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

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### TABLE OF CONTENTS

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

### 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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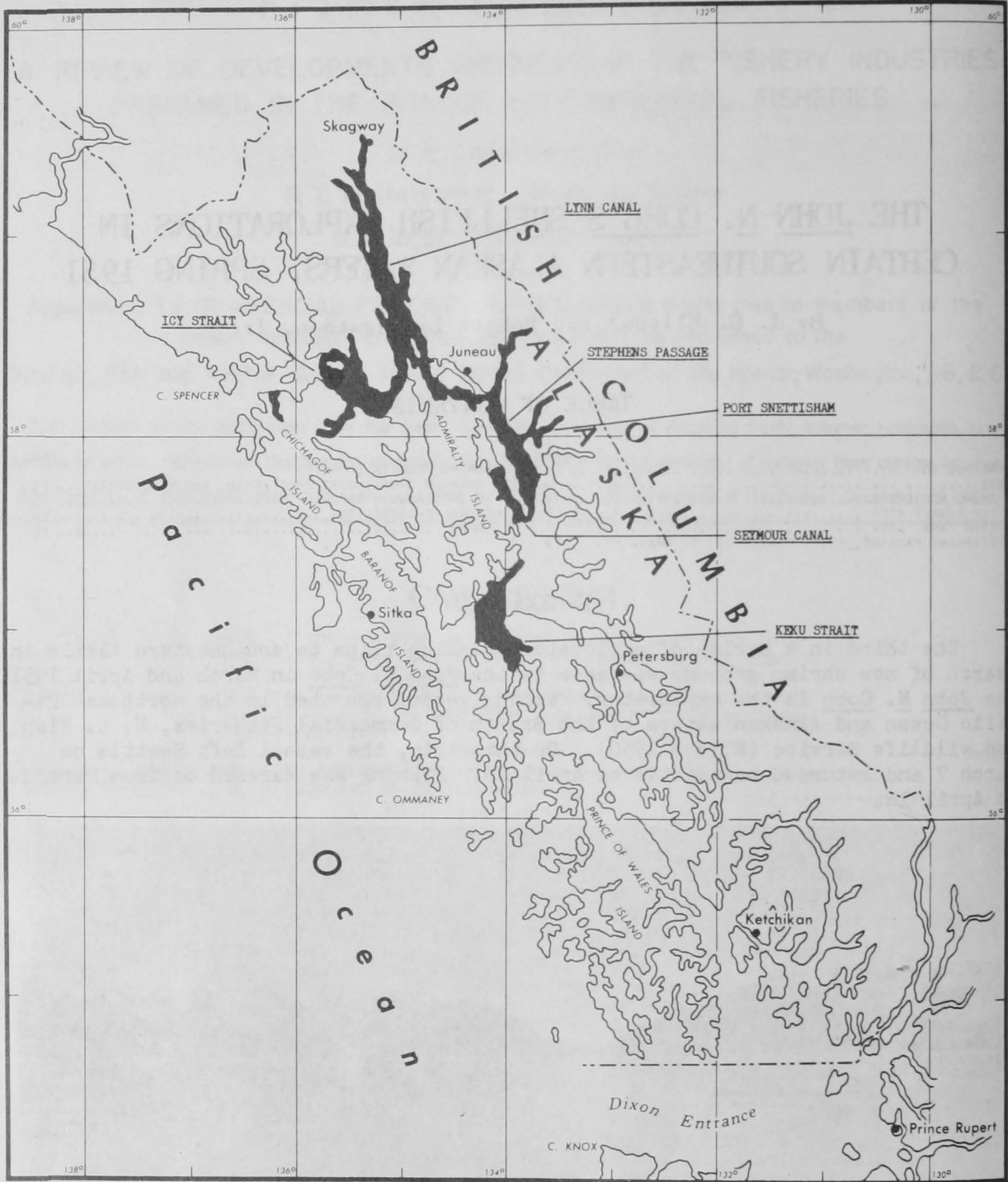
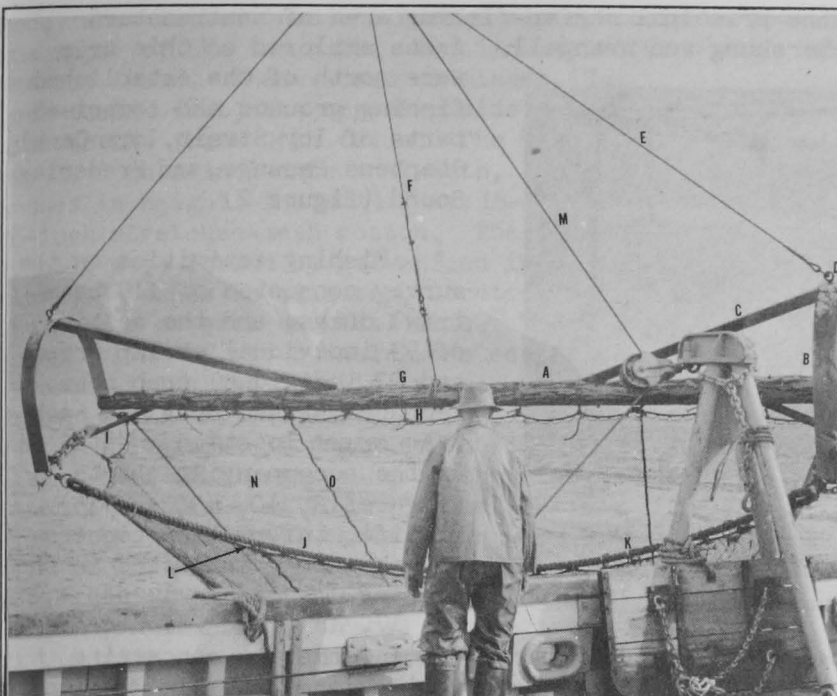
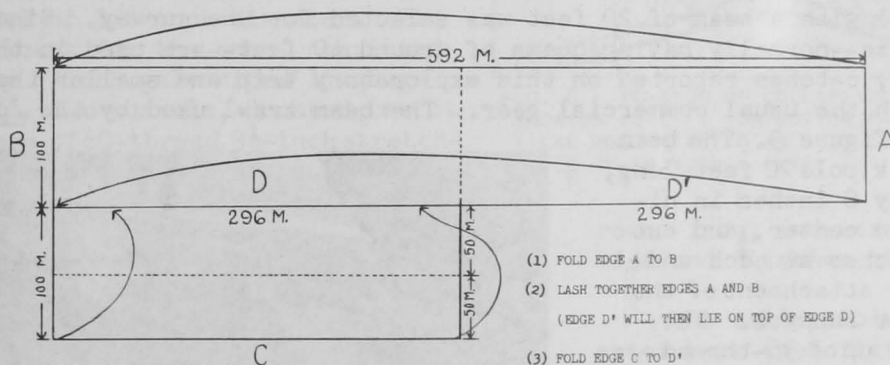


