

TRENDS AND DEVELOPMENTS

Additions to the Fleet of U. S. Fishing Vessels

During November 65 vessels of five net tons and over received their first documents as fishing craft, 33 less than in the previous month, and 4 less than in November 1947, according to the Bureau of Customs of the Treasury Department. Louisiana led with 8 vessels, followed by Florida and North Carolina with 7 each. A total of 1,124 vessels received their first documents as fishing craft during the first 11 months of 1948 compared with 1,226 during the same period in 1947.

Vessels Obtaining Their First Documents as Fishing Craft

Section	November		Elaven mos. ending with Nov.		Total
	1948	1947 ^{1/}	1948	1947 ^{1/}	1947 ^{1/}
	Number	Number	Number	Number	Number
New England	6	1	49	50	55
Middle Atlantic	3	5	40	61	64
Chesapeake Bay	6	6	56	76	83
South Atlantic and Gulf	37	35	511	452	486
Pacific Coast	7	14	336	401	415
Great Lakes	4	2	46	42	45
Alaska	2	5	77	117	123
Hawaii	-	1	9	26	28
Puerto Rico	-	-	-	1	1
Total	65	69	1,124	1,226	1,300

^{1/}Revised.

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



Albatross III

MAINE AND NEW HAMPSHIRE INSHORE FISHABLE AREAS SCARCE: The Albatross III, on its fourteenth cruise (December 1-9, 1948), found the number of fishable areas along the inshore regions of Maine and New Hampshire scarce. During the seven-day period from December 1, scientists aboard the research vessel started the fish population census of the Gulf of Maine. This cruise concentrated on the inshore areas from Cape Ann, Mass., to Penobscot Bay, Me. Nine stations were made in which the otter-trawl net was operated. Approximately six other prospective stations were cruised by the vessel and recordings of the bottom contours made with the depth recorder. These areas and most of the regions near them proved to be too rough for successful operation of the nets.

The principal species caught in the nine stations surveyed were whiting, rosefish, dab, and hake. The Jefferies Bank area, about 30 miles southeast of Matinicus Rock, yielded fish in commercial quantities. Water temperatures were obtained with the bathythermograph in all the areas surveyed.

Due to bad weather, the vessel spent two days in the harbor at Rockland, Me.

Scientists of the Fisheries Research Station at Woods Hole, Mass., are now analyzing the data collected on Georges Bank this past summer and fall. The fish population census of this region for 1948 has been completed.



ECA Procurement Authorizations for Fishery Products

Among the procurement authorizations for commodities and raw materials announced by the Economic Cooperation Administration, procurement authorizations for fishery products for January totaled \$820,000. The aggregate authorized since the beginning of the ECA program on April 1, 1948, was \$21,605,911.

ECA Procurement Authorizations for Fishery Products

Product	Country of Origin	Procuring Agency ^{1/}	Recipient Country	Amount Authorized
<u>January 1949</u>				
Fish, canned	U. S. & Possessions	Greece	Greece	\$ 670,000
Fish, salted	Canada & Nfld.	Fr. West Indies	Fr. West Indies	150,000
Total for January 1949				820,000
<u>Additional for November 1948</u>				
Vitamin A ^{2/} (Commercial Grade, for stock feed)	U. S.	Netherlands	Netherlands	567,000
Total ECA Procurement Authorizations for Fishery Products, April 1 - Jan. 31, 1949				
Fish, canned	U. S.	Greece	Greece	678,800
Fish, salted	Newfoundland & Canada	Italy, Greece, & Fr. West Indies	Italy, Greece, & Fr. West Indies	7,409,000
Fish, meal	Canada, Iceland, Norway, & Angola	Denmark, Austria, & U.S. Dept. Army	Denmark, Austria, & Bizone Germany	3,457,361
Oil, herring	Iceland	U.S. Dept. Army	Bizone Germany	1,694,000
Oil, seal	Newfoundland	France	France	257,600
Oil, shark liver	Latin America, except Argentina & Brazil	-	France	250,000
Oil, technical fish	U. S.	U.S. Dept. Army	Bizone Germany	100,000
Oil, whale	Netherlands, Belgium & Norway	Austria & U.S. Dept. Army	Austria & Bizone Germany	7,192,150
Vitamin A (Commercial Grade, for stock feed)	U. S.	Netherlands	Netherlands	567,000
Grand Total Authorized				21,605,911

^{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/}Authorized November 4, 1948.



Federal Purchases of Fishery Products

DEPARTMENT OF THE ARMY, November 1948: Fresh and frozen fishery products purchases during November 1948 by the Army Quartermaster Corps for the U. S. Army, Navy, Marine Corps, and Air Force for military feeding amounted to 1,196,399 pounds valued at \$486,421. Of this amount, only 4,700 pounds were purchased for relief feeding. The total purchases to date, January through November 1948 totaled 15,384,954 pounds valued at \$5,554,666.

