

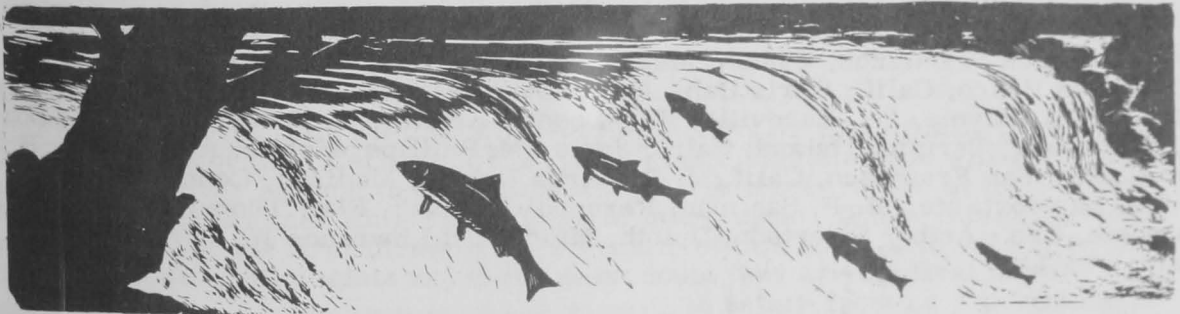
TRENDS AND DEVELOPMENTS

Alaska

NEW SHRIMP CANNERY OPENED: A new shrimp canning operation in Wrangell, Alaska, which was started in July 1957 introduces two new developments into the Alaska industry. For the first time, Alaska shrimp are being peeled by machine rather than by hand. The machine used is similar to those used by the shrimp industry on the Gulf of Mexico and in the State of Washington. The cannery is also the first plant in Alaska to produce a canned heat-processed product.

* * * * *

STEPS PLANNED TO HALT SALMON SNAGGING: Revision of Alaska fisheries regulations in 1958 to minimize the unsporting practice of salmon snagging--snatching these fish from Alaskan streams on their spawning run with only a series of bare treble hooks on fishing lines--was promised by the Assistant Secretary of the Interior for Fish and Wildlife on August 19. "Present public concern in Alaska about the increased practice of this unsportsmanlike method near major population centers there is certainly justified," said the Assistant Secretary.



Action to remove a prohibition against snagging which previously had been in effect was initiated in 1956. The reason given was that the regulation then in effect had proved difficult to enforce because of the problem of distinguishing between bona fide sport fishing and intentional snagging. In place of it, a regulation limiting the take with hook and line to two fish was provided in some parts of Alaska.

The Acting Administrator for Alaska Commercial Fisheries, whose office is responsible for development of regulations for the taking of salmon, has announced that studies of this problem have been launched with particular attention to a review of the laws of the three Pacific Coast States in this regard. From the studies will come the new measures in the 1958 regulations aimed at a solution of the problem.



American Fisheries Advisory Committee

COMMITTEE MEETS IN ALASKA: Favorable comments on the program of the Bureau of Commercial Fisheries, United States Fish and Wildlife Service, in support of the American commercial fishing industry generally and on the pattern of Saltonstall-Kennedy fisheries projects in particular, were expressed by members of the American Fisheries Advisory Committee following their sixth meeting held in Ketchikan and Juneau on July 22-25.

The Committee also had the opportunity to view first hand the activities of the Bureau in Alaska. The Committee visited the Bureau's Fishery Products Laboratory in Ketchikan to see some of the technological research and fishery management activities there. Members also inspected a cold-storage plant and a salmon cannery. In the Juneau area the Committee observed the spawning runs of salmon in the creeks and rivers.

Some of the more important projects being conducted with funds provided by the Saltonstall-Kennedy Act of 1954 for the betterment of domestic fisheries were explained to the Committee by the use of visual aids. The Committee expressed satisfaction at the progress being made and at the direction being taken by the program.

Members expressed the view that whenever possible the work be conducted by government employees and that only where special conditions exist should contract work be performed. Members also expressed concern over the circumstances which, to an increasing degree, require financing of continuing operations with Saltonstall-Kennedy money. These funds, they believed, should be used for more specialized and critical problems of less permanent duration.

Of the 19 active members of the Committee, 16 attended the meeting. They were: James S. Carlson, Boston, Mass.; Ralph E. Carr, Kansas City, Mo.; Mason Case, San Pedro, Calif.; Chris Dahl, Petersburg, Alaska; David H. Hart, Cape May, N. J.; R. L. Haynie, Jr., Reedville, Va.; Leon S. Kenney, St. Petersburg, Fla.; Donald P. Loker, Terminal Island, Calif.; James McPhillips, Mobile, Ala.; Arthur H. Mendonca, San Francisco, Calif.; J. Richards Nelson, Madison, Conn.; Moses B. Pike, Eastport, Me.; H. F. Sahlman, Fernandina Beach, Fla.; Thomas F. Sandoz, Astoria, Ore.; Arthur Sivertson, Duluth, Minn.; and Lawrence W. Strasburger, Metairie, La.

The next meeting of the Committee will be in the spring of 1958.



California

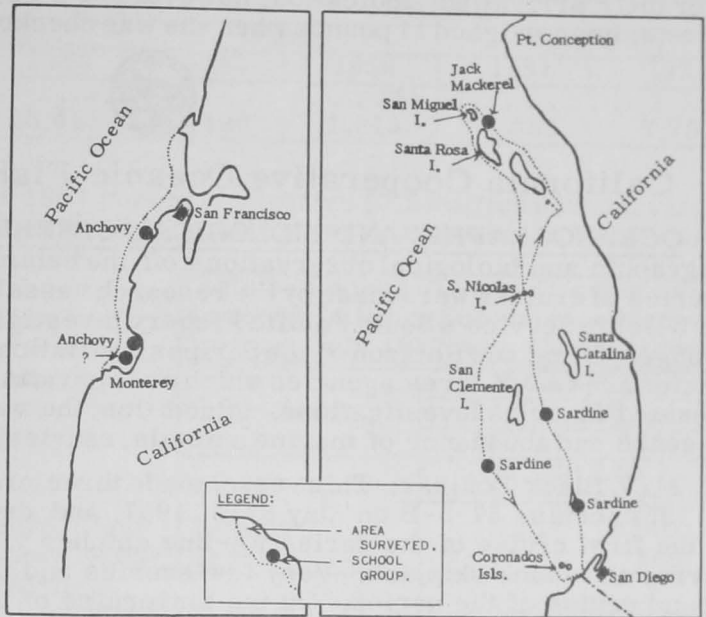
ADULT SARDINE CONCENTRATIONS SURVEYED OFF CALIFORNIA COAST BY AIRPLANE: Two flights were made off central and southern California to determine the pelagic fish distribution and abundance. Particular attention was focussed to the location of offshore adult sardine schools. On June 25 the inshore area between Point Reyes and Monterey was surveyed by the California Department of Fish and Game Cessna 3632C (flight 57-3). On July 17 the offshore area between San Miguel Island and Coronados Island, including Tanner and Cortez banks, was surveyed by biologists of the Department aboard the U. S. Coast Guard Albatross (flight 57-4).

