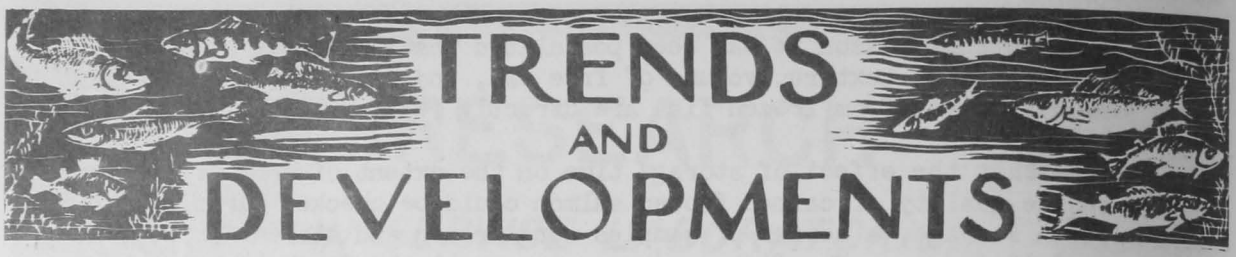


Additions to the Fleet of U. S. Fishing Vessels

Eighty-five vessels of 5 net tons and over received their first documents as fishing craft during July 1951—2 less than in July 1950. California led with 19 vessels, followed by Washington with 13 vessels, and the west coast of Florida with 8 vessels.

During the first seven months of 1951, a total of 547 vessels were documented for the first time as fishing vessels, compared with 529 vessels for the same period during 1950.

Vessels Obtaining Their First Documents as Fishing Craft, July 1951

Section	July		7 mos. ending with July		Total
	1951	1950	1951	1950	1950
	Number	Number	Number	Number	Number
New England	5	2	25	20	36
Middle Atlantic	6	3	27	30	45
Chesapeake Bay	8	9	19	50	81
South Atlantic	10	8	68	82	153
Gulf	13	17	114	101	167
Pacific	35	38	226	170	231
Great Lakes	-	-	9	6	12
Alaska	7	8	57	68	83
Hawaii	1	2	2	2	4
Total	85	87	547	529	812

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

Federal Purchases of Fishery Products

FRESH AND FROZEN FISH PURCHASES BY THE DEPARTMENT OF THE ARMY, AUGUST 1951: The Army Quartermaster Corps purchased 2,996,287 pounds of fresh and frozen fishery products during August 1951 for the military feeding of the U.S. Army, Navy, Marines Corps, and Air Force (see table). Compared with the previous month, August purchases increased 12 percent in quantity, but decreased 5.9 percent in value. This

Purchases of Fresh and Frozen Fishery Products by Department of the Army
(August and the First Eight Months, 1950-51)

QUANTITY				VALUE			
August		January-August		August		January-August	
1951	1950	1951	1950	1951	1950	1951	1950
lbs.	lbs.	lbs.	lbs.	$	$	$	$
2,996,287	2,946,230	20,270,207	10,638,657	1,116,243	1,193,198	8,335,084	4,412,253

decrease in value was undoubtedly due to larger purchases of less expensive fishery products. Compared with August 1950, this year's purchases for the same month were greater by 1.7 percent in quantity, but lower in value by 6.5 percent.

A comparision of the purchases for the first eight months of 1950 and 1951 shows that there was an increase of 90.5 percent in quantity (nearly 10 million pounds) and 88.9 percent in value for 1951.

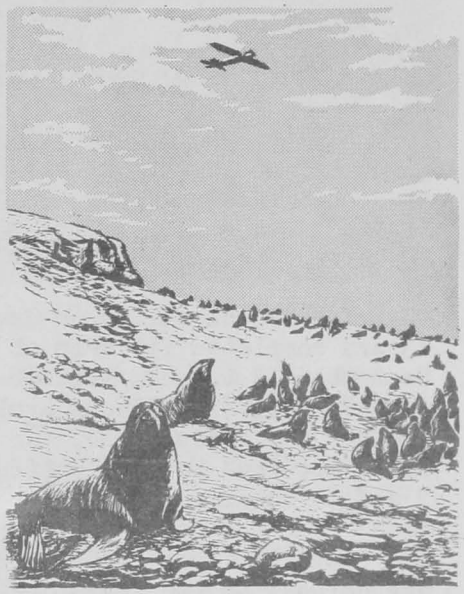
Fur-Seal Skin Prices Drop at Fall Fur Auction

The over-all average price per fur-seal skin dropped 12 percent at the fall fur auction held in St. Louis on September 24, the U.S. Fish and Wildlife Service announced. Total United States Government receipts from the sale of U.S.-owned fur-seal skins was $2,249,892. The over-all average price for skins from the Pribilof Islands was $89.76 per skin as compared with $100.69 at the April 1951 auction.