Imports of Groundfish, Including Rosefish, Fillets in 1948

Total imports of cod, haddock, hake, pollock, cusk, and rosefish fillets during 1948 amounted to 53,566,452 pounds, 53 percent more than was received in 1947 and 9 percent over the former record 1946 imports (Table 1).

Country	1948	1947	1946
	Pounds	Pounds	Pounds
Canada	33,408,680	25,909,252	39,427,420
Newfoundland	15,788,865	5,018,471	5,503,414
Iceland	3,964,406	4,165,712	4,234,437
Norway	395,109	-	1,818
Denmark	9,352	-	4,000
Sweden	40	-	-
Total	53,566,452	35,093,435	49,171,089

The Tariff Act of 1930 established a duty of 2½ cents per pound for imports of cod, haddock, hake, pollock, cusk, and rosefish fillets, steaks, etc. However, the Second Trade Agreement between the United States and Canada, which became effective January 1, 1939, provided for a duty of 1-7/8 cents per pound for fillets, steaks, etc., of these species, limited in any calendar year to 15 million pounds, or 15 percent of the average annual consumption in the three previous years, whichever is larger. Imports over this amount are at the rate prescribed in the

1930 Tariff Act (i.e., 2½ cents per pound). The average annual consumption is arrived at by adding imports of fillets, steaks, etc., of the above species to the domestic production.

The annual quotas of groundfish, including rosefish, fillets permitted to enter the United States at the reduced tariff, and the total imports received during the years from 1939 to 1948 are given in Table 2.

Table 2 - Import Quotas and Total Imports of Groundfish, Including Rosefish, Fillets, 1939-48

Year	Quota at Reduced Tariff	Total Imports	
	Pounds	Pounds	Value
1939	15,000,000	9,426,285	\$ 714,420
1940	15,000,000	9,739,853	853,114
1941	15,000,000	9,931,030	963,621
1942	17,174,495	16,674,082	2,336,772
1943	17,804,128	16,323,416	2,705,945
1944	18,210,658	24,545,569	4,913,744
1945	17,668,311	43,169,156	8,657,558
1946	20,380,724	49,171,089	9,929,191
1947	23,906,423	35,093,435	6,192,741
1948	24,930,188	53,566,452	1/

1/Data not available.

The 1949 quota of these fillets for entry at the reduced tariff rate will be 26,881,369 pounds compared to 24,930,188 pounds in 1948. (See page 67 of this issue.)



Louisiana and Mississippi Oyster Areas Survey

To determine the damage to the oyster beds in Louisiana and Mississippi caused by the 1945 opening of the Bonnet Carre Spillway (a flood control structure of the Corps of Engineers on the lower Mississippi River), the Service's Gulf Oyster Investigations at Pensacola, Fla., began a survey in October 1948. There has been insignificant production since 1945 in the oyster-growing areas of the extreme west end of the Mississippi Sound. Although there has been a fair to good set each season, the young oysters died before attaining market size. The survey shows that these conditions apparently have improved greatly. On certain leased beds in Louisiana, for instance, a fair number of 1947 spat have survived, and until

the first week in December 1948, there was no appreciable mortality in the 1948 set. Farther east on the Mississippi tonging reefs, conditions are still unfavorable for producing market oysters. (See Commercial Fisheries Review, November 1948, page 39.)

In certain areas also inspected west of the Mississippi River, there seems to have been a complete return to normalcy.



Maryland 1948 Canned Fish Production Declines

A preliminary analysis of the 1948 production of canned fish for Maryland shows that the pack of many items declined compared with 1947.

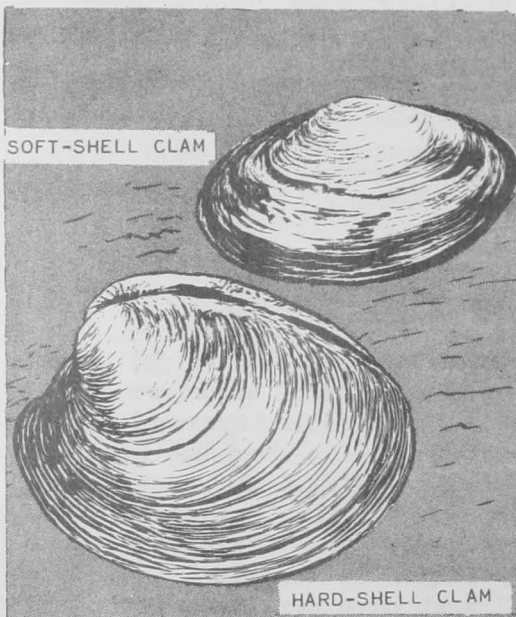
Scarcity of alewives in Chesapeake Bay was blamed for the light pack of this fish. One company confined its output entirely to ocean-caught fish from New Jersey, New York, and Rhode Island. Slackening of demand also affected the pack of whiting and mackerel, and it was reported that whiting had been sold below cost.

