

TRENDS AND DEVELOPMENTS

Additions to the Fleet of U. S. Fishing Vessels

A total of 45 vessels of 5 net tons and over received their first documents as fishing craft during October 1950--29 less than in October 1949. Florida and California led with 5 vessels each, followed by Massachusetts, Maryland, and Alaska with 4 vessels each, the Treasury Department's Bureau of Customs reported.

During the first ten months of 1950, a total of 716 vessels were documented, compared with 878 during the same period in 1949.

Of the vessels receiving their first documents as fishing craft in October, 31 were built during 1949 and 1950 and the remainder prior to 1948.

Section	October		Ten mos. ending with Oct.		Total 1949
	1950	1949	1950	1949	
	Number	Number	Number	Number	Number
New England	7	3	35	30	35
Middle Atlantic	3	2	42	41	44
Chesapeake Bay	7	7	70	62	87
South Atlantic and Gulf	17	36	269	309	369
Pacific Coast	6	15	206	308	327
Great Lakes	1	2	11	35	38
Alaska	4	8	80	88	96
Hawaii	-	1	3	4	5
Unknown	-	-	-	1	1
Total	45	74	716	878	1,002

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



Defense Fisheries Administration Soon to be Activated

An action program for the new Defense Fisheries Administration, formally established on December 4, is rapidly being shaped up and a staff of fishery experts from the Fish and Wildlife Service has been detailed to organize the program, Secretary of the Interior Oscar L. Chapman announced on December 7, 1950.

Secretary Chapman has appointed Albert M. Day, Director of Fish and Wildlife Service, as Administrator of the new agency. Mr. Day named Milton C. James as Deputy Administrator, Fred F. Johnson as Program Director, and Leroy S. Christey as Assistant Program Director.

1/ALSO SEE PP. 94-5 OF THIS ISSUE.

"All of these men," stated the Director, "served in various capacities during World War II in the coordination of fisheries and are well qualified to handle their new assignments because of their extensive experience in Federal fisheries work, their intimate knowledge of the problems involved, and their wide acquaintance in the fishing industry."

Milton C. James, who became an Assistant Director of the Fish and Wildlife Service in 1945, has been with the agency since 1923. During World War II he was detached from his regular duties as Chief of the Branch of Game-fish and Hatcheries and detailed to Washington, D. C., as one of three Coordination Officers in the Office of the Coordinator of Fisheries (OCF), supervising the activities of the Facilities Branch.

Fred Johnson, Assistant Chief of the Service's Branch of Commercial Fisheries, has been with the agency since 1920. In 1935 he became Assistant Chief. As a reserve officer in the U. S. Navy, he was called to active duty in April 1942 and served during the war as liaison officer between the Navy and the War Production Board and the Departments of Agriculture and Interior on matters pertaining to the procurement and distribution of fishery products. In 1944 Commander Johnson's detail was broadened to permit him to advise the OCF on problems that interfered with the maximum production of fishery commodities. These included the charter, purchase, or return of fishing vessels by the armed forces; the construction program for new fishing vessels; the allocation of fishing vessels between ports in controlled production programs; and applications and recommendations for controlled and critical materials. Johnson returned to his former position with the Service in December 1945. In April 1948 he was assigned to Portland, Oregon, as Assistant Regional Director. When the Pacific Oceanic Fishery Investigations, headquartered in Honolulu, Hawaii, got under way late in 1948, he was transferred to that program as its Assistant Director. In June 1950 he was recalled to Washington, D. C., to assist in handling the Service's expanding program of commercial fishery activities.

Leroy Christey joined the Service in 1934, after his graduation from the University of Washington as an economics major. His early assignments included fishery research in Alaska and at the Fishery Technological Laboratory in Seattle. In 1940 he returned to Alaska as leader of the King Crab Investigations. In December 1942 he was detailed to the Washington Office of OCF where he was concerned with the handling of priorities and materials and equipment requirements for the fishing industry. In April 1945 he resigned from the Service to become general manager of the Pacific Exploration Company in Seattle, Washington, which was engaged in exploratory fishing operations. On November 1, 1948, upon his return to the Service, Christey was appointed as Deputy Administrator of the Philippine Fishery Program in Manila. In April 1950, when this program was being terminated, he joined the Fisheries Division of SCAP in Tokyo as an industrial specialist and head of the Branch of Materials and Facilities. On October 31 he transferred to the Service's Office of Foreign Activities in Washington to assist in planning Point Four Programs.

Defense responsibilities (consisting of certain priority, allocation, claimant, requisitioning, and other functions as related to fish production) were delegated to Secretary Chapman by the Secretary of Agriculture,^{2/} Charles F. Brannan, on October 13. Under the Defense Production Act of 1950, basic responsibilities for food were entrusted to the Department of Agriculture by the President's Executive Order No. 10161^{3/} of September 9, 1950.

^{2/}ALSO SEE COMMERCIAL FISHERIES REVIEW, NOVEMBER 1950, PP. 82-3.

^{3/}ALSO SEE COMMERCIAL FISHERIES REVIEW, NOVEMBER 1950, PP. 79-81.

In addition, the delegation enables the Secretary of the Interior, through the Defense Fisheries Administration, to encourage production of fishery commodities to fulfill requirements for military, essential civilian, and foreign needs, as these may be determined by the Secretary of Agriculture. Responsibility for tin container supply, and materials and facilities used in common for processing fish and other foods, and for fish procurement and distribution, are retained by the Secretary of Agriculture.

Day listed some of the things that the Defense Fisheries Administration intends to do about keeping fishery commodities in sufficient supply to satisfy the country's emergency needs.

"First on the list will probably be the job of trying to keep the fishing industry supplied with the steel, copper, brass, zinc, aluminum, fibers, and other strategic materials and facilities, as well as manpower, which it requires to produce the fishery products the country must have. We must see, however, that no more of such materials are diverted to fishery production than are justified in the light of other defense requirements.

"Following the pattern established during World War II, the statistical, marketing, and other economic data which are regularly collected by the Fish and Wildlife Service will be augmented to lay a basis for setting production goals, estimating potential food supplies, developing estimates of the industry's requirements for scarce materials, and for determining the desirability of fish allocation and concentration programs."

During World War II, fish allocation programs were carried out for sardines in California and halibut in the Pacific Northwest. The sardine allocation program provided for the even distribution of raw fish to plants in California, thus reducing gluts and providing maximum production. The halibut allocation program, by restricting primary handlers to those of historical record, tended to keep distribution in normal Nation-wide channels. In Alaska, salmon concentration programs provided for the coordinated production of the packs of canned salmon in certain centrally located canneries, thus saving manpower, transportation, scarce materials, and other facilities. "These types of programs will again be placed in action, if needed," Day said.

