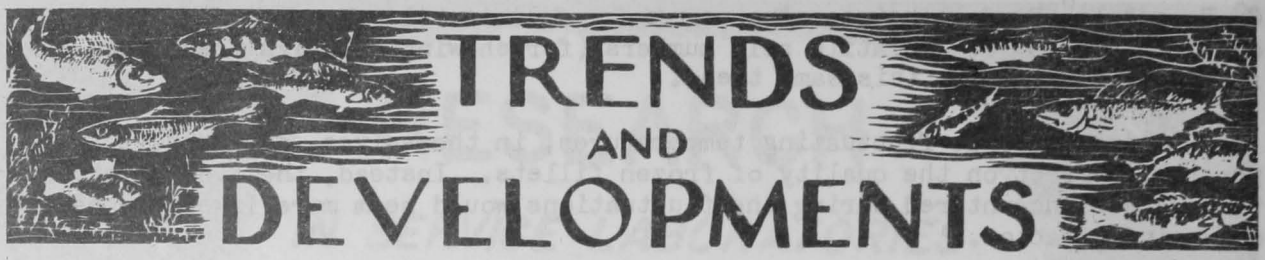


Additions to the Fleet of U. S. Fishing Vessels

Fifty-one vessels of five net tons and over received their first documents as fishing craft during February 1949, 2 more than January 1949 and 4 more than in February 1948. Washington led with 7 vessels documented during February, followed by Texas and Virginia with 6 vessels each. During January and February 1949, a total of 108 vessels were documented compared with 92 during the same period in 1948.

Vessels Obtaining Their First Documents as Fishing Craft, February 1949

Section	February		Two mos. ending with Feb.		Total
	1949	1948	1949	1948	1948
	Number	Number	Number	Number	Number
New England	-	1	2	3	52
Middle Atlantic	6	2	7	2	40
Chesapeake Bay	6	4	12	5	59
South Atlantic and Gulf	19	28	53	46	541
Pacific Coast	12	9	19	25	347
Great Lakes	3	1	8	2	51
Alaska	5	1	6	7	81
Hawaii	-	1	1	2	12
Total	51	47	108	92	1,183

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

ECA Procurement Authorizations for Fishery Products

During April 1949, the Economic Cooperation Administration announced, among the procurement authorizations for commodities and raw materials, a total of only $647,000 for the purchase of fishery products. All of the month's authorizations were for purchases to be made in the United States and possessions.

In addition, ECA announced on April 12 the cancellation of an authorization for $668,000 which was to be used for the purchase of canned fish from the United States and possessions for delivery to Greece. The cancellation was due to the failure by Greece to issue import permits for this procurement.

Of the total amount ($21,076,911) authorized by ECA for the procurement of fishery products, only $3,860,800 will be used for purchases in the United States and possessions.

Since the recovery of Western Europe's transportation system has been rapid, ECA announced on April 11 that it has aided in the movement of fishery products,

ECA Procurement Authorizations for Fishery Products, April 1949

Product	Country of Origin	Procuring Agency 1/	Recipient Country	Amount Authorized
Fish, canned 2/	U.S. & Possessions	Ireland	Ireland	$ 450,000
Oil, fish	U.S. & Possessions	U.S.Dept.Army	Fr.Zone Germany	35,000
" " "		U.S.Bur.Fed.Supply	Korea	162,000
Total for April 1949				647,000
Total ECA Procurement Authorizations for Fishery Products, April 1, 1948-April 30, 1949				
Fish, canned	U.S. & Possessions	Greece, Italy, Ireland, Belgium-Luxembourg	Greece, Italy, Ireland, Belgium-Luxembourg	2,010,800
Fish, salted	Newf.& Canada	Italy & Fr.West Indies	Italy & Fr.West Indies	5,179,000
Fish meal	Canada, Iceland, Norway, & Angola	Denmark, Austria, & U.S.Dept.Army	Denmark, Austria, & Bizonia	3,457,361
Oil, herring	Iceland	U.S.Dept.Army	Bizone Germany	1,694,000
" , seal	Newfoundland	France	France	257,600
" , shark liver	Latin America except Argentine & Brazil	France	France	250,000
" , fish	U.S. & Possessions	U.S.Dept.Army & Bur.Fed.Supply	Bizone & Fr. Zone Germany,& Korea	487,000
" , technical fish	U.S.	U.S.Dept.Army	Bizone Germany	100,000
" , whale	Netherlands,Belgium Norway, & U.S.	Austria, France, & U.S.Dept.Army	Austria, Bizone & Fr.Zone of Germany	7,074,150
Vit. A (Commercial grade, for stock feed)	U.S.	Netherlands	Netherlands	567,000
Grand Total Authorized				21,076,911

1/Where the recipient country is shown as the procuring agency, the government of the participating country or its authorized agents or importers do the purchasing.
2/Except salmon and tuna.

and "seafood no longer is rotting on the docks and piers for lack of sufficient transportation."

Federal Purchases of Fishery Products

DEPARTMENT OF THE ARMY, February 1949: Fresh and frozen fishery products purchased during February 1949 by the Army Quartermaster Corps for the U. S. Army, Navy, Marine Corps, and Air Force for military feeding amounted to 1,434,866 pounds valued at $478,040 compared with 931,197 pounds valued at $344,732 for January 1949, and 1,237,656 pounds valued at $462,052 a year ago. Purchases for the first two months in 1949 totaled 2,366,063 pounds valued at $822,772 as against 2,546,795 pounds valued at $971,726 for the corresponding period the previous year.

Fishery Biology Notes

AGREEMENT ON HARD CLAM INVESTIGATION: An agreement was entered into on April 7, by Rutgers University, which is the State University of New Jersey, and

the Fish and Wildlife Service, both interested in the conservation of the hard clam (Venus mercenaria), particularly of the New Jersey coast. This agreement will make possible a thorough study of the present status and possibilities for restoration of clam fishing in this State.