FIG. 2 - SOUTHEASTERN ALASKA. SHADED AREA WAS EXPLORED FOR SHELLFISH IN MARCH AND APRIL 1951.

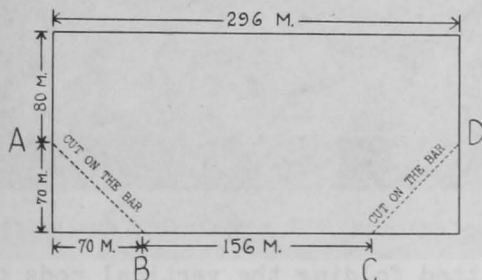


A. Beam trawl being lifted aboard.

- A. BEAM: 20 feet long, approximately 8 inches in diameter at center and leveled off at each end to allow attachment of "WD" frames or runners.
- B. "WD" 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 500 bucket twine used to hang the net to H and L, top hanging line attached to beam every fifth hanging.
- I. IRON-BAR BRACE: ½ inch by 3 inches, 3-foot 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 42½; 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.



- (1) FOLD EDGE A TO B
- (2) LASH TOGETHER EDGES A AND B  
(EDGE D' WILL THEN LIE ON TOP OF EDGE D)
- (3) FOLD EDGE C TO D'
- (4) LASH TOGETHER EDGES C AND D'



- (5) CUT THE FOLDED WEB AS FOLLOWS:  
A TO B  
C TO D
- (6) LASH TOGETHER FROM A TO B
- (7) LASH TOGETHER FROM C TO D

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).

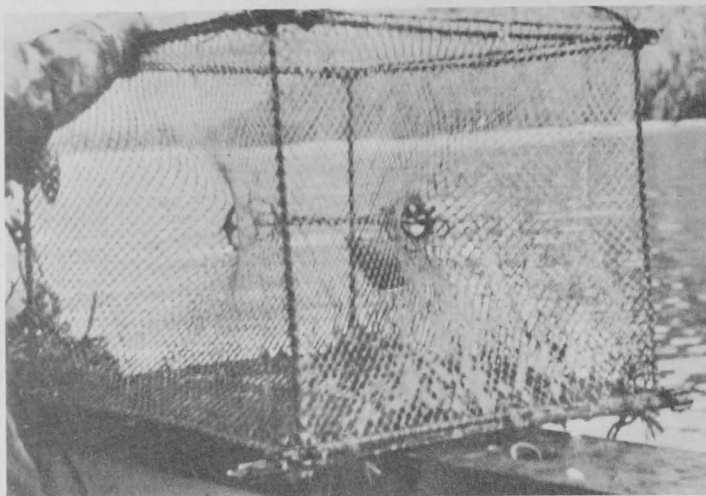


FIG. 4 - COLLAPSIBLE SHRIMP TRAP

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).

