

Additions to the Fleet of U. S. Fishing Vessels

A total of 56 vessels of 5 net tons and over received their first documents as fishing craft during August 1953--15 more than in August 1952. Florida west coast led with 11 vessels, followed by Virginia with 8 vessels, and Washington with 7 vessels, the Bureau of Customs reports.

| Section | August |  | Eight months ending with August |  | $\begin{aligned} & \text { Total } \\ & 1952 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1953 | 1952 | 1953 | 1952 |  |
|  | Number | Number | Number | Number | Number |
| New England . <br> Middle Atlantic | $\overline{2}$ | 3 1 | 16 15 | $\begin{aligned} & 23 \\ & 23 \end{aligned}$ | $\begin{aligned} & 30 \\ & 26 \end{aligned}$ |
| Chesapeake | 11 | 3 | 53 | 43 | 65 |
| South Atlantic | 7 | 6 | 69 | 57 | 89 |
| Gulf . . | 20 | 15 | 156 | 88 | 161 |
| Pacific | 9 | 9 | 139 | 187 | 203 |
| Great Lakes | - | - | 5 | 7 | 13 |
| Alaska | 6 | 4 | 43 | 80 | 88 |
| Hawaii | 1 | - | 2 |  |  |
| Total | 56 | 41 | 498 | 507 | 675 |

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## Alaska

CANNED SALMON PACK, 1953: The Alaska canned salmon pack declined this year from $3,574,000$ cases in 19.52 to a total of $2,792,547$ in 1953 , the U. S. Fish and Wildlife Service reported to the Secretary of the Interior on Octo-
 ber 1 . The catch in 1951 was $3,484,000$ cases. Despite the over-all poor season, the yield of red salmon in southeastern Alaska was 75 percent greater than in recent years.

Final pack figures for 1953 will be increased by the returns from Alaska's fall fishing season which started late in September. The fall catch will be a good one, according to early indications.

The decline in 1953 was due primarily to the failure of the pink salmon runs in southeastern Alaska and the below-average red salmon runs in parts of the Bristol Bay area of western Alaska. Offsetting the relatively poor pink and chum runs in southeastern Alaska was the good run of red salmon in this area which yielded a 75 percent greater pack than in recent years. The earnings of gill-net fishermen in the Lynn Canal, Taku, and Stikine sections were materially enhanced as a result.

Although the central Alaska pack was 5 percent smaller than last year, it showed an increase of 25 percent over 1951. The 5 -percent decline this year was due chiefly to an average pack of red salmon in the Copper River area as compared with an abnormally large output last year. Although production in the Prince William Sound area was about 15 percent lower than last year, it increased 30 percent over 1951. In Cook Inlet 1953 production was down about 25 percent, but was normal for the odd year (when pink salmon runs are small). In the Kodiak area this year's pack was roughly 15 percent lower than last year, but 40 percent higher than 1951. In the Chignik area production was about 30 percent above 1952 and 90 percent above 1951. The 1953 Alaska Peninsula pack exceeded that of other recent years--67 percent higher than the average for 1952, 1951, and 1950.

In western Alaska the 1953 salmon production in the Bristol Bay area was about 30 percent under 1952, but 45 percent above 1951. Frozen salmon equivalent to an estimated 100,000 cases were shipped to the United States for canning from the Bristol Bay and Kodiak area. Good runs and catches were reported for two of the four districts of Bristol Bay, Ugashik, and Egegik, but were far below normal in the other two. In Nushagak comparatively few fishermen operated, however, and individual catches were relatively good in spite of expected small runs.

Approximately 11,000 commercial fishermen operated in Alaska in 1953 as compared with about 7,000 in 1946.

CAUSES OF FAILURE OF PINK SALMON RUNS: Failure of pink salmon runs in Southeastern Alaska this season, which is bad news to the industry, occurred after the fry had left fresh water, the Service's Branch of Fishery Biology reports. This year was the good year of the cycle. The 1951 escapement appeared adequate, and egg-and-fry-survival conditions were excellent. The freshwater survival index, which was established several years ago and is valuable in measuring early mortality extent, gave values of 17.6 for the 1949 brood and 49.5 for the 1951 brood; these values surpassed the average fresh-water survival. As small migrants left their streams in the spring of 1952 , their abundance was obvious.

Pink salmon runs are noted for their extreme and erratic variability in returns. Past studies have shown that conditions affecting fresh-water survival have caused much of this variability. Winter temperatures, stream flow, and precipitation are important to egg and fry development.

