

Canadian Data Report of
Fisheries and Aquatic Sciences 1010

1997

R/V W. E. RICKER AND *F/V STEADFAST* TRAWL SURVEY
OF HECATE STRAIT, MAY 30 - JUNE 13, 1996

by

G. D. Workman, J. Fargo, B. Beall, and E. Hildebrandt

Fisheries and Oceans Canada
Science Branch, Pacific Region
Pacific Biological Station
Nanaimo, British Columbia
V9R 5K6

© Minister of Supply and Services Canada 1997

Cat. No. Fs 97-13/1010E ISSN 0706-6465

Correct citation for this publication:

Workman, G. D., J. Fargo, B. Beall, and E. Hildebrandt. 1997. *RV W. E. RICKER and F/V STEADFAST* trawl survey of Hecate Strait, May 30 - June 13, 1996. Can. Data Rep. Fish. Aquat. Sci. 1010: 155 p.

trawl

ABSTRACT

Workman G. D., J. Fargo, B. Beall, and E. Hildebrandt. 1997. RV W. E. RICKER and FV STEADFAST trawl survey of Hecate Strait, May 30 - June 13, 1996. Can. Data Rep. Fish. Aquat. Sci. 1010: 155 p.

During the period May 30 to June 13, 1996, the RV W.E. RICKER (WER) and the FV STEADFAST (STD) conducted a two vessel trawl survey of groundfish species in Hecate Strait. Previous surveys have been conducted in May-June 1984, February 1986, May-June 1987, 1989, June 1991 and May-June 1993, 1995. The primary objective of the survey was to collect catch composition and biological data on all species occupying the shelf area (10 to 80 fm) of Hecate Strait. The secondary objective of the current survey was to collect catch data from both a research and a commercial vessel for comparison. The WER completed 106 hauls during the survey; the STD completed 53 hauls including 48 replicates. The WER's catch of 46,439 kg included 52 species of fish. Flatfish accounted for 59.3 % of the catch, roundfish 19.7 %, selachii 19.4 %, rockfish 1.4 % and invertebrates 0.3 %. The STD caught 28,670 kg comprising 36 species. Flatfish accounted for 47 %, selachii 35 %, roundfish 15 %, rockfish 1.4 % and invertebrates 1.0%. Length frequency data were collected from 1,401 Pacific cod, 11,049 rock sole, 15,390 English sole, 3,737 Dover sole and 658 Pacific halibut. Otoliths were collected from 386 rock sole, 148 English sole, and 123 Dover sole. In addition, 97 CTD casts were completed during the survey. The current report summarizes the bridge log data, catch data, biological data and oceanographic data collected.

RÉSUMÉ

Workman G. D., J. Fargo, B. Beall, and E. Hildebrandt. 1997. RV W. E. RICKER and FV STEADFAST trawl survey of Hecate Strait, May 30 - June 13, 1996. Can. Data Rep. Fish. Aquat. Sci. 1010: 155 p.

Dans la période du 30 mai au 13 juin 1996, le navire de recherche W.E. RICKER (WER) et le bateau de pêche STEADFAST (STD) ont effectué un relevé de chalutage en double portant sur les espèces de poisson de fond du détroit d'Hécate. Des campagnes avaient déjà eu lieu en mai-juin 1984, février 1986, mai-juin 1987 et 1989, juin 1991 et mai-juin 1993 et 1995. Le premier objectif du relevé était de recueillir des données biologiques et d'étudier la composition des prises pour toutes les espèces qui occupent la région du plateau continental (10 à 80 brasses) dans le détroit. L'objectif secondaire était de recueillir des données sur les prises d'un bateau de pêche commerciale et d'un bâtiment de recherche pour les comparer. Le WER a réalisé 106 traits pendant le relevé, et le STD 53 traits, dont 48 de répétition. Dans les 46 439 kg des prises du WER, on comptait 52 espèces. Les poissons plats constituaient 59,3 % des prises, les poissons ronds 19,7 %, les sélaciens 19,4 %, les sébastes 1,4 % et les invertébrés 0,3 %. Le STD a ramené des prises de 28 670 kg, constituées de 36 espèces. Les poissons plats en représentaient 47 %, les sélaciens 35 %, les poissons ronds 15 %, les sébastes 1,4 % et les invertébrés 1,0 %. Des données sur la fréquence des longueurs ont été recueillies à partir de 1 401 morues pacifiques, 11 049 soles pacifiques, 15 390 carlottins anglais, 3 737 limandes-soles et 658 flétans pacifiques. Les otolithes ont été prélevés sur 386 soles pacifiques, 148 carlottins anglais et 123 limandes-soles. De plus, on a effectué 97 largages de sondes CTD pendant la campagne. Le rapport résume les données du journal de passerelle, l'information sur les prises et les données biologiques et océanographiques recueillies.

INTRODUCTION

Between May 30 and June 13, 1996 we conducted a bottom trawl survey of Hecate Strait. This was the eighth in a series of surveys initiated in the summer of 1984. Previous summer surveys were conducted in 1984, 1987, 1989, 1991, 1993 and 1995 (Fargo *et al.* 1984, 1988; Westrheim *et al.* 1984; Antonsen *et al.* 1990; Wilson *et al.* 1991; Hand *et al.* 1994; Workman *et al.* 1996). A winter survey in 1986 was conducted to investigate seasonal changes in species distributions and abundances (Fargo and Davenport 1986; Foucher *et al.* 1988). Analyses of these data have been summarized by Tyler (1989), Fargo *et al.* (1990) and Fargo and Tyler (1991, 1992). Information from the surveys is used for stock assessment purposes at the Pacific Biological Station.

Objectives of the 1996 survey included:

- Increasing the number of hauls in selected strata to reduce the variance in the CPUE index.
- Obtaining CPUE data for comparison between a commercial vessel and the research vessel.
- Providing more comprehensive data for stock assessment.

This report presents the results of the 1996 survey, including summaries of catch, biological and oceanographic data. A detailed comparison of catch rates between the research vessel W.E. RICKER and the commercial trawler STEADFAST will be the subject of a subsequent report.

METHODS

VESSELS AND GEAR

The R/V W.E. RICKER (WER) is a 2500 hp, 57.3 m steel stern trawler which has been used for the survey since 1991. The vessel layout includes three net drums and two main winches with approximately 600 fms of 1 1/8 in warp cable. The net used by WER for the survey was a Yankee 36 trawl of heavy construction (Fig. 1). For a full description see Workman *et al.* (1996).

The F/V STEADFAST (STD) is a 380 hp, 20 m steel stern trawler that was chartered to replicate hauls completed by the WER during the first half of the survey. The information from replicate hauls will be used to compare the performance of the two vessels. The net used by the STD was a Safari 5 with 152 mm (6 in) mesh body

and codend (Fig. 2). The headrope was 21.9 m (72 ft) and the footrope was 28.8 m (93 ft). There were 40 203 mm (8 in) diameter floats attached to the headrope. The bosom section of the groundline consisted of 30 cm (12 in) roller gear. The wing sections consisted of 30 cm (12 in) rock hopper disks. The sweeps and bridles were 27.3 m (90 ft) and an additional set of bridles ran off the main bridles, one off the bottom and two off the top. These sections were 9.1 m (30 ft) long. The doors used by the STD were 2.34 m (92 in) Thyboron Type 2.

SURVEY DESIGN

The survey design has been described in Westrheim *et al.* (1984) and Fargo *et al.* (1984). Briefly, the survey area encompasses Hecate Strait and part of Dixon Entrance, from 52° 30' N to 54° 30' N and from 130° 5' W to 131° 45' W. The survey covers a depth range of 10 to 80 fm (Fig. 3). The area has been divided into 10 nmi² blocks. Within each block, each 10 fm depth interval is a sampling strata (Fargo and Tyler 1991). The objective of the survey is to make one haul in each sampling strata in each block.

FISHING OPERATIONS

Fishing occurred during daylight hours only. Hauls were 30 min in duration, measured from the time the warp drums were locked to the time net retrieval began. For replicate hauls, the STD waited until the WER had locked its warps and then set off the port or starboard stern quarters, usually within 1/8 nm of the WER.

CATCH PROCESSING

Once the net was retrieved by the WER, the codend was dumped into a hopper below deck. The catch moved along a conveyer system and was sorted by species into baskets of approximately 50 kg capacity. Baskets were weighed to the nearest kilogram using a MAREL 2200 digital scale with a 60 kg load cell. On the STD, the net was hauled back and the codend was dumped into a checker on deck. Then the catch was sorted by species into 50 kg baskets. A platform balance was used for weighing the sorted catch.

BIOLOGICAL DATA

Biological data on length, sex, maturity, weight and age were collected for Pacific cod, rock sole, Dover sole and English sole. Large catches of individual species were sub-sampled for biological data by randomly selecting three 50 kg baskets (Westrheim, 1967). Fish sampled for length, sex, maturity and double sagittal otoliths were measured to the nearest millimeter and weighed to the nearest gram using a MAREL 2200 digital top loading scale with a capacity of 6 kg. Otoliths were extracted, cleaned and stored in a 50:50 solution of glycerin/water with 1 g thymol added per litre. Maturities were determined macroscopically using the criteria in Appendix Table 1.

Length-weight data were collected by sex for rock sole, Dover sole and English sole. Length-weight data (sexes combined) were also collected for Pacific halibut. The data were fitted to an allometric model where weight (W) varies as a power of length (L):

$$W=a(L^b)$$

A nonlinear least-squares minimization procedure (SAS procedure NLIN, SAS/STAT User's Guide, Volume 2) was used to estimate parameters a and b and their associated 95 % confidence intervals.

OCEANOGRAPHIC DATA

Following each haul, a CTD cast was made using a Guildline CTD, series 8770, model 87107. At each station the CTD probe was lowered to within 10-15 m of the bottom before being retrieved. The CTD recorded measurements of temperature and conductivity at 0.1 m intervals during the descent of the probe. Cast procedures are summarized by Shaw (1994). All CTD data processing was done using IOSSHELL (Pearson, 1994). Several problems arose during the initial conversion of the raw acquisition data. All the cast files lacked calibration and channel data in the headers. In addition, five casts (14,23,24,25 and 37) had to be corrected for a surface offset of 2.1 to -3.0 dBars. Additional processing was required to correct corrupted salinity data in casts 78 and 94. The corrupt values were replaced with linearly interpolated values. Once these corrections were made the files were processed using the following functions in IOSSHELL: CLEAN, CALIBRATE, DESPIKE, DELETE, CLEAN, BOXCAR, BINAVE. During the final processing step the data were averaged into 1 m bins for plotting.

