



TANNER CRAB AND GROUND FISH TRAWL SURVEY OF NORTHERN SHELIKOF STRAIT,
EASTSIDE OF KODIAK, AND ALITAK AREA DURING JULY AND AUGUST 1985 WITH
A PRESENTATION OF AGE DATA FOR COD AND SABLEFISH AND RELATIVE
ABUNDANCE ESTIMATES FOR COD

By:
James E. Blackburn
and
William Donaldson

March 1987

ADF&G TECHNICAL DATA REPORTS

This series of reports is designed to facilitate prompt reporting of data from studies conducted by the Alaska Department of Fish and Game, especially studies which may be of direct and immediate interest to scientists of other agencies.

The primary purpose of these reports is presentation of data. Description of programs and data collection methods is included only to the extent required for interpretation of the data. Analysis is generally limited to that necessary for clarification of data collection methods and interpretation of the basic data. No attempt is made in these reports to present analysis of the data relative to its ultimate or intended use.

Data presented in these reports is intended to be final, however, some revisions may occasionally be necessary. Minor revision will be made via errata sheets. Major revisions will be made in the form of revised reports.

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James E. Blackburn
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William Donaldson

Alaska Department of Fish and Game
Division of Commercial Fisheries
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ABSTRACT

During July and August of 1985 an otter trawl survey of groundfish and crab was conducted in three areas: northern Shelikof Strait, Eastside, and the Alitak area. This report presents the catch data by station and species and the size contribution data obtained for groundfish.

The size frequency data and features of growth and relative success of cohorts for cod, *Gadus macrocephalus*, and sablefish, *Anoplopoma fimbria*, collected during the six consecutive surveys are presented. An index of future abundance of cod is presented, which indicates that cod abundance will be slightly lower in the next two to three years but will remain close to the six-year average. Age of sablefish are compared with size frequencies from the surveys to show that aging is valid through age four, establishing that absolute age is accurately assigned.

KEY WORDS: Trawl survey, Shelikof Strait, Eastside, Alitak area, king crab, Tanner crab, groundfish, Pacific cod, walleye pollock, sablefish.

INTRODUCTION

This report presents the results of trawl surveys conducted by the Alaska Department of Fish and Game from the chartered vessel ROYAL BARON, operated by captain Mickey Serwold from 16 July through 11 August 1985. Areas surveyed included the northern portion of Shelikof Strait (hauls 1 through 24), the Eastside area (hauls 25 through 67), and the area of Alitak Bay and Alitak flats (hauls 68 through 109) (Figures 1-9).

The primary objective of the survey was to sample the Tanner crab (*Chionoecetes bairdi*) and king crab (*Paralithodes camtschatica*) populations in the areas trawled to obtain (1) estimates of abundance of legal and sublegal males, and (2) estimates of abundance and reproductive success for adult females. The secondary objective was to sample the groundfish catch. The groundfish objectives were: (1) to estimate the catch amount of commercially important species; (2) to sample lengths of cod (*Gadus macrocephalus*), sablefish (*Anoplopoma fimbria*), and pollock (*Theragra chalcogramma*); and (3) collect age structures from cod and sablefish.

The Eastside and Alitak areas were first surveyed in 1984 and 1985, respectively.

METHODS

Sampling

Total catch weight was determined by weighing the cod end of the trawl using an electronic crane scale accurate to the nearest 4.5 kg (10 lb) before and after the catch was dumped. All large fish, which would be difficult to subsample, and all fish of special interest were removed from the catch, including all halibut (*Hippoglossus stenolepis*), skates, and sharks (Elasmobranchii), cod, sablefish, rockfish (*Sebastes* spp.), salmon (*Oncorhynchus* spp.), king crab, Tanner crab, Dungeness crab (*Cancer magister*), and weathervane scallops (*Pecten caurinus*). Crabs were separated by sex and exoskeletal age. Carapace measurements were taken on king crab and Tanner crab to the nearest millimeter using Vernier calipers (Colgate and Hicks 1982). The relative volume of eggs carried by adult females and egg condition were examined. All Tanner crab infested with *Trichomerus invadens*, commonly known as Black Mat syndrome, were noted. Population estimates of Tanner crab were calculated using the area-swept techniques discussed in Colgate and Hicks (1982). Halibut and big skates (*Raja binoculata*) were measured and returned to the sea; a length-weight relation was used to estimate the weight. The remaining catch was sampled using baskets and shovels. A sample of about 90 to 150 kg was sorted; larger samples were sorted on less diverse catches to get a sample of more than just the predominant taxon. Sorted from the samples were all pollock, flatfish, and occasionally sculpins (Cottidae), leaving all debris and other invertebrates, i.e., shrimp, hermit crabs (Paguridae), starfish and jellyfish, together with commercially unimportant fish such as sculpins (Cottidae), eelpouts (Zoarcidae), smelt (Osmeridae), and sea poachers (Agonidae) in a category of

miscellaneous. In Alitak, all fish were sorted to species, since this was the first survey in this area.

Lengths were taken from nearly all cod, rockfish, and sablefish caught and from samples of pollock and other species caught. All length measurements of fish were fork length except skates, which were measured from the forward tip of the body to the posterior notch of the pectoral fin. Separate samples of cod otoliths were collected from Shelikof and the Barnabas areas. Samples of sablefish otoliths were also collected.

Trawl Description

The F/V ROYAL BARON towed a 400 mesh eastern otter trawl net. The net had a 21 m (70 ft) long headrope with 18 floats 20 cm (8 in) in diameter. The footrope was 29 m (95 ft) long without roller gear or ticklers. The two dandylines were 46 m (25 fm) long and consisted of an 18 m (10 fm) section of 16 m (5/8 in) cable and a pair of 27 m (15 fm) sections of 13 mm (1/2 in) cable, one attached to the top and the other to the bottom of each net wing. The doors were Astoria "V" type, weighing 340 kg (750 lb) each and measuring 1.5 m x 2.1 m (5 ft x 7 ft). The net was constructed with 102 mm (4 in) mesh at the mouth, 89 mm (3-1/2 in) mesh in the body, and the cod end had a 32 mm (1-1/4 in) mesh liner. The net was designed to sweep a 12 m (40 ft) path.

Station Data

The captain recorded all information on trawling location (starting and ending locations in both latitude-longitude and loran), depth (maximum, minimum, and average), time of start of haul, time of end of haul, elapsed time, scope (length of trawl cable out during trawling), performance, trawling speed, trawling direction, date, distance towed, cloud cover, sea state, swell height, and comments. The haul was considered to start when the brake was set on the net and it ended when the winches were started for retrieval. Water temperatures were collected with an expendable bathythermograph which was taken while the trawl was being retrieved.

Aging

Sablefish aging was conducted using the standard break-and-burn technique (Beamish and Chilton 1982). This consists of breaking the otoliths through the focus and gently burning it to a light brown in an alcohol flame. The burnt surface is examined under magnifications ranging from 6 to 100x with intensive illumination supplied by a fiber optic light source. A tiny amount of cooking oil is put on the burnt surface to improve the optical characteristics. The otolith is tipped on its side to determine surface characteristics and these are followed to the burnt surface. The first few years of growth are most easily detected on the intact otolith surface while years beyond about four to six are most easily identified on the broken and burnt surface. Since many of the fish in this sample were very young, breaking and burning was not always necessary.

RESULTS

The haul data are presented in Table 1, and the catch of each species is presented in Table 2. Size frequencies obtained from fish are presented in Table 3. Catch of king crab on each haul by sex and recruit age is presented in Table 4. Common and scientific names of species listed in Tables 2 and 3 are listed in Table 5. Figures 1 through 9 illustrate the catches of Tanner crab by area, sex, age group, and location of each trawl haul. Terms commonly used for king and Tanner crabs are defined in Appendix Tables 1 and 2.

In the Shelikof area, 24 one-mile tows were completed while 49 were completed in 1984. The area surveyed in 1985 was similar to that in 1984 except the extreme northern area was missed in 1985 due to weather. Catches of legal male Tanner crab per mile towed varied from zero at four stations to a high of 68. The mean catch per tow mile was 15.7 legal Tanner crab.

The population of legal Tanner crab in the area surveyed in the Shelikof area was estimated to be 1,272,829 crab with a standard error of 23.8%. The 1984 population estimate for this same area was approximately 1,700,000 crab.

The Eastside area, 43 one-mile tows were completed while 41 were completed in 1984. The area fished in 1985 was the same as in 1984. Catches of legal males per mile towed varied from zero at 12 stations to a high of 163 in tow number 66. The mean catch of legal Tanner crab per mile was 24.0.

The population of legal Tanner crab in the Eastside stock in 1985 was estimated to be 2,125,162 crab with a standard error of 22.8%. This estimate is nearly the same as the 1984 estimate.

In 1985 the trawl survey was done for the first time in the Alitak area. Seventeen tows were completed in Alitak Bay and 25 outside the bay in the "Alitak Hole" area. Catches of legal Tanner crab per mile towed varied from zero to 36 in the bay and zero to 29 in the outer area. The mean catch of legal crab per mile towed was 12.1 and 3.0 in Alitak Bay and Alitak Hole, respectively.

The population of legal crab was estimated to be 118,297 with a standard error of 12% in Alitak Bay and 34,970 with a standard error of 44% in the Alitak Hole area.

A definitive comparison of population estimates for the remaining size (cohort) groups of Tanner crab is not available at this time but will be incorporated into a future report.

The average clutch size of adult female Tanner crab was 83%. This figure is within the range of historic observations for the Kodiak area (Colgate and Hicks 1983).

Size distributions of cod collected on the 1985 survey are compared with those caught in previous years in Shelikof Strait (Figure 10). Progression of prominent modes of abundant cohorts together with those of low abundance can be followed to demonstrate growth during the first four years of life for cod. In 1980, a prominent mode existed at 50 cm; and in 1981 this had moved

to about 57 cm. Also in 1981 there were prominent modes between 25 to 30 cm and 40 to 45 cm. Blackburn (1984a) demonstrated that these modes are age 1 (25-30 cm), age 2 (40-45 cm), age 3 (near 50 cm), and age 4 (55-60 cm). This interpretation is consistent with the larger data set available here. Data from previous surveys came from Owen and Blackburn (1981), Owen and Blackburn (1983), Owen and Blackburn (1984), Blackburn (1984b), and Blackburn and Donaldson (1985).

With the growth pattern established, a qualitative assessment of the relative abundance of cohorts can be recognized. The 1977 cohort was very large based on a high abundance of cod about 50 cm in 1980 and 55-60 cm in 1981 (Figure 10). The 1979 and 1980 cohorts are obvious in 1981 at 40-45 cm and 25-30 cm but the 1978 cohort appears to be somewhat smaller, based on the modest abundance of fish about 50 cm in 1981. The 1981 cohort appears to be modest based on the abundance of age 1 and age 2 in 1982 and 1983 but the 1982 cohort was nearly a complete failure. The 1983 cohort appears moderately strong as two-year-olds in 1985.

The low abundance of the 1982 cohort may be casually related to the unusually low water temperatures present in 1982, documented by Blackburn and Donaldson (1985) in the Chignik area. In addition, the 1981 cohort, which was one year of age in 1982, was unusually small in mean length in 1983 when it appeared in the survey at two years of age. This lower growth may have been caused by lower temperatures.

Table 6 provides a quantitative assessment of the trends in recruitment during the course of the surveys. In this table, the sizes have been grouped by 5 cm size intervals and summaries were made for fish fully recruited to the commercial fishery (61 cm and larger), and for a recruit group (46 to 55 cm), which is essentially three-year-olds which were two years from recruitment to the fished population.

A projection of the abundance of commercial size cod in Shelikof Strait in later years was constructed from the information in Table 6. This was done by applying a survival factor to the existing commercial size fish and adding a portion of the recruiting year class. Since firm information on annual survival does not exist, an approximation of 50% (Low 1974, estimated 31% annual mortality rate in the Bering Sea and Ketchikan 1961 estimated 60% annual mortality rate in British Columbia) was used. Half the commercial size fish were taken as a base, to which half the recruiting fish from the previous year were added to produce a prediction of the abundance of commercial size cod (in number/mile towed) in the following year. Observed and predicted values for the abundance of commercial size fish in mean number of fish caught per mile towed were: 1982 predicted, 11.2, observed, 11.2; 1983 predicted, 8.5, observed, 8.8; 1984 predicted, 9.8, observed, 9.2; and 1985 predicted, 10.7, observed, 12.6. Using this relationship the relative abundance of commercial size cod in the Shelikof Strait survey area may be projected for future years. Approximate numbers of commercial size cod per mile should be, in 1986, 9.9; 1987, 8.2; and in 1988 if recruitment is average, 9.1. This level of abundance is about the same as the long term average and considerably above levels that existed prior to 1982.

The length frequencies for sablefish (Figure 11) illustrates several important features. The size mode with the most fish present in the several

years of data was 40 to 45 cm in length in 1983. This same group of fish appeared as 30 to 37 cm fish in 1982. According to Beamish and Chilton (1982) one-year-old sablefish would be about 30 to 40 cm in summer, in British Columbia. This appears to be the 1981 year class. In 1984 it was about 50 to 58 cm and in 1985 it was about 55 to 65 cm. The 1977 cohort was believed to have been large also and it can be seen as 3- and 4-year-olds in 1980 and 1981. By comparison, the 1981 cohort appears to be more abundant. Also, both large cohorts appear to be disappearing from the samples at age 4 or 5, as they move to deeper water with age. They are best represented in the samples at age two.

The 1985 size frequency of sablefish contains three modes of abundance (Figure 11). The one-year-old and two-year-old cohorts are obvious by their size, with modes centering at 36 cm and 48 cm (Figure 11). Examination of the other years reveals that the 1982 cohort was not present as one-year-olds in 1983 nor was it present as two-year-olds in 1984, which explains the low point in the 52 to 55 cm portion of the 1985 size distribution and indicates that the mode centering at 59 cm is age four.

A sample of sablefish captured in 1985 was aged and the age composition was virtually identical to that deduced from the size frequencies (Figure 12). This essentially validates the aging of sablefish in this area up through age four, establishing that the absolute age is accurately ascertained.

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Table 1. Fishing log for cruise 8502. Consecutive haul numbers are at the top: latitude and longitude are in degrees, minutes, and tenths of minutes; gear depth is in fathoms; temperature is in degrees C at the bottom taken after the completion of the haul; performance of 0 = successful and 1 = unsuccessful; and catch amounts are in kilograms. Catch amounts are as captured, they are not corrected to a standard haul duration.

HAUL NO.	1	2	3	4	5	6	7	8	9	10	11
MONTH/DAY/YEAR	7/16/85	7/16/85	7/17/85	7/17/85	7/17/85	7/17/85	7/17/85	7/18/85	7/20/85	7/20/85	7/20/85
LATITUDE START	58 18.8	58 17.5	58 17.1	58 15.1	58 11.8	58 7.7	58 11.3	58 9.8	58 15.0	58 20.8	58 19.6
LONGITUDE START	154 6.5	154 16.8	154 1.3	153 54.1	153 50.4	153 58.6	154 .0	154 14.8	154 2.7	153 50.9	153 45.2
GEAR DEPTH	37	58	81	120	108	113	139	43	95	112	99
DURATION IN HOURS	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50
TEMPERATURE								6.7			5.5
PERFORMANCE	0	0	0	0	0	0	0	0	0	0	0
POLLOCK	159.8	64.3	198.1	24.5	50.3	17.6	8.3	646.1	16.4	26.8	50.3
PACIFIC COD	21.1	5.5	244.7	57.6	106.4	53.2	13.2	34.9	99.2	69.7	26.8
PACIFIC OCEAN PERCH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ROUGHEYE ROCKFISH	.7	.0	.0	14.2	5.6	3.2	1.0	6.3	.2	1.1	.0
DUSKY ROCKFISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.0
OTHER ROCKFISH	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0
SABLEFISH	.0	.0	.0	116.6	226.8	135.2	.0	.0	.0	90.6	86.2
ATKA MACKEREL	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCULPINS	.0	.0	59.3	.0	45.9	.0	.0	.0	.0	.0	.0
OTHER ROUNDFISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SALMON	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
YELLOWFIN SOLE	13.4	1.6	.0	.0	.0	.0	.0	6.7	.0	.0	.0
ARROWTOOTH FLOUNDER	69.3	2.3	179.0	509.8	334.1	558.8	21.1	224.7	141.0	567.5	204.4
FLATHEAD SOLE	283.5	78.3	50.0	123.1	55.1	138.9	5.8	144.9	17.5	68.2	42.6
ROCK SOLE	.0	.0	11.1	.0	.0	.0	.0	.0	.0	.0	.0
REX SOLE	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
DOVER SOLE	2.4	.0	79.6	.0	.0	.0	.0	9.0	39.1	.0	.7
PACIFIC HALIBUT	58.7	.3	40.9	4.0	21.0	36.1	.0	75.7	16.1	80.0	9.1
STARRY FLOUNDER	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ALASKA PLAICE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER FLATFISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL FLATFISH	428.0	82.5	360.7	636.9	410.2	733.8	26.9	461.1	213.7	715.7	256.7
SKATES	78.0	.0	10.9	12.0	2.3	28.2	.0	117.0	2.6	23.8	7.2
OTHER ELASMOBRANCHS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TANNER CRAB	11.7	206.6	40.5	34.5	5.2	13.8	1.0	.0	127.4	104.7	62.0
KING CRAB	1.7	.0	.0	.0	.0	.0	.0	1.1	.0	.0	.0
DUNGENESS CRAB	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PINK SHRIMP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SIDE STRIPES	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCALLOPS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER INVERTS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL INVERTS	13.4	206.6	40.5	34.5	5.2	13.8	1.0	1.1	127.4	104.7	62.0
OTHER	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL CATCH	701.0	358.9	914.5	896.2	852.7	985.0	50.4	1266.5	459.5	1034.3	489.3

-Continued-

Table 1. Fishing log for cruise 8502. Consecutive haul numbers are at the top: latitude and longitude are in degrees, minutes, and tenths of minutes; gear depth is in fathoms; temperature is in degrees C at the bottom taken after the completion of the haul; performance of 0 = successful and 1 = unsuccessful; and catch amounts are in kilograms. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

HAUL NO.	23	24	25	26	27	28	29	30	31	32	33
MONTH/DAY/YEAR	7/23/85	7/23/85	7/25/85	7/25/85	7/26/85	7/26/85	7/26/85	7/26/85	7/26/85	7/26/85	7/27/85
LATITUDE START	58 26.7	58 18.5	57 21.0	57 16.8	57 6.0	56 58.7	56 52.9	56 48.4	56 48.8	56 52.8	57 6.3
LONGITUDE START	153 20.6	153 34.5	152 32.1	152 31.1	152 42.0	152 41.4	152 40.3	152 32.8	152 27.4	152 31.1	152 39.4
GEAR DEPTH	95	96	54	55	84	81	72	74	88	87	83
DURATION IN HOURS	.50	.50	.50	.50	.50	.50	.33	.50	.50	.50	.50
TEMPERATURE					5.7		5.7			5.6	
PERFORMANCE	0	0	0	0	0	0	0	0	0	0	0
POLLOCK	105.7	26.0	316.0	82.7	901.3	267.2	595.7	61.0	.0	126.8	635.4
PACIFIC COD	42.1	33.0	43.7	54.1	33.8	3.0	17.4	62.6	.0	6.0	47.3
PACIFIC OCEAN PERCH	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0
ROUGH-EYE ROCKFISH	.0	.0	.0	.0	.0	21.6	.2	3.1	68.8	106.2	.8
DUSKY ROCKFISH	.0	.0	.0	.0	.0	.0	.0	.0	1.8	34.7	.0
OTHER ROCKFISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SABLEFISH	68.5	120.2	.0	.0	2.3	6.2	4.2	1755.4	874.5	279.4	2.1
ATKA MACKEREL	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCULPINS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER ROUND FISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SALMON	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
YELLOWFIN SOLE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ARROWTOOTH FLOUNDER	671.7	971.4	272.0	357.5	250.7	1273.8	246.7	537.4	2360.0	2017.1	790.8
FLATHEAD SOLE	153.8	257.1	315.0	360.6	109.3	139.3	168.5	164.2	407.5	156.1	235.4
ROCK SOLE	.0	.0	16.0	12.6	.0	.0	.0	.0	.0	.0	.0
REX SOLE	.0	.0	.0	.0	.0	.0	28.3	.0	.0	12.2	.0
DOVER SOLE	10.4	7.8	.0	.0	.0	55.7	35.9	19.5	27.5	.0	.0
PACIFIC HALIBUT	23.2	33.4	20.1	11.2	23.3	10.7	24.6	51.8	31.3	95.7	18.6
STARRY FLOUNDER	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ALASKA PLAICE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER FLATFISH	.0	.0	3.0	5.5	.0	.0	.0	.0	.0	.0	.0
TOTAL FLATFISH	859.0	1269.8	626.1	747.4	383.3	1479.6	503.9	772.9	2826.3	2281.1	1044.8
SKATES	5.6	4.1	31.8	.0	4.3	13.5	9.1	3.1	10.0	14.7	.0
OTHER ELASMOBRANCHS	.0	.0	1.5	4.1	.0	.0	2.5	1.5	.0	.0	.0
TANNER CRAB	6.6	15.3	23.0	22.7	25.7	28.8	2.6	13.3	14.4	18.8	180.4
KING CRAB	.0	.0	28.8	.0	.0	.0	.0	.0	.0	.0	.0
DUNGENESS CRAB	.0	.0	7.6	.6	.0	.0	.0	.0	.0	.0	.0
PINK SHRIMP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SIDE STRIPES	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCALLOPS	.0	.0	.0	1.2	.0	.0	.1	.0	.0	.0	.0
OTHER INVERTS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL INVERTS	6.6	15.3	59.4	24.5	25.7	28.8	2.7	13.3	14.4	18.8	180.4
OTHER	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0
TOTAL CATCH	1087.5	1469.2	1078.5	916.8	1350.7	1819.9	1135.7	2672.9	3795.8	2867.7	1910.7