"If critical shortages develop, investigations will be undertaken on the applicability of substitute materials for such items as containers for fishery products, fishing nets and other fishing devices, and cordage," Day added. Closely allied to these studies will be development work for improving the operation of fishing gear, and for the reduction in manpower in fishing operations.



Review of Defense Regulations Affecting Fishery Industries

The following is a brief summary of the status of Federal defense regulations affecting the fishing and allied industries as of December 15, 1950:

Defense Fisheries Administration: No DFA orders have been issued to date.

Agriculture: No production goals or set-aside orders for fishery products have been announced.

National Production Administration: NPA has already issued a number of orders and regulations which: (a) prohibit certain types of construction, (b) limit the amount of inventories which may be held or ordered and (c) restrict the use of certain materials, such as copper, aluminum, zinc, and nickel to various percentages of the amount used during the base period. It would be impracticable to list all of the pertinent features of the fifteen orders already issued and any list prepared would be obsolete almost as soon as issued.

Members of the industry, particularly where they contemplate new construction or expansion, should request that they be put on either of the following mailing lists:

List 1 -- Regulatory material and press releases

List 2 -- Regulatory material only

Requests should be sent to: U. S. Department of Commerce, Division of Printing Services, Attention: E. E. Vivian, Room 6225, Washington 25, D. C.

Priority Assistance: At present there is provision for only two types of priority assistance: (a) the "DO" (Defense Order) ratings and (b) directives. So far only such activities as the Armed Forces, the Coast Guard, and Atomic Energy Commission have been authorized to apply the DO ratings, and directives have been issued only for a few definitely scheduled programs, such as that covering the construction of a limited number of freight cars. With these few exceptions, no priority assistance is granted at present--but a supplier or manufacturer should not require these ratings as yet. Indeed the orders as now written specifically limit the percentage of rated orders a seller must accept and he is supposed to distribute the balance of his production equitably among his normal customers regardless of essentiality of end use.

Other Sources of Information: Defense governmental regulations affecting the fisheries will be abstracted and mentioned in the daily Fishery Products Report issued by the Service's seven Market News Service field offices at Boston, Mass.; New York, N. Y.; Hampton, Va.; New Orleans, La.; San Pedro, Calif.; Seattle, Wash.; and Chicago, Ill.

In addition, a more complete coverage of these regulations will be found in this periodical (Commercial Fisheries Review) issued by the Service at Washington, D. C.



Federal Purchases of Fishery Products

DEPARTMENT OF THE ARMY, October 1950: The increase in the purchases of fresh and frozen fishery products by the Army Quartermaster Corps during October 1950 continued to reflect the increased food requirements of the Armed Services. Purchases of these products for the U. S. Army, Navy, Marine Corps, and Air Force for military feeding during October 1950 amounted to 2,593,246 pounds (valued at \$1,050,634)--the second highest quantity and value of fresh and frozen fishery products purchased for any one month since January 1948.

The only month that exceeded October 1950 was August 1950 when 2,946,230 pounds (valued at \$1,193,198) of these products were purchased.

Purchases of Fresh and Frozen Fishery Products by Department of the Army (October and the First Ten Months, 1949 and 1950)							
Q U A N T I T Y				V A L U E			
October		January-October		October		January-October	
1950	1949	1950	1949	1950	1949	1950	1949
lbs.	lbs.	lbs.	lbs.	\$	\$	\$	\$
2,593,246	1,650,325	14,403,682	14,613,157	1,050,634	559,252	5,947,956	4,835,617

Purchases for October 1950 were above those for September 1950 by 121.3 percent in quantity and 116.6 percent in value; and higher than in October 1949 by 57.1 percent in quantity and 87.9 percent in value (see table).

Although the total quantity purchased during the first ten months in 1950 was still 1.4 percent below the quantity bought during the corresponding period a year earlier, the total value of the purchases for January-October 1950 were 23.0 percent higher than for the first ten months of 1949.



Fishery Biology Notes

DISTRIBUTION AND OCCURRENCE OF STARFISH ON CONNECTICUT OYSTER BEDS, Fall 1950:

As compared with the spring of 1950, the starfish population of Morris Cove to Merwin Point shows a considerable decrease in number because of systematic and persistent efforts of several oyster companies, according to the results of a survey of the distribution and occurrence of starfish on Connecticut oyster beds in the fall of 1950 by the Service's Shellfishery Laboratory at Milford, Connecticut.

Oyster cultivators strikingly reduced starfish in the Milford area south of the line between Charles Island and Pond Point, which remains surrounded from three directions by masses of starfish on uncultivated grounds.



STARFISH ON OYSTER BED.

A tremendously large number of starfish are concentrated in the Charles Island to Stratford Point section, which remains, as in past years, the most heavily infested of the oyster-producing grounds and continues to be the focal point from which starfish move east and west overrunning Milford beds and those lying southwest of Stratford Point.

Stratford Point to Point No Point section, presenting a much better picture than last spring (especially in comparatively shallow water), will again be invaded from the east by masses of starfish now concentrated in the Charles Island to Stratford Point.

The Point No Point to Penfield Reef section, as compared with last spring, shows a decrease in the starfish number.

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CHEMICAL CONTROL OF THE OYSTER'S MOLLUSCAN ENEMIES IS BEING EXPLORED: In order to find repellents, attractors, or poisons to be used in controlling the common oyster drill, the Service's Biological Laboratory at Milford, Conn., is screening chemical compounds offered by a commercial chemical company. Of about 500 compounds screened to date, several good repellents and attractors have been found, the Laboratory reported late in 1950.

Investigation of the various possibilities that may be open in the new field of chemical control of molluscan oyster enemies is continuing. To develop simple and inexpensive chemical methods of control of such enemies as Polynices and Crepidula (marine snails), a number of new poisons will be used. The compounds being sought should be inexpensive, kill the enemy, be harmless to humans, and relatively harmless to commercial mollusks. Work on marine snails, however, will not be started until next summer. Marine snails could be comparatively easily controlled in the oyster dikes of the Pacific Coast, where desired concentrations of chemicals could be created during low tide.

Presently, experiments on drills will be combined with those on the arched slipper shell (Crepidula fornicata), a great oyster pest in Puget Sound and Long Island Sound.



Fishery Marketing Specialist Examination Announced

Examinations for Fishery Marketing Specialist (GS-7 to GS-14), among others, were announced by the U. S. Civil Service Commission on November 21, 1950 (Announcement No. 257). The register established from these examinations will be used to fill positions in the Department of the Interior in Washington, D. C., and throughout the United States and Territories. No closing date for these examinations has been announced. Entrance salaries range from \$3,825 to \$8,800 per year, depending upon the grade.

