUL SEINES

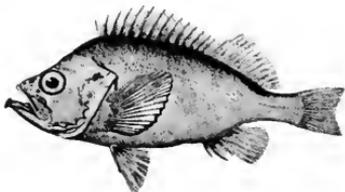
# PICTORIAL SECTION



MULLET  
 RANGE - TEXAS TO NEW JERSEY  
 GEAR - GILL NETS, HAUL SEINES, POUND NETS,  
 CAST NETS



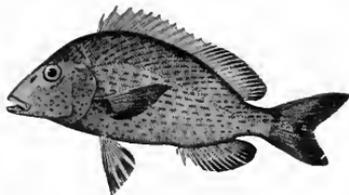
OCEAN POUT  
 RANGE - NEW ENGLAND  
 GEAR - OTTER TRAWLS



OCEAN PERCH  
 RANGE - NEW ENGLAND  
 GEAR - OTTER TRAWLS



PADDFISH  
 RANGE - GULF OF MEXICO, MISSISSIPPI RIVER  
 GEAR - HAUL SEINES, TROT LINES



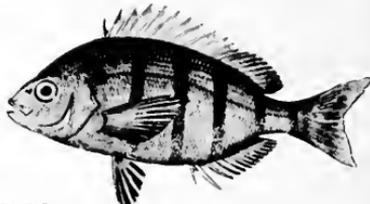
PIGFISH  
 RANGE - FLORIDA  
 GEAR - POTS, HANDLINES, GILL NETS



PIKE OR PICKEREL  
 RANGE - FRESH-WATER  
 GEAR - TRAP NETS, FYKE NETS, GILL NETS,  
 POUND NETS, HANDLINES



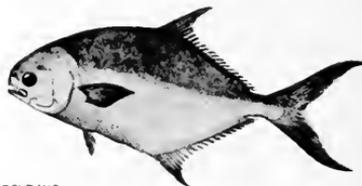
SARDINE, PACIFIC (PILCHARD)  
 RANGE - CALIFORNIA TO WASHINGTON  
 GEAR - PURSE SEINES, LAMPARA AND RING NETS,  
 GILL NETS



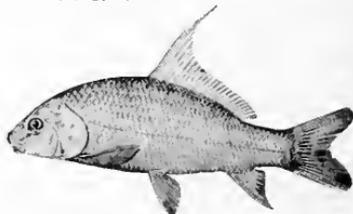
PINFISH  
 RANGE - FLORIDA TO NORTH CAROLINA  
 GEAR - HAUL SEINES, GILL NETS



POLLOCK  
 RANGE - MIDDLE ATLANTIC AND NEW ENGLAND STATES  
 GEAR - LONGLINES, FLOATING TRAPS, POUND NETS,  
 OTTER TRAWLS, GILL NETS



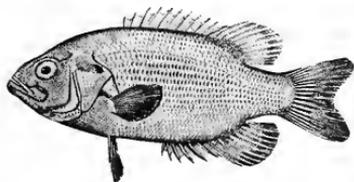
POMPANO  
 RANGE - TEXAS TO NORTH CAROLINA  
 GEAR - TRAMMEL NETS, HAUL SEINES, GILL NETS,  
 HANDLINES



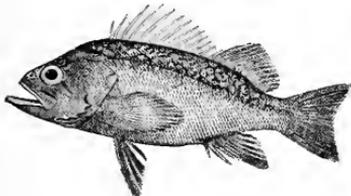
QUILLBACK  
 RANGE - FRESH-WATER  
 GEAR - HAUL SEINES, TROT LINES, FYKE NETS



RATFISH  
 RANGE - WASHINGTON TO ALASKA  
 GEAR - BEAM TRAWLS, LONG LINES



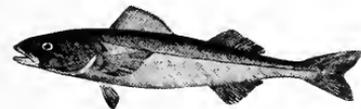
ROCK BASS  
 RANGE - GREAT LAKES  
 GEAR - TRAP NETS, FYKE NETS, HAUL SEINES,  
 GILL NETS



ROCKFISH  
 RANGE - CALIFORNIA TO ALASKA  
 GEAR - LINES, OTTER TRAWLS, PARANZELLA NETS,  
 GILL NETS



RUDDERFISH  
 RANGE - CALIFORNIA  
 GEAR - LAMPARA AND RING NETS



SABLEFISH  
 RANGE - PACIFIC COAST STATES AND ALASKA  
 GEAR - LONG LINES, OTTER TRAWLS



SALMON, CHINOOK OR KING  
 RANGE - CALIFORNIA TO ALASKA  
 GEAR - POUND NETS, PURSE SEINES, GILL NETS,  
 HAUL SEINES, TROLL LINES, REEF NETS



SALMON, CHUM OR KETA  
 RANGE - OREGON TO ALASKA  
 GEAR - POUND NETS, PURSE SEINES, GILL NETS,  
 HAUL SEINES, REEF NETS



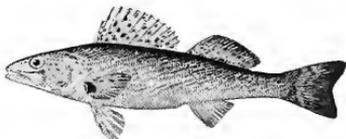
SALMON, PINK  
 RANGE - WASHINGTON TO ALASKA  
 GEAR - PURSE SEINES, POUND NETS, GILL NETS,  
 REEF NETS



SALMON, RED OR SOCKEYE  
 RANGE - OREGON TO ALASKA  
 GEAR - GILL NETS, PURSE SEINES, POUND NETS,  
 REEF NETS

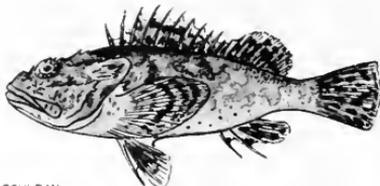


SALMON, SILVER OR COHO  
 RANGE - CALIFORNIA TO ALASKA  
 GEAR - HAUL SEINES, PURSE SEINES, GILL NETS,  
 TROLL LINES, POUND NETS, REEF NETS