RESULTS

FISHING OPERATIONS

The WER completed 106 hauls during the survey (Fig. 4) of which 105 were usable. Of the usable hauls, 5 were new trawl sites, 4 of which were in McIntyre Bay (M1-M4; Fig. 4). Haul 90 was deemed unusable as a result of net damage. The WER replicated station J402 four times, I302 three times, E402, B302 and C301 twice and B201, B301, D303, F202, F302, F303, H201, H304, K403 and K404 once (Table 1). The STD completed 53 hauls (Fig. 5), of which haul 11 was deemed unusable due to gear hang-up. The STD replicated stations C301 and E402 twice and stations B302, D303, H304 and J402 once. Haul 7 was a new site and hauls 48-51 were in McIntyre Bay in Dixon Entrance (Table 2). The latter hauls were added in order to collect biological data for the rock sole population in this area. One haul was made by each vessel in each of four depth strata, 10-19 fm, 20-29 fm, 30-39 fm and 40-49 fm.

CATCH DATA

The WER caught a total of 46,439 kg in 105 hauls, comprised of 52 species (Table 3). Flatfish accounted for 27,553 kg (59.3 %), roundfish 9,127 kg (19.7 %), rockfish 646 kg (1.4 %), selachii 8,993 kg (19.4 %) and invertebrates 120 kg (0.3 %). The dominant species by weight were arrowtooth flounder, English sole, spotted ratfish, rock sole, walleye pollock, Pacific halibut, spiny dogfish and rex sole. These species accounted for 34,852 kg or 75% of the total catch. Records of the catch by haul along with the bridge log information are presented in Appendix Table 2.

The STD completed 52 hauls catching a total of 28,670 kg comprised of 36 species (Table 4). Flatfish accounted for 13,759 kg (47 %), selachii 10,002 kg (35 %), roundfish 4,318 kg (15 %), rockfish 400 kg (1.4 %), and invertebrates 191 kg (1.0 %). The dominant species by weight were spotted ratfish, arrowtooth flounder, English sole, lingcod, skates and Pacific halibut. These species accounted for 20,773 kg or 72 % of the total catch. Records of the catch of the STD by haul along with the bridge log information are presented in Appendix Table 3.

A detailed analysis comparing catch rates between the WER and the STD will be presented in Fargo and Workman (in prep.).

BIOLOGICAL DATA

A total of 25,188 length measurements was taken aboard the WER (Table 5). In addition, length, sex, weight and otolith samples were collected for rock sole, English sole, Dover sole and quillback rockfish. Aboard the STD, 7,050 length measurements were taken (Table 6). The total numbers of fish caught in sub-sampled hauls were estimated using the ratio of the numbers sampled to the weight sampled (Hand *et al.* 1994) (Tables 7 and 8). Summary statistics for the length data for each vessel are presented in Tables 9 and 10. Length frequency data for Pacific cod, rock sole, Dover sole, English sole and Pacific halibut sampled aboard the WER and the STD are presented in Appendix Tables 4 to 13 and illustrated in Figs. 6 to 10. Length-sex-maturity-otolith data for rock sole, Dover sole, English sole and quillback rockfish sampled aboard the WER are presented in Appendix Tables 14 to 17.

Statistical summaries of the length-weight relationships for selected species are presented in Table 11 and Figs. 11-14. Rock sole females weighed more than males over the entire size range. Small dover sole females weighed more than males, but after a length of 30 cm males weighed more. However, the latter observation depends on only four measurements. English sole males weighed more than females until a length of 27 cm when females surpassed males in weight.

Rock sole sampled from McIntyre Bay (MB) had different biological characteristics than those encountered in Hecate Strait (HS) (Appendix Table 14). In MB, 93 % of the rock sole sampled were females compared to 53 % in HS. Mature fish comprised 95 % of the samples in MB compared to 73 % in HS. Of the mature fish, 81 % were in a resting stage of maturity in MB compared to 54 % in HS. Mean length and mean weight of fish sampled in MB were 402 mm and 929 g compared to 319 mm and 517 g for HS. Differences in the latter were the result of differences in the sex ratio between the two areas.

Muscle and liver samples were obtained from 30 specimens each of rock sole, Dover sole, English sole and Pacific halibut. These samples will be used for electrophoretic work on species/stock identification.

OCEANOGRAPHIC DATA

A total of 97 CTD casts was made during the survey. The vertical profile for each cast is presented in Appendix Fig. 1. The data are archived at the Institute of Ocean Sciences in Sydney, B.C. (CTD data archive reference number 9617). Surface temperatures ranged from 9.05-11.25 °C (Fig. 15) while bottom temperature ranged from 6.25-11.20 °C (Fig. 16). Surface temperatures were highest on Dogfish Bank and lowest in Dixon Entrance. The water column was isothermal at four stations (C201,

H201, G301, and J401). The thermocline generally occurred at around 20 m. Surface salinities ranged from 29.85-31.71 ppt (Fig. 17) while bottom salinities ranged from 31.25-33.54 ppt (Fig. 18). Salinities were highest in Dixon Entrance and southern Hecate Strait and lowest on Dogfish Bank. Both surface and bottom temperatures were lower in 1996 than in 1995 (Workman *et al.* 1996). This corresponds with a reduction in the El Nino event for 1995.

ACKNOWLEDGMENTS

The Canadian Groundfish Research and Conservation Society provided funding for the charter vessel during the survey and we are grateful for this assistance. We would also like to acknowledge the assistance of Captain Suraj Gulati, fishing master Brian West and the crew of the F/V W.E. RICKER and Captain Kelvin Mark and the crew of the F/V STEADFAST. Archipelago Marine Research provided personnel (Marcus Bell and Jerry Clopper) for sampling and catch processing aboard the F/V STEADFAST. Brenda Waddel thoroughly reviewed the manuscript, providing valuable editorial input.

REFERENCES

- Antonsen, B.L., R.P. Foucher, J. Fargo, G.E. Gillespie, T. Johansson, A.V. Tyler, and H.L. Wayne. 1990. F/V EASTWARD HO assemblage survey of Hecate Strait, May 23 - June 13, 1989. *Can. Data Rep. Fish. Aquat. Sci.* 783: 142 p.
- Fargo, J., and D. Davenport. 1986. FIV DOUBLE DECKER species assemblage survey of Hecate Strait, Jan. 30 - Feb. 19, 1986. *Can. Data Rep. Fish. Aquat. Sci.* 603: 106 p.
- Fargo, J., R.P. Foucher, M.W. Saunders, A.V. Tyler, and P.L. Summers. 1988. FIV EASTWARD HO assemblage survey of Hecate Strait, May 27-June 16, 1987. *Can. Data Rep. Fish. Aquat. Sci.* 699: 172 p.
- Fargo, J., A.V. Tyler, J. Cooper, S.C. Shields, and S. Stebbins. 1984. ARCTIC OCEAN assemblage survey of Hecate Strait, May 28-June 17, 1984. *Can. Data Rep. Fish. Aquat. Sci.* 491: 108 p.
- Fargo, J., A.V. Tyler, and R.P. Foucher. 1990. Distribution of demersal fishes in Hecate Strait, British Columbia, based on systematic trawl surveys conducted from 1984-1987. *Can. Tech. Rep. Fish. Aquat. Sci.* 1745: 115 p.

- Fargo, J., and A.V. Tyler. 1991. Sustainability of flatfish dominated fish assemblages in Hecate Strait, British Columbia, Canada. *Neth. J. Sea Research*. 27 (3/4): 237 -253.
- Fargo, J., and A.V. Tyler. 1992. Statistical testing of research trawl data with implications for survey design. *Neth. J. Sea Research*. 29(1-3): 97-108.
- Fargo, J., and G.D. Workman. (in prep). A catch comparison between research and commercial vessels during a trawl survey of Hecate Strait, May 30 - June 13, 1996. *Can. Manuscr Rep. Fish. Aquat. Sci.* xxxx:
- Foucher, R.P., A.V. Tyler, M.W. Saunders, and D.H. Janusson. 1988. FRV G.B. REED assemblage survey of Hecate Strait, January 27-February 18, 1986. *Can. Data Rep. Fish. Aquat. Sci.* 708: 180 p.
- Hand, C.M., B.D. Robinson, J. Fargo, G.D. Workman, and M. Stocker. 1994. R/V W.E. RICKER assemblage survey of Hecate Strait, May 23 - June 9, 1993. *Can. Data Rep. Fish. Aquat. Sci.* 925: 197 p.
- Pearson, R. 1994. Operators Instruction for the IOS SHELL Version 1.1. Department of Fisheries and Oceans, Institute of Ocean Sciences, Sidney, B.C.
- Shaw, W. 1994. Oceanic sampling manual for the Longterm Cooperative Plankton Research Monitoring Program(COPRA). *Can. Tech. Fish. Aquat. Sci. No.* 1976: vii + 45 p.
- SAS Institute Inc., *SAS/STAT User's Guide, Version 6, Fourth Edition, Volume 2*, Cary, NC: SAS Institute Inc., 1989. 846 p.
- Tyler, A.V. 1989. Hecate Strait project: Results from four years of multispecies fisheries research. *Can. Tech. Rep. Fish. Aquat. Sci.* 1675: 60 p.
- Westrheim, S.J. 1967. Sampling research trawl catches at sea. *J. Res. Board Can.* 24: 1187-1202.
- Westrheim, S.J., A.V. Tyler, R.P. Foucher, M.W. Saunders, and S.C. Shields. 1984. G.B. REED groundfish cruise No. 84-3, May 24-June 14, 1984. *Can. Data Rep. Fish. Aquat. Sci.* 488: 131 p.
- Wilson, S.J., J. Fargo, C.M. Hand, T. Johansson, and A.V. Tyler. 1991. R/V W.E. RICKER assemblage survey of Hecate Strait, June 3-22, 1991. *Can. Data Rep. Fish. Aquat. Sci.* 866: 179 p.