An experimental pack of smoked sea herring fillets was canned during the year. The fillets were brined and run on a belt through a smoke chamber and processed in 9-oz. flat cans with salt and water added. This product is selling at approximately 35 cents per can retail.

Last spring, a Maryland cannery added the manufacture of fish meal and oil to its production activities, using the cuttings from local canning factories and "trash fish" from net fishermen.



Research Program on East Coast Clams



The Research Program on hard- and soft-shell clams, which was authorized by the 80th Congress, began recently when the Chief of the Investigations reported to Woods Hole, Mass.

Bases for soft-clam studies have been established at Boothbay Harbor, Me., and Woods Hole, Mass., and cooperative research programs have been set up with the States of Maine, New Hampshire, and Massachusetts. Experimental clam farms are being established in the Parker River Wildlife Refuge at Newburyport, Mass., and in the vicinity of Boothbay Harbor, Me. Intensive studies are planned at Sagadahoc Bay, Me., to establish methods for management of the commercial soft-clam fishery.

Hard-shell, or quahaug, investigations are being conducted in Narragansett Bay, R.I. These experiments are designed to settle the contro-

versy as to the effects upon immature clams of hand versus power methods of harvesting. Further studies to establish methods for management of the commercial fishery and to develop procedures for quahaug farming are being initiated.

Arrangements have also been made for cooperative hard-clam research programs with the States of Connecticut, New Jersey, Virginia, South Carolina, and Florida.



Service Research Vessel to Study "Red Tide"

The 60-foot vessel, Pompano, recently repaired and reconditioned, will be used in the studies of the "red tide," now being conducted at Sarasota, Fla., by the Gulf Fishery Investigations of the Branch of Fishery Biology. On January 15, 1949, it left for its first cruise.

The last quarter of 1948 was spent in moving the office from New Orleans, La., getting it established at Sarasota, making plans for the work, procuring equipment, building up references and reading literature pertinent to these studies, and adding to the staff of the Investigations.

Plans discussed by representatives of the Service and interested agencies and institutions at a conference at Sarasota in early December for cooperative research on the causes of this fish disease are about completed.



Use of "Tracer Atoms" in Nutritional Studies

FISHERY PRODUCTS RATE OF DIGESTION STUDIES: In March 1947, a cooperative research project to study the rate of digestion of certain fishery products was undertaken by staff members of the University of Maryland and the Fishery Technological Laboratory, College Park, Maryland. A fellowship student studying for a Master of Science Degree began work at that time to utilize radio-active phosphorus as a tracer material in this research. This work is under the direction of the Chairman of the Department of Zoology, a Professor of Chemistry of the University of Maryland, and a Pharmacologist of the Service's Branch of Commercial Fisheries. To date, preliminary studies on methods for measuring the radio-active material and a series of physiological experiments with animals have been completed. The radio-active material for the final series of physiological experiments has been ordered and should soon be available for completion of studies.

STUDIES OF THE METABOLISM IN FISH: Plans to use radio-isotopes ("tracer atoms") in studying metabolic processes in trout, oysters, and clams were disclosed on January 24, by the Fish and Wildlife Service.

Two Service biologists are now being trained in radio-isotope techniques at the Oak Ridge Institute of Nuclear Studies, Oak Ridge, Tenn.

One biologist, who is engaged in shellfish investigations at the Service's College Park, Md., Laboratory, will use carbon and phosphorus radio-isotopes to study feeding and digestive processes in oysters and clams. He hopes to develop more effective methods of fattening shellfish for market.

The other biologist, who is in charge of fish nutrition investigations at the Service's Cortland, N. Y., experimental fish cultural station, hopes that his use of radio-isotopes in the study of metabolism in trout will help develop more efficient and economic methods of rearing fish in hatcheries.

Radio-isotopes are ordinary atoms of an element that has been made radioactive by subjection to the intense radiation present in a uranium reactor, or "atomic furnace." They may also be produced in a cyclotron, but in microscopic quantities and at great cost. The Oak Ridge, Tenn., uranium reactor produces radio-isotopes in relatively large quantities and at low cost.

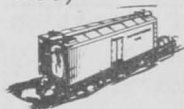
Radio-isotopes are among the most promising of atomic energy's byproducts. Scientists have called them the most important research tool developed since the microscope, for they permit the course of atoms to be followed on a practical basis for the first time.

