

TRENDS AND DEVELOPMENTS

Additions to the Fleet of U. S. Fishing Vessels

A total of 18 vessels of 5 net tons and over received first documents as fishing craft during January 1955--38 vessels less than in the same month last year. In the Gulf section only 3 vessels were documented for the first time as compared to 35 during the same period a year ago, the Bureau of the Customs reports. The Chesapeake States, South Atlantic States, and Alaska each had 4 additions to their fishing fleets, followed by the Gulf section with 3, the Pacific section 2, and the Middle Atlantic section one.

Section	January		Total 1954
	1955 Number	1954 Number	
New England	-	-	23
Middle Atlantic	1	-	15
Chesapeake	4	8	93
South Atlantic	4	5	119
Gulf	3	35	313
Pacific	2	4	117
Great Lakes	-	1	6
Alaska	4	3	27
Hawaii	-	-	1
Puerto Rico	-	-	2
Unknown	-	-	1
Total	18	56	717

Note: Vessels have been assigned to the various sections on the basis of their home port.



American Samoa

TUNA CANNERY RESUMES OPERATIONS: The Pago Pago, American Samoa, tuna cannery resumed operations at the beginning of December 1954 following the arrival of the first two vessels of a new Japanese charter fleet. The second vessel had 40 tons of fish aboard on arrival, reports the January 1955 Pacific Islands Monthly.

Within five days, 4,500 cases of tuna were ready for export and work was proceeding at the rate of about 15 tons of fish canned per day.

Two other fishing vessels have been chartered to replace two lost en route from Japan to Samoa, and the fleet this year consists of six vessels.



California

SOUTHERN CALIFORNIA "FISH WEEK:" The period March 13-19 was proclaimed as "Southern California Fish Week" by the Southern California Fisheries Association, and was officially recognized as such by the Los Angeles Municipal Government. Sales of fresh and frozen fishery products to both retail and institutional consumers were pushed in an integrated promotion instituted by the Southern California Fisheries Association in its first annual "fish week."

The Southern California Fisheries Association is a relatively young fisheries organization, but it has recognized the necessity of being "promotion minded" in order to maintain a place in the highly competitive food merchandising field. The Association planned this "fish week" as only the first phase of a continuing effort to

increase the consumption of fishery products in Southern California. Special membership assessments financed this publicity.

The Association used specific plans for drawing consumer attention to fishery products as a delicious high-protein, low-calorie, and economical food, during the March 13-19 period. These included "paid advertising" in 22 Southern California newspapers and by 54 radio "spots." Through its public relations counsel the Association arranged for courtesy plugs on 22 Southern California radio and TV programs, many of which were possible because of a "tie-in" with a new released record entitled "The Fish." Approximately 300 exterior posters were displayed on Los Angeles area buses. Special menu "clip-ons," and "tents," emphasizing fishery products, were made available to Southern California restaurants. The program also included newspaper and trade journal advertisements, point-of-sales promotion in retail stores, and public utilities announcements.

The U. S. Fish and Wildlife Service extended its cooperation to the Southern California Fisheries Association with the services of an experienced Fishery Marketing Specialist who aided the project. Service assistance was also given in enlisting the cooperation of the major retail grocery chains and drive-in restaurants of Southern California along with the food editors of the major newspapers, radio, and TV stations. In addition, the Service representative made nearly a dozen personal appearances on various local and coast-network radio and TV programs in connection with "fish week" as a public service representative.



Cans--Shipments for Fishery Products, January-December 1954

Total shipments of metal cans for fish and sea food during January-December 1954 amounted to 109,202 short tons of steel (based on the amount of steel consumed in the manufacture of cans), compared to 103,501 short tons in the same period a year earlier. Larger packs of canned tuna and pilchards in 1954 accounted for the increased shipments for that year.



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.



Federal Purchases of Fishery Products

FRESH AND FROZEN FISHERY PRODUCTS PURCHASED BY DEPARTMENT OF DEFENSE, JANUARY 1955: Fresh and frozen fishery products purchases for

the military feeding of the U. S. Army, Navy, Marine Corps, and Air Force by the Army Quartermaster Corps in January 1955 amounted to 2.1 million pounds, valued at \$0.9 million (see table). This was an increase of 3.6 percent in quantity and 5.6 percent in value as compared with December 1954 purchases, and greater by 56.5 percent in quantity and 44.0 percent in value than purchases in January 1954.

Purchases of Fresh and Frozen Fishery Products by Department of the Army (January 1955 and 1954)

QUANTITY		VALUE	
January		January	
1955	1954	1955	1954
(Million Pounds)		(Million Dollars)	
2.1	.9	.9	.6

An average price of 41.4 cents per pound was paid by the Army Quartermaster Corps for fresh and frozen fishery products purchased in January 1955, compared with 40.6 cents in December 1954 and 45.0 cents per pound in January 1954.

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.

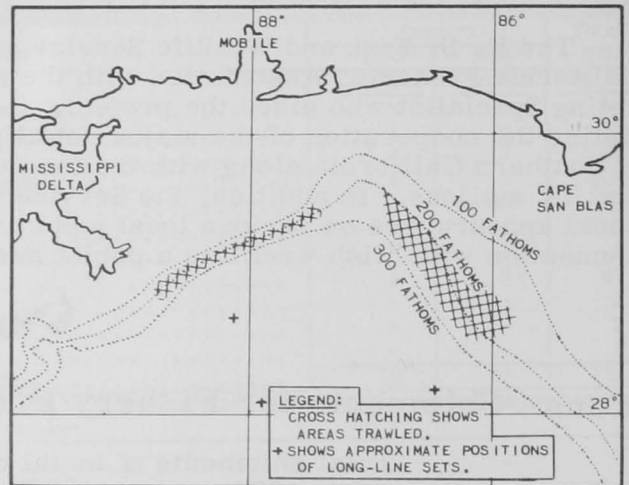


Gulf Exploratory Fishery Program

DEPTH RANGE OF RED SHRIMP FOUND TO VARY WITH SEASON BY "OREGON" (Cruise 29): A change in depth range of deep-water red shrimp in the Gulf of



Packing headless red shrimp on the Service's exploratory fishing vessel Oregon.



Approximate location of exploratory fishing activities during Cruise 29, Feb.-Mar., 1955, of the M/V Oregon.

Mexico for the late winter and early spring was found by the Oregon on a 19-day cruise ending at Pascagoula, Miss., March 14, 1955. Previous dragging in the summer and fall in the northeastern Gulf had given the best results at depths of 200-210 fathoms but on this cruise the greatest concentrations were found at depths of 240-260 fathoms where water temperatures

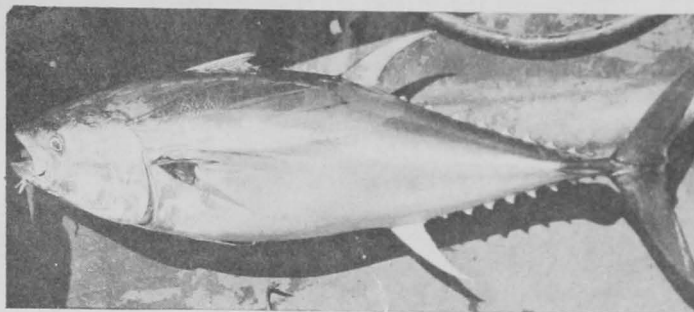
at the bottom were between 48° and 50° F. Drags made in areas of warmer or colder bottom temperatures showed a rapid decrease in catch rate. Catches made in the favorable temperature range were uniform throughout the area in contrast to the summer months when there has been some evidence of concentration.

Catch rates averaged 90 pounds of 12-count heads-on red shrimp per 3-hour drag using an 80-foot balloon trawl, but were proportionately higher for 4-hour drags in around-the-clock operations. The largest catch made was 150 pounds of heads-on shrimp. Drags made between 160-200 fathoms caught another species of deep-water shrimp (Peneaopsis megalops) at rates of approximately 50 pounds per drag. These shrimp are considerably smaller than the red shrimp averaging approximately 35 shrimp heads on per pound. Except for size this species appears to be as desirable as the larger form (Hymenopenaeus robustus).

