TRENDS AND DEVELOPMENTS

California

"N. B. SCOFIELD" STUDIES TUNA IN EASTERN PACIFIC (Cruise No. 1 of 1953): Investigations on the presence and relative abundance of deep-swimming yellowfin and big-eyed tuna were made in waters near the tuna-fishing grounds in the eastern Pacific by the State of California's research vessel N. B. Scofield. The 54-day cruise was completed at Los Angeles on March 18. In addition, investigation of the oceanography of the eastern Pacific, especially as it may affect the tunas, was continued; and biological data was collected to aid in identifying the stocks of tunas. This cruise was conducted jointly by the Inter-American Tropical Tuna Commission, the Marine Fisheries Branch of the California Department of Fish and Game, and the Scripps Institution of Oceanography of the University of California. The U. S. Fish and Wildlife Service also participated through technical assistance and loan of certain essential equipment.

The Japanese fishing operations in the western Pacific Ocean, and more recently the experimental fishing conducted by the U. S. Fish and Wildlife Service's Pacific Oceanic Fishery Investigations in the central Pacific have demonstrated in those waters the presence of deep-living yellowfin and big-eyed tuna, of larger size than normally taken at the surface. The more recent experimental fishing has demonstrated this distribution of tuna as far east as longitude 120° W. This gives rise to the question of whether or not there are to be found, in areas adjacent to the present eastern Pacific fishing grounds, similar, if not part of the same, populations of tunas not now available to present commercial fishing methods. The solution of this problem has important implications on the future of the eastern Pacific tuna fishery, reports the California Department of Fish and Game in an April 28 release.

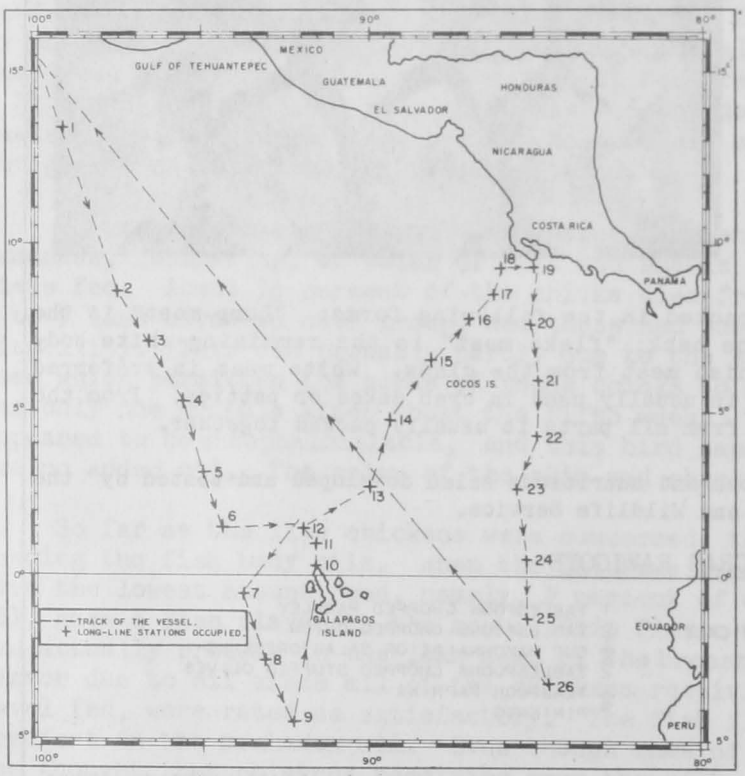

FIGURE 1 - SHOWS THE AREA COVERED BY THE CALIFORNIA RESEARCH VESSEL N. B. SCOFIELD FROM JAN.23-MAR.18,1953.

The N. B. Scofield departed Los Angeles on January 23 and occupied the first station eight days later. After crossing the equatorial current system and completing Station No. 9, at 4°28' S. on February 10, the vessel put in at the Galapagos Islands. Two days were spent there preparing for the second leg. On February 13 fishing was

begun on the second leg, a northeasterly track traversing the area between the Galapagos Islands and the mainland. Upon completion of the second leg at Station No. 19 on February 22, the vessel entered Puntarenas, Costa Rica, for fuel. The third and last leg, comprising seven stations, was begun on February 26 off the coast of Costa Rica and completed on March 4 off the coast of Ecuador. After an emergency stop at Acapulco, the vessel returned to Los Angeles Harbor on March 18 (see figure 1).

Fishing Results: Long-line gear developed by the Japanese was employed by the expedition. A basket of long-line gear is illustrated in figure 2. The only

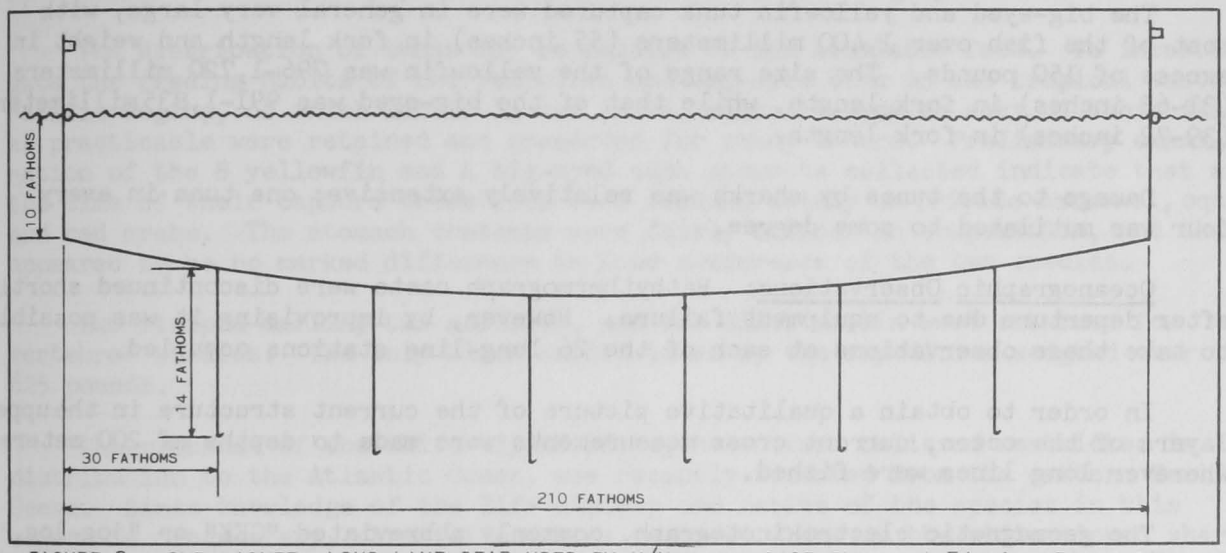

FIGURE 2 - ONE BASKET; LONG-LINE GEAR USED BY M/V N. B. SCOFIELD IN A 54-DAY CRUISE COMPLETED ON MARCH 18.

modification of the gear made on the expedition was replacement of the 10-fathom float lines with 5-fathom float lines after Station No. 7. No measurable difference was observed in the effectiveness of the gear subsequent to this change.

Fifty baskets of gear were set at most stations. The long-lines, baited with large frozen sardines, were set at daybreak and allowed to soak for about six hours. Retrieving the gear was no problem except in areas of strong currents, such as the Galapagos Islands, where the long-lines were badly fouled. Otherwise, fishing operations in general were conducted under ideal weather and sea conditions.

In all, a total of 1,180 baskets (7,080 hooks) were fished. The average rate was 45 baskets (270 hooks) per station. The total catch consisted of 76 yellowfin tuna, 16 big-eyed tuna, 78 spearfishes (marlins and sailfish), 236 sharks, and 18 fish of miscellaneous species. The over-all catch per 100 hooks fished per day was 5.99 fish. The breakdown of the catch ratio by kind of fish was as follows:

	Fish Per 100 Hooks
Yellowfin tuna	1.07
Big-eyed tuna	0.23
Spearfishes	1.10
Sharks	3.33
Miscellaneous	0.25

Tuna were caught at 11 of the 26 fishing stations. They appeared to be most abundant in outlying oceanic waters judging from the catches made on the first leg, which accounted for 82 percent of all the tuna caught by the expedition. The largest number of tuna were taken transverse to the equatorial current system west of

the Galapagos Islands, from Stations 4 thru 9, where the catch of tunas averaged 4.32 fish per 100 hooks. This rate of catching compares favorably with that of the Japanese in the western Pacific, and with that of Pacific Oceanic Fishery Investigations in the central Pacific, at the same season and similar latitudes. The greatest tuna catches were made at Stations 5 and 9, where 6.67 tunas were caught per 100 hooks. The remaining two legs of the cruise were singularly unproductive of tunas. Contrary to expectations, very poor fishing was encountered at the stations close to the Galapagos Islands, a very productive area for surface-fishing tuna vessels.

The big-eyed and yellowfin tuna captured were in general very large, with most of the fish over 1,400 millimeters (55 inches) in fork length and weight in excess of 150 pounds. The size range of the yellowfin was 796-1,720 millimeters (31-68 inches) in fork length, while that of the big-eyed was 991-1,835 millimeters (39-72 inches) in fork length.

Damage to the tunas by sharks was relatively extensive; one tuna in every four was mutilated to some degree.

Oceanographic Observations: Bathythermograph casts were discontinued shortly after departure due to equipment failure. However, by improvising it was possible to take these observations at each of the 26 long-line stations occupied.

In order to obtain a qualitative picture of the current structure in the upper layers of the ocean, current cross measurements were made to depths of 200 meters wherever long lines were fished.

The geomagnetic electrokinetograph, commonly abbreviated "GEK" or "jog-log," is a recently developed instrument which records the apparent direction and velocity of surface currents. In order to obtain a more complete picture of the surface circulation of the eastern Pacific region, "GEK" observations were made at two-hour intervals from Cape San Lucas south across the equator on the first leg, and from the Galapagos Islands northeast to Costa Rica on the second leg. Failure of the instrument precluded further observations after starting the third leg.

Samples of phytoplankton were taken at each station, for qualitative analysis of the over-all pattern of phytoplankton distribution, and to relate the production of phytoplankton to chemical nutrients found in sea water.

Surface salinity samples were collected, and surface temperature observations were made at two-hour intervals during the cruise. The 223 samples and observations will provide additional information about surface density distributions in the eastern Pacific.

Twenty-six quantitative plankton hauls were made (one at each station) with a one-meter net towed obliquely from a depth of 300 meters to the surface. Analysis of these samples will provide a basis for a study of the relationship between tuna abundance and the abundance of zooplankton.

Biological Observations: Samples of whole blood for serological studies which may lead to a new method of distinguishing between tuna species and races were obtained from 10 yellowfin, 3 big-eyed, and 1 oceanic skipjack tuna. An effort was made to collect these samples over a wide area, but the failure to catch tuna in quantity after the first leg restricted this sampling.

The development of a new chemical technique called paper chromatography which may permit the separation of the races of a particular species of fish is under way.

Material for this study was obtained from 9 yellowfin, 2 big-eyed, 1 oceanic skipjack, and 1 black skipjack tuna.

Thirteen yellowfin and 5 big-eyed tuna were examined for condition of sexual maturity. Most of the reproductive organs of these fish, male and female alike, were in an advanced ripening stage, and a few individuals possessed ripe gonads. One male big-eyed tuna caught at Station No. 26 had apparently just spawned, or was in the last stages of spawning, judging from the condition of its testes.

Measurements of body proportions were made of four big-eyed tuna.

The distribution of tunas may be related to the available food. To investigate the feeding habits of the yellowfin and big-eyed tuna in the tropical eastern Pacific region, of which little is now known, stomachs from as many of these fish as practicable were retained and preserved for study ashore. Preliminary examination of the 8 yellowfin and 4 big-eyed tuna stomachs collected indicate that at the time of their capture these fish were feeding mainly on frigate mackerel, squid, and red crabs. The stomach contents were fairly uniform in composition, and there appeared to be no marked difference in food preference of the two species.

Two striped marlin, two sailfish, and one black marlin were returned for vertebrae studies. The only black marlin taken by the expedition weighed over 625 pounds.

The presence of the white-tipped shark, heretofore believed restricted in distribution to the Atlantic Ocean, was recently reported from the eastern Pacific Ocean. Since knowledge of the life history and habits of the species in this region is fragmentary, observations were recorded wherever the white-tipped shark was encountered. Twelve of these sharks were caught by long lines at five different stations. Body measurements were taken of one fish; another specimen was frozen whole for examination ashore.

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TUNA TAGGING BY "N. B. SCOFIELD" LIMITED BY POOR FISHING CONDITIONS: Tuna tagging by the California Department of Fish and Game's research vessel N. B. Scofield was limited by poor fishing conditions to only 50 fish on a 24-day cruise completed at Los Angeles on May 15. The cruise (53-5-2) was made off the west coast of Baja California, Gulf of California, as far north as Guaymas, the west coast of Mexico, and south to Acapulco, a May 27 report from the Department of Fish and Game states.