NORTH CAROLINA SHRIMP AND FISHERIES RESEARCH AGREEMENT: On April 11, 1949, the Fish and Wildlife Service and the Institute of Fisheries Research of the University of North Carolina entered into an agreement for investigations of shrimp in North Carolina waters; studies of the distribution and abundance of larval and post-larval shrimp in the sounds, inlets, and coastal North Carolina waters; and the formulation of plans for future research on shrimp.

Also, on April 21, 1949, the Service and the Institute of Fisheries Research entered into an additional agreement for a cooperative investigation of the oceanographic conditions and the kinds, abundance, and distribution of fish and invertebrates in the coastal waters of North Carolina.

PROGRESS ON CLAM RESEARCH PROGRAM: The Clam Investigation authorized by the 80th Congress has developed its plans for the research program on hard- and soft-shell clams. This summer, the headquarters for this Investigation will be moved from Woods Hole, Massachusetts, to the lobster hatchery near Boothbay Harbor, Maine. The Investigation has three biologists at Boothbay Harbor studying management problems of the soft-clam fishery. In addition, experimental soft-clam farming in some of the bays near Boothbay Harbor is planned.

MAINE DIGGERS GATHER SEED CLAMS FOR A RE-SEEDING PROJECT.

Another three-man unit is located at Newburyport, Massachusetts, where the largest commercial clam fishery of Massachusetts was formerly located. This group is working primarily on commercial farming of soft clams.

Hard-shell or quahaug clam studies for the northern area are centered at Wickford, Rhode Island, where two biologists are setting up an experiment to determine the relative effects of tonging versus power dredging. In Rhode Island, studies of management methods will be conducted, and an experimental quahaug farm is planned. Although private clam farming is not legal at the present time in this State, it is hoped that methods can be developed which will apply in other areas.

Part of the appropriation has been allocated for the study of artificial propagation of hard- and soft-shell clams at the Service Laboratory in Milford, Connecticut. At the same time, the other units of the Investigation will attempt to develop methods of obtaining seed clams from natural reproduction.

Two graduate student fellowships at Rutgers University in New Jersey have been established to carry on work on certain phases of quahaug research. One of the men will concentrate on the development of cultching methods for obtaining seed quahaugs; the other man will make observations on the types of plankton which the quahaugs use as food in New Jersey waters.

During the next fiscal year a research unit somewhere along the southern coast will be established. The actual site of this investigation has not been chosen, but it may be that the unit will be located at the Service Laboratory at Beaufort, North Carolina.

Eventually quahaug farming may increase the clam production in southern states, but even at the present time the difficulty seems to be in the development of marketing and fishing methods more than in a scarcity of clams.

REESTABLISHING ATLANTIC SALMON IN THE ST. CROIX RIVER: At a meeting held at St. Andrews, New Brunswick, on April 12, the Chief of the Service's Section of Anadromous Fisheries, the Chief of the Service's Atlantic Salmon Investigations, and officials of the State of Maine, discussed with Canadian fishery administrators and biologists the problem of reestablishing runs of Atlantic salmon in the St. Croix River. They mutually agreed that a physical and biological survey of the river would be necessary before steps for remedial measures were taken. These measures would include, primarily, provision of fishways at three dams on the St. Croix River, and stocking of stretches of the river above these dams with young Atlantic salmon. Accomplishment of these measures would be dependent upon the findings of the survey, which would show whether or not it would be economically and biologically feasible to reestablish the runs.

The surveys will be carried out during the summer of 1949 and another meeting will be held in the fall for the purpose of reporting findings and discussing further measures.

SEA LAMPREY INVESTIGATIONS: The Chief of the Great Lakes Fishery Investigations at Ann Arbor, Michigan, reports the formulation of a detailed outline for the proposed operations of the sea lamprey-lake trout investigations during the fiscal year 1950.

Data from the monthly reports of commercial fishermen of the State of Michigan have been compiled and analyzed in order to obtain information on the incidence of sea lamprey scars on lake trout and other species in various localities and seasons, and the effects of scarring on marketability. A number of streams tributary to central and northern Lake Huron have been examined to select suitable locations for experiments to test the possible value of introducing the American eel (Anguilla rostrata) as a predator on the larval stages of the sea lamprey.

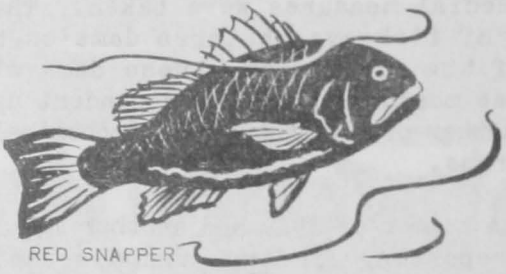
STRIPED BASS TAGGED IN NORTH CAROLINA: Over 200 striped bass have been tagged in the Santee-Cooper River system in South Carolina by the Service through cooperative arrangement with the Inland Fisheries Section of the South Carolina State Board of Fisheries, according to the Chief of the Middle Atlantic Fishery Investigations of the Service's Branch of Fishery Biology. This experiment will be an attempt to determine the migratory habits of these fish and to what extent they ascend through the ship canal to the upper reaches of the resevoir. After the dam built in the Santee-Cooper Rivers in 1937 created a large impoundment, there was a phenomenal run of striped bass in these waters. Since these fish spend considerable time at sea, tags probably will be returned from distant areas.

USE OF SONIC EQUIPMENT TO GUIDE FISH: Experiments begun recently at the U. S. Fishery Station, Kearneysville, West Virginia, on the use of sonic equipment to guide fish have been completed. The results of these experiments, as with similar ones performed in the fall of 1947, according to the Chief of the Section on Anadromous Fisheries of the Service's Branch of Fishery Biology, were negative. Apparently, fish do not react to vibrations produced with this type of equipment, regardless of their intensity or frequency.

U. S. FISHERY LABORATORY AT BOOTHBAY HARBOR: The Service's Branch of Fishery Biology is establishing a fishery laboratory at the hatchery located at Boothbay Harbor, Maine. It will be the headquarters of the soft-clam investigations. The Chief of the Clam Investigations and a staff of assistants will be stationed there.

