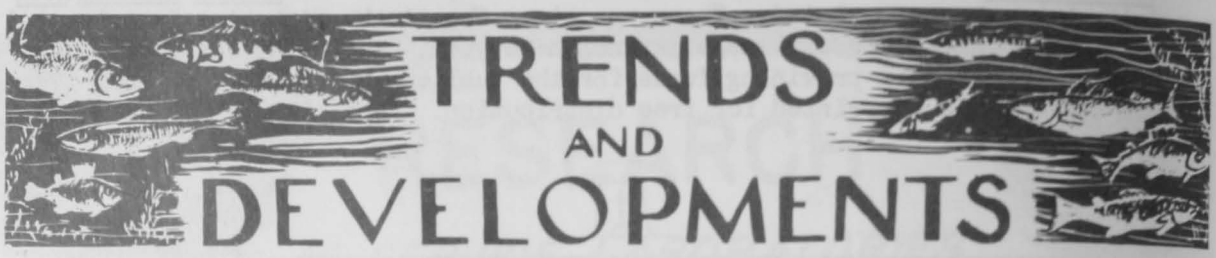

Additions to the Fleet of U. S. Fishing Vessels

Of the vessels of 5 net tons and over 120 received their first documents as fishing craft during May 1951--18 more than in May 1950. Washington led with 50 vessels, followed by Alaska with 15, and California with 11 vessels.

Some 364 vessels were documented for the first time as fishing vessels during the first five months of 1951, compared with 351 vessels for the same period during 1950.

Vessels Obtaining Their First Documents as Fishing Craft, May 1951

Section	May		5 mos. ending with May		Total
	1951	1950	1951	1950	1950
	Number	Number	Number	Number	Number
New England	7	3	15	15	36
Middle Atlantic	5	12	20	24	45
Chesapeake Bay	-	9	6	31	81
South Atlantic	12	17	43	61	153
Gulf	18	16	86	65	167
Pacific Coast	61	31	142	97	231
Great Lakes	2	-	7	4	12
Alaska	15	14	44	54	83
Hawaii	-	-	1	-	4
Total	120	102	364	351	812

NOTE: VESSELS HAVE BEEN ASSIGNED TO THE VARIOUS SECTIONS ON THE BASIS OF THEIR HOME PORT.

California Legislation Changes Sardine Fishery Laws

Two amendments of the fishery code of California passed by the State Legislature and signed by the Governor make certain changes in the State's sardine fishing regulations.

These amendments extend the Monterey fishing area about 65 miles south of the southern boundary previously in effect between August 1 and October 1 (the latter is the opening date of the southern California area). This means that the fishing area between Piedras Blancas Light and Point Arguello will now be opened with the northern sardine season on August 1.

Section 1065 of the fishery code previously read as follows:

1065: Sardines may be taken for use in a reduction plant, or by a packer, only in accordance with the provisions of this article, as follows: In District 4, 4 & 3/4, that portion of District 18 lying south of a line running east and west through Piedras Blancas Light 19, 20A, and 21, between October 1st and February 1st, inclusive; elsewhere in the State, except in District 20, between Aug. 1st and Jan. 15th. Sardines may be taken at any time on or after but not prior to June 1, 1951, for the purpose of salting, curing or smoking or drying, or for the purpose of packing in cans commonly known as quarter-pound or square cans less than ten ounces in net weight; provided, that in a 10-oz. can, fish of a size not less than eight fish to the can may be used. Sardines may be packed in their own natural oil.

The amendments changed the location underscored from Piedras Blancas Light to read "Point Arguello," and the date underscored in the above excerpt from June 1, 1951, to "June 1, 1953". Since these amendments were deemed emergency measures they became effective immediately upon the close of the legislative session and the signature by the Governor on June 23, 1951.

In addition, the revised regulation permitting sardine fishing within 2 miles of the shore line between the south boundry of Santa Barbara County, and the north boundry of San Luis Obisbo County does not become effective until September 23, 1951, although sardines may be landed at Morro Bay, within that area, prior to September 23, 1951.

Piedras Blancas Light is located on the California coast approximately 35°40' N. longitude and Point Arguello approximately at 34°35' N. longitude. This means that sardine fishing grounds (and points of landing and packing) have been extended about 65 miles southward on the opening of the northern California sardine season on August 1. Fishing crafts will probably unload fares at Morro Bay for transshipment to Monterey, Moss Landing, and San Francisco canneries instead of making the long haul to these ports direct. This will permit these vessels to fish each night of the dark-of-the-moon period instead of every other night.

California's 1951-52 Sardine Catch Forecast at 285,000 Tons

California's harvest of sardines during the 1951-52 season will drop to about 285,000 tons, it was predicted at the last meeting of the State Marine Research Committee in Monterey, according to a news release of August 1 from the California Division of Fish and Game.

To back up their forecast, the scientists of the California Division of Fish and Game can fall back on their advance prediction of the 1950-51 sardine catch, which proved 93.4 percent accurate. The seasonal catch amounted to 350,000 tons, while the technicians foresaw landings of 327,000 tons.

The three-year-old Marine Research Committee, sponsored by the California sardine industry, is in the midst of one of the largest fisheries investigations in the world. It is coordinating the research efforts of the California Division of Fish and Game, California Academy of Sciences, Scripps Institution of Oceanography, and the U. S. Fish and Wildlife Service.

Titled "The California Cooperative Sardine Research Program," the project is dedicated to finding out why the pilchard--foundation of a conservatively-estimated 25,000,000 California industry--is disappearing from coastal waters.