Flight 57-3: Scouting weather was ideal during this flight. There appeared to be far fewer anchovies in Central California during this flight than over the past

two years. Three anchovy schools were observed near Santa Cruz and two near Half Moon Bay, but no anchovy schools were seen in the area north of Half Moon Bay.

Five schools of unknown identification were seen in the area four miles offshore of Moss Landing in Monterey Bay. Commercial fishermen scouted in this area on the night after the flight and found a large concentration of adult Pacific herring (*Clupea*). Also, no commercial quantities of anchovies were found in Monterey Bay by the commercial fishermen during the entire month of June and the first three weeks of July.

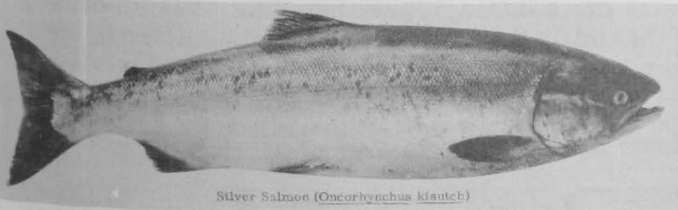
Flight 57-4: Scouting weather was poor over the entire Southern California area during this flight. Heavy low overcast restricted visibility and the entire flight was conducted at around 700 feet elevation. However, the sea was very calm and the fish schools seen were close to the surface permitting good species identification. Six sardine schools were seen in the area between San Clemente Island and the mainland. One jack mackerel school was sighted at Santa Rosa Island. No fish schools were seen over the Cortez and Tanner banks.



* * * * *

FIRST MATURE SILVER SALMON RETURN TO THE SACRAMENTO RIVER:

The forerunners of what California Fish and Game biologists hope will grow into large runs of silver salmon in the Sacramento River were trapped at the Fremont Weir tagging station near Knight's Landing in mid-August. These silver salmon are believed to be the first three-year-old adults of this species to ascend the Sacramento to spawn. Biologists say there is no doubt they are the first mature fish to return from an experimental plant of 42,000 yearling silvers in Mill Creek in March 1956. Workers at the Fremont Weir hopefully dubbed them "Adam" and "Eve" before tagging them and permitting them to resume their upstream journey, states an August 16, 1957,



press release from California's Department of Fish and Game.

The Sacramento River, an excellent king salmon stream, has never had a silver salmon run. The experimental plant was made in the hope of establishing such a run. Silvers now enter coastal streams both north and south of the Golden Gate, but (except for one recorded stray in 1942) never entered the Sacramento until last fall. At that time, on the basis of counts at Fremont Weir and upstream recoveries, fishery technicians estimated a run of 3,200 precocious salmon, all males, in the Sacramento River. Two small two-year-old females, returning from the March 1956 plant were artificially spawned, one at the Nimbus and the other at the Coleman hatchery.

The arrival of two silver salmon at Fremont Weir is about three months early, according to California Department of Fish and Game calculations. Biologists consider their arrival an indication, however, of a substantial run to come. The female silver salmon weighed 11 pounds when she was checked in, and the male about 9 pounds.



California Cooperative Oceanic Fisheries Investigations

OCEANOGRAPHIC AND BIOLOGICAL OBSERVATIONS: In order to make hydrographic and biological observations off the central and southern California coast, a series of cruises were made by the research vessel Black Douglas of the U. S. Fish and Wildlife Service's South Pacific Fishery Investigations and the research vessels Stranger, Orca, and Horizon of the Scripps Institution of Oceanography. These two agencies are two of three agencies which are operating under the California Cooperative Oceanic Fisheries Investigations. In addition, the vessels made observations of the presence and abundance of marine animals, sauries, and squid at each station.

M/V Black Douglas: This vessel made three cruises: cruise 57-4-B on April 26, 1957; cruise 57-5-B on May 8-19, 1957; and cruise 57-6-B on June 4-18, 1957. On the first cruise of the series jig-line catches yielded yellowtail, bonito, dolphin, sierra, and black skipjack. Very few sauries and no squid were observed on the second cruise of the series. On the last cruise of the series, sauries were seen only on two stations and no jig-line catches were made.

M/V Horizon: This vessel made a series of three cruises: cruise 57-4-H on April 10-30, 1957; cruise 57-5-H on May 8-18, 1957; and cruise 57-5-H on June 4-21, 1957.

M/V Orca: This vessel made two cruises: cruise 57-5-0 on May 19-23, 1957, and cruise 57-6-0 on June 4-19, 1957.

M/V Stranger: A series of three cruises were made by this vessel: cruise 57-4-S on April 10-30, 1957; cruise 57-5-S on May 10-23, 1957; and cruise 57-6-S on June 4-26, 1957.



Cans--Shipments for Fishery Products, January-June 1957



Total shipments of metal cans during January-June 1957 amounted to 62,158 short tons of steel (based on the amount of steel consumed in the manufacture of cans) as compared with 52,538 tons in January-June 1956.

NOTE: STATISTICS COVER ALL COMMERCIAL AND CAPTIVE PLANTS KNOWN TO BE PRODUCING METAL CANS. REPORTED IN BASE BOXES OF STEEL CONSUMED IN THE MANUFACTURE OF CANS, THE DATA FOR FISHERY PRODUCTS ARE CONVERTED TO TONS OF STEEL BY USING THE FACTOR: 23.0 BASE BOXES OF STEEL EQUAL ONE SHORT TON OF STEEL.