Gulf Fisheries Trends, April 1949

RED SNAPPER FISHERY: Shrimp vessels turn to snapper fishing during the off seasons in the Gulf, according to a mid-April report from the Service's Fishery Marketing Specialist making a statistical survey of the Gulf fisheries. However, the red snapper market has continued to weaken during the past few months.



RED SNAPPER

NEW PRODUCTS: A few new products are making their appearance on the market. A fan-tail shrimp is now being marketed in Georgia. It consists of a cleaned, deveined, headless shrimp with the fan part of the tail left on. The shrimp are dipped in batter, frozen, and packed in 12-oz. containers ready for cooking. They are reported to retail for 85 to 90 cents a package.

Another firm on the Gulf is marketing canned shrimp cakes. The description of the product is about the same as for codfish cakes except that it contains shrimp instead of cod.

OYSTER FISHERY: During 1948-49, the Mississippi oyster industry had a poor season. Due to the possibility of the Mississippi spring flood waters flooding reefs and killing the oysters, the Mississippi Seafood Commission met on March 18 and decided to open the Mississippi reefs on April 1. Canned oysters in mid-April were reported steady at $14.00 per case and showed signs of advancing.

Indo-Pacific Fisheries Council Meets

The inaugural meeting of the FAO Indo-Pacific Fisheries Council held in Singapore from March 24-31, was concerned primarily with the business of getting the Council organized into workable form, according to the Food and Agriculture Organization.

A call for quick results in the war against starvation by wresting riches from the seas was made by FAO Director-General N. E. Dodd in opening the first

meeting. The rich resources of the seas, as yet virtually untapped, Mr. Dodd said, promise the quickest results in the battle against starvation and the disease and misery which follow in its train.

Eleven countries—Australia,[1/] Burma, Ceylon, China, France, India, the Netherlands, the Philippines, Siam, the United Kingdom, and United States of America—have accepted the agreement for establishment of the Council.

The Indo-Pacific Fisheries Council is the first of a series of such regional fisheries councils to be established. The Council's primary aim is to further the development, utilization, and conservation of the fisheries and thereby improve nutritional standards. In the Indo-Pacific area, there is a general shortage of animal protein in the diets of the people. To help make up for this deficiency, greater utilization of fish products is hoped for. The Council's immediate aim is the "development and proper utilization of the living aquatic resources of the Indo-Pacific areas" through the encouragement and coordination of research and the application of improved methods.

Among other functions of the Council are:

1. **To disseminate technical information relating to living aquatic resources;**
2. **To recommend research and development projects;**
3. **To assist member countries to secure essential materials and equipment;**
4. **To report annually to the FAO Conference.**

The following is a summary account of the proceedings of the Council as given in the preliminary report of this first meeting:

The meeting opened on Thursday, March 24, 1949, at 10:30 a.m. with addresses from the Honourable Malcolm MacDonald, Commissioner-General for the United Kingdom in South East Asia and from Mr. Norris E. Dodd, Director-General of the United Nations Food & Agriculture Organization.

The meeting was attended by 32 representatives of eight nations. Four of these representatives acted as Observers on behalf of the South Pacific Commission and five other representatives attended as Observers on behalf of Korea, UNESCO and SCAP (see list).

The meeting consisted of twelve scheduled and one special session and of various Committee Sessions. In addition, there were three evening Symposium Sessions.

The Council elected Dr. Baini Prashad as its Chairman and Dr. J.D.F. Hardenberg as its Vice-Chairman. These elections were confirmed after adoption of the Council's Rules of Procedure and these gentlemen are, therefore, the Council's Officers for the current year.

The Council discussed and adopted Rules of Procedure for the conduct of its business at meetings and the performance of its functions between meetings.

The Council established two technical committees of the council, one for biology and hydrology and one for technology and economics. The technical committees were given specific terms of reference and program of work on which they are to report at the next meeting.

The Council decided to inform the International Commission for Zoological Nomenclature that it had no funds available to enable it to accept the Commission's proposal in connection with standardization of names of commercially important fish. However, the Council directed Technical Committee I to communicate with the ICZN to discuss the ways in which such work might be initiated.

A report was received on the matters relating to fisheries discussed at the Seventh Pacific Science Congress.

Reports were received from the Technology and Taxonomy Committees appointed at Baguio and were referred to the Technical Committees.

The proposal for the establishment of a panel of experts was approved in principle and referred to the Technical Committees.

The survey of institutions, vessels, etc., was reported; the project was approved and Council requested its continuation and completion.

The Council adopted a budget for 1949 and submitted comments on commitments for 1950.

The Council agreed on a basic publication (the report of its meetings) and on occasional mimeographed publications.

The Council left it to the Executive Committee to decide on the place of the next regular meeting. Subsequent to the close of the meeting, an invitation to hold the 1950 meeting in Australia was received and probably will be accepted by the Governments who are members of the Council.

The Council devoted a large part of its time to the reading of technical papers of which 21 were contributed and 6 were contained in the work paper series. In addition, 4 papers were presented during the symposium sessions.

1/Notification was received by FAO on March 10, 1949.

LIST OF DELEGATES AND OBSERVERS

Australia

Dr. H. Thompson (Delegate), Chief, Division of Fisheries, CSIR, Cronulla, N. S. W.

F. T. Homer, Esq. (Alternate), Acting Official Secretary, Australian Commissioner's Office, Singapore.

Ceylon

Dr. C. Amirthalingam, Director of Fisheries, Ceylon.

China

Dr. Wu Paak Shing, Consul-General of the Republic of China, Singapore.

France

Mon. Lemasson (Delegate), Chief, Services des Peches et Chasses de l'Indo-Chine, Pnompenh.

Mon. J. Durand (Alternate), Assistant Institut Oceanographique de l'Indo-Chine, Nhatrang.

India

Dr. Baini Prashad (Delegate), Fisheries Development Adviser, Dept. of Agriculture, New Delhi.