Besides its annual catch prediction, the Committee is looking into the life history of the sardine, including its migratory and spawning habits, and the effect of enviromental factors, such as water temperature, type and availability of food, competition from other fish species, and ravages of predatory fish.

Federal Purchases of Fishery Products

FRESH AND FROZEN FISH PURCHASES BY THE DEPARTMENT OF THE ARMY, JUNE 1951: A total of 3,070,923 pounds of fresh and frozen fishery products were purchased by the Army Quartermaster Corps during June 1951 for the military feeding of the U.S. Army, Navy, Marine Corps, and Air Force (see table). Compared with May 1951, June purchases increased 6.6 percent in quantity and 15.7 percent in value. Compared with June of the previous year, the 1951 purchases for the same month were greater by 100.2 percent in quantity and 106.0 percent in value.

Purchases of Fresh and Frozen Fishery Products by Department of the Army
(June and the First Six Months, 1951 and 1950)

QUANTITY				VALUE			
June		January-June		June		January-June	
1951	1950	1951	1950	1951	1950	1951	1950
lbs.	lbs.	lbs.	lbs.	$	$	$	$
3,070,923	1,533,551	14,598,689	6,366,424	1,295,946	629,046	6,033,318	2,691,444

Purchases for the first six months of 1951 and 1950 show that there was an increase of 129.3 percent in quantity (over 8 million pounds) and 124.2 percent in valu for 1951.

Freezing-Fish-At-Sea Technological Studies

"DELAWARE" ON BIOLOGICAL-TECHNOLOGICAL JOINT CRUISE: The M/V Delaware left East Boston on August 10 for a joint cruise (Cruise No. 2) between the Service's Branch of Commercial Fisheries and the Branch of Fishery Biology. The vessel, which is being used in conjunction with the Branch of Commercial Fisheries' Freezing-Fish-At-Sea Project, is expected to operate on Georges Bank and return on or about August 23.

The cruise will be divided into two phases. The first phase, approximately 8 days, will be devoted to a census of the groundfish population on Georges Bank cover by statistical areas XII, J, M, and N to supplement data obtained last summer by th Albatross III now on loan to the U. S. Navy. Sample tows will be made at stations in depths up to 125 fathoms. A modified trawl is to be used.

The second phase of the cruise, approximately 4 days, will be devoted to commercial-scale experiments on the freezing of round fish for later processing ashore A modification of the brine-freezing apparatus made after Cruise No. 1 will be test out. Commercial-size lots of round fish of various species and sizes will be froze for determination of freezing rates. Certain adjustments made to the refrigeration machinery will also be tested. Fish frozen at sea will be used for pilot-plant thaw ing experiments ashore and for laboratory work.

* * * * *

DELAWARE EXPERIENCES DIFFICULTY WITH FREEZING EQUIPMENT (Cruise No. 2): The Branch of Fishery Biology in cooperation with the Branch of Commercial Fisheries use the latter's experimental trawler Delaware in order to conduct the first phase of th

951 census of Georges Bank. The vessel returned to Boston from an 11-day voyage n August 25.

En route to and during the stay at Woods Hole, Massachusetts, to assemble and ick up the modified census trawls for the trip, the refrigeration machinery for se in the Freezing-Fish-At-Sea project of the Branch of Commercial Fisheries was ested. During the testing of the brine cooler, which refrigerates brine for the reezing of fish at sea, leaks developed in the tubes of the brine cooler. This recluded the freezing of fish as planned on this cruise. However, round and gutted ish, caught during the last day on the fishing bank, were preserved in ice for use n shore for studies to determine the freezing and thawing rates and other laboratory experiments.

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"DELAWARE" TO BE USED FOR CENSUS OF GEORGES BANK: In order to carry out the econd half of the 1951 census of Georges Bank, a second joint cruise between the ervice's Branch of Commercial Fisheries and the Branch of Fishery Biology was cheduled for the first week of September. The converted trawler Delaware, the ranch of Commercial Fisheries' experimental vessel for freezing-fish-at-sea technological studies in the New England area, left for Georges Bank (subareas G and O) n August 30 and is expected to return to Boston on September 6.

While on this cruise (Cruise No. 3), leaks that developed in the brine cooler n the refrigeration machinery room during Cruise No. 2 will be located and repairs ade after return to Boston.

Fish caught in the census operations conducted by the North Atlantic Fishery nvestigations of the Branch of Fishery Biology will be used for shore experiments or the freezing-fish-at-sea project of the Branch of Commercial Fisheries.

Lake Erie Fisheries Management Committee Formed

Michigan will be represented on a committee being formed to coordinate fisheries work in Lake Erie, that State's Department of Conservation announced in July.

Formation of the Lake Erie Fisheries Management Committee was the result of a eeting held in Toledo at the invitation of Ohio fisheries men to discuss fisheries roblems in Lake Erie. Representatives of New York, Pennsylvania, and Ontario, in ddition to those from Ohio and Michigan, attended and will have membership on the ommittee.

It is expected that the committee will meet annually to promote coordination f fisheries work done on the Lake in relation to commercial and sport fishing, ological lake studies, and water pollution.

Maryland to Study Oysters in Chincoteague Bay

During the past session of the Maryland legislature, funds were appropriated r the purpose of studying the hydrography and biology of the waters of Chincoteague y area in order to discover the factors controlling oyster growth and survival in

that area. This region is especially noted for its production of high-quality oysters. Once a thriving industry, the oyster industry in Chincoteague Bay has declined considerably in recent years, according to the Maryland Department of Research and Education which is going to conduct the proposed study. Heavy losses among the oysters and their failure at times to make the desired growth are given as the chief reasons for this decline.

