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COMMERCIAL FISHERIES REVIEW

A REVIEW OF DEVELOPMENTS AND NEWS OF THE FISHERY INDUSTRIES
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CONTENTS

COVER: A SOUTHEASTERN ALASKA SHRIMP BOAT WITH BEAM TRAWL. THE HEMLOCK BEAM USED NORMALLY IS AROUND 40 FEET LONG AND 9 INCHES IN DIAMETER. POSITION OF THE TRAWL WITH RELATION TO THE BOTTOM IS GOVERNED BY THE BRIDLE. NET USED IS USUALLY 1½-INCH MESH, 24-THREAD COTTON NETTING, 200 MESHES DEEP.

PAGE

THE JOHN N. COBB'S SHELLFISH EXPLORATIONS IN CERTAIN SOUTHEASTERN ALASKAN WATERS, SPRING 1951, BY J. G. ELLSON AND ROBERT LIVINGSTONE, JR. 1

* * * * *

PAGE

RESEARCH IN SERVICE LABORATORIES: 21
TECHNICAL NOTE NO. 19 - THE ALASKA SHEEFISH: DESCRIPTION AND PROXIMATE COMPOSITION, BY D. M. GALLERMAN AND H. J. CRAVEN 22
TRENDS AND DEVELOPMENTS: 24
ADDITIONS TO THE FLEET OF U. S. FISHING VESSELS 24
CALIFORNIA SHRIMP FISHING SEASON OPENED APRIL 1 24
CALIFORNIA BIOLOGISTS ALARMED AT PACIFIC MACKEREL SCARCITY 25
CALIFORNIA ISSUES ANCHOVY REDUCTION PERMIT 26
FEDERAL PURCHASES OF FISHERY PRODUCTS . 26
FLORIDA'S SHRIMP FISHERY EXPANDED IN 1951 27
FUR-SEAL SKIN PRICES DROP AT SPRING FUR AUCTION 27
GREAT LAKES FISHERY INVESTIGATIONS: SEA LAMPREY CONTROL PROSPECTS ENCOURAGING 28
NEW ENGLAND TUNA EXPLORATIONS: VESSEL CHARTERED FOR THIS YEAR'S EXPLORATIONS 28
PACIFIC OCEANIC FISHERY INVESTIGATIONS: RESEARCH VESSELS SEEK TUNA IN PACIFIC EQUATORIAL WATERS 29
SHIPMENTS OF METAL CANS FOR FISH AND SEA FOOD, JANUARY 1952 29

PAGE

TRENDS AND DEVELOPMENTS (CONT):
SOUTH ATLANTIC SHRIMP EXPLORATIONS: AGREEMENT SIGNED FOR CONDUCTING ONE YEAR'S EXPLORATIONS 29
WHOLESALE AND RETAIL PRICES:
WHOLESALE PRICES, FEBRUARY 1952 30
REVISION OF RETAIL PRICE INDEX FOR FRESH AND FROZEN FISH 31
RETAIL PRICES, FEBRUARY 1952 32
FOREIGN: 34
INTERNATIONAL:
CARIBBEAN FISHERIES CONFERENCE 34
WORLD MARINE-OIL PRODUCTION AND TRADE, 1951 34
FOOD AND AGRICULTURE ORGANIZATION: MEDITERRANEAN FISHERIES COUNCIL FORMED 36
CHILE:
EXPANSION AND MODERNIZATION OF FISHING INDUSTRY PLANNED 36
ARGENTINE REPUBLIC:
DEVELOPMENT OF FISHERIES PLANNED 37
DENMARK:
TUNA CATCH IN KATTEGAT AREA 38
HONG KONG:
FISHERIES RESEARCH UNIT ESTABLISHED .. 38
ICELAND:
IMPOSES FISHING RESTRICTIONS WITHIN FOUR-MILE ZONE 39

CONTENTS CONTINUED ON PAGE 63

COMMERCIAL FISHERIES REVIEW

April 1952 Washington 25, D.C. Vol. 14, No. 4

THE JOHN N. COBB'S SHELLFISH EXPLORATIONS IN CERTAIN SOUTHEASTERN ALASKAN WATERS, SPRING 1951

By J. G. Ellson* and Robert Livingstone, Jr.**

TABLE OF CONTENTS

	PAGE
INTRODUCTION	1
GEAR	4
FISHING RESULTS:	7
ICY STRAIT AREA	7
LYNN CANAL AREA	11
STEPHENS PASSAGE, FROM SHELTER IS. TO GRAVE PT.	13
FISHING RESULTS (CONT.):	PAGE
SEYMOUR CANAL, PORT SNETTISHAM, AND KEKU STRAIT	14
MISCELLANEOUS CATCHES	15
GENERAL OBSERVATIONS	15
SUMMARY	15

INTRODUCTION

The third in a series of exploratory fishing trips to southeastern Alaska in search of new shrimp grounds was made by the John N. Cobb in March and April 1951. The John N. Cobb is the exploratory fishing vessel operated in the northeast Pacific Ocean and Alaskan waters by the Branch of Commercial Fisheries, U. S. Fish and Wildlife Service (Ellson 1950). On this trip, the vessel left Seattle on March 7 and returned to Seattle on April 23. Fishing was carried on from March 14 to April 18.

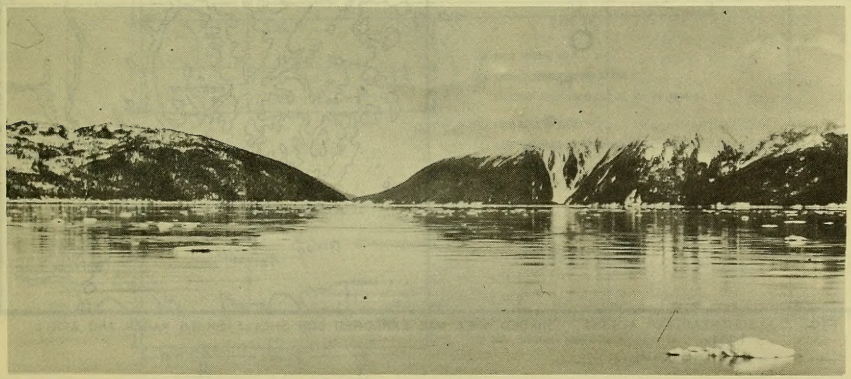

FIG. 1 - FLOATING ICE IN TAKU INLET, ALASKA, IS ONE OF THE HAZARDS TO FISHING ENCOUNTERED IN THIS REGION.

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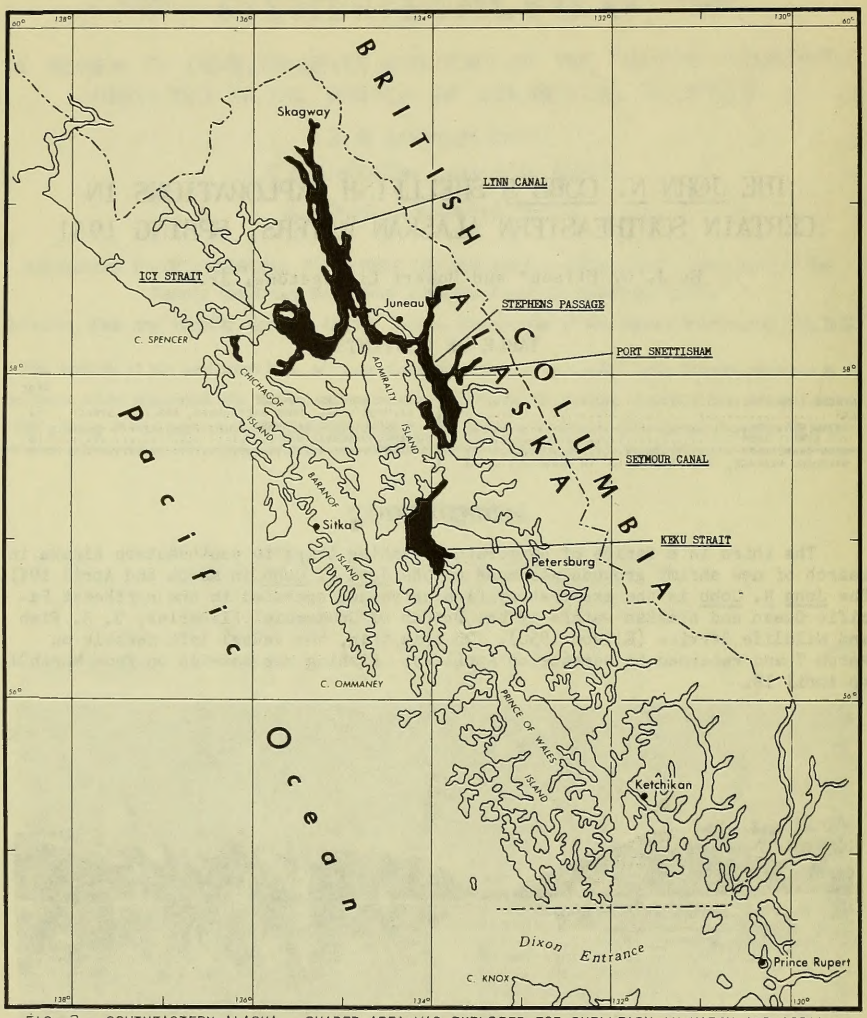
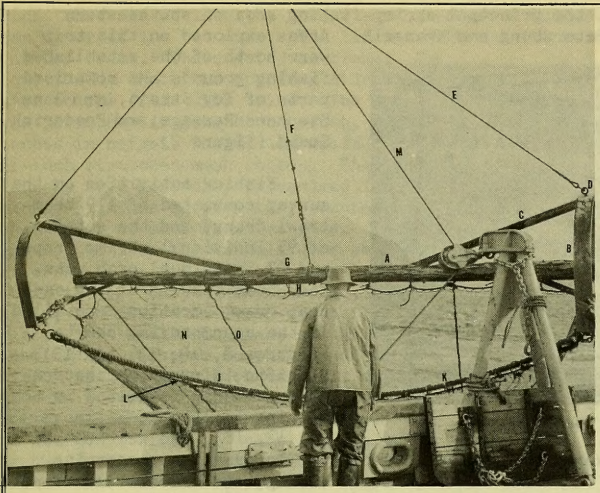


FIG. 2 - SOUTHEASTERN ALASKA. SHADED AREA WAS EXPLORED FOR SHELLFISH IN MARCH AND APRIL 1951.



A. Beam trawl being lifted aboard.

A. BEAM: 20 feet long, approximately 8 inches in diameter at center and leveled off at each end to allow attachment of "D" frames or runners.

B. "D" FRAME: bar iron, 5/8-inch thick and 6-inches wide.

C. OAK CROSS BRACE: 3 inches by 3 inches by 8 feet.

D. EYE BOLT: 5/8-inch diameter.

E. LEG OF BRIDLE: 5/8-inch diameter, 11½ feet from eye to eye.

F. LEG OF BRIDLE: 5/8-inch diameter, 8 feet from eye to eye, short adjustable strap 1½ feet long from beam to shackle.

G. STRAP: 15-thread manila, every fifth hanging.

H. TOP HANGING LINE: 21-thread manila, number 600 becket twine used to hang the net to H and L, top hanging line attached to beam every fifth hanging.

I. IRON-BAR BRACE: ¼ inch by 3 inches, 3-feet long.

J. SWEEP ROPE: 5-inch circumference manila, 20-feet long from eye to eye, dry measure.

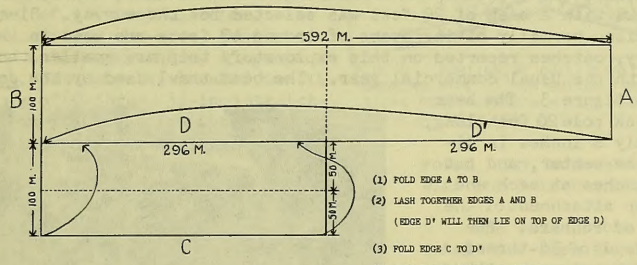
K. GALVANIZED RINGS: 3 inches in diameter, one at each end, 4 inches in diameter to allow clearance of splice in sweep rope.

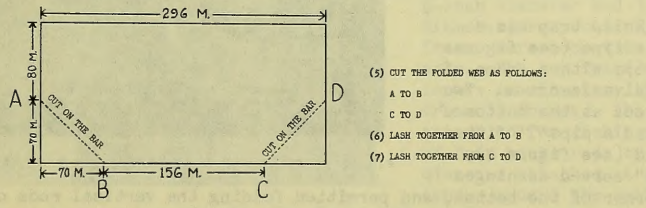
L. BOTTOM HANGING LINE: a continuation of H, bottom hanging line attached to rings on sweep rope, 9-thread manila straps every third hanging.

M. TOWING CABLE: shackled to heavy 4-inch ring, E and F spliced to a heavy 4-inch ring.

N. NET: 36-thread cotton netting, 1½ inches stretched mesh, 236 meshes across at throat, 60 meshes at sides, and 150 meshes deep, hung in 42%; that is, 6 inches stretched measure of netting on 3½ inches of hanging line.

O. RIB LINE: 24-thread manila, runs lengthwise around net from top hanging line to bottom hanging line, secured to net every second mesh. Extension of one end forms strap from top hanging line to beam.





B. Construction details of the beam trawl net.

FIG. 3 - DETAILS OF BEAM TRAWL USED BY THE JOHN N. COBB.

At the present time, the principal shrimp-fishing area of southeastern Alaska is centered near Petersburg and Wrangell. Areas explored on this trip were north of the established fishing grounds and comprised parts of Icy Strait, Lynn Canal, Stephens Passage, and Frederick Sound (figure 2).

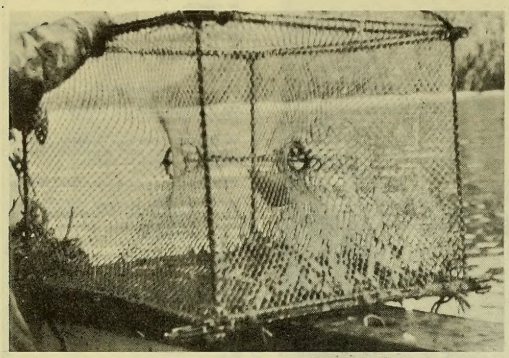


FIG. 4 - COLLAPSIBLE SHRIMP TRAP

Fishing activities on the survey consisted of 119 beam-trawl drags, and the setting of 93 individual shrimp traps and 23 individual crab pots. Each beam-trawl drag and each trap or pot location is detailed in the accompanying charts (figures 8, 10, 13, and 15). Specific information concerning each drag is listed in the fishing log (table 1, see pages 16, 17, 18), and weights and measurements of shrimp caught are listed in table 2. Information concerning shrimp catches of traps, the sizes of trap-caught shrimp, and crab catches of pots is recorded respectively in tables 3, 4, and 5 (see page 20).

GEAR

The beam trawl, the shrimp traps, and the crab pots used in the investigation were similar in design to those described in previous reports (Carlson 1945, Schaefers 1951). To permit speed and maximum utilization of exploratory fishing time, a trawl with a beam of 20 feet was selected for the survey. Since trawls of larger size--normally having beams of around 40 feet--are used in the commercial fishery, catches reported on this exploratory trip are smaller than would be obtained with the usual commercial gear. The beam trawl used by the John N. Cobb is shown in figure 3. The beam was a hemlock pole 20 feet long, approximately 8 inches in diameter at the center, and cut down to 6 inches at each end to allow for attachment of the "D" frames or runners. The net was made up of 36-thread 1½-inch stretched-mesh cotton netting.

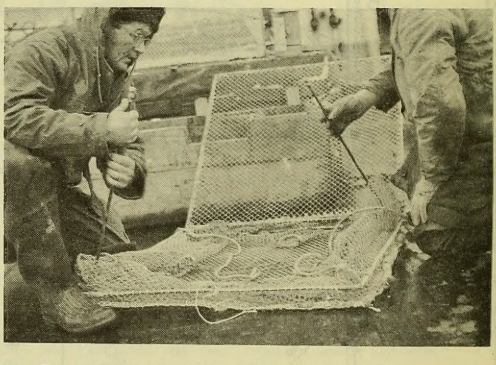


FIG. 5 - SETTING UP A COLLAPSIBLE SHRIMP TRAP.

The shrimp trap was a collapsible type (see figures 4, 5, and 6), with a frame of 3/8-inch galvanized rods. Two opposing rods at the bottom of the trap had a pipe "T" fitted at each end (see figure 4). These "T's" served as hinges at each corner of the bottom, and permitted folding the vertical rods of the frame to collapse the sides. Each of the four vertical rods had two hexagonal nuts threaded at its upper end. At each of the four corners of the top frame, a slotted triangular-shaped galvanized iron plate was welded horizontally. The vertical

rods, when fitted into the corner slots, could be locked in place by tightening the upper of the two nuts. The lid was secured with cold shuts to one side of the top frame. These acted as hinges. To lock the lid shut, the opposing side was tied to the frame with twine. The trap was 34 inches in length and width, and 29 inches in height. The netting was 18-thread 1½-inch stretched-mesh cotton. The four tunnels were formed by galvanized iron rings, 3 inches in diameter, located in the center of each vertical side. The indentations of the tunnels were secured by cross-tying the opposing rings with seine twine. Bait (frozen herring, frozen squid, and pieces of fresh scrap fish) was placed in a small sack made of shrimptrap netting and fastened to the tunnel cross-ties. As a rule, all three baits were used in the same trap as the object was not to compare effectiveness of baits but to attract shrimp (or crabs) to the traps in the greatest possible numbers. The frozen bait was thawed prior to use.

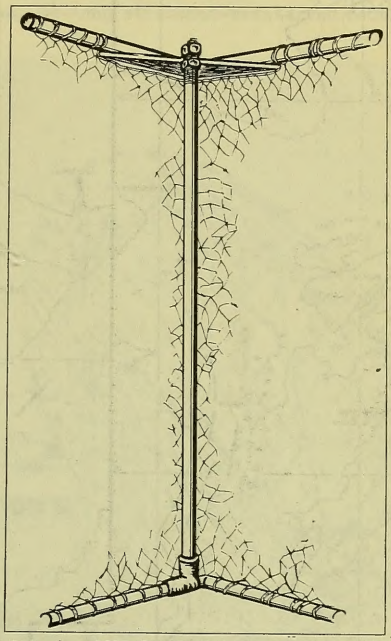


FIG. 6 - PORTION OF COLLAPSIBLE SHRIMP TRAP SHOWING PIPE "T" ON BOTTOM FRAME, AND VERTICAL ROD INSERTED IN SLOT AND LOCKED IN PLACE BY HEXAGONAL NUTS.

Two types of lightly-constructed crab pots were used--(1) a non-collapsible, rectangular type and (2) a collapsible, circular type. The first type (see figure 7) was 41 inches long, 29 inches wide, and 20 inches high. Its frame was round galvanized steel of 3/8-inch diameter. Its covering, except for the ends, consisted of 2-inch by 4-inch galvanized 15-gauge wire netting. Two tunnels, located one at each end, were of 60-thread 3½-inch stretched-mesh cotton netting. The tunnel entrances were formed by ¼-inch galvanized round iron, and were 11 inches wide and 5 inches high.

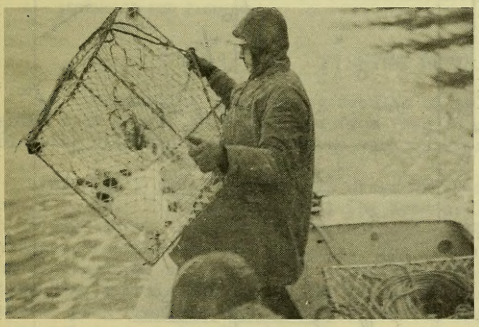


FIG. 7 - SETTING A NON-COLLAPSIBLE, RECTANGULAR CRAB POT FROM THE MOTOR LAUNCH.

The collapsible pot, a patented type (see figure 9), had a top frame and a bottom frame made of galvanized iron rods of ¼-inch diameter and 3/8-inch diameter, respectively. These frames were hoop-like in appearance. The top frame was 26 inches in diameter, the bottom frame 34 inches. The pot was assembled for fishing by means of four brass rods of 3/16-inch diameter attached at equal distances around the bottom frame. An eye was bent at the end of each rod to join it to the bottom frame. A hook in the form of a reversed "S" was bent at the other end of each

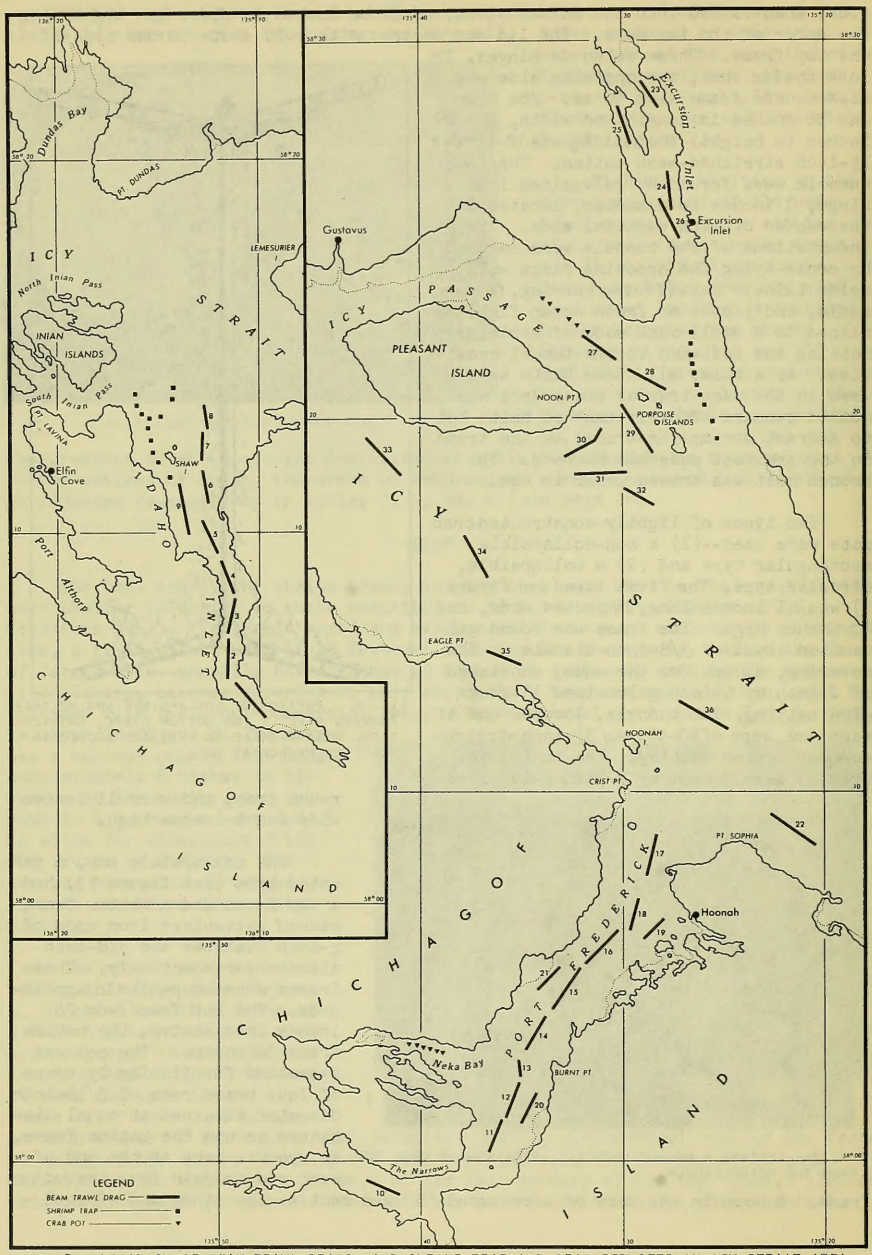


FIG. 8 - LOCATION OF BEAM-TRAWL DRAGS, AND SHRIMP-TRAP AND CRAB-POT SETS IN ICY STRAIT AREA.

rod to permit attachment to the upper frame. The pot had two tunnels, located opposite each other. Their entrances were 7½-inches wide and 4-inches high, and were made of 7-gauge galvanized wire. The bottom of the pot was covered with 48-thread, and the top and sides with 30-thread, 3½-inch stretched-mesh tarred cotton netting.