Federal Purchases of Fishery Products

DEPARTMENT OF DEFENSE PURCHASES, JANUARY-JULY 1957: Fresh and Frozen Fishery Products: For the use of the Armed Forces of the Department of Defense, 3.0 million pounds (value \$1.5 million) of fresh and frozen fishery products were purchased in July by the Military Subsistence Market Centers. The July purchases were 46.5 percent greater than in June but 6.9 percent less than in the same month a year ago. The value of the purchases this July was higher by 43.4 percent as compared with the previous month, but lower by 7.7 percent from July a year ago.

Table 1 - Fresh and Frozen Fishery Products Purchased by Military Subsistence Market Centers, July 1957 with Comparisons

QUANTITY				VALUE			
July		Jan.-July		July		Jan.-July	
1957	1956	1957	1956	1957	1956	1957	1956
.....(1,000 Lbs.).....			(\$1,000).....			
2,963	3,184	14,988	15,415	1,490	1,615	7,635	7,705

For the first seven months of 1957 purchases totaled 15.0 million pounds, valued at \$7.6 million--a decrease of 2.8 percent in quantity and 0.9 percent in value as compared with the same period of 1956.

Prices paid for fresh and frozen fishery products by the Department of Defense in July averaged 50.3 cents a pound, about 1.1 cents less than the 51.4 cents paid in June, and 0.4 cents below the 50.7 cents paid during July a year ago.

Canned Fishery Products: Salmon and sardines were the only canned fishery products purchased for the use of the Armed Forces during July. The Armed Forces installations generally make some local purchases not included in the data given. Actual total purchases are higher than indicated, but it is not possible to obtain local purchases.

Table 2 - Canned Fishery Products Purchased by Military Subsistence Market Centers, July 1957 with Comparisons

Species	QUANTITY	
	July	Jan.-July
	1957	1957
	... (1,000 Lbs.) ...	
Tuna	-	1,450
Salmon	9	1,001
Sardine	20	106



Fishery Management and Wildlife Management Biologist Examination

The U. S. Civil Service Commission issued Announcement No. 113(B) on July 30 covering positions for Wildlife Management Biologists and Fishery Management Biologists, GS-7 through GS-12. This is a continuously open, unassembled examination. Entrance salaries range from \$4,525 to \$7,570 a year.

All persons who attained eligibility under Announcement No. U-220 for the above-mentioned positions who have not received appointments should apply for the new examination if still interested. Registers to be established under Announcement No. 113(B) will supersede those currently in use under Announcement No. U-220.

The register for Biologist (Federal Aid Supervisor), GS-9 through GS-12, included as an option of the old announcement, will be expired.

Basic requirements for both Fishery Management Biologist and Wildlife Management Biologist are for a successful completion of a full four-year course in an accredited college or university leading to a bachelor's degree. Major studies for Fishery Management Biologist must be in fishery science, biology, or zoology and for Wildlife Management Biologist in wildlife management, biology, zoology, or forestry. The above may be substituted by four years of successful and progressive technical experience in either responsible fisheries or wildlife work of such a nature as to enable successful performance at the professional level, or a combination of technical experience and college courses may be used to meet the basic requirements.

In addition to the basic requirements applicants must show that they have had additional professional experience of from one to three years (depending on the grade) in responsible scientific and technical fisheries or wildlife work of such a

nature as to show that they are capable of performing the duties required.

For full information on how to apply for this examination, write to the U. S. Civil Service Commission, Washington 25, D. C., or any of its field offices.

The United States and Alaska catch of fish and shellfish at mid-year was running considerably below a year ago. Fisheries which yielded slightly over 2 billion pounds of fish and shellfish in the early months of 1957 yielded 2.4 billion pounds during the same period in 1956.

Menhaden catches used almost entirely in the manufacture of fish meal and oil, showed the greatest decline. Catches during the first seven months of 1957 totaled 814 million pounds--328 million pounds less than in the same period during 1956.

Tuna and bonito catches on the Pacific Coast declined 31 million pounds; the Alaska salmon catch was off about 27 million pounds; receipts of ocean perch declined 17 million pounds.

Only three items showed marked increases in landings in the first six months of 1957 as compared with the same period last year--the herring catch in Maine (used largely for canning) was up 22 million pounds; herring catches in Alaska (used almost exclusively in the manufacture of meal and oil) were up 16 million pounds; and whiting landings in New England increased nearly 24 million pounds.

In 1956 United States and Alaskan fishermen landed a record catch of 5.2 billion pounds. It is evident that the 1957 catch will fall considerably short of this total.



Marketing Prospects for Edible Fishery Products, July-September 1957

Per capita civilian consumption of fishery products in the United States during the next several months is expected to be close to the year-earlier rate. Judging from the wholesale level in primary markets, retail prices have averaged somewhat higher thus far this year than last and are expected to continue higher this summer.

Commercial landings of edible fish and shellfish through mid-1957 were a little lower than a year earlier. Decreases were indicated for tuna and several other important species of fish and shellfish.

Freezings of edible fishery products in the continental United States through midyear were 2 percent less than a year earlier. May was the only month in which freezings were higher this year than last. July 1 cold-storage holdings of edible fishery products were about as large as on the same date last year. Stocks of these frozen commodities will trend upward during the remainder of 1957 as supplies are built up for distribution during the seasonally low production period next winter.

Through early spring, imports of major fishery products were a little lower than in the same part of 1956. The percentage declines for major canned products and for frozen fillets and blocks were about the same. For fresh and frozen products other than fillets and blocks the total was about as large as a year earlier.

Canned fish exports, the major group of domestic edible fishery products sold abroad, were much lower through early spring this year than last. The reduction in quantity was mainly in canned California sardines, the pack of which was very poor last year.

This analysis appeared in a report prepared by the Agricultural Marketing Service, U. S. Department of Agriculture, in cooperation with the U. S. Fish and Wildlife Service, and published in the former agency's July 29, 1957, release of The National Food Situation (NFS-81).



North Atlantic Fisheries Investigations

SCALLOP DREDGE RINGS OF DIFFERENT SIZES TESTED FOR SELECTIVITY (M/V Whaling City): The U. S. Bureau of Commercial Fisheries-chartered vessel Whaling City, during a cruise from August 8-17 on Georges Bank, made 40 tows to test the selective action of 3-, 3½-, and 4-inch scallop-dredge rings. The cruise was one of a series to develop a ring size in the bag-end of scallop dredges that would retain sea scallops of commercial value and release the smaller scallops of little or no value to the fishermen.