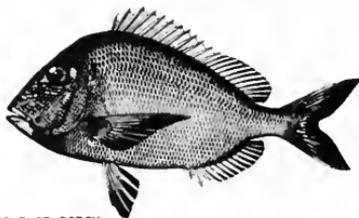


SAUGER  
 RANGE - GREAT LAKES  
 GEAR - GILL NETS, HAUL SEINES, TRAP NETS,  
 FYKE NETS

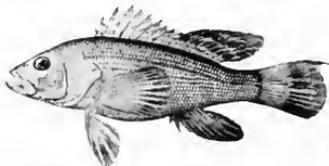
# PICTORIAL SECTION



SCULPIN  
 RANGE - PACIFIC COAST STATES AND ALASKA  
 GEAR - LINES, GILL NETS, POTS



SCUP OR PORGY  
 RANGE - FLORIDA TO NEW ENGLAND  
 GEAR - OTTER TRAWLS, POUND NETS



SEA BASS  
 RANGE - FLORIDA TO NEW ENGLAND  
 GEAR - OTTER TRAWLS, HANDLINES, POTS



SEA CATFISH  
 RANGE - TEXAS TO CHESAPEAKE BAY  
 GEAR - OTTER TRAWLS, HAUL SEINES, HANDLINES



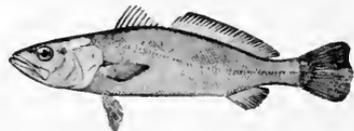
SEA ROBIN  
 RANGE - CHESAPEAKE BAY TO NEW ENGLAND  
 GEAR - POUND NETS, OTTER TRAWLS



SEA TROUT OR WEAKFISH, GRAY  
 RANGE - FLORIDA TO MASSACHUSETTS  
 GEAR - OTTER TRAWLS, POUND NETS, PURSE SEINES,  
 GILL NETS, HAUL SEINES



SEA TROUT OR WEAKFISH, SPOTTED  
 RANGE - MARYLAND TO TEXAS  
 GEAR - GILL NETS, TRammel NETS, HAUL SEINES,  
 POUND NETS, OTTER TRAWLS, HANDLINES



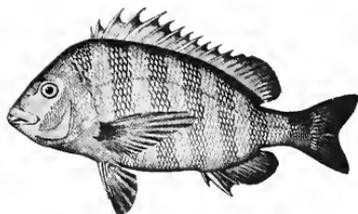
SEA TROUT OR WEAKFISH, WHITE  
 RANGE - GULF OF MEXICO  
 GEAR - GILL NETS, HAUL SEINES, HANDLINES



SHAD  
 RANGE - FLORIDA TO NEW ENGLAND  
 GEAR - GILL NETS, POUND NETS, FYKE NETS,  
 HAUL SEINES



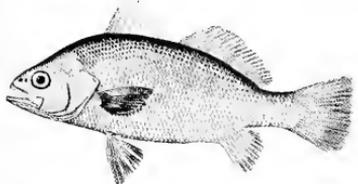
SHARK  
 RANGE - ATLANTIC COAST, GULF, PACIFIC COAST STATES  
 GEAR - LONGLINES, GILL NETS, OTTER TRAWLS



SHEEPSHEAD  
 RANGE - TEXAS TO CHESAPEAKE BAY  
 GEAR - HANDLINES, POTS



SHEEPSHEAD, CALIFORNIA  
 RANGE - CALIFORNIA  
 GEAR - LONGLINES, TRAMMEL NETS



SAND PERCH  
 RANGE - TEXAS TO NEW YORK  
 GEAR - HAUL SEINES, GILL NETS, POUND NETS



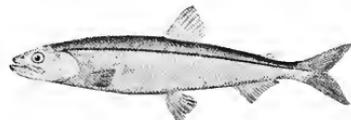
SILVERSIDES  
 RANGE - NEW YORK  
 GEAR - HAUL SEINES, OTTER TRAWLS



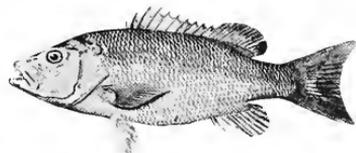
SKATE  
 RANGE - PACIFIC COAST, CHESAPEAKE BAY TO NEW ENGLAND  
 GEAR - LINES, OTTER TRAWLS, POUND NETS, HAUL SEINES



SKIPPER  
 RANGE - VIRGINIA TO NOVA SCOTIA  
 GEAR - POUND NETS, WEIRS



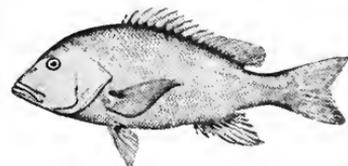
SMELT  
 RANGE - NEW YORK TO MAINE, PACIFIC OCEAN,  
 GREAT LAKES  
 GEAR - POUND NETS, DIP NETS, GILL NETS, HAUL SEINES



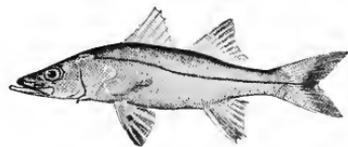
SNAPPER, MANGROVE  
 RANGE - FLORIDA  
 GEAR - HANDLINES, GILL NETS



SNAPPER, LANE  
 RANGE - FLORIDA  
 GEAR - HANDLINES

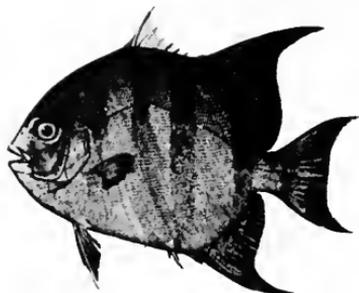


SNAPPER, RED  
 RANGE - TEXAS TO FLORIDA  
 GEAR - HANDLINES



SNOOK  
 RANGE - TEXAS TO FLORIDA  
 GEAR - GILL NETS, HANDLINES, HAUL SEINES

# PICTORIAL SECTION



SPADE FISH  
 RANGE - FLORIDA  
 GEAR - GILL NETS, TRAMMEL NETS



SPANISH MACKEREL  
 RANGE - TEXAS TO VIRGINIA  
 GEAR - GILL NETS, LINES, HAUL SEINES



SPOT  
 RANGE - GULF OF MEXICO TO MIDDLE ATLANTIC STATES  
 GEAR - HAUL SEINES, GILL NETS, POUND NETS,  
 OTTER TRAWLS



SQUAW FISH  
 RANGE - CALIFORNIA  
 GEAR - FYKE NETS, GILL NETS



STEELHEAD TROUT  
 RANGE - OREGON TO ALASKA  
 GEAR - HAUL SEINES, POUND NETS, GILL NETS,  
 LINES, DIP NETS



STRIPED BASS  
 RANGE - NORTH CAROLINA TO NEW ENGLAND, CALIFORNIA  
 TO OREGON  
 GEAR - HAUL SEINES, GILL NETS, POUND NETS,  
 HANDLINES, FYKE NETS