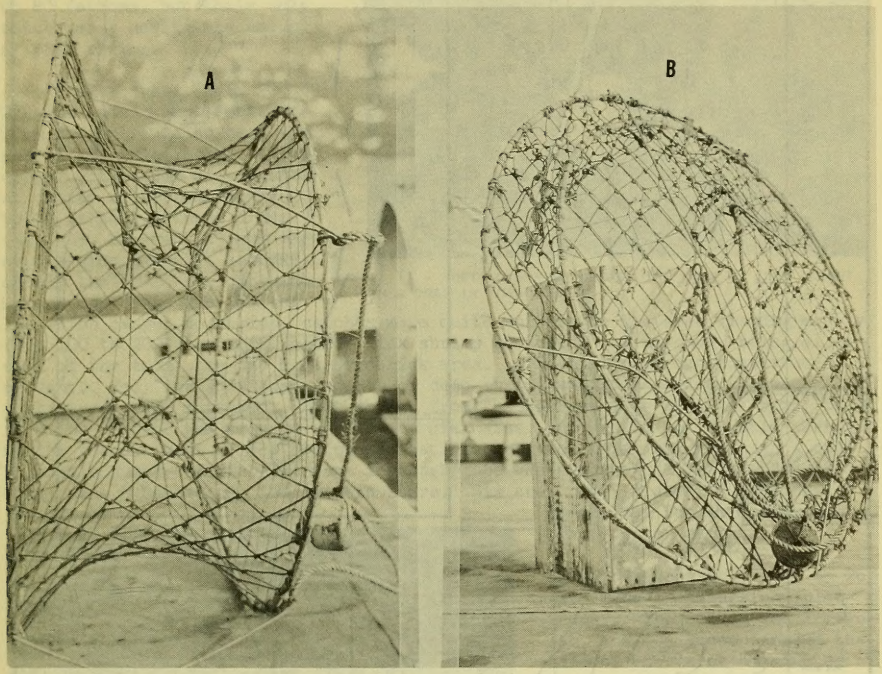


FIG. 9 - A CIRCULAR, COLLAPSIBLE CRAB POT.
A - ASSEMBLED FOR FISHING. B - COLLAPSED.

FISHING RESULTS

In interpreting the fishing results on this trip, the variations to be expected from season to season and from year to year should be kept in mind. The following discusses catches in the various areas explored.

ICY STRAIT AREA: Thirty-six drags were made in the Icy Strait area (figure 8), Nos. 1 to 36. Fishing started at the head of Idaho Inlet where nine drags (Nos. 1 to 9) were made. Drag No. 1, at the head of the inlet, and drag No. 8, near the entrance, resulted in broken beams. The other drags revealed ideal trawling bottom of grey mud, and consistent soundings. The best drags (Nos. 2, 3, 4, 5, and 9) yielded an average catch of 1,072 pounds of shrimp per hour,[1/] consisting of 85 percent pink (Pandalus borealis), 9 percent side-stripe (Pandalopsis dispar), and 6 percent coon-stripe (Pandalus hypsinotus). These drags were located in a slight depression, which was from 28 to 40 fathoms deep. The pink shrimp from drag No. 3

1/ SOME VARIATION OCCURRED IN THE DURATION OF INDIVIDUAL DRAGS. CATCH RESULTS HAVE BEEN CONVERTED TO A RATE-PER-HOUR, TO PERMIT READY COMPARISON OF CATCH INFORMATION.

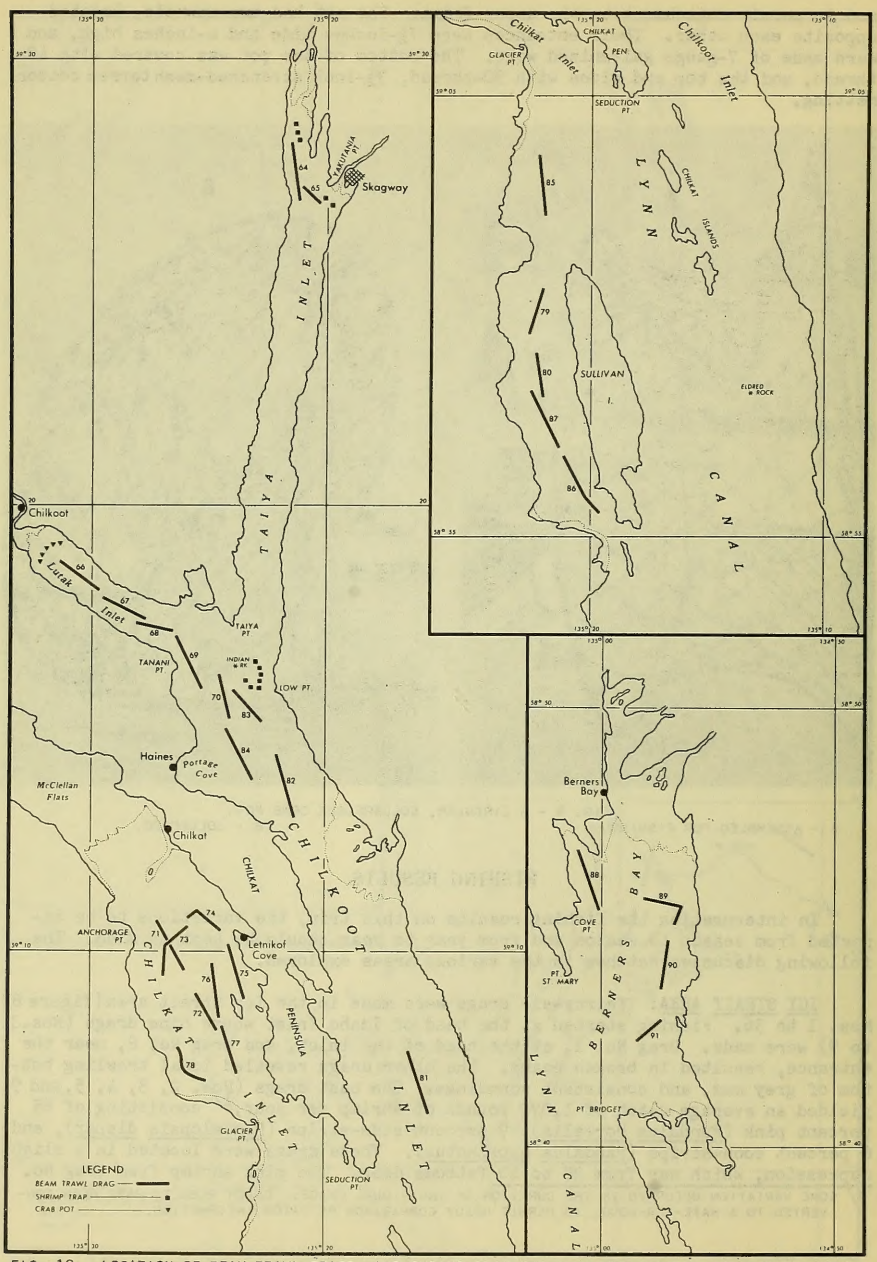


FIG. 10 - LOCATION OF BEAM-TRAWL DRAGS, AND SHRIMP-TRAP AND CRAB-POT SETS IN LYNN CANAL AREA.

ran 128 and from drag No. 4 ran 86 whole (heads on) shrimp per pound. The coon-stripe from drag No. 3 ran 29 per pound. The side-stripe from drag No. 4 ran 23 per pound. Twelve shrimp traps were set in the approach to the inlet at depths from 32 to 80 fathoms, but their only catch was a negligible amount of pink shrimp.

FIG. 11 - SORTING SHRIMP ABOARD THE JOHN N. COBB CAUGHT IN A DRAG IN IDAHO INLET.

Twelve drags (Nos. 10 to 21) were made in Port Frederick from the entrance to near the end of the inlet. Most of the drags were made in mid-channel at depths of approximately 60 to 80 fathoms. Three drags (Nos. 19, 20, and 21) were made on the side banks at approximately the 50-fathom contour. Except for drags Nos. 17 and 18, which caught no shrimp, catches were quite uniform in the area, ranging mostly from 100 to 200 pounds per hour. Pink shrimp dominated the catches, being 81 percent of the total for the Port Frederick area. Side-stripe shrimp constituted 19 percent. Only insignificant amounts of coon-stripe and spot shrimp (Pandalus platyceros) were captured. Pink shrimp from The Narrows were of small size; those from the rest of the area were of commercial size, running 66 to 78 whole shrimp to the pound. Most of the bottom was satisfactory for dragging, although a considerable number of miscellaneous invertebrates was encountered, mainly "coral," "clay pipe," barnacles, and brittle stars. Six crab pots, fished in Neka Bay, caught one small male Dungeness crab (Cancer magister).

FIG. 12 - A SHRIMP CATCH ON THE DECK OF THE JOHN N. COBB.

Four drags (Nos. 23 to 26) were made in Excursion Inlet proper. The bottom was irregular, and ice encountered at the head of the inlet eliminated that area for shallower dragging. The best drag (No. 25) caught 150 pounds of shrimp per hour. The average for the four drags was 96 pounds of shrimp per hour, consisting of 86 percent pink, 7 percent side-stripe and 7 percent coon-stripe. The pink shrimp were too small in size to warrant commercial interest.

Seven drags (Nos. 27 to 33) in Icy Passage and waters adjoining Porpoise Islands and Pleasant Island at depths from 20 to 100 fathoms were generally poor. An exception was drag No. 29 made on mud bottom at depths from 40 to 58 fathoms on the west side of Porpoise Islands, where shrimp were caught at the rate of 300 pounds per hour. The

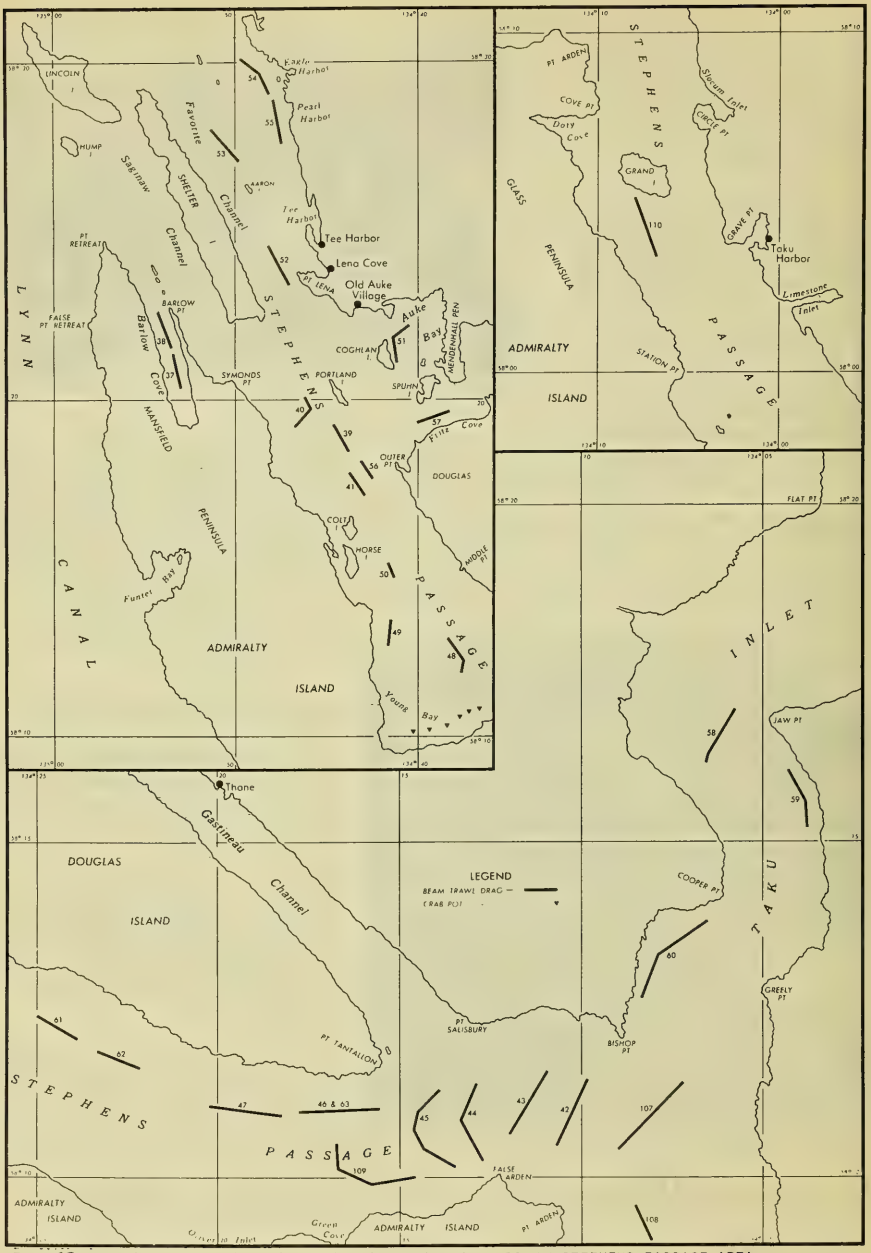


FIG. 13 - LOCATION OF BEAM-TRAWL DRAGS AND CRAB-POT SETS IN STEPHENS PASSAGE AREA.

catch consisted of 93 percent large pink shrimp and 7 percent large side-stripe shrimp. Pink shrimp caught north of Porpoise Islands were small in size. In the other drags to the south and west of Porpoise Islands and south of Pleasant Island, side-stripe shrimp dominated the catch but were scattered. The bottom was generally suitable for dragging. Shrimp traps set from Porpoise Islands to Excursion Inlet caught few shrimp. Crab pots set in Icy Passage caught 17 small king crabs (Paralithodes platypus) but only a few Dungeness crabs.

Three widely-scattered drags (Nos. 22, 35, and 36) were made near or beyond the 50-fathom contour near the Chichagof Island shore from Point Sophia to Eagle Point, and one drag (No. 34) was made in mid-channel between Eagle Point and Pleasant Island. Catches were small, and consisted predominantly of side-stripe shrimp, except off Point Sophia where drag No. 22 at a depth of 50 to 62 fathoms on grey mud bottom caught shrimp at the rate of 190 pounds per hour. This catch consisted of 95 percent fair-size pink and 5 percent large side-stripe.

LYNN CANAL AREA: Twenty-eight drags were made in the Lynn Canal area (figure 10), Nos. 64 to 91, from the uppermost reaches of the canal to as far south as Berners Bay. Two drags at the head of Taiya Inlet caught small-size pink shrimp and commercial-size side-stripe shrimp, but the limited amount of dragging ground makes the area unsuitable for commercial fishing. Shrimp traps set here caught small amounts of coon-stripe shrimp.

FIG. 14 - MOSTLY "TRASH" AND A FEW SHRIMP WERE CAUGHT IN THIS DRAG.

Four drags (Nos. 66 to 69) were made in Lutak Inlet at depths from 38 to 50 fathoms. The mud bottom was suitable for dragging, and catches of shrimp up to 400 pounds per hour were made, consisting of 96 percent pink and 4 percent coon-stripe. The pink shrimp were mostly small except for a mixture of larger sizes found near the entrance. The head of the inlet was not fished because it was frozen over. Five crab pots set near the head caught mostly tanner crabs (Chionoecetes bairdi).

Four drags (Nos. 70, 82, 83, and 84) on a mud bottom in Chilkoot Inlet from off Indian Rock to opposite Portage Cove averaged 182 pounds of shrimp per hour. The catches consisted of 80 percent pink and 20 percent side-stripe. The best drag (No. 82) caught 310 pounds of shrimp per hour and was clean of extraneous material. These drags, at depths from 62 to 72 fathoms, caught commercial-size pink shrimp and large side-stripe. The pink ran 80 whole shrimp to the pound. Drag No. 81, made in 108 to 120 fathoms at the south end of Chilkoot Inlet, produced 40 pounds of side-stripe shrimp per hour. Seven shrimp traps set near Indian Rock at depths from 26 to 65 fathoms were unproductive except for the deepest trap, which caught 28 spot shrimp and which alone showed no evidence of having been set in mud.

Eight drags (Nos. 71 to 78) were made in Chilkat Inlet at depths from 42 to 72 fathoms. Disregarding drag No. 71, which produced a negligible catch, the remaining seven drags caught shrimp at the rate of 175 pounds per hour. The catches

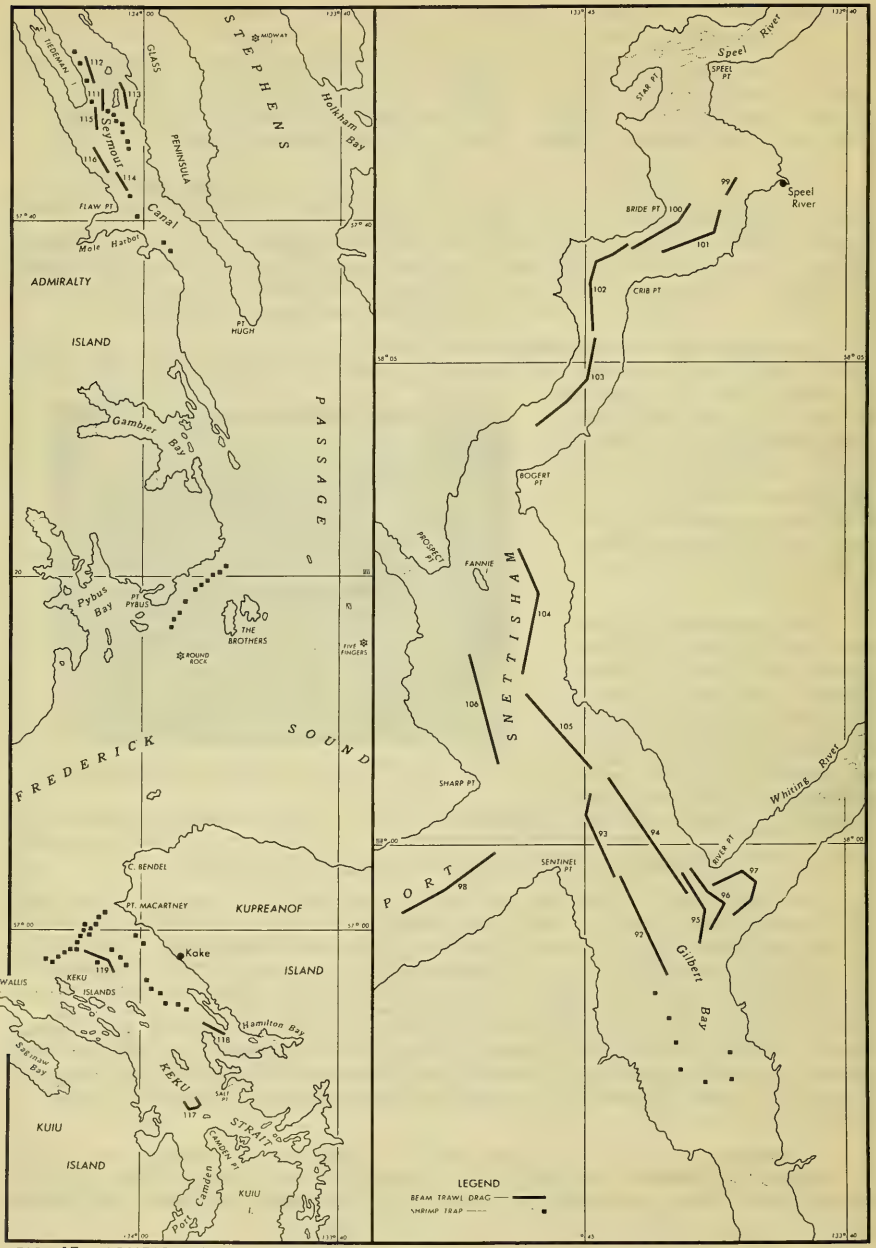


FIG. 15 - LOCATION OF BEAM-TRAWL DRAGS AND SHRIMP-TRAP SETS IN SEYMOUR CANAL, PORT SNETTISHAM, AND KEKU STRAIT AREAS.

consisted of 85 percent pink, 12 percent side-stripe, and 3 percent coon-stripe, mostly of commercial sizes, the pink shrimp counting 87 whole shrimp to the pound based on a sample from drag No. 72. Seaweed and bottom trash were quite common in some of the drags. The best and cleanest drag was No. 78, which caught 290 pounds of shrimp per hour, practically all pink.

One drag (No. 85) was made north of Sullivan Island and four drags (Nos. 79, 80, 86, and 87) were made west of Sullivan Island at depths from 52 to 97 fathoms. The catches averaged 84 pounds of shrimp per hour and consisted of 89 percent pink, 8 percent side-stripe, and 3 percent coon-stripe, mostly of commercial sizes. The best drags (Nos. 79, 80, and 86) produced at the rate of 110 pounds per hour.

Three drags in Berners Bay (Nos. 89, 90, and 91) at depths from 60 to 96 fathoms averaged 129 pounds of shrimp per hour. The catch consisted of 86 percent pink (78 whole shrimp per pound) and 14 percent side-stripe (34 whole shrimp per pound, according to a sample from drag No. 91). Another drag (No. 88) at a depth from 48 to 54 fathoms near Cove Point, caught 180 pounds per hour. The catch consisted of 89 percent pink and 11 percent coon-stripe. The pink ran 92 whole shrimp to the pound.

STEPHENS PASSAGE, FROM SHELTER ISLAND TO GRAVE POINT: Thirty-one drags (Nos. 37 to 63 and 107 to 110) were made in the Stephens Passage area from Shelter Island to Grave Point (figure 13). The area from Shelter Island to Young Bay produced mostly poor shrimp catches. Fifteen drags (Nos. 37 to 41 and 48 to 57) at depths from 30 to 94 fathoms were made in the area and resulted in an average catch of 35 pounds of shrimp per hour, of which 62 percent were pink, 34 percent side-stripe, and 4 percent coon-stripe. Of these drags, seven (Nos. 48 to 52, 56 and 57) caught either very small amounts or no shrimp at all. The best drag (No. 53) in 75 to 78 fathoms, in Favorite Channel north of Aaron Island, caught 130 pounds of shrimp per hour, mostly side-stripe.

FIG. 16 - BROKEN BEAM BEING HAULED ABOARD THE JOHN N. COBB. THIS HAPPENS FREQUENTLY IN EXPLORATORY FISHING.

Drag No. 37 in 50 to 76 fathoms in Barlow Cove took 110 pounds of shrimp per hour. Eighty-two percent of the catch was commercial-size pink, the remainder of the catch was coon-stripe. Drag No. 39 in 56 to 62 fathoms south of Portland Island caught 120 pounds of shrimp per hour. Two-thirds of the catch was pink of both small and commercial sizes, and the remainder of the catch was side-stripe. Drags Nos. 50 and 56 resulted in broken beams.

Sixteen drags were made near Juneau. Eleven of these (Nos. 42 to 47, 61 to 63, 107, and 109) were made in Stephens Passage from 5 miles west of Point Tantallon to 5 miles east of Point Tantallon; two (Nos. 108 and 110) from Point Arden to south of Grand Island; and three (Nos. 58, 59, and 60) in Taku Inlet from Bishop Point to Jaw Point. The eleven drags in the Point Tantallon area were made at depths from 41 to 116 fathoms and resulted in an average catch per drag of 311 pounds of shrimp per hour, consisting of 87 percent pink, more than 12 percent side-stripe, and less than 1 percent coon-stripe. The side-stripe were captured east

of Point Tantallon in depths between 75 and 116 fathoms. The greatest concentrations of pink shrimp were found near the point between 43 and 50 fathoms. The best drags were the three (Nos. 46, 47, and 63) made close to Point Tantallon, which caught, respectively, 590, 780, and 1,000 pounds per hour. The catches were almost entirely pink shrimp, which weighed 63 whole shrimp to the pound based on a sample from drag No. 46. Drag No. 63, which repeated drag No. 46 after an interval of four days, produced the best catch made in the area (a local trawler from Juneau was also fishing these grounds at the time). The two drags from Point Arden to south of Grand Island resulted in only small catches. The three drags in Taku Inlet were made south of Jaw Point, as ice precluded fishing further towards the head. These drags, at depths from 52 to 94 fathoms, produced a catch of 95 pounds of shrimp per hour, consisting of 79 percent pink and 21 percent side-stripe. The pink ran 132 to the pound in a sample from drag No. 58. Considerable sounding was required to locate drags because of the rough bottom of the region.

SEYMOUR CANAL, PORT SNETTISHAM, AND KEKU STRAIT: Six drags (Nos. 111 to 116) were made in Seymour Canal (figure 15); fifteen (Nos. 92 to 106) were made in Port Snettisham; and three (Nos. 117 to 119) were made in Keku Strait. In addition, shrimp traps were fished in the following three areas: Seymour Canal, near Point Pybus, and near Kake. In Seymour Canal, soundings as far as Tiedeman Island indicated that stretches of suitable trawling bottom were interspersed with hard, uneven bottom. A broken beam resulted from drag No. 112 and a large tear in the net from drag No. 113. Six drags in the area produced an average catch of 175 pounds of shrimp per hour, consisting of 87 percent pink, 8 percent side-stripe, 4 percent coon-stripe, and 1 percent spot (Pandalus danae were also caught at the rate of 40 pounds per hour and have been disregarded in these computations because of their small size). The best catches were made by side-slope drags, Nos. 114 and 116, at depths of 50 to 70 fathoms north of Flaw Point, which produced about 400 pounds of shrimp per hour. The catch was mostly pink, counting 90 whole shrimp to the pound. Fifteen shrimp traps were set over a range of 13 miles at depths from 35 to 80 fathoms. The traps in the deeper water caught the larger shrimp. The best catch was made by a trap set for 19 hours in 76 fathoms near Dorn Island, which produced 83 spot shrimp weighing 9 pounds. Soundings taken north to south between Point Pybus and The Brothers islands revealed uneven bottom. Shrimp traps set near Point Pybus at depths from 16 to 88 fathoms were fished for 25 hours. Only the four traps at depths of 80 fathoms or more caught shrimp, a total of 57 spot, weighing 8 pounds.