The data gathered on the cruise included measurements of 75,000 sea scallops. Conclusions will be forthcoming after the data are analyzed.



North Atlantic Herring Research

POWER BLOCK DEMONSTRATED TO MAINE SARDINE SEINERS: Demonstrations to Maine sardine fishermen of a powered-block seine hauler were completed during the third week of July 1957 by the Maine Herring Exploration and Gear Research Project of the Bureau of Commercial Fisheries. These demonstrations were made from a Government-owned 35-foot motorboat, the Clupea, to introduce to Maine sardine seiners the labor-saving advantages of this power method of seine hauling.

The "power block" is a large V-shaped sheave, lined with rubber and driven by a hydraulic motor. When in operation, the seine is led through the sheave and to the deck of the boat. Rotation of the sheave then pulls the net up out of the water and drops it on deck. The seine crew needs only to stack the net as it is fed down to them by the block. All the work of hauling the net up out of the water is done by machine power from a main engine or an auxiliary engine.

How the Block Works: Power is transmitted from the engine by means of a hydraulic drive system. A hydraulic pump (which is driven by the engine) pumps hydraulic fluid into lines and the fluid in turn drives a hydraulic motor which is mounted on the "power block." Speed, the amount of pull of the net, and direction

of rotation are all very easily controlled by two valves. The machine can be started, stopped, or reversed by merely adjusting a valve to the proper position. If it should become necessary to remove the net from the block before the end is reached, the block can be opened like a snatch block by pulling a pin, and the net can be pulled out.

Method and Area of Demonstrations: For purposes of demonstration, a 100-fathom by 9-fathom purse seine, minus rings and purse line, was taken aboard the Clupea. This net was run out and hauled back aboard as a demonstration for seine crews and other interested parties. Demonstrations have been made in the more important fishing ports from Portland, Me., as far east as Southwest Harbor on Mt. Desert Island. The 100-fathom seine was hauled and stacked by two men in a demonstration at Tenants Harbor in $8\frac{1}{2}$ minutes. This was done without hurrying, in spite of the fact that the net was stopped several times to clear it of rockweed. A "speed run" was made for a seine crew at Stonington in which two men hauled the 100-fathom net in $5\frac{1}{2}$ minutes.

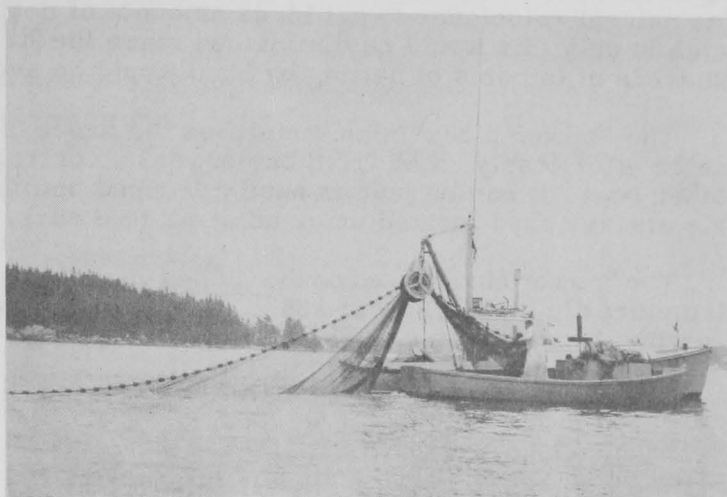


FIG. 1 - VIEW OF SARDINE STOP SEINE BEING HAULED WITH A POWER BLOCK IN THE MAINE SARDINE FISHERY.

The block was tried out in an actual stop-seine hauling operation in Burnt Cove, Deer Island, on May 28. For this operation the seine boat was tied alongside the

Clupea and the "power block" swung outboard on the boom so that the seine was dropped into the seine boat. (The seine could be dropped into a dory or any other boat in this manner.) The net came aboard smoothly and easily in this operation except when the net snagged on the bottom. It was then necessary to slack off the net and work the snagged net loose by hand. The catching of this snag demonstrated a need for someone to stand close by the control valve and to keep just enough power applied to haul in the net slowly so that the block will stop if the net should become "hung down."

Conclusions: It was evident that each sardine seiner would have to work out his own rigging in order to adapt a "power block"

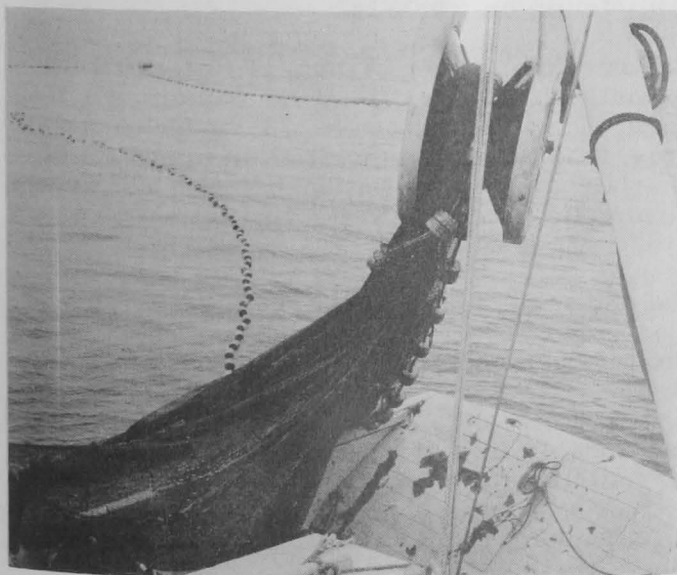


FIG. 2 - VIEW OF SARDINE STOP SEINE BEING HAULED WITH A POWER BLOCK IN THE MAINE SARDINE FISHERY.

to his equipment and his particular operation.

In some operations where only shorter lengths of seine are used and when fishing activities are confined to a local area, changing over to power hauling might not be practical. Where great lengths of seine are set repeatedly and where a large crew is employed for the primary purpose of hauling the net, the savings in man-

power that could be effected would be great. The application of "power block" hauling could result in a reduced crew or in the handling of considerably more netting. The natural reluctance to set large amounts of netting where the chance of a good catch is only fair would be diminished since the strenuous physical labor of retrieving hundreds of fathoms of netting by hand would be avoided.

The "power block" also simplifies the process of overhauling nets. A seine can be effortlessly lifted from one boat at a controlled speed and dropped into another boat. It can be just as easily dropped onto a dock at high tide, or into a truck or a storage shed located on or adjacent to a dock.