The dyed "Matara" (brown) skins sold for an average price of $87.29, a decline of 11.5 percent from the previous sale. "Safari" brown (lighter brown) skins declined 6.2 percent to $69.27. Black skins averaged $102.31, a loss of 14.3 percent.

A total of 550 U.S.-owned blue fox pelts sold for an average price of $5.44, bringing in an additional sum of about $2,750.

The auction also included 5,000 South African Government Cape of Good Hope fur-seal skins which sold for an average price of $33.63, a decline of 25.3 percent.



ALASKA FUR SEALS

Freezing-Fish-At-Sea Technological Studies

EXPERIMENTAL FREEZING STUDIES RESUMED BY "DELAWARE:" Full-scale experimental freezing studies will be resumed by the M/V Delaware on its Cruise No. 4. The vessel, which is being used in conjunction with the Branch of Commercial Fisheries' Freezing-Fish-at-Sea Project, left Boston about October 5 and is expected to return about October 11.

Repairs to the brine cooler as well as to the main and auxiliary engine were completed. Freezing apparatus and refrigeration machinery will be tested under rated capacity loads.

* * * * *

FOUL WEATHER HINDERS "DELAWARE'S" FREEZING FISH STUDIES (Cruise No. 4): Several thousand pounds of mixed varieties of New England groundfish were frozen by the Delaware under adverse weather conditions. This converted trawler is being used by

the Service's Branch of Commercial Fisheries for freezing-fish-at-sea technological studies in the New England area. The vessel sailed October 5 on this cruise and returned to Boston on October 12. Foul weather prevailed during the first part of the cruise and actual fishing and experimental fish-freezing operations were delayed for five days.

Considerable data were secured on the operational characteristics of the brine-freezing apparatus and refrigeration machinery of the vessel.

Upon docking, the fish that were frozen aboard the Delaware were placed in cold storage at the laboratory for shore-side processing studies.

Middle and South Atlantic Little Tuna Explorations

LITTLE TUNA SCHOOL SIGHTED BY "ATLANTIC EXPLORER" OFF NEW JERSEY (Cruise No. 2): Only one school of little tuna was sighted by the M/V Atlantic Explorer off the coast of New Jersey during this cruise in September. This vessel is being operated under a cooperative agreement by the Service's Branch of Commercial Fisheries to carry on explorations for little tuna in the Middle and South Atlantic area.

The vessel sailed on Cruise No. 2 from Beaufort, South Carolina, on September 13 and completed its trip at Point Pleasant, New Jersey, on September 21. From September 13 through September 17, the vessel explored for little tuna off the coast between Beaufort, South Carolina, and Southport, North Carolina, but unfavorable weather was encountered. No schools of little tuna were sighted but feed of various kinds appeared to be plentiful off of Georgetown, South Carolina, between depths of 7 and 15 fathoms of water.

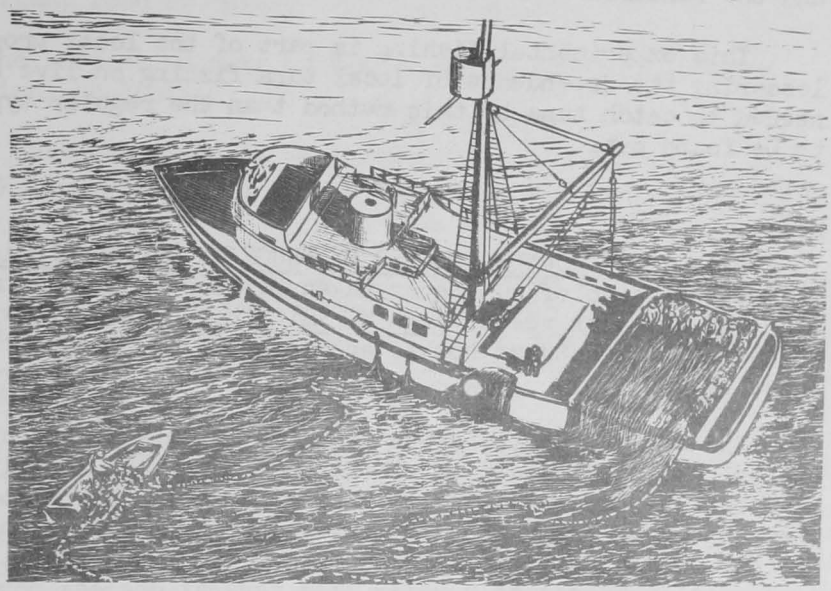
Favorable reports on abundance of little tuna were received from Point Pleasant, New Jersey, so the vessel proceeded to Norfolk, Virginia, but strong northerly winds hindered exploratory activities in that area. Good weather was experienced between Norfolk and Point Pleasant but no schools of tuna were seen before reaching Manasquan Inlet where a school was sighted so close to the jetty that making a set would have been unduly hazardous to both the vessel and its gear. Local inquiries revealed that schools of little tuna had been observed for the past two weeks between Manasquan and Sandy Hook. Extensive catches had been made for the previous two weeks by trolling gear off Beachhaven Inlet, New Jersey, but no surface schools were evident.