As part of ocean survival studies, young fry have been marked and released as they were leaving fresh water. Through use of mark returns in Herman Creek in 1952, an off-year, ocean survival was estimated at .08 percent, while in 1953 it dropped to .009 percent, which is about $1 / 10$ th the 1952 survival rate.

## California

MID-WATER TRAWL TESTED AND NEW SHRIMP BED FOUND BY "N. B. SCOFIELD' (Cruise $5 \overline{3-S} 3$ ): A new commercially-important shrimp bed was discovered off the southern California coast by the California Department of Fish and Game's research
vessel N. B. Scofield on a 22 -day cruise, reports a July 2 release from that agency. On the same cruise, a new mid-water trawl using a single boat was tested. The cruise


ROUTE OF N. B. SCOFIELD ON CRUISE 53-S-3. LOCATION OF NEW SHRIMP AREAS SHOWN.
was made to the continental shelf area from Avila, California, to San Diego, California, and was completed at Los Angeles on June 25.

The first portion of the trawl trip was devoted to adjusting the rigging on the new commercial size midwater trawl for proper operation. The mid-water trawl has a mouth opening of 35 square feet, and has small wings at each of the four corners. The net is 100 feet in length and is constructed of 21-thread, $4 \frac{1}{2}$-inch mesh. The opening of the net mouth is maintained while towing at high speeds ( 7 knots) by using commercial otter doors to spread the net, in conjunction with four small paravane doors attached to the short wings of the net.

Shrimp and bottom fish exploratory work was then undertaken with the 10 -foot beam trawl off Pt. Huneme and west of Santa Barbara. Small catches of prawn (Pandalus platyceros) were recorded. A sizable catch of shrimp (Pandalus jordani) wastaken off Gaviota. Fishing activity was then shifted to the Avila region where an extension of the present commercial shrimp bed was found 12 miles west of Pt. Sal in 90-100 fathoms.

The mid-water trawl was used off Avila, and small catches of rockfish and blackcod were made before the net became fouled and torn on an uncharted reef.

Rough seas prevented any otter trawling in deep water, so fishing activity was moved to the Santa Barbara Channel. Several exploratory shrimp deep-water stations were occupied in this area.

Seas calmed north of Pt. Conception and two sets were made with commercial-size otter-trawling gear. About 300 pounds of large dover sole were taken in the first set. Weather again stopped further deep-water work. The boat sailed south to explore for shrimp off Southern California. The 90-100 fathom curve between Pt. Dume and Santa Monica submarine canyon was explored and a new shrimp bed found. One 55 -minute test drag with a 10 -foot beam trawl resulted in a catch of 123 pounds of large shrimp. The 90-100 fathom curve was explored from Diana Pt. to San Diego and found that most areas were too rough to trawl. Trawling was done off Oceanside and San Diego with little success.
"N. B. SCOFIELD" TAGS MORE ALBACORE (Cruise 53-S-4): A total of 754 albacore were tagged by the California Department of Fish and Game's research vessel N. B. Scofield on a 21 -day cruise off southern California and Baja California, a September 11 release from that Agency states. The cruise was completed at Los Angeles on August 26. Other tuna tagged on the trip were 3 yellowfin, 4 skip-
jack, and 3 bluefin. A total of 74 yellowtail were also tagged. Experimental type " F " and " G " tags were used and flowing salt water was tried as a possible means
of keeping the fish quiet while being tagged. of keeping the fish quiet while being tagged.

Good fishing was found 100 miles southwest of Guadalupe Island, and most of the fish were tagged in that area. In general, moderate to strong northwest winds prevailed throughout the duration of the cruise and some fishing time was lost through bad weather. The bluefin tuna, yellowfin tuna, and yellowtail were tagged while the vessel was stormbound in the lee of Guadalupe Island. The skipjack tuna tagged were found mixed with the albacore schools.

No difference was observed in the behavior of albacore held in the tagging cradle with a stream of water directed at the head, than without. As before, the best way for handling the fish was to place a hand over the eyes within a few seconds after the fish was brought aboard, and to complete the tagging operation within 20 to 30 seconds after being brought aboard. It was found, as is the case with skipjack, that once an albacore began a flurry of vibration, such a flurry always terminated in severe gill hemorrhage. Therefore, any fish which began to vibrate was discarded.


Many of the albacore tagged in the fishing southwest of Guadalupe Island were very large--over 40 pounds. Examination of the reproductive organs revealed that these fish had spawned recently. Several of the yellowtail tagged at Guadalupe Island were running ripe with sexual products.