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Table 1. Fishing log for cruise 8502. Consecutive haul numbers are at the top; latitude and longitude are in degrees, minutes, and tenths of minutes; gear depth is in fathoms; temperature is in degrees C at the bottom taken after the completion of the haul; performance of 0 = successful and 1 = unsuccessful; and catch amounts are in kilograms. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

HAUL NO.	34	35	36	38	39	40	41	42	43	44	45
MONTH/DAY/YEAR	7/27/85	7/27/85	7/27/85	7/27/85	7/28/85	7/28/85	7/28/85	7/28/85	7/28/85	7/28/85	7/29/85
LATITUDE START	56 59.1	56 53.6	56 55.2	56 59.7	57 10.4	57 7.9	57 9.3	57 7.0	57 13.2	57 16.0	57 9.4
LONGITUDE START	152 32.7	152 28.0	152 18.8	152 22.4	152 45.2	152 28.0	152 24.8	152 17.0	152 20.0	152 23.5	152 44.4
GEAR DEPTH	83	93	44	76	75	76	78	42	42	39	77
DURATION IN HOURS	.50	.50	.50	.50	.50	.50	.50	.50	.50	.42	.50
TEMPERATURE		5.6				5.5				6.8	
PERFORMANCE	0	0	0	0	0	0	0	0	0	0	0
POLLOCK	718.9	129.9	.0	668.7	409.5	1197.5	1342.6	.0	.0	.0	856.9
PACIFIC COD	1.7	9.0	.0	26.5	85.1	9.2	148.8	2.9	.0	.0	60.2
PACIFIC OCEAN PERCH	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0
ROUGHEYE ROCKFISH	19.5	79.8	.0	.0	1.0	.0	.0	.0	.0	.0	.0
DUSKY ROCKFISH	.0	.0	.0	.0	.0	.0	3.5	.0	.0	.0	.0
OTHER ROCKFISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SABLEFISH	65.6	119.8	.0	.0	.0	.0	.0	.0	.0	.0	.0
ATKA MACKEREL	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCULPINS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER ROUND FISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SALMON	.0	.0	.0	.0	.0	.0	.0	1.4	.0	.0	.0
YELLOWFIN SOLE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ARROWTOOTH FLOUNDER	562.3	966.7	51.7	407.5	423.8	735.0	500.0	85.7	33.9	5.7	546.6
FLATHEAD SOLE	181.1	69.0	.0	225.4	1054.8	387.5	238.3	.0	.0	.0	117.2
ROCK SOLE	.0	6.9	84.1	.0	57.1	.0	.0	871.4	735.7	451.1	20.7
REX SOLE	45.3	.0	.0	114.9	.0	32.5	97.9	7.7	.0	.0	.0
DOVER SOLE	173.6	37.9	.0	41.8	.0	25.0	36.2	.0	.0	.0	.0
PACIFIC HALIBUT	91.9	44.1	61.4	15.1	24.3	20.0	3.1	16.6	43.3	7.5	4.0
STARRY FLOUNDER	.0	.0	.0	.0	.0	.0	.0	.0	.0	44.3	.0
ALASKA PLAICE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER FLATFISH	.0	.0	.0	.0	.0	.0	.0	236.3	248.2	126.1	8.6
TOTAL FLATFISH	1054.2	1124.6	197.1	804.7	1560.0	1200.0	875.4	1217.7	1061.2	634.8	697.1
SKATES	7.0	24.6	.0	2.1	20.4	.0	.0	.0	.0	19.5	6.8
OTHER ELASMOBRANCHS	.0	1.4	1.4	.0	.0	2.9	1.6	3.1	.0	2.1	5.6
TANNER CRAB	4.0	30.8	1.5	62.6	215.4	66.4	120.2	.9	.3	.0	75.9
KING CRAB	.0	.0	.0	10.8	.0	.0	.0	.0	.0	.0	.0
DUNGENESS CRAB	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.0
PINK SHRIMP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SIDE STRIPES	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCALLOPS	.0	.0	.0	.0	.0	.3	.0	.0	4.2	.4	.0
OTHER INVERTS	.0	.0	.0	.0	.0	.0	.0	.0	.0	250.0	.0
TOTAL INVERTS	4.0	30.8	1.5	73.4	215.4	66.7	120.2	.9	4.5	252.4	75.9
OTHER	.0	.0	.0	.0	2.1	.0	.0	.0	.0	.0	.0
TOTAL CATCH	1870.8	1519.8	200.0	1575.3	2293.5	2476.3	2492.7	1226.0	1065.7	908.8	1702.5

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Table 1. Fishing log for cruise 8502. Consecutive haul numbers are at the top; latitude and longitude are in degrees, minutes, and tenths of minutes; gear depth is in fathoms; temperature is in degrees C at the bottom taken after the completion of the haul; performance of 0 = successful and 1 = unsuccessful; and catch amounts are in kilograms. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

HAUL NO.	46	47	48	49	50	51	52	53	54	55	56
MONTH/DAY/YEAR	7/29/85	7/29/85	7/29/85	7/29/85	7/29/85	7/30/85	7/30/85	7/30/85	7/30/85	7/30/85	7/30/85
LATITUDE START	57 4.2	56 56.5	56 56.6	56 58.5	56 58.4	57 4.8	56 57.1	56 54.1	56 48.2	56 50.3	56 52.9
LONGITUDE START	152 45.1	152 56.9	152 52.4	152 43.3	152 37.2	152 39.4	152 40.0	152 35.9	152 33.3	152 28.4	152 25.4
GEAR DEPTH	85	71	68	82	82	86	80	82	79	90	88
DURATION IN HOURS	.50	.50	.50	.50	.50	.42	.50	.50	.50	.50	.50
TEMPERATURE											
PERFORMANCE	0	0	0	0	0	0	0	0	0	0	0
POLLOCK	188.3	38.9	80.9	202.4	.0	128.4	40.7	40.4	201.0	.0	291.8
PACIFIC COD	68.9	65.6	55.9	4.8	2.0	33.6	5.0	.0	3.5	1.4	14.6
PACIFIC OCEAN PERCH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ROUGHEYE ROCKFISH	.0	.0	1.0	9.3	99.6	2.0	44.4	47.1	19.2	28.5	1.9
DUSKY ROCKFISH	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER ROCKFISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SABLEFISH	2.0	.0	.0	6.1	201.0	.0	68.2	129.2	239.4	258.7	159.2
ATKA MACKEREL	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCULPINS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER ROUND FISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SALMON	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
YELLOWFIN SOLE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ARROWTOOTH FLOUNDER	918.3	102.5	318.0	796.3	1868.7	531.2	1310.2	1508.8	608.9	1826.4	791.8
FLATHEAD SOLE	451.7	251.6	453.9	104.9	202.1	286.2	203.4	152.6	113.9	135.8	35.6
ROCK SOLE	.0	7.6	65.2	.0	6.3	.0	.0	.0	.0	.0	.0
REX SOLE	.0	33.8	104.5	7.3	.0	.0	1.7	.0	.0	.0	20.5
DOVER SOLE	98.3	80.3	107.9	36.6	27.1	12.8	.0	35.1	54.5	18.9	201.4
PACIFIC HALIBUT	39.1	10.7	45.1	26.9	96.6	18.0	93.8	112.5	28.9	77.5	73.2
STARRY FLOUNDER	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ALASKA PLAICE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER FLATFISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL FLATFISH	1507.4	486.5	1094.5	972.0	2200.8	848.3	1609.1	1809.0	806.1	2058.6	1122.5
SKATES	.0	5.3	46.0	5.0	2.0	7.4	15.7	.6	7.1	11.1	10.9
OTHER ELASMOBRANCHS	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TANNER CRAB	42.8	14.6	2.3	18.8	1.1	222.3	10.3	12.2	9.4	51.3	48.1
KING CRAB	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
DUNGENESS CRAB	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PINK SHRIMP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SIDE STRIPES	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCALLOPS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER INVERTS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL INVERTS	42.8	14.6	2.3	18.8	1.1	222.3	10.3	12.2	9.4	51.3	48.1
OTHER	.0	3.3	.0	15.1	18.0	5.0	9.0	.0	.0	6.0	35.0
TOTAL CATCH	1812.1	614.1	1280.6	1233.6	2524.5	1247.0	1802.3	2038.4	1285.7	2415.6	1684.0

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Table 1. Fishing log for cruise 8502. Consecutive haul numbers are at the top: latitude and longitude are in degrees, minutes, and tenths of minutes; gear depth is in fathoms; temperature is in degrees C at the bottom taken after the completion of the haul; performance of 0 = successful and 1 = unsuccessful; and catch amounts are in kilograms. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

HAUL NO.	57	58	59	60	61	62	63	64	65	66	67
MONTH/DAY/YEAR	7/31/85	7/31/85	7/31/85	8/ 2/85	8/ 2/85	8/ 2/85	8/ 2/85	8/ 2/85	8/ 2/85	8/ 3/85	8/ 3/85
LATITUDE START	57 13.6	57 11.5	57 11.8	57 17.6	57 2.2	57 6.2	57 7.8	57 23.6	57 24.4	57 29.4	57 27.4
LONGITUDE START	152 49.0	153 6.6	152 59.4	152 57.5	152 30.0	152 27.0	152 24.5	152 35.0	152 38.2	152 42.4	152 44.0
GEAR DEPTH	64	65	64	49	78	81	74	53	55	42	52
DURATION IN HOURS	.42	.50	.42	.50	.50	.50	.50	.42	.50	.50	.33
TEMPERATURE					5.8						6.5
PERFORMANCE	0	0	0	0	0	0	0	0	0	0	0
POLLOCK	202.8	.0	154.5	150.0	8.9	495.8	410.5	169.6	95.8	64.4	13.0
PACIFIC COD	88.6	44.8	34.8	102.0	3.2	32.4	8.4	403.9	36.2	71.7	77.6
PACIFIC OCEAN PERCH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ROUGHEYE ROCKFISH	.0	.0	.4	.0	.0	.2	.0	2.3	.1	.4	.0
DUSKY ROCKFISH	.0	.0	.0	.0	.0	.0	1.1	.0	.0	.0	.0
OTHER ROCKFISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SABLEFISH	.0	.0	.0	.0	.4	6.0	.0	.0	.4	.6	.0
ATKA MACKEREL	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCULPINS	.0	.0	.0	.0	.0	.0	52.6	.0	.0	.0	.0
OTHER ROUND FISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SALMON	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
YELLOWFIN SOLE	.0	.0	.0	.0	.0	.0	.0	113.7	.0	310.3	287.0
ARROWTOOTH FLOUNDER	338.0	237.8	320.0	175.8	266.9	775.0	987.7	228.4	164.7	72.4	210.1
FLATHEAD SOLE	739.4	2683.8	1223.6	1175.8	382.3	518.8	159.6	362.7	477.3	577.0	811.6
ROCK SOLE	15.5	.0	.0	.0	.0	.0	.0	29.4	10.9	94.3	37.7
REX SOLE	.0	.0	.0	.0	54.0	77.1	108.8	.0	.0	.0	.0
DOVER SOLE	.0	.0	.0	.0	80.6	79.2	135.1	.0	.0	.0	.0
PACIFIC HALIBUT	21.8	24.1	30.5	40.6	.0	11.2	27.4	38.6	.3	37.7	51.5
STARRY FLOUNDER	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ALASKA PLAICE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER FLATFISH	7.0	.0	.0	.0	.0	.0	.0	16.7	3.4	.0	23.2
TOTAL FLATFISH	1121.8	2945.7	1574.1	1392.2	783.9	1461.2	1418.6	789.6	656.6	1091.7	1421.1
SKATES	15.3	198.6	166.9	324.5	1.9	.0	.0	2.3	39.1	.0	53.1
OTHER ELASMOBRANCHS	2.4	2.4	.0	.0	3.6	1.1	2.7	3.0	.0	.0	.0
TANNER CRAB	22.8	7.3	1.4	.2	66.5	75.2	114.7	24.1	2.3	286.8	10.6
KING CRAB	28.1	.0	1.9	76.3	5.1	.0	23.5	7.8	.0	18.5	2.3
DUNGENESS CRAB	1.4	.0	1.0	.0	.0	.0	.0	.0	.0	.0	7.3
PINK SHRIMP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SIDE STRIPES	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCALLOPS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER INVERTS	.0	.0	.0	.0	.0	.0	.0	.0	6.0	.0	.0
TOTAL INVERTS	52.3	7.3	4.3	76.5	71.6	75.2	138.2	31.9	8.3	305.3	20.2
OTHER	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL CATCH	1486.2	3198.8	1935.1	2045.2	873.4	2071.9	2032.2	1402.6	836.5	1534.1	1585.0

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Table 1. Fishing log for cruise 8502. Consecutive haul numbers are at the top: latitude and longitude are in degrees, minutes, and tenths of minutes; gear depth is in fathoms; temperature is in degrees C at the bottom taken after the completion of the haul; performance of 0 = successful and 1 = unsuccessful; and catch amounts are in kilograms. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

HAUL NO.	68	69	70	71	72	73	74	75	76	77	78
MONTH/DAY/YEAR	8/ 5/85	8/ 5/85	8/ 5/85	8/ 5/85	8/ 5/85	8/ 5/85	8/ 5/85	8/ 6/85	8/ 6/85	8/ 6/85	8/ 6/85
LATITUDE START	56 51.6	56 50.3	56 53.0	56 50.8	56 45.0	56 48.0	56 46.5	56 49.0	56 50.3	56 51.5	56 53.6
LONGITUDE START	154 30.8	154 30.7	154 27.5	154 26.0	154 27.6	154 33.0	154 30.4	154 20.0	154 26.1	154 21.6	154 23.3
GEAR DEPTH	37	35	36	37	36	36	37	30	34	33	30
DURATION IN HOURS	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50
TEMPERATURE											
PERFORMANCE	0	0	0	0	0	0	0	0	0	0	0
POLLOCK	14.0	108.8	23.5	7.6	89.5	71.2	17.0	.0	.0	60.8	98.5
PACIFIC COD	2.0	3.2	10.2	16.8	16.3	.0	30.5	11.4	.0	7.6	.0
PACIFIC OCEAN PERCH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ROUGHEYE ROCKFISH	.0	.0	.0	.0	.0	.0	2.5	.0	.0	.0	.0
DUSKY ROCKFISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER ROCKFISH	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
SABLEFISH	.0	.0	.0	.0	.0	1.5	.7	.0	.0	.0	.9
ATKA MACKEREL	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCULPINS	156.0	.0	.0	.0	.0	.0	.0	84.9	74.6	62.3	79.4
OTHER ROUND FISH	5.3	11.8	24.7	3.8	.0	.8	1.3	6.9	2.5	6.2	125.0
SALMON	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
YELLOWFIN SOLE	13.3	5.9	14.1	1.9	6.1	10.4	22.6	59.7	12.3	63.8	26.5
ARROWTOOTH FLOUNDER	54.0	108.8	56.5	52.4	59.6	24.8	39.0	35.8	68.0	41.5	54.4
FLATHEAD SOLE	277.3	427.9	348.2	270.5	225.4	231.2	147.2	112.6	232.0	177.7	200.0
ROCK SOLE	.0	.0	.0	.0	1.8	2.4	6.3	.0	.0	3.8	.0
REX SOLE	.0	.0	.0	.0	.0	.8	1.9	.0	.0	.0	.0
DOVER SOLE	.0	.0	.0	.0	.0	.0	1.3	.0	.0	.0	.0
PACIFIC HALIBUT	40.2	5.4	20.9	30.7	192.8	19.4	50.6	35.5	1.8	12.1	12.5
STARRY FLOUNDER	10.0	22.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
ALASKA PLAICE	12.7	.0	27.1	29.5	.0	.0	.0	.0	.0	.0	.0
OTHER FLATFISH	1.3	5.9	.0	.0	1.8	.0	1.3	.0	1.6	.0	.0
TOTAL FLATFISH	408.9	576.0	466.8	385.0	487.5	289.0	270.1	243.7	315.7	299.0	293.4
SKATES	190.6	65.8	317.8	102.9	18.9	280.6	194.0	92.2	218.5	121.7	430.4
OTHER ELASMOBRANCHS	1.6	.0	1.8	.0	.0	.0	.0	.0	.0	.0	14.6
TANNER CRAB	.0	.5	1.5	.1	2.3	97.4	28.3	1.0	.2	.0	.0
KING CRAB	82.9	147.8	15.0	8.5	238.2	170.0	107.9	29.4	53.4	16.5	2.4
DUNGENESS CRAB	.0	.0	1.0	.0	.0	.0	.0	1.1	.0	4.1	8.1
PINK SHRIMP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SIDE STRIPES	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCALLOPS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER INVERTS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL INVERTS	82.9	148.3	17.5	8.6	240.5	267.4	136.2	31.5	53.6	20.6	10.5
OTHER	4.7	6.2	14.9	17.1	422.8	6.4	.0	.6	29.5	.8	16.2
TOTAL CATCH	866.0	920.1	877.2	541.9	1275.5	917.1	652.3	471.2	694.4	578.9	1068.9

-Continued-

Table 1. Fishing log for cruise 8502. Consecutive haul numbers are at the top: latitude and longitude are in degrees, minutes, and tenths of minutes; gear depth is in fathoms; temperature is in degrees C at the bottom taken after the completion of the haul; performance of 0 = successful and 1 = unsuccessful; and catch amounts are in kilograms. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

HAUL NO.	79	80	81	82	83	84	85	86	87	88	89
MONTH/DAY/YEAR	8/ 6/85	8/ 6/85	8/ 6/85	8/ 6/85	8/ 7/85	8/ 7/85	8/ 7/85	8/ 7/85	8/ 7/85	8/ 8/85	8/ 8/85
LATITUDE START	56 50.9	56 49.5	56 47.0	56 47.3	56 48.0	56 59.1	57 2.2	57 5.2	57 7.1	56 52.5	56 53.5
LONGITUDE START	154 30.7	154 30.4	154 27.4	154 27.9	154 20.0	153 59.8	153 58.0	153 55.7	153 49.7	154 11.1	154 9.3
GEAR DEPTH	33	31	36	34	32	83	86	94	68	33	32
DURATION IN HOURS	.50	.50	.50	.50	.50	.50	.42	.50	.50	.50	.50
TEMPERATURE											
PERFORMANCE	0	0	0	0	0	0	0	0	0	0	0
POLLOCK	55.7	63.3	2.7	31.9	16.1	312.3	18.4	87.3	441.2	31.3	76.7
PACIFIC COD	1.2	.0	4.0	3.5	13.5	85.8	134.1	103.7	85.9	127.2	30.8
PACIFIC OCEAN PERCH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ROUGEYE ROCKFISH	.0	3.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
DUSKY ROCKFISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER ROCKFISH	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
SABLEFISH	.0	.0	.7	.0	.3	.0	.0	.0	.0	.0	.0
ATKA MACKEREL	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCULPINS	66.1	84.7	65.2	34.4	70.9	18.2	10.2	30.1	35.8	98.6	165.0
OTHER ROUND FISH	.9	1.3	3.3	5.3	12.3	.0	.0	.0	.0	.0	.6
SALMON	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
YELLOWFIN SOLE	28.7	15.3	24.4	4.9	23.5	.0	.0	.0	2.7	130.8	85.3
ARROWTOOTH FLOUNDER	66.1	26.7	17.4	17.9	15.8	31.0	5.1	90.0	7.4	104.7	127.6
FLATHEAD SOLE	259.1	108.0	55.9	55.1	38.6	123.0	48.9	46.5	126.4	76.6	59.5
ROCK SOLE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
REX SOLE	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0
DOVER SOLE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
PACIFIC HALIBUT	41.2	66.2	102.0	81.3	19.8	.0	.0	.0	.0	37.4	24.7
STARRY FLOUNDER	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ALASKA PLAICE	.0	.0	.0	.0	1.8	.0	.0	.0	.0	1.3	2.9
OTHER FLATFISH	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL FLATFISH	395.1	216.2	200.7	159.2	99.4	154.0	54.0	136.5	136.5	350.8	300.0
SKATES	138.4	167.8	262.1	135.4	74.1	.0	.0	.0	.0	16.7	8.5
OTHER ELASMOBRANCHS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TANNER CRAB	.1	.8	27.9	9.0	.3	40.0	41.6	53.1	14.1	116.3	43.2
KING CRAB	188.9	54.9	66.0	162.3	32.2	.0	.0	.0	3.2	122.4	33.3
DUNGENESS CRAB	.0	.0	.0	.0	.4	.5	.0	.0	.0	.0	.0
PINK SHRIMP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SIDE STRIPES	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCALLOPS	2.3	3.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER INVERTS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL INVERTS	191.3	59.0	93.9	171.3	32.9	40.5	41.6	53.1	17.3	238.7	76.5
OTHER	16.5	51.3	10.0	48.4	.7	.0	4.3	30.0	.0	23.8	77.3
TOTAL CATCH	865.1	647.0	642.7	589.4	320.2	610.8	262.6	440.6	716.7	887.2	735.4

-Continued-

Table 1. Fishing log for cruise 8502. Consecutive haul numbers are at the top: latitude and longitude are in degrees, minutes, and tenths of minutes; gear depth is in fathoms; temperature is in degrees C at the bottom taken after the completion of the haul; performance of 0 = successful and 1 = unsuccessful; and catch amounts are in kilograms. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