Fifteen drags at depths from 40 to 124 fathoms made in Port Snettisham resulted in an average catch of 153 pounds of shrimp per hour, consisting of 48 percent pink and 52 percent side-stripe. The north arm of Port Snettisham was dragged quite thoroughly at depths from 68 to 124 fathoms from Sharp Point to the Speel River. The results were mostly poor, and several drags fouled with mud. Drag No. 100, off Bride Point caught side-stripe shrimp at the rate of 350 pounds per hour, but these shrimp were dominated by small sizes. The south arm of Port Snettisham, Gilbert Bay, was dragged from Sentinel Point to the Whiting River. Drags, Nos. 95 and 96, at depths of 56 to 76 fathoms, off the mouth of the Whiting River, were the best made in Port Snettisham. These drags resulted in catches up to 450 pounds of shrimp per hour, consisting of large pink which ran 64 to the pound and of side-stripe shrimp of mixed sizes.

In Keku Strait near the entrance, traps were set, and a drag (No. 119) was made, but these caught practically no shrimp. "Sand fleas" appeared to have stripped the bait in the traps. Only small pink shrimp were found in Hamilton Bay. To afford a comparison with other drags made during the exploratory trip, drag No. 117 was made southwest of Salt Point in an established commercial shrimp fishing location. Made in a circle, this drag caught 764 pounds of shrimp per hour, a mixture of pink, side-stripe, coon-stripe, and spot shrimp, mostly large sizes.

MISCELLANEOUS CATCHES: Marine life common in most of the areas fished included small flathead "sole" (Hippoglossoides elassodon), small whiting (Theragra chalcogramma), long-snouted blenny (Lumpenella longirostris), short-finned eel pout (Lycodes brevipes), spiny-headed sculpin (Dasycottus setiger), and the sturgeon-like sea-poacher (Agonus acipenserinus). Starry flounder (Platichthys stellatus) were found in most of the areas; two drags in Excursion Inlet yielded 234. Yellowfin "sole" (Limanda aspera) weighing up to 9 pounds were taken in Port Frederick. Tanner crab (Chionoscetes bairdi) were caught in most areas.

GENERAL OBSERVATIONS

During March and April, strong winds are encountered which hamper shrimping operations. Ice is encountered at the heads of bays, which also restricts fishing. Lynn Canal is especially windy.

Some of the regions explored may have more promise than is indicated in this report. Where frequent catches are made, even if not especially large, there is a possibility that a concentration of shrimp may exist somewhere in the area, either slightly outside of the grounds dragged, or at a different season.

SUMMARY

Best catches of shrimp were made as follows: over 1,000 pounds per hour in Idaho Inlet, 1,000 pounds per hour near Point Tantallon, 450 pounds per hour off the Whiting River, 400 pounds per hour off Flaw Point, and 300 pounds per hour in Chilkoot Inlet. A drag made in Keku Strait on an established commercial ground, for comparative purposes, caught 764 pounds of shrimp per hour.

In order to permit maximum utilization of time, the gear selected for the survey was a 20-foot beam trawl. The catches reported in this paper are therefore smaller than would have been made with commercial-size trawls, which normally have beams of around 40 feet. The fishing results reported here are for March and April 1951. The results may vary in other seasons and years.

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Table 1 - Fishing Log--Beam-Trawl Drags by the John N. Cobb in Southeastern Alaska, Spring 1951

Drag Number	1	2	3	4	5	6	7	8	9	10
Date	March 14	March 15	March 15	March 15	March 15	March 15	March 15	March 15	March 17	March 17
Latitude N.	58° 05'	58° 06.1'	58° 07.3'	58° 08.4'	58° 09.4'	58° 10.8'	58° 11.9'	58° 12.8'	58° 11.3'	57° 59.5'
Longitude W.	136° 09.7'	136° 11.6'	136° 11.6'	136° 11.2'	136° 12'	136° 12.5'	136° 12.8'	136° 12.5'	136° 13.9'	135° 12.6'
Course, Magnetic**	NNW	NNW	NNW	NNW	NWxW	NWxW	NWxW	NxW	SE	E
Type of Bottom	Gy. M.	Gy. M.	Gy. M	Gy. M.	Gy.M.	Gy. M.	Gy. M.	----	Gy. M.	Gy. M.
Depth Range in Fathoms	20-29	28-30	28-32	32-36	36-40	35-41	30-20	26-24	31-36	46-52
Tide	Flood	Ebb	Ebb	Ebb	Slack	Early flood	Flood	Flood	Early ebb	Early flood
Time on Bottom in Minutes	30	30	30	37	30	34	30	19	30	30
Shrimp Catch in Pounds:										
Pink	42	350	450	425	700	280	50	-----	400	75
Side-stripe	----	*	20	21	200	20	10	----	5	*
Coon-stripe	3	100	25	25	25	----	----	----	20	*
Spot	----	----	1	1	2	----	----	----	----	----
Total Catch on Hourly Basis	90	900	992	765	1854	529	120	----	850	150
Trawling Bottom	Snag	Clear	Clear	Clear	Clear	Clear	Clear	Snag	Clear	Clear
Remarks	Broken Beam	----	----	Beam turned over	----	----	----	Broken Beam	----	----

Drag Number	11	12	13	14	15	16	17	18	19	20
Date	March 17	March 18	March 18	March 18	March 18	March 18	March 18	March 18	March 19	March 19
Latitude N.	58° 03'	58° 01.1'	58° 02.3'	58° 03'	58° 04.1'	58° 05.3'	58° 08.8'	58° 06.2'	58° 06.6'	58° 01'
Longitude W.	135° 36.6'	135° 35.8'	135° 35'	135° 34.7'	135° 33.6'	135° 31.9'	135° 28.3	135° 29.6'	135° 27.9'	135° 35.1'
Course, Magnetic**	NxW	NxW	NxW	N	N	NxE	SxE	NNW	SW	NxW
Type of Bottom	Gy. M.	Gy. M.	Gy. M.	Gy. M.	Gy. M.	Gy. M.	Gy. M.	Gy. M.	Soft-Hard	Gy. M.
Depth Range in Fathoms	56-70	60-64	72-80	72-78	76-86	82-78	62-78	76-80	50-72	44-46
Tide	Flood	Ebb	Ebb	Early ebb	Ebb	Ebb	Ebb	Early flood	Flood	Flood
Time on Bottom in Minutes	30	30	12	30	30	30	30	37	25	30
Shrimp Catch in Pounds:										
Pink	40	65	55	45	75	25	*	-----	40	100
Side-stripe	10	10	20	30	50	35	*	----	10	*
Coon-stripe	----	----	----	----	----	*	*	----	----	----
Spot	----	----	----	----	----	*	*	----	5	----
Total Catch on Hourly Basis	100	150	375	150	250	120	----	----	132	200
Trawling Bottom	Clear	Clear	Snag	Clear	Clear	Clear	Clear	Clear	Snag	Clear
Remarks	----	----	----	----	----	----	----	----	Torn net	----

Drag Number	21	22	23	24	25	26	27	28	29	30
Date	March 19	March 19	March 20	March 20	March 20	March 20	March 20	March 20	March 20	March 21
Latitude N.	58° 04.6'	58° 09.4'	58° 28.2'	58° 25.5'	58° 28.3'	58° 24.8'	58° 22.2'	58° 21.3'	58° 20.4'	58° 19.7'
Longitude W.	135° 34.3'	135° 22.7'	135° 28.2'	135° 27.5'	135° 30.8'	135° 27.2'	135° 32'	135° 29.8'	135° 30.1'	135° 31'
Course, Magnetic**	NxE	ExS	NWxW	NWxN	SExS	WxN	E	E	SExS	W
Type of Bottom	M.	Gy. M.	-----	Gy. M.	M.	M.	S. and M.	S. and M.	M.	M. and Sh.
Depth Range in Fathoms	48-56	50-62	54-66	68-72	40-50	54-68	20-32	36-54	40-58	50-60
Tide	Ebb	Ebb	Flood	Flood	Late flood	Ebb	Ebb	Ebb	Ebb	Flood
Time on Bottom in Minutes	35	30	30	30	30	30	30	30	30	30
Shrimp Catch in Pounds:										
Pink	170	90	16	40	65	45	----	70	140	20
Side-stripe	*	5	3	5	----	5	----	*	10	30
Coon-stripe	*	*	3	----	10	----	----	*	----	----
Spot	*	----	----	*	----	----	----	----	----	----
Total Catch on Hourly Basis	291	190	44	90	150	100	----	140	300	100
Trawling Bottom	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
Remarks	----	----	----	----	----	----	----	----	----	----

Drag Number	31	32	33	34	35	36	37	38	39	40
Date	March 21	March 21	March 21	March 22	March 22	March 22	March 23	March 23	March 23	March 23
Latitude N.	58° 18.6'	58° 17.7'	58° 18.5'	58° 15.8'	58° 13.4'	58° 12.5'	58° 20.3'	58° 21.6'	58° 19.3'	58° 20.1'
Longitude W.	135° 29.8'	135° 28.4'	135° 41'	135° 36.7'	135° 35.1'	135° 27.2'	134° 53'	134° 53.5'	134° 44.6'	134° 46.1'
Course, Magnetic**	NSW	W	WNW	NWxW	W	E	NW	NW	ESE	SExS
Type of Bottom	----	----	S. and M.	M. and Rk.	M. and Rk.	M. and Rk.	M. and Rk.	M.	M.	M. and S.
Depth Range in Fathoms	78-86	82-100	70-60	64-74	54-68	40-50	50-76	80-94	56-62	48-54
Tide	Flood	Ebb	Ebb	Early flood	Flood	Flood	Slack	Early flood	Flood	Flood
Time on Bottom in Minutes	30	20	30	30	30	30	30	30	30	30
Shrimp Catch in Pounds:										
Pink	*	*	----	*	*	8	45	2	40	8
Side-stripe	40	20	10	15	15	2	----	12	20	2
Coon-stripe	*	*	----	----	----	----	10	----	----	----
Spot	----	----	----	----	----	----	----	----	----	----
Total Catch on Hourly Basis	80	60	20	30	30	20	110	28	120	20
Trawling Bottom	Clear	Mud	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
Remarks	----	Beam mudded down	----	----	----	----	----	----	----	----

NOTE: FOR EXPLANATION OF FOOTNOTES, SEE P. 18.

Table 1 - Fishing Log--Beam-Trawl Drags by the John N. Cobb in Southeastern Alaska, Spring 1951 (Contd.)

Drag Number	41	42	43	44	45	46	47	48	49	50
Date	March 23	March 26	March 26	March 26	March 26	March 26	March 26	March 27	March 27	March 27
Latitude N.	58° 17.1'	58° 10.5'	58° 10.6'	58° 10.2'	58° 10.1'	58° 11'	58° 10.9'	58° 12.9'	58° 12.7'	58° 14.7'
Longitude W.	134° 42.9'	134° 10.7'	134° 12'	134° 12.7'	134° 13.5'	134° 17.7'	134° 18.2'	134° 38.3'	134° 41.6'	134° 41.2'
Course, Magnetic**	NxW	NxW	N	NWxW	W	NExE	WSW	ENE	NE	NNW
Type of Bottom	M. and S.	M.	M.	M.	M.	M.	M.	M. and S.	M. and S.	rky.
Depth Range in Fathoms	42-54	108-112	80-86	75-80	60-65	Slack	43-50	35	36-42	46-44
Tide	Flood	Flood	Flood	Flood	Slack	Early ebb	Ebb	Ebb	Flood	Flood
Time on Bottom in Minutes	30	30	30	30	30	30	30	30	30	15
Shrimp Catch in Pounds:										
Pink	12	*	5	10	70	290	385	*	----	*
Side-stripe	3	42	70	80	*	½	*	----	----	----
Coon-stripe	----	----	----	----	----	¾	5	----	----	----
Spot	----	----	----	----	----	*	----	----	----	----
Total Catch on Hourly Basis	30	84	150	180	140	590	780	----	----	----
Trawling Bottom	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Snag
Remarks	----	----	----	----	----	----	----	----	----	Broken Beam

Drag Number	51	52	53	54	55	56	57	58	59	60
Date	March 28	March 28	March 28	March 28	March 28	March 28	March 29	March 29	March 29	March 29
Latitude N.	58° 22.2'	58° 23.4'	58° 27.1'	58° 30.1'	58° 28.9'	58° 17.6'	58° 19.6'	58° 16.9'	58° 16.1'	58° 13.8'
Longitude W.	134° 40.5'	134° 47'	134° 49.8'	134° 49.8'	134° 47.9'	134° 42.4'	134° 38.3'	134° 05.8'	134° 04.3'	134° 06.6'
Course, Magnetic**	SSW	NNxW	NxW	SE	SE	NW	SW	S	SExE	SSW
Type of Bottom	M.	Gy. M.	Gy. M.	Gy. M.	----	M. and Rk.	M.	M.	M.	M.
Depth Range in Fathoms	30-50	56-58	75-78	55-60	60-70	70-65	40-58	64-66	52-54	88-94
Tide	Ebb	Ebb	Ebb	Flood	Flood	Slack	Ebb	Ebb	Flood	Flood
Time on Bottom in Minutes	40	30	30	30	30	15	30	30	30	43
Shrimp Catch in Pounds:										
Pink	*	1	15	11	25	2	*	50	60	10
Side-stripe	----	----	50	----	*	----	----	10	*	22
Coon-stripe	----	*	----	----	----	----	----	----	----	----
Spot	----	----	----	----	----	----	----	----	----	----
Total Catch on Hourly Basis	----	2	130	22	50	8	----	120	120	44
Trawling Bottom	Clear	Clear	Clear	Clear	Clear	Snag	Clear	Clear	Clear	Clear
Remarks	----	----	----	----	----	Broken Beam	----	----	----	----

Drag Number	61	62	63	64	65	66	67	68	69	70
Date	March 30	March 30	March 30	April 1	April 1	April 1	April 1	April 1	April 1	April 1
Latitude N.	58° 12.5'	58° 11.9'	58° 11'	59° 28.2'	59° 27.1'	59° 18.8'	59° 17.9'	59° 17.4'	59° 17.1'	59° 16.2'
Longitude W.	134° 25'	134° 23.3'	134° 17.7'	135° 21.6'	135° 21.3'	135° 31.5'	135° 29.6'	135° 28'	135° 26.4'	135° 24.5'
Course, Magnetic**	NExE	ExN	ExN	SSE	ExS	SSE	E	ENE	E	SE
Type of Bottom	M.	M.	M	Gy. M.	----	M.	M.	M.	M.	M.
Depth Range in Fathoms	42-43	43-44	43-50	64-86	86-82	38-40	38-43	44-50	44-50	64-66
Tide	Ebb	Ebb	Ebb	Flood	Flood	Ebb	Ebb	Ebb	Slack	Early flood
Time on Bottom in Minutes	30	40	30	30	22	30	30	30	30	30
Shrimp Catch in Pounds:										
Pink	30	20	500	*	30	160	23	195	135	45
Side-stripe	----	----	----	1	37	----	----	----	----	15
Coon-stripe	----	----	----	1½	3	10	2	5	5	*
Spot	----	----	----	----	----	----	----	----	----	----
Total Catch on Hourly Basis	60	30	1000	5	191	340	50	400	280	120
Trawling Bottom	Clear	Clear	Clear	Clear	Snag	Clear	Clear	Clear	Clear	Clear
Remarks	----	----	----	----	Hung up	----	----	----	----	----

Drag Number	71	72	73	74	75	76	77	78	79	80
Date	April 3	April 3	April 4	April 4	April 4	April 4	April 4	April 4	April 4	April 4
Latitude N.	59° 10.7'	59° 09.1'	59° 09.4'	59° 10.7'	59° 08.9'	59° 09.7'	59° 08.3	59° 07.8'	59° 00.6'	58° 59.2'
Longitude W.	135° 27.1'	135° 25.4'	135° 26.8'	135° 25.9'	135° 23.3	135° 24.8'	135° 24.4'	135° 26.2'	135° 22.1'	135° 22.3'
Course, Magnetic**	SExE	SExE	NE	ExS	NxE	NxW	SE	SE	SExS	SW
Type of Bottom	----	M.	M.	M.	M.	M.	M.	M.	M.	M.
Depth Range in Fathoms	42-55	62-66	52-54	51-52	42-58	62-69	68-72	52-54	60-66	60
Tide	Ebb	Ebb	Flood	Flood	Flood	Flood	Ebb	Ebb	Ebb	Ebb
Time on Bottom in Minutes	30	30	30	35	30	30	30	30	30	30
Shrimp Catch in Pounds:										
Pink	1	50	90	90	50	65	45	145	50	53
Side-stripe	----	29	----	----	----	6	40	----	5	2
Coon-stripe	8	1	2	10	*	4	*	*	2	*
Spot	----	----	----	----	----	----	----	----	----	----
Total Catch on Hourly Basis	6	160	184	171	100	150	170	290	110	110
Trawling Bottom	Clear	Clear	Clear	Mud	Mud	Mud	Clear	Clear	Clear	Clear
Remarks	----	----	----	Beam mudded down	Beam mudded down	----	----	----	----	----

NOTE: FOR EXPLANATION OF FOOTNOTES, SEE P. 18.

Table 1 - Fishing Log--Beam-Trawl Drags by the John N. Cobb in Southeastern Alaska, Spring 1951 (Contd.)

Drag Number	81	82	83	84	85	86	87	88	89	90
Date	April 5	April 5	April 5	April 5	April 5	April 6	April 6	April 6	April 6	April 6
Latitude N.	59° 07.7'	59° 13'	59° 15.8'	59° 13.9'	59° 03.6'	58° 55.5'	58° 57'	58° 46.8'	58° 45.7'	58° 44.7'
Longitude W.	135° 16.4'	135° 21.4'	135° 23.9'	135° 23.2'	135° 22.3'	135° 19.6'	135° 21.4'	135° 01'	134° 58.2'	134° 57.1'
Course, Magnetic**	SExE	NW	SE	WNW	SExS	NW	NWxW	SExS	ENE	SSE
Type of Bottom	M. and S.	M.	M.	----	M.	M.	M.	M.	M.	M.
Depth Range in Fathoms	108-120	62-66	68-66	68-72	88-97	52-56	58-56	48-54	60-68	70-84
Tide	Flood	Flood	Slack	Slack	Ebb	Slack	Early flood	Flood	Flood	Slack
Time on Bottom in Minutes	30	30	30	30	30	30	30	30	30	30
Shrimp Catch in Pounds:										
Pink	*	150	50	45	20	53	10	80	90	60
Side-stripe	20	5	14	40	10	----	----	----	*	5
Coon-stripe	----	*	----	----	----	2	5	10	----	----
Spot	----	----	----	----	----	----	----	----	----	----
Total Catch on Hourly Basis	40	310	128	170	60	110	30	180	180	130
Trawling Bottom	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
Remarks	----	----	----	----	----	----	----	----	----	----

Drag Number	91	92	93	94	95	96	97	98	99	100
Date	April 6	April 8	April 8	April 8	April 9	April 9	April 9	April 9	April 9	April 9
Latitude N.	58° 42.9'	57° 58.7'	57° 59.7'	57° 59.5'	57° 59.7'	57° 59.8'	57° 59.6'	57° 59.3'	58° 06.9'	58° 06.7'
Longitude W.	134° 57.4'	133° 43.4'	133° 44.4'	133° 43'	133° 43.2'	133° 42.9'	133° 42.6'	133° 48.5'	133° 42.1'	133° 43'
Course, Magnetic**	SxW	NW	NW	WNW	SE	SE	ENE	E	S	SxW
Type of Bottom	M.	M.	M.	M.	M.	M.	M.	M.	M.	M.
Depth Range in Fathoms	90-96	76-86	84-100	76-100	66-76	54-66	50-40	116-124	68-72	80-88
Tide	Ebb	Flood	Flood	Ebb	Slack	Slack	Early flood	Flood	Ebb	Ebb
Time on Bottom in Minutes	24	30	30	30	30	30	30	32	6	30
Shrimp Catch in Pounds:										
Pink	10	15	15	10	70	175	147	----	----	25
Side-stripe	21	55	60	55	90	50	*	30	3	175
Coon-stripe	----	----	----	----	----	----	3	----	----	----
Spot	----	----	----	----	----	----	----	----	----	----
Total Catch on Hourly Basis	77	140	150	130	320	450	300	56	30	400
Trawling Bottom	Snag	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Mud	Clear
Remarks	Hung up	----	----	----	----	----	----	----	Beam mudded down	----

Drag Number	101	102	103	104	105	106	107	108	109	110
Date	April 10	April 10	April 10	April 10	April 10	April 10	April 11	April 11	April 11	April 12
Latitude N.	58° 06.6'	58° 06.3'	58° 05.3'	58° 03.1'	58° 01.6'	58° 00.8'	58° 11.4'	58° 09.6'	58° 10'	58° 05.2'
Longitude W.	133° 42.4'	133° 44.2'	133° 44.8'	133° 46.3'	133° 46.1'	133° 46.6'	134° 07.2'	134° 08.5'	134° 44.6'	134° 08'
Course, Magnetic**	SW	SWxS	S	SSE	ESE	NW	SxW	SExS	SWxW	SExS
Type of Bottom	M.	M.	M.	M.	M.	M.	M.	----	M.	----
Depth Range in Fathoms	76-80	86-94	96-103	112-110	104-108	110-112	114-116	116-118	44-56	96-104
Tide	Ebb	Ebb	Early flood	Flood	Flood	Flood	Flood	Flood	Ebb	Flood
Time on Bottom in Minutes	23	30	30	30	30	30	30	30	24	30
Shrimp Catch in Pounds:										
Pink	10	55	10	1	*	4	*	2	150	*
Side-stripe	10	25	4	3	15	13	15	1	*	10
Coon-stripe	----	----	----	----	----	----	----	----	*	----
Spot	----	----	----	----	----	----	----	----	----	----
Total Catch on Hourly Basis	52	160	28	8	30	34	30	6	375	20
Trawling Bottom	Mud	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
Remarks	Beam mudded down	----	----	----	----	----	----	----	----	----

Drag Number	111	112	113	114	115	116	117	118	119	
Date	April 13	April 13	April 14	April 14	April 14	April 14	April 17	April 18	April 18	
Latitude N.	57° 47.3'	57° 49.2'	57° 46.9'	57° 44.7'	57° 46.3'	57° 42.7'	56° 50.6'	56° 54.1'	56° 58.8'	
Longitude W.	134° 04.3'	134° 05.9'	134° 01.9'	134° 01.6'	134° 05'	134° 03.6'	133° 54.5'	133° 51.5'	134° 05.7'	
Course, Magnetic**	SExS	SE	WNW	NW	SExS	NWxW	ESE	W	ExN	
Type of Bottom	Rky and M.	Rky	Rky	M. and Rky	M.	M. and Rky	----	----	rky.	
Depth Range in Fathoms	80-84	70-80	54-56	60-70	76-78	50	56-50	32-36	60-58	
Tide	Flood	Flood	Flood	Slack	Early flood	Flood	Ebb	Flood	Slack	
Time on Bottom in Minutes	30	30	30	30	25	30	30	30	30	
Shrimp Catch in Pounds:			20-Pandalus danae							
Pink	1	75	*	200	10	165	278	140	*	
Side-stripe	16	13	----	----	10	----	28	----	----	
Coon-stripe	----	----	*	2	3	18	52	10	*	
Spot	----	2	*	2	----	2	24	----	*	
Total Catch on Hourly Basis	34	180	40	408	55	370	764	300	----	
Trawling Bottom	Clear	Rough	Rough	Clear	Mud	Clear	Clear	Clear	Clear	
Remarks	----	Broken beam	Tear in net	-----	Beam mudded down	---	----	----	----	

Table 2 - Sizes of Shrimp Taken by Beam Trawl

Locality	Drag no.	Date, 1951	Species	No. in sample	Number whole shrimp per pound	Average size in inches	Depth of gear in fathoms	Percent with eggs	Various Size Groups in Inches* (PERCENTAGE OF TOTAL)									
									1.5-2.0	2.0-2.5	2.5-3.0	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0	6.0-6.5	6.5-7.0
Idaho Inlet	1	3-14	Pink	152	194	2.2	20-29	00	39	58	3								
	3	3-15	Pink	205	128	2.5	28-32	7	5	47	38	10							
	3	3-15	Coon-stripe	208	29	3.7	28-32	25		2	6	16	51	22	2	1			
	4	3-15	Pink	778	86	2.7	32-36	33	3	38	25	31	3						
	4	3-15	Side-stripe	118	23	4.6	32-36	97					2	41	54	3			
Port Frederick	10	3-17	Pink	163	180	2.4	46-52	1	2	69	23	6							
	13	3-18	Pink	134	68	2.9	72-80	75		16	10	48	25	1					
	15	3-18	Pink	216	78	3.1	76-86	74	2	16	15	48	19						
	19	3-19	Pink	157	66	3.0	50-72	63		24	17	40	19						
	21	3-19	Pink	180	66	2.9	68-56	48		32	23	36	9						
	21	3-19	Side-stripe	82	34	4.0	68-56	15				28	28	23	12	6	3		
Off Pleasant Is.	31	3-21	Side-stripe	138	23	4.6	78-86	56				3	21	15	26	33	2		
Stephens Passage	43	3-26	Side-stripe	87	16	4.7	80-86	52		2	3	7	1	30	21	24	12		
	45	3-26	Pink	138	80	3.4	60-65	69		5	5	59	30	1					
	46	3-26	Pink	175	63	3.4	43-50	87		1	7	55	26	1					
Taku Inlet	58	3-29	Pink	125	132	2.9	64-66	1**		21	33	45	1						
	58	3-29	Side-stripe	15	--	3.9	64-66	100				33	13	47	7				
Chilkat Inlet	72	4-3	Pink	119	87	3.1	62-66	11		15	12	63	8	2					
	72	4-3	Side-stripe	31	--	3.9	62-66	00				48	13	16	13	10			
Berners Bay	88	4-6	Pink	165	92	2.9	48-54	17		21	29	46	4						
	91	4-6	Pink	44	78	3.1	90-96	32		12	20	52	16						
	91	4-6	Side-stripe	279	34	4.5	90-96	43		1	8	10	35	20	23	3			
Port Snettisham	96	4-9	Pink	144	64	3.2	56-66	51		10	24	47	18	1					
Stephens Passage	109	4-11	Pink	155	72	3.1	44-56	46		24	16	54	6						
Seymour Canal	112	4-13	Pink	139	102	2.9	70-80	32		30	28	24	18						
	116	4-14	Pink	140	90	2.9	50	73		18	41	38	3						
	116	4-14	Spot	12	10	5.3	50	00***											
Keku Strait	117	4-17	Pink	106	68	3.0	56-50	85		7	49	38	6						
	117	4-17	Coon-stripe	35	22	3.8	56-50	67		3	26	34	32	5					

*MEASUREMENTS ARE FROM CENTER OF EYE TO TIP OF TAIL.
**SHRIMP IN SOFT-SHELL CONDITION.
***MANY OF LARGER SIZES WITH RECOGNIZABLE DEVELOPING EGGS.