The fish taken southwest of Guadalupe Island were found to be in blue water with a surface temperature of $66^{\circ} \mathrm{F}$. A few smaller fish were taken in water with a surface temperature of $64^{\circ} \mathrm{F}$. south of Cortez Bank and San Clemente Island.

SARDINE ABUNDANCE SURVEY BY "YELLOWFIN" (Cruise 53-Y-7): A census of the abundance of sardines resulting from the 1953 spawning, and the abundance of adult sardines, jack mackerel, Pacific mackerel and anchovies was the objective of the California Department of Fish and Game's research vessel Yellowfin on a 22-day cruise off the lower California coast. The cruise was completed at Los Angeles on August 20 and included the area from Santa Maria Bay to Sebastian Bizcaino Bay, including the area around Guadalupe Island, according to a September 3 release from that Agency.

A total of 331 miles was covered while scouting for fish. A total of 181 schools of fish were observed. It was estimated that 63 of these contained sardines, 17 anchovies, 36 Pacific mackerel, and 34 jack mackerel. Sixty-five light stations were occupied yielding five samples of 0 -year class sardines, 15 samples of adult sardines, 9 of Pa cific mackerel, and 14 of jack mackerel.

An average of one school of fish was observed for every 2.2 miles scouted. Only 7. 7 percent of the light stations yielded 0 -year class sardines. In 1952 in this same area one school of fish was observed for every 1.9 miles scouted and 40 percent of the light stations yielded 0 -year class sardines.

Two samples of sardines in a spawning condition were collected in Sebastian Vizcaino Bay. Eggs and sperm were stripped from these fish and about 200 larval sar-


CRUISE 53-Y-7 OF THE M/V YELLOWFIN JULY 29-AUG. 20, 1953
EACH MARK REPRESENTS ONE SAMPLE. dines hatched out. Chromatograms were made from these sardines and from some of the newly-hatched larvae. The spawning sardines were taken from waters with surface temperatures of $18.4^{\circ} \mathrm{C} .\left(65.1^{\circ} \mathrm{F}.\right)$ and $18.6^{\circ} \mathrm{C}$. ( $65.5^{\circ} \mathrm{F}$.).

The highest temperature recorded on the trip was $22.7^{\circ} \mathrm{C}$. $\left(72.9^{\circ} \mathrm{F}\right.$.) 3.5 miles NNW. of Cabo San Lazaro and the coldest was $13.3^{\circ} \mathrm{C}$. $\left(55.9^{\circ} \mathrm{F}\right.$.) 3.5 miles S. of Pt. Rompiente. This was colder than the temperature in the same area during the 1952 survey which had a low of $16.4^{\circ} \mathrm{C} .\left(61.5^{\circ} \mathrm{F}\right.$.) and a high of $24.1^{\circ} \mathrm{C} .\left(75.4^{\circ} \mathrm{F}\right.$.). The temperatures between Point Eugenia and Point Abreojos ranged between $13.3^{\circ} \mathrm{C} .\left(55.9^{\circ} \mathrm{F}.\right)$ and $16.5^{\circ} \mathrm{C}$. (61.70 F.).

Sardines were found in waters with surface temperatures ranging from $14.0^{\circ} \mathrm{C}$. (57. $2^{\circ}$ F.) to $21.7^{\circ} \mathrm{C}$. ( $71.1^{0} \mathrm{~F}$. ).

In addition to the sardine work, yellowtail tagging was planned for each day that the vessel was in waters where yellowtail might be found. A total of 385 yellowtail were marked and released. Most of the fish were double tagged with Petersen disks as the basic tag and an additional experimental tag. Scale samples were kept from 116 of the tagged fish. Yellowtail chromatograms were made from fish taken at the two major fishing spots.

PACIFIC HAKE FOR MEAL AND OIL: The first permit ever granted for the reduction of Pacific hake into commercial fish meal and oil was issued recently to a San Fran-


PACIFIC HAKE (MERLUCCIUS PRODUCTUS)
cisco firm by the California Fish and Game Commission, a September 23 release from the California Department of Fish and Game reports. This was the first such request ever received and could open the way for the development of one of the State's untouched fishery resources. The firm, located at Morro Bay, plans to manufacture a new kind of processed food from the hake.