The "power block" used on the *Clupea* has a 28" diameter. Others are available with diameters of 12", 18", 25", and 36". An 18" block, costing about \$832 completely equipped with a hydraulic-drive system, is probably large enough for hauling most stop seines.



Shellfish

REVISED GUIDE FOR SANITARY CONTROL OF SHELLFISH INDUSTRY ISSUED: The Public Health Service issued in August 1957 a revised guide to the Sanitary Control of the Shellfish Industry (1957 edition). The initial publication of standards of recommended practice in this area was developed in 1925 by the Public Health Service at the request of State health departments and the shellfish industry. The current guide is the third revision.

This guide outlines the basic sanitary standards for the cooperative state-industry-Public Health Service program for the certification of interstate shellfish shippers. It includes recommended sanitation practices for harvesting boats and establishments which process oysters, clams, or mussels.

Agencies cooperating in the revision of the guide--Manual of Recommended Practice For Sanitary Control of the Shellfish Industry (Part II: Sanitation of the Harvesting and Processing of Shellfish), PHS Publication No. 33--included shellfish control authorities in all coastal states, food control authorities in inland states, various Federal agencies, the Canadian Department of National Health and Welfare, the Pacific Coast Oyster Growers Association, and the Oyster Growers and Dealers Association of North America.

Some important changes from the previous edition follow:

1. Rowboats, skiffs, etc., used to transport shell stock must have removable false bottoms.
2. Shell stock must be washed reasonably free of mud as soon after harvesting as is feasible. The primary responsibility for washing rests with the harvester.
3. Lighting on working surfaces in packing room shall be 25-foot candles, and on shucking benches 15-foot candles.
4. The number of toilets is specified on the basis of employees both male and female.
5. Returnable containers must be replaced by corrosion-resistant, etc., material by December 1960.
6. Drain valves on blower tanks are easily cleanable.

7. The return of overage (bluff) is eliminated through a provision that no oysters with temperatures above 50° F. should remain on the shucking benches.

8. "Dip" buckets are prohibited.

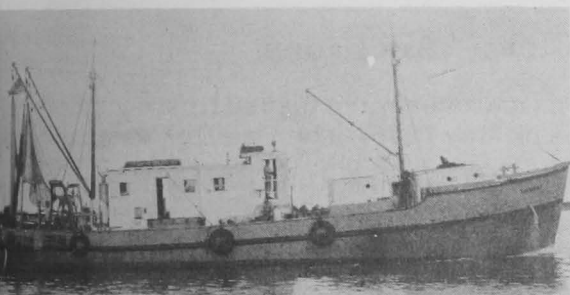
9. Oysters must be cooled to 50° F. (internal temperature) within 2 hours after packing. If 5-gallon returnables are used, it will be necessary to precool the oysters before they are packed. Crushed ice in the blower tank will accomplish this temperature without difficulty.



South Atlantic Exploratory Fishery Program

EXPLORATORY DEEP-WATER SHRIMP TRAWLING OFF FLORIDA COAST

(M/V Combat Cruise 11): Deep-water shrimp exploration along the east coast of Florida was carried on July 17-30 by the Bureau of Commercial Fisheries-chartered vessel Combat. Thirty-six drags were made in depths of 160 to 565 fathoms, be-



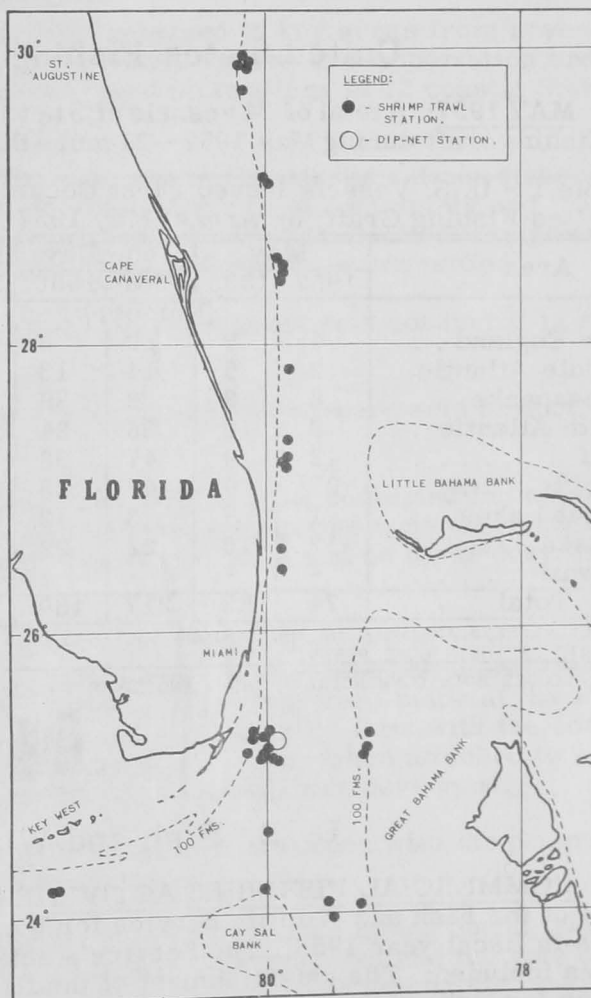
THE SERVICE'S EXPLORATORY VESSEL COMBAT.

tween Key West and St. Augustine, including 8 drags along the western edge of Great Bahama Bank and north of Cay Sal Bank.

Royal-red shrimp were caught in all successful drags in the 160- to 250-fathom zone along the western edge of the Florida Current (Gulf Stream). In the Miami-Key West area, catches were small except for a one-hour 40-foot flat-trawl drag off Carysfort Reef in 185 fathoms which yielded 35 pounds of shrimp.

Catches along the Bahamas did not yield a single royal-red shrimp. Bottom temperatures in this area ranged from 6° to 14° F. warmer than in comparable depths along the western edge of the Florida Current, where royal-red shrimp were caught.

Four drags were made in the vicinity of Carysfort Reef in depths of 40 to 85 fathoms. The only shrimp represented in the catches were a few rock shrimp (Sicyonia).



M/V COMBAT CRUISE 11 (JULY 17-30, 1957).

Twelve 40-foot flat-trawl drags were made in depths of 190 to 240 fathoms between Cape Canaveral and St. Augustine. The best catch (a 2-hour drag off Cape Canaveral) yielded 100 pounds of 21-35 count heads on royal-red shrimp.