Table 3 - Shrimp Trap Catches

Vicinity	Date	Set No.	No. traps	Depth range in fathoms	Total hours out	Shrimp catch: Spot shrimp	Shrimp catch: Coon-stripe shrimp	Shrimp catch: Pink shrimp	Remarks
Idaho Inlet	3-15	1	12	32 - 80	32	----	----	Few	Many gastropods and hermit crabs--mud bottom.
Porpoise Islands	3-19	2	10	56 - 86	22	3½ pounds	5½ pounds	----	All traps on mud bottom except trap with spot shrimp.
Taiya Inlet	3-31	3	3	36 - 43	15	----	4½ pounds	----	Coon-stripe shrimp, large.
Off Skagway River	3-31	4	2	46 - 45	15	----	----	Few	Pink shrimp in spawning condition.
Chilkoot Inlet	4-1	5	7	26 - 65	44	28 shrimp	----	----	Spot shrimp were in one trap, bait bags not touched.
Port Snettisham	4-8	6	7	40 - 74	22	----	12 pounds	1½ pounds	Mud bottom, coon-stripe shrimp, large.
Point Pybus	4-13	7	10	16 - 88	25	8 pounds	----	----	Spot shrimp were taken from traps set at about 80 fathoms.
Seymour Canal	4-15	8	4	35 - 80	18	1 pound	1½ pounds	Few	Few hermit crabs, 1 octopus.
	4-15	9	11	38 - 80	19	13¼ pounds	----	----	9 pounds of spot shrimp in one trap. Small spot shrimp taken from traps set in shallow water.
Keku Strait	4-16	10	15	30 - 86	23	2 pounds	----	----	Many large gastropods, "sand fleas" cleaned out bait bags.
	4-17	11	12	20 - 55	21	Few	Few	Few	Many small sea urchins, most of the bait cleaned out by "sand fleas" and hermit crabs.

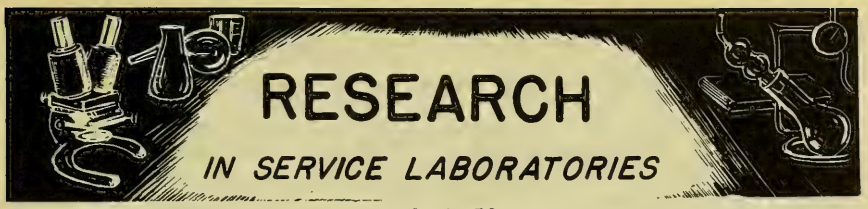
Table 4 - Sizes of Shrimp Taken by Traps

Locality	Trap set number	Date, 1951	Species	No. in sample	Number whole shrimp per pound	Average size in inches	Depth of gear in fathoms	Percent with eggs	Various size groups in inches (percentage of total): 1.5-2.0	2.0-2.5	2.5-3.0	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-5.5	5.5-6.0	6.0-6.5	6.5-7.0
Taiya Inlet	3	3-31	Coon-stripe	121	18	4.4	36 - 46	18*				5	18	34	40	3			
Port Snettisham	6	4-8	Coon-stripe	155	10	4.8	40 - 74	64			1	4	5	13	22	47	8		
Point Pybus	7	4-13	Spot	45	7	5.0	16 - 88	00*				2	6	20	25	15	24	5	3
Seymour Canal	8	4-15	Coon-stripe	30	27	3.3	35 - 80	13			2	30	30	23	10	4			
	8	4-15	Pink	27	---	3.5	35 - 80	100				44	56						
	9	4-15	Spot	132	7	4.5	38 - 80	1*			1	19	23	17	8	10	16	4	2

* MANY OF LARGER SIZES WITH RECOGNIZABLE DEVELOPING EGGS.

Table 5 - Crab Pot Catches

Vicinity	Date	Set No.	No. traps	Depth range in fathoms	Total hours out	Dungeness crab catch: Legal males	Dungeness crab catch: Small males	Dungeness crab catch: Females	Remarks
Neka Bay	3-18	1	6	8 - 10	24	----	1	----	Tanner crabs and large starfish also present.
Icy Passage	3-20	2	6	10 - 24	39	8	3	4	17 small king crab.
Young Bay	3-27	3	6	14 - 24	46	----	----	----	3 king crab, 14 tanner crab.
Lutak Inlet	4-1	4	5	11 - 18	27	3	----	----	32 small tanner crab.



March 1952

ANALYSIS AND COMPOSITION: Composition and Cold-Storage Life of Fresh-Water Fish: Additional data on the composition of yellow perch and whitefish were obtained and are presented in the following table:

Composition of Two Species of Lake Erie Fish

Species of Fish	Sample No.	Length	Weight	Fillet Yield[1/]	Proximate Composition			
					Moisture	Fat	Protein	Ash
		Centimeters	Grams	Percent	Percent	Percent	Percent	Percent
Yellow perch (Percha flavescens)	7	25	220	38.6	78.4	1.05	20.3	1.28
	8	23.5	205	41.5	80.1	0.82	18.6	1.06
	9	23.5	205	42.4	78.4	1.05	19.7	1.20
	10	23	177	36.7	78.5	0.96	20.0	1.31
	11	23	192	36.4	78.7	1.00	20.2	1.20
	12	22	147	42.2	79.2	1.20	20.0	1.34
	13	23.5	165	39.4	79.3	0.85	19.6	1.23
	14	22	145	41.4	79.7	0.80	19.8	1.48
	15	21.5	150	38.0	79.0	0.94	19.9	1.24
	16	20.5	125	36.0	79.1	0.82	20.0	1.23
Whitefish (Coregonus clupeaformis)	7	44	405	47.0	74.8	4.66	19.4	1.15
	8	43	390	41.0	72.0	8.50	19.6	1.22
	9	52	680	39.0	70.3	12.10	17.0	1.13
	10	55	1020	44.5	61.5	18.77	16.3	1.05
	11	48	630	54	72.0	8.57	19.8	1.15
	12	38	325	54	73.6	7.96	19.4	1.12

1/BASED ON WHOLE FISH.

(Seattle).

* * * * *

REFRIGERATION: Freezing Fish at Sea, Defrosting, Filleting, and Refreezing the Fillets: Shipyard work was continued on the experimental trawler Delaware. It is expected that the repairs and alterations will be completed about the middle of April. At that time dockside trial runs of the equipment will be made before operations at sea are resumed. (Boston).

TECHNICAL NOTE NO. 19 - THE ALASKA SHEEFISH: DESCRIPTION AND PROXIMATE COMPOSITION

The sheefish or inconnu (Stenodus mackenzii) are edible fish of the Arctic area. In Alaska large numbers are caught in Hotham Inlet and Selawik Lake near Kotzebue. During the summer the sheefish proceed upstream into the Noatak, Kobuk, and Selawik rivers to spawn. In the fall they return to brackish or salt water.

Native people catch many sheefish using gill nets strung in the rivers during the summer (Dufresne 1946). In Kotzebue Sound, the Eskimos catch the greatest number of sheefish in the winter by "jigging"--fishing through holes in the ice.

The sheefish is anadromous (ascending rivers from the sea at certain seasons) and is closely related to the whitefish. The fish itself has clear, silvery white sides and under surfaces, sometimes giving off a pinkish iridescence. The back is dusky olive; the fins are pale; and the scales are as large as a dime. The fish has no spottings. The lower jaw projects well beyond the snout (see figure 1).

Eskimos eat the fish raw--sliced thin and dipped in seal oil. The sheefish has been utilized only by the Eskimos and a few non-native Alaskans. In recent years, however, large amounts have been marketed in surrounding areas and some have been shipped to Seattle. Fish for shipment to Seattle are usually taken during the colder months of the year when the rivers are frozen. The fish are thrown on the ice immediately after being caught and are naturally frozen. The frozen fish destined for market are then flown to Nome where they are kept in cold storage until distributed to coastal cities. Wigutoff and Carlson (1950) reported that during one season about 100,000 pounds of sheefish were shipped to Seattle by one trader at Nome.

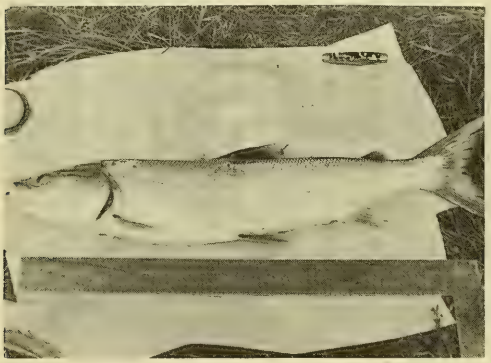


FIG. 1 - A SHEEFISH TAKEN WITH A GILL NET IN KOBUK RIVER, KIANA, ALASKA, IN JUNE 1949. A 24-INCH BUILDER'S SQUARE IS SHOWN BELOW THE FISH.

Sheefish from Alaska range in weight from 5 to 50 pounds. Those commonly marketed from the Kotzebue area average 6 to 8 pounds. Only a very few sheefish in the size range from 20 to 50 pounds are marketed.

Until recently, the sheefish was little known in North America outside of Alaska and the Arctic area. There is, therefore, very little information available on its palatability and proximate composition or nutritive value.

In order to provide this information, samples of sheefish caught in the Kotzebue area during March 1950 were obtained and tested at the Ketchikan Fishery Products Laboratory. The fish were naturally frozen in the round immediately after being caught and were air-expressed from Nome to Ketchikan. At the laboratory they were allowed to thaw overnight at room temperature. The thawed fish were

dressed and filleted; one fillet was used for the preparation of cooked fish dishes and the other was used for chemical analyses. The fillet for analyses was ground and thoroughly mixed to obtain a uniform sample. Two portions of the ground sample were taken: each was hermetically sealed in a 1/2-pound flat can, frozen, and stored at 0° F. until needed for the test.

The cooking and palatability tests indicated that sheefish are tender, delicately flavored, and suitable for broiling, baking, or steaming. With the present cost of marketing, it is likely to be regarded more as a speciality rather than a staple item in the diet. In March 1950, the wholesale price of sheefish in the round at Nome was 40 cents per pound and the price at Seattle, delivered by air freight from Nome, was approximately 60 cents per pound. Since the edible portion is slightly less than two-thirds of the sheefish by weight, the retail price of the round fish at Seattle would be considerably higher than fillets or steaks of local market fish.

Proximate analyses (moisture, ash, oil, and protein) were run individually on ten sheefish. The results may be regarded as indicative only of the composition of fish entering the commercial trade from the Nome area. Composition of fish is correlated frequently with size and environmental differences; therefore, sheefish of larger size or from different areas might differ somewhat in proximate composition.

Proximate Composition of the Edible Portion of Ten Sheefish (Stenodus mackenzii)[1/] Caught in March 1950 at Kotzebue, Alaska

Sample No.[2/]	Percent by Weight of the Edible Portion			
	Ash	Moisture	Oil	Protein
1	1.4	71.6	9.1	19.9
2	1.4	73.8	6.2	20.9
3	1.2	73.3	8.2	19.0
4	1.2	74.4	5.3	19.6
5	1.2	71.8	8.7	18.8
6	1.2	75.1	6.6	18.4
7	1.4	72.5	6.0	21.6
8	1.3	74.2	5.7	20.5
9	1.3	75.2	4.9	19.7
10	1.4	70.7	7.7	21.0

1/ THE FISH RANGED IN LENGTH FROM 21.5 TO 28.0 INCHES (TIP OF NOSE TO MIDDLE OF FORK OF THE TAIL) AND IN WEIGHT FROM 4.5 TO 7.6 POUNDS. THE EDIBLE PORTION (SKINNED FILLET) REPRESENTED ABOUT 63 PERCENT OF THE WEIGHT OF THE WHOLE FISH. THE PROXIMATE COMPOSITION DATA ARE TYPICAL FOR THE SIZES OF SHEEFISH ENTERING THE COMMERCIAL TRADE IN THE NOME AREA AND MAY NOT BE APPLICABLE TO LARGER FISH OR FISH FROM OTHER AREAS.

2/ EACH SAMPLE NUMBER IS A REPRESENTATIVE PORTION OF ONE FILLET FROM ONE FISH.

Analyses for ash, moisture, and protein were made according to the modified methods of the Association of Official Agricultural Chemists, 1950. Oil content was determined by the acetone extraction method of Stansby and Lemon (1937) as modified by Voth (1946). The results are shown in table.

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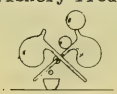
--Donna M. Galerman and Howard J. Craven, Chemists,
Alaska Fisheries Experimental Commission,
Fishery Products Laboratory, Ketchikan, Alaska.



Additions to the Fleet of U. S. Fishing Vessels

First documents as fishing craft were received by 49 vessels of 5 net tons and over during February 1952--9 more than in February 1951. Alaska lead with 11 vessels, followed by California and the West Coast of Florida with 5 vessels each, the Treasury Department Bureau of Customs reported.

Vessels Obtaining Their First Documents as Fishing Craft, February 1952

Section	February		Two mos. ending with Feb.		Total
	1952	1951	1952	1951	1951
	Number	Number	Number	Number	Number
New England	2	1	3	3	36
Middle Atlantic	5	4	7	7	34
Chesapeake	5	-	9	2	36
South Atlantic	8	8	19	16	118
Gulf	9	9	15	27	173
Pacific Coast	9	13	16	26	284
Great Lakes	-	-	1	1	25
Alaska	11	5	14	8	71
Hawaii	-	-	-	-	3
Total	49	40	84	90	780

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

California Shrimp Fishing Season Opened April 1

Commercial trawling for shrimp (prawn) in Pacific Ocean waters off California became a reality when the season opened on April 1. According to reports, shrimp fishing may prove to be a new major fishing industry for the State. This is the first time that trawling for shrimp has been permitted by California.

This experimental shrimp season was sanctioned by the Legislature after the Department of Fish and Game discovered commercial quantities of shrimp (prawn) in three California offshore areas. Regulations were established by the California Fish and Game Commission which are designed to protect the so-called bottom fishery for halibut, sole, flounders, and similar fishes.

Permits are now being issued by the Department's Bureau of Marine Fisheries in the Ferry Building, San Francisco. Boats must be registered for shrimp fishing.

Under terms of the Legislative law which set up the new fishery, permits will expire on the 91st day after final adjournment of the 1953 session of the Legislature.

California Biologists Alarmed at Pacific Mackerel Scarcity

The Pacific mackerel (Pheumatophorus diego), the basis of a one-time multi-million dollar fishery, has pulled a disappearing act which alarms marine biologists of the California Department of Fish and Game, according to a March 12 news release from that Department.

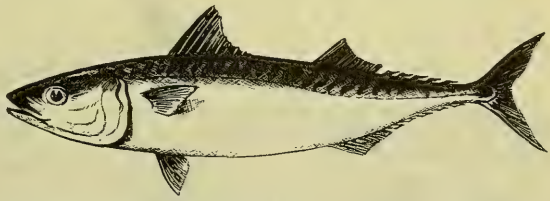
Recent commercial landings of Pacific mackerel at California ports are the lowest since 1932. Symptoms of a sick fishery have been diagnosed by the State specialists for several years.

Los Angeles has always been the center of the mackerel fishery, with Newport Beach an important harbor since 1935. First the lampara and then the purse-seine fleet dominated the fishery at Los Angeles.

Newport Beach was the base for the small-boat operator, employing the technique of "sticker" fishing from which evolved the technique of "scooping." By the late 1930's the seine fleet was no longer able to meet the demands of Los Angeles harbor canneries and the small-boat fishery expanded tremendously. Despite this, the trend of the catch has continued downward.

The mackerel catch, canned almost entirely in southern California, has been a staple diet item among low-income Americans generally throughout the South, and in the Philippines.

During their abundance, the Pacific mackerel were fished from May through the winter. In recent years, most of the fishing has been concentrated between Labor Day and Christmas. The 1951 season, however, ended in early November. There just weren't any Pacific mackerel to catch.



PACIFIC MACKEREL (PNEUMATOPHORUS DIEGO), OCCURS IN LARGE SCHOOLS ALONG THE CALIFORNIA COAST MOSTLY SOUTH OF MONTEREY BAY. SOMETIMES MIXED WITH SARDINES (SARDINOPS CAERULEA) AND JACK MACKEREL (TRACHURUS SYMMETRICUS).

A crew of Bureau of Marine Fisheries researchers has been studying the Pacific mackerel's movements, reproduction, and habitat for a decade, from the Department's Marine Fisheries Laboratory at Terminal Island and aboard research vessels at sea. Although they have no pat answer, they are willing to submit "an educated guess," based on catch, population, and age studies they've completed.

The fading fishery has fluctuated in cycles of at least a decade--from population peaks of highly rewarding fishing seasons--to depressions when they have virtually disappeared. But for the past 20 years the charted peaks of their abundance have been lower, and the plateaus of their absences from the fishing grounds longer and deeper.

"Spawning was good in 1947 but today this class, which produced a major portion of the years' catches from 1948 to 1950, is cleaned out. What remains of the fishery is dependent on three-year-olds as its largest and oldest fish," states the Bureau. Yet it takes the Pacific mackerel two years to become sexually mature--able to reproduce its species.

"The reserve spawning stock more than four years old has dwindled until in 1950 and 1951 less than three percent of the Pacific mackerel taken were four years old or older. The greatest contribution by any single year class was that of 1941 which produced 130 million fish weighing 109 million pounds," continues the Bureau. But the biologists state that when all returns are in the 1951 catch of Pacific mackerel will just about reach 30 million pounds.

"The future of the Pacific mackerel in California is not bright. The fishery during the past 10 years has been fading rapidly toward ultimate destruction," add the Bureau Biologists.

Department specialists, faced with a similar dilemma in the California sardine fishery, believe both fisheries can eventually be rehabilitated and restored to economic importance under a sustained yield, annual harvesting program. But only if all segments of the fisheries and their dependent industries will agree on seasonal bag limits that will fluctuate from year to year, and which would be mutually agreed to by fishermen, canners, reducers, and the public.

The limits would be set upon recommendation of marine scientists specializing in mackerel and sardine studies and would depend upon such data as population and age samplings, migration research, "availability" of the fish populations to the fishermen, and other factors.

It may be a long, slow haul, the biologists believe, but there is no reason a sustained-yield based on intelligent, mutually-acceptable planning, cannot rehabilitate California's greatest potential resource--the marine life inher coastal waters, the biologists state.

California Issues Anchovy Reduction Permit

An application by a Monterey fish packer to take and reduce 100 tons of anchovies as an experiment to determine the value of this fish in a straight reduction process was approved by the California Fish and Game Commission at its January 25, 1952, meeting. Reports indicate that if the results prove satisfactory and there is an abundant anchovy fishery, it may mean the survival of some of those plants which have been inactive because of the shortage of sardines (pilchards) which developed during the past few years on the West Coast.

Federal Purchases of Fishery Products

FRESH AND FROZEN FISH PURCHASES BY DEPARTMENT OF THE ARMY, FEBRUARY 1952: For the military feeding of the U. S. Army, Navy, Marine Corps, and Air Force, the

Purchases of Fresh and Frozen Fishery Products by Department of the Army (February and the First Two Months, 1951 and 1952)

QUANTITY				VALUE			
February		January-February		February		January-February	
1952	1951	1952	1951	1952	1951	1952	1951
lbs.	lbs.	lbs.	lbs.	$	$	$	$
2,173,316	2,150,482	4,490,727	3,855,610	1,041,122	934,934	2,126,118	1,667,307

Army Quartermaster Corps during February 1952 purchased 2,173,316 pounds of fresh and frozen fishery products (see table). Compared with the previous month's purchases, this was a drop of 6.2 percent in quantity and 4.0 percent in value. However, this February's purchases were higher than in February 1951 by 1.1 percent in quantity and 11.4 percent in value.

For the first two months of 1952, purchases were greater by 16.5 percent in quantity and 27.5 percent in value as compared with the corresponding period of 1951. The average price per pound of 47.3 cents paid for fresh and frozen fishery products during the first two months this year was higher than the 43.3 cents paid in January-February 1951.

Florida's Shrimp Fishery Expanded in 1951

Preliminary estimates indicate that Florida's shrimp landings in 1951 amounted to around 35 million pounds as compared with 23 million pounds in 1950--an increase of 52 percent. This increase was due partially to increased fishing effort, better mapping of shrimping grounds, and more experienced fishermen. However, the most important factor contributing to the increased Florida landings was the production from the Campeche Banks located outside Mexico's territorial waters.

Florida's 1950 fishery statistical survey revealed approximately 900 fishing vessels operating in that State. Of these, 400 were shrimp vessels. Out of nine major producing counties, Monroe County landings represented nearly one-third of Florida's total shrimp landings.

Fur-Seal Skin Prices Drop at Spring Fur Auction

Active bidding by a large attendance of fur buyers characterized the spring auction held by the Fouke Fur Company in St. Louis on April 7, at which 22,008 United States Government-owned fur-seal skins from the Pribilof Islands in Alaska were sold for $1,790,681, the Fish and Wildlife Service reported in April to the Secretary of the Interior.

The April 1951 auction brought $2,591,796 for the Government-owned skins; the September sale, $2,249,892.

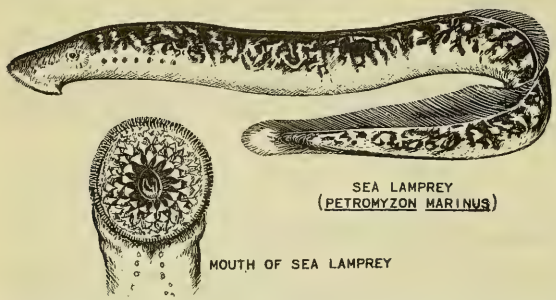
The grand average for all United States Government skins at the April 1952 auction was $81.27, a decline of 8.1 percent below the September 1951 auction. The dyed "Matara" (brown) skins sold for an average of $87.49, an advance of 1.3 percent over last fall's sale. "Safari" brown (a lighter brown) skins declined 2.7 percent to $66.48, while the black skins declined 24.2 percent to $78.30. A total of 550 blue-fox pelts averaged $5.86, an advance of 7.7 percent.

In addition to the United States-owned skins, the fur company sold 4,539 Cape-of-Good-Hope fur-seal skins for the Government of the Union of South Africa. These skins averaged $24.27, a decline of 20 percent.

NOTE: ALSO SEE COMMERCIAL FISHERIES REVIEW, OCTOBER 1951, P. 13.

Great Lakes Fishery Investigations

SEA LAMPREY CONTROL PROSPECTS ENCOURAGING: An economical means of controlling the sea lamprey in the Great Lakes has been discovered by the Great Lakes Fishery Investigations of the U. S. Fish and Wildlife Service. Two of several electrical devices show great promise and have stopped the upstream migration of spawning sea lampreys. One experimental device used on a 90-foot stream operated successfully on as little as two kilowatts of power (cost 5 to 10 cents per hour). The use of electrical devices makes it possible to place under control a great many streams which by other known procedures would have required large capital outlays and large maintenance and operational costs.



SEA LAMPREY
(PETROMYZON MARINUS)

MOUTH OF SEA LAMPREY

In addition to the electrical devices, mechanical weirs, barrier dams, and inclined plane traps can be used effectively on certain streams. This spring a number of electrical devices will be operated for the purpose of refining techniques and procedures and especially to develop an electrical leading device capable of leading valuable fish species out of the lethal electrical field. Many species of fish can be guided whereas sea lampreys rush headlong into the electrical field until they are rendered unconscious.