Workman G.D., J. Fargo, B. Beall, K.L. Yamanaka, and V. Haist. 1996. R/V W.E. RICKER assemblage survey of Hecate Strait, May 23 - June 9, 1995. Can. Data Rep. Fish Aquat. Sci. 974: 94 p.

Table 1. Summary of trawl stations occupied during the 1996 Hecate Strait trawl survey by the W.E. RICKER, May 30 to June 13, 1996. Trawl stations are identified by a combination of their cell designation (see Fig 4) and the 10 fm depth strata in the cell. For example A206 is the 60-70 fm depth strata in cell A2, H201 is the 10-20 fm strata in cell H2.

Block Depth	Haul Number	Block Depth	Haul Number
A206	56	F406	24
A207	55	F407	22
A303	47	G201	75
A304	46	G301	74
B102	50	G303	18
B103	51	G304	19
B105	52	G405	20
B106	53	G407	81
B201	59	H201	76, 77
B202	49	H301	79
B204	48, 54	H302	78
B301	39, 58	H303	80
B302	41, 45, 57	H304	16, 17
B304	42	H405	15
B305	44	H406	14
B306	43	H407	13
C201	60	I201	89
C301	36, 37, 38	I301	86
C302	35	I302	84, 85, 87, 88
C303	40	I303	83
D201	62	I401	10
D301	61	I403	11
D302	34	I404	12
D303	31, 33	I405	6
D304	32	I407	82
D404	29	I506	5
E201	73	J301	91
E302	65	J402	8, 9, 92, 93, 94
E303	30	J503	4
E402	25, 26, 27	J504	3
E405	28	J505	1
E504	64	J506	2
E505	63	K403	95, 96
F201	71, 72	K404	97, 99
F301	70	K405	100
F302	68, 69	K406	101
F303	66, 67	K506	98
F404	23	L406	102
F405	21	NEW	7, 90, M1, M2, M3, M4

Table 2. Summary of stations occupied during the 1996 Hecate Strait trawl survey by the F/V STEADFAST, June 1 - 6, 1996. Trawl stations are identified by a combination of their cell designation (see Fig 4) and the 10 fm depth strata in the cell. For example A206 is the 60-70 fm depth strata in cell A2, H201 is the 10-20 fm strata in cell H2.

Block Depth	Haul Nos.	Block Depth	Haul Nos.
A303	46	F407	21
A304	45	G303	17
B105	52	G304	18
B301	38	G405	19
B302	40, 44	H304	16, 17
B304	41	H405	15
B305	43	H406	14
B306	42	H407	13
C301	35, 36, 37	I401	10
C302	34	I403	11
C303	39	I4	12
D302	33	I405	6
D303	30, 32	I506	5
D304	31	J402	8, 9
D404	28	J402	9
E303	29	J503	4
E402	24, 25, 26	J504	3
E405	27	J505	1
F404	22	J506	2
F405	20	NEW	7, 48, 49, 50, 51
F406	23		

Table 3. Catch by species for the W.E. RICKER during the Hecate Strait trawl survey, May 30 - June 13, 1996.

Species		n	% Group catch	% Total catch	Total catch (kg)
Common Name	Scientific Name				
Flatfish					
Arrowtooth flounder	<i>Atheresthes stomias</i>	63	34.81	20.65	9591
English sole	<i>Pleuronectes vetulus</i>	88	17.66	10.48	4867
Rock sole	<i>Pleuronectes bilineatus</i>	72	13.65	8.10	3761
Pacific halibut	<i>Hippoglossus stenolepis</i>	74	11.81	7.00	3253
Rex sole	<i>Errex zachirus</i>	59	9.65	5.72	2658
Dover sole	<i>Microstomus pacificus</i>	56	5.20	3.09	1434
Pacific sanddab	<i>Citharichthys sordidus</i>	63	3.98	2.36	1097
Flathead sole	<i>Hippoglossoides elassodon</i>	30	1.16	0.69	320
Sand sole	<i>Psettichthys melanostictus</i>	36	0.70	0.42	194
Butter sole	<i>Pleuronectes isolepis</i>	24	0.66	0.39	182
Petrale sole	<i>Eopsetta jordani</i>	23	0.26	0.16	73
Starry flounder	<i>Platichthys stellatus</i>	8	0.18	0.11	50
Slender sole	<i>Eopsetta exilis</i>	24	0.16	0.09	44
Curlfin sole	<i>Pleuronichthys decurrens</i>	26	0.11	0.06	29
Total Flatfish				59.33	27553
Roundfish					
Walleye pollock	<i>Theragra chalcogramma</i>	51	36.46	7.17	3328
Pacific herring	<i>Clupea pallasii</i>	74	21.04	4.13	1920
Pacific cod	<i>Gadus macrocephalus</i>	61	20.77	4.08	1896
Sablefish	<i>Anoplopoma fimbria</i>	53	15.17	2.98	1385
Lingcod	<i>Ophiodon elongatus</i>	34	3.34	0.66	305
Pacific tomcod	<i>Microgadus proximus</i>	22	1.13	0.22	103
Pacific Sandlance	<i>Ammodytes hexapterus</i>	34	0.76	0.15	69
Eulachon	<i>Thaleichthys pacificus</i>	15	0.64	0.12	58
Greenlings	Hexagrammidae spp.	10	0.27	0.05	25
Snake Prickleback	<i>Lumpenus sagitta</i>	15	0.15	0.03	14
Wolf eel	<i>Anarrhichthys ocellatus</i>	2	0.11	0.02	10
Sculpins	Cottidae spp.	14	0.07	0.01	6
Poachers	Agonidae spp.	10	0.03	0.01	3
Eelpouts	Zoarcidae spp.	14	0.02	0	2
Pacific hake	<i>Merluccius productus</i>	3	0.02	0	2
Chinook salmon	<i>Oncorhynchus tshawytscha</i>	2	0.01	0	1
Shiner perch	<i>Cymatogaster aggregata</i>	2	0	0	Trace
Total Roundfish				19.65	9127

Table 3. Continued.

Species		n	% group catch	% total catch	Total catch (kg)
Common Name	Scientific Name				
Rockfish					
Yellowtail rockfish	<i>Sebastes flavidus</i>	15	28.02	0.39	181
Pacific ocean perch	<i>Sebastes alutus</i>	7	17.80	0.25	115
Quillback rockfish	<i>Sebastes maliger</i>	11	17.49	0.24	113
Bocaccio	<i>Sebastes paucispinis</i>	8	8.36	0.12	54
Copper rockfish	<i>Sebastes carinus</i>	6	8.05	0.11	52
Silvergray rockfish	<i>Sebastes brevispinis</i>	7	7.74	0.11	50
Canary rockfish	<i>Sebastes pinniger</i>	6	4.49	0.06	29
Redbanded rockfish	<i>Sebastes babcocki</i>	3	4.18	0.06	27
Yelloweye rockfish	<i>Sebastes ruberrimus</i>	2	2.63	0.04	17
Pygmy rockfish	<i>Sebastes wilsoni</i>	2	0.93	0.01	6
Greenstriped rockfish	<i>Sebastes elongatus</i>	1	0.15	0	1
Redstripe rockfish	<i>Sebastes proriger</i>	4	0.15	0	1
Harlequin rockfish	<i>Sebastes variegatus</i>	1	0	0	Trace
Widow rockfish	<i>Sebastes entomelas</i>	1	0	0	Trace
Darckblotched rockfish	<i>Sebastes cramarii</i>	2	0	0	Trace
Sharpchin rockfish	<i>Sebastes zacentrus</i>	2	0	0	Trace
Total rockfish				1.39	646
Selachii					
Spotted ratfish	<i>Hydrolagus colliei</i>	80	52.63	10.19	4733
Spiny dogfish	<i>Squalus acanthias</i>	91	29.59	5.73	2661
Big skate	<i>Raja binoculata</i>	42	17.31	3.35	1557
Longnose skate	<i>Raja rhina</i>	10	0.41	0.08	37
Black skate	<i>Raja kincaidi</i>	2	0.06	0.01	5
Total Selachii				19.37	8993
Invertebrates¹		25	1.00	0.26	120
Total Catch all species					46439

¹ The weight for invertebrates includes crab, octopus, shrimp, and squid. Sea urchins, seastars, sea cucumber and sea anemonies were not weighed.

Table 4. Catch by species for the FV STEADFAST during the Hecate Strait trawl survey, June 1-6, 1996.

Species		n	% Group catch	% Total catch	Total catch (kg)
Common Name	Scientific Name				
Flatfish					
Arrowtooth flounder	<i>Atheresthes stomias</i>	40	37.45	17.97	5154
English sole	<i>Pleuronectes vetulus</i>	43	20.79	9.98	2861
Pacific halibut	<i>Hippoglossus stenolepis</i>	41	12.65	6.07	1741
Rock sole	<i>Pleuronectes bilineatus</i>	34	12.49	5.99	1719
Rex sole	<i>Errex zachirus</i>	32	7.98	3.83	1098
Dover sole	<i>Microstomus pacificus</i>	24	3.34	1.60	459
Pacific sanddab	<i>Citharichthys sordidus</i>	12	1.61	0.77	221
Sand sole	<i>Psettichthys melanostictus</i>	14	1.16	0.55	159
Flathead sole	<i>Hippoglossoides elassodon</i>	21	1.08	0.52	148
Petrale sole	<i>Eopsetta jordani</i>	23	0.65	0.31	89
Butter sole	<i>Pleuronectes isolepis</i>	9	0.58	0.28	80
Curlfin sole	<i>Pleuronichthys decurrens</i>	10	0.15	0.07	20
Slender sole	<i>Eopsetta exilis</i>	3	0.04	0.02	6
Starry flounder	<i>Platichthys stellatus</i>	1	0.03	0.01	4
Total Flatfish				47.00	13759
Roundfish					
Lingcod	<i>Ophiodon elongatus</i>	20	45.48	6.85	1964
Pacific cod	<i>Gadus macrocephalus</i>	33	39.51	5.95	1706
Sablefish	<i>Anoplopoma fimbria</i>	24	9.63	1.45	416
Walleye pollock	<i>Theragra chalcogramma</i>	15	4.84	0.73	209
Wolf eel	<i>Anarrhichthys ocellatus</i>	4	0.30	0.05	13
Sculpins	Cottidae spp.	2	0.16	0.02	7
Salmon	Salmonidae spp.	1	0.07	0.01	3
Pacific herring	<i>Clupea pallasii</i>	5	0.01	0	Trace
Poachers	Agonidae spp.	2	0.01	0	Trace
Greenlings	Hexagrammidae spp.	3	0.01	0	Trace
Snake Prickleback	<i>Lumpenus sagitta</i>	1	0.01	0	Trace
Total Roundfish				15.06	4318

Table 4. Continued.