Except for the substitution of education for experience as provided in the announcement, applicants for the position of Fishery Marketing Specialist must have had at least four to 6 years (depending on the grade) of responsible and successful experience in the field of commercial fisheries and marketing. The amount, quality, and type of the experience required for each grade are shown in detail in the announcement. For all grades of Fishery Marketing Specialist positions, undergraduate study satisfactorily completed in an accredited college or university, with specialization in the subject of fisheries, may be substituted for experience at the rate of one full year of study for 9 months of the required experience, up to a total of 3 years of experience. Undergraduate study satisfactorily completed in an accredited college or university with specialization in the subjects of general economics or marketing may be substituted for experience at the rate of one full year of study for 6 months of the required experience, up to a total of 2 years of experience.

Announcement No. 257 (November 21, 1950), which gives full details and information, and application blanks are obtainable from the U. S. Civil Service Commission, Washington 25, D. C., or from any of the Commission's regional offices.

Freezing-Fish-At-Sea Studies Expanded

With the arrival of the trawler Delaware from Germany, the Branch of Commercial Fisheries will soon be able to expand its freezing-fish-at-sea studies. The vessel, originally of Boston, Mass., but recently used in the rehabilitation of the German fisheries, arrived in East Boston at the Fish and Wildlife Service dock adjacent to the Service's Technological Laboratory. Manned by a German crew, the trawler left Bremerhaven, Germany, on November 17 and docked at East Boston on December 9. The German crew will return to Germany, and the Service will recruit an American crew for the operation of the vessel.



THE TRAWLER DELAWARE RECENTLY ACQUIRED BY THE FISH AND WILDLIFE SERVICE FOR FREEZING-FISH-AT-SEA STUDIES.

The Delaware will be used as an experimental trawler by the Technological Section of the Service's Branch of Commercial Fisheries for carrying out the freezing-fish-at-sea studies. The Delaware, built in 1937, has an over-all length of 147 feet and a beam of 25.1 feet. Powered by a 735 h.p. Diesel engine, it has a fish-hold capacity of 200 tons.

The trawler will have suitable refrigeration equipment for freezing whole round fish at sea. After the frozen round fish is landed, it will be thawed, filleted, and refrozen. Alterations, refitting, and the designing and installation of the refrigeration and fish-handling equipment are now in progress.

In addition to the technologists now assigned to the Boston Technological Laboratory, the Service will employ a refrigeration consultant, additional technical help, and vessel personnel to carry out the various phases of the freezing-fish-at-sea project.



Gulf Exploratory Fishery Program

SHRIMP TRAWLS AND FISH TRAPS TESTED BY "OREGON" (Cruise No. 5): Attempts by the Oregon, the Service's Gulf Exploratory Fishery Program vessel, to test and compare performance of different styles of shrimp trawls on its Cruise No. 5 were not conclusive. The Florida-type balloon trawl, however, was comparatively inefficient on the soft mud and two trawls were lost in a total of eight drags with this gear.

Grooved shrimp were taken in night drags out to 65 fathoms, but catches were at a maximum rate in about 20 fathoms where the commercial fleet was operating. Soft mud bottom was encountered over most of the fishing grounds covered on this cruise and was the apparent cause of frequent damage to gear, but rough seas were probably a contributing factor.

The series of shrimp trawl drags on this cruise were made on a course approximately southeast from Aransas Pass, Texas, from 9 fathoms to 238 fathoms. Those in

shallower water were made in cooperation with the M/V Carey of the Texas Game, Fish and Oyster Commission. Additional shrimp trawl drags with different types of nets were made at various depths between Long. 93° W. and 96° W.

The M/V Oregon left Pascagoula on November 16, 1950, for the testing of shrimp and fish traps and continuation of work on the grooved brown shrimp in the northwest Gulf. The vessel first returned to Pascagoula on December 9 but put out again four days later to get one small lot of shrimp for a cooperative experimental study and to run a series of water temperature determinations out to 800 fathoms. The cruise was completed on December 15, 1950.

Numerous small schools of mullet, Mugil cephalus, were observed near the surface at distances as great as 50 miles offshore southeast of Aransas Pass. The schools observed had fewer than a hundred fish each.

Water temperatures at the surface and at the bottom were quite irregular but bottom temperatures in the 20- to 40-fathom depth range were generally slightly higher than surface temperatures.



Maryland's Striped Bass Production Increased in 1949

Maryland's striped bass or "rock" production increase in 1949, according to a news release from the Maryland Department of Research and Education. Records received from commercial fishermen during 1950 reveal that production should continue at this same high level. The 1949 production of 2,600,000 pounds (valued at \$536,000) represents an increase of only 46,000 pounds over the previous year. However, the striped bass catch has steadily increased over a fifteen-year period to twice as much as the catch for 1930. During the early depression period from 1931-34, the annual yield was less than one quarter of the present catch.

Unlike many species of migratory fishes that enter Maryland waters, the striped bass spend most of their lives in the Chesapeake Bay. Most specimens spawn, feed, and live their entire existence in the Bay. A few, however, migrate northward along the Atlantic Coast. Maryland waters, in fact, have been called the "nursery area" for the striped bass of the entire New England Coast. They are more or less active during early winter months in the estuaries and sounds in the southern portion of the Bay.

With constant fishing pressure an annual occurrence in the Bay, a Maryland fishery investigator states that it is a tribute to the striped bass that it has not only managed to survive, but to prosper in the Bay's waters.



New York Fisheries Damaged by November Storm

Fishing Industry: The fishing industry in the central portion of the South Shore of Long Island (where 95 percent of the Island's fisheries are concentrated) was heavily battered by the late November storm. The four ocean trap companies in the vicinity of Fire Island were reported to have suffered an estimated damage of \$20,000 each. Some slight damage was reported by the Baldwin Harbor and Freeport

areas. December is a cod-fishing month for those areas, but the fishermen reported that since the storm they have not been able to locate the fish. The industry at the western end of Long Island reported only slight damages, according to a mid-December report from the Service's Fishery Marketing Specialist stationed at New York.

Most of the bay traps escaped severe damage because at the time of the storm only a few traps were being fished.

Heavy damage was inflicted by the storm on the entire Staten Island clam fleet, consisting of rowboats and small power boats.

Oyster Industry: Long Island Sound oyster beds were also damaged according to the Service's Biological Laboratory at Milford, Conn. A southeast wind caused a wave action which was felt even at a depth of 40 feet, where it shifted and sanded over the oysters. The action was more severe in shallower water.