The vessel planned to sail on Cruise No. 3 to explore the waters along the New Jersey Coast from Sandy Hook to Atlantic City to determine if surface schools of little tuna can be observed and taken in commercial quantities by purse-seine gear. The vessel will cruise along the coast and up to 40 miles offshore employing visual means and trolling gear to locate little tuna.

New England Tuna Explorations

RECORD BLUEFIN TUNA CATCH REPORTED BY "WESTERN EXPLORER" (Cruise No. 6): A record catch (60 tons) of bluefin tuna was seined by the M/V Western Explorer on its Cruise No. 6. Operated by the Service's Branch of Commercial Fisheries, this vessel has been searching for untapped resources of bluefin tuna in waters principally off the shores of Maine and Massachusetts. This catch of 20- to 45-pound fish was taken in one set of the seine on September 17 and is considered the largest seine catch of tuna ever made on the Atlantic Coast.

The vessel sailed on August 31 and docked at Gloucester, Mass., with its catch of tuna on September 18. Between August 31 and September 13 exploration of the waters between Cape Cod and the Central Maine Coast were carried out. On September 8 small pods of tuna were sighted on Stellwagon Bank. A small school of tuna (which immediately sounded) and several stray tuna jumpers were sighted between Boon Island and the Isle of Shoals in the Gulf of Maine from September 10 to 12. Unfavorable weather conditions, wind and fog, and mechanical difficulties with the auxiliary engine interfered considerably with fishing operations during this period.



PULLING IN PURSE-SEINE NET.

The Western Explorer sailed for Tobins Ledge on September 16, following reports from draggers that tuna were in the vicinity, and reached this area (50 miles SE ½ E of Cape Cod Lighthouse) the next morning. Several large schools of tuna were sighted. The net was set in water of 80 fathoms and 68° F. on a school containing approximately 200 tons. To avoid overloading the seine, it was necessary to cut through the middle of the school, and about 120 tons were trapped. Due to the excessive load in one section, about 20 tons of fish escaped over the corkline. The net was hauled aboard in four splits, but another 40 tons of fish were lost when a section of the mesh parted under the strain. The entire operation took 15½ hours, but over 60 tons of tuna were landed.

The 119,800 pounds of bluefin tuna were sold on bids to four firms. About 6,050 pounds were sold for the fresh fish market at 12 cents per pound, 14,880 pounds of split fish went at 3½ cents per pound, and the remainder sold for 7-8 cents per pound for canning.

The vessel is scheduled to leave on Cruise No. 7 on September 22 for an eight-day trip. Operations will be conducted in Great South Channel and the Gulf of Maine.

Pacific Oceanic Fishery Investigations

TUNA PURSE-SEINED IN HAWAIIAN WATERS BY "JOHN R. MANNING:" Tuna were caught in a purse seine in Hawaiian waters for the first time by the John R. Manning on a cruise completed the first week in September. This vessel of the Service's Pacific Oceanic Fishery Investigations netted several tons of skipjack tuna (aku).

Previous attempts to net the local tuna failed because of the wildness of the Hawaiian fish. Success was achieved only after the Momi, a Honolulu sampan, was used to slow down and concentrate the fish by feeding them live bait fish.

While the fish were being fed, the John R. Manning laid her 2,400-foot seine around the bait boat and the fish. After the net was closed, the Momi left the net and the research vessel retrieved the net and catch.

This experimental fishing is part of the local program to develop means of lessening the dependence of local tuna fishing on live bait. Whether less bait is needed to catch tuna by this method than the regular type of sampan fishing remains to be found out.