The 50 fish were tagged between Manzanillo and Acapulco, and consisted of 26 yellowfin, 23 skipjack, and 1 black skipjack tuna. The vessel was prepared to tag with two tagging crews, but tuna fishing during the trip was poor. The fishing in the Gulf of California was especially bad, and the heavy concentrations of tuna there earlier in April were not to be found.

A full load of bait (anchovettas) was caught at Guaymas, Mexico. The vessel then proceeded southward, and since the fishing in the Gulf of California was still poor, a course for more southern fishing grounds was set. Numerous schools of yellowfin and skipjack were encountered on the trip south, but extreme difficulty was experienced in getting the fish to come to the boat.

A limited number of night-light specimens was collected at night while the vessel was drifting on fishing grounds.

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"N. B. SCOFIELD" TO EXPLORE SHRIMP AND BOTTOM FISH GROUNDS: Deep-water explorations for Dover and petrale sole and large shrimp in commercial quantities off the Morro Bay-Santa Barbara coast will be a one-month project of the N. B. Scofield, a California Department of Fish and Game research vessel.

The cruise commenced early in June with two main objectives: (1) a trawl survey of the region's mid and deep waters to determine if bottom fish and large shrimp exist in the commercial quantities that preliminary research has indicated; and (2) to experiment with new mid-water trawl gear using a single boat.

The California biologists expect to trawl at 500 fathoms and hope--with good weather conditions--to make a mile-deep drag. If successful, this will be the deepest commercial-type drag in history, an April 29 release from the California Department of Fish and Game reports.

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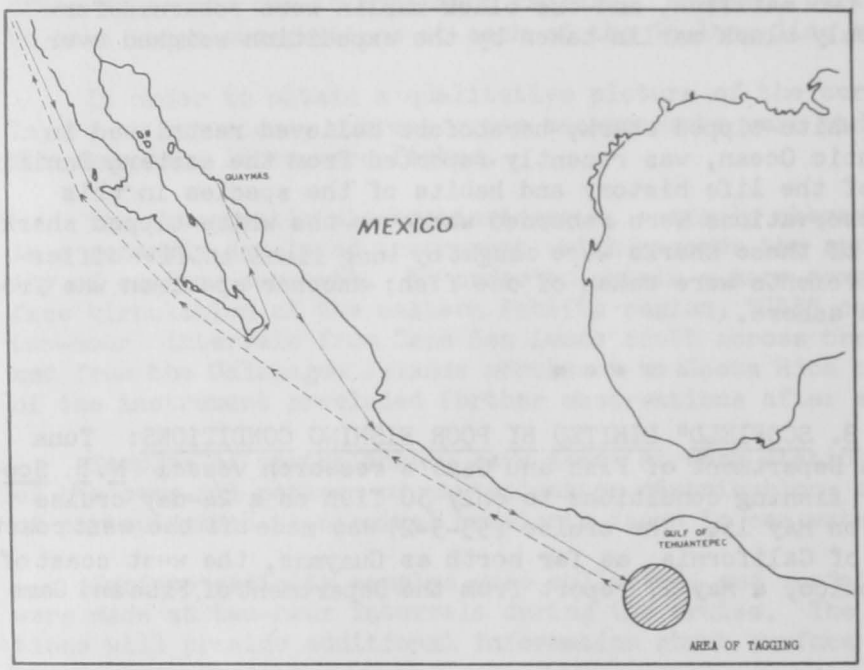
TUNA TAGGING CONTINUED: A total of 157 yellowfin tuna and 61 skipjack tuna were tagged by California Department of Fish and Game biologists aboard the commercial tuna clipper Southern Pacific on a 37-day cruise completed at San Diego on April 17. The vessel cruised in the area of Baja California, the Gulf of California, and off the coast of Mexico to the Gulf of Tehuantepec. All the fish were tagged off the Gulf of Tehuantepec, reports the Department of Fish and Game in an April 28 report.



SHOWS ROUTE OF THE RESEARCH VESSEL SOUTHERN PACIFIC ON ITS CRUISE FROM MARCH 11-APRIL 17, 1953.

Of the fish tagged, 110 were tagged with the type "G" tag and 108 with the type "F" tag. As observed during previous tagging operations, the type "G" appears to be the most efficient to apply to the various modifications used.

Two night-light collections were made in the area of tagging. These collections yielded 190 juvenile frigate mackerel (Auxis sp.).

Other major objectives were to gain experience in commercial tuna-fishing methods; and to further delineate the spawning range of yellowfin and skipjack tuna by collecting post-larval specimens under a night light.

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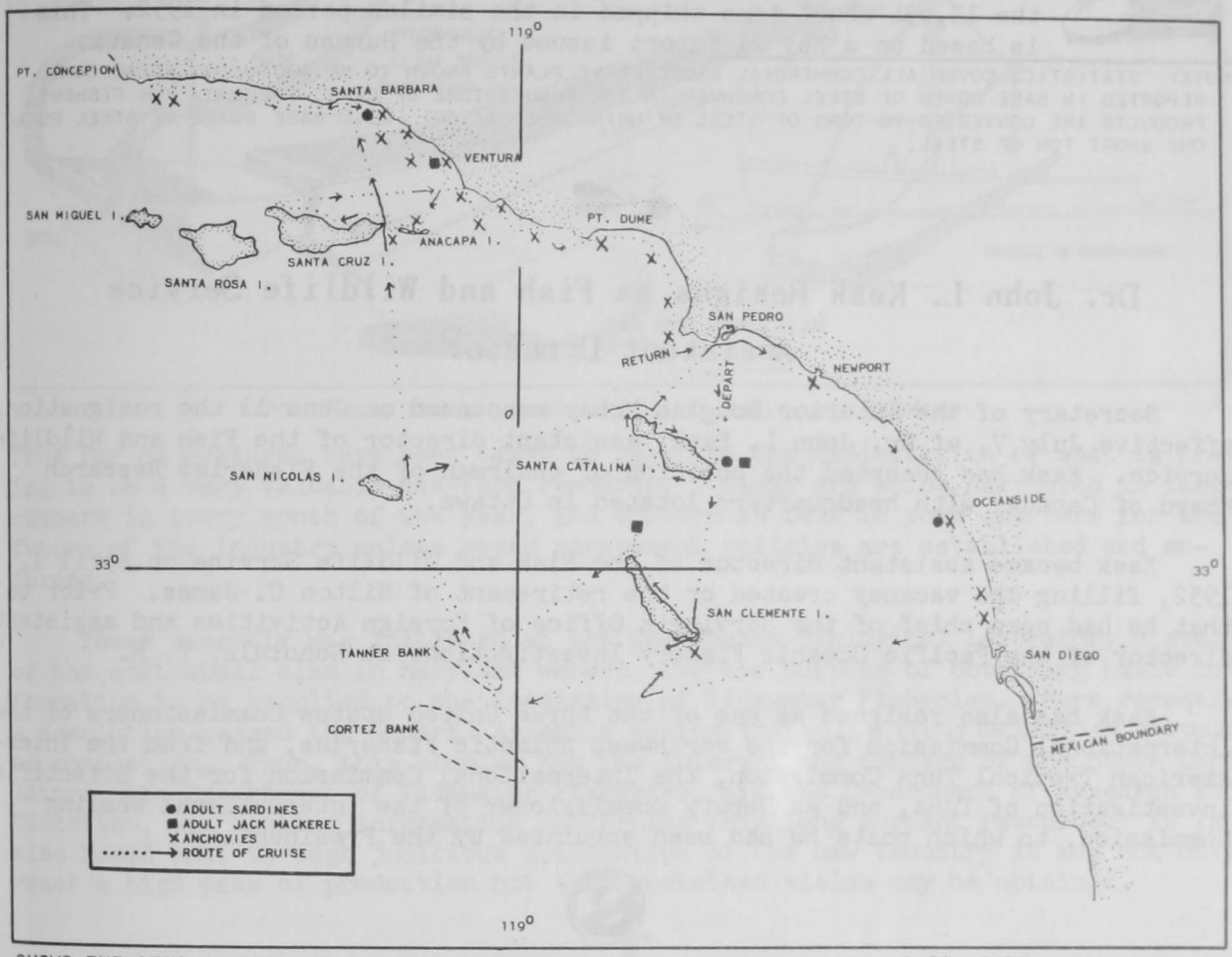
SPAWNING SARDINE AND ANCHOVY ABUNDANCE STUDIED BY "YELLOWFIN" (Cruise No. 4 of 1953): The abundance and age composition of spawning adult sardines and anchovies were measured in inshore and offshore waters off California by that State's research vessel Yellowfin on a 6-day cruise completed at Los Angeles on April 22.

The area covered included the Southern California coastal area between San Diego and Pt. Concepcion and the area around the offshore islands and banks.

A total of 317 miles were scouted in 16 nights and 49 visual schools of fishes were sighted. Of the two schools sampled, one proved to be jack mackerel and the



SHOWS THE AREA COVERED BY THE RESEARCH VESSEL M. V. YELLOWFIN APRIL 6-22, 1953. EACH MARK REPRESENTS ONE SAMPLE.

other anchovy. The remaining 47 schools were estimated as 38 of anchovies, 8 of sauries, and one of jack mackerel.

Forty-eight light stations were occupied yielding three samples of sardines, two of jack mackerel, and 21 of anchovies. Scales, gonads, stomachs, and chromatographic samples of muscle tissue for population studies were taken from sardine and anchovy samples. Gonads, stomachs, and otoliths were taken from the jack mackerel samples. A sample of large sardines collected at Avalon harbor, Santa Catalina Island, consisted of gravid and ripe adults. A sample of adult sardines from near Oceanside consisted of smaller fish, most of which were in resting or immature stages of sexual maturity. One sardine collected near Santa Barbara was a gravid male. Most of the anchovies collected were in advanced stages of maturity with several of the females having ripe eggs.

The weather was unsettled with fairly steady and sometimes strong northwest winds--especially in the offshore area.

Surface sea temperatures ranged from 10.0° C. (50.0° F.) near Pt. Concepcion to 15.0° C. (59.0° F.) at Wilson's Cove, San Clemente Island. Sardines were found in waters in which surface temperatures ranged from 13.5° C. to 14.0° C. (56.3° F. to 57.2° F.).

Metal Cans--Shipments for Fishery Products, January-March 1953

Total shipments of metal cans for fish and sea food in January-March 1953 amounted to 13,882 short tons of steel (based on the amount of steel consumed in the manufacture of cans), 1 percent more than the 13,634 short tons shipped in the similar period in 1952. This is based on a May 21 report issued by the Bureau of the Census.

NOTE: STATISTICS COVER ALL COMMERCIAL AND CAPTIVE PLANTS KNOWN TO BE PRODUCING METAL CANS. REPORTED IN BASE BOXES OF STEEL CONSUMED IN THE MANUFACTURE OF CANS, THE DATA FOR FISHERY PRODUCTS ARE CONVERTED TO TONS OF STEEL BY USING THE FACTOR: 23.0 BASE BOXES OF STEEL EQUAL ONE SHORT TON OF STEEL.

Dr. John L. Kask Resigns as Fish and Wildlife Service Assistant Director

Secretary of the Interior Douglas McKay announced on June 11 the resignation, effective July 7, of Dr. John L. Kask, assistant director of the Fish and Wildlife Service. Kask has accepted the position of chairman of the Fisheries Research Board of Canada, with headquarters located in Ottawa.

Kask became assistant director of the Fish and Wildlife Service on April 1, 1952, filling the vacancy created by the retirement of Milton C. James. Prior to that he had been chief of the Service's Office of Foreign Activities and assistant director of the Pacific Oceanic Fishery Investigations at Honolulu, T. H.

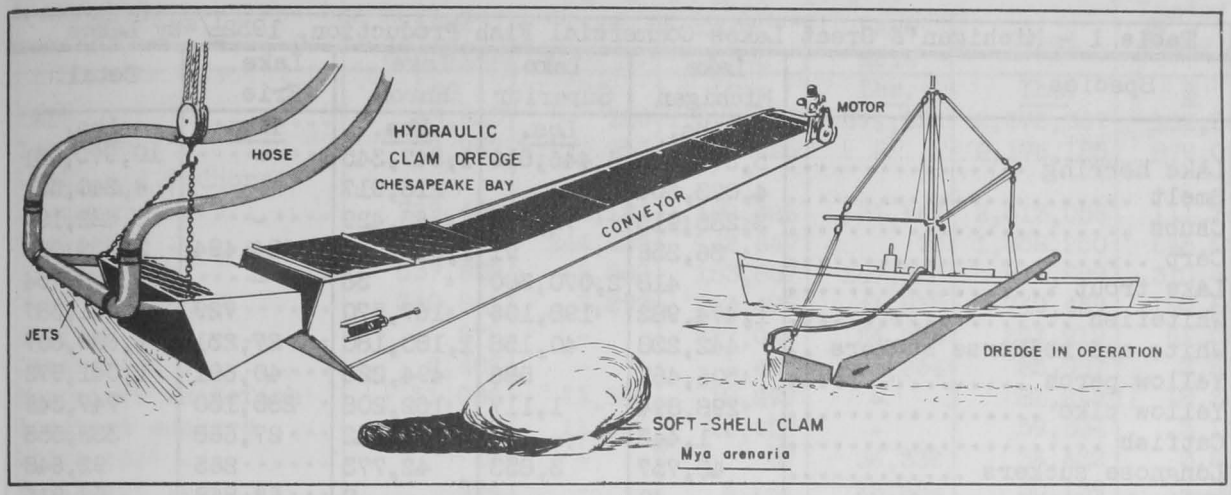
Kask has also resigned as one of the three United States Commissioners of the International Commission for the Northwest Atlantic Fisheries, and from the Inter-American Tropical Tuna Commission, the International Commission for the Scientific Investigation of Tuna, and as Deputy Commissioner of the International Whaling Commission, to which posts he had been appointed by the President.