In the spring of 1953 the work will have progressed far enough to permit installation and operation of proven control devices in streams tributary to Lake Superior. This lake has the single remaining lake trout fishery. The sea lamprey did not enter Lake Superior until 1947 and for the first time in 1952 will produce in its own streams millions of parasitic lampreys. Up to now all have come from Lakes Huron and Michigan. It is possible that the lake trout population can be conserved if control of the sea lamprey is undertaken without delay.

New England Tuna Explorations

VESSEL CHARTERED FOR THIS YEAR'S EXPLORATIONS: The vessel Marjorie Parker, a line trawler owned by a fishing company located in Portland, Maine, has been chartered for this year's New England bluefin-tuna explorations. The vessel is a 78-foot schooner-type vessel previously used in the line-trawl fishery and is well suited for tuna long-lining and gill-netting, the main types of gear which will be used in this year's operations. The explorations will be conducted by the Service's Branch of Commercial Fisheries, and their main purpose is to search for untapped resources of bluefin tuna in waters principally off the shores of Maine and Massachusetts.

Present plans call for the operations to be based at Portland, Maine. Exploratory fishing will be carried on from June 1 to September 30.

Pacific Oceanic Fishery Investigations

RESEARCH VESSELS SEEK TUNA IN PACIFIC EQUATORIAL WATERS: Several tons of large yellowfin tuna (ahi), taken near the Equator southwest of Hawaii, were brought back by the research vessel Hugh M. Smith. This is one of the vessels being operated by the Service's Pacific Oceanic Fishery Investigations. The vessel returned to Honolulu on March 13 from a six-week cruise in equatorial waters.

The vessels Hugh M. Smith and the John R. Manning were sent into tropical waters early this year to explore further the discovery by the Pacific Oceanic Fishery Investigations that large stocks of unfished tunas exist in the equatorial regions south of Hawaii. The trip was designed to test whether the tuna were in the area during the winter as well as during the summer and fall.

The Hugh M. Smith studies were carried out in close cooperation with the John R. Manning, which fished flag lines for tuna in these rich fishing grounds. This research is expected to provide information leading to the exploitation of new fisheries resources.

A tuna-processor in Hawaii is cooperating with the U. S. Fish and Wildlife Service in an experiment to test whether the yellowfin tuna taken at the Equator will approach the same high-grade product as the tuna caught in Hawaiian waters.

Shipments of Metal Cans for Fish and Sea Food, January 1952

Total shipments of metal cans for fish and sea food for January this year amounted to 3,743 short tons of steel (based on the amount of steel consumed in the manufacture of cans), which was considerably below 5,960 short tons of steel during the corresponding period in 1951. A decline in West Coast tuna canning and sardine canning were largely responsible for this drop in use of metal cans for packing of fishery products. This is based on a report issued by the Bureau of the Census on March 26.

NOTE: DATA CONVERTED TO SHORT TONS OF STEEL ARE ON THE BASIS OF 23.0 BASE BOXES OF STEEL PER SHORT TON OF STEEL.

South Atlantic Shrimp Explorations

AGREEMENT SIGNED FOR CONDUCTING ONE YEAR'S EXPLORATIONS: A one year's exploration for shrimp in the waters off the east coast of Florida and in the Gulf of Mexico, to supplement explorations of the Service's exploratory fishing vessel Oregon, will result from a cooperative agreement between the U. S. Fish and Wildlife Service and the Gibbs Corporation of Jacksonville, Fla. The company is supplying their new experimental steel shrimp trawler Antillas for the explorations, as well as the crew and standard fishing gear. The Service's Branch of Commercial Fisheries is furnishing technical assistance by assigning Carl Carlson, Fishery Engineer, to supervise the work, and also supplying items of experimental gear to be tested, such as floating trawls, bottomless trawls, etc. The Antillas is equipped with the latest instruments and a new-type variable-pitch propeller which will also be tested.

Besides experimentation with standard and new types of trawls, consideration is being given to the testing of certain promising electronic devices, as well as the use of underwater television for studying fishing gear in action.

At present the Antillas is exploring waters off northern Florida and southern Georgia at depths from 10 to 100 fathoms.

Wholesale and Retail Prices

WHOLESALE PRICES, FEBRUARY 1952: Increased landings on the Atlantic and Gulf coasts accounted for the sharp drop in edible fishery products prices this February. Generally lower prices for most types of fishery products prevailed during that month. Edible fishery products prices as a group in February were 5.5 percent below the previous month, but remained 0.9 percent above February 1951. The edible fish and shellfish (fresh, frozen, and canned) revised wholesale price index for February 1952 was 108.2 percent of the 1947-49 average (see table).

Drawn, dressed, or whole fin-fish prices in February 1952 were 13.2 percent below the previous month, but 4.3 percent higher than in February last year. Fresh

Table 1 - Revised Wholesale Indexes for Edible Fish and Shellfish, February 1952, with Comparative Data

GROUP, SUBGROUP, AND ITEM SPECIFICATION	POINT OF PRICING	INDEXES (1947-49=100)			
		Feb. 1952	Jan. 1952	Dec. 1951	Feb. 1951
ALL FISH AND SHELLFISH (Fresh, Frozen, and Canned)		108.2	114.5	113.3	109.21
Fresh and Frozen Fishery Products:		114.3	125.1	122.7	108.6
Drawn, Dressed, or Whole Fin Fish:		118.4	136.4	133.2	113.5
Haddock, large, offshore, drawn, fresh	Boston	120.0	174.7	167.8	102.8
Halibut, Western, 20/80 lbs., dressed, fresh or frozen	New York City	106.8	102.2	101.4	120.0
Salmon, king, lge. & med., dressed, fresh or frozen	" " "	120.9	120.9	121.0	118.6
Whitefish mostly Lake Superior, drawn (dressed), fresh	Chicago	156.2	156.2	112.0	140.6
Whitefish, mostly Lake Erie pound net, round, fresh	New York City	106.2	88.0	113.2	102.3
Lake trout, domestic, mostly No. 1, drawn (dressed), fresh	Chicago	133.2	129.1	129.1	116.8
Yellow pike, mostly Michigan (Lakes Michigan & Huron), round, fresh	New York City	99.7	99.7	101.3	123.1
Processed, Fresh (Fish and Shellfish):		108.8	111.9	111.6	102.2
Fillets, haddock, small, skins on, 20-lb. tins	Boston	125.9	154.9	149.4	109.8
Shrimp, lge. (26-30 count), headless, fresh or frozen	New York City	102.8	81.4	81.3	92.5
Oysters, shucked, standards	Norfolk area	111.3	136.1	136.8	113.3
Processed, Frozen (Fish and Shellfish):		110.9	110.5	106.2	103.6
Fillets: Flounder (yellowtail), skinless, 10-lb. pkg.	Boston	143.7	143.7	145.8	122.7
Haddock, small, 10-lb. cello-pack	"	122.7	122.7	114.2	88.8
Ocean perch (rosefish), 10-lb. cello-pack	Gloucester	120.4	125.2	125.2	139.6
Shrimp, lge. (26-30 count), 5-lb. pkg.	Chicago	88.7	84.8	78.0	83.3
Canned Fishery Products:		99.2	98.9	99.5	110.1
Salmon, pink, No. 1 tall (16 oz.), 48 cans per case	Seattle	109.6	109.6	109.6	130.4
Tuna, light meat, solid pack, No. ½ tuna (7 oz.), 48 cans per case	Los Angeles	81.2	81.2	81.2	93.7
Sardines (pilchards), California, tomato pack, No. 1 oval (15 oz.), 48 cans per case	" "	102.2	102.2	100.2	78.8
Sardines, Maine, keyless oil, No. ¼ drawn (3¼ oz.), 100 cans per case	New York City	105.9	102.7	110.5	68.8

large offshore haddock during the month dropped 31.3 percent below the previous month, but the index for this commodity was still 16.7 percent above February 1951. Frozen Western halibut prices at New York City continued to rise and increased 4.5 percent from January to February, while whitefish and lake trout also increased substantially during this period due to good demand and light supplies.

Processed fresh fish and shellfish prices this February were 2.8 percent below the previous month, but 6.5 percent higher than in February 1951. Haddock fillets sold 18.7 percent lower than in January 1951, but were still priced 14.7 percent above February a year ago. Shucked fresh oyster prices continued to drop (18.2 percent) in February 1952 and were 1.8 percent below February 1951. Fresh shrimp prices this February, on the other hand, were 26.3 percent above January and 11.1 percent higher than during the same period a year earlier.

Although processed frozen fish and shellfish prices in February were 7.0 percent higher than for the same month in 1951, they rose only 0.4 percent from January to February this year. Frozen shrimp prices, which have been steadily increasing the past few months, rose 4.6 percent from January to February and were 6.5 percent higher than a year earlier. All fillets remained steady at January levels, except frozen ocean perch fillets which dropped 3.8 percent from January to February. Heavier-than-normal cold storage stocks accounted for this latter decline. Compared to February 1951, ocean perch fillets this February were quoted 13.8 percent lower.

Canned fish prices this February remained almost steady, except for Maine sardines which rose 3.1 percent from January to February this year. In February Maine sardines were priced 53.9 percent higher and California sardines 29.8 percent higher than in February 1951, but canned pink salmon was priced 16.0 percent lower and canned tuna 13.3 percent lower.

REVISION OF RETAIL PRICE INDEX FOR FRESH AND FROZEN FISH: Retail prices of "fresh and frozen fish" have been used by the Bureau of Labor Statistics in its retail food index since January 1938, and a separate index has been computed back through 1939. This index has been based on a composite of two price quotations from each store in the sample for the two species selling in the largest volume at each pricing date. Average prices were not published. Prices are collected monthly from chain and independent stores in 56 cities during the first three days of the week which includes the 15th of the month.

To improve the index and to provide for the publication of average prices, the Bureau is now pricing two specific varieties of fin fish in each of the 56 cities where food prices are collected. The new index (Fresh and Frozen Fin Fish) will be made up of a composite of prices of frozen ocean perch fillets and frozen haddock fillets in 44 cities, and other varieties in cities where adequate quotations for one or both of these are not normally available. The 12 cities where the other varieties are priced, together with the items priced, are shown below:

City	Fin-Fish Varieties Priced	
Boston	Haddock fillet, fresh	Cod fillet, frozen
Butte	Salmon, fresh or frozen	Halibut, fresh or frozen
Houston	Ocean perch fillet, frozen	Sea trout, fresh, dressed
Los Angeles	Salmon, fresh or frozen	Halibut, fresh or frozen
Manchester	Cod fillet, frozen	Haddock fillet, frozen
New Haven	Cod fillet, frozen	Haddock fillet, frozen
Portland, Me.	Haddock fillet, fresh	Haddock fillet, frozen
Portland, Oreg.	Salmon, fresh or frozen	Halibut, fresh or frozen
Providence	Haddock fillet, fresh	Cod fillet, frozen
Salt Lake City	Halibut, fresh or frozen	Salmon, fresh or frozen
San Francisco	Ocean perch fillet, frozen	Salmon, fresh or frozen
Seattle	Salmon, fresh or frozen	Halibut, fresh or frozen

The prices for the new specifications were introduced into the former index (linked) at the January 1952 level, thus maintaining index continuity in spite of the specification changes. The calculation base period (100 percent) for the Fresh and Frozen Fin-Fish Index is the average of the two years 1938 and 1939. There has been no change in this base period.

The Consumers' Price Index for moderate-income families in large cities computed by the Bureau of Labor Statistics measures average changes in retail prices of goods, rents, and services purchased by wage earners and lower-salaried workers in large cities. The Fresh and Frozen Fin-Fish Index measures average changes in the retail prices of fin fish

The Fresh and Frozen Fin-Fish Index is combined with the prices and index for canned pink salmon (with the base period 1938-39=100) and the All Fin-Fish Index (with the base period 1935-39=100) is computed. This latter index consists of components of fresh, frozen, and canned fin fish.

RETAIL PRICES, FEBRUARY 1952: Lower prices were paid by urban families of moderate incomes between mid-January and mid-February for all foods, according to the Bureau of Labor Statistics, U. S. Department of Labor. During this period the retail price index for all foods dropped 2.1 percent, but it was still 0.7 percent above mid-February 1951 (see table 2).

Table 2 - Adjusted Retail Price Indexes for Foods and Fin Fish, February 15, 1952, with Comparative Data

Item	Base	INDEXES		
		Feb.15,1952	Jan.15,1952	Feb.15,1951
All foods	1935-39 = 100	227.5	232.4	226.0
All fin fish (fresh, frozen & canned)	do	351.8	351.5	347.8
Fresh and frozen fin fish	1938-39 = 100	300.1	298.3	283.7
Canned salmon: pink	do	467.1	471.2	501.1

On the other hand, retail prices for fin-fish products (fresh, frozen, and canned) rose slightly--on February 15 the index for these products was 0.1 percent higher than a month earlier and 1.2 percent above mid-February 1951. This increase was entirely due to higher retail prices for fresh and frozen fin fish. The index for the latter group of products rose 0.6 percent from mid-January to mid-February and was 5.8 percent above February 15, 1951. Retail prices for frozen ocean perch fillets averaged 46.5 cents per pound in 46 cities, while frozen haddock fillets averaged 52.1 cents per pound in 47 cities in mid-February this year. A year ago frozen ocean perch fillets retailed at 46.4 cents per pound and frozen haddock fillets at 50.5 cents per pound.

LOADING FISH AT THE FULTON MARKET, CHICAGO, ILLINOIS.

Table 3 - Average Retail Prices and Price Ranges of Individual Fin-Fish Products, February 15, 1952

Product	Unit	United States	
		Average	Range of Prices
Frozen Fin Fish Fillets:			
Ocean perch[1]	lb.	46.5	29-69
Haddock[2]	lb.	52.1	35-75
Canned Fin Fish:			
Salmon, pink[3]	16-oz. can	57.8	40-80

1/PRICED IN 46 CITIES OUT OF 56.
2/PRICED IN 47 CITIES OUT OF 56.
3/PRICED IN 56 CITIES.

Canned pink salmon retail prices continued to drop. These prices have declined consistently each month since June 1951, and in mid-February this year were 0.9 percent below the previous month and 6.8 percent below mid-February 1951. The average retail price per 16-oz. can in 56 cities was 57.8 cents as compared with 58.3 cents a month earlier and 62.0 cents a year ago.

FEDERAL PROCUREMENT MANUAL

If you want to sell your products to the Government, the revised edition of the Government Procurement Manual should be especially helpful. When the manual was recently released by the Department of Commerce, Secretary Charles Sawyer described it as "the only source of information in the Federal Government covering the procurement activities of all major military and civilian agencies."

The Manual lists 5,000 items and classes of items for which Federal agencies are in the market. It contains a military agency and a civilian agency index together with a listing of the locations of the appropriate procurement offices.

This publication represents many months of cooperative effort among the Office of Small Business, National Production Authority, and military and other civilian agencies in gathering and organizing current procurement data.

The Manual has been placed in Department of Commerce Field Offices throughout the country, in local chambers of commerce, and in the seven Market News Service offices (Boston, New York, Hampton, Chicago, New Orleans, San Pedro, and Seattle) where it can be consulted by businessmen interested in obtaining a government contract. Copies are also available at the offices of the Small Defense Plants Administration and at all principal purchasing offices of the military and civilian agencies.

Although only a small portion of the manual is devoted to fishery products, those in the fishing industry who are interested in making sales to the Government should find it worthwhile to consult.

International

CARIBBEAN FISHERIES CONFERENCE: A Conference on Fisheries, sponsored by the Caribbean Commission, convened at Port-of-Spain, Trindad, British West Indies, March 24-28, 1952, a recent U. S. Department of State news release announced. The United States Delegation was as follows:

CHAIRMAN:

RICHARD T. WHITELEATHER, ASST. CHIEF,
BRANCH OF COMMERCIAL FISHERIES,
FISH AND WILDLIFE SERVICE
U.S. DEPT. OF THE INTERIOR

DELEGATES:

LUIS BONNET, SAN JUAN, PUERTO RICO

FELIX INIGO, SAN JUAN, PUERTO RICO

The Caribbean Commission is sponsoring a series of conferences for the purpose of increasing and disseminating the technical knowledge necessary to the development of the economic resources of the Caribbean area. This Conference was considered particularly important in view of the following factors: (1) fish is the principal protein in the diets of the Caribbean peoples; (2) the area is dependent upon the importation of fish; and (3) new techniques of fishing and marketing might make deep-sea fish from the Caribbean waters available at reasonable costs.

The provisional agenda for the Conference included consideration of such matters as: occurrence and distribution of commercial fish species in the Caribbean; techniques practiced in the Caribbean for fish capture; types of fishing craft in use in the Caribbean; fish marketing, including storage and distribution; methods for conserving and processing fish in the Caribbean; cultivation of fish in ponds; application of recent technical knowledge to exploration and development of new fisheries; and various papers and reports.

* * * * *

WORLD MARINE OIL PRODUCTION AND TRADE, 1951: World production of marine oils in 1951 is estimated at 915,000 tons, an increase of about 7 percent from 1950, but still some 160,000 tons less than the 1935-39 average, the U. S. Department of Agriculture points out in its March 24 report "Fats and Oils: World Production and Trade in 1951." The increase from 1950 occurred almost entirely in sperm and fish oils. Greater demand for sperm oil resulted in a sharp rise in output of 35,000 tons from the previous year. With the Antarctic pelagic catch of baleen whales still limited to 16,000 blue-whale units 1/ by international agreement, the volume of both production and trade in this

Table 1 - World Production of Marine Oils, 1951 with Comparisons

Type	1951 2/	1950 1/	1949 1/	1935-39 Average 1/
	..(in 1,000 short tons) ...			
Whale	430	425	420	545
Sperm whale	90	55	70	30
Fish (including liver) ..	395	375	310	500
Total	915	855	800	1,075

1/ REVISED ACCORDING TO LATEST AVAILABLE DATA.
2/ PRELIMINARY.

1/ ONE BLUE-WHALE UNIT EQUALS ONE BLUE OR TWO FIN OR 2.5 HUMPBACK WHALES.

commodity remains fairly constant from year to year. Increases in fish-oil production in Iceland, Norway, Japan, and the Union of South Africa more than offset a decline in United States output.

In 1951, world trade in fish oils decreased about 7 percent from the preceding year, due largely to the decline in United States exports. Indications are that world trade will decline slightly again in 1952.

Whale Oil: World production of whale oil in 1951, excluding sperm oil, is estimated at 430,000 tons, a slight increase from the 425,000-ton output in 1950, but still only 79 percent of the prewar average. Although the Antarctic pelagic whale catch is restricted by international agreement, production of whale oil from this area in 1951, including South Georgia shore-station outturns, constituted almost 90 percent of the world supply. Most of the remaining catch occurred in waters adjacent to Madagascar, French Congo, and from shore stations operating in Australia, Norway, South Africa, Japan, Canada, and Iceland.

Norway continued to rank as the leading producer of whale oil with about 195,000 tons in 1951, or 45 percent of the world total. The United Kingdom's volume, the second largest, was 78,600 tons. Nineteen expeditions participated in the 1950-51 Antarctic operations, including 10 Norwegian, 3 British, 2 Japanese, and one each from South Africa, the Soviet Union, the Netherlands, and Panama.

Under present limitations of catch, it is unlikely that the production of whale oil will change greatly in the next few years.

Sperm Oil: A marked increase in the world output of sperm oil occurred in 1951 when an estimated 90,000 tons was produced. This is an increase of 64 percent from 1950 and some 60,000 tons greater than the 1935-39 average. The present international situation practically eliminated accumulated stocks of this product in 1950 and is responsible for the increase in production. Slightly more than half of the total world output was produced in the Antarctic during the 1950-51 pelagic season. Of the remaining half, about one-third was obtained from sperm whales caught off the coast of Peru. Another third was from sperm whales killed off the Azores and the Russian territories of Kamtchatka and the Kurile Islands, and most of the remaining quantity was from shore-station operations indicated above in the summary of whale oil.

Production and trade of sperm oil in 1952 is likely to increase as long as demand continues strong. Unlike the Antarctic baleen whaling, the catch of sperm whales has not been limited by international action.

Fish Oils: World output of fish oils in 1951, including liver oils, amounted to approximately 395,000 tons, an increase of 20,000 tons from 1950 but still more than 100,000 tons below the prewar average. Norway's production of fish oils again

Table 2 - World Trade in Marine Oils, 1951 with Comparisons and Forecast for 1952

Type	1952 (Forecast)	1951 (Estimate)	1950 1/	1935-39 Average 1/
	..... (in 1,000 short tons)			
Whale	435	430	425	545
Sperm whale	100	90	55	30
Fish (including liver)	120	125	135	135
Total	655	645	615	710

1/ REVISED ACCORDING TO LATEST AVAILABLE DATA.

reached a new high with an estimated output of 80,000 tons, mainly herring oil. Substantial increases in output also were reported for Iceland and South Africa. Production of fish oils in the United States, however, fell to about 72,000 tons, a decrease of almost 15 percent from 1950. Other important producing countries are Canada, Japan, the United Kingdom, and the Soviet Union.

Trade in fish oils in 1951, estimated at 125,000 tons, declined some 7 percent from 1950 when exports approximated the prewar average. With production down in the United States, exports of fish oils from that country dropped almost 35 percent from the record 38,000 tons in 1950. Exports from Iceland increased, while shipments from Norway and Canada remained about the same as in 1950. Other exporting countries were the Netherlands, France, Portugal, South Africa, Japan, Argentina, and the United Kingdom. Trade in 1952 is forecast at slightly below the 1951 level.

FOOD AND AGRICULTURE ORGANIZATION

MEDITERRANEAN FISHERIES COUNCIL FORMED: Agreement has been reached for the establishment of a General Fisheries Council for the Mediterranean, according to a March news release from the Food and Agriculture Organization.

The agreement came into force when the necessary fifth notification of acceptance was received at FAO's Rome Headquarters. Governments previously accepting the agreement were Italy, the United Kingdom, Egypt, and Yugoslavia.

The council, a technical and administrative body formed from among member governments of FAO, will encourage and coordinate national efforts for making more and better use of the fisheries in the sea and in the fresh waters of the Mediterranean area. The council will cite problems and rate them according to importance, exchange information on matters of common interest, and act as an advisory and consultative body to FAO in such fields as extension work and vocational training centers.

Chile

EXPANSION AND MODERNIZATION OF FISHING INDUSTRY PLANNED: The Chilean Minister of Economy and Trade announced the latter part of last year that 37,200,000 Chilean pesos (US$3,720,000) will be spent on establishing shore facilities for fishing activities, and modernizing fishing craft and gear. In addition, a complete reorganization of the Department of Fish and Game to implement the programs is planned, reports a January 1952 news release from the FAO North American Regional Office. At the same time, a new fishing law probably will be enacted by the national Congress.

Argentine Republic

DEVELOPMENT OF FISHERIES PLANNED: Thirty-five Belgian and 25 Netherlands fishermen were due in Mar del Plata, Argentina, in January. They were bringing

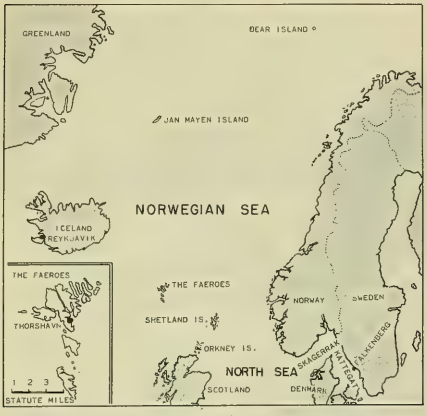
UNLOADING AND PACKING FISH AT FISH WHARF, MAR DEL PLATA, ARGENTINA.

seven fishing vessels ranging in size from 90 to 117 metric tons, according to the January 31 issue of Fiskets Gang, a Norwegian trade paper. The vessels were built in Germany and France during the period from 1947 to 1949 and include radar among their equipment. Many of the fishermen were bringing their families so that the whole group numbered 110 persons.

Fishing operations are to be based on Mar del Plata where a Belgian company, capitalized at 45 million francs (about $891,000), has secured property for the installation of a modern freezer with a capacity of 300 tons of fish per day. The company expects to transport and distribute fish in Buenos Aires and the rest of the country through a network of freezers. Fishing is to begin in a few weeks, but the freezer will not be ready for eight months.

Denmark

TUNA CATCH IN KATTEGAT AREA: The tuna (tunny) season in the Kattegat area off the Northeast coast of Denmark in 1951 was somewhat longer than usual for these waters. Even in the beginning of November lots of tuna were willing to bite, reports the November 1951 issue of World Fish Trade. The reason why the tuna stayed longer this year was that in certain places of Kattegat large shoals of herring occurred.



The landings of tuna in Danish ports amounted to 1,100 metric tons for August through October (August 350 tons, September 500 tons, and October 250 tons). The number of fish is estimated at 8,000 with an average weight of 275 pounds each. In 1950, the catch during the same season totaled 991 tons, while in 1949 it was 2,084 tons. However, in 1951 the tuna were caught much later in the year and much farther south than normally. This, according to the scientists, is due to the fact that a considerable amount of salt water has poured in the seas south of Kattegat. However, most of the Danish tuna catch for October was taken in the North Sea.

According to reports, in Falkenberg, Sweden, about 4,000 tuna were landed there in October 1951.