* * * * *

RICH TUNA GROUNDS LOCATED BY "HUGH M. SMITH" (Cruise XI): Probably the most phenomenal catch of tuna ever taken by long-lining was made one day in mid-September when the research vessel Hugh M. Smith hauled in yellowfin tuna (ahi) at the rate of 29 fish per hundred hooks, according to the Service's Pacific Oceanic Fishery Investigations.

The Hugh M. Smith, which had left on this cruise on August 20, was testing the theory that tuna should be abundant in a certain zone lying between the Equator and the counter-equatorial current where the ocean circulation system creates what is known to oceanographers as a convergence. In convergences, the small sea life tends to collect, multiply, and provide food for the large fishes such as tunas. The equatorial convergence usually lies several degrees north of the Equator and shifts north or south from time to time depending on the winds.

On this particular trip the vessel found the convergence between 1° and 6° N. of the Equator. Up to September 20 the vessel had put in 15 days of fishing in this zone at various places from Christmas Island to 440 miles east of there and averaged 13 tuna or about 1,600 pounds per 100 hooks per day. The record catch of 29 per hundred hooks was made 360 miles east of Christmas Island, the nearest island.

For a given amount of fishing this area yielded over four times as much tuna as any place regularly fished commercially by tuna long lines, according to the Director of the Investigations. In Hawaii, where this type of fishing is called flag-lining, the catch averages slightly over three tuna per hundred hooks, while in the western Pacific south of the Caroline Islands where the Japanese have the best results, their average is also around three tuna per hundred hooks.

These Hawaiian and Japanese catching rates can support a commercial fishery only where fish prices are very high, as in Hawaii, or where fishermen's wages are very low, as in Japan. The newly-discovered grounds may be good enough to give a fishermen's wage that is adequate by American standards and yet produce the tuna at a low enough cost to use them for canning instead of restricting them to the high-priced fresh-market use. If so, there is a possibility of greatly expanding Hawaii's tuna industry by fishing the convergence zone about 1,000 miles south of here. This would be only one-third as far as California tuna fishermen range from their home ports.

The Hugh M. Smith continued fishing tests as far south as 5° below the Equator and then made an oceanographic survey on its way back to Honolulu. The vessel returned to Pearl Harbor on October 6.

Long-line fishing gear, nets, sonic and electronic instruments, thermometers, water samplers, all played a part in the investigations carried out by the vessel on this cruise.

Records of the "scattering layer" were made with the sonic depth recorder which

records a "false bottom" just below the surface during darkness. This layer is apparently composed of countless living organisms which congregate thickly at night. Exactly what the layer is composed of is not known, but it probably contains large numbers of squid, an important food of tunas.

Water samples from the surface to over half-mile depths were collected in "Nansen" bottles for chemical analysis.

These and additional observations will be studied over a period of months in POFI'S Honolulu laboratory in order to understand more fully the occurrence and movements of tuna.

Taking Cruise No. XI as a whole, long-line fishing was successful, the catching rate for all stations being 9 tunas per hundred hooks, that for the lateral stations at 2° N. being 14 tunas per hundred hooks, and at the best station 29 tunas per hundred hooks at 2° N. 151°20' W. approximately 360 miles east of Christmas Island. The catches showed that:

1. TUNA ABUNDANCE IN THE OPEN OCEAN IS TO A GREAT DEGREE DEPENDENT ON THE OCEAN CIRCULATION, CATCHES BEING GREATEST IN THE ZONE OF WIND-DRIFT CONVERGENCE JUST NORTH OF THE EQUATOR. THE GEOGRAPHIC DISTRIBUTION IS NOT NOTICEABLY INFLUENCED BY THE DEPTH OF THE THERMOCLINE. CATCHES SOUTH OF THE EQUATOR WHERE THE THERMOCLINE WAS RELATIVELY DEEP, WERE SMALL. IN THE CONVERGENT ZONE WHERE THE THERMOCLINE IS ALSO RELATIVELY DEEP, CATCHES WERE LARGE.

2. WITHIN THIS RICH ZONE THERE IS NO INDICATION OF A GRADIENT IN TUNA ABUNDANCE WITH DISTANCE FROM SMALL LAND MASSES. (HOWEVER, THE CATCHES ADJACENT TO ISLANDS ARE PROBABLY NOT REPRESENTATIVE OF THE TRUE TUNA ABUNDANCE DUE TO INTERFERENCE BY SHARKS. SHARKS TAKE UP "HOOK SPACE," UNDOUBTEDLY STEAL BAIT AND TUNA FROM THE LINE, AND MAY INFLUENCE THE BEHAVIOR OF TUNA WHICH ATTEMPT TO TAKE THE BAIT.)