Dr. N. K. Panikkar (Alternate), General Physiologist, Central Marine Fisheries, Research Stn., Madras.

Netherlands

Dr. J. K. de Jong (Delegate), Head of Sea Fisheries, Batavia.

Dr. J. D. F. Hardenberg (Alternate), Head of the Laboratory for the Investigation of the Sea, Batavia.

W. H. Schuster, Esq., Inland Fisheries, c/o Laboratory for the Investigation of the Sea, Batavia.

Cir. H.W. R. Krauss, Hydrographer, Dept. of Navigation, Batavia.

P. W. Lokollo, Esq., Fisheries Adviser for East Indonesia.

Philippines

Claro Martin, Esq., Chief, Division of Fisheries, Technology, Bureau of Fisheries, Manila.

United Kingdom

Dr. W. M. Clyde (Delegate), Director, Economic Activities, Office of Com. Gen. for U. K. in S. E. Asia.

Dr. H. W. Jack (Alternate), Agr. Adviser to the Com. Gen.

T. W. Burdon, Esq., Acting Dir. of Fish.
Tham Ah Kow, Esq., Research Officer
Soong Min Kong, Esq., Research Officer
Chia Chye Khoon, Esq., Agric. Fish. Off.
} Fisheries Dept. Singapore & The Federation

E. Banks, Esq., Fishery Survey Officer, Sarawak.

J. A. Tubb, Esq., Director of Fish., Sandakan, North Borneo.

E. H. Weigall, Esq., Fisheries Officer, Brunei.

J. Cater, Esq., Act. Dir. of Fish., Fisheries Dept., G.P.O. Bldg., Hong Kong.

S. Y. Lin, Esq., Asst. Officer-in-Charge, Fisheries Dept., Hong Kong.

M. W. F. Tweedie, Esq., Dir., Raffles Museum, Singapore.

Dr. C. A. Gibson-Hill, Asst. Curator, Raffles Museum, Singapore.

U. S. A.

Oscar E. Sette, Esq. (Delegate), Director, Pacific Oceanic Fisheries Investigation, Fish & Wildlife Service, Dept. of the Int., San Francisco, Calif.

Dr. Wm. E. S. Flory (Alternate), Deputy Spec. Asst. to the Under Secretary, Dept. of State, Washington 25, D. C.

Dr. Hilary J. Deason, Chief, Office of Foreign Activities, U. S. Fish and Wildlife Service, Dept. of the Interior, Washington 25, D. C.

Chas. Butler, Esq., Chief, Technological Activities, Pacific Oceanic Fisheries Inv., U. S. Fish and Wildlife Service, Dept. of the Interior, Honolulu, Hawaii.

Herbert Warfel, Esq., Biologist-in-Charge, Biological and Oceanographic Investigations, Philippines Fishery Program, Fish and Wildlife Service, Manila.

OFFICIAL OBSERVERS

Korea

Chyung, Moon Gi, Esq., Economic Planner, Planning Board, Republic of Korea, Seoul.

Whang, Sung Soo, Esq., Chief of Information Bureau, Ministry of Foreign Affairs, Seoul.

S.C.A.P.

W. C. Herrington, Esq., Natural Resources Section (Fish. Div.) G.H.Q.,-SCAP, Tokyo.

South Pacific Comaission

Dr. Wm. E. S. Flory, U.S.A. | Mon. Lemasson, France.
Dr. H. Thompson, Australia. | Dr. J.D.F. Hardenberg, Netherlands.

U.N.E.S.C.O.

Delhi

Dr. A. Wolsky, Principal Field Scientific Officer.

Paris

W. J. Ellis, Esq., Co-operation Office, Div. of Science Co-operation.

- - - - - - - - - - -

UNOFFICIAL OBSERVERS

Commissioner-General's Office, Singapore

R. G. Stone, Esq., Secretary, Economic Department.

Federation of Malaya

Ankar Rentse, Esq., Development Officer, Kota Bahru, Kelantan.

Che ' Iaidih Bin Alang Musa, c/o District Hospital, Alor Gajah, Malacca.

Medical College

Dr. D.W.G. Faris, Principal.
Prof. J. W.H. Lugg, Prof. of Biochemistry.
Dr. J. W. Black, Supernumerary Tutor of Physiology.
Dr. N. K. Sen, Acting Professor of Bacteriology.
Dr. J. H. Strahan, Prof. of Social Medicine & Hygiene.
Dr. Lim Koh Ann, Tutor in Bacteriology.
R. Mannikan, Esq., Senior Laboratory Assist., Spec. Grade.
Lim Boon Par, Esq., Final Year Medical Student.

Ministry of Food

A. R. Pratt, Esq., Ministry of Food Repr., in S. E. Asia.

Raffles College, Singapore

Dr. G. V. Allen, Principal Designate of the Univ. of Malaya.
Prof. W.E. Dyer, Prof. of History & Principal of Raffles College.
Prof. R.A. Robinson, Professor of Chemistry.
Dr. E.H.G. Dobby, Professor of Geography.
Prof. Lim Tay Deh, Ag. Professor of Economics.
Khang Ai Kia, Esq., Lecturer in Chemistry.
Mrs. Tong, Asst. Lecturer in Chemistry.

K. Bieda, Esq.
Ungku Aziz bin A. Hamid
} Economics Department.

Jacob Low, Esq.
Oh Sui Hong, Esq.
} Students (Final Year).

Raffles Museum, Singapore

H. D. Collins, Esq., Curator, Raffles Museum, Singapore.

- - - - - - - - - - -

SECRETARIAT (F.A.O.)

Washington

Norris E. Dodd, Esq., Director-General.

Mr. Orr, Asst. Sec. General of the International Emergency Food Committee.

Mr. Veillet Lavallee, Spec. Asst. to the Director-General.

Dr. J. L. Kask, Fisheries Division.

Bangkok

Charles L. Coltman, Esq., Information Officer.

Singapore

Dr. G. L. Kesteven, Regional Representative (Fisheries).