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

#### 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  $1\frac{1}{2}$ -inch stretched-mesh cotton netting.

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

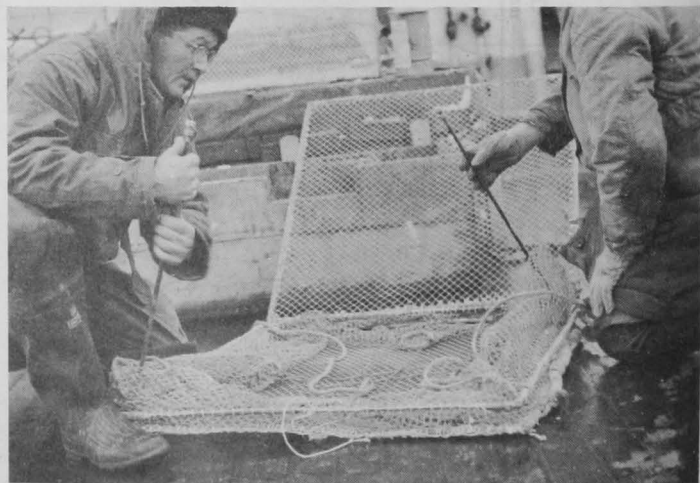


FIG. 5 - SETTING UP A COLLAPSIBLE SHRIMP TRAP.

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  $1\frac{1}{4}$ -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 shrimp trap 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.

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  $\frac{3}{8}$ -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  $3\frac{1}{2}$ -inch stretched-mesh cotton netting. The tunnel entrances were formed by  $\frac{1}{4}$ -inch galvanized



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

frame. A hook in the form of a reversed "S" was bent at the other end of each

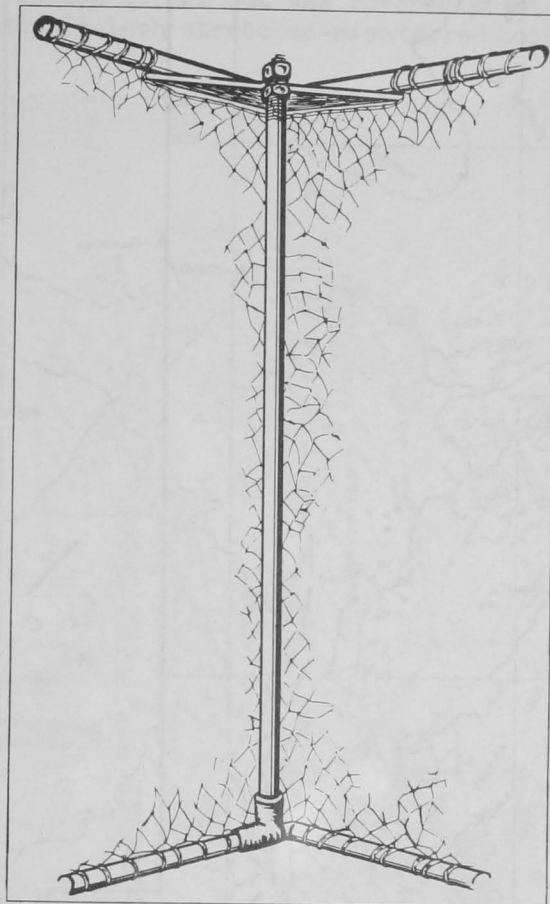


FIG. 6 - PORTION OF COLLAPSIBLE SHRIMP TRAP SHOWING PIPE "T" ON BOTTOM FRAME, AND VERTICAL ROD INSERTED IN SLOT AND LOCKED IN PLACE BY HEXAGONAL NUTS.

round iron, and were 11 inches wide and 5 inches high.

The collapsible pot, a patented type (see figure 9), had a top frame and a bottom frame made of galvanized iron rods of  $\frac{1}{4}$ -inch diameter and  $\frac{3}{8}$ -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  $\frac{3}{16}$ -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