3. TUNA CAUGHT NEAR CHRISTMAS ISLAND WERE CONSIDERABLY SMALLER THAN THOSE CAUGHT AT OCEANIC STATIONS.

4. WHEREAS THE HEAVY YELLOWFIN CATCHES WERE CONCENTRATED IN THE CONVERGENT ZONE, THE BIG-EYED TUNA CATCHES SUGGESTED A MORE UNIFORM NORTH-SOUTH DISTRIBUTION FOR THIS SPECIES.

In addition, during this cruise two direct determinations of the depth of the main line in its natural position were accomplished.

Wholesale and Retail Prices

WHOLESALE PRICES, AUGUST 1951: Good production of groundfish and whiting in New England, liberal catches of shrimp in the Gulf and South Atlantic, liberal landings in the Chesapeake Bay area, and good stocks of canned tuna brought August prices for edible fishery products substantially below July levels. The wholesale over-all index for edible fish and shellfish (fresh, frozen, and canned) for August was 103.5 percent of the 1947 average (see table 1)—3.5 percent below the previous month and 2.0 percent lower than in August 1950, the Bureau of Labor Statistics of the Department of Labor reports.

Drawn, dressed, or whole finfish August prices in general were slightly above those quoted in July, mainly due to increases in fresh or frozen salmon and lake fish. However, the latter increases were offset by lower prices for fresh drawn haddock and fresh or frozen Western halibut. Although the drawn, dressed, or whole fin-

fish subgroup index in August was 0.6 percent higher than in July, it was still 1.5 percent below August 1950.

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

GROUP, SUBGROUP, AND ITEM SPECIFICATION	POINT OF PRICING	UNIT	AVERAGE PRICES ($)			INDEXES (1947 = 100)		
			Aug.1951	July 1951	Aug.1950	Aug.1951	July 1951	Aug.1950
ALL FISH AND SHELLFISH (Fresh, Frozen, and Canned)						103.5	107.3	105.6
Fresh and Frozen Fishery Products:						103.6	104.5	105.2
Drawn, Dressed, or Whole Finfish:						112.0	111.3	113.7
Haddock, large, offshore, drawn, fresh	Boston	lb.	.10	.10	.11	107.6	108.8	112.0
Halibut, Western, 20/80 lbs., dressed, fresh or frozen	New York City	"	.32	.32	.38	93.3	93.4	110.0
Salmon, king, lge. & med., dressed, fresh or frozen	" " "	"	.53	.52	.49	129.9	127.5	119.4
Whitefish, mostly Lake Superior, drawn (dressed), fresh	Chicago	"	.47	.43	.39	135.8	123.6	112.0
Whitefish, mostly Lake Erie pound net, round, fresh	New York City	"	.51	.54	.49	115.8	122.1	110.8
Lake trout, domestic, mostly No. 1, drawn (dressed), fresh	Chicago	"	.53	.53	.47	116.4	115.5	103.5
Yellow pike, mostly Michigan (Lakes Michigan & Huron), round, fresh	New York City	"	.60	.57	.56	141.1	132.3	130.2
Processed, Fresh (Fish and Shellfish):						93.3	95.4	94.2
Fillets, haddock, small, skins on, 20-lb. tins	Boston	lb.	.28	.28	.25	100.6	99.2	90.9
Shrimp, lge. (26-30 count), headless, fresh or frozen	New York City	"	.53	.59	.64	76.5	85.0	92.9
Oysters, shucked, standards	Norfolk area	gal.	4.88	4.55	3.95	120.0	112.0	97.2
Processed, Frozen (Fish and Shellfish):						99.8	103.8	102.9
Fillets: Flounder (yellowtail), skinless, 10-lb. bxs.	Boston	lb.	.42	.42	.35	135.6	135.6	111.4
Haddock, small, 10-lb. cello-pack	"	"	.24	.24	.26	106.3	109.7	115.7
Ocean perch (rosefish), 10-lb. cello-pack	Gloucester	"	.23	.22	.22	114.4	109.8	112.2
Shrimp, lge. (26-30 count), 5-lb. bxs.	Chicago	"	.57	.63	.64	82.5	91.7	92.0
Canned Fishery Products:						103.4	111.5	106.3
Salmon, pink, No. 1 tall (16 oz.), 48 cans per case	Seattle	case	20.61	23.64	20.88	134.9	154.1	136.1
Tuna, light meat, solid pack, No. ½ tuna (7 oz.), 48 cans per case	Los Angeles	"	12.75	12.95	14.94	82.9	84.3	97.2
Sardines (pilchards), California, tomato pack, No. 1 oval (15 oz.), 48 cans per case	" "	"	6.75	6.85	6.13	75.5	76.6	68.5
Sardines, Maine, keyless oil, No. ¼ drawn (3¼ oz.), 100 cans per case	New York City	"	7.46	6.93	6.13	73.2	67.9	60.1