A radio-isotope of calcium, for example, behaves like ordinary calcium. But scientists can trace its tell-tale radiation with a Geiger counter, enabling them to follow it through the complicated chemical and biological processes of metabolism. (Metabolism is the group of processes in living organisms which build up assimilated food materials, and which release energy by breaking the materials down.)



Hearing on Increases of Express Ice Charges for Fish

The Interstate Commerce Commission announced on February 7 a hearing on March 29, 1949, at Chicago, Ill., on increases in the ice charges for fish and shellfish, filed by the Railway Express Agency in ICC-I & S No. 5612. (See Commercial Fisheries Review, December 1948, page 26.)



Wholesale and Retail Prices

The wholesale index for all commodities as of December 14, 1948, continued to drop and was 0.8 percent lower than November 16, 1948, and only fractionally higher than on December 16, 1947, according to the Bureau of Labor Statistics of the Department of Labor. In December, the rate of decline in foods was greater with the wholesale food index 2.8 percent lower than the previous month and 3.1 percent lower than on December 16, 1947.

The average wholesale price of canned pink salmon continued to decline during December 1948 and was 2.5 percent lower than the previous month, but still 14.4 percent higher than December 1947. Canned red salmon continued steady at the same average price which prevailed during September through November 1948, and was 5.9 percent higher than in December 1947.

On December 15, retail food prices, declining for the fifth consecutive month, were 1.2 percent below November 15, and 5.4 percent below the July peak. Food prices averaged lower in 45 of the 56 cities surveyed, higher in 10, and unchanged in 1. However, the fresh and frozen fish prices, in contrast to all foods, were

0.1 percent higher than a month ago, and still 3 percent higher than a year ago. Retail prices for canned pink salmon were 0.2 percent lower than November 15, but 19.2 percent higher than December 15, 1948.

Wholesale and Retail Prices

Item	Unit	Percentage change from--		
		Dec. 14, 1948	Nov. 16, 1948	Dec. 16, 1947
<u>Wholesale: (1926 = 100)</u>				
All commodities	Index No.	163.0	-0.8	+0.2
Foods	do	172.6	-2.8	-3.1
<u>Fish:</u>				
Canned salmon, Seattle:		<u>Dec. 1948</u>	<u>Nov. 1948</u>	<u>Dec. 1947</u>
Pink, No. 1, Tall	\$ per doz. cans	5.664	-2.5	+14.4
Red, No. 1, Tall	do	6.649	0	+ 5.9
Cod, cured, large shore, Gloucester, Mass.	\$ per 100 lbs.	15.00	0	+ 3.4
<u>Retail: (1935-39 = 100)</u>				
All foods	Index No.	<u>Dec. 15, 1948</u>	<u>Nov. 15, 1948</u>	<u>Dec. 15, 1947</u>
Fish:		205.0	-1.2	-0.9
Fresh, frozen, and canned	do	328.1	0	+8.5
Fresh and frozen	do	268.5	+0.1	+3.0
Canned salmon:				
Pink	¢ per lb. can	61.1	-0.2	+19.2

DISTRIBUTION COSTS OF BRITISH FISH RETAILERS

The following table shows the apportionment of purchases, costs, and charges for fish on each \$400 of sales in England, and the decline of margins since 1945-46, according to the English periodical, Fish Trades Gazette, of November 13, 1948. They were compiled from accurate, audited figures, supplied by a small English firm operating less than a score of branches in the retail fish, game, and poultry trade. Doing a representative general trade, buying on an inland market and direct from coast, the figures are representative of the English medium-class retail fish trade.

Distribution Costs of Fish Retailers - Great Britain

On Each \$400 of Sales	1948-49			
	$\frac{1}{2}$ yr. to 9/25/48	1947-48	1946-47	1945-46
	%	%	%	%
Paid to trawler owners, fishermen, coastal and inland wholesalers	78.1	77.9	74.1	72.7
Transport and market expenses to get goods into the shops from inland market and local stations	1.8	1.3	1.2	.9
Rents, rates, etc.	2.2	1.9	1.9	3.0
Staffs wages, National Insurance and Administrative expenses	14.0	12.3	12.3	10.5
Shop expenses: Light, heat, water, telephone, utensils, repairs, wrapping paper, offal clearance, etc.	1.6	1.5	1.5	1.2
Professional charges, audit, deprecia- tion, W.C.A. and third-party insurance	0.8	0.7	0.8	1.5
Taxation	1.5	2.4	5.3	8.2
Directors' fees	}	0.4	0.5	0.7
Shareholders (net)		1.0	1.1	1.3
Reserves for dilapidations, renewals, writing off war years' losses, etc. ..		0.6	1.3	
	100	100	100	100