## Chesapeake Bay States Form Fin-Fish Conservation Commission

An organizational meeting of the joint Commission on Conservation of Migratory Fin-Fish marked the initiation of an important step in cooperative conservation effort between the states of North Carolina, Virginia, and Maryland, reports the August 1953 Maryland Tidewater News, a Maryland Department of Research and Education publication. Legislative committees and scientists from the three states met at Old Point Comfort, Va., on July 16 to discuss the development of a program directed toward restoration and management of the several jointly-exploited migratory species.

A chairman and two vice-chairmen were elected for the commission, a chairman representing each of the three states. A resolution was passed requesting the research agencies of the states, in cooperation with the U. S. Fish and Wildlife Service and other research groups, to draft a cooperative research program to determine the cause of decreases in quality and quantity of food fish in the tri-state area. In the week following the meeting fishery biologists of the three states conferred at Morehead City, N.C., and prepared a program for presentation at the next commission meeting held in North Carolina on August 24.


## Federal Purchases of Fishery Products

FRESH AND FROZEN FISH PURCHASES BY DEPARTMENT OF THE ARMY, AUGUST 1953: A total of $3,048,474$ pounds (valued at $\$ 1,425,408$ ) of fresh and frozen fishery products were purchased for the military feeding of the U. S. Army, Navy, Marine Corps, and Air Force by the Army Quartermaster Corps in August 1953 (see table). This was an increase of 23.6 percent in quantity and 69.9 percent in value as compared with July purchases, but less by 23.8 percent in quantity and 15.0 percent in value than in August 1952.

Purchases for the first eight months this year dropped 15.1 percent in quantity and 19.3 percent in value as compared with the January-August period in 1952.

| Purchases of Fresh and Frozen Fishery Products by Department of the Army (August and the First Eight Months of 1953 and 1952) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| QUANTITY |  |  |  | VALUE |  |  |  |
| August |  | January-August |  | August |  | January-August |  |
| 1953 | 1952 | 1953 | 1952 | 1953 | 1952 | 1953 | 1952 |
| $\frac{\text { Lbs. }}{3,048,474}$ | $\underset{3,999,589}{ }$ | $\frac{\text { Lbs. }}{19, \frac{114,012}{}}$ | $\frac{\text { Lbs. }}{22,504,070}$ | $\frac{\$}{1,425,408}$ | $\frac{\$}{1,676,942}$ | $\begin{gathered} \$ \\ 8,269,660 \end{gathered}$ | $\begin{gathered} \$ \\ 10,24 \frac{1}{5}, 608 \end{gathered}$ |

The Army Quartermaster Corps in August 1953 paid an average price of 46.8 cents per pound for fresh and frozen fishery products, compared with 34.0 cents in July and 41.9 cents in August 1952. The over-all average price paid for the first eight months of 1953 was 43.3 cents per pound, lower than the 45.5 cents for the similar period a year earlier.

In addition to the purchases of fresh and frozen fishery products indicated above, the Armed Forces generally make some local purchases which are not included in the above figures. Therefore, actual purchases are somewhat higher than indicated, but it is not possible to obtain data on the local purchases made by military installations throughout the country.

## Gear Research and Development

UNDERWATER LISTENING EXPERIMENTS NEAR SCHOOLS OF MENHADEN AND LITTLE TUNA: Underwater listening experiments, to determine if schools of menhaden or little tuna create any characteristic sounds by which they might be located, were carried on off the northeast coast of Florida aboard the Service's 57 -foot research vessel Pompano from August 6 through September 5, 1953. The vessel is operated by the Service's Branch of Commercial Fisheries.

Although weather and poor sea conditions seriously hampered observations a good part of the time, several tape recordings were made while schools of menhaden passed directly under the vessel as it drifted. Some sounds definitely originating from marine life were observed on these occasions, but more tests are needed before it can be positively established that the sounds heard actually were produced by menhaden. In one instance the sounds picked up resembled the high-pitched squeaking of mice.

Several recordings were made while the Pompano was near surface showings of little tuna. These fish were widely scattered rather than in concentrated schools, and no significant sounds were noted. Past experience indicates that little tuna do not collect in large surface schools except during prolonged periods of good weather. The recordings will be further analyzed in the laboratory.

Noises created by other fishing craft and even the rolling of the research vessel in a sea interfered with the experiments. One problem will be the devising of a filter to eliminate or reduce these noises to permit the use of the full amplifying power of the equipment in frequency ranges in which the fish may be active.
NOTE: ALSO SEE COMMERCIAL FISHERIES REVIEW, JULY 1953, PP. 24-5.