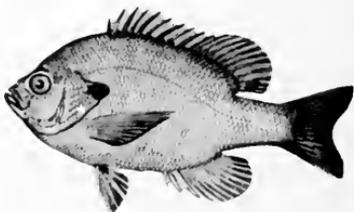
STURGEON  
 RANGE - COASTAL AND RIVER AREAS  
 GEAR - GILL NETS, LINES



STURGEON, SHOVELNOSE  
 RANGE - FRESH-WATER  
 GEAR - HAUL SEINES, LINES, POUND NETS



SUCKER  
 RANGE - FRESH-WATER  
 GEAR - POUND NETS, FYKE NETS, GILL NETS,  
 HAUL SEINES, TRAP NETS



SUN FISH  
 RANGE - FRESH-WATER  
 GEAR - POTS, SEINES, TRAP NETS



SWELL FISH  
 RANGE - CHESAPEAKE BAY TO MIDDLE ATLANTIC  
 GEAR - POUND NETS, HAUL SEINES, OTTER TRAWLS



**SWORDFISH**  
 RANGE - NEW ENGLAND AND CALIFORNIA  
 GEAR - HARPOONS



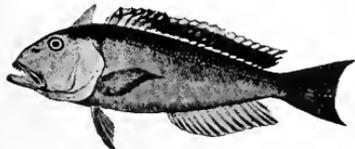
**TAUTOG**  
 RANGE - CHESAPEAKE BAY TO NEW ENGLAND  
 GEAR - POUND NETS, HANDLINES, POTS



**TENPOUNDER**  
 RANGE - FLORIDA  
 GEAR - HAUL SEINES



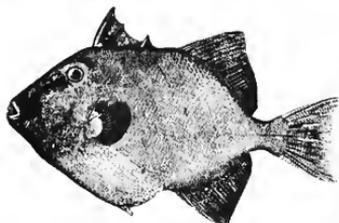
**THIMBLE-EYED MACKEREL**  
 RANGE - CHESAPEAKE BAY TO NEW ENGLAND  
 GEAR - POUND NETS, PURSE SEINES, OTTER TRAWLS



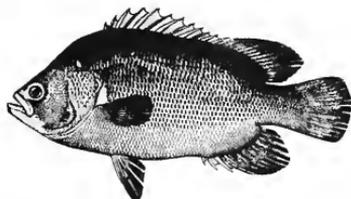
**TILEFISH**  
 RANGE - MIDDLE ATLANTIC AND NEW ENGLAND STATES  
 GEAR - LONGLINES, REEF NETS, OTTER TRAWLS



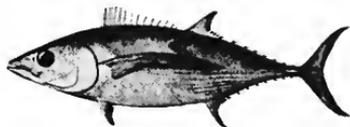
**TOMCOD**  
 RANGE - PACIFIC COAST, MIDDLE ATLANTIC AND  
 NEW ENGLAND STATES  
 GEAR - OTTER TRAWLS, DIP NETS



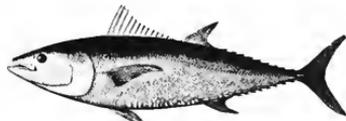
**TRIGGERFISH**  
 RANGE - FLORIDA  
 GEAR - HANDLINES



**TRIPLETAIL**  
 RANGE - FLORIDA  
 GEAR - HAUL SEINES, GILL NETS, LINES



**TUNA, ALBACORE**  
 RANGE - PACIFIC COAST  
 GEAR - LINES



**TUNA, BLUEFIN**  
 RANGE - CALIFORNIA, NEW JERSEY TO MAINE  
 GEAR - PURSE SEINES, LAMPARA NETS, TROLL LINES,  
 POUND NETS, HARPOONS



**TUNA, LITTLE**  
 RANGE - MASSACHUSETTS TO TEXAS  
 GEAR - POUND NETS, TROLL LINES, OTTER TRAWLS

# PICTORIAL SECTION



TUNA, SKIPJACK  
 RANGE - CALIFORNIA  
 GEAR - LINES AND PURSE SEINES



TUNA, YELLOWFIN  
 RANGE - PACIFIC  
 GEAR - LINES AND PURSE SEINES



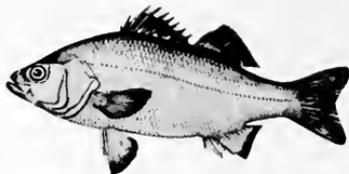
WHITE BASS  
 RANGE - GREAT LAKES  
 GEAR - TRAP NETS, FYKE NETS, HAUL SEINES,  
 POUND NETS



WHITEFISH, COMMON  
 RANGE - GREAT LAKES  
 GEAR - GILL NETS, POUND NETS, TRAP NETS



WHITEFISH, MENOMINEE  
 RANGE - ALASKA, GREAT LAKES  
 GEAR - GILL NETS, HAUL SEINES, TRAP NETS,  
 POUND NETS



WHITE PERCH  
 RANGE - NORTH CAROLINA TO MAINE  
 GEAR - POUND NETS, FYKE NETS, HAUL SEINES



WHITING  
 RANGE - VIRGINIA TO MAINE  
 GEAR - OTTER TRAWLS, POUND NETS



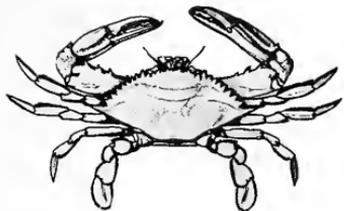
WOLFFISH  
 RANGE - MASSACHUSETTS AND MAINE  
 GEAR - OTTER TRAWLS, LONGLINES