In general, with the exception of a few well-protected sections, oysters of Long Island Sound were shifted far from their beds and covered with mud and debris. Many companies could not find an oyster on lots where only a few days before they could fill their dredges in a minute. The damaged boats and other property were insured and are replaceable, but the storm virtually wiped out the reserves of seed oysters which would be marketable oysters in the next three or four years.



North Pacific Exploratory Fishery Program

SHELLFISH EXPLORATION CRUISE COMPLETED BY "JOHN N. COBB" (Cruise No. 6): A shellfish exploration cruise in certain waters off southeastern Alaska was completed by the John N. Cobb, one of the Service's exploratory fishing vessels, when it returned to Seattle on December 9, 1950. The vessel left for this cruise on October 30, 1950. This was the second¹ in a series of such cruises, the first being made in the spring of 1950 to investigate shellfish potentialities in waters adjacent to the Ketchikan area.

Waters covered on the cruise included Tenakee Inlet, Freshwater Bay, Hood Bay, Peril Strait, Salisbury Sound, and inshore and offshore grounds in the neighborhood of Sitka. There were 104 fishing efforts made, using primarily a 20-foot beam trawl, plus an otter trawl, and shrimp and crab traps. Although subfreezing temperatures and winds up to gale force were encountered during a considerable part of the trip, only 1 day's fishing time was lost because of weather conditions.

In Tenakee Inlet, pink (Pandalus borealis) and side-stripe shrimp (Pandalopsis dispar) were found to be widely distributed at depths of from 20 to 108 fathoms, but were taken only in small quantities (up to 20 pounds per hour tow). One half-hour tow near the head of the Inlet produced 48 pounds of large coon-stripe shrimp (Pandalus hypsinotus). Best commercial possibilities in Tenakee Inlet appeared to be trap fishing for large spot or prawn (Pandalus platycerus). Several sets with traps made at various places in the inlet produced up to 19 pounds of large spots (8 per pound, heads on) per trap, taken on rocky bottom in 20 to 40 fathoms. A few large scallops were brought up with the beam trawl, but several tows made with a standard East Coast scallop dredge resulted in a maximum catch of 48 scallops per 50-minute tow. These were taken at depths of 20 to 22 fathoms on gravel bottom.

¹/SEE COMMERCIAL FISHERIES REVIEW, MAY 1950, PP. 33-4.

Small catches of pink and side-stripe shrimp were made in mid-channel in Fresh-water Bay. Five sets of gear in Hood Bay produced practically no shrimp. Ice which covered two-thirds of the South Arm prevented a complete coverage of the bay.

Best commercial possibilities found in Peril Strait again appeared to be trap fishing for spot shrimp. Results of several sets indicate a large population of spot is present on the rocky slopes of both shores from Point Thatcher to Hoonah Sound. The uneven character of the side banks prevented trawling this portion of the bottom, but catches of up to 17 pounds of large spot per trap for a 24-hour set were made, best results being found in from 60 to 80 fathoms of water. As in most of the inside waters of this area, trawling bottom is limited to the relatively small mid-channel area of mud and sand deposits. Pink and side-stripe shrimp occurred in small quantities in nearly every tow. There were 21 pounds of large side-stripe taken with the beam trawl in a tow off Lindenberg Head in 160-167 fathoms of water.

Salisbury Sound has very little trawling bottom, and small quantities of side-stripe, pink, and spot shrimp were taken there. Fish Bay and Katlian Bay produced the best catches of pink shrimp. Several tows resulted in catches of good-sized pink at the rate of over 200 pounds per hour with the 20-foot beam trawl. Best results were obtained in Fish Bay at depths of 30-40 fathoms and in Katlian Bay in 65 to 80 fathoms on mud bottom.

Six tows were made in the open waters off Kruzof Island at depths of 75 to 90 fathoms. Although a showing of large spot, pink, and humpy (*Pandalus goniurus*) shrimp were found, three of the tows encountered snags which seriously damaged the gear, indicating a considerable amount of hazards to trawling in this region.

Results of night drags made at various stations showed no appreciable difference from the catches made on the same grounds during daylight hours. Small numbers of king crab were taken at several places in Peril Strait. Dungeness crab were found in nearly every bay and inlet in the area covered, and are at the present being fished commercially with traps in Tenakee Inlet and Peril Strait.

Besides actual fishing operations, records of surface and bottom water temperatures were made at all stations fished and salinity samples taken. Specimens of the various species of fish and invertebrates taken during the operation were catalogued and a complete collection was returned to the Seattle Laboratory for further study.