Transportation

RAILWAY EXPRESS AGENCY SEEKS ANOTHER RATE INCREASE: The Railway Express Agency has asked the Interstate Commerce Commission for another nationwide increase of 15 percent in carload and less-than-carload rates and charges, including re-icing charges, but not carload refrigeration charges. The Agency explained that this increase would be in addition to the 11-percent increase authorized on May 31, 1957, on Eastern territory movements. (Fish and seafood traffic was excluded from this 11-percent increase.) The I. C. C. is expected to hold hearings on this petition to receive testimony from interested shippers.



United States Fishing Fleet^{1/} Additions

MAY 1957: A total of 74 vessels of 5 net tons and over were issued first documents as fishing craft during May 1957--21 more than in May 1956. The Pacific Coast area

Table 1 - U. S. Vessels Issued First Documents as Fishing Craft, by Areas, May 1957

Area	May		Jan.-May		Total
	1957	1956	1957	1956	
	(Number)				
New England . .	4	2	10	8	15
Middle Atlantic.	2	5	14	13	26
Chesapeake . .	8	8	39	29	138
South Atlantic .	8	10	36	24	119
Gulf	12	9	47	38	100
Pacific	27	9	46	23	76
Great Lakes . .	1	-	3	2	6
Alaska	12	10	22	22	40
Hawaii	-	-	-	1	1
Total . . .	74	53	217	160	521

NOTE: VESSELS ASSIGNED TO THE VARIOUS SECTIONS ON THE BASIS OF THEIR HOME PORTS.

Table 2 - U. S. Vessels Issued First Documents As Fishing Craft, by Tonnage, May 1957

Net Tons	Number
5 to 9	38
10 to 19	21
20 to 29	4
30 to 39	10
130 to 139	1
Total	74

led with 27, followed by the Gulf and Alaska areas with 12 each, and the Chesapeake and South Atlantic areas with 8 each.

^{1/} INCLUDES BOTH COMMERCIAL FISHING AND SPORT FISHING CRAFT.



U. S. Fish and Wildlife Service

COMMERCIAL FISHERIES ACTIVITIES, FISCAL YEAR 1956: The Annual Report of the Fish and Wildlife Service for the year ending June 30, 1956, lists activities in fiscal year 1956. The Service's activities of interest to commercial fisheries included: The establishment of the first voluntary standard of grade and condition for fishery products.

Continuation of a vigorous salmon restoration program in Alaska.

Large-scale testing of several electronic devices used in fish guiding, counting, and other fishery research.

Numerous studies relative to shellfish.

Two promising selective poisons for use in sea lamprey control out of 4,600 compounds tested over a period of time.

Numerous oceanic research problems for the benefit of the fishing industry.

Exploratory fishing cruises discovered a yellowfin tuna resource in the southern part of the Gulf of Mexico, located a red shrimp resource in the deep waters of the South Atlantic, found a fishing ground for large lobsters off New England in deep water, found a new ocean perch fishing area, and studied the Maine sardine fishery.

Through a technological research program, the Service isolated certain chemical components of fish oil which may pave the way for the creation of many new products.

Two fishery motion pictures in sound and color were completed during the year and a third started. These films are financed by interested segments of the fishing industry.

Daily Fishery Market News reports were released in key areas from seven strategically-located reporting offices. Fish transportation and importation problems were studied. Monthly bulletins were issued on landings in 12 coastal States and Ohio on Lake Erie.

Vigorous restoration measures were continued in the Alaska salmon fisheries. The pink salmon fishery in Prince William Sound was closed completely and trap fishing in southeastern Alaska reduced by 50 percent; more protection was given salmon in the various bays, and the stream guard program was intensified.

Restrictions were invoked and lake fertilization experiments conducted in red salmon areas.

The Pribilof seal harvest was 65,638 skins; 52,957 skins were sold at auction for \$4,849,610.

Research on the Atlantic salmon, shad, and striped bass continued in eastern waters. In the Northwest considerable laboratory research was done on electrical fish-guiding devices to divert salmon into bypass channels, and on other devices to protect young salmon from squawfish.

Instruments which record the passage of fish through underwater orifices, giving the direction of the movement, were perfected and put into commercial production. Intensive studies of fish behavior during migration were made at the Fisheries-Engineering Research Facility established at Bonneville Dam with the cooperation of the Corps of Engineers. A "sonic tracker," which when attached to a fish sends signals by which the path of the fish can be followed, was developed.

Extensive studies of salmon races were made in accordance with the program outlined by the North Pacific Fisheries Commission.

Studies of the king crab in Bristol Bay, the oyster in Long Island Sound, raft culture for oysters in Massachusetts, soft clams in New England, and the role of chemical elements in the metabolism of marine organism were among the other research projects.

Major attack on the sea lamprey which has ruined fisheries in three of the Great Lakes was centered in Lake Superior where lake trout are still commercially important. All lamprey work was done in accordance with the general program of the International Great Lakes Fisheries Commission.

A new research unit, Ocean Research, located at Stanford University, was opened in September 1955, to study the relationships of climate and ocean conditions to the sudden fluctuations in numbers of commercial fish.

Research continued on sockeye salmon "virus" and on the blue-sac disease.

The Lower Columbia River Fisheries Development Program, in its eighth year, brought more evidence of the soundness of that program. Eleven hatcheries have been completed since the program started and two more--at Eagle Creek, Ore., and Carson, Wash.--were nearing completion when the fiscal year closed.

Seal studies indicated that the fur seal is not a salmon predator. Out of 205 stomachs studied during the project only one of them showed any evidence of salmon. Seal hookworm studies were continued.



U. S. Foreign Trade

EDIBLE FISHERY PRODUCTS, JUNE 1957: United States imports of edible fresh, frozen, and processed fish and shellfish in June 1957 were lower by 2.0 percent in quantity and 6.9 percent in value as compared with the previous month.



Compared with June 1956, the imports for this June were down 0.3 percent in quantity and 3.6 percent in value. Imports were lower for some of the higher-priced commodities such as shrimp, spiny lobster, and canned salmon since the value of imports for June 1957 averaged 32.7 cents a pound as compared with 33.8 cents a pound for the same month in 1956.