The study is designed primarily to discover the factors controlling oyster growth and survival in that area, the possibilities of controlling natural enemies, and the effects of variations in the methods of planting, and types of seed oysters used. Data will be gathered on circulation, salinity and temperature variations, turbidity, and chemical constituents of the water. Tidal fluctuations will be recorded and an attempt made to determine and evaluate the effects which were caused by the opening of the inlet at Ocean City in 1933.

A biologist in charge of the survey will be permanently stationed on the Bay. Information on the clam population, crabs, fin fish, and other organisms will also be gathered. The chief interest, however, will center upon oyster production since it is felt that the potential values which would result from its restoration to a thriving industry would offer the greatest returns in added food production, employment, and resultant wealth to the people of the area.

Michigan Sells Three Mussel Licenses

Three licenses have been sold for taking mussels on the St. Joseph River in Michigan this summer, according to that State's Department of Conservation. A July news release from that agency points out that these are the first such licenses to be issued since 1949 when mussel license sales totaled three for the Grand River.

In the 1930's, when interest in taking mussels reached a peak, sales totaled as high as 2,400 licenses for one year. The shells of these mussels are used for making buttons.

New England Tuna Explorations

"WESTERN EXPLORER" PURSE SEINES BLUEFIN TUNA OFF CAPE COD: On Cruise No. 3, the M/V Western Explorer again was able to purse seine bluefin tuna off Cape Cod. This vessel, operated by the Service's Branch of Commercial Fisheries, is searching for untapped resources of bluefin tuna in waters principally off the shores of Maine and Massachusetts.

On July 26, the M/V Western Explorer left East Boston for the fishing grounds off Cape Cod to search for bluefin tuna. No fish were sighted that day and that evening the vessel anchored in Provincetown Harbor.

On the morning of July 27, tuna were reported schooling off Wood End. A set was made around a school of tuna, but the fish escaped before the seine could be pursed. Later that day a set was made in 14 fathoms of water around a second school. The net was back aboard the vessel four hours later. Approximately seven tons of 15- to

39-pound bluefin tuna were landed. Most of them were 27-37 inches in length. The surface water temperature at the time of sighting the school was 74° F. Examination of the stomach contents disclosed that some of the tuna had been feeding on squid and a small unidentified species of fish, while many stomachs were completely empty.

Bad weather was encountered on July 28 and the day was spent at anchor in Provincetown Harbor.

Although the following day was overcast, the sea was calm, and three schools of tuna were sighted. The surface water temperature was 71° F. A perfect set was made around the largest school in 14 fathoms of water. Unfortunately the winch clutch broke down before the seine could be pursed. After 30 minutes the clutch was put in order, but only one cable at a time could be pursed. During this process the seine became embedded in the mud and a portion of the lead and cork lines were torn from the mesh. After circling inside the seine several times, the fish escaped through rips which developed in the mesh. It was estimated that 40-45 tons of tuna had been trapped in the seine.

On July 31, a total of 13,730 pounds of bluefin tuna were sold to a Gloucester firm for seven cents per pound. The vessel returned to East Boston the same day for repairs to the net and winch clutch.

Examination of the gonads of the fish caught seemed to indicate that they were in an undeveloped condition. There were no visible accompanying signs among the tuna schools sighted.

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"WESTERN EXPLORER" TO SEARCH FOR BLUEFIN TUNA FURTHER NORTH: The Service's New England tuna explorations vessel, the Western Explorer, left East Boston on or about August 3 for an 8-day cruise. Expected to return on or about August 10, the vessel during Cruise No. 4 will operate in waters between Cape Ann, Massachusetts, and Mt. Desert, Maine.

Search for bluefin tuna schools will be made in the coastal waters off Massachusetts, New Hampshire, and Maine. Fishing operations will be carried out as before, with the modified tuna purse seine which has undergone repair. The winch clutch has been repaired and no further trouble is anticipated during the pursing operation. Surface water temperature, weight-length measurements of the tuna, and other data will be obtained and contact will be maintained with other vessels fishing in the area and with the Fish and Wildlife Service office in East Boston.

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"WESTERN EXPLORER" LANDS MORE BLUEFIN TUNA (Cruise No. 4): With seven tons of bluefin tuna in the hold, the Service's Branch of Commercial Fisheries exploratory fishing vessel Western Explorer completed Cruise No. 4 on August 12. The fish was landed at Gloucester, Mass. Four fish companies submitted purchase bids and the fish were sold to the highest bidder (a Beaufort, S. C., firm) for $200 per ton, somewhat higher than the price paid for the last trip—$140.

The cruise started on August 4 when the vessel left East Boston and headed east to Ipswich Bay and the Isle of Shoals. For three days the area between Cape Ann and Cape Porpoise, Maine, was searched for school tuna. No fish were spotted and on the fourth day the ship steamed southwest to Cape Cod Bay where school tuna had been sighted by otter trawlers operating in that area.

On August 7 a set was made in 14 fathoms of water off Wood End Light and five tons of small tuna were captured. The fish averaged 25 pounds each.

Fog and heavy winds impeded fishing operations during the next two days, but on August 10 two tons of tuna were seined off Barnstable, Mass. The set was made in 13 fathoms of water and the fish were of the same weight class as the school previously caught near Wood End Light.

Small pods of tuna were sighted off Race Point Light on August 11. No sets were made as the fish appeared to be chasing smaller fish and did not surface for any length of time.

The vessel left Gloucester on August 15 on Cruise No. 5. Operations will be concentrated on Ipswich Bay, Jeffreys Ledge, Cashes Ledge, Boon Island, Sequin Island, Monhegan Island, and Mount Desert Rock. The trip will take about 10 days.