Thirty-four trawling stations were made in depths of 160-270 fathoms along the continental slope between the Mississippi Delta and Cape San Blas. Three-hour drags were made during the early part of the cruise but it was found that 4-hour drags were more practical and that trawling could be carried through a 24-hour period with an apparent increase in hourly catch rate. The average catch rate at

the best depth for dragging produced only $3\frac{1}{4}$ 100-pound boxes of heads-off shrimp per 24-hour period so the quantities caught were relatively low in comparison with good shrimp fishing in shallow water. It should be noted, however, that better concentrations have been found on earlier cruises of the Oregon.

Good trawling bottom was found throughout the cruise except close to the Mississippi River Delta where soft mud and patches of live coral were encountered. At depths of 240-260 fathoms the net was used on a single 700-fathom half-inch wire rope with a 25-fathom bridle. Mud ropes and special doors did not appear necessary.



A 300-pound bluefin tuna caught in March 1955 by the Oregon in the northern Gulf of Mexico with long-line gear.

The drags made in the 240-260-fathom depth range produced whiting (Merluccius magnoculus) and hake (Phycis sp.) from one- to four-pound size at a rate of 300-500 pounds per drag.

In addition to the trawling work, three tuna long-line sets were made in the off-ings between the Mississippi Delta and Cape San Blas using deep-water trawl scrap fish as bait. One 300-pound bluefin tuna was captured. This tuna was in prespawning condition with immature eggs.

The Oregon was due to leave Pascagoula on a four-week long-line fishing cruise on April 5. Sets were planned at intervals of about 60 miles beginning in the central Gulf of Mexico and extending through the Yucatan Channel into the northwestern Caribbean.

This is to be the first of a series of cruises scheduled to give information on the continuity of fishable stocks of yellowfin tuna in the Gulf and northwestern Caribbean. An additional objective was to learn more about the schools of very large bluefin tuna that have appeared in the northern Gulf of Mexico during February and early March. The appearance and capture of the bluefin coincided with an abrupt decline in yellowfin catches during the last week in February and of course a primary objective will be to look for information that would help explain this decline.



Haddock Fillet Promotion Campaign Progresses Well

The cooperative industry-Government haddock promotional campaign, which was first announced by Secretary of the Interior McKay on January 13 rapidly gained momentum in the following weeks.

Five days after the program's announcement, six major food trade organizations and associations promised their support and a special bulletin on the haddock supply was sent to the 7,000 members of the National Restaurant Association. Also, arrangements were made for the mailing of a special bulletin on haddock to 13,500 schools in New York, Pennsylvania, New Jersey, Virginia, Massachusetts, West Virginia, Kentucky, and Ohio.

In the week of January 18-25, the U. S. Fish and Wildlife Service made additional arrangements for the immediate distribution of special haddock supply bulletins to 10,250 schools in the following states:

Maine
New Hampshire
Vermont

Connecticut
Rhode Island
North Carolina

Maryland
Delaware
Indiana

Illinois
Missouri

Special bulletins on the haddock supply situation were sent to approximately 4,000 institutions in these states.

Through the cooperation of the U. S. Department of Agriculture approximately 2,200 newspapers, TV, and radio food editors, institutional buyers, and Extension Service personnel of the New England area were sent a bulletin featuring haddock fillets. In cooperation with the Department of Agriculture approximately 600 similar persons in the Midwest were sent a special Service-prepared bulletin on haddock.

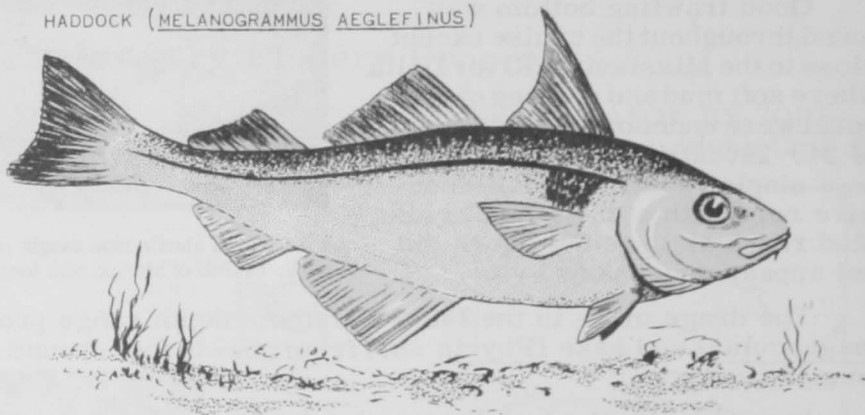
Major frozen-food distributors throughout the Northeastern and mid-Central states received a special letter from the Director of the Fish and Wildlife Service advising them of the cooperative industry-Government haddock campaign.

Approximately 1,000 newspaper, radio, and TV food editors in the Northeastern and mid-Central states were sent special information about the haddock marketing program which could be readily adapted for use in their columns or on the air.

Many personal calls by Service personnel were made by January 25 on TV and newspaper food editors to encourage them to feature haddock. These calls were made in Boston, New York, Philadelphia, Baltimore, Pittsburgh, Cleveland, Akron, Toledo, and Indianapolis. While in these cities, Service personnel also contacted frozen fish distributors to acquaint them with the campaign. Within the next few days, all major cities in the so-called "haddock belt" were similarly covered.

Meanwhile, the industry prepared news material, some point-of-sale material, cookbooks, and generally publicized the program through its contacts.

HADDOCK (*MELANOGRAMMUS AEGLEFINUS*)



Maryland

FINFISH CATCH RECORD SYSTEM REVISED: A revised finfish catch-record program was introduced to Maryland's fishing industry on January 1, 1955. Designed by the Maryland Departments of Tidewater Fisheries and Research and Education to meet the growing needs of State conservation administrators, biologists, and economists, the new record system will provide a more complete, more detailed, and speedier inventory of the catch of commercial fish taken in Maryland waters.

Since 1944 the Department of Research and Education at Solomons has been solely responsible for the collection, tabulation, and analysis of commercial fish records. Under the new program, the Department of Tidewater Fisheries at Annapolis will undertake the collection of such reports from licensed net fishermen. Under the new system the fishermen have a revised record book requiring a report for each day's fishing, listing the pounds of each species of fish caught, water area

fished, and where the fish were sold. Monthly record sheets are to be returned at the end of each three-month period. All records, inquiries, and correspondence in regard to the catch program should be addressed to the Maryland Department of Tidewater Fisheries, State Office Building, Annapolis, Md. Records received from the fishermen will then be forwarded to the Maryland Department of Research and Education for tabulation and analysis, according to the latter agency's February 1955 Maryland Tidewater News.

As further refinements are incorporated in the record system, both agencies will strive to make the catch data available monthly or seasonally rather than, as in previous years, on an annual basis. As in the past, individual fisherman's records will be maintained on a confidential basis and will not be used outside of the collecting agencies. The Maryland agencies will continue to cooperate with the U. S. Fish and Wildlife Service and the records will be processed by the Service's automatic tabulating unit as usual.