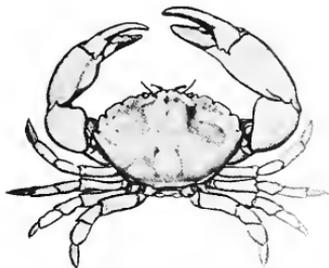
YELLOW PERCH  
 RANGE - GREAT LAKES, OTHER LAKES  
 GEAR - GILL NETS, TRAP NETS, POUND NETS,  
 FYKE NETS



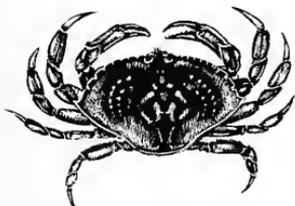
YELLOW PIKE  
 RANGE - GREAT LAKES  
 GEAR - POUND NETS, FYKE NETS, GILL NETS,  
 TRAP NETS



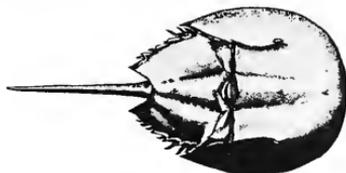
BLUE CRAB  
 RANGE - TEXAS TO RHODE ISLAND  
 GEAR - TROT LINES, POTS, FYKE NETS, DIP NETS,  
 SCRAPES, DREDGES



STONE CRAB  
 RANGE - FLORIDA  
 GEAR - DIP NETS, CRAB POTS



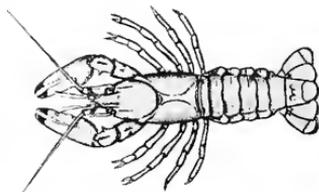
DUNGENESS CRAB  
 RANGE - PACIFIC COAST STATES AND ALASKA  
 GEAR - TRAPS



HORSESHOE CRAB  
 RANGE - MARYLAND TO NEW YORK  
 GEAR - POUND NETS, WEIRS, BY HAND



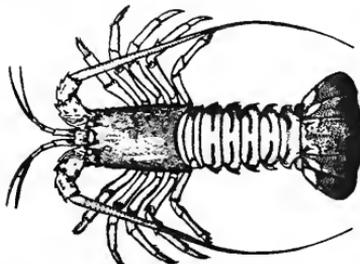
KING CRAB  
 RANGE - ALASKA  
 GEAR - OTTER TRAWLS



FRESH-WATER CRAWFISH  
 RANGE - RIVERS AND LAKES  
 GEAR - POTS

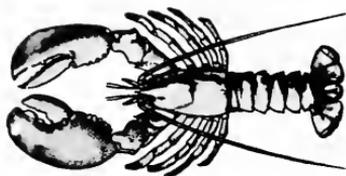


ROCK CRAB  
 RANGE - NEW ENGLAND  
 GEAR - POTS



SPINY LOBSTER  
 RANGE - CALIFORNIA AND FLORIDA  
 GEAR - DIP NETS, POTS, HOOKS

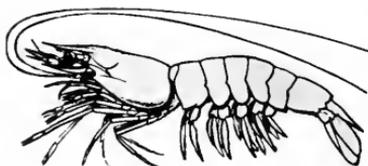
# PICTORIAL SECTION



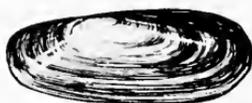
LOBSTER, NORTHERN  
 RANGE - VIRGINIA TO MAINE  
 GEAR - POTS, OTTER TRAWLS



HARD CLAM  
 RANGE - FLORIDA TO MAINE  
 GEAR - HOES, DREDGES, TONGS, RAKES, BY HAND



SHRIMP  
 RANGE - TEXAS TO NORTH CAROLINA, MAINE,  
 CALIFORNIA, WASHINGTON, AND ALASKA  
 GEAR - SHRIMP TRAWLS



RAZOR CLAM, PACIFIC  
 RANGE - OREGON, WASHINGTON AND ALASKA  
 GEAR - SHOVELS



BUTTER CLAM  
 RANGE - PACIFIC COAST  
 GEAR - SHOVELS



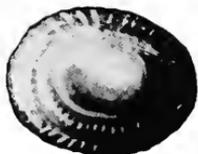
SOFT CLAM  
 RANGE - MIDDLE ATLANTIC TO NEW ENGLAND,  
 PACIFIC COAST STATES  
 GEAR - FORKS, HOES, RAKES, DREDGES



LITTLE NECK CLAM  
 RANGE - PACIFIC COAST  
 GEAR - SHOVELS



CONCH  
 RANGE - FLORIDA TO MAINE  
 GEAR - OTTER TRAWLS, DREDGES, POTS, AND BY HAND



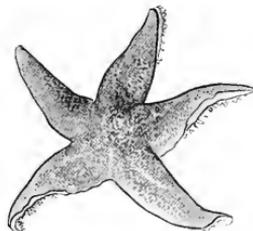
LIMPET  
 RANGE - NEW YORK AND NEW ENGLAND  
 GEAR - DREDGES



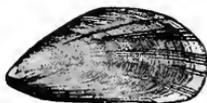
SEA SCALLOP  
 RANGE - NEW JERSEY TO MAINE  
 GEAR - DREDGES, OTTER TRAWLS



FRESH-WATER MUSSEL  
 RANGE - FRESH-WATER STREAMS  
 GEAR - CROWFOOT BARS, PICKS, HAND



STARFISH  
 RANGE - ATLANTIC AND PACIFIC COAST  
 GEAR - HOOKS, SCRAPES, "MOPS"



SEA MUSSEL  
 RANGE - NORTH CAROLINA TO MAINE  
 GEAR - DREDGES, TONGS, RAKES, HAND



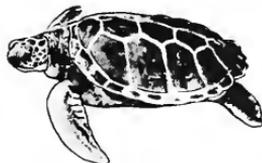
OYSTER  
 RANGE - TEXAS TO MASSACHUSETTS, PACIFIC COAST  
 GEAR - TONGS, DREDGES, RAKES, BY HAND