The Chief of the Fisheries Division of the Natural Resources Section of SCAP, who served as observer, informed the Council of the status of Japanese fisheries and of the rehabilitation program now under way. It was also suggested that the Council might wish to have Japanese scientists present at future meetings to permit fuller exchange of ideas and technical information. This would also enable the Japanese to carry back to the home islands first-hand impressions of the attitudes of neighboring nations toward Japan, and only in this way would it be possible to impress fully upon the Japanese the need for international good will and cooperation in fishery matters.

Massachusetts Fisheries Trends, April 1949

FISHING FOR ROSEFISH AT NIGHT: Recently, a U. S. Labor Department arbitrator rendered a decision that the practice of fishing for rosefish at night by Gloucester vessels was contrary to a clause in the existing contract between the Atlantic Fishermen's Union and the Gloucester Vessel Owners and, therefore, must be stopped, according to a mid-April report from the Service's Fishery Marketing Specialist at Gloucester, Mass.

SALE OF BOSTON TRAWLERS TO U. S. ARMY: Reports indicate that two Boston trawlers were purchased by the U. S. Army to fish out of German ports and help increase the food supply of Bizone Germany. These two are the first of a reported 15 vessels to be purchased by the Army.

New York City Fillet Production, 1948

The 1948 fillet production of the 29 firms in New York City filleting fish amounted to 8,028,000 pounds, valued at $3,047,630, according to the Service's Fishery Marketing Specialist stationed at New York City.

The species filleted in New York City in 1948 were flounder (3,178,500 pounds valued at $1,405,050), haddock (2,335,000 pounds valued at $801,750), cod (2,212,500 pounds valued at $768,350), and hake (302,000 pounds valued at $72,480). Nearly all of the fillets were cut with skins off.

The New York City filleting industry is made up of small firms with the number of employees ranging from two to seven.

New Truck for Transportation of Lobsters

A lobster company in Maine has received a new type of semi-trailer truck to be used for the transportation of lobsters, according to a report from the Service's Fishery Marketing Specialist stationed in Maine. It has a 500-gallon tank to hold sea water and a stainless steel rack that holds wooden boxes arranged like drawers. Each box will hold 50 pounds of lobsters. The water from the tank is sprayed into each box in a fine spray. This water is collected and returned to the tank where it is again used.

The capacity of this semi-trailer is six tons of live lobsters. The company is planning to use it to haul to mid-western cities, and if it works out, they may try to ship to California.

Pacific Halibut Fishery Regulations for 1949

The International Fisheries Commission, under authority of the treaty between the United States and Canada for the preservation of the Pacific halibut fishery, recently issued the 1949 Pacific halibut fishery regulations, which became effective April 28, 1949. The season opened at 12 midnight, April 30, 1949.

The 1949 regulations are substantially the same as those for 1948 except for Section 11 which extends the definition of bait nets.

> 11. It is prohibited to retain halibut taken with a net of any kind or to have in possession any halibut while using any net or nets other than bait nets for the capture of other species of fish, nor shall any license or permit held by any vessel under these regulations be valid during the use or possession or board of any net or nets other than bait nets, provided that the character and the use of said bait nets conform to the laws and regulations of the country where they may be utilized and that said bait nets are utilized for no other purpose than the capture of bait for said vessel.

For this season the quota is the same as in 1948--54,000,000 pounds. The catch limits by area are as follows:

> 2. (a) The catch of halibut to be taken during the halibut fishing season of the year 1949 from Area 2 shall be limited to approximately 25,500,000 pounds of salable halibut, and from Area 3 to approximately 28,000,000 pounds of salable halibut, and from Area 4 to approximately 500,000 pounds of salable halibut, the weights in each or any such limit to be computed as with heads off and entrails removed.

In its regulation of the halibut fishery, the Commission has depended principally upon the division of the coast into areas (Area 1A, Area 1B, Area 2, Area 3, and Area 4), the setting of an annual catch limit for the more important areas, and the closure of each such area when its annual catch limit is reached. Heretofore, only two areas had catch limits, but in 1947 Area 4 was assigned a limit due to possible expansion of the fishery to it. No catch limits have been placed upon the other areas, which are closed to fishing at the same time as the important areas.

Areas 2, 3, and 4 are closed to halibut fishing on dates announced by the Commission during the season. These dates are those by which the Commission estimates that the respective catch limits will be caught. Area 1A closes with Area 2 or Area 3, whichever is later. Area 1B closes with Area 2. Area 4 closes with Area 3 unless it was closed earlier by reason of the attainment of its own catch limit.

In the event that the catch limits are not already attained and the areas closed before December 1st, the season in all areas automatically closes on that date.

Pacific Oceanic Fishery Investigations--Organization and Progress

INTRODUCTION: In 1947, the Congress authorized the Secretary of the Interior to conduct fishing explorations and necessary related oceanographical, biological, technological, statistical, and economic studies to insure maximum development and utilization of the high seas fishery resources of the Territories and island possessions of the United States in the tropical and subtropical Pacific Ocean and intervening areas.

Funds appropriated by the Congress to the Department of the Interior for the fiscal year ending June 30, 1949, included $1,000,000 for the Fish and Wildlife Service to finance this program during its first year of operation.

ORGANIZATION: The activities authorized are being carried out by a unit within the Fish and Wildlife Service known as Pacific Oceanic Fishery Investigations. The organization for conducting these investigations consists of the Director's office and four sections.

The aims of the Section of Exploratory Fishing with respect to the area authorized for the program are to locate new fishery resources, devise and test methods of capture, and to establish production data for the analysis of the problem of economic utilization by the potential industry. The primary objects of the Section of Biology and Oceanography are to provide information useful in developing the fishery through study of the habits and behavior of the fish in relation to oceanographic conditions and to secure the necessary biological knowledge for future maintenance of the fishery. The function of the Section of Technology is to develop the most efficient methods of utilizing the fish after they are caught, including full use of fishery byproducts, and to solve problems in transporting, storage, and processing of the catch. The fourth section is Administration.