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ANOTHER TRIP OF BLUEFIN TUNA LANDED BY "WESTERN EXPLORER" (Cruise 5): A small trip of bluefin tuna was landed on August 25 at Gloucester by the Western Explorer, the Service's Branch of Commercial Fisheries exploratory fishing vessel, which is searching for untapped resources of this fish in New England waters. This was the end of the vessel's Cruise No. 5.

The vessel left Gloucester on August 16 and cruised in the vicinity of Fippennies Ledge, about 60 miles east of Cape Ann, where tuna schools had been sighted by some of the otter trawlers a few days previously. No fish were sighted in this area and the vessel steamed northwest towards Boon Island, Maine. On August 18 a report was received that large schools of tuna had been sighted in the vicinity of Seal Island, Nova Scotia. After steaming for 15 hours east southeast, the vessel encountered a strong northwest wind with heavy seas making it impossible to carry on fishing operations. However, no fish were seen and the ship steamed back toward Mt. Desert Island.

The following three days were spent cruising in the Bay of Fundy, south of Grand Manan Island and between Campobello Island and the northeast tip of Grand Manan. No tuna schools were seen, considerable fog was encountered, and the return trip to the westward was begun on August 23. No fish were spotted in the waters around Matinicus Light and Monhegan Island, but two sets were made on August 24 in the vicinity of Boon Island, Maine. The first set was made in 30 fathoms of water, but no fish were captured. The second set, made in 24 fathoms of water, yielded 41 large fish. The fish averaged about 250 to 300 pounds in weight. Late in the afternoon of the same day four large schools were sighted, but due to the fact that the fish were in comparatively shoal water, from 10 to 19 fathoms, and over rocky bottom, no attempt was made to seine the fish. The following day there was a fresh breeze from the northeast and no fish were seen in the area.

A total of 9,000 pounds of tuna were weighed out and the fish were sold to a Gloucester firm for $100 per ton.

Following refitting and repairs to the generator and clutch, the ship will sail on Cruise No. 6 on or about August 30. Area to be covered: Stellwagan Bank and the area approximately 50 miles east southeast from Cape Ann. Duration of trip will not exceed 8 days, and it is expected that the ship will land in Portland, Maine.

New Legislation Governs Operation of Refrigerated Warehouses in New Jersey

New legislation governing the operation of refrigerated warehouses in the State of New Jersey became effective July 19, 1951--the date on which it was approved by the Governor, according to an announcement of the New Jersey State Department of Health of August 2.

The new law regulates the "storage of food or drink used by man or animals in refrigerated warehouses and locker plants," and provides for the issuance of licenses for the conduct of such establishments. The new legislation is Chapter 342, Laws of 1951, which repeals Chapter 9 of Title 24 of the Revised Statutes.

This recently-approved legislation reflects the most recent scientific information and developments in the refrigerated warehouse business, the State Health Department points out.

Hitherto, the license fee for a refrigerated warehouse was $10 per year, regardless of size. Chapter 342 sets up a graduated schedule of fees based on size. The minimum fee is $25. Under the new schedule, warehouse license fees will be more nearly in line with the costs of inspection.

Under the previous legislation, licenses expired a year from date of issuance. Under the new legislation, all licenses expire June 30 and are immediately renewable.

Under the previous legislation, warehouse operators were required to submit to the State Department of Health a tabulation of articles in storage at the end of each month. The new statute simply requires that such reports shall be submitted upon request of the State Commissioner of Health.

Under the old legislation, items could not be stored for more than 12 months without special permission from the State Department of Health. The new maximum is 24 months. Extensions may be granted by the State Commissioner of Health.

The old legislation required marking of stored articles as "Cold Storage Goods." That requirement has been omitted from the legislation.

Under the former legislation, date of storage and date of withdrawal were required to be placed on each item. This requirement has been omitted from the legislation now in effect.

The new legislation strengthens regulation of refrigerated warehouses while at the same time abolishes certain unproductive and inconvenient requirements imposed upon operators by the old act.

Restaurant proprietors, farmers, and home owners who store products for use on their own premises are exempt from the provisions of the act.

North Atlantic Fishery Investigations

GEORGES BANK 1951 CENSUS (First Phase): Through a cooperative agreement with the Branch of Commercial Fisheries, the North Atlantic Fishery Investigations is

conducting the 1951 census of Georges Bank with that Branch's vessel Delaware.

The Delaware returned to Boston on August 25 (Cruise No. 2) after completing the first phase of the survey. Fifty-seven stations were occupied in subareas N, M, J, and H. Fish of all species were found to be extremely scarce in the southern part of the Bank (subarea N). Large catches of scrod haddock (1-2 years) were caug in 40-50 fathoms of water near the edge of the Bank in subareas M and J. These cat were made in areas being fished by the commercial fleet. Considerable numbers of large haddock were caught in deep water (100 fathoms) in subareas J and H where the commercial fleet was not fishing.

Seven bushels of scallops were obtained in a ½-hour tow made in 48 fathoms of water at 40°50' N. latitude and 67°04' W. longitude, which considering the fact tha the Delaware was using an Iceland trawl with rollers may indicate a scallop bed of commercial possibilities.

In addition to data on size and numbers of all species of fish, 57 bathythermo graph casts were made and 55 bottom samples were obtained.

