NOAA Technical Memorandum NMFS F/NWC-30

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April 1982

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service

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DATA REPORT: 1979 DEMERSAL TRAWL SURVEY OF THE EASTERN BERING SEA CONTINENTAL SHELF AND SLOPE

by

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April 1982

ABSTRACT

This data report is the first of a planned series to describe results of resource assessment surveys for groundfish in the eastern Bering Sea. The report describes methods used and summarizes results in the form of a series of tables and figures and in data appendices. Summarized in the results section are a list of species taken during the survey, abundance estimates of major taxonomic groups of fish and invertebrates, and rankings of individual species of groundfish in terms of relative abundance. For principal species of groundfish, geographic distributions and size and age composition are illustrated and abundance estimates given. The appendices contain the detailed station and catch data and computer listings of abundance estimates and biological characteristics of the sampled populations of principal species of groundfish.

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INTRODUCTION

From May to August 1979, the Resource Assessment and Conservation Engineering (RACE) Division of the Northwest and Alaska Fisheries Center (NWAFC) conducted a trawl survey of demersal fish and invertebrate resources of the eastern Bering Sea. The survey, involving three vessels using demersal trawls, was a large-scale effort designed to provide comprehensive estimates of abundance and biological condition of the eastern Bering Sea resources over the major portion of their ranges. Such comprehensive surveys are planned every 3 years in the eastern Bering Sea. In intervening years, less comprehensive surveys are carried out to obtain indices of relative abundance and biological information to provide current annual assessments of the resources.

In addition to the demersal trawl effort during the 1979 survey, a fourth vessel surveyed the off-bottom portion of the walleye pollock, Theragra chalcogramma (hereafter called pollock in text), population using hydroacoustic and midwater trawl methods over the outer continental shelf and slope. The Far Seas Fisheries Research Laboratory of the Japan Fisheries Agency also cooperated in the survey. The Japanese and U.S. survey areas overlapped to a considerable extent; Japanese vessels surveyed waters from 37 m (20 fathom [fm]) to 1000 m (600 fm) while U.S. vessels surveyed waters from 20 m (11 fm) to 730 m (400 fm). The Japanese vessels also conducted a hydroacoustic survey of pollock that have recently been discovered in pelagic waters over the Bering Sea deep water basin (Okada 1979a,b).

Results of the combined U.S. and Japanese demersal trawl and hydroacoustic surveys are presented in Bakkala et al. (1981). This report presents basic catch and biological data from the comprehensive NWAFC demersal trawl survey.

SURVEY METHODS

Survey Area

The survey area and subdivisions of the survey area (subareas 1-5, 2 slope and 3 slope) are illustrated in Figure 1. These subareas were initially established during a large-scale survey of the eastern Bering Sea in 1975 (Pereyra et al. 1976) and were retained to facilitate comparisons between the 1975 and 1979 survey data. Planned sampling density during the 1979 survey varied by subarea (Table 1) with the highest density in areas having the largest concentrations of commercially important species of demersal fish and crabs. Actual sampling densities were lower than planned in subareas 3S and 3N and in 2 slope and 3 slope because of delays in station coverage caused by poor weather and vessel equipment breakdowns (Table 1).

Table 1.--Size of subareas used during the 1979 U.S. demersal trawl survey and planned and actual sampling densities by subarea (see Figure 1).

Subarea	Area km^2	Proportion of total area	Planned sampling density		Actual sampling density	
			No. stns.	km^2/sta.	No.stns.	km^2/sta.
1	83,366	0.129	109	765	109	765
2	60,964	0.094	82	743	82	743
3 Subdivision 3N	55,631	0.086	82	678	41	1,357
Subdivision 3S	79,232	0.122	109	727	51	1,554
4 Subdivision 4N	91,913	0.142	68	1,352	68	1,352
Subdivision 4S	81,540	0.126	102	799	85	959
5	166,354	0.256	39	4,265	36	4,621
Slope-Subdivision						
2 slope	13,247	0.020	58	228	37	358
3 slope	16,387	0.025	122	134	57	287
Total survey area	648,634	1.000	771	841	566	1,146

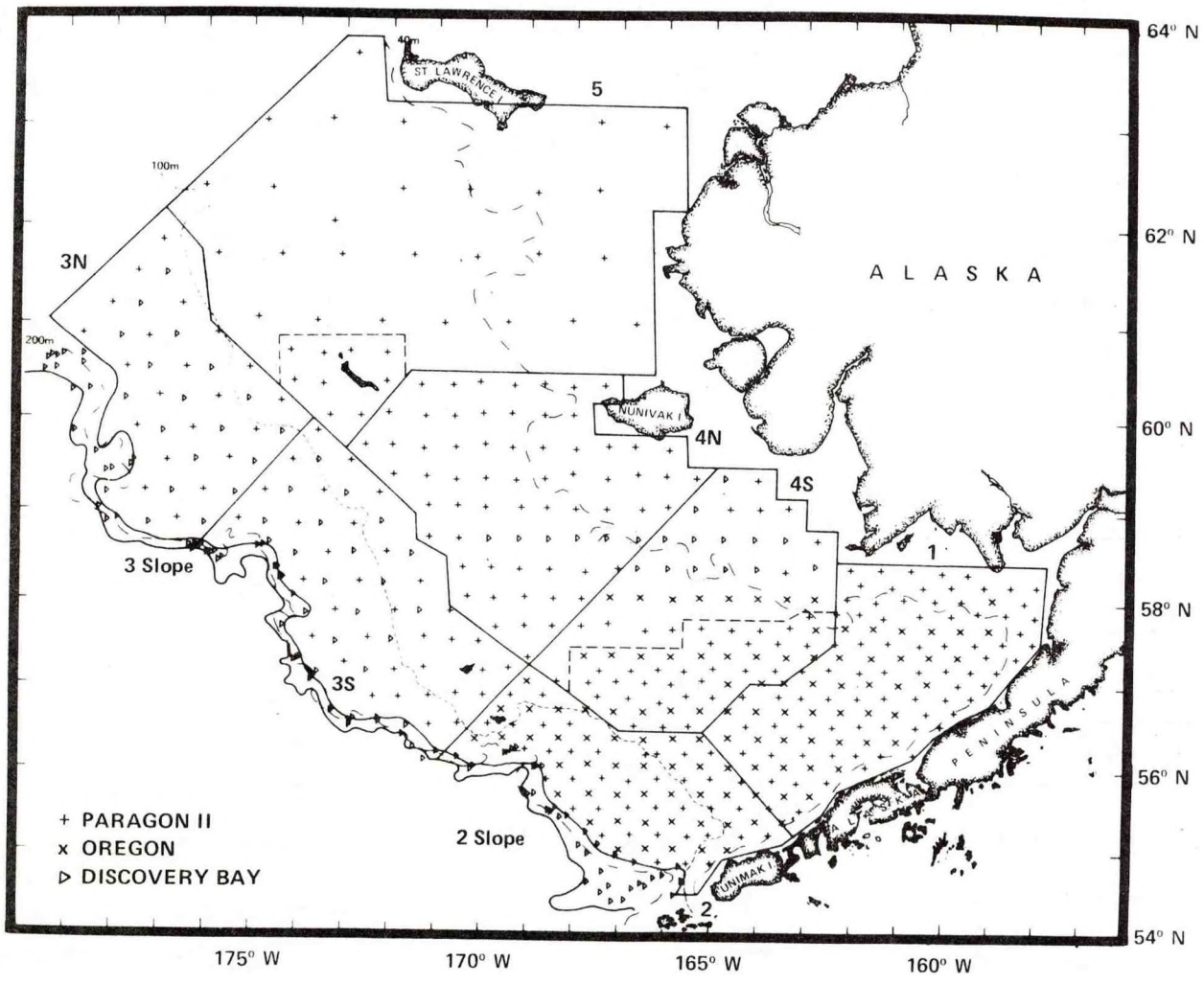


Figure 1.--Sampling stations and survey subareas used in the analysis of the 1979 survey data. Data from strata (shown by dashed lines) within subareas 4S and 5 were analyzed independently and then combined with data from the remaining portion of the subarea because of differences in station densities within these subareas.

Vessels and Fishing Gear

The NOAA ship Oregon and the chartered fishing vessels Discovery Bay and Paragon II participated in the trawl survey. Characteristics of the vessels and the demersal trawls used during the survey are described in Tables 2 and 3. The 400-mesh Eastern trawl was used at all stations on the continental shelf (<100 fm, 183 m) and the Nor'eastern trawl at all stations fished on the continental slope (>100 fm). The Discovery Bay fished all stations on the slope. While fishing, the 400-mesh Eastern trawl has a path width of 12.2 m (40 ft) and a mean vertical opening of 1.5 m (5 ft); that of the Nor'eastern trawl, while fishing, is 13.3 m (44 ft) in width and 9.2 m (30 ft) in vertical height. The Nor'eastern trawl was equipped with roller gear as described in footnote 1, Table 3.

Table 2.--Vessels participating in the 1979 demersal trawl survey.

Vessel	Overall length (m)	Gross tonnage	Horsepower	Survey period	
				Start	Finish
Oregon	30.4	219	600	20 May	27 August
Paragon II	33.5	196	1,125	17 May	21 August
Discovery Bay	32.9	196	850	3 July	24 August

Table 3.--Demersal trawls used during the 1979 survey.

Trawl	Headrope length (m)	Footrope length (m)	Mesh sizes				Accessory gear	
			Wing and body (mm)	Intermediate (mm)	Codend (mm)	Codend liner (mm)	Door width & length (m)	Dandyline length (m)
400-mesh Eastern	21.6	28.7	102	89	89	32	1.5x2.1	45.5
Nor'eastern[1/]	27.4	32.0	127	89	89	32	1.8x2.7	54.9

1/ The Nor'eastern trawl was equipped with roller gear having 34.6-45.7 cm diameter bobbins.

Relative fishing powers between vessels were examined by two methods: side-by-side trawling and having pairs of vessels fishing alternate rows of stations in certain survey subareas. The side-by-side trawling was conducted by the Oregon (using the 400-mesh Eastern trawl) and the Discovery Bay (using the Nor'eastern trawl). An equipment breakdown on the Oregon prevented completion of the side-by-side trawling experiments, and the number of trials was inadequate to develop usable results from these experiments. The fishing power of the Discovery Bay while using the Nor'eastern trawl on the slope relative to the other vessels fishing the 400-mesh Eastern trawl on the shelf was, therefore, not determined and no fishing power coefficients were applied to catches of the Discovery Bay on the slope.

The fishing power comparisons used were obtained from the alternate row method. The Oregon and Paragon II completed all stations in survey subarea 2 and the Paragon II and Discovery Bay all stations in subarea 3S and 3N using this system. All vessels used 400-mesh Eastern trawls while fishing alternate rows in subareas 2 and 3.

Results of the alternate row trawling are shown in Tables 4 and 5. A procedure developed by Geisser and Eddy (1979) was used to decide whether the catch per unit effort (CPUE) of a given species in the common area fished by the two vessels came from the same population or distinct populations. If the CPUE estimates were determined to come from the same population, the vessels were considered to have equal fishing powers for that species. If the CPUE estimates were determined to come from distinct populations, the CPUE estimate from the more efficient vessel was considered to be most representative of the actual population abundance, and catch rates of the other vessels were adjusted to that of the more efficient vessel. The adjustment factor was the ratio of the mean catch rates of the less efficient vessel to that of the more efficient

Table 4.--Comparison of relative fishing powers of the Oregon and Paragon II in survey subarea 2.

Species	Number of stations at which species were caught[1]		Mean catch rates (kg/mile)		Ratio of catch rates[2]
	Oregon	Paragon II	Oregon	Paragon II	(Oregon/Paragon II)
Walleye pollock	41	38	58.42	185.25	0.315*
Pacific cod	41	37	54.86	49.07	1.118
Sablefish	23	21	8.56	23.09	0.371
Pacific ocean perch[3]	2	1	-	-	-
Thornyheads[3]	0	0	-	-	-
Other rockfish[3]	3	2	-	-	-
Herring[3]	0	1	-	-	-
Yellowfin sole	11	19	18.17	27.33	0.665
Rock sole	18	23	4.21	10.02	0.420
Flathead sole	36	37	19.33	19.38	0.997
Alaska plaice	11	9	2.22	1.09	2.037
Greenland turbot	27	29	2.30	2.30	1.000
Arrowtooth flounder	41	38	10.78	11.93	0.904
Pacific halibut	21	30	3.05	6.64	0.459*
Other flounders	27	27	0.42	3.41	0.123
Smelts	19	25	1.46	1.59	0.918*
Sculpins	41	35	8.67	8.64	1.003*
Snailfishes[3]	2	3	-	-	-
Poachers	11	18	0.09	0.33	0.273*
Eelpouts	32	32	21.09	24.67	0.855*
Skates	29	28	9.88	11.13	0.888*
Other fishes	21	25	3.00	1.86	1.613*
Squid[3]	3	0	-	-	-
Octopus	8	7	1.81	1.48	1.223
Shrimp	10	16	0.86	0.53	1.623*

1/ A total of 41 stations was trawled by the Oregon and 38 by the Paragon II in subarea 2.

2/ * Geisser and Eddy (1979) procedure indicates that the two vessels sampled distinct populations.

3/ Observations lacking or too few for meaningful comparisons; vessels were assumed to have equal fishing powers for these species.

Table 5.--Comparison of relative fishing powers of the Discovery Bay and Paragon II in survey strata 3S and 3N.

Species	Number of stations at which species were caught[1/]		Mean catch rates (kg/mile)		Ratio of catch rates[2/]
	Discovery Bay	Paragon II	Discovery Bay	Paragon II	(Discovery Bay/Paragon II)
Walleye pollock	38	40	131.73	190.76	0.691
Pacific cod	36	36	6.94	15.67	0.443*
Sablefish[3/]	0	0	-	-	-
Pacific ocean perch[3/]	0	0	-	-	-
Thornyheads[3/]	0	0	-	-	-
Other rockfish[3/]	0	0	-	-	-
Herring[3/]	13	6	.13	.12	1.050
Yellowfin sole	3	4	0.02	0.18	0.111
Rock sole	5	9	0.16	0.14	1.143
Flathead sole	31	37	2.18	3.98	0.548*
Alaska plaice	3	12	0.03	0.48	0.063
Greenland turbot	37	40	15.27	18.59	0.821
Arrowtooth flounder	7	7	0.18	0.54	0.333
Pacific halibut[3/]	2	0	-	-	-
Other flounders[3/]	1	2	< .01	< .01	.333
Smelts[3/]	1	0	-	-	-
Sculpins	37	40	1.38	4.57	0.301*
Snailfishes	18	28	0.18	0.99	0.185*
Poachers	8	11	0.01	0.19	0.579*
Eelpouts	38	40	13.10	36.59	0.358*
Skates	24	36	1.90	5.56	0.343*
Other fish	15	26	.06	.10	.663
Squid[3/]	1	0	-	-	-
Octopus	21	27	2.16	11.37	0.190*
Shrimp	20	35	1.64	2.28	0.718

1/ A total of 38 stations was trawled by the Discovery Bay and 40 by the Paragon II in subarea 3.

2/ *Geisser and Eddy (1979) procedure indicates that the two vessels sampled distinct populations.

3/ Observations lacking or too few for meaningful comparisons; vessels were assumed to have equal fishing powers for these species.

vessel obtained from the alternate row fishing. Mean catch rates were calculated by summing the catches and dividing by the sum of distances trawled.

The Paragon II was the more efficient vessel for almost all species in which catch rates were determined to be derived from distinct populations (Tables 4 and 5). The Oregon was determined to be more efficient for sculpins, other fish[1/], and shrimp.

Data Collection and Sampling Methods

Sampling procedures used during the survey to collect station, catch, and biological data are the same as given by Bakkala and Smith (1978). The length of tows was 30 min. Catches up to about 1150 kg (2500 lb) were usually completely processed by sorting the catch by species and determining the species weight and the number of individuals in the sample. For catches larger than 1150 kg, a portion of the total catch was processed and weights and numbers of the sampled portion expanded to the total catch.

For commercially important species, a random sample of fish was measured from a majority of the catches, particularly for the major species such as pollock and yellowfin sole. Stratified otoliths or scale samples were also collected from principal species for age determinations. Numbers of fish measured and age structures collected are given in Table 6.

Data Analysis

A detailed description of the methods of analysis of the demersal trawl data are given in Bakkala and Smith (1978). In general terms, catches at each station were standardized to a basic sampling unit (kg/km trawled).

1/ A category that included the miscellaneous species: searchers, pricklebacks, prowfish, dogfish, sandfish, and greenlings.

Table 6.--Approximate numbers of fish measured and age structures collected during the 1979 survey.

	Number measured	Number age structures collected
Walleye pollock	79,352	3,373
Yellowfin sole	59,095	1,384
Pacific cod	19,493	777
Greenland turbot	15,956	0
Flathead sole	11,998	0
Rock sole	11,549	452
Alaska plaice	8,499	0
Saffron cod	5,210	279
Arrowtooth flounder	4,951	0
Longhead dab	2,758	0
Pacific herring	1,781	0
Pacific halibut	1,530	0
Rainbow smelt	1,087	0
Sablefish	836	45
Pacific ocean perch	670	234
Grenadier (*C. cinereus*)	645	265
Grenadier (*A. pectoralis*)	501	173
Arctic cod	288	0
Thornyhead rockfish	204	181
Rainbow smelt	192	0
Starry flounder	87	0
Shortraker rockfish	57	53
Rex sole	55	0
Dusky rockfish	27	0
TOTAL	226,821	7,216

These catch rates (CPUE) were then scaled to the most efficient vessel for a given species. Mean CPUE values by species and strata were then computed from the standardized catch rates and summed over strata after being weighted by the size of each strata to obtain mean catch rates for the overall survey area. Standing stock (biomass) estimates were derived using the "area swept" method of Alverson and Pereyra (1969).

In estimating the length composition of the sampled populations, the number of individuals within sex and size classes for each station was derived by expanding the length-frequency subsample to the total catch per standard sampling unit. The individual station data were then expanded to the total strata area and summed over strata to obtain estimates for the total survey area. Age composition was estimated by proportioning the computed population length-frequency distribution to ages using age-length keys that were stratified by sex and size categories.

Subsequent to the 1979 survey, it was discovered that aging methods for Pacific cod based on counting annuli from scales were unreliable (Bakkala 1981). Better results were produced by a computer program (MacDonald and Pitcher 1979) which uses an iterative procedure to fit normal curves to the modes in a length-frequency distribution. Prior estimates of length-at-age (such as from a Von Bertalanffy curve) are used as starting points for the program. This program was, therefore, used for estimating the age composition for cod rather than the age readings from scales.

RESULTS

Haul and Catch Data

See Appendix A for a listing of all station and catch data. The station data include the haul number, location, depth, distance fished, and bottom

and surface water temperatures. The catch data list the weight of each species caught at each station.

Environmental Conditions

Bottom and surface water temperatures are shown in Figures 2 and 3. Water temperatures were relatively warm in 1979 in comparison to some previous years. For example, average bottom temperatures on the continental shelf were 1.6° C higher in 1979 (5.1° C) than in 1975 (3.5° C).

Species Taken

All species of fish taken during the survey are listed in Table 7. A total of 118 species in 30 families were identified in catches.

OVERALL ABUNDANCE AND DISTRIBUTION OF MAJOR FISH GROUPS

Estimates of abundance by weight (biomass) in the survey area of all fish and invertebrates taken during the survey are given in Table 8. Fish accounted for 8.4 million metric tons (t) or 70% of the total apparent biomass in the survey area and invertebrates 3.6 million t or 30%. The cods and flounders were the most abundant species groups making up 58% of the total weight of all fish and invertebrates.

The largest portion of the total sampled biomass (38.9% of the fish and 36.8% of the invertebrates) were located in subarea 4.

RELATIVE IMPORTANCE OF INDIVIDUAL SPECIES OF FISH

Mean catch rates of the 20 most abundant species of fish are listed for the overall survey area in Table 9 and for individual survey subareas in Tables 10-15. The 20 most abundant fish accounted for 67% of the total catch of all fish and invertebrates in the overall survey area and from 47% (in

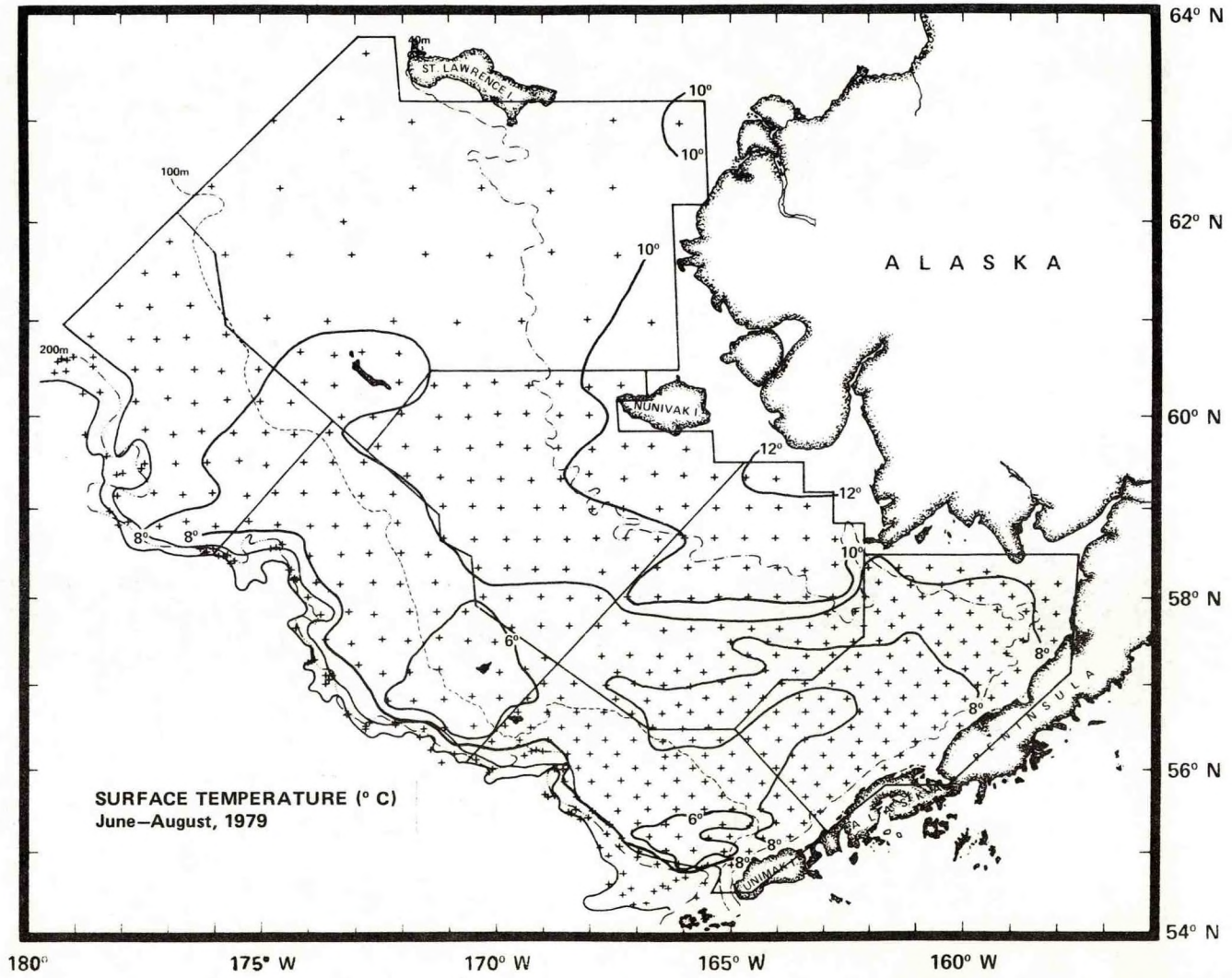


Figure 2.--Distribution of surface water temperatures observed during the 1979 survey.

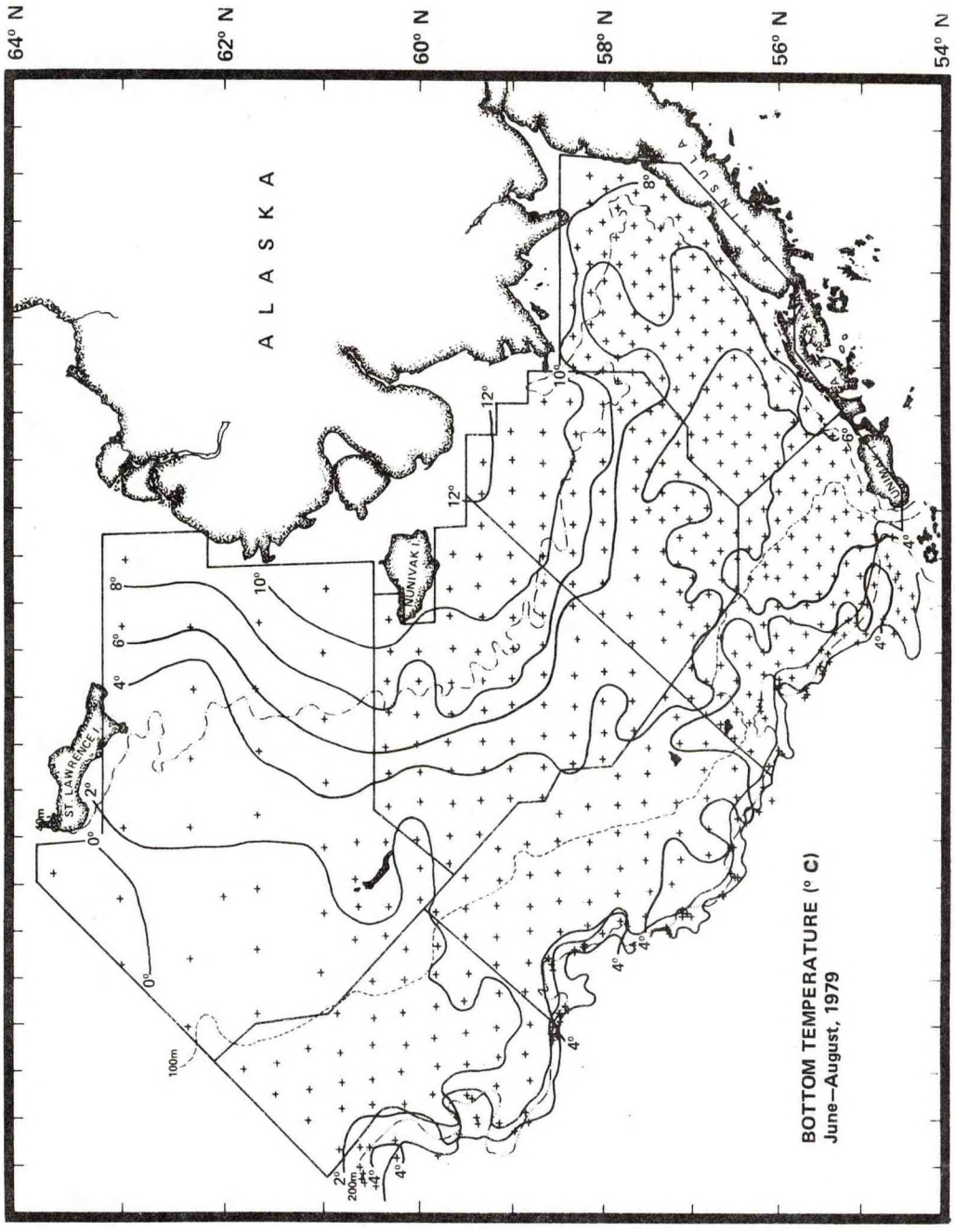


Figure 3.--Distribution of bottom water temperatures observed during the 1979 survey.

Table 7.--List of fish taxa, by family, encountered during the 1979 crab-groundfish survey.[1]

Taxon	Common name
PETROMYZONTIDAE	
Lampetra sp.	Lamprey unident.
Lampetra tridentata[2]	Pacific lamprey
SQUALIDAE	
Squalus acanthias	Spiny dogfish
RAJIDAE	
Raja sp.	Skate unident.
Raja abyssicola	Deepsea skate
Raja binoculata	Big skate
Raja kincaidi	Sandpaper skate[2]
Raja rhina	Longnose skate
Raja stellulata	Starry skate
CLUPEIDAE	
Clupea harengus pallasi	Pacific herring
SALMONIDAE	
Oncorhynchus keta	Chum salmon
Oncorhynchus tshawytscha	Chinook salmon
OSMERIDAE	
Mallotus villosus	Capelin
Osmerus mordax dentex	Rainbow smelt
Thaleichthys pacificus	Eulachon
BATHYLAGIDAE	
Bathylagus sp.	Deepsea smelt unident.[2]
Bathylagus stilbius	California smoothtongue[2]
CHAULIODONTIDAE	
Chauliodus macouni	Pacific viperfish
MYCTOPHIDAE	
Myctophidae	Lanternfish unident.
Lampanyctus sp.	Lanternfish
Diaphus theta	California headlightfish

Table 7.--Continued.

Taxon	Common name
ONEIRODIDAE	
Oneirodidae	Dreamer unident.
MORIDAE	
Antimora microlepis	Pacific flatnose
GADIDAE	
Boreogadus saida	Arctic cod
Eleginus gracilis	Saffron cod
Gadus macrocephalus	Pacific cod
Theragra chalcogramma	Pollock[3/]
ZOARCIDAE	
Zoarcidae	Eelpout unident.
Lycodapus sp.	Eelpout unident.
Bothrocara brunneum	Twoline eelpout
Lycodapus fierasfer	Blackmouth eelpout
Lycodes brevipes	Shortfin eelpout
Lycodes raridens	Sparse toothed lycod
Lycodes diapterus	Black eelpout
Lycodes palearis	Wattled eelpout
Lycodes polaris	Canadian eelpout
MACROURIDAE	
Albatrossia pectoralis	Grenadier
Coryphaenoides cinereus	Grenadier
SCORPAENIDAE	
Sebastes sp.	Rockfish unident.
Seabastes alutus	Pacific ocean perch
Sebastes borealis	Shortraker rockfish
Sebastes ciliatus	Dusky rockfish
Sebastes polyspinis	Northern rockfish
Sebastolobus alascanus	Shortspine thornyhead
Sebastolobus altivelis	Longspine thornyhead
HEXAGRAMMIDAE	
Hexagrammos sp.	Greenling unident.
Hexagrammos decagrammus	Kelp greenling
Hexagrammos lagocephalus	Rock greenling
Hexagrammos stelleri	Whitespotted greenling
Pleurogrammus monopterygius	Atka mackerel
Zaniolepis frenata	Shortspine combfish

Table 7.--Continued.

Taxon	Common name
ANOPLOPOMATIDAE	
Anoplopoma fimbria	Sablefish
COTTIDAE	
Cottidae	Sculpin unident.
Artediellus sp.	Sculpin unident.
Artediellus pacificus	Hookhorned sculpin
Artediellus uncinatus	Arctic hookear sculpin
Blepsias bilobus	Crested sculpin
Dasycottus setiger	Spinyhead sculpin
Enophrys diceraus[2/]	Antlered sculpin[2/]
Gymnocanthus sp.	Sculpin unident.
Gymnocanthus galeatus	Armorhead sculpin
Gymnocanthus pistilliger	Threaded sculpin
Hemilepidotus sp.	Irish lord unident.
Hemilepidotus hemilepidotus	Red Irish lord
Hemilepidotus jordani	Yellow Irish lord
Hemilepidotus spinosus	Brown Irish lord
Icelinus borealis	Northern sculpin
Icelus canaliculatus	Sculpin
Icelus spiniger	Thorny sculpin
Icelus uncinalis	Sculpin
Malacocottus kincaidi	Blackfin sculpin
Melletes papilio	Butterfly sculpin
Myoxocephalus sp.	Sculpin unident.
Myoxocephalus axillaris	Sculpin
Myoxocephalus jaok	Plain sculpin
Myoxocephalus mednius	Sculpin
Myoxocephalus polyacanthocephalus	Great sculpin
Myoxocephalus quadricornis	Fourhorn sculpin
Myoxocephalus scorpius	Shorthorn sculpin
Nautichthys pribilovius	Eyeshade sculpin
Triglops sp.	Sculpin unident.
Triglops macellus	Roughspine sculpin
Triglops metopias	Sculpin
Triglops pingeli	Ribbed sculpin
Triglops scepticus	Spectacled triglops
Hemitripterus bolini[2/]	Bigmouth sculpin
AGONIDAE	
Agonidae	Poacher unident.
Aspidophoroides bartoni	Aleutian alligatorfish
Aspidophoroides olriki	Arctic alligatorfish[2/]
Bathyagonus nigripinnis	Blackfin poacher
Occella dodecaedron	Bering poacher

Table 7.--Continued.

Taxon	Common name
AGONIDAE (Cont'd)	
Occella verrucosa	Warty poacher
Pallasina barbata	Tubenose poacher
Agonus acipenserinus[2/]	Sturgeon poacher
Sarritor frenatus	Sawback poacher
Sarritor leptorhynchus	Longnose poacher
CYCLOPTERIDAE	
Cyclopteridae	Snailfish unident.
Aptocyclus ventricosus	Smooth lumpsucker
Careproctus gilberti	Smalldisk snailfish
Careproctus melanurus	Blacktail snailfish
Careproctus ovigerum	Abyssal snailfish
Careproctus rastrinus	Pink snailfish
Eumicrotremus orbis	Pacific spiny lumpsucker
Liparis sp.	Snailfish unident.
Liparis cyclostigma	Polka-dot snailfish
Liparis dennyi	Marbled snailfish
Liparis megacephalus	Snailfish
Crystallichthys cyclospilus[2/]	Blotched snailfish[2/]
TRICHODONTIDAE	
Trichodon trichodon	Pacific sandfish
BATHYMASTERIDAE	
Bathymaster signatus	Searcher
ANARHICHADIDAE	
Anarhichas orientalis	Bering wolffish
STICHAEIDAE	
Stichaeidae	Prickleback unident.
Eumesogrammus praecisus	Fourline snakeblenny
Lumpenus maculatus[2/]	Daubed shanny
Lumpenella longirostris	Longsnout prickleback
Lumpenus mackayi	Prickleback
Lumpenus sagitta	Snake prickleback
PHOLIDAE	
Pholidae	Gunnel unident.
ZAPRORIDAE	
Zaprora silenus	Prowfish

Table 7.--Continued.

Taxon	Common name
ICOSTEIDAE	
Icosteus aenigmaticus	Ragfish
AMMODYTIDAE	
Ammodytes hexapterus	Pacific sand lance
PLEURONECTIDAE	
Atheresthes evermanni	Kamchatka flounder
Atheresthes stomias	Arrowtooth flounder
Glyptocephalus zachirus	Rex sole
Hippoglossoides elassodon	Flathead sole
Hippoglossoides robustus	Bering flounder
Hippoglossus stenolepis	Pacific halibut
Isopsetta isolepis	Butter sole
Lepidopsetta bilineata	Rock sole
Limanda aspera	Yellowfin sole
Limanda proboscidea	Longhead dab
Microstomus pacificus	Dover sole
Platichthys stellatus	Starry flounder
Pleuronectes quadrituberculatus	Alaska plaice
Psettichthys melanostictus	Sand sole
Reinhardtius hippoglossoides	Greenland turbot[3/]

1/ Nomenclature from Quast and Hall (1972), unless otherwise noted.
2/ Robins (1980).
3/ Market name.

Table 8.--Summary of biomasses available to the trawls for major taxonomic groups, 1979 summer survey.

Taxa	Estimated biomass for total survey area (t)	Proportion of total biomass	Estimated biomass by subarea (t)								
			1	2	3N	3S	4N	4S	5	2 slope	3 slope
Gadidae (cods)	3,975,557	0.332	577,941	642,133	443,588	683,556	714,374	628,370	184,253	59,043	42,299
Pleuronectidae (flounders)	2,991,277	0.250	846,766	200,064	87,385	69,099	645,481	948,027	159,895	22,064	12,496
Cottidae(sculpins)	412,593	0.034	24,248	24,742	14,243	27,555	107,608	70,810	138,388	2,499	2,500
Zoarcidae (eelpouts)	698,191	0.058	2,589	59,731	165,317	49,369	69,593	14,234	336,846	387	125
Agonidae (poachers)	28,727	0.002	7,137	904	62	659	7,689	11,731	532	7	6
Rajidae (skates)	75,597	0.006	1,096	28,458	16,271	19,990	5,652	2,545	71	446	1,068
Other fish	174,519	0.015	12,202	58,147	4,259	3,064	14,895	11,326	43,342	7,559	19,725
Total fish	8,356,461	0.699	1,471,979	1,014,179	731,125	853,292	1,565,292	1,687,043	863,327	92,005	78,219
Porifera (sponges)	29,338	0.002	26,860	1,171	19	41	22	2	1,176	5	42
Coelenterata (coelenterates)	46,150	0.004	8,059	12,958	1,089	5,590	9,884	746	7,348	415	61
Mollusca	416,499	0.035	17,758	18,513	101,422	42,894	91,563	55,862	87,130	535	822
Gastropoda (snails)	333,812	0.028	14,692	13,808	41,039	32,413	90,732	55,052	86,002	37	37
Pelecypoda (bivalves)	8,237	0.001	1,958	69	635	3,230	829	792	724	0	<1
Cephalopoda (squids & octopus)	74,380	0.006	1,109	4,637	59,748	7,251	0	19	336	496	784
Crustacea	1,961,874	0.164	237,137	124,749	67,144	202,154	349,353	291,470	688,091	1,029	747
Chionoecetes sp. (snow [Tanner] crab)	1,306,199	0.109	26,487	74,270	51,263	143,375	233,027	181,062	596,082	242	391
Paralithodes sp. (king crab)	311,181	0.026	192,794	35,449	643	14,063	5,734	51,035	11,463	0	0
Total crab	1,923,512	0.161	237,078	121,858	55,252	194,525	347,361	291,215	675,022	734	467
Total shrimp	24,308	0.002	36	2,275	7,323	4,691	1,223	156	8,030	295	279
Echinodermata	995,975	0.083	231,244	39,241	128,386	64,526	163,226	262,777	106,191	319	65
Asteroidea (starfish)	862,542	0.072	207,242	18,195	102,260	47,077	148,322	252,062	87,226	109	49
Ophiuroidea (brittlestars)	102,705	0.009	6,855	19,983	25,962	5,588	14,896	10,715	18,692	3	11
Echinoidea (sea urchins,etc.)	18,500	0.002	6,227	1,018	163	11,039	6	0	39	4	4
Holothuroidea (sea cucumbers)	12,227	0.001	10,920	45	0	822	2	0	234	203	1
Ascidiacea	138,748	0.012	3,892	77	0	19	71,260	15,649	47,851	0	0
Other invertebrates	14,684	0.001	1	3	0	0	4,453	8,307	1,882	0	38
Total invertebrates	3,603,268	0.301	524,951	196,712	298,060	315,224	689,761	634,813	939,669	2,303	1,775
Total catch	11,959,729	1.000	1,996,930	1,210,891	1,029,185	1,168,516	2,255,053	2,321,856	1,802,996	94,308	79,994
Geographical area (km^2)	648,634		83,366	60,964	55,631	79,232	91,913	81,540	166,354	13,247	16,387

Table 9.--Rank order of abundance of the 20 most abundant species of fish taken during the 1979 demersal trawl survey, all subareas combined.

Rank	Species	CPUE (kg/km)[1]	Proportion of total CPUE[2]	Cumulative proportion[3]
1	Walleye pollock	57.52	0.260	0.260
2	Yellowfin sole	36.31	0.164	0.424
3	Pacific cod	14.88	0.067	0.491
4	Eelpout unidentified	6.48	0.029	0.520
5	Alaska plaice	5.77	0.026	0.546
6	Greenland turbot	4.68	0.021	0.567
7	Rock sole	3.45	0.016	0.583
8	Shortfin eelpout	2.87	0.013	0.596
9	Flathead sole	2.44	0.011	0.607
10	Wattled eelpout	2.33	0.011	0.618
11	Butterfly sculpin	2.09	0.009	0.627
12	Plain sculpin	1.56	0.007	0.634
13	Skate unidentified	1.29	0.006	0.640
14	Pacific halibut	1.22	0.006	0.646
15	Saffron cod	1.20	0.005	0.651
16	Arrowtooth flounder	1.02	0.005	0.656
17	*Myoxocephalus* sp. (sculpin)	0.95	0.004	0.660
18	Great sculpin	0.88	0.004	0.664
19	Sablefish	0.84	0.004	0.668
20	Yellow Irish lord	0.82	0.004	0.672

1/ Total effort = 1527.3 km

2/ Proportion of total catch per unit effort (CPUE), all fish and invertebrates combined.
Total CPUE = 221.31 kg/km

3/ Rounding accounts for minor discrepancies between sum of proportions for individual species and cumulative proportions.

Table 10.--Rank order of abundance of the 20 most abundant species of fish taken during the 1979 demersal trawl survey, subarea 1.

Rank	Species	CPUE (kg/km)[1/]	Proportion of total CPUE[2/]	Cumulative proportion[3/]
1	Yellowfin sole	92.70	0.319	0.319
2	Walleye pollock	56.65	0.195	0.514
3	Pacific cod	28.33	0.097	0.611
4	Rock sole	15.95	0.055	0.666
5	Pacific halibut	4.69	0.016	0.682
6	Alaska plaice	3.69	0.013	0.695
7	Longhead dab	3.39	0.012	0.707
8	Plain sculpin	2.42	0.008	0.715
9	Flathead sole	2.30	0.008	0.723
10	Sturgeon poacher	1.02	0.003	0.726
11	Pacific herring	0.71	0.002	0.728
12	Starry flounder	0.65	0.002	0.730
13	Whitespotted greenling	0.48	0.002	0.732
14	Arrowtooth flounder	0.45	0.002	0.734
15	Pacific sandfish	0.33	0.001	0.735
16	Threaded sculpin	0.32	0.001	0.736
17	Great sculpin	0.26	0.001	0.737
18	Wattled eelpout	0.23	0.001	0.738
19	Greenland turbot	0.23	0.001	0.739
20	*Myoxocephalus* sp. (sculpin)	0.19	0.001	0.740

1/ Total effort = 316.9 km

2/ Proportion of total catch per unit effort (CPUE), all fish and invertebrates combined.
Total CPUE = 290.74 kg/km

3/ Rounding accounts for minor discrepancies between sum of proportions for individual species and cumulative proportions.

Table 11.--Rank order of abundance of the 20 most abundant species of fish taken during the 1979 dermersal trawl survey, subarea 2.

Rank	Species	CPUE (kg/km)[1/]	Proportion of total CPUE[2/]	Cumulative proportion[3/]
1	Walleye pollock	101.65	0.405	0.405
2	Pacific cod	27.56	0.110	0.515
3	Yellowfin sole	11.47	0.046	0.561
4	Flathead sole	9.92	0.039	0.600
5	Eelpout unidentified	8.59	0.034	0.634
6	Sablefish	8.37	0.033	0.667
7	Arrowtooth flounder	7.12	0.028	0.695
8	Skate unidentified	5.66	0.023	0.718
9	Rock sole	3.76	0.015	0.733
10	Yellow Irish lord	3.75	0.015	0.748
11	Shortfin eelpout	3.42	0.014	0.762
12	Pacific halibut	3.22	0.013	0.775
13	Greenland turbot	1.20	0.005	0.780
14	Pacific ocean perch	1.06	0.004	0.784
15	Searcher	1.01	0.004	0.788
16	Alaska plaice	0.98	0.004	0.792
17	Bigmouth sculpin	0.85	0.003	0.795
18	Eulachon	0.76	0.003	0.798
19	Longhead dab	0.67	0.003	0.801
20	*Myoxocephalus* sp. (sculpin)	0.67	0.003	0.804

1/ Total effort = 221.9 km

2/ Proportion of total catch per unit effort (CPUE), all fish and invertebrates combined.
Total CPUE = 251.10 kg/km

3/ Rounding accounts for minor discrepancies between sum of proportions for individual species and cumulative proportions.

Table 12.--Rank order of abundance of the 20 most abundant species of fish taken during the 1979 demersal trawl survey, subareas 3S and 3N.

	Subarea 3S				Subarea 3N			
Rank	Species	CPUE (kg/km)[1]	Proportion of total CPUE[2]	Cumulative proportion[3]	Species	CPUE (kg/km)[1]	Proportion of total CPUE[2]	Cumulative proportion[3]
1	Walleye pollock	94.80	0.528	0.528	Walleye pollock	90.45	0.436	0.436
2	Pacific cod	10.32	0.058	0.586	Shortfin eelpout	25.28	0.122	0.558
3	Greenland turbot	5.12	0.029	0.615	Greenland turbot	12.44	0.060	0.618
4	Wattled eelpout	3.62	0.020	0.635	Pacific cod	6.71	0.032	0.650
5	Shortfin eelpout	3.13	0.017	0.652	Wattled eelpout	4.88	0.023	0.673
6	Skate unidentified	2.74	0.015	0.667	Flathead sole	3.51	0.017	0.690
7	Yellowfin sole	1.77	0.010	0.677	Skate unidentified	3.00	0.014	0.704
8	Rock sole	1.55	0.009	0.686	Thorny sculpin	2.20	0.011	0.715
9	Yellow Irish lord	1.35	0.008	0.694	Sparse toothed lycod	0.57	0.003	0.718
10	Flathead sole	1.18	0.007	0.701	Marbled snailfish	0.42	0.002	0.720
11	Great sculpin	1.02	0.006	0.707	Pink snailfish	0.40	0.002	0.722
12	Plain sculpin	0.55	0.003	0.710	Spinyhead sculpin	0.15	0.001	0.723
13	Arrowtooth flounder	0.38	0.002	0.712	Arrowtooth flounder	0.08	<0.001	0.723
14	Alaska plaice	0.35	0.002	0.714	Rock sole	0.08	<0.001	0.723
15	Thorny sculpin	0.34	0.002	0.716	Yellow Irish lord	0.08	<0.001	0.723
16	Gymnocanthus sp. (sculpin)	0.34	0.002	0.718	Blackfin sculpin	0.07	<0.001	0.723
					Pacific herring	0.07	<0.001	0.723
17	Butterfly sculpin	0.31	0.002	0.720	Alaska plaice	0.06	<0.001	0.723
18	Spinyhead sculpin	0.24	0.001	0.721	Searcher	0.03	<0.001	0.723
19	Bigmouth sculpin	0.21	0.001	0.722	Butterfly sculpin	0.02	<0.001	0.723
20	Pacific halibut	0.17	0.001	0.723				

1/ Total effort subarea 3S = 158.2 km, subarea 3N = 130.6 km.

2/ Proportion of total catch per unit effort (CPUE), all fish and invertebrates combined. Total CPUE subarea 3S = 179.39 kg/km, subarea 3N = 207.64 kg/km.

3/ Rounding accounts for minor discrepancies between sum of proportions for individual species and cumulative proportions.

Table 13.--Rank order of abundance of the 20 most abundant species of fish taken during the 1979 demersal trawl survey, subareas 4S and 4N.

	Subarea 4S				Subarea 4N			
Rank	Species	CPUE (kg/km)[1]	Proportion of total CPUE[2]	Cumulative proportion[3]	Species	CPUE (kg/km)[1]	Proportion of total CPUE[2]	Cumulative proportion[3]
1	Yellowfin sole	118.20	0.342	0.342	Walleye pollock	65.49	0.222	0.222
2	Walleye pollock	69.97	0.203	0.545	Yellowfin sole	54.91	0.186	0.408
3	Pacific cod	18.76	0.054	0.599	Pacific cod	23.75	0.081	0.489
4	Alaska plaice	14.78	0.043	0.642	Alaska plaice	20.07	0.068	0.557
5	Rock sole	4.33	0.013	0.655	Wattled eelpout	5.99	0.020	0.577
6	Plain sculpin	3.68	0.011	0.666	Greenland turbot	5.22	0.018	0.595
7	Great sculpin	2.98	0.009	0.675	Myoxocephalus sp. (sculpin)	5.02	0.017	0.612
8	Saffron cod	2.61	0.008	0.683				
9	Wattled eelpout	1.88	0.005	0.688	Plain sculpin	3.97	0.013	0.625
10	Sturgeon poacher	1.85	0.005	0.693	Saffron cod	2.69	0.009	0.634
11	Armorhead sculpin	1.59	0.005	0.698	Eelpout unidentified	2.59	0.009	0.643
12	Pacific halibut	1.58	0.005	0.703	Rock sole	2.06	0.007	0.650
13	Flathead sole	1.16	0.003	0.706	Great sculpin	1.62	0.006	0.656
14	Myoxocephalus sp. (sculpin)	0.95	0.003	0.709	Butterfly sculpin	1.48	0.005	0.661
					Yellow Irish lord	1.14	0.004	0.665
15	Greenland turbot	0.94	0.003	0.712	Sturgeon poacher	0.98	0.003	0.668
16	Longhead dab	0.94	0.003	0.715	Snailfish unidentified	0.73	0.002	0.670
17	Yellow Irish lord	0.91	0.003	0.718	Flathead sole	0.67	0.002	0.672
18	Eulachon	0.62	0.002	0.720	Pacific herring	0.67	0.002	0.674
19	Starry flounder	0.50	0.001	0.721	Skate unidentified	0.63	0.002	0.676
20	Rainbow smelt	0.36	0.001	0.722	Pacific halibut	0.56	0.002	0.678

1/ Total effort subarea 4S = 205.2 km, subarea 4N = 190.6 km.

2/ Proportion of total catch per unit effort (CPUE), all fish and invertebrates combined. Total CPUE subarea 4S = 345.23 kg/km, subarea 4N = 294.40 kg/km.

3/ Rounding accounts for minor discrepancies between sum of proportions for individual species and cumulative proportions.

Table 14.--Rank order of abundance of the 20 most abundant species of fish taken during the 1979 demersal trawl survey, subarea 5.

Rank	Species	CPUE (kg/km)[1/]	Proportion of total CPUE[2/]	Cumulative proportion[3/]
1	Eelpout unidentified	20.45	0.164	0.164
2	Walleye pollock	8.75	0.070	0.234
3	Butterfly sculpin	7.20	0.058	0.292
4	Greenland turbot	5.48	0.044	0.336
5	Flathead sole	1.94	0.016	0.352
6	Saffron cod	1.91	0.015	0.367
7	Yellowfin sole	1.82	0.015	0.382
8	Alaska plaice	1.78	0.014	0.396
9	Snailfish unidentified	1.63	0.013	0.409
10	Sparse toothed lycod	1.53	0.012	0.421
11	Wattled eelpout	1.25	0.010	0.431
12	Shorthorn sculpin	0.96	0.008	0.439
13	Pacific cod	0.81	0.006	0.445
14	Plain sculpin	0.60	0.005	0.450
15	Pacific herring	0.58	0.005	0.455
16	*Gymnocanthus* sp. (sculpin)	0.58	0.005	0.460
17	Great sculpin	0.37	0.003	0.463
18	Pink snailfish	0.22	0.002	0.465
19	Marbled snailfish	0.21	0.002	0.467
20	*Liparis* sp. (snailfish)	0.21	0.002	0.469

1/ Total effort = 100.4 km

2/ Proportion of total catch per unit effort (CPUE), all fish and invertebrates combined.
Total CPUE = 124.61 kg/km

3/ Rounding accounts for minor discrepancies between sum of proportions for individual species and cumulative proportions.

Table 15.--Rank order of abundance of the 20 most abundant species of fish taken during the 1979 demersal trawl survey, subareas 2 slope and 3 slope.

	Subarea 2 Slope				Subarea 3 Slope			
Rank	Species	CPUE (kg/km)[1/]	Proportion of total CPUE[2/]	Cumulative proportion[3/]	Species	CPUE (kg/km)[1/]	Proportion of total CPUE[2/]	Cumulative proportion[3/]
1	Pacific cod	32.08	0.341	0.341	Walleye pollock	22.69	0.352	0.352
2	Walleye pollock	22.24	0.236	0.577	Greenland turbot	9.69	0.150	0.502
3	Greenland turbot	16.49	0.175	0.752	Pacific cod	8.77	0.136	0.638
4	Arrowtooth flounder	7.86	0.084	0.836	Grenadier (*P.pectoralis*)	7.10	0.110	0.748
5	Shortraker rockfish	2.93	0.031	0.867	Pacific ocean perch	3.45	0.053	0.801
6	Sablefish	1.13	0.012	0.879	Arrowtooth flounder	2.73	0.042	0.843
7	Flathead sole	1.03	0.011	0.890	Bigmouth sculpin	1.71	0.026	0.869
8	Bigmouth sculpin	0.84	0.009	0.899	Grenadier (*C.cinereus*)	1.35	0.021	0.890
9	Yellow Irish lord	0.77	0.008	0.907	Prowfish	0.77	0.012	0.902
10	Pacific ocean perch	0.73	0.008	0.915	Shortspine thornyhead	0.72	0.011	0.913
11	*Myoxocephalus* sp. (sculpin)	0.73	0.008	0.923	Blackfin sculpin	0.71	0.011	0.924
					Sablefish	0.56	0.009	0.933
12	Grenadier (*P.pectoralis*)	0.66	0.007	0.930	Longnose skate	0.53	0.008	0.941
13	Shortspine thornyhead	0.65	0.007	0.937	Shortraker rockfish	0.49	0.008	0.949
14	Rock sole	0.52	0.006	0.943	Skate unidentified	0.46	0.007	0.956
15	Blackfin sculpin	0.44	0.005	0.948	Flathead sole	0.39	0.006	0.962
16	Twoline eelpout	0.39	0.004	0.952	Pacific halibut	0.07	0.001	0.963
17	Black skate	0.39	0.004	0.956	Blacktail snailfish	0.06	0.001	0.964
18	Prowfish	0.28	0.003	0.959	Great sculpin	0.05	0.001	0.965
19	Rex sole	0.28	0.003	0.962	Twoline eelpout	0.04	0.001	0.966
20	Rag fish	0.26	0.003	0.965				

1/ Total effort subarea 2 slope = 83.7 km, subarea 3 slope = 120.0 km.

2/ Proportion of total catch per unit effort (CPUE), all fish and invertebrates combined. Total CPUE subarea 2 slope = 94.12 kg/km.
Subarea 3 slope = 64.53 kg/km.

3/ Rounding accounts for minor discrepancies between sum of proportions for individual species and cumulative proportions.

subarea 5) to 96% (in slope subareas) of the total catch in individual subareas. Pollock, yellowfin sole, and Pacific cod were the highest ranking species by weight in the overall survey area; one of these species ranked highest in all individual subareas with the exception of subarea 5 where unidentified eelpout was the most abundant species, followed by pollock.

ABUNDANCE, DISTRIBUTION, AND SIZE AND AGE COMPOSITION OF PRINCIPAL SPECIES OF FISH

In the following tables and figures, findings from the 1979 summer survey are shown for each of the principal commercially important species of demersal fish. The tables and figures will illustrate for the overall survey area and for individual subareas the abundance in terms of CPUE, biomass and population numbers, geographical distribution, and length distribution, and mean size of each species. Where available, the age distribution of the populations will also be shown.

Additional biological data are presented in the appendices. Included in the appendices, in addition to the basic station and catch data (Appendix A), are the following:

- Appendix B - Rank order of relative abundance for fish and invertebrates.
- Appendix C - Population and biomass estimates for principal species of fish.
- Appendix D - Population estimates by sex and size groups for principal species of fish.
- Appendix E - Age-length keys for principal species of fish.
- Appendix F - Estimated age composition for principal species of fish.

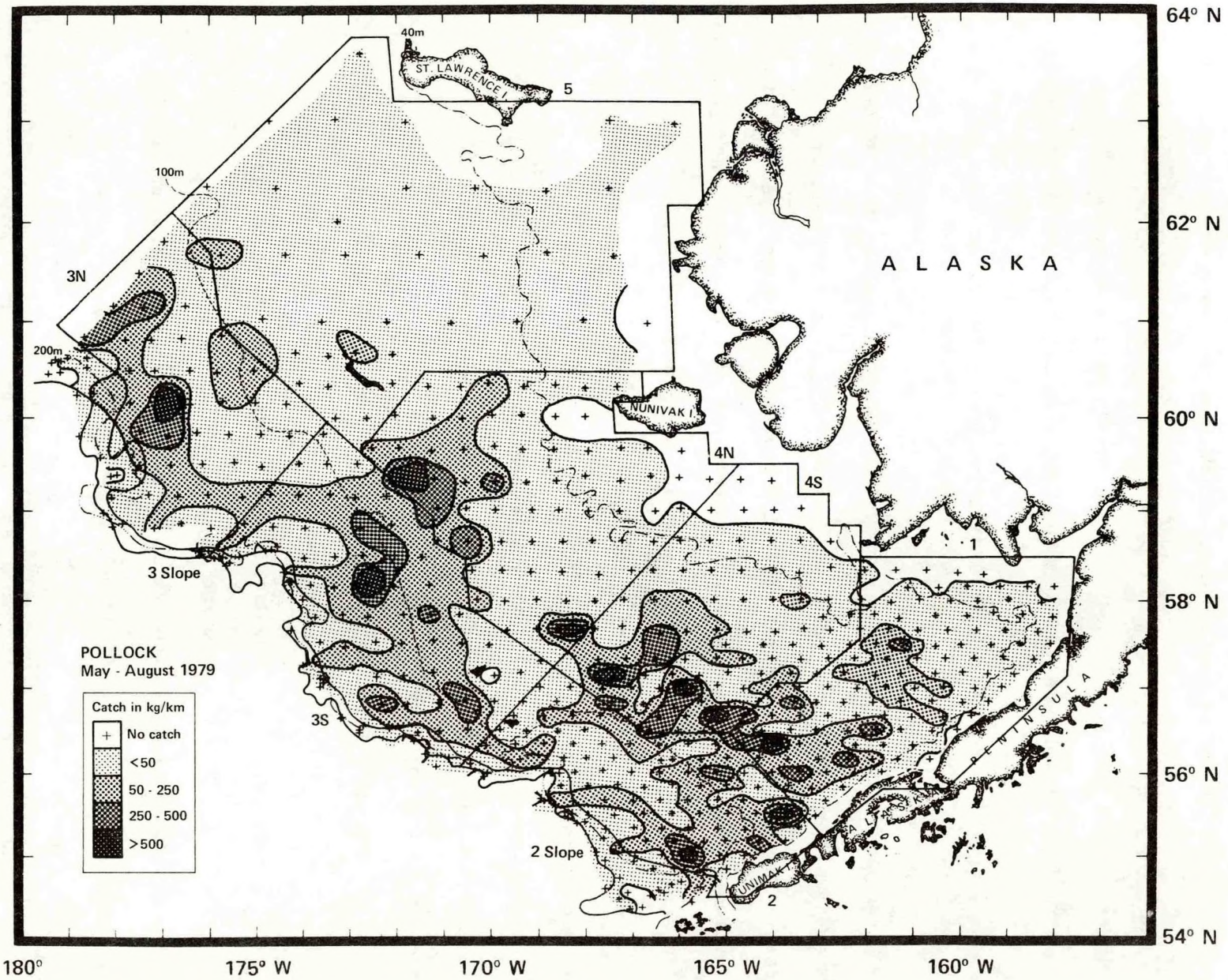


Figure 4.--Distribution and relative abundance of walleye pollock during the 1979 survey.

POLLOCK

Table 16.--Abundance estimates and mean size of walleye pollock by subarea and for subareas combined, 1979 summer trawl survey.

Subarea	Mean CPUE 1/ (kg/km)	Estimated apparent biomass (t)	Proportion of total estimated biomass	Estimated apparent population ($x10^6$)	Proportion of total estimated population	Mean size per individual	
						weight (kg)	length (cm)
Inner shelf							
5	8.75	119,412	0.039	2248.6	0.119	0.053	15.4
4N	65.49	493,890	0.162	3835.1	0.203	0.129	22.9
4S	69.97	465,113	0.152	1711.7	0.091	0.272	25.3
1	56.65	384,137	0.125	2375.6	0.126	0.162	25.2
Outer shelf							
3N	90.45	412,833	0.135	1721.6	0.091	0.240	29.1
3S	94.80	616,275	0.202	5318.9	0.282	0.116	21.3
2	101.65	504,287	0.165	1566.4	0.083	0.322	34.8
Slope							
2 slope	22.24	24,174	0.008	34.0	0.002	0.711	46.2
3 slope	22.69	30,508	0.010	74.2	0.004	0.411	35.6
All subareas combined	57.52	3,050,631 2/		18886.2		0.162	23.8

1/ CPUE = catch per unit effort
2/ 95% confidence interval = 2,566,905 - 3,534,356

POLLOCK

SLOPE SUBAREAS

OUTER SHELF SUBAREAS

INNER SHELF SUBAREAS

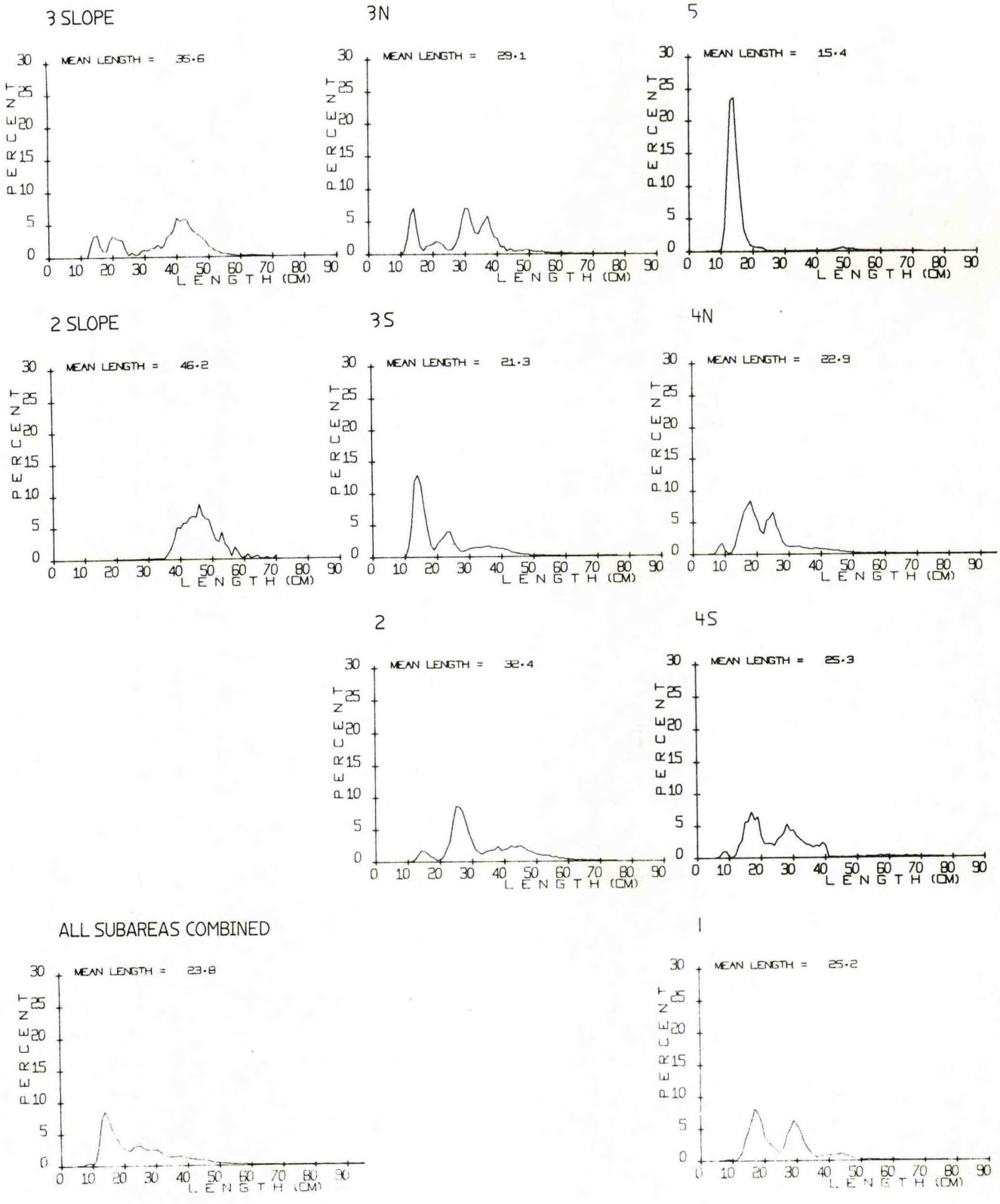


Figure 5.--Size composition of walleye pollock (sexes combined) taken during the 1979 survey by subarea and for subareas combined.

POLLOCK

Table 17.--Estimated population size of walleye pollock age groups by subarea and for subareas combined, 1979 summer trawl survey (millions of fish).

		Subarea										
		Slope		Outer shelf			Inner shelf				All sub-areas	Proportion of
Age	Year-Class	2 Slope	3 Slope	2	3S	3N	1	4S	4N	5	combined	total
1	1978	<0.01	12.39	140.94	3166.03	434.06	907.30	509.50	1600.18	2100.25	8870.65	.4697
2	1977	0.12	10.84	674.11	1140.65	442.79	825.93	477.35	1483.01	54.70	5109.50	.2705
3	1976	2.97	10.77	258.15	482.39	464.31	357.39	248.67	307.39	5.49	2137.52	.1132
4	1975	8.81	15.57	164.57	253.76	176.81	121.44	158.47	131.88	17.17	1048.48	.0555
5	1974	7.58	11.47	122.49	158.16	109.07	73.68	112.23	84.35	17.18	696.20	.0369
6	1973	5.64	6.36	77.75	62.71	40.10	37.62	62.89	40.60	16.53	350.20	.0185
7	1972	3.59	2.92	49.05	23.84	21.26	17.95	38.03	22.15	12.97	191.75	.0102
8	1971	1.58	1.17	23.92	9.49	9.67	8.03	20.93	11.89	8.69	92.77	.0049
9	1970	1.64	1.27	24.36	9.86	10.24	8.26	22.18	12.93	7.12	97.88	.0052
10	1969	1.12	0.84	16.56	6.36	6.97	5.28	15.11	8.15	4.71	65.11	.0034
11	1968	0.57	0.43	9.47	3.65	4.06	2.90	8.64	5.09	2.53	37.35	.0020
12	1967	0.28	0.16	3.51	1.63	1.53	0.96	3.51	2.13	1.11	14.83	.0008
13	1966	0.04	0.02	0.91	0.26	0.39	0.24	1.22	0.74	0.13	3.94	.0002
14	1965	0.03	0.02	0.47	0.13	0.19	0.16	0.55	0.42	0.05	2.01	.0001
15	1964	0.01	<0.01	0.18	0.03	0.10	0.04	0.08	0.04	0.02	0.50	<.0001
Ages unknown		0.00	0.00	0.00	0.00	0.80	8.39	32.35	124.13	2.52	167.46	.0089
All ages combined		34.00	74.24	1566.45	5318.93	1721.61	2375.57	1711.69	3835.08	2248.56	18886.09	

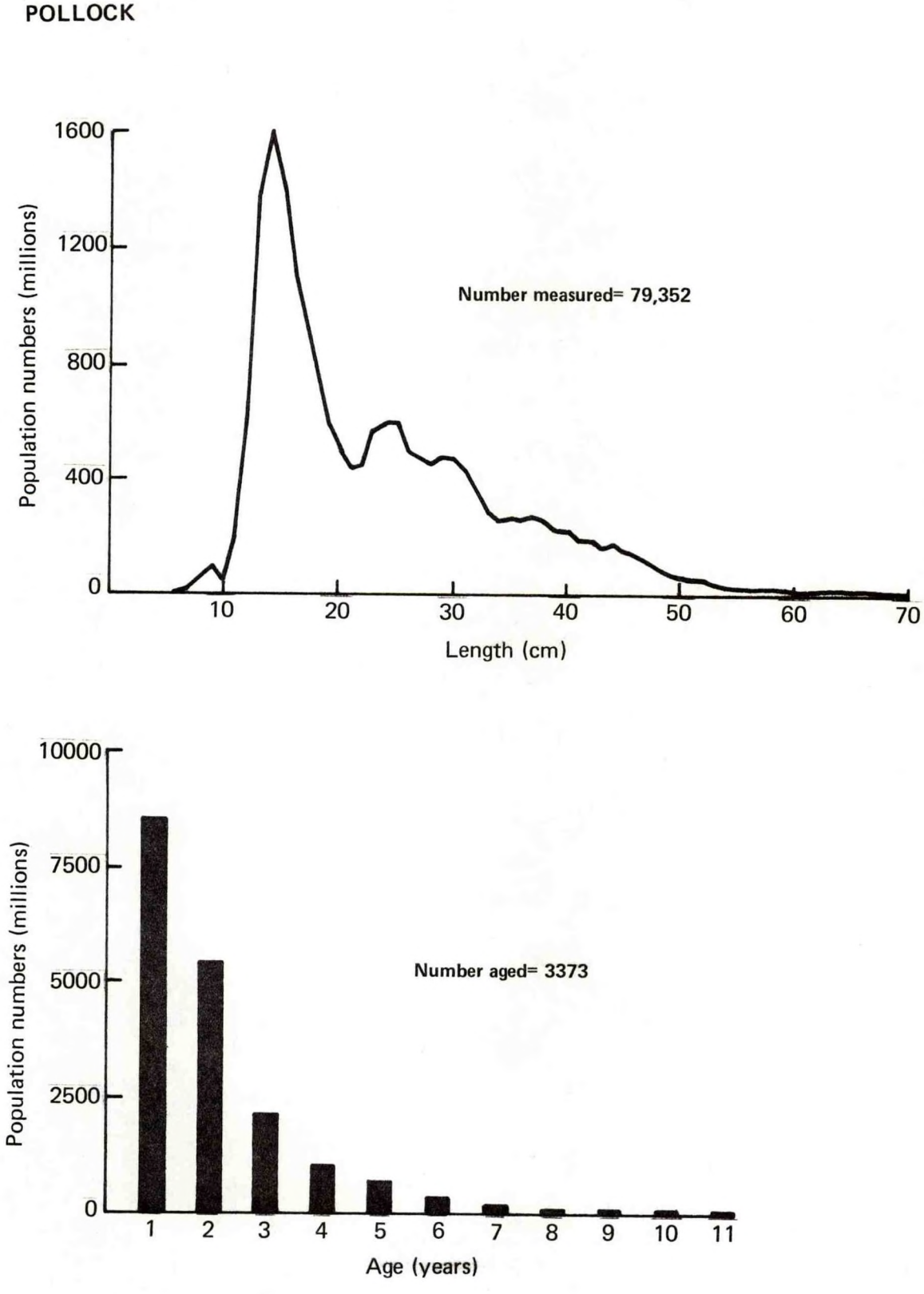


Figure 6.--Length and age composition of walleye pollock (sexes combined) from the overall survey area in 1979.

PACIFIC COD

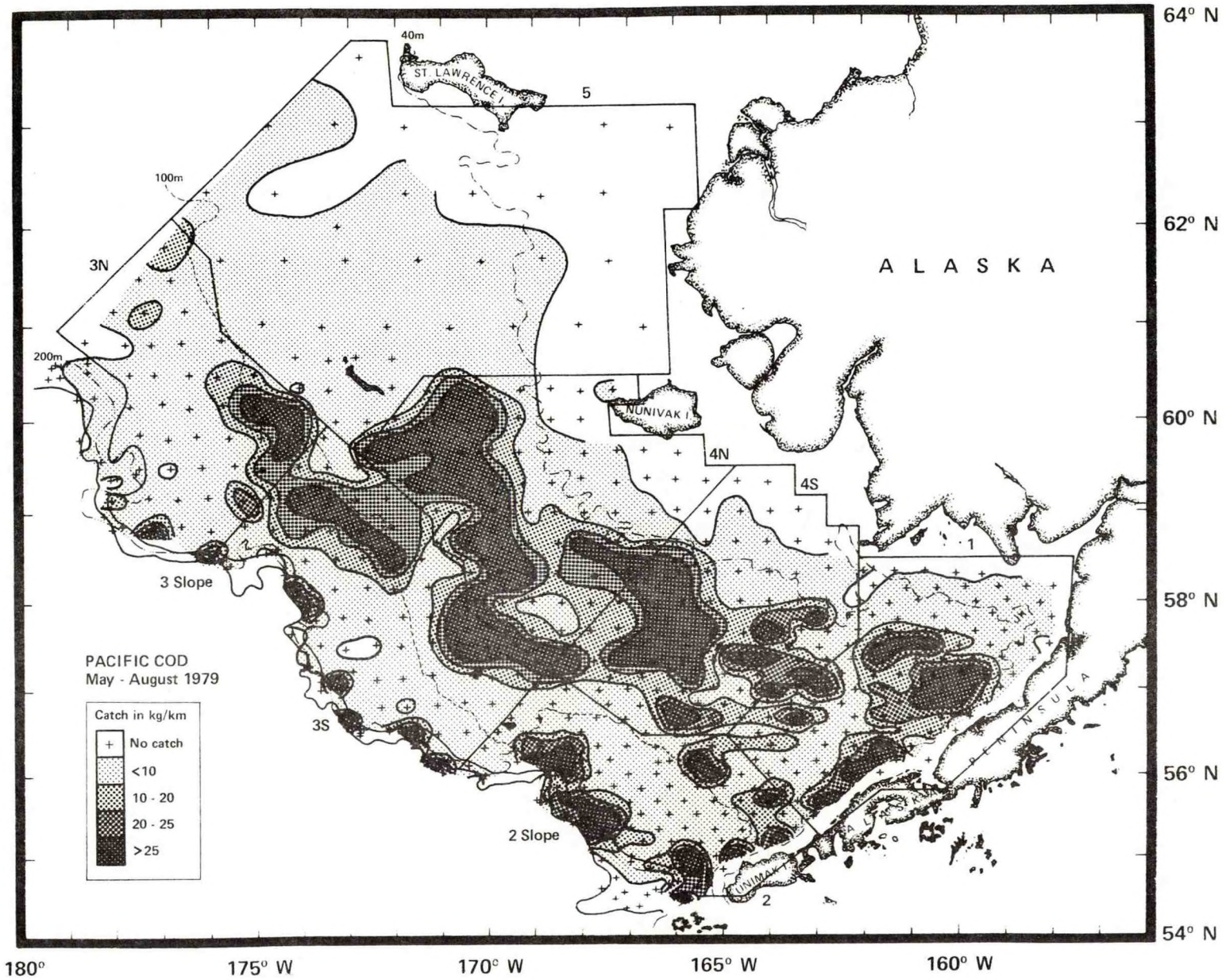


Figure 7.--Distribution and relative abundance of Pacific cod during the 1979 survey.

Table 18.--Abundance estimates and mean size of Pacific cod by subarea and for subareas combined, 1979 summer trawl survey.