New England Exploratory Fishery Program

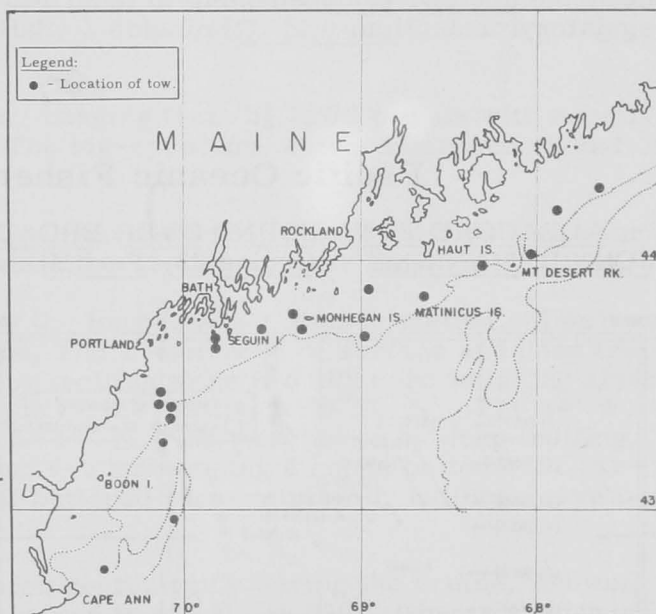
SHRIMP EXPLORATIONS CONTINUED IN GULF OF MAINE BY "DELAWARE"
 (Cruise 3): Northern shrimp were not taken in commercial quantities in any of 19 tows made by the Service's exploratory fishing vessel Delaware in the Gulf of Maine on a 10-day cruise completed at Boston, Mass., on February 13.

The greatest number were taken in 50 fathoms of water off Wood Island, Me. Virtually all of the northern shrimp taken were egg-bearing females with a mean length of 105 mm. (4.2 inches). This approximates the sizes taken in the previously existing fishery.

This was the third cruise of a series designed to determine the present abundance in the winter months of northern shrimp (Pandalus borealis) in waters which formerly supported a commercial fishery.

A total of 19 otter-trawl tows was made, using a standard No. 41 otter trawl, with a 2½-inch cotton mesh liner in bellies and cod end. Ten of the tows were made in, or in close proximity to, areas which supported a winter fishery in the middle and late 1940's. Nine tows were made between these areas, or in exploration of suitable bottoms.

The cod end and belly of one trawl net was lost when it filled with mud. Three fishing days were lost due to stormy weather.



Cruise 3 of the M/V Delaware



North Pacific Exploratory Fishery Program

PETRALE SOLE TO BE TAGGED BY "JOHN N. COBB" OFF VANCOUVER ISLAND: A special cruise to tag petrale sole in the "Esteban Deep" off the west coast of Vancouver Island was commenced when the Service's exploratory fishing vessel John N. Cobb sailed from Seattle, Wash., on March 21. The operation was to be carried out in cooperation with the State of Washington Department of Fisheries and the Fisheries Research Board of Canada.

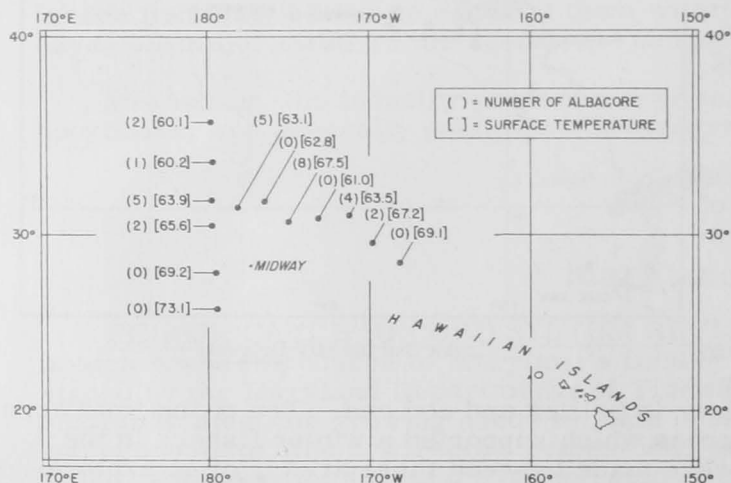
Standard western otter trawls will be used to catch the petrale sole, and special techniques and gear will be employed in an attempt to reduce the high mortality rate experienced in previous tagging operations in the "Esteban Deep" by the State. The high mortality was thought to have been the result of extreme pressure changes on the petrale sole as they were brought up from depths as great as 1,200 feet.

Catches of petrale sole, a most highly-prized bottomfish, have dwindled on both Canadian and United States grounds in recent years. The "Esteban Deep" petrale sole grounds, discovered accidentally in 1953 by United States trawlers fishing for Pacific ocean perch, has produced the largest catches of petrale sole ever taken in the history of the Washington trawl fishery. Fishermen and scientists alike believe that the petrale sole taken in "Esteban Deep" are a part of the same stocks which are fished in other areas during the summer months. This opinion is based on results of previous tagging by the State of Washington and Canada. The work carried out by the John N. Cobb will help to determine the necessity of giving the species regulatory protection.



Pacific Oceanic Fishery Investigations

ALBACORE TUNA FOUND OVER BROAD AREA NORTHWEST OF HAWAII BY "JOHN R. MANNING" (Cruise 23, Part II): Albacore tuna were found over a broad



area north of Midway Island by the Service's research vessel John R. Manning on a 30-day cruise to determine the distribution and abundance of this species in that area. The cruise, completed at Honolulu on February 6, 1955, covered the area between 29° and 32° N. latitude from 160° W. to 180° longitude--more than 100,000 square miles of ocean.

The cruise was the latest in a series aimed at mapping the winter extent of the central North Pacific albacore, a fishery resource hitherto unexploited by United States fishermen. The albacore is the highest priced of the tuna, and the domestic production falls far short of the demand. The opening up of fishing grounds for this species within operating distance of Hawaii may mean the eventual development of a new fishing fleet based in the islands, and it is anticipated that the mainland tuna industry will also show a keen interest in the results of these explorations.

The albacore tuna caught weighed up to 70 pounds, and were captured mainly on long lines (flag lines), although a few small ones were taken at the surface by

trolling. Most of the albacore taken were tagged and released alive in the hope that subsequent recaptures may shed additional light on the migrations of this species, which apparently traverses the whole North Pacific.

The John R. Manning put in briefly at Pearl and Hermes Reef, an extensive shoal area 75 miles southeast of Midway, in order to reconnoiter the supply of live bait there. Large mullet and akule were plentiful, numerous turtles and seals were seen, and a large population of goony birds was nesting on the reef, but no supply of small fish suitable for tuna bait appeared to be present.

First a section line was fished on 180° in order to determine the latitudes at which albacore occurred. Subsequent fishing was confined to those latitudes and the albacore were traced east to 168° W. Thirteen stations were fished during this portion of the cruise. (Part I of this cruise was executed in December 1954 and a report published in Commercial Fisheries Review, February 1955, p. 34.)

There were 6 stations on the 180° meridian and 7 eastward to 168° W. longitude between 28° N. and 32° N. latitude (see figure). Sixty baskets (30 each of 5- and 15-fathom float-line gear) were set at each station with the exception of two, when only 40 baskets were set because of bad weather.

Albacore were caught at 8 of the 13 stations but not in large numbers. The best catch was at $30^{\circ}42'$ N., 175° W., where 8 fish were caught. The total catch for the 13 stations was: 29 albacore, 13 big-eyed tuna, 1 short-nosed spearfish, 99 great blue sharks, 2 mako sharks, 20 lancetfish, 1 dolphin (C. hippurus), and 1 pelagic sting ray.

The albacore varied greatly in size, ranging from $3\frac{1}{2}$ to 76 pounds with no uniformity of size at any of the stations. The big-eyed tuna weighed between 43 and 96 pounds.

According to chemical sounding tubes, the deepest hooks of the 5-fathom gear fished at an average depth of 319 feet while the 15-fathom gear fished at 387 feet.

Trolling was done for 2 hours along the long-line set at each station. Two hours of surface trolling was done at 8 stations, and 1 hour each of surface and deep trolling at 5 stations. The only fish taken by trolling were two albacore weighing around 4 pounds which were caught at the surface on the station at $30^{\circ}59'$ N., $171^{\circ}14'$ W. where the surface temperature was 63.5° F. No fish were taken by deep trolling, which was conducted at a speed of around 4-5 knots using 4 hooks baited with sardines. The bait was invariably torn and battered when retrieved, but none gave any indication that fish had struck.