PROGRESS TO MARCH 1, 1949: Since last July, the program emphasis has been on (1) recruitment of qualified personnel; (2) learning all possible about the problem; (3) providing suitable exploratory and scientific vessels; and (4) arranging for the construction of a laboratory in Honolulu.

Much study and thought has been given to the conversion, construction, and equipping of vessels which will be best adapted to the explorations and scientific research with which this office is charged. Particularly, has study been given to information developed in the venture of the M/V Pioneer, that of the Pacific Exploration Company's M/V Oregon and Alaska, in fishing trials, in the experience of the Japanese, and in observation of local fisheries in Hawaii and Saipan. From these data, it appears quite likely that the present methods and equipment of the live-bait and purse-seine fishing may require considerable modification before they can be used successfully and economically in the Central and Southwest Pacific. It might well be necessary to test and devise techniques new to American fishermen.

Most of the authorized area under the program lies in the zone of the trade-winds where the generally prevailing rough seas are apt to interfere with both purse-seine and live-bait fishing methods. The crew of the Oregon, at times, found that the wind made it difficult to even cast the live bait where it was wanted. Even near the equator in the region of the doldrums, the long-time weather records show a much smaller percentage of light winds than off Central America. In addition, the tunas, as far as can be learned, travel in smaller schools, do not appear on the surface as frequently, nor can they be chummed up and held near the vessel as well as along the Central American Coast. The schools also seem to move faster and act "wilder". This is reported true of both skipjack and yellowfin, with

yellowfin the least easily caught by surface methods. Supplies of live bait are decidedly limited over much of the area, suggesting need for its most efficient utilization and for the development of baitless types of fishing.

The seasonal changes in weather conditions and in the distribution and behavior of the tunas must also be taken into account. It appears that the location of the fishing operations may have to be shifted seasonally over long distances to take advantage of both favorable weather and the occurrence of tuna if a pattern of productive fishing is to be developed. On the brighter side, reports of abundance of tuna and other large pelagic fishes are impressive and promise ample reward for overcoming the technical difficulties of catching them.

The analysis of Central and South Pacific fishing conditions, and a comprehensive review of Japanese tuna fisheries, have been proceeding simultaneously with the reconditioning and planning for conversion of the surplus vessels that are on hand. As a result, a great deal of attention has been given to providing flexibility and versatility in the vessels' layouts and equipment. The two YP type vessels are to be fitted for live-bait fishing and facilities for deep fishing by flag lines and by trolling gear.

A study of the technical and financial feasibility of selling and replacing the M/V California, formerly owned by the Reconstruction Finance Corporation, with a smaller and more versatile vessel was made and a smaller vessel has been designed.

One of the YPs will be fitted out for commercial scale live-bait fishing operations with facilities for carrying bait in the deck bait tanks and four below-deck wells. Deck arrangements will be adaptable also to flag line and trolling operations. There will be sufficient refrigeration capacity for about 40 tons of tuna. The quarters will be rearranged to provide for 18 persons, including technical personnel, and will ultimately permit the installation of a small laboratory.

The other YP will have a lesser live bait capacity and refrigerated hold space, will be designed primarily for biological and oceanographic research, and will mount three winches--one for bathythermograph casts, one for hydrographic tests, and one for towing plankton gear and small nets. It is planned to provide this vessel with a small auxiliary driving unit with an independent motor, shaft, and propeller for proceeding at low speed while hauling plankton gear.

A third vessel, designed for exploratory fishing, will complete the fleet. This vessel will be fitted out primarily for purse seining and secondarily for trolling, flag lining, and gill netting.

All three vessels will have ample capacity for fuel, water, and stores to operate at long distances from their base in Honolulu without frequent stops for refueling and reprovisioning at outlying island ports.

Pending construction of the laboratory, the limited staff in Honolulu is occupying temporary quarters loaned by the Navy near Pearl Harbor. Several cooperative projects with the Navy, the Territorial Government, and the University of Hawaii, have been arranged, are in process of negotiation, or are in view.

Pending the construction of a laboratory in Honolulu, use has been, and is being made of the facilities of the technological laboratory of the Fish and Wildlife Service at Seattle, Washington. For instance, a project there has dealt

with the experimental production of tuna liver meals by varying methods of dehydration with a view toward maximum retention of oil-soluble and water-soluble vitamins. These experiments are of potential value to the tuna industry, poultry and animal feed manufacturers, and poultry and animal producers. Another project under way at Seattle is the development of a bibliography on the technological aspects of the tunas.

The headquarters office of the Pacific Oceanic Fishery Investigations will continue in the U. S. Appraisers Building in San Francisco only so long as the major problems of planning and construction are on the Mainland. It is expected that by the mid-summer of 1949, emphasis can be changed from preparation for operation to actual operation, and the complete staff can be headquartered in Honolulu. Prior to that time, it is expected that another series of meetings will be scheduled along the West Coast and in Honolulu, for the purpose of seeking the group advice and counsel of those interested in this program.

Peru Requests U.S. Fisheries Expert

The Foodstuffs Branch of the Institute of Inter-American Affairs, U. S. Department of State, reports that the Peruvian Government approached its representative in Lima, Peru, early in 1949, requesting that the United States send experts to Peru.

(a) to reorganize the administration of fishery matters, and
(b) to supervise and modernize commercial fishing operations in Peruvian waters, and processing of the catch.

The Institute, after consultation with the Fish and Wildlife Service, agreed to provide an expert to reorganize the administration of government fishery activities, but advised the Peruvian government to employ private consultants to reorganize the fishing industry, since it felt that this was not a function of any United States Government agency. Mr. R. O. Smith of the Service's Office of Foreign Activities, who recently concluded a one-year U. S. fishery mission to Venezuela, has been assigned to the project. Mr. Smith's salary and expenses will be defrayed by the Institute of Inter-American Affairs.

Reduction of California Anchovies and Herring Limited to Canning Operations

California's limited supply of herring and anchovies is too valuable as food for larger game fish and for canning to be reduced into commercial oils and livestock food, the California Fish and Game Commission believes, according to its February 2 Outdoor California.