Subarea	Mean CPUE[1/] (kg/km)	Estimated apparent biomass (t)	Proportion of total estimated biomass	Estimated apparent population ($x10^6$)	Proportion of total estimated population	Mean size per individual	
						weight (kg)	length (cm)
Inner shelf							
5	0.81	11,017	0.014	32.3	0.021	0.341	30.6
4N	23.75	179,072	0.226	387.7	0.251	0.462	34.1
4S	18.76	125,499	0.159	325.5	0.210	0.386	31.7
1	28.33	193,709	0.245	411.6	0.266	0.471	33.5
Outer shelf							
3N	6.71	30,613	0.039	60.3	0.039	0.507	36.5
3S	10.32	67,100	0.085	117.6	0.076	0.571	36.8
2	27.56	137,803	0.174	191.5	0.124	0.720	36.6
Slope							
2 slope	32.08	34,857	0.044	15.8	0.010	2.21	58.3
3 slope	8.77	11,788	0.015	5.4	0.003	2.18	56.7
All subareas combined	14.88	791,459[2/]		1547.7		0.511	34.2

1/ CPUE = catch per unit effort
2/ 95% confidence interval = 602,491 - 980,427

PACIFIC COD

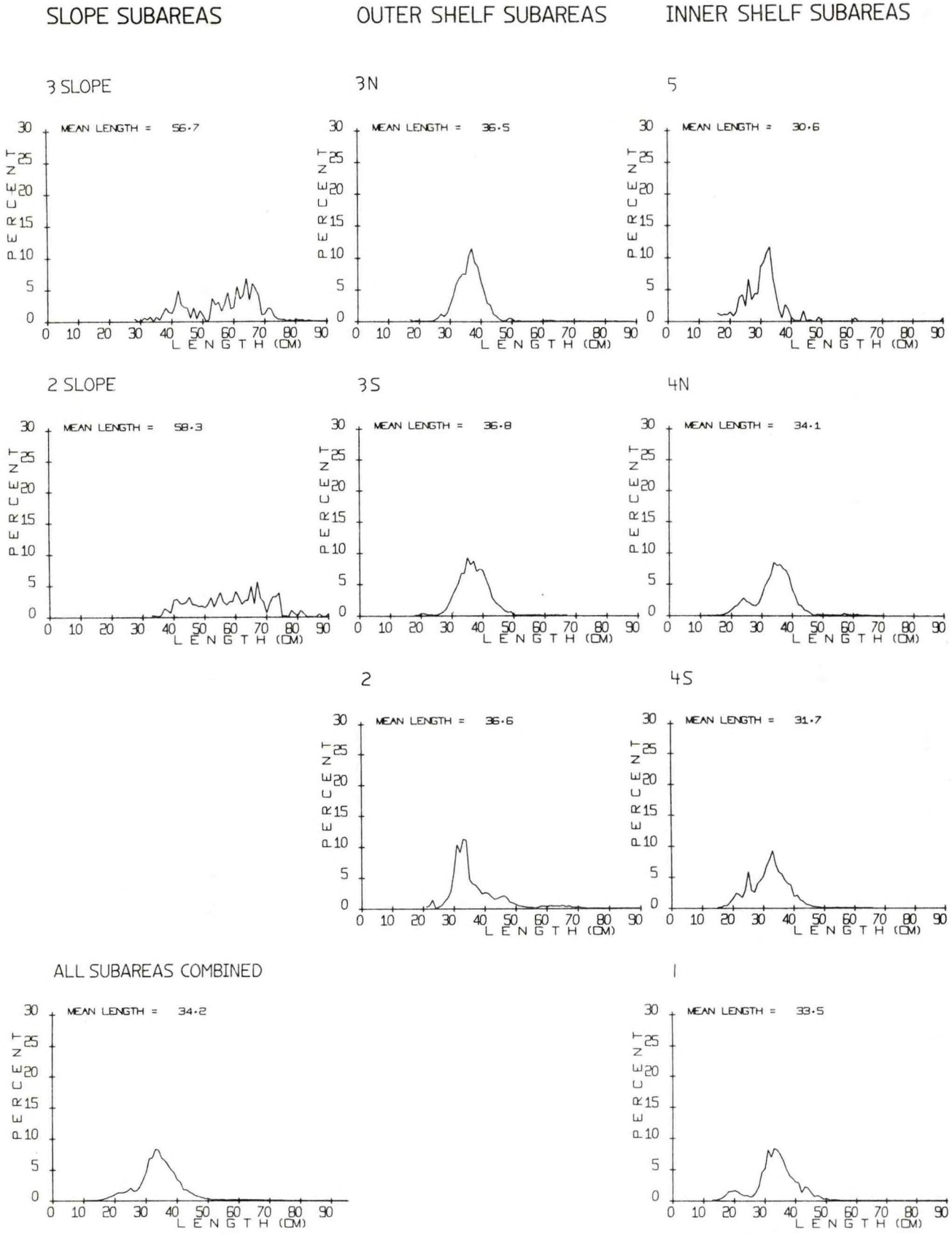


Figure 8.--Size composition of Pacific cod (sexes combined) taken during the 1979 survey by subarea and for subareas combined.

PACIFIC COD

Table 19.--Estimated population size of Pacific cod by age group and subarea, and for subareas combined, 1979 summer trawl survey (millions of fish).

Age	Year-Class	Subarea: Slope		Outer shelf			Inner shelf				All Subareas Combined	Proportion of total
		2 Slope	3 Slope	2	3S	3N	1	4S	4N	5		
1	1978	0.00	0.00	4.67	1.00	1.29	44.29	45.99	71.03	13.58	181.85	.1175
2	1977	0.49	0.19	127.97	86.51	17.53	298.17	276.64	296.11	15.80	1,119.41	.7233
3	1976	0.61	1.36	21.56	28.88	40.28	64.17	2.80	12.87	1.63	174.16	.1125
4	1975	3.03	0.12	25.58	0.76	0.73	3.07	0.07	2.95	0.97	37.28	.0241
5	1974	0.66	0.42	3.28	0.31	0.25	0.55	0.00	2.40	0.33	8.20	.0053
6	1973	1.89	1.64	1.67	0.12	0.15	0.47	0.00	1.47	0.00	7.41	.0048
7	1972	2.99	1.24	6.20	0.00	<0.01	0.42	0.00	0.68	0.00	11.53	.0074
8	1971	3.36	0.26	0.21	0.00	0.13	0.14	0.00	0.17	0.00	4.27	.0028
9	1970	2.00	0.18	0.09	0.00	0.00	0.30	0.00	0.00	0.00	2.57	.0017
≥10	≤1969	0.75	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.99	.0006
All ages combined		15.78	5.41	191.47	117.58	60.36	411.58	325.50	387.68	32.31	1,547.67	1.0000

PACIFIC COD

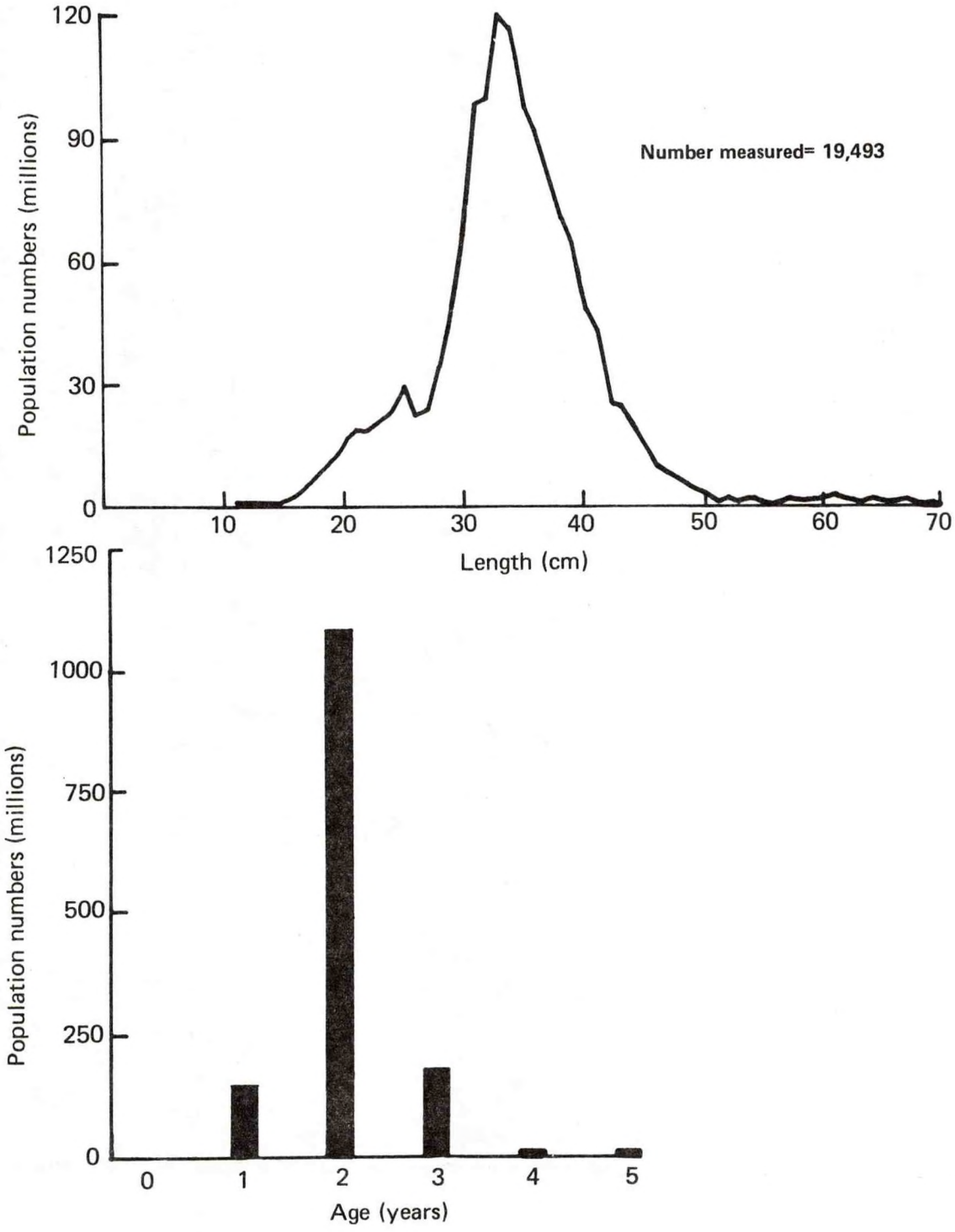


Figure 9.--Length and age composition of Pacific cod (sexes combined) from the overall survey area in 1979.

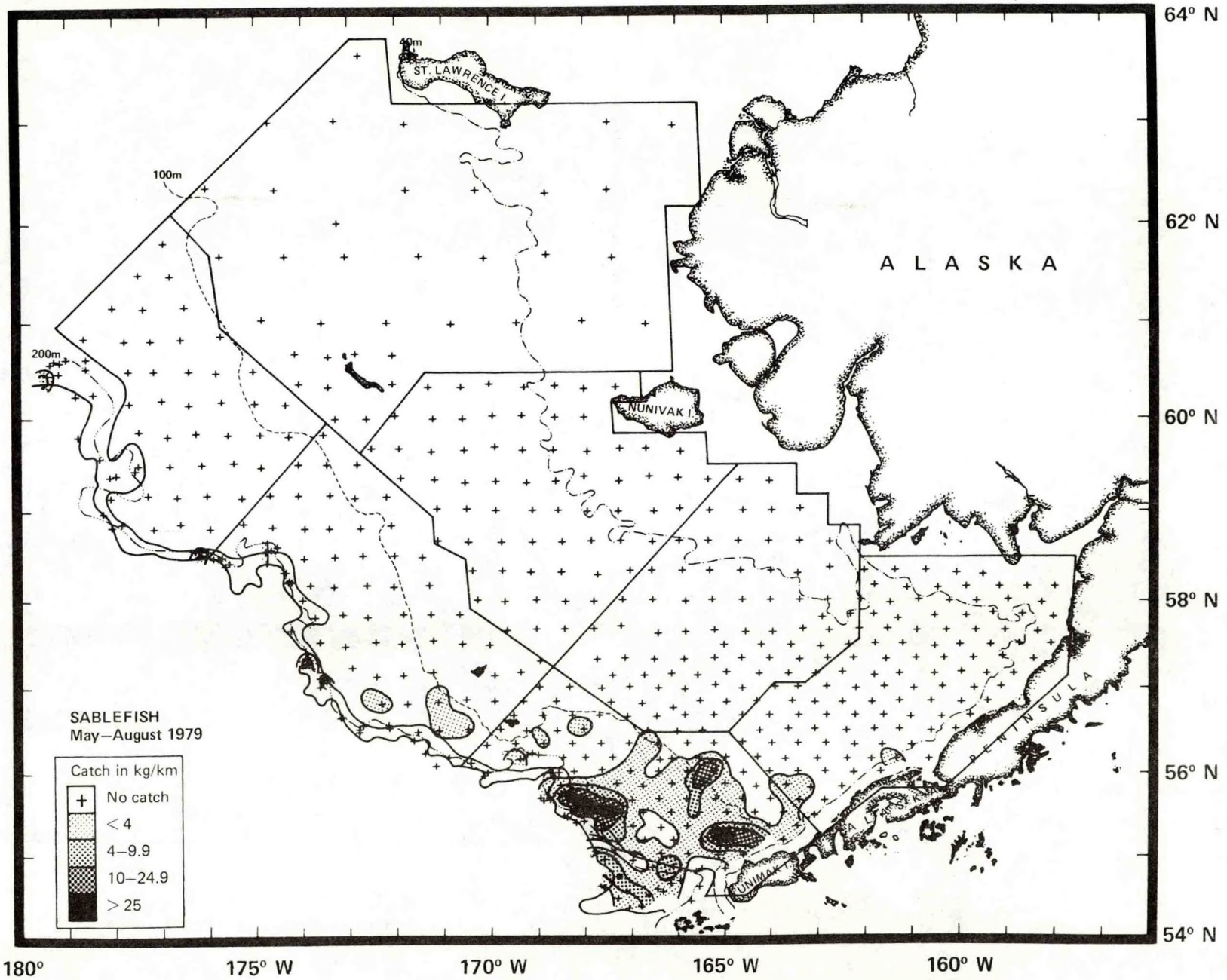


Figure 10.--Distribution and relative abundance of sablefish during the 1979 survey.

SABLEFISH

Table 20.--Abundance estimates and mean size of sablefish by subarea and for subareas combined, 1979 summer trawl survey.

Subarea	Mean CPUE[1/] (kg/km)	Estimated apparent biomass (t)	Proportion of total estimated biomass	Estimated apparent population ($x10^6$)	Proportion of total estimated population	Mean size per individual	
						weight (kg)	length (cm)
Inner shelf							
5	0.0	0	0.0	0.0	0.0	-	-
4N	0.0	0	0.0	0.0	0.0	-	-
4S	0.0	0	0.0	0.0	0.0	-	-
1	0.02	114	0.003	0.2	0.004	0.477	-
Outer shelf							
3N	0.0	0	0.0	0.0	0.0	-	-
3S	0.12	777	0.017	1.0	0.021	0.805	42.8
2	8.37	41,852	0.936	45.0	0.951	0.930	45.0
Slope							
2 slope	1.13	1,228	0.027	0.8	0.017	1.490	54.8
3 slope	0.56	753	0.017	0.3	0.006	3.009	65.4
All subareas combined	0.84	44,724[2/]		47.3		0.946	45.2

1/ CPUE = catch per unit effort
2/ 95% confidence interval = 1,119 - 88,326

SABLEFISH

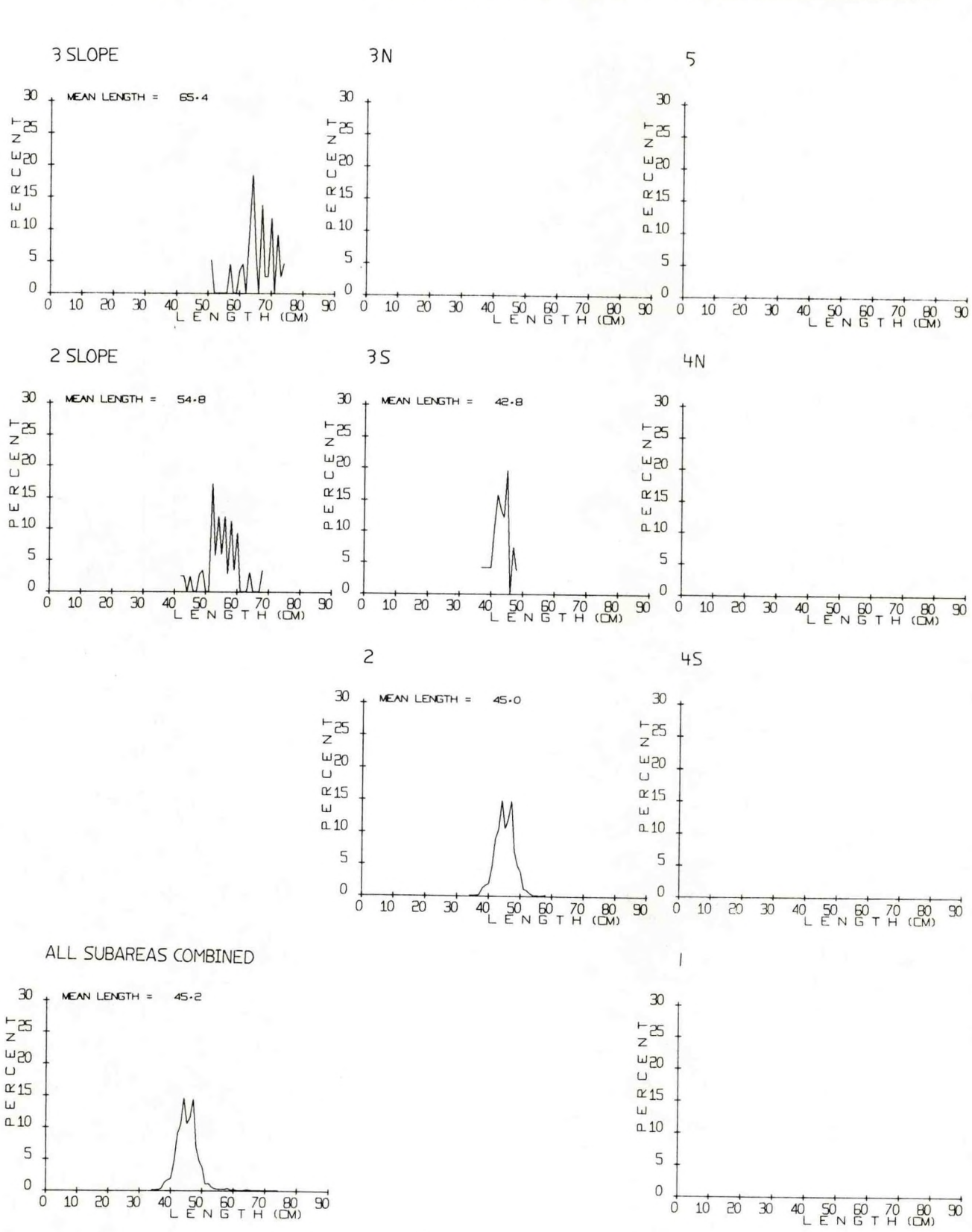


Figure 11.--Size composition of sablefish (sexes combined) taken during the 1979 survey by subarea and for subareas combined.

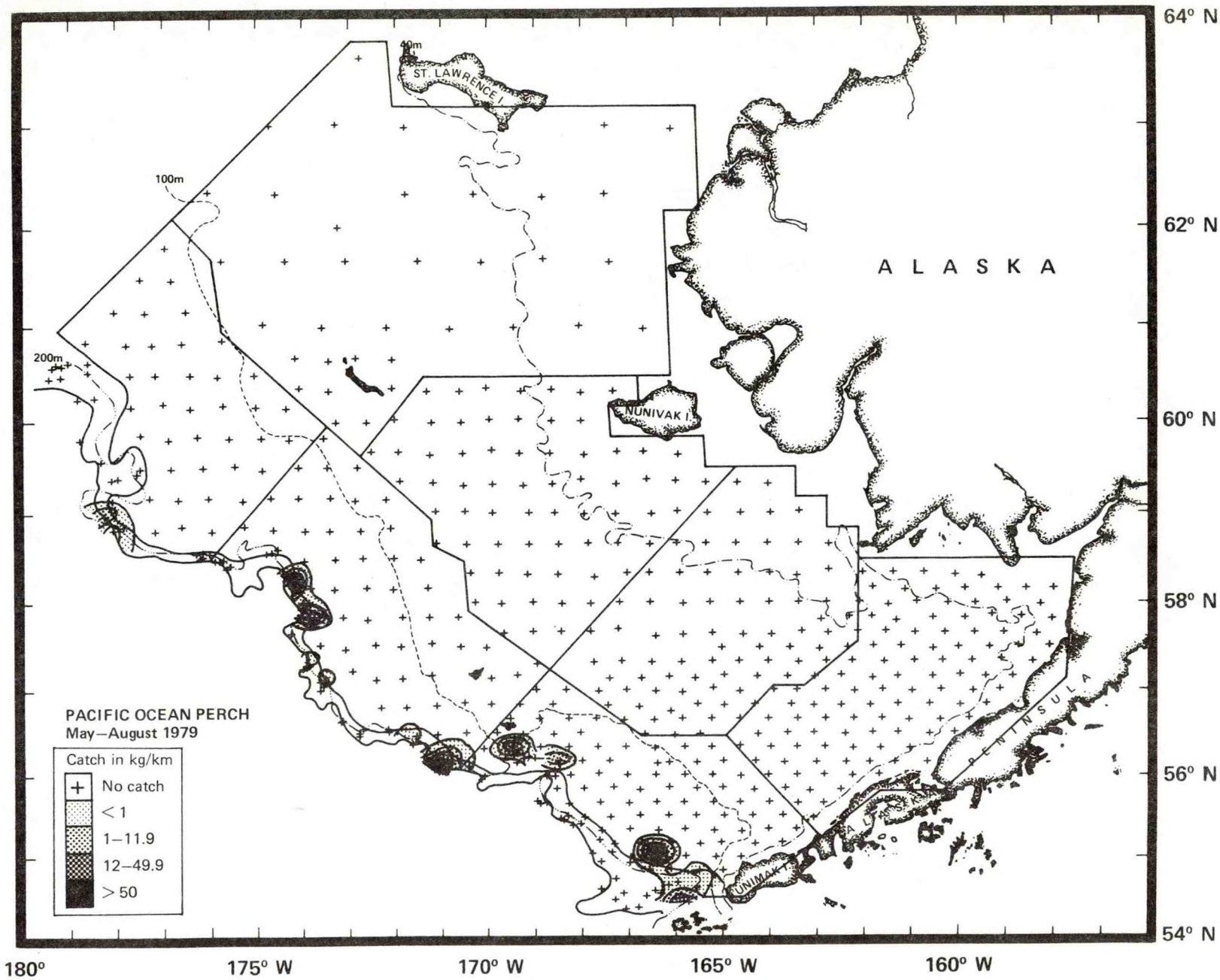


Figure 12.--Distribution and relative abundance of Pacific ocean perch during the 1979 survey.

PACIFIC OCEAN PERCH

Table 21.--Abundance estimates and mean size of Pacific ocean perch by subarea and for subareas combined, 1979 summer trawl survey.

Subarea	Mean CPUE[1/] (kg/km)	Estimated apparent biomass (t)	Proportion of total estimated biomass	Estimated apparent population ($x10^6$)	Proportion of total estimated population	Mean size per individual	
						weight (kg)	length (cm)
Inner shelf							
5	0.0	0	0.0	0.0	0.0	-	-
4N	0.0	0	0.0	0.0	0.0	-	-
4S	0.0	0	0.0	0.0	0.0	-	-
1	0.0	0	0.0	0.0	0.0	-	-
Outer shelf							
3N	0.0	0	0.0	0.0	0.0	-	-
3S	0.0	0	0.0	0.0	0.0	-	-
2	1.06	5,278	0.493	11.0	0.561	0.478	31.0
Slope							
2 slope	0.73	794	0.074	1.0	0.051	0.794	35.7
3 slope	3.45	4636	0.433	7.6	0.388	0.610	35.5
All sub-areas combined	0.20	10,708[2/]		19.6		0.545	33.0

1/ CPUE = catch per unit effort
2/ 95% confidence interval = 715 - 20,699

PACIFIC OCEAN PERCH

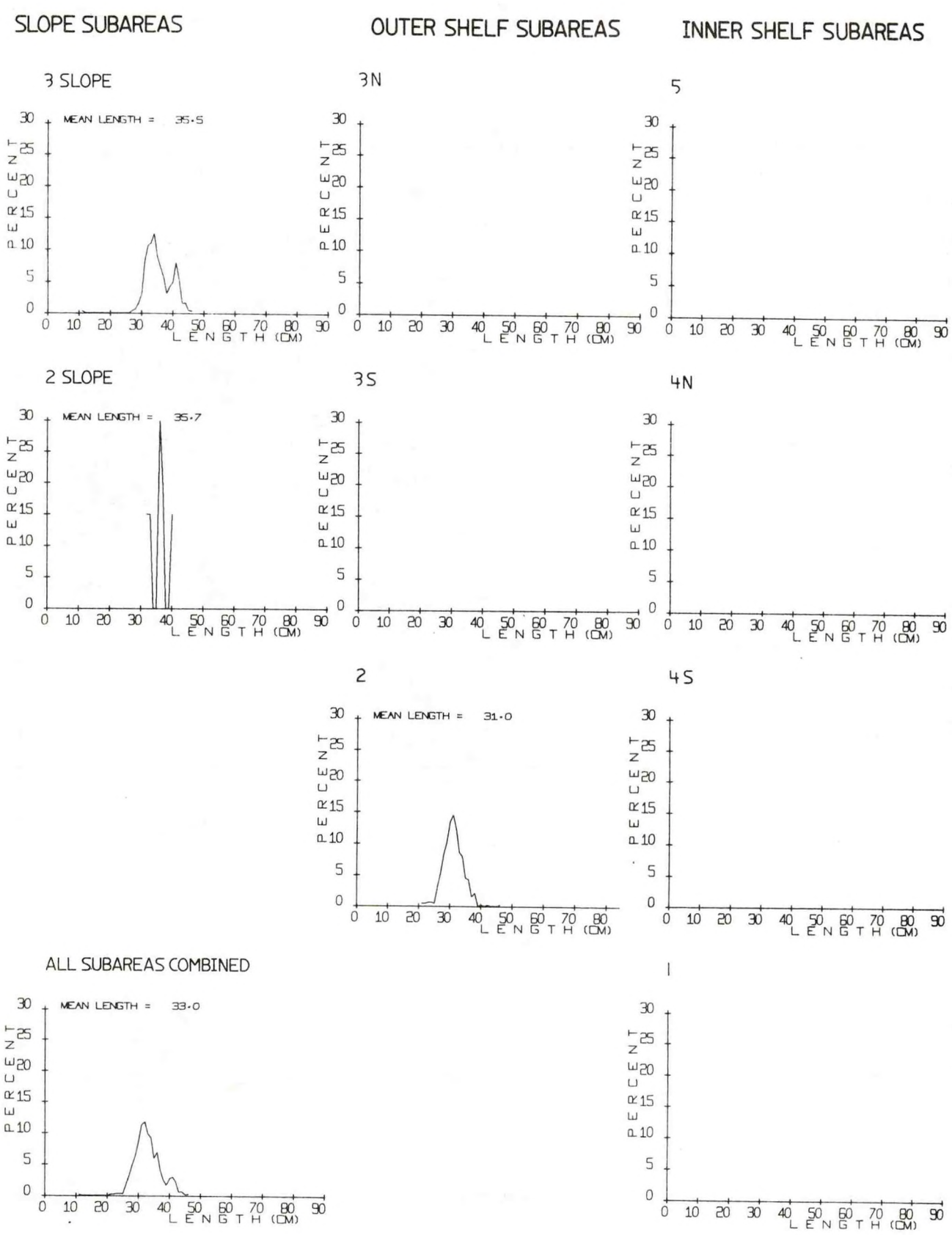


Figure 13.--Size composition of Pacific ocean perch (sexes combined) taken during the 1979 survey by subarea and for subareas combined.

YELLOWFIN SOLE

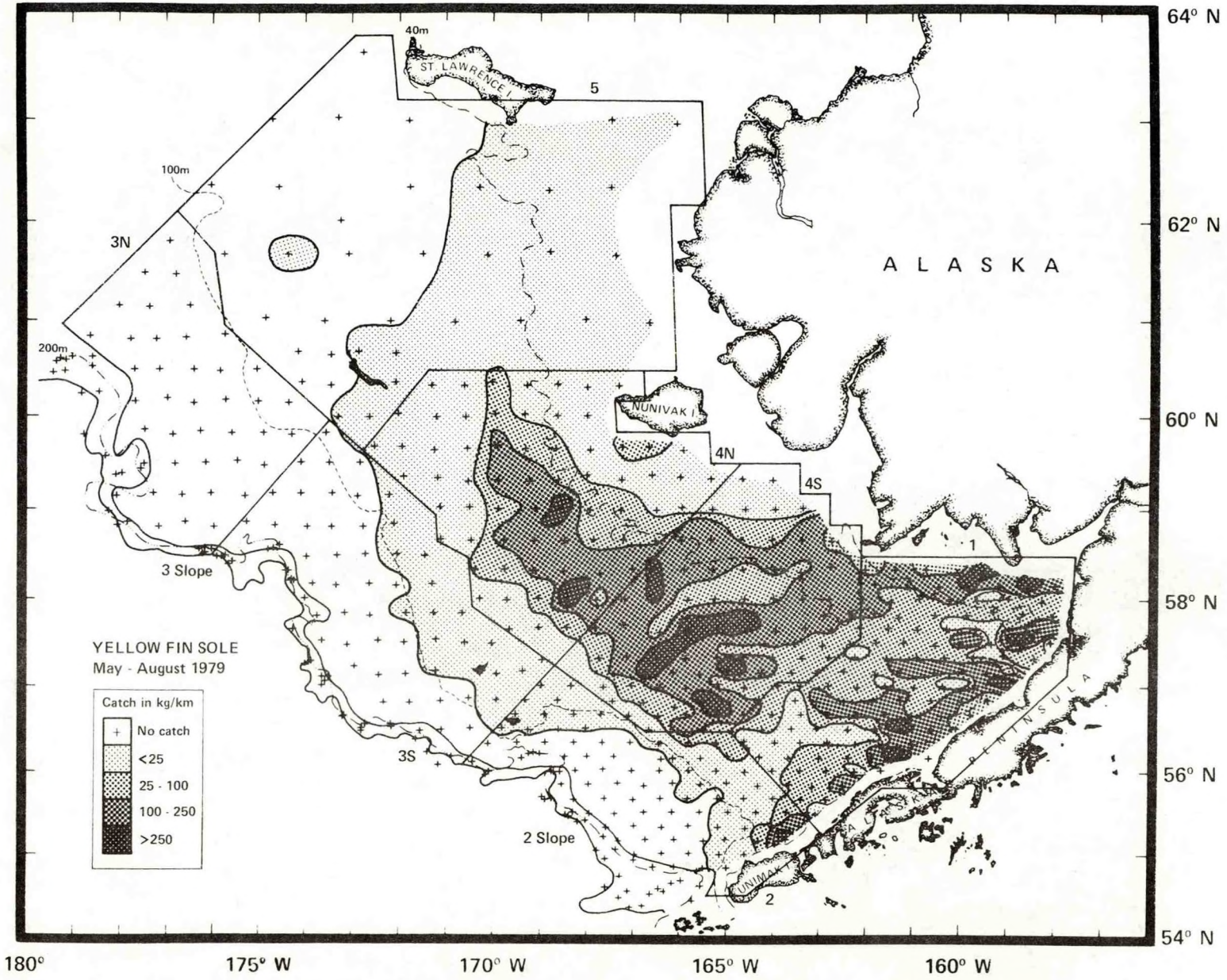


Figure 14.--Distribution and relative abundance of yellowfin sole during the 1979 survey.

YELLOWFIN SOLE

Table 22.--Abundance estimates and mean size of yellowfin sole by subarea and for subareas combined, 1979 summer trawl survey.

Subarea	Mean CPUE[1/] (kg/km)	Estimated apparent biomass (t)	Proportion of total estimated biomass	Estimated apparent population ($\times 10^6$)	Proportion of total estimated population	Mean size per individual	
						weight (kg)	length (cm)
Inner shelf							
5	1.82	24,872	0.013	178.8	0.015	0.139	21.5
4N	54.91	414,050	0.214	2,276.0	0.190	0.182	24.3
4S	118.20	790,749	0.409	5,146.8	0.429	0.154	23.0
1	92.70	634,061	0.328	4,004.0	0.334	0.158	23.3
Outer shelf							
3N	0.0	0	0.0	0.0	0.0	-	-
3S	1.77	11,476	0.006	59.0	0.005	0.194	25.6
2	11.47	57,349	0.030	334.9	0.028	0.171	24.2
Slope							
2 slope	<0.01	1	<0.001	<0.1	<0.001	0.091	-
3 slope	0.0	0	0.0	0.0	0.0	-	-
All subareas combined	36.31	1,932,558[2/]		11,999.6		0.161	23.4

1/ CPUE = catch per unit effort
2/ 95% confidence interval = 1,668,984 - 2,196,133

YELLOWFIN SOLE

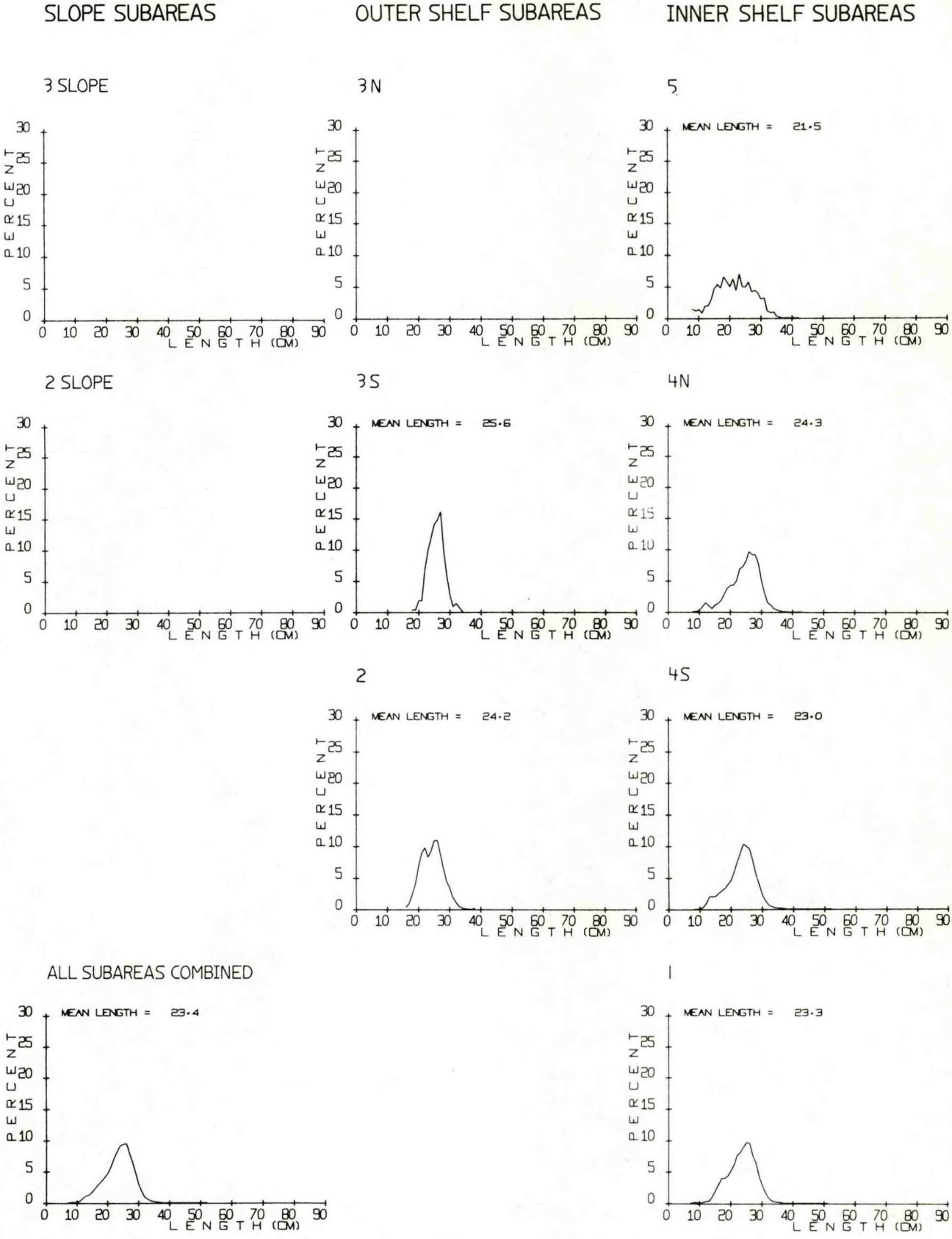


Figure 15.--Size composition of yellowfin sole (sexes combined) taken during the 1979 survey by subarea and for subareas combined.

YELLOWFIN SOLE

Table 23.--Estimated population size of yellowfin sole age groups by subarea and for subareas combined, 1979 summer trawl survey (millions of fish).

Age	Year-Class	Subarea: Outer shelf 2	Outer shelf 3S	Inner shelf 1	Inner shelf 4S	Inner shelf 4N	Inner shelf 5	All subareas combined	Proportion of total
2	1977	0.00	0.00	11.17	21.24	14.68	4.36	51.45	.0043
3	1976	0.00	0.00	45.11	156.26	65.19	10.89	277.44	.0231
4	1975	1.79	0.04	131.82	206.84	52.80	12.93	406.22	.0339
5	1974	21.02	0.78	443.53	509.83	168.48	28.76	1,172.40	.0977
6	1973	41.65	4.00	478.20	587.37	207.49	21.62	1,340.34	.1117
7	1972	29.49	4.24	321.66	412.66	150.32	12.28	930.65	.0776
8	1971	46.97	8.10	493.34	648.93	246.53	16.40	1,460.27	.1217
9	1970	63.18	12.08	663.04	855.12	363.32	20.75	1,977.50	.1648
10	1969	46.27	10.41	497.15	639.51	301.60	15.60	1,510.54	.1259
11	1968	32.68	7.64	354.88	437.92	244.18	11.66	1088.95	.0907
12	1967	21.08	4.87	228.72	275.22	171.60	8.36	709.84	.0592
13	1966	19.15	4.50	207.30	247.10	166.70	8.32	653.07	.0544
14	1965	3.93	0.82	44.12	52.69	40.87	2.07	144.51	.0120
15	1964	3.86	0.78	42.29	48.62	41.99	2.30	139.82	.0117
16	1963	2.27	0.45	25.26	28.96	23.72	1.30	81.95	.0068
17	1962	1.03	0.28	11.55	13.78	11.11	0.51	38.26	.0032
18	1961	0.35	0.06	3.99	3.88	4.10	0.20	12.59	.0010
19	1960	0.02	<0.01	0.62	0.48	0.68	0.16	1.97	.0001
20	1959	0.00	0.00	0.00	0.00	0.00	0.00	0.00	.0000
21	1958	0.19	0.00	0.08	0.00	0.25	0.06	0.58	<.0001
Ages unknown		0.00	0.00	0.24	0.35	0.42	0.24	1.25	.0001
All ages combined		334.93	59.05	4,004.03	5,146.76	2,276.03	178.79	11,999.59	

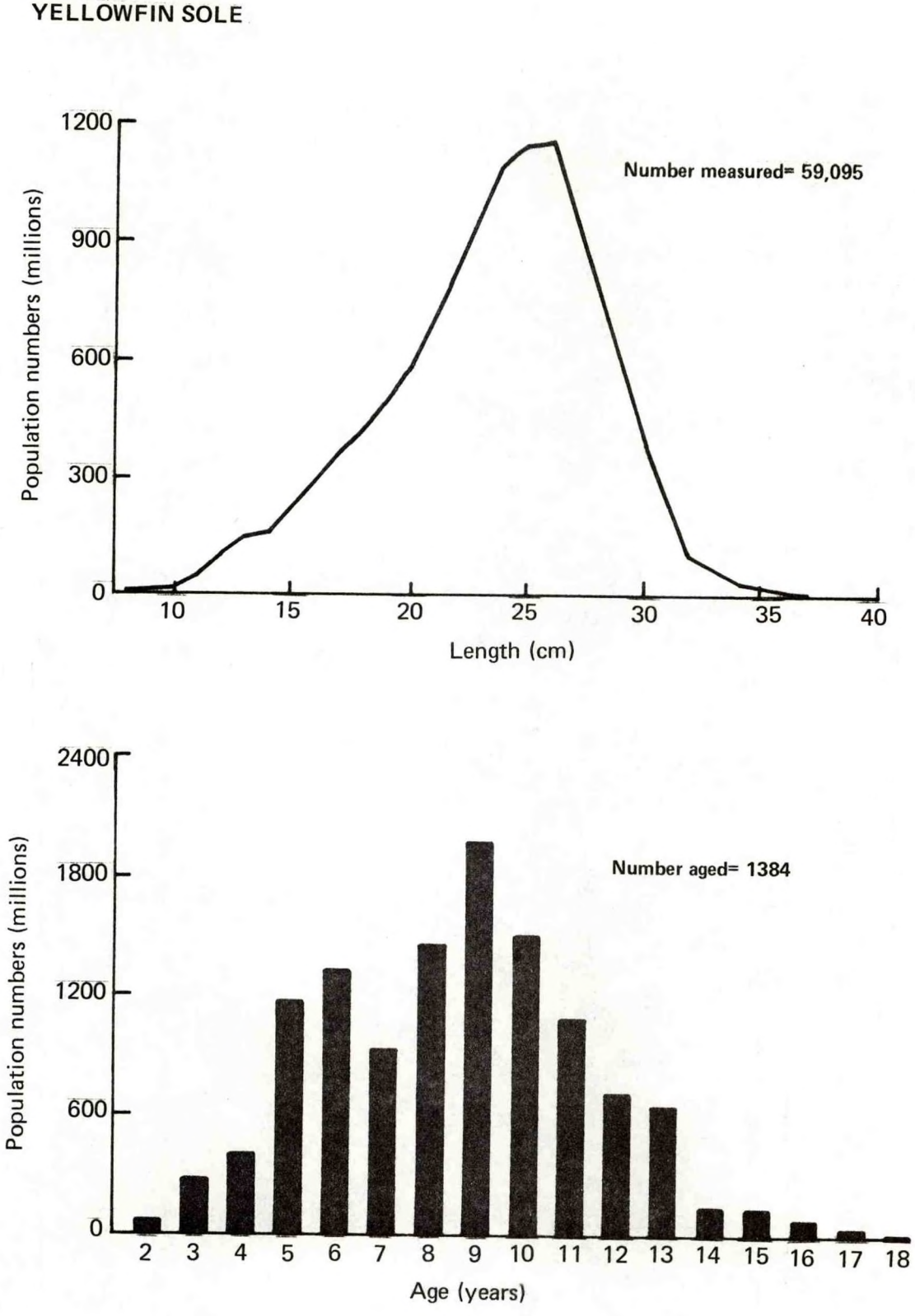


Figure 16.--Length and age composition of yellowfin sole (sexes combined) from the overall survey area in 1979.

ROCK SOLE

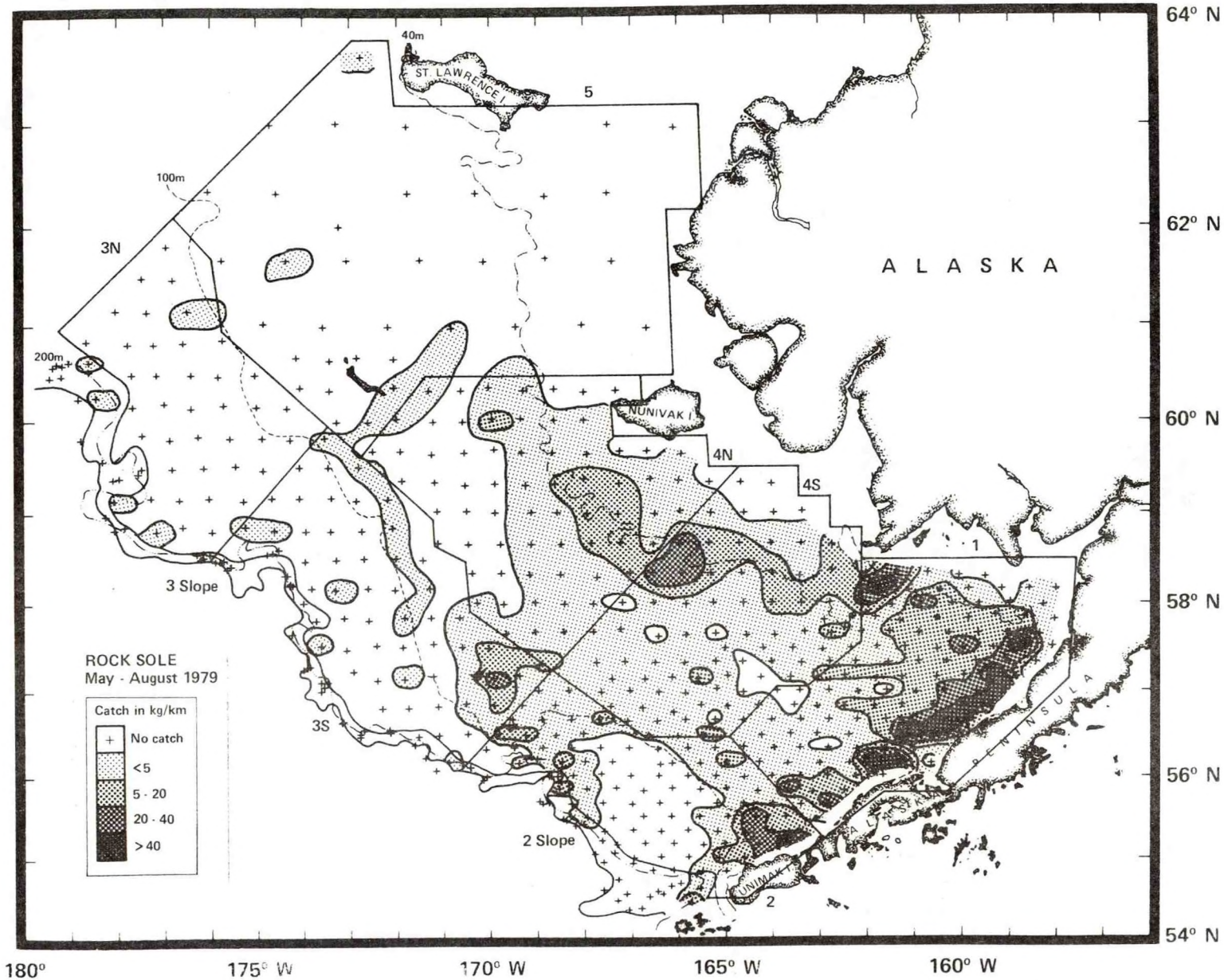


Figure 17.--Distribution and relative abundance of rock sole during the 1979 survey.

Table 24.--Abundance estimates and mean size of rock sole by subarea and for subareas combined, 1979 summer trawl survey.

Subarea	Mean CPUE[1/] (kg/km)	Estimated apparent biomass (t)	Proportion of total estimated biomass	Estimated apparent population (x10^6)	Proportion of total estimated population	Mean size per individual	
						weight (kg)	length (cm)
Inner shelf							
5	0.01	170	0.001	0.4	<0.001	0.480	33.1
4N	2.06	15,534	0.085	30.3	0.036	0.513	33.6
4S	4.33	28,943	0.158	65.9	0.079	0.439	31.4
1	15.95	109,100	0.594	603.6	0.722	0.181	22.5
Outer shelf							
3N	0.08	353	0.002	0.4	<0.001	0.918	39.4
3S	1.55	10,100	0.055	26.7	0.032	0.378	30.5
2	3.76	18,816	0.102	108.0	0.129	0.174	23.3
Slope							
2 slope	0.52	562	0.003	1.2	0.001	0.473	-
3 slope	0.14	19	<0.001	<0.1	<0.001	0.457	32.6
All subareas combined	3.45	183,597[2/]		836.5		0.220	24.0

1/ CPUE = catch per unit effort
2/ 95% confidence interval = 138,178 - 229,016

ROCK SOLE

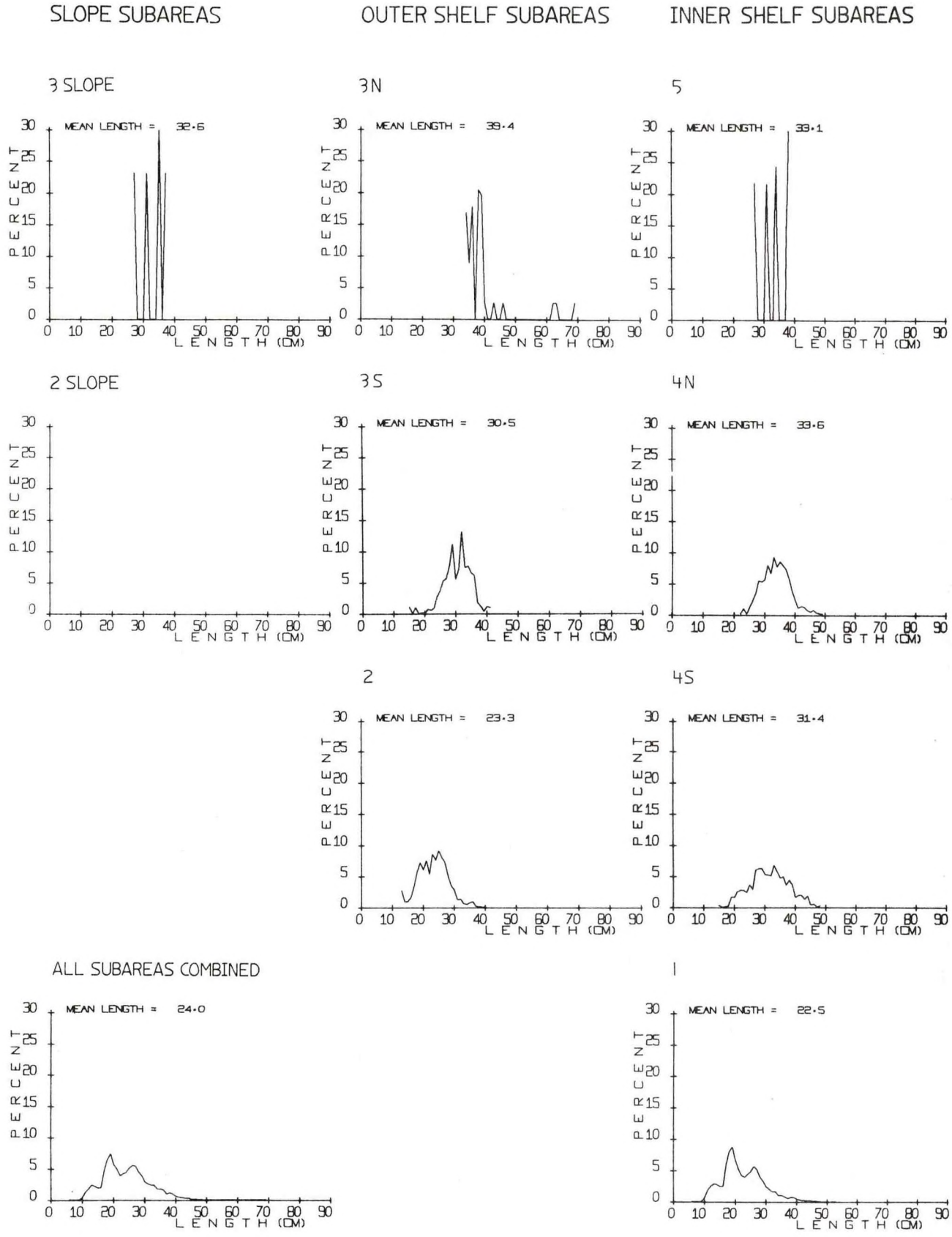


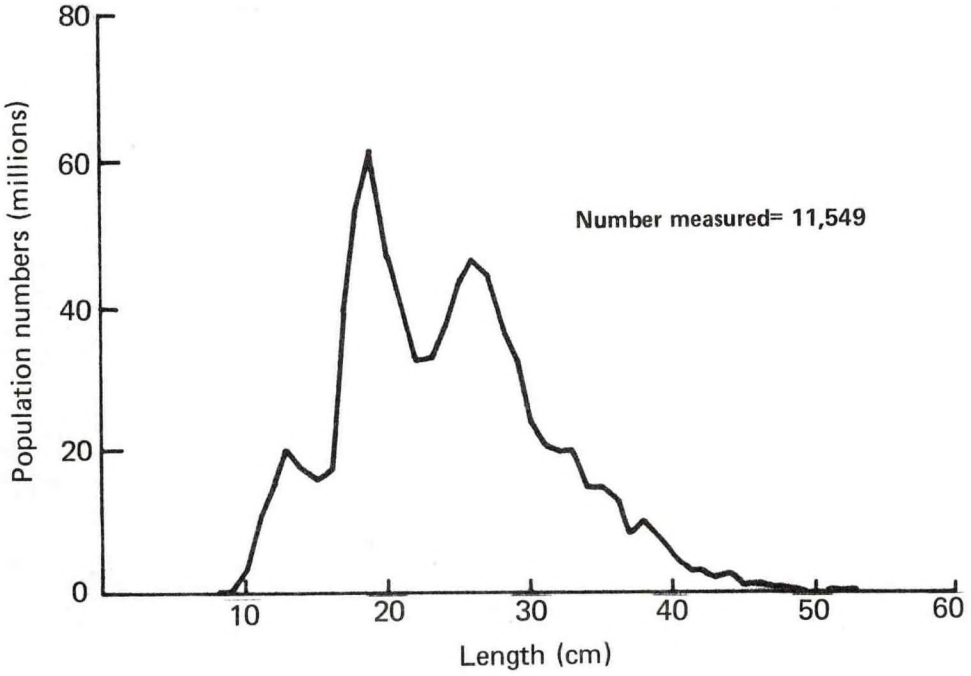
Figure 18.--Size composition of rock sole (sexes combined) taken during the 1979 survey by subarea and for subareas combined.

ROCK SOLE

Table 25.--Estimated population size of rock sole age groups by subarea and for subareas combined, 1979 summer trawl survey (millions of fish).

Age	Year-Class	Subarea: Slope 2 Slope	Slope 3 Slope	Outer shelf 2	Outer shelf 3S	Outer shelf 3N	Inner shelf 1	Inner shelf 4S	Inner shelf 4N	Inner shelf 5	All subareas combined	Proportion of total
3	1976		0.00	3.63	0.03	0.00	29.25	0.08	0.00	0.00	32.98	.0394
4	1975		<0.01	22.73	0.49	0.00	149.24	2.85	0.12	<0.01	175.44	.2100
5	1974		0.00	10.73	0.39	0.00	49.32	2.22	0.10	0.00	62.76	.0751
6	1973		<0.01	21.55	1.18	0.00	75.09	5.02	0.50	<0.01	103.34	.1237
7	1972		<0.01	8.87	1.63	0.00	31.01	3.35	0.91	0.03	45.81	.0548
8	1971		<0.01	9.91	2.97	< .01	38.89	5.82	2.46	0.04	60.09	.0719
9	1970		0.01	12.40	7.04	0.08	58.22	13.06	7.24	0.08	98.12	.1174
10	1969		0.01	6.71	5.22	0.05	35.46	9.67	5.71	0.03	62.85	.0752
11	1968		<0.01	3.04	2.30	0.04	17.19	4.82	2.57	0.03	30.00	.0359
12	1967		0.01	2.18	2.54	0.04	16.89	6.53	3.70	0.03	31.92	.0382
13	1966		<0.01	1.04	1.76	0.08	13.20	6.82	3.96	0.07	26.94	.0322
14	1965		<0.01	0.39	0.77	0.05	5.74	3.72	2.17	0.02	12.87	.0153
15	1964		0.00	0.02	0.07	0.01	2.08	1.48	0.64	0.01	4.32	.0051
16	1963		<0.01	0.01	0.03	0.00	0.32	0.17	0.18	0.00	0.71	.0008
17	1962		0.00	0.00	0.00	0.00	0.19	0.05	0.05	0.00	0.29	.0003
Ages unknown			0.00	4.84	0.27	0.03	81.51	0.18	0.00	0.00	86.83	.1039
All ages combined			0.03	108.04	26.69	0.38	603.58	65.87	30.31	0.35	835.27	

ROCK SOLE



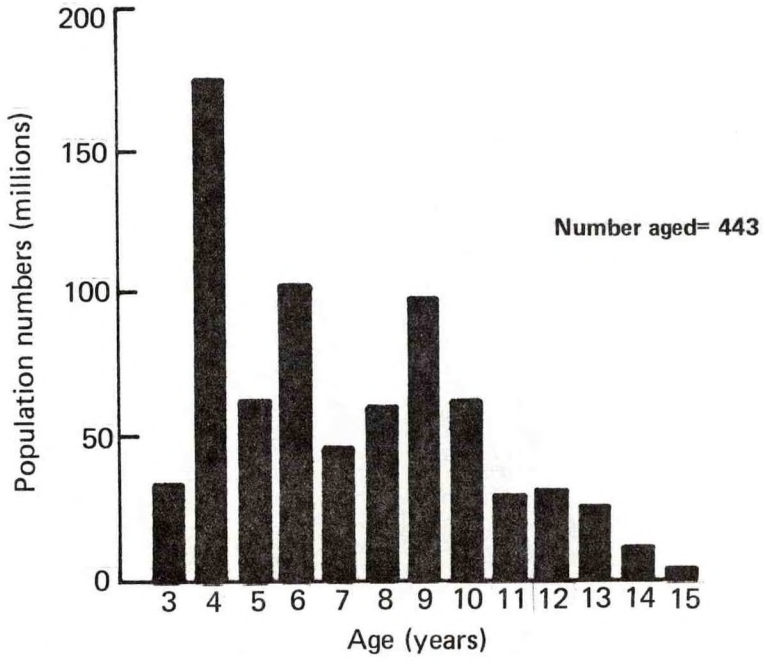


Figure 19.--Length and age composition of rock sole (sexes combined) from the overall survey area in 1979.

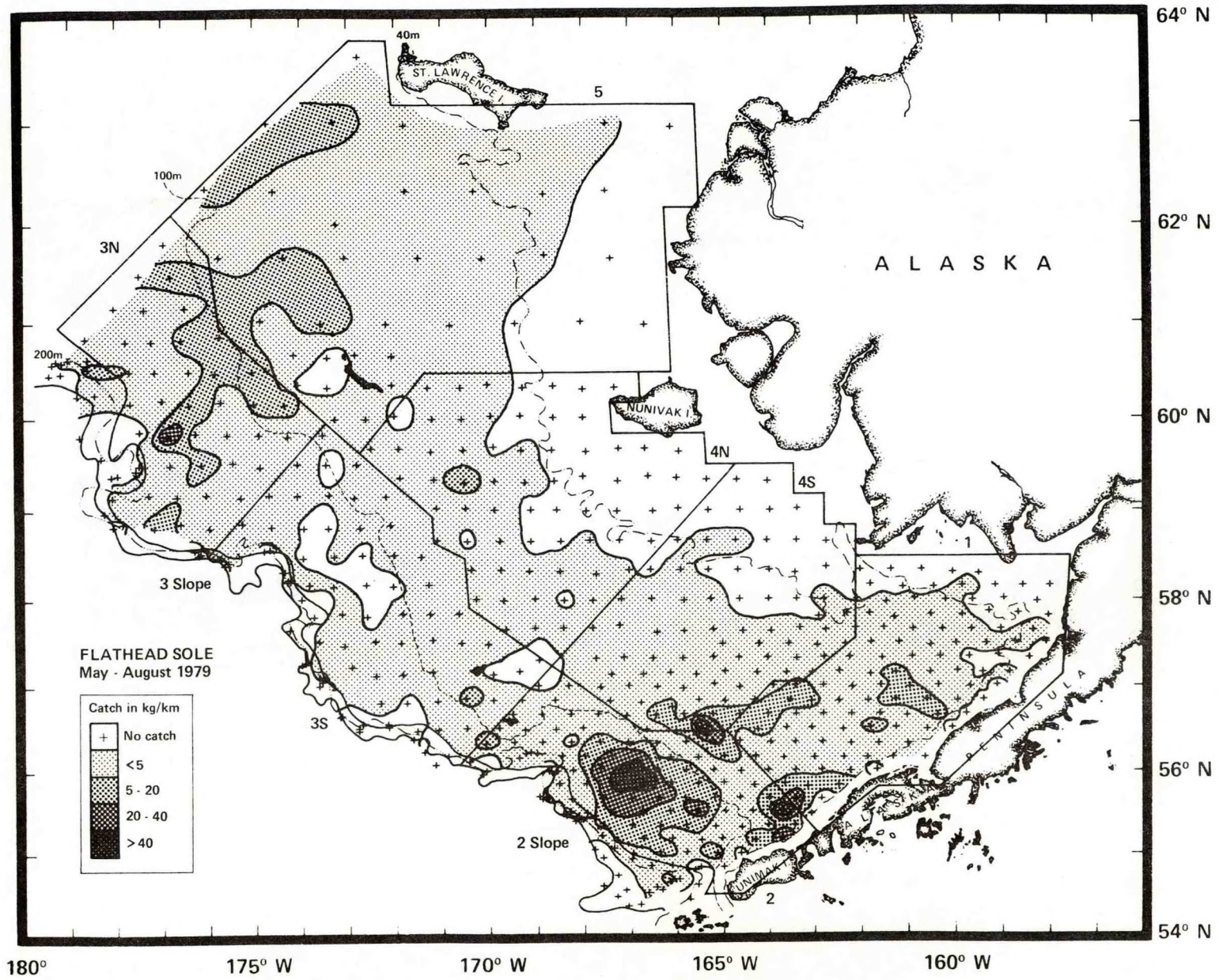


Figure 20.--Distribution and relative abundance of flathead sole during the 1979 survey.

FLATHEAD SOLE

Table 26.--Abundance estimates and mean size of flathead sole by subarea and for subareas combined, 1979 summer trawl survey.

Subarea	Mean CPUE[1/] (kg/km)	Estimated apparent biomass (t)	Proportion of total estimated biomass	Estimated apparent population ($\times 10^6$)	Proportion of total estimated population	Mean size per individual	
						weight (kg)	length (cm)
Inner shelf							
5	1.94	26,439	0.204	241.0	0.308	0.110	20.8
4N	0.67	5,088	0.039	23.3	0.030	0.218	26.9
4S	1.16	7,738	0.060	20.1	0.026	0.385	30.8
1	2.30	15,741	0.121	81.4	0.104	0.193	26.1
Outer shelf							
3N	3.51	15,985	0.123	123.4	0.157	0.130	23.2
3S	1.18	7,683	0.059	38.3	0.049	0.200	24.8
2	9.92	49,595	0.382	252.4	0.322	0.196	25.9
Slope							
2 slope	1.03	1,116	0.009	1.7	0.002	0.644	39.2
3 slope	0.39	525	0.004	2.1	0.003	0.255	28.9
All subareas combined	2.44	129,910[2/]		783.7		0.166	23.8

1/ CPUE = catch per unit effort
2/ 95% confidence interval = 107,366 - 152,455

FLATHEAD SOLE

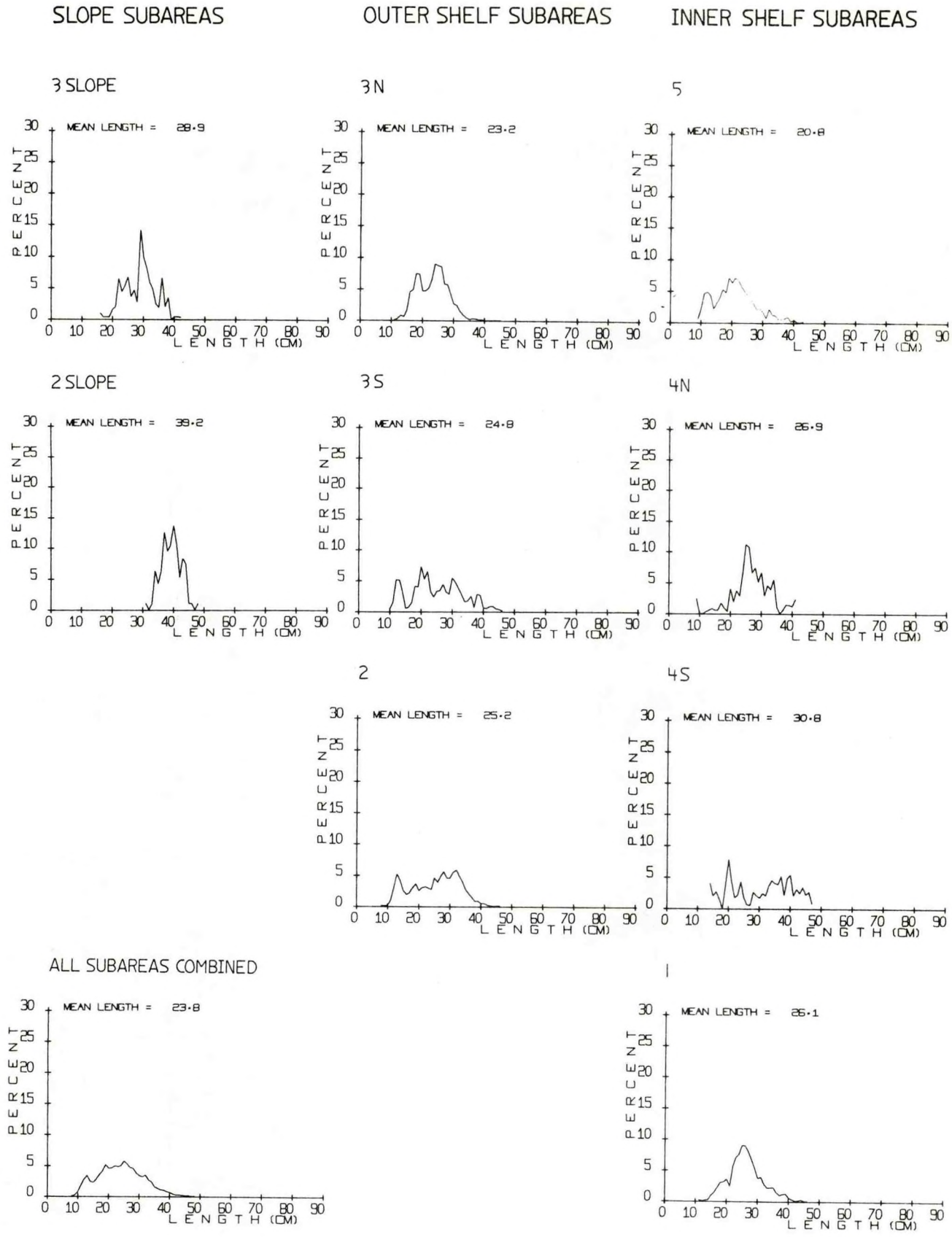


Figure 21.--Size composition of flathead sole (sexes combined) taken during the 1979 survey by subarea and for subareas combined.

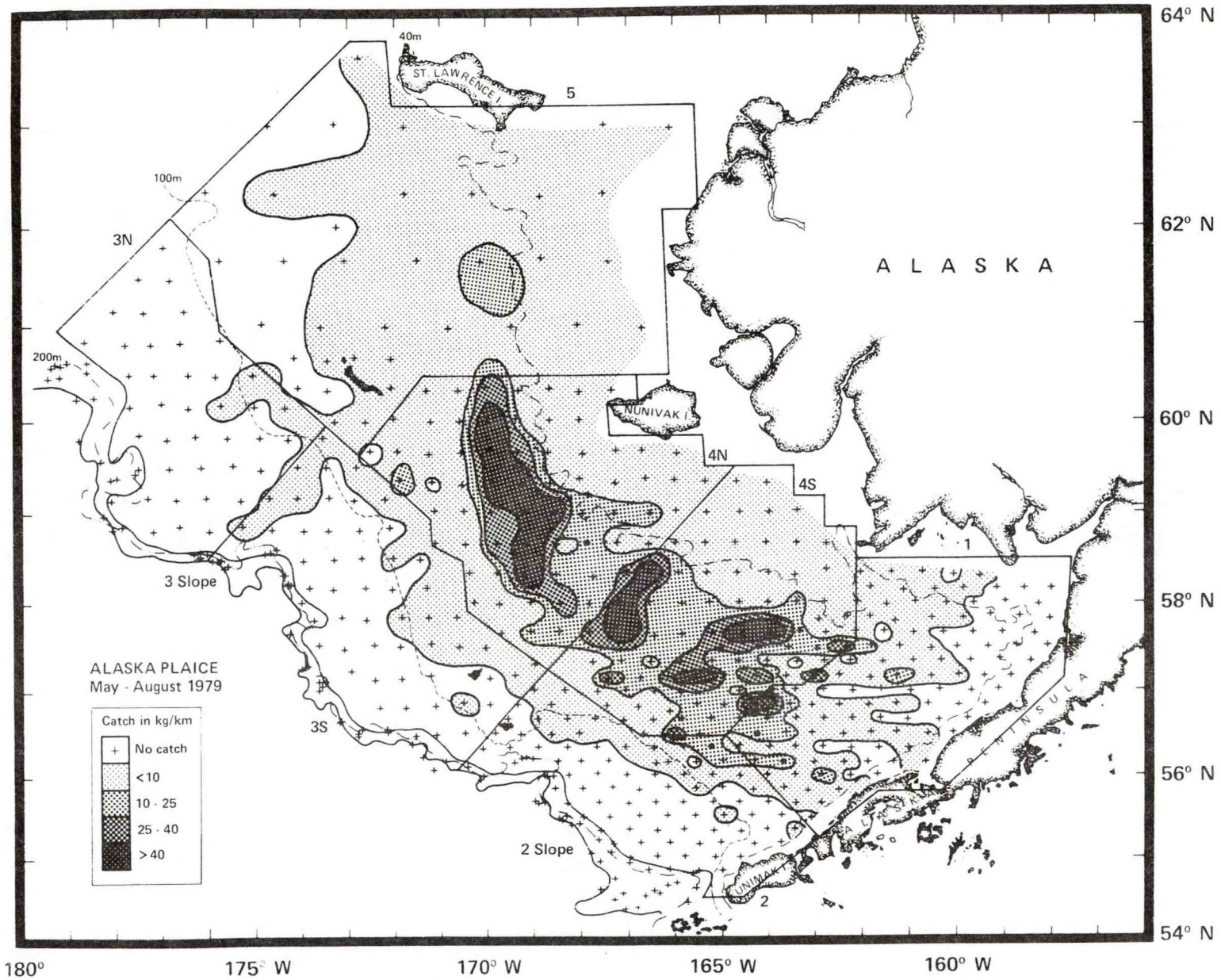


Figure 22.--Distribution and relative abundance of Alaska plaice during the 1979 survey.

ALASKA PLAICE

Table 27.--Abundance estimates and mean size of Alaska plaice by subarea and for subareas combined, 1979 summer trawl survey.

Subarea	Mean CPUE[1/] (kg/km)	Estimated apparent biomass (t)	Proportion of total estimated biomass	Estimated apparent population ($x10^6$)	Proportion of total estimated population	Mean size per individual	
						weight (kg)	length (cm)
Inner shelf							
5	1.78	24,318	0.079	62.8	0.096	0.387	28.4
4N	20.07	151,362	0.493	320.9	0.493	0.472	32.0
4S	14.78	98,885	0.322	208.8	0.321	0.474	32.3
1	3.69	25,250	0.082	47.1	0.072	0.536	33.8
Outer shelf							
3N	0.06	262	0.001	0.3	<0.001	0.825	39.1
3S	0.35	2,292	0.007	4.7	0.007	0.490	32.7
2	0.98	4,901	0.016	6.7	0.010	0.734	37.8
Slope							
2 slope	0.0	0	0.0	0.0	0.0	-	-
3 slope	0.0	0	0.0	0.0	0.0	-	-
All subareas combined	5.77	307,270[2/]		651.3		0.472	32.0

1/ CPUE = catch per unit effort
2/ 95% confidence interval = 222,053 - 392,488

ALASKA PLAICE

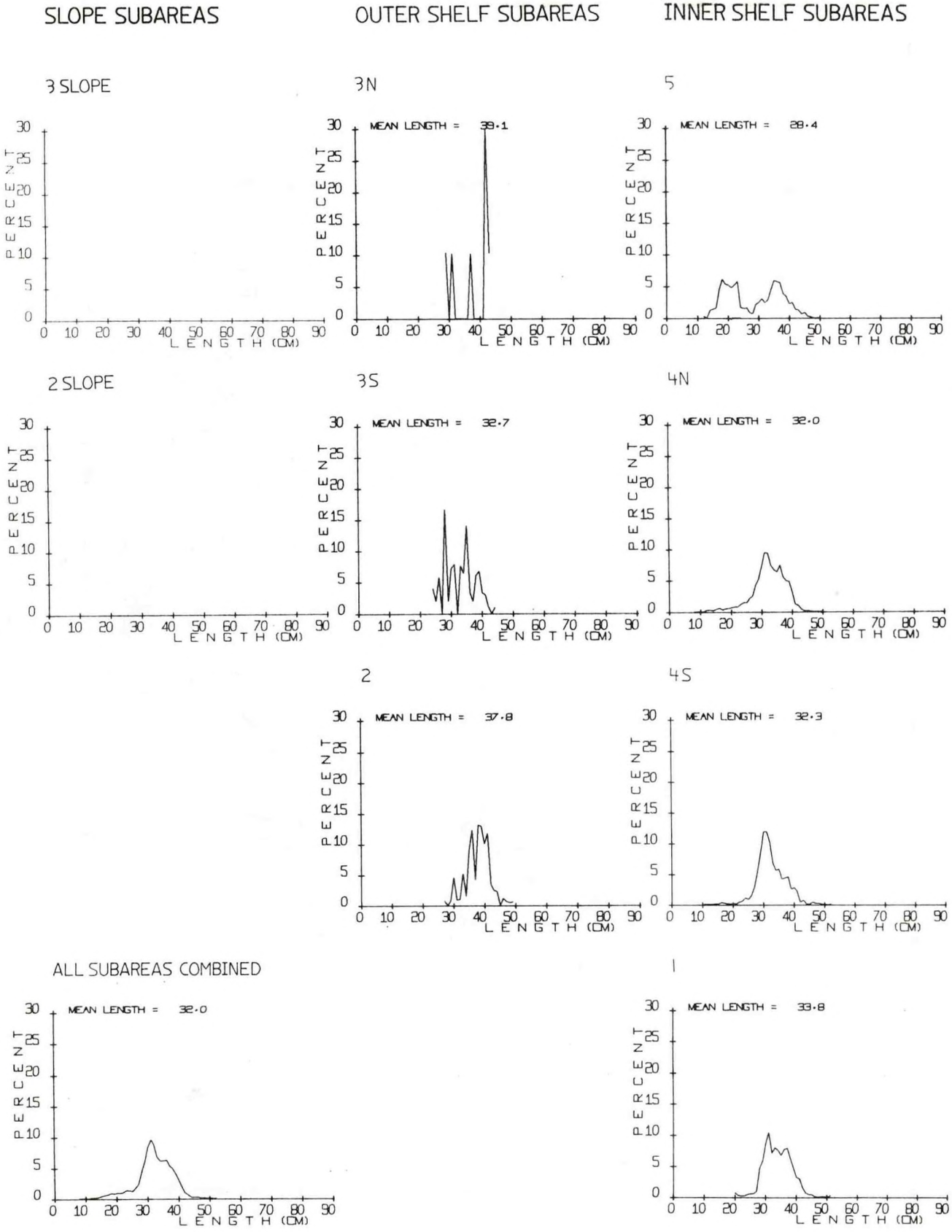


Figure 23.--Size composition of Alaska plaice (sexes combined) taken during the 1979 survey by subarea and for subareas combined.

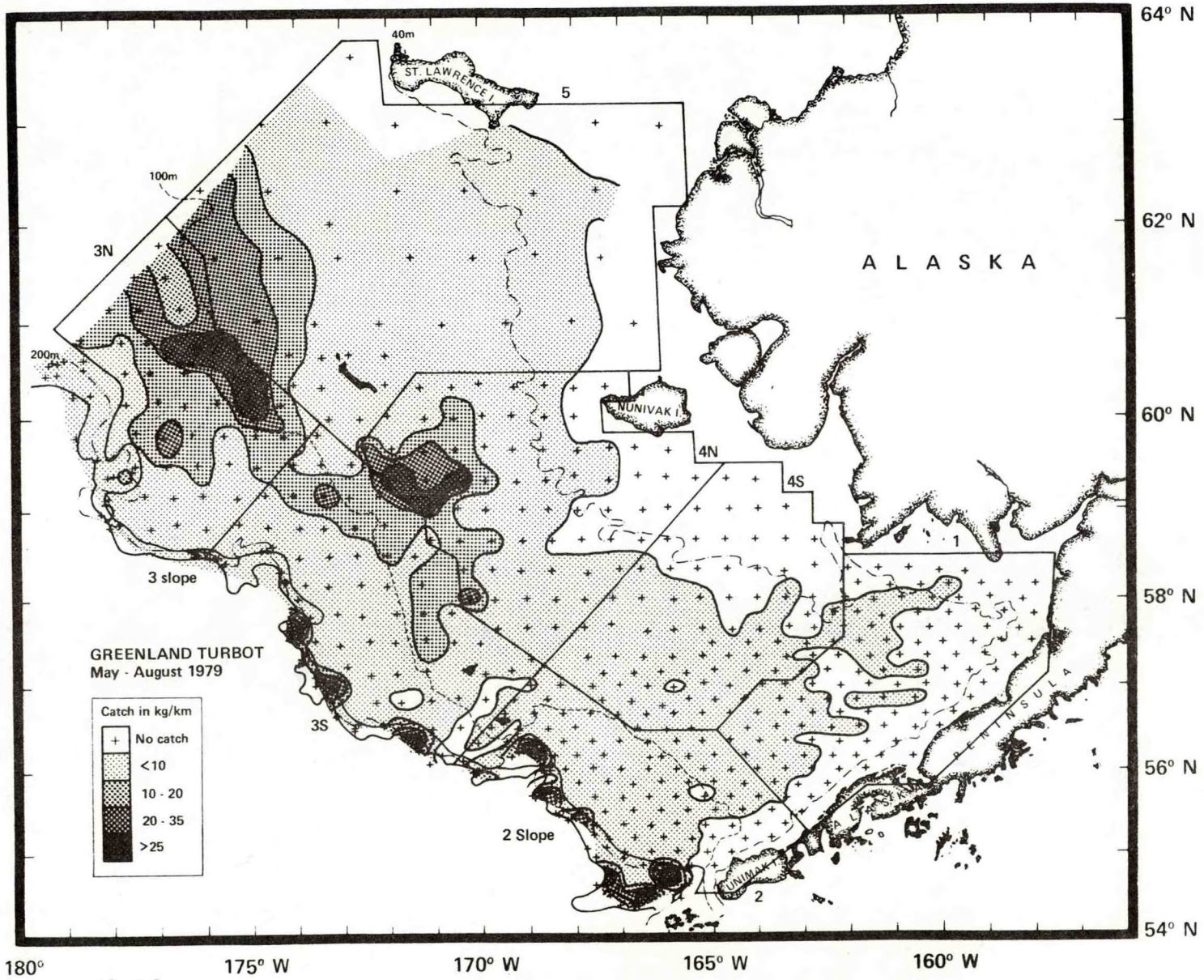


Figure 24.--Distribution and relative abundance of Greenland turbot during the 1979 survey.