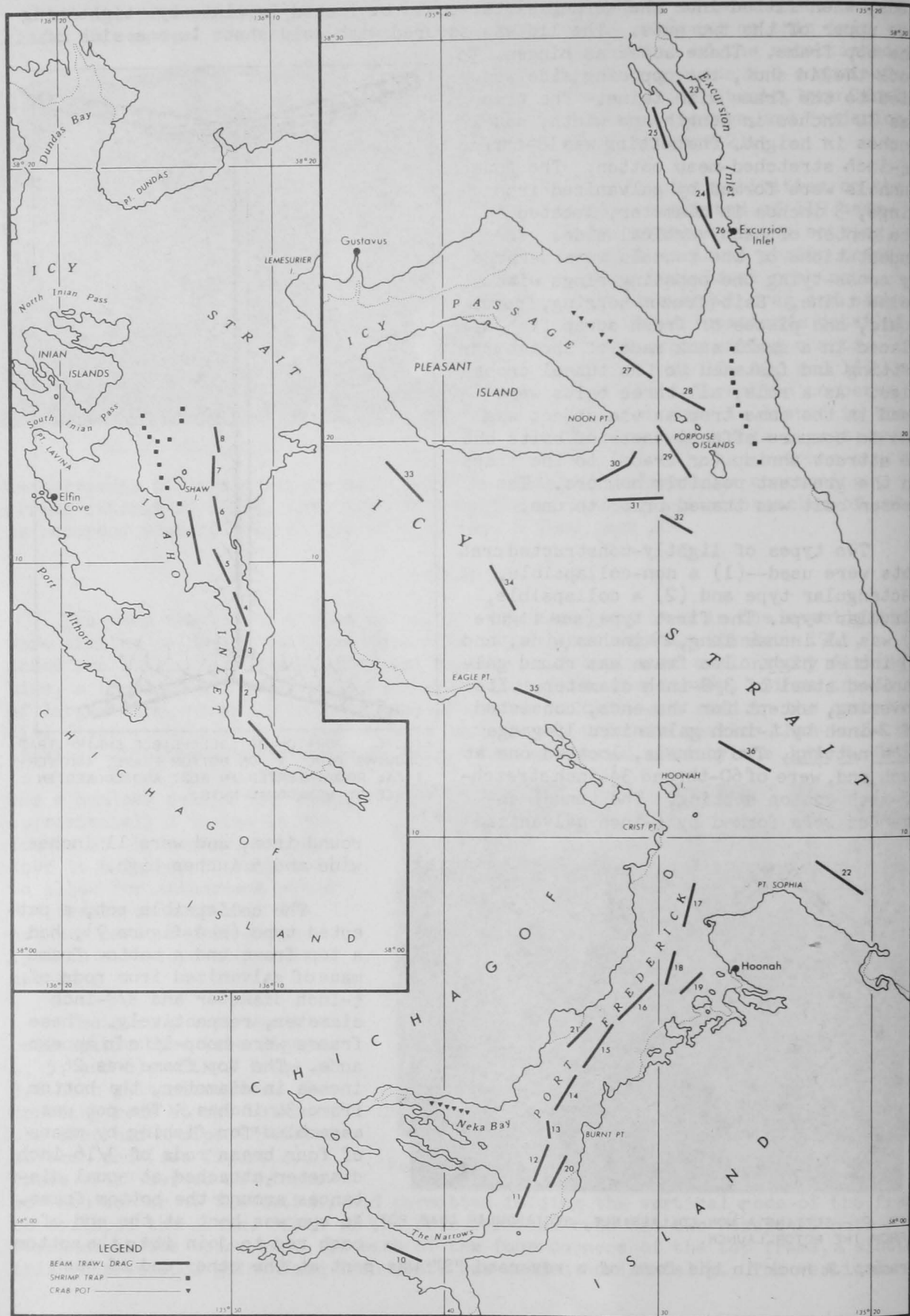


FIG. 8 - LOCATION OF BEAM-TRAWL DRAGS, AND SHRIMP-TRAP AND CRAB-POT SETS IN ICY STRAIT AREA.

rod to permit attachment to the upper frame. The pot had two tunnels, located opposite each other. Their entrances were  $7\frac{1}{2}$ -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,  $3\frac{1}{2}$ -inch stretched-meshtarred cotton netting.