## Gulf Exploratory Fishery Program

## BLUEFIN TUNA CAUGHT IN NORTHERN GULF OF MEXICO BY "OREGON:" In

 the north central Gulf of Mexico the first positively-identified bluefin tuna were taken by the exploratory fishing vessel Oregon during the first week in September. This particular catch was taken on live bait from a large fast-moving school. Eleven two-pound tuna were caught in one flurry; six of these were blackfin; and five were small bluefin.Positive identification of the tunas was made at the National Museum. It is believed that this may represent the first definite recording of bluefin tuna from the northern part of the Gulf of Mexico.

The Oregon is one of the exploratory fishing vessels operated by the Service's Branch of Commercial Fisheries.


## Maine

SHORT SARDINE PACK INDICATED: A continued scarcity of sardines indicates that the Maine sardine industry will end its 1953 operations on December 1 with a seriously short pack.

Hopes for a large late season production were waning as the customary plentiful September runs failed to appear, reports the Executive Secretary of the Maine Sardine Industry in a September 19 news release. Traditional fall gales and heavy seas from now on would be another important deterrent.

Many veteran canners are predicting that the total pack will be less than 2,000,000 cases which, coupled with a comparatively small 1952 carry-over, could mean a definite shortage in the industry's nationwide market.

Present production of a little more than $1,000,000$ cases is less than half of the $2,350,000$ cases packed by mid-September last year.
"There-could still be a drastic change for the better, but the way the fish are acting and other conditions make it highly doubtful, " the Executive Secretary stated.

Fishing has been spotty along the entire coast since the first catches were made in May, and this has resulted in a high cost operation for the canners whose plants were designed for a steady volume production.


## New England Tuna Explorations

## "MARJORIE PARKER" LOCATES BLUEFIN TUNA IN OFFSHORE WATERS

 (Cruise No. 3): A few bluefin tuna were found in the offshore waters southeast of Georges Bank and South Channel by the Service-chartered exploratory fishing vessel Marjorie Parker on a cruise completed at Portland, Maine, on September 17. Bluefin tuna were caught by commercial vessels in inshore waters at the same time in moderate numbers.The catch of the Marjorie Parker during this 14 -day trip consisted of 800 pounds of bluefin tuna, 400 pounds of mackerel shark, and one swordfish ( 215 pounds dressed weight). All the fish were captured on long lines, with the exception of three tuna caught on surface troll lines.

Fishing and scouting operations during the first stages of the trip were confined to the waters south and east of Georges Bank and Nantucket Lightship. No tuna were sighted in these areas and long-line sets met with negative results. Surface water temperatures ranged from $69^{\circ} \mathrm{F}$. to $73^{\circ} \mathrm{F}$. and bathythermographic casts showed that warm water extended to approximately 90 feet below the surface.

For three days fishing was conducted on the southwest part of Georges Bank where many small groups of tuna were observed surfacing. They appeared to be feeding on small herring and squid which were abundant in the water. While some tuna were caught on the long lines, it appeared that the fish preferred the live feed to hooks baited with frozen herring and squid.

Surface troll lines attracted a total of eight strikes but only three fish were successfully landed on deck. Best trolling was found in the southern limits of South Channel, northeast of Nantucket Lightship.

The Marjorie Parker left Portland, Maine, on September 21 on Cruise No. 4, and was scheduled to return on or about October 1. The vessel planned to work east on Cashes Ledge, and the waters of Browns Bank and the southern edge of La Havre Bank. Long lines, surface troll lines, hand lines, and surface drift gill nets were to be tested.

## Pacific Oceanic Fishery Investigations

LARGE SKIP JACK TUNA CONCENTRATIONS FOUND IN HAWAIIAN AREA BY "HUGH M. SMITH" (Cruise 22): A very large school of 20-pound skipjack tuna (aku) was found about 280 miles west of Barber's Point by the Pacific Oceanic Fishery Inves tigations research vessel Hugh M. Smith while on a three-week cruise that was completed at Hawaii on September 22 .

Experienced skipjack fishermen aboard the vessel estimated that several sampans could have taken full loads out of this one school, which was characterized as of a size met in the usual fishing grounds only about once in 5 or 6 years. Although the Hugh M. Smith had exhausted its supply of live bait before sighting the school, which was actively feeding on small opelu (mackerel scad), 1,400 pounds of skipjack were taken with cut bait.

Observations made on this cruise indicate that large schools of the big "season"
 skipjack are still abundant in Hawaiian waters.