Hong Kong

FISHERIES RESEARCH UNIT ESTABLISHED: A Fisheries Research Unit, with a 60-foot vessel at its disposal, will start operations in September in the Hong Kong University's Department of Biology, under an agreement between the university and the Hong Kong Department of Agriculture, Fisheries and Forestry, according to the April 5 issue of Foreign Trade, a Canadian periodical. The cost of establishing the unit is being met out of colonial development and welfare funds. Recurrent expenditures will be met by the local government.

It is expected that the research carried out by the unit will improve the catch in the Colony's fishery and will contribute substantially to general fisheries research in the Indo-Pacific region. Among other projects, the unit will survey fishing grounds around Hong Kong; study the effect of ocean currents and prevailing winds on the movement of fish with the possibility of discovering new fishing grounds; investigate factors influencing the yield from local fishing grounds with a view to forecasting production; and consider measures to extend and improve brackish and fresh-water pond-fish culture.

Iceland

IMPOSES FISHING RESTRICTIONS WITHIN FOUR-MILE ZONE: Regulations establishing a four-mile zone for fishing around all of Iceland were issued by the Government on March 19, states an Amercian consular dispatch from Rekjavik. The straight base lines of the delimited zone are drawn from the outermost points of the coasts, islands, and rocks, and across openings of bays. All trawling and Danish seine netting, as well as all other foreign fishing activities, are prohibited within this four-mile zone.

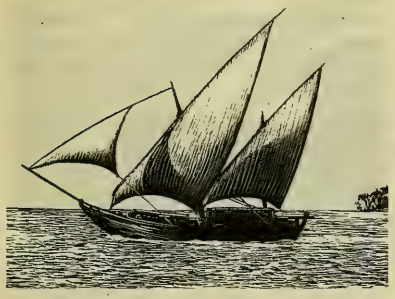
The official press release announcing this action emphasized the economic importance of the step taken. The regulations issued became effective May 15, 1952.

India

DEVELOPMENT OF FISHERIES IN MADRAS STATE: The Government of Madras plans to open six new deep-sea fishing centers in the State under a United States Point IV grant of US$50 million, according to a February 19 American consular dispatch from Madras.

Two of the six deep-sea fishing centers are to be located on the West Coast, one at Kozhikode (Calicut), and one at Mangalore. The other four deep-sea fishing centers are to be located on the East Coast (Coromandel Coast), one at Visakhapatnam, one at Kakinada, and two at places not yet determined.

The Madras Hindu, a local newspaper, on February 13 made the following editorial comment on the proposed opening of six deep-sea fishing centers: "This is good news and should ultimately result in increasing the food supply of the State where the bulk of the people consume fish when it is available." The editorial further stated: "The coast line of Madras is 1,700 miles long and the seas teem with fish, but the country vessels which now operate off the shore are not able to go far out to sea where the larger shoals of fish are to be found. Nor have these areas been adequately surveyed. This lack of knowledge of the habits of marine life accounts for the comparative failure of our attempts to fish in the deeper waters. Here is a field where the survey vessels of the Indian Navy and even merchant ships can be asked to offer their cooperation. If these vessels could report on their findings of fish shoals to the Fisheries Department, the fishing vessels could be guided and their time and energy saved.



TYPICAL FISHING VESSEL OF INDIA.

"The Fisheries Department acquired eight power-driven vessels some time ago but their operations have not been very successful, partly because the trawlers themselves were not in good repair and partly because of inexperience in this line. In Bombay and West Bengal, there seems to have been a greater measure of success. In Bombay, for example, the two Dutch Diesel-motored trawlers recently acquired are in the charge of English captains who have had plenty of experience

in deep-sea fishing. The vessels operate 20 to 60 miles off shore and use 62-foot drag nets which sweep the sea bed for ten miles to make their catch which ranges from five to ten metric tons of fish each time. The trawlers are equipped with cold-storage holds of 30-ton capacity and so the catch does not get spoiled even when the trip takes several days. It is to be hoped that the trawlers that may be purchased for Madras will be modern vessels equipped with the proper tackle and machinery. It may be necessary for some time to employ foreign skippers and mates who will conduct operations and train Indians in techniques that are new to this country. At the same time, cold storage facilities at the fishing stations and arrangements to market the fish inland will have to be made. Proper planning of every detail is essential if the venture is to prove successful. The vessels that the Madras Government already possesses probably need better maintenance and upkeep than they have so far received. Foreign experts could do a great deal to put this infant industry on its feet and give our Fisheries Department the benefit of their experience."

Irish Free State

FISHING INDUSTRY REORGANIZATION PLANNED: Plans to reorganize the fishing industry have been presented to the Legislature in a Sea Fisheries Bill, according to the April 12 issue of Foreign Trade.

The present fishing fleet consists chiefly of small craft not capable of operating on distant fishing grounds. The new proposals call for large Diesel-engined vessels which can range as far as Scotland, the Faroes, and the North Sea. They will be fitted with echo-sounding gear, radio-telephones, and all other modern equipment; will have a displacement of 80 to 100 metric tons; and will be able to stay at sea for 20 days and return with 35 metric tons of fish, graded and packed on board. The first six of the new boats, costing £25,000 (US$69,500) each and built locally, will be operating next year. A new Sea Fishery Board will run the boats, employing crews on a wage-plus-share basis.

Jamaica

FISH-MEAL MANUFACTURE SEEN AS NEW INDUSTRY POSSIBILITY: The manufacture of fish meal is being considered in Jamaica to counteract the dislocation which the Island's coconut industry suffered as a result of the hurricane last August, states a March 28 American consular dispatch from Kingston. A local firm is understood to be exploring the possibilities of fish-meal manufacture as well as the smoking and canning of fish.

Fish-meal is at present imported into the Island from the United States, Argentina, and Canada, mainly for feeding cattle and poultry. It is also used as a fertilizer.

The poultry industry in Jamaica has suffered as a result of the coconut shortage because dried coconut is used as a poultry feed by the majority of the poorer people. Imported feed is too expensive, so an alternative must be found. Fish meal in large enough quantities so that it can be bought by the poorest farmer seems to be the answer.

Manufacture of fish meal, however, is only possible or advisable if there is an unlimited supply of fish in the sea around Jamaica, over and above ordinary local requirements. Whether or not there are enough fish resources is a debatable point; the issue is clouded by the division of opinion among people in the fish industry.

Fishermen and owners of fish depots state that there is an unlimited supply of fish on the Pedro Cays south of the Island. This might be an exaggeration; but the fact must be taken into consideration that only recently thousands of pounds of fish were dumped into the sea over a period of two weeks because no one would buy them. True, the bulk of the fish dumped was of low grade; but owners of fish depots will not buy more than a set amount of any type of fish, because the present undeveloped market is restricted.

The real problem of surplus fish is to be found in the case of fish of the lowest grade which is sold to the public at about 8 to 10 US cents per pound. These are turbot, doctor, wenchman, and a wide variety of angelfish for which there is no demand. The possibility of using sharks for fish meal is also being considered.

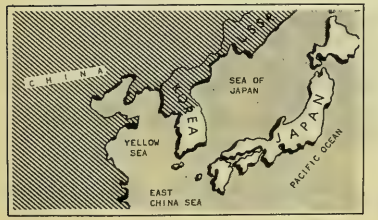
However, while fish vendors state that only a small amount of fish is bought daily, housewives complain that they find it very hard to get fish to buy. Therefore, this surplus of fish which is dumped is believed to be due to faulty distribution.

The Government Fisheries Officer is inclined to be somewhat pessimistic about the prospect of obtaining the great supply of fish which would be necessary for this industry. In fact, he has stated that a definite answer would be impossible now as the problem needs considerable research, which up to now has not been undertaken. He also has revealed that Caribbean waters, especially around Jamaica, lack the necessary amount of organic matter to provide food for any great amount of fish.

It should also be pointed out that with the establishment of fish-farms all over the Island, the demand for fish from the sea will be greatly lessened, and there will be an increased surplus of these fish. Therefore, there is reason to believe that this industry may succeed in Jamaica. A market for the meal is assured. It has even been suggested that the fish could be sun-dried especially in the summer months, instead of machine-dried.

Japan

EXPANSION OF FISHING OPERATIONS IN EAST CHINA SEA: High seas fishing operators in Kyushu prefectures are already equipping boats with new and larger motors in anticipation of expanded operations in East China Sea when the peace treaty becomes effective, states a March 21 American consular dispatch from Tokyo. A 30 to 40 percent increase in catch is hoped for with the modernization of the fishing fleet which is taking place in this area.



Kenya

NEW FISHING GROUNDS FOUND OFF KENYA COAST: New fishing grounds have been discovered in northern Kenya coastal waters, states a February 25 dispatch from Mombasa, Kenya. Catches up to 800 pounds an hour have been taken in the waters off Malindi township.

The Fisheries Department's experimental fishing vessel, Menicha, is now making a survey of the Changoni Banks off Kiwighu Island running north to the Somalia frontier. During some months these banks are barren, while at others they team with valuable pelagic fish. The Fisheries Department is endeavoring to obtain data on the migration of these fish and catch rates to determine the possibilities of commercial exploitation.

During the past few months, the Menicha has been trawling off the Malindi-Mambrui regions on the mud bottoms made by the silt deposited at sea by the Sabaki River, which is the Athi River at its source. Very encouraging results have been obtained. It was thought that while this fishing could not stand a full-sized 350-ton commercial trawler it might provide profitable trawling for a couple of motor-fishing vessels. Two trawlers have already been ordered from Britain by business firms.

Lebanon

POINT FOUR SPECIALIST TO ADVISE LEBANON ON EXPANSION OF FISH INDUSTRY: A United States Fish and Wildlife Service fishery expert, Elmer Quistorff, left Washington, D. C., for Beirut, Lebanon, about March 17 to advise that country in the development of salt-water fishery resources under the Point Four Program, the U. S. Department of the Interior announced in March.

Lebanon, a seacoast country on the eastern end of the Mediterranean, hopes to improve the quantity and quality of fisheries production to provide more protein food for her people and has asked the cooperation of the United States in exploring the potentialities of expanding the industry.

The American specialist will develop a pilot-project cooperative with improved equipment to demonstrate the feasible methods of catching more fish and bettering processing and distribution. He will also serve as technical advisor on methods to be developed for the preservation and marketing of fish.

The State Department's Technical Cooperation Administration will provide equipment to enable Quistorff to carry on the pilot demonstration.

The fishery project is part of a broad program for the development of Lebanon in the fields of natural resources, agriculture, industry, health, welfare, and education.

Point Four funds allocated for the project include the technician's salary and travel expenses, plus the cost of demonstration equipment and its transportation. Lebanon will contribute her share of the project expense in accordance with the project agreement.

Mexico

PRODUCERS SEEK CLOSED SEASONS FOR CERTAIN FISHERIES: The Mexican National Association of Shrimp Producers obtained Government approval for the declaration of a closed season during all of March 1952 in the Gulf of California in an effort to increase this year's shrimp spawning. The shrimp industry on the west coast of Mexico suffered losses due to the disappointing catch and there was danger that some plants might be forced to close, states a February 28 American Embassy dispatch from Mexico.

There was much fear expressed that sardines and lobsters in the Gulf of California might disappear and local operators are seeking assistance from the authorities to prohibit fishing during the spawning season between February and July. At the present time sardines are fished the year around by both American and Mexican fishermen.

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GUAYMAS SHRIMP-FREEZING PLANTS CLOSED: Some of the Guaymas shrimp-freezing plants closed in mid-February for lack of shrimp, states a March 12 American consular report from that city. The remainder closed on March 8 after processing the catch landed by the Guaymas fleet which returned to port because of a temporary closed season.

The economic situation of the plants and boat owners is acute because of the poor season, and the economic activity in Guaymas is much depressed as a result.

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NEW OFFICIAL CANNED SARDINE PRICE ESTABLISHED FOR EXPORT DUTY PURPOSES: The official Mexican price for sardines in bottles, jars, or tins has been increased from Pesos 2.37 to Pesos 2.64 per gross kilo (from 12.45 to 13.87 U.S. cents per gross pound), according to a circular which appeared in the Diario Oficial of February 25, 1952. This official price is established for the purpose of assessing the ad-valorem export tax and additional surtax, states a February 26 American consular dispatch from Mexico.

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SHRIMP EXPORT DUTIES INCREASED: Mexican export duties on shrimp have been increased by raising the official evaluation 10 percent. At the same time, frozen shrimp exported from Salina Cruz, Oaxaca, and Santa Rosalia, Baja California, have been accorded the same preferential treatment as Gulf of Mexico frozen shrimp, reports an April 3 American consular dispatch from Mexico City. These changes were published in the Diario Oficial of March 25, 1952, and became effective the date of publication.

The following table summarizes the various export taxes on Mexican shrimp in accordance with the current regulations:

Type of Tax	Fresh or Iced Shrimp		Frozen Shrimp	
	From Gulf of Mexico	From Pacific	From Gulf of Mexico, Salina Cruz, & Santa Rosalia	From Pacific
	(in Mexican pesos per metric ton)			
General export	3.00	3.00	3.00	3.00
10% ad valorem	737.00	880.00	-	-
Additional 15% ad valorem	1,105.50	1,320.00	1,105.50	1,320.00
Less exemption	-	-	-368.50(33-1/3%)	-440.00(33-1/3%)
Total additional tax less exemption	-	-	737.00	880.00
2% municipal	36.91	44.06	14.80	17.66
Total tax	1,882.41	2,247.06	754.80	900.66
	(in U.S. currency--cents per pound)			
Total tax	9.9	11.8	3.9	4.7

The new Mexican export duties continue to encourage the exportation of frozen shrimp and discourage the exportation of fresh shrimp. In addition, frozen shrimp

exported from Salina Cruz, Oaxaca, and Santa Rosalia, Baja California, have a slight advantage over frozen shrimp from the Pacific on the basis of the present export taxes.

NOTE: VALUES IN U.S. CURRENCY BASED ON 1 MEXICAN PESO EQUALS 11.56 U.S. CENTS.

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NATIONAL CHAMBER OF FISHERY INDUSTRY FORMULATES OBJECTIVES: The Mexican National Chamber of the Fishery Industry met on February 19 for the purpose of formulating a program for the coming year and to elect officers. The 150 delegates to the meeting decided the following to be the major objectives of their program:

1. Scientifically regulate fishing, for the purpose of conservation of the species.

2. Create a Bank of Fishery Credit in order to obtain maximum development of the industry, increase production, and lower prices.

3. Strengthen the bonds of friendship with North American industrialists by means of the Shrimp Association of the Americas, in order to obtain a better market for products of the sea through strict quality control and a large advertising campaign.

4. Create a National Institute of Fisheries in order to develop scientific investigation of Mexico's marine species.

5. Make a conscientious study of the economic situation of the Mexican fishery industry in order to petition the Government for the assistance required to improve conditions.

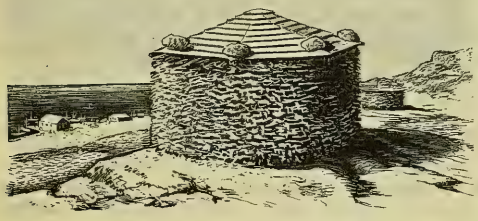
6. Create a Directory of the Fishery Industry with all types of data pertaining to this activity and the men who are engaged in it.

Norway

1952 WINTER HERRING CATCH AND UTILIZATION: The Norwegian 1952 winter herring season finished on February 12, while the spring herring season commenced on the following day, states a February 21 American Embassy dispatch from Oslo.

The preliminary estimate of the 1952 winter herring catch is given as 5,600,000 hectoliters (about 520,800 metric tons) with a value paid to fishermen of approximately 104,000,000 kroner (US$14,560,000) as compared to the catch of 6,700,000 hectoliters (623,100 tons) in 1951, and 6,100,000 hectoliters (567,300 tons) in 1950, which makes 1952 the third largest year for this catch.

Of the total winter herring catch, 360,714 hectoliters (33,546 tons) have already been exported as fresh and iced fish, as compared to 475,210 hectoliters (44,194 tons) last year; 574,241 hectoliters (53,404 tons) of the catch were salted as compared to 716,138 hectoliters (66,600 tons) last year; while canneries took 63,754 hectoliters (5,929 tons) against 96,946 hectoliters (9,016 tons) last year. Herring oil and meal factories took 4,543,866 hectoliters (422,580 tons) as against 5,367,435 hectoliters (499,171 tons) last year; while 41,730 hectoliters (3,881 tons) of this year's catch have been used for bait and 35,707 hectoliters (3,321 tons) have been used for home consumption. (Totals on utilization don't add exactly to catch totals since latter have been rounded off.)



KLIPFISH STACKED DURING CLOUDY WEATHER, BUT LATER WILL BE LAID OUT FOR SUN DRYING.

It is reported that smaller quantities of this season's catch of frozen and fresh herring are being exported to other countries than was the case last year.

FISH-LIVER OIL DEMAND SLACK: Leaders in the trade indicate that the demand for practically all types of liver oils is at present very slack and that there is about a 20 percent drop in price quotations for medicinal cod-liver oil, while for other liver oils the price quotations show a decrease of approxi-

mately 30 percent. The same situation prevails with respect to herring oil. It is stated by local trade sources that the drop in value is due to the competition from vegetable oils and other fat products which for the past four months have been falling in price on the world market.

SEALING FLEET LEAVES FOR NEWFOUNDLAND: A Norwegian sealing fleet of 11 vessels left for Newfoundland waters to engage in sealing operations at the opening of the season during the first days of March.

KLIPFISH STOCKS SOLD: It is reported by the trade that nearly all of last season's klipfish stock will be sold before the new season starts. The present export price for this article is said to be very satisfactory.

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NORWEGIAN RESEARCH VESSEL FOLLOWS WINTER HERRING MIGRATION: After successfully locating and following the huge schools of winter herring on their migratory spawning journey toward the Norwegian coast in the winter of 1950-51, the Norwegian research vessel G. O. Sars repeated this performance in December 1951 and January 1952, according to an article by Finn Devold, leader of the cruises of the ASDIC-equipped vessel. He writes that the surveys this winter confirmed the observations of last winter that the herring, during their spawning migration to Vestlandet in Norway, follow the cold-water masses the East Icelandic Arctic Current carries southward in the direction of the Faeroes and then eastward toward the Norwegian coast. All searches for herring either south or north of this Current gave negative results, according to an article which appeared in the March 13 Fiskets Gang. The weather conditions during the winter were especially bad but it was possible, nevertheless, to carry out the program in every respect. This research gives promise of being able to follow the schools to land each year.

Perhaps the most important discovery during the winter was that the herring appear to remain for some days outside Storegga before going on over the banks. This winter the herring were found on Storegga on January 15 and reached the coast on January 22. It is therefore possible, under favorable weather conditions, that the winter herring fishery can be moved forward a whole week by the fishermen beginning to fish about 50 miles off the coast. With the good weather forecasting service available this should be possible with little danger to the fishing craft.

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NEW METHOD FOR PROCESSING DRY-SALTED COD: An epoch-making method for processing dry-salted cod has been developed in Kristiansund, Norway, recently by Ingvar Jonassen, according to the January 31 issue of Fiskaren, a Norwegian fishery trade paper. The new method utilizes a press which, within a period of seven hours, can prepare dry-salted cod (klipfisk) from the raw fish. The good qualities of the product are not affected by the method, which is a combination of vacuum drying and pressing. The equiment is relatively expensive but reportedly saves so much time and work that the original cost is soon counteracted.

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SAUSAGE CASING FROM SEAWEED: A new type of sausage casing, made from Norwegian seaweed, shortly will appear on the world market, states the Norwegian Information Service in an April 3 news release. In contrast to the cellophane skin now used for sausages, the alginate type is edible and 29 times lighter in weight.

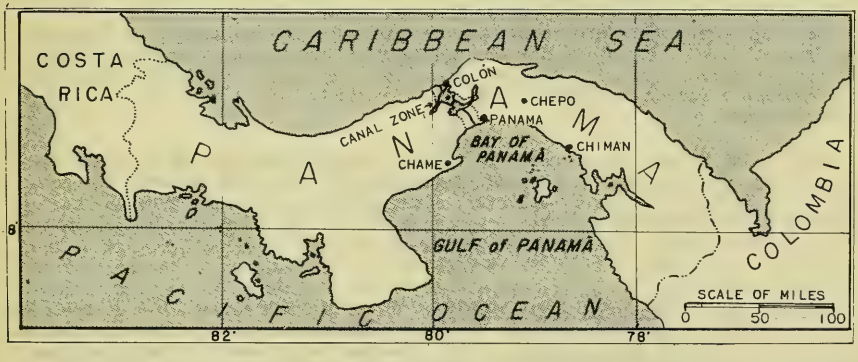
Slated to be made by a factory now under construction in Germany, with an initial output of 22 million yards a month, the new type of casing is the result of two years of experiments. The manufacturing process is patented in Germany. The raw material, however, will be 100 percent Norwegian.

This coming summer Norway's largest processor of alginates will have about 900 workers collecting seaweed along the Norwegian coast. The company already has two dehydrating plants, near Bergen and Kristiansand, and another is being built in the northern district of Helgeland.

Norway's alginate industry has lately developed a number of excellent products which are used extensively in textiles, plastics, cosmetics, films, paints, ice cream, and jam. Used as a stabilizer, algin acid makes better and safer ice cream and in much shorter time than gelatin. Serving the same purpose as pectin in jam making, algin acid requires two-thirds less sugar to achieve the desirable consistency.

Panama

REVIEW OF THE FISHERIES, 1951: Panama's fisheries remained largely unexploited through 1951, states an April 2 American Embassy dispatch from Panama.



In 1950 the country imported fishery products valued at over US$500,000. However, an increase has been noted in the country's shrimp exports during 1951 when an estimated 1,249,747 pounds of shrimp (valued at US$711,430) were shipped out. The United States was the principal receiver of this shrimp. Only 302,284 pounds of shrimp (valued at US$166,979) were exported in 1950.

Panamanian waters also provided a source of bait for tuna boats, and in 1951 the Government received approximately US$73,000 from the issuance of bait-fishing licenses, principally to United States tuna vessels.

Spain

FISH CANNING TRENDS IN VIGO DISTRICT, 1951: The decentralization to a board in Vigo of the authority to establish minimum export prices and materials requirements for the fish-canning industry in Galicia, a more favorable export exchange rate arrangement, and larger tin-plate supplies enabled the fish-canning industry in the Vigo District of Spain during 1951 to operate at a slightly higher percentage of capacity than in 1950. The percentage of capacity at which the industry operated is estimated at 30 percent as compared to 28 percent in 1950, according to a February 15 American consular dispatch from that district. This difference is even more favorable, however, when considered in the light of the fact that the production capacity of the industry for all of Spain was changed from 3,000,000 cases (approximately 44 pounds per case) to 4,000,000 cases during the year.

Fish-canning plants in the Vigo District purchased a total of 21,825,000 pounds of fish during 1951 as compared to 18,313,000 pounds in 1950. The larger part of the pack consisted of albacore and anchovies in oil. Although the sardine catches were larger than in 1950, the early catches were too small for canning and the later catches, which were larger, could not be canned because of the lack of tin-plate.

The export exchange rate arrangement, which was established by an order of the Ministry of Commerce dated Octover 31, 1951, allows the canners to negotiate 50 percent of the foreign exchange earned in the Free Exchange Market. The other 50 percent is exchanged by the Spanish Foreign Exchange Institute at the rate of Pesetas 21.90 equals $1.00. The average rate under this arrangement is Pesetas 30.75 equals $1.00. Under the new arrangement the canners, once import licenses have been obtained, can purchase foreign exchange freely in the Free Exchange Market. Under the former arrangement they were limited to 20 percent of the foreign exchange earned.

Due to the United States grant in January 1952 of US$2,000,000 to Spain for the purchase of tin-plate, $1,000,000 of which is for the fish canners, the outlook of the industry is one of optimism, although the canners are inclined to doubt that it will be made available before tin-plate export quotas are exhausted.

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NEW FISHING VESSELS FOR COD FISHERIES: A new Spanish vessel, built especially for cod fishing, was delivered to the owners the latter part of February, states the March 29 issue of Foreign Trade of the Canadian Department of Trade and Commerce. The new vessel, Santa Cecilia, was built at the Astano dockyards in Spain and has a displacement of 2,300 metric tons. It is capable of developing a speed of 13 knots. The vessel will leave shortly for Newfoundland waters.

Eight more vessels of this type are under construction at the Astano dockyards according to reports from Madrid.

United Kingdom

UNDERWATER TELEVISION MAY BE USED TO EXPLOIT WORLD'S FISHERIES: An underwater television apparatus is now being built for the Scottish Marine Biological Association, states the February 23 issue of the Fish Trades Gazette, a British fishery periodical. Information regarding this apparatus was presented in a paper given by Dr. J. D. M'Gee to the Royal Society of Arts in London during February.

The apparatus will consist of a camera mounted in a strong steel case which has a glass window in front of the operative lens and a water tight gland through which the camera cable is brought through the steel cover plate. The author of the paper ("Television Technique As An Aid to Observation") indicated its importance in exploiting to what he referred to as "that vast potential source of food, the ocean."