GREENLAND TURBOT

Table 28.--Abundance estimates and mean size of Greenland turbot by subarea and for subareas combined, 1979 summer trawl survey.

Subarea	Mean CPUE[1/] (kg/km)	Estimated apparent biomass (t)	Proportion of total estimated biomass	Estimated apparent population ($x10^6$)	Proportion of total estimated population	Mean size per individual	
						weight (kg)	length (cm)
Inner shelf							
5	5.48	74,759	0.300	1011.6	0.518	0.074	18.5
4N	5.22	39,380	0.158	279.6	0.143	0.141	23.3
4S	0.94	6,274	0.025	32.6	0.017	0.192	26.7
1	0.23	1,582	0.006	7.8	0.004	0.203	27.4
Outer shelf							
3N	12.44	56,780	0.228	395.8	0.203	0.143	23.8
3S	5.12	33,255	0.134	189.5	0.097	0.176	25.5
2	1.20	6,012	0.024	9.9	0.005	0.607	37.4
Slope							
2 slope	16.49	17,921	0.072	12.4	0.006	1.451	52.0
3 slope	9.69	13,035	0.052	12.2	0.006	1.068	45.5
All subareas combined	4.68	248,998[2/]		1951.4		0.128	21.4

1/ CPUE = catch per unit effort
2/ 95% confidence interval = 208,131 - 289,864

GREENLAND TURBOT

SLOPE SUBAREAS

OUTER SHELF SUBAREAS

INNER SHELF SUBAREAS

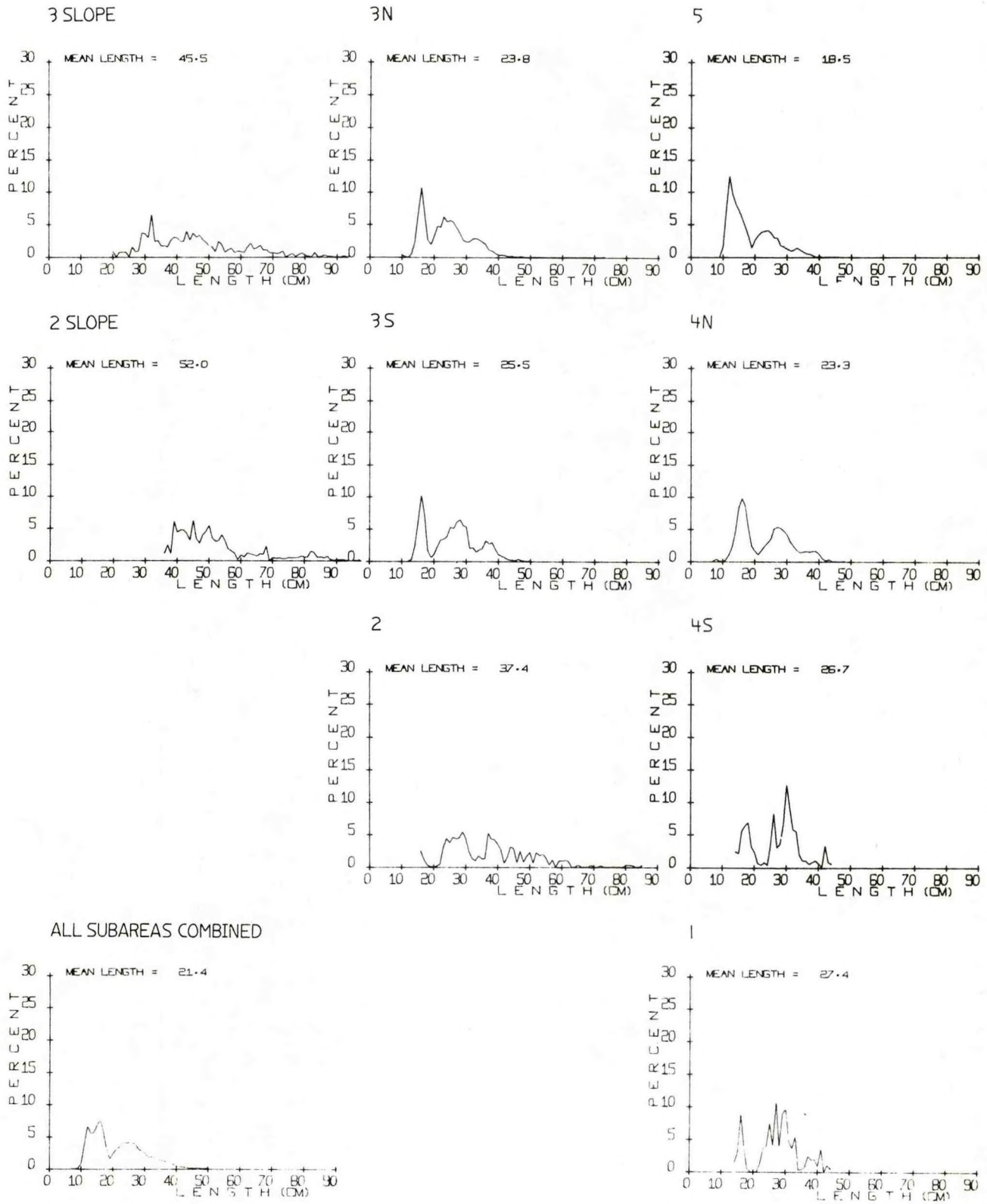


Figure 25.--Size composition of Greenland turbot (sexes combined) taken during the 1979 survey by subarea and for subareas combined.

ARROWTOOTH FLOUNDER

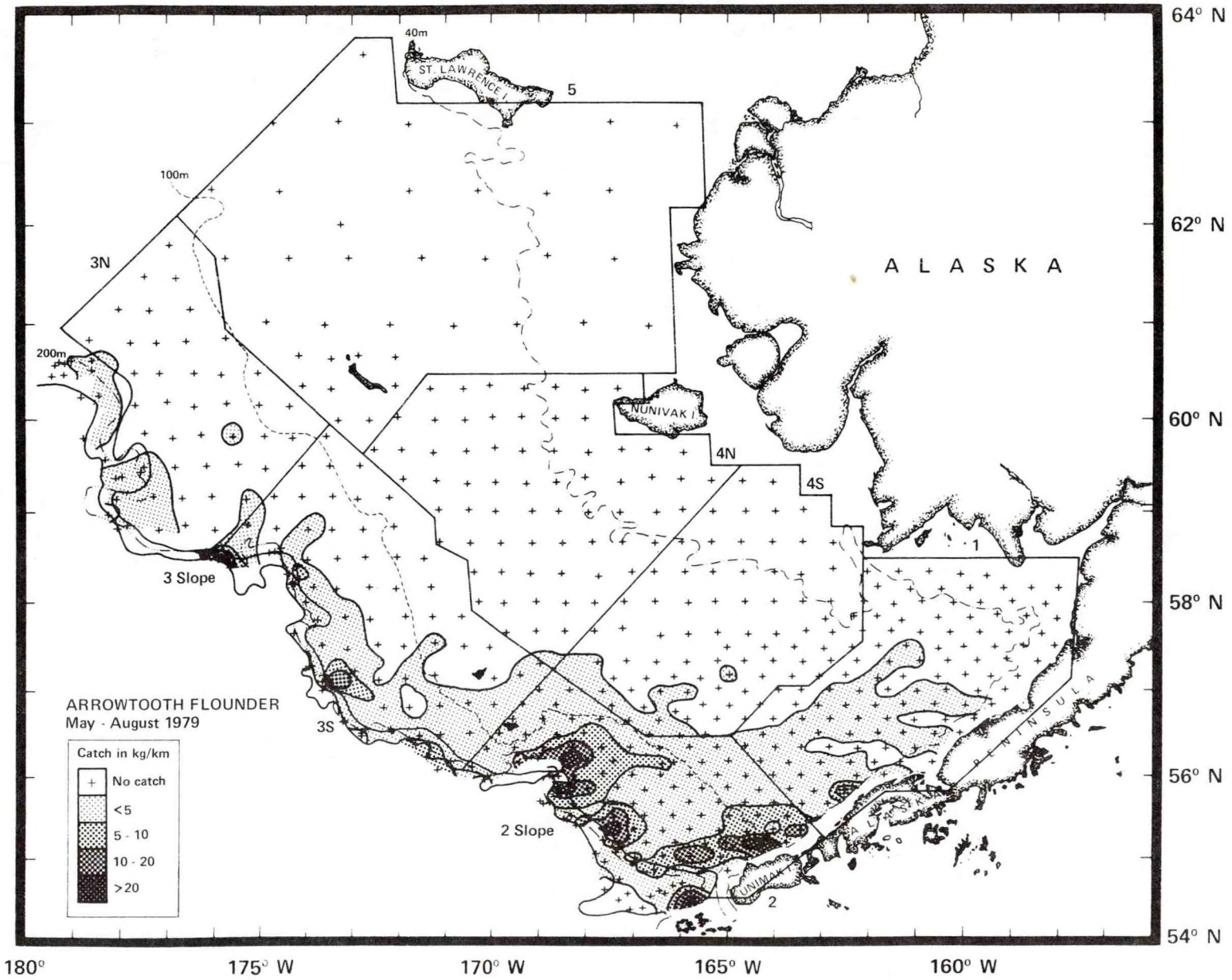


Figure 26.--Distribution and relative abundance of arrowtooth flounder during the 1979 survey.

ARROWTOOTH FLOUNDER

Table 29.--Abundance estimates and mean size of arrowtooth flounder by subarea and for subareas combined, 1979 summer trawl survey.

Subarea	Mean CPUE[1/] (kg/km)	Estimated apparent biomass (t)	Proportion of total estimated biomass	Estimated apparent population ($x10^6$)	Proportion of total estimated population	Mean size per individual	
						weight (kg)	length (cm)
Inner shelf							
5	0.00	0	0.000	0.0	0.0	-	-
4N	<0.01	20	<0.001	0.2	0.001	0.125	-
4S	0.07	437	0.008	2.3	0.010	0.195	-
1	0.45	3,045	0.056	36.6	0.166	0.083	19.6
Outer shelf							
3N	0.08	358	0.007	0.7	0.003	0.528	36.1
3S	0.38	2,490	0.046	7.7	0.035	0.323	29.9
2	7.12	35,634	0.657	158.9	0.721	0.224	26.3
Slope							
2 slope	7.86	8,544	0.158	8.5	0.039	1.012	47.3
3 slope	2.73	3,673	0.068	5.5	0.025	0.663	37.9
All subareas combined	1.02	54,201[2/]		220.4		0.246	26.0

1/ CPUE = catch per unit effort
2/ 95% confidence interval = 41,008 - 67,394

ARROWTOOTH FLOUNDER

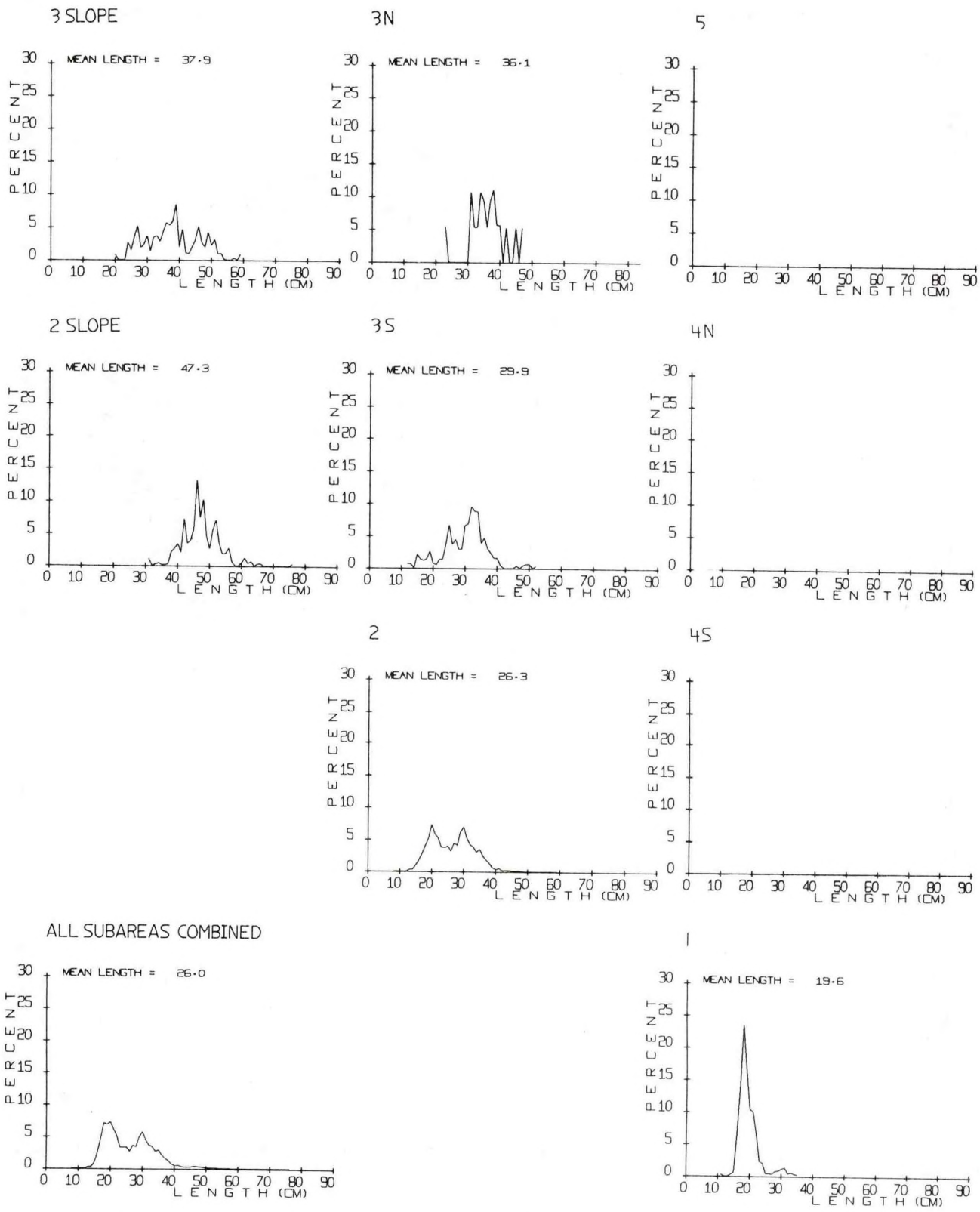


Figure 27.--Size composition of arrowtooth flounder (sexes combined) taken during the 1979 survey by subarea and for subareas combined.

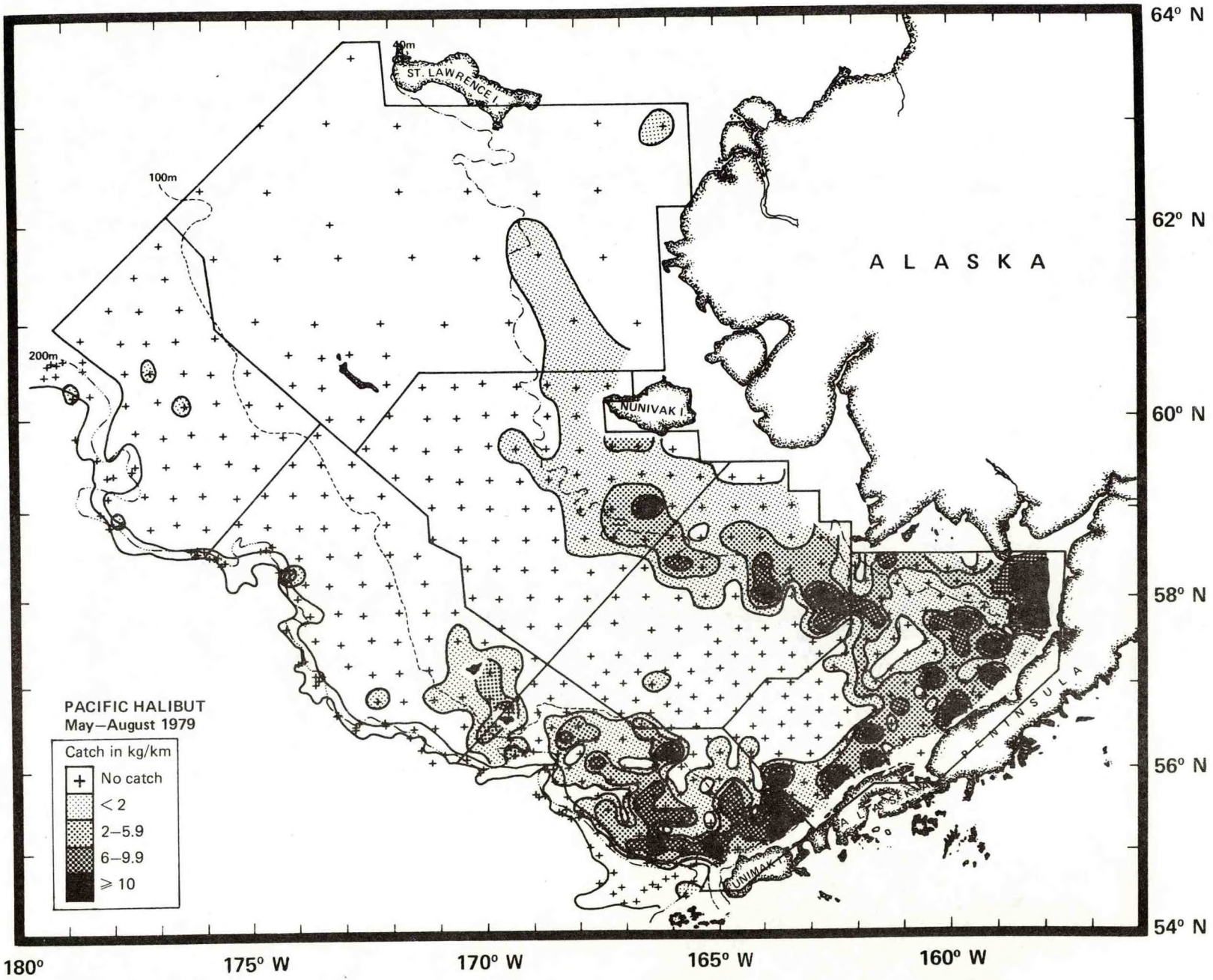


Figure 28.--Distribution and relative abundance of Pacific halibut during the 1979 survey.

PACIFIC HALIBUT

Table 30.--Abundance estimates and mean size of Pacific halibut by subarea and for subareas combined, 1979 summer trawl survey.

Subarea	Mean CPUE[1/] (kg/km)	Estimated apparent biomass (t)	Proportion of total estimated biomass	Estimated apparent population ($x10^6$)	Proportion of total estimated population	Mean size per individual	
						weight (kg)	length (cm)
Inner shelf							
5	0.04	481	0.007	0.6	0.011	0.874	43.4
4N	0.56	4,241	0.065	3.4	0.060	1.253	38.6
4S	1.58	10,577	0.163	5.1	0.089	2.076	46.9
1	4.69	32,050	0.494	30.4	0.533	1.055	34.8
Outer shelf							
3N	0.01	60	0.001	0.1	0.002	1.017	49.0
3S	0.17	1,115	0.017	9.1	0.160	0.122	20.3
2	3.22	16,112	0.248	8.2	0.144	1.963	51.1
Slope							
2 slope	0.11	119	0.002	0.1	0.002	1.312	47.9
3 slope	0.07	94	0.001	<0.1	0.001	2.468	58.0
All subareas combined	1.22	64,849[2/]		57.0		1.139	36.3

1/ CPUE = catch per unit effort
2/ 95% confidence interval = 47,999 - 81,699

PACIFIC HALIBUT

SLOPE SUBAREAS

OUTER SHELF SUBAREAS

INNER SHELF SUBAREAS

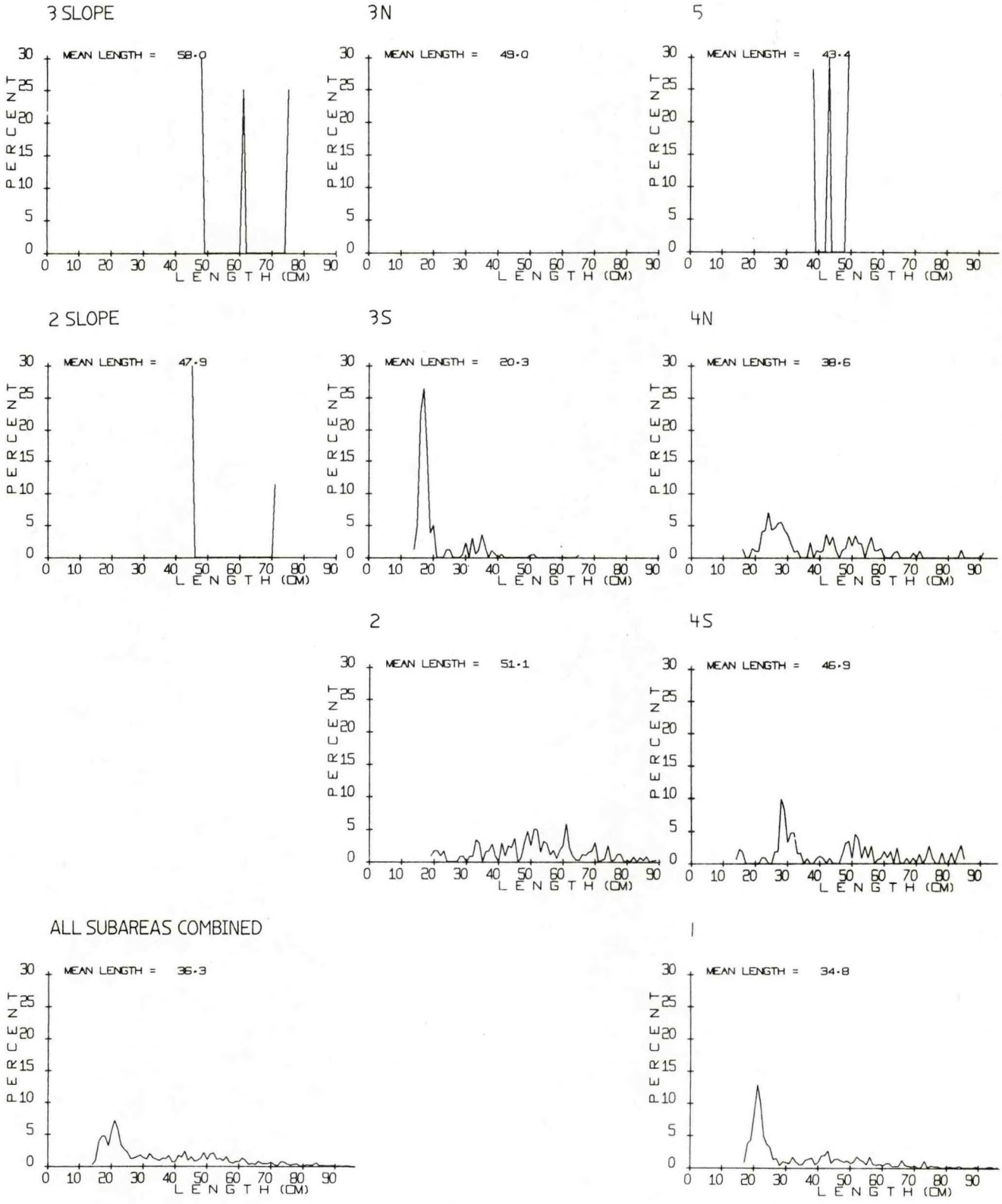


Figure 29.--Size composition of Pacific halibut (sexes combined) taken during the 1979 survey by subarea and for subareas combined.

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DATA APPENDICES

Demersal Trawl Survey of the Eastern Bering Sea Continental Shelf and Slope

LIST OF APPENDICES

Appendix A

Station and Catch Data, 1979 U.S. Bering Sea Trawl Survey

Appendix A contains computer listings of station and catch data for all stations successfully completed during the 1979 Bering Sea survey.

Latitudes and longitudes are in degrees, minutes, and tenths of minutes. Gear depths are in fathoms. Duration of tow is in tenths of hours. Distance fished is in tenths of nautical miles. A performance code of 0 indicates a satisfactory tow. Gear code 20 represents the 400 Eastern trawl and code 41 the Nor'eastern trawl. Catch weights are in kilograms.

List of Tables

Table A-1.--Station and catch data for the M/V DISCOVERY BAY using the 400 Eastern trawl.

M/V DISCOVERY BAY 400 EASTERN 1979 BERING SEA SURVEY

HAUL #	2	3	4	5	6	7	8	9	10	11	12
MONTH/DAY/YEAR	7/ 7/79	7/ 7/79	7/ 7/79	7/ 8/79	7/ 8/79	7/ 8/79	7/ 8/79	7/ 8/79	7/ 9/79	7/ 9/79	7/ 9/79
LATITUDE START	57 7.0	57 30.0	57 50.0	58 29.0	58 9.0	57 48.0	57 28.0	57 6.0	58 9.0	58 30.0	58 50.0
LONGITUDE START	172 23.0	171 51.0	171 14.0	171 25.0	172 1.0	172 34.0	173 3.0	173 36.0	173 17.0	172 40.0	172 4.0
LATITUDE END	57 9.6	57 31.7	57 51.7	58 28.1	58 8.4	57 48.0	57 26.6	57 5.4	58 10.5	58 31.8	58 52.1
LONGITUDE END	172 21.6	171 49.8	171 11.8	171 26.8	172 3.6	172 36.9	173 5.1	173 39.7	173 14.9	172 38.1	172 2.4
LORAN START	50175.60	50132.80	50021.60	49812.60	49971.70	50031.80	50143.60	50173.00	50023.00	49910.20	49763.90
LORAN START	17908.20	18139.40	18327.30	18172.30	18047.00	17879.40	17686.40	17426.90	17627.20	17813.80	17946.20
LORAN END	50173.90	50127.10	50009.60	49824.00	49980.20	50085.30	50146.50	50173.70	50018.60	49900.50	49749.60
LORAN END	17923.20	18152.50	18339.00	18169.40	18036.60	17866.40	17675.50	17406.50	17642.10	17822.60	17952.60
GEAR DEPTH	60	56	49	48	53	59	67	77	59	56	51
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	2.10	2.00	2.20	1.70	1.80	1.40	1.60	1.80	1.70	2.00	2.30
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	55.8	339.6	733.0	200.0	232.7	470.6	857.5	90.1	81.0	253.6	438.4
PAC COD	2.5	5.1	1.3	7.3	12.2	1.7	0.0	34.2	1.9	8.1	28.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.1	0.3	0.1	0.0	0.0	0.1	0.8	0.1
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
SCULPINS	2.1	0.6	6.5	0.8	0.6	2.1	2.2	0.0	0.2	0.2	0.6
EELPOUTS	0.2	1.2	0.8	10.0	8.8	1.3	0.1	0.1	2.1	1.5	5.8
OTHER RNDFISH	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
TOT ROUNDFISH	60.6	346.5	741.5	218.3	254.7	476.0	859.8	124.5	85.4	264.3	472.9
YELLOW SOLE	0.0	0.0	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.7
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.2
FLATHEAD SOLE	1.2	3.7	3.4	1.0	0.0	0.0	1.0	0.1	0.1	0.0	1.7
ALASKA PLAICE	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GREENLAND TOT	3.8	6.3	30.2	22.4	18.6	8.1	1.9	0.4	1.1	5.9	34.8
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT FLATFISH	5.0	10.0	34.6	23.6	18.8	8.1	3.2	0.5	1.7	5.9	37.4
SKATES	0.0	0.0	0.0	4.9	0.1	0.0	0.0	0.0	0.0	0.0	1.6
TOT ELASMOBRH	0.0	0.0	0.0	4.9	0.1	0.0	0.0	0.0	0.0	0.0	1.6
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	1.4	0.7	0.0	0.0	0.1	0.9	1.1	0.1	0.1	0.0	0.0
TANNER, OPILIO	1.8	8.6	10.0	0.5	3.7	0.3	0.0	0.0	0.1	0.5	0.5
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	1.8	0.7	3.0	0.2	0.6	2.1	0.2	0.1	0.2	0.2	0.1
SNAILS	2.5	1.4	1.5	1.0	2.9	2.5	0.1	0.0	0.2	1.1	5.2
SHRIMP	0.1	0.1	0.2	1.4	3.3	0.2	0.0	0.0	0.1	0.1	0.3
STARFISH	0.2	0.0	1.6	4.7	3.3	0.2	0.2	0.1	0.0	0.5	1.4
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	0.2	0.0	0.1	0.0	2.4	0.1	0.0	0.3	0.0	0.1	3.4
TOTAL INVERTS	8.0	17.3	16.4	7.8	16.4	6.3	1.6	0.6	0.8	2.4	10.8
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	73.6	373.8	792.6	254.6	289.7	490.5	864.6	125.6	87.8	272.6	522.7

Table A-1 (Cont'd)

M/V DISCOVERY BAY 400 EASTERN 1979 BERING SEA SURVEY

HAUL #	13	14	15	16	17	18	19	20	21	22	23
MONTH/DAY/YEAR	7/ 9/79	7/10/79	7/10/79	7/10/79	7/10/79	7/11/79	7/11/79	7/11/79	7/11/79	7/12/79	7/12/79
LATITUDE START	59 8.0	58 48.0	58 28.0	58 49.0	59 10.0	59 30.0	59 48.0	59 28.0	59 8.0	58 48.0	58 48.0
LONGITUDE START	172 50.0	173 23.0	173 56.0	174 36.0	174 3.0	173 26.0	174 15.0	174 50.0	175 15.0	175 55.0	177 7.0
LATITUDE END	59 6.9	58 47.5	58 27.1	58 51.5	59 11.5	59 31.5	59 47.4	59 27.5	59 7.1	58 47.6	58 50.4
LONGITUDE END	172 51.6	173 26.2	173 59.1	174 34.5	174 0.5	173 23.6	174 17.7	174 52.3	175 13.2	175 57.7	177 5.2
LORAN START	49733.50	49865.50	49970.00	49911.30	49804.50	49674.50	49645.40	49766.40	49862.10	49949.20	49967.60
LORAN START	17704.70	17572.30	17406.70	17196.00	17360.30	17513.20	17275.30	17126.40	17001.10	16771.70	16387.60
LORAN END	49743.60	49872.70	49977.20	49903.90	49796.80	49664.10	49654.60	49772.80	49866.90	49953.40	49962.90
LORAN END	17702.70	17560.60	17394.20	17206.00	17371.90	17522.50	17266.10	17115.50	17009.70	16760.90	16404.90
GEAR DEPTH	54	63	68	72	63	54	57	67	72	70	68
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.80	1.70	2.00	1.90	1.80	2.00	1.90	1.60	1.80	1.50	2.00
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	207.5	66.4	132.4	129.1	198.4	51.0	170.4	108.5	362.8	30.3	256.4
PAC COD	28.1	11.6	7.5	21.0	32.3	3.3	38.9	26.5	31.8	2.2	32.3
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	5.2	0.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.7	0.5	0.6	0.7	1.5	1.2	2.5	2.4	6.0	2.0	2.2
EELPOUTS	4.0	7.0	0.2	0.5	61.0	0.5	28.8	22.7	17.5	30.8	13.9
OTHER RNDFISH	0.5	0.1	0.0	0.0	0.4	0.3	1.2	0.2	1.5	1.0	0.9
TOT ROUNDFISH	240.7	85.5	145.8	151.4	294.3	56.3	241.9	160.5	419.5	66.3	305.7
YELLOW SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	5.4
FLATHEAD SOLE	0.8	0.0	0.0	1.1	0.7	0.0	1.9	2.0	0.1	2.8	10.2
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
GREENLAND TBT	33.3	19.3	4.1	7.3	37.7	12.8	55.4	34.8	20.0	12.2	10.2
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.5
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
TOT FLATFISH	34.2	19.3	4.1	8.9	38.3	12.8	57.3	36.8	20.3	15.2	26.3
SKATES	0.0	0.6	0.1	0.0	14.2	8.3	0.0	22.8	6.3	2.0	0.2
TOT ELASMOBRH	0.0	0.6	0.1	0.0	14.2	8.3	0.0	22.8	6.3	2.0	0.2
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0	7.5	4.1
TANNER, OPILIO	0.0	0.2	0.1	0.3	1.4	0.0	0.9	2.5	11.8	14.5	15.0
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
OTHER CRAB	0.0	0.2	0.1	0.1	0.0	0.0	0.1	0.5	0.9	1.8	1.4
SNAILS	2.6	2.7	0.6	0.1	10.5	0.2	7.9	6.5	6.6	1.0	0.7
SHRIMP	1.4	2.4	0.1	0.0	7.2	0.1	9.7	4.1	5.5	0.2	0.0
STARFISH	1.1	0.1	0.7	0.2	0.4	0.2	6.9	1.8	1.7	0.5	0.3
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	1.1	2.5	0.5
OTHER INVERTS	0.2	0.0	0.7	0.1	0.7	0.2	4.4	3.1	3.1	0.5	0.1
TOTAL INVERTS	5.5	6.0	2.7	1.3	20.4	0.7	30.2	19.4	30.7	28.6	22.5
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
TOTAL CATCH	280.4	111.4	152.6	161.6	367.7	78.1	329.4	239.4	476.8	111.9	355.0

Table A-1 (Cont'd)

M/V DISCOVERY BAY 400 EASTERN 1979 BERING SEA SURVEY

HAUL #	24	25	26	27	28	29	30	31	32	33	34
MONTH/DAY/YEAR	7/12/79	7/12/79	7/13/79	7/13/79	7/13/79	7/13/79	7/14/79	7/14/79	7/14/79	7/14/79	7/15/79
LATITUDE START	59 9.0	59 30.0	59 49.0	60 9.0	60 28.0	60 8.0	59 48.0	59 29.0	59 8.0	60 9.0	60 29.0
LONGITUDE START	176 37.0	176 6.0	175 32.0	174 58.0	175 47.0	176 22.0	176 49.0	177 26.0	178 1.0	177 37.0	177 6.0
LATITUDE END	59 10.9	59 31.7	59 51.1	60 11.2	60 26.8	60 6.8	59 47.4	59 28.3	59 6.5	60 11.3	60 30.7
LONGITUDE END	176 35.1	176 5.0	175 30.6	174 56.4	175 50.8	176 26.5	176 53.1	177 29.1	178 3.3	177 34.9	177 4.1
LORAN START	49896.90	49812.20	49713.70	49600.40	49570.20	49679.10	49769.10	49850.40	49926.00	49722.80	49632.50
LORAN START	16583.30	16756.00	16928.00	17072.90	16861.80	16705.00	16566.10	16366.50	16152.10	16374.50	16529.40
LORAN END	49891.90	49805.70	49707.20	49591.40	49579.80	49688.50	49776.20	49856.40	49931.10	49715.60	49625.40
LORAN END	16594.90	16765.40	16935.40	17083.20	16849.20	16687.70	16549.80	16350.90	16137.10	16386.30	16540.00
GEAR DEPTH	75	73	67	58	61	72	73	92	77	76	78
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.70	1.80	1.50	1.90	2.20	2.50	2.20	2.10	2.00	2.00	1.80
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	320.0	14.1	52.2	52.7	156.3	19.1	943.7	162.2	62.4	226.8	61.7
PAC COD	2.3	5.9	1.8	42.8	20.8	2.0	3.8	7.6	19.8	1.7	7.6
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.5	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	3.5	10.7	5.0	1.1	1.8	4.0	14.3	5.6	2.1	5.0	3.2
EELPOUTS	72.7	105.4	86.9	15.5	12.1	61.2	119.8	54.1	2.9	26.0	34.2
OTHER RNDFISH	1.2	0.0	0.1	0.2	0.3	0.2	0.0	3.0	0.2	0.1	1.5
TOT ROUNDFISH	399.9	136.0	145.9	112.3	191.4	86.6	1081.7	232.5	87.4	260.0	108.3
YELLOW SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0
FLATHEAD SOLE	5.7	10.4	1.9	10.9	11.7	8.3	29.8	0.5	6.1	1.9	0.9
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
GREENLAND TBT	13.6	42.6	19.0	94.7	56.5	85.1	95.5	3.3	1.0	13.6	39.1
ARROWTOOTH FL	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.9	8.1	0.0	0.0
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	1.3
OTHER FLTFISH	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
TOT FLATFISH	19.4	53.1	21.0	105.6	68.2	94.2	125.3	4.6	21.2	15.5	41.3
SKATES	4.0	9.1	2.9	1.3	0.0	0.2	1.2	11.3	13.0	0.1	5.4
TOT ELASMOBRH	4.0	9.1	2.9	1.3	0.0	0.2	1.2	11.3	13.0	0.1	5.4
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.3	3.6	0.0	0.0	0.0	0.0	0.7	0.5	18.6	1.1	0.0
TANNER, OPILIO	1.6	10.5	0.0	0.0	0.1	0.0	7.5	6.6	18.6	1.8	0.1
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
OTHER CRAB	0.5	8.6	0.0	0.0	0.0	0.0	9.8	1.4	3.9	0.1	0.0
SNAILS	6.9	33.8	5.3	3.9	2.4	10.7	32.9	4.5	4.4	0.5	20.0
SHRIMP	0.8	9.1	10.3	11.4	16.3	9.1	3.8	0.0	0.0	6.6	7.3
STARFISH	12.1	136.5	4.8	0.8	1.1	26.7	384.1	5.0	0.2	0.7	63.5
SQUID	0.1	0.2	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0
OCTOPUS	0.5	6.4	4.5	7.8	2.9	9.3	4.0	5.1	3.9	0.7	7.5
OTHER INVERTS	0.6	2.5	4.3	0.7	0.0	3.4	6.5	8.8	0.4	38.9	5.9
TOTAL INVERTS	23.4	211.3	29.1	24.5	22.9	59.2	449.3	36.6	49.9	50.5	104.1
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	446.7	409.4	199.0	243.7	282.5	240.2	1657.5	285.1	171.6	326.1	259.2

Table A-1 (Cont'd)

M/V DISCOVERY BAY 400 EASTERN 1979 BERING SEA SURVEY

HAUL #	35	36	37	38	160	161	162	163	164	165	166
MONTH/DAY/YEAR	7/15/79	7/15/79	7/15/79	7/16/79	8/18/79	8/18/79	8/19/79	8/19/79	8/19/79	8/19/79	8/19/79
LATITUDE START	60 49.0	61 28.0	61 8.0	60 48.0	58 39.0	58 39.0	58 39.0	58 40.0	58 40.0	58 39.0	58 20.0
LONGITUDE START	176 32.0	176 45.0	177 19.0	177 43.0	169 45.0	169 6.0	168 28.0	167 50.0	167 12.0	166 31.0	166 32.0
LATITUDE END	60 51.0	61 27.0	61 6.8	60 47.3	58 39.3	58 39.6	58 39.5	58 40.3	58 40.8	58 40.1	58 20.5
LONGITUDE END	176 30.0	176 47.1	177 22.6	177 45.9	169 42.8	169 3.9	168 26.5	167 47.9	167 8.4	166 27.3	166 28.3
LORAN START	49526.60	49386.70	49494.90	49588.30	49468.60	49309.10	49129.30	49930.20	48717.90	48483.70	48552.10
LORAN START	16683.40	16643.20	16503.50	16393.10	18471.90	18551.20	18607.20	18646.70	18676.10	18698.70	18727.00
LORAN END	49519.20	49393.50	49504.20	49594.40	49460.60	49296.70	49118.60	49916.10	48694.30	48460.00	48526.40
LORAN END	16692.10	16636.30	16491.20	16380.80	18479.00	18556.30	18611.10	18649.30	18677.40	18700.20	18727.70
GEAR DEPTH	64	59	69	76	34	32	27	22	22	20	24
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.70	1.50	2.30	1.80	1.50	1.50	1.30	1.50	2.10	2.10	2.20
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	15.0	82.8	915.8	323.1	48.1	40.4	5.0	6.8	11.3	2.4	26.5
PAC COD	4.0	7.8	12.6	0.0	140.6	18.6	23.1	30.8	23.1	5.9	141.2
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	1.8	0.2	1.9	1.4	103.3	98.2	19.1	36.8	4.7	1.1	31.8
EELPOUTS	45.0	9.2	61.7	3.2	54.4	6.2	0.0	0.0	0.0	0.0	0.0
OTHER RNDFISH	0.2	0.2	3.1	1.0	10.5	1.2	1.1	2.9	9.0	15.6	4.4
TOT ROUNDFISH	66.0	100.2	995.6	328.7	356.9	164.6	48.3	77.3	48.2	25.0	203.8
YELLOW SOLE	0.0	0.0	0.0	0.0	495.8	684.9	367.0	243.6	182.3	241.8	916.0
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	2.3	1.8	41.7	20.9	7.3	79.4
FLATHEAD SOLE	10.8	17.1	3.9	2.5	1.4	0.0	0.0	0.1	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	74.4	652.3	9.1	28.6	16.3	7.3	134.1
GREENLAND TBT	84.6	49.4	79.8	24.4	32.9	14.0	0.0	0.0	0.0	0.0	0.5
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	10.4	13.4	0.0
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.0	4.1	4.4
TOT FLATFISH	95.4	66.5	83.6	27.0	604.4	1353.5	377.8	317.1	232.0	273.7	1134.5
SKATES	16.0	0.1	9.3	0.0	2.3	9.3	0.0	0.0	0.0	0.0	0.0
TOT ELASMOBRH	16.0	0.1	9.3	0.0	2.3	9.3	0.0	0.0	0.0	0.0	0.0
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, OPILIO	1.1	0.9	5.0	2.3	49.0	0.0	0.0	0.1	0.0	0.0	0.0
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	0.0	0.0	0.2	0.1	20.9	147.6	0.0	4.7	1.6	0.0	17.6
SNAILS	8.3	14.2	25.5	38.2	48.5	111.8	9.5	10.9	9.1	0.0	54.7
SHRIMP	2.0	0.2	0.6	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARFISH	3.5	0.4	32.4	18.3	16.8	78.0	11.3	40.4	22.7	24.9	95.3
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	56.7	34.0	4.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	9.7	2.0	66.5	16.7	18.6	91.6	6.2	8.4	8.6	5.9	135.9
TOTAL INVERTS	81.4	52.2	134.7	79.0	153.9	429.0	27.1	64.9	42.0	30.8	303.5
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	258.7	219.0	1223.3	434.6	1117.5	1956.4	453.2	459.3	322.1	329.6	1641.9

Table A-1 (Cont'd)

M/V DISCOVERY BAY 400 EASTERN 1979 BERING SEA SURVEY

HAUL #	167	168	169	170	171	172	173	174	175	176	177
MONTH/DAY/YEAR	8/20/79	8/20/79	8/20/79	8/20/79	8/21/79	8/21/79	8/21/79	8/21/79	8/21/79	8/22/79	8/22/79
LATITUDE START	58 20.0	58 20.0	58 20.0	58 20.0	58 22.0	58 40.0	58 40.0	58 40.0	58 40.0	58 40.0	59 0.0
LONGITUDE START	165 53.0	165 17.0	164 38.0	163 58.0	162 43.0	163 22.0	164 1.0	164 41.0	165 19.0	165 57.0	165 17.0
LATITUDE END	58 20.4	58 20.1	58 20.6	58 21.6	58 22.6	58 39.9	58 40.1	58 41.1	58 41.1	58 40.5	59 2.3
LONGITUDE END	165 50.6	165 14.0	164 35.7	163 55.9	162 40.0	163 25.2	164 4.6	164 44.9	165 22.4	166 0.3	165 17.2
LORAN START	48312.50	48085.70	47840.50	47588.20	47102.60	47329.60	47572.50	47820.80	48051.70	48282.90	47993.30
LORAN START	18735.70	18741.10	18744.80	18747.40	18749.80	18740.70	18736.20	18729.90	18721.70	18711.50	18695.10
LORAN END	48293.60	48065.40	47822.90	47568.70	47082.30	47349.80	47594.60	47841.70	48070.00	48299.20	47985.10
LORAN END	18736.00	18741.60	18745.10	18747.30	18749.80	18740.50	18735.90	18728.70	18720.40	18709.90	18693.40
GEAR DEPTH	22	23	21	19	15	14	16	17	19	18	12
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.60	1.70	1.50	1.70	1.70	1.70	1.80	2.00	1.70	1.60	1.40
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	9.9	23.1	5.0	36.5	0.5	0.5	3.6	2.7	9.9	0.5	0.0
PAC COD	178.0	20.9	3.2	4.4	0.7	0.0	0.5	1.8	0.0	1.8	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.7	0.0	0.1	0.1	0.1	0.1	0.0	0.5	0.1	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	8.5	11.5	8.6	16.1	19.7	10.2	5.0	4.8	3.4	11.6	1.4
EELPOUTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RNDFISH	29.2	43.5	41.0	58.2	78.1	51.2	48.3	23.4	96.8	21.4	4.6
TOT ROUNDFISH	225.6	99.7	57.8	115.3	99.1	62.0	57.5	32.7	110.5	35.4	6.0
YELLOW SOLE	533.1	324.8	271.2	468.0	288.0	339.7	148.3	196.9	606.3	283.5	21.3
ROCK SOLE	85.8	32.2	10.9	22.1	27.2	5.4	11.8	19.1	31.0	95.3	5.0
FLATHEAD SOLE	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7	0.0	0.0
ALASKA PLAICE	29.8	16.8	14.1	15.5	3.2	18.1	9.5	6.4	7.3	16.3	1.8
GREENLAND TBT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	24.3	13.3	3.0	25.4	13.7	5.6	11.3	17.1	0.0	6.2	0.5
OTHER FLTFISH	11.8	1.4	1.6	1.7	30.4	13.6	0.9	8.2	0.0	3.6	7.5
TOT FLATFISH	685.0	388.4	300.8	532.7	362.5	382.5	181.9	247.6	645.7	404.9	36.2
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT ELASMOBRH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED KING CRAB	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, OPILIO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	2.0	3.6	0.7	0.3	4.8	3.6	5.0	1.4	1.1	2.9	0.0
SNAILS	8.1	9.5	7.3	0.0	0.0	0.0	0.0	0.2	1.3	0.0	0.0
SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARFISH	52.4	46.3	67.1	299.8	72.6	199.6	256.3	238.1	128.3	151.5	194.1
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	33.9	7.3	1.4	0.0	0.0	0.1	0.3	0.6	0.7	0.3	0.0
TOTAL INVERTS	97.6	66.7	76.4	300.1	77.3	203.3	261.6	240.3	131.4	154.7	194.1
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	1008.2	554.8	435.0	948.2	538.9	647.9	500.9	520.6	887.6	594.9	236.3

Table A-1 (Cont'd)

M/V DISCOVERY BAY 400 EASTERN 1979 BERING SEA SURVEY

HAUL #	178
MONTH/DAY/YEAR	8/22/79
LATITUDE START	59 20.0
LONGITUDE START	164 39.0
LATITUDE END	59 21.9
LONGITUDE END	164 41.9
LORAN START	47722.60
LORAN START	18679.70
LORAN END	47733.50
LORAN END	18676.70
GEAR DEPTH	9
DURATION IN HOURS	0.50
DISTANCE FISHED	1.80
PERFORMANCE / GEAR	0 / 20
POLLOCK	0.0
PAC COD	0.0
PAC OC PERCH	0.0
OTHER RCKFISH	0.0
SABLEFISH	0.0
PAC HERRING	0.0
ATKA MACKEREL	0.0
SCULPINS	2.0
EELPOUTS	0.0
OTHER RNDFISH	5.0
TOT ROUNDFISH	7.1
YELLOW SOLE	14.1
ROCK SOLE	0.0
FLATHEAD SOLE	0.0
ALASKA PLAICE	0.1
GREENLAND TBT	0.0
ARROWTOOTH FL	0.0
PAC HALIBUT	0.0
OTHER FLTFISH	1.3
TOT FLATFISH	15.4
SKATES	0.0
TOT ELASMOBRH	0.0
RED KING CRAB	0.0
BLUE KING CRAB	0.0
TANNER, BAIRDI	0.0
TANNER, OPILIO	0.0
TANNER, HYBRID	0.0
OTHER CRAB	0.2
SNAILS	0.0
SHRIMP	0.1
STARFISH	34.9
SQUID	0.0
OCTOPUS	0.0
OTHER INVERTS	0.1
TOTAL INVERTS	35.4
OTHER	0.0
TOTAL CATCH	57.9

Table A-2.--Station and catch data for the M/V DISCOVERY BAY using the Nor'eastern trawl.

M/V DISCOVERY BAY NOR*EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	40	41	42	43	44	45	46	47	48	49	51
MONTH/DAY/YEAR	7/16/79	7/16/79	7/17/79	7/17/79	7/17/79	7/17/79	7/17/79	7/17/79	7/18/79	7/18/79	7/19/79
LATITUDE START	60 37.0	60 37.0	60 35.0	60 36.0	60 34.0	60 27.0	60 28.0	60 31.0	60 15.0	60 14.0	59 48.0
LONGITUDE START	178 32.0	178 58.0	179 6.0	179 13.0	179 18.0	179 22.0	179 7.0	178 32.0	178 23.0	178 46.0	178 43.0
LATITUDE END	60 36.1	60 35.8	60 36.6	60 37.3	60 36.4	60 29.2	60 27.8	60 30.1	60 14.7	60 13.5	59 48.0
LONGITUDE END	178 32.7	178 57.2	179 7.1	179 14.1	179 18.3	179 23.2	179 6.3	178 31.5	178 24.0	178 47.6	178 42.3
LORAN START	49659.40	49673.40	49682.00	49683.70	49691.20	49715.40	49704.20	49678.50	49725.40	49741.20	49820.10
LORAN START	16173.40	16065.70	16030.40	16002.50	15977.10	15947.40	16012.20	16163.60	16178.20	16075.90	16035.40
LORAN END	49662.90	49676.70	49679.20	49680.40	49685.40	49710.40	49707.40	49682.50	49729.90	49744.50	49822.00
LORAN END	16171.80	16069.00	16029.10	16001.30	15982.10	15946.90	16015.40	16167.40	16174.30	16068.60	16040.00
GEAR DEPTH	99	150	198	250	300	372	248	101	93	248	120
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.00	1.40	1.00	1.20	1.80	1.80	1.40	1.60	1.30	1.10	1.00
PERFORMANCE / GEAR	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41
POLLOCK	83.8	136.4	0.6	0.0	0.0	0.0	0.0	26.1	209.6	0.1	48.6
PAC COD	10.9	9.9	0.0	0.0	0.0	0.0	0.0	5.0	14.5	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	15.9	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.2	3.6	1.6	0.2	0.0	0.0	0.0	1.3	1.3	7.5	0.5
EELPOUTS	0.9	0.0	0.0	1.2	0.1	0.0	0.0	4.1	0.2	0.0	0.0
OTHER RNDFISH	0.0	1.0	0.1	0.0	6.2	66.4	0.3	2.3	0.0	0.0	2.3
TOT ROUNDFISH	95.8	150.9	2.3	1.5	6.3	82.3	0.3	38.7	225.6	7.6	51.4
YELLOW SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
FLATHEAD SOLE	6.8	4.6	1.1	0.0	0.3	0.0	0.0	23.5	4.3	0.4	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GREENLAND TBT	12.7	33.9	19.3	30.7	3.6	17.9	7.5	7.1	1.5	0.5	0.5
ARROWTOOTH FL	2.4	0.0	0.5	0.0	0.0	0.0	0.0	0.2	2.3	1.4	1.4
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT FLATFISH	22.1	38.6	20.9	30.7	3.9	17.9	7.5	30.8	9.5	3.4	1.9
SKATES	0.0	0.0	2.0	0.0	5.2	0.0	0.3	0.0	3.0	0.1	3.4
TOT ELASMOBRH	0.0	0.0	2.0	0.0	5.2	0.0	0.3	0.0	3.0	0.1	3.4
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, OPILIO	0.9	0.1	0.5	0.2	0.1	0.0	0.0	2.8	0.7	1.0	0.1
TANNER, HYBRID	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	0.1	0.1	0.0	0.0	0.0	0.1	0.5	0.0	0.2	0.1	0.1
SNAILS	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	2.3	0.1
SHRIMP	0.1	13.7	0.1	0.0	0.0	0.1	0.0	1.8	0.0	0.0	0.0
STARFISH	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0
SQUID	0.0	0.0	0.9	0.1	0.7	0.0	1.6	0.1	0.0	0.0	0.1
OCTOPUS	0.0	0.1	0.0	0.0	0.0	1.0	0.1	0.0	0.0	3.8	0.0
OTHER INVERTS	0.2	0.2	0.5	2.6	0.1	0.1	0.0	0.7	0.1	0.1	0.2
TOTAL INVERTS	1.5	14.3	2.1	2.9	1.0	1.4	2.2	5.5	1.5	7.3	0.6
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
TOTAL CATCH	119.4	203.8	27.3	35.1	16.4	101.6	10.5	75.0	239.6	18.4	57.2

Table A-2 (Cont'd)

N/V DISCOVERY BAY NOR'EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	52	53	54	55	56	57	58	59	60	61	62
MONTH/DAY/YEAR	7/19/79	7/19/79	7/19/79	7/19/79	7/20/79	7/20/79	7/20/79	7/21/79	7/21/79	7/21/79	7/21/79
LATITUDE START	59 34.0	59 22.0	59 23.0	59 26.0	58 58.0	58 51.0	58 49.0	58 33.0	58 31.0	58 34.0	58 33.0
LONGITUDE START	178 15.0	178 2.0	177 54.0	177 30.0	178 11.0	177 47.0	178 0.0	175 58.0	176 7.0	176 7.0	176 15.0
LATITUDE END	59 35.3	59 23.2	59 24.5	59 27.0	58 59.3	58 52.7	58 49.7	58 33.4	58 31.9	58 34.7	58 33.4
LONGITUDE END	178 14.9	178 3.6	177 57.0	177 31.4	178 12.5	177 49.1	178 2.5	175 56.8	176 9.4	176 10.5	176 16.1
LORAN START	49855.10	49886.30	49879.10	49864.10	49953.70	49968.00	49977.10	49995.90	50003.40	49995.60	50000.60
LORAN START	16135.80	16174.30	16216.20	16340.10	16075.90	16185.30	16108.30	16736.80	16683.80	16687.10	16644.80
LORAN END	49851.00	49883.60	49877.70	49861.40	49952.50	49965.70	49975.60	49996.00	50003.00	49995.30	50000.10
LORAN END	16142.20	16172.00	16207.20	16337.50	16072.80	16178.20	16100.80	16746.30	16674.20	16672.60	16639.70
GEAR DEPTH	98	300	238	102	110	100	240	100	232	100	220
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.40	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.30	1.10	1.30	1.10	0.70	1.40	1.20	0.90	1.00	1.50	0.60
PERFORMANCE / GEAR	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41
POLLOCK	68.8	0.0	0.0	17.7	24.7	6.2	2.6	94.7	3.5	156.0	2.4
PAC COD	10.7	0.0	0.0	1.5	4.5	7.7	0.9	27.8	0.0	75.3	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	1.1	0.3	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.3	0.0	0.0	0.0	0.0	0.0	1.5	4.8	0.0	1.4
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.1	0.3	0.2	2.1	0.2	1.5	0.3	0.5	0.1	0.7
EELPOUTS	0.0	0.4	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RNDFISH	0.0	9.8	0.7	0.3	5.5	0.0	6.8	0.0	0.3	0.0	1.2
TOT ROUNDFISH	79.5	10.7	1.0	20.2	38.0	14.4	11.9	124.3	9.6	231.4	5.7
YELLOW SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FLATHEAD SOLE	0.0	0.0	0.0	0.0	2.5	2.0	0.0	0.2	0.0	0.5	0.1
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GREENLAND TBT	0.4	15.3	32.7	6.2	0.0	0.0	23.7	1.3	34.3	5.0	26.6
ARROWTOOTH FL	0.0	6.4	7.8	6.4	0.0	0.0	0.9	1.9	22.8	7.3	4.2
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
TOT FLATFISH	0.4	21.7	40.6	12.5	2.5	3.2	24.7	3.4	57.2	12.9	30.9
SKATES	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.2	0.2
TOT ELASMOBRH	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.2	0.2
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.2	0.1	0.2	0.2
TANNER, OPILIO	0.6	1.6	0.2	0.1	0.1	0.0	1.0	0.1	0.1	0.1	0.5
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
OTHER CRAB	0.1	5.3	1.5	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1
SNAILS	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0
SHRIMP	0.0	0.0	0.1	0.0	0.0	0.0	0.7	0.0	0.8	0.0	0.1
STARFISH	0.0	0.3	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SQUID	0.3	0.0	0.1	0.0	0.1	2.5	3.4	0.0	2.3	0.1	1.4
OCTOPUS	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1
OTHER INVERTS	0.0	0.0	0.6	0.3	0.1	0.1	0.1	0.0	0.5	0.1	0.1
TOTAL INVERTS	1.2	7.3	3.6	0.9	0.5	2.9	5.5	0.4	3.9	0.7	2.5
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	81.0	39.7	45.1	33.6	41.0	20.5	42.1	128.1	71.0	245.3	39.3

Table A-2 (Cont'd)

M/V DISCOVERY BAY NOR'EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	63	64	65	66	67	68	69	70	71	72	73
MONTH/DAY/YEAR	7/21/79	7/22/79	7/22/79	7/22/79	7/22/79	7/22/79	7/23/79	7/23/79	7/23/79	7/23/79	7/23/79
LATITUDE START	58 30.0	58 29.0	58 28.0	58 28.0	58 25.0	58 23.0	58 36.0	58 34.0	58 33.0	58 19.0	58 19.0
LONGITUDE START	176 10.0	175 40.0	175 51.0	175 45.0	175 31.0	175 36.0	174 30.0	174 38.0	174 45.0	174 19.0	174 22.0
LATITUDE END	58 31.1	58 29.7	58 28.9	58 28.7	58 25.1	58 22.6	58 37.3	58 34.9	58 33.0	58 21.3	58 18.4
LONGITUDE END	176 11.9	175 43.1	175 52.6	175 47.7	175 29.3	175 36.2	174 31.7	174 38.5	174 46.7	174 20.4	174 21.3
LORAN START	50006.60	50003.60	50009.10	50007.90	50012.70	50019.30	49958.20	49968.90	49974.10	17277.30	17258.60
LORAN START	16667.80	16831.60	16768.50	16801.40	16878.00	16845.90	17226.10	17178.70	17140.70	34030.50	34028.70
LORAN END	50005.70	50003.60	50007.90	50007.40	50013.80	50022.30	49955.40	49966.70	49976.50	17273.30	17266.80
LORAN END	16659.20	16817.10	16762.70	16789.80	16888.30	16845.50	17217.70	17179.80	17133.80	34016.40	34039.50
GEAR DEPTH	395	106	334	186	100	175	100	245	385	100	245
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.00	1.40	0.80	1.20	1.20	1.10	1.30	0.60	0.90	1.60	1.30
PERFORMANCE / GEAR	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41
POLLOCK	0.0	15.0	0.2	6.1	62.8	2.5	2.5	0.1	0.0	258.9	1.0
PAC COD	0.0	13.9	0.0	0.5	0.0	2.3	7.8	0.0	0.0	1.5	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	11.3	0.0	1.4	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0
SABLEFISH	13.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	6.6	0.1	14.7	4.4	15.4	0.5	0.1	0.1	6.8	0.4
EELPOUTS	1.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0
OTHER RNDFISH	29.2	1.4	2.3	1.3	0.0	0.8	0.0	0.7	7.8	9.8	1.5
TOT ROUNDFISH	55.2	36.8	4.1	22.7	67.2	21.0	10.8	0.9	18.1	277.0	2.9
YELLOW SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FLATHEAD SOLE	0.0	0.1	0.2	0.0	0.0	0.5	1.6	0.0	0.0	0.7	0.5
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GREENLAND TBT	24.1	1.8	35.4	33.9	3.3	0.0	0.0	3.3	16.9	1.0	77.4
ARROWTOOTH FL	1.5	0.1	0.6	22.8	9.1	3.6	2.1	0.5	0.0	1.2	21.5
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT FLATFISH	25.6	2.0	36.3	56.7	12.4	4.0	3.7	3.8	16.9	2.9	99.5
SKATES	0.0	4.4	0.0	6.4	0.0	0.0	0.0	0.1	0.0	0.6	0.0
TOT ELASMOBRH	0.0	4.4	0.0	6.4	0.0	0.0	0.0	0.1	0.0	0.6	0.0
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.1	0.1	0.3	0.0	0.8	5.9	0.0	0.1	0.3	2.1	0.1
TANNER, OPILIO	0.0	0.0	0.0	0.0	1.0	0.7	0.0	0.1	0.0	0.0	1.5
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.8
SNAILS	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0
SHRIMP	0.2	0.1	0.0	4.9	0.0	2.1	0.0	0.2	0.0	0.0	0.5
STARFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1	0.2	0.0	0.0
SQUID	0.0	3.2	2.3	1.8	1.6	13.2	0.0	0.1	1.0	5.2	7.2
OCTOPUS	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.1	0.0	0.0	0.0
OTHER INVERTS	0.0	0.0	0.3	0.0	0.0	0.0	0.2	1.6	0.3	0.0	0.1
TOTAL INVERTS	0.6	3.7	3.1	6.8	3.4	26.3	0.9	2.4	2.1	7.4	10.2
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	81.4	46.9	43.6	92.6	83.0	51.4	15.5	7.1	37.1	287.9	112.6

Table A-2 (Cont'd)

M/V DISCOVERY BAY NOR*EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	74	75	76	77	79	102	103	104	105	106	107
MONTH/DAY/YEAR	7/24/79	7/24/79	7/24/79	7/24/79	7/24/79	8/ 3/79	8/ 4/79	8/ 4/79	8/ 4/79	8/ 4/79	8/ 4/79
LATITUDE START	58 12.0	58 13.0	58 12.0	58 0.0	57 48.0	54 25.0	54 47.0	54 40.0	54 38.0	54 34.0	54 30.0
LONGITUDE START	174 12.0	174 15.0	174 16.0	173 58.0	173 42.0	165 42.0	165 35.0	165 56.0	166 8.0	166 25.0	166 36.0
LATITUDE END	58 13.5	58 14.1	58 13.2	58 1.5	57 48.7	54 26.9	54 47.7	54 40.6	54 38.5	54 34.6	54 31.1
LONGITUDE END	174 12.6	174 16.1	174 17.6	174 0.2	173 43.4	165 41.8	165 38.0	165 58.7	166 10.8	166 27.6	166 38.1
LORAN START	17313.10	17295.40	17286.20	17385.60	17471.30	48193.10	48192.80	48300.40	48380.10	48450.40	48498.20
LORAN START	34104.80	34092.20	34096.10	34223.70	34351.80	18169.50	18274.20	18219.40	18190.20	18159.60	18119.40
LORAN END	17313.30	17293.70	17284.20	17377.00	17466.00	48193.30	48207.60	48314.00	48380.10	48465.20	48511.20
LORAN END	34094.80	34084.00	34089.30	34215.10	34347.60	18175.50	18271.60	18217.40	18189.60	18148.90	18120.20
GEAR DEPTH	100	253	382	93	118	132	99	173	196	232	257
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.60	0.60	0.60	0.70	0.70	0.70
DISTANCE FISHED	1.20	0.90	0.80	1.10	0.60	1.30	1.50	1.40	1.40	1.40	1.50
PERFORMANCE / GEAR	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41
POLLOCK	82.4	0.0	0.0	0.8	3.8	627.8	70.8	24.0	4.4	1.1	0.0
PAC COD	121.3	0.0	0.0	188.7	8.3	2491.3	96.6	22.0	0.0	0.0	0.0
PAC OC PERCH	268.0	0.0	0.0	1.3	24.7	65.7	0.9	1.4	0.2	0.0	0.0
OTHER RCKFISH	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.9
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7	20.9	1.4	20.9
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	60.5	1.7	0.4	2.8	15.2	85.4	11.9	6.4	11.5	2.5	3.3
EELPOUTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.6
OTHER RNDFISH	73.3	0.2	4.3	8.8	0.1	0.0	4.1	1.2	0.1	0.2	12.3
TOT ROUNDFISH	608.2	1.9	4.7	202.5	52.0	3270.3	184.3	65.7	37.1	6.9	41.0
YELLOW SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	32.9	0.3	0.0	0.0	0.0	0.0
FLATHEAD SOLE	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.3	55.3	2.7	0.7
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GREENLAND TBT	0.0	22.5	16.8	1.4	3.3	0.0	0.0	13.4	127.9	5.4	40.8
ARROWTOOTH FL	6.5	1.5	0.8	0.2	8.6	177.5	0.0	26.3	30.8	4.5	0.0
PAC HALIBUT	7.5	0.0	0.0	0.0	0.0	6.9	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.0	67.4	3.2	7.3	5.6	5.0	10.2
TOT FLATFISH	14.9	24.0	17.6	1.6	11.9	284.6	3.4	47.2	220.1	17.7	51.7
SKATES	37.3	1.6	0.0	0.0	0.0	0.0	3.9	0.1	0.0	0.0	0.0
TOT ELASMOBRH	37.3	1.6	0.0	0.0	0.0	0.0	3.9	0.1	0.0	0.0	0.0
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.0	0.0	0.7	0.1	0.0	0.7	0.3	0.0	0.0	0.0
TANNER, OPILIO	0.7	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
TANNER, HYBRID	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	0.1	0.0	1.0	0.2	0.1	1.4	0.1	0.0	0.0	0.0	0.5
SNAILS	0.1	0.0	0.0	0.1	0.3	0.0	0.1	1.1	0.0	0.2	0.1
SHRIMP	0.0	0.3	0.0	0.0	0.0	0.0	3.6	4.5	3.9	0.0	0.0
STARFISH	0.3	0.2	0.1	0.2	0.4	0.0	0.0	0.0	0.1	0.4	0.2
SQUID	0.1	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.9
OCTOPUS	0.0	0.1	0.0	0.0	0.0	0.0	13.2	1.1	0.0	0.0	0.0
OTHER INVERTS	2.1	0.4	0.9	0.0	2.9	0.0	3.4	1.1	0.2	8.9	14.7
TOTAL INVERTS	3.4	3.4	2.6	1.2	3.7	1.4	21.1	8.3	4.3	9.6	18.4
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	663.8	30.9	25.0	205.3	67.7	3556.2	212.7	121.3	261.6	34.3	111.1

Table A-2 (Cont'd)

M/V DISCOVERY BAY NOR'EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	108	109	110	111	112	113	114	115	116	117	118
MONTH/DAY/YEAR	8/ 4/79	8/ 5/79	8/ 5/79	8/ 5/79	8/ 6/79	8/ 6/79	8/ 6/79	8/ 6/79	8/ 6/79	8/ 7/79	8/ 7/79
LATITUDE START	54 21.0	54 20.0	54 32.0	54 36.0	54 50.0	54 32.0	54 27.0	54 35.0	54 43.0	54 55.0	55 3.0
LONGITUDE START	166 46.0	167 2.0	166 18.0	165 31.0	166 32.0	167 5.0	167 16.0	167 34.0	167 15.0	166 57.0	167 20.0
LATITUDE END	54 21.2	54 20.5	54 32.4	54 37.8	54 50.3	54 31.8	54 26.2	54 36.7	54 42.7	54 55.3	55 4.0
LONGITUDE END	166 44.2	167 0.2	166 16.5	165 30.3	166 35.0	167 3.7	167 15.2	167 34.8	167 14.9	166 55.1	167 22.8
LORAN START	48531.70	48612.80	48409.00	48152.30	48525.60	48658.10	48704.70	48817.90	48743.00	48673.80	48821.10
LORAN START	18057.40	18028.40	18152.50	18231.10	18220.30	18083.50	18032.30	18050.80	18126.80	18217.50	18222.40
LORAN END	48520.30	48601.80	48396.60	48146.70	48537.60	48648.40	48695.40	48821.30	48734.90	48660.30	48833.70
LORAN END	18061.10	18031.00	18157.00	18236.90	18218.80	18083.70	18030.10	18056.20	18122.90	18217.50	18223.80
GEAR DEPTH	267	393	248	104	102	250	374	377	250	99	100
DURATION IN HOURS	0.70	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.30	1.20	1.40	1.30	1.20	1.10	1.00	1.00	1.20	1.40	1.40
PERFORMANCE / GEAR	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41
POLLOCK	0.0	0.7	3.4	169.6	118.8	0.0	0.9	0.4	0.5	242.7	403.2
PAC COD	0.0	0.0	0.0	72.3	30.4	0.0	0.0	0.0	0.0	21.3	37.2
PAC OC PERCH	0.0	0.0	0.0	1.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.3	0.7	0.0	0.0	0.0	5.0	0.0	0.0	1.3	1.0	0.7
SABLEFISH	1.4	1.1	7.3	0.0	0.0	11.8	0.0	0.0	10.4	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.1	0.0	0.2	66.9	9.2	3.2	0.9	0.0	0.7	6.8	4.1
EELPOUTS	0.5	1.4	3.6	0.0	0.7	0.0	1.8	0.0	2.5	0.2	0.0
OTHER RNDFISH	2.9	5.5	2.6	0.0	0.0	1.5	1.4	7.8	0.1	0.2	0.0
TOT ROUNDFISH	5.1	9.3	17.1	310.5	159.6	21.5	5.0	8.2	16.0	272.2	445.2
YELLOW SOLE	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FLATHEAD SOLE	0.0	0.0	0.0	0.0	9.5	0.0	0.0	0.0	0.0	12.2	4.8
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GREENLAND TBT	67.1	26.3	3.4	0.0	4.1	19.1	82.6	131.1	21.3	5.0	5.9
ARROWTOOTH FL	0.0	0.0	0.0	1.6	10.0	0.0	0.0	0.0	0.0	5.9	15.9
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
OTHER FLTFISH	0.1	0.0	1.1	0.0	12.3	1.1	0.0	0.0	3.2	12.2	13.7
TOT FLATFISH	67.2	26.3	4.5	7.4	36.4	20.2	82.6	131.1	24.9	35.4	44.4
SKATES	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
TOT ELASMOBRH	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.2	0.2
TANNER, OPILIO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	0.0	0.0	0.5	1.8	0.0	0.2	0.9	0.7	0.0	0.0	0.0
SNAILS	1.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1
SHRIMP	0.0	0.0	0.1	0.0	4.3	0.0	0.0	0.0	0.0	1.8	0.5
STARFISH	0.1	0.2	0.2	0.4	0.0	0.6	0.8	0.3	0.6	0.2	0.1
SQUID	0.3	0.1	0.9	0.0	0.0	0.8	1.0	0.0	2.5	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	8.6	0.0
OTHER INVERTS	1.1	2.8	3.7	0.5	1.5	1.7	0.5	0.0	2.7	4.7	3.0
TOTAL INVERTS	2.7	3.2	5.4	3.5	6.2	3.5	3.1	1.1	5.8	15.6	3.9
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	75.1	38.9	27.1	321.3	202.2	45.2	90.7	140.4	46.7	323.3	493.5

Table A-2 (Cont'd)

M/V DISCOVERY BAY NOR'EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	119	121	122	123	124	125	126	127	128	129	130
MONTH/DAY/YEAR	8/ 7/79	8/ 7/79	8/ 8/79	8/ 8/79	8/ 9/79	8/10/79	8/10/79	8/10/79	8/10/79	8/10/79	8/10/79
LATITUDE START	54 56.0	55 2.0	55 12.0	55 24.0	55 23.0	55 30.0	55 27.0	55 28.0	55 40.0	55 39.0	55 41.0
LONGITUDE START	167 34.0	167 45.0	167 36.0	168 0.0	168 10.0	168 16.0	168 22.0	168 26.0	168 44.0	168 52.0	168 56.0
LATITUDE END	54 57.7	55 3.9	55 13.2	55 25.3	55 22.4	55 30.0	55 28.2	55 29.2	55 41.1	55 40.9	55 42.3
LONGITUDE END	167 36.8	167 46.9	167 38.3	168 2.1	168 9.1	168 14.5	168 24.2	168 26.8	168 46.2	168 53.6	168 56.4
LORAN START	48878.50	48950.10	48930.80	49092.80	49142.10	49196.70	49220.30	49242.70	49375.70	49412.70	49436.00
LORAN START	18163.40	18181.90	18249.00	18282.20	18257.30	18292.40	18263.50	18261.70	18303.00	18285.20	18287.70
LORAN END	48892.80	48961.20	48942.20	49105.00	49133.30	49184.90	49229.70	49246.60	49385.50	49421.20	49439.70
LORAN END	18164.50	18186.30	18251.20	18283.20	18255.70	18291.30	18265.00	18266.40	18305.20	18290.30	18293.80
GEAR DEPTH	256	250	100	104	233	100	239	370	106	255	387
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.40	0.50	0.50	0.40	0.50	0.50	0.50
DISTANCE FISHED	1.20	1.50	1.30	1.30	1.00	1.30	1.00	0.90	1.10	1.20	1.00
PERFORMANCE / GEAR	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41
POLLOCK	0.7	5.0	75.3	99.3	0.5	59.0	0.9	0.0	41.3	0.5	0.0
PAC COD	0.0	0.0	159.2	79.4	0.0	56.7	3.2	0.0	16.8	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	6.8	0.0	2.5	0.0	0.0	0.0	2.3	0.7	0.0	0.5	0.0
SABLEFISH	11.3	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	5.9
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.9	0.1	1.6	0.7	0.7	2.4	0.9	0.9	0.0	2.0	0.7
EELPOUTS	1.8	2.3	0.1	0.0	0.0	0.9	0.0	11.6	0.0	0.1	0.2
OTHER RNDFISH	1.9	0.5	0.7	0.2	0.2	2.3	0.4	11.2	0.0	0.5	37.2
TOT ROUNDFISH	23.5	7.8	239.5	179.6	1.4	121.2	8.2	24.4	58.1	3.5	44.0
YELLOW SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	0.0	0.0	0.3	0.0	1.1	0.0	0.0	0.0	0.0	0.0
FLATHEAD SOLE	0.0	0.0	0.9	0.1	0.0	0.9	0.1	0.0	0.0	3.4	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GREENLAND TBT	6.1	2.3	0.9	0.7	60.8	0.0	50.3	54.9	0.0	238.1	58.5
ARROWTOOTH FL	7.3	0.0	4.1	0.0	15.9	1.4	8.2	0.0	0.0	5.4	0.0
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	3.6	0.7	9.1	6.4	13.8	2.3	16.6	1.8	0.0	42.4	0.1
TOT FLATFISH	17.0	2.9	15.0	7.4	90.5	5.7	75.2	56.7	0.0	289.4	58.6
SKATES	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	1.9	0.0
TOT ELASMOBRH	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	1.9	0.0
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.1	0.0	0.1	0.1	0.2	0.1	0.2	0.0	0.1	1.8	0.0
TANNER, OPILIO	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
OTHER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.9	3.2
SNAILS	0.5	0.1	0.1	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.1
SHRIMP	0.0	0.1	1.4	0.0	0.5	0.5	2.9	0.0	0.1	4.1	0.0
STARFISH	0.1	0.6	0.4	0.2	0.1	0.2	0.2	0.6	0.3	0.4	0.8
SQUID	2.3	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.5	0.0
OCTOPUS	0.0	0.0	9.5	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0
OTHER INVERTS	0.6	0.6	2.8	0.1	0.0	0.3	0.3	0.1	0.1	0.0	0.4
TOTAL INVERTS	3.6	1.7	14.4	0.4	0.8	1.3	4.2	3.4	1.1	7.7	4.5
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
TOTAL CATCH	44.1	12.4	268.8	187.6	92.7	128.3	87.7	84.6	59.1	302.7	107.1

Table A-2 (Cont'd)