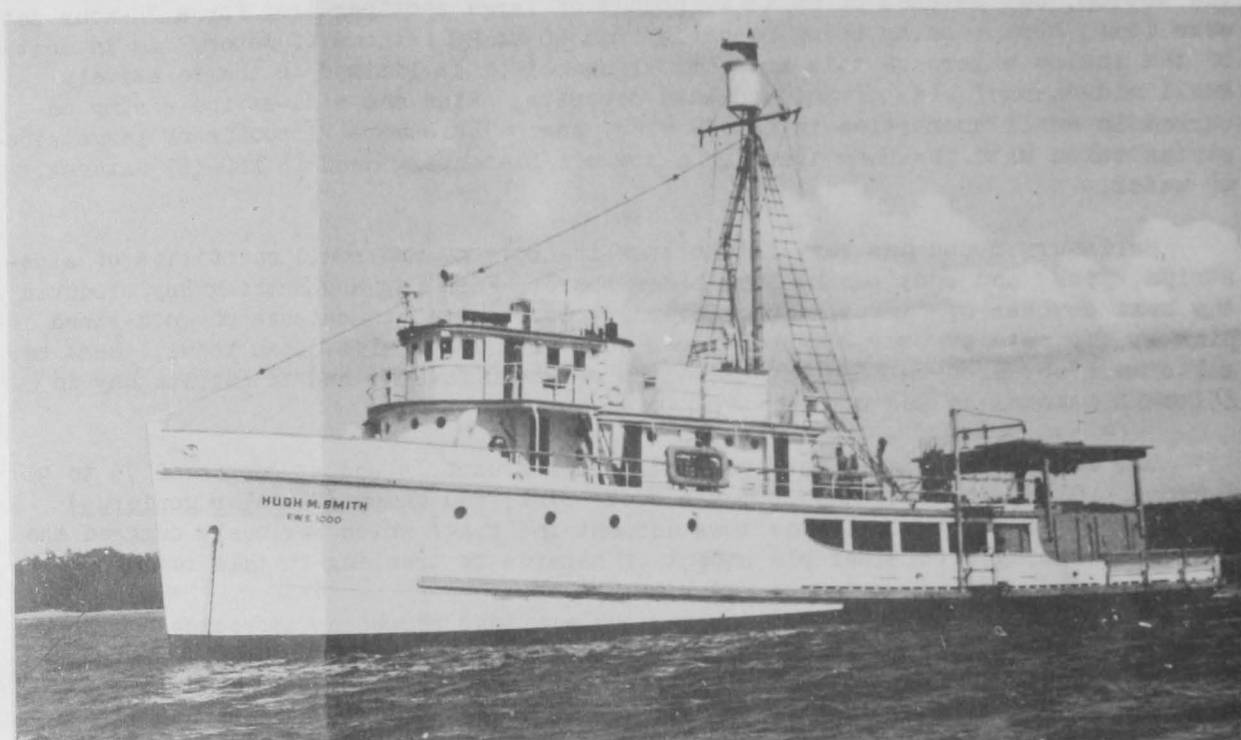


Pacific Oceanic Fishery Investigations

DEEP-WATER YELLOWFIN TUNA LOCATED BY "HUGH M. SMITH" (Cruise No. VII): Yellowfin tuna were found to be concentrated in the area between the Hawaiian Islands and the Equator, the Hugh M. Smith's personnel reported on their return from Cruise No. VII.

Observations: The Hugh M. Smith, one of the Service's Pacific Oceanic Fishery Investigations research vessels, in 27 days of combined tuna long-line fishing and oceanographic observations gathered data which promise a substantial start on the problem of how tuna react to their environment.

Two series of stations at 60-mile intervals were fished from 12° N. latitude to the Equator. These crossed the north equatorial current and the equatorial countercurrent, the zone between the countercurrent and the south equatorial current, and reached to the region of equatorial upwelling in the south equatorial current. In general, tuna fishing was poor in the area between 7° N. and 13° N. latitude where cold water was only a hundred feet below the surface (the boundary between the north equatorial current and equatorial countercurrent). It was generally good in the area between 7° N. latitude and 3° N. latitude, and fairly good as far south as the Equator.



THE HUGH M. SMITH, ONE OF THE SERVICE'S PACIFIC OCEANIC FISHERY INVESTIGATIONS RESEARCH VESSELS, ANCHORED IN KILHEI BAY, MAUI, HAWAII.

Most of the catch of 216 tuna, consisting almost entirely of yellowfin, was taken at levels of 400 to 500 feet below the surface, just above the cold water floor, often in localities where no surface signs of tuna were observed.

In general, good catches were made in the immediate vicinity of Palmyra, Fanning, and Christmas islands, but the best catch occurred about 80 miles southwest of Fanning Island. A section of 6 stations was run to a position 330 miles offshore from Palmyra Island. Fishing did not become any poorer with increased distance from land, but rather seemed to be more closely connected with hydrographic conditions.

At each fishing station on the southbound and offshore sections an oblique plankton tow was made through the upper 200-meter stratum to determine if there is a relationship between basic food supplies and abundance of tuna.

Morphometric measurements were taken on 67 yellowfin, 15 big-eyed, and 5 skipjack tuna for racial studies. Stomachs were taken from 150 tuna for open ocean food studies, and 33 ovaries were taken in connection with maturity and spawning work.

A brief bait survey was made at several of the Line Islands. Palmyra Island appeared to have enough small mullet to provide some live bait for tuna, and 500 pounds of 6- to 8-inch mullet were caught for flag-line bait. A day was spent searching for bait at Fanning Island and at Christmas Island, but no abundant supplies were encountered.

Itinerary of Cruise: The vessel, which left Pearl Harbor on October 17, 1950, started fishing at $12^{\circ}28' N. \times 158^{\circ}04' W.$, and fished at approximately 60-mile intervals to Christmas Island. The next section ran from Palmyra Island to a point 330 miles to the westward. A northbound section was fished from $0^{\circ}01' N. \times 160^{\circ}29' W.$ to $10^{\circ}45' N.$ latitude. Flag-line fishing was conducted near Christmas, Fanning, and Palmyra islands. The Hugh M. Smith returned to Honolulu on November 30, 1950.

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"JOHN R. MANNING" CONDUCTS EXPERIMENTAL PURSE-SEINE TUNA FISHING IN LINE ISLANDS AREA (Cruise IV): The primary mission of the John R. Manning's cruise IV was to conduct experimental purse-seine fishing operations in the waters around the Line Islands (Kingman Reef, Palmyra, Washington, Fanning, and Christmas Islands) to ascertain the abundance and availability of tuna schools to standard West Coast purse-seine equipment, and to develop, if possible, effective techniques for catching these fish.

Area Fished: The John R. Manning, a research vessel of the Service's Pacific Oceanic Fishery Investigations, left Pearl Harbor, T. H., October 26, 1950. Fishing operations were conducted in the vicinity in Kingman Reef and Palmyra Island from October 31 to November 8, near Christmas Island November 10 through 15. The area surrounding Fanning Island was covered between November 15 and 22 and that near Washington Island between November 22 and 24. Between November 26 and 30 the area surrounding Palmyra Island was fished a second time. Part of November 30 and all of December 1 was spent in the area of Kingman Reef for a second time before returning to Pearl Harbor on December 6, 1950.

Fishing Activities: A large school of jumping yellowfin tuna was observed late in the evening of October 3 at Kingman Reef in the current rips and too near the reef for the safety of the vessel. Three experimental purse-seine sets were made at Christmas Island to develop the efficiency of the crew and to obtain data on the performance of the purse seine. A fourth experimental purse-seine set and a fifth set on a large school of jumping yellowfin was made at Fanning Island. There were numerous occasions when the crew was alerted and at their stations for a purse-seine set around tuna or associated bird flocks. These schools of tuna and flocks of birds eluded the approach of the vessel and sounded or dispersed within a quarter of a mile from the vessel. If regrouping of birds or the re-appearance of fish occurred, it was seldom less than one mile away. Sea conditions were unfavorable or impossible for seining outside of the small lee areas of the islands except on rare occasions, because of prevailing high winds and seas.

Two surface-trolling lines were used throughout Cruise IV to catch fish on artificial lures. The fish caught on these lures correlated generally with the visual observations of their occurrence and abundance and supplied a sufficient number of fish for morphometric, food, and developmental studies to be continued at the laboratory in Honolulu. Two additional surface-trolling lines were employed for one day at Washington Island. The occurrence and abundance of tuna was the greatest by far around Washington Island, and during the second call about Palmyra Island.