The recording thermograph, operated continuously during the cruise, showed a very gradual change in surface temperature to 27° N. on 180° , when a sudden drop from 72° F. to 70° F. was recorded, followed by a steady but faster decline northward. At around 33° N. latitude irregular rises and falls in temperature were noted, and the resultant drop was from 64° F. at $31^{\circ}49'$ N. to 60° F. at $33^{\circ}50'$ N. latitude.

Surface temperature at stations at which albacore were taken ranged from 60.1° - 67.5° F., but the best fishing occurred at temperatures of 63.1° - 67.5° F.

At the southern end of the 180° section where no albacore were taken there was a sharp thermocline at 280 feet. North of $31^{\circ}41'$ N., where winter conditions prevailed, there was no perceptible thermocline.

Stomachs were preserved from 8 albacore and field examinations were made of the stomachs of 4 big-eyed tuna, 1 dolphin, and 18 lancetfish. There were some-

what greater amounts of food in the stomachs of these lancetfish as compared to those caught in December 1954 (Part I of this cruise) along 160° W. longitude. Ovaries were collected from 1 albacore. Scales and vertebrae were taken from 9 albacore for age and growth studies.

Morphometric measurements were made on 9 albacore, 1 big-eyed tuna, 1 short-nosed spearfish, 1 great blue shark, and 1 mako shark.

A total of 22 albacore and 7 big-eyed tuna were tagged and released.

A pelagic sting ray was preserved whole in formalin and returned to the laboratory at Honolulu.

A brief bait survey made on Southeast Island of Pearl and Hermes Reef in the Leeward Island group disclosed the presence of only a very small amount of round herring (Spratelloides delicatulus). No other species suitable for bait were noted.

No surface schools or bird flocks were seen outside the immediate vicinity of islands.

The sea and weather conditions were generally good throughout this cruise.

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SKIPJACK TUNA FOUND SCARCE IN WINTER OFF LINE ISLANDS BY "CHARLES H. GILBERT" (Cruise 19): Skipjack tuna were unusually scarce along the course of the Service's research vessel Charles H. Gilbert on a cruise to most of the atolls of the Line Islands group, about 1,000 miles south of Hawaii. The cruise began at Honolulu on January 20 and ended at the same port on February 19, 1955.

The primary mission of the voyage was to scout for schools of skipjack tuna (aku), the small striped tuna which is the mainstay of Hawaii's tuna fishing industry in the summer but which is scarce at this time of the year in the local waters where the sampan fleet operates. Rarely were more than one or two schools of skipjack sighted each day, and with no concentrations of any potential importance to commercial fishermen. Around the Line Islands, where schools of yellowfin tuna are generally present close to the reefs, only small fast-moving schools were seen. Attempts to attract these tuna with artificial bait were unsuccessful. A secondary mission of the cruise was to test the effectiveness of various artificial substitutes for the scarce live-bait fish upon which the Hawaiian tuna catch depends.

Intensive scouting was done during every day at sea. Two days were spent south of Oahu, four days en route to Johnston Island, and five more days en route to Palmyra Island. Part of each of 10 days was then spent scouting off the Line Islands and on the return to Honolulu 6 more days were spent. There was a total of 233.2 hours of scouting and only 9 skipjack tuna, 5 yellowfin tuna, 23 unidentified, and 2 mixed schools of fish were seen. Most of these were near Palmyra Island. None of the skipjack and only 2 of the yellowfin schools responded to the live bait. All schools were wild and frequently the birds dispersed before the school could be approached.

The most promising artificial bait was tested on surface schools of yellowfin near the Line Islands. This bait consisted of tuna juices solidified with agar to which was added a small amount of artist's glitter to simulate fish scales. This was cut into strips approximately $2 \times \frac{1}{2} \times \frac{1}{8}$ inch thick. This artificial bait was tried alone and after live bait on all possible schools, including both yellowfin and skipjack. In no case was there evidence of response to the artificial bait.

A bait reconnaissance was made in the Line Islands area. Small quantities of mullet were found at Palmyra and Fanning Islands. These averaged 5-8 inches in length and usually were found in groups of only 1 to 5 buckets on sandy bottoms in water less than 2 feet deep. Thus, they were difficult to catch in quantity and the best catches ran to only about 15 buckets per hour of baiting time. No baiting was done at Christmas Island where it is now prohibited by the British Government.

Experiments with tagging procedures on skipjack and yellowfin were planned, but too few of both species were caught for experimentation. Stomachs of troll-caught skipjack and troll-caught yellowfin were preserved for tuna food and behavior study.

The Gilbert field party serviced a weather station established earlier by U. S. Fish and Wildlife Service personnel on Christmas Island and picked up the weather data accumulated since the last time a POFI vessel put in there. The weather station at Fanning Island was also inspected by the party.

This operation also was intended to locate and obtain data on the poisonous properties of food and sport fish suitable for introduction into Hawaiian waters. Good collections were obtained and numerous specimens of snappers and groupers were brought back both frozen and alive to Honolulu.



Pacific Salmon Investigations

SALMON UPSTREAM MIGRATION STUDIED WITH UNDERWATER SONIC DEVICES: The U. S. Fish and Wildlife Service is using the latest engineering developments in underwater sonic devices to study adult salmon behavior in their upstream migration. Production models of the "Sea Scanar" have been modified to aid biologists in observing fish movements under various hydraulic conditions.

An automatic tracking receiver and a small signal generator have been developed to enable the biologists to track closely the move-



ments of an individual salmon. The signal generator is attached to the fish and the receiver automatically "homes" to the signal. In this way the position of the fish in the stream or fishway is recorded on a calibrated cathode ray tube. This equipment makes possible a determination of the rate, depth, and route of migration of adult salmon, plus their reaction to obstacles along the migration route.

Observations of salmon behavior will be made in the vicinity of fishway entrances and collection systems of dams, fishway exits, and in the fishways.



Saltonstall-Kennedy Act Fishery Projects

FISHERIES ADVISORY COMMITTEE MEETING CALLED: The Fisheries Advisory Committee, authorized under the Saltonstall-Kennedy Act (68 Stat. 376), will hold its first meeting on April 28 and 29 in Washington, D. C., in the Department of the Interior Building, Secretary of the Interior McKay announced April 5.

Under a provision of the Saltonstall-Kennedy Act, the Secretary of the Interior was authorized to appoint a group of experts from the domestic fisheries and fishery products industry to advise him on industry problems embraced by the new legislation. The Advisory Committee consists of 19 representatives of all segments of the United States fisheries. The members have been appointed to serve until June 30, 1957.

Designed to strengthen the United States commercial fisheries as a whole, the Saltonstall-Kennedy Act provides that an amount equal to 30 percent of duties collected under the customs laws on fishery products shall be transferred annually for three years from the Department of Agriculture to the Department of the Interior. Expenditures for any one year may not exceed \$3 million.

In order to get the program under way as rapidly as possible after funds became available on July 1, 1954, Secretary McKay approved a number of projects which were considered by the industry to require immediate attention. In most instances these projects paralleled programs already under way or which had been postponed previously because of lack of funds.

Assistant Secretary of the Interior Orme Lewis will be the presiding officer during the meetings on April 28 and 29. John L. Farley, Director of the Fish and Wildlife Service which administers the Saltonstall-Kennedy Act, will report to the Advisory Committee on the progress and accomplishments to date of the projects already initiated by the Service.

The Department has received some 75 suggestions and requests for assistance from various industry and research groups, and from fishery associations. A program for the remainder of the current fiscal year ending June 30, 1955, will be discussed, as well as one for next fiscal year.

The Committee's advice will be sought on policy, rules, and regulations pertaining to requests for assistance. Procedures will be outlined which the Committee will follow in performing its functions. A system will be established on priorities by types and areas for proposed projects.