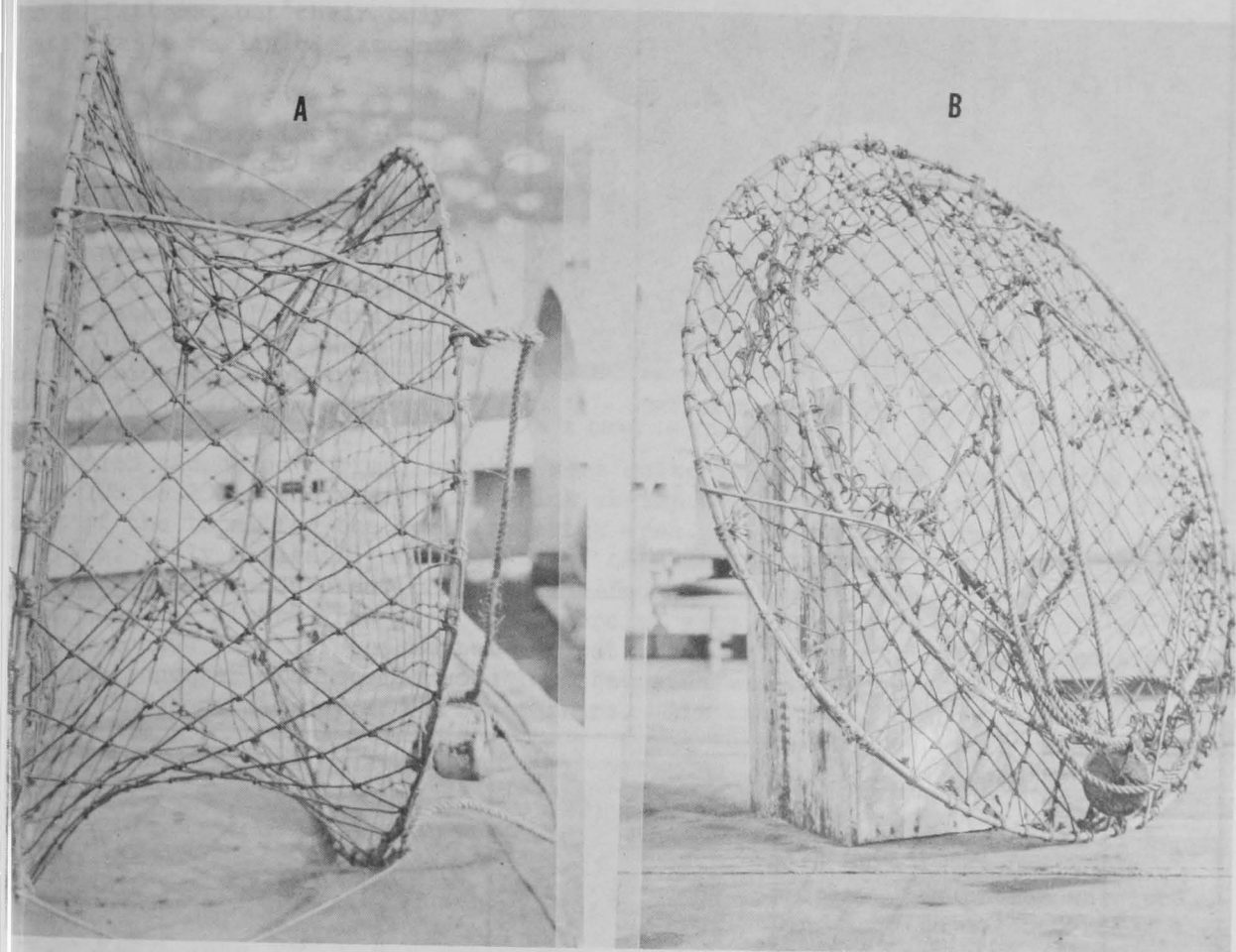


FIG. 9 - A CIRCULAR, COLLAPSIBLE CRAB POT.

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,<sup>1</sup> 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

<sup>1</sup> 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.

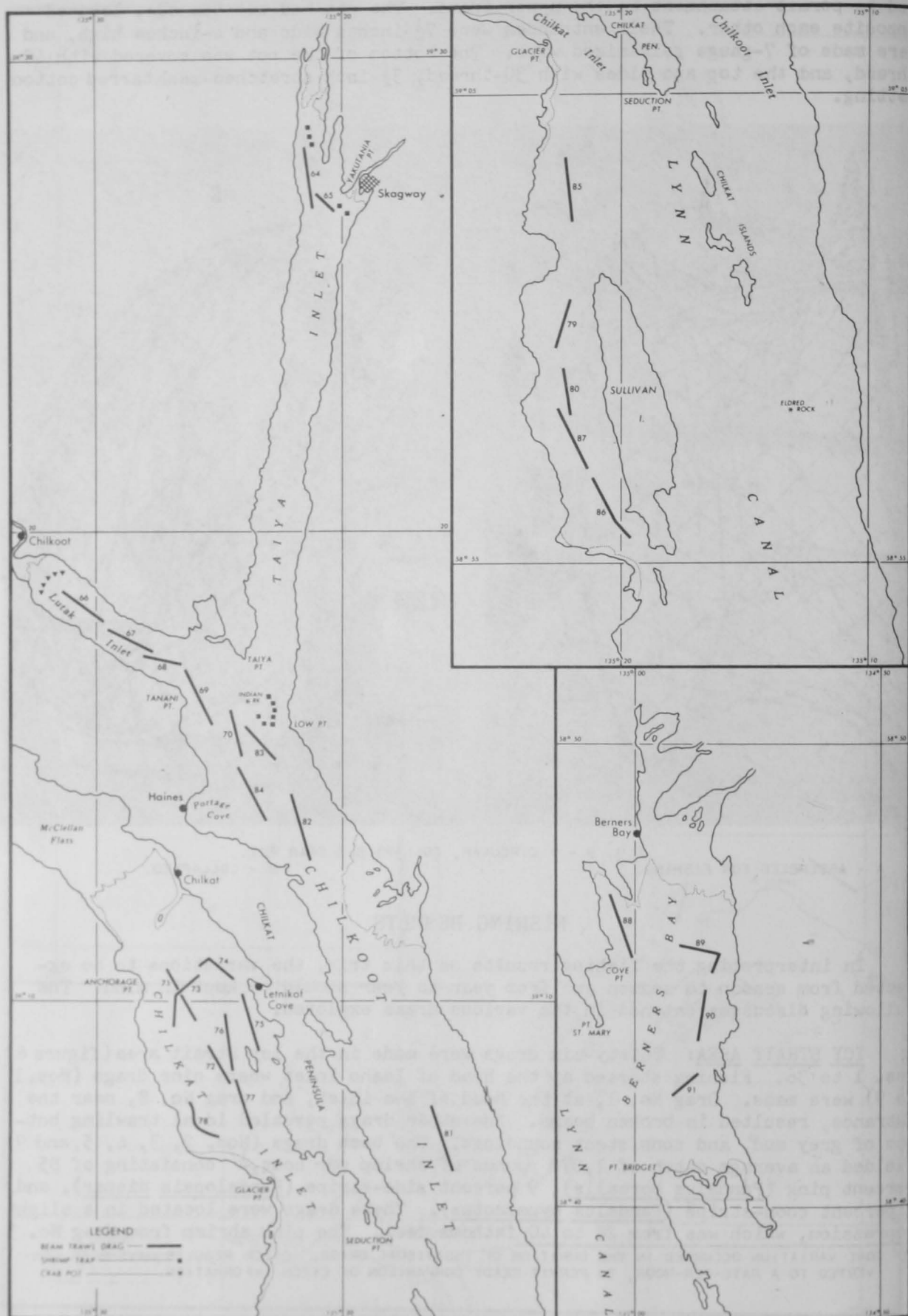


FIG. 10 - LOCATION OF BEAM-TRAWL DRAGS, AND SHRIMP-TRAP AND CRAB-POT SETS IN LYNN CANAL AREA.