Other Activities: Collections of invertebrate and vertebrate specimens were made by night-lighting at anchorages. Specimens were also collected by this method on two different nights in the open ocean while returning to Honolulu from Kingman Reef. There were collected from Kingman Reef specimens of red snapper (Lutianus) that have been reported poisonous; these have been forwarded for study to a cooperating scientist studying this problem.

Routine bathythermograph casts were made and recorded at 50-mile intervals between Honolulu and 13° N. latitude and at ten-mile intervals south of 13° N. latitude to Christmas Island, in order to locate the boundaries of the different major currents at this season.

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FISHERIES LABORATORY HOLDS OPEN HOUSE: The new, recently completed fisheries laboratory of the Service's Pacific Oceanic Fishery Investigations held an open house on December 12, 1950. The laboratory, which is located on the University of Hawaii campus, Honolulu, had a number of special exhibits for the occasion. Moving pictures of fishing operations were shown and there were displays of scientific and technical equipment. Of particular interest was the oceanographic exhibit which was designed to show the various types of equipment used in the work of the Investigations and illustrate some of the results of the research conducted to date. Other displays dealt with commercial tuna-fishing gear.



Shad Production and Investigations (Hudson and Connecticut Rivers), 1949

HUDSON RIVER: The New York commercial shad catch from the Hudson River dropped from 798,739 pounds in 1949 to 486,310 pounds in 1950, according to statistics collected by the Shad Investigations of the Service's Branch of Fishery Biology. New Jersey shad catch from the Hudson River dropped from 972,857 pounds in 1949 to 544,000 pounds in 1950.

The total Hudson River shad production in 1950 totaled 1,030,310 pounds, compared with 1,771,596 pounds in 1949--a decline of 42 percent.

Collection of juveniles by the Service's Shad Investigations terminated at the end of October with the virtual disappearance of young shad. A comparison of the Service's data with that of the New York State's Department of Conservation shows that the abundance of young shad on the Hudson River in 1950 was approximately 10 percent less than in 1949.

The Investigations also tagged shad during the season, and it was found that returns from tags released on the spawning grounds declined from 47 percent of those tagged the first week (April 23-30, 1950) to 3.6 percent of those tagged the last week (June 12-18, 1950). On the other hand, returns from tags released at the mouth of the Hudson River amounted to 40.3 percent.

CONNECTICUT RIVER: The 1950 commercial shad catch in the Connecticut River dropped from 132,365 fish in 1949 to 72,513 fish in 1950. The catch-per-unit-of-effort index (uncorrected) indicated a drop from 769 to 575.

The first season's field work of the Service's Shad Investigations on the Connecticut River terminated on October 7, 1950. This work consisted of locating juvenile shad populations and working out methods to carry out next season's program.

Director of Investigations Named for Inter-American Tropical Tuna Commission

The appointment of Milner B. Schaefer as Director of Investigations for the newly-formed Inter-American Tropical Tuna Commission was announced in Washington, D. C., on December 28, 1950, by Milton C. James, Assistant Director of the U. S. Fish and Wildlife Service and Secretary of the Commission.

Schaefer, a fishery research biologist with the Fish and Wildlife Service, resigned from Federal service to assume his new duties with the Commission on January 1, 1951, in San Diego, California. He will come from Honolulu, Hawaii, where he has served since August 1948 as Chief of the Section of Research and Development in the Service's Pacific Oceanic Fishery Investigations.

The convention between the United States and Costa Rica for the establishment of the Inter-American Tropical Tuna Commission was signed at Washington, D. C., on May 21, 1949, and entered into force on March 3, 1950. President Truman appointed three United States Members: Milton C. James, Assistant Director, U. S. Fish and Wildlife Service; Lee F. Payne, member of the California Fish and Game Commission; and Eugene D. Bennett, an attorney of San Francisco. Chairman of the Commission is Jose Luis Cardona-Cooper, chief of the Costa Rican Department of Fisheries.

The Commission has been established to make a joint study of certain tuna fisheries, namely yellowfin and skipjack, and related coastal bait fisheries, in the tropical waters of the eastern Pacific Ocean, "with a view to maintaining the populations of these fishes at a level which will permit utilization year after year without depletion," James stated. Up to this time no large scale tuna or tuna bait investigations have been conducted off the coasts of Central and South America. Because the fisheries included in this Convention present problems to other countries besides the United States and Costa Rica, provision has been made for other interested countries to become participants.



Containers and Packaging Materials Demand at All-Time High

Demand for all types of containers and packaging materials has risen to what is probably an all-time high, the National Production Authority reported on December 22.

NPA's winter 1950 issue of Containers and Packaging Industry Report states that users of containers and packaging materials bought or tried to purchase at levels far in excess of previous usage during the third quarter of 1950. As a consequence supply and demand were out of balance for the first time since 1946, and customer requirements were not met in their entirety.

Chief among the developments which contributed to this situation was the Korean emergency, a summary of the report states. Prior reduction of inventories below normal levels by many container producers and users as a result of the slowdown in the economy during 1949 also caused an added impact on top of regular buying and stepped up military purchases. Furthermore, the sudden tightening of raw material supplies, which in many instances reduced deliveries to container producers, made operations difficult.

As a result, the report states, container and packaging users are entering an era wherein they may not be able to secure the type of container they would normally

use, were all materials in free supply. This will cause some disruption and result in shifts to substitutes, increased re-use, and efforts to effect maximum packaging utility out of less material.

The report points out that demand for containers and packaging materials is high, orders are plentiful, production is up, prices are favorable, labor is satisfactory, and business at every level is greatly improved over last year. While defense needs have taken an increasing share of containers and packaging, no serious bottlenecks have yet occurred to either defense or non-military production because of a lack of containers.

Fish and Seafood Metal Can Shipments, 1940-49									
1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
..... (in short tons of steel)									
128,382	142,222	126,970	82,986	99,426	106,629	108,326	109,130	116,397	113,077

The fish and seafood metal can shipments for January-September 1950 totaled 99,342 short tons of steel, which would indicate a 1950 annual total of about 132,000 short tons. Shipments of these types of cans in 1950, therefore, would approach the average for the years 1940-42 before World War II restrictions on the use of metal cans for certain food products were imposed.

NOTE: THE CONTAINERS AND PACKAGING INDUSTRY REPORT IS PUBLISHED QUARTERLY. ANNUAL SUBSCRIPTIONS AT 60 CENTS MAY BE PLACED WITH THE SUPERINTENDENT OF DOCUMENTS, U. S. GOVERNMENT PRINTING OFFICE, WASHINGTON 25, D. C., OR ANY FIELD OFFICE OF THE DEPARTMENT OF COMMERCE.