June 1957 imports declined as compared with the same month last year due mainly to lower imports of frozen ocean perch fillets and canned tuna in brine. These decreases were not offset by the higher imports of fish blocks, haddock fillets, and frozen tuna.

Exports of processed edible fish and shellfish in June 1957 increased 20.3 percent in quantity from the previous month and were also 9.3 percent above June 1956. The June 1957

value of these exports was up by 40.0 percent as compared with the previous month, and higher by 7.7 percent than for June a year ago.

Table 1--United States Foreign Trade in Edible Fishery Products, June 1957 with Comparisons

Item	Quantity			Value		
	June		Year	June		Year
	1957	1956	1956	1957	1956	1956
	(Millions of Lbs.)			(Millions of \$)		
Imports:						
Fish & shellfish:						
Fresh, frozen & processed 1/	58.2	58.4	786.6	19.0	19.7	231.6
Exports:						
Fish & shellfish:						
Processed 1/ only (excluding fresh and frozen)	7.1	6.5	82.8	1.4	1.3	19.2

1/ INCLUDES PASTES, SAUCES, CLAM CHOWDER AND JUICE, AND OTHER SPECIALTIES.

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RECORD VALUE FOR FISHERY PRODUCTS IMPORTS IN 1956: A new record for the value of imported fishery products was reached in 1956 when products valued at \$281 million at the foreign port of shipment were received in the United States. This was ten percent over the 1955 value, according to a review of the import trade made by the Bureau of Commercial Fisheries. Since 1950 (the first post-World War II year of volume fishery products imports) there has been an increase of 42 percent in the annual value of fishery products imports.

While a new high in the value of imports was attained in 1956, the quantity was only the fifth largest on record--about one billion pounds--this was about the same quantity as received during 1955 and 1953, but considerably less than the record year of 1952 and the runner-up, 1954. Imports of fish meal during 1956, which were about half those of 1952, were principally responsible for the decline in the quantity of import trade. Fish meal imports totaled 408 million pounds during 1952 and 180 million pounds during 1956. Edible fishery products imports remained at a high level in 1956--788 million pounds--second only to 1954.

The United States is the world's leading importer of fishery products. It has been estimated that for every ten pounds of

domestic catch taken and processed, the equivalent of five pounds of foreign-caught fish is used in the domestic market. Imports during 1956 provided about 56 percent of all the groundfish fillets used in the United States, 20 percent of the canned tuna, over one-third of the frozen tuna used in canning, 34 percent of the shrimp consumed, 15 percent of the canned salmon, 46 percent of the Northern lobsters, 70 percent of the canned crabmeat, and 24 percent of the fish meal.

Fishery products represented 2.24 percent of the total value of all United States imports during 1956. Edible fishery products were valued at \$233 million, and inedible products at \$4 million.

The primary source of imported fishery products was Canada which supplied products valued at \$95 million, in large part consisting of groundfish fillets, lobsters, salmon, fresh-water fish, and fish meal. Japan was the second in value with products valued at \$71 million, consisting of frozen and canned tuna, canned crabmeat, canned oysters, frozen and canned salmon, and pearls.

Mexico supplied products valued at \$28 million, consisting largely of fresh and frozen shrimp. Imports from other Latin American countries were valued at \$26 million.

Products imported from Norway were valued at \$13.6 million, and consisted mainly of canned sardines. The Union of South Africa supplied products valued at \$8 million; Peru \$7.3

million; Iceland, \$6.2 million; Portugal, \$4.9 million; and Denmark, \$2.8 million.

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IMPORTS OF CANNED TUNA IN BRINE UNDER QUOTA PROVISIO: The quantity of tuna canned in brine which may be imported into the United States during the calendar year 1957 at the 12½-percent rate of duty is limited to 44,528,533 pounds. Any imports in excess of that quantity will be dutiable at 25 percent ad valorem.

Imports under the quota from January 1-August 3, 1957, amounted to 22,518,460 pounds, according to data compiled by the Bureau of the Customs. This leaves a balance of 22,010,073 pounds of the quota which may be imported during the balance of 1957 at the 12½-percent rate of duty.



Virginia

BIOLOGISTS REPORT PROGRESS IN STUDY OF ARTIFICIALLY-BRED HARD CLAMS: As part of Atlantic Coast State and Federal cooperative studies of the possibilities inherent in the artificial breeding and rearing of clams, the biologists of the Virginia Fisheries Laboratory conclude that hybrid clams can be raised to market size at least a year earlier than wild stock. The hybridizing of clams was developed successfully by the U. S. Fish and Wildlife Laboratory at Milford, Conn., as a step towards developing methods designed to demonstrate to clam producers that clams can be raised in holding tanks until large enough to survive heavy losses from predators. The experiments are described in an August 9, 1957, news release from the Virginia Fisheries Laboratory as follows:

Biologists at the Laboratory rigged in skin-diving gear descended to the sandy bottom of the York River and carefully dug out a group of clams they have been watching carefully for the last three years.

This is probably the most unusual group of clams in Virginia. Each one bears a red number on its shell which enables the scientists to tell where its parents originated, when it was planted, and how much growth it has made. These clams are the offspring of special parents. At the beginning there were four groups of young clams: those of northern males and southern females; those of northern females and southern males; those of southern males and females; and those of northern males and females.

In November 1954, the biologists placed over 400 marked clams in sand-filled boxes and hung them from the end of the Laboratory pier. They were curious to see how fast each would grow and how well they would survive. Checking their planting six months later they found that many offspring of the two southern parents had died, possibly due to the severe winter weather. The remainder of the brood died in the winter of 1955/56.

In October 1955, the young clams which were still living in trays were divided up. Most of each group was placed on the bottom of the river and the remainder in the trays.

In June 1956 diving operations were begun to recover the planted clams. The clams were meas-

ured and weighed carefully and it was found that the hybrids produced by crossing northern and southern parents were growing faster than those having both parents from northern waters.

The scientists soon discovered that there were other animals than man interested in their young clams. Towards the end of the 1956 summer many of the planted clams had been eaten and only the fragments of their shells remained. It was impossible to determine exactly what had destroyed them but the scientists believe that crabs were the predators.

During their first two winters at Gloucester Point more of the hybrid clams died than those of all northern parentage, but in the spring of 1957 it was discovered that not any of the clams had died during the previous winter. Perhaps this was due to the mildness of the winter. After a check made in July the biologists learned that the clams of mixed parentage were continuing to grow at a faster rate than the offspring of the all northern breed.