M/V DISCOVERY BAY NOR'EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	131	132	133	134	135	136	137	138	139	140	141
MONTH/DAY/YEAR	8/11/79	8/11/79	8/11/79	8/11/79	8/11/79	8/11/79	8/12/79	8/12/79	8/13/79	8/13/79	8/13/79
LATITUDE START	55 59.0	55 59.0	55 59.0	56 13.0	56 12.0	56 9.0	55 59.0	55 57.0	56 6.0	56 10.0	56 4.0
LONGITUDE START	168 33.0	168 41.0	168 44.0	169 7.0	169 13.0	169 22.0	170 3.0	170 7.0	170 24.0	170 51.0	171 8.0
LATITUDE END	55 59.2	56 0.2	56 0.4	56 13.7	56 12.6	56 9.0	55 59.6	55 57.2	56 6.6	56 10.6	0 0.0
LONGITUDE END	168 35.8	168 40.6	168 44.7	169 10.4	169 15.9	169 24.5	170 1.4	170 5.5	170 26.6	170 53.4	0 0.0
LORAN START	49382.40	49423.00	49442.50	49612.50	49637.90	49673.30	49803.60	49805.70	49905.20	49993.20	35125.70
LORAN START	18433.80	18424.60	18420.00	18472.60	18456.50	18422.40	18251.20	18218.20	18229.50	18150.00	18053.90
LORAN END	49392.20	49421.70	49444.40	49627.20	49650.90	49679.10	49794.50	49798.80	49911.20	49998.30	35103.40
LORAN END	18431.80	18431.30	18426.80	18472.00	18455.80	18416.10	18256.50	18226.20	18223.70	18142.30	18053.90
GEAR DEPTH	107	241	354	104	245	374	112	251	100	100	104
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.00	1.00	1.10	1.50	1.30	1.00	1.30	1.20	1.00	1.10	1.00
PERFORMANCE / GEAR	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41
POLLOCK	1.8	0.0	1.4	267.2	1.4	0.0	1.4	0.0	28.1	75.3	149.2
PAC COD	3.2	0.0	0.0	42.2	0.0	0.0	3.6	0.0	25.9	11.3	313.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	1.1	13.6	119.7
OTHER RCKFISH	0.0	226.8	28.1	0.2	0.7	0.9	0.0	0.0	0.0	0.0	0.3
SABLEFISH	0.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	15.0	2.9	0.0	0.9	0.0	1.4	17.5	0.6	12.3	33.2	42.2
EELPOUTS	0.0	0.0	3.8	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0
OTHER RNDFISH	0.0	0.1	1.5	0.9	0.1	0.6	0.0	0.0	21.0	3.6	0.3
TOT ROUNDFISH	20.0	229.8	34.8	311.4	2.8	11.4	22.5	0.6	88.4	137.1	624.7
YELLOW SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	0.0	0.0	12.2	0.0	0.0	0.0	0.0	0.0	0.7	0.0
FLATHEAD SOLE	0.7	0.0	0.0	11.8	2.7	0.0	0.0	0.0	0.1	0.7	2.3
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GREENLAND TBT	0.0	51.7	121.1	0.0	118.4	44.9	0.7	51.3	0.0	0.0	0.9
ARROWTOOTH FL	0.0	62.1	0.0	19.1	31.8	0.0	4.1	0.0	1.6	0.5	3.9
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	1.1	31.1	2.7	12.2	46.7	0.1	0.0	0.1	0.9	9.1	11.3
TOT FLATFISH	1.8	144.9	123.8	55.3	199.6	45.0	4.8	51.4	2.6	10.9	18.4
SKATES	0.0	0.0	0.0	0.0	24.3	4.0	0.0	11.3	0.0	0.0	0.0
TOT ELASMOBRH	0.0	0.0	0.0	0.0	24.3	4.0	0.0	11.3	0.0	0.0	0.0
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, OPILIO	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	0.1	5.4	15.9	0.0	9.1	24.9	0.7	0.0	0.1	0.0	0.9
SNAILS	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
SHRIMP	0.9	0.9	0.0	0.0	0.5	0.0	0.0	0.1	1.8	0.0	0.0
STARFISH	0.6	0.1	0.5	0.6	0.1	0.3	0.1	0.0	0.5	0.7	0.0
SQUID	0.0	0.7	0.0	0.1	1.0	0.0	0.0	0.0	0.9	0.0	0.0
OCTOPUS	0.0	0.1	0.1	0.0	3.4	0.0	0.0	2.0	0.0	0.0	2.7
OTHER INVERTS	1.8	0.2	0.0	7.8	5.4	0.0	0.2	0.5	1.0	0.0	4.8
TOTAL INVERTS	3.5	7.5	16.5	8.6	19.6	25.2	1.1	2.6	4.4	0.7	8.4
OTHER	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
TOTAL CATCH	25.3	382.3	175.1	375.3	246.2	85.8	28.3	65.9	95.5	148.7	651.5

Table A-2 (Cont'd)

M/V DISCOVERY BAY NOR'EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	142	143	144	145	146	147	148	149	150	151	152
MONTH/DAY/YEAR	8/13/79	8/14/79	8/14/79	8/14/79	8/14/79	8/15/79	8/15/79	8/15/79	8/15/79	8/15/79	8/16/79
LATITUDE START	56 13.0	56 28.0	56 22.0	56 33.0	56 31.0	56 33.0	56 30.0	56 28.0	56 39.0	56 38.0	57 6.0
LONGITUDE START	171 22.0	171 31.0	171 36.0	172 8.0	172 7.0	172 40.0	172 45.0	172 45.0	173 7.0	173 9.0	173 27.0
LATITUDE END	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	56 33.3	56 31.3	56 29.0	56 40.2	56 39.4	57 7.2
LONGITUDE END	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	172 42.4	172 46.8	172 46.3	173 10.0	173 11.0	173 29.4
LORAN START	35106.60	35070.30	35068.70	34993.90	34997.80	34923.60	34926.30	34927.20	34838.60	34839.70	34662.20
LORAN START	18037.70	18066.90	18033.90	17892.90	17880.10	17672.90	17632.50	17614.60	17522.50	17509.30	17487.80
LORAN END	35104.50	35074.20	35069.50	34999.30	35002.30	34918.50	34921.60	34923.90	34831.70	34834.10	34656.60
LORAN END	18030.80	18075.80	18040.30	17902.10	17887.10	17658.40	17626.50	17614.10	17511.50	17503.30	17477.80
GEAR DEPTH	247	100	308	106	275	103	250	400	100	248	108
DURATION IN HOURS	0.50	0.50	0.40	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	2.30	1.10	0.60	1.00	1.00	1.30	1.00	0.70	1.30	1.00	1.00
PERFORMANCE / GEAR	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41
POLLOCK	0.0	89.4	0.0	525.3	0.0	69.9	0.0	0.0	46.7	2.7	268.5
PAC COD	0.0	77.1	0.0	43.5	0.0	13.6	0.0	0.0	103.4	1.1	31.3
PAC OC PERCH	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
OTHER RCKFISH	37.6	0.3	20.2	0.0	0.0	0.0	0.0	4.5	0.0	1.7	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	1.1	32.7	6.2	5.5	0.2	0.1	1.6	0.1	3.8	0.5	26.0
EELPOUTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
OTHER RNDFISH	0.7	0.9	8.3	0.3	0.4	0.9	0.1	63.2	0.0	1.8	3.2
TOT ROUNDFISH	39.5	201.8	34.6	574.6	0.6	84.5	1.7	67.9	154.0	7.9	329.6
YELLOW SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FLATHEAD SOLE	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GREENLAND TBT	32.7	15.9	83.5	1.8	48.1	4.1	9.1	12.2	0.0	10.9	5.9
ARROWTOOTH FL	3.9	12.7	10.4	12.7	0.0	0.2	0.0	0.0	0.0	0.0	29.9
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	12.0	15.9	9.6	10.4	5.4	3.4	0.9	0.0	0.0	3.6	20.9
TOT FLATFISH	50.1	44.5	103.5	24.9	53.5	7.7	10.0	12.2	0.0	14.5	59.2
SKATES	0.2	6.8	11.9	0.0	0.0	0.1	0.0	0.0	0.2	0.0	24.0
TOT ELASMOBRH	0.2	6.8	11.9	0.0	0.0	0.1	0.0	0.0	0.2	0.0	24.0
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.0	0.5	0.0	1.1	0.9	0.0	0.0	0.0	0.0	0.0
TANNER, OPILIO	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
TANNER, HYBRID	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
OTHER CRAB	0.0	0.1	0.5	0.2	0.0	0.0	0.0	1.9	4.5	0.0	0.0
SNAILS	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
SHRIMP	2.0	0.3	2.0	0.0	2.5	0.0	1.4	0.0	0.0	0.5	0.0
STARFISH	0.1	0.2	0.1	0.2	0.0	0.1	0.1	0.1	0.0	0.2	0.0
SQUID	0.0	0.0	0.0	3.6	0.0	0.2	0.4	0.2	0.0	0.0	0.0
OCTOPUS	1.6	0.0	1.4	3.2	0.0	5.0	0.1	0.0	0.0	2.7	13.6
OTHER INVERTS	0.0	0.3	0.1	0.5	0.0	0.3	0.2	0.0	0.8	0.0	0.0
TOTAL INVERTS	3.7	1.0	4.7	7.8	3.6	6.9	2.3	2.4	5.3	3.4	13.7
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	93.5	254.0	154.8	607.3	57.7	99.1	13.9	82.6	159.5	25.7	426.5

Table A-2 (Cont'd)

M/V DISCOVERY BAY NOR'EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	153	154	155	156	157	158
MONTH/DAY/YEAR	8/16/79	8/16/79	8/16/79	8/17/79	8/17/79	8/17/79
LATITUDE START	57 0.0	57 3.0	57 17.0	57 16.0	57 15.0	57 39.0
LONGITUDE START	173 36.0	173 32.0	173 50.0	173 53.0	173 58.0	174 13.0
LATITUDE END	57 1.4	57 1.9	57 18.8	57 17.7	57 16.5	57 40.9
LONGITUDE END	173 36.0	173 31.1	173 51.3	173 54.5	173 58.0	174 14.1
LORAN START	34678.60	34673.30	34547.10	34546.00	34542.70	34352.50
LORAN START	17414.00	17448.70	17366.80	17346.70	17311.70	17268.30
LORAN END	34673.40	34682.00	34538.90	34538.60	34538.50	34344.00
LORAN END	17418.20	17451.80	17367.10	17343.50	17318.60	17268.00
GEAR DEPTH	250	352	100	250	393	244
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.10	1.30	1.20	1.00	1.00	1.10
PERFORMANCE / GEAR	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41	0 / 41
POLLOCK	3.2	0.0	485.3	1.0	0.0	2.3
PAC COD	0.0	0.0	24.5	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.5	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	1.1	12.2	27.2	14.5
SABLEFISH	0.0	2.0	0.0	0.0	36.3	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	1.6	2.0	0.8	2.4	0.2	1.5
EELPOUTS	0.2	2.3	0.0	0.0	1.1	0.9
OTHER RNDFISH	0.4	53.1	4.5	120.5	618.9	6.5
TOT ROUNDFISH	5.4	59.4	516.7	136.1	683.7	25.6
YELLOW SOLE	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0
FLATHEAD SOLE	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0
GREENLAND TBT	94.8	4.8	0.7	8.2	69.4	224.5
ARROWTOOTH FL	0.0	0.0	0.9	0.0	0.0	0.0
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.0	0.9	0.9	0.0	2.3
TOT FLATFISH	94.8	4.8	2.5	9.1	69.4	226.8
SKATES	0.0	16.8	3.3	0.1	2.7	0.0
TOT ELASMOBRH	0.0	16.8	3.3	0.1	2.7	0.0
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.1	0.0	0.0	0.0	0.0
TANNER, OPILIO	0.2	0.0	0.0	0.4	0.1	0.5
TANNER, HYBRID	0.0	0.0	0.0	0.5	0.1	0.0
OTHER CRAB	0.5	3.6	0.0	0.2	1.1	0.0
SNAILS	0.0	0.0	0.1	0.0	0.1	0.0
SHRIMP	0.1	0.0	0.0	0.5	0.0	0.0
STARFISH	0.1	0.2	0.3	0.1	0.1	0.0
SQUID	0.8	0.7	0.0	0.0	1.0	0.2
OCTOPUS	0.0	0.0	1.1	0.1	0.1	0.0
OTHER INVERTS	0.2	0.0	0.2	0.0	0.0	0.0
TOTAL INVERTS	1.8	4.6	1.8	1.8	2.8	0.6
OTHER	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	102.1	85.6	524.3	147.0	758.6	253.0

Table A-3.--Station and catch data for the R/V OREGON using the 400 Eastern trawl.

R/V OREGON 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	1	2	3	4	5	6	7	8	9	10	11
MONTH/DAY/YEAR	5/25/79	5/25/79	5/25/79	5/26/79	5/26/79	5/26/79	5/26/79	5/27/79	5/27/79	5/27/79	5/27/79
LATITUDE START	55 18.0	55 40.0	55 40.0	55 19.0	54 59.0	55 0.0	55 20.0	55 40.0	55 40.0	55 19.0	55 0.0
LONGITUDE START	164 34.0	164 36.0	165 10.0	165 9.0	165 7.0	165 46.0	165 47.0	165 48.0	166 23.0	166 21.0	166 21.0
LATITUDE END	55 17.1	55 40.4	55 40.4	55 18.8	55 0.0	54 59.5	55 22.0	55 40.7	55 38.8	55 19.4	55 0.2
LONGITUDE END	164 34.6	164 38.4	165 12.3	165 10.5	165 10.3	165 49.0	165 47.4	165 50.7	166 24.4	166 23.9	166 23.5
LORAN START			18499.50	18425.00	18350.00	18317.40	18403.30	18481.20	18458.30	18371.80	18283.20
LORAN START			34463.30	34519.00	34562.40	34657.40	34615.20	34567.80	34665.60	34705.70	34742.50
LORAN END			18499.20	18421.30	18348.20	18312.40	18408.70	18481.10	18452.40	18368.10	18279.90
LORAN END			34467.00	34523.30	34568.50	34665.60	34612.50	34572.60	34670.70	34712.90	34747.90
GEAR DEPTH	53	51	53	58	55	69	64	63	67	69	77
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.30	1.20	0.80	1.00	1.40	1.80	1.40	1.20	1.40	1.50	1.20
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	77.6	55.3	34.9	121.6	79.4	457.4	42.6	66.9	16.8	54.0	40.8
PAC COD	7.5	30.6	11.6	11.6	19.5	151.4	0.5	10.0	3.6	6.4	20.4
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	139.5
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	10.4
SABLEFISH	0.7	1.1	0.4	5.0	1.8	2.0	1.4	0.7	1.4	0.0	1.8
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	9.3	7.0	0.8	2.0	5.2	6.9	1.2	6.5	1.5	3.4	55.1
EELPOUTS	1.6	4.3	56.5	34.0	3.9	1.8	20.6	121.8	90.7	63.5	16.1
OTHER RNDFISH	0.7	0.3	0.5	0.0	1.9	0.2	0.0	2.6	12.7	11.4	20.3
TOT ROUNDFISH	97.3	98.7	104.6	174.2	111.7	619.8	66.8	208.4	126.7	138.7	304.5
YELLOW SOLE	21.3	5.7	0.0	0.1	1.4	0.0	0.0	1.1	0.0	0.0	0.0
ROCK SOLE	67.1	6.1	0.0	0.2	14.1	0.0	0.0	0.0	0.0	0.0	0.0
FLATHEAD SOLE	10.7	2.3	24.7	5.2	24.3	11.8	18.8	47.2	91.9	37.9	25.4
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GREENLAND TBT	0.0	0.9	0.0	0.0	0.0	4.3	3.2	1.8	2.7	19.5	3.6
ARROWTOOTH FL	18.8	8.2	3.9	5.2	23.4	28.6	3.2	5.4	10.9	13.2	15.9
PAC HALIBUT	9.5	6.5	0.0	0.0	12.5	9.9	10.4	0.0	6.6	7.9	10.9
OTHER FLTFISH	3.6	0.5	0.1	1.1	2.5	0.8	0.4	0.4	0.0	0.4	0.2
TOT FLATFISH	131.1	30.1	28.7	11.9	78.1	55.3	35.9	55.9	112.1	78.8	56.0
SKATES	0.0	17.9	14.3	39.5	15.6	37.9	15.0	81.6	3.6	0.0	0.7
TOT ELASMOBRH	0.0	17.9	14.3	39.5	15.6	37.9	15.0	81.6	3.6	0.0	0.7
RED KING CRAB	23.1	13.4	0.0	47.2	2.3	0.0	7.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	24.9	20.6	8.2	0.6	0.2	29.3	4.8	22.7	10.2	17.0	43.3
TANNER, OPILIO	1.4	10.7	4.8	0.1	0.0	0.5	0.1	0.9	2.7	0.9	1.4
TANNER, HYBRID	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.2	1.6
OTHER CRAB	2.3	9.8	19.3	0.1	2.0	0.5	0.0	2.6	0.0	0.0	0.0
SNAILS	0.3	13.8	0.0	0.6	2.8	0.9	0.5	1.7	0.5	1.4	3.1
SHRIMP	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	9.1
STARFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5
OTHER INVERTS	0.0	0.5	0.0	0.0	0.0	1.8	0.4	7.7	3.2	0.0	7.9
TOTAL INVERTS	52.0	68.8	32.3	48.6	7.3	32.9	12.8	35.6	17.0	19.6	75.9
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0
TOTAL CATCH	280.4	215.6	179.9	274.1	212.7	745.9	130.5	388.6	259.4	237.1	437.1

Table A-3 (Cont'd)

R/V OREGON 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	12	13	14	15	16	17	18	19	20	21	23
MONTH/DAY/YEAR	5/28/79	5/28/79	5/28/79	5/28/79	5/31/79	5/31/79	5/31/79	6/ 1/79	6/ 1/79	6/ 1/79	6/ 1/79
LATITUDE START	54 59.0	55 20.0	55 19.0	55 40.0	55 39.0	56 0.0	56 1.0	55 39.0	56 0.0	56 20.0	56 20.0
LONGITUDE START	166 56.0	166 57.0	167 33.0	167 35.0	166 58.0	167 0.0	167 37.0	168 15.0	168 13.0	168 15.0	169 28.0
LATITUDE END	55 1.1	55 20.5	55 19.0	55 40.3	55 39.0	56 0.0	56 0.1	55 40.3	56 1.6	56 19.7	56 20.2
LONGITUDE END	166 56.5	166 59.8	167 35.3	167 37.1	167 0.7	167 2.7	167 39.1	168 15.5	168 13.4	168 18.5	169 31.2
LORAN START	18239.10	18338.20	18294.30	18400.70	18431.00	18520.00	18500.20	18349.60	18465.00	18566.80	18483.60
LORAN START	34824.50	34796.50	34881.10	34854.20	34761.30	34715.90	34820.20	34952.90	34918.10	34884.90	35073.50
LORAN END	18245.10	18337.50	18286.80	18397.10	18425.70	18518.30	18495.20	18350.50	18471.50	18561.60	18479.50
LORAN END	34823.30	34801.00	34887.40	34859.90	34767.90		39826.40	34952.50	34916.70	34894.30	35078.50
GEAR DEPTH	82	74	81	72	71	71	71	73	78	82	91
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.30	1.20	1.40	1.20	1.30	1.30	1.40	1.10	1.30	1.60	1.40
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	43.5	25.9	27.5	36.7	46.9	37.6	21.8	58.5	19.5	27.0	77.6
PAC COD	15.0	15.1	179.9	30.8	26.1	7.3	12.7	77.6	91.9	367.2	45.8
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.6
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
SABLEFISH	3.5	3.6	56.6	6.8	3.4	0.5	0.0	324.9	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	13.9	2.9	2.2	3.4	5.8	1.0	9.8	2.9	10.1	30.2	53.1
EELPOUTS	10.2	47.2	2.9	4.5	52.2	105.7	52.2	7.0	10.9	0.0	0.0
OTHER RNDFISH	6.5	11.0	0.5	3.2	10.2	1.0	9.3	0.0	0.2	4.3	82.6
TOT ROUNDFISH	92.6	105.6	269.7	85.5	144.6	153.1	105.8	470.9	132.5	428.6	318.9
YELLOW SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
FLATHEAD SOLE	12.2	29.5	18.2	55.0	67.1	116.6	68.0	7.5	0.5	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GREENLAND TBT	5.2	11.4	13.6	6.5	4.1	4.1	5.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL	29.0	21.5	69.2	13.7	11.8	10.0	15.0	26.3	21.8	32.2	6.4
PAC HALIBUT	10.4	0.0	6.3	0.0	0.0	0.0	7.2	0.0	0.0	11.0	0.0
OTHER FLTFISH	0.1	1.5	0.0	0.1	0.1	0.1	0.1	0.2	0.5	0.2	0.0
TOT FLATFISH	57.0	64.0	107.3	75.4	83.1	130.7	95.3	34.0	23.3	43.5	6.4
SKATES	6.8	0.0	0.3	27.7	0.0	23.6	3.2	0.2	11.8	7.3	2.9
TOT ELASMOBRH	6.8	0.0	0.3	27.7	0.0	23.6	3.2	0.2	11.8	7.3	2.9
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	21.8	22.7	137.7	5.9	15.9	4.3	13.6	23.6	67.6	10.9	0.5
TANNER, OPILIO	0.0	1.8	0.0	0.0	1.4	1.1	0.0	0.0	0.7	4.8	0.0
TANNER, HYBRID	0.0	2.3	0.2	0.0	0.5	0.1	0.0	0.0	0.2	0.0	0.0
OTHER CRAB	0.0	0.3	3.4	0.0	0.0	1.4	0.0	0.0	0.5	0.9	0.6
SNAILS	2.7	1.6	1.2	0.0	1.2	1.4	0.8	7.5	0.3	1.1	3.2
SHRIMP	12.2	0.0	0.2	0.5	0.5	0.0	16.3	0.0	11.1	0.2	0.0
STARFISH	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
SQUID	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0
OCTOPUS	0.0	0.0	9.1	2.9	0.0	0.0	0.0	22.7	19.5	11.8	0.0
OTHER INVERTS	11.3	6.0	13.6	2.3	25.2	21.8	5.0	88.7	39.2	2.9	0.0
TOTAL INVERTS	48.7	34.7	165.4	11.6	44.5	30.1	35.7	142.6	139.4	32.7	5.8
OTHER	0.0	0.0	0.0	0.0	2.0	2.7	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	205.1	204.2	542.7	200.1	274.3	340.2	240.0	647.7	307.5	512.0	334.0

Table A-3 (Cont'd)

R/V OREGON 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	24	26	27	28	29	30	31	32	33	34	35
MONTH/DAY/YEAR	6/ 2/79	6/ 2/79	6/12/79	6/12/79	6/12/79	6/12/79	6/13/79	6/13/79	6/13/79	6/14/79	6/20/79
LATITUDE START	56 19.0	56 40.0	57 0.0	56 40.0	56 40.0	56 40.0	56 20.0	56 20.0	56 20.0	56 39.0	56 19.0
LONGITUDE START	170 4.0	169 30.0	168 57.0	168 53.0	168 15.0	167 40.0	167 38.0	167 2.0	168 52.0	167 4.0	166 25.0
LATITUDE END	56 20.6	56 39.6	56 59.8	56 40.2	56 41.3	56 41.5	56 20.0	56 20.2	56 19.8	56 39.2	56 18.4
LONGITUDE END	170 4.6	169 31.7	168 56.4	168 53.3	168 14.3	167 40.2	167 36.1	166 59.9	168 55.1	167 4.3	166 25.1
LORAN START	18395.40	18614.40	18721.40	18640.40	18655.40	18661.10	18585.00	18599.00	18533.70	18664.20	18608.10
LORAN START	35126.10	35057.40	34884.50	34951.30	34824.40	34707.30	34773.20	34660.90	34989.20	34589.00	34545.90
LORAN END	18403.30	18608.10	18718.30		18658.60	18665.80	18586.00	18600.00	18529.50	18661.90	18603.30
LORAN END	35126.60	35062.60	34887.60		34817.40	34701.30	34765.70	34652.80	34996.10	34592.70	34551.50
GEAR DEPTH	56	43	41	51	55	53	67	59	67	50	54
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.30	1.20	1.10	0.20	1.00	1.30	1.40	1.40	1.40	0.80	1.50
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	136.1	2.9	10.0	64.4	88.5	176.0	27.7	67.6	176.4	95.3	215.9
PAC COD	3.4	9.3	7.3	5.4	15.0	19.1	9.1	39.9	56.7	27.2	11.3
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	1.4
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	13.6	36.1	18.4	59.4	0.3	2.3	18.6	13.7	2.7	1.0	2.5
EELPOUTS	0.0	0.0	0.5	8.6	15.0	21.3	20.9	21.8	0.0	6.4	68.5
OTHER RNDFISH	1.7	0.3	0.0	0.5	0.0	0.1	1.4	19.5	0.0	0.0	6.8
TOT ROUNDFISH	154.7	48.6	36.2	138.3	118.7	218.7	77.6	162.5	237.7	129.8	306.4
YELLOW SOLE	0.0	20.0	10.4	27.7	1.4	23.1	0.0	0.0	0.0	13.2	5.9
ROCK SOLE	0.0	4.1	1.8	1.8	3.6	14.1	0.0	0.0	8.2	2.3	0.0
FLATHEAD SOLE	49.2	2.3	0.0	1.8	3.6	2.7	49.0	10.9	3.2	1.4	12.7
ALASKA PLAICE	0.0	0.0	0.5	7.3	2.7	66.2	0.0	2.3	0.0	5.0	4.1
GREENLAND TBT	1.6	0.3	0.0	2.3	2.3	10.4	0.9	2.3	0.0	0.7	5.0
ARROWTOOTH FL	11.3	3.9	1.8	3.2	5.0	2.3	17.7	5.0	19.5	0.5	13.2
PAC HALIBUT	2.5	8.2	0.0	0.0	0.0	0.0	3.6	1.6	0.0	0.0	3.6
OTHER FLTFISH	0.3	0.0	0.0	0.0	0.5	0.1	0.0	0.1	0.7	0.0	0.0
TOT FLATFISH	65.0	38.6	14.5	44.0	19.1	118.9	71.2	22.1	31.5	22.9	44.5
SKATES	3.9	0.0	0.5	0.5	0.0	0.0	2.3	14.1	0.0	12.2	55.8
TOT ELASMOBRH	3.9	0.0	0.5	0.5	0.0	0.0	2.3	14.1	0.0	12.2	55.8
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4
BLUE KING CRAB	0.0	30.6	27.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	16.3	27.0	4.3	0.0	5.2	16.2	10.0	5.9	45.4	17.0	15.0
TANNER, OPILIO	0.0	14.5	92.5	168.6	48.9	255.4	2.4	37.4	46.3	77.9	14.1
TANNER, HYBRID	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
OTHER CRAB	0.5	35.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SNAILS	0.7	0.9	0.7	4.5	2.3	17.7	1.8	8.6	0.0	24.9	13.6
SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0
STARFISH	0.0	0.0	0.9	37.6	0.0	23.6	2.7	0.0	0.0	0.0	0.0
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.2	0.5	0.0
OTHER INVERTS	5.9	0.0	0.1	0.0	0.0	0.0	0.9	199.6	9.1	0.0	0.0
TOTAL INVERTS	23.4	108.9	125.7	210.8	56.4	312.8	24.6	251.5	117.9	120.3	53.2
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	247.0	196.1	176.9	393.6	194.2	650.5	175.7	450.1	387.1	285.3	459.8

Table A-3 (Cont'd)

R/V OREGON 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	36	37	38	39	40	41	42	43	44	45	46
MONTH/DAY/YEAR	6/21/79	6/21/79	6/21/79	6/21/79	6/22/79	6/22/79	6/22/79	6/23/79	6/23/79	6/23/79	6/30/79
LATITUDE START	56 0.0	56 0.0	56 20.0	56 20.0	56 0.0	55 59.0	56 0.0	56 0.0	56 0.0	55 39.0	54 59.0
LONGITUDE START	166 24.0	165 47.0	165 47.0	165 12.0	165 11.0	164 35.0	164 0.0	163 24.0	162 49.0	162 50.0	164 35.0
LATITUDE END	56 0.1	56 0.2	56 21.2	56 20.6	56 0.3	55 59.9	56 1.4	56 1.3	55 58.8	55 38.6	55 0.8
LONGITUDE END	166 22.6	165 45.9	165 45.6	165 9.5	165 9.3	164 33.7	164 2.1	163 22.2	162 49.7	162 51.5	164 34.1
LORAN START	18538.30	18553.20	18618.40	18623.00	18564.80	18574.40	18583.70	18592.70	18597.50	18547.30	18373.80
LORAN START	34612.30	34503.80	34428.00	34323.40	34398.50	34295.00	34196.40	34093.90	34002.70	34083.90	34480.70
LORAN END	18539.20	18554.00	18620.40	18624.50	18566.30	18574.60	18586.40	18594.10	18594.40	18544.20	18378.10
LORAN END	34606.20	34498.40	34419.20	34312.70	34391.40	34291.20	34196.00	34086.60	34009.30	34092.00	34475.40
GEAR DEPTH	64	54	47	45	51	48	46	41	41	27	32
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.20	1.00	1.30	1.70	1.20	0.80	1.40	1.20	1.30	1.20	1.20
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	130.6	67.1	29.0	186.9	230.0	12.7	206.4	270.3	76.2	0.7	29.9
PAC COD	1.8	15.4	6.4	51.3	602.8	6.8	23.1	15.9	3.5	74.8	587.9
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.9	0.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0	2.7
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
SCULPINS	7.3	9.5	7.3	2.3	2.7	0.0	6.4	6.6	6.8	6.4	10.0
EELPOUTS	108.9	34.0	26.8	15.4	57.2	5.0	4.5	1.8	0.5	0.0	0.0
OTHER RNDFISH	9.1	2.7	0.0	0.0	0.0	0.1	0.0	2.4	2.7	0.7	0.1
TOT ROUNDFISH	257.6	129.7	69.4	255.8	914.9	24.6	240.4	296.9	89.8	82.6	631.1
YELLOW SOLE	0.0	3.2	83.0	172.4	10.0	21.3	43.5	93.0	133.4	223.2	48.1
ROCK SOLE	0.0	0.0	10.9	6.8	5.4	3.6	2.3	6.8	14.1	109.3	46.7
FLATHEAD SOLE	49.0	21.8	12.7	58.1	7.7	3.2	1.8	9.1	12.7	7.7	0.0
ALASKA PLAICE	0.0	0.7	26.8	66.7	0.9	0.5	1.8	11.3	48.1	1.4	0.0
GREENLAND TBT	1.8	2.7	3.2	8.6	1.4	0.7	0.1	1.4	0.1	0.0	0.0
ARROWTOOTH FL	10.9	10.9	2.3	0.9	13.2	3.2	1.8	1.0	5.9	5.9	1.4
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	3.0
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.1	1.4	28.7	0.0
TOT FLATFISH	61.7	39.2	137.9	313.4	38.7	32.4	51.6	122.7	215.6	377.5	99.2
SKATES	66.7	44.5	6.8	3.6	5.0	0.0	2.7	1.8	0.0	0.0	0.0
TOT ELASMOBRH	66.7	44.5	6.8	3.6	5.0	0.0	2.7	1.8	0.0	0.0	0.0
RED KING CRAB	12.7	10.0	183.3	536.6	19.5	89.4	72.1	28.1	29.9	34.5	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	20.2	4.2	3.6	2.4	19.5	0.5	2.4	38.8	0.1	0.0
TANNER, OPILIO	2.9	20.4	14.1	12.7	6.4	9.1	2.8	5.9	3.6	0.0	0.0
TANNER, HYBRID	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.0	0.6
SNAILS	2.3	15.0	52.6	22.7	41.3	11.3	1.4	2.3	1.4	1.4	0.0
SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARFISH	0.0	0.0	399.2	77.1	0.0	0.0	0.0	0.0	0.0	15.9	0.0
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
OTHER INVERTS	33.6	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	2.4
TOTAL INVERTS	51.4	66.5	653.3	652.7	69.6	129.5	76.7	39.1	73.8	52.8	4.3
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	437.4	279.9	867.4	1225.6	1028.1	186.5	371.5	460.5	379.1	512.9	734.5

Table A-3 (Cont'd)

R/V OREGON 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	47	48	49	50	51	52	53	54	55	56	57
MONTH/DAY/YEAR	6/30/79	7/ 1/79	7/ 1/79	7/ 1/79	7/ 9/79	7/ 9/79	7/ 9/79	7/10/79	7/10/79	7/10/79	7/10/79
LATITUDE START	55 20.0	55 20.0	55 39.0	55 40.0	56 39.0	56 40.0	56 40.0	56 40.0	56 59.0	57 20.0	57 20.0
LONGITUDE START	164 0.0	163 25.0	163 23.0	163 59.0	166 26.0	165 50.0	165 12.0	164 36.0	164 36.0	164 37.0	164 0.0
LATITUDE END	55 20.8	55 20.0	55 41.2	55 41.5	56 38.0	56 39.4	56 40.0	56 41.2	56 58.5	57 19.9	57 18.7
LONGITUDE END	163 58.3	163 28.6	163 24.5	163 59.0	166 27.3	165 50.9	165 10.5	164 35.5	164 35.2	164 35.9	163 58.9
LORAN START	18465.60	18482.30	18538.20	18528.00	18665.90	18670.50	18671.10	18673.10	18706.80	18733.10	18730.80
LORAN START	34334.70	34242.50	34172.50	34266.40	34468.40	34349.50	34234.90	34122.70	34022.00	33901.40	33795.80
LORAN END	18468.10	18478.90	18541.60	18531.50	18662.00	18667.90	18671.20	18675.10	18705.40	18732.40	18729.40
LORAN END	34327.30	34252.10	34169.70	34261.50	34477.50	34355.50	34227.20	34115.90	34024.10	33899.90	33800.70
GEAR DEPTH	40	28	41	50	43	40	37	31	35	33	31
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.40	1.80	1.40	1.20	1.50	1.10	1.40	1.10	1.10	1.20	1.50
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	68.0	0.9	12.2	24.0	248.1	166.0	675.2	283.5	44.0	83.0	14.1
PAC COD	51.3	1.8	9.5	227.2	34.9	78.9	62.3	46.3	12.7	138.8	85.7
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	5.6	1.7	6.9	3.6	0.2	2.7	6.3	0.0	4.1	24.0	10.9
EELPOUTS	0.0	0.0	0.0	0.0	8.6	4.5	2.4	2.3	0.1	2.3	1.8
OTHER RNDFISH	1.5	2.1	0.8	0.0	0.5	1.0	0.8	1.6	0.1	5.4	0.9
TOT ROUNDFISH	126.3	7.0	29.9	254.9	292.3	253.2	747.0	333.6	61.0	253.6	113.4
YELLOW SOLE	30.8	458.6	160.1	22.2	152.9	129.3	875.6	386.0	97.1	169.2	165.1
ROCK SOLE	2.3	33.1	8.2	2.7	2.7	4.5	0.0	1.4	0.0	0.0	0.2
FLATHEAD SOLE	2.7	27.2	61.7	22.7	18.6	0.4	16.6	21.8	2.3	6.4	2.7
ALASKA PLAICE	0.0	2.7	14.1	0.0	20.0	29.0	46.5	26.8	2.3	55.8	7.7
GREENLAND TBT	0.0	0.0	0.1	0.5	7.3	5.9	3.9	2.3	1.4	8.2	0.9
ARROWTOOTH FL	0.2	31.3	9.1	12.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	2.0	17.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.1	6.9	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT FLATFISH	38.2	577.6	253.9	60.8	201.8	169.1	942.6	438.2	103.0	239.5	176.7
SKATES	0.0	0.0	0.5	0.0	0.9	3.2	0.0	0.0	0.0	1.8	0.0
TOT ELASMOBRH	0.0	0.0	0.5	0.0	0.9	3.2	0.0	0.0	0.0	1.8	0.0
RED KING CRAB	27.7	14.5	23.6	8.6	6.4	42.6	253.1	140.2	14.5	12.2	59.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	10.9	7.7	34.9	19.1	5.4	11.3	3.6	2.7	1.8	1.8	4.5
TANNER, OPILIO	0.0	0.0	0.0	0.5	31.8	48.5	13.6	3.2	28.6	22.2	12.2
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	0.0	10.9	2.9	1.8	0.1	4.7	9.6	0.9	0.1	5.5	2.0
SNAILS	0.0	0.2	1.8	0.3	0.0	12.3	8.0	1.4	0.5	1.7	0.1
SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
STARFISH	0.0	0.1	0.0	0.0	40.5	23.6	23.0	3.6	1.4	4.1	0.7
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	68.0	0.0	0.0	0.1	0.1	0.0	15.0	6.4	2.7	1.8	3.3
TOTAL INVERTS	106.6	33.4	63.2	30.4	84.3	151.8	325.9	158.3	49.5	49.5	81.8
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	271.1	618.0	347.5	346.1	579.4	577.3	2015.5	930.1	213.5	544.4	371.9

Table A-3 (Cont'd)

R/V OREGON 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	58	59	60	61	62	63	64	65	66	67	68
MONTH/DAY/YEAR	7/11/79	7/11/79	7/11/79	7/11/79	7/11/79	7/12/79	7/12/79	7/12/79	7/12/79	7/12/79	7/13/79
LATITUDE START	57 0.0	56 40.0	56 40.0	57 0.0	57 19.0	57 20.0	57 0.0	56 40.0	56 40.0	56 59.0	57 20.0
LONGITUDE START	163 53.0	164 0.0	163 23.0	163 24.0	163 22.0	162 46.0	162 47.0	162 47.0	162 11.0	162 10.0	162 13.0
LATITUDE END	56 59.5	56 38.6	56 39.1	56 59.0	57 20.9	57 19.8	56 59.3	56 39.4	56 39.0	57 0.6	57 20.1
LONGITUDE END	163 53.2	164 0.2	163 21.7	163 23.6	163 22.6	162 47.7	162 46.6	162 46.1	162 11.5	162 10.0	162 12.2
LORAN START	18707.60	18674.00	18675.80	18706.90	18728.90	18728.70	18706.50	18677.00	18678.00	18705.30	18727.60
LORAN START	33890.20	34018.80	33912.80	33808.80	33693.50	33589.60	33707.90	33815.40	33720.50	33616.00	33504.50
LORAN END	18706.10	18671.40	18673.70	18704.90	18730.10	18727.80	18705.00	18675.60	18676.40	18706.40	18727.10
LORAN END	33896.00	34025.60	33914.80	33815.70	33685.50	33598.70	33712.90	33815.90	33726.10	33609.90	33504.30
GEAR DEPTH	35	38	38	33	26	25	31	37	35	30	25
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.10	1.40	1.50	1.50	1.30	1.20	1.20	1.20	1.00	0.90	0.90
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	145.1	118.8	61.7	34.0	19.5	0.1	21.8	31.3	2.7	0.9	0.1
PAC COD	82.6	31.3	113.9	18.6	56.7	0.9	98.0	52.6	2.7	12.2	0.9
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	6.4	5.9	0.1	1.8	10.4	3.5	0.6	0.0	0.0	2.3	2.3
EELPOUTS	1.8	2.3	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RNDFISH	1.8	2.3	0.5	0.9	0.9	0.1	2.3	0.9	0.2	0.4	0.2
TOT ROUNDFISH	237.7	160.6	177.0	55.3	87.5	4.6	122.7	85.3	5.7	15.8	3.5
YELLOW SOLE	103.9	220.9	62.6	179.2	101.2	120.7	137.4	377.8	286.7	176.9	9.1
ROCK SOLE	0.0	0.2	0.5	0.0	1.8	3.6	0.5	0.5	0.2	0.1	0.1
FLATHEAD SOLE	6.4	17.2	8.2	16.8	0.9	1.4	7.7	6.8	2.3	4.1	4.1
ALASKA PLAICE	27.7	46.7	2.7	4.5	0.0	1.8	0.0	5.0	0.5	0.0	0.0
GREENLAND TBT	3.6	5.0	3.2	0.1	0.1	0.0	0.0	0.5	0.0	0.0	0.0
ARROWTOOTH FL	0.0	0.0	0.1	0.0	0.0	0.0	1.4	0.2	0.1	0.1	0.0
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.9	4.5	0.0	0.3	0.0	0.1	1.8
TOT FLATFISH	141.5	290.1	77.2	200.6	104.9	132.0	147.0	391.0	289.7	181.3	15.1
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0
TOT ELASMOBRH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0
RED KING CRAB	87.5	200.5	75.3	126.1	71.7	11.3	39.0	35.8	6.3	50.8	5.4
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	2.7	11.3	1.8	0.5	0.0	2.7	0.0	1.8	0.5	0.9	0.0
TANNER, OPILIO	4.5	7.3	0.5	2.3	3.6	0.5	0.9	0.1	0.0	0.0	0.0
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	0.3	0.5	0.3	0.0	0.7	1.0	0.0	0.2	0.0	0.0	0.0
SNAILS	0.1	0.2	0.1	0.0	0.1	0.9	0.0	0.0	0.0	0.0	0.0
SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
STARFISH	0.0	0.5	0.0	0.0	2.3	2.3	1.4	0.9	0.0	0.0	0.0
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	2.3	3.6	0.0	0.0	0.6	0.0	0.1	0.0	0.0	0.0	0.1
TOTAL INVERTS	97.4	223.8	78.0	128.8	79.0	18.6	41.4	38.9	7.4	51.7	5.5
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	476.7	674.5	332.2	384.7	271.4	155.2	311.0	515.2	307.3	248.8	24.1

Table A-3 (Cont'd)

R/V OREGON 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	69	70	71	72	73	74	75	76	77	132	133
MONTH/DAY/YEAR	7/13/79	7/13/79	7/13/79	7/13/79	7/14/79	7/14/79	7/14/79	7/14/79	7/14/79	8/12/79	8/12/79
LATITUDE START	57 19.0	57 0.0	56 40.0	56 19.0	56 19.0	56 20.0	56 20.0	56 20.0	56 21.0	55 59.0	56 19.0
LONGITUDE START	161 32.0	161 34.0	161 35.0	161 37.0	162 12.0	162 48.0	163 24.0	163 57.0	164 36.0	162 13.0	161 0.0
LATITUDE END	57 20.1	56 59.9	56 38.8	56 18.1	56 18.8	56 20.3	56 20.3	56 20.4	56 21.3	56 0.7	56 20.5
LONGITUDE END	161 30.8	161 35.5	161 35.7	161 38.6	162 15.1	162 49.9	163 26.0	164 0.6	164 39.1	162 11.1	160 58.7
LORAN START	18726.00	18706.40	18679.70	18646.20	18642.50	18640.60	18637.30	18633.00	18631.40	33910.10	33637.50
LORAN START	33406.20	33519.80	33627.10	33730.70	33822.40	33912.80	34009.90	34105.70	34211.60	46972.60	46481.90
LORAN END	18726.10	18705.50	18677.50	18643.40	18641.20	18640.70	18637.00	18633.20	18630.70	33900.00	33631.10
LORAN END	33401.30	33526.20	33635.30	33741.20	33831.80	33917.00	34015.50	34112.50	34219.60	46956.00	46471.10
GEAR DEPTH	34	37	35	25	40	45	45	44	45	35	27
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	0.90	0.90	1.50	1.70	1.60	1.00	1.10	1.60	1.40	1.70	1.00
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	88.0	58.5	23.6	3.6	0.9	0.0	163.3	562.5	244.9	113.9	0.1
PAC COD	71.2	59.0	74.8	224.1	5.0	0.0	38.1	63.0	41.3	103.9	1.4
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.1
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
SCULPINS	11.0	1.4	2.7	0.0	0.0	0.0	0.9	0.9	0.9	0.0	0.1
EELPOUTS	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9	3.2	0.0	0.0
OTHER RNDFISH	3.6	0.2	0.5	0.2	0.0	0.0	0.0	0.6	0.6	0.5	0.3
TOT ROUNDFISH	173.9	119.0	101.6	227.9	5.9	0.0	202.4	628.1	290.9	218.3	2.1
YELLOW SOLE	88.9	31.8	353.8	33.1	13.2	0.9	46.7	47.2	26.3	38.1	520.3
ROCK SOLE	5.4	0.0	15.0	14.1	0.1	0.0	0.1	1.4	0.9	8.6	5.0
FLATHEAD SOLE	5.9	2.3	3.2	0.0	0.1	0.1	5.4	4.5	3.2	1.4	3.6
ALASKA PLAICE	1.8	0.0	0.0	0.0	0.0	0.0	1.4	7.7	5.4	0.0	0.2
GREENLAND TBT	0.1	0.0	0.0	0.0	0.0	0.0	0.1	3.2	1.8	0.0	0.0
ARROWTOOTH FL	0.1	0.0	0.2	0.0	0.0	0.0	0.1	2.3	0.5	2.5	0.7
PAC HALIBUT	0.9	0.0	0.0	21.3	0.0	0.0	0.0	0.0	0.0	6.7	4.5
OTHER FLTFISH	0.0	0.0	0.9	0.9	0.0	0.0	0.0	0.1	0.0	1.8	5.0
TOT FLATFISH	103.2	34.0	373.1	69.4	13.4	1.0	53.8	66.3	38.1	59.1	539.3
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0
TOT ELASMOBRH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0
RED KING CRAB	35.8	10.4	12.7	0.9	15.4	5.0	38.1	105.7	40.8	0.0	1.4
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	3.2	0.0	10.4	0.0	1.8	0.5	0.9	1.8	0.0	0.0	0.5
TANNER, OPILIO	0.2	0.1	0.0	0.0	0.5	0.0	0.0	1.4	0.2	0.0	0.0
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	0.1	0.0	0.2	0.0	0.7	0.1	0.2	0.9	0.1	0.0	0.1
SNAILS	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.1	1.5	0.0	0.1
SHRIMP	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
STARFISH	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.9	0.9
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	23.0	2.3	10.9	0.0	9.3	90.7	0.9	0.7	0.6	0.0	0.0
TOTAL INVERTS	62.4	12.8	34.2	0.9	27.6	100.4	40.3	111.5	43.2	0.9	2.9
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	339.5	165.8	508.9	298.2	47.0	101.5	296.5	805.9	374.9	278.2	544.3

Table A-3 (Cont'd)

R/V OREGON 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	134	135	136	137	138	139	140	141	142	143	144
MONTH/DAY/YEAR	8/13/79	8/13/79	8/13/79	8/14/79	8/15/79	8/15/79	8/15/79	8/15/79	8/15/79	8/16/79	8/16/79
LATITUDE START	56 39.0	56 59.0	57 0.0	57 20.0	58 0.0	57 39.0	57 39.0	57 39.0	57 20.0	57 20.0	57 39.0
LONGITUDE START	161 1.0	160 57.0	160 20.0	159 41.0	158 57.0	159 1.0	159 38.0	160 15.0	160 18.0	160 54.0	160 53.0
LATITUDE END	56 40.7	57 0.0	57 1.5	57 21.7	57 59.7	57 38.4	57 40.3	57 39.2	57 19.6	57 21.9	57 40.5
LONGITUDE END	161 3.2	160 59.7	160 18.3	159 42.1	158 58.3	159 3.2	159 37.0	160 16.5	160 16.6	160 56.2	160 54.2
LORAN START	33545.50	33434.20	33344.40	33146.50	32824.10	32953.70	33031.00	33110.20	33230.40	33309.50	33197.50
LORAN START	46482.40	46447.10	46200.20	45932.40	45643.90	45662.60	45910.30	46158.20	46178.60	46421.60	46407.70
LORAN END	33545.40	33437.80	33332.50	33141.90	32831.50	32966.30	33025.00	33116.80	33229.90	33308.20	33192.80
LORAN END	46493.30	46462.90	46184.70	45936.70	45647.40	45675.60	45900.50	46163.10	46167.80	46431.70	46412.80
GEAR DEPTH	33	31	33	27	21	23	24	28	33	32	28
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.30	1.40	1.80	1.20	1.10	1.90	0.90	0.90	1.10	1.20	1.20
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	8.2	15.4	165.6	1.1	18.6	1.7	18.7	20.0	3.9	1.8	2.5
PAC COD	52.6	42.2	288.5	2.3	0.5	1.1	6.8	17.2	22.2	1.4	5.9
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.5	0.0	8.2	0.0	4.5	0.1	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.1	2.3	2.7	0.3	1.6	20.0	9.1	4.8	2.5	4.6	0.5
EELPOUTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RNDFISH	2.4	1.8	15.0	5.5	5.6	4.7	6.2	4.6	3.5	0.3	2.3
TOT ROUNDFISH	63.4	61.7	472.2	9.2	34.5	27.5	45.3	46.8	32.1	8.1	11.1
YELLOW SOLE	149.7	179.2	50.8	42.6	13.2	53.5	58.1	35.8	99.3	164.7	147.9
ROCK SOLE	31.3	25.9	79.8	3.6	0.0	37.2	17.2	11.3	37.6	20.0	16.8
FLATHEAD SOLE	3.6	14.5	4.5	0.0	0.0	0.0	2.0	2.0	0.2	1.4	0.5
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.7	0.2
GREENLAND TBT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL	0.0	2.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
PAC HALIBUT	11.2	3.4	32.0	9.3	7.3	0.9	9.1	6.5	1.2	0.0	0.0
OTHER FLTFISH	3.6	0.5	0.0	0.0	5.4	5.7	4.1	5.0	0.0	0.9	1.6
TOT FLATFISH	199.5	225.7	167.2	55.5	25.9	97.3	90.5	60.7	138.8	189.7	166.9
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT ELASMOBRH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED KING CRAB	30.4	16.3	31.3	4.1	0.0	0.0	3.6	4.5	12.2	11.8	52.6
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.5	8.6	2.7	0.9	0.0	0.0	0.0	0.1	7.7	15.9	5.9
TANNER, OPILIO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	2.9	0.2	0.7	0.1	0.3	0.5	0.0	0.3	0.8	1.0	1.1
SNAILS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARFISH	0.1	0.0	0.0	0.9	10.0	179.2	0.0	12.7	8.2	0.0	0.1
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	0.1	0.1	0.9	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.1
TOTAL INVERTS	34.0	25.2	35.6	6.1	10.3	180.1	3.6	17.7	28.9	28.7	59.9
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	296.9	312.6	675.0	70.8	70.8	305.0	139.5	125.2	199.8	226.5	237.9

Table A-3 (Cont'd)

R/V OREGON 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	145	146	147	148	149	150	151	152	153	154	155
MONTH/DAY/YEAR	8/16/79	8/17/79	8/17/79	8/17/79	8/17/79	8/18/79	8/18/79	8/19/79	8/20/79	8/20/79	8/20/79
LATITUDE START	57 40.0	57 40.0	57 39.0	58 0.0	58 0.0	58 0.0	58 0.0	58 0.0	57 59.0	58 0.0	58 0.0
LONGITUDE START	161 30.0	162 6.0	162 44.0	162 46.0	163 22.0	163 59.0	164 36.0	165 14.0	165 49.0	166 31.0	167 10.0
LATITUDE END	57 39.7	57 40.1	57 39.7	58 1.2	58 1.3	58 1.3	58 1.1	58 0.8	57 59.3	58 0.6	57 59.3
LONGITUDE END	161 28.4	162 8.6	162 47.4	162 45.7	163 20.0	164 2.5	164 37.6	165 13.6	165 46.7	166 34.4	167 9.6
LORAN START	33281.70	33367.10	33465.30	33332.70	33433.40	33521.20	33622.20	33732.50	33837.20	33953.70	34074.30
LORAN START	46657.20	46894.60	47147.00	47140.80	47377.40	47622.80	47859.90	48109.90	48332.30	48601.20	48847.30
LORAN END	33277.90	33373.00	33473.30	33324.10	33413.40	33521.90	33619.10	33722.40	33829.80	33961.20	34077.90
LORAN END	46640.10	46907.10	47164.60	47137.30	47362.00	47638.30	47866.70	48100.10	48315.80	48618.20	48843.10
GEAR DEPTH	27	23	21	20	22	23	23	27	27	31	33
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.50	1.00	1.40	1.10	1.70	1.60	1.10	1.10	1.40	1.40	0.90
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	93.9	2.7	4.5	5.0	46.3	14.7	1.8	9.1	48.5	60.3	22.2
PAC COD	23.6	2.7	11.8	9.5	15.4	4.1	6.4	53.1	83.0	70.8	46.7
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER ROCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	28.1	0.0	0.1	0.7	0.0	0.0	0.0	0.0	0.1	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	11.8	12.7	0.9	6.8	5.4	10.0	3.2	3.2	3.9	40.4	66.7
EELPOUTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	16.3
OTHER RNDFISH	2.8	6.3	2.3	12.7	8.9	6.1	1.0	2.4	2.0	3.4	7.0
TOT ROUNDFISH	160.2	24.4	19.6	34.7	76.0	34.9	12.3	67.7	137.6	178.5	159.0
YELLOW SOLE	195.5	219.1	280.8	563.4	365.6	123.8	149.7	195.5	149.7	823.3	433.2
ROCK SOLE	37.6	5.2	15.4	10.0	30.4	20.4	5.0	10.0	2.5	3.2	0.0
FLATHEAD SOLE	11.8	3.4	7.3	1.8	0.0	0.0	0.0	0.5	0.2	0.7	1.8
ALASKA PLAICE	0.0	3.6	2.7	2.7	52.6	5.2	4.5	30.4	32.7	37.6	222.3
GREENLAND TBT	1.1	0.1	0.0	0.0	0.5	0.0	0.0	0.2	2.7	4.5	7.3
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	7.0	0.6	7.2	19.1	0.0	14.1	0.0	1.4	0.0	0.0	0.0
OTHER FLTFISH	10.4	13.6	9.5	9.1	25.4	2.7	2.3	0.0	0.0	0.0	0.0
TOT FLATFISH	263.5	245.7	322.9	606.1	474.5	166.3	161.5	238.0	187.8	869.3	664.5
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT ELASMOBRH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED KING CRAB	74.4	43.5	37.2	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	2.7	0.5	0.0	0.0	0.1	0.5	0.1	0.0	0.0	0.0	0.0
TANNER, OPILIO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.3	64.4	22.2
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	0.3	0.0	0.2	1.1	8.8	10.9	0.0	65.3	5.4	1.8	5.9
SNAILS	2.5	0.0	0.7	0.1	5.1	10.2	0.0	8.8	0.0	21.9	16.6
SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARFISH	0.0	0.0	36.3	616.9	87.5	65.8	21.3	0.0	0.0	2.7	0.0
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	4.6	0.0	0.1	0.5	0.1	0.3	0.0	0.0	0.0	2.9	2.6
TOTAL INVERTS	84.5	44.0	74.4	618.6	101.7	88.3	21.4	74.6	7.7	93.8	47.3
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	508.2	314.1	416.9	1259.3	652.2	289.4	195.2	380.2	333.1	1141.6	870.8

Table A-3 (Cont'd)

R/V OREGON 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	156	157	158	159	160
MONTH/DAY/YEAR	8/21/79	8/21/79	8/21/79	8/21/79	8/21/79
LATITUDE START	57 20.0	57 19.0	57 19.0	57 20.0	57 19.0
LONGITUDE START	165 11.0	165 51.0	166 29.0	167 7.0	167 43.0
LATITUDE END	57 21.0	57 19.5	57 20.6	57 21.0	57 20.4
LONGITUDE END	165 14.2	165 53.6	166 31.4	167 9.9	167 45.6
LORAN START	34003.70	34131.00	34253.70	34379.80	34505.40
LORAN START	48142.20	48407.50	48659.30	48916.40	49156.10
LORAN END	34008.40	34129.20	34255.20	34380.20	34507.10
LORAN END	48157.00	48423.20	48672.60	48928.30	49166.70
GEAR DEPTH	36	35	36	37	38
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.30	1.20	1.40	1.40	1.10
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	51.3	35.4	226.3	72.1	83.0
PAC COD	46.3	90.7	144.7	103.4	50.8
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	8.2
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0
SCULPINS	47.6	36.7	22.7	54.0	5.4
EELPOUTS	9.5	24.5	12.7	0.0	0.0
OTHER RNDFISH	2.0	0.9	1.8	0.9	0.0
TOT ROUNDFISH	156.7	188.2	408.2	230.4	147.4
YELLOW SOLE	809.7	438.6	847.8	434.5	72.1
ROCK SOLE	2.5	8.6	2.9	2.7	0.1
FLATHEAD SOLE	4.5	12.2	3.9	6.8	1.6
ALASKA PLAICE	60.3	80.7	21.8	32.2	13.6
GREENLAND TBT	5.0	9.5	7.5	2.5	1.4
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.1
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.0
TOT FLATFISH	882.0	549.8	883.8	478.8	88.9
SKATES	1.8	7.5	0.0	2.3	0.0
TOT ELASMOBRH	1.8	7.5	0.0	2.3	0.0
RED KING CRAB	4.5	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	3.6	0.9	0.0	4.5	1.4
TANNER, OPILIO	33.1	88.5	0.0	192.8	65.3
TANNER, HYBRID	2.3	1.4	0.0	11.3	0.0
OTHER CRAB	5.0	4.5	0.1	0.5	5.3
SNAILS	9.9	5.3	3.7	0.0	0.0
SHRIMP	0.0	0.0	0.0	0.0	0.0
STARFISH	12.7	6.4	7.7	0.0	0.0
SQUID	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	0.0	0.0	0.0	0.0	0.0
TOTAL INVERTS	71.1	106.9	11.5	209.1	71.9
OTHER	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	1111.6	852.4	1303.5	920.6	308.2

Table A-4.--Station and catch data for the M/V PARAGON II using the 400 Eastern trawl.

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	2	3	4	5	6	7	8	10	11	12	14
MONTH/DAY/YEAR	5/22/79	5/22/79	5/22/79	5/23/79	5/23/79	5/23/79	5/23/79	5/24/79	5/24/79	5/24/79	5/25/79
LATITUDE START	54 50.0	55 10.0	55 10.0	55 9.0	55 29.0	55 29.0	55 50.0	55 50.0	56 10.0	56 12.0	56 9.0
LONGITUDE START	166 5.0	166 5.0	166 42.0	167 17.0	167 22.0	167 55.0	167 56.0	168 31.0	168 27.0	168 59.0	169 22.0
LATITUDE END	54 50.6	55 9.7	55 9.7	55 9.7	55 30.5	55 31.4	55 50.0	55 50.4	56 11.9	56 12.5	56 10.4
LONGITUDE END	166 8.9	166 8.5	166 45.5	167 20.7	167 25.4	167 54.6	167 59.4	168 34.2	168 28.5	169 2.4	169 21.0
LORAN START	18253.00	18344.30	18305.80	18261.10	18358.80	18319.20	18427.80	18383.60	18506.70	18479.40	18257.90
LORAN START	34723.20	34685.00	34776.20	34859.90	34840.20	34918.00	34892.80	34978.00	34937.00	35016.00	35136.70
LORAN END	18251.70	18332.00	18300.80	18257.20	18359.60	18328.20	18423.90	18382.00	18512.50	18476.00	18272.30
LORAN END	34729.50	34703.00	34784.40	34866.30	34847.10	34915.20	34900.00	34982.90	34938.60	35023.30	35136.00
GEAR DEPTH	85	71	77	83	74	76	72	77	106	92	67
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.80	2.00	1.90	1.60	2.10	1.60	1.60	1.30	1.60	1.80	1.50
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	28.6	1037.0	151.9	65.3	110.4	26.2	136.6	61.6	107.2	570.3	188.8
PAC COD	2.7	12.6	33.3	50.1	90.7	365.1	7.9	27.4	108.8	34.7	24.7
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.4	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
SABLEFISH	14.5	0.0	0.0	21.8	93.7	281.2	0.0	0.6	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	3.0	7.8	4.1	6.7	0.5	31.7	11.9	83.9	16.1	6.4
EELPOUTS	0.0	0.4	19.8	12.6	11.3	5.1	9.8	26.9	0.0	0.0	1.1
OTHER RNDFISH	0.0	1.5	10.9	1.2	2.5	0.1	1.8	0.4	6.1	24.6	0.5
TOT ROUNDFISH	45.8	1054.4	223.8	155.1	315.3	679.5	187.8	128.9	309.2	646.1	221.4
YELLOW SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.5	0.5	21.1	18.5	2.0	0.9
FLATHEAD SOLE	0.8	4.2	25.9	17.7	73.0	5.4	25.9	11.8	4.5	3.6	3.2
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GREENLAND TBT	0.0	10.5	7.0	12.7	7.9	0.7	0.5	0.0	0.0	0.0	0.0
ARROWTOOTH FL	5.2	2.6	12.0	46.0	50.8	12.1	31.2	101.2	164.7	121.1	22.5
PAC HALIBUT	6.6	0.0	11.5	6.7	14.4	1.2	4.9	1.5	3.0	0.0	5.5
OTHER FLTFISH	0.0	0.2	2.0	0.5	0.2	0.0	0.0	0.5	0.0	0.0	2.9
TOT FLATFISH	12.6	17.6	58.4	83.6	146.4	19.9	63.0	136.0	190.7	126.7	35.0
SKATES	2.0	0.0	0.0	4.3	1.7	0.0	1.2	19.2	29.8	12.8	3.3
TOT ELASMOBRH	2.0	0.0	0.0	4.3	1.7	0.0	1.2	19.2	29.8	12.8	3.3
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	3.6	7.3	20.2	52.2	55.1	9.8	31.8	0.0	2.0	0.1	2.3
TANNER, OPILIO	0.0	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.1
OTHER CRAB	0.0	0.0	0.1	1.6	0.3	0.1	0.9	1.6	17.8	8.9	3.3
SNAILS	0.0	0.0	1.2	3.1	3.5	4.0	1.0	0.9	54.8	14.5	0.5
SHRIMP	0.1	0.0	0.3	0.0	0.0	0.1	6.1	0.1	11.9	0.9	0.0
STARFISH	0.0	0.0	0.0	0.2	0.4	0.0	0.1	0.1	12.8	15.0	5.8
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.1	1.5
OCTOPUS	0.0	0.0	0.0	0.0	0.0	18.1	14.5	6.8	13.6	1.9	0.0
OTHER INVERTS	0.1	0.0	1.4	10.4	8.9	60.7	176.8	166.3	22.7	14.0	168.8
TOTAL INVERTS	3.8	8.0	23.4	67.5	68.7	92.8	231.3	176.0	135.8	55.2	182.4
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	64.2	1080.0	305.5	310.4	532.1	792.1	483.3	460.0	665.5	840.9	442.2

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	15	16	17	18	19	20	21	23	25	26	27
MONTH/DAY/YEAR	5/25/79	5/25/79	5/25/79	5/25/79	5/26/79	5/26/79	5/26/79	5/26/79	5/27/79	5/27/79	5/27/79
LATITUDE START	56 30.0	56 29.0	56 49.0	56 48.0	56 48.0	57 8.0	57 10.0	57 32.0	57 50.0	57 29.0	57 30.0
LONGITUDE START	170 27.0	171 4.0	171 5.0	171 44.0	172 17.0	171 49.0	171 11.0	171 11.0	170 37.0	170 0.0	170 34.0
LATITUDE END	56 30.0	56 29.8	56 51.5	56 48.6	56 50.4	57 10.1	57 10.2	57 30.7	57 50.5	57 29.9	57 30.0
LONGITUDE END	170 24.3	171 7.6	171 5.9	171 47.5	172 19.9	171 48.0	171 8.8	171 12.0	170 34.6	169 58.3	170 37.1
LORAN START	18403.00	18225.80	18338.30	18091.90	17883.00	18131.20	18380.20	18381.60	18500.50	18698.70	18584.70
LORAN START	35137.80	35113.30	35083.60	34996.50	34916.40	34888.70	34979.20	34799.50	34637.60	34865.40	34878.30
LORAN END	18409.00	18208.00	18350.30	18075.70	17875.50	18143.20	18399.40	18381.20	18510.00	18703.70	18572.60
LORAN END	35138.00	35108.70	35078.70	34988.90	34905.30	34885.00	34985.90	34812.10	34634.00	34862.00	34875.70
GEAR DEPTH	60	67	60	62	67	59	53	50	41	36	38
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.40	1.90	1.70	1.60	1.90	1.50	1.60	1.40	1.50	1.30	1.40
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	525.5	224.2	62.3	39.2	1291.0	284.1	412.5	214.0	79.5	36.1	492.5
PAC COD	6.2	8.7	1.2	0.0	14.5	3.0	3.4	16.7	86.5	94.9	118.1
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	1.0	9.1	7.7	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.6	2.7	2.1	0.0	1.0	4.4	7.7	15.4	9.0	10.9	31.6
EELPOUTS	0.0	0.0	0.0	0.0	1.6	0.2	7.7	56.3	24.6	0.0	3.8
OTHER RNDFISH	0.3	0.0	0.1	0.0	0.0	1.9	0.0	0.0	0.1	0.9	0.0
TOT ROUNDFISH	533.7	244.6	73.4	39.2	1310.4	293.6	431.2	302.5	199.6	142.8	645.9
YELLOW SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	2.8	31.5	1.5
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	3.5	26.0	10.4
FLATHEAD SOLE	1.5	1.5	1.5	0.0	8.2	1.2	10.9	5.8	4.7	5.0	8.5
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.4	6.3	3.8
GREENLAND TBT	0.0	2.0	1.0	0.0	0.8	3.9	24.0	47.9	16.6	6.3	22.7
ARROWTOOTH FL	3.3	5.1	0.5	0.0	10.3	0.5	0.0	0.1	0.0	0.0	0.0
PAC HALIBUT	0.0	0.0	1.3	0.0	3.1	0.0	0.0	0.0	0.0	0.0	1.1
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
TOT FLATFISH	4.7	8.7	4.4	0.0	22.5	5.9	35.3	57.5	28.0	75.2	47.9
SKATES	2.4	0.1	0.1	0.1	16.8	2.9	19.7	10.8	0.0	0.4	4.4
TOT ELASMOBRH	2.4	0.1	0.1	0.1	16.8	2.9	19.7	10.8	0.0	0.4	4.4
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	1.4
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	1.9	8.1	0.0	24.6	16.8
TANNER, BAIRDI	0.5	1.5	1.5	0.0	17.2	3.8	1.4	0.7	0.2	2.2	0.5
TANNER, OPILIO	0.0	2.4	6.8	1.6	1.6	66.2	103.0	421.8	311.7	53.2	625.5
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.3	0.9	0.0	0.0	0.0	0.0	0.5
OTHER CRAB	0.0	0.7	2.7	0.0	4.4	10.5	2.5	9.9	176.2	102.6	69.6
SNAILS	1.2	1.8	3.9	0.0	3.3	18.8	10.2	86.9	55.6	15.2	23.5
SHRIMP	0.0	0.1	0.0	0.0	0.0	0.2	0.1	3.9	0.4	0.0	0.0
STARFISH	3.4	1.1	0.7	0.1	0.1	0.1	0.1	1.4	252.0	478.0	38.2
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	26.9	14.8	0.1	0.7	3.3	0.3	1.2	3.0	17.9	47.0	9.4
TOTAL INVERTS	32.0	22.4	15.7	2.4	30.2	100.8	120.4	535.7	813.9	726.2	785.4
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0
TOTAL CATCH	572.8	275.7	93.5	41.7	1380.0	403.3	608.9	906.5	1041.6	944.5	1483.6

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	29	30	31	32	33	34	35	36	37	38	39
MONTH/DAY/YEAR	5/28/79	5/28/79	5/28/79	5/28/79	5/29/79	5/29/79	5/29/79	5/29/79	5/30/79	5/30/79	5/30/79
LATITUDE START	56 51.0	56 50.0	57 8.0	57 10.0	56 50.0	56 30.0	56 29.0	56 50.0	56 29.0	56 30.0	56 10.0
LONGITUDE START	170 29.0	169 54.0	169 54.0	169 21.0	169 18.0	169 47.0	169 14.0	168 36.0	168 35.0	168 0.0	167 58.0
LATITUDE END	56 50.0	56 49.9	57 9.8	57 10.2	56 50.1	56 30.4	56 30.0	56 50.5	56 30.3	56 30.0	56 10.0
LONGITUDE END	170 29.2	169 52.4	169 53.9	169 19.3	169 21.0	169 51.3	169 12.7	168 33.9	168 33.1	167 57.9	167 54.9
LORAN START	18553.40	18646.00	18746.80	18744.40	18677.70	18516.30	18566.00	18687.20	18599.10	18618.10	18529.00
LORAN START	35131.50	35107.80	35058.10	34925.30	34002.70	35104.20	35032.80	34858.90	34921.70	34809.50	34857.60
LORAN END	18540.00	18648.60	18748.50	18744.50	18675.90	18510.60	18570.50	18689.20	18604.00	18618.90	18530.40
LORAN END	35135.30	35102.20	35051.40	34916.00	34012.70	35109.60	35026.80	34849.20	34912.50	34802.70	34848.90
GEAR DEPTH	54	38	26	37	42	47	51	51	57	62	77
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.40	1.40	1.00	1.20	1.30	1.90	1.20	1.50	1.50	1.20	1.80
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	904.1	0.0	0.0	55.2	47.4	1.7	0.7	23.6	131.4	94.3	33.0
PAC COD	13.8	0.5	27.2	16.1	1.8	10.2	21.3	5.5	20.1	20.6	10.8
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
PAC HERRING	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
SCULPINS	9.6	4.5	22.7	190.1	36.8	141.4	75.9	15.7	11.9	2.8	0.6
EELPOUTS	7.5	0.1	0.0	3.4	1.7	0.3	0.0	4.0	1.4	3.2	34.0
OTHER RNDFISH	2.4	0.5	16.2	1.5	0.5	6.5	4.8	0.1	3.3	2.3	3.4
TOT ROUNDFISH	938.0	6.1	66.2	266.4	88.2	160.2	102.7	49.0	168.3	123.7	81.8
YELLOW SOLE	0.0	6.5	57.8	80.1	21.3	8.3	1.2	8.3	0.2	1.0	0.0
ROCK SOLE	0.8	23.1	88.0	7.5	2.5	17.7	49.8	12.1	7.7	1.6	0.5
FLATHEAD SOLE	46.0	3.3	0.0	0.0	5.2	8.4	1.6	8.2	4.1	1.8	31.7
ALASKA PLAICE	1.0	0.0	0.0	8.0	0.0	0.0	0.0	3.9	0.7	2.4	0.0
GREENLAND TBT	3.4	0.0	0.1	15.3	7.1	8.7	0.0	3.9	0.5	2.3	2.2
ARROWTOOTH FL	4.8	1.1	0.0	0.2	1.8	1.9	4.9	1.0	11.2	17.7	45.4
PAC HALIBUT	1.4	5.3	7.3	1.0	0.0	8.5	0.5	0.0	2.0	10.6	0.0
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.4	0.2	0.0
TOT FLATFISH	57.4	39.3	153.3	112.2	38.0	53.8	58.1	37.4	26.9	37.6	79.8
SKATES	9.2	0.0	0.0	0.0	2.5	5.9	0.0	0.0	0.9	2.0	23.2
TOT ELASMOBRH	9.2	0.0	0.0	0.0	2.5	5.9	0.0	0.0	0.9	2.0	23.2
RED KING CRAB	0.0	0.0	6.8	1.8	2.6	7.3	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	13.2	135.6	61.1	40.3	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	4.4	44.7	2.7	6.9	4.1	64.0	12.3	6.2	3.9	41.8	10.4
TANNER, OPILIO	0.1	165.6	6.4	39.1	73.0	31.5	3.2	135.5	247.7	324.5	9.2
TANNER, HYBRID	0.1	1.0	0.2	2.1	1.4	1.8	0.0	3.0	5.0	27.9	7.7
OTHER CRAB	36.5	32.9	100.0	29.5	34.0	23.6	25.5	16.2	3.9	2.6	3.5
SNAILS	14.8	5.0	8.4	1.1	2.6	21.2	1.1	5.6	0.5	6.3	1.0
SHRIMP	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2	10.8
STARFISH	1.5	0.2	30.4	12.3	9.1	0.0	15.1	2.5	0.5	16.7	1.8
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	42.9	15.6	0.0	0.0	0.0	0.0	13.5	0.0	0.0	0.0	0.0
OTHER INVERTS	0.7	0.0	243.1	51.5	6.7	0.2	158.3	9.3	2.0	0.5	3.5
TOTAL INVERTS	101.0	278.2	533.6	205.7	173.9	149.5	229.2	178.3	263.4	420.5	48.0
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	1105.6	323.6	753.1	584.2	302.5	369.4	389.9	264.7	459.4	583.9	232.8

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	40	41	42	43	44	45	46	47	48	49	50
MONTH/DAY/YEAR	5/30/79	5/30/79	5/31/79	5/31/79	5/31/79	5/31/79	5/31/79	6/ 1/79	6/ 1/79	6/ 1/79	6/ 1/79
LATITUDE START	56 10.0	55 51.0	55 30.0	55 49.0	56 8.0	56 9.0	55 51.0	55 30.0	55 30.0	55 50.0	56 9.0
LONGITUDE START	167 23.0	167 18.0	166 44.0	166 44.0	166 22.0	166 7.0	166 7.0	166 8.0	165 32.0	165 31.0	165 31.0
LATITUDE END	56 10.1	55 49.6	55 30.1	55 50.7	56 10.5	56 8.3	55 49.5	55 30.1	55 30.3	55 50.2	56 10.6
LONGITUDE END	167 20.2	167 18.6	166 41.4	166 45.8	166 23.4	166 6.4	166 7.2	166 6.2	165 28.9	165 28.2	165 31.1
LORAN START	18550.50	18467.50	18398.10	18482.60	18571.60	18577.60	18513.20	18428.30	18451.60	18524.40	18587.20
LORAN START	34755.60	34789.20	34744.50	34701.00	34577.00	34530.30	34588.30	34648.10	34550.90	34490.70	34424.30
LORAN END	18551.90	18460.50	18401.00	18489.00	18576.90	18574.70	18506.00	18428.80	18453.70	18526.50	18592.00
LORAN END	34746.70	34793.40	34736.00	34699.60	34574.50	34531.10	34593.80	34642.70	34541.80	34480.50	34417.30
GEAR DEPTH	71	72	73	72	61	58	65	66	62	59	50
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.70	1.40	1.90	1.80	1.70	1.00	1.90	1.30	1.90	1.90	1.60
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	36.4	21.5	142.0	29.3	28.1	28.0	135.0	69.0	394.1	343.8	2729.4
PAC COD	5.0	12.8	5.0	0.5	4.4	10.2	4.3	5.0	4.3	4.5	81.6
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	4.6	0.6	6.7	1.5	0.0	1.7	1.0	14.3	32.7	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	18.4	3.6	5.8	3.7	2.4	12.1	1.2	5.1	8.9	4.3	0.0
EELPOUTS	51.0	117.1	144.4	155.1	79.9	65.7	124.1	163.4	140.3	84.9	27.9
OTHER RNDFISH	5.4	5.6	22.0	11.5	5.6	12.2	10.3	8.9	22.9	21.5	0.0
TOT ROUNDFISH	116.1	165.3	319.7	206.8	122.0	128.1	276.6	252.3	584.3	491.6	2839.0
YELLOW SOLE	0.0	0.0	0.0	0.0	0.0	8.8	0.0	0.0	0.0	1.3	16.8
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.7
FLATHEAD SOLE	70.5	132.7	62.6	119.9	53.8	12.5	51.5	30.7	66.0	48.3	1.7
ALASKA PLAICE	0.0	0.0	0.0	0.0	5.0	5.0	0.0	0.0	0.0	1.4	0.0
GREENLAND TBT	12.0	3.2	7.3	15.6	8.8	0.3	0.3	4.4	9.1	1.8	3.4
ARROWTOOTH FL	18.9	8.4	13.7	15.2	17.2	3.2	8.9	5.3	6.0	8.9	8.1
PAC HALIBUT	1.4	4.8	23.9	18.0	3.6	21.2	0.0	7.6	5.9	3.3	0.0
OTHER FLTFISH	0.0	0.1	0.6	0.1	0.4	0.1	0.1	0.6	0.5	0.1	0.0
TOT FLATFISH	102.8	149.2	108.1	168.8	88.9	51.1	60.9	48.6	87.7	65.1	30.6
SKATES	22.4	36.5	6.7	20.0	8.5	48.1	26.4	12.3	97.7	170.9	0.0
TOT ELASMOBRH	22.4	36.5	6.7	20.0	8.5	48.1	26.4	12.3	97.7	170.9	0.0
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	69.9	3.4	6.4	2.7	1.8	31.1
BLUE KING CRAB	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	32.3	29.2	19.3	5.2	3.6	9.1	5.7	19.6	8.2	2.5	4.3
TANNER, OPILIO	0.0	0.9	0.1	2.9	10.9	213.6	10.0	4.1	0.9	11.8	10.0
TANNER, HYBRID	1.6	0.2	1.1	0.0	0.0	0.7	0.9	0.7	0.0	0.0	0.0
OTHER CRAB	3.6	0.4	1.5	0.1	7.2	3.8	3.8	0.5	0.0	7.6	5.0
SNAILS	1.8	1.4	3.8	2.1	4.6	17.4	2.3	1.0	0.4	5.7	10.1
SHRIMP	4.6	5.7	0.0	1.6	0.5	0.0	0.0	0.0	0.2	0.2	0.0
STARFISH	0.6	0.0	0.1	0.1	0.1	12.7	3.0	0.0	0.2	0.0	0.0
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	4.9	28.9	9.3	9.1	1.0	0.0	2.7	3.6	4.0	0.1	0.0
TOTAL INVERTS	49.3	66.6	35.2	21.1	37.9	327.2	31.7	35.8	16.6	29.7	60.5
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	290.6	417.6	469.6	416.7	257.3	554.5	395.5	349.0	786.8	757.2	2930.0