TERRAPIN  
 RANGE - TEXAS TO NEW JERSEY  
 GEAR - HAUL SEINES, BY HAND

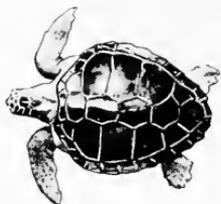


BAY SCALLOP  
 RANGE - FLORIDA TO MASSACHUSETTS, WASHINGTON  
 GEAR - DREDGES, SCRAPES, PUSH NETS, TONGS, RAKES,  
 DIP NETS

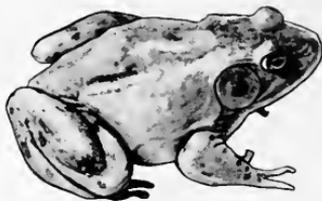


GREEN TURTLE  
 RANGE - FLORIDA  
 GEAR - GILL NETS

# PICTORIAL SECTION



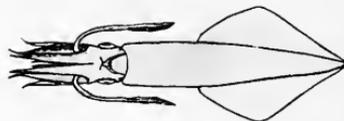
LOGGERHEAD TURTLE  
 RANGE - FLORIDA TO NEW JERSEY  
 GEAR - GILL NETS



FROG  
 RANGE - FRESH-WATER, MARSHES, POND  
 GEAR - SPEARS, GRABS



HAWKSBILL TURTLE  
 RANGE - GULF OF MEXICO, AND ATLANTIC COAST  
 TO NEW YORK  
 GEAR - BY HAND, POUND NETS



SQUID  
 RANGE - VIRGINIA TO MAINE, CALIFORNIA AND  
 WASHINGTON  
 GEAR - LAMPARA NETS, GILL NETS, OTTER TRAWLS,  
 POUND NETS



SOFT-SHELL TURTLE  
 RANGE - LAKES AND RIVERS  
 GEAR - HAUL SEINES, FYKE NETS, POTS



SPONGE  
 RANGE - FLORIDA  
 GEAR - HOOKS, DIVING OUTFITS



IRISH MOSS  
 RANGE - NEW ENGLAND  
 GEAR - RAKES

# SECTION 17 - STATISTICAL PUBLICATIONS

THE FOLLOWING LIST OF PUBLICATIONS INCLUDES ALL REPORTS ISSUED IN THE CURRENT FISHERY STATISTICS SERIES DURING 1963.