Maryland's Soft-Shell Clam Fishery Developing Fast

The soft-shell clam (Mya arenaria L.) in Maryland is fast developing into a promising new Chesapeake Bay fishery, reports the May 1953 Maryland Tidewater News of the State Department of Research and Education. Traditionally this clam is a product chiefly of New England's tidal flats, where it is dug by hand at low tide. In Chesapeake Bay the normal range of the tides is little more than a foot, and bottoms where the "maninose" (as this soft-shell clam is known locally) is found seldom ebb dry. Until recently very little commercial exploitation of the soft-shell clam had been attempted in Maryland.

An Easton waterman in 1950 developed and patented a hydraulic dredge which harvests clams efficiently at depths up to eight feet. The minimum depth of operation is limited only by the draft of the boat on which the rig is carried. The dredge consists essentially of an endless chain-link conveyor belt at the lower end of which is hinged a sled-like structure with an adjustable blade, and a hydraulic system which directs numerous small jets of water backward toward the blade conveyor. The dredge is swung alongside the boat from booms. As the boat moves forward slowly the jets of water loosen the bottom ahead of the dredge blade. Clams, shells, and debris are picked up by the blade and carried upward on the conveyor belt. At the upper end of the conveyor a crewman picks out the marketable clams, and the remainder of the catch falls overboard astern.

Some 40 boats equipped with hydraulic dredges are now operating in Eastern Shore waters, chiefly in Eastern Bay, the Chester River, and the Miles River.



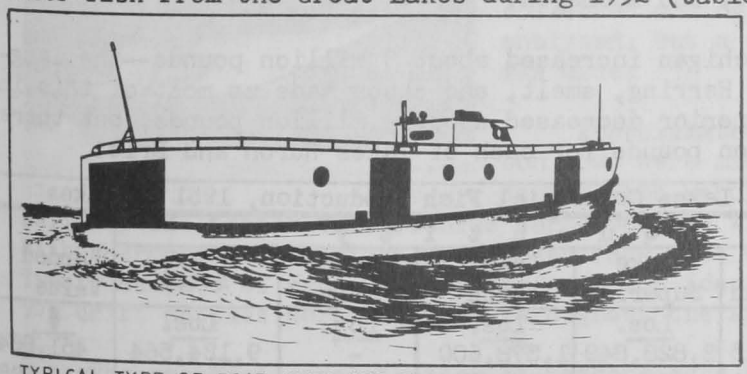
TYPE OF GEAR USED IN MARYLAND'S SOFT-SHELL CLAM FISHERY.

Thus far no measures have been taken to regulate the exploitation of what is proving to be a very valuable sea-food resource. Clams are being harvested in large numbers in every month of the year, and concern is felt in some quarters for the future of the industry unless sound management policies are established and enforced.

There recently was initiated at the Chesapeake Biological Laboratory a study of the soft-shell clam in Maryland waters, for the purpose of obtaining basic information to be supplied to the Commission of Tidewater Fisheries. More recently, a Resolution passed the General Assembly asking that such a study be carried through to completion. Thus, this problem has the interest and concern of the State Legislature, the Department of Tidewater Fisheries, and the Department of Research and Education, all seeking information concerning this long dormant resource. It is also hoped that through judicious utilization of the new industry it may not only reach a high peak of production but that sustained yields may be obtained.

Michigan's Great Lakes Commercial Fish Production, 1952

Michigan's commercial fishermen landed more than 29 million pounds of freshwater fish from the Great Lakes during 1952 (table 1), reports the Michigan Department of Conservation in a recent news bulletin. This is about 3 million pounds above the average for the past 31 years. However, there was evidence that the important lake trout and whitefish populations are dwindling even further because of the sea lamprey. The year 1952 marked an all-time low in the catch of both these species. Also, the 1952 yellow pike catch was the lowest recorded since 1926.



TYPICAL TYPE OF BOAT USED FOR FISHING ON THE GREAT LAKES. GILL NETS ARE THE MAIN TYPE OF GEAR USED.

The 1952 production was an increase of 17 percent over the 25 million pounds landed in 1951 (table 2). Catches of the smaller less valuable species (such as

Table 1 - Michigan's Great Lakes Commercial Fish Production, 1952[1] by Lakes

Species	Lake Michigan	Lake Superior	Lake Huron	Lake Erie	Total
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
Lake herring	5,677,576	3,446,010	1,847,345	-	10,970,931
Smelt	4,023,604	-	216,917	-	4,240,521
Chubs	3,285,913	72,852	63,429	-	3,422,194
Carp	36,356	91	1,619,012	884,494	2,539,953
Lake trout	418	2,070,300	36	-	2,070,754
Whitefish	1,474,982	198,106	167,570	729	1,841,387
White and redhorse suckers	442,238	40,158	1,180,180	27,231	1,689,807
Yellow perch	506,467	586	494,228	40,691	1,041,972
Yellow pike	298,894	1,117	162,208	285,130	747,349
Catfish	1,443	-	303,442	27,668	332,553
Longnose suckers	45,757	3,853	42,773	265	92,648
White bass	40	-	8	62,868	62,916
Menominee whitefish	41,101	5,641	13,030	-	59,772
Northern pike	21,866	251	22,754	1,910	46,781
Sheepshead	9,030	-	3,504	32,362	44,896
Bullheads	2,977	-	9,288	16,123	28,388
Bowfin	-	-	18,921	1,200	20,121
Rock bass	673	-	10,433	3,140	14,246
Sturgeon	2,905	230	2,003	-	5,138
Saugers	1,327	105	775	802	3,009
Gizzard shad	-	-	1,119	1,070	2,189
Burbot	85	334	89	-	508
Mooneyes	-	-	-	442	442
Blue pike	-	-	-	248	248
Total	15,873,652	5,839,634	6,179,064	1,386,373	29,278,723

1/PRELIMINARY.

herring, smelt, chubs, and carp) were large. Herring landings jumped nearly 2 million pounds from the 1951 catch, while the smelt landings increased by more than one million pounds. Chubs and carp also increased. There were also nominal increases in the catches of yellow perch, catfish, longnose sucker, white bass, pickerel (northern pike), bowfin, rock bass, sturgeon, gizzard shad, and blue pike.

In addition to decreases of lake trout and whitefish, there were declines in the catches of white and redhorse suckers, yellow pike, menominee whitefish, sheepshead, bullheads, saugers, burbot, and mooneyes.

The total catch in Lake Michigan increased about 3 million pounds--the largest increase of all the lakes. Herring, smelt, and chubs made up most of this increase. The catch from Lake Superior decreased about ½ million pounds, but there were increases of about ½ million pounds for each of lakes Huron and Erie.

Table 2 - Michigan's Great Lakes Commercial Fish Production, 1951 by Lakes

Species	Quantity					Landed Value
	Lake Michigan	Lake Superior	Lake Huron	Lake Erie	Total	
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	$
Lake herring	4,917,115	2,828,849	1,378,600	-	9,124,564	451,864
Chubs	2,839,120	68,344	114,160	-	3,021,624	518,928
Smelt	2,442,913	1	217,631	-	2,660,545	136,900

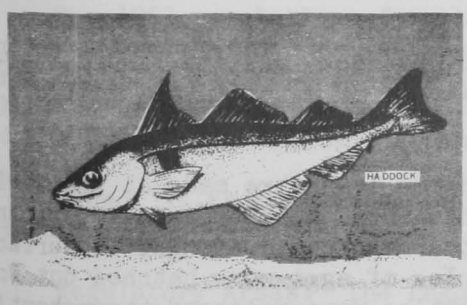
(TABLE 2 CONTINUED ON NEXT PAGE)

Table 2 - Michigan's Great Lakes Commercial Fish Production, 1951 by Lakes (Contd.)

Species	Quantity					Landed Value
	Lake Michigan	Lake Superior	Lake Huron	Lake Erie	Total	
	Lbs	Lbs.	Lbs.	Lbs.	Lbs.	$
Carp	23,420	165	1,677,130	671,652	2,372,367	102,635
Lake trout	2,207	2,173,953	25	-	2,176,185	879,039
White and redhorse suckers	729,439	72,124	1,180,326	31,167	2,013,056	111,364
Whitefish	971,098	244,435	142,647	70	1,358,250	645,855
Yellow pike	537,639	2,580	153,857	247,813	941,889	310,434
Yellow perch	340,861	3,297	363,496	41,815	749,469	150,605
Catfish	278	-	227,047	24,594	251,919	61,036
Sheepshead	2,406	-	1,447	81,234	85,087	2,677
Menominee whitefish .	51,086	11,830	18,299	-	81,215	18,345
Longnose suckers	31,386	11,060	16,958	-	59,404	3,133
White bass	13	-	87	36,332	36,432	3,814
Bullheads	994	-	6,261	22,884	30,139	4,007
Northern pike	6,233	966	5,793	4,105	17,097	2,506
Bowfin	5	-	7,165	8,186	15,356	454
Rock bass	995	-	9,421	3,087	13,503	2,012
Saugers	171	-	442	9,420	10,033	2,112
Burbot	214	370	33	395	1,012	51
Sturgeon	226	149	520	-	895	827
Mooneyes	-	-	1	620	621	93
Gizzard shad	-	-	35	-	35	3
Total	12,897,819	5,418,123	5,521,381	1,183,374	25,020,697	-
Total Landed Value	$1,610,571	$1,128,279	$552,664	$117,176	-	$3,408,693

North Atlantic Fishery Investigations

HADDOCK EGGS AND LARVAE COLLECTED BY "ALBATROSS III" (Cruise No. 48): The distribution of haddock eggs and larvae, temperature salinity, and the general circulation pattern of the water in the Gulf of Maine and Georges Bank area were studied by the Service's research vessel Albatross III on a cruise completed at Woods Hole, Mass., on May 8. Data collected on the cruise, which commenced April 24, will be compared with similar information collected during March. The data have not yet been analyzed, but a very complete coverage of the area was made.



Approximately 4,000 miles of continuous plankton tows were made at the surface and at 10-meter depths with Hardy Plankton Recorders. Continuous salinity and temperature records were obtained with the S.T.D. A total of 250 bathythermograph lowerings, and 23 surface tows with a standard meter net were made. Twenty samples of eggs were hatched out for identification purposes. A total of 972 drift bottles were released throughout the area.

The greatest concentration of haddock eggs was found on Browns Bank, while cod and haddock larvae were found in subareas O & H. Flounder eggs were very abundant and were found in most locations sampled.

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HADDOCK ESCAPEMENT THROUGH VARIOUS PARTS OF TRAWL NETS STUDIED BY "ALBATROSS III" (Cruise No. 49): The escape of haddock through various parts of trawl nets and the relation between haddock catch and length of tow were investigated by the Service's research vessel Albatross III on a 7-day cruise completed at Woods Hole, Mass., on May 21. Operations were carried out on the southwest and southeast parts of Georges Bank. Very good results were obtained on all phases of the cruise due to optimum abundance and size of fish available, excellent weather conditions, and near-perfect functioning of gear.

Sixty-five tows were completed with cod ends of 3-, 4-1/2-, and 4-7/8-inch mesh (inside measurement). Covers were used to determine the escape of fish through the belly and cod end of the trawl. Engine revolutions were varied to determine the effect of vessel speed upon escapement. Bull hides were removed for many tows to investigate the escape of small haddock through the underside of the cod end.

Tows of 20, 40, 60, and 80 minutes were made to investigate the relationship between length of tow and size of catch.

On the last two sets (15-minute duration) live haddock were captured for return to the Woods Hole Station. Approximately 125 1-, 2-, and 3-year-old haddock were taken.

About 200 haddock stomach samples were taken on the cruise, and numerous 1-year-old haddock were preserved for food studies, Maturity observations, girth measurements, and vertebral counts were collected.