Scouting covered four localities within 240 miles north and east of Oahu and nine localities extending as far as 360 miles to the south and west of the island. More schools of skipjack per day's sailing were observed in the southern than in the northern area. The schools to the north of the island were, however, closer in, with the greatest abundance within 60 miles of Oahu; while to the south the greatest concentrations were found about 80 miles west of Kona and out to some 300 miles south of Oahu.

Scouting results were broadcast to the commercial fishing fleet twice daily, but the areas in which schools were sighted in greatest numbers were considerably beyond the operating range of the sampans used in the fishery at present. This points up the fact that the expansion of the Hawaiian tuna industry, the ultimate objective of the program, will depend to a large extent on measures to increase the geographical area that the fleet can cover. This will mean the construction of larger and better-equipped vessels, and improvement of the navigational ability of the fishermen.

Chemical and visual attractants were tested on three skipjack schools by using macaroni and agar strips as basic materials. These were variously prepared in anchovy or skipjack extract and aluminum powder. In the case of the macaroni, some were stuffed with cotton to increase the buoyancy of the material. The few observations on the skipjack schools failed to show any apparent response by the fish to the attractants.


## South Pacific Fishery Investigations

SARDINE (PILCHARD) LARVAL MORTALITY STUDY: Studies by U. S. Fish and Wildife Service biologists show sardine larvae either suffer a high mortality rate immediately after hatching or escape through plankton net mesh and are not sampled in proportion to their true abundance. Experiments at sea are being conducted to determine which alternative is correct.

These experiments involve use of a conventional plankton net with a fine-mesh cover. Comparison of the number of larvae caught in the conventional net with the number that slip through the regular net and remain in the cover will show whether this apparent mortality is real. Existence of a "critical period" for fish immediately after hatching has long been disputed. The present experiments are among the few quantitative observations on this important problem.


## U. S. Foreign Trade In Edible Fishery Products, July 1953

United States imports of fresh, frozen, and processed fish and shellfish during July 1953 totaled over 81 million pounds (valued at $\$ 19$ million), reports the July 1953 United States Foreign Trade, a Department of Commerce publication (see table). This is an increase of 12 percent in quantity and 71 percent in value when compared with imports in July 1952.

|  | July 1953 |  | July 1952 |  | Year 1952 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
|  | 1,000 Lbs. | Million \$ | 1,000 Lbs. | Million \$ | 1,000 Lbs. | Million \$ |
| Imports: <br> Fish \& shellfish: fresh, frozen, \& processed $1 / .$. | 81,360 | 19.0 | 72,337 | 11.1 | 705,118 | 183.1 |
| Exports: <br> Fish \& shellfish: processed $1 /$ only (excluding fresh and frozen) .... | 3,988 | 1.1 | 4,928 | 1.2 | 56,604 | 13.5 |

United States exports of processed fish and shellfish (excluding fresh and frozen) in July 1953 amounted to almost 4 million pounds (valued at $\$ 1.1$ million), 19 percent less in quantity and 8 percent lower in value than a year ago.


## Wholesale Prices, September 1953

A seasonal pick up in production caused September prices for edible fishery products to drop below August levels.
 The over-all edible fish and shellfish (fresh, frozen, and canned) wholesale index for September 1953 was 104.9 percent of the 1947-49 average (see table)-lower than August 1953 by 2.7 percent and September 1952 by 3.0 percent.

The greatest decline from August to September occurred in the drawn, dressed, or whole finfish subgroup, and the largest individual decrease was in the ex-vessel price of large haddock at Boston ( 20.2 percent). West Coast salmon prices went up slightly, but halibut prices dropped. Because of the Hebraic holidays, all fresh-water fish prices were substantially higher than the previous month, with the exception of lake trout at Chicago which was down 17.4 percent. Average wholesale prices in this subgroup during September were 6.7 percent below August and 12.6 percent below September 1952.

Fresh shrimp prices dropped again in September (3.4 percent), although production was only moderate. Fresh haddock fillets were also down, but shucked oysters we re up 10.6 percent over August with the start of the new season. The price index for the fresh processed fish and shellfish subgroup in September was 116.2 percent--2.4 percent over August and 7.9 percent higher than September 1952.