C. F. S. NO.	TITLE	C. F. S. NO.	TITLE
3060	FROZEN FISH REPORT, NOVEMBER, 1962	3136	NEW JERSEY LANDINGS, JANUARY, 1963
3061	SOUTH CAROLINA LANDINGS, OCTOBER, 1962	3137	VIRGINIA LANDINGS, DECEMBER, 1962
3062	MICHIGAN LANDINGS, AUGUST, 1962	3138	NEW YORK LANDINGS, ANNUAL, 1962
3063	FLORIDA LANDINGS, OCTOBER, 1962	3139	NEW JERSEY LANDINGS, ANNUAL, 1962
3064	MASSACHUSETTS LANDINGS, JULY, 1962	3140	FROZEN FISHERY PRODUCTS, FEBRUARY, 1963
3065	TEXAS LANDINGS, SEPTEMBER, 1962	3141	PACKAGED FISHERY PRODUCTS, ANNUAL, 1962
3066	MICHIGAN LANDINGS, SEPTEMBER, 1962	3142	UNITED STATES FISHERIES, ANNUAL, 1961
3067	WISCONSIN LANDINGS, OCTOBER, 1962	3143	NEW YORK LANDINGS, JANUARY, 1963
3068	VIRGINIA LANDINGS, OCTOBER, 1962	3144	CANNED FISHERY PRODUCTS, ANNUAL, 1962
3069	CALIFORNIA LANDINGS, SEPTEMBER, 1962	3145	MISSISSIPPI LANDINGS, JANUARY, 1963
3070	OHIO LANDINGS, SEPTEMBER, 1962	3146	MAINE LANDINGS, JANUARY, 1963
3071	NEW YORK LANDINGS, OCTOBER, 1962	3147	RHODE ISLAND LANDINGS, JANUARY, 1963
3072	MISSISSIPPI LANDINGS, OCTOBER, 1962	3148	SHRIMP LANDINGS, AUGUST, 1962
3073	SHRIMP LANDINGS, JULY, 1962	3149	LOUISIANA LANDINGS, JANUARY, 1963
3074	TEXAS LANDINGS, OCTOBER, 1962	3150	ADVANCE REPORT ON THE FISHERIES OF THE UNITED STATES, ANNUAL, 1962
3075	NEW JERSEY LANDINGS, NOVEMBER, 1962	3151	MASSACHUSETTS LANDINGS, NOVEMBER, 1962
3076	LOUISIANA LANDINGS, OCTOBER, 1962	3152	GEORGIA LANDINGS, FEBRUARY, 1963
3077	RHODE ISLAND LANDINGS, OCTOBER, 1962	3153	VIRGINIA LANDINGS, ANNUAL, 1962
3078	MAINE LANDINGS, OCTOBER, 1962	3154	VIRGINIA LANDINGS, JANUARY, 1963
3079	ALABAMA LANDINGS, OCTOBER, 1962	3155	SOUTH CAROLINA LANDINGS, FEBRUARY, 1963
3080	FROZEN FISH REPORT, DECEMBER, 1962	3156	NORTH CAROLINA LANDINGS, FEBRUARY, 1963
3081	NORTH CAROLINA LANDINGS, NOVEMBER, 1962	3157	INDUSTRIAL FISHERY PRODUCTS, ANNUAL, 1962
3082	FLORIDA LANDINGS, NOVEMBER, 1962	3158	FLORIDA LANDINGS, FEBRUARY, 1963
3083	OHIO LANDINGS, OCTOBER, 1962	3159	NORTH CAROLINA LANDINGS, ANNUAL, 1962
3084	FISH MEAL AND OIL, NOVEMBER, 1962	3160	FROZEN FISHERY PRODUCTS, MARCH, 1963
3085	SOUTH CAROLINA LANDINGS, NOVEMBER, 1962	3161	MAINE LANDINGS, FEBRUARY, 1963
3086	GEORGIA LANDINGS, NOVEMBER, 1962	3162	CALIFORNIA LANDINGS, DECEMBER, 1962
3087	MICHIGAN LANDINGS, OCTOBER, 1962	3163	MASSACHUSETTS LANDINGS, DECEMBER, 1962
3088	WISCONSIN LANDINGS, NOVEMBER, 1962	3164	MAINE LANDINGS, BY COUNTIES, ANNUAL, 1962
3089	LOUISIANA LANDINGS, NOVEMBER, 1962	3165	CALIFORNIA LANDINGS, JANUARY, 1963
3090	OHIO LANDINGS, NOVEMBER, 1962	3166	MARYLAND LANDINGS, FEBRUARY, 1963
3091	MARYLAND LANDINGS, NOVEMBER, 1962	3167	NEW YORK LANDINGS, FEBRUARY, 1963
3092	MISSISSIPPI LANDINGS, NOVEMBER, 1962	3168	MAINE LANDINGS, BY MONTHS, ANNUAL, 1962
3093	MANUFACTURED FISHERY PRODUCTS ANNUAL, 1961	3169	NEW JERSEY LANDINGS, FEBRUARY, 1963
3094	MASSACHUSETTS LANDINGS, AUGUST, 1962	3170	ALABAMA LANDINGS, JANUARY, 1963
3095	NEW YORK LANDINGS, NOVEMBER, 1962	3171	FISH MEAL AND OIL, FEBRUARY, 1963
3096	FISH STICKS AND PORTIONS, OCTOBER-DECEMBER, 1962	3172	WISCONSIN LANDINGS, FEBRUARY, 1963
3097	CALIFORNIA LANDINGS, OCTOBER, 1962	3173	LOUISIANA LANDINGS, FEBRUARY, 1963
3098	MAINE LANDINGS, NOVEMBER, 1962	3174	RHODE ISLAND LANDINGS, ANNUAL, 1962
3099	ALABAMA LANDINGS, NOVEMBER, 1962	3175	MICHIGAN LANDINGS, JANUARY, 1963
3100	FROZEN FISHERY PRODUCTS, JANUARY, 1963	3176	SHRIMP LANDINGS, SEPTEMBER, 1963
3101	VIRGINIA LANDINGS, NOVEMBER, 1962	3177	RHODE ISLAND LANDINGS, FEBRUARY, 1963
3102	FROZEN FISHERY PRODUCTS, ANNUAL, 1962	3178	FISH STICKS AND PORTIONS, JANUARY-MARCH, 1963
3103	LOUISIANA LANDINGS, DECEMBER, 1962	3179	VIRGINIA LANDINGS, FEBRUARY, 1963
3104	RHODE ISLAND LANDINGS, NOVEMBER, 1962	3180	SOUTH CAROLINA LANDINGS, ANNUAL, 1962
3105	NEW JERSEY LANDINGS, DECEMBER, 1962	3181	MISSISSIPPI LANDINGS, FEBRUARY, 1963
3106	NEW YORK LANDINGS, DECEMBER, 1962	3182	FISH MEAL AND OIL, ANNUAL, 1962
3107	CALIFORNIA LANDINGS, NOVEMBER, 1962	3183	GREAT LAKES FISHERIES, ANNUAL, 1961
3108	FISH MEAL AND OIL, DECEMBER, 1962	3184	GEORGIA LANDINGS, MARCH, 1963
3109	FLORIDA LANDINGS, DECEMBER, 1962	3185	IMPORTS AND EXPORTS OF FISHERY PRODUCTS, ANNUAL, 1962
3110	MARYLAND LANDINGS, DECEMBER, 1962	3186	FISH MEAL AND OIL, MARCH, 1963
3111	MICHIGAN LANDINGS, NOVEMBER, 1962	3187	NORTH CAROLINA LANDINGS, MARCH, 1963
3112	OHIO LANDINGS, DECEMBER, 1962	3188	SOUTH CAROLINA LANDINGS, MARCH, 1963
3113	WISCONSIN LANDINGS, DECEMBER, 1962	3189	FLORIDA LANDINGS, MARCH, 1963
3114	GEORGIA LANDINGS, DECEMBER, 1962	3190	FROZEN FISHERY PRODUCTS, APRIL, 1963
3115	NORTH CAROLINA LANDINGS, DECEMBER, 1962	3191	WISCONSIN LANDINGS, ANNUAL, 1962
3116	SOUTH CAROLINA LANDINGS, DECEMBER, 1962	3192	CALIFORNIA LANDINGS, FEBRUARY, 1963
3117	ALABAMA LANDINGS, DECEMBER, 1962	3193	MICHIGAN LANDINGS, FEBRUARY, 1963
3118	MASSACHUSETTS LANDINGS, SEPTEMBER, 1962	3194	MARYLAND LANDINGS, MARCH, 1963
3119	MISSISSIPPI LANDINGS, DECEMBER, 1962	3195	LOUISIANA LANDINGS, MARCH, 1963
3120	RHODE ISLAND LANDINGS, DECEMBER, 1962	3196	OHIO LANDINGS, MARCH, 1963
3121	MASSACHUSETTS LANDINGS, OCTOBER, 1962	3197	SHRIMP LANDINGS, OCTOBER, 1962
3122	PACIFIC COAST FISHERIES, ANNUAL, 1961	3198	VIRGINIA LANDINGS, MARCH, 1963
3123	TEXAS LANDINGS, NOVEMBER, 1962	3199	NEW YORK LANDINGS, MARCH, 1963
3124	FISH STICKS AND PORTIONS, ANNUAL, 1962	3200	FISHERIES OF THE UNITED STATES, ANNUAL, 1962
3125	TEXAS LANDINGS, DECEMBER, 1962	3201	MISSISSIPPI LANDINGS, MARCH, 1963
3126	MAINE LANDINGS, DECEMBER, 1962	3202	WISCONSIN LANDINGS, MARCH, 1963
3127	MARYLAND LANDINGS, JANUARY, 1963	3203	TEXAS LANDINGS, JANUARY, 1963
3128	HAWAII FISHERIES, ANNUAL, 1961	3204	TEXAS LANDINGS, FEBRUARY, 1963
3129	FLORIDA LANDINGS, JANUARY, 1963	3205	MAINE LANDINGS, MARCH, 1963
3130	WISCONSIN LANDINGS, JANUARY, 1963	3206	CALIFORNIA LANDINGS, MARCH, 1963
3131	GEORGIA LANDINGS, JANUARY, 1963	3207	SOUTH CAROLINA LANDINGS, APRIL, 1963
3132	NORTH CAROLINA LANDINGS, JANUARY, 1963	3208	NORTH CAROLINA LANDINGS, APRIL, 1963
3133	MICHIGAN LANDINGS, DECEMBER, 1962	3209	GEORGIA LANDINGS, APRIL, 1963
3134	FISH MEAL AND OIL, JANUARY, 1963		
3135	SOUTH CAROLINA LANDINGS, JANUARY, 1963		