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	52	53	54	55	56	57	58	59	60	61	62
MONTH/DAY/YEAR	6/ 2/79	6/ 2/79	6/ 2/79	6/ 2/79	6/ 2/79	6/ 3/79	6/ 3/79	6/ 3/79	6/ 3/79	6/ 4/79	6/ 4/79
LATITUDE START	56 10.0	55 51.0	55 30.0	55 30.0	55 49.0	56 10.0	56 29.0	56 50.0	56 50.0	56 30.0	56 30.0
LONGITUDE START	164 57.0	164 58.0	164 56.0	164 20.0	164 18.0	164 16.0	164 13.0	164 17.0	163 31.0	163 36.0	163 2.0
LATITUDE END	56 10.1	55 49.2	55 29.5	55 30.3	55 50.9	56 10.2	56 30.5	56 50.4	56 50.0	56 30.0	56 29.9
LONGITUDE END	164 54.6	164 58.2	164 57.0	164 17.1	164 18.4	164 19.4	164 12.9	164 14.3	163 28.4	163 33.9	163 0.1
LORAN START	18598.40	18540.80	18473.50	18487.80	18548.10	18606.80	18651.60	18692.00	18692.00	18657.40	18658.40
LORAN START	34320.30	34392.10	34453.40	34357.00	34288.10	34200.00	34108.10	34015.40	33884.60	33996.50	33906.40
LORAN END	18598.60	18534.80	18468.30	18490.00	18553.00	18605.80	18654.40	18692.20	18691.80	18656.20	18658.20
LORAN END	34311.80	34398.70	34457.80	34347.80	34281.50	34209.60	34101.40	34006.40	33877.20	33992.80	33900.30
GEAR DEPTH	48	52	56	53	50	48	42	38	37	43	42
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.80	1.90	1.50	1.80	1.70	1.80	1.30	1.60	1.60	1.60	1.50
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	136.9	296.6	177.4	142.1	58.8	201.6	5.4	12.9	953.0	44.1	112.6
PAC COD	20.0	17.6	3.9	35.8	18.1	12.0	0.0	10.6	13.7	7.9	8.1
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	6.5	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.2	0.9	3.1	7.0	0.0	0.0	0.0	4.5	0.0	0.0	0.4
EELPOUTS	27.9	70.8	64.0	13.6	1.9	10.8	9.5	13.6	0.4	36.4	8.2
OTHER RNDFISH	2.3	2.4	0.2	1.1	0.4	0.6	0.0	0.5	0.0	0.2	0.1
TOT ROUNDFISH	187.3	394.8	256.1	199.6	79.2	225.4	14.9	42.2	967.1	88.6	129.4
YELLOW SOLE	77.4	5.3	0.6	47.2	16.1	30.6	121.2	169.1	62.2	55.4	69.1
ROCK SOLE	22.5	1.9	0.1	60.5	8.7	10.7	3.3	3.8	0.0	2.7	2.0
FLATHEAD SOLE	16.0	7.5	8.7	2.0	0.3	3.6	23.8	12.8	34.7	6.0	6.4
ALASKA PLAICE	47.4	0.0	2.1	0.0	0.4	30.6	43.3	121.7	33.1	39.2	11.0
GREENLAND TBT	7.6	2.0	1.2	1.4	0.1	3.6	11.0	6.3	4.2	5.1	1.6
ARROWTOOTH FL	5.2	32.8	16.5	16.8	6.9	1.5	0.8	0.0	0.0	0.7	0.1
PAC HALIBUT	5.4	1.6	17.6	9.3	1.7	3.1	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.1	0.0	0.2	4.8	0.1	0.0	0.0	0.0	0.0	0.0	0.1
TOT FLATFISH	181.5	51.2	47.0	141.9	34.9	83.7	203.4	313.7	134.2	109.2	90.1
SKATES	29.2	6.7	83.5	0.0	0.0	2.9	2.6	0.0	0.0	2.1	7.4
TOT ELASMOBRH	29.2	6.7	83.5	0.0	0.0	2.9	2.6	0.0	0.0	2.1	7.4
RED KING CRAB	27.7	3.6	5.2	0.0	28.6	19.7	203.7	606.5	1039.2	26.6	79.4
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	4.3	23.6	10.3	0.0	19.5	7.0	5.8	123.6	1.3	8.3	7.1
TANNER, OPILIO	14.4	25.3	41.4	0.0	12.2	13.8	23.7	6.9	1.6	19.4	3.5
TANNER, HYBRID	0.0	2.0	2.6	0.0	2.4	0.0	0.3	3.1	0.0	0.9	0.9
OTHER CRAB	54.6	18.4	10.8	38.5	32.9	35.2	31.3	64.7	5.5	51.5	15.2
SNAILS	110.8	30.9	4.9	20.3	21.9	35.1	114.6	35.4	0.0	112.6	16.0
SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARFISH	0.3	0.0	0.0	0.2	0.0	0.0	0.1	14.6	0.0	0.1	2.1
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	1.0	0.5	0.0	0.0	0.0	14.4	3.9	15.6	0.0	17.4	0.4
OTHER INVERTS	4.5	21.0	3.6	33.4	16.6	5.0	235.9	8.8	5.0	33.7	15.9
TOTAL INVERTS	217.6	125.3	78.9	92.4	134.1	130.2	619.2	879.2	1053.1	270.4	140.6
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	615.6	577.9	465.5	433.9	248.3	442.3	840.1	1235.0	2154.4	470.4	367.4

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	63	64	65	66	67	68	69	70	71	72	73
MONTH/DAY/YEAR	6/ 4/79	6/ 4/79	6/ 4/79	6/ 5/79	6/ 5/79	6/ 5/79	6/ 5/79	6/ 5/79	6/ 6/79	6/ 6/79	6/ 6/79
LATITUDE START	56 49.0	57 9.0	57 10.0	56 49.0	56 49.0	57 8.0	57 9.0	56 50.0	56 30.0	56 30.0	56 29.0
LONGITUDE START	163 2.0	163 1.0	162 27.0	162 27.0	161 50.0	161 47.0	161 15.0	161 15.0	161 15.0	161 47.0	162 22.0
LATITUDE END	56 50.9	57 10.7	57 9.8	56 50.2	56 49.9	57 10.2	57 9.4	56 49.1	56 29.5	56 30.4	56 29.5
LONGITUDE END	163 2.6	163 2.3	162 24.7	162 24.8	161 48.4	161 47.4	161 12.7	161 15.3	161 12.5	161 50.4	162 25.5
LORAN START	18690.80	18717.20	18717.50	18692.30	18692.20	18715.20	18716.00	18694.30	18665.40	18667.30	18659.70
LORAN START	33809.50	33684.20	33603.60	33712.60	33619.60	33507.80	33424.60	33524.80	33626.20	33708.10	33801.70
LORAN END	18693.40	18719.20	18717.20	18692.70	18692.80	18717.00	18715.80	18692.40	18664.50	18662.60	18659.80
LORAN END	33801.20	33698.20	33596.30	33703.90	33611.40	33499.00	33418.00	33532.70	33622.80	33714.00	33809.40
GEAR DEPTH	35	30	28	35	34	31	37	40	37	47	40
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.80	1.50	1.80	1.60	1.40	1.70	1.70	1.50	1.60	1.70	1.80
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	13.1	64.9	204.1	12.9	24.5	235.4	312.2	422.9	0.0	842.6	147.5
PAC COD	2.6	77.4	42.1	18.8	18.8	48.3	33.7	61.9	10.3	5.6	5.3
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	1.0	18.2	3.3	1.9	0.0	0.6	0.0	1.6	0.3	0.0	0.0
EELPOUTS	2.0	1.1	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
OTHER RNDFISH	0.1	2.2	1.7	1.6	1.8	1.5	7.9	3.1	4.2	2.4	0.3
TOT ROUNDFISH	18.8	163.8	251.3	36.2	45.2	286.0	353.8	489.6	14.9	850.7	153.2
YELLOW SOLE	312.8	420.9	138.9	271.0	185.4	161.6	367.1	429.6	1683.1	163.6	28.4
ROCK SOLE	1.9	17.8	42.4	46.5	31.2	25.4	16.4	51.3	127.9	17.1	1.4
FLATHEAD SOLE	14.2	0.0	12.2	8.3	12.9	8.4	21.6	20.0	8.4	15.4	3.4
ALASKA PLAICE	15.1	85.1	27.1	50.5	30.4	4.8	63.0	34.2	2.4	18.4	4.8
GREENLAND TBT	0.4	4.9	0.0	0.1	0.5	0.0	0.9	0.7	0.0	0.2	0.6
ARROWTOOTH FL	0.4	0.0	0.0	6.4	1.5	0.2	0.0	1.9	4.1	4.1	1.0
PAC HALIBUT	0.0	0.0	4.4	0.0	5.6	8.8	0.0	5.8	3.6	0.0	3.6
OTHER FLTFISH	3.5	73.7	54.9	1.0	0.0	29.1	0.2	0.2	25.2	0.0	0.0
TOT FLATFISH	348.2	602.5	280.0	383.8	267.4	238.3	469.2	543.7	1854.7	218.7	43.2
SKATES	0.0	0.0	0.0	1.4	0.0	0.0	0.0	5.4	0.0	0.0	0.0
TOT ELASMOBRH	0.0	0.0	0.0	1.4	0.0	0.0	0.0	5.4	0.0	0.0	0.0
RED KING CRAB	154.5	114.5	210.5	106.5	428.6	190.4	164.8	232.9	270.7	628.9	50.5
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	8.8	13.9	11.4	12.8	8.8	6.1	17.7	17.0	47.6	57.4	6.2
TANNER, OPILIO	1.1	3.7	2.4	3.5	0.0	0.4	2.6	0.3	0.1	0.1	1.5
TANNER, HYBRID	0.0	0.3	0.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	11.3	35.7	6.7	13.2	6.4	3.5	6.8	14.7	51.9	5.8	0.5
SNAILS	17.7	64.9	46.7	4.9	1.7	0.1	0.0	0.4	11.7	1.7	0.1
SHRIMP	0.0	0.2	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
STARFISH	0.0	919.4	23.7	2.7	0.3	0.0	0.0	6.2	22.7	0.0	2.3
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	2.9	6.7	8.1	32.8	6.4	238.7	147.5	95.4	152.3	2.8	5.7
TOTAL INVERTS	196.3	1159.3	309.9	177.1	452.2	439.4	339.4	366.9	557.0	696.6	66.7
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	563.3	1925.6	841.3	598.4	764.9	963.7	1162.4	1405.6	2426.5	1766.1	263.1

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	74	75	76	77	78	79	80	81	82	83	84
MONTH/DAY/YEAR	6/ 6/79	6/ 6/79	6/ 7/79	6/ 7/79	6/ 7/79	6/ 7/79	6/ 7/79	6/ 8/79	6/ 8/79	6/ 8/79	6/ 8/79
LATITUDE START	56 9.0	56 9.0	56 9.0	55 50.0	55 30.0	55 10.0	55 9.0	55 10.0	55 9.0	54 49.0	54 49.0
LONGITUDE START	162 21.0	162 59.0	163 40.0	163 39.0	163 42.0	163 43.0	164 17.0	165 0.0	165 27.0	164 58.0	165 28.0
LATITUDE END	56 9.6	56 9.6	56 9.4	55 48.5	55 28.8	55 9.0	55 9.3	55 9.6	55 9.3	54 49.5	54 49.8
LONGITUDE END	162 24.1	163 2.3	163 37.9	163 39.8	163 42.7	163 42.6	164 20.7	164 57.7	165 30.6	164 55.1	165 31.1
LORAN START	18622.80	18617.20	18610.70	18562.50	18505.30	18442.80	18419.80	18396.00	18372.10	18315.50	18289.50
LORAN START	33888.80	33990.20	34103.60	34175.20	34253.60	34318.40	34410.80	34518.00	34591.30	34562.50	34635.40
LORAN END	18622.00	18616.80	18610.80	18557.20	18499.70	18437.60	18417.50	18395.00	18369.70	18318.90	18287.50
LORAN END	33896.30	33997.70	34096.20	34184.00	34260.80	34321.80	34418.90	34513.50	34598.70	34554.10	34641.30
GEAR DEPTH	41	45	47	49	43	23	37	59	63	40	83
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.40	1.60	1.60	1.90	1.80	1.70	1.70	1.60	1.60	1.90	1.50
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	1339.3	252.5	226.3	219.8	2813.5	4.7	831.1	291.6	443.1	8.5	541.8
PAC COD	0.9	8.4	7.5	30.9	13.2	1937.5	10.6	5.5	14.7	0.0	191.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
SABLEFISH	0.0	0.0	0.0	0.7	0.0	0.8	33.7	917.4	5.6	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.4	3.9	20.6	10.3	60.2	14.8	11.1	3.4	0.0	10.3
EELPOUTS	0.0	2.0	13.4	3.1	1.6	0.0	0.0	53.3	29.5	0.0	0.0
OTHER RNDFISH	1.8	0.4	1.2	1.8	4.9	10.8	0.7	1.5	0.1	0.0	47.4
TOT ROUNDFISH	1342.0	263.8	252.4	276.9	2843.6	2015.2	890.9	1280.4	496.5	8.5	792.8
YELLOW SOLE	164.9	85.8	61.2	115.8	167.9	1163.1	166.3	0.4	0.0	7.3	0.0
ROCK SOLE	70.1	3.5	13.4	60.1	30.8	321.4	54.5	8.0	0.0	1.0	5.7
FLATHEAD SOLE	3.6	10.1	3.4	27.2	196.3	74.7	19.7	4.0	11.8	1.7	0.0
ALASKA PLAICE	12.0	15.2	48.8	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GREENLAND TBT	0.0	1.5	1.5	0.6	0.0	0.0	0.0	0.0	1.9	0.0	0.0
ARROWTOOTH FL	8.4	1.1	1.5	16.9	20.5	24.6	93.2	42.5	23.0	1.8	7.7
PAC HALIBUT	0.0	0.0	0.0	38.5	142.7	33.5	32.3	14.1	1.4	0.0	0.0
OTHER FLTFISH	3.9	0.2	0.1	0.3	3.3	184.1	13.4	0.7	0.2	0.0	0.0
TOT FLATFISH	263.0	117.6	129.9	268.0	561.5	1801.3	379.3	69.7	38.4	11.8	13.4
SKATES	0.0	6.4	4.4	0.0	0.0	0.0	8.8	6.7	35.5	8.0	7.3
TOT ELASMOBRH	0.0	6.4	4.4	0.0	0.0	0.0	8.8	6.7	35.5	8.0	7.3
RED KING CRAB	148.8	98.5	79.7	505.8	87.2	35.4	101.3	22.1	15.5	0.3	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	14.8	43.0	21.0	54.7	211.4	0.5	11.7	36.7	10.7	2.1	37.6
TANNER, OPILIO	0.2	16.7	23.1	8.1	6.4	1.1	0.5	3.3	0.3	0.0	0.0
TANNER, HYBRID	0.0	0.5	1.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
OTHER CRAB	1.0	24.9	48.2	30.9	27.8	5.7	4.5	3.4	1.9	0.0	5.7
SNAILS	0.0	21.5	21.7	25.2	11.6	0.5	0.0	0.0	0.8	0.0	13.1
SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
STARFISH	0.0	2.3	16.8	0.0	5.3	151.7	29.9	0.0	0.0	0.0	0.4
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.1
OTHER INVERTS	3.9	17.7	2.0	142.0	1.0	22.6	28.5	2.0	5.2	1.3	3.0
TOTAL INVERTS	168.8	225.1	213.8	766.7	350.6	217.4	176.4	67.6	34.4	3.7	98.7
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	1773.8	612.9	600.5	1311.6	3755.7	4033.9	1455.4	1424.4	604.7	32.0	912.1

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	85	87	88	90	91	92	93	94	96	97	98
MONTH/DAY/YEAR	6/11/79	6/11/79	6/11/79	6/12/79	6/12/79	6/12/79	6/12/79	6/13/79	6/13/79	6/13/79	6/13/79
LATITUDE START	55 28.0	55 48.0	55 49.0	56 0.0	56 9.0	56 9.0	56 9.0	56 29.0	56 30.0	56 39.0	56 50.0
LONGITUDE START	163 3.0	163 8.0	162 28.0	161 39.0	161 51.0	161 19.0	160 38.0	160 35.0	160 3.0	160 21.0	160 35.0
LATITUDE END	55 29.3	55 49.8	55 49.5	55 59.6	56 9.5	56 9.3	56 9.3	56 29.3	56 30.1	56 39.6	56 49.7
LONGITUDE END	163 1.5	163 8.7	162 30.4	161 36.3	161 54.4	161 17.2	160 35.2	160 37.9	160 0.9	160 23.7	160 33.0
LORAN START	18512.50	18565.40	18577.40	18609.70	18626.10	18629.90	18634.70	18667.00	18669.50	18680.90	18693.90
LORAN START	34160.00	34098.80	33989.50	33820.10	33811.00	33732.50	33630.80	33531.60	33454.60	33453.40	33431.70
LORAN END	18516.10	18568.60	18576.70	18608.50	18625.70	18629.90	18634.70	18666.30	18669.70	18681.50	18684.00
LORAN END	34151.20	34095.40	33995.40	33816.20	33819.60	33726.60	33624.40	33540.00	33449.30	33456.60	33441.00
GEAR DEPTH	23	45	32	18	32	18	12	28	11	30	35
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.40	0.50
DISTANCE FISHED	1.60	1.40	1.20	1.80	1.90	1.50	1.70	1.60	1.20	1.50	1.50
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	0.9	186.4	9.2	3.2	166.3	124.7	0.0	48.5	0.0	167.1	55.4
PAC COD	13.6	16.8	58.5	59.5	1135.1	523.9	8.2	47.4	50.8	3050.9	594.7
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.5	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.2	0.0	0.7	6.4	0.0	24.6	0.0	0.0	2.7	4.9	6.7
ATKA MACKEREL	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	1.8	9.1	3.2	28.5	8.8	27.1	0.8	28.3	1.9	6.5	0.7
EELPOUTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RNDFISH	12.6	2.4	1.3	43.1	3.8	8.4	2.0	15.4	1.4	8.3	15.2
TOT ROUNDFISH	30.9	215.1	72.9	140.6	1314.0	712.6	11.0	139.5	56.8	3237.7	672.8
YELLOW SOLE	19.5	146.7	360.4	472.6	245.7	94.1	282.8	674.7	134.5	412.7	259.4
ROCK SOLE	8.6	5.4	43.5	698.5	545.5	387.4	0.0	378.0	106.6	175.4	48.8
FLATHEAD SOLE	0.1	17.5	23.1	0.0	6.3	4.4	2.7	2.3	0.0	41.6	25.5
ALASKA PLAICE	0.0	11.3	25.4	0.0	0.0	0.0	5.0	0.2	0.0	0.0	0.0
GREENLAND TBT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
ARROWTOOTH FL	0.5	6.4	34.7	7.9	0.0	0.0	0.0	4.5	0.0	0.0	0.2
PAC HALIBUT	0.2	1.4	181.2	212.3	6.5	0.0	8.1	13.7	74.6	2.5	0.0
OTHER FLTFISH	3.4	0.1	47.9	37.3	80.6	9.6	16.1	24.8	8.3	15.3	5.0
TOT FLATFISH	32.3	188.8	716.2	1428.6	884.6	495.5	314.7	1098.3	323.9	647.5	339.1
SKATES	0.0	0.7	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT ELASMOBRH	0.0	0.7	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED KING CRAB	29.0	146.1	37.2	19.5	72.6	0.9	0.5	38.6	0.1	32.2	31.8
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.2	68.0	20.0	0.1	6.8	0.0	0.0	1.8	0.0	5.9	36.3
TANNER, OPILIO	0.0	11.3	0.7	0.0	0.0	0.0	0.0	0.2	0.0	0.7	0.0
TANNER, HYBRID	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	1.4	23.1	27.4	3.3	3.0	0.0	0.2	14.5	1.1	1.2	4.5
SNAILS	0.0	1.8	1.4	12.7	0.0	0.0	0.0	2.7	0.1	2.8	0.2
SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARFISH	1.8	22.5	2.7	438.4	0.0	392.3	282.1	0.0	109.8	96.4	36.6
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	98.8	35.5	4.5	63.4	3.8	0.0	4.1	29.3	13.7	2.8	442.5
TOTAL INVERTS	131.2	310.5	93.9	537.4	86.1	393.2	286.9	87.1	124.8	141.9	551.9
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	194.4	715.1	888.9	2106.6	2284.8	1601.4	612.6	1324.9	505.6	4027.2	1563.8

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	99	101	103	104	106	108	109	111	112	114	115
MONTH/DAY/YEAR	6/14/79	6/14/79	6/14/79	6/14/79	6/16/79	6/15/79	6/15/79	6/16/79	6/16/79	6/16/79	6/16/79
LATITUDE START	56 49.0	56 40.0	56 50.0	56 59.0	57 9.0	57 29.0	57 21.0	57 0.0	57 9.0	57 19.0	57 30.0
LONGITUDE START	159 56.0	159 45.0	159 23.0	159 40.0	159 24.0	159 19.0	159 4.0	159 6.0	158 50.0	158 25.0	158 43.0
LATITUDE END	56 49.3	56 41.0	56 51.2	56 59.9	57 9.9	57 30.4	57 19.7	56 59.2	57 9.5	57 20.3	57 30.2
LONGITUDE END	159 59.2	159 43.0	159 26.0	159 42.9	159 22.2	159 16.3	159 4.0	159 6.2	158 48.1	158 22.5	158 45.7
LORAN START	18694.80	18684.10	18697.10	18705.90	18715.50	18731.40	18724.90	18707.70	18715.90	18724.10	18731.40
LORAN START	33343.20		33263.90	33258.10	33169.80	33048.60	33063.50	33176.70	33097.00	32992.80	32971.20
LORAN END	18694.40	18685.40	18697.40	18706.20	18716.00	18731.80	18713.90	18706.10	18715.80	18724.50	18731.20
LORAN END	33351.60		33267.50	33262.00	33162.90	33038.10	33072.30	33184.30	33092.90	32983.40	32976.70
GEAR DEPTH	28	17	18	24	28	30	26	17	17	16	24
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.70	1.50	1.40	1.40	1.10	1.90	1.50	1.70	1.30	1.80	1.40
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	69.3	0.0	2.9	308.7	42.0	4.3	0.4	0.1	1.6	1.8	40.3
PAC COD	275.6	2.9	29.5	413.4	88.2	26.8	11.2	5.0	8.6	0.2	22.3
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER ROCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	1.8	0.0	10.4	28.9	0.0	7.7	1.6	3.2	0.0	4.2
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	13.0	0.9	17.2	1.3	33.8	27.6	13.2	18.1	3.0	10.3	58.7
EELPOUTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RNDFISH	8.9	1.7	11.4	2.1	25.9	10.3	7.3	11.1	1.2	3.6	15.9
TOT ROUNDFISH	366.8	7.3	61.1	735.8	218.7	69.0	39.7	35.9	17.6	16.0	141.3
YELLOW SOLE	436.7	236.1	173.0	50.4	390.0	198.2	69.1	987.1	42.6	81.9	2205.0
ROCK SOLE	159.5	35.2	162.2	71.7	155.8	32.9	67.0	198.9	2.7	3.9	161.4
FLATHEAD SOLE	2.4	0.0	0.0	3.3	0.0	0.7	0.0	0.0	0.1	0.0	1.4
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GREENLAND TBT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL	1.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	8.1	41.3	9.1	2.3	3.4	17.0	47.3	133.2	0.0	1.5	0.0
OTHER FLTFISH	20.6	2.0	3.9	0.4	4.2	3.6	5.6	11.4	0.6	3.0	20.9
TOT FLATFISH	628.6	314.6	348.3	128.0	553.5	252.4	189.0	1330.6	46.0	90.3	2388.7
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT ELASMOBRH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED KING CRAB	39.9	0.0	4.5	4.1	12.2	14.5	3.2	1.6	0.2	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	17.2	0.5	0.5	3.2	3.6	0.9	0.0	0.0	0.0	0.0	0.0
TANNER, OPILIO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	1.5	1.6	14.9	0.6	13.1	4.3	3.5	8.2	0.5	2.4	4.4
SNAILS	0.0	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.3
SHRIMP	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
STARFISH	40.1	103.6	175.5	52.8	104.1	120.0	1021.3	800.8	56.5	81.9	628.8
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	101.1	0.3	68.3	0.0	394.3	6.9	7.8	2.7	4.1	2.3	19.5
TOTAL INVERTS	199.8	106.0	263.9	60.7	527.7	146.7	1035.8	813.3	61.2	86.5	653.0
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	1195.3	427.9	673.2	924.6	1299.9	468.2	1264.5	2179.9	124.9	192.8	3183.0

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	117	118	119	120	121	122	123	124	125	126	127
MONTH/DAY/YEAR	6/17/79	6/17/79	6/17/79	6/17/79	6/18/79	6/18/79	6/18/79	6/18/79	6/18/79	6/19/79	6/19/79
LATITUDE START	57 30.0	57 38.0	57 48.0	57 50.0	57 58.0	58 9.0	58 9.0	58 9.0	57 51.0	57 49.0	57 59.0
LONGITUDE START	158 4.0	158 20.0	158 1.0	158 39.0	158 15.0	157 59.0	158 33.0	159 8.0	159 16.0	159 50.0	159 37.0
LATITUDE END	57 30.2	57 40.2	57 49.9	57 50.3	57 59.1	58 10.0	58 9.8	58 9.4	57 49.4	57 49.6	58 0.1
LONGITUDE END	158 2.4	158 21.0	158 0.0	158 41.7	158 13.0	157 56.5	158 37.6	159 10.9	159 15.9	159 52.4	159 34.7
LORAN START	18730.70	18736.30	18740.90	18741.50	18745.00	18747.70	18748.00	18748.70	18742.90	18743.00	18746.10
LORAN START	32897.30	32878.20	32787.90	32851.50	32755.80	32664.10	32723.80	32791.60	32920.00	32995.10	32911.10
LORAN END	18730.90	18737.00	18741.40	18741.90	18745.10	18747.40	18757.80	18748.70	18742.20	18742.90	18747.20
LORAN END	32891.90	32872.10	32777.80	32854.70	32748.90	32656.60	32732.90	32797.30	32927.80	33002.00	32896.00
GEAR DEPTH	11	17	12	17	18	14	16	10	21	25	23
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.30	1.30	1.50	1.40	1.40	1.60	1.60	1.30	1.70	1.30	1.60
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	0.2	0.7	0.2	0.2	0.1	0.0	0.4	0.1	4.5	4.1	0.1
PAC COD	0.0	0.2	0.2	0.5	0.9	1.4	1.1	0.2	0.1	1.1	0.2
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER ROCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	1.6	0.1	0.0	1.6	3.6	0.0	0.7	0.0	0.0	0.1	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.6	4.8	1.4	7.8	8.2	3.9	12.2	10.9	17.7	20.6	13.6
EELPOUTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RNDFISH	1.7	1.3	2.1	8.8	7.8	6.1	9.4	2.5	5.6	4.1	0.6
TOT ROUNDFISH	4.1	7.1	3.9	18.9	20.6	11.3	23.8	13.6	28.0	30.1	14.4
YELLOW SOLE	9.1	370.4	78.7	78.9	261.0	17.7	729.6	105.7	101.6	172.1	51.5
ROCK SOLE	0.1	5.4	0.9	15.4	12.0	1.0	0.7	0.0	30.4	30.2	12.9
FLATHEAD SOLE	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
GREENLAND TBT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	0.1	70.6	28.6	0.7	27.9	42.8	65.1	6.5	3.7	0.7	3.5
OTHER FLTFISH	0.5	10.4	7.8	2.0	8.6	4.2	4.5	6.8	4.5	36.3	9.3
TOT FLATFISH	9.7	457.3	116.0	97.1	309.6	65.7	799.9	119.0	140.3	239.9	77.2
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT ELASMOBRH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED KING CRAB	0.2	0.1	0.1	7.0	27.2	10.4	0.1	0.7	2.0	18.1	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0
TANNER, OPILIO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	0.2	0.1	0.9	0.0	1.1	15.4	4.7	1.0	0.3	1.8	0.6
SNAILS	0.0	0.0	0.0	0.0	0.2	10.9	0.2	0.1	0.0	0.7	0.0
SHRIMP	0.5	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.0
STARFISH	10.9	11.3	18.6	35.4	29.9	186.2	30.8	0.0	71.2	286.7	19.1
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	2.3	16.2	3.0	0.4	0.6	55.2	27.1	3.3	0.6	16.2	1.7
TOTAL INVERTS	14.0	27.7	22.5	42.8	59.2	278.3	63.0	5.2	74.2	324.3	21.3
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	27.9	492.1	142.5	158.7	389.4	355.3	886.7	137.8	242.4	594.3	113.0

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	128	129	130	131	132	133	134	135	136	137	138
MONTH/DAY/YEAR	6/19/79	6/19/79	6/19/79	6/19/79	6/20/79	6/20/79	6/20/79	6/20/79	6/20/79	6/21/79	6/21/79
LATITUDE START	58 9.0	58 17.0	58 18.0	58 20.0	58 8.0	57 59.0	57 49.0	57 29.0	57 10.0	57 9.0	57 28.0
LONGITUDE START	159 50.0	159 29.0	160 2.0	160 42.0	160 26.0	160 11.0	160 30.0	159 58.0	159 56.0	160 31.0	160 30.0
LATITUDE END	58 10.3	58 18.7	58 17.3	58 20.2	58 8.3	57 59.4	57 49.2	57 29.8	57 9.4	57 9.8	57 30.0
LONGITUDE END	159 52.5	159 28.0	160 0.6	160 45.2	160 23.6	160 8.9	160 32.7	159 55.2	159 56.0	160 34.1	160 30.5
LORAN START	18747.00	18750.30	18750.60	18750.70	18749.40	18747.10	18743.60	18731.90	18716.90	18716.10	18731.40
LORAN START	32865.60	32780.90	32842.90	32912.90	32957.30	32979.00	33083.70	33131.10	33231.60	33316.70	33212.00
LORAN END	18748.00	18750.40	18750.50	18750.50	18749.40	18746.90	18743.50	18731.90	18715.50	18716.00	18732.60
LORAN END	32873.40	32771.80	32845.20	32916.90	32950.50	32976.50	33091.50	33124.60	33239.60	33323.90	33201.80
GEAR DEPTH	22	11	6	8	22	27	28	28	32	36	32
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.70	1.30	1.50	1.30	1.40	1.50	1.40	1.50	1.50	1.50	1.70
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	3.2	0.0	0.0	0.0	0.0	9.0	11.5	5.6	58.7	74.3	55.8
PAC COD	0.1	0.0	0.0	0.0	2.3	4.5	0.8	43.1	68.9	326.6	91.4
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	3.2	0.5	4.1	0.2	23.6	0.1	18.8
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	26.5	29.8	9.2	13.8	41.5	16.9	15.8	32.1	6.3	1.0	9.6
EELPOUTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RNDFISH	11.6	28.0	14.2	5.1	6.4	14.1	1.3	11.1	3.6	16.7	18.2
TOT ROUNDFISH	41.5	57.8	23.4	18.9	53.4	45.0	33.5	92.1	161.2	418.6	193.8
YELLOW SOLE	895.6	1268.1	31.1	257.2	272.8	459.1	268.8	486.2	354.5	291.4	241.3
ROCK SOLE	3.4	0.0	0.0	9.1	53.8	23.7	18.8	108.6	38.6	47.9	51.9
FLATHEAD SOLE	1.8	0.0	0.0	0.0	0.0	2.8	4.5	3.6	3.6	4.8	5.4
ALASKA PLAICE	3.4	11.9	0.0	0.5	1.1	3.9	0.7	0.0	0.5	0.7	0.9
GREENLAND TBT	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	15.0	0.0	2.4	10.5	3.5	0.3	1.3	8.5	14.2	1.1	0.0
OTHER FLTFISH	56.5	79.0	2.0	44.0	53.1	36.7	10.0	6.1	4.8	4.1	9.1
TOT FLATFISH	975.9	1358.9	35.5	321.2	384.3	526.8	304.0	613.2	416.0	350.0	308.7
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT ELASMOBRH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED KING CRAB	13.2	0.0	0.0	0.0	80.3	113.9	48.1	29.5	34.5	23.6	53.5
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.0	0.0	0.0	0.2	0.9	0.9	9.1	15.9	47.2	17.2
TANNER, OPILIO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	2.5	0.7	15.6	3.2	6.0	3.9	0.9	5.4	3.6	4.6	3.9
SNAILS	2.4	0.0	0.0	0.0	6.0	7.3	2.9	1.8	2.4	0.5	1.1
SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARFISH	140.4	186.9	45.6	0.0	140.8	449.0	24.9	56.7	6.8	0.0	43.3
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	0.2	0.7	61.7	0.1	4.8	9.5	3.9	96.3	30.9	53.6	22.6
TOTAL INVERTS	158.6	188.2	122.9	3.3	238.2	584.5	81.6	198.8	94.1	129.9	141.7
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	1175.9	1604.9	181.8	343.4	675.9	1156.2	419.2	904.0	671.3	898.6	644.2

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	139	140	141	142	143	144	145	146	147	148	149
MONTH/DAY/YEAR	6/21/79	6/21/79	6/21/79	6/22/79	6/22/79	6/22/79	6/22/79	6/23/79	6/23/79	6/23/79	6/23/79
LATITUDE START	57 30.0	57 47.0	57 58.0	58 0.0	58 8.0	58 20.0	58 20.0	58 10.0	58 0.0	57 50.0	57 50.0
LONGITUDE START	161 11.0	161 17.0	161 27.0	160 51.0	161 6.0	161 21.0	162 0.0	161 47.0	162 4.0	162 17.0	161 48.0
LATITUDE END	57 30.3	57 49.4	57 59.1	58 0.5	58 10.3	58 20.2	58 20.0	58 10.2	58 0.1	57 49.1	57 50.0
LONGITUDE END	161 14.6	161 17.0	161 24.8	160 54.2	161 7.1	161 24.3	162 3.3	161 44.7	162 7.0	162 19.9	161 45.9
LORAN START	18733.30	18744.00	18748.00	18747.50	18749.70	18750.50	18750.30	18750.20	18748.90	18746.50	18745.20
LORAN START	33295.40	33199.90	33156.70	33063.90	33040.10	32995.70	33082.70	33122.90	33231.40	33329.30	33259.10
LORAN END	18733.50	18744.60	18748.20	18747.60	18749.90	18750.50	18750.40	18750.30	18748.80	18746.10	18745.30
LORAN END	33303.20	33190.30	33145.40	33067.00	33031.30	33001.20	33089.00	33116.00	33237.80	33342.70	33254.20
GEAR DEPTH	30	25	27	24	24	16	25	20	18	24	25
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.60	1.40	1.60	1.60	1.50	1.50	1.60	1.50	1.50	1.70	1.20
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	821.1	30.8	11.0	5.0	1.7	0.0	0.2	0.0	0.0	8.3	33.5
PAC COD	96.2	7.9	4.5	3.6	18.6	0.0	1.1	0.0	0.0	2.0	11.5
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	3.4	15.5	27.4	54.4	10.7	3.4	27.2	35.0	48.4	23.2	47.9
EELPOUTS	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RNDFISH	2.6	2.4	15.7	4.5	22.1	3.6	10.3	7.0	6.8	4.0	3.6
TOT ROUNDFISH	923.8	56.6	58.6	67.7	53.0	7.0	38.8	42.0	55.2	37.5	96.5
YELLOW SOLE	157.5	195.0	267.8	195.7	293.0	396.7	69.4	378.8	376.6	302.7	648.5
ROCK SOLE	14.1	23.8	5.4	95.5	10.4	80.7	8.6	109.7	66.7	8.7	0.0
FLATHEAD SOLE	10.4	11.8	0.5	5.7	0.0	0.0	0.0	0.0	0.0	2.6	2.7
ALASKA PLAICE	9.2	1.8	3.6	7.0	9.3	0.1	0.2	12.4	4.8	1.3	5.3
GREENLAND TBT	1.0	0.6	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.7
ARROWTOOTH FL	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	1.0	0.7	6.8	1.0	3.3	19.8	5.4	0.0	0.3	38.4	22.1
OTHER FLTFISH	15.3	25.4	6.1	61.7	9.5	36.3	6.1	32.7	27.3	3.0	12.4
TOT FLATFISH	208.8	259.2	290.4	366.8	325.5	533.6	89.8	533.6	475.6	357.0	691.7
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT ELASMOBRH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED KING CRAB	10.0	72.6	68.0	96.6	39.9	3.6	0.0	33.1	47.2	100.0	181.4
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	11.3	1.1	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.5	4.5
TANNER, OPILIO	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	6.2	6.3	11.1	4.8	4.5	6.9	8.0	3.7	5.4	1.9	2.0
SNAILS	5.3	10.0	7.7	4.1	2.5	0.0	3.6	0.1	1.4	10.5	8.8
SHRIMP	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARFISH	0.0	1.6	32.0	64.4	32.7	83.7	100.2	590.9	459.4	364.6	326.0
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	0.0	3.6	10.8	10.6	9.3	0.1	0.7	6.1	0.4	1.5	3.0
TOTAL INVERTS	33.0	95.2	129.6	182.4	88.9	94.4	112.6	633.9	513.8	479.0	525.8
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	1165.5	411.0	478.7	616.9	467.4	635.1	241.1	1209.5	1044.6	873.5	1314.0

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	150	151	152	153	154	155	156	157	158	159	160
MONTH/DAY/YEAR	6/23/79	6/24/79	6/24/79	6/24/79	6/24/79	6/25/79	6/25/79	6/25/79	6/25/79	6/26/79	6/27/79
LATITUDE START	57 30.0	57 29.0	57 28.0	57 48.0	57 40.0	57 29.0	57 9.0	57 9.0	57 29.0	57 38.0	57 38.0
LONGITUDE START	161 46.0	162 19.0	162 55.0	162 53.0	163 18.0	163 33.0	163 36.0	164 14.0	164 11.0	163 56.0	164 32.0
LATITUDE END	57 29.5	57 29.6	57 29.5	57 49.2	57 39.6	57 29.8	57 9.7	57 9.5	57 29.8	57 39.1	57 39.1
LONGITUDE END	161 46.3	162 21.7	162 57.7	162 56.9	163 21.9	163 36.3	163 38.7	164 17.5	164 14.2	163 58.4	164 35.5
LORAN START	18735.00	18735.10	18735.60	18747.00	18743.90	18737.60	18718.70	18719.90	18739.40	18744.30	18746.00
LORAN START	33374.70	33464.40	33563.80	33429.00	33552.70	33662.70	33791.10	33901.30	33768.10	33667.40	33768.30
LORAN END	18734.00	18735.10	18736.30	18747.20	18743.70	18738.00	18718.90	18720.00	18739.70	18744.80	18746.30
LORAN END	33383.20	33471.50	33565.00	33434.90	33564.70	33667.70	33797.20	33909.20	33773.80	33667.80	33773.00
GEAR DEPTH	25	27	27	22	25	26	35	35	28	27	27
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.40	1.40	1.50	1.70	1.70	1.50	1.30	1.50	1.40	1.40	1.40
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	170.8	101.6	88.2	10.8	2.4	12.2	268.6	25.6	14.4	58.5	21.4
PAC COD	48.1	8.8	20.6	350.9	4.1	21.8	67.6	39.3	29.3	144.7	39.5
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	12.7	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	6.1	8.9	6.5	5.5	17.6	17.4	3.4	14.6	95.6	27.9	55.6
EELPOUTS	0.0	0.0	0.0	0.0	0.3	1.1	1.2	6.8	1.6	0.6	0.9
OTHER RNDFISH	0.9	1.0	0.7	3.9	1.5	0.7	3.1	2.5	1.5	14.7	5.9
TOT ROUNDFISH	238.6	120.5	116.1	371.1	25.9	53.2	344.1	88.8	142.5	246.4	123.2
YELLOW SOLE	170.3	221.6	191.2	357.0	324.8	396.2	274.1	304.2	676.3	434.9	755.0
ROCK SOLE	8.8	5.2	8.2	6.1	5.6	7.9	1.2	0.0	0.6	0.8	4.4
FLATHEAD SOLE	0.2	6.8	4.5	0.0	0.2	1.4	4.9	3.4	0.8	0.8	0.3
ALASKA PLAICE	32.7	72.6	56.2	2.3	30.7	49.0	49.2	110.0	42.4	121.9	175.6
GREENLAND TBT	0.5	0.7	0.1	0.0	0.0	0.5	2.4	3.4	0.8	2.4	0.0
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	46.5	17.5	8.8	8.4	19.4	9.1	0.0	0.0	2.4	1.6	0.0
TOT FLATFISH	264.2	324.3	269.1	373.9	380.7	464.0	331.8	421.0	723.4	562.5	935.2
SKATES	0.0	0.0	0.0	0.0	0.0	0.2	0.0	4.5	0.0	3.3	0.0
TOT ELASMOBRH	0.0	0.0	0.0	0.0	0.0	0.2	0.0	4.5	0.0	3.3	0.0
RED KING CRAB	54.4	88.5	90.7	49.9	56.7	136.1	403.7	13.2	8.2	72.6	11.3
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	3.2	36.3	2.3	0.5	2.3	11.3	29.5	17.7	8.2	6.8	4.1
TANNER, OPILIO	0.0	0.1	0.9	0.0	0.5	22.7	29.5	249.5	74.8	27.2	45.4
TANNER, HYBRID	0.0	0.0	0.1	0.0	0.5	0.2	2.3	2.3	11.3	0.5	4.1
OTHER CRAB	4.8	5.7	11.3	0.3	31.2	44.7	82.3	52.6	227.6	85.4	94.1
SNAILS	5.7	7.7	24.7	0.8	57.2	51.5	14.7	13.5	197.4	58.5	114.1
SHRIMP	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.0
STARFISH	0.0	17.2	98.9	485.7	194.6	169.6	0.0	29.2	0.0	104.9	1640.1
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	0.5	6.7	0.9	0.6	13.0	1.9	0.2	33.7	114.5	37.1	191.1
TOTAL INVERTS	68.6	162.2	229.9	537.7	355.8	438.1	562.2	411.8	642.1	392.9	2104.3
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	571.4	607.0	615.1	1282.7	762.4	955.6	1238.2	926.0	1508.0	1205.1	3162.7

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	161	162	163	164	165	166	167	168	169	170	171
MONTH/DAY/YEAR	6/27/79	6/27/79	6/27/79	6/27/79	6/28/79	6/28/79	6/28/79	6/28/79	6/29/79	6/29/79	6/30/79
LATITUDE START	57 29.0	57 10.0	57 1.0	56 49.0	56 50.0	56 29.0	56 28.0	56 45.0	56 58.0	57 8.0	57 9.0
LONGITUDE START	164 59.0	164 56.0	165 10.0	164 56.0	165 30.0	165 27.0	166 0.0	166 5.0	165 50.0	165 33.0	166 7.0
LATITUDE END	57 29.3	57 9.4	56 59.9	56 48.4	56 50.4	56 27.7	56 28.2	56 46.4	56 58.6	57 8.6	57 8.5
LONGITUDE END	164 56.5	164 56.9	165 13.2	164 54.9	165 33.6	165 27.9	166 3.7	166 7.8	165 48.2	165 30.9	166 8.7
LORAN START	18741.70	18723.50	18710.30	18690.80	18698.30	18644.60	18637.60	18680.80	18708.20	18722.40	18726.00
LORAN START	33908.10	34015.10	34117.50	34134.50	34238.80	34329.80	34436.80	34373.50	34253.70	34143.80	34245.80
LORAN END	18741.50	18721.60	18708.60	18688.50	18689.20	18640.70	18637.60	18683.50	18707.50	18722.20	18724.20
LORAN END	33900.20	34026.60	34131.20	34137.30	34246.30	34337.60	34445.80	34375.00	34248.10	34136.00	34257.00
GEAR DEPTH	29	36	37	38	40	45	47	42	38	37	37
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.50	1.60	1.70	1.40	1.60	1.50	1.70	1.80	1.40	1.40	1.40
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	70.0	70.7	23.1	45.1	202.0	40.4	482.5	719.8	2913.1	124.5	478.8
PAC COD	40.9	21.6	35.8	49.0	22.7	3.5	21.2	98.2	30.2	112.3	26.9
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	35.1	15.7	7.1	1.4	0.0	70.0	0.9	0.7	14.0	7.8	27.5
EELPOUTS	31.0	11.8	5.4	5.9	77.6	24.7	18.5	12.7	13.2	9.5	13.5
OTHER RNDFISH	3.5	2.5	0.4	1.6	0.5	1.0	0.5	0.6	1.5	2.6	1.8
TOT ROUNDFISH	181.0	122.3	71.9	102.9	302.9	139.7	523.7	832.1	2971.9	256.7	548.5
YELLOW SOLE	602.7	724.4	168.5	283.3	1032.7	247.4	282.6	90.3	289.3	325.7	400.2
ROCK SOLE	0.1	1.6	5.4	0.7	1.7	28.2	8.3	5.0	8.8	21.1	7.8
FLATHEAD SOLE	1.5	8.8	3.2	2.0	7.8	115.9	13.8	14.3	1.5	4.3	6.8
ALASKA PLAICE	82.3	59.9	20.4	44.5	35.7	31.3	81.7	15.2	67.7	142.4	98.8
GREENLAND TBT	2.4	4.4	5.4	8.4	14.8	2.0	6.5	14.3	0.0	6.8	4.5
ARROWTOOTH FL	0.0	0.1	0.0	0.0	0.0	0.0	3.2	0.0	6.6	0.0	0.0
PAC HALIBUT	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
TOT FLATFISH	689.1	799.2	203.6	338.8	1093.2	424.8	396.2	139.0	373.9	500.3	518.1
SKATES	2.9	0.0	0.0	0.0	0.0	5.0	18.9	0.0	0.0	0.0	0.0
TOT ELASMOBRH	2.9	0.0	0.0	0.0	0.0	5.0	18.9	0.0	0.0	0.0	0.0
RED KING CRAB	0.0	3.2	20.4	206.4	39.9	818.3	109.8	73.5	10.4	2.3	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	3.2	15.0	0.7	4.1	2.3	1.8	1.4	5.4	15.9	4.5	3.6
TANNER, OPILIO	95.3	75.3	10.9	7.3	24.9	24.9	152.4	39.9	88.5	176.9	199.6
TANNER, HYBRID	3.2	5.0	0.0	0.0	2.3	0.0	0.9	0.0	4.5	0.5	0.9
OTHER CRAB	67.6	24.0	5.1	10.4	20.0	39.0	20.8	21.1	11.2	3.3	17.7
SNAILS	42.4	120.7	1.8	1.4	11.7	28.7	65.6	0.9	38.3	34.5	23.0
SHRIMP	0.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARFISH	10.8	102.6	58.7	55.8	36.7	7.6	90.5	19.1	26.5	70.1	55.6
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	23.6	30.4	7.7	17.2	45.4	18.2	3.8	2.7	7.3	9.7	10.1
TOTAL INVERTS	246.1	377.0	105.3	302.5	183.2	938.6	445.1	162.6	202.6	301.7	310.5
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	1119.2	1298.5	380.8	744.3	1579.3	1508.1	1383.8	1133.8	3548.4	1058.7	1377.1

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	172	173	174	175	176	177	178	179	180	181	182
MONTH/DAY/YEAR	6/30/79	6/30/79	6/30/79	6/30/79	7/ 1/79	7/ 1/79	7/ 1/79	7/ 1/79	7/ 7/79	7/ 7/79	7/ 7/79
LATITUDE START	56 59.0	57 8.0	57 0.0	57 8.0	56 59.0	56 49.0	56 48.0	56 29.0	57 0.0	57 18.0	57 40.0
LONGITUDE START	166 24.0	166 42.0	167 1.0	167 23.0	167 37.0	167 25.0	166 45.0	166 38.0	168 19.0	168 56.0	168 25.0
LATITUDE END	56 58.8	57 9.0	56 58.9	57 8.9	56 58.8	56 48.8	56 48.8	56 28.0	57 1.2	57 19.3	57 40.1
LONGITUDE END	166 26.1	166 45.3	167 3.3	167 26.4	167 40.6	167 22.7	166 42.4	166 39.2	168 21.6	168 54.1	168 23.0
LORAN START	18711.10	18726.50	18713.20	18730.10	18712.90	18688.80	18688.40	18635.80	18718.10	18750.00	18743.90
LORAN START	34359.20	34368.70	34481.00	34504.50	34609.80	34616.50	34485.30	34550.70	34751.90	34773.20	34487.00
LORAN END	18709.20	18727.30	18711.00	18730.50	18712.50	18687.80	18688.60	18631.30	18720.30	18750.20	18744.40
LORAN END	34369.60	34374.60	34493.20	34514.70	34621.90	34610.40	34475.60	34558.30	34754.20	34759.40	34478.80
GEAR DEPTH	39	39	39	39	41	46	43	55	38	36	37
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.30	1.40	1.50	1.70	1.70	1.40	1.60	1.50	1.40	1.50	1.30
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	87.9	833.2	144.0	1595.6	176.9	824.0	13.4	827.3	4.8	1.2	1683.6
PAC COD	29.7	41.6	14.0	49.9	15.4	30.8	11.8	14.9	12.0	430.9	14.5
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0
SCULPINS	23.9	10.8	10.3	47.9	14.2	11.7	197.2	17.9	29.6	408.1	15.2
EELPOUTS	5.8	8.7	6.1	19.8	4.5	9.6	21.7	33.8	0.1	0.0	0.4
OTHER RNDFISH	0.9	1.4	2.0	4.2	9.4	1.0	5.4	2.4	2.4	16.3	0.6
TOT ROUNDFISH	148.1	895.6	176.3	1717.3	220.5	877.0	249.5	896.3	48.9	856.7	1714.6
YELLOW SOLE	448.2	712.5	138.4	358.9	39.0	67.9	173.5	14.9	20.6	39.5	85.6
ROCK SOLE	12.2	4.0	1.4	9.3	7.5	5.3	2.0	0.5	0.1	49.7	4.3
FLATHEAD SOLE	4.2	10.8	5.1	8.3	1.1	6.4	2.0	2.0	0.2	0.0	0.4
ALASKA PLAICE	24.4	43.0	35.5	97.8	4.1	19.6	21.7	13.4	0.1	5.4	49.8
GREENLAND TBT	4.4	6.7	4.7	9.3	3.2	1.6	0.4	20.9	0.1	0.5	7.0
ARROWTOOTH FL	0.1	0.0	0.0	0.0	0.2	1.0	0.0	5.0	0.1	0.5	0.0
PAC HALIBUT	2.8	0.0	0.0	0.0	0.0	0.0	0.0	10.8	0.0	0.0	0.0
OTHER FLTFISH	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
TOT FLATFISH	496.4	776.9	185.2	483.7	55.1	101.9	199.5	67.5	21.4	95.5	147.1
SKATES	1.0	4.0	0.0	0.0	1.4	0.5	0.0	17.9	0.0	0.0	2.1
TOT ELASMOBRH	1.0	4.0	0.0	0.0	1.4	0.5	0.0	17.9	0.0	0.0	2.1
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	3.6	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.3	24.0	4.3
TANNER, BAIRDI	3.6	6.8	9.1	4.5	9.1	4.8	43.1	22.2	14.1	19.3	27.2
TANNER, OPILIO	197.3	317.5	440.0	485.1	310.7	525.9	1616.6	63.0	78.9	153.7	382.8
TANNER, HYBRID	2.3	2.3	0.0	0.2	0.5	0.0	0.0	3.2	1.5	0.0	3.4
OTHER CRAB	10.6	52.6	64.6	114.8	15.0	7.4	20.4	16.7	1.1	144.0	77.1
SNAILS	48.2	26.9	21.0	105.1	3.4	18.1	63.1	16.9	2.7	32.7	57.0
SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
STARFISH	65.2	46.3	84.6	98.8	13.8	40.9	27.6	23.4	1.1	11.0	3.4
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
OTHER INVERTS	14.3	184.5	3.3	3.4	0.2	5.3	13.8	7.1	0.1	493.2	275.5
TOTAL INVERTS	341.5	636.8	622.6	812.0	352.7	602.4	1784.6	161.9	130.9	881.7	830.7
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	987.0	2313.4	984.0	3013.0	629.6	1581.8	2233.5	1143.7	201.2	1834.0	2694.5

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	183	184	185	186	187	188	189	190	191	192	193
MONTH/DAY/YEAR	7/ 7/79	7/ 8/79	7/ 8/79	7/ 9/79	7/ 9/79	7/ 9/79	7/ 9/79	7/ 9/79	7/10/79	7/10/79	7/10/79
LATITUDE START	57 40.0	57 39.0	57 38.0	57 37.0	57 42.0	57 59.0	57 59.0	58 0.0	57 40.0	57 39.0	57 59.0
LONGITUDE START	167 47.0	165 11.0	165 49.0	166 24.0	167 12.0	167 47.0	168 24.0	169 1.0	169 1.0	169 38.0	169 41.0
LATITUDE END	57 40.3	57 38.9	57 38.2	57 37.9	57 41.3	57 59.6	58 0.3	57 59.8	57 40.2	57 41.4	57 59.5
LONGITUDE END	167 43.9	165 13.8	165 51.9	166 27.1	167 14.7	167 50.5	168 27.5	169 4.0	169 3.7	169 37.3	169 44.2
LORAN START	18749.10	18747.80	18749.20	18750.00	18750.50	18731.00	18713.60	18683.00	18732.20	18700.40	18625.50
LORAN START	34360.60	33878.60	33995.50	34112.30	34233.50	34188.60	34294.90	34390.50	34601.00	34704.00	34477.40
LORAN END	18749.30	18747.80	18749.00	18750.10	18750.50	18729.90	18711.20	18681.80	18731.30	18696.70	18621.20
LORAN END	34350.10	33886.30	34007.20	34119.70	34246.40	34198.50	34298.80	34399.80	34608.00	34684.00	34484.80
GEAR DEPTH	36	31	33	36	35	35	36	37	36	37	37
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.70	1.20	1.30	1.40	1.30	1.80	1.50	1.20	1.00	1.70	1.40
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	20.9	316.8	207.9	744.5	77.0	28.8	4.0	28.4	232.7	131.9	7.8
PAC COD	42.9	178.0	123.8	216.2	30.2	31.8	24.5	3.7	38.7	77.6	23.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER ROCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.2	1.8	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	58.5	125.2	132.5	78.0	67.5	36.8	57.2	4.8	38.8	0.5	11.8
EELPOUTS	20.9	20.8	15.0	13.7	16.5	20.9	13.1	11.8	6.5	5.2	17.8
OTHER RNDFISH	6.0	3.8	13.6	13.3	10.4	6.8	5.8	1.0	3.8	4.0	6.0
TOT ROUNDFISH	149.2	644.6	492.7	1065.7	201.8	126.8	104.6	49.7	320.5	219.3	66.4
YELLOW SOLE	332.4	700.2	817.9	347.2	307.3	207.9	1307.4	73.2	65.2	50.1	10.8
ROCK SOLE	12.1	0.0	6.4	0.0	3.7	0.1	0.9	0.2	0.6	0.5	0.0
FLATHEAD SOLE	2.0	1.5	1.9	2.0	1.2	1.1	0.0	0.5	0.1	3.5	0.0
ALASKA PLAICE	81.1	92.7	39.2	51.0	138.5	33.2	97.6	4.1	40.4	24.8	3.2
GREENLAND TBT	7.3	1.0	1.4	2.9	8.9	15.8	3.1	5.5	10.6	25.3	8.3
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT FLATFISH	434.8	795.5	866.8	403.0	459.6	258.1	1408.9	83.4	116.9	104.2	22.2
SKATES	0.0	2.0	7.1	0.0	4.1	1.1	2.1	2.6	18.9	9.1	0.0
TOT ELASMOBRH	0.0	2.0	7.1	0.0	4.1	1.1	2.1	2.6	18.9	9.1	0.0
RED KING CRAB	0.0	6.4	3.1	0.0	3.4	0.0	0.0	2.7	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.6	24.0	0.0
TANNER, BAIRDI	0.0	0.9	10.9	0.8	3.3	1.1	1.6	5.6	0.0	0.0	0.0
TANNER, OPILIO	113.4	47.2	209.6	84.1	184.0	29.0	67.4	171.3	134.7	236.5	571.1
TANNER, HYBRID	5.4	2.3	6.8	2.5	7.1	0.2	0.5	0.0	0.5	128.3	86.6
OTHER CRAB	140.4	130.8	104.1	94.7	88.0	54.3	76.2	40.1	177.1	94.0	45.9
SNAILS	99.6	94.3	114.2	74.0	85.2	46.5	87.6	55.2	27.3	11.7	75.6
SHRIMP	0.0	0.0	0.1	0.0	0.0	0.3	0.0	0.2	0.0	0.2	0.4
STARFISH	27.3	18.8	55.2	23.8	25.7	3.5	1.5	2.1	35.2	27.0	7.7
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	82.7	92.9	26.1	17.9	20.7	5.9	116.9	44.0	291.4	17.6	39.0
TOTAL INVERTS	468.9	393.5	530.0	297.9	417.3	140.8	351.7	321.1	701.7	539.4	826.3
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	1052.9	1835.5	1896.6	1766.6	1082.9	526.8	1867.3	456.8	1158.1	871.9	914.9

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	194	195	197	198	199	200	201	203	204	205	207
MONTH/DAY/YEAR	7/10/79	7/11/79	7/11/79	7/11/79	7/11/79	7/12/79	7/12/79	7/12/79	7/12/79	7/13/79	7/13/79
LATITUDE START	58 0.0	58 10.0	57 50.0	57 31.0	57 13.0	57 31.0	57 50.0	58 10.0	58 30.0	59 9.0	58 48.0
LONGITUDE START	170 15.0	171 16.0	171 49.0	172 24.0	172 54.0	173 36.0	173 6.0	172 35.0	172 0.0	172 10.0	172 43.0
LATITUDE END	58 0.4	58 9.4	57 51.3	57 30.5	57 14.4	57 30.3	57 51.6	58 11.3	58 32.2	59 10.6	58 47.7
LONGITUDE END	170 18.8	171 18.2	171 47.5	172 26.9	172 55.8	173 34.5	173 4.8	172 33.4	172 0.4	172 8.4	172 45.9
LORAN START	18537.40	18264.80	18150.70	17934.10	17719.00	17485.70	17689.60	17864.00	18008.20	17877.60	17769.50
LORAN START	34510.10	34380.40	34544.00	34645.40	34703.50	34490.30	34406.60	34285.30	34116.50	33676.80	49824.40
LORAN END	18528.20	18260.30	18157.20	17921.20	17712.30	17496.50	17700.50	17872.90	18006.30	17884.10	17760.00
LORAN END	34510.90	34389.60	34544.70	34649.60	34692.90	34500.60	34400.60	34276.80	34098.10	33662.80	49832.20
GEAR DEPTH	39	43	54	60	62	67	63	56	53	51	56
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.50	1.20	1.50	1.50	1.40	1.40	1.50	1.50	1.70	1.80	1.60
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	338.9	333.8	71.1	0.1	249.5	51.6	226.4	1901.4	694.7	129.0	769.2
PAC COD	76.3	27.4	4.0	0.0	0.0	19.2	1.9	15.6	184.8	67.8	108.1
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	7.1	6.8	10.6	1.2	4.5	97.3	13.6	0.2	7.7	2.6	0.3
EELPOUTS	9.9	56.5	37.1	1.3	17.2	6.8	179.4	4.8	73.1	25.6	51.1
OTHER RNDFISH	3.0	2.6	0.1	0.1	0.5	0.1	0.6	0.2	0.1	1.6	0.4
TOT ROUNDFISH	435.3	427.2	122.9	2.7	271.8	175.1	421.8	1922.1	960.4	226.7	929.1
YELLOW SOLE	39.9	9.5	0.2	0.0	0.0	0.0	0.0	0.0	1.4	0.6	0.0
ROCK SOLE	1.0	0.1	2.6	0.0	0.0	0.1	0.0	0.0	0.5	0.1	0.0
FLATHEAD SOLE	3.1	9.5	4.2	0.1	0.5	1.3	4.6	0.0	2.4	0.4	0.1
ALASKA PLAICE	12.5	0.6	2.6	0.0	0.0	0.0	0.0	0.0	0.6	2.0	0.0
GREENLAND TBT	55.8	41.5	20.0	0.1	1.7	0.5	3.7	7.8	41.9	59.4	47.6
ARROWTOOTH FL	0.0	0.0	0.0	0.0	6.8	11.2	1.4	0.0	0.0	0.0	0.0
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
TOT FLATFISH	112.3	61.2	29.6	0.2	9.1	13.2	9.7	7.8	46.8	62.6	47.7
SKATES	9.3	52.8	37.4	0.0	3.6	2.3	16.2	2.9	2.4	10.6	34.1
TOT ELASMOBRH	9.3	52.8	37.4	0.0	3.6	2.3	16.2	2.9	2.4	10.6	34.1
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	35.4	10.4	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.0	2.9	0.0	54.9	108.0	127.5	6.4	1.1	0.0	0.0
TANNER, OPILIO	204.9	21.8	78.2	1.3	4.2	4.8	23.9	3.2	10.0	248.8	1.6
TANNER, HYBRID	7.4	0.8	2.9	0.8	7.1	0.2	15.6	1.6	0.4	0.0	0.0
OTHER CRAB	40.6	10.2	12.9	0.0	5.0	5.9	20.5	1.4	57.2	8.4	4.4
SNAILS	11.5	39.7	9.8	0.1	11.3	9.5	12.8	14.5	58.9	14.6	49.5
SHRIMP	0.0	6.4	7.8	0.1	0.6	0.0	4.5	0.1	0.2	0.9	2.9
STARFISH	5.5	57.2	25.0	4.7	6.8	3.8	1.9	0.0	10.9	21.7	2.4
SQUID	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.9	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.9	0.0
OTHER INVERTS	20.9	9.5	0.0	0.0	0.1	11.3	3.8	0.1	2.1	80.0	3.4
TOTAL INVERTS	326.1	156.9	145.7	7.0	89.9	158.6	210.7	27.3	140.7	375.2	64.1
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	883.0	698.2	335.5	9.9	374.4	349.1	658.5	1960.2	1150.3	675.1	1075.0

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	208	209	210	211	212	214	215	216	213	219	220
MONTH/DAY/YEAR	7/13/79	7/13/79	7/14/79	7/14/79	7/14/79	7/14/79	7/15/79	7/15/79	7/15/79	7/15/79	7/16/79
LATITUDE START	58 29.0	58 10.0	58 48.0	59 10.0	59 30.0	59 49.0	59 30.0	59 10.0	58 51.0	59 10.0	58 51.0
LONGITUDE START	173 16.0	173 48.0	173 55.0	173 22.0	172 47.0	173 31.0	174 3.0	174 39.0	175 13.0	175 59.0	176 33.0
LATITUDE END	58 29.5	58 12.8	58 50.9	59 11.3	59 31.5	59 50.8	59 29.3	59 9.8	58 53.4	59 9.8	58 50.1
LONGITUDE END	173 20.0	173 49.3	173 56.4	173 19.9	172 49.3	173 34.6	174 4.8	174 41.3	175 15.5	176 2.6	176 33.1
LORAN START	17623.30	17449.80	17408.40	17554.70	17678.90	17461.70	17344.60	17182.80	17002.00	16776.10	16574.00
LORAN START	49943.50	34160.70	33803.20	33623.70	33430.20	33200.00	33382.20	33548.80	49922.40	49878.00	49951.30
LORAN END	17606.40	17446.50	17404.00	17565.60	17670.30	17449.20	17338.60	17171.30	16991.00	16759.70	16575.00
LORAN END	49945.60	34140.00	33782.00	33613.20	33414.20	33188.20	33395.20	33553.80	49917.80	49882.00	49956.00
GEAR DEPTH	64	63	71	58	50	51	61	68	74	75	71
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.70	2.30	2.20	1.80	1.60	1.70	1.60	1.40	2.00	1.80	1.70
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	80.7	94.6	58.7	246.5	60.5	22.9	59.5	238.3	153.4	390.5	18.0
PAC COD	27.5	5.7	63.5	77.1	22.0	16.1	37.7	20.5	23.0	2.5	2.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER ROKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.5	0.4	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	6.5	0.5	11.1	6.1	2.2	1.7	3.9	7.7	18.2	5.0	1.4
EELPOUTS	23.9	2.2	28.3	47.1	16.2	6.4	9.9	29.3	29.1	150.5	53.0
OTHER RNDFISH	0.5	0.1	2.5	3.0	1.1	11.0	0.1	0.8	0.6	0.9	0.8
TOT ROUNDFISH	139.1	103.6	164.4	379.8	102.1	58.0	111.1	296.6	224.2	549.3	75.1
YELLOW SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	0.0	0.0	0.0	0.1	0.8	0.0	0.0	3.9	0.0	0.0
FLATHEAD SOLE	0.1	0.3	0.0	0.3	5.3	9.4	0.4	2.5	6.4	2.9	6.1
ALASKA PLAICE	0.0	0.0	0.0	0.0	2.2	13.6	1.1	1.1	1.1	0.0	0.0
GREENLAND TBT	19.1	0.5	10.3	66.4	21.2	15.3	23.4	20.5	3.2	23.3	3.2
ARROWTOOTH FL	0.0	0.2	2.4	0.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
TOT FLATFISH	19.2	1.0	12.7	66.7	28.8	39.1	24.9	24.1	25.7	26.3	9.3
SKATES	3.7	0.0	21.1	12.4	9.3	3.3	3.7	0.9	52.6	1.8	4.9
TOT ELASMOBRH	3.7	0.0	21.1	12.4	9.3	3.3	3.7	0.9	52.6	1.8	4.9
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	38.1	4.2	32.7	3.4	0.4	0.0	0.0	0.4	92.1	4.1	8.5
TANNER, OPILIO	3.6	0.8	41.2	4.8	2.4	30.6	7.7	9.1	80.3	9.1	43.0
TANNER, HYBRID	4.5	0.1	2.2	0.3	0.2	0.0	0.0	0.0	9.8	0.0	0.0
OTHER CRAB	20.3	0.1	12.2	4.5	20.2	1.5	0.4	4.0	8.6	5.7	0.2
SNAILS	31.5	0.3	22.5	29.4	8.9	6.1	50.6	26.2	6.3	33.1	13.9
SHRIMP	6.9	0.1	4.2	14.2	5.6	9.4	7.6	7.3	0.0	2.3	0.0
STARFISH	3.6	1.4	2.1	2.7	3.0	2.7	7.3	3.5	0.6	33.3	0.6
SQUID	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.8	0.1
OCTOPUS	0.9	0.0	3.0	0.0	2.4	53.2	7.7	8.1	0.0	3.2	0.0
OTHER INVERTS	1.2	0.1	0.5	5.0	1.7	0.2	8.4	5.0	0.1	12.6	0.2
TOTAL INVERTS	110.7	7.2	120.7	64.3	44.7	103.6	89.8	63.6	198.4	104.1	66.6
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	272.7	111.7	318.8	523.2	185.0	203.9	229.4	385.2	500.9	681.5	155.9

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	221	222	223	224	225	226	228	229	230	231	232
MONTH/DAY/YEAR	7/16/79	7/16/79	7/16/79	7/17/79	7/17/79	7/17/79	7/17/79	7/18/79	7/18/79	7/18/79	7/18/79
LATITUDE START	59 10.0	59 29.0	59 50.0	59 31.0	59 49.0	60 8.0	60 29.0	60 10.0	60 29.0	60 11.0	59 51.0
LONGITUDE START	177 14.0	176 46.0	176 13.0	175 25.0	174 51.0	174 19.0	175 0.0	175 40.0	176 22.0	176 56.0	177 25.0
LATITUDE END	59 10.3	59 30.7	59 50.2	59 30.3	59 50.6	60 10.3	60 30.4	60 10.1	60 30.9	60 10.1	59 50.3
LONGITUDE END	177 16.9	176 45.5	176 10.3	175 27.2	174 49.3	174 18.2	175 3.3	175 37.9	176 24.5	176 57.9	177 27.1
LORAN START	16395.10	16560.00	16737.10	16954.30	17115.60	17241.50	17055.70	16893.30	16717.70	16556.70	16404.70
LORAN START	49907.90	49836.00	33105.20	33310.00	33164.30	32984.60	32766.00	32936.30	32743.20	32895.00	33044.30
LORAN END	16380.70	16567.40	16751.90	16947.90	17123.00	17245.40	17045.80	16904.00	16708.00	16549.90	16393.90
LORAN END	49908.00	49830.20	33107.80	33321.00	33155.60	32969.90	32756.10	32942.30	32731.20	32902.80	33052.10
GEAR DEPTH	85	81	75	74	63	54	56	65	63	79	74
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.50	1.70	1.60	1.50	1.30	1.60	1.50	1.30	1.70	1.20	1.50
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	86.5	291.2	29.4	41.8	113.8	56.3	292.3	258.9	20.6	1641.7	1059.0
PAC COD	2.0	0.0	0.5	16.4	22.0	86.3	31.0	39.4	7.7	1.4	4.9
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	1.5	8.0	15.9	8.0	9.6	2.0	0.1	3.5	4.3	12.7	5.7
EELPOUTS	36.8	221.7	117.6	124.6	60.9	36.7	89.9	44.6	34.9	77.5	121.5
OTHER RNDFISH	1.7	0.7	0.1	0.2	2.7	4.8	0.7	0.3	0.1	9.2	0.4
TOT ROUNDFISH	128.5	521.5	163.5	191.0	208.9	186.1	413.9	346.7	67.6	1742.4	1197.4
YELLOW SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FLATHEAD SOLE	2.6	7.1	2.6	1.4	1.2	30.5	37.8	3.6	10.0	0.2	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	1.6	3.5	0.7	0.0	0.0	0.0
GREENLAND TBT	2.7	3.7	36.7	18.4	41.5	38.7	68.4	45.1	52.9	38.3	29.6
ARROWTOOTH FL	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT FLATFISH	7.0	10.8	39.3	19.7	42.5	70.8	109.7	49.4	62.9	38.5	29.6
SKATES	1.0	0.7	7.5	5.4	7.9	5.5	0.3	5.2	2.0	0.0	34.4
TOT ELASMOBRH	1.0	0.7	7.5	5.4	7.9	5.5	0.3	5.2	2.0	0.0	34.4
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	10.9	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, OPILIO	11.3	2.7	0.9	1.4	0.0	6.9	244.9	7.3	1.1	0.0	10.9
TANNER, HYBRID	0.1	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	1.0
OTHER CRAB	5.0	4.8	9.5	0.0	0.2	4.8	0.3	0.0	0.3	0.1	0.6
SNAILS	21.3	63.1	62.3	37.8	28.9	12.4	20.5	36.1	84.3	38.1	44.1
SHRIMP	0.2	0.2	8.3	5.5	4.1	6.6	9.9	19.2	2.5	1.1	2.2
STARFISH	0.1	521.3	151.9	65.7	9.7	7.2	1.7	4.9	34.1	271.8	323.4
SQUID	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.1	0.0	157.8	32.6	14.7	30.2	36.5	4.5	79.4	27.4	1.0
OTHER INVERTS	1.8	0.4	147.6	0.5	8.2	12.5	0.7	15.1	44.3	37.0	8.1
TOTAL INVERTS	40.7	592.8	538.3	144.8	65.7	91.5	314.6	87.0	246.5	375.6	391.4
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	177.3	1125.8	748.6	361.0	325.2	353.9	838.6	488.3	379.0	2156.5	1652.8

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	233	234	235	236	237	238	239	240	241	242	243
MONTH/DAY/YEAR	7/19/79	7/19/79	7/19/79	7/19/79	7/20/79	7/20/79	7/20/79	7/20/79	7/21/79	7/21/79	7/21/79
LATITUDE START	60 29.0	60 48.0	61 9.0	60 51.0	60 50.0	61 9.0	61 29.0	61 48.0	60 40.0	60 21.0	60 19.0
LONGITUDE START	177 38.0	177 10.0	176 27.0	175 41.0	178 35.0	177 58.0	177 25.0	176 53.0	174 7.0	174 2.0	173 24.0
LATITUDE END	60 30.2	60 50.0	61 10.3	60 50.3	60 51.2	61 11.0	61 30.4	61 50.6	60 39.4	60 19.9	60 20.3
LONGITUDE END	177 41.5	177 8.6	176 25.1	175 38.7	178 33.6	178 0.7	177 27.9	176 55.8	174 7.0	174 3.3	173 22.2
LORAN START	16392.50	16528.60	16706.90	16886.50	16195.70	16352.30	16495.80	16617.50	17257.90	17297.80	17448.40
LORAN START	32713.90	32558.60	32377.50	32548.50	32457.20	32371.40	32204.10	32022.00	32653.20	32857.80	32874.90
LORAN END	16380.10	16535.40	16715.80	16896.60	16200.20	16346.10	16486.60	16611.00	17261.30	17296.80	17457.50
LORAN END	32710.50	32548.80	32367.90	32557.00	32451.10	32360.60	32193.10	32007.00	32668.20	32872.60	32871.80
GEAR DEPTH	85	70	61	58	89	76	64	57	46	48	32
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.50	1.40	1.50	1.50	1.50	1.60	1.80	2.00	1.50	1.50	1.30
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	164.7	53.5	17.5	382.0	927.1	611.7	208.9	120.1	34.9	21.9	2.2
PAC COD	1.1	5.2	5.0	16.4	0.0	0.2	2.7	35.3	12.2	0.0	1.1
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	7.6	2.0	0.1	2.2	0.5	0.5	0.2	0.1	13.3	30.1	481.7
EELPOUTS	267.2	52.1	43.1	38.0	46.4	67.8	7.2	8.2	17.1	29.4	3.9
OTHER RNDFISH	5.9	2.7	0.1	6.6	4.7	0.3	0.3	3.6	32.1	18.8	2.7
TOT ROUNDFISH	446.5	115.6	65.9	445.3	978.7	681.0	219.2	167.3	110.1	100.2	491.7
YELLOW SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FLATHEAD SOLE	13.6	4.0	7.3	46.8	0.9	8.0	18.1	2.8	1.6	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GREENLAND TBT	24.7	31.7	39.4	82.8	34.2	34.4	67.7	69.8	42.7	6.3	1.7
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT FLATFISH	38.3	35.7	47.6	129.5	35.1	42.4	85.9	72.6	44.3	6.3	1.7
SKATES	0.7	1.7	0.5	1.4	3.2	0.0	2.7	0.1	0.0	0.0	0.0
TOT ELASMOBRH	0.7	1.7	0.5	1.4	3.2	0.0	2.7	0.1	0.0	0.0	0.0
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.8	1.3	2.2	77.8
TANNER, BAIRDI	0.0	0.0	0.0	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0
TANNER, OPILIO	129.0	4.2	161.5	5.7	22.7	14.2	0.7	411.4	690.4	2162.3	12.4
TANNER, HYBRID	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	0.6	0.2	0.0	0.0	15.1	0.2	0.1	0.9	0.4	0.0	3.2
SNAILS	114.1	36.6	9.6	17.6	21.6	32.6	31.0	1.4	0.1	1.3	26.8
SHRIMP	8.9	2.3	0.6	0.7	2.7	0.6	1.0	0.0	0.1	0.6	3.6
STARFISH	98.1	178.9	5.3	4.5	25.1	24.2	11.9	0.2	0.2	6.3	0.3
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	2.5	100.4	122.1	19.7	0.0	0.6	2.7	1.6	0.0	0.0	0.2
OTHER INVERTS	25.7	21.0	4.2	9.5	2.6	61.5	80.4	6.8	0.1	0.0	33.5
TOTAL INVERTS	379.2	343.5	303.2	57.7	90.5	134.0	130.4	423.1	692.6	2172.6	157.7
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	864.7	496.5	417.2	633.9	1107.5	857.4	438.2	663.1	847.0	2279.1	651.1