Species		n	% group catch	% total catch	Total catch (kg)
Common Name	Scientific Name				
Rockfish					
Yellowtail rockfish	<i>Sebastes flavidus</i>	7	52.75	0.74	211
Redbanded rockfish	<i>Sebastes babcocki</i>	3	27.25	0.38	109
Quillback rockfish	<i>Sebastes maliger</i>	6	7.50	0.10	30
Bocaccio	<i>Sebastes paucispinis</i>	5	5.75	0.08	23
Silvergray rockfish	<i>Sebastes brevispinis</i>	4	4.00	0.06	16
Canary rockfish	<i>Sebastes pinniger</i>	3	1.50	0.02	6
Yelloweye rockfish	<i>Sebastes ruberrimus</i>	1	1.25	0.02	5
Pacific ocean perch	<i>Sebastes alutus</i>	1	0.13	0	Trace
Total rockfish				1.39	400
Selachii					
Spotted ratfish	<i>Hydrolagus colliei</i>	47	72.28	25.21	7229
Skates	Rajidae spp.	28	18.24	6.36	1824
Spiny dogfish	<i>Squalus acanthias</i>	38	9.49	3.31	949
Total Selachii				34.88	10002
Invertebrates¹		28	100.00	0.67	191
Total Catch all species					28670

¹ The weight for invertebrates includes crab, shrimp, octopus and squid. Sea urchins, seastars, sea cucumber and sea anemonies were not weighed.

Table 5. Summary of biological samples collected, total weight and number of fish caught and weighed and number of fish measured on the R/V W.E. RICKER during the 1996 Hecate Strait trawl survey, May 30 -June 13. Numbers in parentheses correspond to the Appendix Tables containing the data.

Species ¹	Weight caught (kg)	Weight sample (kg)	Number caught	Number sampled	Otoliths taken
Pacific cod	1896	1028	1437	779(4)	
Rock sole	3761	3160	10433	9132(5)	386(14)
English sole	4867	2172	25323	11449(7)	148(16)
Dover sole	1434	868	5034	3170(6)	123(15)
Pacific halibut	3253	3253	658	658(8,9)	

¹ Fifty quillback rockfish were sampled for length-sex-maturity-otoliths (Appendix Table 17). Hearts were collected from 15 copper rockfish, 5 quillback rockfish, 2 canary rockfish and 1 redstripe rockfish. Hearts were preserved in 90% ethanol and will be used for DNA analysis.

Table 6. Summary of biological samples collected, total weight and number of fish caught and weighed and number of fish measured on the F/V STEADFAST during the 1996 Hecate Strait trawl survey, May 30 - June 13. Numbers in parentheses correspond to the Appendix Table containing the data.

Species	Weight caught (kg)	Weight sampled (kg)	Number caught	Number sampled
Pacific cod	1706	1289	823	622(10)
Rock sole	1719	1138	2896	1917(11)
English sole	2861	1190	9482	3944(13)
Dover sole	459	315	826	567(12)

Table 7. Calculated number caught by species for hauls which were sub-sampled for length during the Hecate Strait trawl survey on the W.E. RICKER, May 30 to June 13, 1996.

Species	Haul no.	Weight (kg)		Number	
		Sample	Total	Sample	Total
English sole	7	62	104	322	540
	23	83	160	362	698
	31	63	76	470	567
	32	27	66	131	620
	41	75	170	335	759
	42	83	317	267	1020
	44	68	312	169	775
	46	62	324	185	967
	47	59	91	240	370
	48	69	332	228	1097
	51	58	147	177	449
	84	26	114	246	1079
	96	39	90	341	787
Rock sole	25	223	251	822	925
	32	234	592	391	989
Dover sole	7	33	77	389	908
	28	72	226	239	750
	44	8	27	28	95
	46	28	95	87	295
Pacific cod	44	30	101	12	40
	46	12	41	3	10

Table 8. Calculated number caught by species for hauls which were sub-sampled for length aboard the F/V STEADFAST during the Hecate Strait trawl survey, May 30 - June 13, 1996.

Species	Haul no.	Weight (kg)		Number	
		Sample	Total	Sample	Total
English sole	16	89	102	325	372
	38	47	593	204	2574
	39	52	247	177	841
	40	43	161	142	532
	41	20	111	43	239
	42	40	383	111	1063
	43	67	144	214	460
	45	10	69	35	242
	46	25	121	70	339
	47	67	106	160	253
	52	84	164	247	482
Rock sole	4	106	428	138	557
	24	118	166	210	295
	33	160	236	231	341
	39	6	12	12	24
Dover sole	13	138	172	200	249
	41	18	74	21	86
	42	2	14	6	42
	45	2	14	3	21
Pacific cod	38	140	176	99	124
	39	58	105	36	65
	40	21	40	14	27

Table 9. Summary statistics for length (cm) data collected aboard the R/V W.E. RICKER during the Hecate Strait trawl survey, May 30 - June 13, 1996.

Species	Mean	Standard Deviation	Median	Mode
Pacific Cod	42.10	7.07	33	26
Pacific Halibut	69.45	11.56	68	64
Rock Sole	27.07	0.94	26	18
English Sole	26.16	0.84	26	26
Dover Sole	29.66	2.47	30	31

Table 10. Summary statistics for length (cm) data collected aboard the F/V STEADFAST during the Hecate Strait trawl survey, June 1-6, 1996.

Species	Mean	Standard Deviation	Median	Mode
Pacific Cod	53.93	5.93	53	48
Rock Sole	35.60	1.40	35	34
English Sole	31.52	0.87	32	33
Dover Sole	38.92	2.63	39	33

Table 11. Results of length-weight regressions for rock sole, Dover sole, English sole and Pacific halibut sampled aboard the W.E. RICKER during the Hecate Strait trawl survey, May 30 - June 13, 1996.

Species	Sex	N	a		95% Confidence interval		b	95% Confidence interval	
			Estimate	Lower	Upper	Estimate		Lower	Upper
Rock sole	Male	168	.00000941	.00000183	.00001699	3.050355	2.912886	3.187825	
	Female	218	.00001547	.00000450	.00002643	2.974972	2.859821	3.090123	
	Combined	386	.00000843	.00000459	.00001228	3.074258	2.998894	3.149622	
Dover sole	Male	49	.00000051	.00000007	.00000095	3.501353	3.352098	3.650609	
	Female	74	.00000332	.00000124	.00000540	3.174552	3.070893	3.278211	
	Combined	123	.00000323	.00000191	.00000454	3.179857	3.111776	3.247938	
English sole	Male	85	.00001811	.00000209	.00003414	2.871154	2.716099	3.026210	
	Female	63	.00000501	.00000183	.00000819	3.101451	2.992586	3.210315	
	Combined	148	.00000538	.00000267	.00000809	3.086885	2.999935	3.173835	
Pacific halibut	Combined	29	.00000014	.00000007	.00000035	3.649477	3.427813	3.871142	

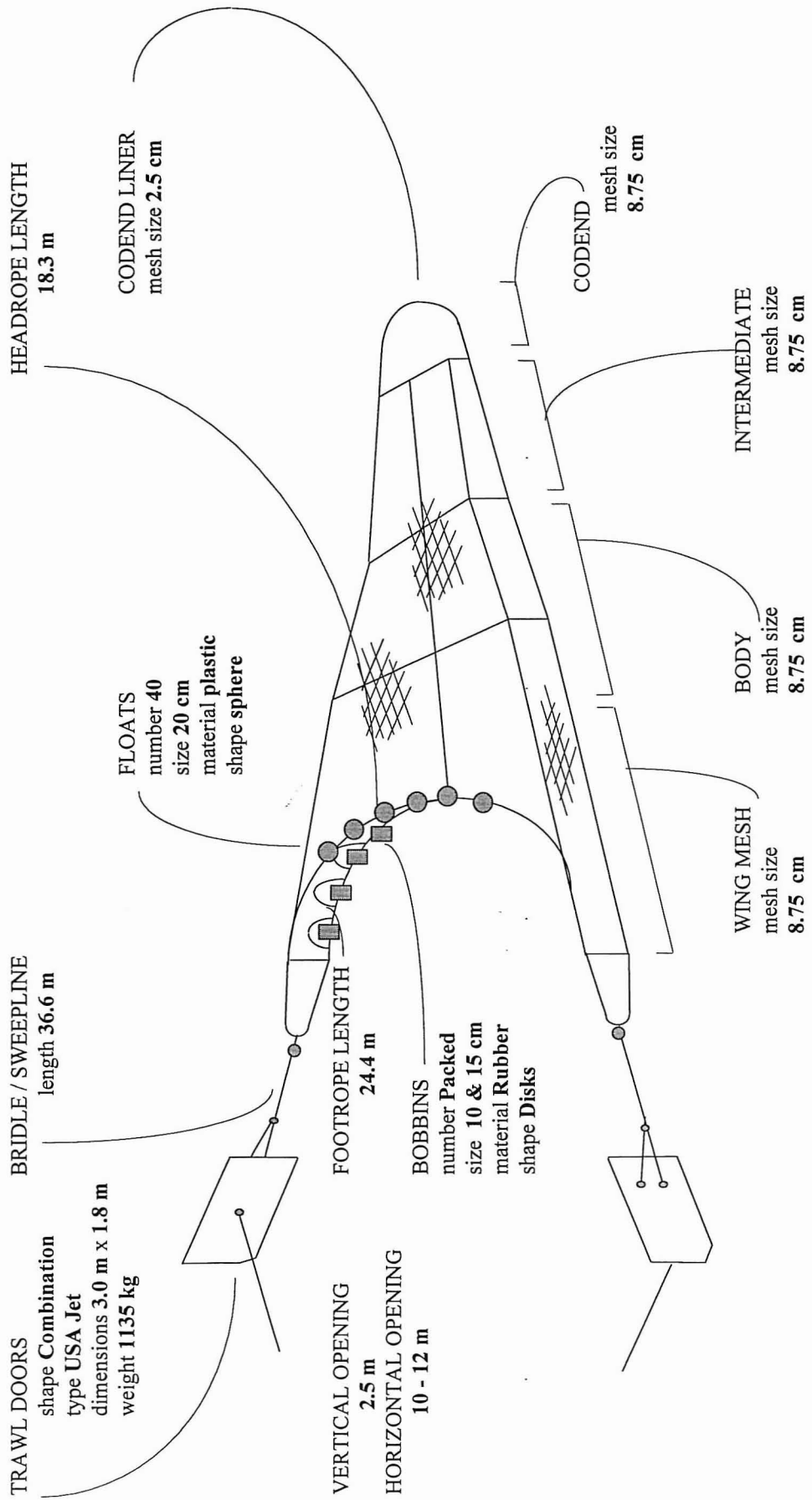


Fig. 1. Specifications for the Yankee 36 used by the R/V W.E. RICKER during the Hecate Strait Assemblage Survey, May 30 - June 13, 1996.