HAUL NO.	90	91	92	93	94	95	96	97	98	99	100
MONTH/DAY/YEAR	8/ 8/85	8/ 8/85	8/ 8/85	8/ 8/85	8/ 8/85	8/ 9/85	8/ 9/85	8/10/85	8/10/85	8/10/85	8/10/85
LATITUDE START	56 52.1	56 53.5	56 57.0	56 55.0	56 55.2	56 53.0	56 49.0	56 51.1	56 49.6	56 48.5	56 46.2
LONGITUDE START	154 6.5	154 2.1	153 53.2	154 5.5	154 4.7	154 1.8	154 7.5	154 9.1	154 11.6	154 11.8	154 13.0
GEAR DEPTH	31	33	34	45	55	31	34	28	23	20	24
DURATION IN HOURS	.50	.42	.42	.50	.42	.50	.50	.50	.50	.50	.50
TEMPERATURE											
PERFORMANCE	0	0	0	0	0	0	0	0	0	0	0
POLLOCK	29.1	200.0	206.6	64.7	427.7	130.4	346.2	72.1	1.3	.0	22.8
PACIFIC COD	.5	30.3	5.5	54.3	98.9	21.7	24.9	15.3	58.7	61.6	5.0
PACIFIC OCEAN PERCH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ROUGHEYE ROCKFISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
DUSKY ROCKFISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER ROCKFISH	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
SABLEFISH	.0	.0	.0	.0	.0	.0	.0	.4	.4	.7	.4
ATKA MACKEREL	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCULPINS	105.6	141.2	80.1	179.3	66.0	237.3	149.0	100.5	61.6	109.5	16.3
OTHER ROUND FISH	1.9	.0	.0	.0	.0	.0	1.0	5.3	18.2	52.4	97.6
SALMON	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
YELLOWFIN SOLE	118.3	174.6	76.5	59.5	26.6	270.6	152.9	138.5	86.5	322.6	211.4
ARROWTOOTH FLOUNDER	67.6	46.5	24.7	83.6	71.3	64.7	89.4	67.3	43.4	56.0	32.5
FLATHEAD SOLE	55.9	95.6	84.3	377.6	321.3	140.2	127.9	88.5	32.3	28.6	29.3
ROCK SOLE	.0	7.0	.0	42.2	.0	.0	.0	2.4	5.1	9.5	3.3
REX SOLE	.9	.0	.0	.0	.0	.0	.0	.5	4.0	3.6	.0
DOVER SOLE	.0	.0	.0	.0	.0	.0	.0	.0	2.0	7.1	.0
PACIFIC HALIBUT	23.8	82.4	48.7	11.5	.0	43.4	129.5	40.1	14.2	41.6	34.1
STARRY FLOUNDER	.0	.0	12.7	.0	.0	.0	.0	.0	.0	.0	.0
ALASKA PLAICE	1.9	1.6	.0	.0	2.3	2.8	.0	1.1	49.0	39.7	27.6
OTHER FLATFISH	.0	.0	.0	.0	.0	.0	.0	.0	2.0	8.6	34.1
TOTAL FLATFISH	268.4	407.7	246.9	574.4	421.4	521.7	499.7	338.3	238.6	517.3	372.3
SKATES	35.0	.0	.0	.0	.0	28.8	19.4	78.0	.0	.0	94.6
OTHER ELASMOBRANCHS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TANNER CRAB	6.5	13.3	5.3	96.8	108.9	4.2	3.8	19.5	.1	.0	.0
KING CRAB	3.9	.0	4.1	28.7	.0	1.4	.0	3.2	.0	.0	48.3
DUNGENESS CRAB	.0	.0	.0	.0	.0	.0	.0	.0	8.1	39.4	20.7
PINK SHRIMP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SIDE STRIPES	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCALLOPS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER INVERTS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL INVERTS	10.4	13.3	9.4	125.5	108.9	5.6	3.8	22.7	8.2	39.4	69.0
OTHER	5.2	90.4	27.7	.9	.0	52.0	16.3	10.6	15.8	.0	.8
TOTAL CATCH	456.2	882.9	576.3	999.2	1122.9	997.4	1060.3	643.2	402.9	780.9	678.8

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Table 1. Fishing log for cruise 8502. Consecutive haul numbers are at the top; latitude and longitude are in degrees, minutes, and tenths of minutes; gear depth is in fathoms; temperature is in degrees C at the bottom taken after the completion of the haul; performance of 0 = successful and 1 = unsuccessful; and catch amounts are in kilograms. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

HAUL NO.	101	102	103	104	105	106	107	108	109	110	111
MONTH/DAY/YEAR	8/10/85	8/10/85	8/10/85	8/11/85	8/11/85	8/11/85	8/11/85	8/11/85	8/11/85	0/ 0/ 0	0/ 0/ 0
LATITUDE START	56 47.5	56 45.2	56 46.2	56 46.8	56 43.5	56 44.6	56 43.7	56 45.5	56 46.0	0 .0	0 .0
LONGITUDE START	154 17.4	154 28.9	154 24.5	154 16.2	154 22.3	154 23.9	154 19.6	154 18.2	154 14.2	0 .0	0 .0
GEAR DEPTH	27	36	33	25	37	37	40	31	29	0	0
DURATION IN HOURS	.50	.50	.50	.50	.50	.50	.50	.50	.42	.00	.00
TEMPERATURE											
PERFORMANCE	0	0	0	0	0	0	0	0	0	0	0
POLLOCK	40.7	16.9	1.0	19.6	8.1	5.5	19.8	29.8	31.0	.0	.0
PACIFIC COD	9.1	14.5	59.8	3.4	11.1	.0	9.6	6.6	6.8	.0	.0
PACIFIC OCEAN PERCH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
ROUGHEYE ROCKFISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
DUSKY ROCKFISH	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER ROCKFISH	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
SABLEFISH	.0	1.5	.4	.6	.4	.0	.8	.0	.0	.0	.0
ATKA MACKEREL	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCULPINS	12.2	109.5	92.4	30.6	36.1	99.3	97.5	37.3	24.5	.0	.0
OTHER ROUND FISH	28.9	7.4	11.2	90.9	3.8	4.1	8.6	56.3	34.5	.0	.0
SALMON	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
YELLOWFIN SOLE	39.8	18.2	23.4	82.6	6.4	4.8	25.9	23.0	141.5	.0	.0
ARROWTOOTH FLOUNDER	23.2	26.8	36.8	23.4	36.1	37.6	53.3	29.8	33.0	.0	.0
FLATHEAD SOLE	45.5	137.7	69.4	15.5	108.8	103.8	71.1	17.5	19.5	.0	.0
ROCK SOLE	1.2	2.6	.0	.4	.5	.0	.0	.0	10.0	.0	.0
REX SOLE	.4	1.3	.0	2.6	.2	.0	.0	.4	.5	.0	.0
DOVER SOLE	.0	.0	.0	.8	.0	.0	.0	.0	5.5	.0	.0
PACIFIC HALIBUT	14.0	27.7	57.3	39.1	27.6	8.5	65.8	52.9	33.2	.0	.0
STARRY FLOUNDER	.0	.0	.0	.0	.0	.0	.0	.0	8.5	.0	.0
ALASKA PLATICE	.7	5.7	.0	3.4	2.1	.0	.0	.0	16.0	.0	.0
OTHER FLATFISH	1.6	.0	.3	20.4	.2	1.0	.0	.4	77.0	.0	.0
TOTAL FLATFISH	126.5	220.0	187.2	188.2	182.0	155.7	216.1	123.9	344.7	.0	.0
SKATES	33.0	108.3	232.8	100.8	168.6	176.2	363.4	140.0	49.5	.0	.0
OTHER ELASMOBRANCHS	.0	1.7	.0	3.3	3.3	3.3	1.2	1.5	1.9	.0	.0
TANNER CRAB	.0	1.2	16.6	14.7	44.1	12.9	10.6	13.0	.6	.0	.0
KING CRAB	25.5	87.5	85.3	26.5	173.1	142.6	97.7	32.5	.0	.0	.0
DUNGENESS CRAB	5.0	.0	.6	19.6	1.2	.0	.7	3.0	12.7	.0	.0
PINK SHRIMP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SIDE STRIPES	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
SCALLOPS	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0
OTHER INVERTS	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	.0
TOTAL INVERTS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
OTHER	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL CATCH	281.2	580.1	719.0	510.5	641.0	613.2	830.5	548.7	514.7	.0	.0

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Table 2. Catch amounts of important species in kilograms and numbers of fish captured, sorted by species and presented by haul number. Catch amounts are as captured, they are not corrected to a standard haul duration.

Pacific cod				Pacific cod			
Haul	Weight	Number	Avg wt	Haul	Weight	Number	Avg wt
1	21.1	6	3.5	58	44.8	17	2.6
2	5.5	2	2.8	59	34.8	10	3.5
3	244.7	124	2.0	60	102.0	42	2.4
4	57.6	20	2.9	61	3.2	3	1.1
5	106.4	39	2.7	62	32.4	14	2.3
6	53.2	19	2.8	63	8.4	5	1.7
7	13.2	5	2.6	64	403.9	153	2.6
8	34.9	14	2.5	65	36.2	13	2.8
9	99.2	50	2.0	66	71.7	21	3.4
10	69.7	24	2.9	67	77.6	31	2.5
11	26.8	9	3.0	68	2.0	1	2.0
12	86.5	32	2.7	69	3.2	1	3.2
13	103.7	29	3.6	70	10.2	4	2.6
14	50.8	30	1.7	71	16.8	8	2.1
15	73.0	30	2.4	72	16.3	5	3.3
16	44.4	31	1.4	74	30.5	10	3.1
17	49.9	32	1.6	75	11.4	4	2.9
18	36.8	20	1.8	77	7.6	2	3.8
19	22.9	11	2.1	79	1.2	1	1.2
20	49.1	23	2.1	81	4.0	4	1.0
21	269.2	109	2.5	82	3.5	1	3.5
22	35.2	17	2.1	83	13.5	4	3.4
23	42.1	19	2.2	84	85.8	31	2.8
24	33.0	13	2.5	85	134.1	31	4.3
25	43.7	19	2.3	86	103.7	31	3.3
26	54.1	19	2.8	87	85.9	33	2.6
27	33.8	13	2.6	88	127.2	47	2.7
28	3.0	1	3.0	89	30.8	11	2.8
29	17.4	7	2.5	90	0.5	1	0.5
30	62.6	31	2.0	91	30.3	12	2.5
32	6.0	2	3.0	92	5.5	2	2.8
33	47.3	20	2.4	93	54.3	17	3.2
34	1.7	1	1.7	94	98.9	28	3.5
35	9.0	5	1.8	95	21.7	7	3.1
38	26.5	14	1.9	96	24.9	12	2.1
39	85.1	42	2.0	97	15.3	10	1.5
40	9.2	7	1.3	98	58.7	43	1.4
41	148.8	64	2.3	99	61.6	25	2.5
42	2.9	3	1.0	100	5.0	4	1.3
45	60.2	27	2.2	101	9.1	4	2.3
46	68.9	30	2.3	102	14.5	6	2.4
47	65.6	26	2.5	103	59.8	19	3.1
48	55.9	24	2.3	104	3.4	4	0.9
49	4.8	2	2.4	105	11.1	4	2.8
50	2.0	1	2.0	107	9.6	5	1.9
51	33.6	14	2.4	108	6.6	3	2.2
52	5.0	2	2.5	109	6.8	5	1.4
54	3.5	1	3.5				
55	1.4	1	1.4				
56	14.6	8	1.8				
57	88.6	41	2.2				
				TOTAL	4,584.4	1,882	2.4

-Continued-

Table 2. Catch amounts of important species in kilograms and numbers of fish captured, sorted by species and presented by haul number. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

Pollock				Pollock			
Haul	Weight	Number	Avg wt	Haul	Weight	Number	Avg wt
1	159.8	260	0.6	65	95.5	59	1.6
2	64.2	81	0.8	66	63.7	182	0.4
3	197.2	184	1.1	67	12.9	14	0.9
4	24.4	14	1.7	68	14.0	60	0.2
5	50.1	38	1.3	69	108.1	248	0.4
6	17.4	15	1.2	70	23.4	23	1.0
7	8.3	7	1.2	71	7.6	9	0.8
8	643.8	974	0.7	72	89.4	947	0.1
9	16.3	12	1.4	73	70.9	135	0.5
10	26.7	25	1.1	74	16.9	19	0.9
11	50.3	37	1.4	77	60.7	61	1.0
12	9.3	5	1.9	78	98.2	469	0.2
13	168.9	154	1.1	79	55.6	287	0.2
14	126.8	172	0.7	80	63.3	866	0.1
15	247.4	364	0.7	81	2.7	20	0.1
16	97.4	146	0.7	82	31.9	323	0.1
17	424.6	661	0.6	83	16.1	7	2.3
18	71.7	104	0.7	84	311.3	1,556	0.2
19	411.1	678	0.6	85	18.4	76	0.2
20	536.5	756	0.7	86	87.2	200	0.4
21	701.3	998	0.7	87	439.5	4,307	0.1
22	112.7	144	0.8	88	31.3	47	0.7
23	105.0	103	1.0	89	76.3	354	0.2
24	25.8	39	0.7	90	29.0	51	0.6
25	314.6	338	0.9	91	199.9	1,806	0.1
26	82.4	102	0.8	92	205.8	2,118	0.1
27	894.9	874	1.0	93	64.3	283	0.2
28	264.8	244	1.1	94	426.9	1,827	0.2
29	590.7	582	1.0	95	129.6	1,257	0.1
30	60.8	57	1.1	96	344.6	2,891	0.1
32	124.8	120	1.0	97	71.9	723	0.1
33	631.1	550	1.1	98	1.3	13	0.1
34	711.0	579	1.2	100	22.7	57	0.4
35	129.9	103	1.3	101	40.6	45	0.9
38	668.8	672	1.0	102	16.8	177	0.1
39	401.5	280	1.4	103	1.0	13	0.1
40	1,182.5	1,432	0.8	104	19.6	68	0.3
41	1,342.5	1,596	0.8	105	8.1	57	0.1
45	846.7	647	1.3	106	5.5	41	0.1
46	186.4	148	1.3	107	19.8	137	0.1
47	38.6	44	0.9	108	29.8	270	0.1
48	80.8	90	0.9	109	30.9	269	0.1
49	201.5	182	1.1				
51	127.9	82	1.6				
52	40.6	34	1.2				
53	40.0	35	1.2				
54	200.1	158	1.3				
56	288.3	758	0.4				
57	200.6	181	1.1				
59	154.1	145	1.1				
60	147.9	80	1.9				
61	8.9	8	1.1				
62	491.2	454	1.1				
63	407.5	522	0.8				
64	169.1	176	1.0				
				TOTAL	18,790.5	39,616	0.5

-Continued-

Table 2. Catch amounts of important species in kilograms and numbers of fish captured, sorted by species and presented by haul number. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

Sablefish				Pacific herring			
Haul	Weight	Number	Avg wt	Haul	Weight	Number	Avg wt
4	116.6	60	1.9	68	4.0	20	0.2
5	226.8	119	1.9	69	6.2	45	0.1
6	135.2	70	1.9	70	14.9	123	0.1
10	90.6	70	1.3	71	17.0	104	0.2
11	86.2	73	1.2	72	422.6	1,648	0.3
12	95.0	72	1.3	73	6.4	32	0.2
14	1.9	2	1.0	75	0.6	6	0.1
15	1.0	2	0.5	76	27.8	188	0.1
16	1.7	4	0.4	77	0.8	8	0.1
17	8.4	17	0.5	78	13.2	88	0.1
18	2.5	6	0.4	79	14.8	96	0.2
19	2.1	5	0.4	80	50.6	253	0.2
20	1.8	4	0.5	81	8.7	43	0.2
21	3.4	4	0.9	82	47.4	263	0.2
22	88.6	85	1.0	83	0.4	4	0.1
23	68.5	64	1.1	88	23.8	149	0.2
24	120.2	111	1.1	89	75.7	513	0.1
27	2.3	1	2.3	90	5.1	37	0.1
28	6.2	8	0.8	91	86.8	526	0.2
29	4.2	3	1.4	92	27.6	156	0.2
30	1,755.4	851	2.1	93	0.9	9	0.1
31	874.5	365	2.4	95	51.7	312	0.2
32	279.4	108	2.6	96	16.3	86	0.2
33	2.1	1	2.1	97	5.7	57	0.1
34	65.6	28	2.3	98	15.8	111	0.1
35	119.8	53	2.3	100	0.8	8	0.1
46	2.0	1	2.0	101	0.4	4	0.1
49	6.1	5	1.2	102	11.2	112	0.1
50	201.0	94	2.1	103	28.9	194	0.1
52	68.2	33	2.1	104	3.0	19	0.2
53	129.2	60	2.2	105	9.0	52	0.2
54	239.4	117	2.0	106	11.0	65	0.2
55	258.7	107	2.4	107	2.5	20	0.1
56	159.2	73	2.2	108	103.9	674	0.2
61	0.4	1	0.4	109	6.5	50	0.1
62	6.0	3	2.0				
65	0.4	1	0.4	TOTAL	1,122.0	6,075	0.2
66	0.6	2	0.3				
73	1.5	4	0.4				
74	0.7	2	0.4				
78	0.9	2	0.5				
81	0.7	2	0.4				
83	0.3	1	0.3				
97	0.4	1	0.4	Chum salmon			
98	0.4	1	0.4	Haul	Weight	Number	Avg wt
99	0.7	2	0.4	42	1.4	1	1.4
100	0.4	1	0.4				
102	1.5	3	0.5	TOTAL	1.4	1	1.4
103	0.4	1	0.4				
104	0.6	2	0.3				
105	0.4	1	0.4				
107	0.8	2	0.4				
TOTAL	5,240.9	2,708	2.0				

-Continued-

Table 2. Catch amounts of important species in kilograms and numbers of fish captured, sorted by species and presented by haul number. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

Tanner Crab				Tanner Crab			
Haul	Weight	Number	Avg wt	Haul	Weight	Number	Avg wt
1	11.7	14	0.8	58	7.3	149	0.0
2	206.6	1,003	0.2	59	1.4	48	0.0
3	40.5	250	0.2	60	0.2	14	0.0
4	34.5	77	0.4	61	66.5	77	0.9
5	5.2	106	0.0	62	75.2	95	0.8
6	13.8	222	0.1	63	114.7	118	1.0
7	1.0	29	0.0	64	24.1	362	0.1
8	0.0	4	0.0	65	2.3	71	0.0
9	127.4	235	0.5	66	286.8	419	0.7
10	104.7	115	0.9	67	10.6	94	0.1
11	62.0	61	1.0	68	0.0	1	0.0
12	65.1	70	0.9	69	0.5	7	0.1
13	113.5	80	1.4	70	1.5	4	0.4
14	29.6	107	0.3	71	0.1	1	0.1
15	114.6	640	0.2	72	2.3	4	0.6
16	58.4	155	0.4	73	97.4	175	0.6
17	29.3	48	0.6	74	28.3	34	0.8
18	17.3	41	0.4	75	1.0	3	0.3
19	20.3	40	0.5	76	0.2	4	0.1
20	47.2	71	0.7	77	0.0	1	0.0
21	30.6	99	0.3	79	0.1	3	0.0
22	6.4	21	0.3	80	0.8	7	0.1
23	6.6	68	0.1	81	27.9	239	0.1
24	15.3	20	0.8	82	9.0	84	0.1
25	23.0	30	0.8	83	0.3	2	0.2
26	22.7	25	0.9	84	40.0	56	0.7
27	25.7	32	0.8	85	41.6	58	0.7
28	28.8	39	0.7	86	53.1	54	1.0
29	2.6	38	0.1	87	14.1	20	0.7
30	13.3	49	0.3	88	116.3	563	0.2
31	14.4	27	0.5	89	43.2	73	0.6
32	18.8	33	0.6	90	6.5	18	0.4
33	180.4	166	1.1	91	13.3	85	0.2
34	4.0	30	0.1	92	5.3	54	0.1
35	30.8	246	0.1	93	96.8	455	0.2
36	1.5	13	0.1	94	108.9	314	0.3
38	62.6	94	0.7	95	4.2	24	0.2
39	215.4	196	1.1	96	3.8	7	0.5
40	66.4	182	0.4	97	19.5	22	0.9
41	120.2	252	0.5	98	0.1	4	0.0
42	0.9	3	0.3	101	0.0	1	0.0
43	0.3	1	0.3	102	1.2	6	0.2
45	75.9	67	1.1	103	16.6	126	0.1
46	42.8	59	0.7	104	14.7	49	0.3
47	14.6	32	0.5	105	44.1	132	0.3
48	2.3	13	0.2	106	12.9	12	1.1
49	18.8	28	0.7	107	10.6	16	0.7
50	1.1	7	0.2	108	13.0	30	0.4
51	222.3	215	1.0	109	0.6	3	0.2
52	10.3	23	0.4				
53	12.2	34	0.4	TOTAL	3,964.2	9,879	0.4
54	9.4	32	0.3				
55	51.3	55	0.9				
56	48.1	51	0.9				
57	22.8	33	0.7				

-Continued-

Table 2. Catch amounts of important species in kilograms and numbers of fish captured, sorted by species and presented by haul number. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