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 shrimptraps 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.

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



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

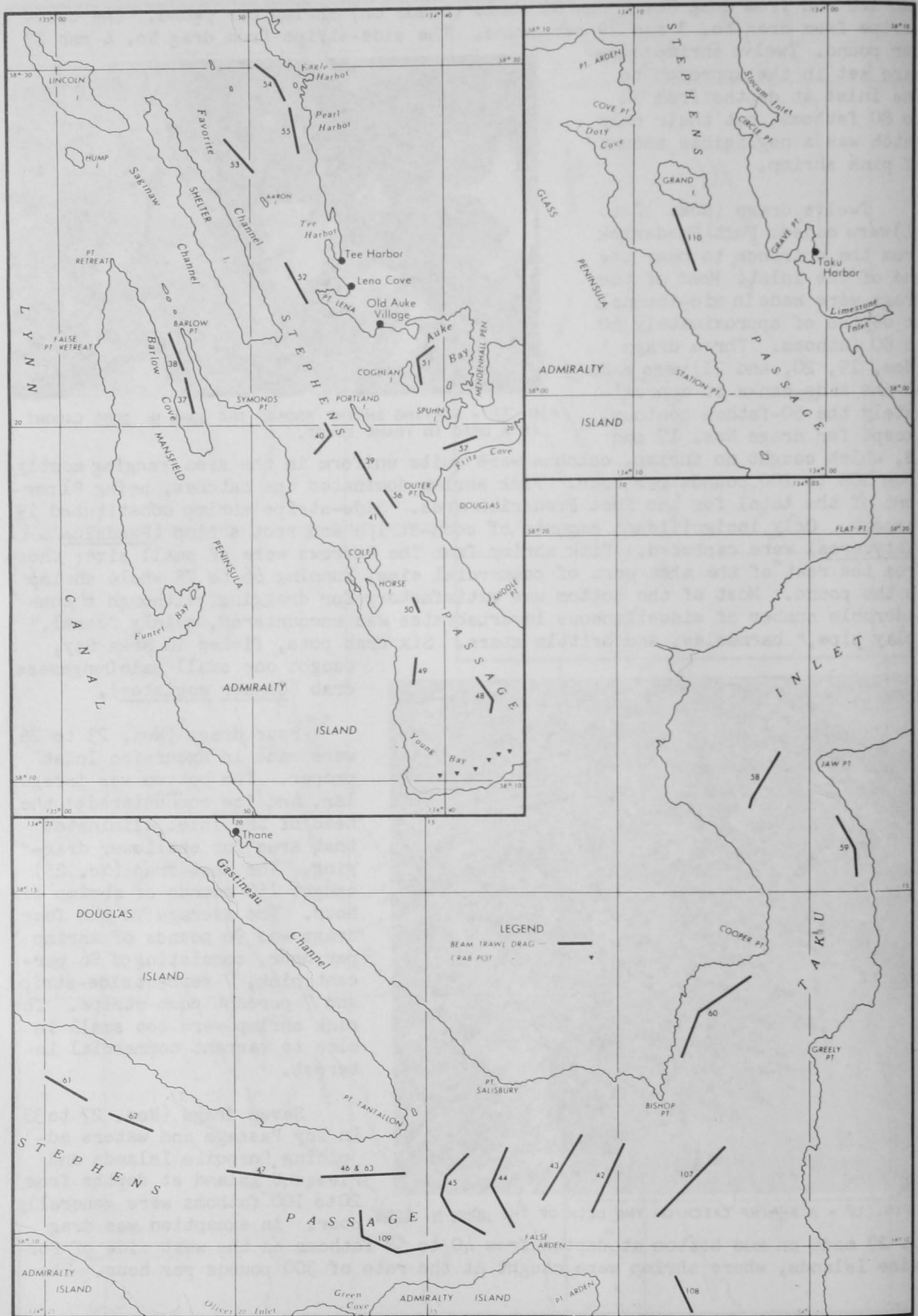


FIG. 13 - LOCATION OF BEAM-TRAWL DRAGS AND CRAB-POT SETS IN STEPHENS PASSAGE AREA.