In outlining the beginning of the genesis of this piece of equipment, the author states that some three years ago Dr. H. Barnes, of the Scottish Marine Biological Association, proposed that a submarine television equipment should be built and tested for underwater observation. An application was made to the Treasury for a grant from the development fund. The application was considered by the Development Commission's Advisory Committee for Fisheries Research, which recommended that a grant should be made, and who appointed a scientific group to keep in close contact with the work. The grant was authorized early in 1951, and shortly afterwards a contract was placed with a British research laboratory for the construction of suitable equipment.

U.S.S.R.

REFRIGERATED FISH TRANSPORTS ORDERED FROM NETHERLANDS: Russia has ordered from Dutch shipyards five 2,540-metric-ton refrigerator ships under the Dutch-Russian trade agreement of 1948, according to the February 23 issue of The Fishing News, a British periodical. These ships are specially equipped for the transportation of fish. The order is valued at more than 40,000,000 guilders (about US$10,500,000). The vessels will be built in three different shipyards.

Venezuela

FISHERIES TRENDS, 1951: Canning Industry: Canned fish production in Venezuela during 1951, as for the past several years, exceeded market demands, and the fish canneries operated only part time. A total of 6,050 metric tons of canned fish were packed during the first nine months of 1951, or 48 percent more than during the same period in 1950. The canners blamed importations for this inability to market their product, and succeeded in having the duty increased on certain canned fish from Bs.0.28 to Bs.2.00 per kilogram (from 3.8 cents to 27.1 U.S. cents per pound). But, the old rates of duty continued in effect for imports from the United States and from other countries with which Venezuela has commercial treaties or modus vivendi containing most-favored-nation clauses. However, it was recognized by the canners that imports are only a small part of their problem, and they persuaded the Government to engage in semi-barter deals whereby imports will be paid for at least in part with Venezuelan canned fish. An agreement was reached with Colombia for an exchange of canned fish for sugar. Under this arrangement, 3,000 metric tons of Colombian sugar were imported and 30 percent of the cost was paid in canned fish. In spite of this, the canners are still complaining of excess inventories and seek a favorable exchange rate on exports to permit them to dispose of their fish in the world market.

Fishing Fleet Expansion: The Venezuelan Development Corporation announced it has under construction 28 fishing vessels, of which 8 are of 20 metric-ton displacement, and 20 have 6 cubic meters of refrigerated storage each. It is

hoped that these additions to the fishing fleet will permit a wider range for fishing, and that the refrigeration facilities will help intensify the effort.

CARRYING SARDINES FROM BOAT TO CANNERY.

Production: Fish production in all categories increased in the first nine months of 1951 as compared with the same months of 1950. The fresh fish catch was 26,719 metric tons, or 16 percent above the first nine months of 1950; salt fish production was 7,531 metric tons, or 35 percent above the same period of 1950.

Foreign Trade: Fish imports for the 9-month period of 1951 show salt-herring imports were 14 tons, down 45 percent from the like period of 1950; non-salted herring, 23 tons, up 16 percent; salted cod (bacalao), 382 tons, up 28 percent; non-salted cod (bacalao), 4 tons, down 47 percent; caviar, 2 tons, up 170 percent; shellfish, 139 tons, up 32 percent; salmon, 114 tons, down 13 percent; sardines, 1,341 tons, up 53 percent; salted sardines, 14 tons, up 254 percent; other fish products (except salted), 124 tons, down 22 percent; and other salted fish products, 62 tons, up 25 percent.

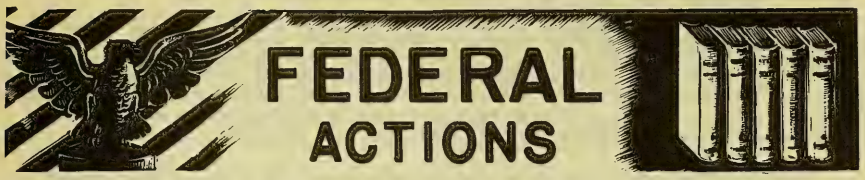
THE CODFISH INDUSTRY IN NORTHERN PORTUGAL

As a producer, consumer, and importer of fishery products, Portugal is vitally interested in the International Convention for the Northwest Atlantic Fisheries and is represented on three of five Sub-Area Panels.

Though the 1949 cod catch is reported by the Food and Agriculture Organization to be at about the 1938 level, Portugal realizes that this indicates an increasingly dangerous situation, for the catch was made with more modern fleets using more efficient fishing methods. It appears that continuance of the present fishing practices would cause an increasingly disastrous shortage.

Portugal, more than most of the other participating nations, must pin her hopes on the measures of the convention being sufficient to insure maximum production for otherwise she stands to lose a basic item in the diet of nearly every one of her citizens and a means of livelihood for several thousand people.

--Fishery Leaflet 367



Department of Commerce

NATIONAL PRODUCTION AUTHORITY

CONTROLLED MATERIALS DELIVERIES BY DISTRIBUTORS: Users of controlled materials may now receive them from distributors 15 days prior to the quarter for which the allotment is valid, the National Production Authority announced March 21.

NPA said the March 21 amendment to Controlled Materials Plan Regulation No. 4 (Deliveries of Controlled Materials by Distributors) now makes it possible for authorized controlled materials orders placed with distributors to call for delivery and be shipped during the 15 days prior to the quarter for which the related allotment is valid. In effect, the amendment provides for a 105-day quarter for purchases of controlled materials from distributors.

At the same time, NPA also announced several minor changes to CMP Regulation No. 4. These include:

1. An amplification of the definition of controlled materials so that the definitions in CMP Reg. 1 and CMP Reg. 4 are now identical.

2. A provision which allows a distributor to reject any order for controlled materials if the person seeking to place the order is unwilling or unable to meet such distributor's regularly-established prices and terms of sale or payment.

The amendments in CMP Reg. 4 were primarily to conform with recent amendments in CMP Reg. 1.

For details see: CMP Reg. 4 (Deliveries of Controlled Materials by Distributors) as amended Mar. 21, 1952; and news release NPA-2029 of same date.

* * * * *

STEEL STRAPPING RESTRICTIONS REMOVED BY NPA: Revocation of the basic order M-59, controlling the use and inventory of metal strapping, was announced March 25 by the National Production Authority.

Order M-59 was issued May 1, 1951, to conserve steel by preventing unnecessary use of strapping on light packages. The order listed 14 acceptable uses for strapping and limited inventories to a 45-day supply.

NPA indicated that there are ample supplies of steel strapping to meet all immediate and foreseeable requirements. However, steel strapping will remain subject to the inventory limitations of NPA regulation 1.

NOTE: FULL TEXTS OF MATERIALS ORDERS MAY BE OBTAINED FROM NATIONAL PRODUCTION AUTHORITY, WASHINGTON 25, D. C., OR FROM ANY DEPARTMENT OF COMMERCE REGIONAL OR FIELD OFFICE.

Federal Trade Commission

PUBLIC REFRIGERATED STORAGE INDUSTRY TRADE PRACTICE RULES: Revised Trade Practice Rules for the Public Refrigerated Storage Industry, formerly known as the Commercial Cold Storage Industry, were issued by the Federal Trade Commission on April 4. The rules constitute a revision of those promulgated for the industry on November 9, 1931. Numerous changes embodying clarification of the applicable requirements of laws administered by the Commission have been made.

Primary objectives of the rules are the maintenance of free and fair competition in the industry and the elimination and prevention of unfair methods of competition, unfair acts or practices, and other trade abuses. The new rules become operative 30 days from the date of their promulgation--April 4.

Copies of Trade Practice Rules For The Public Refrigerated Storage Industry are available from the Federal Trade Commission, Washington 25, D. C.

Interstate Commerce Commission

TRUCK TRIP-LEASING RESTRICTION DELAYED: Further postponement of Ex Parte MC-43 "trip-leasing" regulations due to become effective April 1, 1952, was ordered by the Interstate Commerce Commission. The Commission's order of May 8, 1951, requires all trip-leases to be for a minimum period of 30 days and requires exclusive use of the leased equipment by the lessor for this period. The order of March 20, 1952, delayed the effective date of the regulations until the final disposition by the Supreme Court of the United States of the appeal from the decision of the United States District Court for the Southern District of Indiana in Eastern Motor Express, Inc. vs. United States and Interstate Commerce Commission.

* * * * *

NEW INCREASE IN FREIGHT RATES AND CHARGES AFFECTS FISHERY PRODCUTS: A further increase in freight rates and charges was granted by the Interstate Commerce Commission on April 11 as a result of the railroads' requests for increases. The latest authorizations under Ex Parte No. 175 granted by the Commission supersede all prior authorizations in this Docket and, generally speaking, for fishery products the increase is added to those rates and charges prevailing on April 3, 1951.

Except as otherwise provided, all basic freight rates and charges of petitioning railroads (including rates and charges for the transportation of milk and cream in passenger or freight service, including commodities listed in the milk and cream tariffs) may be justly and reasonably increased 15 percent. Such increases are to be applied as percentage increases in the amount of the total freight charges as shown by the freight bill, exclusive of the Federal transportation tax, and subject to the maximum amounts of increase specified by the Commission.

The railroads applied last year for a 15 percent increase. Last August subsequent to an earlier interim ruling made on March 12, 1951, the Commission ruled that instead of a straight 15 percent advance, the charges should be raised 9 percent in the East and 6 percent in the South and West. The new order now allows the full 15 percent across the country. This actually means another increase of 9 percent in the South and West and 6 percent in the East over what was granted last August. The full 15 percent increase applies to all fishery products rates and charges other than the following important exceptions made to this increase:

Carload shipments of canned or preserved food products (not cold-pack or frozen) in packages, as specified in Item 490 of Tariff X-162-B, may be increased as provided in the above paragraph, subject to a maximum of 12 cents per 100 pounds. Canned fishery products come under this category.

Line-haul rates on sand; gravel, stone, broken, crushed or ground; slag, other than expanded or ground open-hearth basic slag; shells, oyster, clam or mussel, whole, crushed or ground, or screenings; all in open-top cars not protected by tarpaulin or other protective coverings may be increased 12 percent.

No increase is authorized in the charges for protective services published in Perishable Protective Tariff No. 15. Agent Quinn's I.C.C. No. 26; i.e. no further increase in icing charges is provided.

No further increase is proposed or authorized in amounts paid or allowances made by carriers for drayage or other services performed by shippers or receivers of freight.

Rates and charges for accessorial or terminal services such as storage, handling, trimming, floatage, lighterage, demurrage on lighters or car floats, loading, unloading, fabrication, other transit, weighing, et cetera, not otherwise specifically provided for in these findings may be increased 15 percent, except (a) no increase is proposed or authorized in charges for demurrage on freight cars, and (b) no increase is proposed or authorized in charges for handling, loading, or unloading export, import, coastwise or intercoastal traffic which do not affect the measure of the line-haul rates and are not in addition to the line-haul rates.

The increased rates and charges authorized may become effective not later than June 1, 1952, by filing with the Commission and publishing schedules, and upon 15 days' notice to the public. The authority to maintain the increases provided in these findings shall expire February 28, 1954, unless sooner modified or terminated. All previous findings in this proceeding are amended accordingly to be in conformity with the latest authorization. The record of this Docket will be held open for the purpose of re-examination of the increases authorized therein prior to the expiration date.

At this date it is expected the above authorizations will be placed into effect by the railroads on May 2.

Eighty-Second Congress (Second Session)

MARCH 1952

Listed below are public bills and resolutions introduced and referred to committees, or passed by the Eighty-Second Congress (Second Session) and signed by the President. However, the more pertinent reports, hearings, or chamber actions on some of the bills shown in this section from month to month are also listed.

BILLS AND RESOLUTIONS INTRODUCED:

Abolish Wage Stabilization Board: H. J. Res. 409 (Kearns) - Joint resolution to amend the Defense Production Act of 1950 so as to abolish the Wage Stabilization Board, and for other purposes; to the Committee on Banking and Currency.

Commercial Fishing Vessels--Marine Inspection: H. R. 7161 (Kennedy) - A bill for the safety of life and property by making certain commercial fishing vessels subject to the rules and regulations of the United States Coast Guard marine inspection; to the Committee on Merchant Marine and Fisheries. (Includes commercial fishing vessels of over 30 gross tons and operating more than 15 miles outside the line dividing the high seas from the inland waters.)

Conservation of Fish and Wildlife on Klamath Reservation: H. R. 7261 (Stockman) - A bill to provide for the conservation of fish and wildlife on the Klamath Reservation, in Oregon, and for other purposes; to the Committee on Interior and Insular Affairs.

Defense Production Act of 1950 Amendment: S. 2873 (Ferguson) - A bill to amend the Defense Production Act of 1950, as amended; to the Committee on Banking and Currency.

H. R. 7079 (McDonough); H. R. 7157 (Sadlak); H. R. 7326 (Rains) - Same as S. 2873; to the Committee on Banking and Currency.

Elimination of Salmon Traps in Alaska: H. R. 7247 (Bartlett) - A bill to provide for the gradual elimination of salmon traps in waters of Alaska; to the Committee on Merchant Marine and Fisheries.

Fishery Products Distribution: S. 2795 (Saltonstall) - A bill to further encourage the distribution of fishery products, and for other purposes; to the Committee on Agriculture and Forestry.

Food Shrinkage: H. R. 7128 (Osmers) - A bill to avoid false representations to the consuming public as to the true weight of food products subject to shrinkage; to the Committee on Interstate and Foreign Commerce.

Interior Appropriations: H. R. 7176 (Kirwan) - A bill making appropriations for the Department of the Interior for the fiscal year ending June 30, 1953, and for other purposes; to the Committee on Appropriations. (This bill includes appropriations for the Fish and Wildlife Service.)

CHAMBER ACTIONS:

Japanese Peace Treaty: By 66 yeas to 10 nays, Senate ratified the Japanese Peace Treaty (Exec. A, 82d Cong., 2d sess.); also adopted by voice vote Connally reservation (on behalf of Foreign Relations Committee) barring recognition of any claim by Russia to territory held by Japan on December 7, 1941, and barring recognition of provisions favoring Russia in Yalta Agreement regarding Japan.

Interior Appropriations: House reported H. R. 7176, Interior Department Appropriation bill for fiscal year 1953 (H. Rept. 1628).

COMMITTEE MEETINGS:

Defense Production Act: Senate Committee on Banking and Currency commenced executive meetings to consider amendments to the Defense Production Act of 1950 and the Housing and Rent Act of 1947, and announced, among others, the following actions:

Agreed to mark up S. 2594, which extends the present act for 1 year; rejected motion to terminate price and wage controls on June 30, 1952; rejected motion to terminate price and wage controls on March 31, 1953; substituted Public Law 590 of Eighty-first Congress for section 104, on import controls on fats and oils. Committee scheduled to continue March 31.

CONGRESSIONAL HEARINGS:

Transcripts of hearings of interest to the fishery and allied industries (available only from the committee that held the hearings).

Tuna Imports, hearings before the Committee on Finance, United States Senate, Eighty-Second Congress, Second Session, on H. R. 5693 (An act to amend the Tariff Act of 1930, so as to impose certain duties upon the importation of tuna fish, and for other purposes); February 4, 5, 6, and 7, 1952; 422 p., printed, illus. This transcript contains the text of the bill and the testimony for and against the bill presented at the Senate hearings by Government agencies and various segments of the fishery industries. With this transcript the Senate Committee did not submit its recommendations to the Senate regarding passage of the bill. The Bill, which was introduced in October 1951 during the last session of Congress, provides for a duty of 3 cents a pound on imports of

fresh and frozen tuna, whether or not whole; for the U. S. Tariff Commission to undertake an investigation of the competitive position of the domestic tuna industry including the effect of imports of fresh or frozen tuna on the livelihood of American fishermen, and to report the results of this investigation to the Congress on or before January 1, 1953; and directs the Secretary of the Interior to make a comprehensive study of the long-range position of the domestic tuna industry and recommend such measures as may be appropriate to promote necessary adjustments so that the industry may achieve and maintain a sound position in the domestic economy, with report to be submitted to Congress by Jan. 1, 1953. The bill passed the House of Representatives in October 1951.

NEW FISHERY PRODUCTS

The success with which Labrador natives froze fish by natural means is said to have been the forerunner of the modern frozen-food industry. Freezing foods during periods of abundance when supply costs are lower have brought prices for quality foods within the reach of nearly everyone's pocketbook the year round. This, plus providing foods in consumer-size packages which take a minimum of preparation, has made the frozen-food industry a multimillion dollar business.

New fishery products which seek consumer acceptance are entering frozen food cabinets all the time. Domestically packed, one-pound packages of frozen freshwater fish fillets are a recent development. Frozen fillets of lake trout, walleyed pike, blue pike, yellow perch, whitefish, and northern pike or pickerel are among the products a Great Lakes' company plans to have on the market in the next few months.

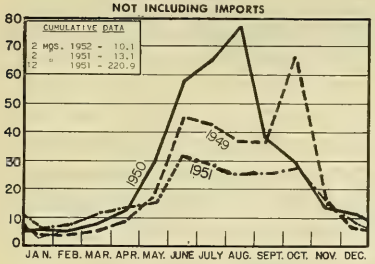
A frozen shrimp cocktail for two persons is being packaged in a novel, circular, clear-plastic container as an addition to the specialty items available to time-conscious consumers. The cooked and de-veined shrimp are packed in an outer ring which surrounds an inner plastic container holding a prepared cocktail sauce. Since colored plastic cocktail picks are included, the busy homemaker only needs to thaw the product, and remove the lids of the outer and inner packages to serve a complete shrimp cocktail.

Another frozen shrimp product, now on the market in considerable volume, is also designed to ease the work of preparing shrimp in the home. Although not peeled, these shrimp are de-veined before packing by an ingenious method that results in little loss of weight. A cut is made through the shell to expose the vein so that it can be removed by jets of water under pressure. The processing of the shrimp before packing gives the homemaker another break--only two minutes of boiling and these shrimp are ready for the table.

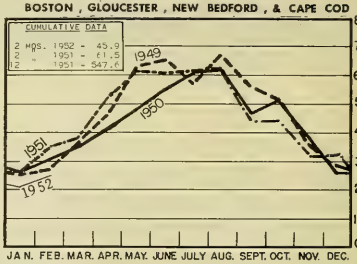
LANDINGS AND RECEIPTS

In Millions of Pounds

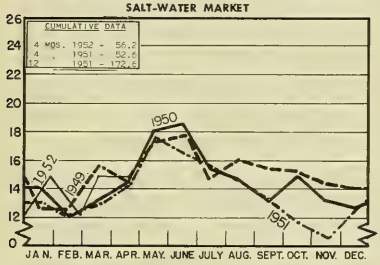
MAINE - LANDINGS
NOT INCLUDING IMPORTS



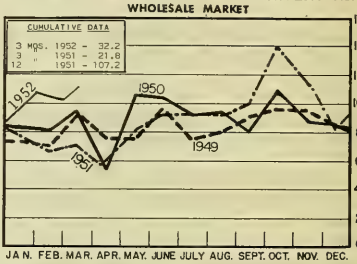
MASSACHUSETTS - LANDINGS
BOSTON, GLOUCESTER, NEW BEDFORD, & CAPE COD



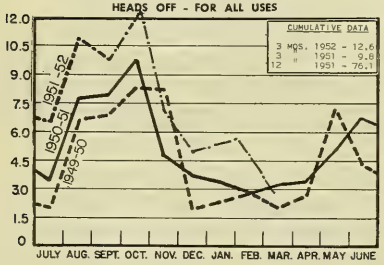
NEW YORK CITY-RECEIPTS OF FRESH & FROZEN FISH
SALT-WATER MARKET



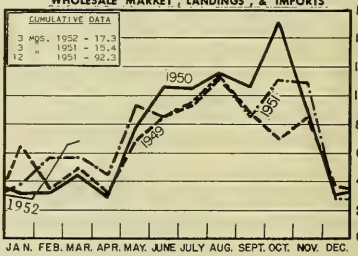
CHICAGO - RECEIPTS OF FRESH & FROZEN FISH
WHOLESALE MARKET



GULF - SHRIMP LANDINGS
HEADS OFF - FOR ALL USES

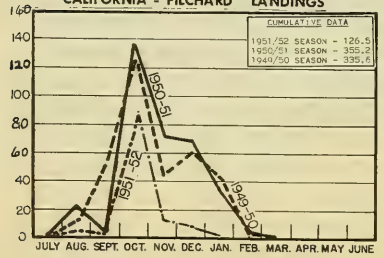


SEATTLE - RECEIPTS OF FRESH & FROZEN FISH
WHOLESALE MARKET, LANDINGS, & IMPORTS

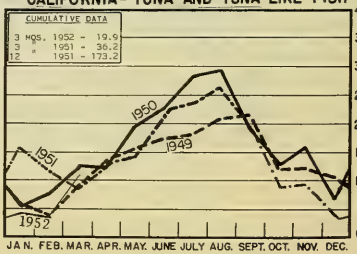


In Thousands of Tons

CALIFORNIA - PILCHARD LANDINGS



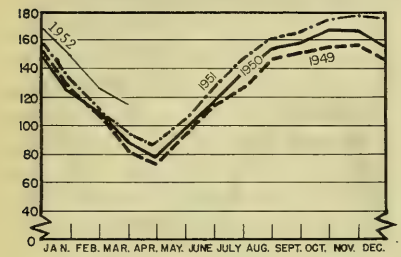
CALIFORNIA - TUNA AND TUNA-LIKE FISH



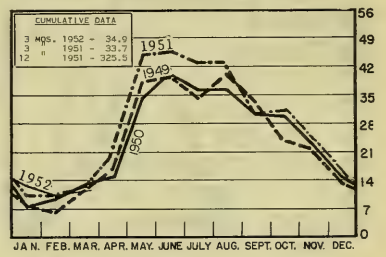
COLD STORAGE HOLDINGS and FREEZINGS of FISHERY PRODUCTS