Frozen shrimp prices like fresh shrimp prices continued to drop ( 5.1 percent) in September. Frozen haddock fillets and ocean perch fillets were up from August and flounder fillets remained unchanged. The index for the frozen processed fish and shell-
fish subgroup was 0.6 percent higher than August and 7.9 percent above a year earlier. All items in the subgroup were below last year, except frozen shrimp which was slightly higher.

| Group, Sub and Item Spe | Point of Pricing | Onit | $\overline{\text { Avg. }}$ |  |  | $947-$ | $=100$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ALL FISH AND SHELLFISH (Fresh, Frozen, and Canned) |  |  | Sept. <br> 1953 | $\begin{aligned} & \text { Aug. } \\ & 1953 \\ & \hline \end{aligned}$ | Sept. $\frac{1953}{104.9}$ | Aug. $\frac{1953}{107.8}$ | $\begin{aligned} & \text { July } \\ & \frac{1953}{102.5} \end{aligned}$ | $\begin{aligned} & \text { Sept. } \\ & 1952 \\ & \hline 108.1 \\ & \hline \end{aligned}$ |
| Fresh and Frozen Fishery Products: Drawn, Dressed, or Whole Finf1sh: |  |  |  |  | 112.3 | 5. | 107.2 | 19.5 |
|  |  |  |  |  | 113.0 | 121.1 | 101.0 | 129.3 |
| Haddock, large, of $\overline{f s h o r e}$, drawn, fresh ....... Halibut, Western, 20/80 lbs., dressed, fresh or frozen Salmon, king, lge. \& med., dressed, fresh or frozen | Boston | 1b. | . 11 | . 14 | 114.9 | 14.0 | 87.3 | 110.5 |
|  | N.Y.C. | " | . 30 | . 31 | 92.3 | 94.4 | 102.9 | 162.5 |
|  |  | " | . 51 | . 50 | 114.2 | 112.1 | 110.7 | 117.5 |
| Whitefish, mostly Lake Superior, drawn (dressed), fresh | Chicag | " | .63 | .47 | 154.9 | 116.5 | 112.8 | 223.1 |
| Whitefish, mostly Lake Erie pound or gill net, round, fresh | N.Y.C | " | .74 | . 55 | 148.6 | 111.2 | 91.0 | 166.8 |
| Lake trout, domestic, mostly No. 1, drawn <br> (dressed), fresh . ...................................... <br> Yellow pike, mostly Michigan (Lakes Michigan <br> \& Huron) , round, fresh . . . . . . . . . . . . . . . . . . . . . | Cl | " | .48 | . 58 | 97.3 | 117.8 | 107.6 | 5.0 |
|  | N. Y.C. | " | . 60 | . 57 | 140.7 | 132.5 | 143.6 | 167.1 |
| Processed, Fresh (F1sh and Shellfish): . ...................................... |  |  |  |  | 116.2 | 113.5 | $\underline{115.9}$ | 107.7 |
| Fillets, hadock, sml., skins on, $20-1 b$. tins Shrimp, lge. (26-30 count), headless, fresh or frozen Oysters, shucked, standards | Boston | 1b. | . 33 | . 35 | 112.3 | 117.4 | 93.6 | 103.8 |
|  | . | " | . 67 | .69 | 105.4 | 109.1 | 124.9 | 4.9 |
|  | $\begin{aligned} & \text { Norfolk } \\ & \text { aren } \\ & \hline \end{aligned}$ | gal. | 5.25 | 4.75 | 129.9 | 117.5 | 111.3 | 123.7 |
| Processed, Frozen (Fish and Shellfish): .................................... |  |  |  |  | 101.4 | 100.8 | 112.3 | 107.6 |
|  | Boston | 1b. | . 31 | . 31 | 108.7 | 108.7 | 108.7 | 124.4 |
|  |  | $\square$ | .25 | . 24 | 93.0 | 89.3 | 82.8 | 93.9 |
|  | Gloucester Chicago | " | . 22 | .20 .69 | 104.7 101.1 | 95.1 106.5 | 101.1 133.4 | 121.6 100.3 |
| Canned Fishery Products: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  |  |  | 94.0 | 95.9 | 95.5 | 91.3 |
| Salmon, pink, No. 1 tall ( 16 oz. ), 48 cans per case ................................................. | Seattle | case | 17.70 | 18.95 | 93.9 | 100.4 | 100.4 | 93.9 |
| Tuna, light meat, solid pack, No. $\frac{1}{2}$ tuna ( 7 oz. ), 48 cans per case ................... | Los Angeles | . | 15.30 | 14.80 | 95.5 | 92. | 92.4 | 90.5 |
| Sardines (pilchards), Calif., tomato pack, No. 1 oval ( 15 oz. ), 48 cans per case ... | Angeles | $\stackrel{ }{ }$ | 9.25 | 9.25 | 108.0 | 108.0 | 108.0 | 109.4 |
| Sardines, Maine, keyless oil, No. $\frac{1}{4}$ drawn ( $3 \frac{1}{4} \mathrm{oz}$. ), 100 cans per case | N.Y.C. | $\pi$ | 7.70 | 7.20 | 81.9 | 76.6 | 71.3 | 68.6 |
| 1 /REPRESENT AVERAGE PRICES FOR ONE DAY (MONDAY OR TUESDAY) DURING THE WEEK IN WHICH THE 15 TH OF THE MONTH OCCURS |  |  |  |  |  |  |  |  |