North Pacific Exploratory Fishery Program

"JOHN N. COBB" COMPLETES SEASON'S ALBACORE EXPLORATIONS (Cruise No. 8): After spending two months in albacore tuna explorations off the coasts of Oregon and Washington, the Service's Branch of Commercial Fisheries exploratory fishing vessel John N. Cobb returned to Seattle on August 10. The main objectives of this cruise were to intercept albacore in the early stages of their migration towards shore; apprais the possibility of using gill nets and floating stainless steel long lines for capturing albacore commercially, and experimentally tag albacore.

Results of the albacore fishing in the areas worked by the John N. Cobb on this cruise generally were poor. Fish were taken in small amounts by means of gill nets and trolling, while the wire long-line gear took no tuna. Tagging was accomplished whenever sufficient fish were located. Subsurface sea temperatures were recorded several times daily, and surface temperatures were taken at hourly intervals.

After passing Cape Flattery on June 11, the vessel headed on a southwesterly course in an attempt to locate surface water 57° F. and over, since albacore are not usually found in colder waters. On June 14 approximately 370 miles west of Cape Blanco, Oregon, waters of 57° F. were encountered.

After reaching the warm water, the vessel fished until July 1 in an area exten ing from the Oregon-California boundary north to the Siuslaw River, and as far as 5 miles offshore without catching any albacore, although on June 29, while trolling ap proximately 450 miles west of the Siuslaw River, Oregon, one albacore was brought t the stern of the John N. Cobb before breaking loose. Northwesterly winds of gale force considerably hampered operations. However, several long-line and gill-net set were made, and trolling with surface lures was carried on continuously during day light hours.

Tuna were not again observed until July 14, when three albacore were taken in gill nets 98 miles west of the Siuslaw River, Oregon; however, trolling in this area produced no tuna.

Several schools of jumping albacore were sighted on July 17 in an area approximately 135 miles west of Tillamook Head, Oregon, but none were caught in this area until July 18, when a single albacore was boated by the John N. Cobb.

From July 25 to August 1, several hundred boats of the commercial tuna fleet assembled on the tuna grounds approximately 60 miles west of Tillamook Head, Oregon, and results for these boats ranged from poor to fair before scarcity of fish caused the fleet to head for shore. On August 3 the John N. Cobb again observed scattered schools of albacore in this same general area. Efforts to catch these tuna by trolling were unsuccessful; however, nine albacore were captured in the gill nets on August 4.

The vessel then went to the seamount area at a position 46°44' N. latitude, 130° 47' W. longitude, approximately 270 miles west of Willapa Bay, Washington. Long-line and gill-net sets in the seamount area caught many blue sharks but no albacore. On August 9 three albacore were caught trolling 47 miles west of Cape Johnson, Washington.

Outlook For Fishery Products For Second Half of 1951

Consumption, Distribution and Retail Prices: Civilian per capita consumption of fishery products in the United States during the first half of 1951 was slightly larger than a year earlier and is likely to remain somewhat above the comparable 1950 rate during the next few months.

This discussion appeared in the outlook 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 July-September 1951 issue of The National Food Situation. The net movement of fresh and frozen fishery products into distribution channels through June was about 5 percent greater than in the same months last year; trade reports indicate that the movement of the major species of canned commodities was also above that in the same months of 1950.

Retail prices for fresh and frozen fishery products in urban areas for January-June 1951 averaged 5 percent higher than a year earlier, and the seasonal price decline last spring was not as pronounced as in the same season of 1950. Among the major canned fishery products, trade reports indicate that retail prices in the first half of the year were above those in the same months last year except possibly for tuna. Retail prices for fishery products in July-December 1951 are expected to average somewhat higher than in the latter half of 1950.

Catch and Production of Fishery Products: Preliminary reports on the commercial catch of food fish and shellfish through midyear indicate that landings were about as large as a year earlier. The commercial production of edible and inedible frozen products in the continental United States and Alaska totaled about 142 million pounds through June, over 21 percent larger than the output in the first 6 months of 1950. With civilian takings of fishery products likely to be maintained at a higher rate this year than last and prices expected to remain relatively strong, commercial fishermen will be encouraged to maintain their fishing operations at a high level.

Canned Fishery Products: Total supplies of the 4 major varieties of canned fishery products in the first half of 1951 were at least as large as a year earlier. Less canned salmon was available but supplies of pilchards, sardines, and tuna were somewhat larger in total. The 1951 pack of canned fishery products, which is currently in progress and will reach a seasonal peak in the next few months, is expected

to be somewhat smaller than a year earlier. Under the provisions of NPA control order M-25, which limits the use of tin cans, no restrictions are planned on the available amount of these containers for the production of the major species of canned fishery products this year. Restrictions on the use of tin cans for the packing of less important species of fish and shellfish will limit output of individual processors on the basis of their production in 1949 or 1950, whichever year the individual processor selects as a base period for the purpose of computing his container needs.

Foreign Trade: Imports of fishery products during January-June 1951 were larger than a year earlier. Receipts of frozen groundfish (cod, haddock, hake, pollock, cusk, and ocean perch) fillets from abroad totaled 42 million pounds, more than 30 percent greater than a year earlier. Exports of canned fishery products from the United States were substantially higher than in the same months last year. Prospects are that both imports and exports will continue large during the remainder of the year. The volume of exports in 1951 probably will exceed those of 1950.

Pacific Oceanic Fishery Investigations

EXPERIMENTAL GILL-NET TUNA FISHING OPERATIONS OFF HAWAII: In order to conduct experimental gill-net tuna fishing operations off the Kona coast of Hawaii, the Territory of Hawaii Fish and Game vessel Makua left Honolulu Harbor on July 2. Using linen and nylon gill-net gear, the vessel fished off the Kona coast and returned to Honolulu on July 26.