Those named to the Committee were listed on page 37 of the February 1955 issue of Commercial Fisheries Review.

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SERVICE OPENS NEW FISHERY STATISTICAL OFFICE: A new fishery statistical office was opened recently by the U. S. Fish and Wildlife Service in Beaufort, S. C. In addition, activities are being expanded at existing offices in Beaufort, N. C., and Coral Gables, Fla.

Under the terms of the Saltonstall-Kennedy Act (68 Stat. 376), which is designed to give special aid to the American commercial fishing industry, funds have been allocated to expedite the Service's work of collecting and issuing statistics on the catch of fish and shellfish, the value of the catch, and the employment of men, fishing craft, and gear in the fisheries.

Statistical information is acknowledged to be the basis of most fishery research and must be available before practical management programs can be attempted. The increased funds now available will make possible much more of this type of work. During the hearings held prior to the passage of the Saltonstall-Kennedy Bill, expert witnesses from the fishing industry from all parts of the country were in full accord that more work should be done by the Service to extend the statistical coverage of the interior sections of the country and to speed up the release of all statistical data. These statistics are also invaluable to state and Federal agencies in their regulatory work.

The office at Beaufort, S. C., in charge of Melvin H. Low, will make a general canvass of the fisheries of South Carolina.

Additional statistical offices, financed through Saltonstall-Kennedy Act funds, will be opened shortly in Providence, R. I.; Solomons, Md.; Aransas Pass, Galveston, and Brownsville, Tex.; Brunswick, Ga.; Fort Meyers and Key West, Fla.; Biloxi and Pascagoula, Miss.; and Houma and Morgan City, La. Statistical activities will be expanded in the Service's San Pedro, Calif., office.

Note: See Commercial Fisheries Review, February 1955, p. 38.

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SERVICE LETS CONTRACTS FOR SOUTHERN OYSTER STUDIES: The signing of three contracts for oyster research to be conducted in southern states under the Saltonstall-Kennedy Act (68 Stat. 376) was announced by Secretary of the Interior McKay on March 10. The contracts have been let to Florida State University, Louisiana State University, and Tulane University by the U. S. Fish and Wildlife Service which will supervise the work.

Studies aimed at developing improved techniques for handling, processing, freezing, packaging, and storing southern oysters and oyster products will be made. The over-all objective is to broaden the market base for these commodities.

The Florida State University contract calls for \$12,400 to be allocated over a 12-month period for studying southern oysters from the standpoint of variations in composition and nutritive value; investigating the effects of environment, freezing, and processing on these oysters; developing new oyster products by such treatments as blanching, smoking, and breading; preparing special oyster dishes for taste panels and frozen-storage tests; and investigating the fat content of these oysters as it affects quality during refrigerated or frozen storage.

The contract let to Louisiana State University earmarks \$10,000 for a 12-month project entailing a study of variations in southern oysters due to different seasons and different producing areas, an investigation of freezing and frozen storage in connection with these oysters, development of a quality test for fresh and frozen southern oysters, and a study of oyster changes due to the presence of undesirable organisms.

The Tulane University contract calls for \$7,600 to be available over a 12-month period for research on the "bleeding" (loss of liquor) of shucked southern oysters and for studies of "pigmentation" (color spots) found in these oysters. The work will entail probes into the physiological factors involved in bleeding, and efforts will be made to determine why the pigmentation develops.

* * * * *

SERVICE TO INVESTIGATE SCALLOP AND WHITING FISHERIES: Biological investigations of New England's scallop and whiting fisheries have been initiated with funds provided by the Saltonstall-Kennedy Act (68 Stat. 376). The research will be under the direction of the Woods Hole, Mass., Laboratory of the North Atlantic Fisheries Investigations.

Scallop research will be conducted to ascertain the reasons for the apparent depletion.

* * * * *

SERVICE ALLOTS MORE FUNDS FOR FLORIDA RED TIDE WORK: An additional \$33,000 to expedite the U. S. Fish and Wildlife Service program to combat

the red tide on the Florida west coast has been allotted by Secretary of the Interior McKay. This money will be used during the remainder of the current fiscal year to charter planes and vessels and to purchase chemicals for large-scale control experiments. Additional personnel will also be needed to analyze scientific data which is accumulating rapidly.

These additional funds are available under the terms of the Saltonstall-Kennedy Act (68 Stat. 376), which is designed to give special aid to the American commercial fishing industry.

With \$20,000 previously allocated from Saltonstall-Kennedy funds and \$50,000 from regular congressional appropriations, a total of \$103,000 in Federal funds is being used in fiscal year 1955 to ascertain how quickly the red tide work can be successfully concluded.

In the past two years the Service has intensified its efforts to determine the combination of environmental factors which "trigger-off" blooms of Gymnodinium brevis, the minute marine organism which causes extensive fish kills in waters along Florida's west coast.

The need for additional funds became apparent in January 1955 when members of the Service's Washington staff and the scientific staff of the red tide investigations met at the Fort Myers, Fla., laboratory to make a critical examination of the progress of the Federal research program. The most striking feature brought out in the research review was the discovery made in the Service's laboratory at Galveston, Tex., that metallic copper in extremely small quantities is highly toxic to G. brevis.

After further experimental work in the laboratory, metallic copper in the form of large screens and possibly copper ore tailings will be tried on a field scale to determine its control effectiveness as a substitute for the more expensive copper sulfate.

In the meantime control experiments using copper sulfate as the poison agent to curb the red tide microbe will be continued as the most expedient method of possible control so far developed.

Such experiments, however, are becoming increasingly expensive because the Service must depend largely upon charter and rental boats and planes to achieve useful results. Since G. brevis continues to be present in Florida waters, control experiments must be increased beyond those originally anticipated.

Methods of increasing the effectiveness of patrol along the red tide areas to detect outbreaks in their early stages were also discussed during the conference. The Service is now arranging for one of its float planes to be assigned to Fort Myers to determine if a rapid and effective means of patrolling and sampling the area can be done by air.



South Carolina

MORE PRECOOKED SEAFOODS BEING PROCESSED: Many fish processing plants in South Carolina have increased their production of frozen precooked fishery products during the past year, reports the Service's Fishery Marketing Specialist stationed in South Carolina. Plants which formerly packed only such items as frozen shrimp have now turned the major part of their production to precooked fro-

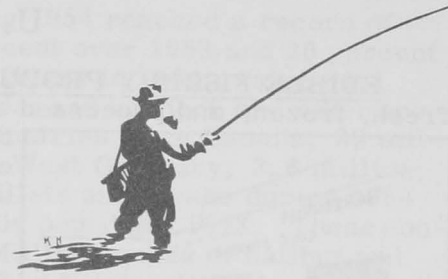
zen items, such as precooked breaded shrimp, oysters, crabs, etc. Some plants now precook 75 percent and more of their total production of frozen seafoods.



Sport Fishing License Sales Continue Upward Trend

Sport fishermen and hunters in the United States reached the record-breaking total of 32,654,199 individuals in the past fiscal year and they paid almost \$85 million for fishing and hunting licenses and Federal duck stamps, the U.S. Fish and Wildlife Service reported March 1.