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

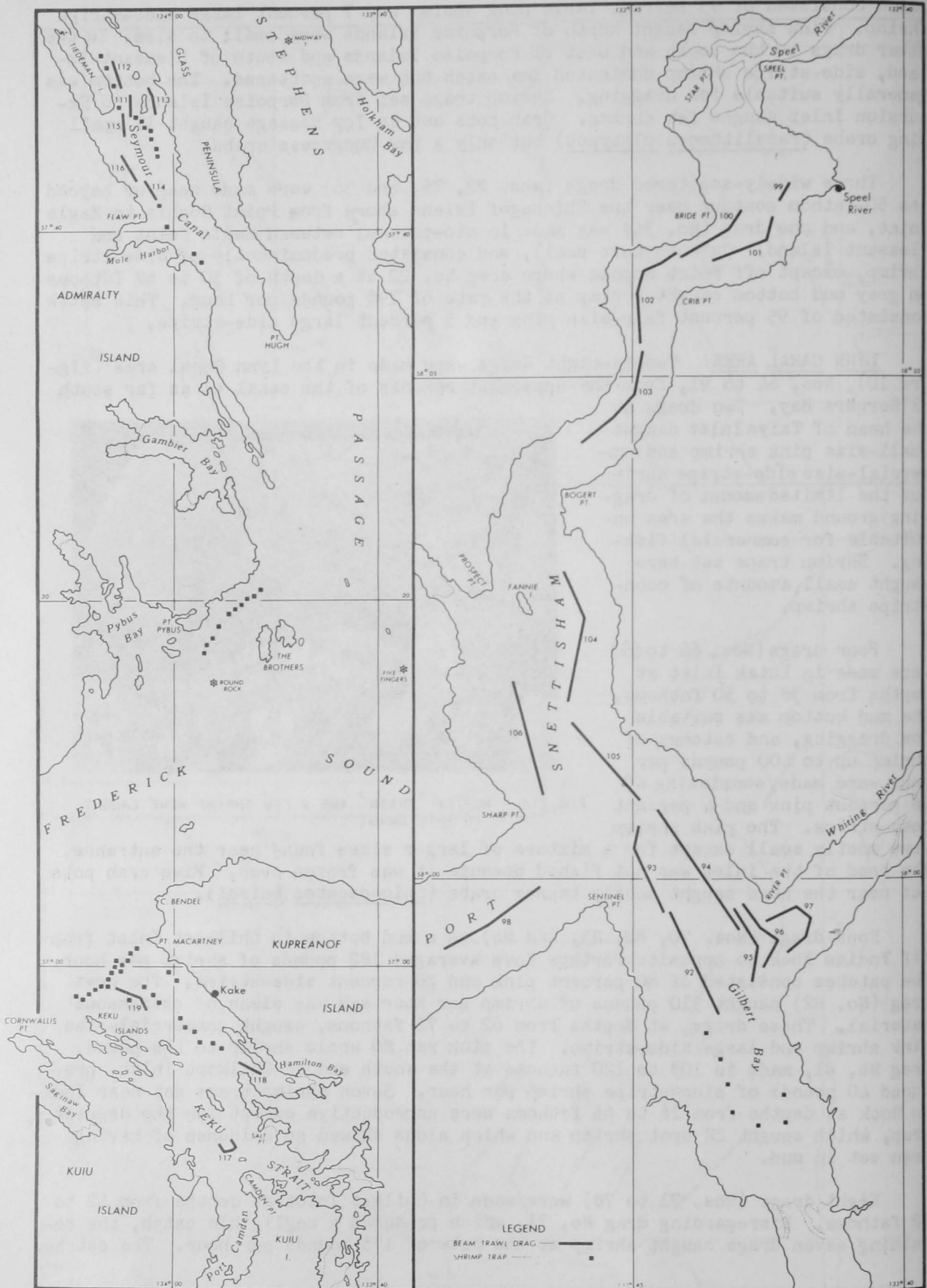


FIG. 15 - LOCATION OF BEAM-TRAWL DRAGS AND SHRIMP-TRAP SETS IN SEYMOUR CANAL, PORT SNETTISHAM, AND KEKU STRAIT AREAS.

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.

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 Tantalion to 5 miles east of Point Tantalion; 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 Tantalion 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



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

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 (Chionosctes 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.

### LITERATURE CITED

- CARLSON, CARL B.  
1945. COMMERCIAL POSSIBILITIES OF SHRIMP RESOURCES IN CERTAIN SOUTHEASTERN ALASKA AREAS (A STUDY BY THE FISHERIES EXPERIMENTAL COMMISSION OF ALASKA). FISHERY MARKET NEWS, VOL. 7, NO. 7A (JULY SUPPLEMENT), PP. 1-25.
- ELLSON, J. G.  
1950. DESCRIPTION OF THE EXPLORATORY FISHING VESSEL JOHN N. COBB. COMMERCIAL FISHERIES REVIEW, VOL. 12, NO. 9 (SEPTEMBER 1950), PP. 1-8. ALSO REPUBLISHED AS THE EXPLORATORY FISHING VESSEL JOHN N. COBB, FISHERY LEAFLET 385, U. S. FISH AND WILDLIFE SERVICE, WASHINGTON, D. C.
- SCHAEFERS, EDWARD A.  
1951. THE JOHN N. COBB'S SHELLFISH EXPLORATIONS IN CERTAIN SOUTHEASTERN ALASKAN WATERS, SPRING AND FALL OF 1950 (A PRELIMINARY REPORT). COMMERCIAL FISHERIES REVIEW, VOL. 13, NO. 4 (APRIL 1951), PP. 9-19. ALSO ISSUED AS SEPARATE NO. 278, U. S. FISH AND WILDLIFE SERVICE, WASHINGTON, D. C.