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	244	245	246	247	248	249	250	251	252	253	254
MONTH/DAY/YEAR	7/21/79	7/21/79	7/22/79	7/22/79	7/22/79	7/22/79	7/22/79	7/23/79	7/23/79	7/23/79	7/23/79
LATITUDE START	60 38.0	60 40.0	60 39.0	60 21.0	60 1.0	59 59.0	59 59.0	58 40.0	58 39.0	58 20.0	58 20.0
LONGITUDE START	173 24.0	172 49.0	172 2.0	172 2.0	171 59.0	172 35.0	173 15.0	171 5.0	170 26.0	170 21.0	169 44.0
LATITUDE END	60 40.1	60 39.4	60 40.0	60 19.7	59 59.5	60 0.2	60 0.7	58 39.8	58 39.8	58 20.2	58 20.0
LONGITUDE END	173 25.5	172 46.3	171 59.4	172 1.8	171 58.5	172 39.3	173 15.7	171 3.6	170 24.5	170 19.2	169 40.6
LORAN START	17420.70	17552.00	17702.70	17744.20	17806.00	17671.00	17513.10	18217.30	18355.80	18442.90	18538.70
LORAN START	32672.80	32645.50	32634.80	32847.80	33078.00	33099.00	33095.10	49706.00	34030.40	34269.30	34237.10
LORAN END	17415.20	17563.10	17711.70	17749.20	17821.30	17656.00	17512.80	18228.60	18363.80	18451.10	18554.70
LORAN END	32655.50	32648.50	32629.00	32866.50	33086.20	33095.00	33086.20	49706.60	34030.50	34267.40	34231.10
GEAR DEPTH	34	23	32	32	34	35	40	45	39	39	37
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.20	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.70	1.50	1.60	1.60	1.50	1.90	0.80	1.50	1.30	1.40	1.50
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	6.6	195.9	6.7	5.7	3.0	27.6	18.6	270.1	1009.6	100.2	84.5
PAC COD	9.7	3.3	0.7	7.8	5.4	14.9	1.5	11.1	96.4	19.2	91.8
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.4	1.6	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
SCULPINS	34.9	10.4	4.9	280.8	71.1	93.6	15.2	21.0	7.7	50.3	12.0
EELPOUTS	10.3	9.1	267.0	164.7	43.3	25.4	5.9	45.0	51.0	61.5	95.9
OTHER RNDFISH	1.3	4.0	4.7	51.1	3.7	6.8	5.1	0.0	8.2	0.1	1.1
TOT ROUNDFISH	62.7	222.6	283.9	510.0	126.5	169.2	46.3	347.1	1173.3	233.2	285.2
YELLOW SOLE	0.0	2.3	0.5	0.8	4.5	0.8	0.1	20.9	59.7	69.9	85.0
ROCK SOLE	0.0	0.0	0.0	0.5	0.9	0.7	0.0	0.0	0.0	0.0	0.0
FLATHEAD SOLE	0.0	0.3	1.9	0.1	0.0	1.8	0.2	1.6	0.0	1.7	1.4
ALASKA PLAICE	0.6	26.3	0.5	20.4	12.3	8.2	1.3	7.3	5.0	16.3	1.7
GREENLAND TBT	0.4	4.4	9.8	2.0	3.7	6.1	3.5	13.4	28.5	27.2	12.4
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT FLATFISH	1.0	33.3	12.7	23.8	21.5	17.6	5.1	43.1	93.3	115.1	100.5
SKATES	0.0	0.0	0.0	0.0	0.8	0.0	0.6	0.5	1.5	1.8	0.5
TOT ELASMOBRH	0.0	0.0	0.0	0.0	0.8	0.0	0.6	0.5	1.5	1.8	0.5
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	20.2	1.8	0.0	39.7	4.8	54.8	4.4	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0
TANNER, OPILIO	115.2	71.7	111.1	26.5	17.1	88.1	132.9	178.7	84.3	207.7	252.2
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	9.3	35.6	1.0	67.8	9.3	10.3	10.4	7.3	2.9	10.8	8.7
SNAILS	17.7	17.5	0.5	37.7	25.0	33.8	11.1	26.1	81.0	33.2	84.7
SHRIMP	0.5	0.6	0.1	8.2	0.2	0.1	2.7	5.0	0.0	0.1	0.2
STARFISH	18.7	5.3	8.2	8.4	3.1	3.2	1.6	15.1	7.9	3.7	31.5
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	9.4	1.2	0.4	13.7	2.3	2.5	2.5	19.5	10.3	18.3	27.0
TOTAL INVERTS	191.0	133.7	121.4	202.0	62.8	195.7	165.7	251.7	186.9	273.9	404.3
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	254.7	389.6	418.0	735.8	211.5	382.6	217.6	642.5	1454.9	624.0	790.5

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	255	256	257	258	259	260	261	262	263	264	265
MONTH/DAY/YEAR	7/23/79	7/24/79	7/24/79	7/24/79	7/28/79	7/28/79	7/29/79	7/29/79	7/29/79	7/29/79	7/30/79
LATITUDE START	58 19.0	58 19.0	58 17.0	58 20.0	58 18.0	58 39.0	59 1.0	59 0.0	59 19.0	59 0.0	59 20.0
LONGITUDE START	169 8.0	168 29.0	167 42.0	167 0.0	163 24.0	162 43.0	163 21.0	163 57.0	164 0.0	164 35.0	165 19.0
LATITUDE END	58 20.0	58 20.2	58 17.5	58 15.9	58 18.3	58 41.1	59 0.0	59 0.9	59 20.4	58 58.4	59 19.8
LONGITUDE END	169 5.9	168 26.4	167 40.5	166 58.3	163 22.5	162 43.1	163 25.5	164 1.1	163 59.7	164 37.9	165 22.8
LORAN START	18612.80	18654.00	18703.20	18724.00	18749.50	18744.00	18725.70	18718.70	18696.10	18709.30	18663.90
LORAN START	34180.30	34099.50	34001.30	33899.20	33292.70	33032.70	32943.40	33029.70	32868.10	33114.20	33020.30
LORAN END	18617.20	18664.80	18704.50	18724.90	18749.60	18743.30	18726.20	18717.30	18693.70	18711.30	18662.40
LORAN END	34173.80	34084.30	33994.60	33893.90	33290.50	33020.90	32928.00	33031.40	32850.60	33138.00	33033.20
GEAR DEPTH	36	35	32	27	20	10	11	13	11	13	10
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.60	1.50	1.30	1.20	0.90	1.50	1.50	1.80	1.60	2.30	1.80
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	18.1	28.1	142.3	13.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0
PAC COD	339.6	55.0	59.2	169.1	5.0	0.0	0.0	0.0	0.0	0.5	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	3.3	0.0	0.0	0.0	2.5	0.0	5.9	1.8	9.1	1.4	0.5
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	16.9	42.5	30.6	18.2	1.4	8.2	0.9	2.8	0.2	0.8	0.9
EELPOUTS	12.7	24.6	3.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RNDFISH	1.0	13.2	1.6	2.0	4.9	6.2	68.9	27.3	52.7	21.3	11.1
TOT ROUNDFISH	391.6	163.4	236.8	203.5	13.9	14.4	75.7	31.9	62.0	23.9	12.5
YELLOW SOLE	423.2	352.4	610.3	300.5	109.3	240.4	30.4	24.0	5.4	17.2	32.2
ROCK SOLE	0.5	0.2	0.9	33.8	10.0	20.9	0.0	0.0	0.0	0.0	0.0
FLATHEAD SOLE	0.3	0.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	183.9	64.6	56.8	81.5	10.9	0.5	0.3	3.2	0.9	1.8	0.7
GREENLAND TBT	16.9	7.2	1.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ARRWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	0.0	0.0	0.0	0.0	5.6	7.7	0.1	0.1	0.0	0.1	3.7
OTHER FLTFISH	0.0	0.0	0.0	0.1	2.7	35.8	8.4	7.3	0.5	10.9	1.0
TOT FLATFISH	624.8	425.2	669.5	416.7	138.5	305.2	39.2	34.6	6.8	30.0	37.6
SKATES	0.5	3.4	6.0	19.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT ELASMOBRH	0.5	3.4	6.0	19.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, OPILIO	46.2	4.1	1.9	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	20.0	76.0	108.4	21.3	3.9	9.4	7.5	19.8	1.9	5.3	4.1
SNAILS	39.6	97.3	88.2	25.6	2.2	0.0	0.0	0.0	0.0	0.1	0.7
SHRIMP	0.0	1.0	0.0	0.0	0.0	0.0	0.5	0.1	1.8	0.1	0.1
STARFISH	41.5	16.1	11.2	32.5	212.3	69.9	104.8	185.5	63.5	79.6	29.9
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	5.7	18.1	56.8	8.7	0.8	0.1	0.3	0.7	0.3	0.3	0.1
TOTAL INVERTS	153.1	212.6	266.4	91.5	219.1	79.4	113.0	206.1	67.5	85.4	34.9
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	1170.0	804.7	1178.7	731.3	371.6	399.0	227.8	272.6	136.2	139.3	85.1

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	266	267	268	269	270	271	272	273	275	276	277
MONTH/DAY/YEAR	7/30/79	7/30/79	7/30/79	7/31/79	7/31/79	7/31/79	7/31/79	8/ 1/79	8/ 1/79	8/ 1/79	8/ 2/79
LATITUDE START	59 38.0	59 22.0	59 40.0	60 0.0	60 0.0	60 20.0	60 19.0	60 58.0	61 0.0	61 39.0	61 41.0
LONGITUDE START	165 55.0	166 35.0	167 13.0	167 59.0	168 37.0	168 37.0	167 18.0	166 39.0	168 1.0	167 22.0	168 47.0
LATITUDE END	59 39.9	59 20.5	59 40.2	59 59.8	60 1.5	60 21.3	60 19.9	61 0.3	61 1.4	61 38.4	61 39.5
LONGITUDE END	165 57.4	166 36.1	167 17.4	168 2.5	168 39.1	168 37.6	167 15.7	166 39.0	168 2.0	167 22.4	168 48.2
LORAN START	18604.90	18650.00	18528.30	18418.20	18345.10	18284.70	18412.90	18372.60	18233.70	18190.30	18044.30
LORAN START	32909.40	33166.80	33040.30	33884.00	32932.00	32696.40	32589.00	32075.70	32164.20	31639.80	31724.80
LORAN END	18600.00	18614.50	18523.90	18403.50	18339.00	18283.00	18417.10	18357.00	18230.20	18194.30	18057.00
LORAN END	32897.20	33183.80	33045.30	33891.30	32922.60	32685.00	32583.10	32061.00	32151.00	31657.60	31743.10
GEAR DEPTH	12	13	15	12	14	18	16	8	15	12	18
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.90	1.50	1.80	1.50	1.30	1.30	1.60	1.50	1.10	1.50	1.50
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	0.0	0.9	0.1	0.0	0.0	0.9	1.8	0.0	1.8	0.5	11.3
PAC COD	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.7
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.9	0.9	0.1	0.0	0.0	0.0	3.2	1.4	5.9	12.2	2.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.3	2.2	1.7	1.9	2.0	1.8	6.4	0.2	10.3	3.3	9.7
EELPOUTS	0.0	0.0	0.0	0.9	0.0	0.0	1.1	0.0	0.0	0.0	0.0
OTHER RNDFISH	34.9	17.9	6.8	5.9	10.2	9.0	67.4	35.5	20.6	20.4	16.7
TOT ROUNDFISH	36.1	21.9	8.8	8.7	12.2	11.8	80.0	37.1	38.6	36.4	40.4
YELLOW SOLE	3.2	23.1	83.9	13.2	14.1	15.0	0.9	39.0	15.4	5.0	4.1
ROCK SOLE	0.1	1.4	0.0	10.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
FLATHEAD SOLE	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
ALASKA PLAICE	0.2	4.5	8.2	18.1	14.5	3.6	0.7	0.9	1.3	0.2	3.6
GREENLAND TBT	0.0	0.0	0.1	0.0	1.8	0.9	0.0	0.0	0.1	0.0	1.8
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	0.0	2.4	7.8	4.2	0.0	2.8	1.8	0.0	0.3	0.0	1.3
OTHER FLTFISH	0.7	1.8	5.7	13.5	5.8	0.9	0.1	0.8	2.8	1.9	0.1
TOT FLATFISH	4.2	33.2	105.7	59.8	37.1	23.3	3.5	40.7	21.0	7.1	11.0
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT ELASMOBRH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, OPILIO	0.0	0.0	0.0	0.1	1.4	2.1	0.0	0.0	0.1	0.1	1.2
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	5.9	5.9	27.7	4.3	6.6	8.4	13.7	1.6	2.4	2.4	47.5
SNAILS	0.2	1.0	1.4	1.1	4.2	2.6	0.3	0.0	0.0	0.5	6.9
SHRIMP	0.0	0.2	0.5	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1
STARFISH	73.5	102.5	494.4	30.8	36.3	59.2	17.2	16.8	26.8	51.7	37.9
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	0.8	0.1	1.1	0.4	1.9	3.9	0.1	0.2	11.4	0.5	87.6
TOTAL INVERTS	80.4	109.7	525.1	36.9	50.6	76.3	31.5	18.7	40.7	55.4	181.2
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	120.7	164.9	639.6	105.4	99.9	111.4	114.9	96.5	100.3	98.9	232.7

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	278	279	280	281	283	284	285	286	287	288	289
MONTH/DAY/YEAR	8/ 2/79	8/ 2/79	8/ 3/79	8/ 3/79	8/ 4/79	8/ 4/79	8/ 5/79	8/ 5/79	8/ 5/79	8/ 6/79	8/ 6/79
LATITUDE START	62 18.0	62 20.0	62 58.0	63 0.0	62 59.0	63 39.0	63 1.0	63 0.0	62 21.0	62 20.0	62 0.0
LONGITUDE START	168 48.0	167 28.0	166 3.0	167 27.0	171 45.0	172 43.0	173 15.0	174 40.0	175 59.0	174 32.0	173 12.0
LATITUDE END	62 20.2	62 20.0	62 59.9	63 0.2	63 59.3	63 41.6	63 0.6	63 0.4	62 20.0	62 20.0	62 0.0
LONGITUDE END	168 48.6	167 25.7	166 3.0	167 30.9	171 48.7	172 43.2	173 13.7	174 44.1	176 0.3	174 35.5	173 9.5
LORAN START	17943.30	18080.30	18121.20	17986.30	17481.40	17296.00	17274.40	17053.00	16846.30	17110.10	17338.70
LORAN START	31269.20	31154.60	30626.00	30672.00	31029.80	30707.60	31135.90	31259.50	31695.50	31641.50	31566.30
LORAN END	17939.10	18086.00	18115.70	17980.50	17473.40	17295.00	17290.40	17043.20	16842.70	17100.70	17347.60
LORAN END	31249.40	31157.90	30605.00	30675.10	31033.50	30700.00	31145.80	31261.40	31709.90	31643.60	31562.00
GEAR DEPTH	17	13	10	18	27	28	36	40	45	36	30
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.50	1.50	1.60	1.60	1.50	1.50	1.60	1.50	1.50	1.50	1.50
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	5.0	0.2	0.5	0.7	0.1	0.1	5.7	1.2	21.8	1.4	2.4
PAC COD	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.3	10.4	0.0	1.1
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	19.2	2.6	2.7	1.9	1.2	16.0	27.6	216.6	3.6	28.8	4.1
EELPOUTS	0.0	0.0	1.5	0.9	2.1	1.2	25.4	111.1	247.2	159.7	58.5
OTHER RNDFISH	5.6	2.5	35.9	7.5	0.6	5.3	25.7	49.8	10.7	18.3	3.5
TOT ROUNDFISH	30.0	5.4	40.6	10.9	4.0	22.6	84.6	381.0	295.5	208.1	69.7
YELLOW SOLE	10.0	2.5	15.4	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
FLATHEAD SOLE	0.7	0.0	0.0	0.1	0.2	0.4	21.1	18.1	20.9	4.1	8.3
ALASKA PLAICE	10.4	2.3	9.5	1.8	0.1	1.2	0.0	0.0	0.0	0.8	0.0
GREENLAND TBT	0.1	0.1	0.0	0.0	0.5	0.1	16.8	23.6	57.6	26.3	11.3
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.1	1.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT FLATFISH	21.3	6.7	26.0	9.2	0.8	1.7	37.9	41.7	78.5	31.2	19.6
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT ELASMOBRH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED KING CRAB	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.1	1.3	0.0	0.2	0.5	0.6	1.5
TANNER, BAIRDI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, OPILIO	21.8	1.9	0.4	8.6	3.4	105.2	272.2	249.5	15.3	1.8	54.9
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	28.3	21.8	22.0	41.2	2.4	12.8	2.2	2.6	0.4	2.1	2.4
SNAILS	38.3	19.7	5.2	90.1	10.3	11.3	4.6	2.5	3.7	14.5	29.0
SHRIMP	0.3	0.1	1.8	0.5	16.9	0.6	5.0	0.8	1.8	3.3	1.9
STARFISH	34.0	68.9	57.8	58.5	2.0	2.5	0.9	0.5	0.9	2.9	4.1
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.5	0.0	0.4	0.2
OTHER INVERTS	40.7	50.8	15.4	19.1	2.7	0.6	3.2	5.0	0.8	12.9	17.6
TOTAL INVERTS	163.3	164.3	102.6	217.9	38.7	134.3	288.0	261.4	23.4	38.5	111.5
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	214.6	176.3	169.2	238.0	43.5	158.7	410.5	684.2	397.4	277.8	200.8

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	290	291	292	293	294	295	296	297	298	299	300
MONTH/DAY/YEAR	8/ 6/79	8/ 7/79	8/ 7/79	8/ 7/79	8/ 8/79	8/ 8/79	8/ 8/79	8/ 9/79	8/ 9/79	8/ 9/79	8/10/79
LATITUDE START	62 20.0	62 20.0	61 39.0	61 40.0	61 40.0	61 40.0	61 40.0	61 1.0	60 59.0	60 59.0	60 58.0
LONGITUDE START	171 44.0	170 16.0	170 6.0	171 28.0	173 2.0	174 20.0	175 42.0	174 49.0	173 33.0	172 9.0	170 47.0
LATITUDE END	62 20.2	62 18.7	61 39.9	61 40.2	61 39.8	61 40.8	61 40.2	60 59.8	60 59.9	61 0.0	61 0.1
LONGITUDE END	171 41.6	170 17.0	170 9.9	171 32.2	172 58.9	174 24.1	175 45.9	174 49.6	173 30.1	172 6.2	170 47.4
LORAN START	17570.10	17763.80	17875.90	17670.00	17401.10	17148.50	16867.90	17081.00	17359.60	17638.10	17885.10
LORAN START	31466.90	31359.20	31826.20	31908.30	31987.30	32029.00	32076.80	32446.70	32441.30	32403.40	32361.20
LORAN END	17578.70	17777.00	17868.10	17660.50	17411.00	17137.10	16857.10	17081.80	17370.20	17647.30	17890.50
LORAN END	31461.70	31377.50	31829.90	31909.20	31987.90	32032.30	32077.70	32461.40	32440.90	32401.00	32342.70
GEAR DEPTH	25	21	24	28	35	40	50	49	41	33	28
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.50	1.50	1.60	1.60	1.50	1.70	1.50	1.50	1.50	1.50	1.50
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	5.1	1.1	14.3	4.1	0.9	5.5	260.4	96.3	113.2	10.1	8.3
PAC COD	0.2	0.0	0.7	0.3	0.8	0.4	5.0	19.0	2.8	4.5	3.4
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	0.1	0.0	0.0	0.3	0.0	1.0	0.6	0.1	0.9
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	32.0	26.2	4.2	8.2	9.7	48.7	2.4	0.0	5.3	4.8	18.8
EELPOUTS	3.2	5.4	34.5	110.7	220.4	298.5	28.6	43.7	108.8	326.6	23.1
OTHER RNDFISH	1.9	3.1	1.8	0.5	11.8	5.4	9.3	9.8	10.0	8.3	2.3
TOT ROUNDFISH	42.4	35.9	55.5	123.7	243.7	358.8	305.6	169.7	241.1	354.4	56.8
YELLOW SOLE	0.0	0.2	16.6	0.0	0.0	0.3	0.0	0.0	0.0	0.0	18.6
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.5
FLATHEAD SOLE	1.4	3.6	3.6	5.0	7.7	15.0	1.4	9.5	34.7	3.2	2.2
ALASKA PLAICE	2.3	0.6	59.0	8.2	0.8	0.0	0.0	0.0	1.4	1.8	10.4
GREENLAND TBT	5.4	1.1	19.5	17.5	17.7	49.0	61.7	58.3	22.0	23.1	18.1
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT FLATFISH	9.1	5.6	98.7	30.6	26.2	64.5	63.0	67.8	58.1	28.1	49.8
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT ELASMOBRH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED KING CRAB	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, OPILIO	4.5	95.3	45.4	27.2	21.8	5.4	79.4	493.5	895.8	14.4	12.7
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	28.0	69.9	8.8	2.8	1.2	1.7	0.6	1.9	2.3	1.1	4.2
SNAILS	47.0	86.2	28.9	3.0	2.8	5.0	0.4	0.7	1.9	0.5	10.9
SHRIMP	1.7	3.9	0.9	0.2	0.2	0.4	0.1	0.1	0.3	0.2	0.2
STARFISH	3.6	6.1	30.4	12.7	5.4	4.7	2.2	0.7	8.1	26.3	8.4
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	7.5	40.8	21.2	3.6	9.2	10.4	1.4	1.1	1.5	0.4	8.9
TOTAL INVERTS	92.3	302.5	138.0	49.5	40.7	27.8	84.2	498.1	909.9	43.0	45.3
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	143.7	344.0	292.2	203.9	310.5	451.1	452.8	735.7	1209.0	425.5	152.0

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	301	302	303	304	305	307	308	309	311	312	313
MONTH/DAY/YEAR	8/10/79	8/10/79	8/11/79	8/11/79	8/11/79	8/11/79	8/12/79	8/12/79	8/12/79	8/13/79	8/13/79
LATITUDE START	60 59.0	60 21.0	60 1.0	59 41.0	59 59.0	60 19.0	59 40.0	59 21.0	59 38.0	59 18.0	59 1.0
LONGITUDE START	169 25.0	170 0.0	169 19.0	169 53.0	170 33.0	171 17.0	172 29.0	171 52.0	171 13.0	170 30.0	171 6.0
LATITUDE END	60 59.7	60 19.8	60 0.2	59 40.0	59 59.9	60 20.1	59 40.5	59 20.0	59 40.2	59 20.1	58 59.7
LONGITUDE END	169 22.5	170 1.1	169 20.3	169 53.8	170 36.8	171 20.6	172 32.5	171 50.4	171 14.1	170 31.5	171 6.3
LORAN START	18073.40	18102.50	18261.20	18240.60	18077.20	17891.70	17733.10	17922.80	18015.30	18212.50	18150.80
LORAN START	32268.90	32773.30	32972.00	33251.90	33060.00	32844.00	33321.50	33546.40	33334.60	33560.30	33783.70
LORAN END	18080.40	18105.00	18273.30	18245.50	18068.30	17881.70	17721.60	17934.00	18009.90	18206.30	18156.20
LORAN END	32266.50	32791.50	32989.40	33270.70	33062.10	32844.50	33317.50	33559.60	33317.40	33542.60	33800.70
GEAR DEPTH	21	26	25	30	35	35	45	43	38	36	41
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.50	1.50	1.50	1.50	1.60	1.60	1.40	1.60	1.50	1.50	1.40
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	54.9	269.9	11.0	38.1	395.9	6.7	469.1	1461.4	145.5	491.4	755.9
PAC COD	1.2	4.5	37.1	299.5	132.2	49.4	73.7	60.2	66.7	154.5	40.4
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	19.1	1.6	5.2	5.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	21.3	21.4	40.1	25.3	54.6	36.1	0.0	1.1	58.2	19.7	3.3
EELPOUTS	0.1	6.4	0.6	7.4	137.0	57.2	25.2	37.0	147.2	52.3	21.0
OTHER RNDFISH	23.8	22.4	80.3	5.9	5.1	4.6	15.5	0.1	25.9	1.3	0.1
TOT ROUNDFISH	120.3	326.1	174.4	381.3	725.1	154.1	583.5	1559.8	443.4	719.1	820.7
YELLOW SOLE	10.9	120.2	55.7	316.7	9.7	1.8	5.8	16.8	15.4	69.0	16.5
ROCK SOLE	0.0	0.5	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
FLATHEAD SOLE	0.0	0.8	0.0	0.0	7.6	2.9	10.7	9.8	8.9	26.3	7.0
ALASKA PLAICE	17.7	73.0	26.7	192.1	4.9	5.0	0.0	49.0	13.7	4.6	3.0
GREENLAND TBT	4.8	16.3	7.5	3.4	40.8	22.7	52.3	84.7	58.2	77.2	67.4
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT FLATFISH	33.3	210.8	93.3	512.3	63.0	33.0	68.8	160.3	96.2	177.2	93.8
SKATES	0.0	0.0	0.0	7.8	0.7	0.0	2.9	0.0	0.0	0.0	10.5
TOT ELASMOBRH	0.0	0.0	0.0	7.8	0.7	0.0	2.9	0.0	0.0	0.0	10.5
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.9
TANNER, OPILIO	2.3	0.1	1.2	0.1	83.0	131.5	212.7	233.1	279.0	403.7	353.8
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0
OTHER CRAB	60.2	30.8	272.7	80.2	4.8	2.0	10.4	7.8	7.7	12.8	1.5
SNAILS	33.1	34.3	123.1	73.2	23.8	12.4	15.9	40.7	13.7	49.6	1.3
SHRIMP	0.4	0.1	1.2	0.0	0.0	0.1	4.3	2.8	1.0	1.0	0.9
STARFISH	18.1	16.3	54.5	31.2	12.5	10.9	12.2	5.6	7.7	45.0	3.8
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	63.1	4.1	160.1	45.0	1.2	0.7	9.7	18.9	3.6	1.3	24.7
TOTAL INVERTS	177.2	85.7	612.8	229.7	125.3	157.6	270.5	309.0	312.8	515.3	386.9
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	330.9	622.6	880.6	1131.2	914.0	344.7	925.7	2029.0	852.4	1411.6	1312.0

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	314	315	316	317	318	319	320	321	322	323	324
MONTH/DAY/YEAR	8/13/79	8/14/79	8/14/79	8/14/79	8/14/79	8/15/79	8/15/79	8/15/79	8/15/79	8/15/79	8/16/79
LATITUDE START	59 0.0	59 18.0	59 39.0	59 22.0	59 38.0	60 18.0	60 19.0	60 1.0	60 19.0	59 59.0	59 40.0
LONGITUDE START	169 52.0	169 13.0	168 39.0	167 59.0	167 55.0	167 59.0	169 16.0	169 56.0	170 35.0	171 11.0	171 54.0
LATITUDE END	58 59.9	59 19.8	59 40.3	59 21.1	59 39.8	60 19.8	60 20.3	60 0.0	60 19.7	59 59.3	59 40.0
LONGITUDE END	169 49.6	169 13.7	168 37.3	167 55.8	167 56.2	168 0.2	169 20.1	169 56.2	170 38.4	171 14.2	171 57.8
LORAN START	18381.10	18409.70	18408.50	18522.60	18479.90	18359.50	18207.40	18172.20	18015.60	17965.10	17868.10
LORAN START	33755.60	33490.10	33190.10	33329.00	33131.90	32664.30	32745.70	33012.10	32820.10	33090.40	33326.40
LORAN END	18389.80	18403.50	18406.00	18529.80	18474.70	18364.30	18199.20	18176.50	18006.80	17956.90	17856.70
LORAN END	33757.00	33472.20	33179.00	33334.10	33116.50	32649.10	32743.70	33027.70	32822.60	33089.70	33327.20
GEAR DEPTH	34	26	20	20	18	16	22	28	32	37	41
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.60	1.60	1.50	2.00	1.50	1.50	1.60	1.30	1.60	1.20	1.60
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	85.9	32.2	7.2	2.3	7.2	0.3	6.2	34.6	133.8	119.7	342.2
PAC COD	201.0	29.3	8.6	3.2	0.7	0.0	5.6	95.6	429.8	78.9	125.8
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER ROCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	7.8	0.0	0.0	0.0	2.0	16.5	0.2	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	41.0	14.8	10.1	8.0	2.5	1.8	20.9	42.3	39.5	31.6	6.1
EELPOUTS	130.5	1.0	0.0	0.9	0.0	0.0	0.0	14.2	91.9	97.4	94.8
OTHER RNDFISH	3.1	41.0	4.3	15.5	35.8	39.0	18.4	20.3	4.4	18.5	42.6
TOT ROUNDFISH	461.6	126.1	30.1	29.9	46.2	43.2	67.6	207.1	699.3	346.1	611.5
YELLOW SOLE	194.1	428.1	77.1	42.6	28.6	16.3	48.7	202.8	9.1	6.7	8.4
ROCK SOLE	0.0	2.9	6.8	30.8	5.0	0.0	2.0	40.0	0.0	0.0	0.0
FLATHEAD SOLE	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.1	5.7	0.9	8.0
ALASKA PLAICE	70.4	177.5	26.3	25.9	9.1	13.2	10.7	453.5	7.9	13.4	24.4
GREENLAND TBT	10.0	3.9	0.7	0.1	0.1	0.0	15.6	5.4	21.5	21.0	23.5
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	0.0	0.0	0.0	1.0	4.6	3.1	0.0	0.0	0.0	0.0	0.0
OTHER FLTFISH	0.0	0.0	3.4	0.5	4.9	1.0	0.5	0.0	0.0	0.0	0.0
TOT FLATFISH	275.9	612.7	114.3	100.8	52.2	33.6	77.6	701.8	44.2	42.0	64.3
SKATES	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT ELASMOBRH	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED KING CRAB	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, OPILIO	53.5	2.0	0.2	0.1	0.1	0.1	0.1	0.1	17.9	269.9	226.8
TANNER, HYBRID	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	66.7	110.9	17.8	21.7	8.6	1.8	140.8	73.4	2.4	6.6	8.4
SNAILS	131.0	69.1	15.1	28.0	2.9	0.9	32.0	56.4	51.6	53.6	30.9
SHRIMP	0.2	0.5	0.2	0.7	0.3	0.2	0.3	0.2	0.1	0.0	2.4
STARFISH	7.3	61.5	110.9	117.9	131.1	97.1	131.9	60.5	15.9	5.0	16.0
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	7.3	108.0	8.2	2.5	2.1	1.6	130.7	23.5	2.4	0.0	31.9
TOTAL INVERTS	266.1	351.9	155.2	170.9	145.1	101.6	435.9	214.1	90.3	335.1	316.4
OTHER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	1005.7	1090.6	299.6	301.6	243.5	178.3	581.1	1123.1	833.9	723.2	992.3

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	325	326	327	328	329	330	331	332	333	334	335
MONTH/DAY/YEAR	8/16/79	8/16/79	8/16/79	8/17/79	8/17/79	8/17/79	8/17/79	8/18/79	8/18/79	8/18/79	8/18/79
LATITUDE START	59 20.0	59 1.0	59 19.0	59 39.0	59 39.0	59 19.0	59 0.0	59 0.0	58 59.0	58 59.0	59 19.0
LONGITUDE START	171 9.0	170 28.0	169 52.0	170 31.0	169 18.0	168 36.0	169 6.0	168 33.0	167 55.0	167 15.0	167 14.0
LATITUDE END	59 20.4	59 0.2	59 20.7	59 39.9	59 39.9	59 20.0	58 59.8	59 0.2	59 0.0	58 59.9	59 20.5
LONGITUDE END	171 13.0	170 27.2	169 53.1	170 34.1	169 15.2	168 32.9	169 10.0	168 30.5	167 53.0	167 12.6	167 13.7
LORAN START	18082.30	18275.20	18316.90	18145.00	18328.40	18473.40	18482.70	18538.70	18589.90	18629.90	18581.90
LORAN START	33554.70	33765.00	33519.70	33301.30	33232.90	33416.00	33701.30	33643.40	33575.80	33489.00	33276.30
LORAN END	18070.70	18284.80	18310.40	18136.20	18335.10	18478.50	18477.60	18543.50	18592.60	18632.20	18579.80
LORAN END	33554.40	33783.00	33506.10	33303.20	33229.80	33410.90	33709.20	33639.50	33568.90	33483.60	33259.40
GEAR DEPTH	41	38	32	35	25	22	28	25	22	20	16
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.70	1.70	1.30	1.50	1.60	1.60	1.60	1.50	1.40	1.40	1.50
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	1281.0	67.1	713.8	541.2	91.2	10.9	11.3	6.1	118.8	2.3	0.1
PAC COD	70.7	7.7	107.3	164.7	27.7	8.6	8.7	30.4	17.7	2.3	0.5
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HERRING	0.0	0.0	12.2	0.0	6.6	0.7	36.5	6.3	12.2	0.1	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	9.1	2.4	163.8	20.4	17.7	32.4	36.7	46.1	29.8	7.5	6.1
EELPOUTS	34.2	7.7	16.2	114.0	0.0	0.9	0.5	0.0	0.0	0.0	0.5
OTHER RNDFISH	9.1	0.0	10.1	0.0	33.3	2.2	7.3	23.0	20.4	15.6	14.4
TOT ROUNDFISH	1404.1	84.9	1023.4	840.3	176.4	55.7	101.0	111.9	199.0	27.8	21.5
YELLOW SOLE	25.1	3.6	332.1	8.6	86.2	162.8	351.0	782.2	140.2	132.0	55.3
ROCK SOLE	0.0	0.0	0.0	0.0	8.4	15.0	0.7	10.7	29.0	24.9	15.9
FLATHEAD SOLE	12.5	1.0	0.2	8.6	0.1	0.0	0.0	0.1	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.4	153.9	1.5	98.4	25.9	229.4	284.6	35.4	65.8	12.2
GREENLAND TBT	63.8	13.6	34.4	40.6	2.3	0.2	0.4	0.5	0.0	0.0	0.1
ARROWTOOTH FL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC HALIBUT	0.0	0.0	0.0	0.0	3.0	2.0	0.0	0.0	1.3	10.2	4.5
OTHER FLTFISH	0.0	0.0	0.0	0.0	0.3	1.2	0.0	1.2	8.3	1.8	14.5
TOT FLATFISH	101.4	18.6	520.6	59.3	198.7	207.1	581.5	1079.3	214.1	234.7	102.6
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOT ELASMOBRH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
BLUE KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER, OPILIO	235.9	16.8	8.2	206.4	3.0	0.1	0.0	0.0	0.1	0.1	0.0
TANNER, HYBRID	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
OTHER CRAB	1.1	0.4	18.3	1.3	55.5	16.6	148.1	27.4	11.8	5.8	8.1
SNAILS	3.2	3.3	34.0	26.8	44.1	27.0	47.1	31.3	13.8	6.9	0.6
SHRIMP	3.4	0.1	0.0	0.5	0.1	0.2	0.4	0.3	0.2	0.2	0.5
STARFISH	8.4	4.1	24.3	16.6	72.6	89.8	67.8	98.9	99.3	141.5	205.5
SQUID	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER INVERTS	2.0	4.2	4.0	0.0	58.6	1.5	172.2	5.2	0.7	1.9	0.5
TOTAL INVERTS	254.1	28.9	88.8	251.6	234.1	135.2	435.5	163.2	126.0	156.5	215.2
OTHER	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL CATCH	1759.6	132.4	1632.8	1151.1	609.6	398.1	1118.0	1354.3	539.0	419.0	339.3

Table A-4 (Cont'd)

M/V PARAGON II 400 EASTERN TRAWL 1979 BERING SEA SURVEY

HAUL #	336	337	338	339
MONTH/DAY/YEAR	8/19/79	8/19/79	8/19/79	8/19/79
LATITUDE START	59 40.0	59 21.0	59 1.0	58 59.0
LONGITUDE START	166 39.0	165 58.0	165 56.0	166 29.0
LATITUDE END	59 39.7	59 20.1	59 0.3	58 59.4
LONGITUDE END	166 37.5	165 57.4	165 56.0	166 32.3
LORAN START	18564.00	18639.40	18680.50	18664.30
LORAN START	32972.20	33095.70	33293.10	33390.60
LORAN END	18577.70	18642.30	18682.80	18662.20
LORAN END	32975.70	33104.50	33302.60	33396.90
GEAR DEPTH	15	12	15	17
DURATION IN HOURS	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.20	1.50	1.40	1.50
PERFORMANCE / GEAR	0 / 20	0 / 20	0 / 20	0 / 20
POLLOCK	0.1	0.0	0.1	0.0
PAC COD	0.0	0.0	0.0	1.0
PAC OC PERCH	0.0	0.0	0.0	0.0
OTHER RCKFISH	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0
PAC HERRING	0.9	0.5	0.3	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0
SCULPINS	5.3	4.3	5.3	7.8
EELPOUTS	0.0	0.0	0.0	0.0
OTHER RNDFISH	67.9	19.7	11.5	14.8
TOT ROUNDFISH	74.2	24.5	17.2	23.6
YELLOW SOLE	146.1	43.5	22.3	36.3
ROCK SOLE	0.0	0.9	6.8	4.4
FLATHEAD SOLE	0.0	0.0	0.0	0.0
ALASKA PLAICE	7.7	5.4	5.4	30.4
GREENLAND TBT	0.0	0.0	0.0	0.0
ARROWTOOTH FL	0.0	0.0	0.0	0.0
PAC HALIBUT	5.1	0.8	0.7	29.5
OTHER FLTFISH	15.0	15.9	16.0	20.9
TOT FLATFISH	173.9	66.5	51.2	121.5
SKATES	0.0	0.0	0.0	0.0
TOT ELASMOBRH	0.0	0.0	0.0	0.0
RED KING CRAB	0.0	0.0	0.0	0.0
BLUE KING CRAB	0.0	0.0	0.0	0.0
TANNER, BAIRDI	0.0	0.0	0.0	0.0
TANNER, OPILIO	0.0	0.0	0.0	0.0
TANNER, HYBRID	0.0	0.0	0.0	0.0
OTHER CRAB	5.2	2.0	3.8	10.9
SNAILS	0.2	0.2	0.4	1.3
SHRIMP	0.1	0.0	0.0	0.1
STARFISH	89.4	42.6	151.5	239.0
SQUID	0.0	0.0	0.0	0.0
OCTOPUS	0.0	0.0	0.0	0.0
OTHER INVERTS	0.3	1.4	4.7	0.3
TOTAL INVERTS	95.1	46.3	160.4	251.7
OTHER	0.0	0.0	0.0	0.0
TOTAL CATCH	343.2	137.3	228.8	396.8

Appendix B

Rank Order of Relative Abundance for Fish and Invertebrates

Appendix B contains a computer listing of all fish and invertebrates caught during the 1979 demersal trawl survey ranked in order of relative abundance (kg/km).

List of Tables

Table B-1.--Rank order of fish and invertebrate taxa by relative abundance (kg/km).

TOTAL TRAWLS 566 TOTAL SPECIES 326 TOTAL EFFORT 1527.3 KM

SPECIES RANKED BY MEAN CPUE (KG/KM)

RANK	SPECIES	MEAN CPUE (KG/KM)	90 PERCENT *---CONFIDENCE LIMITS---*		PROPORTION	CUMULATIVE PROPORTION	
1	21740	57.52062	49.89521	65.14604	0.25990611	0.25990611	WALLEYE POLLOCK
2	10210	36.31372	32.16689	40.46055	0.16408303	0.42398911	YELLOWFIN SOLE
3	68580	22.45481	15.89558	29.01403	0.10146173	0.52545082	TANNER CRAB (OPILIO)
4	21720	14.87653	11.90237	17.85070	0.06721940	0.59267020	PACIFIC COD
5	80000	10.44202	8.11299	12.77104	0.04718212	0.63985228	STARFISH UNIDENT
6	24100	6.48343	3.89057	9.07629	0.02929529	0.66914749	EELPOUT UNIDENT
7	10285	5.77376	4.44644	7.10109	0.02608868	0.69523608	ALASKA PLAICE
8	69322	5.10299	3.92724	6.27873	0.02305779	0.71829378	RED KING CRAB
9	10115	4.67879	4.04887	5.30870	0.02114104	0.73943472	GREENLAND TURBOT
10	10260	3.44987	2.73529	4.16445	0.01558821	0.75502288	ROCK SOLE
11	81742	3.04860	1.80930	4.28790	0.01377508	0.76879787	PURPLE-ORANGE SEASTAR
12	69010	2.98319	2.31762	3.64877	0.01347953	0.78227734	HERMIT CRAB UNIDENT
13	71884	2.89386	2.21842	3.56930	0.01307587	0.79535317	NEPTUNEA HEROS
14	24191	2.87219	2.24915	3.49522	0.01297794	0.80833101	SHORTFIN EELPOUT
15	10130	2.44178	2.09060	2.79295	0.01103315	0.81936407	FLATHEAD SOLE
16	24185	2.32631	1.87449	2.77813	0.01051142	0.82987547	WATTLED EELPOUT
17	21427	2.09455	0.71891	3.47020	0.00946422	0.83933961	BUTTERFLY SCULPIN
18	68560	1.75273	1.40084	2.10462	0.00791971	0.84725928	TANNER CRAB (BAIRDI)

Table B-1 (Cont'd)

RANK	SPECIES	MEAN CPUE (KG/KM)	90 PERCENT *---CONFIDENCE LIMITS---*		PROPORTION	CUMULATIVE PROPORTION	
19	81780	1.63787	0.79409	2.48165	0.00740073	0.85465991	COMMON MUD STAR
20	83020	1.57020	1.21909	1.92130	0.00709493	0.86175477	GORGONOCEPHALUS EUCNEMIS
21	21371	1.56448	1.15291	1.97605	0.00706909	0.86882376	PLAIN SCULPIN
22	98000	1.44886	0.78529	2.11242	0.00654666	0.87537038	TUNICATE UNIDENT
23	69086	1.35392	0.80468	1.90317	0.00611769	0.88148796	PAGURUS TRIGONOCHEIRUS
24	00400	1.28925	1.04628	1.53221	0.00582546	0.88731336	SKATE UNIDENT
25	78010	1.25631	0.80044	1.71218	0.00567662	0.89298987	OCTOPUS UNIDENT
26	10120	1.21934	0.95414	1.48453	0.00550957	0.89849937	PACIFIC HALIBUT
27	21735	1.19867	0.84216	1.55518	0.00541620	0.90391540	SAFFRON COD
28	71500	1.12588	0.79672	1.45505	0.00508730	0.90900278	SNAIL UNIDENT
29	98205	0.96087	0.25135	1.67038	0.00434160	0.91334438	HALOCYNTHIA AURANTIUM (SYN. TETHYUM AURANTIUM)
30	21375	0.95324	0.34268	1.56380	0.00430722	0.91765153	MYOXOCEPHALUS SP
31	10110	0.92983	0.75388	1.10577	0.00420143	0.92185294	ARROWTOOTH FLOUNDER
32	21370	0.88071	0.54968	1.21173	0.00397949	0.92583239	GREAT SCULPIN
33	20510	0.84037	0.16121	1.51952	0.00379720	0.92962956	SABLEFISH
34	21347	0.82420	0.38752	1.26088	0.00372416	0.93335366	YELLOW IRISH LORD
35	69323	0.71749	0.36262	1.07235	0.00324197	0.93659556	BLUE KING CRAB
36	10211	0.66561	0.49888	0.83233	0.00300754	0.93960309	LONGHEAD DAB
37	71820	0.62976	0.44299	0.81652	0.00284556	0.94244861	NEPTUNEA PRIBILOFFENSIS
38	20040	0.53333	0.44412	0.62254	0.00240986	0.94485843	STURGEON POACHER
39	22200	0.52409	0.27861	0.76938	0.00236812	0.94722652	SNAILFISH UNIDENT
40	69035	0.51880	0.32179	0.71582	0.00234422	0.94957065	PAGURUS SP

Table B-1 (Cont'd)

RANK	SPECIES	MEAN CPUE (KG/KM)	90 PERCENT *---CONFIDENCE LIMITS---*		PROPORTION	CUMULATIVE PROPORTION	
41	91000	0.51840	0.19670	0.84009	0.00234239	0.95191300	SPONGE UNIDENT
42	24187	0.50559	0.11289	0.89829	0.00228450	0.95419740	MARBLED EELPOUT
43	80595	0.48792	0.30345	0.67239	0.00220468	0.95640206	LEPTASTERIAS SP
44	72740	0.37638	0.29034	0.46243	0.00170071	0.95810270	BUCCINUM SP
45	21110	0.37453	0.23688	0.51217	0.00169231	0.95979499	PACIFIC HERRING
46	43000	0.36589	0.18961	0.54218	0.00165331	0.96144819	SEA ANEMONE UNIDENT
47	71882	0.33786	0.25025	0.42546	0.00152662	0.96297478	NEPTUNEA VENTRICOSA
48	21372	0.31283	0.17180	0.45385	0.00141353	0.96438825	SHORTHORN SCULPIN
49	68590	0.30080	0.11514	0.48646	0.00135917	0.96574735	TANNER CRAB (HYBRID)
50	69400	0.29578	0.18940	0.40216	0.00133650	0.96708381	KOREAN HORSEHAIR CRAB
51	40500	0.28531	0.14319	0.42744	0.00128921	0.96837294	JELLYFISH UNIDENT
52	66031	0.27910	0.22558	0.33262	0.00126113	0.96963405	PINK SHRIMP
53	85000	0.27436	0.00000	0.55983	0.00123971	0.97087371	SEA CUCUMBER UNIDENT
54	21313	0.27025	0.13381	0.40670	0.00122115	0.97209477	GYMNOCANTHUS SP
55	10220	0.24479	0.17452	0.31505	0.00110608	0.97320079	STARRY FLOUNDER
56	21438	0.23390	0.17298	0.29481	0.00105687	0.97425758	THORNY SCULPIN
57	71870	0.21740	0.14484	0.28996	0.00098233	0.97523987	NEPTUNEA LYRATA
58	83000	0.21695	0.03044	0.40346	0.00098030	0.97622013	BRITTLESTARFISH UNIDENT
59	82510	0.21295	0.00000	0.55277	0.00096223	0.97718227	GREEN SEA URCHIN
60	21316	0.20603	0.10373	0.30833	0.00093097	0.97811317	ARMORHEAD SCULPIN (HELMETED SCULPIN)
61	30060	0.20120	0.04400	0.35840	0.00090913	0.97902226	PACIFIC OCEAN PERCH
62	21230	0.19288	0.00000	0.39208	0.00087154	0.97989380	PECTORAL RATTAIL

Table B-1 (Cont'd)

RANK	SPECIES	MEAN CPUE (KG/KM)	90 PERCENT *---CONFIDENCE LIMITS---*		PROPORTION	CUMULATIVE PROPORTION	
63	99990	0.19226	0.02304	0.36148	0.00086873	0.98076248	INVERTEBRATE UNIDENT
64	68577	0.17765	0.10295	0.25235	0.00080271	0.98156511	HYAS CRAB (ROUNDED SPINED)
65	21420	0.17146	0.12414	0.21877	0.00077474	0.98233974	BIGMOUTH SCULPIN
66	23010	0.15648	0.10757	0.20538	0.00070705	0.98304677	EULACHON
67	82740	0.13793	0.00000	0.29392	0.00062325	0.98366999	PARMA SAND DOLLAR
68	22204	0.13143	0.07208	0.19077	0.00059387	0.98426377	MARBLED SNAILFISH
69	43020	0.12267	0.00000	0.32585	0.00055431	0.98481798	METRIDIUM SENILE
70	66580	0.12145	0.03217	0.21073	0.00054878	0.98536670	ARGIS DENTATA
71	74050	0.10916	0.00000	0.24290	0.00049325	0.98585987	MUSSEL UNIDENT
72	21932	0.10911	0.07649	0.14173	0.00049304	0.98635280	WHITESPOTTED GREENLING
73	20720	0.10567	0.05655	0.15480	0.00047750	0.98683023	SEARCHER
74	98100	0.10406	0.01905	0.18906	0.00047020	0.98730039	SEA ONION UNIDENT
75	83320	0.10390	0.00000	0.26722	0.00046948	0.98776984	OPHIURA SARSI
76	98200	0.10076	0.00000	0.23306	0.00045532	0.98822510	SEA POTATO UNIDENT
77	22236	0.09878	0.04943	0.14813	0.00044635	0.98867142	PINK SNAILFISH
78	23055	0.09240	0.04717	0.13762	0.00041751	0.98908889	RAINBOW (TOOTHED) SMELT
79	69060	0.09129	0.04721	0.13537	0.00041252	0.98950135	PAGURUS ALEUTICUS
80	10112	0.08866	0.05767	0.11965	0.00040062	0.98990190	KAMCHATKA FLOUNDER
81	21390	0.08282	0.05630	0.10933	0.00037422	0.99027609	SPINYHEAD SCULPIN
82	68781	0.07673	0.04504	0.10842	0.00034672	0.99062276	TELMESSUS CRAB
83	71800	0.07611	0.04898	0.10323	0.00034391	0.99096655	NEPTUNEA SP
84	72500	0.07597	0.03633	0.11561	0.00034328	0.99130976	FUSITRITON OREGONENSIS

Table B-1 (Cont'd)

RANK	SPECIES	MEAN CPUE (KG/KM)	90 PERCENT *---CONFIDENCE LIMITS---*		PROPORTION	CUMULATIVE PROPORTION	
85	30576	0.07227	0.00000	0.17195	0.00032656	0.99163627	SHORTRAKER ROCKFISH
86	71001	0.06543	0.02516	0.10571	0.00029568	0.99193191	SNAIL (GASTROPOD) EGGS
87	71772	0.05783	0.01592	0.09974	0.00026133	0.99219322	BERINGIUS BERINGII
88	22201	0.05563	0.00000	0.12285	0.00025137	0.99244451	LIPARIS SP
89	41100	0.05434	0.02281	0.08587	0.00024557	0.99269008	SOFT CORAL UNIDENT
90	43040	0.05391	0.02733	0.08049	0.00024361	0.99293363	TEALIA SP
91	21300	0.05289	0.01254	0.09324	0.00023899	0.99317252	SCULPIN UNIDENT
92	24001	0.04648	0.00743	0.08552	0.00021002	0.99338245	PROWFISH
93	21340	0.04636	0.02397	0.06875	0.00020950	0.99359190	BLACKFIN SCULPIN
94	21592	0.04625	0.03225	0.06026	0.00020901	0.99380087	PACIFIC SANDFISH
95	81315	0.04465	0.00000	0.09394	0.00020175	0.99400258	PTERASTER TESSELATUS
96	71750	0.04404	0.02399	0.06408	0.00019899	0.99420154	VOLUTOPSIUS SP
97	21314	0.04263	0.02662	0.05864	0.00019264	0.99439418	THREADED SCULPIN
98	23041	0.04101	0.01967	0.06236	0.00018534	0.99457943	CAPELIN
99	99992	0.03963	0.00000	0.10523	0.00017909	0.99475848	INVERTEBRATE EGGS UNIDENT
100	00450	0.03859	0.00293	0.07425	0.00017438	0.99493277	STARRY SKATE
101	69520	0.03809	0.02140	0.05477	0.00017212	0.99510479	HYAS SP
102	68578	0.03562	0.00000	0.09058	0.00016096	0.99526572	HYAS CRAB (SHARP SPINED)
103	82500	0.03524	0.00636	0.06412	0.00015926	0.99542486	SEA URCHIN UNIDENT
104	21232	0.03425	0.00000	0.06918	0.00015477	0.99557960	CORYPHAENOIDES CINEREUS
105	30020	0.03120	0.01310	0.04929	0.00014098	0.99572050	SHORTSPINE THORNYHEAD
106	71010	0.03054	0.01911	0.04197	0.00013801	0.99585843	NUDIBRANCH UNIDENT

Table B-1 (Cont'd)

RANK	SPECIES	MEAN CPUE (KG/KM)	90 PERCENT *---CONFIDENCE LIMITS---*		PROPORTION	CUMULATIVE PROPORTION	
107	69061	0.03016	0.01813	0.04219	0.00013629	0.99599468	LABIDOCHIRUS SPLENDESCENS (SYN. PAGURUS SPLENDES
108	71756	0.03011	0.01711	0.04311	0.00013606	0.99613070	VOLUTOPSIUS FRAGILIS
109	21725	0.02963	0.00687	0.05239	0.00013390	0.99626457	ARCTIC COD
110	71530	0.02869	0.01244	0.04493	0.00012964	0.99639415	NATICA CLAUSA
111	80020	0.02768	0.00936	0.04600	0.00012508	0.99651920	EVASTERIAS ECHINOSOMA
112	21934	0.02675	0.01067	0.04283	0.00012088	0.99664008	ROCK GREENLING
113	71961	0.02603	0.01671	0.03535	0.00011764	0.99675762	CLINOPEGMA MAGNA (SYN. ANCISTROLEPIS MAGNA)
114	21311	0.02505	0.00643	0.04368	0.00011322	0.99687075	NORTHERN SCULPIN
115	71891	0.02353	0.01619	0.03087	0.00010634	0.99697709	PLICIFUSUS KROYERI
116	21342	0.02231	0.00000	0.04473	0.00010081	0.99707782	IRISH LORD
117	65000	0.02165	0.00000	0.05287	0.00009786	0.99717557	BARNACLE UNIDENT
118	10200	0.02097	0.01242	0.02953	0.00009479	0.99727034	REX SOLE
119	80590	0.02017	0.00120	0.03915	0.00009117	0.99736142	LEPTASTERIAS POLARIS
120	80010	0.02013	0.00249	0.03777	0.00009096	0.99745237	EVASTERIAS SP
121	57000	0.02008	0.00000	0.04895	0.00009076	0.99754309	SABELLID UNIDENT
122	21355	0.01986	0.01380	0.02592	0.00008975	0.99763274	RIBBED SCULPIN
123	98300	0.01953	0.00977	0.02929	0.00008826	0.99772095	COMPOUND ASCIDIAN UNIDENT
124	80650	0.01838	0.00797	0.02878	0.00008306	0.99780392	HIPPASTERIA SPINOSA
125	20000	0.01668	0.00844	0.02491	0.00007537	0.99787926	POACHER UNIDENT
126	79200	0.01638	0.00992	0.02283	0.00007402	0.99795317	GONATUS SP
127	41221	0.01568	0.00640	0.02496	0.00007087	0.99802398	EUNEPHTHYA RUBIFORMIS (SYN. GERSEMIA RUBIFORMIS)
128	71580	0.01529	0.00924	0.02134	0.00006910	0.99809301	POLINICES PALLIDA

Table B-1 (Cont'd)

RANK	SPECIES	MEAN CPUE (KG/KM)	90 PERCENT *---CONFIDENCE LIMITS---*		PROPORTION	CUMULATIVE PROPORTION	
129	23235	0.01422	0.00000	0.02994	0.00006427	0.99815726	CHUM SALMON
130	00440	0.01390	0.00226	0.02555	0.00006283	0.99822008	LONGNOSE SKATE
131	69310	0.01273	0.00138	0.02408	0.00005754	0.99827754	GOLDEN KING CRAB
132	65201	0.01197	0.00000	0.03098	0.00005412	0.99833166	BALANUS SP
133	75281	0.01123	0.00000	0.02545	0.00005074	0.99838233	CLINOCARDIUM SP
134	23808	0.01107	0.00696	0.01517	0.00005002	0.99843228	SNAKE PRICKLEBACK
135	20322	0.01005	0.00000	0.02175	0.00004542	0.99847769	BERING WOLFFISH
136	74000	0.00970	0.00297	0.01643	0.00004385	0.99852144	CLAM UNIDENT
137	74104	0.00952	0.00000	0.02464	0.00004305	0.99856448	CHLAMYS SP
138	24110	0.00912	0.00331	0.01494	0.00004124	0.99860561	TWOLINE EELPOUT
139	81741	0.00903	0.00000	0.02381	0.00004081	0.99864637	ASTERIAS SP
140	00430	0.00888	0.00000	0.01821	0.00004015	0.99868643	BLACK SKATE
141	00401	0.00851	0.00000	0.01911	0.00003846	0.99872481	SKATE EGG CASE UNIDENT
142	75111	0.00845	0.00308	0.01381	0.00003818	0.99876296	ALASKA SURF CLAM
143	20006	0.00832	0.00526	0.01137	0.00003760	0.99880051	SAWBACK POACHER
144	68570	0.00811	0.00374	0.01247	0.00003665	0.99883711	CHIONOECETES ANGULATUS
145	21354	0.00809	0.00000	0.01912	0.00003659	0.99887371	SPECTACLED TRIGLOPS
146	24188	0.00804	0.00056	0.01551	0.00003633	0.99890995	CANADIAN EELPOUT
147	21350	0.00769	0.00308	0.01231	0.00003479	0.99894464	TRIGLOPS SP
148	00310	0.00765	0.00049	0.01480	0.00003458	0.99897921	SPINY DOGFISH
149	71753	0.00733	0.00279	0.01187	0.00003312	0.99901223	PYRULOFUSUS DEFORMIS
150	91020	0.00702	0.00000	0.01621	0.00003174	0.99904394	SUBERITES DOMUNCULA

Table B-1 (Cont'd)

RANK	SPECIES	MEAN CPUE (KG/KM)	90 PERCENT *---CONFIDENCE LIMITS---*		PROPORTION	CUMULATIVE PROPORTION	
151	81360	0.00685	0.00000	0.01373	0.00003096	0.99907481	DIPLOPTERASTER MULTIPES
152	66530	0.00656	0.00143	0.01169	0.00002964	0.99910438	CRANGON DALLI
153	30150	0.00654	0.00000	0.01559	0.00002955	0.99913382	DUSKY ROCKFISH
154	98105	0.00632	0.00123	0.01140	0.00002856	0.99916231	BOLTENIA OVIFERA
155	74981	0.00630	0.00264	0.00995	0.00002846	0.99919068	COCKLE UNIDENT
156	75285	0.00622	0.00318	0.00925	0.00002811	0.99921870	GREENLAND COCKLE
157	65203	0.00562	0.00000	0.01342	0.00002542	0.99924409	BALANUS EVERMANNI (SYN. CHIRONA EVERMANNI)
158	22206	0.00557	0.00000	0.01481	0.00002518	0.99926924	POLKA-DOT SNAILFISH
159	20061	0.00547	0.00024	0.01070	0.00002472	0.99929392	BERING POACHER
160	22010	0.00539	0.00000	0.01433	0.00002437	0.99931824	RAGFISH
161	66570	0.00523	0.00058	0.00988	0.00002363	0.99934184	MANTIS SHRIMP
162	81355	0.00510	0.00150	0.00871	0.00002307	0.99936485	PTERASTER OBSCURUS
163	23800	0.00493	0.00039	0.00946	0.00002228	0.99938702	PRICKLEBACK UNIDENT
164	23220	0.00492	0.00000	0.01169	0.00002225	0.99940920	CHINOOK SALMON
165	71764	0.00491	0.00000	0.01103	0.00002222	0.99943137	VOLUTOPSIUS MIDDENDORFFII
166	75610	0.00491	0.00000	0.01298	0.00002222	0.99945354	ROCK JINGLES UNIDENT
167	75110	0.00485	0.00214	0.00755	0.00002191	0.99947536	SPISULA SP
168	10250	0.00460	0.00000	0.01224	0.00002081	0.99949610	SAND SOLE
169	21930	0.00457	0.00079	0.00836	0.00002069	0.99951672	GREENLING UNIDENT
170	66000	0.00445	0.00004	0.00886	0.00002013	0.99953675	SHRIMP UNIDENT
171	23805	0.00406	0.00259	0.00554	0.00001838	0.99955511	DAUBED SHANNY
172	22220	0.00387	0.00223	0.00551	0.00001751	0.99957251	BLACKTAIL SNAILFISH

Table B-1 (Cont'd)

RANK	SPECIES	MEAN CPUE (KG/KM)	90 PERCENT CONFIDENCE LIMITS		PROPORTION	CUMULATIVE PROPORTION	
173	56300	0.00365	0.00266	0.00464	0.00001650	0.99958896	SCALEWORM UNIDENT
174	81092	0.00345	0.00125	0.00566	0.00001562	0.99960458	CROSSASTER BOREALIS
175	23809	0.00343	0.00000	0.00913	0.00001553	0.99962008	LUMPENUS MACKAYI
176	42000	0.00323	0.00000	0.00751	0.00001462	0.99963462	SEA PEN UNIDENT
177	66045	0.00307	0.00195	0.00420	0.00001391	0.99964845	HUMPY SHRIMP
178	75240	0.00306	0.00000	0.00732	0.00001366	0.99966228	MACOMA SP
179	80730	0.00287	0.00000	0.00620	0.00001300	0.99967527	ORANGE BAT STAR
180	21385	0.00286	0.00034	0.00537	0.00001292	0.99968814	ENOPHRYS CLAVIGER
181	81310	0.00283	0.00000	0.00698	0.00001278	0.99970090	PTERASTER SP
182	21921	0.00219	0.00079	0.00359	0.00000992	0.99971079	ATKA MACKEREL
183	72063	0.00218	0.00000	0.00447	0.00000985	0.99972057	AFORIA CIRCINATA (SYN. LEUCOSYRINX CIRCINATA)
184	75284	0.00212	0.00102	0.00321	0.00000958	0.99973011	SERRIPES SP
185	80200	0.00209	0.00000	0.00512	0.00000947	0.99973952	LETHASTERIAS NANIMENSIS
186	81060	0.00197	0.00046	0.00349	0.00000893	0.99974835	SOLASTER SP
187	80540	0.00197	0.00024	0.00369	0.00000890	0.99975717	HENRICIA SP
188	20060	0.00195	0.00096	0.00295	0.00000885	0.99976599	WARTY POACHER
189	79020	0.00188	0.00087	0.00290	0.00000852	0.99977445	ROSSIA PACIFICA
190	21346	0.00163	0.00000	0.00435	0.00000739	0.99978184	RED IRISH LORD
191	71030	0.00158	0.00110	0.00206	0.00000715	0.99978900	TRITONIA DIOMEDEA
192	20202	0.00157	0.00039	0.00275	0.00000711	0.99979603	PACIFIC SAND LANCE
193	72752	0.00146	0.00051	0.00242	0.00000663	0.99980259	SILKY WHELK
194	10180	0.00143	0.00001	0.00284	0.00000647	0.99980902	DOVER SOLE

Table B-1 (Cont'd)

RANK	SPECIES	MEAN CPUE (KG/KM)	90 PERCENT *---CONFIDENCE LIMITS---*		PROPORTION	CUMULATIVE PROPORTION	
195	20050	0.00141	0.00084	0.00197	0.00000637	0.99981534	ALEUTIAN ALLIGATORFISH
196	21463	0.00133	0.00056	0.00210	0.00000602	0.99982130	PACIFIC SPINY LUMPSUCKER
197	68510	0.00125	0.00000	0.00291	0.00000568	0.99982690	DECORATOR CRAB
198	69120	0.00123	0.00032	0.00213	0.00000556	0.99983239	PAGURUS CAPILLATUS
199	72531	0.00121	0.00027	0.00215	0.00000548	0.99983775	MARGARITES SP
200	70100	0.00119	0.00000	0.00305	0.00000540	0.99984312	CHITON UNIDENT
201	30040	0.00119	0.00008	0.00229	0.00000538	0.99984848	ROCKFISH UNIDENT
202	91700	0.00117	0.00000	0.00292	0.00000531	0.99985373	GLASS SPONGE UNIDENT
203	80729	0.00104	0.00055	0.00153	0.00000471	0.99985838	RED BAT STAR
204	66500	0.00096	0.00016	0.00176	0.00000435	0.99986267	CRANGONID SHRIMP UNIDENT
205	95000	0.00089	0.00000	0.00189	0.00000402	0.99986660	BRYOZOAN UNIDENT
206	85010	0.00085	0.00000	0.00173	0.00000387	0.99987042	CUCUMARIA JAPONICA
207	81870	0.00085	0.00000	0.00192	0.00000387	0.99987423	DIPSACASTER BOREALIS
208	78030	0.00085	0.00000	0.00209	0.00000386	0.99987792	FLAPJACK DEVILFISH
209	21900	0.00085	0.00000	0.00182	0.00000384	0.99988186	HEXAGRAMMIDAE
210	21455	0.00082	0.00003	0.00160	0.00000370	0.99988556	SMOOTH LUMPSUCKER
211	74106	0.00078	0.00000	0.00179	0.00000353	0.99988901	CHLAMYS RUBIDA
212	30420	0.00074	0.00000	0.00166	0.00000338	0.99989235	NORTHERN ROCKFISH
213	66120	0.00071	0.00013	0.00128	0.00000321	0.99989545	SIDESTRIPE SHRIMP
214	78403	0.00070	0.00000	0.00186	0.00000317	0.99989855	OCTOPUS DOFLEINI
215	66611	0.00069	0.00038	0.00100	0.00000313	0.99990165	ARGIS LAR (SYN. NECTOCRANGON LAR)
216	71761	0.00067	0.00008	0.00127	0.00000306	0.99990463	VOLUTOPSIUS MELONIS

Table B-1 (Cont'd)

RANK	SPECIES	MEAN CPUE (KG/KM)	90 PERCENT *---CONFIDENCE LIMITS---*		PROPORTION	CUMULATIVE PROPORTION	
217	21443	0.00066	0.00005	0.00127	0.00000300	0.99990761	ICELUS UNCINALIS
218	21378	0.00065	0.00000	0.00174	0.00000297	0.99991047	MYOXOCEPHALUS AXILLARIS
219	22207	0.00062	0.00000	0.00165	0.00000280	0.99991321	LIPARIS MEGACEPHALUS
220	00420	0.00058	0.00000	0.00155	0.00000264	0.99991583	BIG SKATE
221	72743	0.00058	0.00019	0.00097	0.00000264	0.99991846	BUCCINUM ANGULOSSUM
222	72790	0.00058	0.00000	0.00154	0.00000262	0.99992096	ARCTOMELON STEARNSII (SYN. BOREOMELON STEARNSII)
223	22600	0.00056	0.00009	0.00102	0.00000254	0.99992346	LANTERNFISH UNIDENT
224	20051	0.00055	0.00015	0.00096	0.00000252	0.99992597	ASPIDOPHOROIDES OLRIKI
225	74560	0.00055	0.00012	0.00099	0.00000252	0.99992847	MUSCULUS SP
226	98302	0.00054	0.00000	0.00119	0.00000245	0.99993086	AMAROUCIUM SP
227	00410	0.00053	0.00000	0.00121	0.00000240	0.99993324	DEEPSEA SKATE
228	21331	0.00053	0.00023	0.00083	0.00000240	0.99993562	ARTEDIELLUS SP
229	66600	0.00052	0.00000	0.00113	0.00000237	0.99993789	SCLEROCRANGON SP
230	23836	0.00049	0.00000	0.00101	0.00000223	0.99994003	LONGSNOUT PRICKLEBACK
231	79000	0.00047	0.00018	0.00076	0.00000214	0.99994206	SQUID UNIDENT
232	75267	0.00046	0.00014	0.00078	0.00000210	0.99994409	DALL'S RAZOR CLAM
233	59100	0.00045	0.00000	0.00116	0.00000207	0.99994611	LEECH UNIDENT
234	95010	0.00043	0.00000	0.00095	0.00000197	0.99994802	BRYOZOAN SP A UNIDENT (BRAIN CORAL APPEARANCE)
235	21731	0.00043	0.00000	0.00086	0.00000195	0.99994993	PACIFIC FLATNOSE
236	50160	0.00040	0.00004	0.00075	0.00000180	0.99995172	APHRODITID WORM UNIDENT
237	71760	0.00040	0.00000	0.00085	0.00000180	0.99995350	VOLUTOPSIUS CASTANEUS
238	43010	0.00039	0.00000	0.00086	0.00000177	0.99995517	METRIDIUM SP

Table B-1 (Cont'd)

RANK	SPECIES	MEAN CPUE (KG/KM)	90 PERCENT *---CONFIDENCE LIMITS---*		PROPORTION	CUMULATIVE PROPORTION	
239	97000	0.00036	0.00000	0.00094	0.00000165	0.99995672	BRACHIOPOD UNIDENT
240	71890	0.00036	0.00001	0.00071	0.00000165	0.99995827	PLICIFUSUS SP
241	71726	0.00035	0.00000	0.00073	0.00000160	0.99995982	COLUS SPITZBERGENSIS
242	81061	0.00035	0.00000	0.00093	0.00000159	0.99996137	SOLASTER ENDECA
243	66203	0.00035	0.00000	0.00081	0.00000158	0.99996292	LEBBEUS GROENLANDICA
244	20662	0.00034	0.00003	0.00066	0.00000157	0.99996447	SMOOTHTONGUE
245	22620	0.00034	0.00000	0.00070	0.00000157	0.99996602	LAMPANYCTUS SP
246	94000	0.00034	0.00006	0.00061	0.00000153	0.99996745	SIPUNCULID WORM UNIDENT
247	00021	0.00031	0.00000	0.00084	0.00000144	0.99996888	PACIFIC LAMPREY
248	30030	0.00029	0.00000	0.00063	0.00000132	0.99997019	LONGSPINE THORNYHEAD
249	72300	0.00028	0.00000	0.00075	0.00000128	0.99997139	TRICHOTROPIDAE
250	60110	0.00028	0.00000	0.00060	0.00000128	0.99997258	GAMMARID AMPHIPOD UNIDENT
251	22237	0.00028	0.00000	0.00075	0.00000127	0.99997377	ABYSSAL SNAILFISH
252	71765	0.00026	0.00000	0.00059	0.00000121	0.99997496	VOLUTOPSIUS TROPHONIUS
253	72420	0.00026	0.00005	0.00047	0.00000119	0.99997615	TROPHONOPSIS SP (SYN. BOREOTROPHON SP)
254	22610	0.00026	0.00010	0.00042	0.00000119	0.99997735	CALIFORNIA HEADLIGHTFISH
255	71835	0.00024	0.00007	0.00042	0.00000112	0.99997842	NEPTUNEA BOREALIS
256	44000	0.00023	0.00000	0.00062	0.00000106	0.99997937	CORAL STONY UNIDENT
257	80594	0.00022	0.00000	0.00057	0.00000102	0.99998033	LEPTASTERIAS ARCTICA
258	71025	0.00022	0.00000	0.00059	0.00000100	0.99998128	TRITONIA SP
259	69300	0.00022	0.00000	0.00058	0.00000099	0.99998223	LITHODES COUESI
260	74100	0.00020	0.00000	0.00051	0.00000093	0.99998307	SCALLOP UNIDENT

Table B-1 (Cont'd)

RANK	SPECIES	MEAN CPUE (KG/KM)	90 PERCENT *---CONFIDENCE LIMITS---*		PROPORTION	CUMULATIVE PROPORTION	
261	66601	0.00019	0.00008	0.00030	0.00000087	0.99998390	TANK SHRIMP
262	83400	0.00017	0.00000	0.00041	0.00000080	0.99998462	OPHIOPHOLIS ACULEATA
263	00002	0.00016	0.00000	0.00038	0.00000075	0.99998533	FISH LARVAE UNIDENT
264	10270	0.00015	0.00000	0.00041	0.00000070	0.99998593	BUTTER SOLE
265	21353	0.00014	0.00000	0.00033	0.00000067	0.99998653	TRIGLOPS METOPIAS
266	21397	0.00014	0.00000	0.00031	0.00000065	0.99998712	CRESTED SCULPIN
267	60100	0.00014	0.00000	0.00037	0.00000064	0.99998772	AMPHIPOD UNIDENT
268	62000	0.00014	0.00000	0.00037	0.00000064	0.99998831	ISOPOD UNIDENT
269	66019	0.00014	0.00000	0.00037	0.00000064	0.99998891	PANDALID SHRIMP UNIDENT
270	66020	0.00014	0.00000	0.00037	0.00000064	0.99998951	PANDALUS SP
271	20001	0.00012	0.00002	0.00022	0.00000057	0.99998998	TUBENOSE POACHER
272	68400	0.00012	0.00000	0.00027	0.00000057	0.99999046	SCALED CRAB
273	66030	0.00012	0.00000	0.00033	0.00000056	0.99999094	OCEAN PINK SHRIMP
274	21344	0.00012	0.00000	0.00032	0.00000055	0.99999141	BROWN IRISH LORD
275	50000	0.00011	0.00000	0.00026	0.00000054	0.99999189	ANNELID WORM UNIDENT
276	23871	0.00011	0.00000	0.00031	0.00000053	0.99999237	GUNNEL UNIDENT
277	69085	0.00011	0.00000	0.00031	0.00000052	0.99999284	PAGURUS KENNERLYI
278	69110	0.00011	0.00000	0.00031	0.00000052	0.99999332	ELASSOCHIRUS TENUIMANUS
279	21335	0.00010	0.00000	0.00023	0.00000048	0.99999380	ARTEDIELLUS UNCINATUS
280	69315	0.00009	0.00000	0.00025	0.00000043	0.99999416	HAPALOGASTER SP
281	71525	0.00009	0.00000	0.00024	0.00000041	0.99999451	NATICA SP
282	71710	0.00009	0.00001	0.00016	0.00000040	0.99999487	COLUS SP (SYN. SINUM SP)

Table B-1 (Cont'd)

RANK	SPECIES	MEAN CPUE (KG/KM)	90 PERCENT *---CONFIDENCE LIMITS---*		PROPORTION	CUMULATIVE PROPORTION	
283	24190	0.00008	0.00001	0.00014	0.00000037	0.99999523	BLACK EELPOUT
284	74983	0.00007	0.00000	0.00017	0.00000036	0.99999559	CLINOCARDIUM CILIATUM
285	72751	0.00007	0.00000	0.00020	0.00000035	0.99999582	LYRE WHELK
286	72305	0.00007	0.00000	0.00019	0.00000033	0.99999606	TRICHOTROPIS BICARINATA
287	69070	0.00007	0.00000	0.00018	0.00000031	0.99999630	PAGURUS CONFRAGOSUS
288	24160	0.00007	0.00000	0.00016	0.00000031	0.99999654	BLACKMOUTH EELPOUT
289	85200	0.00006	0.00000	0.00015	0.00000030	0.99999678	CUCUMARIA SP
290	68010	0.00006	0.00000	0.00013	0.00000029	0.99999702	CANCER CRAB UNIDENT
291	74311	0.00006	0.00000	0.00017	0.00000029	0.99999725	HIATELLA ARCTICA
292	74655	0.00006	0.00000	0.00017	0.00000029	0.99999749	CYCLOCARDIA CREBRICOSTATA
293	69090	0.00006	0.00000	0.00012	0.00000029	0.99999773	PAGURUS OCHOTENSIS
294	71731	0.00006	0.00000	0.00014	0.00000028	0.99999797	COLUS HALLI
295	21439	0.00006	0.00001	0.00010	0.00000027	0.99999821	ICELUS CANALICULATUS
296	71721	0.00005	0.00000	0.00010	0.00000025	0.99999845	COLUS HERENDEENII
297	82526	0.00005	0.00000	0.00013	0.00000025	0.99999869	WHITE SEA URCHIN
298	80728	0.00004	0.00000	0.00009	0.00000019	0.99999880	CERAMASTER SP
299	21935	0.00004	0.00000	0.00010	0.00000018	0.99999892	KELP GREENLING
300	21374	0.00003	0.00000	0.00010	0.00000017	0.99999904	MYOXOCEPHALUS MEDNIUS
301	71775	0.00003	0.00000	0.00009	0.00000016	0.99999916	BERINGIUS CREBRICOSTATUS
302	75201	0.00003	0.00000	0.00009	0.00000016	0.99999928	TELLINA SP
303	45000	0.00003	0.00000	0.00009	0.00000015	0.99999940	CTENOPHORA
304	20010	0.00003	0.00000	0.00006	0.00000015	0.99999952	BLACKFIN POACHER

Table B-1 (Cont'd)

RANK	SPECIES	MEAN CPUE (KG/KM)	90 PERCENT *---CONFIDENCE LIMITS---*		PROPORTION	CUMULATIVE PROPORTION	
305	20610	0.00003	0.00000	0.00007	0.00000014	0.99999964	BLACKSMELT UNIDENT
306	75551	0.00003	0.00000	0.00008	0.00000014	0.99999976	CARDIOMYA SP
307	71575	0.00003	0.00000	0.00008	0.00000014	0.99999988	POLINICES SP
308	21010	0.00003	0.00000	0.00006	0.00000014	1.00000000	PACIFIC VIPERFISH
309	21405	0.00003	0.00000	0.00008	0.00000014	1.00000000	EYESHADE SCULPIN
310	22900	0.00003	0.00000	0.00008	0.00000014	1.00000000	DREAMER UNIDENT
311	21356	0.00002	0.00000	0.00007	0.00000012	1.00000000	ROUGHSPINE SCULPIN
312	93100	0.00002	0.00000	0.00006	0.00000011	1.00000000	PRIAPULID WORM UNIDENT
313	00010	0.00002	0.00000	0.00006	0.00000010	1.00000000	LAMPREY UNIDENT
314	41500	0.00002	0.00000	0.00005	0.00000009	1.00000000	GORGONIAN UNIDENT
315	72755	0.00002	0.00000	0.00005	0.00000009	1.00000000	BUCCINUM POLARE
316	75266	0.00001	0.00000	0.00005	0.00000008	1.00000000	PACIFIC RAZOR CLAM
317	66033	0.00001	0.00000	0.00004	0.00000008	1.00000000	PANDALUS MONTAGUI TRIDENS
318	71501	0.00001	0.00000	0.00004	0.00000007	1.00000000	LIMPET UNIDENT
319	71771	0.00001	0.00000	0.00004	0.00000007	1.00000000	BERINGIUS FRIELEI
320	74641	0.00001	0.00000	0.00004	0.00000007	1.00000000	ASTARTE BOREALIS
321	92021	0.00001	0.00000	0.00004	0.00000007	1.00000000	POLYCLAD FLATWORM UNIDENT
322	80005	0.00001	0.00000	0.00004	0.00000007	1.00000000	CERAMASTER LEPTOCERAMUS
323	23803	0.00001	0.00000	0.00004	0.00000007	1.00000000	FOURLINE SNAKEBLENNY
324	71640	0.00001	0.00000	0.00004	0.00000007	1.00000000	SLIPPER SHELL
325	21333	0.00001	0.00000	0.00004	0.00000007	1.00000000	HOOKHORNED SCULPIN
326	24230	0.00001	0.00000	0.00003	0.00000006	1.00000000	LYCODAPUS SP
	TOTAL	221.31314					

Appendix C

Population and Biomass Estimates for Principal Species of Fish

Appendix C presents estimates of population size in terms of number of individuals and biomass estimates in metric tons for the principal species of commercially important demersal fish. Estimates are given by subarea and for subareas combined. Estimates are given by stratum code. Strata codes corresponding to subareas illustrated in Figure 1 are as follows:

Subarea Number	Stratum Code(s)
1	1
2	2
3N	3
3S	7
4N	4
4S	6, 11
5	5, 10
2 slope	8
3 slope	9

List of Tables

Table C-1.--Population and biomass estimates for walleye pollock.