State	Paid License Holders			Total Licenses Issued ^{1/}	Total Cost ^{2/} To Fishermen For All Licenses Issued
	Resident	Nonresident	Total		
Alabama	206,625	18,949	225,574	231,474	\$ 268,641
Arizona	90,006	42,818	132,824	132,824	359,527
Arkansas	264,873	131,909	396,782	396,782	744,524
California	1,240,604	15,400	1,256,004	1,256,004	3,789,836
Colorado	300,800	104,657	405,457	405,457	831,978
Connecticut	103,313	4,237	107,550	107,550	374,698
Delaware	8,515	1,714	10,229	10,229	23,499
Florida	239,529	99,094	338,623	338,623	905,825
Georgia	400,928	6,513	407,441	416,034	270,336
Idaho	178,724	65,024	243,748	248,690	664,008
Illinois	768,544	20,199	788,743	788,743	871,760
Indiana	554,232	36,584	590,816	618,384	665,989
Iowa	388,941	15,127	404,068	404,068	579,049
Kentucky	229,337	6,102	235,439	235,439	477,195
Kentucky	334,247	80,657	414,904	414,904	876,452
Louisiana	178,994	26,055	205,049	205,049	261,365
Maine	126,461	72,979	199,440	199,440	616,949
Maryland	96,005	20,983	116,988	116,988	211,949
Massachusetts	215,707	7,276	222,983	222,983	642,025
Michigan	852,788	307,137	1,159,925	1,581,719	2,266,848
Minnesota	871,964	305,953	1,277,917	1,337,311	3,093,691
Mississippi	134,970	73,170	208,140	208,140	306,668
Missouri	513,319	51,882	565,201	565,201	1,280,947
Montana	185,391	36,696	222,087	222,087	416,896
Nebraska	222,865	9,539	232,404	232,404	358,893
Nevada	28,397	26,831	55,228	60,469	199,859
New Hampshire	75,728	48,648	124,376	129,616	409,107
New Jersey	138,125	9,995	148,120	224,380	577,431
New Mexico	72,705	37,584	110,289	118,404	376,726
New York	774,314	42,712	817,026	866,680	1,811,044
North Carolina	317,010	25,730	342,740	389,436	647,646
North Dakota	73,903	1,306	75,209	75,384	44,242
Ohio	837,746	47,508	885,254	885,254	1,762,488
Oklahoma	354,597	54,177	408,774	408,774	868,002
Oregon	291,982	28,153	320,135	322,571	1,190,084
Pennsylvania	704,337	27,147	731,484	731,484	1,764,772
Rhode Island	19,892	483	20,375	26,392	47,321
South Carolina	291,982	10,723	302,705	319,530	385,249
South Dakota	100,232	27,333	127,565	127,565	275,689
Tennessee	648,216	120,219	768,480	815,456	781,040
Texas	417,379	6,393	423,772	424,337	714,272
Utah	133,733	7,295	141,028	148,939	425,728
Vermont	72,200	33,707	105,907	106,027	246,064
Virginia	351,194	8,542	359,736	425,542	583,524
Washington	464,166	20,352	484,518	485,537	1,429,265
West Virginia	187,421	7,537	194,958	221,359	380,073
Wisconsin	739,495	341,197	1,080,692	1,082,076	2,215,221
Wyoming	121,291	62,815	184,106	189,909	633,340
TOTALS	15,923,772	2,557,041	18,580,813	19,504,030	\$38,927,735



Fishing, as in past years, remained the most popular outdoor sport, with 18,580,813 men and women paying \$38 million for all categories of state licenses, permits, and stamps in the fiscal year ending June 30, 1954 (see table).

In the preceding fiscal year, in the category of paid license holders, fishermen outnumbered hunters 17,867,922 to 13,997,155. Fees from fishing licenses in 1953 totaled \$35 million as compared with \$45 million (including \$4 million for duck stamps) collected from hunters.

The Fish and Wildlife Service has developed a new system of reporting hunting and fishing

license statistics which is being used for the first time this year. In previous years the Service has reported the total number of all licenses purchased, including permits, special licenses, stamps, etc. This total represented duplications, since a hunter might buy, in addition to his general license, a quail stamp and a deer stamp. Or a fisherman in some states might buy a special trout permit.

Apportionment of Federal aid funds to the states for fish and wildlife restoration programs is based upon the number of paid license holders and not upon the total of all licenses issued.

The data in the table have been arranged in five columns. The first three columns cover, as nearly as can be determined, the number of paid license holders, consisting of residents, nonresidents, and the total for each state. The fourth column presents an enumeration of all types of licenses issued by the states to sportsmen, such as general hunting and fishing licenses, big game, and special types of issuances, such as trout stamps, woodcock permits, special area licenses, free licenses to the aged, veterans, etc., special

^{1/}Includes general resident and nonresident fishing licenses, permits, tags, stamps, and such free licenses as distributed by some states. There were 347,070 free hunting and fishing licenses issued by 16 states.

^{2/}Gross cost to the fishermen for various types and categories of licenses issued by the respective states for the privilege of fishing for and/or possessing fish.

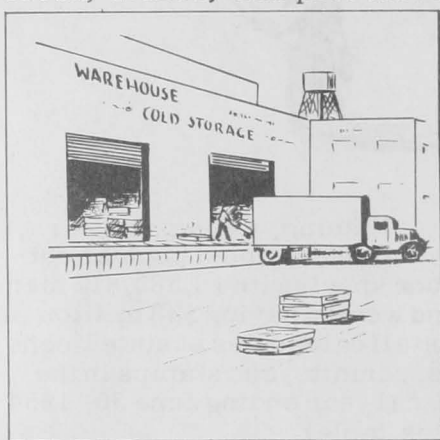
gear permits (archers, fish houses, etc.), and others. The number of these special licenses is indicative of the growing trend toward more highly specialized and regulated hunting and fishing.

The fifth column gives the gross cost which sportsmen pay for the right to indulge in their favorite sport. The totals in the fifth column include fees for the general licenses, and for all special permits, tags, and stamps, except the Migratory Waterfowl Hunting Stamps which are issued by the Federal Government and not by the states.



U. S. Foreign Trade

EDIBLE FISHERY PRODUCTS, DECEMBER 1954: United States imports of fresh, frozen, and processed edible fish and shellfish in December 1954 amounted to 49.4 million pounds (valued at \$14.1 million), according to a Department of Commerce summary tabulation (see table). This was a decrease of 21 percent in quantity and 14 percent in value as compared with November imports of 62.6 million pounds (valued at \$16.4 million). Compared with a year earlier, December 1954 imports were lower by 9 percent in quantity and 8 percent in value.



Exports of processed edible fish and shellfish (excluding fresh and frozen) in December 1954 totaled 6.2 million pounds (valued at \$1.3 million)--an increase of 7 percent in quantity but 7 percent lower in value as compared with November exports of 5.8 million pounds (valued at \$1.4 million). December 1954

exports were higher by 63 percent in quantity and 30 percent in value than a year earlier.

United States Foreign Trade in Edible Fishery Products, December 1954 With Comparisons						
Items	Dec. 1954		Dec. 1953		Year 1953	
	Quantity	Value	Quantity	Value	Quantity	Value
. (In Millions of Lbs. & \$)						
Imports:						
Fish & shellfish:						
Fresh, frozen ^{1/} & processed ^{1/}	49.4	14.1	54.2	15.4	724.7	193.2
Exports:						
Fish & shellfish:						
Processed ^{1/} only (excluding fresh and frozen)	6.2	1.3	3.8	1.0	58.9	14.4

^{1/} Includes pastes, sauces, clam chowder and juice, and other specialties.

IMPORTS AND EXPORTS OF SELECTED FISHERY PRODUCTS, 1954: United States imports of groundfish fillets, frozen tuna, and fish meal during the year 1954 were substantially greater than in 1953, according to preliminary data compiled from Bureau of the Census records. Most of the other principal fishery products imports showed relatively little change. The 1954 exports of canned salmon and sardines (not in oil), and fish oils were also considerably above those of 1953.

Imports: Frozen tuna imported during December 1954 totaled 8.7 million pounds, compared with 2.1 million in that month a year ago. This brought the total for the year 1954 to a record of 123.4 million pounds, an increase of 30 percent over 1953. Of the 1954 imports, 98 million pounds were received from Japan of which 56 million pounds were albacore tuna. Peru, the next leading supplier, contributed 20.3 million pounds.

Imports of canned tuna amounted to 31.6 million pounds during 1954, about 9 percent less than in 1953. Of this 28.6 million pounds were from Japan--10 million pounds of which were albacore tuna. Bonito canned in oil and in brine totaled 15.4 million pounds, almost entirely from Peru.