King Crab				Dungeness Crab			
Haul	Weight	Number	Avg wt	Haul	Weight	Number	Avg wt
1	1.7	1	1.7	16	0.9	1	0.9
8	1.1	1	1.1	19	3.3	5	0.7
13	2.6	1	2.6	20	3.7	4	0.9
19	2.3	1	2.3	25	7.6	8	1.0
20	1.6	1	1.6	26	0.6	1	0.6
25	28.8	10	2.9	44	2.0	3	0.7
38	10.8	2	5.4	57	1.4	2	0.7
57	28.1	10	2.8	59	1.0	1	1.0
59	1.9	1	1.9	67	7.3	7	1.0
60	76.3	34	2.2	70	1.0	2	0.5
61	5.1	1	5.1	75	1.1	2	0.6
63	23.5	4	5.9	77	4.1	7	0.6
64	7.8	3	2.6	78	8.1	12	0.7
66	18.5	5	3.7	83	0.4	1	0.4
67	2.3	1	2.3	84	0.5	1	0.5
68	82.9	31	2.7	98	8.1	13	0.6
69	147.8	58	2.5	99	39.4	70	0.6
70	15.0	7	2.1	100	20.7	36	0.6
71	8.5	5	1.7	101	5.0	9	0.6
72	238.2	95	2.5	103	0.6	1	0.6
73	170.0	52	3.3	104	19.6	36	0.5
74	107.9	47	2.3	105	1.2	2	0.6
75	29.4	18	1.6	107	0.7	1	0.7
76	53.4	27	2.0	108	3.0	5	0.6
77	16.5	9	1.8	109	12.7	23	0.6
78	2.4	2	1.2				
79	188.9	54	3.5	TOTAL	154.0	253	0.6
80	54.9	17	3.2				
81	66.0	38	1.7				
82	162.3	85	1.9				
83	32.2	20	1.6				
87	3.2	1	3.2				
88	122.4	40	3.1				
89	33.3	12	2.8				
90	3.9	1	3.9				
92	4.1	2	2.1				
93	28.7	8	3.6				
95	1.4	1	1.4				
97	3.2	1	3.2				
100	48.3	29	1.7				
101	25.5	15	1.7				
102	87.5	46	1.9				
103	85.3	68	1.3				
104	26.5	16	1.7				
105	173.1	112	1.5				
106	142.6	94	1.5				
107	97.7	50	2.0				
108	32.5	17	1.9				
TOTAL	2,507.9	1,154	2.2				

Weathervane scallop			
Haul	Weight	Number	Avg wt
16	0.5	5	0.1
19	0.9	7	0.1
20	1.9	19	0.1
21	0.1	3	0.0
26	1.2	2	0.6
29	0.1	1	0.1
40	0.3	1	0.3
43	4.2	7	0.6
44	0.4	1	0.4
79	2.3	4	0.6
80	3.3	7	0.5
103	0.0	3	0.0
109	1.0	2	0.5
TOTAL	16.2	62	0.3

-Continued-

Table 2. Catch amounts of important species in kilograms and numbers of fish captured, sorted by species and presented by haul number. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

Spiny dogfish				Sculpin spp.			
Haul	Weight	Number	Avg wt	Haul	Weight	Number	Avg wt
25	1.5	1	1.5	3	59.0	43	1.4
26	4.1	2	2.1	5	45.8	16	2.8
29	2.5	1	2.5	63	52.2	17	3.0
30	1.5	1	1.5	68	156.0	140	1.1
35	1.4	1	1.4	75	84.8	95	0.9
36	1.4	1	1.4	76	74.3	57	1.3
40	2.9	1	2.9	77	62.2	77	0.8
41	1.6	1	1.6	78	79.1	118	0.7
42	3.1	1	3.1	79	66.0	61	1.1
44	2.1	1	2.1	80	84.6	60	1.4
45	5.6	3	1.9	81	65.2	46	1.4
46	2.2	1	2.2	82	34.4	28	1.2
57	2.4	1	2.4	83	70.8	78	0.9
58	2.4	1	2.4	84	18.2	22	0.8
61	3.6	1	3.6	85	10.2	10	1.0
62	1.1	1	1.1	86	30.0	36	0.8
63	2.7	2	1.4	87	35.7	27	1.3
64	3.0	1	3.0	88	98.5	108	0.9
68	1.6	1	1.6	89	164.3	159	1.0
70	1.8	1	1.8	90	105.3	154	0.7
78	14.6	6	2.4	91	141.2	193	0.7
102	1.7	1	1.7	92	79.8	114	0.7
104	3.3	1	3.3	93	178.4	189	0.9
105	3.3	2	1.7	94	65.9	128	0.5
106	3.3	2	1.7	95	235.9	302	0.8
107	1.2	1	1.2	96	148.4	153	1.0
108	1.5	1	1.5	97	100.1	149	0.7
109	1.9	1	1.9	98	61.4	67	0.9
TOTAL	79.3	39	2.0	99	108.7	177	0.6
Giant wrymouth				100	16.2	16	1.0
Haul	Weight	Number	Avg wt	101	12.2	12	1.0
13	4.0	1	4.0	102	109.0	82	1.3
22	1.4	2	0.7	103	92.2	99	0.9
26	4.0	2	2.0	104	30.5	26	1.2
39	2.1	1	2.1	105	36.1	26	1.4
47	3.3	1	3.3	106	99.2	82	1.2
49	15.1	2	7.6	107	97.5	56	1.7
50	18.0	3	6.0	108	37.3	24	1.6
51	5.0	1	5.0	109	24.4	45	0.5
52	9.0	2	4.5	TOTAL	3,071.0	3,292	0.9
55	6.0	1	6.0	Snailfish spp.			
56	35.0	5	7.0	Haul	Weight	Number	Avg wt
57	3.0	1	3.0	85	1.3	1	1.3
85	3.0	1	3.0	TOTAL	1.3	1	1.3
86	30.0	6	5.0				
TOTAL	138.9	29	4.8				

-Continued-

Table 2. Catch amounts of important species in kilograms and numbers of fish captured, sorted by species and presented by haul number. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

Halibut				Halibut			
Haul	Weight	Number	Avg wt	Haul	Weight	Number	Avg wt
1	58.7	14	4.2	59	30.5	4	7.6
2	0.3	1	0.3	60	40.6	2	20.3
3	40.9	6	6.8	62	11.2	2	5.6
4	4.0	1	4.0	63	27.4	3	9.1
5	21.0	2	10.5	64	38.6	12	3.2
6	36.1	4	9.0	65	0.3	1	0.3
8	75.7	10	7.6	66	37.7	4	9.4
9	16.1	2	8.1	67	51.5	4	12.9
10	80.0	7	11.4	68	40.2	11	3.7
11	9.1	2	4.6	69	5.4	2	2.7
12	12.0	2	6.0	70	20.9	7	3.0
13	68.5	7	9.8	71	30.7	4	7.7
14	29.2	5	5.8	72	192.8	14	13.8
15	6.0	2	3.0	73	19.4	5	3.9
16	13.2	4	3.3	74	50.6	11	4.6
17	16.5	6	2.8	75	35.5	10	3.6
18	12.7	4	3.2	76	1.8	1	1.8
19	10.8	2	5.4	77	12.1	4	3.0
20	4.2	1	4.2	78	12.5	6	2.1
22	38.1	4	9.5	79	41.2	6	6.9
23	23.2	5	4.6	80	66.2	15	4.4
24	33.4	3	11.1	81	102.0	16	6.4
25	20.1	6	3.4	82	81.3	13	6.3
26	11.2	2	5.6	83	19.8	7	2.8
27	23.3	2	11.7	88	37.4	16	2.3
28	10.7	1	10.7	89	24.7	7	3.5
29	24.6	3	8.2	90	23.8	3	7.9
30	51.8	7	7.4	91	82.4	23	3.6
31	31.3	3	10.4	92	48.7	12	4.1
32	95.7	7	13.7	93	11.5	2	5.8
33	18.6	3	6.2	95	43.4	16	2.7
34	91.9	7	10.0	96	129.5	39	3.3
35	44.1	3	14.7	97	40.1	10	4.0
36	61.4	18	3.4	98	14.2	14	1.0
38	15.1	3	5.0	99	41.6	18	2.3
39	24.3	2	12.2	100	34.1	15	2.3
40	20.0	2	10.0	101	14.0	6	2.3
41	3.1	1	3.1	102	27.7	5	5.5
42	16.6	12	1.4	103	57.3	12	4.8
43	43.3	25	1.7	104	39.1	14	2.8
44	7.5	14	0.5	105	27.6	9	3.1
45	4.0	1	4.0	106	8.5	3	2.8
46	39.1	4	9.8	107	65.8	21	3.1
47	10.7	1	10.7	108	52.9	10	5.3
48	45.1	6	7.5	109	33.2	10	3.3
49	26.9	2	13.5				
50	96.6	5	19.3	TOTAL	3,724.2	698	5.3
51	18.0	2	9.0	English sole			
52	93.8	5	18.8	Haul	Weight	Number	Avg wt
53	112.5	9	12.5				
54	28.9	2	14.5	42	12.0	33	0.4
55	77.5	3	25.8	100	3.2	24	0.1
56	73.2	6	12.2	109	0.5	5	0.1
57	21.8	3	7.3				
58	24.1	5	4.8	TOTAL	15.7	62	0.3

-Continued-

Table 2. Catch amounts of important species in kilograms and numbers of fish captured, sorted by species and presented by haul number. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

Flathead sole				Flathead sole			
Haul	Weight	Number	Avg wt	Haul	Weight	Number	Avg wt
1	283.5	1,953	0.1	60	1,159.6	3,579	0.3
2	78.2	344	0.2	61	381.5	1,513	0.3
3	49.8	190	0.3	62	513.9	1,899	0.3
4	122.7	356	0.3	63	158.5	644	0.2
5	55.0	205	0.3	64	361.6	2,492	0.1
6	138.0	432	0.3	65	476.1	4,333	0.1
7	5.8	18	0.3	66	571.3	3,744	0.2
8	144.4	918	0.2	67	802.0	3,022	0.3
9	17.5	59	0.3	68	277.3	1,860	0.1
10	68.0	216	0.3	69	425.3	2,996	0.1
11	42.5	145	0.3	70	346.7	2,495	0.1
12	121.2	410	0.3	71	268.5	1,522	0.2
13	343.1	1,414	0.2	72	225.3	1,605	0.1
14	57.7	274	0.2	73	230.1	1,441	0.2
15	49.6	248	0.2	74	146.8	1,035	0.1
16	85.1	537	0.2	75	112.5	716	0.2
17	47.4	196	0.2	76	231.0	1,600	0.1
18	45.7	205	0.2	77	177.6	1,069	0.2
19	139.1	731	0.2	78	199.2	1,670	0.1
20	71.2	363	0.2	79	258.9	1,790	0.1
21	62.7	294	0.2	80	107.9	806	0.1
22	87.8	308	0.3	81	55.8	475	0.1
23	152.9	638	0.2	82	55.1	512	0.1
24	255.2	1,276	0.2	83	38.5	315	0.1
25	313.6	2,598	0.1	84	122.6	432	0.3
26	359.5	1,586	0.2	85	48.9	114	0.4
27	108.6	503	0.2	86	46.4	127	0.4
28	138.1	682	0.2	87	125.9	384	0.3
29	167.1	744	0.2	88	76.6	775	0.1
30	163.7	721	0.2	89	59.2	806	0.1
31	404.6	1,713	0.2	90	55.7	740	0.1
32	153.7	720	0.2	91	95.6	763	0.1
33	233.8	993	0.2	92	84.0	738	0.1
34	179.2	691	0.3	93	375.6	1,852	0.2
35	69.0	264	0.3	94	320.7	1,805	0.2
36	0.0	3	0.0	95	139.4	1,267	0.1
38	225.4	806	0.3	96	127.3	900	0.1
39	1,034.0	3,174	0.3	97	88.2	1,092	0.1
40	382.6	1,654	0.2	98	32.3	440	0.1
41	238.3	915	0.3	99	28.4	614	0.0
45	115.8	733	0.2	100	29.1	324	0.1
46	447.0	1,732	0.3	101	45.5	358	0.1
47	250.1	1,038	0.2	102	137.1	983	0.1
48	453.5	1,875	0.2	103	69.3	702	0.1
49	104.4	425	0.2	104	15.5	207	0.1
50	202.3	876	0.2	105	108.7	800	0.1
51	285.1	1,069	0.3	106	103.7	799	0.1
52	202.9	1,200	0.2	107	71.1	579	0.1
53	151.1	695	0.2	108	17.5	222	0.1
54	113.4	522	0.2	109	19.4	189	0.1
55	134.3	578	0.2				
56	35.2	325	0.1				
57	731.3	2,396	0.3	TOTAL	23,845.9	115,937	0.2
58	2,679.7	7,934	0.3				
59	1,219.8	3,897	0.3				

-Continued-

Table 2. Catch amounts of important species in kilograms and numbers of fish captured, sorted by species and presented by haul number. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

Alaska plaice				Butter sole			
Haul	Weight	Number	Avg wt	Haul	Weight	Number	Avg wt
16	17.8	14	1.3	108	0.4	4	0.1
18	20.2	14	1.4	109	66.3	429	0.2
19	29.9	26	1.1				
20	5.1	7	0.7	TOTAL	780.8	4,746	0.2
68	12.7	7	1.9				
70	26.9	12	2.3				
71	29.3	9	3.1				
83	1.8	4	0.5				
88	1.3	1	1.3				
89	2.9	1	2.9				
90	1.9	2	1.0				
91	1.6	1	1.6				
94	2.3	2	1.2				
95	2.8	1	2.8				
97	1.1	1	1.1				
98	49.0	41	1.2				
99	39.7	32	1.2				
100	27.6	15	1.8				
101	0.7	1	0.7				
102	5.7	3	1.9				
104	3.4	5	0.7				
105	2.1	1	2.1				
109	16.0	10	1.6				
TOTAL	301.8	210	1.4				
Butter sole				Yellowfin sole			
Haul	Weight	Number	Avg wt	Haul	Weight	Number	Avg wt
25	3.0	10	0.3	1	13.4	39	0.3
26	5.5	16	0.4	2	1.5	4	0.4
42	222.8	1,212	0.2	8	6.7	11	0.6
43	244.8	1,832	0.1	64	113.4	283	0.4
44	125.3	745	0.2	66	307.3	1,331	0.2
45	8.5	51	0.2	67	283.6	759	0.4
57	7.0	28	0.3	68	13.3	33	0.4
64	16.6	49	0.3	69	5.8	15	0.4
65	3.4	17	0.2	70	14.1	35	0.4
67	22.9	57	0.4	71	1.9	9	0.2
68	1.3	7	0.2	72	6.1	9	0.7
69	5.8	29	0.2	73	10.4	16	0.7
72	1.8	9	0.2	74	22.6	50	0.5
74	1.3	6	0.2	75	59.7	163	0.4
76	1.6	8	0.2	76	12.2	24	0.5
81	0.7	7	0.1	77	63.8	177	0.4
98	2.0	13	0.2	78	26.4	103	0.3
99	7.1	35	0.2	79	28.7	78	0.4
100	20.2	105	0.2	80	15.3	27	0.6
101	1.6	12	0.1	81	24.4	60	0.4
103	0.3	3	0.1	82	4.9	14	0.4
104	9.4	53	0.2	83	23.5	70	0.3
105	0.2	2	0.1	87	2.7	7	0.4
106	1.0	7	0.2	88	130.7	406	0.3
				89	84.9	287	0.3
				90	118.0	435	0.3
				91	174.5	509	0.3
				92	76.2	366	0.2
				93	59.2	137	0.4
				94	26.5	64	0.4
				95	269.0	897	0.3
				96	152.2	517	0.3
				97	138.0	484	0.3
				98	86.3	420	0.2
				99	320.2	1,489	0.2
				100	210.5	745	0.3
				101	39.8	256	0.2
				102	18.1	47	0.4
				103	23.3	59	0.4
				104	82.6	321	0.3
				105	6.4	19	0.3
				106	4.8	10	0.5
				107	25.9	61	0.4
				108	23.0	75	0.3
				109	141.1	509	0.3
				TOTAL	3,272.9	11,430	0.3

-Continued-

Table 2. Catch amounts of important species in kilograms and numbers of fish captured, sorted by species and presented by haul number. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

Dover sole				Pacific tomcod			
Haul	Weight	Number	Avg wt	Haul	Weight	Number	Avg wt
1	2.4	16	0.2	68	5.3	100	0.1
3	79.2	98	0.8	69	11.7	219	0.1
8	9.0	45	0.2	70	24.6	480	0.1
9	39.0	38	1.0	71	3.8	66	0.1
11	0.7	3	0.2	72	0.0	9	0.0
15	0.4	4	0.1	73	0.8	8	0.1
16	0.5	5	0.1	74	1.3	25	0.1
17	33.5	49	0.7	75	6.9	119	0.1
18	4.0	6	0.7	76	2.4	33	0.1
21	30.7	38	0.8	77	6.1	138	0.0
22	29.5	39	0.8	78	124.5	2,681	0.0
23	10.3	19	0.5	79	0.9	26	0.0
24	7.7	52	0.1	80	1.3	27	0.1
28	55.2	32	1.7	81	3.3	67	0.1
29	35.6	32	1.1	82	5.3	105	0.1
30	19.5	16	1.2	83	12.3	256	0.0
31	27.3	25	1.1	89	0.6	18	0.0
34	171.7	168	1.0	90	1.9	42	0.0
35	37.9	34	1.1	96	1.0	19	0.1
38	41.8	45	0.9	97	5.3	105	0.1
40	24.7	49	0.5	98	18.1	353	0.1
41	36.2	64	0.6	99	52.0	1,063	0.0
46	97.3	115	0.8	100	97.1	1,789	0.1
47	79.8	70	1.1	101	28.8	553	0.1
48	107.8	135	0.8	102	7.3	134	0.1
49	36.4	24	1.5	103	11.2	210	0.1
50	27.1	21	1.3	104	90.9	1,780	0.1
51	12.8	18	0.7	105	3.8	69	0.1
53	34.7	17	2.0	106	4.1	59	0.1
54	54.2	39	1.4	107	8.6	142	0.1
55	18.7	19	1.0	108	56.3	952	0.1
56	199.0	176	1.1	109	34.4	618	0.1
61	80.5	64	1.3				
62	78.4	103	0.8				
63	134.1	139	1.0				
74	1.3	13	0.1				
98	2.0	30	0.1				
99	7.1	106	0.1				
102	0.0	4	0.0				
104	0.8	4	0.2				
109	5.5	55	0.1				
TOTAL	1,674.3	2,029	0.8	TOTAL	631.9	12,265	0.1
Starry flounder				Searcher			
Haul	Weight	Number	Avg wt	Haul	Weight	Number	Avg wt
44	44.0	11	3.9	81	0.3	3	0.1
68	10.0	7	1.5	82	0.4	4	0.1
69	21.9	15	1.5				
92	12.6	6	2.1				
109	8.5	5	1.7				
TOTAL	97.0	44	2.2	TOTAL	0.7	7	0.1

-Continued-

Table 2. Catch amounts of important species in kilograms and numbers of fish captured, sorted by species and presented by haul number. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

Arrowtooth flounder				Arrowtooth flounder			
Haul	Weight	Number	Avg wt	Haul	Weight	Number	Avg wt
1	69.3	535	0.1	57	334.3	585	0.6
2	2.3	15	0.2	58	237.5	378	0.6
3	178.1	455	0.4	59	319.0	598	0.5
4	508.4	446	1.1	60	173.4	255	0.7
5	333.2	361	0.9	61	266.4	596	0.4
6	555.1	614	0.9	62	767.7	1,053	0.7
7	21.1	29	0.7	63	980.4	1,410	0.7
8	223.9	940	0.2	64	227.7	1,222	0.2
9	140.7	196	0.7	65	164.3	645	0.3
10	566.5	579	1.0	66	71.7	740	0.1
11	204.1	246	0.8	67	207.7	559	0.4
12	280.9	440	0.6	68	54.0	1,000	0.1
13	27.5	302	0.1	69	108.1	1,023	0.1
14	97.2	285	0.3	70	56.2	1,089	0.1
15	68.5	304	0.2	71	52.0	700	0.1
16	156.1	478	0.3	72	59.6	964	0.1
17	253.1	939	0.3	73	24.7	151	0.2
18	85.5	254	0.3	74	38.9	251	0.2
19	253.5	1,576	0.2	75	35.8	521	0.1
20	127.2	625	0.2	76	67.7	1,028	0.1
21	380.1	665	0.6	77	41.5	907	0.0
22	479.4	583	0.8	78	54.2	1,480	0.0
23	667.8	966	0.7	79	66.0	782	0.1
24	964.0	812	1.2	80	26.6	386	0.1
25	270.8	1,195	0.2	81	17.4	267	0.1
26	356.4	754	0.5	82	17.9	425	0.0
27	248.9	291	0.9	83	15.8	336	0.0
28	1,262.3	1,852	0.7	84	30.9	85	0.4
29	244.7	679	0.4	85	5.1	14	0.4
30	535.8	1,435	0.4	86	89.8	207	0.4
31	2,343.4	3,326	0.7	87	7.4	20	0.4
32	1,985.6	2,281	0.9	88	104.6	854	0.1
33	785.4	947	0.8	89	127.0	1,258	0.1
34	556.1	933	0.6	90	67.4	1,128	0.1
35	966.9	828	1.2	91	46.5	491	0.1
36	51.6	980	0.1	92	24.6	264	0.1
38	407.5	1,030	0.4	93	83.2	352	0.2
39	415.5	817	0.5	94	71.2	255	0.3
40	725.8	2,197	0.3	95	64.3	653	0.1
41	500.0	1,085	0.5	96	89.0	594	0.2
42	85.2	3,265	0.0	97	67.1	1,533	0.0
43	33.5	1,532	0.0	98	43.3	1,136	0.0
44	5.6	181	0.0	99	55.5	1,737	0.0
45	540.1	698	0.8	100	32.4	510	0.1
46	908.9	1,435	0.6	101	23.2	370	0.1
47	101.9	222	0.5	102	26.7	366	0.1
48	317.7	752	0.4	103	36.8	752	0.0
49	792.7	947	0.8	104	23.4	422	0.1
50	1,870.3	1,731	1.1	105	36.1	423	0.1
51	529.1	448	1.2	106	37.5	458	0.1
52	1,307.0	1,911	0.7	107	53.3	599	0.1
53	1,494.1	1,859	0.8	108	29.8	563	0.1
54	606.3	1,627	0.4	109	32.9	544	0.1
55	1,805.4	2,294	0.8				
56	782.4	650	1.2	TOTAL	35,275.9	87,766	0.4

-Continued-

Table 2. Catch amounts of important species in kilograms and numbers of fish captured, sorted by species and presented by haul number. Catch amounts are as captured, they are not corrected to a standard haul duration (continued).