A total of 11 sets with 7 or 8 shackles of gear per set was made, of which 7 sets were made at night and 4 sets during the day. All sets were "blind," that is, made in the absence of surface signs of fish. The mesh sizes used were graduated from 4" to 11".

The tunas caught consisted of five skipjack tuna (Katsuwonus pelamis) and 3 frigate mackerel (Auxis thazard). Also caught were 4 dolphin, 1 shark, 1 manta ray and 2 trigger fish (Balistes). The skipjack, which ranged from 4 to 14 pounds, and the frigate mackerel were caught on five of the seven night sets in 5", 6", and 7" mesh nets. The skipjack were all caught singly in separate nets.

This catch while small does indicate that tuna can be caught in gill nets in the clear waters of this area.

* * * * *

CALIFORNIA PURSE-SEINE SKIPPER APPOINTED TEMPORARY MASTER OF "JOHN R. MANNING": In order to continue purse-seining tests as a means of fishing for tuna around the Hawaiian Islands, the Service's Pacific Oceanic Fishery Investigations has appointed Capt. Joseph Vilicich as temporary master of the Investigations' research vessel John R. Manning. Captain and owner of the California tuna purse seiner Resolute, the new master is one of the topflight purse-seine skippers.

Because the tuna around the Hawaiian Islands swim faster and in smaller schools than those on the mainland, and because the trade winds make purse-seine fishing difficult, previous attempts at purse seining in this area have not been successful

The Fish and Wildlife Service, however, believes that a further attempt by a proven skipper and a seasoned crew of local fishermen with the use of the Service's light linen seine may still make a success of this type of fishing.

The John R. Manning is scheduled to leave Pearl Harbor for the fishing grounds on July 17.

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"JOHN R. MANNING" CONTINUES EXPERIMENTAL TUNA PURSE-SEINING OPERATIONS (Cruise VII-B): Continuing its experiments on the use of a standard West Coast tuna purse seine to catch tuna in Hawaiian Islands waters, the John R. Manning left Honolulu on July 21. After devoting 26 days to the search, this vessel of the Service's Pacific Oceanic Fishery Investigations returned to port on August 15.

The net used was of linen, 400 fathoms long and 46 fathoms deep. A skilled purse-seine captain, Joseph Vilicich, directed the operation.

During the cruise, 60 schools of tuna were sighted. Most of these were skipjack. Seven sets were made with the purse seine. All of these were on fish. On several of the sets, fish could be seen in the circle at half net, but apparently they sounded as no tuna were captured. Except for two days during the cruise period, strong trade winds and heavy seas confined the operation to the lees of the islands.

Possible reasons for failure of the purse seine are as follows:

1. EXTREMELY ERRATIC BEHAVIOR OF MOST SCHOOLS MADE IT VERY DIFFICULT OR IMPOSSIBLE TO MANEUVER THE VESSEL INTO A SETTING POSITION.
2. EXTREME CLARITY OF THE WATER CAUSED THE FISH TO BECOME ALARMED AND SOUND ON DROPPING THE NET.
3. THE ERRATIC BEHAVIOR OF THE FISH FREQUENTLY RESULTED IN THEIR SWIMMING OUT OF THE NET BEFORE THE CIRCLE COULD BE COMPLETED.

During the course of the cruise, biological material was collected whenever this activity did not interfere with purse seining and scouting for tuna.

The next cruise of the John R. Manning will test the use of a purse seine in cooperation with a bait boat in Hawaiian waters. The bait boat will be used to concentrate the fish while the net is set and pursed. The vessel will depart from Honolulu about August 21, 1951.

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"HUGH M. SMITH" CONDUCTS BAIT AND LIVE-BAIT TUNA FISHING IN THE LINE AND PHOENIX ISLANDS (Cruise IX): The main purpose of the Hugh M. Smith's Cruise IX was to conduct bait fishing and live-bait tuna fishing. This research vessel of the Service's Pacific Fishery Investigations left Pearl Harbor on May 5 and returned on July 2.

Bait fishing was conducted at French Frigate Shoals, Lisianski, Midway, Palmyra, Christmas, and Canton Islands. In addition, the vessel scouted for bait in the vicinity of Laysan Island, Pearl and Hermes Reef, Johnston, Fanning, and Gardner Islands.

Live-bait fishing for tuna was conducted in the waters adjacent to the Line Islands, including Kingman Reef, Palmyra, Washington, Fanning, Christmas, and Jarvis

Islands, and in the waters adjacent to the Phoenix Islands, including Canton, Gardner, Hull, Sydney, and Birnie Islands.

Of the 51 tuna schools on which fishing was attempted, fish were caught from 23, yielding approximately 31 tons of yellowfin tuna. The largest catch from a sing school was an estimated 8 tons of yellowfin tuna, captured in the vicinity of Kingman Reef. Also, the greatest number of tuna schools were observed in the vicinity of Kingman Reef. Tuna schools were found to be abundant in the Line Islands area, and fishing, generally, was confined to the waters within 15 miles of the nearest land.

Tuna schools appeared to be scarce in the Phoenix Islands area; however, the greatest number were sighted in the vicinity of Canton Island.

A total of 1,135 buckets of bait were captured, consisting of aholehole (Kuhlia sandvicensis), several species of goatfishes (Mullidae), iao (Atherina insularum) an several species of mullet (Mugilidae). Of this total, 570 buckets were caught at Midway Islands. Small amounts of bait were captured at French Frigate Shoals, Palmyra, Christmas, and Canton Islands.

In order of importance, aholehole, goatfish, and iao proved to be excellent bait fishes. Mullet was found to be an inferior bait fish.