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"ALBATROSS III" DISCOVERS JELLYFISH PROTECT HADDOCK FRY (Cruise No. 50): Large concentrations of young haddock fry (approximately 2 months old) were found living commensal with the common red jellyfish (Cyanea) in the South Channel and off Nantucket Island. This discovery was made by the Service's research vessel Albatross III on a 9-day cruise completed at Woods Hole, Mass., on June 3. Apparently the young haddock carry out their longest journeys while drifting with the jellyfish, which also tend to shield them from enemies. It has not yet been determined if this association acts to increase the survival of haddock through protection, or increases the loss of young fish from the fishing banks.

The vessel operated on Georges Bank, in the Gulf of Maine, and on Southern New England Banks to determine the distribution of haddock eggs and larvae, temperature salinity, and the general circulation pattern of water in the Gulf of Maine and on Georges Bank.

Approximately 2,000 miles of continuous plankton tows were made at the surface and 10 meters with Hardy Plankton Recorders. Continuous salinity and temperature records were obtained with the S.T.D.; 150 bathythermograph lowerings, 18 surface tows with a standard meter net were made; 10 samples of eggs were hatched out for identification purposes. A total of 530 drift bottles were released throughout the area.

The Albatross III is operated by the North Atlantic Fishery Investigations of the Service's Branch of Fishery Biology.

North Pacific Exploratory Fishery Program

"JOHN N. COBB" TO STUDY NORTH PACIFIC SALMON IN OFFSHORE WATERS (Cruise No. 16): To gather data on the biology of North Pacific salmon in offshore waters, and to test and evaluate the effectiveness of various types of gear for catching salmon on the high seas, will be the main objectives of the Service's exploratory fishing vessel John N. Cobb on this cruise. The vessel sailed from Seattle, Washington, on May 18 and is due to return on July 31. Methods of capturing salmon in a lively state suitable for tagging experiments will be studied, but no actual tagging will be done on this trip. Data on the distribution, abundance, life history, racial composition, etc., of the North Pacific salmon will be collected. The cruise will cover the offshore waters of the North Pacific, north and south of the Aleutian Islands, in an area centered at 175° W. longitude.

Fishing will be carried on at various locations using a variety of standard and experimental gear, including gill net, seine, floating trap, trolling, long line, and pole and line. Scientific data, such as morphometric measurements, meristic counts, degree of maturity, and stomach analyses will be collected on as large a sample of salmon as possible.

This work is a part of the preliminary salmon research begun in the summer of 1952 by the U. S. Fish and Wildlife Service in connection with the International Convention for the High Seas Fisheries of the North Pacific Ocean. Planning and execution of the work involves three Branches of the Service: Commercial Fisheries, Fishery Biology, and Alaska Fisheries. A biologist from the Fisheries Research Institute at the University of Washington will also participate in the research.

NOTE: SEE COMMERCIAL FISHERIES REVIEW, APRIL 1953, P. 19.

Pacific Coast Halibut Fishery

FISHING REGULATIONS FOR 1953 ANNOUNCED: The Pacific Coast halibut fishing season this year opened at 12:01 a.m. (P.s.t.), May 17. In 1952 the season opened on May 14, and in 1951 and 1950 on May 1. Prior to 1950 the halibut season opened regularly on May 1.

The 1953 regulations for the Pacific halibut fishery as recommended by the International Pacific Halibut Commission were approved by the President of the United States and the Governor General of Canada, the Commission announced on May 11. These regulations apply to the catching and landing of halibut on the Pacific coast of the United States, Canada, and Alaska.

Except as to periods of fishing, the 1953 regulations are almost identical to those of 1952.

Regulatory Areas: The regulatory areas are the same as in 1952 and are approximately as follows:

Area 1A - South of Cape Blanco, Oregon.
Area 1B - Between Cape Blanco and Willapa Harbor, Washington.
Area 2A - Between Willapa Harbor and Cape Spencer, Alaska, excluding Areas 2B and 2C.
Area 2B - Off the east coast of Moresby Island in southern Hecate Strait off British Columbia (see figure 1).

Area 2C - Off the west coast of Dall and other Islands between Cape Addington and Dixon Entrance off Southeastern Alaska (see figure 2).

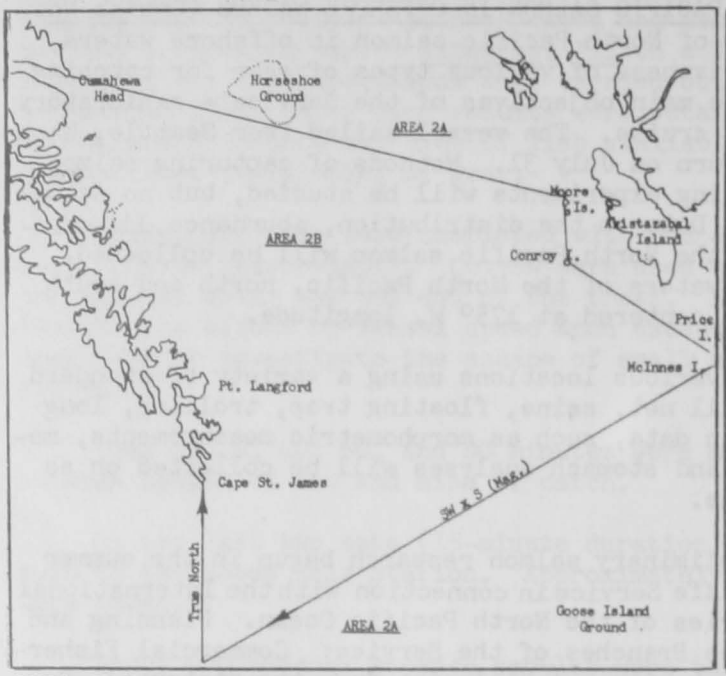


FIGURE 1 - AREA 2B. SHALL INCLUDE ALL CONVENTION WATERS IN THE SOUTHERN PART OF HECATE STRAITS OFF THE COAST OF BRITISH COLUMBIA WITHIN THE FOLLOWING BOUNDARY: FROM THE EASTERN EXTREMITY OF CUMSHEWA HEAD ON MORESBY ISLAND, APPROXIMATELY LATITUDE 53°02'00" N., LONGITUDE 131°36'20" W., TO THE NORTHERN EXTREMITY OF THE SECOND LARGEST ISLAND OF THE MOORE ISLANDS GROUP, APPROXIMATELY LATITUDE 52°40'05" N., LONGITUDE 129°26'32" W.; THENCE TO THE NORTHERN EXTREMITY OF CONROY ISLAND, APPROXIMATELY LATITUDE 52°32'05" N., LONGITUDE 129°24'15" W.; THENCE TO MCINNES ISLAND LIGHT ON MCINNES ISLAND, APPROXIMATELY LATITUDE 52°15'45" N., LONGITUDE 128°43'22" W.; THENCE SOUTHWEST BY SOUTH APPROXIMATELY 99 MILES TO A POINT APPROXIMATELY LATITUDE 51°28'55" N., LONGITUDE 131°00'56" W.; THENCE TRUE NORTH THROUGH CAPE ST. JAMES LIGHT TO A POINT ON THE SOUTHERN END OF KUNGHIT ISLAND, APPROXIMATELY LATITUDE 51°56'42" N., LONGITUDE 131°00'54" W.; THENCE ALONG THE EASTERN SHORE OF KUNGHIT ISLAND TO MOORE HEAD, APPROXIMATELY LATITUDE 52°09'02" N., LONGITUDE 131°03'00" W.; THENCE TO POINT LANGFORD, APPROXIMATELY LATITUDE 52°09'48" N., LONGITUDE 131°02'36" W., ON MORESBY ISLAND; THENCE ALONG THE EASTERN SHORE OF MORESBY ISLAND TO THE POINT OF ORIGIN ON CUMSHEWA HEAD.

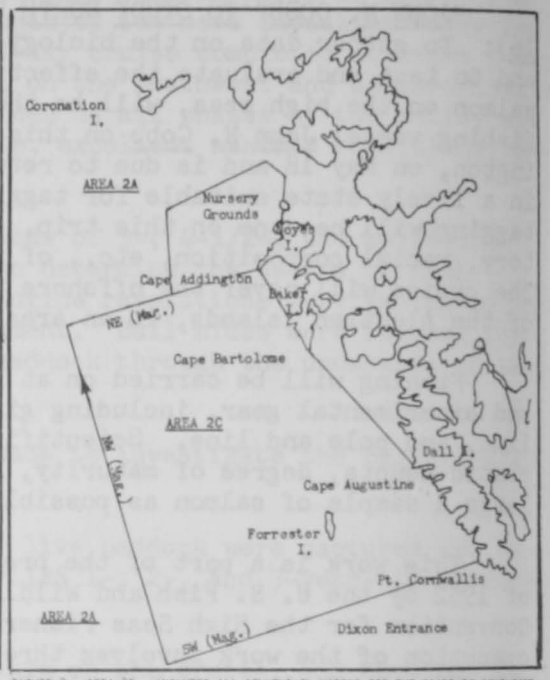
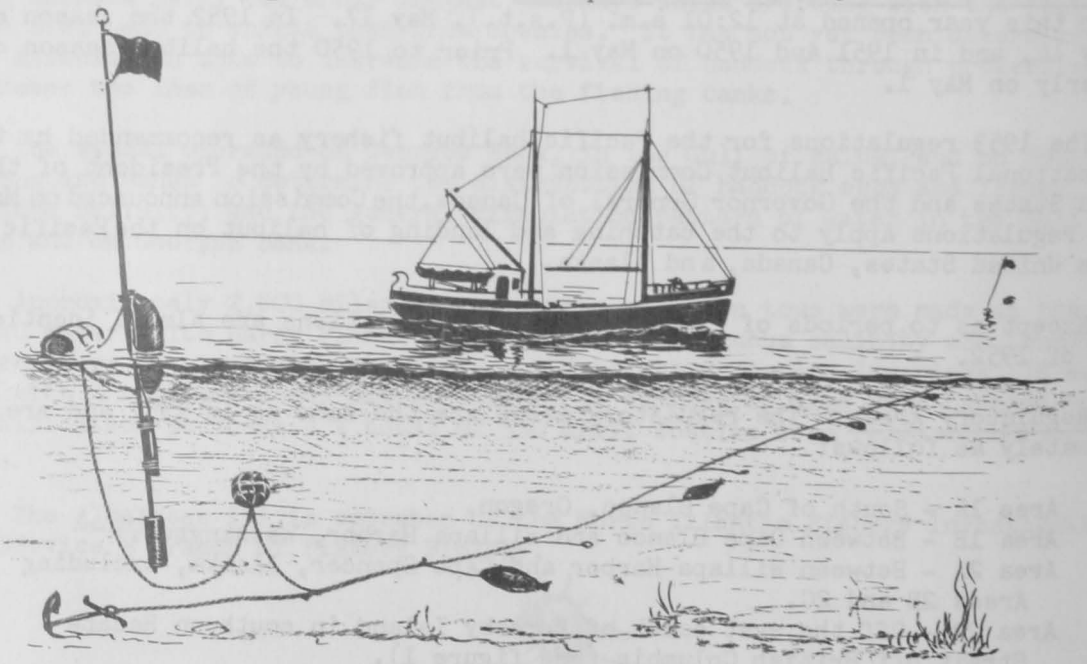


FIGURE 2 - AREA 2C. INCLUDES ALL CONVENTION WATERS OFF THE COAST OF SOUTHEASTERN ALASKA WITHIN THE FOLLOWING BOUNDARY: FROM THE SOUTHERN EXTREMITY OF CAPE ADDINGTON, NOYES ISLAND, LATITUDE 55°26'11" N., LONGITUDE 133°49'12" W., TO THE SOUTHERN EXTREMITY OF GRANITE POINT, APPROXIMATELY LATITUDE 55°18'57" N., LONGITUDE 133°41'25" W., ON BAKER ISLAND; THENCE ALONG THE SOUTHERN SHORE OF BAKER ISLAND TO CAPE BARTOLOME, APPROXIMATELY LATITUDE 55°14'13" N., LONGITUDE 133°36'42" W.; THENCE TO CAPE AUGUSTINE, APPROXIMATELY LATITUDE 54°56'56" N., LONGITUDE 133°09'58" W., ON DALL ISLAND; THENCE ALONG THE SHORE OF DALL ISLAND TO POINT CORNWALLIS, APPROXIMATELY LATITUDE 54°42'03" N., LONGITUDE 133°52'30" W.; THENCE SOUTHWEST FIFTY MILES TO A POINT APPROXIMATELY LATITUDE 54°27'20" N., LONGITUDE 134°14'10" W.; THENCE NORTHWEST FIFTY THREE MILES TO A POINT APPROXIMATELY LATITUDE 55°17'43" N., LONGITUDE 134°40'00" W.; THENCE NORTHEAST TO THE POINT OF ORIGIN ON CAPE ADDINGTON.