Due principally to increased landings in the South Atlantic States, fresh headless shrimp in August sold at prices considerably lower (10 percent) than in July and 17.7 percent lower than during August 1950. However, this decline was offset to a certain extent by higher prices for fresh haddock fillets and shucked oysters. Fresh processed fish and shellfish prices this August were 1.0 percent below the corresponding month last year and 2.2 percent lower than in July this year.

From July to August frozen headless shrimp prices also declined 10 percent, and frozen haddock fillets dropped 3.1. On the other hand, frozen ocean perch fillets rose 4.2 percent during the same period, while frozen flounder fillets remained steady. The processed frozen fish and shellfish index for August was 3.0 percent lower than in the same month a year ago and 3.9 percent below July.

Except for canned Maine sardines, all items under the canned fishery products subgroup dropped below July levels. In anticipation of the new pack, canned pink salmon prices dropped 12.5 percent from July to August and 0.9 percent below the same period last year. Canned tuna prices continued to drop and in August were reported 1.7 percent lower than in July and 14.7 percent below August 1950. Canned California sardines also sagged 10.2 percent below August 1950 and 1.4 percent below July this year. Since the Maine sardine pack to date has been a complete failure, prices for this product rose 7.8 percent from July to August and were 21.8 percent higher than in August 1950. The August index for canned fishery products sank 7.3 percent below July and was 2.7 percent below the same month in 1950.

RETAIL PRICES, AUGUST 1951: Average retail prices paid for all foods by moderate-income urban families decreased .3 percent during the period July 15-August 15, 1951. The U. S. Department of Labor's Bureau of Labor Statistics reported the index for all foods on August 15 as 227.0 percent of the 1935-39 average, some 8.1 percent higher than the corresponding period of 1950 (see table 2).

Fresh, frozen and canned fish and shellfish retail prices during the mid-July-mid-August period were 17.7 percent higher than the corresponding period of 1950, but only .9 percent above the previous 30-day period of this year. Chiefly responsible for the higher retail prices paid for all fish and shellfish is the increase in fresh and frozen fish prices. For the 30-day period ending August 15, average fresh and frozen fish prices at retail were 292.5 percent of the 1938-39 base--1.5 percent higher than the mid-June to mid-July average and 7.2 percent above the August 15, 1950, average.

MODERN RETAIL FISH COUNTER.

Canned pink salmon prices declined for the second time in 1951 with the index at 508.2 percent of the 1938-39 base for the period July 15-August 15. This is a .2 percent decrease as compared with the previous 30-day average, but still 42.0 percent above the mid-August 1950 index of 357.9.

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

Item	Base	INDEXES		
		Aug.15,1951	July 15,1951	Aug.15,1950
All foods	1935-39 = 100	227.0	227.7	209.9
All fish and shellfish (fresh, frozen, & canned)	do	356.4	353	302.8
Fresh and frozen fish	1938-39 = 100	292.5	288.1	272.8
Canned salmon: pink	do	508.2	509.2	357.9

Economic Cooperation Administration Program Notes

PURCHASE AUTHORIZATIONS INCLUDE FISHING VESSEL EQUIPMENT FOR INDOCHINA: On July 18 the Economic Cooperation Administration announced, among other items, that it has issued purchase authorizations of $5,000 for Indochina to be used for obtaining equipment for use in developing fisheries.

FISHING VESSELS AND EQUIPMENT AUTHORIZATION FOR THAILAND: Purchase approvals and authorizations for fishing vessels and equipment for Thailand were announced by the Economic Cooperation Administration on August 3. Thailand has an ECA authorization for $68,000 to be used for purchases in Japan, and one for $35,000 for purchases in the United States and Possessions and Japan. The money is to be spent for fishing vessels, equipment (including refrigeration plants), and for modernizing the market at Bangkok.