Surface trolling was conducted during daylight hours when under way. The troll catch consisted of 40 yellowfin tuna, 2 skipjack, 25 wahoo, 12 kawakawa, 10 ulua, 3 rainbow runners, and 3 mahimahi. The best fishing for this type of gear was at King man Reef.

In addition, the vessel made systematic plankton tows and hydrographic observations by means of the bathythermograph and recording thermograph throughout the area of operations. Biological data and materials from the tuna catches were also obtained.

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OCEANOGRAPHIC STUDIES IN HAWAIIAN WATERS BY "HUGH M. SMITH" (Cruise X): After completing 33 hydrographic stations in waters around the Hawaiian Islands, the Hugh M. Smith, one of the Service's Pacific Oceanic Fishery Investigations vessels, returned to Pearl Harbor on July 31 from its Cruise X.

The purpose of this trip was to determine the current systems and the chemical composition of local waters. This research is a part of the work under way to find out what causes seasonal ups and downs in the fisheries for tuna and aku (skipjack) in central Pacific waters, generally, and the local waters, particularly.

Pacific Pilchards Reported Moving North Earlier Than In 1950

The Pacific sardine (pilchard), mainstay of one of California's richest fisheries, started moving north to spawn earlier this year than it did in 1950, according to a report of the California Marine Research Committee.

During February a few eggs and larvae were found off Southern California, an area where none were taken by research vessels until April 1950. Each year, spawni

gradually spreads to the north from Baja California, where the earliest, and frequently the heaviest, spawning takes place.

Early appearance of eggs and larvae off Southern California is revealed in the interim progress report submitted to the Committee by the California Academy of Sciences, the Division of Fish and Game, the Scripps Institution of Oceanography, and the U. S. Fish and Wildlife Service.

Wisconsin Adopts Carp Management Program for Lake Koshkonong

The Wisconsin State Conservation Commission approved the purchase of 6.67 acres of land near Lake Koshkonong for the purpose of carp control and management work, the Commission announced in April this year. Carp taken from this lake and nearby waters has averaged around 1,000,000 pounds per year since 1935, and it has been suggested that this area be opened to commercial fishing on a year-round basis.

Last year, 1,443,000 pounds of carp were taken from this lake by three commercial fishing crews and one Department crew. The latter crew alone removed 617,000 pounds of carp from this lake at a cost of 1.1 cents per pound. An official from the Fish Management Division suggested that contract fishing by commercial fishermen be continued. Due to the high rate of productivity of these carp, an opinion was expressed that it may be necessary for the State agency to move in whenever it is necessary to keep the carp under control. Commercial fishing activity in this lake has not in the past been adequate in removing sufficient carp.

Since 1935, a total of 16,694,780 pounds of carp has been removed from Lake Koshkonong and more than 5,000,000 pounds from adjacent Rock River waters. A member of the Fish Management Division states that "Under good management procedure, our crews can assure reasonably adequate control..."

Wholesale and Retail Prices

WHOLESALE PRICES, JUNE 1951: In spite of the seasonal increase in production experienced during June in the major fisheries throughout the country, over-all prices for edible fishery products remained steady at May levels. However, there were some price fluctuations within the various categories of fishery products. A substantial decline in canned fishery products prices was offset by increases in prices of all other types of fishery products. The wholesale over-all index for edible fish and shellfish (fresh, frozen, and canned) for June was 108.9 percent of the 1947 average (see table)--the same as in the previous month, but 14.6 percent higher than June 1950, the Bureau of Labor Statistics of the Department of Labor reports.

With the exception of round whitefish and fresh or frozen dressed salmon, all items under the drawn, dressed, or whole finfish category in June were priced higher than in May. Large offshore drawn fresh haddock rose 7.0 percent. From March through May frozen halibut prices had dropped steadily, but in June the trend was reversed and fresh or frozen Western halibut prices were up 3.0 percent. Fresh or frozen king salmon, on the other hand, dropped 0.9 percent. Compared with June 1950, prices this

June were higher for fresh drawn haddock by 10.0 percent and for fresh or frozen king salmon by 11.0 percent, but fresh or frozen Western halibut prices were still 14.1 percent lower. The drawn, dressed or whole finfish subgroup index this June was 2.9 percent above the previous month and 4.2 percent above June 1950.

Table 1 - Wholesale Average Prices and Indexes of Fish and Shellfish, June 1951, with Comparative Data