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° 42.6'
Course, Magnetic**	NW	NNW	NNW	NNW	NW	NW	NW	NW	SE	E
Type of Bottom	gy. M.	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	35-40	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	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	Clear	Snag	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	8xE	NxE	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	30	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	----	----	----	----	----	*	*	----	5	----
Spot	----	----	----	----	----	----	----	----	132	200
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° 28.7'	135° 28.2'	135° 27.5'	135° 30.2'	135° 27.2'	135° 32'	135° 29.8'	135° 30.1'	135° 31'
Course, Magnetic**	NxE	ExS	NWxW	NWxN	SExS	WxN	E	E	SExE	W
Type of Bottom	M.	gy. M.	----	gy. M.	M.	S. and M.	S. and M.	S. and M.	M.	M. and Sh.
Depth Range in Fathoms	68-56	50-62	54-66	68-72	40-50	54-68	20-32	36-64	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	*	2	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**	WSW	W	W	NWxW	W	E	NW	NW	SE	SE
Type of Bottom	----	----	S. and M.	M. and Rk.	M. and Rk.	M. and Rk.	M. and Rk.	M. and Rk.	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	*	*	----	----	----	----	----	----	----	----
Spot	----	----	----	----	----	----	10	----	----	----
Total Catch on Hourly Basis	80	60	20	30	30	20	110	28	120	20



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° 11.7'
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**	WxN	NxW	N	NWxW	W	NxNE	WSW	ENE	NE	NW
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	43-50	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	*	5	*	---	---	---
Coon-stripe	---	---	---	---	---	---	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	Clear
Remarks	---	---	---	---	---	---	---	---	---	Snag 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	NWxW	WxN	SE	SE	NW	SW	S	SExS	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 Broken Beam	Clear	Clear	Clear	Clear
Remarks	---	---	---	---	---	---	---	---	---	---
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.	gy. M.	---	---	M.	M.	M.	M.	M.
Depth Range in Fathoms	41-43	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	Slack	Ebb	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	---	---	---	1 1/2	3	10	2	5	---	---
Spot	---	---	---	---	---	---	---	---	---	---
Total Catch on Hourly Basis	60	30	1000	5	191	340	50	400	280	120
Trawling Bottom	Clear	Clear	Clear	Clear	Snag Hung up	Clear	Clear	Clear	Clear	Clear
Remarks	---	---	---	---	---	---	---	---	---	---
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**	SSE	SSE	NE	ExS	NxE	SE	SE	SE	SE	SE
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	445	50	53
Side-stripe	---	29	---	---	---	6	40	---	5	2
Coon-stripe	2	1	2	10	*	4	*	---	---	*
Spot	---	---	---	---	---	---	---	---	---	---
Total Catch on Hourly Basis	6	160	184	171	100	150	170	290	110	110
Trawling Bottom	Clear	Clear	Clear	Mud Beam mudded down	Mud Beam mudded down	Mud	Clear	Clear	Clear	Clear
Remarks	---	---	---	---	---	---	---	---	---	---

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° 21.1'	135° 01'	134° 58.2'	134° 57.1'
Course, Magnetic**	SxE	NW	SE	WNW	SxE	NW	NWxW	SxE	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	---	---	---	---	---	---	---	---	---	---
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	56-66	50-40	116-124	68-72	80-89
Tide	Ebb	Flood	Flood	Slack	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° 06.2'	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° 14.6'	134° 08'
Course, Magnetic**	SW	SxW	S	SSE	ESE	NW	SxW	SxE	SxW	SxE
Type of Bottom	M.	M.	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° 46.2'	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**	SxE	SE	WNW	WNW	SxE	NW	NWxW	W	ENE	
Type of Bottom	R. and M.	Rky	R.	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-Landulus danne	200						
Pink	1	75	*	10	165	278	140	---	---	
Side-stripe	16	13	---	10	10	28	---	---	---	
Coon-stripe	---	---	*	2	3	18	10	---	---	
Spot	---	2	*	2	2	24	*	---	---	
Total Catch on Hourly Basis	34	180	40	408	95	370	300	---	---	
Trawling Bottom	Clear	Rough	Rough	Clear	Mud	Clear	Clear	Clear	Clear	

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*											
									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	65	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	73	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							
Seysour 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***												
Kaku 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	Spot shrimp	Shrimp catch		Pink shrimp	Remarks
							Coon-stripe shrimp			
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	1¾ 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. 10 sample	Number whole shrimp per pound	Average size in inches	Depth of gear in fathoms	Percent with eggs	Various size groups in inches												
									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	15	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	Legal males	Dungeness crab catch		Remarks
							Small males	Females	
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	----	----	30 small tanner crab.