Area 3A - Between Cape Spencer and a line running S. 3/4 E. (mag.) from Bold Cape through Caton Island of the Sanak Islands group.
Area 3B - Between the Bold Cape-Caton Island line and a line running true west from Cape Sarichef on Unimak Island (see figure 3).
Area 4 - Bering Sea north of the Cape Sarichef line.



TYPICAL VESSEL AND GEAR USED FOR HALIBUT FISHING IN THE NORTH PACIFIC.

Catch Limits and Seasons: Catch limits are placed on Areas 2A (25,500,000 pounds) and 3A (28,000,000 pounds) only, the same as in 1952. No catch limits have been set for Areas 1A, 1B, 2B, 2C, 3B, and 4.

The 1953 fishing season opened at 12:01 a.m. (P.s.t.) on May 17 in Areas 1A, 1B, 2A, and 3A. Areas 2B and 2C are scheduled to be opened to fishing for 10 days beginning July 31; and Areas 3B and 4 for 25 days beginning August 5. Vessels were not permitted to depart for halibut fishing in Areas 1A, 1B, or 2A until 12:01 a.m. (P.s.t.) of May 15; and in Area 3A from places inside that area until 12:01 a.m. of May 15, but from places outside Area 3A three days earlier--after 12:01 a. m. (P.s.t.), on May 12.

United States and Canadian Landings of Pacific Halibut, 1951-52

Port	12 Months 1952			12 Months 1951		
	U.S. Vessels	Canadian Vessels	Total	U.S. Vessels	Canadian Vessels	Total
Alaska:	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Juneau	2,655,000	84,000	2,739,000	2,392,000	55,000	2,447,000
Ketchikan (includes Craig & Taku)	7,735,000	-	7,735,000	5,376,000	-	5,376,000
Pelican City	2,356,000	474,000	2,830,000	2,264,000	267,000	2,531,000
Petersburg (includes Tyee)	3,048,000	208,000	3,256,000	2,808,000	-	2,808,000
Sitka	2,035,000	141,000	2,176,000	2,064,000	42,000	2,106,000
Central Alaska (Ports west of Cape Spencer)	2,699,000	47,000	2,746,000	3,729,000	218,000	3,947,000
Other Alaska Ports (Wrangell, etc.)	587,000	-	587,000	496,000	-	496,000
Total Alaska	21,115,000	954,000	22,069,000	19,129,000	582,000	19,711,000
British Columbia:						
Prince Rupert (includes Namu, Butedale, Klamtu, and others)	3,006,000	19,316,000	22,322,000	4,383,000	15,399,000	19,782,000
Vancouver (includes Vancouver Island, New Westminster, etc.)	32,000	3,992,000	4,024,000	8,000	5,485,000	5,493,000
Total British Columbia	3,038,000	23,308,000	26,346,000	4,391,000	20,884,000	25,275,000
Washington:						
Seattle	11,224,637	74,111	11,298,748	9,640,524	-	9,640,524
Other Washington Ports	2,081,000	-	2,081,000	1,439,000	-	1,439,000
Total Washington	13,305,537	74,111	13,379,748	11,079,524	-	11,079,524
Oregon	321,000	-	321,000	282,000	-	282,000
Total	37,779,637	24,336,111	62,115,748	34,881,524	21,466,000	56,347,524

NOTE: INCLUDES INCIDENTALLY-CAUGHT HALIBUT.

Regulations for the retention of incidentally-caught halibut are similar to those issued in 1952.

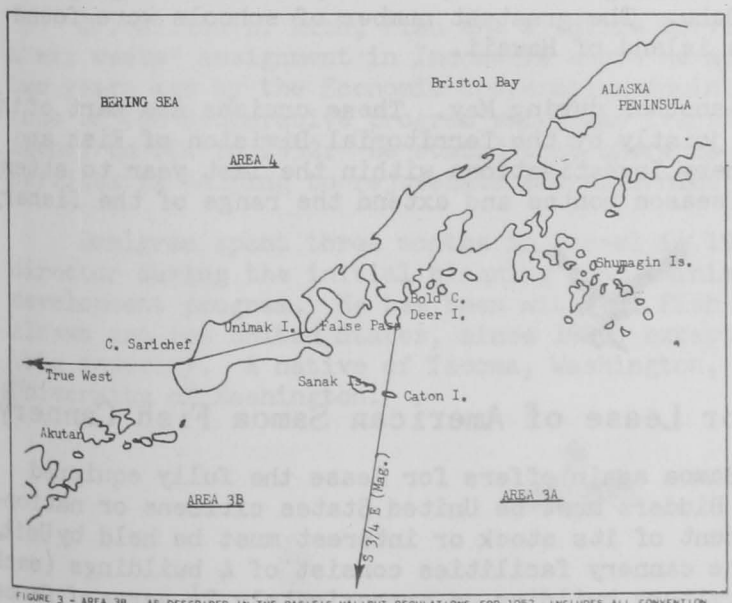


FIGURE 3 - AREA 3B. AS DESCRIBED IN THE PACIFIC HALIBUT REGULATIONS FOR 1953, INCLUDES ALL CONVENTION WATERS OFF THE COAST OF ALASKA THAT ARE BETWEEN A STRAIGHT LINE RUNNING APPROXIMATELY S. 3/4 E. FROM THE ALASKA PENINSULA, NEAR BOLD CAPE, THROUGH THE HIGHEST POINT ON DEER ISLAND AND THROUGH THE HIGHEST POINT ON CATON ISLAND AND A LINE RUNNING FROM THE LIGHT ON CAPE KABUCH AT THE HEAD OF IKATAN BAY TO CAPE SARICHEF LIGHT AT THE WEST END OF UNIMAK ISLAND, THENCE TRUE WEST. THE EXACT LOCATIONS OF THE ABOVE MENTIONED POINTS ARE GIVEN IN THE REGULATIONS.

CATCH AND SEASONS, 1951-52: The United States and Canadian Pacific halibut catch in 1952 totaled 62,115,748 pounds, compared with 56,347,524 pounds in 1951, and 57,018,010 pounds in 1950 (see table). The 1952 season for halibut fishing opened on May 14 in Areas 1A, 1B, 2A, and 3A.

Areas 3A and 1A in 1952 were open to halibut fishing for 60 days (May 14 through July 12). This was the first season in many years that the total number of fishing days for these areas increased, since progressively for the past few years the quota had been attained in a shorter period. In 1951 the season for these areas was 56 days long, compared with 66 days in 1950, 73 days in 1949, 72 days in 1948, and 109 days in 1947.

Prior to 1951 the closure of Areas 3A and 1A meant the end of all halibut fishing in the Pacific, except for halibut caught incidentally. However, 1951 re ulations established subdivisions of other areas to increase the production of hal ibut on some recently underfished banks. In 1951 two sections (Areas 2B and 2C) of Area 2 were given the status of separate areas, and these same subdivisions wer included in the 1952 regulations. A section (Area 3B) of Area 3 was also given the status of a separate area in 1952.

AREAS 1B AND 2A CLOSED JUNE 9: The International Pacific Halibut Commission announced May 30 that Pacific halibut Areas 2A and 1B would be closed at 11:59 p.m (P.s.t.) June 9, 1953, to all halibut fishing, except that provided for under the incidental fishing regulations. The Commission estimated that by that date the quota of 25,500,000 pounds for Area 2A would have been filled. No quota was established for Area 1B, but this area was scheduled to close with Area 2A. The 195 open season for Areas 2A and 1B lasted only 24 days, compared with 26 days in 1952 and 28 days in 1951.

NOTE: ALSO SEE COMMERCIAL FISHERIES REVIEW, APRIL 1953, PP. 39-40; MARCH 1953, PP. 71-72; JULY 1952, P. 29; JUNE 1952, P. 28; MAY 1952, PP. 21-25.

Pacific Oceanic Fishery Investigations

SEA-WATER CHANGES STUDIED BY "CHARLES H. GILBERT" (Cruise No. 9): A study of the changes in the temperature and chemical content of the sea water about the Hawaiian Islands just prior to and during the beginning of the aku or skipjack tuna season was made by the Service's research vessel Charles H. Gilbert. The 6-weeks' cruise was completed at Pearl Harbor at the end of April. A study was made of the number of schools of skipjack present around the Hawaiian Islands and of their apparent movements in local waters by Pacific Oceanic Fishery Investigations personnel. In connection with the vessel cruise, observations were also made from an airplane through the cooperation of the Barbers Point Naval Air Station.

Large numbers of skipjack, including fish of up to 20 pounds in weight, were sighted both north and south of Oahu. The greatest number of schools were found from 100 to 200 miles west of the island of Hawaii.

This cruise was followed by another during May. These cruises are part of th Hawaiian tuna program instituted jointly by the Territorial Division of Fish and Game and the Pacific Oceanic Fishery Investigations within the last year to attem to locate skipjack during the offseason months and extend the range of the fishery

Proposals Again Invited for Lease of American Samoa Fish Cannery

The Government of American Samoa again offers for lease the fully equipped fish cannery in American Samoa. Bidders must be United States citizens or nationals; or if a corporation, 75 percent of its stock or interest must be held by Unit States citizens or nationals. The cannery facilities consist of 4 buildings (eac about 200' x 50') and a fifth dormitory building on approximately 3½ acres of fenc land, 2 piers, modern equipment for hand-packing tuna and processing waste into fish meal, and cold-storage facilities. Estimated production capacity is 1,000

cases of canned tuna per day. Dock facilities and local labor supply are adequate, and standard utilities are installed. Proposed lease is for five years, with option to renew.

The U. S. Bureau of Customs has determined that under existing laws foreign-flag fishing vessels are not prohibited from landing in any port of American Samoa fresh or frozen fish taken on the high seas and U. S. vessels may land fish in American Samoa transferred on the high seas from a foreign-flag ship. Fish canned in American Samoa become the product of American Samoa and, under existing laws, may enter the United States duty free.

A copy of formal invitation for bids and the proposed lease, including a list of the equipment in the cannery, may be obtained from the Director, Office of Territories, Interior Dept., Washington 25, D. C. Bids must be received in Washington by September 14, 1953.

NOTE: ALSO SEE COMMERCIAL FISHERIES REVIEW, OCTOBER 1952, PP. 46-48; FEBRUARY 1953, P. 36; APRIL 1953, P. 26.

Service Expert to Aid Indonesian Fisheries Program

Edwin H. Dahlgren, Fish and Wildlife Service fishery biologist, is en route to Djakarta, Indonesia, on a two-year assignment to assist with expansion of the cooperative fisheries development program now under way there, Secretary of the Interior Douglas McKay announced May 11.

At the request of the Indonesian Government and the Technical Cooperation Administration, Dahlgren will undertake a research project in basic fishing conditions and investigate potential new fishing grounds, especially in connection with the tuna industry, using trawlers and other types of modern fishing gear. He also will advise on the selection of Indonesians for fishery training in the United States.

Dr. Willis H. Rich, Fish and Wildlife Service expert, recently returned from a six weeks' assignment in Indonesia where he appraised the fishery project started two years ago by the Economic Cooperation Administration. He recommended continuance of the cooperative program which was transferred from the Mutual Security Agency to TCA in 1952. He stated that there is a particular need for Dahlgren's services in helping to rejuvenate and modernize the fishing industry.

Dahlgren spent three months in Israel in 1952 as fishery advisor to the TCA director during the initial planning and administering of a comprehensive fishery development program. He has been with the Fish and Wildlife Service staff, in Alaska and the United States, since 1929, except for a three-year period with private industry. A native of Tacoma, Washington, he holds a B.S. degree from the University of Washington.

U. S. Canned Packs of Selected Fishery Products, 1952

ANCHOVIES: The United States pack of canned anchovies in 1952 totaled 438,988 standard cases valued at $4,737,391, or an average price of $10.79 per standard case to the canners (table 1). California was the only state where anchovies were canned; 18 plants packed this product in 1952. Anchovies in tomato sauce comprised 68 percent of the total pack, the bulk of the remainder was put up natural style.

Table 1 - U.S. Canned Anchovy Pack by Style of Pack, 1952 1/

State and Style of Pack	Quantity	Value to Canners	Avg. Price Per Std. Case 2/
	Std. Cases 2/	$	$
California:			
Natural 3/	138,807	1,589,053	11.45
In tomato sauce	300,181	3,148,338	10.49
Total	438,988	4,737,391	10.79

1/PRELIMINARY.
2/CASES OF VARIOUS SIZES CONVERTED TO THE UNIFORM BASIS OF 48 CANS TO THE CASE, EACH CAN CONTAINING 16 OUNCES NET.
3/INCLUDES A SMALL PACK IN MUSTARD SAUCE AND SOYA OIL.

Table 2 - U.S. Canned Anchovy Pack by Can and Case Size, 1952 1/

Can and Case Sizes	Quantity	Value to Canners	Avg. Price Per Case
	Actual Cases	$	$
16 ounces net (48 cans)	112,796	852,181	7.56
8 ounces net (48 cans)	208,358	1,382,241	6.63
5 ounces net (100 cans)	341,013	2,502,969	7.34
Total	662,167	4,737,391	-

1/PRELIMINARY.