Rougheye rockfish				Pacific Ocean perch			
Haul	Weight	Number	Avg wt	Haul	Weight	Number	Avg wt
1	0.7	3	0.2	24	0.9	1	0.9
4	14.2	9	1.6	41	0.6	1	0.6
5	5.6	8	0.7				
6	3.2	4	0.8	TOTAL	1.5	2	0.7
7	1.0	1	1.0				
8	6.3	27	0.2				
9	0.2	1	0.2				
10	1.1	2	0.6				
12	2.4	3	0.8				
13	0.2	1	0.2				
21	0.0	1	0.0				
22	0.9	1	0.9				
28	21.6	33	0.7				
29	0.2	1	0.2				
30	3.1	7	0.4				
31	68.8	96	0.7				
32	106.2	144	0.7				
33	0.8	1	0.8				
34	19.5	18	1.1				
35	79.8	83	1.0				
39	1.0	1	1.0				
48	1.0	1	1.0				
49	9.3	13	0.7				
50	99.6	87	1.1				
51	2.0	2	1.0				
52	44.4	44	1.0				
53	47.1	61	0.8				
54	19.2	28	0.0				
55	28.5	36	0.8				
56	1.9	2	1.0				
59	0.4	2	0.2				
62	0.2	1	0.2				
64	2.3	6	0.4				
65	0.1	4	0.0				
66	0.4	1	0.4				
73	0.0	1	0.0				
74	2.5	6	0.4				
79	0.0	1	0.0				
80	3.3	13	0.3				
TOTAL	599.0	754	0.8				
Dusky rockfish				Northern rockfish			
Haul	Weight	Number	Avg wt	Haul	Weight	Number	Avg wt
10	2.0	2	1.0	2	0.0	1	0.0
31	1.8	1	1.8	3	0.3	1	0.3
32	34.7	37	0.9	73	0.2	1	0.2
41	3.5	4	0.9	81	0.1	1	0.1
46	0.4	1	0.4	88	0.0	1	0.0
63	1.1	1	1.1	90	0.1	2	0.1
TOTAL	43.5	46	0.9	93	0.1	1	0.1
				99	0.0	1	0.0
				100	0.1	1	0.1
				103	0.1	1	0.1
				105	0.0	1	0.0
				109	0.0	1	0.0
				TOTAL	1.0	13	0.1
				Pacific sandfish			
Haul	Weight	Number	Avg wt	Haul	Weight	Number	Avg wt
68	0.7	7	0.1	68	0.7	7	0.1
76	1.6	8	0.2	76	1.6	8	0.2
78	2.9	44	0.1	78	2.9	44	0.1
79	1.7	17	0.1	79	1.7	17	0.1
80	0.7	13	0.1	80	0.7	13	0.1
81	1.0	7	0.1	81	1.0	7	0.1
82	0.7	4	0.2	82	0.7	4	0.2
83	0.4	4	0.1	83	0.4	4	0.1
89	1.2	12	0.1	89	1.2	12	0.1
91	3.5	26	0.1	91	3.5	26	0.1
97	4.8	91	0.1	97	4.8	91	0.1
101	0.0	4	0.0	101	0.0	4	0.0
102	0.4	4	0.1	102	0.4	4	0.1
103	2.6	36	0.1	103	2.6	36	0.1
104	5.3	68	0.1	104	5.3	68	0.1
105	0.2	5	0.1	105	0.2	5	0.1
106	2.4	21	0.1	106	2.4	21	0.1
107	2.0	15	0.1	107	2.0	15	0.1
108	0.8	4	0.2	108	0.8	4	0.2
109	1.0	10	0.1	109	1.0	10	0.1
TOTAL	33.9	400	0.1	TOTAL	33.9	400	0.1

Table 3. Size frequencies of fish measured during the July-August 1985 survey in Shelikof Strait (SH), Barnabas (or Eastside, B), and Alitak Bay and flats (A). Measurements are fork length in centimeters, to the nearest whole number, and grouped by five cm intervals for halibut.

BIG SKATE				BIG SKATE				HALIBUT			
LENGTH	SH	B	AL	LENGTH	SH	B	AL	LENGTH	SH	B	AL
cm				cm				cm			
28	1			67		2	3	18			2
29				68		3	6	23		1	6
30				69			4	28		7	7
31	2			70	1		7	33	1	12	4
32	1			71			6	38	3	2	7
33				72			3	43	3	10	17
34				73		2	5	48	1	19	31
35				74	1		5	53	5	10	49
36		2		75			2	58	8	13	64
37				76	1	3	6	63	8	14	53
38		1	1	77		2	2	68	12	13	39
39		2		78			5	73	11	10	41
40			1	79	2	1	5	78	4	16	23
41				80		2	7	83	10	8	16
42	1	1	2	81			7	88	7	5	10
43			2	82	2	4	4	93	5	13	7
44			3	83	1	1	7	98	1	7	3
45				84			4	103	6	20	6
46			1	85				108	3	4	3
47	1			86	1		2	113		10	
48		1	2	87			4	118	1	6	2
49			1	88	1	1	2	123		4	1
50			5	89		1	5	128	1		2
51	1	2	1	90			2	133	1	2	1
52		2	2	91			3	138			2
53		2	1	92			2	143		2	
54	1	1	1	93		1	4	148			
55			1	94	2		2	153		1	
56			4	95		1	2	158			
57		2	4	96		1	4	163			1
58		3	6	97			4	TOTAL	91	209	397
59			7	98			4	MEAN	75.1	74.6	63.7
60		1	6	99			2				
61		2	1	100		1	2				
62	1	1	3	101							
63	1	1	12	102							
64	2	2	1	103			2				
65	2		7	TOTAL	26	52	213				
66			4	MEAN	64.8	66.2	72.6				

-Continued-

Table 3. Size frequencies of fish measured during the July-August 1985 survey in Shelikof Strait (SH), Barnabas (or Eastside, B), and Alitak Bay and flats (A). Measurements are fork length in centimeters, to the nearest whole number, and grouped by five cm intervals for halibut (continued).

LENGTH REX SOLE			LENGTH REX SOLE			LENGTH FLATHEAD SOLE	
cm	SH	B	cm	SH	B	cm	AL
10	3			53		10	1
11	5	1		54	1	11	
12	1	2	TOTAL	19	85	12	1
13	1	1	MEAN	16.7	40.7	13	
14						14	
15	1					15	
16						16	
17						17	
18						18	
19	2	2				19	
20	1	1				20	
21	1	1	LENGTH ROCK SOLE			21	
22		1	cm	SH	B	22	
23						23	
24	1					24	1
25			18	1		25	1
26			19			26	5
27			20			27	3
28	1		21			28	2
29		2	22			29	6
30	1		23			30	5
31	1		24			31	7
32			25			32	6
33			26		2	33	5
34			27		1	34	8
35			28		4	35	9
36		1	29		4	36	5
37		1	30	1	2	37	3
38		4	31		4	38	13
39		3	32	1	5	39	14
40		5	33	2	3	40	3
41		9	34	1	5	41	7
42		4	35		2	42	6
43		7	36	1	1	43	
44		7	37	1	1	44	2
45		10	38	1	2	45	
46		6	39			46	
47		3	40			47	1
48		4	41	1		TOTAL	114
49		2	42			MEAN	34.6
50		2	43		1		
51		3	TOTAL	10	37		
52		2	MEAN	33.2	31.9		

-Continued-

Table 3. Size frequencies of fish measured during the July-August 1985 survey in Shelikof Strait (SH), Barnabas (or Eastside, B), and Alitak Bay and flats (A). Measurements are fork length in centimeters, to the nearest whole number, and grouped by five cm intervals for halibut (continued).

LENGTH DOVER SOLE			LENGTH PLAICE			LENGTH ENGLISH SOLE	
cm	SH	B	cm	SH	AL	cm	AL
22	1		33		1	19	1
23			34			20	
24	1	2	35		1	21	
25	2		36	1	2	22	
26	2	1	37		5	23	
27	4	1	38		4	24	
28	1		39	1	6	25	
29	2	1	40		4	26	1
30		1	41	1	5	27	
31			42	1	7	28	1
32	1		43		8	TOTAL	3
33		1	44	1	7	MEAN	24.3
34		2	45		8		
35			46	1	4		
36		3	47		4		
37	3	3	48		3	LENGTH YELLOWFIN SOLE	
38	2	6	49	1	8	cm	SH
39	4	7	50	2	3		
40	2	7	51	3	5	25	1
41	5	8	52		4	26	
42	4	7	53		5	27	1
43	8	8	54		1	28	
44	5	4	55		3	29	
45	6	3	56		1	30	1
46	2	4	57			31	1
47	4	10	58		4	32	
48		6	TOTAL	12	103	33	1
49		1	MEAN	45.8	45.4	34	
50		3				35	
51		1				36	1
52		6				37	1
53		3				TOTAL	7
54	1	1	LENGTH BUTTER SOLE			MEAN	31.3
55		2	cm	B			
56							
57						LENGTH STARRY FLOUNDER	
58		1	28	1		cm	B
59		1	29				
TOTAL	60	104	30	1		59	1
MEAN	39.0	43.1	31	3		TOTAL	1
			TOTAL	5		MEAN	59.0
			MEAN	30.2			

-Continued-

Table 3. Size frequencies of fish measured during the July-August 1985 survey in Shelikof Strait (SH), Barnabas (or Eastside, B), and Alitak Bay and flats (A). Measurements are fork length in centimeters, to the nearest whole number, and grouped by five cm intervals for halibut (continued).

POLLOCK				POLLOCK				COD			
LENGTH	SH	B	AL	LENGTH	SH	B	AL	LENGTH	SH	B	AL
cm				cm				cm			
15	2		3	57	6	17	5	39	1		8
16	5		7	58	5	23	1	40	4		11
17	4	1	23	59	4	9	1	41	13	1	3
18		2	71	60	1	5		42	20	7	10
19	1	2	116	61	5	2	2	43	17	10	8
20		4	125	62	4	3	1	44	33	3	2
21		1	95	63	2	6	1	45	29	7	3
22		1	69	64		1	1	46	24	23	8
23		1	123	65	1			47	28	15	3
24			191	66			2	48	15	12	4
25			171	67	2	1	3	49	8	22	3
26			91	68				50	18	18	3
27	1		49	69			1	51	13	9	2
28	2		16	70		1	1	52	11	16	7
29	2	1	15	71				53	10	15	4
30			8	72				54	13	24	6
31			7	73			1	55	12	20	9
32			9	TOTAL	802	704	1395	56	17	25	10
33	3		10	MEAN	45.1	49.5	25.9	57	14	34	7
34		1	10					58	27	41	16
35	3	2	13					59	33	43	14
36	3		24	LENGTH				60	23	53	19
37	5	1	14	cm				61	27	51	16
38	11	1	9					62	29	41	14
39	11		3					63	27	43	12
40	29	5	3		22	1		64	30	36	21
41	48	3	6		23	1		65	17	26	22
42	54	17	8		24		1	66	20	40	20
43	86	19	6		25	2	1	67	20	26	19
44	109	40	5		26	1	3	68	16	24	15
45	96	44	5		27		3	69	8	6	15
46	72	49	6		28		7	70	9	17	17
47	59	52	6		29	4	4	71	17	6	10
48	51	62	10		30		3	72	8	15	16
49	35	39	11		31	1	1	73	7	5	7
50	16	38	11		32		2	74	14	1	6
51	12	41	4		33	1		75	10	4	8
52	14	72	5		34	2	1	76	6	1	6
53	16	45	6		35		2	77	3	1	2
54	13	33	4		36		2	78	6	2	5
55	5	28	4		37		3	79	4		5
56	4	31	3		38	2	2	80	3	1	4

-Continued-

Table 3. Size frequencies of fish measured during the July-August 1985 survey in Shelikof Strait (SH), Barnabas (or Eastside, B), and Alitak Bay and flats (A). Measurements are fork length in centimeters, to the nearest whole number, and grouped by five cm intervals for halibut (continued).

LENGTH				LENGTH				LENGTH		
cm	COD			cm	SABLEFISH			cm	NORTHERN RK	
	SH	B	AL		SH	B	AL		SH	AL
81	2	1	1	46	50	12		10		1
82	5		1	47	45	22		11		
83	2		1	48	39	18		12		
84	1	1	1	49	58	21		13		1
85	1		1	50	38	22		14	1	1
86				51	22	15		15		1
87				52	9	15		16		1
88	2			53	7	17		17		
89	3	1		54	7	32		18		
TOTAL	695	747	440	55	6	36		19		1
MEAN	57.5	59.3	59.2	56	16	30		20		2
LENGTH CHUM SALMON				57	13	61		21		1
cm	B			58	26	71		22		2
				59	26	93		23		
51	1			60	16	84		24		
TOTAL	1			61	21	87		25		
MEAN	51.0			62	12	58		26	1	
				63	6	47		TOTAL	2	11
				64	8	29		MEAN	20.0	17.5
				65	6	17				
				66	2	11				
				67	1	7				
				68	1	2				
				69		4				
				70						
				71						
				72						
				73						
				74		1				
				TOTAL	586	846	20			
				MEAN	49.2	57.2	34.3			
				LENGTH PERCH						
				cm	B					
31	1		1	37	1					
32	3	1	1	38						
33	4	5	5	39	1					
34	10	1	4	TOTAL	2					
35	16	4	4	MEAN	38.0					
36	21	2	2							
37	14	4	3							
38	18									
39	3									
40	1									
41	2	1								
42	4	3								
43	7	3								
44	24	6								
45	23	4								

-Continued-

Table 3. Size frequencies of fish measured during the July-August 1985 survey in Shelikof Strait (SH), Barnabas (or Eastside, B), and Alitak Bay and flats (A). Measurements are fork length in centimeters, to the nearest whole number, and grouped by five cm intervals for halibut (continued).

ROUGHEYE				ROUGHEYE				LT DUSKY		
LENGTH	SH	B	AL	LENGTH	SH	B	AL	LENGTH	SH	B
cm				cm				cm		
11		2		53		1		28		1
12		1		54				29		1
13		1	1	55				30		1
14		1		56	1	1		31		
15	1	2	1	57		2		32		1
16		1		58				33		2
17		6		59				34		
18		8		60	1			35		
19	1	5		61		2		36	1	1
20	2	6		62				37		
21	5	6		63		1		38		
22	4	9		64	1			39		6
23	4	10		65				40	1	6
24	4	9	1	66		1		41		6
25	2	10		67				42		3
26	7	15		68		1		43		7
27	4	11	1	69				44		1
28	1	2		70				45		
29	1	5	1	71				46		
30	1	8		72		1		47		
31		8		TOTAL	61	672	5	48		
32		18		MEAN	30.3	35.1	21.6	49		1
33	2	33						TOTAL	2	37
34		41						MEAN	38.0	39.5
35	3	57								
36	4	84								
37	3	74								
38		73								
39	6	59								
40	1	37								
41		24								
42		7								
43		6								
44	2	5								
45		3								
46		2								
47		4								
48		2								
49		1								
50		2								
51		3								
52		1								

Table 4. Number of king crab (*Paralithodes camtschatica*) captured per trawl haul by sex and reproductive or recruitment categories from the trawl survey conducted in 1985.

TOW	Females		Males					TOTAL MALES
	JUV.	ADULT	PRE-RECRUIT YEARS					
			FOUR	THREE	TWO	ONE	RECRUIT	
1		1						
8		1						
13		1						
19		1						
20		1						
25		9					1	1
38							2	2
57		5				1	4	5
59		1						
60		34						
61							1	1
63							4	4
64		3						
66							1	4
67		1						
68		16				1	4	10
69		27				5	7	19
70		3			1	2		1
71		4			1			
72		43			1	11	11	29
73		10	1		1		13	27
74	1	32				1	2	11
75		17						1
76		21					3	3
77		8						1
78		2						
79		2				4	9	39
80		3				4	1	9
81		36						2
82	1	45	1	1	2	10	7	17
83		18		1	1		1	
87				1				1
88				2	2	11	7	19
89				3		3	5	3
90				3			1	
92		1		3				1
93				3	1		2	5
95		1						
97				3				1

-Continued-

Table 4. Number of king crab (*Paralithodes camtschatica*) captured per trawl haul by sex and reproductive or recruitment categories from the trawl survey conducted in 1985 (continued).

TOW	Females		Males					TOTAL MALES	
	JUV.	ADULT	PRE-RECRUIT YEARS				RECRUIT		POSTRECRUIT
			FOUR	THREE	TWO	ONE			
100		28		3				1	4
101		12		3			2	1	6
102		36		3		2	1	3	13
103		67		3		1			4
104		15		3				1	4
105	11	77	9	3			2	5	27
106	3	77	7	3		1	3	1	17
107	1	35		3			4	3	17
108		14		3				1	6
TOTAL	17	708	18	47	14	66	88	239	472

Table 5. Common and scientific names of species mentioned in Tables 2 and 3.

Common Name	Scientific Name
Alaska plaice	<i>Pleuronectes quadrituberculatus</i>
Arrowtooth flounder	<i>Atheresthes stomias</i>
Big skate	<i>Raja binoculata</i>
Butter sole	<i>Isopsetta isolepis</i>
Chum salmon	<i>Oncorhynchus keta</i>
Dover sole	<i>Microstomus pacificus</i>
Dungeness crab	<i>Cancer magister</i>
Dusky rockfish	<i>Sebastes ciliatus*</i>
English sole	<i>Parophrys vetulus</i>
Flathead sole	<i>Hippoglossiodes elassodon</i>
Giant wrymouth	<i>Delolepis gigantea</i>
King crab	<i>Paralithodes camtschatica</i>
Northern rockfish	<i>Sebastes polyspinus</i>
Pacific cod	<i>Gadus macrocephalus</i>
Pacific halibut	<i>Hippoglossus stenolepis</i>
Pacific herring	<i>Clupea harengus pallasii</i>
Pacific sandfish	<i>Trichodon trichodon</i>
Pacific tomcod	<i>Microgadus proximus</i>
Pacific ocean perch	<i>Sebastes alutus</i>
Rex sole	<i>Glyptocephalus zachirus</i>
Rock sole	<i>Lepidopsetta bilineata</i>
Rougheye rockfish	<i>Sebastes aleutianus</i>
Sablefish	<i>Anoplopoma fimbria</i>
Sand sole	<i>Psettichthys melanostictus</i>
Searcher	<i>Bathymaster signatus</i>
Spiny dogfish	<i>Squalus acanthias</i>
Starry flounder	<i>Platichthys stellatus</i>
Tanner crab	<i>Chionoecetes bairdi</i>
Walleye pollock	<i>Theragra chalcogramma</i>
Weathervane scallop	<i>Patinopecten caurinus</i>
Yellowfin sole	<i>Limanda aspera</i>

* Dusky rockfish were the deep water form, distinguished by a greenish-brown color while the shallow water form is primarily black in color. These are called light dusky rockfish to distinguish among the types which are not yet named.

Table 6. Number of cod, *Gadus macrocephalus*, captured per mile towed by size class from the trawl surveys in Shelikof Strait (1980-1985).