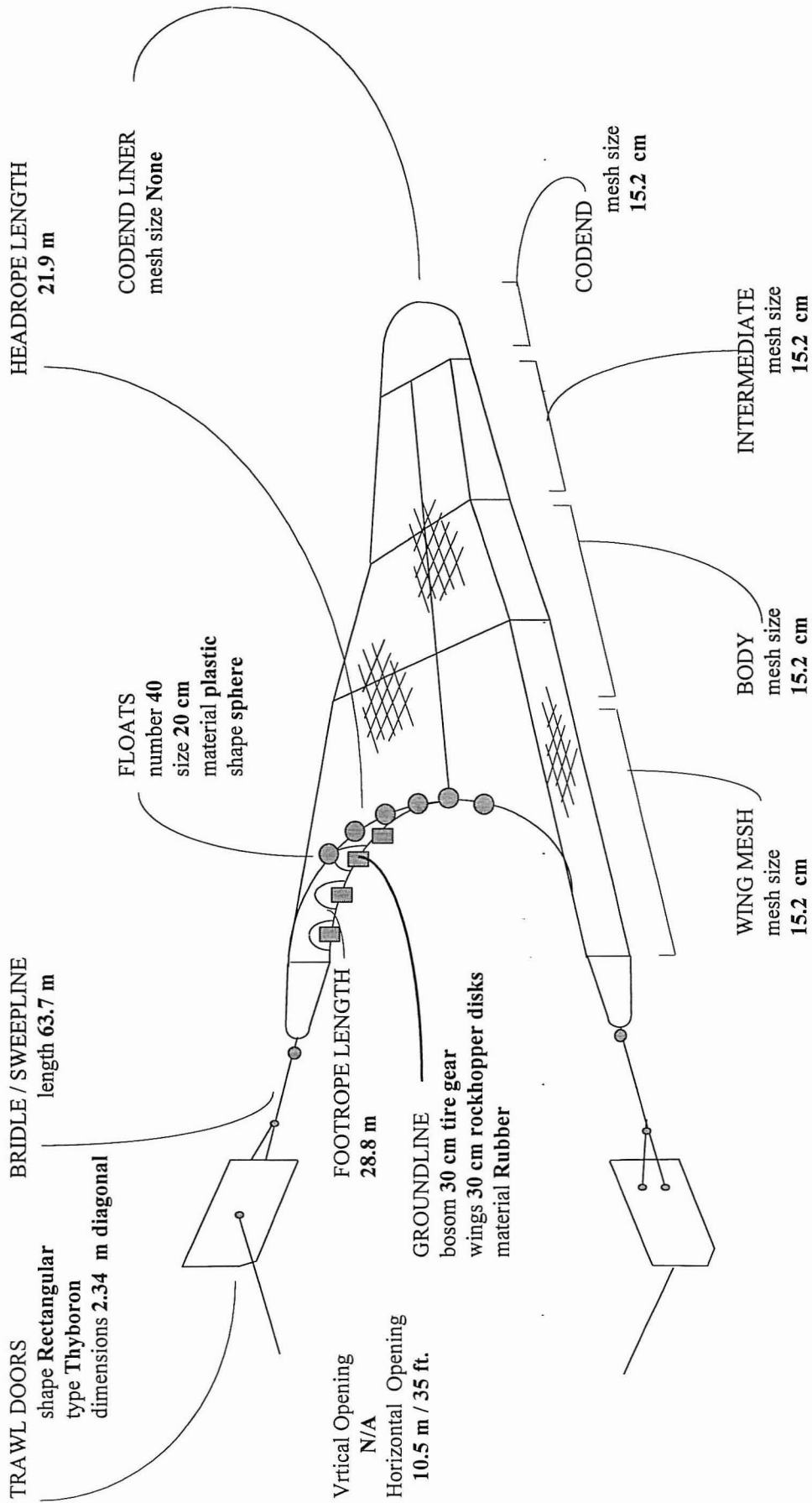


Fig. 2. Specifications for the Safari 5 used by the F/V STEADFAST during the Hecate Strait Assemblage Survey, June 1 - 6, 1996.

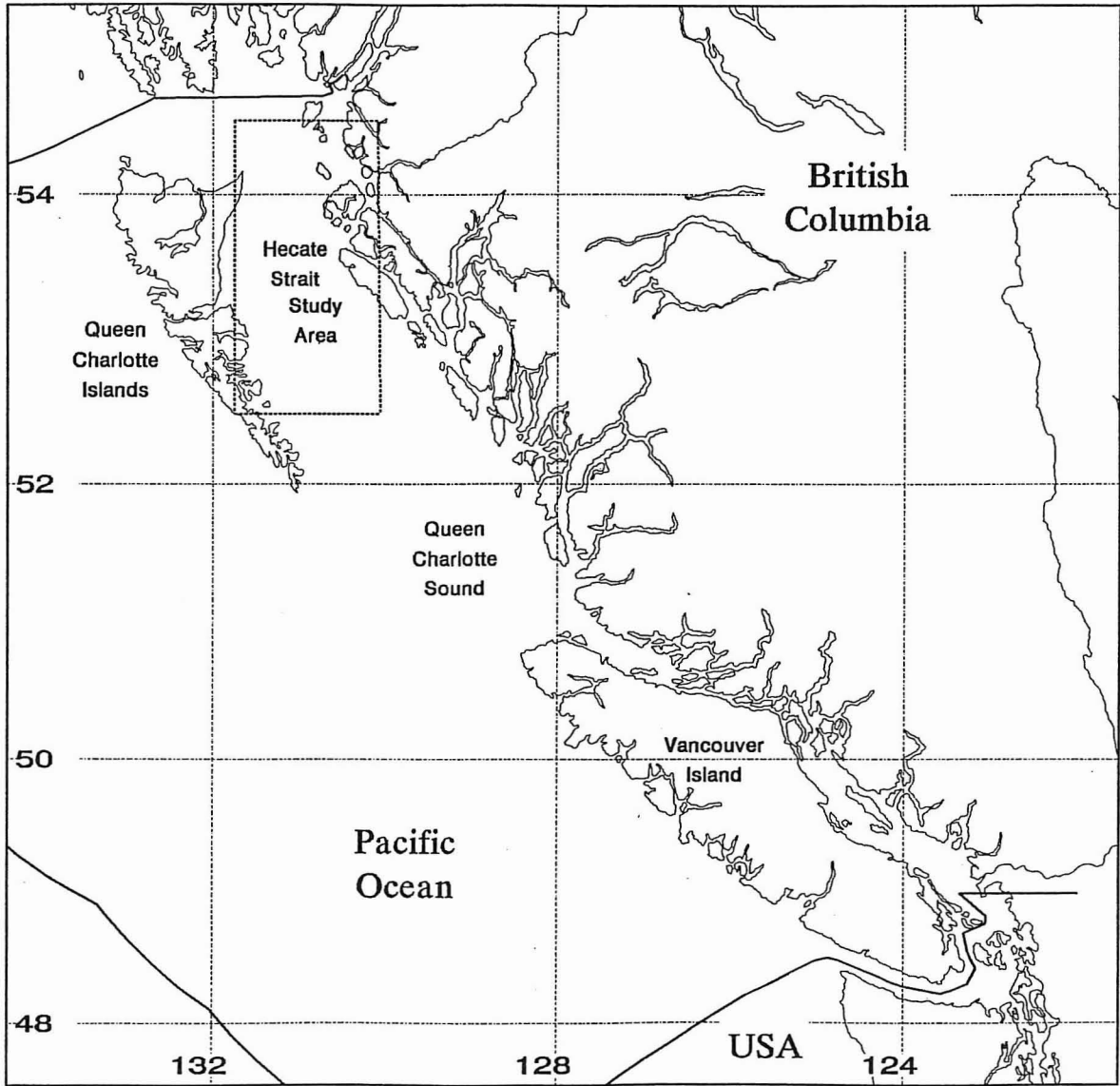


Fig. 3. Overview of the survey area for the Hecate Strait survey.