(CONTINUED ON NEXT PAGE)

C. F. S. NO.	TITLE	C. F. S. NO.	TITLE
3210	NEW JERSEY LANDINGS, MARCH, 1963	3291	MIDDLE ATLANTIC FISHERIES, ANNUAL, 1962
3211	NEW JERSEY LANDINGS, APRIL, 1963	3292	CALIFORNIA LANDINGS, JUNE, 1963
3212	RHODE ISLAND LANDINGS, MARCH, 1963	3293	RHODE ISLAND LANDINGS, JUNE, 1963
3213	WISCONSIN LANDINGS, APRIL, 1963	3294	HAWAII FISHERIES, ANNUAL, 1962
3214	SHRIMP LANDINGS, NOVEMBER, 1962	3295	ALABAMA LANDINGS, JUNE, 1963
3215	FLORIDA LANDINGS, APRIL, 1963	3296	FLORIDA LANDINGS, JULY, 1963
3216	FISH MEAL AND OIL, APRIL, 1963	3297	MAINE LANDINGS, JULY, 1963
3217	NEW YORK LANDINGS, APRIL, 1963	3298	OHIO LANDINGS, JUNE, 1963
3218	VIRGINIA LANDINGS, APRIL, 1963	3299	GULF COAST SHRIMP DATA, APRIL, 1963
3219	OHIO LANDINGS, APRIL, 1963	3300	ALABAMA LANDINGS, JULY, 1963
3220	FROZEN FISHERY PRODUCTS, MAY, 1963	3301	NEW YORK LANDINGS, JULY, 1963
3221	SHRIMP LANDINGS, DECEMBER, 1962	3302	MARYLAND LANDINGS, JULY, 1963
3222	MISSISSIPPI LANDINGS, APRIL, 1963	3303	VIRGINIA LANDINGS, JUNE, 1963
3223	LOUISIANA LANDINGS, APRIL, 1963	3304	LOUISIANA LANDINGS, ANNUAL, 1962
3224	MARYLAND LANDINGS, APRIL, 1963	3305	FISH MEAL AND OIL, JULY, 1963
3225	MAINE LANDINGS, APRIL, 1963	3306	SHRIMP LANDINGS, MAY, 1963
3226	ALABAMA LANDINGS, FEBRUARY, 1963	3307	GULF COAST SHRIMP DATA, MAY, 1963
3227	ALABAMA LANDINGS, MARCH, 1963	3308	TEXAS LANDINGS, MARCH, 1963
3228	MASSACHUSETTS LANDINGS, BY PORTS, ANNUAL, 1962	3309	TEXAS LANDINGS, ANNUAL, 1962
3229	MASSACHUSETTS LANDINGS, BY GEAR AND SUBAREA, ANNUAL, 1962	3310	GEORGIA LANDINGS, AUGUST, 1963
3230	NORTH CAROLINA LANDINGS, MAY, 1963	3311	OHIO LANDINGS, JULY, 1963
3231	NEW JERSEY LANDINGS, MAY, 1963	3312	WISCONSIN LANDINGS, JULY, 1963
3232	CALIFORNIA LANDINGS, APRIL, 1963	3313	LOUISIANA LANDINGS, JULY, 1963
3233	RHODE ISLAND LANDINGS, APRIL, 1963	3314	NORTH CAROLINA LANDINGS, AUGUST, 1963
3234	FISH MEAL AND OIL, MAY, 1963	3315	VIRGINIA LANDINGS, JULY, 1963
3235	MICHIGAN LANDINGS, MARCH, 1963	3316	SOUTH ATLANTIC FISHERIES, ANNUAL, 1962
3236	FLORIDA LANDINGS, ANNUAL, 1962	3317	SOUTH CAROLINA LANDINGS, AUGUST, 1963
3237	SOUTH CAROLINA LANDINGS, MAY, 1963	3318	FLORIDA LANDINGS, AUGUST, 1963
3238	MICHIGAN LANDINGS, APRIL, 1963	3319	SHRIMP LANDINGS, JUNE, 1963
3239	ALABAMA LANDINGS, ANNUAL, 1962	3320	FROZEN FISHERY PRODUCTS, SEPTEMBER, 1963
3240	FROZEN FISHERY PRODUCTS, JUNE, 1963	3321	MICHIGAN LANDINGS, JUNE, 1963
3241	FLORIDA LANDINGS, MAY, 1963	3322	RHODE ISLAND LANDINGS, JULY, 1963
3242	GEORGIA LANDINGS, MAY, 1963	3323	MISSISSIPPI LANDINGS, JULY, 1963
3243	WISCONSIN LANDINGS, MAY, 1963	3324	NEW JERSEY LANDINGS, AUGUST, 1963
3244	MARYLAND LANDINGS, ANNUAL, 1962	3325	GREAT LAKES FISHERIES, ANNUAL, 1962
3245	VIRGINIA LANDINGS, MAY, 1963	3326	FISH MEAL AND OIL, AUGUST, 1963
3246	LOUISIANA LANDINGS, MAY, 1963	3327	NEW YORK LANDINGS, AUGUST, 1963
3247	SHRIMP LANDINGS, ANNUAL, 1962	3328	CALIFORNIA LANDINGS, JULY, 1963
3248	NEW YORK LANDINGS, MAY, 1963	3329	GULF COAST SHRIMP DATA, JUNE, 1963
3249	MARYLAND LANDINGS, MAY, 1963	3330	WISCONSIN LANDINGS, AUGUST, 1963
3250	FISH STICKS AND PORTIONS, APRIL-JUNE, 1963	3331	NEW ENGLAND FISHERIES, ANNUAL, 1962
3251	NEW JERSEY LANDINGS, JUNE, 1963	3332	FISH STICKS AND PORTIONS, JULY-SEPTEMBER, 1963
3252	MAINE LANDINGS, JUNE, 1963	3333	MARYLAND LANDINGS, AUGUST, 1963
3253	MISSISSIPPI LANDINGS, MAY, 1963	3334	VIRGINIA LANDINGS, AUGUST, 1963
3254	CALIFORNIA LANDINGS, MAY, 1963	3335	LOUISIANA LANDINGS, AUGUST, 1963