Size class cm	1980	1981	1982	1983	1984	1985	Long term mean
<31	0.3	3.0	0.3	0.0	0.2	0.4	0.7
31 - 35	0.5	0.3	0.4	0.3	0.2	0.2	0.3
36 - 40	2.2	3.0	2.9	3.4	0.1	0.3	2.0
41 - 45	6.0	7.6	5.4	3.0	0.6	4.7	4.5
46 - 50	9.7	3.1	4.6	5.1	2.2	3.9	4.8
51 - 55	8.0	2.8	6.1	7.2	5.0	2.5	5.3
55 - 60	3.7	4.2	5.2	4.4	4.4	5.0	4.5
61 - 65	1.0	2.5	4.8	3.8	3.7	5.5	3.5
66 - 70	1.2	1.2	3.4	2.3	2.8	3.1	2.3
71 - 75	0.9	0.5	1.8	1.6	1.6	2.4	1.5
76 - 80	0.5	0.3	0.9	0.6	0.8	0.9	0.7
>80	0.5	0.2	0.3	0.4	0.4	0.7	0.4
All sizes	34.3	28.7	36.1	32.1	21.9	29.5	30.4
Std. Error	4.2	5.4	5.5	4.4	2.5	6.0	
Commercial Size fish 61+ cm	4.0	4.8	11.2	8.8	9.2	12.6	8.4
Recruiting Size fish 46 - 55 cm	17.7	5.9	10.7	12.3	7.2	6.4	10.0
Mean size	51.0	48.5	54.6	54.5	59.3	57.5	54.2

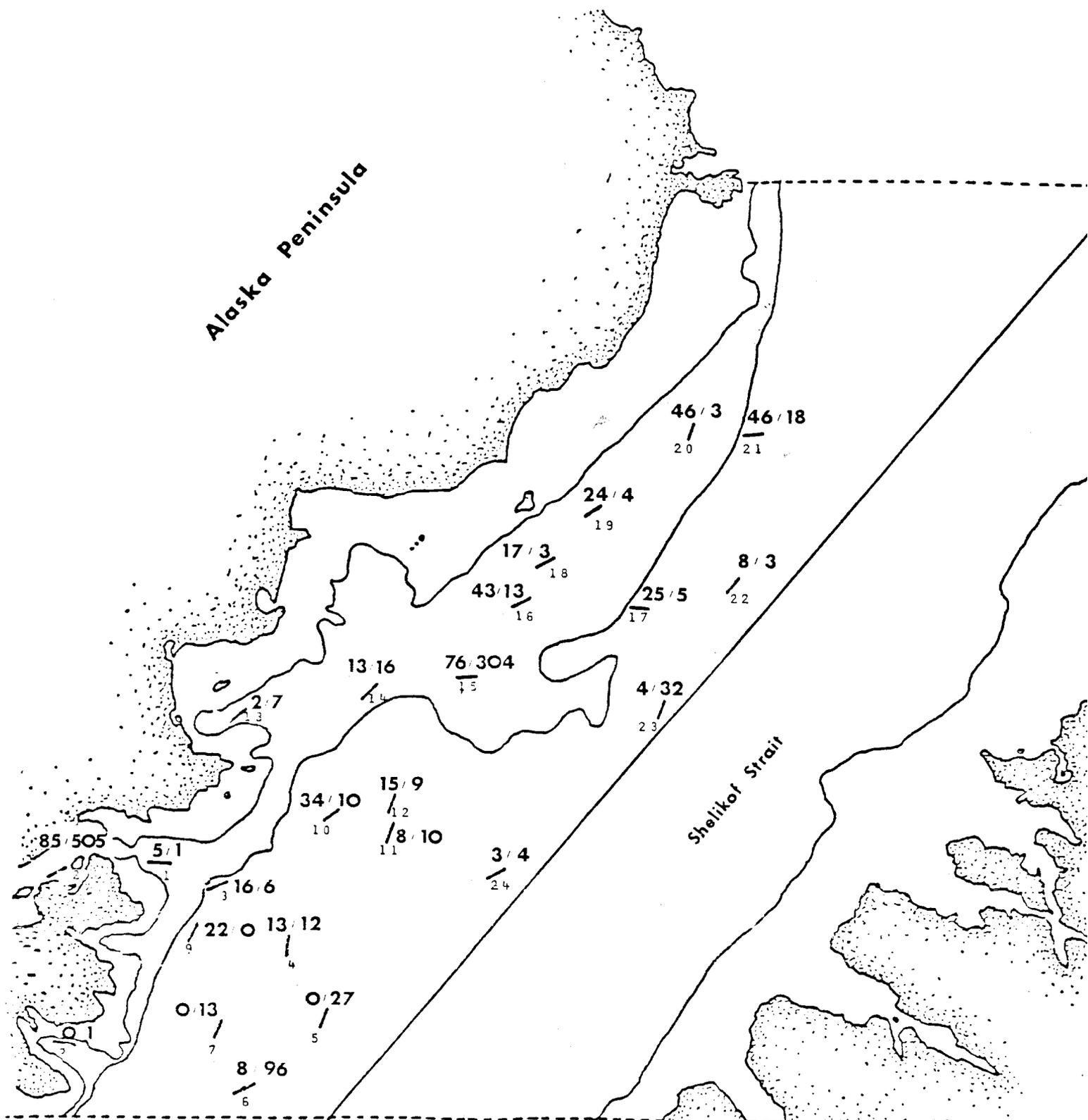


Figure 1 . Catch per mile towed of prerecruit male Tanner crab, *Chionoecetes bairdi* (1+2/3+4) for the Shelikof area, 1985 Kodiak trawl survey.

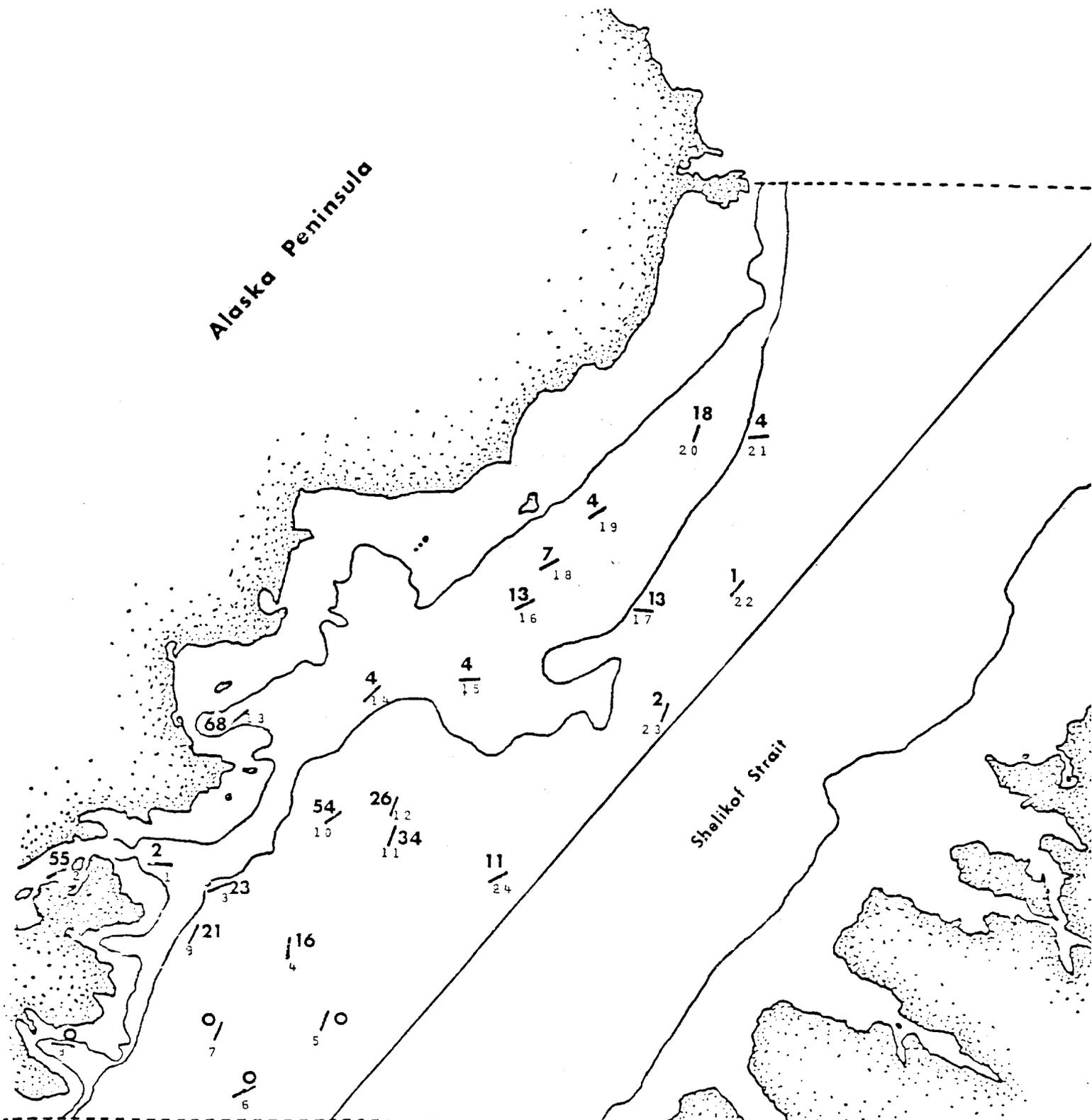


Figure 2. Catch per mile towed of legal male Tanner crab, *Chionoecetes bairdi*, for the Shelikof area, 1985 Kodiak trawl survey.

Afognak I.

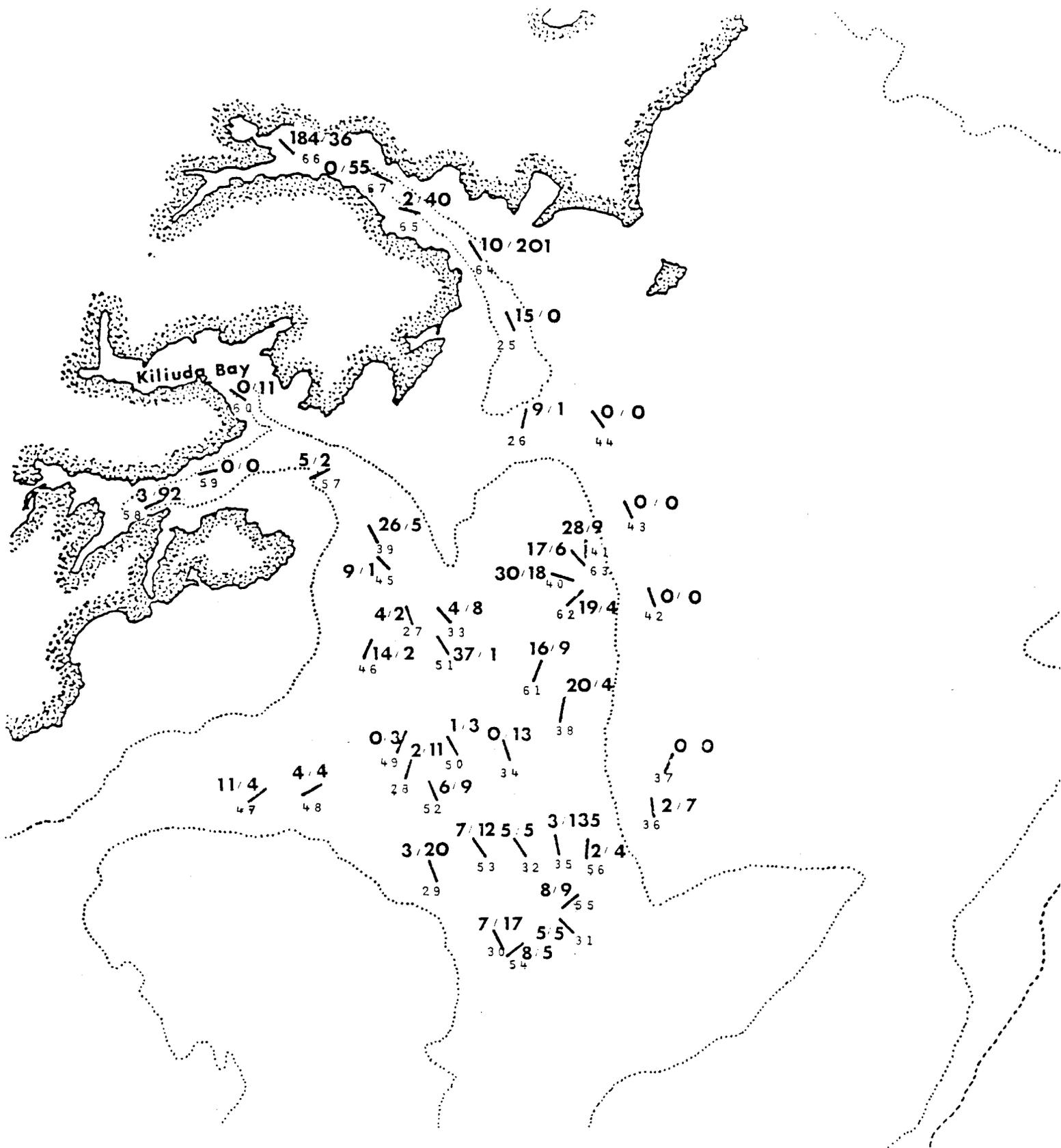


Figure 4. Catch per mile towed of prerecruit male Tanner crab, Chionoecetes bairdi, (1+2/3+4) for the Eastside, 1985 Kodiak trawl survey.

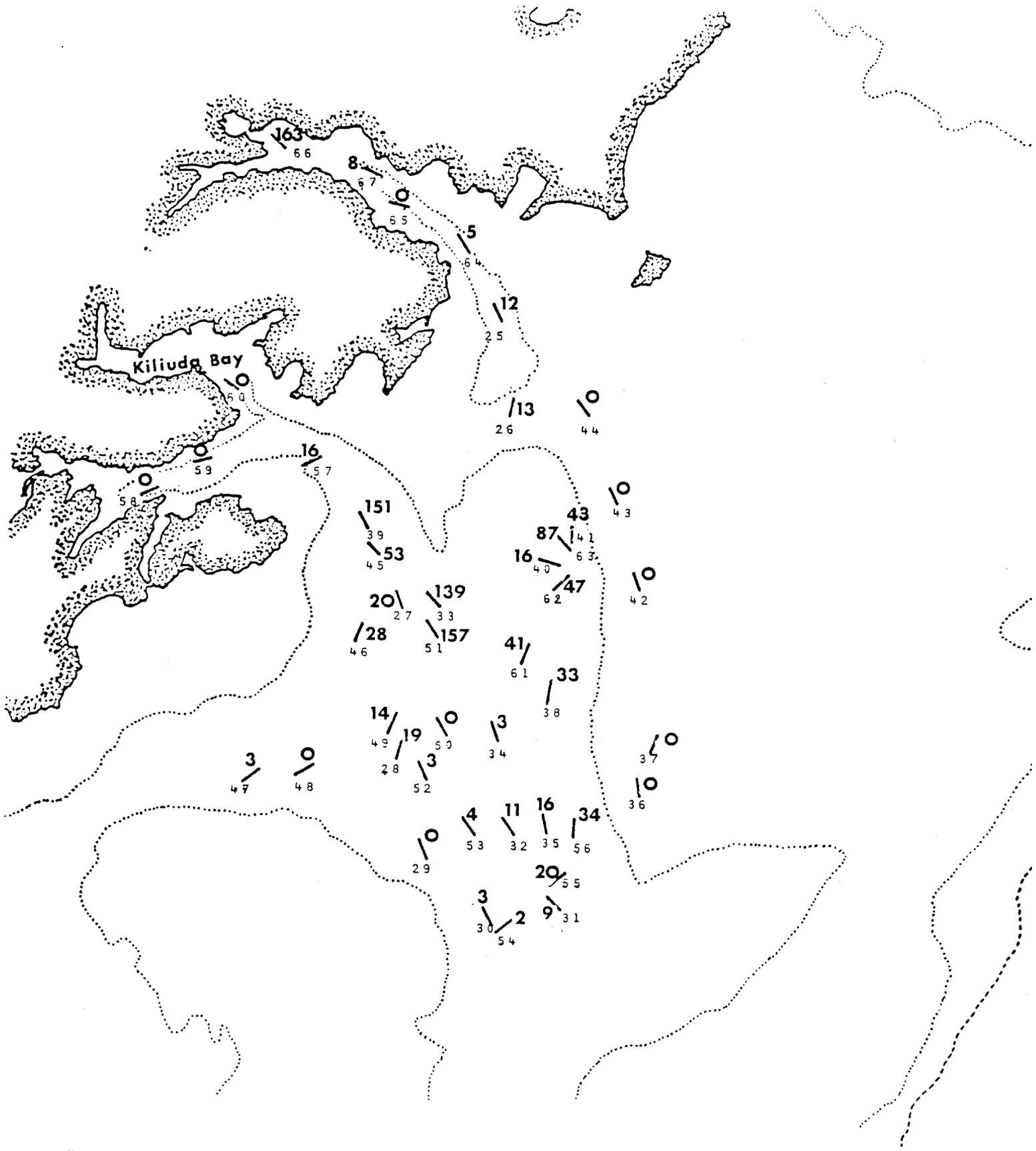


Figure 5. Catch per mile towed of legal male Tanner crab, *Chionoecetes bairdi*, for the Eastside, 1985 Kodiak trawl survey.

Kodiak I.

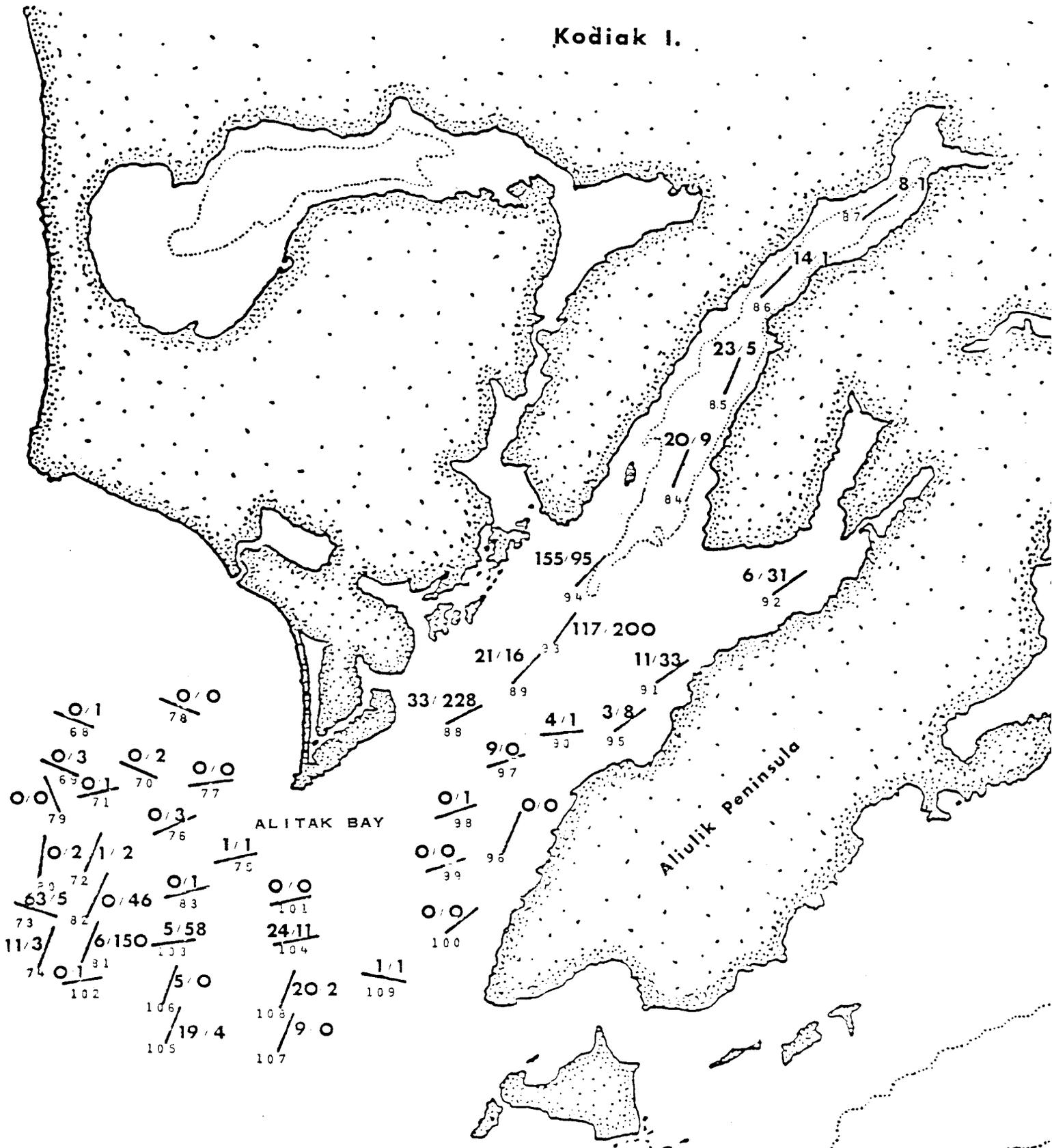


Figure 7. Catch per mile towed of prerecruit male Tanner crab, *Chionoecetes bairdi*, (1+2/3+4) for the Alitak area, 1985 Kodiak trawl survey. -46-

Kodiak I.