The 1952 production of canned anchovies was nearly ten times greater than the 1951 pack (table 2). An extremely light catch of California sardines (pilchards) prompted the canners to substitute anchovies packed sardine style to meet the export demand.

From a high of $11.91 per standard case, the average price to the canner in 1952 dropped to $10.79 per standard case (table 3).

Table 3 - U.S. Canned Anchovy Pack, 1947-52

Year	Quantity	Total Value	Avg. Price Per Std. Case 1/
	Std. Cases 1/	$	$
1952 2/	438,988	4,737,391	10.79
1951	41,055	489,062	11.91
1950	3/	-	-
1949	3,757	34,184	9.10
1948	66,994	755,458	11.28
1947	130,119	1,377,275	10.58

1/CASES OF VARIOUS SIZES CONVERTED TO THE UNIFORM BASIS OF 48 CANS TO THE CASE, EACH CAN CONTAINING 16 OUNCES NET.
2/PRELIMINARY.
3/ONLY A SMALL PRODUCTION WAS REPORTED IN 1950.

* * * * *

SHAD: Canned shad packed in the United States in 1952 amounted to 8,040 standard cases, valued at $60,607 to the canners. The average price per standard case was $7.54 (table 1). Shad were canned in 4 plants in Oregon, and 1 plant each in Maryland and California.

Table 1 - U. S. Pack of Canned Shad, 1952 1/

State	Quantity	Value to Canners	Avg. Price Per Std. Case 2/
	Std. Cases 2/	$	$
Maryland, Oregon, and California	8,040	60,607	7.54

1/PRELIMINARY.
2/CASES OF VARIOUS SIZES CONVERTED TO THE UNIFORM BASIS OF 48 NO. 1 TALL CANS TO THE CASE, EACH CAN CONTAINING 15 OUNCES.

The 1952 canned shad production was 26 percent greater in quantity and 30 percent higher in value than the 1951 production (table 2). Production has been declining quite steadily since 1944 due mainly to the large decrease on the Atlantic Coast. The 1952 average price of $7.54 per standard case to the canners was 6 percent lower than the $8.05 in 1951, but 18 percent higher than the $6.40 in 1950.

Table 2 - U. S. Pack of Canned Shad, 1942-52 1/

Year	Pacific Coast			Atlantic Coast			Total		
	Quantity	Value to Canners	Avg. Price Per Std. Case 3/	Quantity	Value to Canners	Avg. Price Per Std. Case 3/	Quantity	Value to Canners	Avg. Price Per Std. Case 3/
	Std. Case 3/	$	$	Std. Case 3/	$	$	Std. Case 3/	$	$
1952 2/	5/ 8,040	5/ 60,607	7.54	5/ -	5/ -	-	8,040	60,607	7.54
1951	10,130	79,753	7.87	698	7,372	10.56	10,828	87,125	8.05
1950	14,049	89,851	6.40	-	-	-	14,049	89,851	6.40
1949	12,984	96,194	7.41	851	10,000	11.75	13,835	106,194	7.68
1948	11,908	110,196	9.25	2,865	26,655	9.30	14,773	136,851	9.26
1947	18,808	169,777	9.03	3,910	29,496	7.54	22,718	199,273	8.77
1946	4/	4/	-	4/ 24,403	4/ 224,387	9.20	24,403	224,387	9.20
1945	4,983	110,210	22.11	17,345	182,554	10.52	22,328	292,764	13.11
1944	17,820	103,003	5.78	23,548	243,239	10.33	41,368	346,242	8.37
1943	14,171	78,762	5.56	3,860	48,618	12.60	18,031	127,380	7.06
1942	28,693	156,077	5.44	7,764	80,123	10.32	36,457	236,200	6.48

1/ DOES NOT INCLUDE THE PRODUCTION OF CANNED SMOKED SHAD.
2/ PRELIMINARY
3/ CASES OF VARIOUS SIZES CONVERTED TO THE UNIFORM BASIS OF 48 NO. 1 TALL CANS TO THE CASE, EACH CAN CONTAINING 15 OUNCES.
4/ A SMALL PACK OF PACIFIC COAST SHAD INCLUDED WITH THE ATLANTIC COAST PRODUCTION.
5/ A SMALL-PACK OF ATLANTIC COAST SHAD INCLUDED WITH THE PACIFIC COAST PRODUCTION.

* * * * *

CLAMS AND CLAM PRODUCTS: Canned clams and clam products packed in the United States and Alaska during 1952 amounted to 1,698,991 standard cases, valued at $12,209,558 to the canners (table 1). This was an increase of 197,383 cases and $435,649 as compared with the previous year's production. The pack of canned clam

CLAM DIGGERS GATHER SEED CLAMS FOR RE-SEEDING.

Table 1 - U. S. and Alaska Pack of Canned Clams and Clam Products by Type and Area, 1952 1/

Species and State	Number of Plants	Whole and Minced			Chowder, Juice, Broth, Bouillon, & Nectar			Total		
		Quantity	Value to Canners	Avg. Price Per Std. Case 2/	Quantity	Value to Canners	Avg. Price Per Std. Case 2/	Quantity	Value to Canners	Avg. Price Per Std. Case 2/
		Std. Cases 2/	$	$	Std. Cases 2/	$	$	Std. Cases 2/	$	$
Soft clams:										
Maine	8	27,020	428,918	15.87	298,010	1,859,262	6.24	325,030	2,288,180	7.04
Razor clams:										
Washington	5	9,843	211,941	21.53	-	-	-	9,843	211,941	21.53
Oregon	2									
Alaska	11	25,960	499,804	19.25	-	-	-	25,960	499,804	19.25
Total razor clams	18	35,803	711,745	19.88	-	-	-	35,803	711,745	19.88
Hard clams:										
Rhode Island	1	304,635	2,471,478	8.11	1,012,920	6,536,535	6.45	1,317,555	9,008,013	6.84
New York	3									
New Jersey	3									
Pennsylvania	1									
Delaware	1									
Washington	3	13,554	173,535	12.81	6,880	25,988	3.78	20,424	199,523	9.77
California	1									
Alaska	2	179	2,097	11.72	-	-	-	179	2,097	11.72
Total hard clams 3/	15	318,358	2,647,110	8.31	1,019,800	6,562,523	6.44	1,338,158	9,209,633	6.88
Grand total	39	381,181	3,787,773	9.94	1,317,810	8,421,785	6.39	1,698,991	12,209,558	7.19

1/ PRELIMINARY.
2/ CASES OF VARIOUS SIZES CONVERTED TO THE EQUIVALENT OF 48 NO. 1 PICNIC 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 OUNCES NET CONTENT.
3/ INCLUDES THE PACK OF SURF CLAMS IN NEW YORK, NEW JERSEY, AND DELAWARE; PISMO CLAMS IN CALIFORNIA; COCKLES IN ALASKA.

chowder, juice, broth, bouillon, and nectar comprised 78 percent of the total pack; canned whole and minced clams accounted for the remaining 22 percent.

Table 2 - U. S. and Alaska Pack of Canned Clams and Clam Products, 1942-52

Year	Whole and Minced			Chowder, juice, broth bouillon, & nectar	Total	
	Soft Clams[2]	Hard Clams	Razor Clams		Quantity	Value to Canners
	Std. Cases[1]	Std. Cases[1]	Std. Cases[1]	Std. Cases[1]	Std. Cases[1]	$
1952[3]	27,020	318,358	35,803	1,317,810	1,698,991	12,209,558
1951	58,550	277,100	55,097	1,110,861	1,501,608	11,773,909
1950	200,889	198,451	47,154	1,072,225	1,518,719	10,839,889
1949	155,129	101,191	41,657	888,083	1,186,060	8,779,018
1948	107,177	29,085	36,932	1,006,580	1,179,774	8,329,639
1947	33,968	24,852	47,406	1,151,424	1,257,650	8,642,235
1946	167,987	108,638	79,394	1,171,770	1,527,789	11,145,047
1945	64,425	238,475	63,703	533,429	900,032	7,391,098
1944	72,434	71,771	40,450	363,041	547,696	3,820,612
1943	47,746	28,344	40,340	348,364	464,794	2,802,420
1942	72,499	30,515	40,104	639,484	782,602	3,791,058

1/ CASES OF VARIOUS SIZES CONVERTED TO THE EQUIVALENT OF 48 NO. 1 PICNIC 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 OUNCES NET CONTENT.
2/ PRODUCTION OF CANNED SURF CLAMS IN MAINE INCLUDED WITH THE PACK OF SOFT CLAMS.
3/ PRELIMINARY.

In 1952 production of canned clams and clam products is the highest on record The pack has increased steadily for the past 4 years due mainly to greater output of canned clam chowder and canned whole and minced hard clams.

* * * * *

CRAB MEAT: The U. S. and Alaska pack of canned crab meat in 1952 amounted to 86,058 standard cases, valued at $2,087,019 to the canners (table 1). The pack

Table 1 - U. S. and Alaska Pack of Canned Crab Meat by States and Species, 1952[1]

State	Species	Quantity	Value to Canners	Avg. Price Per Std. Case[2]
East Coast:		Std. Cases[2]	$	$
Maine, North and South Carolina, Alabama, Mississippi, and Louisiana	Rock and Blue	44,474	913,808	20.55
West Coast:				
Washington	Dungeness	9,076	208,854	23.01
Oregon and California	Dungeness	9,861	248,389	25.19
Alaska:	Dungeness	16,276	449,186	27.60
	King	6,293	264,598	42.05
	Tanner	78	2,184	28.00
Total West Coast		41,584	1,173,211	28.21
Grand total		86,058	2,087,019	24.25

1/ PRELIMINARY.
2/ CASES OF VARIOUS SIZES CONVERTED TO THE EQUIVALENT OF 48 CANS TO THE CASE, EACH CAN CONTAINING 6-1/2 OUNCES NET.

was almost evenly divided between East Coast and West Coast plants. A total of 36 plants packed crab meat in 1952: 2 plants each in Maine and Louisiana; 6 in Washington, 7 in Oregon, 14 in Alaska, and 1 plant each in North Carolina, South Carolina, Alabama, Mississippi, and California.

The 6½-ounce can was the most popular-sized can used for canning crab meat in 1952 (table 2). This size can was packed in the 24-can case and also in the 48-can case.

Compared with previous years, the 1952 pack was the lowest since 1945, and ess than one-half the peak production year 1945 (table 3). Production in 1952

Table 2 - U. S. and Alaska Pack of Canned Crab Meat by Can and Case Size, 1952[1]

Can and Case Size	Quantity	Value to Canners	Avg. Price Per Case
	Actual Cases	$	$
5 ounces net (24 cans)	2,961	44,415	15.00
5 ounces net (48 cans)	8,917	216,801	24.31
6½ ounces net (24 cans)	50,134	504,873	10.07
6½ ounces net (48 cans)	34,022	856,688	25.18
16 ounces net (24 cans)	134	3,216	24.00
Other sizes converted to standard cases (6½ oz.--48 cans)	18,806	461,026	24.51
Total	114,974	2,087,019	-

1/PRELIMINARY.

was down 43 percent in quantity and 42 percent in value as compared with 1951. The main cause for this decline was the sharp reduction in the Pacific Coast States and Alaska pack.

The canner's average price for canned crab meat in the Atlantic Coast and Gulf States was $20.55 per standard case in 1952, 3 percent lower than in 1951;

Table 3 - U. S. and Alaska Pack of Canned Crab Meat, 1942-52

Year	Atlantic Coast and Gulf States			Pacific Coast States and Alaska			Total		
	Quantity	Value to Canners	Avg. Price Per Std. Case[1]	Quantity	Value to Canners	Avg. Price Per Std. Case[1]	Quantity	Value to Canners	Avg. Price Per Std. Case[1]
	Std. Cases[1]	$	$	Std. Cases[1]	$	$	Std. Cases[1]	$	$
1952[2]	44,474	913,808	20.55	41,584	1,173,211	28.21	86,058	2,087,019	24.25
1951	60,592	1,280,342	21.13	89,353	2,306,216	25.81	149,945	3,586,558	23.92
1950	58,958	1,252,589	21.25	78,532	1,868,680	23.80	137,490	3,121,269	22.70
1949	46,975	943,120	20.08	114,854	2,547,765	22.18	161,829	3,490,885	21.57
1948	33,382	581,872	17.43	187,420	4,264,622	22.75	220,802	4,846,494	21.95
1947	33,696	667,487	19.81	106,120	2,037,904	19.20	139,816	2,705,391	19.35
1946	120,150	2,536,405	21.11	78,928	2,183,714	27.67	199,078	4,720,119	23.71
1945	29,788	484,869	16.28	25,726	398,898	15.51	55,514	883,767	15.92
1944	36,386	560,735	15.41	50,556	800,723	15.84	86,942	1,361,458	15.66
1943	26,716	412,310	15.43	48,592	782,173	16.10	75,308	1,194,483	15.86
1942	29,656	397,772	13.41	84,892	1,357,293	15.99	114,548	1,755,065	15.32

1/CASES OF VARIOUS SIZES CONVERTED TO THE EQUIVALENT OF 48 CANS TO THE CASE, EACH CAN CONTAINING 6-1/2 OUNCES NET.
2/PRELIMINARY.

while in the Pacific Coast States and Alaska the average price reached a new high of $28.21, 9 percent above the previous year.