Groundfish and ocean perch fillets imported during 1954 reached a record of 135.3 million pounds. This was an increase of 48 percent over 1953 and 26 percent above the previous record year 1952. Imports of cod fillets in 1954 totaled 82.1 million pounds; ocean perch fillets, 23.5 million pounds; and haddock and other species, 29.7 million pounds. The principal supplying countries were Canada, 86 million pounds; Iceland, 37 million; Norway, 4.7 million; West Germany, 3.6 million; and Denmark, 2.7 million pounds. Imports of other fillets and steaks during 1954 totaled 48 million pounds as compared with 51.3 million pounds in 1953. These consisted of 8.9 million pounds of swordfish fillets; 4.6 million pounds of halibut and salmon fillets and steaks; 10.3 million pounds of flounder fillets; 6 million pounds of wolffish (sea catfish), and 11.5 million pounds of fillets of fresh-water fish.

United States imports of fresh and frozen salmon amounted to 32.9 million pounds during 1954. This compared with 27.4 million pounds imported during 1953. Canned salmon imports in 1954 totaled 11.4 million pounds, slightly below those of the previous year.

The 1954 imports of canned sardines not in oil were far below those of the previous year. Only 12.7 million pounds were imported in 1954, compared with 22.5 million pounds in 1953. Canned sardines in oil imports of 21.7 million pounds were only slightly below 1953.

Shrimp imports during 1954 totaled 41.5 million pounds. Fresh and frozen lobster imports amounted to 41.4 million pounds. Imports for both these products were only slightly below 1953. Canned lobster imports of 3.1 million pounds in 1954 were about 1 million pounds less than the previous year. Imports of canned crab meat totaled 2.9 million pounds during 1954, also about 1 million pounds under the year earlier.

The 1954 imports of fish meal also reached a new record with 145,777 tons, compared with 131,473 tons in 1953. Principal sources of fish-meal imports were Canada with 39,740 tons; Norway, 34,154 tons; Angola, 30,130 tons; and Peru, 17,596 tons.

Exports: United States exports of canned salmon showed considerable gains during 1954, principally to the United Kingdom. Exports of canned salmon totaled 7.2 million pounds as compared with 2.3 million pounds in 1953. Of the 1954 total, 3.8 million pounds went to the United Kingdom. United States canned salmon has been practically out of that market since 1949.

Exports of canned sardines also showed substantial gains during 1954 to reach a total of 16.4 million pounds. In 1953, 9.2 million pounds were exported. Principal destination in 1954 were the Philippines which took 5.1 million pounds and Latin American countries.

Canned mackerel exports totaled only 1.5 million pounds in 1954, compared with 5.3 million in 1953.

Fish oils exported during 1954 reached a record of 140.8 million pounds, about 32 percent greater than the previous record year 1953.

* * * * *

SHRIMP IMPORTS, 1954: United States shrimp imports (fresh, frozen, canned, and dried) from all countries in 1954 totaled 41.5 million pounds, a decrease of 4

Country of Origin	1954	1953	1952	1951	1950
. (In 1,000 Pounds)					
Mexico	34,886	36,767	33,863	39,575	39,653
Panama	3,661	3,943	3,903	1,875	291
Ecuador	548	-	41	-	-
Argentina	529	227	5	1	-
Peru	446	352	1	2/	-
Japan	440	389	108	49	58
Colombia	391	225	21	78	-
Norway	153	489	257	88	69
Other Countries	488	708	271	158	127
Total	41,542	43,100	38,470	41,824	40,198

^{1/} Mostly frozen shrimp. ^{2/} Less than 500 pounds.

percent from 1953 imports of 43.1 million pounds, according to statistics obtained from the Bureau of the Census (table 1). Mexico again was the principal supplier of shrimp (mostly frozen) to the United States, and shipped 84 percent of the total as compared with 85 percent in 1953 and 99 percent in 1950. Although the total Unit-

Customs District	1954	1953	1952	1951	1950
. (In 1,000 Pounds)					
New York	-	47	464	1,099	692
Florida	-	1	326	308	614
New Orleans	1,317	447	2,619	2,552	1,842
Galveston	5	2,214	833	1,335	68
Laredo	12,047	9,373	6,703	5,173	3,257
El Paso	119	-	-	2	-
Arizona	19,834	21,656	17,813	24,436	23,046
San Diego	814	1,163	1,668	1,708	1,640
Los Angeles	544	637	591	286	3,096
San Francisco	120	78	380	353	372
Chicago	-	1,091	2,193	2,060	4,044
Minnesota	-	-	-	30	130
Colorado	-	-	42	78	198
St. Louis	-	-	2	109	429
Washington	82	37	16	39	-
Other Customs Districts	4	23	112	7	225
Total	34,886	36,767	33,762	39,575	39,653

^{1/} Mostly fresh and frozen.

ed States imports of shrimp in the past five years has fluctuated little, poor fishing on the Mexican west coast has reduced shipments from Mexico. Mexico ships almost its entire production to the United States. Other countries have taken up the slack and increased their imports of shrimp to the United States.

The largest decrease of shrimp imports from Mexico was in shipments through the Arizona and Galveston Customs Districts (table 2); while shipments through the Laredo and New Orleans Customs District increased substantially.

* * * * *

MISCLASSIFICATION OF IMPORTS OF PEARL ESSENCE AND FISH-SCALE EXTRACT: Investigation has revealed that the data for imports classified under the Bureau of the Census Schedule A commodity number 8420 290, "Chemical pigments, n. s. p. f.," during the period January-September 1954 incorrectly included data on imports of pearl essence and fish-scale extract which are classifiable under Schedule A commodity number 8420 270, "Pearl essence."

The following table summarizes the revisions which were found to be necessary in the January-September 1954 import statistics as a result of these misclassifications:

Schedule A Commodity Number	Commodity Description	As Published		As Received	
		Quantity	Value	Quantity	Value
8420 270	Pearl essence	Lbs. 16,788	US\$ 196,216	Lbs. 24,673	US\$ 276,362
8420 290	Chemical pigments, n. s. p. f.	53,866	89,148	45,981	9,002

The above changes will be presented in further detail in the "Revisions to Previous Months' Reports" section of a future issue of Report No. FT 110, United States Imports of Merchandise for Consumption, Commodity by Origin.

Beginning with the October 1954 statistics, steps were taken which are intended to prevent a recurrence of these errors. In view of the amount of work necessary to investigate the data for years prior to 1954, no attempt will be made to determine the extent of misclassifications, if any, in these data, states the February 1955 Foreign Trade Statistics Notes of the Bureau of the Census.



Washington

CHINOOK SALMON FEEDING AND MIGRATORY HABITS STUDIED: An environmental research study into the feeding and migration habits of fall chinook salmon has been started by the State of Washington Department of Fisheries on the Deschutes River.

Under the supervision of the Chief Biologist, the research staff will attempt to pinpoint the movement of both juvenile and adult chinooks between the Main River and Budd Inlet, with special attention to hold-up periods in Deschutes Lake and rate of progress through the fishway system at Tumwater Falls. The project is roughly parallel to the type of migrant and stream production studies conducted at Minter Creek. Assessment also will be made of the type and quantities of food organisms present in the river and lake during the juvenile feeding stage.

Traps already have been installed at the head of the Falls and in Percival Creek, and others will be placed later at Points in the lake.

In October 1954, 2,700 chinooks were placed above the Falls and the progeny of these spawners are now in their emergent stage or approaching it. Only a few fry have been captured, and the main outward migration is not expected until late spring.

In addition, the Department plans to release 1,000,000 marked chinook fingerlings in the Deschutes from stock being reared at the Green River Salmon Hatchery. The latter has been the donor for the Deschutes since the run was artificially established several years ago.