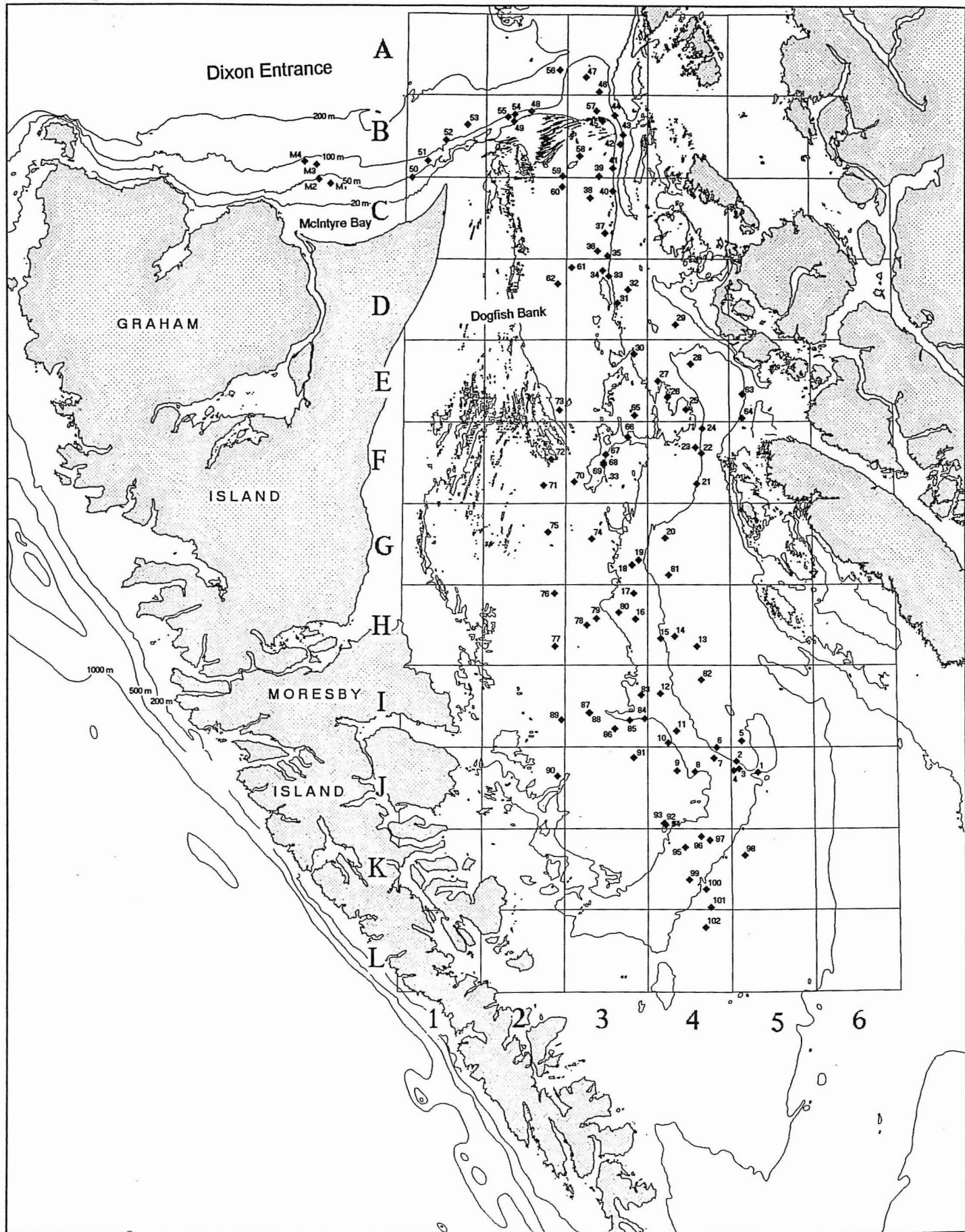


Fig. 4. Location of trawl hauls made by the R/V W.E. RICKER during the 1996 Hecate Strait trawl survey, May 30 - June 13.

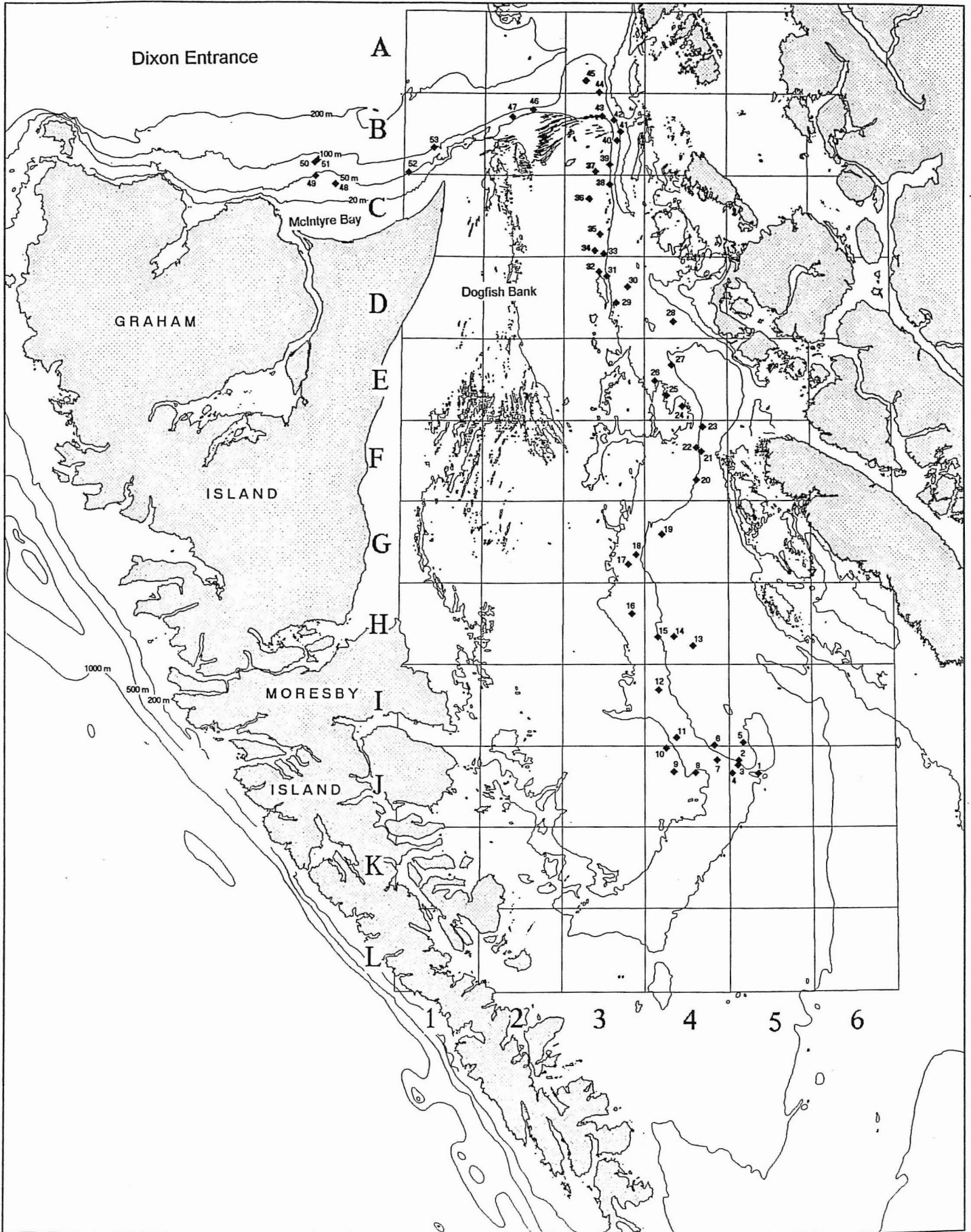


Fig. 5. Location of trawl hauls made by the FV STEADFAST during the 1996 Hecate Strait trawl survey, May 30 June 13.

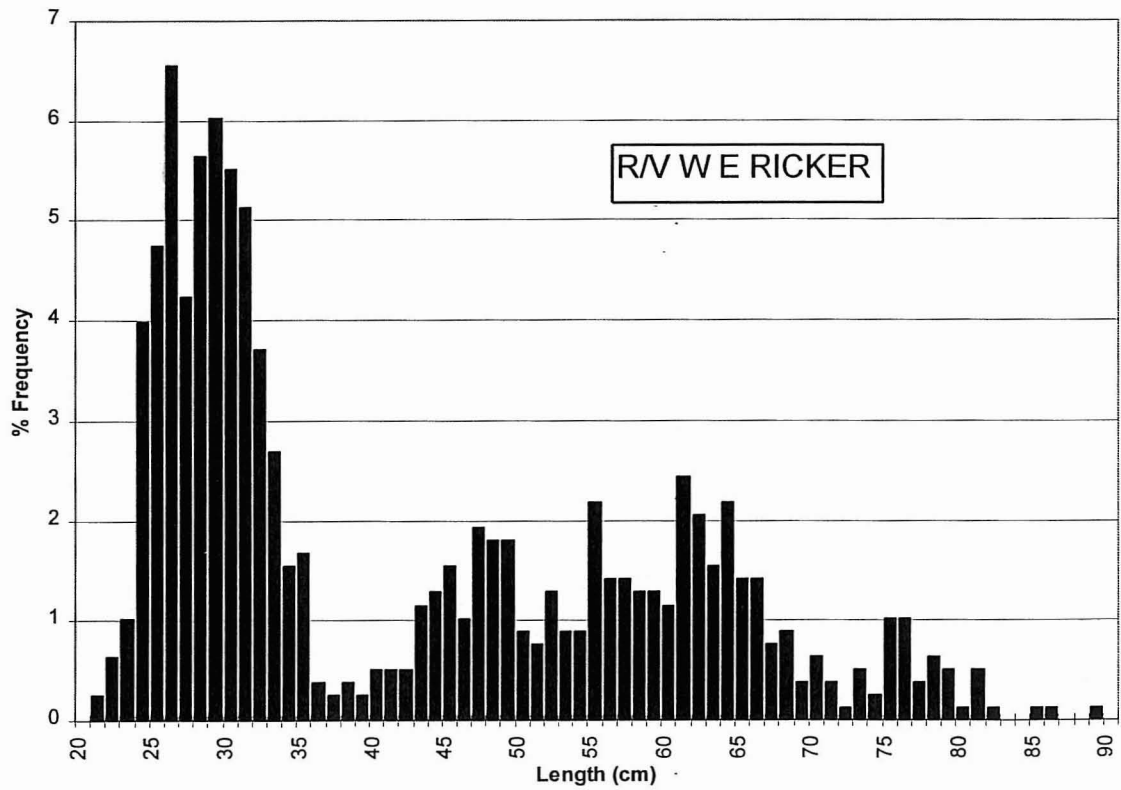
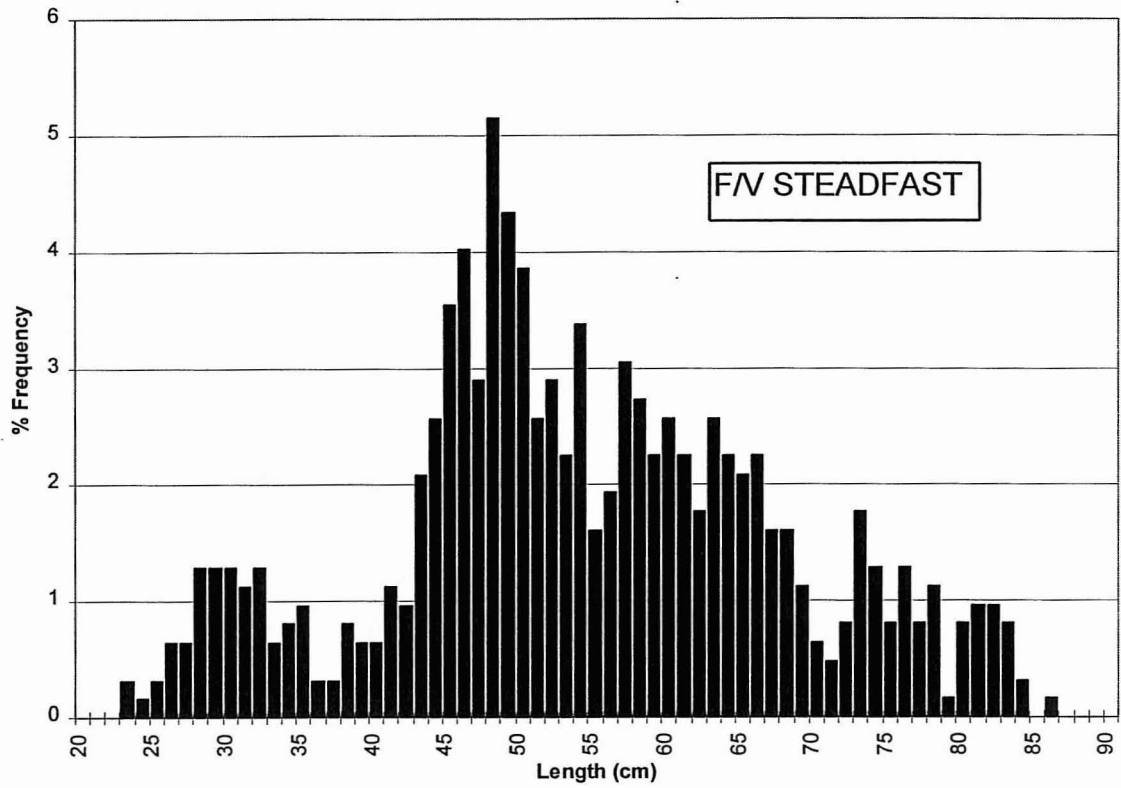