3255	RHODE ISLAND LANDINGS, MAY, 1963	3336	GEORGIA LANDINGS, SEPTEMBER, 1963
3256	MASSACHUSETTS LANDINGS, JANUARY, 1963	3337	NORTH CAROLINA LANDINGS, SEPTEMBER, 1963
3257	MASSACHUSETTS LANDINGS, FEBRUARY, 1963	3338	MICHIGAN LANDINGS, JULY, 1963
3258	MASSACHUSETTS LANDINGS, MARCH, 1963	3339	MISSISSIPPI LANDINGS, AUGUST, 1963
3259	MASSACHUSETTS LANDINGS, APRIL, 1963	3340	FROZEN FISHERY PRODUCTS, OCTOBER, 1963
3260	FROZEN FISHERY PRODUCTS, JULY, 1963	3341	SOUTH CAROLINA LANDINGS, SEPTEMBER, 1963
3261	SHRIMP LANDINGS, JANUARY, 1963	3342	TEXAS LANDINGS, APRIL, 1963
3262	SHRIMP LANDINGS, FEBRUARY, 1963	3343	TEXAS LANDINGS, MAY, 1963
3263	SHRIMP LANDINGS, MARCH, 1963	3344	TEXAS LANDINGS, JUNE, 1963
3264	SHRIMP LANDINGS, APRIL, 1963	3345	TEXAS LANDINGS, JULY, 1963
3265	FISH MEAL AND OIL, JUNE, 1963	3346	TEXAS LANDINGS, AUGUST, 1963
3266	FLORIDA LANDINGS, JUNE, 1963	3347	RHODE ISLAND LANDINGS, AUGUST, 1963
3267	MAINE LANDINGS, JUNE, 1963	3348	MAINE LANDINGS, AUGUST, 1963
3268	OHIO LANDINGS, MAY, 1963	3349	FISH MEAL AND OIL, SEPTEMBER, 1963
3269	NORTH CAROLINA LANDINGS, JUNE, 1963	3350	FLORIDA LANDINGS, SEPTEMBER, 1963
3270	SOUTH CAROLINA LANDINGS, JUNE, 1963	3351	MICHIGAN LANDINGS, AUGUST, 1963
3271	GEORGIA LANDINGS, JUNE, 1963	3352	GULF COAST SHRIMP DATA, JULY, 1963
3272	ALABAMA LANDINGS, APRIL, 1963	3353	CHESAPEAKE FISHERIES, ANNUAL, 1962
3273	ALABAMA LANDINGS, MAY, 1963	3354	MARYLAND LANDINGS, SEPTEMBER, 1963
3274	MARYLAND LANDINGS, JUNE, 1963	3355	OHIO LANDINGS, AUGUST, 1963
3275	MICHIGAN LANDINGS, MAY, 1963	3356	WISCONSIN LANDINGS, SEPTEMBER, 1963
3276	NEW YORK LANDINGS, JUNE, 1963	3357	NEW YORK LANDINGS, SEPTEMBER, 1963
3277	WISCONSIN LANDINGS, JUNE, 1963	3358	GULF COAST SHRIMP DATA, ANNUAL, 1962
3278	LOUISIANA LANDINGS, JUNE, 1963	3359	ALABAMA LANDINGS, AUGUST, 1963
3279	MISSISSIPPI LANDINGS, ANNUAL, 1962	3360	MASSACHUSETTS LANDINGS, MAY, 1963
3280	FROZEN FISHERY PRODUCTS, AUGUST, 1963	3361	NORTH CAROLINA LANDINGS, OCTOBER, 1963
3281	GULF COAST SHRIMP DATA, JANUARY, 1963	3362	CALIFORNIA LANDINGS, AUGUST, 1963
3282	MISSISSIPPI LANDINGS, JUNE, 1963	3363	ALABAMA LANDINGS, SEPTEMBER, 1963
3283	WASHINGTON LANDINGS, ANNUAL, 1962	3364	SHRIMP LANDINGS, JULY, 1963
3284	GULF COAST SHRIMP DATA, FEBRUARY, 1963	3365	GEORGIA LANDINGS, OCTOBER, 1963
3285	GULF COAST SHRIMP DATA, MARCH, 1963	3366	SOUTH CAROLINA LANDINGS, OCTOBER, 1963
3286	OREGON LANDINGS, ANNUAL, 1962	3367	MAINE LANDINGS, SEPTEMBER, 1963
3287	GEORGIA LANDINGS, JULY, 1963	3368	RHODE ISLAND LANDINGS, SEPTEMBER, 1963
3288	NEW JERSEY LANDINGS, JULY, 1963	3369	VIRGINIA LANDINGS, SEPTEMBER, 1963
3289	NORTH CAROLINA LANDINGS, JULY, 1963	3370	FROZEN FISHERY PRODUCTS, NOVEMBER, 1963
3290	SOUTH CAROLINA LANDINGS, JULY, 1963	3371	FLORIDA LANDINGS, OCTOBER, 1963

Created in 1849 the Department of the Interior—a department of conservation—is concerned with the management, conservation, and development of the Nation's water, fish, wildlife, mineral, forest, and park and recreational resources. It also has major responsibilities for Indian and Territorial affairs.

As the Nation's principal conservation agency, the Department works to assure that nonrenewable resources are developed and used wisely, that park and recreational resources are conserved for the future, and that renewable resources make their full contribution to the progress, prosperity, and security of the United States—now and in the future.



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