FISHING POWER COEFFICIENTS (Pv) VESSEL 10 POWER= 1.10 VESSEL 12 POWER= 1.00 VESSEL 14 POWER= 0.32
VESSEL 28 POWER= 1.00 VESSEL

TRAWL WIDTH = 0.00658000 NAUTICAL MI.

STRATUM	AREA SQ. MI.	SAMPLES	HAULS	LB/MILE	KG/KM
1	24305.	0.369386018E 07	119.	229.305	56.134
2	17774.	0.270124620E 07	82.	411.644	100.770
3	16219.	0.246495440E 07	41.	369.295	90.403
4	26797.	0.407256839E 07	68.	267.405	65.460
5	44339.	0.673855623E 07	27.	34.028	8.330
6	14741.	0.224034954E 07	32.	90.439	22.139
7	23100.	0.351069908E 07	51.	387.069	94.754
8	3862.	0.586960486E 06	37.	90.813	22.231
9	4777.	0.726094225E 06	57.	92.645	22.679
10	4161.	0.632416413E 06	9.	53.770	13.163
11	9031.	0.137259878E 07	43.	599.562	146.772
T	189111.	0.287403038E 08	566.		

STRATUM	MEAN WT LB.	POPULATION	BIOMASS LB.	BIOMASS T.	VAR B LB.	VAR B T.
1	0.3565	0.237557754E 10	0.847022852E 09	0.384137348E 06	0.216838062E 17	0.445983025E 10
2	0.7098	0.156645136E 10	0.111195243E 10	0.504286818E 06	0.366308989E 17	0.753408281E 10
3	0.5287	0.172161871E 10	0.910296384E 09	0.412832827E 06	0.454233831E 17	0.934248244E 10
4	0.2839	0.383509012E 10	0.108902772E 10	0.493890123E 06	0.703249092E 17	0.144641192E 11
5	0.1477	0.155146008E 10	0.229302336E 09	0.103991989E 06	0.111068566E 17	0.228440962E 10
6	0.7996	0.253386054E 09	0.202616087E 09	0.918893819E 05	0.747281976E 16	0.153697682E 10
7	0.2554	0.531894742E 10	0.135888603E 10	0.616274844E 06	0.608532441E 17	0.125160286E 11
8	1.5679	0.339950630E 08	0.533037140E 08	0.241740199E 05	0.355861257E 15	0.731919842E 08
9	0.9061	0.742372476E 08	0.672693365E 08	0.305076356E 05	0.351080231E 15	0.722086437E 08
10	0.0487	0.697111975E 09	0.340053542E 08	0.154219293E 05	0.357718267E 15	0.735739259E 08
11	0.5643	0.145830935E 10	0.822958194E 09	0.373223670E 06	0.356312529E 17	0.732847999E 10
T		0.188861849E 11	0.672664043E 10	0.305063058E 07	0.290191830E 18	0.596853841E 11
NE		0.000	327.917			

CONFIDENCE LIMITS

	TOTAL BIOMASS T		TOTAL POPULATION	
	LOWER	UPPER	LOWER	UPPER
95 PERCENT	0.256690484E 07	0.353435632E 07	0.188861849E 11	0.188861849E 11
90 PERCENT	0.264557135E 07	0.345568981E 07	0.188861849E 11	0.188861849E 11
80 PERCENT	0.273572024E 07	0.336554092E 07	0.188861849E 11	0.188861849E 11

Table C-2.--Population and biomass estimates for yellowfin sole.

FISHING POWER COEFFICIENTS (PV) VESSEL 10 POWER= 1.10 VESSEL 12 POWER= 1.00 VESSEL 14 POWER= 1.00 VESSEL 26 POWER= 1.00 VESSEL

TRAWL WIDTH = 0.00658000 NAUTICAL MI.

STRATUM	AREA SQ. MI.	SAMPLES	HAULS	LB/MILE	KG/KM
1	24305.	0.369386018E 07	119.	378.493	92.655
2	17774.	0.270124620E 07	82.	46.813	11.460
3	0.	0.000000000E 00	0.	0.000	0.000
4	26797.	0.407256839E 07	68.	224.177	54.878
5	44339.	0.673855623E 07	27.	8.073	1.976
6	14741.	0.224034954E 07	32.	444.256	108.754
7	23100.	0.351069908E 07	51.	7.207	1.764
8	3862.	0.586960486E 06	37.	0.003	0.000
9	0.	0.000000000E 00	0.	0.000	0.000
10	4161.	0.632416413E 06	9.	0.692	0.169
11	9031.	0.137259878E 07	43.	545.179	133.459
T	168114.	0.255492552E 08	468.		

STRATUM	MEAN WT LB.	POPULATION	BIOMASS LB.	BIOMASS T.	VAR B LB.	VAR B T.
1	0.3491	0.400403519E 10	0.139810343E 10	0.634060516E 06	0.247274143E 17	0.508582624E 10
2	0.3775	0.334930154E 09	0.126455443E 09	0.573494075E 05	0.296262517E 16	0.609339766E 09
3	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
4	0.4011	0.227604165E 10	0.912980151E 09	0.414049955E 06	0.275005585E 17	0.565619438E 10
5	0.3058	0.177869460E 09	0.544054055E 08	0.246736532E 05	0.315407381E 15	0.648716082E 08
6	0.3191	0.311849165E 10	0.995290119E 09	0.451378738E 06	0.226288695E 17	0.465420674E 10
7	0.4286	0.590375130E 08	0.253040328E 08	0.114757518E 05	0.186342131E 15	0.383260332E 08
8	0.2000	0.110633914E 05	0.221267827E 04	0.100348221E 01	0.489594510E 07	0.100697653E 01
9	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
10	0.4851	0.902723389E 06	0.437929873E 06	0.198607652E 03	0.534764032E 11	0.109987923E 05
11	0.3689	0.202828615E 10	0.748312402E 09	0.339370703E 06	0.783646656E 16	0.161177010E 10
T		0.119996255E 11	0.426129112E 10	0.193255833E 07	0.861577369E 17	0.177205458E 11
NE		0.000		214.771		

CONFIDENCE LIMITS

	TOTAL BIOMASS T		TOTAL POPULATION	
	LOWER	UPPER	LOWER	UPPER
95 PERCENT	0.166898362E 07	0.219613304E 07	0.119996255E 11	0.119996255E 11
90 PERCENT	0.171184779E 07	0.215326887E 07	0.119996255E 11	0.119996255E 11
80 PERCENT	0.176096853E 07	0.210414813E 07	0.119996255E 11	0.119996255E 11

Table C-3.--Population and biomass estimates for rock sole.

FISHING POWER COEFFICIENTS (PV) VESSEL 10 POWER= 1.10 VESSEL 12 POWER= 1.00 VESSEL 14 POWER= 1.00
VESSEL 28 POWER= 1.00 VESSEL

TRAWL WIDTH = 0.00658000 NAUTICAL MI.

STRATUM	AREA SQ. MI.	SAMPLES	HAULS	LB/MILE	KG/KM
1	24305.	0.369386018E 07	119.	65.125	15.942
2	17774.	0.270124620E 07	82.	15.359	3.759
3	16219.	0.246495440E 07	41.	0.315	0.077
4	26797.	0.407256839E 07	68.	8.410	2.058
5	44339.	0.673855623E 07	27.	0.040	0.009
6	14741.	0.224034954E 07	32.	23.619	5.782
7	23100.	0.351069908E 07	51.	6.343	1.552
8	3862.	0.586960486E 06	37.	2.111	0.516
9	4777.	0.726094225E 06	57.	0.056	0.013
10	4161.	0.632416413E 06	9.	0.163	0.039
11	9031.	0.137259878E 07	43.	7.943	1.944
T	189111.	0.287403038E 08	566.		

STRATUM	MEAN WT LB.	POPULATION	BIOMASS LB.	BIOMASS T.	VAR B LB.	VAR B T.
1	0.3985	0.603584574E 09	0.240565792E 09	0.109100132E 06	0.190895354E 16	0.392625201E 09
2	0.3840	0.108041520E 09	0.414896560E 08	0.188161705E 05	0.222370647E 15	0.457362204E 08
3	2.0231	0.384835172E 06	0.778564866E 06	0.353090642E 03	0.239602601E 12	0.492804134E 05
4	1.1299	0.303118749E 08	0.342514683E 08	0.155335548E 05	0.731797937E 14	0.150512993E 08
5	1.3521	0.200503996E 06	0.271108217E 06	0.122951572E 03	0.342665177E 11	0.704778724E 04
6	1.0538	0.502148631E 08	0.529167607E 08	0.239985309E 05	0.158675297E 15	0.326356400E 08
7	0.8344	0.266912813E 08	0.222712976E 08	0.101003617E 05	0.190529303E 15	0.391872324E 08
8	1.0423	0.118897703E 07	0.123932110E 07	0.562050386E 03	0.707968335E 12	0.145611825E 06
9	1.0071	0.408634846E 05	0.411562689E 05	0.186649745E 02	0.770669985E 09	0.158508026E 03
10	0.6735	0.153057012E 06	0.103091271E 06	0.467534112E 02	0.478058053E 10	0.983248859E 03
11	0.6965	0.156527111E 08	0.109029020E 08	0.494462678E 04	0.367597014E 13	0.756057433E 06
T		0.836465059E 09	0.404831137E 09	0.183596887E 06	0.255837193E 16	0.526194732E 09
NE		0.000	197.676			

CONFIDENCE LIMITS

	TOTAL BIOMASS T		TOTAL POPULATION	
	LOWER	UPPER	LOWER	UPPER
95 PERCENT	0.138177796E 06	0.229015978E 06	0.836465059E 09	0.836465059E 09
90 PERCENT	0.145564133E 06	0.221629641E 06	0.836465059E 09	0.836465059E 09
80 PERCENT	0.154028600E 06	0.213165174E 06	0.836465059E 09	0.836465059E 09

Table C-4.--Population and biomass estimates for Greenland turbot.

FISHING POWER COEFFICIENTS (PV) VESSEL 10 POWER= 1.10 VESSEL 12 POWER= 1.00 VESSEL 14 POWER= 1.00
VESSEL 28 POWER= 1.00 VESSEL

TRAWL WIDTH = 0.00658000 NAUTICAL MI.

STRATUM	AREA SQ. MI.	SAMPLES	HAULS	LB/MILE	KG/KM
1	24305.	0.369386018E 07	119.	0.944	0.231
2	17774.	0.270124620E 07	82.	4.907	1.201
3	16219.	0.246495440E 07	41.	50.792	12.433
4	26797.	0.407256839E 07	68.	21.321	5.219
5	44339.	0.673855623E 07	27.	23.264	5.695
6	14741.	0.224034954E 07	32.	1.951	0.477
7	23100.	0.351069908E 07	51.	20.886	5.113
8	3862.	0.586960486E 06	37.	67.321	16.480
9	4777.	0.726094225E 06	57.	39.583	9.690
10	4161.	0.632416413E 06	9.	12.766	3.125
11	9031.	0.137259878E 07	43.	6.892	1.687
T	189111.	0.287403038E 08	566.		

STRATUM	MEAN WT LB.	POPULATION	BIOMASS LB.	BIOMASS T.	VAR B LB.	VAR B T.
1	0.4477	0.778891942E 07	0.348744821E 07	0.158160916E 04	0.687648856E 12	0.141432604E 06
2	1.3374	0.991105036E 07	0.132557887E 08	0.601169556E 04	0.352587251E 13	0.725186011E 06
3	0.3163	0.395803953E 09	0.125200403E 09	0.567802284E 05	0.152391311E 15	0.313431771E 08
4	0.3105	0.279573923E 09	0.868332145E 08	0.393801426E 05	0.224471435E 15	0.461683014E 08
5	0.1585	0.988514164E 09	0.156771134E 09	0.710980202E 05	0.133792116E 16	0.275177762E 09
6	0.4686	0.894879697E 07	0.437243432E 07	0.198296341E 04	0.307081556E 13	0.631591892E 06
7	0.3870	0.189462691E 09	0.733279130E 08	0.332552893E 05	0.124856362E 15	0.256799096E 08
8	3.1996	0.123500411E 08	0.395152342E 08	0.179207411E 05	0.772457828E 14	0.158875741E 08
9	2.3546	0.122062906E 08	0.287415625E 08	0.130347222E 05	0.455088859E 14	0.936006825E 07
10	0.3494	0.231005759E 08	0.807351587E 07	0.366145844E 04	0.163236141E 14	0.335736944E 07
11	0.3996	0.236745074E 08	0.946119134E 07	0.429078972E 04	0.203727402E 13	0.419017596E 06
T		0.195133491E 10	0.549039840E 09	0.248997659E 06	0.198804016E 16	0.408891389E 09
NE		0.000	55.879			

CONFIDENCE LIMITS

	TOTAL BIOMASS T		TOTAL POPULATION	
	LOWER	UPPER	LOWER	UPPER
95 PERCENT	0.208130891E 06	0.289864428E 06	0.195133491E 10	0.195133491E 10
90 PERCENT	0.214945389E 06	0.283049930E 06	0.195133491E 10	0.195133491E 10
80 PERCENT	0.222649614E 06	0.275345705E 06	0.195133491E 10	0.195133491E 10

Table C-5.--Population and biomass estimates for Alaska plaice.

FISHING POWER COEFFICIENTS (PV) VESSEL 10 POWER= 1.10 VESSEL 12 POWER= 1.00 VESSEL 14 POWER= 1.00
VESSEL 28 POWER= 1.00 VESSEL

TRAWL WIDTH = 0.0065800 NAUTICAL MI.

STRATUM	AREA SQ. MI.	SAMPLES	HAULS	LB/MILE	KG/KM
1	24305.	0.369386018E 07	119.	15.072	3.689
2	17774.	0.270124620E 07	82.	4.000	0.979
3	16219.	0.246495440E 07	41.	0.234	0.057
4	26797.	0.407256839E 07	68.	81.951	20.061
5	44339.	0.673855623E 07	27.	7.109	1.740
6	14741.	0.224034954E 07	32.	51.466	12.603
7	23100.	0.351069908E 07	51.	1.439	0.352
8	0.	0.000000000E 00	0.	0.000	0.000
9	0.	0.000000000E 00	0.	0.000	0.000
10	4161.	0.632416413E 06	9.	9.030	2.210
11	9031.	0.137259878E 07	43.	74.817	18.315
T	180471.	0.274272491E 08	472.		

STRATUM	MEAN WT LB.	POPULATION	BIOMASS LB.	BIOMASS T.	VAR B LB.	VAR B T.
1	1.1812	0.471327339E 08	0.556771427E 08	0.252504048E 05	0.958560328E 14	0.197152488E 08
2	1.6172	0.668265421E 07	0.108076641E 08	0.490143500E 04	0.201273133E 14	0.413969763E 07
3	1.8192	0.317378103E 06	0.577391289E 06	0.261855459E 03	0.119238741E 12	0.245245019E 05
4	1.0400	0.320890257E 09	0.333753067E 09	0.151361935E 06	0.642857824E 16	0.132220180E 10
5	0.8121	0.589877961E 08	0.479089793E 08	0.217274282E 05	0.438032870E 15	0.900926815E 08
6	1.0483	0.110029634E 09	0.115348275E 09	0.523121430E 05	0.165235570E 16	0.339849281E 09
7	1.0795	0.468126013E 07	0.505368472E 07	0.229192050E 04	0.310316134E 13	0.638244629E 06
8	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
9	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
10	1.4851	0.384557099E 07	0.571113408E 07	0.259008348E 04	0.917080924E 13	0.188621186E 07
11	1.0401	0.987311871E 08	0.102694032E 09	0.465732572E 05	0.179711977E 15	0.369623722E 08
T		0.651298671E 09	0.677531370E 09	0.307270462E 06	0.882705534E 16	0.181551006E 10
NE		0.000	109.260			

CONFIDENCE LIMITS

	TOTAL BIOMASS T		TOTAL POPULATION	
	LOWER	UPPER	LOWER	UPPER
95 PERCENT	0.222052856E 06	0.392488069E 06	0.651298671E 09	0.651298671E 09
90 PERCENT	0.236071152E 06	0.378469773E 06	0.651298671E 09	0.651298671E 09
80 PERCENT	0.252049453E 06	0.362491471E 06	0.651298671E 09	0.651298671E 09

Table C-6.--Population and biomass estimates for flathead sole.

FISHING POWER COEFFICIENTS (PV) VESSEL 10 POWER= 1.10 VESSEL 12 POWER= 0.55 VESSEL 14 POWER= 1.00
VESSEL 28 POWER= 1.00 VESSEL

TRAWL WIDTH = 0.00658000 NAUTICAL MI.

STRATUM	AREA SQ. MI.	SAMPLES	HAULS	LB/MILE	KG/KM
1	24305.	0.369386018E 07	119.	9.396	2.300
2	17774.	0.270124620E 07	82.	40.483	9.910
3	16219.	0.246495440E 07	41.	14.299	3.500
4	26797.	0.407256839E 07	68.	2.754	0.674
5	44339.	0.673855623E 07	27.	8.565	2.096
6	14741.	0.224034954E 07	32.	0.735	0.180
7	23100.	0.351069908E 07	51.	4.825	1.181
8	3862.	0.586960486E 06	37.	4.191	1.026
9	4777.	0.726094225E 06	57.	1.594	0.390
10	4161.	0.632416413E 06	9.	0.913	0.223
11	9031.	0.137259878E 07	43.	11.229	2.749
T	189111.	0.287403038E 08	566.		

STRATUM	MEAN WT LB.	POPULATION	BIOMASS LB.	BIOMASS T.	VAR B LB.	VAR B T.
1	0.4265	0.813675289E 08	0.347084194E 08	0.157407798E 05	0.228334664E 14	0.469628733E 07
2	0.4331	0.252444979E 09	0.109356310E 09	0.495946984E 05	0.218099993E 15	0.448578511E 08
3	0.2857	0.123363962E 09	0.352468145E 08	0.159849499E 05	0.412878890E 14	0.849191212E 07
4	0.4808	0.233313772E 08	0.112190087E 08	0.508798582E 04	0.929596651E 13	0.191195366E 07
5	0.2409	0.239539564E 09	0.577215819E 08	0.261775881E 05	0.267845433E 15	0.550892753E 08
6	0.2623	0.628533727E 07	0.164869866E 07	0.747709143E 03	0.255917212E 12	0.526359309E 05
7	0.4418	0.383444970E 08	0.169420708E 08	0.768347885E 04	0.271122758E 14	0.557633411E 07
8	1.4206	0.173184082E 07	0.246030594E 07	0.111576500E 04	0.171139463E 13	0.351992150E 06
9	0.5624	0.205861196E 07	0.115793683E 07	0.525141418E 03	0.185654207E 12	0.381845439E 05
10	0.4062	0.142132765E 07	0.577449811E 06	0.261882000E 03	0.542522982E 11	0.111583750E 05
11	1.1153	0.138198056E 08	0.154142780E 08	0.699060228E 04	0.290932691E 14	0.598377612E 07
T		0.783708830E 09	0.286452874E 09	0.129910600E 06	0.617775512E 15	0.127061360E 09
NE		0.000	111.272			

CONFIDENCE LIMITS

	TOTAL BIOMASS T		TOTAL POPULATION	
	LOWER	UPPER	LOWER	UPPER
95 PERCENT	0.107366300E 06	0.152454900E 06	0.783708830E 09	0.783708830E 09
90 PERCENT	0.111074838E 06	0.148746363E 06	0.783708830E 09	0.783708830E 09
80 PERCENT	0.115301894E 06	0.144519306E 06	0.783708830E 09	0.783708830E 09

Table C-7.--Population and biomass estimates for Pacific cod.

FISHING POWER COEFFICIENTS (PV) VESSEL 10 POWER= 1.10 VESSEL 12 POWER= 0.44 VESSEL 14 POWER= 1.00 VESSEL 28 POWER= 1.00 VESSEL

TRAWL WIDTH = 0.0065800 NAUTICAL MI.

STRATUM	AREA SQ. MI.	SAMPLES	HAULS	LB/MILE	KG/KM
1	24305.	0.369386018E 07	119.	115.668	28.315
2	17774.	0.270124620E 07	82.	112.522	27.545
3	16219.	0.246495440E 07	41.	27.511	6.734
4	26797.	0.407256839E 07	68.	97.064	23.761
5	44339.	0.673855623E 07	27.	2.874	0.703
6	14741.	0.224034954E 07	32.	68.340	16.729
7	23100.	0.351069908E 07	51.	42.231	10.338
8	3862.	0.586960486E 06	37.	130.990	32.066
9	4777.	0.726094225E 06	57.	35.806	8.765
10	4161.	0.632416413E 06	9.	7.792	1.907
11	9031.	0.137259878E 07	43.	90.462	22.145
T	189111.	0.287403038E 08	566.		

STRATUM	MEAN WT LB.	POPULATION	BIOMASS LB.	BIOMASS MT.	VAR B LB.	VAR B T.
1	1.0991	0.388707185E 09	0.427261497E 09	0.193769386E 06	0.223623207E 17	0.459938415E 10
2	1.5648	0.194232172E 09	0.303950846E 09	0.137846188E 06	0.956820693E 16	0.196794688E 10
3	1.3407	0.505795562E 08	0.678148711E 08	0.307550436E 05	0.170759264E 15	0.351210173E 08
4	1.1389	0.347068145E 09	0.395300571E 09	0.179274635E 06	0.491883857E 16	0.101168516E 10
5	0.9363	0.206896738E 08	0.193723703E 08	0.878565550E 04	0.613899166E 14	0.126264090E 08
6	0.8128	0.188351408E 09	0.153106837E 09	0.694362075E 05	0.247858118E 16	0.509783718E 09
7	1.3725	0.108019542E 09	0.148262537E 09	0.672392460E 05	0.659032254E 15	0.135546866E 09
8	6.4246	0.119675071E 08	0.768864987E 08	0.348691604E 05	0.366329489E 16	0.753450443E 09
9	5.8115	0.447364887E 07	0.259988435E 08	0.117908587E 05	0.912600010E 14	0.187699571E 08
10	0.7958	0.619175069E 07	0.492795664E 07	0.223490097E 04	0.217041173E 13	0.446400776E 06
11	1.0213	0.121568260E 09	0.124169051E 09	0.563124951E 05	0.377927019E 15	0.777303735E 08
T		0.144184884E 10	0.174705187E 10	0.792313776E 06	0.443537810E 17	0.912249136E 10
NE		0.000	311.604			

CONFIDENCE LIMITS

	TOTAL BIOMASS T		TOTAL POPULATION	
	LOWER	UPPER	LOWER	UPPER
95 PERCENT	0.603200543E 06	0.981427009E 06	0.144184884E 10	0.144184884E 10
90 PERCENT	0.633955322E 06	0.950672231E 06	0.144184884E 10	0.144184884E 10
80 PERCENT	0.669199151E 06	0.915428401E 06	0.144184884E 10	0.144184884E 10

Table C-8.--Population and biomass estimates for Pacific halibut.

FISHING POWER COEFFICIENTS (PV) VESSEL 10 POWER= 1.10 VESSEL 12 POWER= 1.00 VESSEL 14 POWER= 0.46
VESSEL 28 POWER= 1.00 VESSEL

TRAWL WIDTH = 0.00658000 NAUTICAL MI.

STRATUM	AREA SQ. MI.	SAMPLES	HAULS	LB/MILE	KG/KM
1	24305.	0.369386018E 07	119.	19.131	4.683
2	17774.	0.270124620E 07	82.	13.151	3.219
3	16219.	0.246495440E 07	41.	0.053	0.013
4	26797.	0.407256839E 07	68.	2.296	0.562
5	44339.	0.673855623E 07	27.	0.157	0.038
6	14741.	0.224034954E 07	32.	9.754	2.388
7	23100.	0.351069908E 07	51.	0.700	0.171
8	3862.	0.586960486E 06	37.	0.447	0.109
9	4777.	0.726094225E 06	57.	0.285	0.069
10	0.	0.000000000E 00	0.	0.000	0.000
11	9031.	0.137259878E 07	43.	1.069	0.261
T	184949.	0.281078874E 08	557.		

STRATUM	MEAN WT LB.	POPULATION	BIOMASS LB.	BIOMASS T.	VAR B LB.	VAR B T.
1	2.3252	0.303917424E 08	0.706691965E 08	0.320495222E 05	0.244974894E 15	0.503853629E 08
2	4.3273	0.820978776E 07	0.355264939E 08	0.161117886E 05	0.466395863E 14	0.959262577E 07
3	2.2416	0.588857938E 05	0.131998642E 06	0.598633298E 02	0.100468174E 11	0.206638539E 04
4	2.7615	0.338600768E 07	0.935068960E 07	0.424067555E 04	0.916856928E 13	0.188575116E 07
5	1.9270	0.550812086E 06	0.106145495E 07	0.481385468E 03	0.391641618E 12	0.805511322E 05
6	4.4387	0.492351819E 07	0.218544173E 08	0.991130036E 04	0.483855480E 14	0.995172752E 07
7	0.2700	0.910559345E 07	0.245941250E 07	0.111537981E 04	0.161822062E 13	0.332828529E 06
8	2.8917	0.908378054E 05	0.262676521E 06	0.119127674E 03	0.363287004E 11	0.747192794E 04
9	5.4401	0.361500636E 05	0.207543684E 06	0.941241201E 02	0.261246473E 11	0.537320300E 04
10	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
11	8.4959	0.172768881E 06	0.146782942E 07	0.665682280E 03	0.865148816E 12	0.177940018E 06
T		0.569281040E 08	0.142991712E 09	0.648488494E 05	0.352116107E 15	0.724216983E 08
NE		0.000	202.495			

CONFIDENCE LIMITS

	TOTAL BIOMASS T		TOTAL POPULATION	
	LOWER	UPPER	LOWER	UPPER
95 PERCENT	0.479988632E 05	0.816988356E 05	0.569281040E 08	0.569281040E 08
90 PERCENT	0.507391135E 05	0.789585853E 05	0.569281040E 08	0.569281040E 08
80 PERCENT	0.538793382E 05	0.758183606E 05	0.569281040E 08	0.569281040E 08

Table C-9.--Population and biomass estimates for arrowtooth and Asiatic flounders.

STANDING STOCK ESTIMATES

STANDARD TRAWL WIDTH = 12.19200000 METERS

STRATUM	AREA SQ. MI.	SAMPLES	TOTAL HAULS	HAULS WITH CATCH	HAULS WITH NUMS..	HAULS WITH L-F	CPUE LB/NM	CPUE NO/NM
1	24,306.	.369209081E+07	119	45	43	15	1.81793	0.00000
2	17,774.	.269995230E+07	82	82	81	63	29.08744	0.00000
3	16,219.	.246377369E+07	41	6	6	3	0.31990	0.28475
4	26,798.	.407061762E+07	68	1	1	0	0.01078	0.03922
5	44,340.	.673532844E+07	27	0	0	0	0.00000	0.00000
6	14,742.	.223927641E+07	32	1	1	0	0.00223	0.02232
7	23,100.	.350901745E+07	51	16	16	15	1.56407	2.43061
8	3,862.	.586679331E+06	37	27	27	7	32.10331	18.57338
9	4,778.	.725746424E+06	57	43	43	29	11.15379	6.89891
10	4,161.	.632113484E+06	9	0	0	0	0.00000	0.00000
11	9,032.	.137194131E+07	43	11	11	0	0.69860	1.65812
TOTAL	189,111.	.287265373E+08	566	232	229	132		

STRATUM	MEAN WT LB	POPULATION	BIOMASS T	VARIANCE BIOMASS
1	0.195652	.343055270E+08	.304452097E+02	.224893934E+08
2	0.461435	.170196777E+09	.356231046E+03	.554768829E+09
3	1.123453	.701550735E+06	.357506841E+02	.138088652E+07
4	0.275000	.159632063E+06	.199123730E+01	.874129624E+04
5	0.000000	0.	0.	0.
6	0.100000	.499838485E+05	.226725250E-01	.113326005E+03
7	0.643490	.852905062E+07	.248950217E+02	.158968914E+08
8	1.728458	.108966173E+08	.854320434E+02	.177043619E+09
9	1.616746	.500686104E+07	.367178679E+02	.155309642E+08
10	0.000000	0.	0.	0.
11	0.421323	.227484634E+07	.434747774E+01	.844392606E+06
TOTAL		.232120846E+09	.541865531E+03	.787963830E+09
EFFECTIVE D. F. =		79.56559	127.16375	

CONFIDENCE LIMITS

	TOTAL BIOMASS T LOWER	TOTAL BIOMASS T UPPER	TOTAL POPULATION LOWER	TOTAL POPULATION UPPER
80.000 PERCENT	.464803466E+03	.618927597E+03	.225565803E+09	.238675889E+09
90.000 PERCENT	.442743080E+03	.640987984E+03	.223675466E+09	.240566226E+09
95.000 PERCENT	.423492576E+03	.660238488E+03	.222019796E+09	.242221896E+09

Table C-10.--Population and biomass estimates for longhead dab.

FISHING POWER COEFFICIENTS (PV) VESSEL 10 POWER= 1.10 VESSEL 12 POWER= 1.00 VESSEL 14 POWER= 1.00
VESSEL 28 POWER= 1.00 VESSEL

TRAWL WIDTH = 0.00658000 NAUTICAL MI.

STRATUM	AREA SQ. MI.	SAMPLES	HAULS	LB/MILE	KG/KM
1	24305.	0.369386018E 07	119.	13.832	3.386
2	17774.	0.270124620E 07	82.	2.742	0.671
3	0.	0.000000000E 00	0.	0.000	0.000
4	26797.	0.407256839E 07	68.	1.371	0.335
5	44339.	0.673855623E 07	27.	0.033	0.008
6	14741.	0.224034954E 07	32.	4.939	1.209
7	0.	0.000000000E 00	0.	0.000	0.000
8	0.	0.000000000E 00	0.	0.000	0.000
9	0.	0.000000000E 00	0.	0.000	0.000
10	0.	0.000000000E 00	0.	0.000	0.000
11	9031.	0.137259878E 07	43.	1.986	0.486
T	136990.	0.208191792E 08	371.		

STRATUM	MEAN WT LB.	POPULATION	BIOMASS LB.	BIOMASS T.	VAR B LB.	VAR B T.
1	0.3108	0.164391062E 09	0.510959201E 08	0.231727529E 05	0.734901915E 14	0.151151406E 08
2	0.4084	0.181373386E 08	0.740740382E 07	0.335936681E 04	0.506451350E 14	0.104164694E 08
3	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
4	0.1773	0.314799137E 08	0.558395191E 07	0.253240449E 04	0.328944298E 13	0.676558221E 06
5	0.0733	0.308472348E 07	0.226320196E 06	0.102639544E 03	0.721613721E 10	0.148418348E 04
6	0.2535	0.436406372E 08	0.110667880E 08	0.501895148E 04	0.106098866E 14	0.218219500E 07
7	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
8	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
9	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
10	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
11	0.4620	0.590090302E 07	0.272662002E 07	0.123656237E 04	0.123047905E 13	0.253079541E 06
T		0.266634578E 09	0.781070040E 08	0.354226775E 05	0.139272351E 15	0.286449270E 08
NE		255.843	238.688			

CONFIDENCE LIMITS

	TOTAL BIOMASS T		TOTAL POPULATION	
	LOWER	UPPER	LOWER	UPPER
95 PERCENT	0.248255282E 05	0.460198268E 05	0.186792719E 09	0.346476437E 09
90 PERCENT	0.265489030E 05	0.442964520E 05	0.199777102E 09	0.333492054E 09
80 PERCENT	0.285238263E 05	0.423215288E 05	0.214656721E 09	0.318612435E 09

Table C-11.--Population and biomass estimates for Pacific herring.

FISHING POWER COEFFICIENTS (PV) VESSEL 12 POWER= 1.00 VESSEL 14 POWER= 1.00 VESSEL 28 POWER= 1.00

TRAWL WIDTH = 0.00658000 NAUTICAL MI.

STRATUM	AREA SQ. MI.	SAMPLES	HAULS	LB/MILE	KG/KM
1	24305.	0.369386018E 07	119.	2.913	0.713
2	17774.	0.270124620E 07	82.	0.018	0.004
3	16219.	0.246495440E 07	41.	0.268	0.065
4	26797.	0.407256839E 07	68.	2.724	0.666
5	44339.	0.673855623E 07	27.	2.598	0.636
6	14741.	0.224034954E 07	32.	1.080	0.264
7	23100.	0.351069908E 07	51.	0.232	0.056
8	0.	0.000000000E 00	0.	0.000	0.000
9	0.	0.000000000E 00	0.	0.000	0.000
10	4161.	0.632416413E 06	9.	0.116	0.028
11	9031.	0.137259878E 07	43.	0.406	0.099
T	180471.	0.274272491E 08	472.		

STRATUM	MEAN WT LB.	POPULATION	BIOMASS LB.	BIOMASS T.	VAR B LB.	VAR B T.
1	0.3943	0.272865784E 08	0.107615572E 08	0.488052482E 04	0.854102824E 13	0.175668127E 07
2	0.6499	0.775106515E 05	0.503819234E 05	0.228489448E 02	0.253833819E 10	0.522074279E 03
3	0.4651	0.142227335E 07	0.661636986E 06	0.300062125E 03	0.288688538E 12	0.593761937E 05
4	0.1782	0.622472763E 08	0.110961760E 08	0.503227939E 04	0.138859590E 14	0.285600321E 07
5	0.1473	0.118869708E 09	0.175109593E 08	0.794147817E 04	0.705433745E 14	0.145090522E 08
6	0.0957	0.252998976E 08	0.242173546E 07	0.109829272E 04	0.122018684E 13	0.250962684E 06
7	0.2989	0.272909302E 07	0.815810885E 06	0.369982260E 03	0.162402754E 12	0.334022870E 05
8	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
9	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
10	0.2857	0.258883911E 06	0.739668319E 05	0.335450485E 02	0.547109220E 10	0.112527027E 04
11	3.7948	0.146937485E 06	0.557607027E 06	0.252883005E 03	0.272548283E 12	0.560565369E 05
T		0.238338159E 09	0.439498316E 08	0.199318964E 05	0.949221974E 14	0.195231817E 08
NE		36.206	46.218			

CONFIDENCE LIMITS

	TOTAL BIOMASS T		TOTAL POPULATION	
	LOWER	UPPER	LOWER	UPPER
95 PERCENT	0.110020988E 05	0.288616940E 05	0.108244479E 09	0.368431839E 09
90 PERCENT	0.124911348E 05	0.273726580E 05	0.130224067E 09	0.346452250E 09
80 PERCENT	0.141745850E 05	0.256892078E 05	0.154879432E 09	0.321796886E 09

Table C-12.--Population and biomass estimates for starry flounder.

FISHING POWER COEFFICIENTS (PV) VESSEL 10 POWER= 1.10 VESSEL 12 POWER= 1.00 VESSEL 14 POWER= 1.00
VESSEL 28 POWER= 1.00 VESSEL

TRAWL WIDTH = 0.00658000 NAUTICAL MI.

STRATUM	AREA SQ. MI.	SAMPLES	HAULS	LB/MILE	KG/KM
1	24305.	0.369386018E 07	119.	2.673	0.654
2	17774.	0.270124620E 07	82.	0.277	0.067
3	0.	0.000000000E 00	0.	0.000	0.000
4	26797.	0.407256849E 07	68.	1.871	0.458
5	44339.	0.673855623E 07	27.	0.459	0.112
6	14741.	0.224034954E 07	32.	3.294	0.806
T	127958.	0.194465805E 08	328.		

STRATUM	MEAN WT LB.	POPULATION	BIOMASS LB.	BIOMASS T.	VAR B LB.	VAR B T.
1	2.1167	0.466613405E 07	0.987686368E 07	0.447930326E 04	0.711729929E 13	0.146385493E 07
2	3.5181	0.213154291E 06	0.749915552E 06	0.340097755E 03	0.562373330E 12	0.115666482E 06
3	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
4	2.2570	0.337618731E 07	0.762027421E 07	0.345590667E 04	0.652589599E 13	0.134221769E 07
5	1.5479	0.200133607E 07	0.309795858E 07	0.140496987E 04	0.256525349E 13	0.527610100E 06
6	2.3986	0.307682133E 07	0.738021653E 07	0.334703697E 04	0.796459939E 13	0.163812390E 07
T		0.133336330E 08	0.287252285E 08	0.130273145E 05	0.247354214E 14	0.508747311E 07
NE		193.106	181.650			

CONFIDENCE LIMITS

	TOTAL BIOMASS T		TOTAL POPULATION	
	LOWER	UPPER	LOWER	UPPER
95 PERCENT	0.856133986E 04	0.174932891E 05	0.895091612E 07	0.177163500E 08
90 PERCENT	0.928762463E 04	0.167670044E 05	0.966366100E 07	0.170036051E 08
80 PERCENT	0.101199199E 05	0.159347091E 05	0.104804400E 08	0.161868260E 08

Table C-13.--Population and biomass estimates for Pacific ocean perch.

FISHING POWER COEFFICIENTS (PV) VESSEL 10 POWER= 1.10 VESSEL 12 POWER= 1.00 VESSEL 14 POWER= 1.00
VESSEL 26 POWER= 1.00 VESSEL

TRAWL WIDTH = 0.00658000 NAUTICAL MI.

STRATUM	AREA SQ. MI.	SAMPLES	HAULS	LB/MILE	KG/KM
1	0.	0.000000000E 00	0.	0.000	0.000
2	17774.	0.270124620E 07	82.	4.308	1.054
3	0.	0.000000000E 00	0.	0.000	0.000
4	0.	0.000000000E 00	0.	0.000	0.000
5	0.	0.000000000E 00	0.	0.000	0.000
6	0.	0.000000000E 00	0.	0.000	0.000
7	0.	0.000000000E 00	0.	0.000	0.000
8	3862.	0.586960486E 06	37.	2.982	0.730
9	4777.	0.726094225E 06	57.	14.078	3.446
T	26414.	0.401430091E 07	176.		

STRATUM	MEAN WT LB.	POPULATION	BIOMASS LB.	BIOMASS T.	VAR B LB.	VAR B T.
1	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
2	1.0534	0.110464289E 08	0.116370585E 08	0.527757757E 04	0.795281208E 14	0.163569954E 08
3	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
4	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
5	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
6	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
7	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
8	1.7514	0.999419362E 06	0.175041290E 07	0.793838051E 03	0.256008580E 13	0.526547232E 06
9	1.3452	0.759863612E 07	0.102222357E 08	0.463593458E 04	0.417348022E 14	0.858383125E 07
T		0.196444844E 08	0.236097072E 08	0.107073502E 05	0.123823008E 15	0.254673739E 08
NE		128.106	140.186			

CONFIDENCE LIMITS

	TOTAL BIOMASS T		TOTAL POPULATION	
	LOWER	UPPER	LOWER	UPPER
95 PERCENT	0.715238586E 03	0.206994618E 05	0.263562265E 06	0.390254065E 08
90 PERCENT	0.234021835E 04	0.190744820E 05	0.341540920E 07	0.358735596E 08
80 PERCENT	0.420238461E 04	0.172123158E 05	0.702730832E 07	0.322616605E 08

Table C-14.--Population and biomass estimates for sablefish.

FISHING POWER COEFFICIENTS (PV) VESSEL 10 POWER= 1.10 VESSEL 12 POWER= 1.00 VESSEL 14 POWER= 1.00
VESSEL 28 POWER= 1.00 VESSEL

TRAWL WIDTH = 0.00658000 NAUTICAL MI.

STRATUM	AREA SQ. MI.	SAMPLES	HAULS	LB/MILE	KG/KM
1	24305.	0.369386018E 07	119.	0.067	0.016
2	17774.	0.270124620E 07	82.	34.163	8.363
3	0.	0.000000000E 00	0.	0.000	0.000
4	0.	0.000000000E 00	0.	0.000	0.000
5	0.	0.000000000E 00	0.	0.000	0.000
6	0.	0.000000000E 00	0.	0.000	0.000
7	23100.	0.351069908E 07	51.	0.487	0.119
8	3862.	0.586960486E 06	37.	4.611	1.128
9	4777.	0.726094225E 06	57.	2.285	0.559
T	73820.	0.112188601E 08	346.		

STRATUM	MEAN WT LB.	POPULATION	BIOMASS LB.	BIOMASS T.	VAR B LB.	VAR B T.
1	1.0516	0.238213177E 06	0.250520598E 06	0.113614784E 03	0.338367006E 11	0.695938434E 04
2	2.0496	0.450244197E 08	0.922827625E 08	0.418515929E 05	0.230825848E 16	0.474752492E 09
3	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
4	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
5	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
6	0.0000	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00
7	1.7742	0.965578492E 06	0.171316732E 07	0.776946634E 03	0.100972891E 13	0.207676619E 06
8	3.2848	0.824043057E 06	0.270688930E 07	0.122761419E 04	0.672678211E 12	0.138353507E 06
9	6.6341	0.250126606E 06	0.165939700E 07	0.752560997E 03	0.101060282E 13	0.207856360E 06
T		0.473023830E 08	0.986127366E 08	0.447223295E 05	0.231098532E 16	0.475313337E 09
NE		81.125	81.191			

CONFIDENCE LIMITS

	TOTAL BIOMASS T		TOTAL POPULATION	
	LOWER	UPPER	LOWER	UPPER
95 PERCENT	0.111896490E 04	0.883256942E 05	**********	0.950738403E 08
90 PERCENT	0.829171842E 04	0.811529406E 05	0.738933043E 07	0.872154355E 08
80 PERCENT	0.164673492E 05	0.729773098E 05	0.163464786E 08	0.782582873E 08

Appendix D

Population Estimates by Sex and Size Groups for Principal Species of Fish

Appendix D presents estimates of the numbers of individuals within the overall survey area by sex and centimeter-size group for principal species of fish.

List of Tables

Table D-1.--Population estimates by sex and size group for walleye pollock.

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 21740. POLLOCK

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
1	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
2	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
3	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
4	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
5	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
6	0.000000000E 00	0.000000000E 00	0.523649819E 06	0.523649819E 06	0.00002	0.00002
7	0.000000000E 00	0.000000000E 00	0.165025681E 07	0.165025681E 07	0.00006	0.00011
8	0.169779146E 06	0.254668720E 06	0.113421319E 08	0.113421319E 08	0.00060	0.00071
9	0.848895734E 05	0.169779146E 06	0.631004640E 08	0.635249119E 08	0.00336	0.00407
10	0.356853834E 06	0.848895734E 05	0.894092776E 08	0.896639463E 08	0.00474	0.00882
11	0.612934531E 06	0.269140886E 06	0.316822908E 08	0.321240342E 08	0.00170	0.01052
12	0.342357009E 07	0.686621144E 06	0.169656564E 09	0.170538640E 09	0.00902	0.01955
13	0.134926315E 08	0.505246417E 07	0.630465506E 09	0.634575697E 09	0.03359	0.05315
14	0.213603839E 08	0.224901437E 08	0.136451950E 10	0.138306460E 10	0.07323	0.12638
15	0.397953666E 08	0.397164421E 08	0.133600192E 10	0.141551373E 10	0.08565	0.21204
16	0.739784449E 08	0.589470175E 08	0.984832294E 09	0.111775775E 10	0.07494	0.28699
17	0.120388898E 09	0.100855957E 09	0.687157434E 09	0.908402291E 09	0.05918	0.34617
18	0.160190501E 09	0.137777767E 09	0.448439929E 09	0.746408197E 09	0.04809	0.39427
19	0.154847159E 09	0.138229848E 09	0.294499812E 09	0.587576820E 09	0.03952	0.43379
20	0.190488100E 09	0.183710853E 09	0.119681303E 09	0.493880257E 09	0.03111	0.46491
21	0.181074411E 09	0.180252654E 09	0.780468889E 08	0.439373954E 09	0.02615	0.49106
22	0.193698163E 09	0.190595256E 09	0.663352446E 08	0.450628664E 09	0.02326	0.51432
23	0.282368347E 09	0.242343011E 09	0.503788087E 08	0.575090167E 09	0.02386	0.53818
24	0.293995477E 09	0.277890288E 09	0.282552619E 08	0.600141028E 09	0.03045	0.56863
25	0.311040568E 09	0.284557426E 09	0.516122041E 07	0.600759215E 09	0.03177	0.60041
26	0.256475344E 09	0.244068097E 09	0.652465662E 06	0.501195906E 09	0.03180	0.63222
27	0.250853004E 09	0.223939028E 09	0.000000000E 00	0.474792034E 09	0.02653	0.65876
28	0.250630860E 09	0.204070570E 09	0.803604049E 06	0.455505035E 09	0.02513	0.68389
29	0.254523016E 09	0.221187918E 09	0.147368643E 07	0.477184621E 09	0.02411	0.70801
30	0.273893150E 09	0.197505321E 09	0.752715411E 06	0.472151186E 09	0.02526	0.73328
31	0.231123002E 09	0.190257588E 09	0.328347393E 07	0.424664064E 09	0.02499	0.75828
32	0.169637832E 09	0.166548341E 09	0.265696295E 07	0.338843137E 09	0.02246	0.78076
33	0.141011704E 09	0.134156472E 09	0.403871609E 07	0.279206893E 09	0.01794	0.79871
34	0.135345256E 09	0.115684963E 09	0.461149855E 07	0.255641718E 09	0.01478	0.81349
35	0.140528001E 09	0.125548609E 09	0.126192685E 07	0.267338537E 09	0.01353	0.82703
36	0.142773608E 09	0.123381492E 09	0.797489609E 06	0.266952590E 09	0.01415	0.84118
37	0.154254372E 09	0.119810818E 09	0.183986162E 07	0.275905053E 09	0.01413	0.85532
38	0.144531910E 09	0.115754859E 09	0.827428383E 06	0.261114198E 09	0.01460	0.86992
39	0.114680176E 09	0.107966757E 09	0.735280767E 06	0.223382213E 09	0.01382	0.88375
40	0.117912624E 09	0.984456953E 08	0.227729048E 07	0.218635610E 09	0.01182	0.89558
41	0.104264963E 09	0.830130673E 08	0.993984142E 06	0.188272015E 09	0.01157	0.90715
42	0.104393283E 09	0.870486001E 08	0.135796340E 07	0.192799846E 09	0.00996	0.91712
43	0.859474865E 08	0.719498688E 08	0.302202993E 07	0.160919385E 09	0.01020	0.92733
44	0.868370308E 08	0.819714334E 08	0.232277280E 07	0.171131237E 09	0.00852	0.93585
45	0.737539412E 08	0.698141430E 08	0.223890597E 07	0.145806990E 09	0.00906	0.94491
46	0.673758648E 08	0.621740664E 08	0.206018049E 07	0.131610131E 09	0.00772	0.95263
47	0.575407317E 08	0.580054443E 08	0.958724538E 06	0.116504900E 09	0.00696	0.95960
48	0.417989473E 08	0.517714545E 08	0.123275211E 07	0.948031539E 08	0.00616	0.96577
49	0.395290703E 08	0.345025089E 08	0.286158861E 07	0.768931678E 08	0.00501	0.97079
50	0.275506661E 08	0.331088040E 08	0.568725009E 06	0.612281951E 08	0.00407	0.97486
					0.00324	0.97810

Table D-1 (Cont'd)

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP

TOTAL ALL STRATA FOR SPECIES 21740. POLLOCK

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
51	0.245569027E 08	0.276010631E 08	0.464407670E 06	0.526223735E 08	0.00278	0.98089
52	0.224216875E 08	0.260589098E 08	0.103313267E 07	0.495137300E 08	0.00262	0.98351
53	0.150321948E 08	0.244353918E 08	0.297851911E 06	0.397654386E 08	0.00210	0.98562
54	0.137221690E 08	0.202163090E 08	0.196464955E 06	0.341349430E 08	0.00180	0.98743
55	0.101785465E 08	0.222259809E 08	0.000000000E 00	0.324045275E 08	0.00171	0.98914
56	0.868599867E 07	0.211946244E 08	0.396084389E 06	0.302767075E 08	0.00160	0.99074
57	0.973253928E 07	0.169952283E 08	0.982324777E 05	0.268260000E 08	0.00142	0.99216
58	0.743664381E 07	0.209317223E 08	0.431343994E 06	0.287997101E 08	0.00152	0.99369
59	0.427434849E 07	0.140522029E 08	0.194105406E 07	0.202676055E 08	0.00107	0.99476
60	0.556541240E 07	0.870893560E 07	0.765189964E 06	0.150395379E 08	0.00079	0.99556
61	0.414648051E 07	0.102513704E 08	0.000000000E 00	0.143978509E 08	0.00076	0.99632
62	0.268658677E 07	0.639344458E 07	0.982324777E 05	0.917826584E 07	0.00048	0.99681
63	0.219208059E 07	0.665569920E 07	0.470492532E 06	0.931827233E 07	0.00049	0.99730
64	0.232856628E 07	0.460076166E 07	0.470492532E 06	0.739982047E 07	0.00039	0.99769
65	0.214674790E 07	0.744409950E 07	0.000000000E 00	0.959084739E 07	0.00050	0.99820
66	0.113487467E 07	0.643765634E 07	0.000000000E 00	0.757253102E 07	0.00040	0.99860
67	0.588124989E 06	0.552929629E 07	0.000000000E 00	0.611742128E 07	0.00032	0.99893
68	0.100209108E 07	0.512927376E 07	0.000000000E 00	0.613136484E 07	0.00032	0.99925
69	0.790095793E 06	0.147245710E 07	0.000000000E 00	0.226255290E 07	0.00011	0.99937
70	0.205104996E 06	0.361339142E 07	0.000000000E 00	0.381849642E 07	0.00020	0.99957
71	0.000000000E 00	0.209340170E 07	0.000000000E 00	0.209340170E 07	0.00011	0.99968
72	0.663322294E 06	0.174548936E 07	0.000000000E 00	0.240881165E 07	0.00012	0.99981
73	0.000000000E 00	0.921552216E 06	0.000000000E 00	0.921552216E 06	0.00004	0.99986
74	0.000000000E 00	0.547689317E 06	0.000000000E 00	0.547689317E 06	0.00002	0.99989
75	0.108568206E 06	0.863976551E 06	0.000000000E 00	0.972544757E 06	0.00005	0.99994
76	0.636068273E 05	0.122477818E 06	0.000000000E 00	0.186084645E 06	0.00000	0.99995
77	0.000000000E 00	0.645074517E 06	0.000000000E 00	0.645074517E 06	0.00003	0.99998
78	0.000000000E 00	0.863507064E 05	0.000000000E 00	0.863507064E 05	0.00000	0.99999
79	0.000000000E 00	0.262581100E 05	0.000000000E 00	0.262581100E 05	0.00000	0.99999
80	0.000000000E 00	0.802570170E 05	0.000000000E 00	0.802570170E 05	0.00000	0.99999
81	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
82	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
83	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
84	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
85	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
86	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
87	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
88	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
89	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
90	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
91	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
92	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
93	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
94	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
95	0.000000000E 00	0.265439526E 05	0.000000000E 00	0.265439526E 05	0.00000	0.99999
96	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
97	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
98	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
99	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
100	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
TOTAL	0.564819498E 10	0.515267696E 10	0.808531943E 10	0.188861912E 11		

Table D-2.--Population estimates by sex and size group for yellowfin sole.

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 10210. YELLOWFIN SOLE

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
1	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
2	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
3	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
4	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
5	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
6	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
7	0.187924029E 06	0.000000000E 00	0.000000000E 00	0.187924029E 06	0.00001	0.00001
8	0.452282727E 07	0.675147081E 07	0.000000000E 00	0.112742980E 08	0.00093	0.00095
9	0.626201396E 07	0.800896683E 07	0.000000000E 00	0.142709807E 08	0.00118	0.00214
10	0.115672853E 08	0.791078354E 07	0.000000000E 00	0.194780688E 08	0.00162	0.00376
11	0.259002515E 08	0.222328050E 08	0.000000000E 00	0.481330566E 08	0.00401	0.00777
12	0.586410827E 08	0.476965100E 08	0.654905074E 06	0.106992497E 09	0.00891	0.01669
13	0.798419301E 08	0.662761942E 08	0.219283111E 07	0.148310955E 09	0.01235	0.02905
14	0.964937279E 08	0.656661044E 08	0.305050223E 07	0.165210334E 09	0.01376	0.04282
15	0.115947568E 09	0.106712856E 09	0.533646018E 07	0.227996884E 09	0.01900	0.06182
16	0.159084817E 09	0.133456206E 09	0.567403974E 07	0.298215063E 09	0.02485	0.08667
17	0.192059755E 09	0.169761083E 09	0.786177508E 07	0.369682613E 09	0.03080	0.11748
18	0.213607781E 09	0.204810189E 09	0.714987007E 07	0.425567840E 09	0.03546	0.15294
19	0.252920641E 09	0.233322963E 09	0.114620915E 08	0.497705096E 09	0.04147	0.19442
20	0.290203368E 09	0.261661392E 09	0.273470075E 08	0.579211767E 09	0.04826	0.24269
21	0.377369383E 09	0.273092046E 09	0.462466663E 08	0.698708095E 09	0.05822	0.30092
22	0.445845570E 09	0.344018113E 09	0.674278953E 08	0.857291578E 09	0.07144	0.37236
23	0.478487597E 09	0.429667463E 09	0.832712425E 08	0.991446303E 09	0.08262	0.45498
24	0.552196251E 09	0.459232306E 09	0.956974166E 08	0.110712597E 10	0.09226	0.54725
25	0.542605125E 09	0.502730514E 09	0.979089661E 08	0.114324460E 10	0.09527	0.64252
26	0.513045708E 09	0.527463259E 09	0.105451664E 09	0.114596063E 10	0.09549	0.73802
27	0.361304531E 09	0.497290064E 09	0.932392973E 08	0.951833893E 09	0.07932	0.81734
28	0.263736623E 09	0.454407546E 09	0.638856456E 08	0.782029815E 09	0.06517	0.88251
29	0.183753952E 09	0.350168383E 09	0.420534576E 08	0.575975794E 09	0.04799	0.93051
30	0.851427527E 08	0.249528624E 09	0.242086097E 08	0.358879986E 09	0.02990	0.96042
31	0.471400792E 08	0.154821161E 09	0.126650484E 08	0.214626289E 09	0.01788	0.97831
32	0.184908355E 08	0.807757755E 08	0.866604117E 07	0.108132652E 09	0.00901	0.98732
33	0.774321365E 07	0.533316351E 08	0.468801329E 07	0.657628621E 08	0.00546	0.99280
34	0.591174788E 07	0.269030364E 08	0.250296777E 07	0.353177540E 08	0.00294	0.99574
35	0.218680778E 07	0.194274640E 08	0.947660794E 06	0.225619325E 08	0.00188	0.99762
36	0.111316757E 07	0.143949456E 08	0.000000000E 00	0.155081131E 08	0.00129	0.99891
37	0.000000000E 00	0.476274182E 07	0.315060087E 06	0.507780191E 07	0.00042	0.99934
38	0.237520388E 06	0.175925200E 07	0.315060087E 06	0.231183248E 07	0.00019	0.99953
39	0.175129437E 07	0.242512795E 06	0.407621984E 06	0.240142915E 07	0.00020	0.99973
40	0.000000000E 00	0.805558684E 06	0.315060087E 06	0.112061877E 07	0.00009	0.99982
41	0.473093963E 05	0.783207915E 06	0.000000000E 00	0.830517311E 06	0.00006	0.99989
42	0.000000000E 00	0.660403670E 06	0.000000000E 00	0.660403670E 06	0.00005	0.99995
43	0.000000000E 00	0.166675425E 06	0.000000000E 00	0.166675425E 06	0.00001	0.99996
44	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99996
45	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99996
46	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99996
47	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99996
48	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99996
49	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99996
50	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99996

Table D-2 (Cont'd)

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 10210. YELLOWFIN SOLE

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
51	0.0000000000E 00	0.0000000000E 00	0.541065795E 05	0.541065795E 05	0.00000	0.99997
52	0.0000000000E 00	0.351124030E 06	0.0000000000E 00	0.351124030E 06	0.00002	1.00000
53	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
54	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
55	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
56	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
57	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
58	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
59	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
60	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
61	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
62	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
63	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
64	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
65	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
66	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
67	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
68	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
69	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
70	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
71	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
72	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
73	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
74	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
75	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
76	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
77	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
78	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
79	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
80	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
81	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
82	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
83	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
84	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
85	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
86	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
87	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
88	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
89	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
90	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
91	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
92	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
93	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
94	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
95	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
96	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
97	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
98	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
99	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
100	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	1.00000
TOTAL	0.5395349816E 10	0.5781071316E 10	0.8231969816E 09	0.1199961816E 11		

Table D-3.--Population estimates by sex and size group for rock sole.

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 10260. ROCK SOLE

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
1	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
2	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
3	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
4	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
5	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
6	0.000000000E 00	0.000000000E 00	0.364608717E 05	0.364608717E 05	0.00004	0.00004
7	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00004
8	0.000000000E 00	0.000000000E 00	0.364608717E 05	0.364608717E 05	0.00004	0.00008
9	0.675034829E 05	0.000000000E 00	0.364608717E 06	0.432112199E 06	0.00051	0.00060
10	0.249304665E 07	0.674909527E 06	0.729217434E 06	0.389717361E 07	0.00466	0.00527
11	0.632430818E 07	0.482591737E 07	0.218765230E 06	0.113689907E 08	0.01361	0.01888
12	0.973110078E 07	0.599945260E 07	0.109382615E 06	0.158399360E 08	0.01896	0.03784
13	0.136509059E 08	0.693572165E 07	0.145843486E 06	0.207324710E 08	0.02482	0.06266
14	0.982625187E 07	0.709548248E 07	0.947982664E 06	0.178697170E 08	0.02139	0.08405
15	0.888082886E 07	0.479683743E 07	0.266164363E 07	0.163393099E 08	0.01956	0.10362
16	0.110401194E 08	0.422989790E 07	0.204180881E 07	0.173118261E 08	0.02072	0.12434
17	0.261075923E 08	0.127831676E 08	0.765678305E 06	0.396564382E 08	0.04747	0.17182
18	0.355328257E 08	0.191776495E 08	0.729217434E 05	0.547833970E 08	0.06558	0.23741
19	0.366932087E 08	0.254001576E 08	0.000000000E 00	0.620933664E 08	0.07433	0.31175
20	0.271292591E 08	0.202106575E 08	0.364608717E 05	0.473763775E 08	0.05671	0.36846
21	0.226453854E 08	0.185998483E 08	0.364608717E 05	0.412816946E 08	0.04942	0.41789
22	0.173850586E 08	0.152626893E 08	0.000000000E 00	0.326477480E 08	0.03908	0.45697
23	0.218332044E 08	0.129974543E 08	0.499472935E 06	0.353301317E 08	0.04229	0.49927
24	0.274707005E 08	0.997751378E 07	0.000000000E 00	0.374482142E 08	0.04483	0.54410
25	0.302648896E 08	0.128253962E 08	0.109382615E 06	0.431996685E 08	0.05171	0.59582
26	0.339700161E 08	0.124186397E 08	0.445420715E 06	0.468340765E 08	0.05607	0.65189
27	0.315138658E 08	0.136419238E 08	0.373978079E 06	0.455297677E 08	0.05450	0.70640
28	0.215817985E 08	0.140043265E 08	0.131611444E 07	0.369022394E 08	0.04417	0.75058
29	0.174216890E 08	0.144750460E 08	0.606123199E 06	0.325026582E 08	0.03891	0.78949
30	0.102968695E 08	0.134403785E 08	0.623714547E 06	0.243609627E 08	0.02916	0.81866
31	0.652021158E 07	0.138063207E 08	0.908432778E 06	0.212349650E 08	0.02542	0.84408
32	0.306609136E 07	0.161457549E 08	0.854581491E 06	0.200664277E 08	0.02402	0.86811
33	0.278110553E 07	0.168912616E 08	0.373978079E 06	0.200463452E 08	0.02399	0.89211
34	0.106812531E 07	0.135409259E 08	0.337517208E 06	0.149465684E 08	0.01789	0.91000
35	0.102169310E 06	0.145763379E 08	0.286197339E 06	0.149647046E 08	0.01791	0.92792
36	0.514980085E 05	0.130665206E 08	0.213275596E 06	0.133312942E 08	0.01596	0.94388
37	0.202508861E 06	0.821931016E 07	0.000000000E 00	0.842181901E 07	0.01008	0.95396
38	0.000000000E 00	0.100262679E 08	0.000000000E 00	0.100262679E 08	0.01200	0.96596
39	0.000000000E 00	0.795969774E 07	0.364608717E 05	0.799615861E 07	0.00957	0.97554
40	0.000000000E 00	0.493798973E 07	0.364608717E 05	0.497445060E 07	0.00595	0.98149
41	0.190081783E 05	0.370372769E 07	0.000000000E 00	0.372273587E 07	0.00445	0.98595
42	0.000000000E 00	0.282929000E 07	0.213275596E 06	0.304256560E 07	0.00364	0.98959
43	0.000000000E 00	0.229216671E 07	0.000000000E 00	0.229216671E 07	0.00274	0.99233
44	0.000000000E 00	0.279267498E 07	0.000000000E 00	0.279267498E 07	0.00334	0.99568
45	0.000000000E 00	0.108879158E 07	0.000000000E 00	0.108879158E 07	0.00130	0.99698
46	0.583915003E 05	0.113992196E 07	0.364608717E 05	0.123477433E 07	0.00147	0.99846
47	0.000000000E 00	0.609228199E 06	0.000000000E 00	0.609228199E 06	0.00072	0.99919
48	0.000000000E 00	0.295188333E 06	0.000000000E 00	0.295188333E 06	0.00035	0.99954
49	0.000000000E 00	0.984798613E 05	0.000000000E 00	0.984798613E 05	0.00011	0.99966
50	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99966

Table D-3 (Cont'd)

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 10260. ROCK SOLE

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
51	0.000000000E 00	0.157360331E 06	0.000000000E 00	0.157360331E 06	0.00016	0.99985
52	0.000000000E 00	0.194043235E 05	0.000000000E 00	0.194043235E 05	0.00002	0.99987
53	0.000000000E 00	0.715704539E 05	0.000000000E 00	0.715704539E 05	0.00006	0.99994
54	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99994
55	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99994
56	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99994
57	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99994
58	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99994
59	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99994
60	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99994
61	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99994
62	0.000000000E 00	0.103281381E 05	0.000000000E 00	0.103281381E 05	0.00001	0.99995
63	0.000000000E 00	0.103281381E 05	0.000000000E 00	0.103281381E 05	0.00001	0.99996
64	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99996
65	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99996
66	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99996
67	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99996
68	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99996
69	0.000000000E 00	0.103281381E 05	0.000000000E 00	0.103281381E 05	0.00001	1.00000
70	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
71	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
72	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
73	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
74	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
75	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
76	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
77	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
78	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
79	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
80	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
81	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
82	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
83	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
84	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
85	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
86	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
87	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
88	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
89	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
90	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
91	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
92	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
93	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
94	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
95	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
96	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
97	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
98	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
99	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
100	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
TOTAL	0.435729536E 09	0.384072240E 09	0.154745433E 08	0.835276317E 09		

Table D-4.--Population estimates by sex and size group for Greenland turbot.

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 10115. GREENLAND TURBOT

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
1	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
2	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
3	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
4	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
5	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
6	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
7	0.000000000E 00	0.000000000E 00	0.101429510E 06	0.101429510E 06	0.00005	0.00005
8	0.000000000E 00	0.000000000E 00	0.111052173E 07	0.111052173E 07	0.00056	0.00062
9	0.000000000E 00	0.000000000E 00	0.174343106E 07	0.174343106E 07	0.00089	0.00151
10	0.000000000E 00	0.000000000E 00	0.176789514E 08	0.176789514E 08	0.00905	0.01057
11	0.557588674E 06	0.000000000E 00	0.745696941E 08	0.751276828E 08	0.03850	0.04907
12	0.433493697E 07	0.256586000E 07	0.122319388E 09	0.129220185E 09	0.06622	0.11529
13	0.388891453E 07	0.380557979E 07	0.996742243E 08	0.107368718E 09	0.05502	0.17031
14	0.431997709E 07	0.442465237E 07	0.101877984E 09	0.110622614E 09	0.05669	0.22701
15	0.840709696E 07	0.462030850E 07	0.121160519E 09	0.134187924E 09	0.06876	0.29577
16	0.128816928E 08	0.763375712E 07	0.130481831E 09	0.150997281E 09	0.07738	0.37315
17	0.130443448E 08	0.883509159E 07	0.901239406E 08	0.112003377E 09	0.05739	0.43055
18	0.122477283E 08	0.757693276E 07	0.411712751E 08	0.609959362E 08	0.03125	0.46181
19	0.857736876E 07	0.646278043E 07	0.156685762E 08	0.307087253E 08	0.01573	0.47755
20	0.172999696E 08	0.917998778E 07	0.210713431E 08	0.475513005E 08	0.02436	0.50192
21	0.326144431E 08	0.120311704E 08	0.157146781E 08	0.603602917E 08	0.03093	0.53285
22	0.380496029E 08	0.219330512E 08	0.828471344E 07	0.682673675E 08	0.03496	0.56783
23	0.425351144E 08	0.330293666E 08	0.393433011E 07	0.794988111E 08	0.04074	0.60858
24	0.429807299E 08	0.355408491E 08	0.115780432E 07	0.796793833E 08	0.04083	0.64941
25	0.453289233E 08	0.358482426E 08	0.509065764E 06	0.816862318E 08	0.04186	0.69127
26	0.455547141E 08	0.319729748E 08	0.875782624E 06	0.784034715E 08	0.04017	0.73145
27	0.405359329E 08	0.351785744E 08	0.639612441E 06	0.763541197E 08	0.03912	0.77058
28	0.341292852E 08	0.262734551E 08	0.472813942E 06	0.608755543E 08	0.03119	0.80178
29	0.288813530E 08	0.240712902E 08	0.856333483E 06	0.538089767E 08	0.02757	0.82935
30	0.253190819E 08	0.227804799E 08	0.840795133E 06	0.489403570E 08	0.02508	0.85443
31	0.174665473E 08	0.171575504E 08	0.102515311E 07	0.356492509E 08	0.01826	0.87270
32	0.191143555E 08	0.155799381E 08	0.949031238E 06	0.356433249E 08	0.01826	0.89097
33	0.206336748E 08	0.148855105E 08	0.740835291E 06	0.362600206E 08	0.01858	0.90955
34	0.150234126E 08	0.147239476E 08	0.285052604E 06	0.300324128E 08	0.01539	0.92494
35	0.975124845E 07	0.161602599E 08	0.323694137E 06	0.262352024E 08	0.01344	0.93838
36	0.112575023E 08	0.128765612E 08	0.000000000E 00	0.241340636E 08	0.01236	0.95075
37	0.763745924E 07	0.114502286E 08	0.170730084E 06	0.192584179E 08	0.00986	0.96062
38	0.689903792E 07	0.107543764E 08	0.169999936E 06	0.178234143E 08	0.00913	0.96976
39	0.512796770E 07	0.749871994E 07	0.870667194E 05	0.127137543E 08	0.00651	0.97627
40	0.314690368E 07	0.552692669E 07	0.184357984E 06	0.885818856E 07	0.00453	0.98081
41	0.206757883E 07	0.365497267E 07	0.000000000E 00	0.572255090E 07	0.00293	0.98374
42	0.234473971E 07	0.272803982E 07	0.836633654E 05	0.515644290E 07	0.00264	0.98639
43	0.138305651E 07	0.197962867E 07	0.836633654E 05	0.344654855E 07	0.00176	0.98815
44	0.103602217E 07	0.132973007E 07	0.000000000E 00	0.236575224E 07	0.00121	0.98936
45	0.105984142E 07	0.983484242E 06	0.000000000E 00	0.204332566E 07	0.00104	0.99041
46	0.133131112E 07	0.810984705E 06	0.000000000E 00	0.214229583E 07	0.00109	0.99151
47	0.940152573E 06	0.932562706E 06	0.000000000E 00	0.187271527E 07	0.00095	0.99247
48	0.658180135E 06	0.416196291E 06	0.000000000E 00	0.107437642E 07	0.00055	0.99302
49	0.602423048E 06	0.487751196E 06	0.000000000E 00	0.109017424E 07	0.00055	0.99358
50	0.656618771E 06	0.748036631E 06	0.000000000E 00	0.140665540E 07	0.00072	0.99430

Table D-4 (Cont'd)

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 10115. GREENLAND TURBOT

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
51	0.590516662E 06	0.290382441E 06	0.000000000E 00	0.881299103E 06	0.00045	0.99475
52	0.308663190E 06	0.448826530E 06	0.000000000E 00	0.757489721E 06	0.00038	0.99514
53	0.331891265E 06	0.528919790E 06	0.000000000E 00	0.860811055E 06	0.00044	0.99558
54	0.401613894E 06	0.514061119E 06	0.000000000E 00	0.915695014E 06	0.00046	0.99605
55	0.222123526E 06	0.388823442E 06	0.000000000E 00	0.610946969E 06	0.00031	0.99636
56	0.148249747E 06	0.244638087E 06	0.000000000E 00	0.392887834E 06	0.00020	0.99656
57	0.223689457E 06	0.241202056E 06	0.000000000E 00	0.464891513E 06	0.00023	0.99680
58	0.954610722E 05	0.164105374E 06	0.000000000E 00	0.259566446E 06	0.00013	0.99694
59	0.222628196E 05	0.213266304E 06	0.000000000E 00	0.235529124E 06	0.00012	0.99706
60	0.740755897E 05	0.379922571E 06	0.000000000E 00	0.453998161E 06	0.00023	0.99729
61	0.122481587E 06	0.212239607E 06	0.000000000E 00	0.334721195E 06	0.00017	0.99746
62	0.985576783E 05	0.330092458E 06	0.000000000E 00	0.428650117E 06	0.00021	0.99768
63	0.201154665E 06	0.190820800E 06	0.000000000E 00	0.391975465E 06	0.00020	0.99788
64	0.199543207E 06	0.961148574E 05	0.000000000E 00	0.296258065E 06	0.00015	0.99803
65	0.145113583E 06	0.150669519E 06	0.000000000E 00	0.295783102E 06	0.00015	0.99818
66	0.186693702E 06	0.174089264E 06	0.000000000E 00	0.360782967E 06	0.00018	0.99837
67	0.108712641E 06	0.138243990E 06	0.000000000E 00	0.246956631E 06	0.00012	0.99850
68	0.307817109E 06	0.107243779E 06	0.000000000E 00	0.415060889E 06	0.00021	0.99871
69	0.000000000E 00	0.106092907E 06	0.000000000E 00	0.106092907E 06	0.00005	0.99876
70	0.967138465E 05	0.432296105E 05	0.000000000E 00	0.139943457E 06	0.00007	0.99883
71	0.833441416E 05	0.183138572E 05	0.000000000E 00	0.101657998E 06	0.00005	0.99889
72	0.147369579E 05	0.141441453E 06	0.000000000E 00	0.156178411E 06	0.00008	0.99897
73	0.408512457E 05	0.142559643E 06	0.000000000E 00	0.183410889E 06	0.00009	0.99906
74	0.142575258E 05	0.294739158E 05	0.000000000E 00	0.437314416E 05	0.00002	0.99908
75	0.142575258E 05	0.924123064E 05	0.000000000E 00	0.106669832E 06	0.00005	0.99914
76	0.159308838E 05	0.104837008E 06	0.000000000E 00	0.120767891E 06	0.00006	0.99920
77	0.000000000E 00	0.672145831E 05	0.000000000E 00	0.672145831E 05	0.00003	0.99923
78	0.000000000E 00	0.112269363E 06	0.000000000E 00	0.112269363E 06	0.00005	0.99929
79	0.000000000E 00	0.173856032E 06	0.000000000E 00	0.173856032E 06	0.00008	0.99938
80	0.000000000E 00	0.119088653E 06	0.000000000E 00	0.119088653E 06	0.00006	0.99944
81	0.000000000E 00	0.117306880E 06	0.000000000E 00	0.117306880E 06	0.00006	0.99950
82	0.000000000E 00	0.210484889E 06	0.000000000E 00	0.210484889E 06	0.00010	0.99961
83	0.000000000E 00	0.237848326E 06	0.000000000E 00	0.237848326E 06	0.00012	0.99973
84	0.000000000E 00	0.628158071E 05	0.000000000E 00	0.628158071E 05	0.00003	0.99976
85	0.000000000E 00	0.114176424E 06	0.000000000E 00	0.114176424E 06	0.00005	0.99982
86	0.000000000E 00	0.924752097E 05	0.000000000E 00	0.924752097E 05	0.00004	0.99987
87	0.000000000E 00	0.107318551E 06	0.000000000E 00	0.107318551E 06	0.00005	0.99992
88	0.000000000E 00	0.309875892E 05	0.000000000E 00	0.309875892E 05	0.00001	0.99994
89	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99994
90	0.000000000E 00	0.183138572E 05	0.000000000E 00	0.183138572E 05	0.00000	0.99995
91	0.000000000E 00	0.196206063E 05	0.000000000E 00	0.196206063E 05	0.00001	0.99996
92	0.000000000E 00	0.436370554E 05	0.000000000E 00	0.436370554E 05	0.00002	0.99998
93	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99998
94	0.000000000E 00	0.101834040E 05	0.000000000E 00	0.101834040E 05	0.00000	0.99999
95	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
96	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
97	0.000000000E 00	0.142575258E 05	0.000000000E 00	0.142575258E 05	0.00000	0.99999
98	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
99	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
100	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
TOTAL	0.593698743E 09	0.481494105E 09	0.876142285E 09	0.195133512E 10		

Table D-5.--Population estimates by sex and size group for Alaska plaice.