Fig. 6. Length frequency histograms for Pacific cod by vessel for all fish sampled during the 1996 Hecate Strait trawl survey, May 30 - June 13.

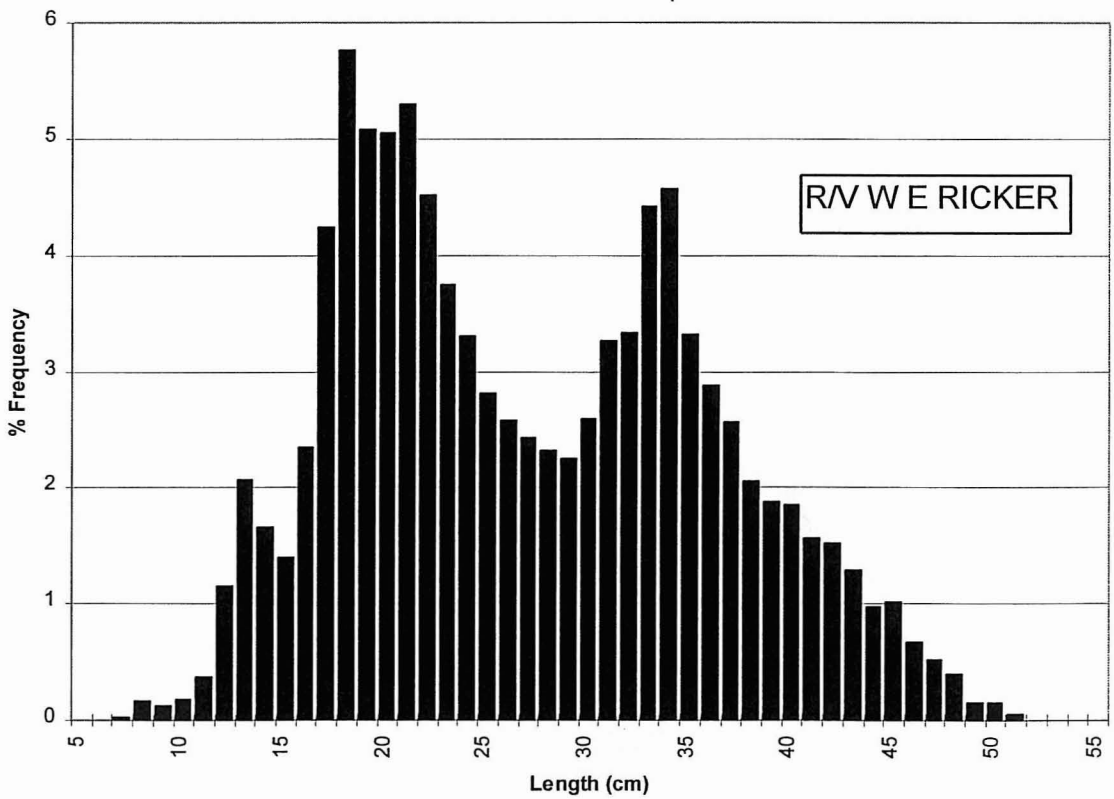
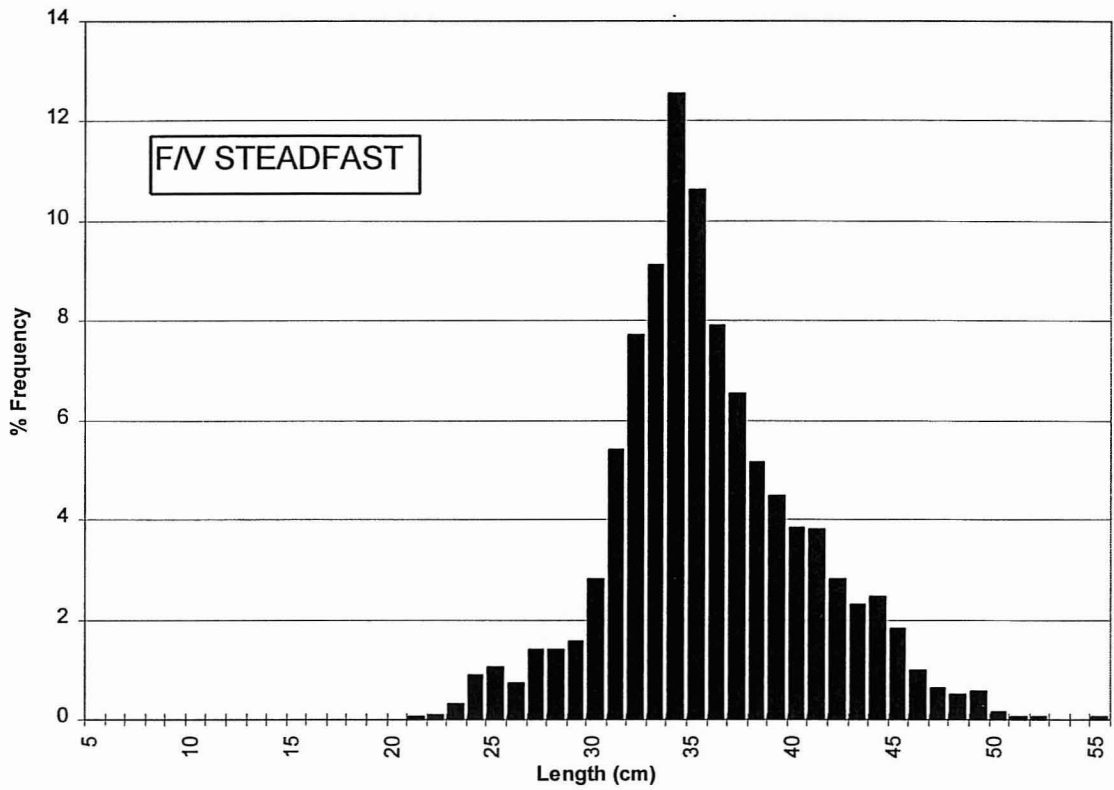


Fig. 7. Length frequency histograms for Rock sole by vessel for all fish sampled during the 1996 Hecate Strait trawl survey, May 30 - June 13.