One long-range objective of the project will be to measure feeding competition between species of salmon and the effect it has, if any, on the ability of the Deschutes

and similar rivers to produce chinooks at a maximum level. To date only chinook salmon have been planted in the river or allowed to ascend the fishways, and this may have contributed to the high productiveness which has characterized the run. When other species are introduced study data will enable the Department to better assess the effects of feeding competition and, if necessary, manipulate escapement to keep the populations in balance.

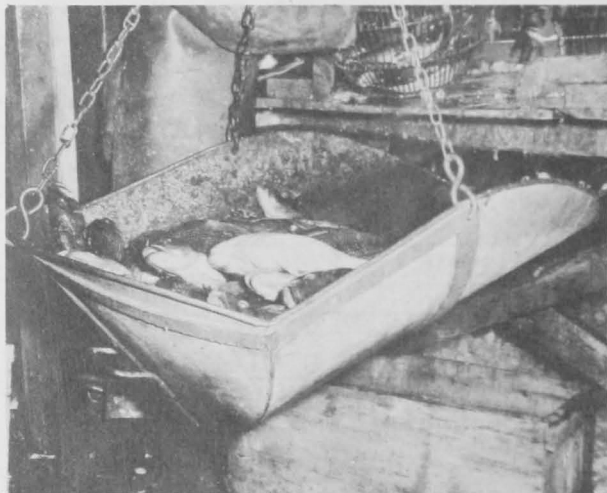
The study has area-wide importance since the Deschutes chinooks have proved to be a mainstay of the fall and winter "Blackmouth" fishing season in lower and middle Puget Sound. It will be conducted by stream biologists with the assistance of the resident biologist for the Olympia area, and will continue for at least three years.



Wholesale Prices, February 1955

Wholesale prices for edible fishery products dropped from January to February due to a light demand for fresh and frozen fish and shellfish. Supplies were

generally moderate in February 1955. February prices were also down from a year earlier. The over-all index for edible fish and shellfish (fresh, frozen, and canned) in February 1955 was 101.8 percent of the 1947-49 average (see table)--3.7 percent less than in January and 5.0 percent below a year earlier.



A lot of sea bass being weighed. At Hampton, Va., dragger fish is landed, sorted by species, weighed, boxed, iced, and shipped by truck to northern markets.

Light demand for large offshore haddock at Boston and Western halibut and salmon at New York caused a 19.0 percent decline from January to February in the drawn, dressed, or whole finfish subgroup index. Offshore drawn haddock ex-vessel prices were down 49.3 percent. Whitefish prices at New York were also down, but prices for all other fresh-water fish were higher than in January. Compared to February 1954, prices for this subgroup were down substantially (13.2 percent) due mainly to the large

decline in prices for haddock and Western halibut.

A sharp decrease in the fresh haddock fillet price was almost offset by a substantial increase in shrimp prices, but the over-all February 1955 average index for the fresh processed fish and shellfish subgroup was down 1.9 percent from January. Shrimp production was light in February 1955 and the demand good. Oyster prices were lower than in January. February 1955 prices for this subgroup were 7.4 percent below a year earlier due to lower haddock fillet and shrimp prices.

In the frozen processed fish and shellfish subgroup, the February 1955 index was up 9.2 percent from January because of higher prices for flounder fillets and shrimp. Frozen haddock fillet prices were lower than in January, while ocean perch fillet prices remained the same. February 1955 prices, however, were well below a year earlier (10.1 percent), with all items priced lower except flounder fillets which were priced slightly higher.

Lighter inventories of salmon and Maine sardines were responsible for a 2.9-percent increase from January to February in the index for canned fishery products.

Tuna prices remained unchanged. California sardine prices were reintroduced in the index since there was a light pack in 1954. February 1955 canned fish prices when compared with a year earlier were up 3.2 percent because of a substantial increase in canned salmon prices; tuna and Maine sardine prices were well below a year earlier.

Table 1 - Wholesale Average Prices and Indexes for Edible Fish and Shellfish, February 1955 and Comparisons

Group, Subgroup, and Item Specification	Point of Pricing	Unit	Avg. Prices ^{1/}		Indexes (1947-49=100)			
			(\$)		Feb.	Jan.	Dec.	Feb.
			1955	1955	1955	1955	1954	1954
ALL FISH & SHELLFISH (Fresh, Frozen, & Canned)					101.8	2/105.7	100.5	107.2
Fresh & Frozen Fishery Products:					103.0	2/111.6	102.9	114.1
Drawn, Dressed, or Whole Finfish:					100.4	2/123.9	107.4	116.5
Haddock, lge., offshore, drawn, fresh	Boston	lb.	.08	.16	80.8	159.3	97.3	119.8
Halibut, West., 20/80 lbs., drsd., fresh or froz.	New York	lb.	.26	.28	79.4	85.6	87.7	94.9
Salmon, king, lge. & med., drsd., fresh or froz.	New York	lb.	.53	.56	119.7	125.6	129.2	115.2
Whitefish, L. Superior, drawn, fresh	Chicago	lb.	.65	.51	161.1	125.2	109.1	151.2
Whitefish, L. Erie pound or gill net, rnd., fresh	New York	lb.	.48	.71	96.0	143.5	114.2	148.6
Lake trout, domestic, No. 1, drawn, fresh	Chicago	lb.	.65	.51	133.2	103.5	129.1	131.1
Yellow pike, L. Michigan & Huron, rnd., fresh	New York	lb.	.53	.50	117.3	117.3	90.3	140.7
Processed, Fresh (Fish & Shellfish):					104.3	2/106.3	101.3	112.6
Fillets, haddock, sml., skins on, 20-lb. tins	Boston	lb.	.30	.45	100.4	153.1	91.9	132.7
Shrimp, lge. (26-30 count), headless, fresh	New York	lb.	.58	.53	91.7	83.8	84.2	101.2
Oysters, shucked, standards	Norfolk	gal.	4.88	5.00	120.6	123.7	123.7	120.6
Processed, Frozen (Fish & Shellfish):					97.4	89.2	89.2	108.3
Fillets: Flounder (yellowtail), skinless, 1-lb. pkg.	Boston	lb.	.40	.38	104.7	98.2	98.2	103.4
Haddock, sml., skins on, 1-lb. pkg.	Boston	lb.	.29	.29	89.4	90.2	90.2	111.4
Ocean perch, skins on, 1-lb. pkg.	Boston	lb.	.28	.28	111.8	111.8	111.8	114.8
Shrimp, lge. (26-30 count), 5-lb. pkg.	Chicago	lb.	.56	.47	86.8	72.5	72.5	104.5
Canned Fishery Products:					100.0	2/ 97.2	96.8	96.9
Salmon, pink, No. 1 tall (16 oz.), 48 can/cs.	Seattle	case	20.70	19.70	109.6	104.4	104.4	93.9
Tuna, lt. meat, chunk, No. 1/2 tuna (6-1/2 oz.), 48 cans/cs.	Los Angeles	case	12.90	12.90	93.0	93.0	93.0	102.4
Sardines, Calif., tom. pack, No. 1 oval (15 oz.), 48 cans/cs.	Los Angeles	case	7.30	7.30	85.2	85.2	3/	3/
Sardines, Maine, keyless oil, No. 1/4 drawn (3-1/4 oz.), 100 cans/cs.	New York	case	7.20	6.70	76.6	71.3	71.3	87.3

^{1/}Represent average prices for one day (Monday or Tuesday) during the week in which the 15th of the month occurs. These prices are published as indicators of movement and not necessarily absolute level. Daily Market News Service "Fishery Products Reports" should be referred to for actual prices.

^{2/}Revised because there were slight adjustments of weighting for fish and shellfish and the subgroups.

^{3/}Not available.



SCHOOL FOR FISHERMEN

A three-week twine net-weaving course for fishermen and prospective fishermen was held at Lockeport, N. S., by the Nova Scotia Department of Trade and Industry. Similar courses are being held in other fishing areas of the Province. The Department also operates a permanent school on navigation at Lunenburg, and also has a mobile unit for providing instruction on marine engines.

--Trade News, March 1954