New Jersey's Fisheries Damaged by November 1950 Storm

The severe storm which buffeted the Middle Atlantic States on November 25, 1950, caused a moderate amount of damage to the fisheries of New Jersey, according



UNLOADING SEA BASS FROM FISH POTS AT CAPE MAY, N. J. THE NOVEMBER 1950 STORM CAUSED EXTENSIVE DAMAGE TO THE FISH-POT FISHERY.

to a report from the Service's Fishery Marketing Specialist stationed in that State. Some phases of the fisheries were hit harder than others. It is estimated that losses within the industry were moderately high. These losses coupled with a rather poor fishing season has been a financial blow to many of the fishermen.

Perhaps the hardest hit were the pound-net fisheries which suffered a near-total loss of all gear in operation at the time of the storm. However, since only a few of the operators had not removed the webbing, losses were confined in many cases to broken and washed out pilings. There is uncertainty among pound-net operators as to the probability of replacing damaged equipment in the near future. Any worthwhile gear remaining attached to pound-net locations was being salvaged.

The clam fishery also suffered damage and setbacks. A survey around Tuckerton, New Jersey, (probably the largest volume producer of hard clams in the State) revealed the damage to be very severe in that area. Since most of the clam harvesting is done in open "Garvey"-type boats, which are not constructed to withstand a severe storm, and since most of them were moored in unprotected waters, the majority of these boats were swept away across the meadows or sunk. Salvage operations are being undertaken, but it is felt that full recovery will be achieved rather slowly because the finances of the owners of these boats are limited.

The oyster industry along the Delaware River appeared to have suffered no serious damage to installations and equipment. Most of the damage was confined to electric motors and heating systems which were on the lower levels of the plants.

Most of the draggers and seiners suffered little or no loss from the storm. However, one dragger with a five-man crew aboard was reported lost at sea.



Wholesale and Retail Prices

WHOLESALE PRICES, NOVEMBER 1950: Partly due to the drop in demand for fishery products that usually occurs during the latter part of November because of the Thanksgiving holiday, wholesale prices for these products during the month were generally lower than those quoted in October. In November 1950, the edible fish and shellfish (fresh, frozen, and canned) wholesale index was at 109.2 percent of the 1947 average (see table 1)—1.4 percent lower than the previous month, but still 12.7 percent above November 1949, according to the Bureau of Labor Statistics of the Department of Labor.

All subgroups in the fishery products wholesale index showed a general decline during November as compared with October. However, the biggest drop occurred in the frozen processed fish and shellfish subgroup (a drop of 5.5 percent from October to November) mainly due to the lower prices quoted during the month for frozen shrimp and haddock fillets. Large cold storage holdings and substantial imports were probably responsible for the lower shrimp prices, while the continued heavy production of scrod haddock in New England adversely affected the prices of frozen haddock fillets. Compared with November 1949, the index for this subgroup in November 1950 was only 0.8 percent higher, with prices for frozen flounder and rosefish (ocean perch) fillets substantially higher and quotations on frozen haddock fillets and shrimp much lower.

Prices of fresh processed fish and shellfish during November were generally lower since the index for this subgroup dropped 3.6 percent from October to November. (There had already been a decline of 6.0 percent in this subgroup index from September to October.) Nearly all items included in this subgroup showed a price decline from October to November, but the biggest drop occurred in fresh shrimp prices, followed by fresh haddock fillets, and a slight drop in shucked oyster prices. In comparison with November 1949, the index for this subgroup for the same month in 1950 was 4.7 percent lower, with prices for all individual items included under this classification substantially lower.

There was a general decline of only 0.6 percent from October to November in the drawn, dressed, or whole fin fish subgroup due to the slightly lower prices

which prevailed for fresh or frozen salmon, frozen halibut, and fresh haddock. On the other hand, in some instances, the fresh-water fish included in this subgroup showed substantial price increases because stormy weather in the Great Lakes area during November adversely affected the production of fresh-water fish. However, November 1950 prices for all items under this subgroup were still 16.7 percent higher than in November 1949, with only lake trout and yellow pike selling at lower prices.

GROUP, SUBGROUP, AND ITEM SPECIFICATION	POINT OF PRICING	UNIT	AVERAGE PRICES (\$)			INDEXES (1947 = 100)		
			Nov. 1950	Oct. 1950	Nov. 1949	Nov. 1950	Oct. 1950	Nov. 1949
ALL FISH AND SHELLFISH (Fresh, Frozen, and Canned)						109.2	115.8	95.9
Fresh and Frozen Fishery Products:						106.9	109.21	99.4
Drawn, Dressed, or Whole Finfish:						124.7	125.41	105.9
Haddock, large, offshore, drawn, fresh	Boston	lb.	.12	.12	.11	126.1	129.4	109.6
Halibut, Western, 20/80 lbs., dressed, fresh or frozen	New York City	"	.40	.40	.31	116.0	116.1	91.0
Salmon, king, lge. & med., dressed, fresh or frozen	" " "	"	.55	.56	.47	133.9	136.8	115.8
Lake trout, domestic, mostly No. 1, drawn (dressed), fresh	Chicago	"	.48	.43	.54	104.3	95.1	117.5
Whitefish, mostly Lake Superior, drawn (dressed), fresh	"	"	.52	.45	.50	149.6	130.0	143.1
Whitefish, mostly Lake Erie pound net, round, fresh	New York City	"	.53	.53	.55	120.7	120.5	123.5
Yellow pike, mostly Michigan (Lakes Michigan & Huron), round, fresh	" " "	"	.41	.40	.39	95.1	93.5	90.1
Processed, Fresh (Fish and Shellfish):						85.1	89.3	90.3
Fillets, haddock, small, skins on, 20-lb. tins	Boston	lb.	.25	.27	.32	90.7	95.4	113.6
Shrimp, lge. (26-30 count), headless, fresh or frozen	New York City	"	.51	.54	.56	73.6	77.2	81.3
Oysters, shucked, standards	Norfolk area	gal.	4.31	4.40	4.03	106.2	108.3	99.1
Processed, Frozen (Fish and Shellfish):						97.0	105.6	96.2
Fillets: Flounder (yellowtail), skinless, 10-lb. boxes	Boston	lb.	.35	.35	.29	113.0	113.0	92.8
Haddock, small, 10-lb. cello-pack	"	"	.23	.24	.25	104.1	109.7	112.5
Rosefish, 10-lb. cello-pack	Gloucester	"	.26	.26	.22	130.0	129.8	109.4
Shrimp, lge. (26-30 count), 5- to 10-lb. bxs	Chicago	"	.52	.59	.59	74.9	84.6	83.0
Canned Fishery Products:						112.5	113.2	93.1
Salmon, pink, No. 1 tall (16 oz.), 48 cans per case	Seattle	case	23.64	23.64	15.76	154.1	154.1	102.7
Tuna, light meat, solid pack, No. 1/2 tuna (7 oz.), 48 cans per case	Los Angeles	"	14.75	14.75	13.25	96.0	96.0	99.2
Sardines (pilchards), California, tomato pack, No. 1 oval (15 oz.), 48 cans per case	" "	"	6.25	6.25	5.00	69.9	69.9	55.9
Sardines, Maine, keyless oil, No. 1/4 drawn (3 1/2 oz.), 100 cans per case	New York City	"	5.25	5.75	7.25	51.5	56.4	71.1