Although applications for reduction have been turned down for many years, the Commissioners at their last meeting went on record for the first time in outlawing use of whole fish for non-food use, except as a byproducts operation by canneries. No permits will be issued for direct reduction of anchovies and herring.

The recommendation was made by the Chief of the Bureau of Marine Fisheries, who reported the herring and anchovy supply "limited," but not yet in danger of the decline experienced by California's sardine population in recent years.

Tagging Program for West Coast Soupfin Shark

Additional information on the movements, growth, and biology of the soupfin shark is expected from the cooperative tagging program inaugurated last month by a Santa Barbara fisherman and the California Division of Fish and Game, according to that agency's March 30 Outdoor California.

The captain of the commercial fishing boat, Linda, placed colored disks on the backs of 11 small sharks caught in Baja California waters. The two male and nine female fish averaged five feet in length.

Since comparatively little is known about the habits of the Mexican component of the soupfin shark family, other shark fishermen are being encouraged to cooperate in the tagging program.

U.S. Pack of Canned Oysters, 1948

The United States pack of canned oysters in 1948 amounted to 357,080 standard cases (48 4-2/3 ounce cans), valued at $4,777,531 to the packers. This was a decline of 53,407 cases compared with the previous year, but an increase in value of $518,046. Over half the 1948 pack of oysters was canned in Louisiana (32 percent) and Mississippi (24 percent). The Atlantic Coast and Gulf States accounted for 77 percent of the pack and the States of Washington and Oregon the remaining 23 percent. Oysters were canned in 2 plants in North Carolina, 3 in South Carolina, 13 in Mississippi, 18 in Louisiana, 10 in Washington, and 1 each in Alabama and Oregon.

Table 1 - Pack of Canned Oysters by States, 1948 (Quantity & Value to the Canners)

State	Std. Cases	Value
North Carolina, South Carolina & Alabama	73,196	$ 838,699
Mississippi	85,673	1,157,740
Louisiana	114,722	1,486,177
Washington & Oregon	83,489	1,294,915
Total	357,080	4,777,531

Note: "Standard cases" represent the various-sized cases converted to the equivalent of 48 No. 1 cans to the case, each can containing 4 2/3-oz. (net weight) of oyster meats.

Table 2 - Pack of Canned Oysters by Size of Can, 1948 (Quantity & Value to the Canners)

Size	Actual Cases	Value
4 2/3-oz. net (48 cans)	209,912	$2,822,890
5-oz. net (48 cans)	70,082	1,162,189
6 1/2-oz. net (48 cans)	35,927	511,102
8-oz. net (48 cans)	2,395	56,103
Other sizes (std. cases)	17,934	225,247
Total	336,250	$4,777,531

Table 3 - Pack of Canned Oysters, 1940 to 1948

Year	Atlantic Coast & Gulf States	Pacific Coast States	Total
	(Standard Cases)		
1948	273,591	83,489	357,080
1947	318,550	91,937	410,487
1946	261,622	129,213	390,835
1945	220,847	5,117	225,964
1944	273,556	-	273,556
1943	344,931	937	345,868
1942	445,782	77,480	523,262
1941	465,854	191,191	657,045
1940	533,486	157,099	690,585

Note: Standard cases represent the various-sized cases converted to the equivalent of 48 4 2/3-oz. cans (14 pounds net).

U.S. Pack of Canned Shrimp, 1948

The United States pack of canned shrimp in 1948 amounted to 558,870 standard cases (48 5-ounce cans), valued at $7,791,313 to the packers. This was an increase

of 86,537 cases compared with the previous year, and was the largest pack since 1944. However, it was less than 35 percent as great as the record 1933 production of 1,613,408 cases. Nearly 80 percent of the 1948 pack was canned in Louisiana, while Mississippi canners accounted for 14 percent of the production. Shrimp were canned in 16 plants in Mississippi, 37 in Louisiana, 2 in Alabama, and 1 plant each in Georgia and California.

Table 1 - Pack of Canned Shrimp by States, 1948

State	Std. Cases	Value
Mississippi	76,917	$1,095,964
Louisiana	444,543	6,104,539
Ga., Ala., & Calif.	37,410	590,810
Total	558,870	7,791,313

Note: "Standard cases" represent the various-sized cases converted to the equivalent of 48 cans of 5-oz. each.

Table 2 - Pack of Canned Shrimp by Size of Can, 1948

Size	Actual Cases	Value
5-oz. net (48 cans)	1/546,126	$7,601,078
7-oz. net (48 cans)	9,103	190,235
Total	555,229	7,791,313

1/Includes a small pack of another size converted to "standard cases."

Table 3 - Pack of Canned Shrimp, 1940 to 1948 (Quantity and Value to the Canners)

Year	Standard Cases	Value	Price per Std. Case
1948	558,870	$7,791,313	$13.94
1947	472,333	8,192,004	17.34
1946	522,130	8,428,735	16.14
1945	214,971	1,913,633	8.93
1944	561,649	4,854,799	8.64
1943	660,436	5,360,647	8.12
1942	963,352	7,347,330	7.63
1941	884,874	4,882,544	5.52
1940	1,115,249	4,318,325	3.87

Note: Standard cases represent the various-sized cases converted to the equivalent of 48 5-oz. cans for both wet and dry pack.

The canners, during the war and through 1946, packed almost exclusively in 7-ounce cans; but in 1947, the trend was more towards 5-ounce cans. In 1948, the pack consisted mainly of 5-ounce cans.

The value of canned shrimp to the canner has increased steadily since 1940 from an average wholesale 1/ price of $3.87 a standard case and reached a peak in 1946 and 1947 of $16.14 and $17.34 a standard case, respectively. However, in 1948, the price dropped to $13.94 a standard case which is $3.40 a case less than in 1947.

1/Price received by the canner.

U.S. Seal Skins Sold at Auction

A U. S. Government-owned lot of 27,862 Alaska fur-seal skins was sold at the annual spring auction in St. Louis by the Fouke Fur Co., April 11, the Fish and Wildlife Service reported April 15.