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 10285. ALASKA PLAICE

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
1	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
2	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
3	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
4	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
5	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
6	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
7	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
8	0.840793023E 05	0.000000000E 00	0.000000000E 00	0.840793023E 05	0.00012	0.00012
9	0.420396511E 05	0.420396511E 05	0.000000000E 00	0.840793023E 05	0.00012	0.00025
10	0.110884084E 06	0.000000000E 00	0.417437063E 05	0.152627791E 06	0.00023	0.00049
11	0.324988731E 06	0.172035562E 06	0.000000000E 00	0.497024293E 06	0.00076	0.00125
12	0.718687224E 06	0.446999821E 06	0.139145687E 05	0.117960161E 07	0.00161	0.00306
13	0.377503200E 06	0.534550867E 06	0.125099231E 06	0.103715329E 07	0.00159	0.00465
14	0.922961426E 06	0.888518520E 06	0.166798974E 06	0.197827891E 07	0.00303	0.00769
15	0.135753063E 07	0.133641595E 07	0.416997436E 05	0.273564633E 07	0.00420	0.01189
16	0.181221436E 07	0.167474907E 07	0.500396924E 06	0.398736036E 07	0.00612	0.01801
17	0.305775364E 07	0.112753035E 07	0.375297692E 06	0.456058169E 07	0.00700	0.02502
18	0.268485839E 07	0.306679978E 07	0.250198462E 06	0.600185664E 07	0.00921	0.03423
19	0.238574559E 07	0.305205028E 07	0.833994873E 05	0.552119536E 07	0.00847	0.04271
20	0.240577526E 07	0.393220227E 07	0.208498718E 06	0.654647624E 07	0.01005	0.05276
21	0.305428451E 07	0.322821167E 07	0.000000000E 00	0.628249619E 07	0.00964	0.06241
22	0.399118025E 07	0.307600873E 07	0.833994873E 05	0.715058846E 07	0.01097	0.07339
23	0.435513375E 07	0.475148221E 07	0.125099231E 06	0.923171519E 07	0.01417	0.08756
24	0.486860597E 07	0.389608009E 07	0.000000000E 00	0.876468606E 07	0.01345	0.10102
25	0.420522676E 07	0.380260118E 07	0.393801441E 05	0.804720809E 07	0.01235	0.11337
26	0.733420861E 07	0.472165939E 07	0.494272743E 05	0.121054952E 08	0.01858	0.13196
27	0.109154382E 08	0.435976330E 07	0.582029756E 06	0.158572512E 08	0.02434	0.15631
28	0.231393667E 08	0.508549583E 07	0.754674058E 06	0.289795366E 08	0.04449	0.20080
29	0.325719661E 08	0.497041210E 07	0.190926467E 07	0.394516429E 08	0.06057	0.26138
30	0.412284835E 08	0.818478818E 07	0.559603378E 07	0.550093054E 08	0.08446	0.34584
31	0.500913530E 08	0.859323117E 07	0.426174617E 07	0.629463304E 08	0.09664	0.44248
32	0.402101934E 08	0.114650077E 08	0.466673933E 07	0.563419404E 08	0.08650	0.52699
33	0.253603164E 08	0.159356264E 08	0.300494109E 07	0.443010840E 08	0.06801	0.59701
34	0.174373713E 08	0.190109005E 08	0.347277315E 07	0.399210450E 08	0.06129	0.65830
35	0.806620939E 07	0.279438497E 08	0.447366185E 07	0.404837210E 08	0.06215	0.72046
36	0.495468643E 07	0.337490022E 08	0.235076857E 07	0.410944572E 08	0.06309	0.78356
37	0.220215642E 07	0.291498144E 08	0.327392749E 07	0.346258983E 08	0.05316	0.83672
38	0.827104271E 06	0.261032400E 08	0.491780041E 07	0.318481447E 08	0.04889	0.88562
39	0.620327664E 05	0.230509424E 08	0.304318008E 07	0.261561553E 08	0.04015	0.92578
40	0.000000000E 00	0.166489022E 08	0.304318008E 07	0.196920823E 08	0.03023	0.95602
41	0.138076225E 06	0.957929803E 07	0.243620961E 07	0.121535838E 08	0.01866	0.97468
42	0.000000000E 00	0.585563692E 07	0.187768028E 06	0.604340495E 07	0.00927	0.98396
43	0.236819346E 05	0.335207457E 07	0.621066397E 06	0.399682290E 07	0.00613	0.99009
44	0.000000000E 00	0.134895474E 07	0.780732826E 05	0.142702802E 07	0.00219	0.99229
45	0.000000000E 00	0.130168350E 07	0.390366413E 05	0.134072015E 07	0.00205	0.99434
46	0.000000000E 00	0.131034011E 07	0.390366413E 05	0.134937675E 07	0.00207	0.99642
47	0.000000000E 00	0.564704988E 06	0.000000000E 00	0.564704988E 06	0.00086	0.99728
48	0.000000000E 00	0.563071732E 06	0.000000000E 00	0.563071732E 06	0.00086	0.99815
49	0.000000000E 00	0.315799450E 06	0.000000000E 00	0.315799450E 06	0.00048	0.99863
50	0.000000000E 00	0.449951293E 06	0.000000000E 00	0.449951293E 06	0.00069	0.99932

Table D-5 (Cont'd)

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 10285. ALASKA PLAICE

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
51	0.138076225E 06	0.000000000E 00	0.000000000E 00	0.138076225E 06	0.00021	0.99954
52	0.000000000E 00	0.299457802E 06	0.000000000E 00	0.299457802E 06	0.00045	1.00000
53	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
54	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
55	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
56	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
57	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
58	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
59	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
60	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
61	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
62	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
63	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
64	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
65	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
66	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
67	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
68	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
69	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
70	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
71	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
72	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
73	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
74	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
75	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
76	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
77	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
78	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
79	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
80	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
81	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
82	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
83	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
84	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
85	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
86	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
87	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
88	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
89	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
90	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
91	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
92	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
93	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
94	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
95	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
96	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
97	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
98	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
99	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
100	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
TOTAL	0.301500173E 09	0.298942303E 09	0.508562646E 08	0.651298740E 09		

Table D-6.--Population estimates by sex and size group for flathead sole.

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 10130. FLATHEAD SOLE

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
1	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
2	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
3	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
4	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
5	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
6	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
7	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
8	0.187109116E 06	0.267101399E 05	0.219130818E 05	0.235732338E 06	0.00030	0.00030
9	0.345647152E 06	0.609119964E 05	0.187323734E 07	0.227979649E 07	0.00290	0.00320
10	0.685885909E 06	0.717380245E 05	0.543850259E 07	0.619612652E 07	0.00790	0.01111
11	0.459282870E 07	0.117395382E 07	0.913582707E 07	0.149026095E 08	0.01901	0.03013
12	0.758973823E 07	0.758608613E 07	0.686524519E 07	0.220410695E 08	0.02812	0.05825
13	0.125240155E 08	0.880658015E 07	0.545777949E 07	0.267883752E 08	0.03418	0.09243
14	0.896558560E 07	0.656769918E 07	0.321837171E 07	0.187516564E 08	0.02392	0.11636
15	0.892813724E 07	0.578053200E 07	0.304934766E 07	0.177580168E 08	0.02265	0.13902
16	0.145240973E 08	0.460866391E 07	0.321926244E 07	0.223520236E 08	0.02852	0.16754
17	0.159010009E 08	0.917745000E 07	0.276548658E 07	0.278439375E 08	0.03552	0.20307
18	0.177533401E 08	0.122626483E 08	0.261959051E 07	0.326355789E 08	0.04164	0.24471
19	0.197391316E 08	0.184196561E 08	0.249325638E 07	0.406520440E 08	0.05187	0.29658
20	0.167893996E 08	0.177765524E 08	0.133311318E 07	0.358990652E 08	0.04580	0.34239
21	0.133505145E 08	0.219571210E 08	0.971957192E 06	0.362795926E 08	0.04629	0.38868
22	0.158872385E 08	0.230325609E 08	0.325492498E 06	0.392452920E 08	0.05007	0.43876
23	0.108980293E 08	0.265362035E 08	0.230772458E 06	0.376630052E 08	0.04805	0.48681
24	0.129288567E 08	0.265391048E 08	0.228278675E 06	0.396962401E 08	0.05065	0.53747
25	0.179100886E 08	0.266793467E 08	0.717339530E 05	0.446611692E 08	0.05698	0.59445
26	0.144192495E 08	0.263712841E 08	0.000000000E 00	0.407905336E 08	0.05204	0.64650
27	0.143341558E 08	0.220833654E 08	0.114139337E 06	0.365316606E 08	0.04661	0.69311
28	0.156745587E 08	0.193581507E 08	0.570696688E 05	0.350897792E 08	0.04477	0.73789
29	0.125778748E 08	0.165991712E 08	0.300012628E 06	0.294770587E 08	0.03761	0.77550
30	0.134156839E 08	0.124355756E 08	0.717339530E 05	0.259229935E 08	0.03307	0.80858
31	0.138842482E 08	0.106901870E 08	0.228278675E 06	0.248027139E 08	0.03164	0.84023
32	0.134853485E 08	0.138048011E 08	0.000000000E 00	0.272901496E 08	0.03482	0.87505
33	0.104573066E 08	0.103155568E 08	0.161944018E 06	0.209548074E 08	0.02673	0.90179
34	0.687592810E 07	0.109512562E 08	0.265348344E 06	0.181125326E 08	0.02311	0.92490
35	0.403041669E 07	0.792295066E 07	0.135609360E 06	0.120889767E 08	0.01542	0.94032
36	0.283923357E 07	0.725254145E 07	0.678046802E 05	0.101595796E 08	0.01296	0.95329
37	0.188788723E 07	0.707306639E 07	0.570696688E 05	0.821802528E 07	0.01046	0.96377
38	0.276312365E 06	0.734659231E 07	0.678046802E 05	0.769070935E 07	0.00981	0.97358
39	0.472300134E 06	0.563652162E 07	0.171209006E 06	0.628003076E 07	0.00801	0.98160
40	0.123197207E 06	0.457204131E 07	0.717339530E 05	0.476697247E 07	0.00608	0.98768
41	0.268557265E 05	0.284960254E 07	0.570696688E 05	0.293352794E 07	0.00374	0.99142
42	0.000000000E 00	0.164300708E 07	0.570696688E 05	0.170007675E 07	0.00216	0.99359
43	0.000000000E 00	0.183133123E 07	0.000000000E 00	0.183133123E 07	0.00233	0.99593
44	0.000000000E 00	0.127997797E 07	0.570696688E 05	0.133704763E 07	0.00170	0.99764
45	0.000000000E 00	0.877993166E 06	0.000000000E 00	0.877993166E 06	0.00112	0.99876
46	0.508835765E 05	0.717846065E 06	0.000000000E 00	0.768729642E 06	0.00098	0.99974
47	0.000000000E 00	0.184135366E 06	0.000000000E 00	0.184135366E 06	0.00023	0.99997
48	0.000000000E 00	0.182299035E 05	0.000000000E 00	0.182299035E 05	0.00002	1.00000
49	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
50	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
TOTAL	0.3235300846 09	0.4088787046 09	0.513001349E 08	0.783708922E 09		

Table D-7.--Population estimates by sex and size group for Pacific cod.

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 21720. PACIFIC COD

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
1	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
2	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
3	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
4	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
5	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
6	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
7	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
8	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
9	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
10	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
11	0.254537846E 05	0.000000000E 00	0.000000000E 00	0.254537846E 05	0.00001	0.00001
12	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00001
13	0.124476139E 06	0.000000000E 00	0.000000000E 00	0.124476139E 06	0.00008	0.00010
14	0.335487947E 06	0.202937867E 06	0.000000000E 00	0.538425814E 06	0.00037	0.00047
15	0.761204360E 06	0.638193662E 06	0.000000000E 00	0.139939802E 07	0.00097	0.00144
16	0.126474975E 07	0.151597275E 07	0.391854948E 05	0.281990800E 07	0.00195	0.00340
17	0.335404686E 07	0.213553108E 07	0.000000000E 00	0.548957794E 07	0.00380	0.00721
18	0.402052638E 07	0.459377329E 07	0.000000000E 00	0.861429966E 07	0.00597	0.01318
19	0.739540902E 07	0.410938966E 07	0.000000000E 00	0.115047986E 08	0.00797	0.02116
20	0.958542384E 07	0.601444201E 07	0.000000000E 00	0.155998658E 08	0.01081	0.03198
21	0.100290704E 08	0.943350918E 07	0.000000000E 00	0.194625795E 08	0.01349	0.04548
22	0.872716783E 07	0.942942192E 07	0.000000000E 00	0.181565897E 08	0.01259	0.05807
23	0.107046410E 08	0.946011437E 07	0.000000000E 00	0.201647553E 08	0.01398	0.07206
24	0.110843619E 08	0.124845676E 08	0.000000000E 00	0.235689496E 08	0.01634	0.08840
25	0.183206790E 08	0.112898113E 08	0.000000000E 00	0.296104904E 08	0.02053	0.10894
26	0.131071562E 08	0.854199965E 07	0.391854948E 05	0.216883413E 08	0.01504	0.12398
27	0.102990070E 08	0.129795231E 08	0.358117495E 06	0.236366476E 08	0.01639	0.14037
28	0.183057952E 08	0.150001038E 08	0.000000000E 00	0.333058991E 08	0.02309	0.16347
29	0.302010094E 08	0.184681449E 08	0.329777826E 06	0.489989321E 08	0.03398	0.19746
30	0.311479374E 08	0.351137550E 08	0.288434977E 06	0.665501273E 08	0.04615	0.24361
31	0.496720750E 08	0.482350959E 08	0.659029180E 06	0.985662001E 08	0.06836	0.31197
32	0.484261018E 08	0.505665100E 08	0.111674508E 07	0.100109357E 09	0.06943	0.38140
33	0.664604020E 08	0.516794926E 08	0.192977336E 07	0.120069668E 09	0.08327	0.46468
34	0.566767755E 08	0.583484549E 08	0.230851592E 07	0.117333746E 09	0.08137	0.54606
35	0.480024334E 08	0.480600160E 08	0.253168548E 07	0.985941349E 08	0.06838	0.61444
36	0.437489838E 08	0.470625615E 08	0.157119923E 07	0.923827445E 08	0.06407	0.67851
37	0.417162638E 08	0.381592666E 08	0.231929269E 07	0.821948230E 08	0.05700	0.73552
38	0.361777166E 08	0.342011550E 08	0.111351664E 07	0.714923884E 08	0.04958	0.78510
39	0.339423436E 08	0.291580762E 08	0.128436181E 07	0.643847816E 08	0.04465	0.82975
40	0.232002981E 08	0.235513006E 08	0.126313197E 07	0.480147307E 08	0.03330	0.86305
41	0.190225199E 08	0.219561259E 08	0.108012178E 07	0.420587676E 08	0.02917	0.89222
42	0.113465973E 08	0.132247847E 08	0.595914292E 06	0.251672963E 08	0.01745	0.90968
43	0.105028119E 08	0.138083118E 08	0.652012501E 06	0.249631362E 08	0.01731	0.92699
44	0.834586609E 07	0.106549304E 08	0.470668938E 06	0.194714674E 08	0.01350	0.94050
45	0.608171399E 07	0.874597192E 07	0.302500005E 06	0.151301859E 08	0.01049	0.95099
46	0.451712862E 07	0.537650856E 07	0.266569454E 06	0.101602066E 08	0.00704	0.95804
47	0.357294923E 07	0.467304633E 07	0.169879498E 06	0.843587507E 07	0.00585	0.96389
48	0.159723125E 07	0.442814867E 07	0.108868013E 06	0.613424815E 07	0.00425	0.96814
49	0.233401665E 07	0.204992995E 07	0.130220933E 05	0.439696869E 07	0.00304	0.97119
50	0.133163621E 07	0.255297433E 07	0.000000000E 00	0.388461055E 07	0.00269	0.97389

Table D-7 (Cont'd)

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 21720. PACIFIC COD

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
51	0.363350377E 06	0.130359235E 07	0.391854948E 05	0.170612822E 07	0.00118	0.97507
52	0.106371734E 07	0.108545422E 07	0.130220933E 05	0.216219366E 07	0.00149	0.97657
53	0.654118577E 06	0.991340620E 06	0.000000000E 00	0.164545919E 07	0.00114	0.97771
54	0.113856477E 07	0.802792429E 06	0.000000000E 00	0.194135720E 07	0.00134	0.97906
55	0.673231507E 06	0.583527549E 06	0.000000000E 00	0.125675905E 07	0.00087	0.97993
56	0.328427937E 06	0.799983117E 06	0.000000000E 00	0.112841105E 07	0.00076	0.98071
57	0.133684375E 07	0.109437825E 07	0.000000000E 00	0.243122200E 07	0.00168	0.98240
58	0.117512738E 07	0.980576481E 06	0.000000000E 00	0.215570386E 07	0.00149	0.98389
59	0.105420259E 07	0.624815064E 06	0.000000000E 00	0.167901766E 07	0.00116	0.98506
60	0.103563979E 07	0.691711725E 06	0.000000000E 00	0.172735152E 07	0.00119	0.98626
61	0.157801607E 07	0.112598272E 07	0.000000000E 00	0.270399880E 07	0.00187	0.98813
62	0.102963437E 07	0.975813157E 06	0.130220933E 05	0.201846963E 07	0.00139	0.98953
63	0.843467877E 06	0.706423116E 06	0.000000000E 00	0.154989099E 07	0.00107	0.99061
64	0.975480443E 06	0.997108078E 06	0.260441866E 05	0.199863270E 07	0.00138	0.99199
65	0.113239426E 07	0.814882888E 06	0.260441866E 05	0.197332134E 07	0.00136	0.99336
66	0.933404628E 06	0.315851898E 06	0.260441866E 05	0.127530071E 07	0.00088	0.99424
67	0.929741233E 06	0.102132301E 07	0.000000000E 00	0.195106424E 07	0.00135	0.99560
68	0.362784856E 06	0.539197733E 06	0.130220933E 05	0.915004683E 06	0.00063	0.99623
69	0.525559313E 06	0.391126957E 06	0.000000000E 00	0.916686270E 06	0.00063	0.99687
70	0.332491444E 06	0.416349569E 06	0.000000000E 00	0.748841013E 06	0.00051	0.99739
71	0.233119385E 06	0.361103373E 06	0.000000000E 00	0.594222759E 06	0.00041	0.99780
72	0.132309188E 06	0.449441008E 06	0.000000000E 00	0.581750196E 06	0.00040	0.99820
73	0.356364757E 06	0.205223332E 06	0.000000000E 00	0.561588088E 06	0.00038	0.99859
74	0.429118696E 06	0.110063145E 06	0.000000000E 00	0.539181842E 06	0.00037	0.99897
75	0.000000000E 00	0.213345845E 05	0.000000000E 00	0.213345845E 05	0.00001	0.99898
76	0.358807634E 05	0.106335569E 05	0.000000000E 00	0.465143203E 05	0.00003	0.99901
77	0.000000000E 00	0.192345524E 05	0.000000000E 00	0.192345524E 05	0.00001	0.99903
78	0.922766727E 05	0.623410926E 05	0.000000000E 00	0.154617765E 06	0.00010	0.99913
79	0.623410926E 05	0.000000000E 00	0.000000000E 00	0.623410926E 05	0.00004	0.99918
80	0.000000000E 00	0.238615989E 05	0.000000000E 00	0.238615989E 05	0.00001	0.99919
81	0.118289328E 06	0.156716648E 06	0.000000000E 00	0.275007976E 06	0.00019	0.99938
82	0.853270243E 05	0.107010276E 05	0.000000000E 00	0.960280519E 05	0.00006	0.99945
83	0.853873892E 05	0.000000000E 00	0.000000000E 00	0.853873892E 05	0.00005	0.99951
84	0.000000000E 00	0.169514125E 06	0.000000000E 00	0.169514125E 06	0.00011	0.99963
85	0.000000000E 00	0.384691049E 05	0.130220933E 05	0.514911982E 05	0.00003	0.99966
86	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99966
87	0.623410926E 05	0.000000000E 00	0.000000000E 00	0.623410926E 05	0.00004	0.99971
88	0.000000000E 00	0.000000000E 00	0.130220933E 05	0.130220933E 05	0.00000	0.99972
89	0.000000000E 00	0.323563664E 05	0.000000000E 00	0.323563664E 05	0.00002	0.99974
90	0.152233556E 06	0.914605757E 05	0.000000000E 00	0.243694131E 06	0.00016	0.99991
91	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99991
92	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99991
93	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99991
94	0.118289328E 06	0.000000000E 00	0.000000000E 00	0.118289328E 06	0.00008	0.99999
95	0.000000000E 00	0.762700304E 04	0.000000000E 00	0.762700304E 04	0.00000	0.99999
96	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
97	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
98	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
99	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
100	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
TOTAL	0.724898961E 09	0.695936162E 09	0.210139376E 08	0.144184905E 10		

Table D-8.--Population estimates by sex and size group for Pacific halibut.

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 10120. PACIFIC HALIBUT

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
1	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
2	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
3	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
4	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
5	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
6	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
7	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
8	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
9	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
10	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
11	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
12	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
13	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
14	0.0000000000E 00	0.0000000000E 00	0.1488004236 06	0.1488004236 06	0.00261	0.00261
15	0.0000000000E 00	0.0000000000E 00	0.5723890276 06	0.5723890276 06	0.01005	0.01266
16	0.0000000000E 00	0.0000000000E 00	0.2200882636 07	0.2200882636 07	0.03866	0.05132
17	0.0000000000E 00	0.0000000000E 00	0.2675076006 07	0.2675076006 07	0.04699	0.09831
18	0.0000000000E 00	0.0000000000E 00	0.2656252886 07	0.2656252886 07	0.04665	0.14497
19	0.0000000000E 00	0.0000000000E 00	0.1781351426 07	0.1781351426 07	0.03129	0.17627
20	0.0000000000E 00	0.0000000000E 00	0.3161666366 07	0.3161666366 07	0.05553	0.23180
21	0.0000000000E 00	0.0000000000E 00	0.4089805796 07	0.4089805796 07	0.07184	0.30365
22	0.0000000000E 00	0.0000000000E 00	0.3241623286 07	0.3241623286 07	0.05694	0.36059
23	0.0000000000E 00	0.0000000000E 00	0.1808292446 07	0.1808292446 07	0.03176	0.39235
24	0.0000000000E 00	0.0000000000E 00	0.1458155106 07	0.1458155106 07	0.02561	0.41797
25	0.0000000000E 00	0.0000000000E 00	0.1212685406 07	0.1212685406 07	0.02130	0.43927
26	0.0000000000E 00	0.0000000000E 00	0.6451777196 06	0.6451777196 06	0.01133	0.45060
27	0.0000000000E 00	0.0000000000E 00	0.7342110506 06	0.7342110506 06	0.01289	0.46350
28	0.0000000000E 00	0.0000000000E 00	0.8559063546 06	0.8559063546 06	0.01503	0.47853
29	0.0000000000E 00	0.0000000000E 00	0.1014216226 07	0.1014216226 07	0.01781	0.49635
30	0.0000000000E 00	0.0000000000E 00	0.7295807206 06	0.7295807206 06	0.01281	0.50916
31	0.0000000000E 00	0.0000000000E 00	0.5904599856 06	0.5904599856 06	0.01037	0.51954
32	0.0000000000E 00	0.0000000000E 00	0.1144481596 07	0.1144481596 07	0.02010	0.53964
33	0.0000000000E 00	0.0000000000E 00	0.7346666806 06	0.7346666806 06	0.01290	0.55255
34	0.0000000000E 00	0.0000000000E 00	0.5839178636 06	0.5839178636 06	0.01025	0.56280
35	0.0000000000E 00	0.0000000000E 00	0.4723834136 06	0.4723834136 06	0.00829	0.57110
36	0.0000000000E 00	0.0000000000E 00	0.7127199026 06	0.7127199026 06	0.01251	0.58362
37	0.0000000000E 00	0.0000000000E 00	0.6629627816 06	0.6629627816 06	0.01164	0.59527
38	0.0000000000E 00	0.0000000000E 00	0.9715714296 06	0.9715714296 06	0.01706	0.61233
39	0.0000000000E 00	0.0000000000E 00	0.3551280356 06	0.3551280356 06	0.00623	0.61857
40	0.0000000000E 00	0.0000000000E 00	0.3802717966 06	0.3802717966 06	0.00667	0.62525
41	0.0000000000E 00	0.0000000000E 00	0.9648643516 06	0.9648643516 06	0.01694	0.64220
42	0.0000000000E 00	0.0000000000E 00	0.7846653276 06	0.7846653276 06	0.01378	0.65598
43	0.0000000000E 00	0.0000000000E 00	0.1373011166 07	0.1373011166 07	0.02411	0.68010
44	0.0000000000E 00	0.0000000000E 00	0.5048435146 06	0.5048435146 06	0.00886	0.68897
45	0.0000000000E 00	0.0000000000E 00	0.8496274616 06	0.8496274616 06	0.01492	0.70389
46	0.0000000000E 00	0.0000000000E 00	0.4311263706 06	0.4311263706 06	0.00757	0.71147
47	0.0000000000E 00	0.0000000000E 00	0.5230231786 06	0.5230231786 06	0.00918	0.72065
48	0.0000000000E 00	0.0000000000E 00	0.7394470056 06	0.7394470056 06	0.01298	0.73364
49	0.0000000000E 00	0.0000000000E 00	0.1238324446 07	0.1238324446 07	0.02175	0.75540
50	0.0000000000E 00	0.0000000000E 00	0.5588393786 06	0.5588393786 06	0.00981	0.76521

Table D-8 (Cont'd)

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP

TOTAL ALL STRATA FOR SPECIES 10120. PACIFIC HALIBUT

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
51	0.000000000E 00	0.000000000E 00	0.111082137E 07	0.111082137E 07	0.01951	0.78473
52	0.000000000E 00	0.000000000E 00	0.121563295E 07	0.121563295E 07	0.02135	0.80608
53	0.000000000E 00	0.000000000E 00	0.600019732E 06	0.600019732E 06	0.01053	0.81662
54	0.000000000E 00	0.000000000E 00	0.705494122E 06	0.705494122E 06	0.01239	0.82901
55	0.000000000E 00	0.000000000E 00	0.486944060E 06	0.486944060E 06	0.00855	0.83757
56	0.000000000E 00	0.000000000E 00	0.871516091E 06	0.871516091E 06	0.01530	0.85287
57	0.000000000E 00	0.000000000E 00	0.357124547E 06	0.357124547E 06	0.00627	0.85915
58	0.000000000E 00	0.000000000E 00	0.252244961E 06	0.252244961E 06	0.00443	0.86358
59	0.000000000E 00	0.000000000E 00	0.428611016E 06	0.428611016E 06	0.00752	0.87111
60	0.000000000E 00	0.000000000E 00	0.414512920E 06	0.414512920E 06	0.00728	0.87839
61	0.000000000E 00	0.000000000E 00	0.760855622E 06	0.760855622E 06	0.01336	0.89175
62	0.000000000E 00	0.000000000E 00	0.500285024E 06	0.500285024E 06	0.00878	0.90054
63	0.000000000E 00	0.000000000E 00	0.161507632E 06	0.161507632E 06	0.00283	0.90338
64	0.000000000E 00	0.000000000E 00	0.265559500E 06	0.265559500E 06	0.00466	0.90804
65	0.000000000E 00	0.000000000E 00	0.135764068E 06	0.135764068E 06	0.00238	0.91043
66	0.000000000E 00	0.000000000E 00	0.482185627E 06	0.482185627E 06	0.00847	0.91890
67	0.000000000E 00	0.000000000E 00	0.239669229E 06	0.239669229E 06	0.00421	0.92311
68	0.000000000E 00	0.000000000E 00	0.219578556E 06	0.219578556E 06	0.00385	0.92697
69	0.000000000E 00	0.000000000E 00	0.261023244E 06	0.261023244E 06	0.00458	0.93155
70	0.000000000E 00	0.000000000E 00	0.368516376E 06	0.368516376E 06	0.00647	0.93803
71	0.000000000E 00	0.000000000E 00	0.128200347E 06	0.128200347E 06	0.00225	0.94028
72	0.000000000E 00	0.000000000E 00	0.428232903E 05	0.428232903E 05	0.00075	0.94103
73	0.000000000E 00	0.000000000E 00	0.438783884E 06	0.438783884E 06	0.00770	0.94874
74	0.000000000E 00	0.000000000E 00	0.364763448E 06	0.364763448E 06	0.00640	0.95514
75	0.000000000E 00	0.000000000E 00	0.191243341E 06	0.191243341E 06	0.00335	0.95850
76	0.000000000E 00	0.000000000E 00	0.867567549E 05	0.867567549E 05	0.00152	0.96003
77	0.000000000E 00	0.000000000E 00	0.185267739E 06	0.185267739E 06	0.00325	0.96328
78	0.000000000E 00	0.000000000E 00	0.208213355E 06	0.208213355E 06	0.00365	0.96694
79	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.96694
80	0.000000000E 00	0.000000000E 00	0.607631002E 05	0.607631002E 05	0.00106	0.96801
81	0.000000000E 00	0.000000000E 00	0.148494111E 06	0.148494111E 06	0.00260	0.97062
82	0.000000000E 00	0.000000000E 00	0.889145104E 05	0.889145104E 05	0.00156	0.97218
83	0.000000000E 00	0.000000000E 00	0.124843401E 06	0.124843401E 06	0.00219	0.97437
84	0.000000000E 00	0.000000000E 00	0.353050505E 06	0.353050505E 06	0.00620	0.98057
85	0.000000000E 00	0.000000000E 00	0.524457614E 05	0.524457614E 05	0.00092	0.98149
86	0.000000000E 00	0.000000000E 00	0.920666401E 05	0.920666401E 05	0.00161	0.98311
87	0.000000000E 00	0.000000000E 00	0.207052906E 05	0.207052906E 05	0.00036	0.98347
88	0.000000000E 00	0.000000000E 00	0.174145408E 05	0.174145408E 05	0.00030	0.98378
89	0.000000000E 00	0.000000000E 00	0.103252075E 06	0.103252075E 06	0.00181	0.98559
90	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.98559
91	0.000000000E 00	0.000000000E 00	0.493720065E 05	0.493720065E 05	0.00086	0.98646
92	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.98646
93	0.000000000E 00	0.000000000E 00	0.637631789E 05	0.637631789E 05	0.00112	0.98758
94	0.000000000E 00	0.000000000E 00	0.603790839E 05	0.603790839E 05	0.00106	0.98864
95	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.98864
96	0.000000000E 00	0.000000000E 00	0.424267304E 05	0.424267304E 05	0.00074	0.98939
97	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.98939
98	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.98939
99	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.98939
100						
TOTAL						

Table D-9.--Population estimates by sex and size group for arrowtooth and Asiatic flounders.

ESTIMATE OF POPULATION NUMBERS BY SEX AND SIZE GROUP

TOTAL ALL STRATA
SPECIES 10110 A. STOMIAS AND A. EVERMANNI COMBINED

LENGTH(MM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
80.0	0.	.232976257E+05	0.	.232976257E+05	0.00010	0.00010
90.0	.403280538E+05	.196190532E+05	0.	.599471071E+05	0.00026	0.00036
100.0	0.	.196190532E+05	0.	.196190532E+05	0.00008	0.00044
110.0	.310635009E+05	.110996108E+06	0.	.142059609E+06	0.00061	0.00106
120.0	.171121650E+06	0.	0.	.171121650E+06	0.00074	0.00179
130.0	.605579250E+06	.858590821E+05	0.	.691438332E+06	0.00298	0.00477
140.0	.493547203E+06	.274154700E+06	0.	.767701904E+06	0.00331	0.00808
150.0	.136554457E+07	.794704020E+06	.127821740E+06	.228807033E+07	0.00986	0.01794
160.0	.308577058E+07	.246014895E+07	.291839712E+05	.557510350E+07	0.02402	0.04195
170.0	.704511702E+07	.291404738E+07	.253606683E+06	.102127711E+08	0.04400	0.08595
180.0	.876780044E+07	.557783234E+07	.136998816E+07	.157156209E+08	0.06770	0.15366
190.0	.711345608E+07	.605641753E+07	.206135441E+07	.152312280E+08	0.06562	0.21927
200.0	.803883358E+07	.522755585E+07	.288921315E+07	.161556026E+08	0.06960	0.28887
210.0	.642293522E+07	.470387958E+07	.183859018E+07	.129654050E+08	0.05586	0.34473
220.0	.569726197E+07	.482281200E+07	.496127510E+06	.110162015E+08	0.04746	0.39219
230.0	.376214053E+07	.350478562E+07	.116735885E+06	.738366204E+07	0.03181	0.42400
240.0	.366485339E+07	.364418801E+07	.583679423E+05	.736740934E+07	0.03174	0.45574
250.0	.325719712E+07	.427528462E+07	.291839712E+05	.756166572E+07	0.03258	0.48831
260.0	.278723857E+07	.328842633E+07	0.	.607566490E+07	0.02617	0.51449
270.0	.507304382E+07	.320144148E+07	0.	.827448531E+07	0.03565	0.55014
280.0	.475820526E+07	.289001730E+07	0.	.764822256E+07	0.03295	0.58309
290.0	.587791668E+07	.557863741E+07	0.	.114565541E+08	0.04936	0.63244
300.0	.642555592E+07	.683350784E+07	0.	.132590638E+08	0.05712	0.68956
310.0	.495430808E+07	.558677645E+07	0.	.105410845E+08	0.04541	0.73497
320.0	.349752743E+07	.494227168E+07	0.	.843979911E+07	0.03636	0.77133
330.0	.264962957E+07	.534220067E+07	0.	.799183024E+07	0.03443	0.80576
340.0	.235543838E+07	.415765977E+07	0.	.651309815E+07	0.02806	0.83382
350.0	.385492291E+07	.307442153E+07	0.	.692934444E+07	0.02985	0.86368
360.0	.198209000E+07	.305280845E+07	0.	.503489846E+07	0.02169	0.88537
370.0	.173553893E+07	.219925487E+07	0.	.393479380E+07	0.01695	0.90232
380.0	.746187316E+06	.231441014E+07	0.	.306059745E+07	0.01319	0.91550
390.0	.502164001E+06	.153825768E+07	0.	.204042168E+07	0.00879	0.92429
400.0	.409640487E+06	.791313340E+06	0.	.120095383E+07	0.00517	0.92947
410.0	.200102321E+06	.124267758E+07	0.	.144277990E+07	0.00622	0.93568
420.0	.610360563E+06	.490557819E+06	0.	.110091838E+07	0.00474	0.94043
430.0	.147041805E+06	.560900047E+06	0.	.707941852E+06	0.00305	0.94348
440.0	.358278198E+06	.551027108E+06	0.	.909305306E+06	0.00392	0.94739
450.0	.298602525E+06	.681301417E+06	0.	.979903942E+06	0.00422	0.95161
460.0	.377306537E+06	.146667094E+07	0.	.184397747E+07	0.00794	0.95956
470.0	.168947287E+06	.111321665E+07	0.	.128216394E+07	0.00552	0.96508
480.0	.146412470E+06	.113771294E+07	0.	.128412541E+07	0.00553	0.97061
490.0	.117174319E+06	.574709475E+06	0.	.691883794E+06	0.00298	0.97360
500.0	.174469603E+05	.436377303E+06	0.	.453824264E+06	0.00196	0.97555

Table D-9 (Cont'd)

ESTIMATE OF POPULATION NUMBERS BY SEX AND SIZE GROUP

TOTAL ALL STRATA

SPECIES 10110 A. STOMIAS AND A. EVERMANNI COMBINED

LENGTH(MM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
510.0	.695364467E+05	.662172317E+06	0.	.731708763E+06	0.00315	0.97870
520.0	.348939207E+05	.663413176E+06	0.	.698307097E+06	0.00301	0.98171
530.0	.523408810E+05	.356006144E+06	0.	.408347025E+06	0.00176	0.98347
540.0	.501480937E+05	.212085054E+06	0.	.262233148E+06	0.00113	0.98460
550.0	0.	.217574335E+06	0.	.217574335E+06	0.00094	0.98554
560.0	0.	.262687465E+06	0.	.262687465E+06	0.00113	0.98667
570.0	.163285654E+05	.108408259E+06	0.	.124736825E+06	0.00054	0.98721
590.0	.174469603E+05	.906573746E+05	0.	.108104335E+06	0.00047	0.98767
600.0	0.	.489856963E+05	0.	.489856963E+05	0.00021	0.98788
610.0	.163285654E+05	.102444972E+06	0.	.118773538E+06	0.00051	0.98839
620.0	0.	.348939207E+05	0.	.348939207E+05	0.00015	0.98855
630.0	0.	.697878414E+05	0.	.697878414E+05	0.00030	0.98885
650.0	0.	.348939207E+05	0.	.348939207E+05	0.00015	0.98900
660.0	.348939207E+05	0.	0.	.348939207E+05	0.00015	0.98915
760.0	0.	.348939207E+05	0.	.348939207E+05	0.00015	0.98930
TOTAL	.109905548E+09	.110460662E+09	.927017360E+07	.229636384E+09		

Table D-10.--Population estimates by sex and size group for longhead dab.

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 10211. LONGHEAD DAB

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
1	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
2	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
3	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
4	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
5	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
6	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
7	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
8	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
9	0.225759361E 06	0.000000000E 00	0.000000000E 00	0.225759361E 06	0.00086	0.00086
10	0.851110129E 06	0.000000000E 00	0.000000000E 00	0.851110129E 06	0.00326	0.00413
11	0.730578626E 06	0.360159477E 06	0.000000000E 00	0.109073810E 07	0.00418	0.00831
12	0.261253410E 07	0.717719122E 06	0.000000000E 00	0.333025322E 07	0.01277	0.02108
13	0.354295554E 07	0.663296597E 06	0.000000000E 00	0.440625214E 07	0.01689	0.03798
14	0.615868459E 07	0.413355556E 06	0.000000000E 00	0.657204014E 07	0.02520	0.06319
15	0.813484780E 07	0.894724627E 06	0.000000000E 00	0.902957242E 07	0.03463	0.09782
16	0.111810621E 08	0.149914093E 07	0.000000000E 00	0.126802030E 08	0.04863	0.14645
17	0.122776118E 08	0.432739322E 07	0.000000000E 00	0.166050050E 08	0.06368	0.21014
18	0.110723924E 08	0.487796167E 07	0.000000000E 00	0.159503541E 08	0.06117	0.27131
19	0.133649011E 08	0.799485685E 07	0.000000000E 00	0.213597579E 08	0.08192	0.35323
20	0.124274929E 08	0.108479519E 08	0.000000000E 00	0.232754449E 08	0.08926	0.44250
21	0.126494399E 08	0.142400309E 08	0.000000000E 00	0.268894708E 08	0.10313	0.54563
22	0.771431343E 07	0.103553730E 08	0.000000000E 00	0.180696864E 08	0.06930	0.61494
23	0.546563764E 07	0.126118618E 08	0.000000000E 00	0.180774994E 08	0.06933	0.68427
24	0.385554415E 07	0.127080504E 08	0.000000000E 00	0.165635946E 08	0.06352	0.74780
25	0.190256799E 07	0.127493294E 08	0.000000000E 00	0.146518974E 08	0.05619	0.80399
26	0.243677588E 07	0.143542247E 08	0.000000000E 00	0.167910005E 08	0.06439	0.86839
27	0.277789028E 07	0.115610720E 08	0.000000000E 00	0.143389623E 08	0.05499	0.92338
28	0.239272633E 07	0.792707597E 07	0.000000000E 00	0.103198023E 08	0.03957	0.96296
29	0.208299317E 07	0.405537298E 07	0.000000000E 00	0.613836616E 07	0.02354	0.98651
30	0.111369623E 07	0.163314870E 07	0.000000000E 00	0.274684493E 07	0.01053	0.99704
31	0.445943915E 05	0.679758203E 06	0.000000000E 00	0.724352594E 06	0.00277	0.99982
32	0.000000000E 00	0.457185459E 05	0.000000000E 00	0.457185459E 05	0.00017	1.00000
33	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
34	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
35	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
36	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
37	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
38	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
39	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
40	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
41	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
42	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
43	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
44	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
45	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
46	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
47	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
48	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
49	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
50	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
TOTAL	0.125016109E 09	0.135717576E 09	0.000000000E 00	0.260733686E 09		

Table D-11.--Population estimates by sex and size group for Pacific herring.

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 21110. HERRING

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
1	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
2	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
3	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
4	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
5	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
6	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
7	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
8	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
9	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
10	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
11	0.0000000000E 00	0.0000000000E 00	0.501918584E 06	0.501918584E 06	0.00211	0.00211
12	0.0000000000E 00	0.0000000000E 00	0.219710646E 07	0.219710646E 07	0.00923	0.01134
13	0.0000000000E 00	0.0000000000E 00	0.627910760E 07	0.627910760E 07	0.02639	0.03774
14	0.0000000000E 00	0.0000000000E 00	0.692859722E 07	0.692859722E 07	0.02912	0.06687
15	0.0000000000E 00	0.0000000000E 00	0.263438486E 07	0.263438486E 07	0.01107	0.07795
16	0.0000000000E 00	0.0000000000E 00	0.390921237E 06	0.390921237E 06	0.00164	0.07959
17	0.0000000000E 00	0.0000000000E 00	0.625045451E 07	0.625045451E 07	0.02627	0.10587
18	0.0000000000E 00	0.0000000000E 00	0.332449959E 08	0.332449959E 08	0.13977	0.24564
19	0.0000000000E 00	0.0000000000E 00	0.809983476E 08	0.809983476E 08	0.34053	0.58618
20	0.0000000000E 00	0.0000000000E 00	0.560885243E 08	0.560885243E 08	0.23580	0.82199
21	0.0000000000E 00	0.614101545E 05	0.173951905E 08	0.174566006E 08	0.07339	0.89538
22	0.368460926E 06	0.245640618E 06	0.608387009E 07	0.669797163E 07	0.02815	0.92354
23	0.184230463E 06	0.122820309E 06	0.413466194E 07	0.444171270E 07	0.01867	0.94221
24	0.184230463E 06	0.245640618E 06	0.994913758E 06	0.142478483E 07	0.00599	0.94820
25	0.614101545E 05	0.0000000000E 00	0.226162566E 07	0.232303582E 07	0.00976	0.95797
26	0.0000000000E 00	0.614101545E 05	0.275124224E 07	0.281265239E 07	0.01182	0.96979
27	0.241811682E 06	0.0000000000E 00	0.267259102E 07	0.291440271E 07	0.01225	0.98205
28	0.614101545E 05	0.0000000000E 00	0.142430284E 07	0.148571299E 07	0.00624	0.98829
29	0.0000000000E 00	0.0000000000E 00	0.195101246E 07	0.195101246E 07	0.00820	0.99649
30	0.0000000000E 00	0.0000000000E 00	0.589421300E 06	0.589421300E 06	0.00247	0.99897
31	0.0000000000E 00	0.0000000000E 00	0.243162777E 06	0.243162777E 06	0.00102	0.99999
32	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
33	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
34	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
35	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
36	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
37	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
38	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
39	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
40	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
41	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
42	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
43	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
44	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
45	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
46	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
47	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
48	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
49	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
50	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
TOTAL	0.110155384E 07	0.736921654E 06	0.236016352E 09	0.237854828E 09		

Table D-12.--Population estimates by sex and size group for starry flounder.

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 10220. STARRY FLOUNDER

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
1	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
2	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
3	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
4	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
5	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
6	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
7	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
8	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
9	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
10	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
11	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
12	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
13	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
14	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
15	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
16	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
17	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
18	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
19	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
20	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
21	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
22	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
23	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
24	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
25	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
26	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
27	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
28	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.00000
29	0.000000000E 00	0.541744920E 05	0.000000000E 00	0.541744920E 05	0.00640	0.00640
30	0.451454100E 05	0.000000000E 00	0.000000000E 00	0.451454100E 05	0.00533	0.01174
31	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.01174
32	0.166393082E 06	0.198330602E 06	0.000000000E 00	0.364723685E 06	0.04314	0.05488
33	0.420867995E 06	0.000000000E 00	0.000000000E 00	0.420867995E 06	0.04978	0.10466
34	0.385060869E 06	0.993199019E 05	0.000000000E 00	0.484380770E 06	0.05729	0.16196
35	0.852567807E 06	0.000000000E 00	0.000000000E 00	0.852567807E 06	0.10084	0.26280
36	0.796435516E 06	0.451454100E 05	0.000000000E 00	0.841580926E 06	0.09954	0.36235
37	0.166393082E 06	0.580440985E 05	0.000000000E 00	0.224437181E 06	0.02654	0.38889
38	0.436003076E 06	0.541744920E 05	0.000000000E 00	0.490177568E 06	0.05797	0.44687
39	0.614873209E 06	0.360854078E 06	0.000000000E 00	0.975727287E 06	0.11541	0.56228
40	0.993199018E 05	0.174159698E 06	0.000000000E 00	0.273479600E 06	0.03234	0.59463
41	0.505046075E 06	0.170262689E 06	0.000000000E 00	0.675308765E 06	0.07987	0.67451
42	0.116683521E 06	0.236668728E 06	0.000000000E 00	0.353352249E 06	0.04179	0.71630
43	0.174159698E 06	0.174727619E 06	0.000000000E 00	0.348887318E 06	0.04126	0.75757
44	0.000000000E 00	0.324625313E 06	0.000000000E 00	0.324625313E 06	0.03839	0.79597
45	0.000000000E 00	0.426664793E 06	0.000000000E 00	0.426664793E 06	0.05046	0.84644
46	0.541744920E 05	0.280581491E 06	0.000000000E 00	0.334755983E 06	0.03959	0.88603
47	0.000000000E 00	0.282508682E 06	0.000000000E 00	0.282508682E 06	0.03341	0.91945
48	0.000000000E 00	0.116683521E 06	0.000000000E 00	0.116683521E 06	0.01380	0.93325
49	0.000000000E 00	0.219873029E 06	0.000000000E 00	0.219873029E 06	0.02600	0.95926
50	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.95926

Table D-12 (Cont'd)

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 10220. STARRY FLOUNDER

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
51	0.000000000E 00	0.116088197E 06	0.000000000E 00	0.116088197E 06	0.01373	0.97299
52	0.000000000E 00	0.174159698E 06	0.000000000E 00	0.174159698E 06	0.02060	0.99359
53	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99359
54	0.000000000E 00	0.541744920E 05	0.000000000E 00	0.541744920E 05	0.00640	1.00000
55	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
56	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
57	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
58	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
59	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
60	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
61	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
62	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
63	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
64	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
65	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
66	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
67	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
68	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
69	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
70	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
71	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
72	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
73	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
74	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
75	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
76	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
77	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
78	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
79	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
80	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
81	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
82	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
83	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
84	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
85	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
86	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
87	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
88	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
89	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
90	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
91	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
92	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
93	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
94	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
95	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
96	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
97	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
98	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
99	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
100	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	1.00000
TOTAL	0.483312373E 07	0.362122102E 07	0.000000000E 00	0.845434473E 07		

Table D-13.--Population estimates by sex and size group for Pacific ocean perch.

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 30060. PACIFIC OCEAN PERCH

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
1	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
2	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
3	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
4	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
5	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
6	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
7	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
8	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
9	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
10	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
11	0.0000000000E 00	0.0000000000E 00	0.192482554E 05	0.192482554E 05	0.00097	0.00097
12	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00097
13	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00097
14	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00097
15	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00097
16	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00097
17	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00097
18	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00097
19	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00097
20	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00097
21	0.496790754E 05	0.0000000000E 00	0.0000000000E 00	0.496790754E 05	0.00252	0.00350
22	0.0000000000E 00	0.496342926E 05	0.0000000000E 00	0.496342926E 05	0.00252	0.00603
23	0.744738303E 05	0.0000000000E 00	0.0000000000E 00	0.744738303E 05	0.00379	0.00982
24	0.496342926E 05	0.248395377E 05	0.0000000000E 00	0.744738303E 05	0.00379	0.01361
25	0.248395377E 05	0.248395377E 05	0.0000000000E 00	0.496790754E 05	0.00252	0.01614
26	0.173831981E 06	0.173742415E 06	0.0000000000E 00	0.347574396E 06	0.01769	0.03383
27	0.385981342E 06	0.248216246E 06	0.0000000000E 00	0.634197588E 06	0.03228	0.06612
28	0.620585397E 06	0.353824301E 06	0.0000000000E 00	0.974409698E 06	0.04960	0.11572
29	0.451388751E 06	0.817667958E 06	0.0000000000E 00	0.126905670E 07	0.06460	0.18032
30	0.942437615E 06	0.781169992E 06	0.0000000000E 00	0.172360760E 07	0.08774	0.26806
31	0.106795033E 07	0.116782961E 07	0.0000000000E 00	0.223577995E 07	0.11381	0.38187
32	0.101164615E 07	0.130792050E 07	0.0000000000E 00	0.231956665E 07	0.11807	0.49995
33	0.850946846E 06	0.108059588E 07	0.0000000000E 00	0.193154273E 07	0.09832	0.59828
34	0.881699675E 06	0.937622954E 06	0.0000000000E 00	0.181932262E 07	0.09261	0.69089
35	0.230729057E 06	0.938176916E 06	0.0000000000E 00	0.116890597E 07	0.05950	0.75039
36	0.343971621E 06	0.103083047E 07	0.0000000000E 00	0.137480209E 07	0.06996	0.82038
37	0.159701463E 06	0.643430291E 06	0.0000000000E 00	0.803131754E 06	0.04088	0.86126
38	0.978139749E 05	0.388602688E 06	0.0000000000E 00	0.486416663E 06	0.02476	0.88602
39	0.349093359E 05	0.288496244E 06	0.0000000000E 00	0.323405580E 06	0.01646	0.90248
40	0.149539056E 06	0.399950784E 06	0.0000000000E 00	0.549489841E 06	0.02797	0.93045
41	0.0000000000E 00	0.603498291E 06	0.0000000000E 00	0.603498291E 06	0.03072	0.96118
42	0.289314268E 05	0.402544951E 06	0.0000000000E 00	0.431476378E 06	0.02196	0.98314
43	0.164985046E 05	0.103590611E 06	0.0000000000E 00	0.120089115E 06	0.00611	0.98925
44	0.0000000000E 00	0.128000898E 06	0.0000000000E 00	0.128000898E 06	0.00651	0.99577
45	0.0000000000E 00	0.349093359E 05	0.0000000000E 00	0.349093359E 05	0.00177	0.99755
46	0.0000000000E 00	0.481124284E 05	0.0000000000E 00	0.481124284E 05	0.00244	0.99999
47	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
48	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
49	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
50	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.99999
TOTAL	0.764718925E 07	0.119780471E 08	0.192482554E 05	0.196444846E 08		

Table D-14.--Population estimates by sex and size group for sablefish.

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 20510. SABLEFISH

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
1	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
2	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
3	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
4	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
5	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
6	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
7	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
8	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
9	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
10	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
11	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
12	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
13	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
14	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
15	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
16	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
17	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
18	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
19	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
20	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
21	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
22	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
23	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
24	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
25	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
26	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
27	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
28	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
29	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
30	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
31	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
32	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
33	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.0000000000E 00	0.00000	0.00000
34	0.0000000000E 00	0.0000000000E 00	0.176674692E 05	0.176674692E 05	0.00037	0.00037
35	0.0000000000E 00	0.0000000000E 00	0.353349385E 05	0.353349385E 05	0.00075	0.00112
36	0.621846431E 05	0.0000000000E 00	0.0000000000E 00	0.621846431E 05	0.00132	0.00244
37	0.335681916E 05	0.0000000000E 00	0.115873694E 06	0.149441886E 06	0.00317	0.00562
38	0.163534760E 06	0.279734930E 05	0.424028253E 06	0.615536506E 06	0.01307	0.01870
39	0.0000000000E 00	0.0000000000E 00	0.807103769E 06	0.807103769E 06	0.01714	0.03585
40	0.839204790E 05	0.335681916E 05	0.802791726E 06	0.920280396E 06	0.01955	0.05540
41	0.392445966E 06	0.0000000000E 00	0.173361687E 07	0.212606284E 07	0.04517	0.10057
42	0.777970009E 06	0.335681916E 05	0.340545823E 07	0.421699642E 07	0.08960	0.19017
43	0.961242500E 06	0.559469860E 05	0.386538669E 07	0.488257617E 07	0.10374	0.29392
44	0.175762888E 07	0.0000000000E 00	0.509482557E 07	0.685245445E 07	0.14559	0.43951
45	0.113986829E 07	0.201626907E 05	0.379375349E 07	0.495378447E 07	0.10525	0.54477
46	0.186008305E 07	0.0000000000E 00	0.357841276E 07	0.543849562E 07	0.11555	0.66033
47	0.194673165E 07	0.335681916E 05	0.480265858E 07	0.678295842E 07	0.14412	0.80445
48	0.970458893E 06	0.279734930E 05	0.217890481E 07	0.317733719E 07	0.06751	0.87196
49	0.687794886E 06	0.0000000000E 00	0.148232030E 07	0.217011519E 07	0.04610	0.91807
50	0.593386263E 06	0.0000000000E 00	0.109335608E 07	0.168674235E 07	0.03583	0.95391

Table D-14 (Cont'd)

ESTIMATES OF POPULATION NUMBERS BY SEX AND SIZE GROUP
TOTAL ALL STRATA FOR SPECIES 20510. SABLEFISH

LENGTH(CM)	*** MALES ***	** FEMALES **	** UNSEXED **	*** TOTAL ***	PROPORTION	CUMULATIVE PROPORTION
51	0.323755385E 06	0.186489953E 05	0.135288470E 06	0.477692851E 06	0.01014	0.96406
52	0.452978536E 06	0.000000000E 00	0.692658872E 05	0.522244423E 06	0.01109	0.97515
53	0.137204414E 06	0.000000000E 00	0.926621958E 05	0.229866610E 06	0.00488	0.98004
54	0.987971845E 05	0.000000000E 00	0.209801197E 05	0.119777304E 06	0.00254	0.98258
55	0.493448250E 05	0.256616064E 05	0.000000000E 00	0.750064315E 05	0.00159	0.98418
56	0.705694176E 05	0.282277670E 05	0.000000000E 00	0.987971846E 05	0.00209	0.98628
57	0.350720922E 05	0.000000000E 00	0.463310979E 05	0.814031900E 05	0.00172	0.98800
58	0.179032498E 06	0.000000000E 00	0.000000000E 00	0.179032498E 06	0.00380	0.99181
59	0.282277670E 05	0.000000000E 00	0.000000000E 00	0.282277670E 05	0.00059	0.99241
60	0.862963227E 05	0.000000000E 00	0.000000000E 00	0.862963227E 05	0.00183	0.99424
61	0.115489530E 05	0.000000000E 00	0.000000000E 00	0.115489530E 05	0.00024	0.99449
62	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99449
63	0.230979060E 05	0.000000000E 00	0.000000000E 00	0.230979060E 05	0.00049	0.99498
64	0.461958122E 05	0.256616064E 05	0.000000000E 00	0.718574186E 05	0.00152	0.99651
65	0.115489530E 05	0.000000000E 00	0.641608502E 04	0.179650380E 05	0.00038	0.99689
66	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99689
67	0.115489530E 05	0.230979060E 05	0.000000000E 00	0.346468591E 05	0.00073	0.99762
68	0.000000000E 00	0.282277670E 05	0.641608502E 04	0.346438521E 05	0.00073	0.99836
69	0.000000000E 00	0.000000000E 00	0.641608502E 04	0.641608502E 04	0.00013	0.99850
70	0.000000000E 00	0.230979060E 05	0.641608502E 04	0.295139911E 05	0.00062	0.99912
71	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99912
72	0.000000000E 00	0.230979061E 05	0.000000000E 00	0.230979061E 05	0.00049	0.99961
73	0.000000000E 00	0.000000000E 00	0.641608502E 04	0.641608502E 04	0.00013	0.99975
74	0.000000000E 00	0.115489530E 05	0.000000000E 00	0.115489530E 05	0.00024	0.99999
75	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
76	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
77	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
78	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
79	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
80	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
81	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
82	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
83	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
84	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
85	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
86	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
87	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
88	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
89	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
90	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
91	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
92	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
93	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
94	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
95	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
96	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
97	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
98	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
99	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
100	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.000000000E 00	0.00000	0.99999
TOTAL	0.129960374E 08	0.440031650E 06	0.336281013E 08	0.470641703E 08		

Appendix E

Age-length Keys for Principal Species of Fish

Appendix E presents age-length keys for principal species of fish (sexes combined) for which age data were collected during the 1979 demersal trawl survey.

List of Tables

Table E-1.--Age-length key for walleye pollock.

AGE-LENGTH FREQUENCY

SPECIES 21740 THERAGRA CHALCOGRAMMA
WALLEYE POLLOCK

STRATA 06 03 07 04 01 02 05

LENGTH	AVG AGE	STD. DEV.	FREQUENCY	AGE 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26+
***	*****	*****	*****	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
100	1.00	0.00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	1.00	0.00	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	1.00	0.00	19	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	1.00	0.00	32	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	1.00	0.00	36	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	1.00	0.00	49	0	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	1.00	0.00	53	0	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	1.03	0.18	60	0	58	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	1.20	0.41	43	0	34	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
190	1.26	0.44	38	0	28	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200	1.61	0.48	73	0	28	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210	1.72	0.44	69	0	19	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220	1.77	0.41	59	0	13	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
230	1.76	0.42	64	0	15	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
240	1.92	0.25	56	0	4	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
250	2.05	0.29	56	0	1	51	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
260	2.11	0.32	78	0	0	69	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
270	2.20	0.40	63	0	0	50	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
280	2.39	0.58	63	0	0	41	19	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
290	2.36	0.51	66	0	0	43	22	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300	2.37	0.51	66	0	0	42	23	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
310	2.50	0.56	64	0	0	34	28	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
320	2.69	0.70	71	0	0	30	35	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
330	2.77	0.60	75	0	0	24	44	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
340	3.08	0.68	68	0	0	11	42	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
350	3.42	0.86	61	0	0	4	37	11	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
360	3.64	0.90	59	0	0	1	33	13	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
370	3.64	0.82	68	0	0	0	38	17	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
380	3.85	0.86	71	0	0	0	30	23	16	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
390	3.85	0.93	68	0	0	0	38	22	13	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
400	3.96	0.86	79	0	0	0	25	37	13	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
410	4.28	0.96	75	0	0	0	17	30	18	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
420	4.60	0.88	76	0	0	0	5	34	24	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
430	4.67	0.80	76	0	0	0	2	34	28	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
440	5.00	1.00	87	0	0	0	0	33	29	19	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
450	5.11	1.21	77	0	0	0	0	29	25	14	5	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
460	5.30	1.44	80	0	0	0	0	27	27	14	6	1	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
470	5.75	1.67	76	0	0	0	0	20	21	13	13	2	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table E-1 (Cont'd)

LENGTH	AVG AGE	STD. DEV.	FREQUENCY	AGE 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26+
***	*****	*****	*****	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
480	6.04	1.95	83	0	0	0	0	23	16	17	9	5	7	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
490	6.53	1.74	80	0	0	0	0	4	21	24	13	5	6	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
500	6.81	2.11	77	0	0	0	0	9	12	20	16	2	8	4	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
510	7.51	1.99	87	0	0	0	0	4	8	18	19	12	10	9	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
520	7.33	1.93	83	0	0	0	0	2	8	23	22	9	4	7	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
530	7.35	1.71	78	0	0	0	0	1	7	20	21	9	8	9	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
540	7.50	1.66	68	0	0	0	0	0	1	17	27	9	6	4	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
550	8.08	1.66	69	0	0	0	0	0	1	9	19	20	5	6	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
560	8.07	1.91	56	0	0	0	0	0	4	9	11	10	9	6	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
570	8.33	1.95	74	0	0	0	0	0	2	12	15	11	17	7	4	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0
580	8.02	2.06	47	0	0	0	0	0	2	10	12	5	10	1	4	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
590	8.60	1.51	48	0	0	0	0	0	0	3	8	14	11	6	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
600	8.25	1.39	51	0	0	0	0	0	0	4	15	9	14	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
610	8.45	1.44	46	0	0	0	0	0	0	2	13	10	8	10	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
620	8.61	1.44	42	0	0	0	0	0	0	2	10	7	11	7	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
630	9.46	1.68	41	0	0	0	0	0	0	0	5	6	11	10	5	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0
640	9.00	1.69	29	0	0	0	0	0	0	0	4	11	4	6	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0
650	8.71	1.23	39	0	0	0	0	0	0	0	9	7	11	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
660	9.00	1.04	21	0	0	0	0	0	0	0	2	4	8	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
670	9.26	1.76	23	0	0	0	0	0	0	0	4	5	4	5	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
680	9.45	1.53	20	0	0	0	0	0	0	0	3	3	3	5	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
690	9.60	1.84	15	0	0	0	0	0	0	0	3	0	5	3	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
700	9.69	1.93	13	0	0	0	0	0	0	0	1	3	4	1	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
710	9.70	1.33	10	0	0	0	0	0	0	0	0	2	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
720	10.66	2.17	9	0	0	0	0	0	0	0	0	2	1	2	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0
730	11.66	0.57	3	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
740	11.00	2.82	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
750	12.00	1.41	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
760	11.66	2.08	3	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
780	11.50	0.70	2	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
790	11.00	1.41	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL FREQUENCY			3501	0	393	663	456	404	330	294	293	187	198	145	82	37	11	7	1	0	0	0	0	0	0	0	0	0	0	0
AVERAGE LENGTH			401.7	168.3		342.2		442.0		547.4		583.2		590.5		658.2		540.0		0.0		0.0		0.0		0.0		0.0		
(IN MM.)				0.0	258.7		417.6		494.4		575.9		590.6		611.9		647.1		0.0		0.0		0.0		0.0		0.0		0.0	
LENGTH STD. DEV.			149.14	30.02		40.61		50.15		59.44		65.71		70.79		70.82		0.00		0.00		0.00		0.00		0.00		0.00		
				0.00	40.81		46.44		54.23		60.87		69.15		90.18		69.69		0.00		0.00		0.00		0.00		0.00		0.00	

Table E-2.--Age-length key for yellowfin sole.

AGE-LENGTH FREQUENCY

SPECIES 10210 LIMANDA ASPERA
YELLOWFIN SOLE

STRATA 01 02 06 7 04 05

LENGTH ***	AVG AGE *****	STD. DEV. *****	FREQUENCY *****	AGE 0 ***	1 ***	2 ***	3 ***	4 ***	5 ***	6 ***	7 ***	8 ***	9 ***	10 ***	11 ***	12 ***	13 ***	14 ***	15 ***	16 ***	17 ***	18 ***	19 ***	20 ***	21 ***	22 ***	23 ***	24 ***	25 ***	26+ ***
80	2.50	0.70	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90	2.61	0.65	13	0	0	6	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100	2.60	0.65	33	0	0	16	14	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	2.95	0.63	41	0	0	8	28	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	3.29	0.88	47	0	0	3	33	8	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	3.24	0.64	45	0	0	3	30	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	3.97	0.81	45	0	0	1	11	22	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	4.59	0.82	47	0	0	0	2	21	20	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	5.00	0.95	45	0	0	0	0	14	22	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	5.18	0.82	50	0	0	0	0	6	33	9	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	5.73	1.00	57	0	0	0	0	1	28	19	4	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
190	5.86	1.13	61	0	0	0	0	0	30	18	7	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200	6.58	1.36	60	0	0	0	0	1	12	21	11	9	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210	7.53	1.52	66	0	0	0	0	1	1	21	8	17	12	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220	8.08	1.61	62	0	0	0	0	0	3	10	10	8	23	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
230	8.34	1.55	72	0	0	0	0	0	0	9	14	15	19	11	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
240	8.70	1.47	68	0	0	0	0	0	0	7	5	19	16	13	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
250	9.17	1.85	68	0	0	0	0	0	0	6	7	12	14	13	8	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0
260	10.07	1.97	67	0	0	0	0	0	1	2	2	7	15	13	12	8	5	1	0	1	0	0	0	0	0	0	0	0	0	0
270	10.50	1.90	73	0	0	0	0	0	0	0	2	8	12	20	11	7	10	1	1	0	1	0	0	0	0	0	0	0	0	0
280	10.80	1.58	65	0	0	0	0	0	0	0	1	3	10	14	15	13	7	1	1	0	0	0	0	0	0	0	0	0	0	0
290	11.76	2.38	52	0	0	0	0	0	0	0	1	2	9	4	9	6	10	2	6	2	1	0	0	0	0	0	0	0	0	0
300	11.86	2.17	50	0	0	0	0	0	0	0	0	1	8	5	9	7	10	5	2	2	0	1	0	0	0	0	0	0	0	0
310	11.67	1.96	49	0	0	0	0	0	0	0	0	1	4	11	10	7	8	2	4	2	0	0	0	0	0	0	0	0	0	0
320	12.97	2.07	38	0	0	0	0	0	0	0	0	0	1	1	9	5	10	5	1	3	2	1	0	0	0	0	0	0	0	0
330	12.93	2.24	30	0	0	0	0	0	0	0	0	1	0	3	2	9	5	3	2	2	3	0	0	0	0	0	0	0	0	0
340	12.92	2.03	25	0	0	0	0	0	0	0	0	0	1	1	3	5	9	1	3	1	0	0	1	0	0	0	0	0	0	0
350	13.57	2.33	21	0	0	0	0	0	0	0	0	0	1	1	0	6	3	4	1	3	0	2	0	0	0	0	0	0	0	0
360	13.50	1.97	12	0	0	0	0	0	0	0	0	0	0	1	0	4	0	4	1	1	1	0	0	0	0	0	0	0	0	0
370	14.28	1.11	7	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	1	0	0	0	0	0	0	0	0	0	0
380	15.25	4.03	4	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0
390	14.00	0.00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
400	17.00	2.82	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
410	17.50	0.70	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
430	17.00	0.00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
450	19.00	0.00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
TOTAL FREQUENCY			1394	0	0	38	125	92	164	131	79	112	152	123	100	86	85	33	26	18	11	5	3	0	1	0	0	0	0	0
AVERAGE LENGTH (IN MM.)			225.1	0.0	0.0	105.0	118.4	143.2	172.5	200.8	215.2	233.2	248.9	264.6	280.6	299.2	301.5	327.3	321.5	322.2	347.5	346.0	396.7	0.0	380.0	0.0	0.0	0.0	0.0	0.0
LENGTH STD. DEV.			70.58	0.00	0.00	13.10	13.99	20.26	20.76	26.01	31.12	29.65	32.64	33.17	29.08	35.98	31.86	33.28	34.37	28.39	54.23	41.59	55.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table E-3.--Age-length key for rock sole.

AGE-LENGTH FREQUENCY

SPECIES 10260 LEPIDOPSETTA BILINEATA
ROCK SOLE

STRATA 01 06 04

LENGTH ***	AVG AGE *****	STD. DEV. *****	FREQUENCY *****	AGE 0 ***	1 ***	2 ***	3 ***	4 ***	5 ***	6 ***	7 ***	8 ***	9 ***	10 ***	11 ***	12 ***	13 ***	14 ***	15 ***	16 ***	17 ***	18 ***	19 ***	20 ***	21 ***	22 ***	23 ***	24 ***	25 ***	26+ ***
160	3.50	0.70	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	3.88	0.33	9	0	0	0	1	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	3.63	0.50	11	0	0	0	4	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
190	4.20	0.44	5	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200	4.62	0.74	8	0	0	0	0	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
210	5.50	0.84	10	0	0	0	0	2	1	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220	5.35	0.74	14	0	0	0	0	2	5	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
230	5.88	1.31	17	0	0	0	0	3	2	9	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
240	5.94	0.99	18	0	0	0	0	1	5	7	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
250	7.40	1.14	20	0	0	0	0	0	0	5	6	6	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
260	8.47	1.47	21	0	0	0	0	0	1	2	1	4	9	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
270	8.04	1.64	22	0	0	0	0	1	0	1	7	4	6	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
280	9.52	1.59	23	0	0	0	0	0	0	1	0	6	4	6	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
290	9.48	1.41	25	0	0	0	0	0	0	0	3	3	6	6	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
300	10.00	1.59	19	0	0	0	0	0	0	0	0	3	7	2	2	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0
310	10.00	1.92	22	0	0	0	0	0	0	0	1	4	6	4	1	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0
320	10.08	1.64	23	0	0	0	0	0	0	0	1	1	8	6	2	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0
330	10.37	1.49	24	0	0	0	0	0	0	0	0	2	6	6	3	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0
340	10.20	1.93	15	0	0	0	0	0	0	0	0	2	6	2	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0
350	10.60	1.40	15	0	0	0	0	0	0	0	0	0	3	7	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0
360	10.46	1.94	13	0	0	0	0	0	0	0	0	0	6	3	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0
370	12.00	2.10	15	0	0	0	0	0	0	0	0	0	2	3	1	2	3	3	0	1	0	0	0	0	0	0	0	0	0	0
380	12.77	1.30	9	0	0	0	0	0	0	0	0	0	0	0	2	1	4	1	1	0	0	0	0	0	0	0	0	0	0	0
390	11.81	1.83	11	0	0	0	0	0	0	0	0	0	2	1	1	2	3	2	0	0	0	0	0	0	0	0	0	0	0	0
400	12.11	1.76	9	0	0	0	0	0	0	0	0	0	1	1	0	3	3	0	1	0	0	0	0	0	0	0	0	0	0	0
410	12.00	1.15	10	0	0	0	0	0	0	0	0	0	0	2	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0
420	13.50	1.08	10	0	0	0	0	0	0	0	0	0	0	0	0	2	3	3	2	0	0	0	0	0	0	0	0	0	0	0
430	13.60	1.34	10	0	0	0	0	0	0	0	0	0	0	0	1	1	2	3	3	0	0	0	0	0	0	0	0	0	0	0
440	13.88	1.05	9	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	3	0	0	0	0	0	0	0	0	0	0	0
450	14.12	1.35	8	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	1	0	1	0	0	0	0	0	0	0	0	0
460	13.66	0.70	9	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	1	0	0	0	0	0	0	0	0	0	0	0
470	15.25	1.70	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0
480	13.00	1.41	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
490	14.00	0.00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL FREQUENCY			443	0	0	0	6	33	18	40	24	37	75	55	26	39	44	29	13	2	2	0	0	0	0	0	0	0	0	0
AVERAGE LENGTH (IN MM.)			309.7	0.0	0.0	0.0	175.0	193.9	223.3	232.0	264.2	282.2	309.6	321.1	319.6	356.4	391.4	413.4	431.5	420.0	460.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LENGTH STD. DEV.			76.26	0.00	0.00	0.00	8.36	25.60	18.47	18.14	23.01	28.97	38.35	39.51	42.56	51.52	49.49	47.97	23.75	70.71	14.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix F

Estimated Age Composition for Principal Species of Fish

Appendix F presents estimates of the number of individuals at each age over the entire survey area.

Estimated numbers listed as "below minimum key length", "above maximum key length" and "between key lengths" resulted from population data with lengths not covered by the age-length key.

List of Tables

Table F-1.--Population estimates by age for walleye pollock.

SUMMARY OF ESTIMATED AGE COMPOSITION

SPECIES 21740 THERAGRA CHALCOGRAMMA
WALLEYE POLLOCK

POPULATION ESTIMATE SPECIES = 21740

POPULATION ESTIMATE SEX= 4=ALL

STRATA 06 03 07 04 01 02 05

POPULATION ESTIMATE STRATUM= 999

AGE CLASS	NUMBER	PROPORTION	CUMULATIVE NUMBER	CUMULATIVE PROPORTION	MEAN LENGTH	STD. DEV. OF LENGTH
BELOW MINIMUM KEY LENGTH	166704864.	0.008826	166704864.	0.008826	84.40	6.92
0	0.	0.000000	166704864.	0.008826	0.00	0.00
1	8870653952.	0.469692	9037357056.	0.478519	153.59	25.84
2	5109500928.	0.270543	14146856960.	0.749062	251.85	38.76
3	2137524224.	0.113179	16284381184.	0.862242	329.90	41.02
4	1048476416.	0.055515	17332854784.	0.917757	397.70	46.84
5	696201088.	0.036863	18029051904.	0.954621	416.95	45.30
6	350203392.	0.018542	18379251712.	0.973163	459.34	52.52
7	191753440.	0.010153	18571001856.	0.983317	512.72	58.56
8	92767488.	0.004911	18663768064.	0.988228	545.58	63.25
9	97881360.	0.005182	18761646080.	0.993411	547.04	67.41
10	65110328.	0.003447	18826756096.	0.996858	554.75	67.85
11	37353344.	0.001977	18864107520.	0.998836	560.06	65.61
12	14829728.	0.000785	18878935040.	0.999621	572.68	77.06
13	3942448.	0.000208	18882875392.	0.999830	644.28	72.41
14	2014662.	0.000106	18884886528.	0.999937	621.22	54.22
15	501984.	0.000026	18885386240.	0.999963	540.00	0.33
ABOVE MAXIMUM KEY LENGTH	106800.	0.000005	18885492736.	0.999969	837.27	64.82
BETWEEN KEY LENGTHS	645074.	0.000034	18886135808.	1.000003	770.00	0.34
T O T A L	18886090752.	1.000000	18886090752.	1.000000	238.76	108.46

Table F-2.--Population estimates by age for yellowfin sole.

SUMMARY OF ESTIMATED AGE COMPOSITION

SPECIES 10210 LIMANDA ASPERA
YELLOWFIN SOLE

POPULATION ESTIMATE SPECIES = 10210

POPULATION ESTIMATE SEX= 4=ALL

STRATA 01 02 06 7 04 05

POPULATION ESTIMATE STRATUM= 999

AGE CLASS	NUMBER	PROPORTION	CUMULATIVE NUMBER	CUMULATIVE PROPORTION	MEAN LENGTH	STD. DEV. OF LENGTH
BELOW MINIMUM KEY LENGTH	187924.	0.000015	187924.	0.000015	70.00	0.02
0	0.	0.000000	187924.	0.000015	0.00	0.00
1	0.	0.000000	187924.	0.000015	0.00	0.00
2	51447512.	0.004287	51635432.	0.004303	109.62	17.95
3	277441536.	0.023120	329076928.	0.027424	124.21	13.60
4	406220032.	0.033852	735296896.	0.061276	151.97	19.08
5	1172397824.	0.097703	1907694592.	0.158979	178.14	20.88
6	1340341760.	0.111698	3248036352.	0.270678	208.83	25.60
7	930651648.	0.077556	4178688000.	0.348235	223.12	26.96
8	1460274944.	0.121693	5638962176.	0.469929	235.83	24.99
9	1977500416.	0.164797	7616461824.	0.634726	245.77	26.54
10	1510535424.	0.125882	9126995968.	0.760608	256.40	24.91
11	1088951808.	0.090749	10215946240.	0.851357	268.15	23.62
12	709841920.	0.059155	10925787136.	0.910513	275.91	25.94
13	653067264.	0.054424	11578853376.	0.964937	280.84	24.25
14	144511040.	0.012042	11723364352.	0.976980	299.52	28.42
15	139828032.	0.011652	11863191552.	0.988633	296.93	20.58
16	81946736.	0.006829	11945138176.	0.995462	297.92	26.13
17	38257008.	0.003188	11983394816.	0.998650	298.79	29.58
18	12587204.	0.001048	11995981824.	0.999699	316.68	25.25
19	1973019.	0.000164	11997954048.	0.999863	357.03	27.05
20	0.	0.000000	11997954048.	0.999863	0.00	0.00
21	577958.	0.000048	11998531584.	0.999911	380.00	0.16
ABOVE MAXIMUM KEY LENGTH	405230.	0.000033	11998935040.	0.999945	518.66	3.40
BETWEEN KEY LENGTHS	660403.	0.000055	11999594496.	1.000000	419.99	0.24
T O T A L	11999594496.	1.000000	11999594496.	1.000000	234.45	46.19

Table F-3.--Population estimates by age for Pacific cod.

Age class	Number	Proportion	Cumulative number	Cumulative proportion	Mean length	Standard dev. of length
0	-	-	-	-	-	-
1	190,611,205	0.12316	190,611,205	0.12316	227.57	32.92
2	1,114,571,007	0.72016	1,305,182,212	0.84332	339.18	36.45
3	192,267,213	0.12423	1,497,449,425	0.96755	417.65	34.50
4	12,923,056	0.00835	1,510,372,481	0.97590	499.45	25.05
5	18,417,289	0.01190	1,528,789,770	0.98780	580.49	34.96
6	2,553,658	0.00165	1,531,343,428	0.98945	614.46	9.88
7	11,592,058	0.00749	1,542,935,486	0.99694	658.37	21.53
8	2,708,425	0.00175	1,545,643,911	0.99869	724.14	10.00
9	371,441	0.00024	1,546,015,352	0.99893	751.20	37.40
≥10	1,656,008	0.00107	1,547,671,360	1.00000	830.25	33.00
Total	1,547,671,360	1.00000	1,547,671,360	1.00000	343.54	-

Table F-4.--Population estimates by age for rock sole.

SUMMARY OF ESTIMATED AGE COMPOSITION

SPECIES 10260 LEPIDOPSETTA BILINEATA
ROCK SOLE

POPULATION ESTIMATE SPECIES = 10260

POPULATION ESTIMATE SEX= 4=ALL

POPULATION ESTIMATE STRATUM= 999

STRATA 01 06 04

AGE CLASS	NUMBER	PROPORTION	CUMULATIVE NUMBER	CUMULATIVE PROPORTION	MEAN LENGTH	STD. DEV. OF LENGTH
BELOW MINIMUM KEY LENGTH	86552592.	0.103621	86552592.	0.103621	129.78	14.78
0	0.	0.000000	86552592.	0.103621	0.00	0.00
1	0.	0.000000	86552592.	0.103621	0.00	0.00
2	0.	0.000000	86552592.	0.103621	0.00	0.00
3	32983412.	0.039488	119536000.	0.143109	173.41	8.65
4	175436000.	0.210034	294971968.	0.353143	188.56	18.99
5	62761824.	0.075139	357733760.	0.428283	213.14	19.51
6	103344704.	0.123725	461078464.	0.552008	227.48	18.39
7	45814896.	0.054850	506893312.	0.606858	260.08	19.26
8	60087712.	0.071937	566980992.	0.678796	273.88	25.95
9	98117136.	0.117467	665098112.	0.796263	296.20	37.24
10	62849872.	0.075244	727947904.	0.871507	307.27	37.53
11	29996448.	0.035912	757944320.	0.907419	307.94	36.57
12	31915080.	0.038209	789859328.	0.945629	334.15	44.10
13	26943348.	0.032256	816802560.	0.977885	364.09	44.59
14	12871784.	0.015410	829674240.	0.993296	381.68	44.31
15	4319401.	0.005171	833993600.	0.998467	417.00	26.91
16	713761.	0.000854	834707328.	0.999321	391.33	40.96
17	288405.	0.000345	834995712.	0.999666	460.56	9.98
ABOVE MAXIMUM KEY LENGTH	279318.	0.000334	835275008.	1.000001	530.97	42.97
BETWEEN KEY LENGTHS	0.	0.000000	835275008.	1.000001	0.00	0.00
T O T A L	835274112.	1.000000	835274112.	1.000000	240.22	71.75