* * * * *

SHRIMP: The United States pack of canned shrimp in 1952 amounted to 817,910 standard cases, valued at $12,998,814 to the canners, or an average price of $15.89

Table 1 - U.S. Canned Shrimp Pack by States, 1952[1]

State	Quantity	Value to Canners	Avg. Price Per Std. Case[2]
	Std. Cases[2]	$	$
Mississippi[3]	194,151	2,968,068	15.29
Louisiana[3]	569,444	9,059,325	15.91
Alabama	40,923	689,864	16.86
Maine, South Carolina, and Georgia	13,392	281,557	21.02
Total	817,910	12,998,814	15.89

1/PRELIMINARY.
2/CASES OF VARIOUS SIZES CONVERTED TO THE EQUIVALENT OF 48 CANS TO THE CASE, EACH CAN CONTAINING 5 OUNCES NET.
3/INCLUDES A SMALL PACK OF DRY SHRIMP.

Table 2 - U.S. Canned Shrimp Pack by Can and Case Size, 1952[1]

Can and Case Sizes	Quantity	Value to Canners	Avg. Price Per Case
	Actual Cases	$	$
4½ ounces net (24 cans)	172,279	1,416,162	8.22
4½ ounces net (48 cans)	51,386	850,108	16.54
5 ounces net (24 cans)	240,824	1,933,534	8.03
5 ounces net (48 cans)	536,826	8,049,183	14.99
6-3/4 ounces net (48 cans)	3,820	125,104	32.75
7 ounces net (24 cans or glasses)	10,325	135,226	13.10
Other sizes (converted to standard cases)	24,514	489,497	19.97
Total	1,039,974	12,998,814	-

1/PRELIMINARY.

Table 3 - U. S. Canned Shrimp Pack, 1942-52

Year	Quantity	Net Weight	Value to Canners	Avg. Price Per Std. Case[1]
	Std. Cases[1]	Lbs.	$	$
1952[2]	817,910	12,268,650	12,998,814	15.89
1951	871,171	13,067,565	12,187,049	13.99
1950	786,506	11,797,590	12,775,619	16.25
1949	664,721	9,970,815	11,203,325	16.85
1948	558,870	8,383,050	7,791,313	13.94
1947	472,366	7,085,490	8,192,004	17.34
1946	522,130	7,831,950	8,428,735	16.14
1945	214,971	3,224,571	1,918,633	8.93
1944	561,649	8,424,738	4,854,799	8.64
1943	660,436	9,906,534	5,360,647	8.12
1942	963,352	14,450,274	7,347,330	7.63

1/ CASES OF VARIOUS SIZES CONVERTED TO THE EQUIVALENT OF 48 CANS TO THE CASE, EACH CAN CONTAINING 5 OUNCES NET.
2/ PRELIMINARY.

per standard case (table 1). Louisiana canners packed 70 percent of the 1952 production, while Mississippi canners packed 24 percent. Shrimp were canned in 16 plants in Mississippi, 21 in Louisiana, 3 in Alabama, and 1 plant each in Maine, South Carolina, and Georgia.

The 1952 shrimp pack was 6 percent less in quantity than the 1951 pack, but 7 percent greater in value (table 3). This increased value was due to a 14-percent increase in the average price per standard case. Demand for canned shrimp in 1952 was at a high level.

* * * * *

SPECIALTY FISHERY PRODUCTS: In 1952 the U. S. pack of miscellaneous or specialty canned fishery products not reported separately totaled 221,791 standard cases, valued at $3,123,426 to the canners (see table). The pack consisted of

U. S. Pack of Specialty Canned Fishery Products, 1952[1]

Product	Quantity	Value to Canners	Avg. Price Per Std. Case[2]	State Packed and Number of Plants
	Std. Cases[2]	$	$	
Fish:				
Fish cakes (mainly groundfish)	88,135	1,074,078	12.19	Maine 2, Mass. 2, Va. 1
Fish paste and spread (anchovy, herring, and salmon)	697	45,235	64.90	N. Y. 2, Md. 1
Fish smoked or kippered:				
Salmon and steelhead trout	948	43,900	46.31	Wash. 3, Ore. 6, Alaska 6
Sturgeon	550	35,984	65.43	Wash. 3, Ore. 3
Fish specialties (haddock, chowder, tuna and egg noodles, fish chowder, and deviled fish)	49,361	525,504	10.65	Maine 1, Mass. 1, Fla. 1, Calif. 1
Miscellaneous fish (salted cod, Dolly Varden trout, and menhaden)	2,038	17,863	8.76	Mass. 1, Md. 1, Va. 1, Alaska 1
Shellfish:				
Crab specialties:				
Bisque, curry, newburg, and soup	5,930	101,894	17.18	N. Y. 1, Md. 2
Cocktails, deviled crab, soft crabs, and paste	618	20,440	33.07	Md. 1, N. C. 1, Fla. 1, Wash. 1, Ore. 2
Lobster meat, bisque, soup, newburg, stew, thermidor, Savannah, paste, and spread	6,547	187,796	28.68	Maine 2, Mass. 1, N. Y. 2
Shrimp specialties:				
Cakes, chow mein, cocktails, smoked, and paste	2,125	95,337	44.86	N. Y. 1, S. C. 1, Fla. 1, La. 1, Wash. 1, Ore. 2
Aspic, bisque, creole, curry, gumbo, newburg, & soup	7,611	129,714	17.04	N. Y. 2, Md. 2, La. 3
Clam bisque, cakes, smoked, and whole in the shell	1,466	17,782	12.13	Maine 1, Md. 1, Wash. 3, Alaska 1
Oyster bisque, cocktails, smoked, soup, and stew	25,887	495,829	19.15	N.Y. 1, Md. 1, La. 2, Wash. 8, Ore. 5.
Terrapin and turtle meat, soup, stew, chile, and Bar-B-Que	24,160	258,568	10.70	N. Y. 1, Ga. 1, Fla. 2, La. 3, Ohio 1.
Miscellaneous shellfish and specialties (crayfish bisque, conchs, mussels, scallops, squid, frog legs newburg, bouillabaisse, creole gumbo, and seafood newburg)	5,718	73,502	12.85	Maine 2, N. Y. 1, N. J. 1, La. 3, Calif. 2
Total	221,791	3,123,426	-	

1/ PRELIMINARY.
2/ CASES OF VARIOUS SIZES CONVERTED TO THE EQUIVALENT OF 48 CANS, EACH CAN CONTAINING 16 OUNCES NET WEIGHT.

numerous varieties of cakes, spreads, soups of all kinds, and many other specialties processed in plants on the East Coast, in the Gulf States, and on the West Coast. The largest individual item was fish cakes, which comprised 40 percent of the volume and 34 percent of the value of the specialties included.

U. S. & Alaska Production of Marine-Animal Fish Scrap, Meal, and Oil, 1952

SCRAP AND MEAL: Production of marine-animal scrap and meal in the United States and Alaska in 1952 amounted to 221,403 short tons, valued at $27,161,654 to the manufacturers (table 1). Atlantic and Gulf Coast plants produced 84 per-

Table 1 - U. S. and Alaska Marine Animal Scrap and Meal Production by Types, 1952[1]

Product	Atlantic and Gulf Coasts[2]			Pacific Coast and Alaska			Total	
	Quantity	Value to Mfgrs.	Avg. Price Per Short Ton	Quantity	Value to Mfgrs.	Avg. Price Per Short Ton	Quantity	Value to Mfgrs.
	Short Tons	$	$	Short Tons	$	$	Short Tons	$
Meal and dried scrap:								
Anchovy	-	-	-	1,645	217,003	132	1,645	217,003
Crab, blue	9,554	585,178	61	-	-	-	9,554	585,178
Fur seal	-	-	-	365	41,296	113	365	41,296
Groundfish (white fish) incl. ocean perch	18,528	2,636,928	142	-	-	-	18,528	2,636,928
Herring	6,740	804,713	119	3,124	509,648	163	9,864	1,314,361
Menhaden[3]	144,025	17,847,361	124	-	-	-	144,025	17,847,361
Pilchard	-	-	-	390	51,741	133	390	51,741
Salmon	-	-	-	1,634	195,934	120	1,634	195,934
Shrimp	1,034	87,432	85	-	-	-	1,034	87,432
Tuna and mackerel	-	-	-	21,951	2,892,874	132	21,951	2,892,874
Miscellaneous	4/6,748	590,715	88	5/5,665	700,831	124	12,413	1,291,546
Total	186,629	22,552,327	121	34,774	4,609,327	133	221,403	27,161,654

1/PRELIMINARY.
2/INCLUDES A SMALL PRODUCTION OF MISCELLANEOUS MEAL PRODUCED IN MINNESOTA.
3/A SMALL PRODUCTION OF ACIDULATED SCRAP HAS BEEN INCLUDED WITH DRY SCRAP AND MEAL.
4/INCLUDES FISH POMACE, HORSESHOE CRAB, AND MISCELLANEOUS SCRAP AND MEAL.
5/INCLUDES CARP, DUNGENESS CRAB, AND MISCELLANEOUS SCRAP AND MEAL.

cent of the total scrap and meal due to heavy production of menhaden scrap and meal. Pacific Coast and Alaska production was light due to the poor pilchard fishing season in California. Menhaden scrap and meal production exceeded 100,000 tons for the fifth consecutive year.

The 1952 production was an increase of 11,647 tons in quantity and $1,787,757 in value as compared with 1951 (table 2). The over-all average price of marine

Table 2 - U. S. and Alaska Marine-Animal Scrap and Meal Production, 1942-52

Year	Dry Scrap and Meal			Acid Scrap			Total	
	Quantity	Value to Mfgrs.	Avg. Price Per Short Ton	Quantity	Value to Mfgrs.	Avg. Price Per Short Ton	Quantity	Value to Mfgrs.
	Short Tons	$	$	Short Tons	$	$	Short Tons	$
1952[1]	221,403	27,161,654	123				221,403	27,161,654
1951[1]	209,756	25,373,897	121				209,756	25,373,897
1950[1]	239,924	29,252,355	122	1/	1/	1/	239,924	29,252,355
1949[1]	237,180	35,652,142	150				237,180	35,652,142
1948[1]	199,519	23,086,734	116				199,519	23,086,734
1947	185,808	22,353,488	120	632	26,863	43	186,440	22,380,351
1946	197,599	20,360,943	103	2,022	78,475	39	199,621	20,439,418
1945	199,118	14,343,138	72	1,557	62,200	40	200,675	14,405,338
1944	210,225	15,131,918	72	2,922	111,104	38	213,147	15,243,022
1943	188,848	13,570,331	72	1,555	58,821	38	190,403	13,629,152
1942	168,486	11,545,239	69	2,594	80,520	31	171,080	11,625,759

1/A SMALL PRODUCTION OF ACIDULATED MENHADEN SCRAP HAS BEEN INCLUDED WITH DRY SCRAP AND MEAL FOR 1948-52.
NOTE: DATA FOR 1952 ARE PRELIMINARY.

animal scrap and meal to the manufacturer was $123 per short ton in 1952--only slightly higher than the previous two years: ceiling prices were in effect during this period.