1/Revised

Lower prices quoted for canned Maine sardines during November 1950 dropped the canned fish subgroup index to 112.5 percent of the 1947 average. However, prices for canned salmon, tuna, and California sardines during the same month held steady at the October levels. The index for this subgroup dropped 0.6 percent from October to November, but was still 20.8 percent higher than in November 1949. Compared with the corresponding month the previous year, prices quoted during November 1950 were substantially higher for canned pink salmon and California sardines, but lower for canned tuna and Maine sardines.

RETAIL PRICES, NOVEMBER 1950: Because retail canned salmon prices continued to rise, the retail price index for fishery products in mid-November 1950 continued to increase. This is the second month in succession that there has been an increase in this index in spite of the decline which took place in the fishery products wholesale index during the same period.

Between October 15 and November 15, 1950, retail food prices rose only 0.2 percent, but fish and shellfish (fresh, frozen, and canned) retail prices climbed 2.3 percent. Compared with mid-November 1949, the retail index in mid-November 1950 was higher for all foods by 4.3 percent and for all fish and shellfish (fresh, frozen, and canned) by 11.9 percent.

While prices of fresh and frozen fishery products on November 15, 1950, were only 0.4 percent above those which prevailed in mid-October, there was an increase

during the same period of 6.0 percent in canned salmon prices. Therefore, the increase which took place in the retail prices of all fishery products is directly

Table 2 - Retail Price Indexes for Foods and Fishery Products,
November 15, 1950, with Comparative Data

Item	Base	I N D E X E S		
		Nov. 15, 1950	Oct. 15, 1950	Nov. 15, 1949
All foods	1935-39 = 100	209.5	209.0	200.8
All fish and shellfish (fresh, frozen, and canned)	do	336.5	328.8	300.6
Fresh and frozen fish	1938-39 = 100	286.5	285.2	266.4
Canned salmon: pink	do	445.9	420.6	367.9

attributable to the rise in canned salmon prices. Compared with November 15, 1949, the retail index in mid-November 1950 for fresh and frozen fish was 7.5 percent higher, but that for canned pink salmon was 21.2 percent higher.



Economic Cooperation Administration Program Notes

AID TO THE PHILIPPINES: The United States Government is launching an immediate program of technical assistance to the Philippine Republic, to assist that government in meeting its initial commitments under the recently-signed preliminary economic aid agreement with the United States, the Economic Cooperation Administration announced on December 1. Experts in certain technical fields have already been appointed and other technicians are expected to be appointed soon.

The China Area Aid Act authorized ECA to use already-appropriated funds to aid countries in the "general area of China." The Philippine technical assistance program will begin under this general Southeast Asia program pending further consideration by the United States Congress. Legislative action is necessary both in the United States and the Philippines to implement the agreement, which states President Truman's intention to ask the United States Congress for the necessary funds for a social, economic, and technical assistance program requiring "several consecutive years of substantial aid."

MARSHALL PLAN AID TO UNITED KINGDOM SUSPENDED: The suspension of Marshall Plan aid to the United Kingdom on January 1, 1951, was reported by the Economic Cooperation Administration. The ECA action followed a series of consultations between the chief of ECA's special mission to the United Kingdom and British officials concerning the need for continued American economic assistance. In reaching this decision, the United States and Great Britain were guided by two considerations:

"First, the economic recovery of Britain and of the sterling area as a whole has made such good progress that the dollar deficit has in recent months disappeared--an achievement which coming early in the third year of a four-year program is a source of profound satisfaction to both governments.

"Secondly, the defense program of the United States, which includes the Mutual Defense Assistance Program (MDAP), will now impose new and heavier demands on her economy."

The United Kingdom, however, will continue to draw upon the total allotments for the six months ended December 31, 1950, and previous allotments of aid until they are exhausted. The goods and services so financed will, therefore, be reaching Britain for some months to come. Also, the United Kingdom will remain a full participant to the OEEC and EPU. Certain ECA programs, in particular those for fostering overseas development, for the production of scarce materials, and for the interchange of technical knowledge to encourage higher productivity, will be maintained. The United Kingdom will continue to be eligible for assistance under these programs and the economic cooperation agreement between governments of the United Kingdom and the United States will remain in force for the time being.



ECA Procurement Authorizations for Fishery Products

Procurement and reimbursement authorizations reported by the Economic Cooperation Administration during December 1950 included \$322,000 for fishery products and byproducts. Of this amount, \$302,000 was to be used by Greece for the purchase of canned fish (except canned shrimp, crab meat, lobster, salmon, or tuna) from the United States and possessions. The balance of \$20,000 was to be used by France for the purchase of fish and whale oils from the United States and Possessions.

There were no cancellations or decreases affecting previous authorizations for fishery products during December 1950.

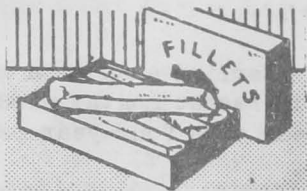
From April 1, 1948, through December 31, 1950, ECA procurement authorizations for fishery products totaled \$29,433,000 (\$16,744,000 for edible fishery products; \$11,149,000 for fish and whale oils; and \$1,540,000 for fish meal). Of this total, \$10,344,000 was used for purchases in the United States and Possessions (canned fish, \$7,256,000; salted fish, \$9,000; fish and whale oils, \$3,079,000). In addition, during the entire period \$220,000 was authorized under the Far Eastern Aid Programs for use by Korea for the purchase of fish and whale oils from the United States and Possessions.



PACKAGED FISH--1949

DO YOU KNOW.....

That the production of fresh and frozen packaged fish (fillets, steaks, and split butterfly) in continental United States during 1949 totaled 194,011,159 pounds, valued at \$48,338,569 to the processors. This was an increase of 2 percent in quantity and 1 percent in value, compared with the previous year. The principal items produced were rosefish fillets (73,192,538 pounds, valued at \$15,334,674) and haddock fillets (42,139,796 pounds, valued at \$11,844,771).



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