At present the clams are in their third year, and the hybrids are approximately 2 inches long as compared with slightly more than 1½ inches for clams of northern parentage. By the fall of 1957 the hybrids should be medium size (cherry-stone) and ready for market.

Farmers have long recognized the value of hybridization for improving quality and yield in their crops. Perhaps the shellfish industry will one day profit from similar techniques.

Wholesale Prices, August 1957

Over-all wholesale prices for fishery products have fluctuated in a narrow range (2-4 percent) since February this year. The August 1957 over-all edible fish and shellfish (fresh, frozen, and canned) wholesale price index (116.4 of the 1947-49 average) decreased 2.8 percent as compared with the previous month, but was up 1.6 percent from August 1956.

From July to August, prices dropped 15.4 percent for fresh large drawn haddock, 14.5 percent for Pacific Coast halibut, 4.8 percent for large and medium king salmon, and 7.1 percent for Great Lakes yellow pike; but whitefish prices went up. The August 1957 index for the drawn, dressed, and whole finfish subgroup declined 7.8 percent from the previous month and was lower by 13.9 percent as compared with the same month a year ago. Lower prices in August 1957 for large haddock, halibut, and salmon did not completely offset the higher prices for the fresh-water varieties.

Fresh processed fish and shellfish prices in August were 5.4 percent lower than in July, due primarily to a seasonal drop in fresh shrimp prices at New York. Supplies of the larger-size shrimp begin to increase in August as a rule. Compared with August 1956, prices in this subgroup this August were up 9.7 percent, due to higher small haddock fillet prices (up 7.0 percent) and fresh shrimp prices (up 21.0 percent). Fresh shucked oyster prices were unchanged from the previous month and the same month a year ago.

Prices for frozen processed fish and shellfish increased 1.8 percent from July to August because of higher frozen haddock fillet prices. From July to August frozen shrimp prices at Chicago declined slightly, and both ocean perch and flounder fillet prices were unchanged. The decline in frozen shrimp prices is not fully indicated in the index since the prices for both white shrimp (which is scarce on the Chicago market) and brown shrimp (slightly lower-priced and more plentiful) are consolidated in computing the index. The August 1957 index for this subgroup was 14.7 percent higher than in the same month a year ago, due principally to a 23.7-percent increase in shrimp prices and a 5.4-percent increase in frozen haddock fillet prices.

Canned fishery products prices in August this year, a month ago, and for the same month in 1956 were at about the same level. Maine canned sardine prices declined 5.5 percent between July and August, but other canned fish prices in this subgroup were unchanged. At the end of August the market was definitely weaker for Maine sardines with some of the canners curtailing operations. The prospects for any substantial increase in the 1957 salmon pack over the light 1956 pack were dim. Tuna producers and canners were still beset by an unsettled market for raw fish. Prospects for a good sardine season (opened September 1 in Southern California) were poor.

Table 1 - Wholesale Average Prices and Indexes for Edible Fish and Shellfish, August 1957 With Comparisons

Group, Subgroup, and Item Specification	Point of Pricing	Unit	Avg. Prices ^{1/}		Indexes			
			(\$)		(1947-49=100)			
			Aug. 1957	July 1957	Aug. 1957	July 1957	June 1957	Aug. 1956
ALL FISH & SHELLFISH (Fresh, Frozen, & Canned)					116.4	119.9	117.2	114.6
Fresh & Frozen Fishery Products:					127.0	133.3	128.5	126.5
Drawn, Dressed, or Whole Finfish:					112.9	122.5	111.2	131.2
Haddock, lge., offshore, drawn, fresh	Boston	lb.	.08	.09	80.6	95.3	76.5	101.3
Halibut, West., 20/30 lbs., drsd., fresh or froz.	New York	lb.	.32	.37	99.0	114.5	100.6	136.9
Salmon, king, lge. & med., drsd., fresh or froz.	New York	lb.	.60	.63	133.7	140.5	139.3	148.3
Whitefish, L. Superior, drawn, fresh	Chicago	lb.	.61	.53	151.2	130.2	154.9	121.5
Whitefish, L. Erie pound or gill net, rnd., fresh	New York	lb.	.80	.55	161.8	111.2	176.9	131.4
Lake trout, domestic, No. 1, drawn, fresh	Chicago	lb.	.61	.61	125.0	125.0	121.9	122.9
Yellow pike, L. Michigan & Huron, rnd., fresh	New York	lb.	.65	.70	152.4	164.1	102.0	129.0
Processed, Fresh (Fish & Shellfish):					134.0	141.7	140.6	122.2
Fillets, haddock, sml., skins on, 20-lb. tins	Boston	lb.	.31	.30	103.8	100.4	102.1	97.0
Shrimp, lge. (26-30 count), headless, fresh	New York	lb.	.85	.95	133.5	150.1	147.8	110.2
Oysters, shucked, standards	Norfolk	gal.	5.75	5.75	142.3	142.3	142.3	142.3
Processed, Frozen (Fish & Shellfish):					131.3	129.0	130.1	114.5
Fillets: Flounder, skinless, 1-lb. pkg.	Boston	lb.	.39	.39	102.1	102.1	103.4	103.4
Haddock, sml., skins on, 1-lb. pkg.	Boston	lb.	.29	.27	91.0	83.2	91.0	86.3
Ocean perch, skins on, 1-lb. pkg.	Boston	lb.	.27	.27	108.8	108.8	112.8	110.8
Shrimp, lge. (26-30 count), 5-lb. pkg.	Chicago	lb.	.96	.97	148.9	149.3	145.8	120.4
Canned Fishery Products:					100.2	100.8	101.2	97.7
Salmon, pink, No. 1 tall (16 oz.), 48 cans/cs.	Seattle	cs.	22.65	22.65	120.0	120.0	120.0	120.0
Tuna, lt. meat, chunk, No. 1/2 tuna (6-1/2 oz.), 48 cans/cs.	Los Angeles	cs.	11.20	11.20	80.8	80.8	80.8	76.4
Sardines, Calif., tom. pack, No. 1 oval (15 oz.), 48 cans/cs.	Los Angeles	cs.	9.00	9.00	105.0	105.0	105.0	87.5
Sardines, Maine, keyless oil, No. 1/4 drawn (3-1/4 oz.), 100 cans cs.	New York	cs.	7.05	7.45	75.0	79.3	81.9	79.8

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