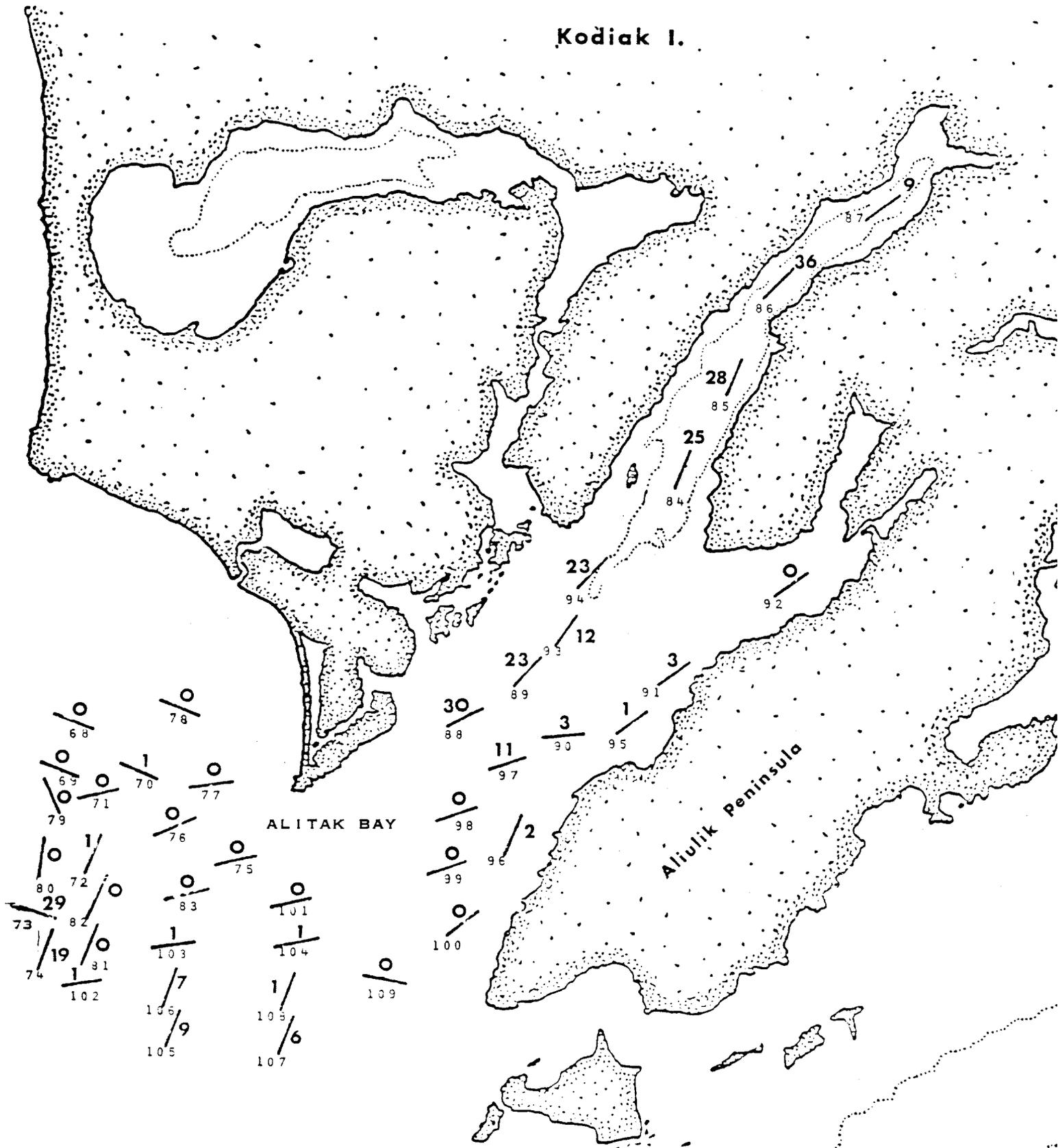
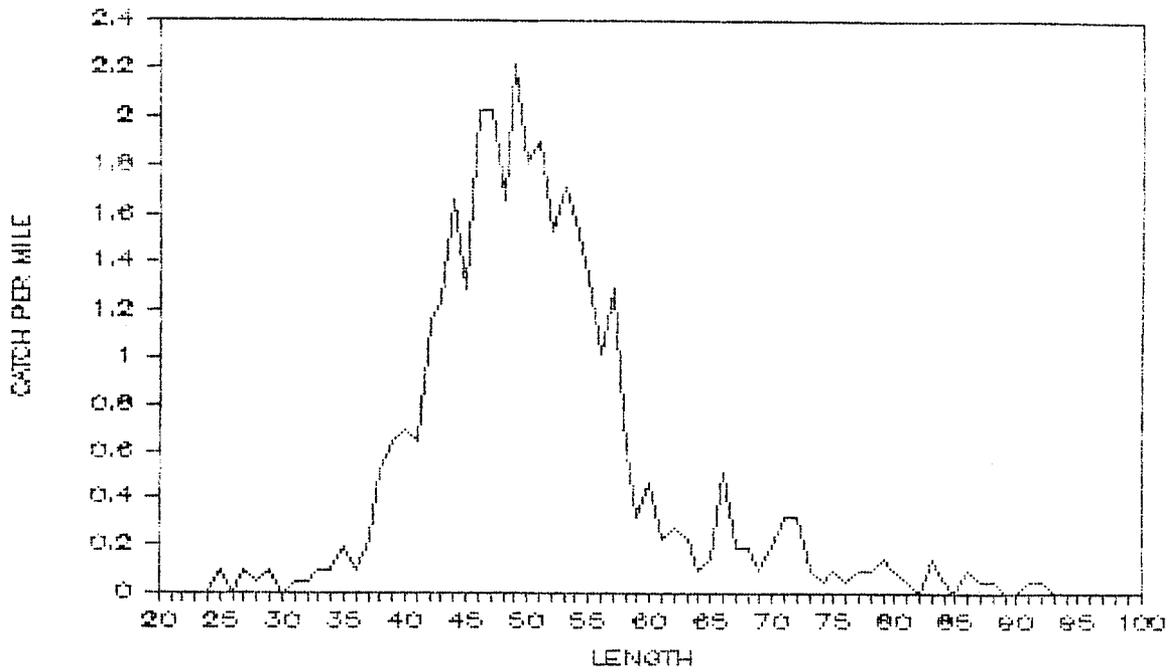


Figure 8. Catch per mile towed of legal male Tanner crab, *Chionoecetes bairdi*, for the Alitak area, 1985 Kodiak trawl survey.

SHELIKOF 1980



SHELIKOF 1981

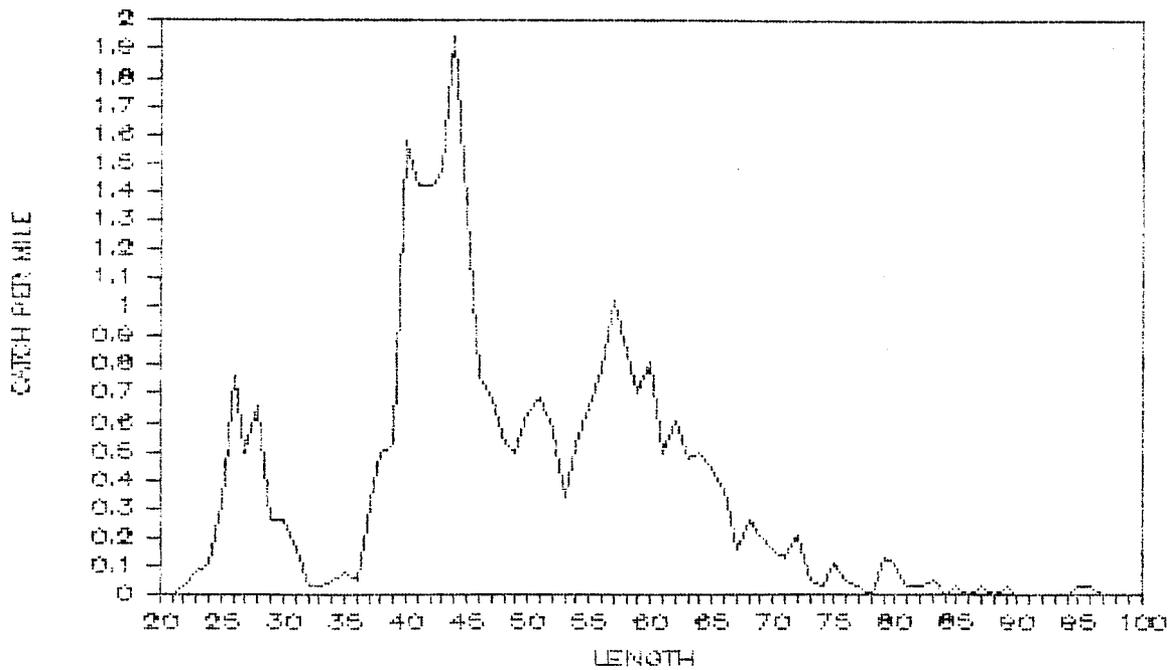
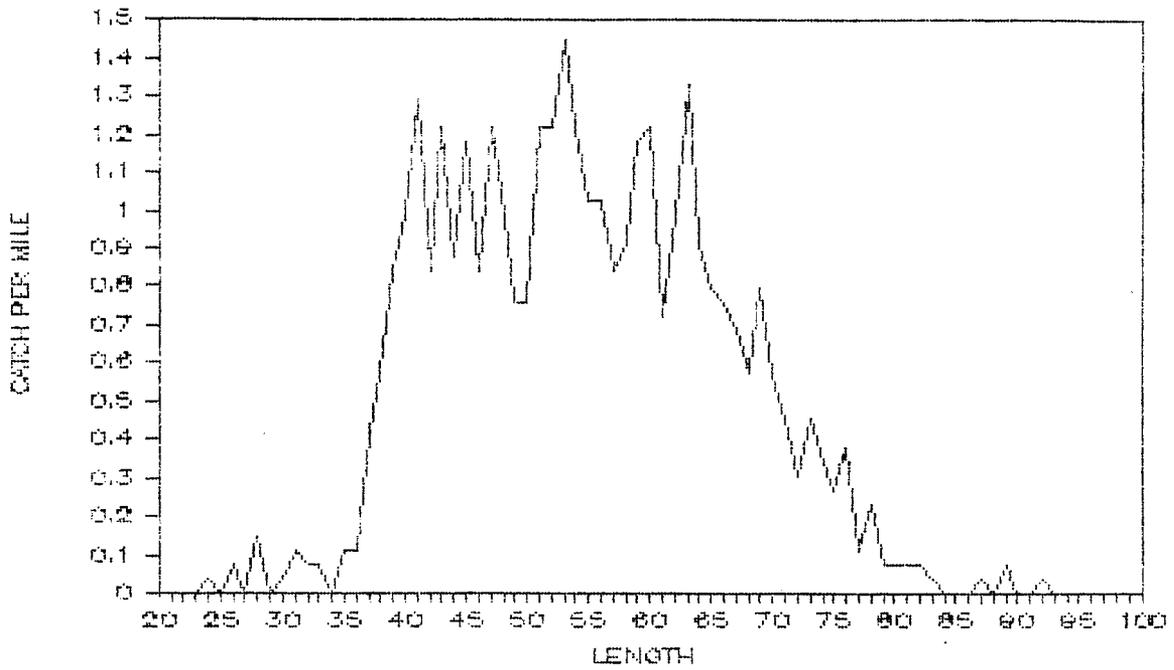


Figure 10. Size distributions of Pacific cod, *Gadus macrocephalus*, captured during the summer trawl surveys in Shelikof Strait by the Alaska Department of Fish and Game (1980-1985).

SHELIKOF 1982



SHELIKOF 1983

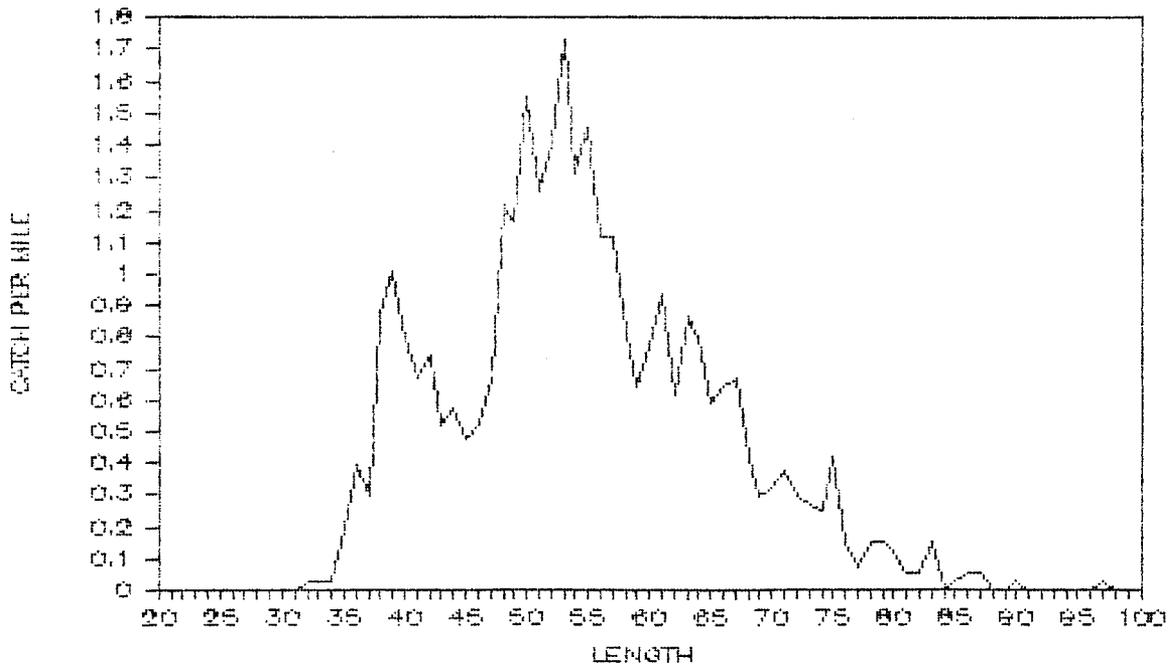
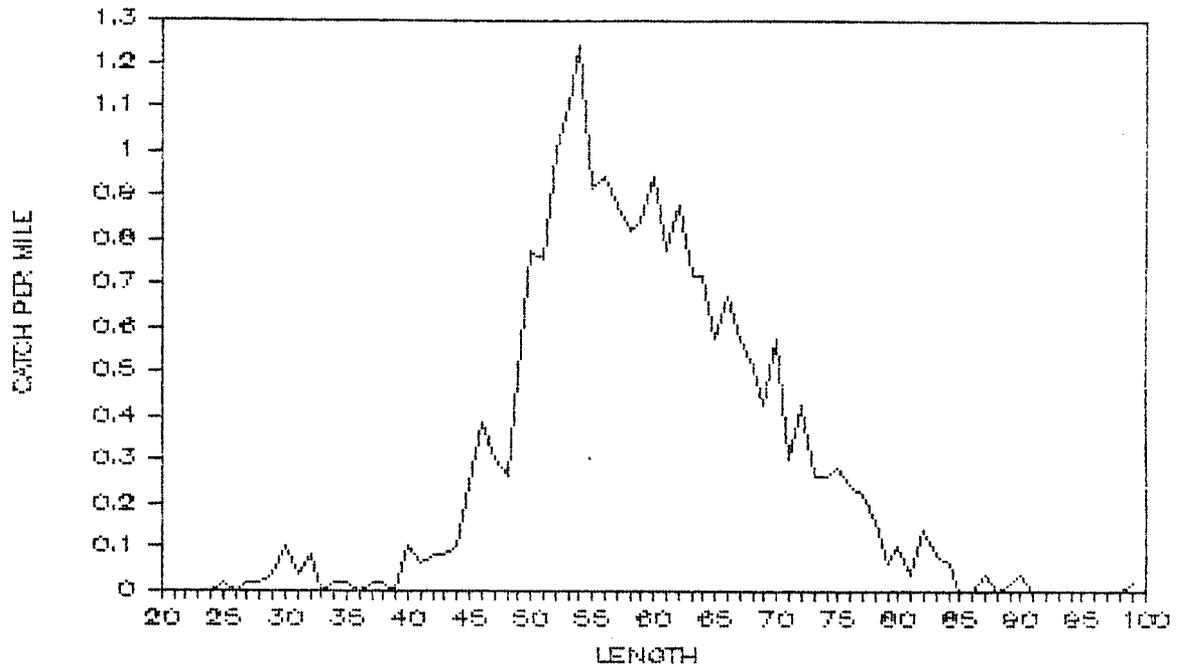


Figure 10. (continued) Size distributions of Pacific cod, *Gadus macrocephalus*, captured during the summer trawl surveys in Shelikof Strait by the Alaska Department of Fish and Game (1980-1985).

SHELIKOF 1984



SHELIKOF 1985

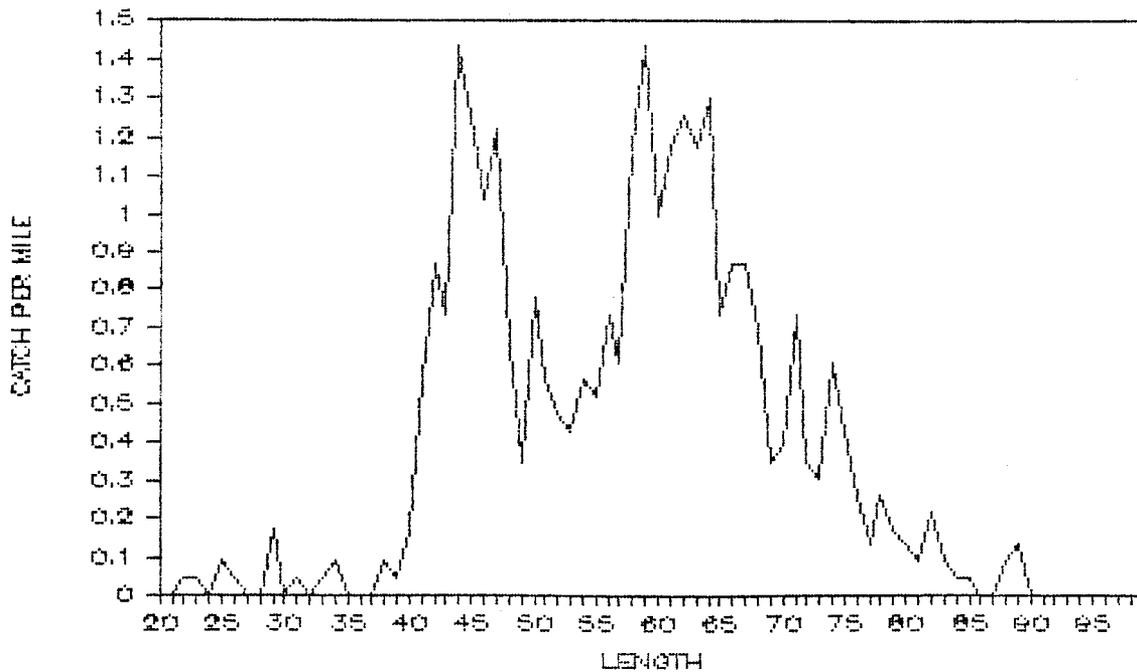
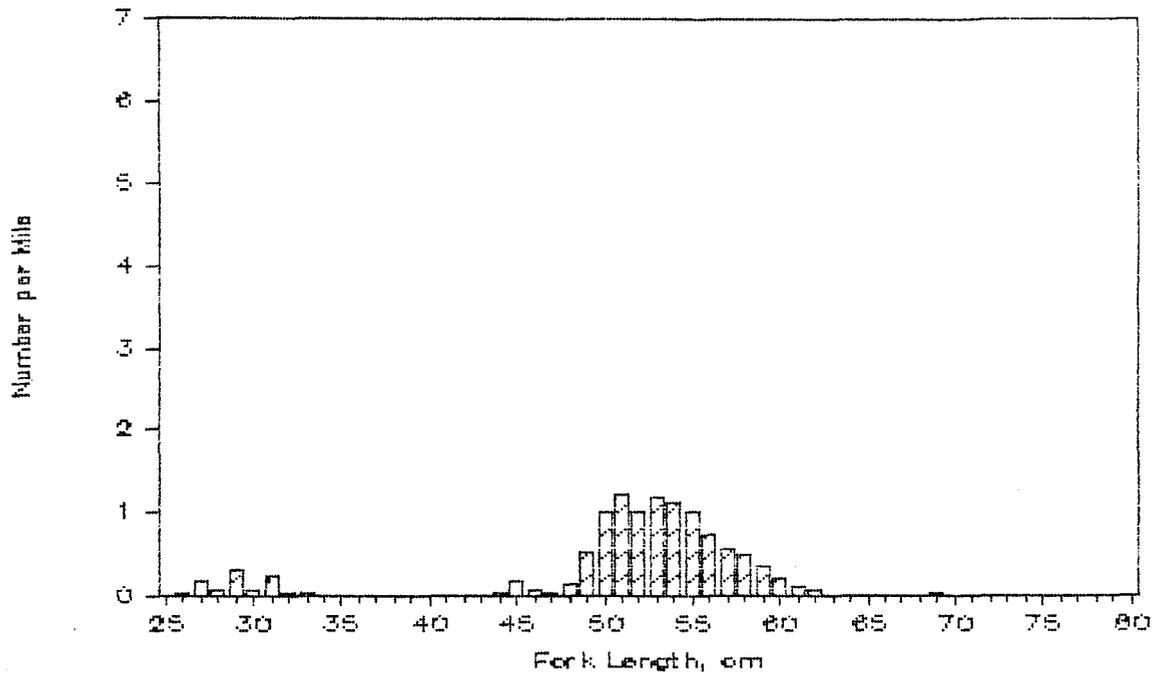


Figure 10. (continued) Size distributions of Pacific cod, *Gadus macrocephalus*, captured during the summer trawl surveys in Shelikof Strait by the Alaska Department of Fish and Game (1980-1985).