GROUP, SUBGROUP, AND ITEM SPECIFICATION	POINT OF PRICING	UNIT	AVERAGE PRICES ($)			INDEXES (1947 = 100)		
			June 1951	May 1951	June 1950	June 1951	May 1951	June 1950
ALL FISH AND SHELLFISH (Fresh, Frozen, and Canned)						108.9	108.9	95.0
Fresh and Frozen Fishery Products:						103.3	102.5	99.7
Drawn, Dressed, or Whole Finfish:						110.5	107.4	106.0
Haddock, large, offshore, drawn, fresh	Boston	lb.	.11	.10	.10	114.2	106.7	103.8
Halibut, Western, 20/80 lbs., dressed, fresh or frozen	New York City	"	.31	.30	.36	90.1	87.5	104.9
Salmon, king, lge. & med., dressed, fresh or frozen	" " "	"	.52	.53	.47	127.5	128.7	114.9
Whitefish, mostly Lake Superior, drawn (dressed), fresh	Chicago	"	.46	.43	.39	131.8	124.6	112.7
Whitefish, mostly Lake Erie pound net, round, fresh	New York City	"	.48	.59	.55	108.2	133.6	123.5
Lake trout, domestic, mostly No. 1, drawn (dressed), fresh	Chicago	"	.48	.42	.39	104.3	91.7	86.2
Yellow pike, mostly Michigan (Lakes Michigan & Huron), round, fresh	New York City	"	.40	.40	.32	94.5	93.4	74.1
Processed, Fresh (Fish and Shellfish):						98.1	95.8	90.1
Fillets, haddock, small, skins on, 20-lb. tins	Boston	lb.	.28	.30	.27	99.7	106.4	96.8
Shrimp, lge. (26-30 count), headless, fresh or frozen	New York City	"	.63	.59	.62	90.3	85.3	88.7
Oysters, shucked, standards	Norfolk area	gal.	4.50	4.50	3.69	110.8	110.8	90.8
Processed, Frozen (Fish and Shellfish):						104.8	102.2	101.4
Fillets: Flounder (yellowtail), skinless, 10-lb. bxs.	Boston	lb.	.42	.41	.34	135.6	132.3	109.7
Haddock, small, 10-lb. cello-pack	"	"	.24	.24	.25	109.7	110.0	114.8
Ocean perch (rosefish), 10-lb. cello-pack	Gloucester	"	.23	.24	.19	113.8	117.8	94.0
Shrimp, lge. (26-30 count), 5-lb. bxs.	Chicago	"	.64	.60	.68	91.9	85.2	98.4
Canned Fishery Products:						114.5	118.5	87.9
Salmon, pink, No. 1 tall (16 oz.), 48 cans per case	Seattle	case	23.89	24.62	15.08	155.7	160.5	98.3
Tuna, light meat, solid pack, No. ½ tuna (7 oz.), 48 cans per case	Los Angeles	"	14.13	15.00	14.24	91.9	97.6	92.7
Sardines (pilchards), California, tomato pack, No. 1 oval (15 oz.), 48 cans per case	" "	"	6.75	6.75	5.50	75.5	75.5	61.5
Sardines, Maine, keyless oil, No. ¼ drawn (3¼ oz.), 100 cans per case	New York City	"	6.78	6.75	6.20	66.5	66.2	60.8

Prices for fresh processed fishery products in June rose 2.4 percent as compared to May and were 8.9 percent higher than in June 1950. Prices for fresh haddock fillets during the month dropped 6.3 percent below May, but were 3.2 percent higher than in June a year earlier. Fresh headless shrimp prices have been rising steadily since December 1950 and in June this year continued their rise to 5.9 percent above May. Shrimp prices this June were 1.8 percent higher than in June 1950.

In spite of ample stocks, processed frozen fish and shellfish prices this June rose 2.5 percent above May and were 3.4 percent higher than in June 1950. From May to June substantial increases in frozen flounder fillet prices (2.5 percent) and frozen headless shrimp (7.9 percent) were offset by substantially lower prices for frozen ocean perch fillets (3.4 percent) and frozen haddock fillets (0.3 percent). Frozen headless shrimp prices have been steadily increasing since January this year but in June they were still 6.6 percent below the corresponding month a year earlier and frozen haddock fillet prices this June were 4.4 percent lower than in June 1950. On the other hand, this June's quotations for frozen flounder fillets and ocean perch fillets were higher than in June 1950 by 23.6 percent and 21.1 percent, respectively.

Canned fishery products prices in June dropped due to a decline in tuna and salmon. The month's index for this subgroup was 3.4 percent lower than in May, but 30.3 percent above June 1950. From May to June, prices for California sardines held steady; Maine sardines rose slightly; but prices dropped for California tuna

by 5.8 percent and for pink salmon by 3.0 percent. Compared with June 1950, this June's prices were higher for pink salmon by 58.4 percent, for California sardines by 22.8 percent, for Maine sardines by 9.4 percent, but lower for California tuna by 0.9 percent.

RETAIL PRICES, JUNE 1951: Retail prices for all foods decreased 0.2 percent between May 15, and June 15, making the adjusted retail food index on the latter date 226.9 percent of the 1935-39 base-period average. This is 11.7 percent higher than the retail price food index of 203.1 for the same period of the previous year (table 2).

Table 2 - Adjusted Retail Price Indexes for Foods and Fishery Products, June 15, 1951, with Comparative Data

Item	Base	I N D E X E S		
		June 15,1951	May 15,1951	June 15,1951
All foods	1935-39 = 100	226.9	227.4	203.1
All fish and shellfish (fresh, frozen, & canned) .	do	356.3	353.1	295.9
Fresh and frozen fish	1938-39 = 100	291.4	287.1	268.4
Canned salmon: pink	do	511.0	511.7	344.1

The decline in the retail prices for all foods sold to moderate-income urban families is not consistent however, with the advancement in the average prices paid for all fish and shellfish prices at the retail level. From mid-May to mid-June, the retail price index for all fish and shellfish increased from 353.1 to 356.3 percent of the 1935-39 average, or a 0.9 percent rise. Compared with the same period of 1950, this index was 20.4 percent higher.

Chiefly responsible for the increase in average retail prices for all fish and shellfish were fresh and frozen fish. The retail index for this latter category rose 1.5 percent from mid-May to mid-June. Fresh and frozen fish average prices were 8.6 percent higher than on June 15 the previous year.

In anticipation of the new pack of salmon and conforming to the substantial drop at wholesale, the average retail prices of canned pink salmon dropped 0.1 percent from mid-May to mid-June—the first price decrease recorded for canned salmon since June 1950. However, pink salmon retail prices this June 15 were still 48.5 percent higher than on June 15, 1950.