Average wholesale prices for canned fishery products dropped 2.0 percent from August to September because of lower prices for canned pink salmon. Maine sardine prices were up 6.9 percent over August because the pack was very light and production prospects for California sardines are poor. Maine sardine prices were 19.4 percent higher than a year ago. The market for canned tuna continued strong and the wholesale price advanced 3.4 percent from August to September and was 5.5 percent above a year ago. Canned pink salmon prices were 6.5 percent below August, but were at the same level as in September 1952.

## Fishery Products Marketing Prospects,

 October-December 1953 and Outlook for 1954Supplies of fresh and processed fishery products will be somewhat smaller during the last quarter of 1953 than for the same period last year due to reduced production and frozen fish imports for the first nine months of this year. Despite the smaller supplies, retail prices of fish and shellfish as a group may not average quite as high as in the last quarter of 1952, partly because of the lower beef prices.

FRESH AND FROZEN FISHERY PRODUCTS: Less fresh and frozen fishery products will be available for distribution this fall than last, when supplies of frozen fish were unusually large. Commercial fishing operations will decline seasonally as the year comes to a close; and the volume of landings probably will not exceed that of a year earlier unless favorable weather permits greater-than-usual fishing activity this fall. Cold-storage stocks of fishery products in the United States and Alaska on October 1 were 8 percent smaller than the record level of a year earlier. Imports of fresh and frozen fish and shellfish during the remainder of the year are not expected to equal the very large volume of the same months in 1952, partly because wholesale prices are not likely to be as favorable this year.

CANNED FISHERY PRODUCTS: Supplies of canned fishery products in the remaining weeks of 1953 will be below those of a year earlier because of the smaller packs of canned salmon and Maine sardines, and the small pack of California sardines (pilchards) in prospect. The decline in the packs of these three items will, to some extent, be offset by the expected increase over last year in the output of canned tuna and the heavier volume of canned fish imports.

OUTLOOK FOR 1954: Prospects for 1954 are that supplies of fishery products will be no larger than this year. The total volume of these commodities available for distribution during the first half of next year may not reach the January-June 1953 level, particularly for canned fish. However, depending on the outturn of the 1954 canned fish pack, the supply of all fishery products during the latter half of the year may be slightly larger than in July-December 1953. Civilian per-capita consumption of fresh and processed fish and shellfish next year is expected to total close to this year's rate. With supplies of livestock products likely to be plentiful, retail prices of fishery products in 1954 may average a little lower than for this year. However, prices for some items, especially among the canned commodities, will average somewhat higher.

Imports of fresh and processed fish and shellfish in 1954, particularly the frozen and canned commodities, probably will be at least as large as this year. Because of the relatively smaller supply of canned fish indicated for the coming winter and spring period compared with a year earlier, the United States may be a rather attractive market during those months for imported canned fishery products. Exports, on the other hand, may not be as large as in 1953, partly because of the relatively small exportable supplies of canned salmon, California sardines (pilchards), and anchovies which are popular in foreign markets, and partly because of the reluctance of many foreign countries to use any part of their dollar resources for the purchase of canned fishery products.

This analysis appeared in a report prepared by the Bureau of Agricultural Economics, U. S. Department of Agriculture, in cooperation with the U. S. Fish and Wildlife Service, and published in the former agency's October-December 1953 issue of the National Food Situation.
NOTE: THE U. S. FISH AND WILDLIFE SERVICE ALSO ISSUES A QUARTERLY OUTLOOK REPORT. THE SERVICE'S QUARTERLY OUTLOOK FOR MARKETING FISHERY PRODUCTS, OCTOBER-SEPTEMBER 1953, IS NOW AVAI LABLE AS FISH$\frac{\text { QUARIERLY }}{\text { ERY LEAFLET } 336 R \text {. }}$ COPIES ARE AVAILABLE FREE FROM THE DIVISION OF INFORMATION, U. S. FISH AND WILDLIFE SERVICE, WASHINGTON 25, D. c.