Sablefish 1980, Shelikof



Sablefish 1981, Shelikof

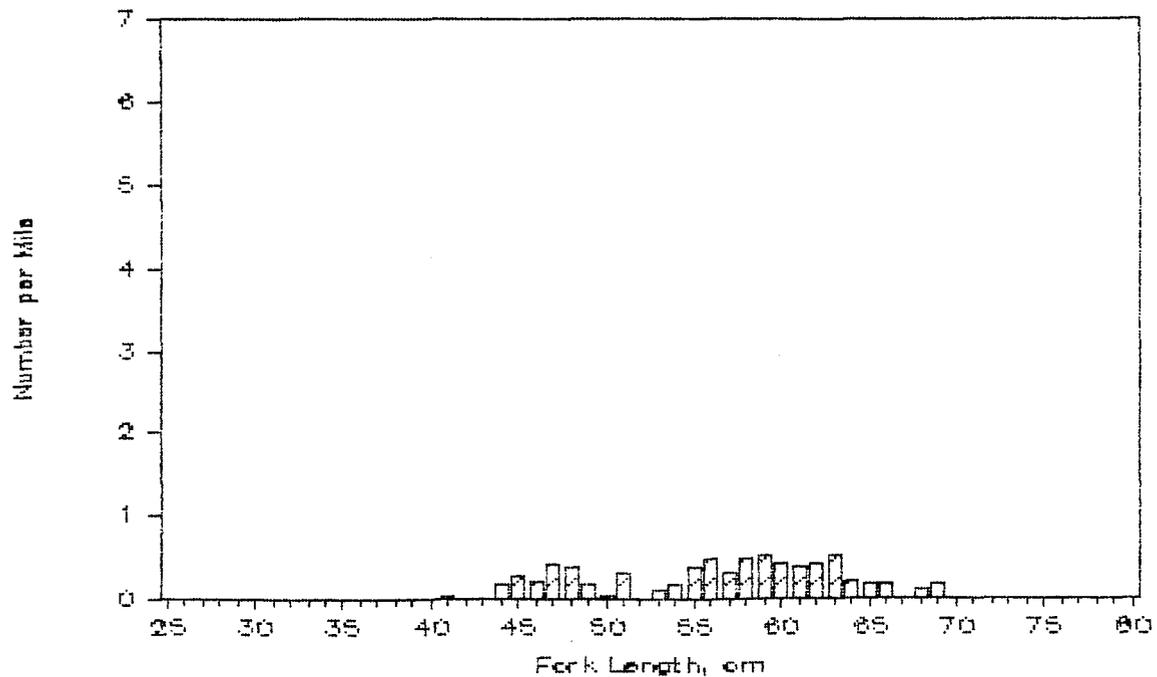
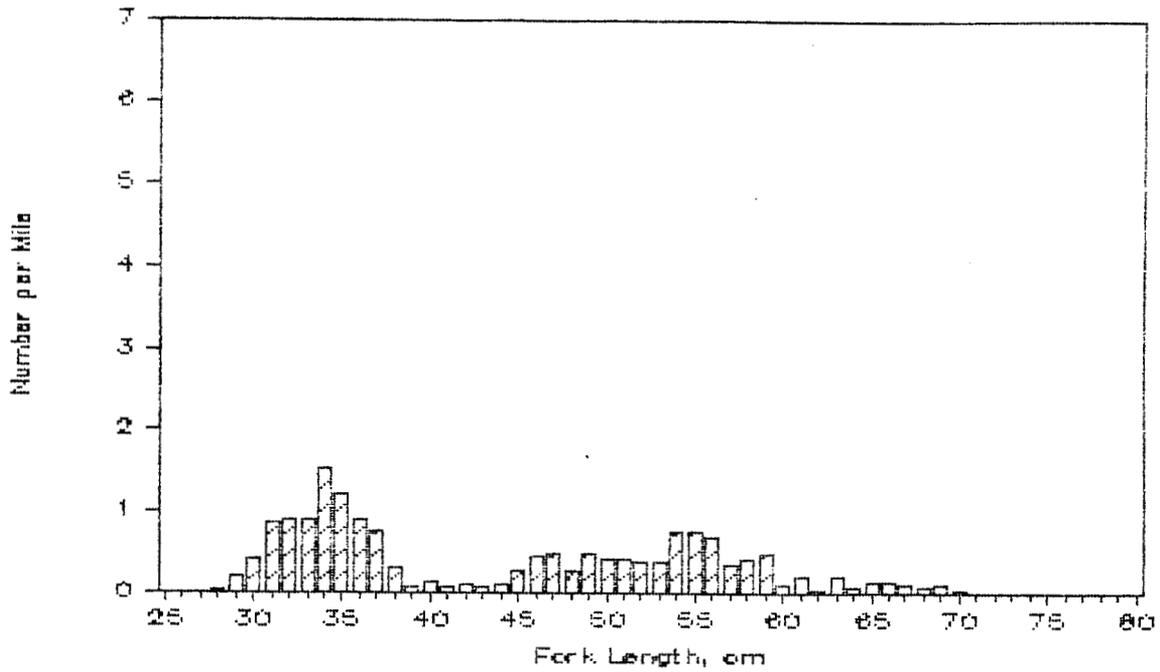


Figure 11. Size distributions of sablefish, *Anoplopoma fimbria*, captured during the summer trawl surveys in Shelikof Strait by the Alaska Department of Fish and Game (1980-1985).

Sablefish 1982, Shelikof



Sablefish 1983, Shelikof

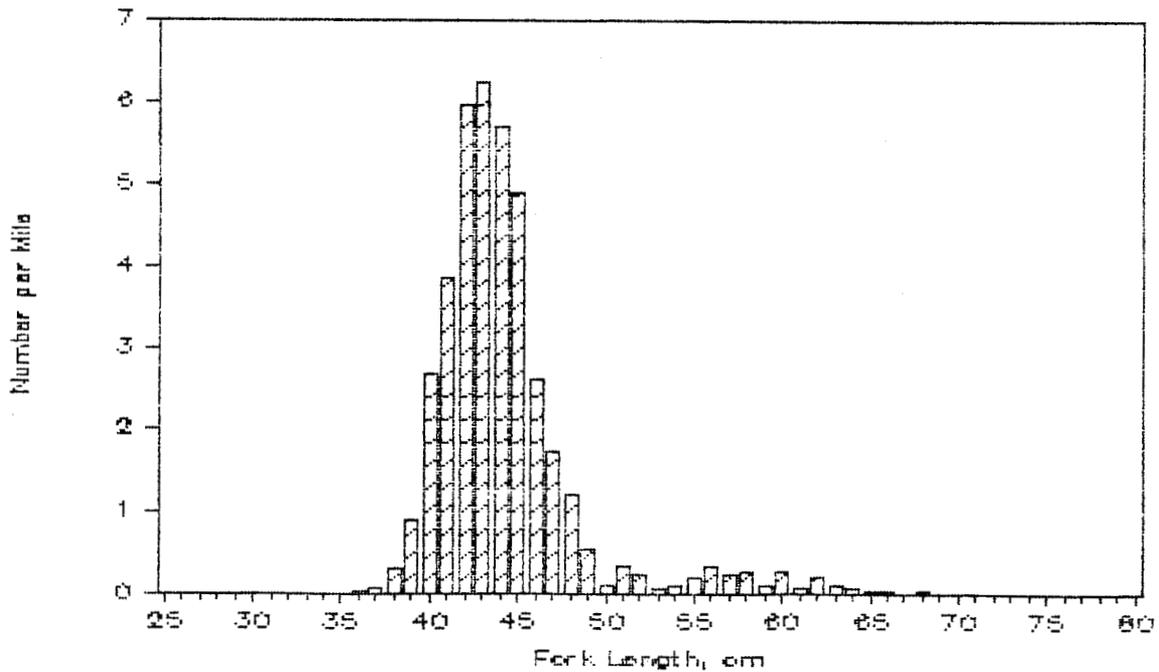
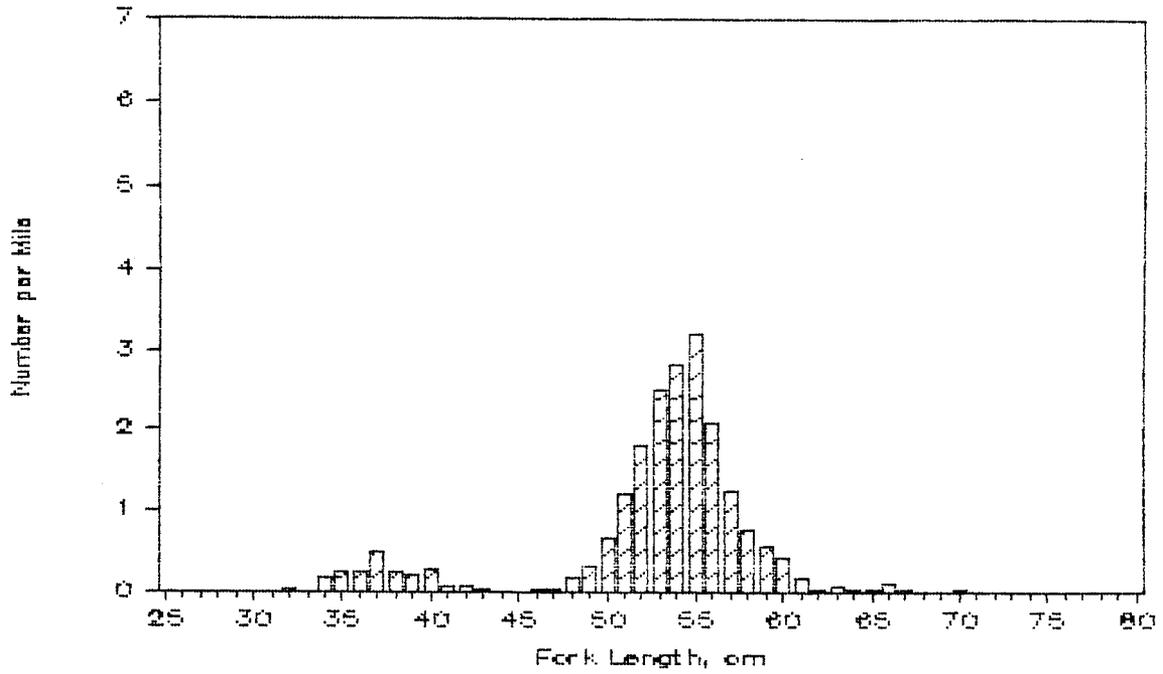


Figure 11. (continued) Size distributions of sablefish, *Anoplopoma fimbria*, captured during the summer trawl surveys in Shelikof Strait by the Alaska Department of Fish and Game (1980-1985).

Sablefish 1984, Shelikof



Sablefish 1985, Shelikof

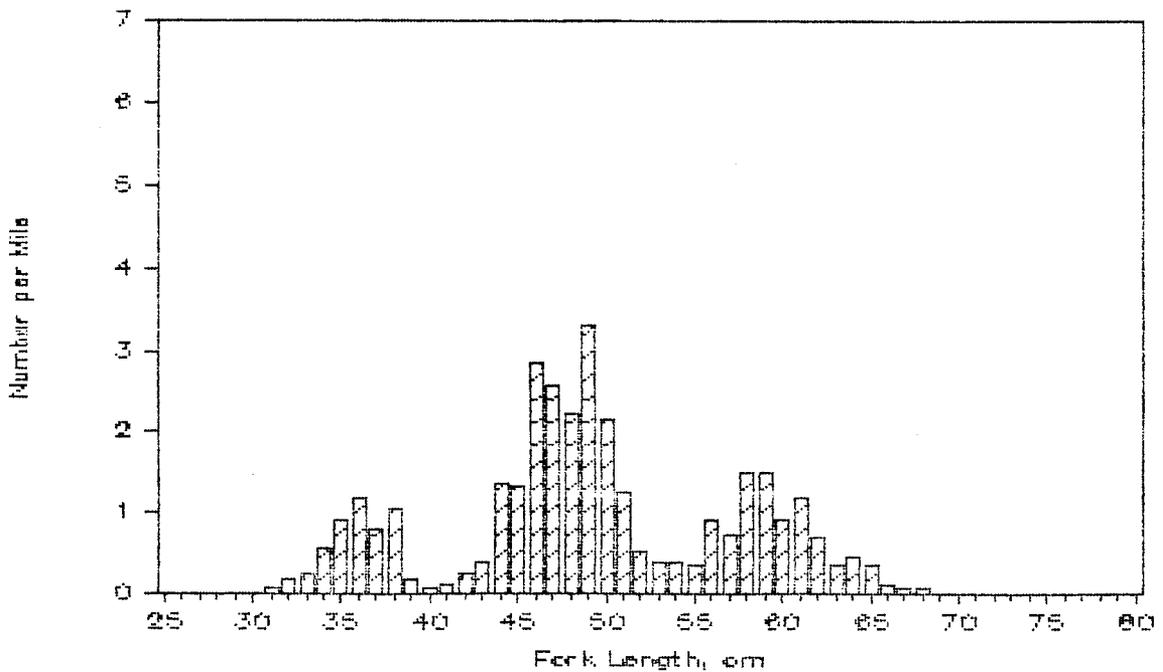


Figure 11. (continued) Size distributions of sablefish, *Anoplopoma fimbria*, captured during the summer trawl surveys in Shelikof Strait by the Alaska Department of Fish and Game (1980-1985).

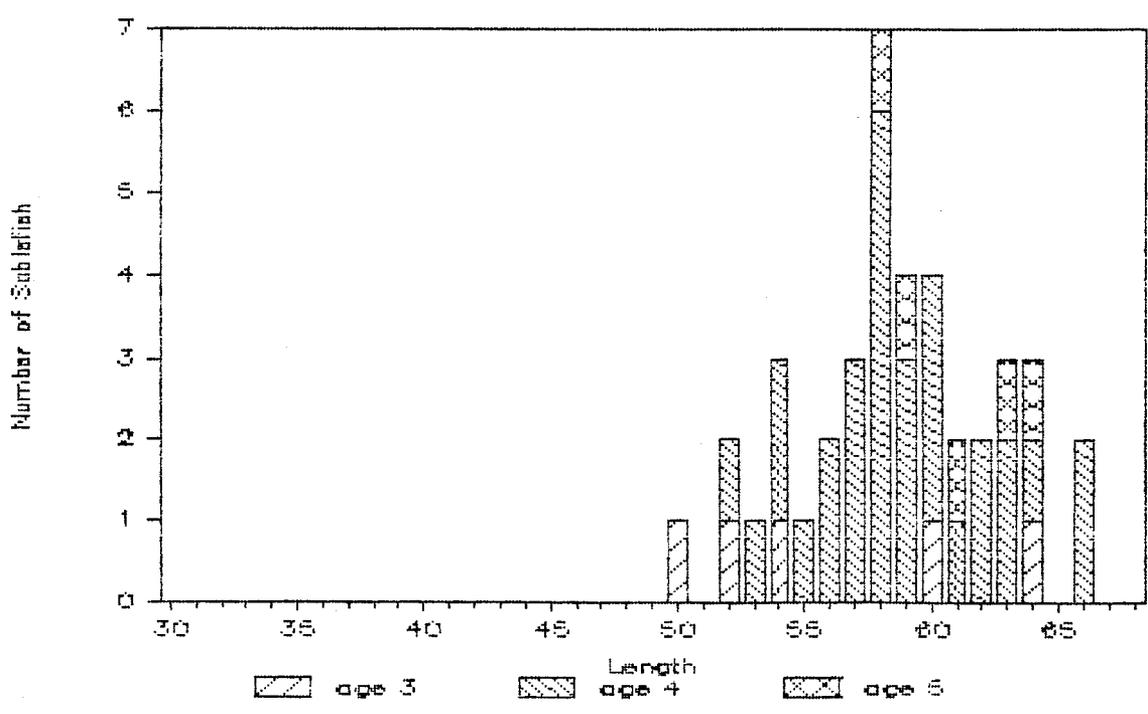
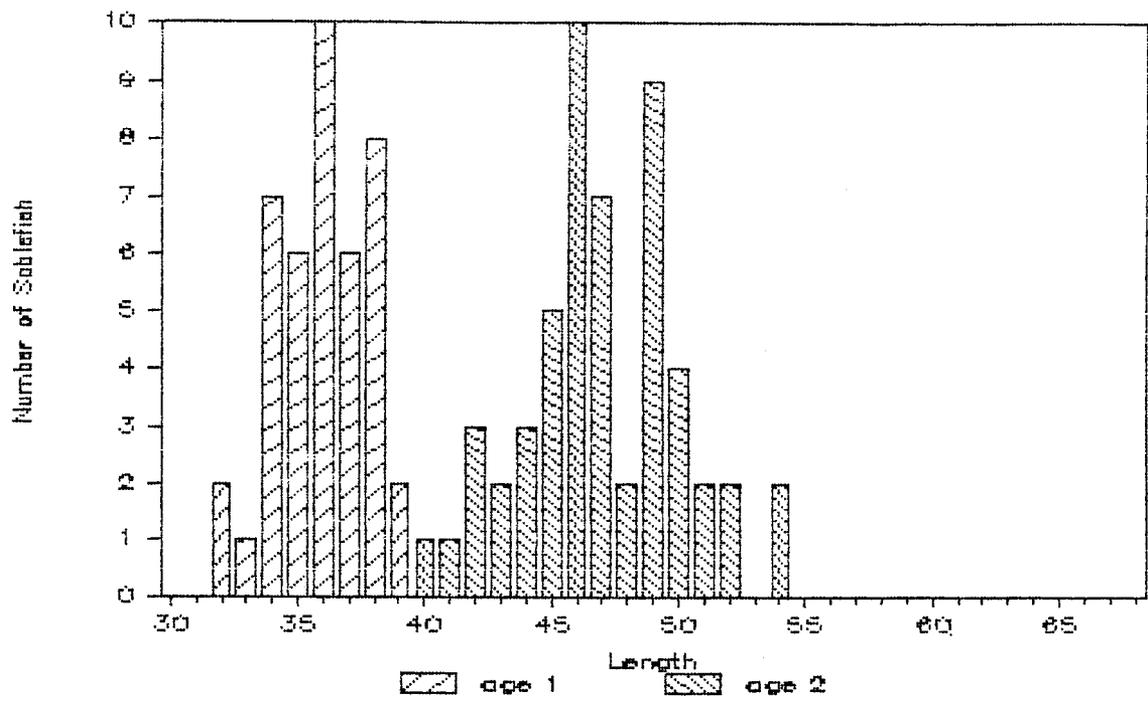


Figure 12. Size composition of sablefish, *Anoplopoma fimbria*, by age, as determined from samples from the trawl survey conducted in Shelikof Strait by the Alaska Department of Fish and Game in July, 1985.

APPENDICES

Appendix Table 1. Definition of terms for Tanner crab.

- NewsheIl (NS) - Hard exoskeletal animals. The dorsal side of the carapace is brownish-red. No apparent scratching on ventral side. Epifauna is absent or limited. Dactyli, pterygostomial and branchial spines sharp.
- Oldshell (OS) - An apparent skipmolt. Carapace is hard and brownish. The thoracic sternum and ventral sides of the legs have obtained numerous scratches and abrasions. Dactyli, pterygostomial and branchial spines are worn. Epifauna may be present.
- Very Oldshell (OS) - An obvious skipmolt. Carapace is hard, dark brown to blackish. Thoracic sternum and ventral side of legs with multiple scratches and abrasions. Underside of legs may be dark yellow-brown. Dactyli, pterygostomial and branchial spines heavily worn. Epifauna usually present, e.g., large barnacles.
- Molting - All physiological events leading up to ecdysis, including ecdysis.
- Skip Molt - A crab which has not molted in more than 12 months.
- Crab Measurements - All crab measurements, e.g., ≤ 69 mm, refer to carapace width (CW) unless otherwise noted.
- Size and Age Groups:
- Prerecruit Fours - Male Tanner crabs ≤ 69 mm in carapace width and four or more molts from attaining legal size. Note that this group includes prerecruit four, five, six, and younger crabs, but are referred to as prerecruit fours herein.
- Prerecruit Threes - Male Tanner crabs 70-91 mm in carapace width and three molts from attaining legal size.
- Prerecruit Twos - Male Tanner crabs 92-114 mm in carapace width and two molts from attaining legal size.
- Prerecruit Ones - Male Tanner crabs 115-139 mm in carapace width and one molt from attaining legal size.
- Recruit Legals - NewsheIl male Tanner crabs 140-164 mm in carapace width, recruited to legal size in year of capture.
- Postrecruit Legals - Oldshell and very oldshell male Tanner crabs 140-164 mm and all males > 164 mm in carapace width. Have been legal size at least one year.
- Total Legals - Male Tanner crabs > 139 mm in carapace width.

Appendix Table 2. Definitions of terms for Kodiak red king crab.

<u>Carapace Length</u>	-	The straight line distance across the carapace from the posterior margin of the right eye orbit to the medial-posterior margin of the carapace.
<u>Legal Size</u>	-	Male king crab seven inches (178 mm) or greater in shell width, including the spines, as measured as the straight line distance across the carapace at a right angle between the eyes to the midpoint of the posterior portion of the carapace.
<u>Juvenile Females</u>	-	1971-1979: nonovigerous females with carapace lengths of less than 120 mm. 1980-1985: nonovigerous females with carapace lengths greater than 115 mm.
<u>Adult Females</u>	-	1971-1979: all ovigerous females, 1980-1985: ovigerous and nonovigerous females with carapace lengths greater than 115 mm.
<u>Newshell Males</u>	-	Individuals that molted during the last molting season (generally January through April).
<u>Oldshell Males</u>	-	(Skipmolts) - Individuals that failed to molt during the last molting season.
<u>Very Oldshell Males</u>	-	(Double skipmolts) - Individuals that failed to molt during the last two or more molting seasons.
<u>Prerecruit Fours</u>	-	(4's) - Individuals estimated to be 4 or more years from legal size and from 1971-1979 were less than or equal to 90 mm and from 1980-1985 were less than 95 mm.
<u>Prerecruit Threes</u>	-	(3's) - Individuals estimated to be three years from legal size and from 1971-1979 were 91-108 mm and from 1980-1985 were 95-112 mm.
<u>Prerecruit Twos</u>	-	(2's) - Individuals estimated to be two years from legal size and from 1971-1979 were 109-126 mm and from 1980-1985 were 113-130 mm.
<u>Prerecruit Ones</u>	-	(1's) - Individuals estimated to be one year from legal size and from 1971-1979 were 127-144 mm and from 1980-1985 were sublegals greater than 130 mm.

-Continued-

Appendix Table 2. Definitions of terms for Kodiak red king crab (continued).

Recruits

- Newshell males which are legal size and are in their first year of availability to the commercial fishery. Because width measurements were not recorded from 1971-1979, recruits were assumed to be all newshell males 145-163 mm carapace length. From 1980-1985 they were legal crabs less than or equal to 164 mm carapace length. Starting in 1980 all crabs were classified as legal or sublegal by taking a width measurement.

Postrecruits

- Males which are legal size or estimated to be so and are not classified as recruits. In 1971-1979 they were newshells greater than or equal to 164 mm in carapace length and all oldshells and very oldshells greater than 145 mm carapace length. For 1980-1985 they were all legal size oldshells and very oldshells and all newshells greater than 164 mm in carapace length.

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