* * * * *

OILS: The 1952 production of marine-animal oils in the United States and Alaska amounted to 16,094,404 gallons, valued at $9,391,368 to the manufacturers or an over-all average price of 58 cents per gallon (table 1). The Atlantic and Gulf

Coast states produced 86 percent of the total oils, the Pacific Coast and Alaska the remainder. Menhaden oil accounted for 80 percent of the total quantity of oil

Table 1 - U. S. and Alaska Production of Marine-Animal Oils, 1952[1]

Product	Atlantic and Gulf Coasts[2]			Pacific Coast and Alaska			Total	
	Quantity	Value to Mfgrs.	Avg. Price Per Gallon	Quantity	Value to Mfgrs.	Avg. Price Per Gallon	Quantity	Value to Mfgrs.
	Gallons	$	$	Gallons	$	$	Gallons	$
Body Oil:								
Anchovy	-	-	-	254,225	112,232	.44	254,225	112,232
Fur seal	-	-	-	35,029	15,741	.45	35,029	15,741
Herring	331,753	154,549	.47	750,210	362,989	.48	1,081,963	517,538
Menhaden	12,888,646	5,785,395	.45	-	-	-	12,888,646	5,785,395
Pilchard	-	-	-	20,881	10,815	.52	20,881	10,815
Salmon[3]	-	-	-	196,514	133,280	.68	196,514	133,280
Tuna and Mackerel	-	-	-	744,827	367,585	.49	744,827	367,585
Miscellaneous	4/468,753	311,928	.67	5/126,962	61,840	.49	595,715	373,768
Total	13,689,152	6,251,872	.46	2,128,648	1,064,482	.50	15,817,800	7,316,354
Liver and viscera oil:								
Cod	194,571	201,125	1.03	-	-	-	194,571	201,125
Shark	6/	-	-	44,507	333,854	7.50	44,507	333,854
Tuna	6/	-	-	3,346	122,394	36.60	3,346	122,394
Miscellaneous	7/5,548	561,096	101.14	8/28,637	856,545	29.91	34,185	1,417,641
Total	200,119	762,221	3.81	76,490	1,312,793	17.16	276,609	2,075,014
Grand total	13,889,271	7,014,093	.51	2,205,138	2,377,275	10.78	16,094,409	9,391,368

1/PRELIMINARY.
2/INCLUDES PRODUCTION OF BURBOT LIVER OIL IN MINNESOTA.
3/INCLUDES EDIBLE AND INDUSTRIAL SALMON OIL.
4/INCLUDES OCEAN PERCH AND UNCLASSIFIED BODY OILS.
5/INCLUDES CARP, LAMPREY, MIXED, AND UNCLASSIFIED BODY OILS.
6/COMBINED WITH PACIFIC COAST PRODUCTION.
7/INCLUDES BURBOT, HAKE, HALIBUT, POLLOCK, SWORDFISH, WHALE, MIXED, AND UNCLASSIFIED LIVER OILS.
8/INCLUDES HALIBUT, RATFISH, SABLEFISH, SWORDFISH, WHALE, AND MIXED LIVER OILS, AND VISCERA OIL.

produced. Body oils obtained from whole fish and fish waste accounted for 98 percent of the quantity and 78 percent of the value, and the remainder of the production consisted of liver and viscera oils.

Table 2 - U. S. and Alaska Production of Marine-Animal Oils, 1943-52

Year	Body Oils			Liver Oils			Total	
	Quantity	Value to Mfgrs.	Avg. Price Per Gallon	Quantity	Value to Mfgrs.	Avg. Price Per Gallon	Quantity	Value to Mfgrs.
	Gallons	$	$	Gallons	$	$	Gallons	$
1952[1]	15,817,800	7,316,354	.46	276,609	2,075,014	7.50	16,094,409	9,391,368
1951	17,872,733	14,044,296	.79	299,575	2,579,347	8.61	18,172,308	16,623,643
1950	21,432,592	14,041,619	.66	331,257	3,431,090	10.36	21,763,849	17,472,709
1949	16,860,530	7,519,522	.45	834,357	9,845,455	11.80	17,694,887	17,364,977
1948	16,323,061	18,449,870	1.13	722,329	12,411,652	17.18	17,045,390	30,861,522
1947	15,900,382	20,107,194	1.26	832,510	11,643,468	13.99	16,732,892	31,750,662
1946	19,135,051	21,223,098	1.11	895,884	13,618,549	15.20	20,030,935	34,841,647
1945	23,697,564	16,033,515	.68	804,288	11,202,207	13.93	24,501,852	27,235,722
1944	27,324,173	17,771,346	.65	998,802	13,237,435	13.25	28,322,975	31,008,781
1943	22,264,362	14,970,884	.67	851,854	14,841,970	17.42	23,116,216	29,812,854

1/PRELIMINARY.

The marine-animal oil produced in the United States and Alaska during 1952 was 11 percent less in quantity and 44 percent lower in value than in 1951 (table 2). Prices received for both body and liver oils were lower than the previous year. There has been a particularly sharp decline in recent years in the price of liver oils--the $7.50 per gallon average received by the manufacturers in 1952 was 57 percent lower than the $17.42 per gallon in 1943.

Wholesale Prices

WHOLESALE PRICES, APRIL 1953: From March to April prices for edible fishery products continued to drop. Although this is a seasonal trend, the decline was attributed to a lighter demand as a result of cheaper meat prices. Production of fishery products was lighter than usual due to poor fishing weather, but this was offset by large cold-storage stocks. The edible fish and shellfish (fresh, frozen, and canned) wholesale index for April 1953 was 98.9 percent of the 1947-49 average (see table)--lower than March 1953 by 3.8 percent and April 1952 by 6.0 percent.

For the drawn, dressed, or whole finfish subgroup items, average wholesale prices in April dropped 13.7 percent from the previous month and were 22.9 percent

Table 1 - Wholesale Average Prices and Revised Indexes for Edible Fish and Shellfish, April 1953 and Comparisons

Group, Subgroup, and Item Specification	Point of Pricing	Unit	Avg. Prices ($)		Indexes (1947-49 = 100)			
			Apr. 1953 1/	Mar. 1953 1/	Apr. 1953	Mar. 1953	Feb. 1953	Apr. 1952
ALL FISH AND SHELLFISH (Fresh, Frozen, and Canned)					98.9	102.8	108.0	105.2
Fresh and Frozen Fishery Products:					99.4	105.7	114.6	107.4
Drawn, Dressed, or Whole Finfish:					81.8	94.8	112.2	111.9
Haddock, large, offshore, drawn, fresh	Boston	lb.	.05	.07	50.6	73.4	114.3	86.0
Halibut, Western, 20/80 lbs., dressed, fresh or frozen	N.Y.C.	"	.31	.33	94.4	102.1	100.1	106.8
Salmon, king, lge. & med., dressed, fresh or frozen	"	"	.48	.49	107.9	109.6	109.0	128.7
Whitefish, mostly Lake Superior, drawn (dressed), fresh	Chicago	"	.43	.41	105.3	100.4	152.4	179.7
Whitefish, mostly Lake Erie pound or gill net, round, fresh	N.Y.C.	"	.50	.37	101.1	73.8	131.4	182.0
Lake trout, domestic, mostly No. 1, drawn (dressed), fresh	Chicago	"	.39	.63	79.9	129.1	128.1	137.3
Yellow pike, mostly Michigan (Lakes Michigan & Huron), round, fresh	N.Y.C.	"	.22	.55	51.0	129.0	117.2	93.8
Processed, Fresh (Fish and Shellfish):					123.3	122.1	120.0	101.1
Fillets, haddock, sml., skins on, 20-lb. tins	Boston	lb.	.24	.30	81.7	102.1	107.2	97.0
Shrimp, lge. (26-30 count), headless, fresh or frozen	N.Y.C.	"	.87	.83	137.5	130.4	124.9	93.3
Oysters, shucked, standards	Norfolk area	gal.	4.75	4.75	117.5	117.5	117.5	111.3
Processed, Frozen (Fish and Shellfish):					115.3	112.7	112.3	103.8
Fillets: Flounder (yellowtail), skinless, 10-lb. pkg.	Boston	lb.	.33	.33	115.7	115.7	129.7	136.7
Haddock, sml., skins on, 10-lb. cello-pack	"	"	.21	.21	78.1	76.2	76.2	91.1
Ocean perch, skins on, 10-lb. cello-pack	Gloucester	"	.23	.24	112.0	114.4	114.4	110.7
Shrimp, lge. (26-30 count), 5-lb. pkg.	Chicago	"	.87	.83	134.2	127.3	121.9	94.1
Canned Fishery Products:					98.2	98.5	98.1	101.9
Salmon, pink, No. 1 tall (16 oz.), 48 cans per case	Seattle	case	19.71	19.71	104.4	104.4	104.4	109.6
Tuna, light meat, solid pack, No. ½ tuna (7 oz.), 48 cans per case	Los Angeles	"	14.80	14.80	92.4	92.4	91.5	89.0
Sardines (pilchards), Calif., tomato pack, No. 1 oval (15 oz.), 48 cans per case	"	"	9.25	9.25	108.0	108.0	108.0	109.4
Sardines, Maine, keyless oil, No. ¼ drawn (3¼ oz.), 100 cans per case	N.Y.C.	"	7.45	7.70	79.3	81.9	81.9	102.7

1/ REPRESENT AVERAGE PRICES FOR ONE DAY (MONDAY OR TUESDAY) DURING THE WEEK IN WHICH THE 15TH OF THE MONTH OCCURS.

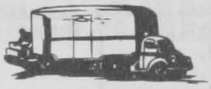
below a year earlier. Except for higher prices for whitefish at Chicago and New York, all items in this subgroup during April were priced below March. Although 30 percent less haddock was landed at Boston in April this year as compared with the same month last year, ex-vessel prices for large offshore haddock at Boston were 31.1 percent lower than in March and 41.2 percent less than a year ago. Prices of West Coast halibut and salmon at New York were down slightly from the previous month. Every item in the subgroup was priced considerably below a year ago.

The continued rise in shrimp prices was responsible for the increase in the fresh processed fish and shellfish index in April. This index was 1.0 percent higher than in March and 22.0 percent above April 1952. Fresh haddock fillet prices were

20.0 percent below March and 16.0 percent lower than a year earlier. Supplies of fresh shrimp continued to get shorter and the demand remained brisk. Shrimp marketing is approaching a critical stage, with wholesale dealers unable to fill orders. On the other hand, with shrimp prices at record levels, some consumer resistance has been experienced in some localities.

The frozen shrimp market was the same as that for fresh shrimp. Prices for frozen shrimp in April were 5.4 percent higher than in March and 42.6 percent above April 1952. The frozen haddock fillet market strengthened somewhat during the month and prices averaged 2.5 percent higher than March, but prices were still 14.3 percent below a year earlier. From March to April, prices for ocean perch fillets dropped 2.1 percent, while for flounder fillets there was no change.

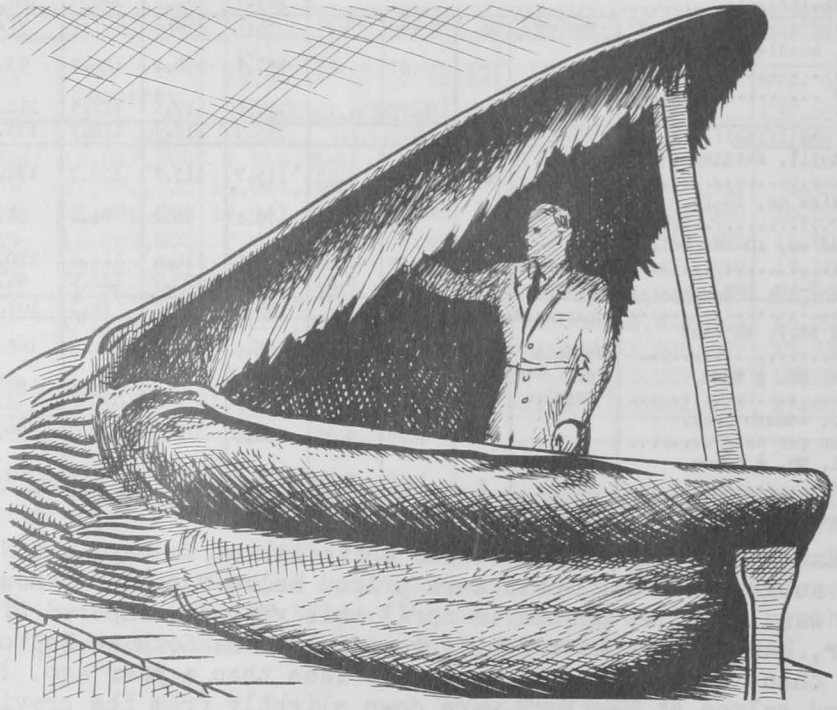
A drop of 3.2 percent in Maine sardine prices was responsible for the lower canned fishery products index. Prices of all other canned items in the subgroup remained the same as in March. April 1953 canned fish prices were 3.6 percent lower than the same month in 1952. Canned tuna was the only item in the subgroup with prices higher (3.8 percent) than a year earlier.



PRESERVED WHALE TOURS UNITED STATES

DO YOU KNOW:

That famous "Mrs. Haroy," an embalmed 70-ton fin whale which already has been seen by some 3,500,000 Europeans in 60 cities, arrived in Brooklyn, New York, in April for an extended tour of the United States.



The huge "Mrs. Haroy" was accompanied by "Miss Asserbo," a Danish dwarf shrewmouse, said to be the smallest mammal in the world. The two ladies were first shown in New York City, loaded on a specially built railway car; the exhibit will be shown throughout the United States.

"Mrs. Haroy" was captured in the North Atlantic in 1951 when she was 7 years old. She weighs 154,000 pounds and is about 75 feet long.

Preservation of "Mrs. Haroy" by means of a special fluid has been hailed by European zoologists as an outstanding scientific feat. Despite the long absence from her natural habitat in the North Atlantic, she is as "good-looking" as ever. The special liquid used to embalm the whale preserves it for a long time.

--Espana Pesquera, April 1953