Proceeds of the sale totaled $1,659,165. Fur buyers paid an average of $59.55 per skin. Average price at the last fall auction was $59.38; at last year's spring auction, $70.10.

Dyed matara brown skins sold for an average $62.87 each, compared to $63.24 at the last auction of Government Alaska fur-seal skins. Average price of safari brown skins was $49.57, as compared with $55.35 last fall. Black skins averaged $62.19, an advance from $49.28 obtained in the previous auction.

BARRELS USED TO PACK AND SHIP FUR SEAL SKINS, ST. PAUL ISLAND, ALASKA.

Virginia Fisheries Trends, April 1949

ALEWIFE FISHERY: Most of the 14 alewife (river herring) canneries in Virginia are receiving more fish than last year, according to a mid-April report from the Service's Fishery Marketing Specialist stationed at Weems, Va.

The price paid by the canneries this season is $10.00-$12.00 per thousand fish compared with $12.00-$15.00 per thousand fish a year ago.

A decline in the canned and pickled alewives in favor of the salted product is expected in some instances. In view of the expected drop in demand and prices of these hitherto profitable lines, the temporarily neglected salted alewife will get more attention. In Virginia, salted (corned and tight packed) alewives were a popular low-priced food until changing conditions during the war forced them out of the market. However, the dealers seem to believe that this would be a good time to again produce salted alewives because reports indicate that lower prices for canned fish and roe will prevail this coming season.

NEW GEAR FOR CATFISH: A new type of gear for taking catfish has been developed by two Prince William County fishermen. Fished in deeper waters of the Potomac, where the desirable blue catfish is found, it is neither a fyke nor a pot, but combines features of both. According to the fishermen, it has been quite successful.

SHAD FISHERY: Prices paid for roe shad by Virginia dealers late in March reached 52 cents a pound. However, in April, it is expected that roe shad will level off to 18 cents per pound, the price which prevailed a year ago. As yet, there are no signs of a glut like the one of 1944.

Washington-Oregon Fisheries Trends, April 1949

OTTER-TRAWL FISHERY: Several Astoria, Oregon, packers and canners, who suspended bottom fish processing operations early this spring, announced that they would not start operating until the weak market for bottom fish improves. A price reduction on bottom fish is contemplated as the packers claim that it is impossible to continue operations at the present prices for fish, according to a mid-April report from the Service's Fishery Marketing Specialist stationed at Seattle.

Towards mid-April, about 40 Oregon boats tied up waiting for a decision as to the prices that are to be paid for bottom fish.

Seattle trawl landings continued high for the first part of 1949, and the local industry continues to pay the scheduled prices. However, the Seattle industry feels that it will be unable to continue as at present and contemplates a curtailment in operations.

SALMON FISHERY: Unprecedented prices were paid for king salmon in Ketchikan during March. Prices went as high as 45 cents a pound straight compared to 35 cents for large, 25 cents for small, and 25 cents for whites a year ago. Many of the trollers, which ordinarily wait until mid-April or May before making their first trips of the season went fishing early due to the high prices. Buyers explained that the record high prices were due to good demand for fresh salmon during the Lenten season and to convenient steamer schedules.

SMELT FISHERY: The smelt run in the Columbia River proper was believed to have been delayed by the cold weather which continued into February. When the fish finally appeared, they remained in the Columbia River much longer than usual, giving the gill-net fishermen operating from Clatskanie, Oregon, a very good season. Late in March, when the smelt continued their migration upstream, the entire run entered Lewis River, Washington. Normally most of the run enters Cowlitz River, Washington, with some going up Sandy River, Oregon. This year's catch in the Lewis River has been estimated at 1,500,000 pounds, somewhat less than last year's catch in all the Washington tributaries.

Although the opening price for smelt was 10 cents a pound, it dropped to as low as 4 cents a pound when the smelt entered the tributary streams and the market became glutted.

Wholesale and Retail Prices

On March 15, 1949, the wholesale commodity index stood at 158.5 percent of the 1926 average, the same level as four weeks previous and 2.0 percent less than the comparable period in 1948, according to the Bureau of Labor Statistics of the Department of Labor. All foods registered an increase of 1.3 percent over February 15, but were still 7.3 percent below March 16, 1948.

The average wholesale prices of canned salmon increased slightly during March 1949 with pink 1.1 percent higher and red 0.2 percent higher than February 1949, and 14.3 and 3.1 percent higher respectively, than March 1948.

Wholesale and Retail Prices

Item	Unit		Percentage change from--	
Wholesale: (1926 = 100)		Mar.15,1949	Feb.15,1949	Mar.16,1948
All commodities	Index No.	158.5	0	- 2.0
Foods	do	161.0	+ 1.3	- 7.3
Fish:		Mar.1949	Feb.1949	Mar.1948
Canned salmon, Seattle:				
Pink, No. 1, Tall	$ per doz. cans	5.910	+ 1.1	+14.3
Red, No. 1, Tall	do	6.600	+ 0.2	+ 3.1
Cod, cured, large shore, Gloucester, Mass.	$ per 100 lbs.	15.500	0	+ 3.4
Retail: (1935-39 = 100)		Mar.15,1949	Feb.15,1949	Mar.15,1948
All foods	Index No.	201.6	+ 1.0	- 0.3
Fish:				
Fresh, frozen and canned	do	325.9	- 0.4	+ 3.9
Fresh and frozen	do	266.8	- 0.1	- 2.0
Canned pink salmon	¢ per lb. can	60.7	- 0.1	+17.4

Retail food prices advanced 1.0 percent from mid-February to mid-March after a steady decline since July 15, 1948. However, due to the fact that the heavy production season for the fisheries was ushered in during March, retail prices of fresh, frozen and canned fish declined 0.4 percent dompared with mid-February 1949, but were still 3.9 percent higher than mid-March 1948. There was only a slight decline in the index for fresh and frozen fish compared with the previous month, and a decline of 2.0 percent compared with March 1948.