In Millions of Pounds

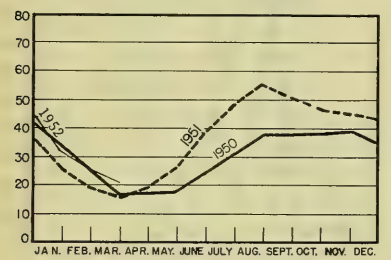
U.S. & ALASKA - HOLDINGS OF FROZEN FISH



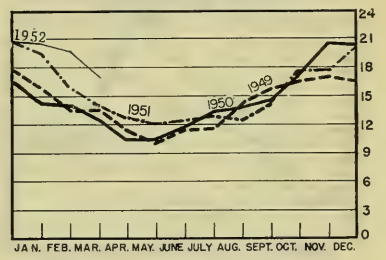
U.S. & ALASKA - FREEZINGS



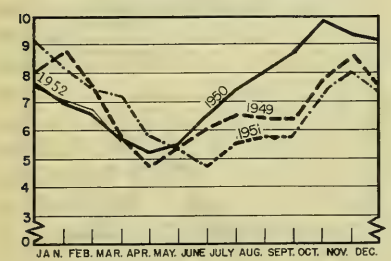
NEW ENGLAND - HOLDINGS OF FROZEN FISH



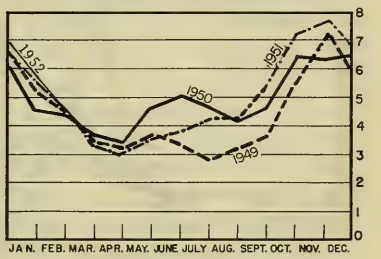
NEW YORK CITY - HOLDINGS OF FROZEN FISH



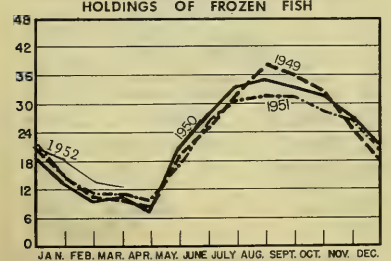
CHICAGO - HOLDINGS OF FROZEN FISH



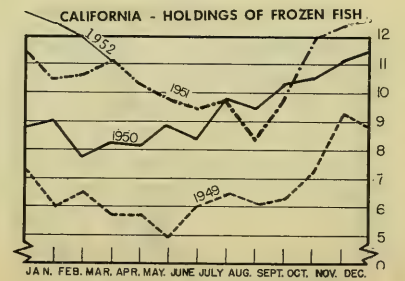
GULF - HOLDINGS OF FROZEN FISH



WASHINGTON, OREGON, AND ALASKA - HOLDINGS OF FROZEN FISH



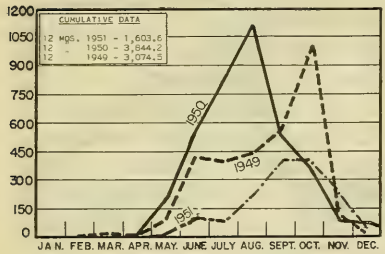
CALIFORNIA - HOLDINGS OF FROZEN FISH



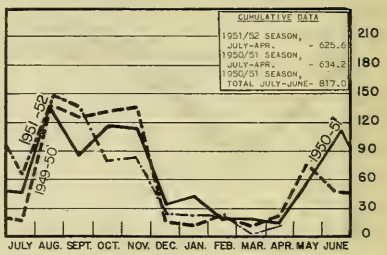
CANNED FISHERY PRODUCTS

In Thousands of Standard Cases

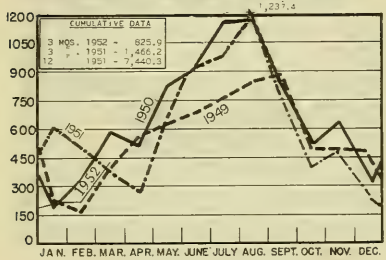
MAINE - SARDINES, ESTIMATED PACK



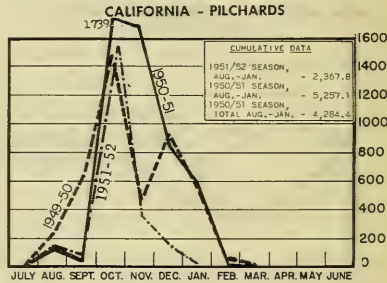
UNITED STATES - SHRIMP



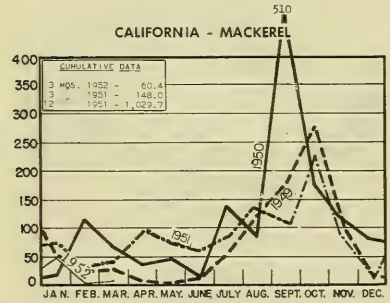
CALIFORNIA - TUNA AND TUNA-LIKE FISH



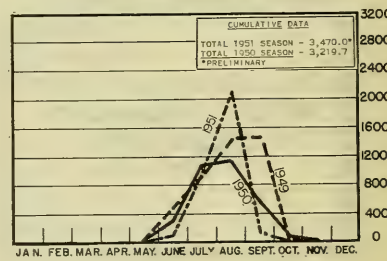
CALIFORNIA - PILCHARDS



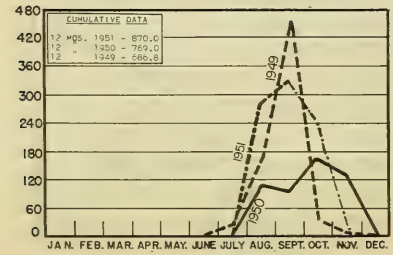
CALIFORNIA - MACKEREL



ALASKA - SALMON



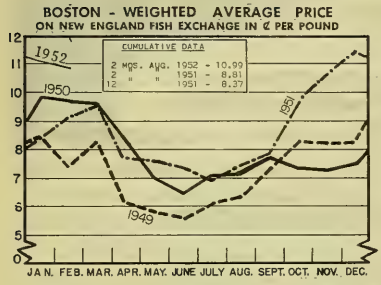
WASHINGTON - PUGET SOUND SALMON

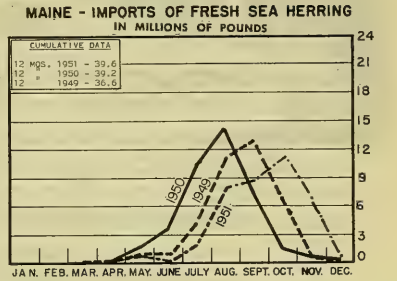


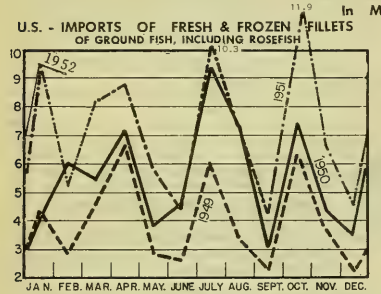
STANDARD CASES

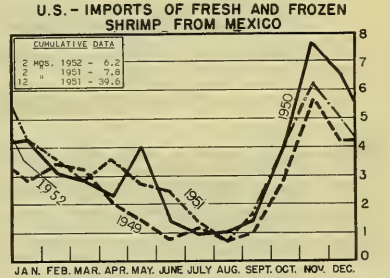
Variety	No. Cans	Can Designation	Net. Wgt.
SARDINES	100	1/4 drawn	3 1/4 oz.
SHRIMP	48	—	7 oz.
TUNA	48	No. 1/2 tuna	7 oz.
PILCHARDS	48	No. 1 oval	15 oz.
MACKEREL	48	No. 300	15 oz.
SALMON	48	1-pound tall	16 oz.

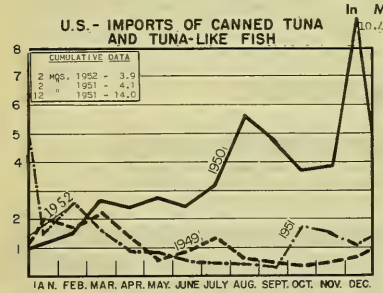
PRICES . IMPORTS and BY-PRODUCTS

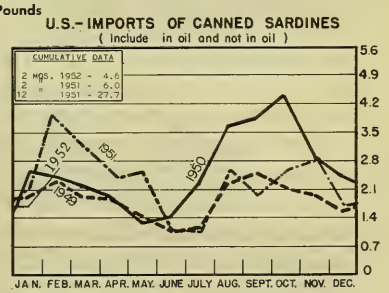


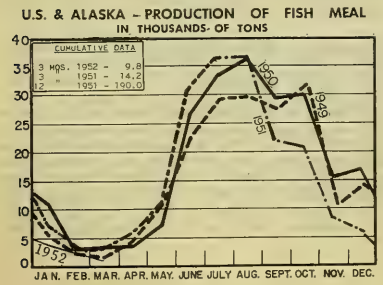


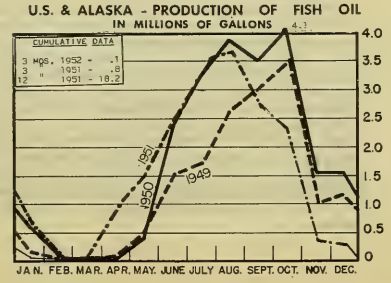












Recent publications of interest to the commercial fishing industry are listed below.

FISH AND WILDLIFE SERVICE PUBLICATIONS

THESE PROCESSED PUBLICATIONS ARE AVAILABLE FREE FROM THE DIVISION OF INFORMATION, U. S. FISH AND WILDLIFE SERVICE, WASHINGTON 25, D. C. TYPES OF PUBLICATIONS ARE DESIGNATED AS FOLLOWS:

CFS - CURRENT FISHERY STATISTICS OF THE UNITED STATES AND ALASKA.
SEP.- SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES REVIEW.
SSR.-FISH - SPECIAL SCIENTIFIC REPORTS--FISHERIES (LIMITED DISTRIBUTION).

Number Title

CFS-700 - FLORDIA LANDINGS, Sept. 1951, 4 p.
CFS-710 - FLORDIA LANDINGS, Oct. 1951, 4 p.
CFS-712 - ALASKA FISHERIES, 1950 Annual Summary, 6 p.
CFS-715 - TEXAS LANDINGS, Nov. 1951, 4 p.
CFS-718 - ALABAMA LANDINGS, Nov. 1951, 4 p.
CFS-719 - FLORIDA LANDINGS, Nov. 1951, 4 p.
CFS-721 - FROZEN FISH REPORT, 1951 Annual Summary, 14 p.
CFS-724 - TEXAS LANDINGS, Dec. 1951, 4 p.
CFS-729 - MISSISSIPPI LANDINGS, Dec. 1951, 2 p.

Number Title

CFS-730 - FROZEN FISH REPORT, Feb. 1952, 8 p.
CFS-732 - TEXAS LANDINGS, Jan. 1952, 4 p.
CFS-733 - MAINE LANDINGS, Dec. 1951, 4 p.
CFS-740 - TEXAS LANDINGS, Feb. 1952 4 p.
SSR-Fish. No. 67 - Salmon Research at Deer Creek, Calif., by Frederick K. Cramer, 18 p., illus., January 1952.

Sep. 309 - Report on 1951 Exploratory Bluefin-Tuna Fishing in the Gulf of Maine.

MISCELLANEOUS PUBLICATIONS

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE AGENCIES ISSUING THEM. CORRESPONDENCE REGARDING PUBLICATIONS THAT FOLLOW SHOULD BE ADDRESSED TO THE RESPECTIVE AGENCIES OR PUBLISHERS MENTIONED. DATA ON PRICES, IF READILY AVAILABLE, ARE SHOWN.

The Battle for Production (Fourth Quarterly Report to the President by the Director of Defense Mobilization), 56 p., illus., printed, 35 cents. Office of Defense Mobilization, Washington, D.C. (For sale by Superintendent of Documents, Washington 25, D. C.), January 1, 1952. This is the fourth quarterly report on the defense mobilization program of the United States. It covers the work of the participating defense agencies and reports not only on the work of the past quarter but to some extent reviews the whole of the year 1951, a year of progress. Included are discussions on military production, expansion of our basic economy, the impact of material shortages, meeting our transportation needs, providing manpower for defense, meeting the challenge of inflation, building the collective strength of the free world, minimizing the effects of enemy attack, and defense mobilization in the year ahead.

British Columbia Catch Statistics (By Area and Type of Gear), December 1951 and January 1952, 5 p. and 6 p., respectively, processed. Department of Fisheries of Canada, Pacific Area, Vancouver 5, B. C. Preliminary reports of weekly catch statistics for British Columbia by area and type of gear. These reports are issued monthly.

British Columbia Catch Statistics 1951 (By Area and Type of Gear), 117 p., processed. Department of Fisheries of Canada, Pacific Area, Vancouver 5, B. C. This compilation represents the first annual report based on the multiple sales slip system that was introduced on a Province-wide basis on January 1, 1951. This multiple sales slip system requires that each time a fisherman delivers fish to a company or buyer, the tallyman must complete a sales slip, one copy of which must be sent to the Dominion Department of Fisheries for statistical purposes. This final report represents the

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total British Columbia catch of fish in 1951 by area of catch and type of gear as reported on sales slips. The catch statistics are divided in this report so that the catch of salmon and other fish are shown on one page. The front of each area page shows the salmon catch by months, while the reverse side shows other fish (not including shellfish), and in addition shows the number of days fishing by each type of gear for both salmon and other fish. Shellfish landings by area are shown in a separate section.

(British Columbia) Provincial Department of Fisheries Report (with Appendices, For the Year Ended December 31, 1950), 112 p., illus., printed. Provincial Department of Fisheries, Victoria, B. C., 1951. The first section of this report is devoted to an analysis of British Columbia's 1950 production and value of fishery products, the canned salmon pack, and a review of the salmon canning industry. Also discussed are the other canning industries (pilchard, herring, tuna and shellfish), the production of processed fish (mild-cured salmon, dry-salt salmon, dry-salt herring, and pickled herring), the halibut fishery, fish oil and meal, net fishing in non-tidal waters, value of Canadian fisheries and the standing of the provinces for 1949, species and value of fish caught in British Columbia, condition of British Columbia's salmon-spawning grounds, and the herring investigation. The second section of this report includes the following articles: "Contributions to the Life-History of the Sockeye Salmon," Paper (No. 36), by D. R. Foskett; "Results of the West Coast of Vancouver Island Herring Investigation, 1950-51," by J. C. Stevenson, A. S. Hourston, and J. A. Lanigan; "The Seasonal Growth of the Pacific Oyster (Ostrea gigas) in Ladysmith Harbour" by D. B. Quayle; "Report of the International Fisheries Commission, 1950," "Report on the Investigations of the International Pacific Salmon Fisheries Commission for 1950," and the "Salmon-spawning Report, British Columbia, 1950." Statistical data on the British Columbia fisheries are also included.

(California): Salmon of California, The Striped Bass, Abalone, and Yellowfin Tuna, all four publications by Edward E. Clay, School Wildlife Leaflet Nos. 3, 5, 7 and 9, respectively, 4 p. each, illus., printed. California Division of Fish and Game, Sacramento 14, Calif. These leaflets are designed primarily for use in the elementary schools. They describe briefly the habits of the specific fish or shellfish of California covered in the leaflet and the conservation of these fisheries.

(Canada) Fisheries Statistics of Canada, 1947 and 1948, 129 p., printed, 50 cents. Department of Trade and Commerce, Dominion Bureau of Statistics, Ottawa, Canada. This is a review of the fishery statistics of Canada for 1947 and 1948 prepared in collaboration with Dominion and Provincial Fisheries Departments. It includes data on the quantity and value of the catch of fishery products for Canada as a whole, production of fish oils and fish meal, employment in fish-processing establishments, and value of exports and imports of fishery products. The publication also contains data on the total value of the fisheries, by province, for 1939-1948, and Canada's lobster pack, by province, for 1928-1948.

Fifth International Edinburgh Film Festival 1951 Report, by Elliot A. Macklow, 28 p., illus., printed. Department of State, Washington 25, D.C. This report describes the International Edinburgh Film Festival, how to enter a film, method of selection and recommendations, and gives advice to entrants. Among other items, it lists the United States Government productions which were submitted for consideration, as well as noteworthy non-government U. S. films and foreign films. The Fish and Wildlife Service's "The Story of Menhaden" was one of four films selected for programming, thus receiving the Film Festival's highest honor. This report contains information aimed to aid those charged with the important responsibility of selecting the films which represent the United States at subsequent Edinburgh Film Festivals.

First Report to Congress on the Mutual Security Program...for a strong and free world, 84 p., illus., printed. Mutual Security Agency, Washington, D. C., December 31, 1951. This report reviews the steps being taken with other nations to build up the strength of the free world, in support of the principles of the Charter of the United Nations.

Fisheries in Madras State, by Minister for Food and Fisheries, 42 p., illus., printed. The Director of Information and Publicity, Government of Madras, India, 1951. This brochure describes briefly the various problems relating to the fisheries of the State of Madras and the measures taken by the Government to intensify production, expedite transport, and ensure preservation and marketing of fish. Among the subjects covered are: early history of the Department of Fisheries and its research activities; fisheries training program; inland fishery development; fishery technology research; and marine fishery exploitation and research.

Fisheries Programs in Japan, 1945-51, compiled by William C. Neville, Report No. 152, 56 p., illus., processed. Natural Resources Section, Supreme Commander for the Allied Powers, Tokyo, Japan, December 1951. (Reports may be purchased only in photostat or microfilm from the office of Technical Services, U. S. Department of Commerce, Washington 25, D. C.) This report discusses the development of the Japanese fishery programs since 1945 when they were undertaken by the Fisheries Division of SCAP's Natural Resources Section; the rehabilitation of the Japanese fishing industry; fishery reforms; and orientation on policies and programs. Included are data on production, number and gross tonnage of Japanese fishing fleet, important materials used by Japanese fisheries, catch and production of Japanese Antarctic Whaling Expeditions, and production of nine tuna expeditions. A list of the reports and publications on Japanese fisheries issued by the Fisheries Division of SCAP's Natural Resources Section also appears in this booklet.

The General Principles of Smoke-Curing of Fish, by C. L. Cutting, Food Investigation Leaflet No. 13, 18

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE AGENCIES ISSUING THEM.

p., printed, 9d. net (about 11 US cents). Torry Research Station, Department of Scientific and Industrial Research, Aberdeen, Scotland, 1951. (Available from British Information Services, 30 Rockefeller Plaza, New York 20, N. Y.) This leaflet discusses the preparation of fish for smoke-curing; the different types of smoking; and packing, chilling and cold-storage of smoked fish. The characteristics of the more important types of smoked fish in Great Britain, with some approximate percentage yields by weight and approximate composition of the different products, are also summarized. Included is a table giving the approximate storage life of different types of smoke-cured fishery products.

"Inshore Fisheries of South Africa," by Peter Scott, article, Economic Geography, vol. 27, no. 2, April 1951, pp. 123-147, illus., printed, $1.50. Clark University, Worcester, Massachusetts. This article discusses the economic importance of the inshore fisheries of South Africa; oceanographic conditions affecting regional productivity; fish and shellfish; other inshore products; line-fishing grounds; weather, winds, and harbors; fishing craft and fishermen; fishing gear; regulation of the inshore fisheries; handling and marketing the catch; and expansion problems and the future of the South African inshore fisheries.

1951 Annual Report of the Secretary of the Interior (Fiscal Year Ended June 30, 1951), 506 p., printed, indexed, $1.00. U. S. Department of the Interior, Washington, D. C. (For sale by the Superintendent of Documents, Washington, D. C.) In addition to an article ("Resources for Defense"), this publication contains the annual reports of the various agencies of the Department of the Interior, including the Fish and Wildlife Service and the Defense Fisheries Administration. Included in the Fish and Wildlife Service report are summaries of the various activities of that agency. Specifically discussed are utilization of fishery resources (describes the activities of the Branch of Commercial Fisheries); administration of Alaska fisheries; Pribilof Islands fur-seal industry; research in fishery biology (river, marine and inland fisheries); maintenance of inland fisheries; international cooperation in conservation (international conservation agreements and technical cooperation); Federal aid to state projects for the restoration of wildlife; river basin development and wildlife needs; administration of Federal statutes for protection of fish and wildlife; and other activities. Under the Defense Fisheries Administration section, a concise description of that agency and its functions are presented.

(Massachusetts) Third Report on Investigations of Methods of Improving the Shellfish Resources of Massachusetts, by Harry J. Turner, Jr., Contribution No. 564, 31 p., illus., printed. Woods Hole Oceanographic Institution, Woods Hole, Mass., December 31, 1950. This is a summary of the investigations of methods of improving the shellfish resources of Massachusetts which were carried out in 1950 by the Woods Hole Oceanographic Institution under contract with the Division of Marine Fisheries, Massachusetts Department of Conservation. This report includes the following articles: "Investigations on the Soft-Shell Clam, Mya arenaria," by Harry J. Turner, Jr.; "Feeding Activities of the Boring Snail, Polynices duplicata" by David B. Sawyer; "Observations on the Natural History of the American Horseshoe Crab, Limulus polyphemus," by Carl N. Shuster, Jr., "Investigations of the Sea Scallop, Pecten grandis," by Julius Arthur Posgay; and "Growth of the North Pacific Oyster, Ostrea gigas, in Massachusetts," by Harry J. Turner, Jr.

Fourth Annual Report of the Pacific Marine Fisheries Commission for the Year 1951 (To the Congress of the United States and to the Governors and Legislatures of Washington, Oregon and California), 15 p., printed. Pacific Marine Fisheries Commission, Portland, Oregon. The activities and a short resume of the meetings of the Commission during 1951 are given in this report. Also included are summaries of reports submitted by the participating agencies on the research conducted in 1951 on the following marine species and fisheries: ocean salmon, albacore tuna, sardine (pilchard), sablefish (black cod), and the otter-trawl fishery. In addition a financial report of the Commission appears in the report.

Salmon Rehabilitation and Hatcheries, 7 p., illus., printed. Washington State Department of Fisheries, Seattle, Washington. Describes the role of the modern salmon hatchery, developments in artificial propagation, hatching methods, and the Washington Department of Fisheries salmon rehabilitation program. A description of the Pacific salmon family is also included.

Systematic List of Economic Aquatic Animals and Plants in Japan, by T. Ino, Report No. 151, 81 p., processed. Natural Resources Section, Supreme Commander for the Allied Powers, Tokyo, Japan, 1951. (Reports may be purchased only in photostat or microfilm from the Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C.) The economic aquatic animals and plants in Japan are listed in this report, together with their scientific names and English and Japanese equivalents. Their fields of economic usefulness is also presented. It was compiled to help clarify the countless local vernacular names for fish, shellfish, and seaweed as used in the various parts of Japan. A total of 856 species and 581 genera are listed.

Systematic List of Fishes of the Ryukyu Islands, by Yoshio Hiyama, Report No. 150, 49 p., illus., processed. Natural Resources Section, Supreme Commander for the Allied Powers, Tokyo, Japan, 1951. (Reports may be purchased only in photostat or microfilm from the Office of Technical Services, U. S. Department of Commerce, Washington 25, D. C.) This report lists fishes of the Ryukyu Islands with their scientific names and Ryukyuan, Japanese, and English equivalents. A total of 135 species has been listed together with 62 illustrations of some of the more important and common fishes.

Supplement III to United States Import Duties (1950), 34 p., processed. U. S. Tariff Commission, Washington, D. C., January 1952. This is the third supplement to United States Import

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Duties (1950), bringing that publication up to date. Supplement II showed certain changes in duties resulting from the trade-agreement negotiations conducted at Torquay, England. Since Supplement II was issued, most of the remainder of the tariff concessions negotiated at Torquay have been put into effect. Also certain additional concessions initially negotiated with China at the 1947 Geneva trade conference have been withdrawn. Changes in duties resulting from these and other actions are indicated in this Supplement III. Some of the changes affect fishery products imports. Plans are in progress for the issuance in about six months of a new edition of the basic document.

CONTENTS, CONTINUED

	PAGE
FOREIGN (CONT.):	
INDIA:	
DEVELOPMENT OF FISHERIES IN MADRAS STATE	39
IRISH FREE STATE:	
FISHING INDUSTRY REORGANIZATION PLANNED	40
JAMAICA:	
FISH-MEAL MANUFACTURE SEEN AS NEW INDUSTRY POSSIBILITY	40
JAPAN:	
EXPANSION OF FISHING OPERATIONS IN EAST CHINA SEA	41
KENYA:	
NEW FISHING GROUNDS FOUND OFF KENYA COAST	42
LEBANON:	
POINT FOUR SPECIALIST TO ADVISE LEBANON ON EXPANSION OF FISH INDUSTRY	42
MEXICO:	
PRODUCERS SEEK CLOSED SEASONS FOR CERTAIN FISHERIES	43
GUAYMAS SHRIMP-FREEZING PLANTS CLOSED	43
NEW OFFICIAL CANNED SARDINE PRICE ESTABLISHED FOR EXPORT DUTY PURPOSES	43
SHRIMP EXPORT DUTIES INCREASED	43
NATIONAL CHAMBER OF FISHERY INDUSTRY FORMULATES OBJECTIVES	45
NORWAY:	
1952 WINTER HERRING CATCH AND UTILIZATION	45
FISH-LIVER OIL DEMAND SLACK	45
SEALING FLEET LEAVES FOR NEWFOUNDLAND	46
KLIPFISH STOCKS SOLD	46
NORWEGIAN RESEARCH VESSEL FOLLOWS WINTER HERRING MIGRATION	46
NEW METHOD FOR PROCESSING DRY-SALTED COD	46
SAUSAGE CASING FROM SEAWEED	46
PANAMA:	
REVIEW OF THE FISHERIES, 1951	47
FOREIGN (CONT.):	
SPAIN:	
FISH CANNING TRENDS IN VIGO DISTRICT, 1951	48
NEW FISHING VESSELS FOR COD FISHERIES	48
UNITED KINGDOM:	
UNDERWATER TELEVISION MAY BE USED TO EXPLOIT WORLD'S FISHERIES	48
U. S. S. R.:	
REFRIGERATED FISH TRANSPORTS ORDERED FROM NETHERLANDS	49
VENEZUELA:	
FISHERIES TRENDS, 1951	49
FEDERAL ACTIONS:	51
DEPARTMENT OF COMMERCE:	
NATIONAL PRODUCTION AUTHORITY:	
CONTROLLED MATERIALS DELIVERIES BY DISTRIBUTORS	51
STEEL STRAPPING RESTRICTIONS REMOVED BY NPA	51
FEDERAL TRADE COMMISSION:	
PUBLIC REFRIGERATED STORAGE INDUSTRY TRADE PRACTICE RULES	52
INTERSTATE COMMERCE COMMISSION:	
TRUCK TRIP-LEASING RESTRICTION DELAYED	52
NEW INCREASE IN FREIGHT RATES AND CHARGES AFFECTS FISHERY PRODUCTS	52
EIGHTY-SECOND CONGRESS (SECOND SESSION), MARCH 1952	54
GRAPHS:	56
LANDINGS AND RECEIPTS	56
COLD STORAGE HOLDINGS AND FREEZINGS OF FISHERY PRODUCTS	57
CANNED FISHERY PRODUCTS	58
PRICES, IMPORTS, AND BYPRODUCTS	59
RECENT FISHERY PUBLICATIONS:	60
FISH AND WILDLIFE SERVICE PUBLICATIONS	60
MISCELLANEOUS PUBLICATIONS	60

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* * * * * *

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p. 22--Norman B. Wigutoff.

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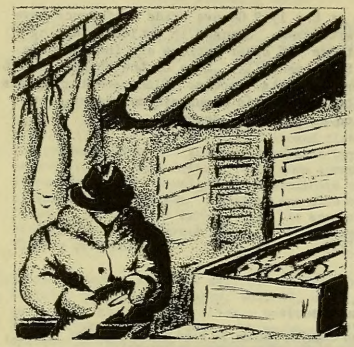
BIBLIOGRAPHY OF THE PRESERVATION OF FISHERY PRODUCTS

Fishery Leaflet 265, Bibliography of the Preservation of Fishery Products By Freezing, contains references on the freezing of fishery products as far back as 1898 and covers the subject quite throughly from about 1920 to December 1947, inclusive. This 87-page bibliography contains articles from many journals and books. In the majority of cases the original article was procured. To make the bibliography more valuable, a brief summary of each article is included.



Divided into two parts, Part I covers the period to January 1945 and is a reissue; and Part II covers the period of January 1945 to December 1947, inclusive, and has been issued as a supplement. Those who already have Part I, can obtain only Part II to complete the leaflet, while others can obtain both parts.

This is the final issue of this bibliography. More recent literature in the field of frozen fishery products is covered in the Service's publication, Commercial Fisheries Abstracts.

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DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
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