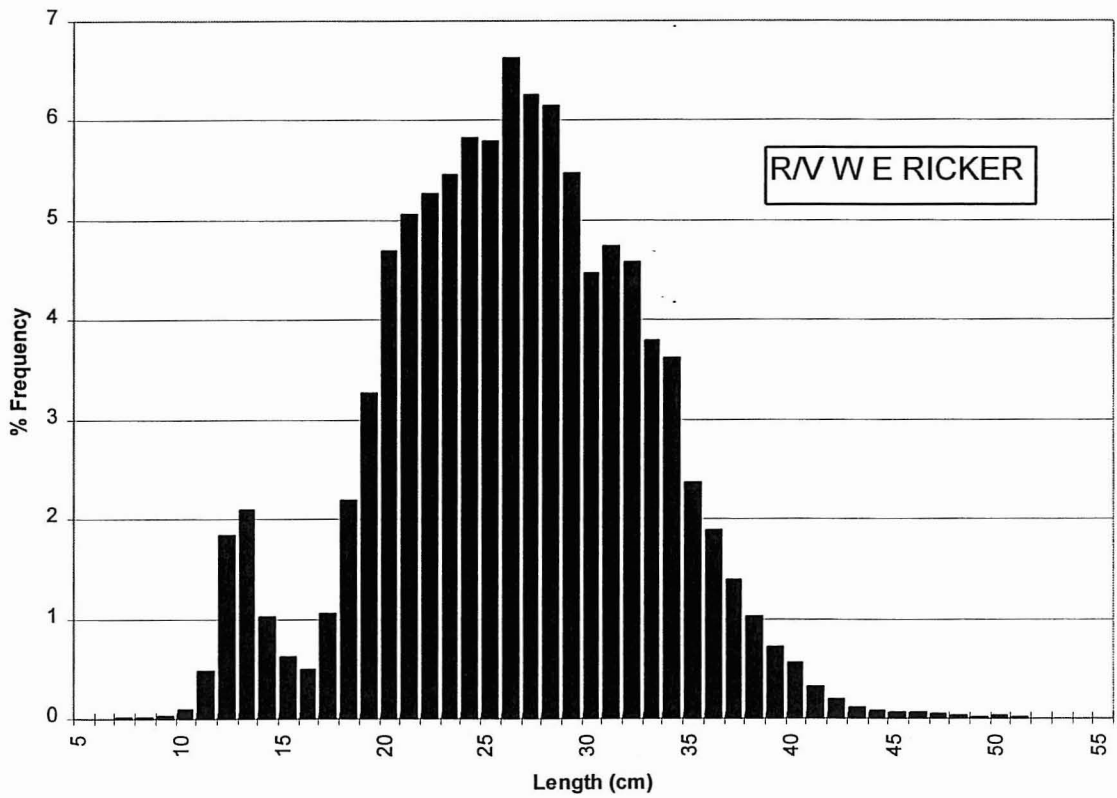
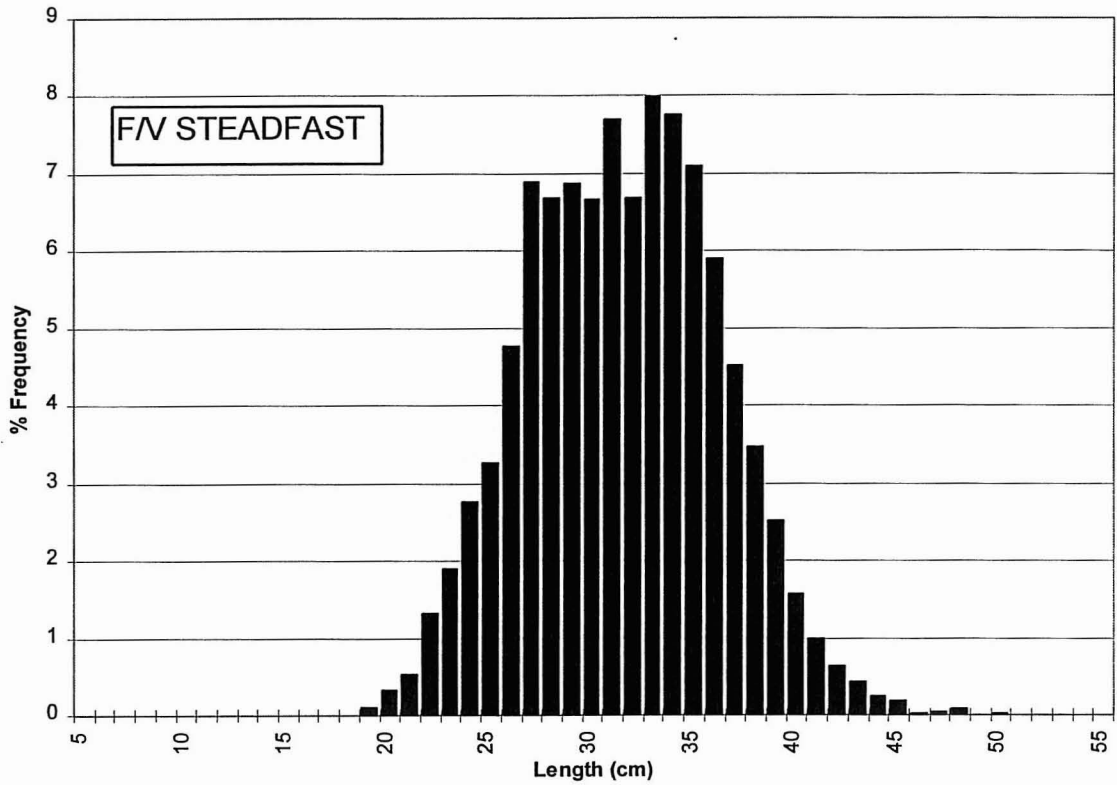


Fig. 8. Length frequency histograms for Dover sole by vessel for all fish sampled during the the 1996 Hecate Strait trawl survey, May 30 - June 13.

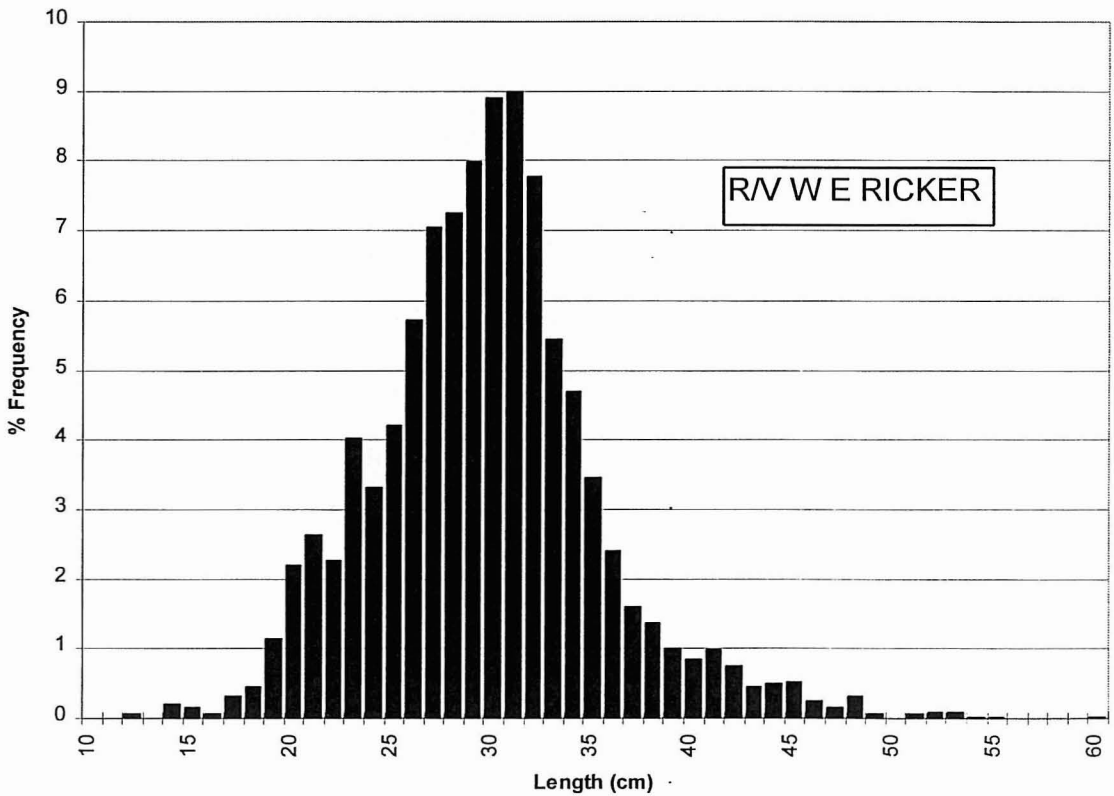
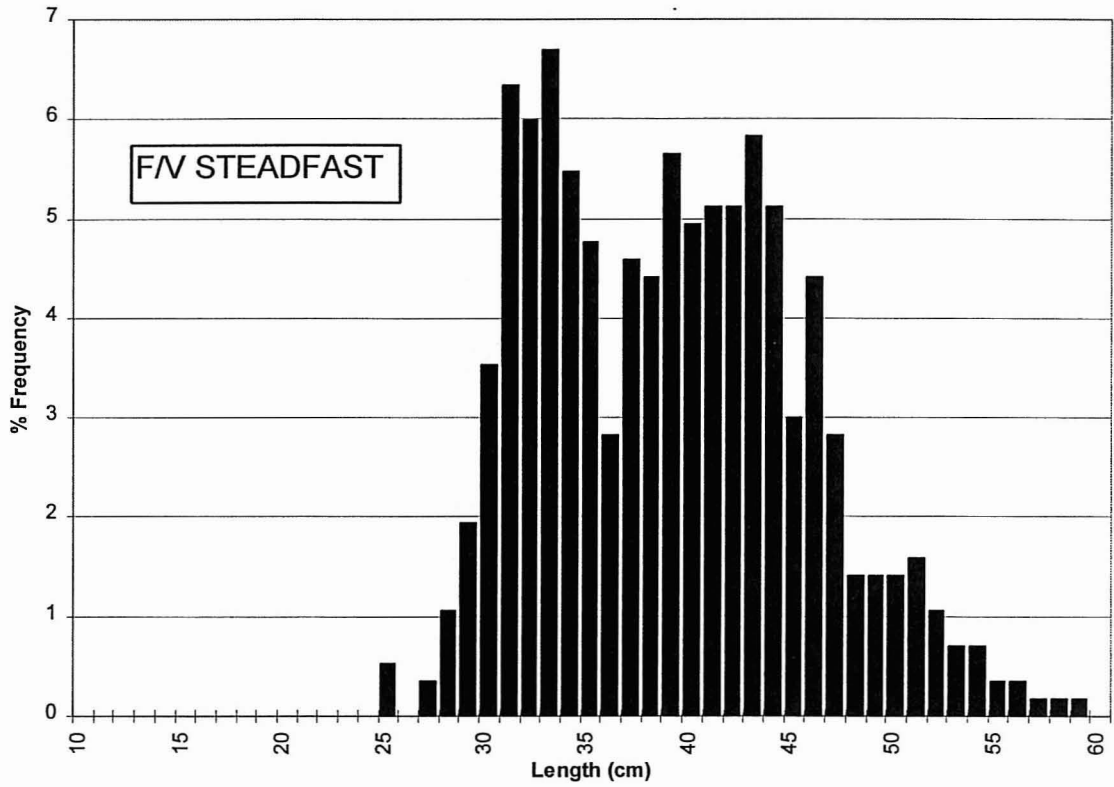


Fig. 9. Length frequency histograms for English sole by vessel for all fish sampled during the the 1996 Hecate Strait trawl survey, May 30 - June 13.

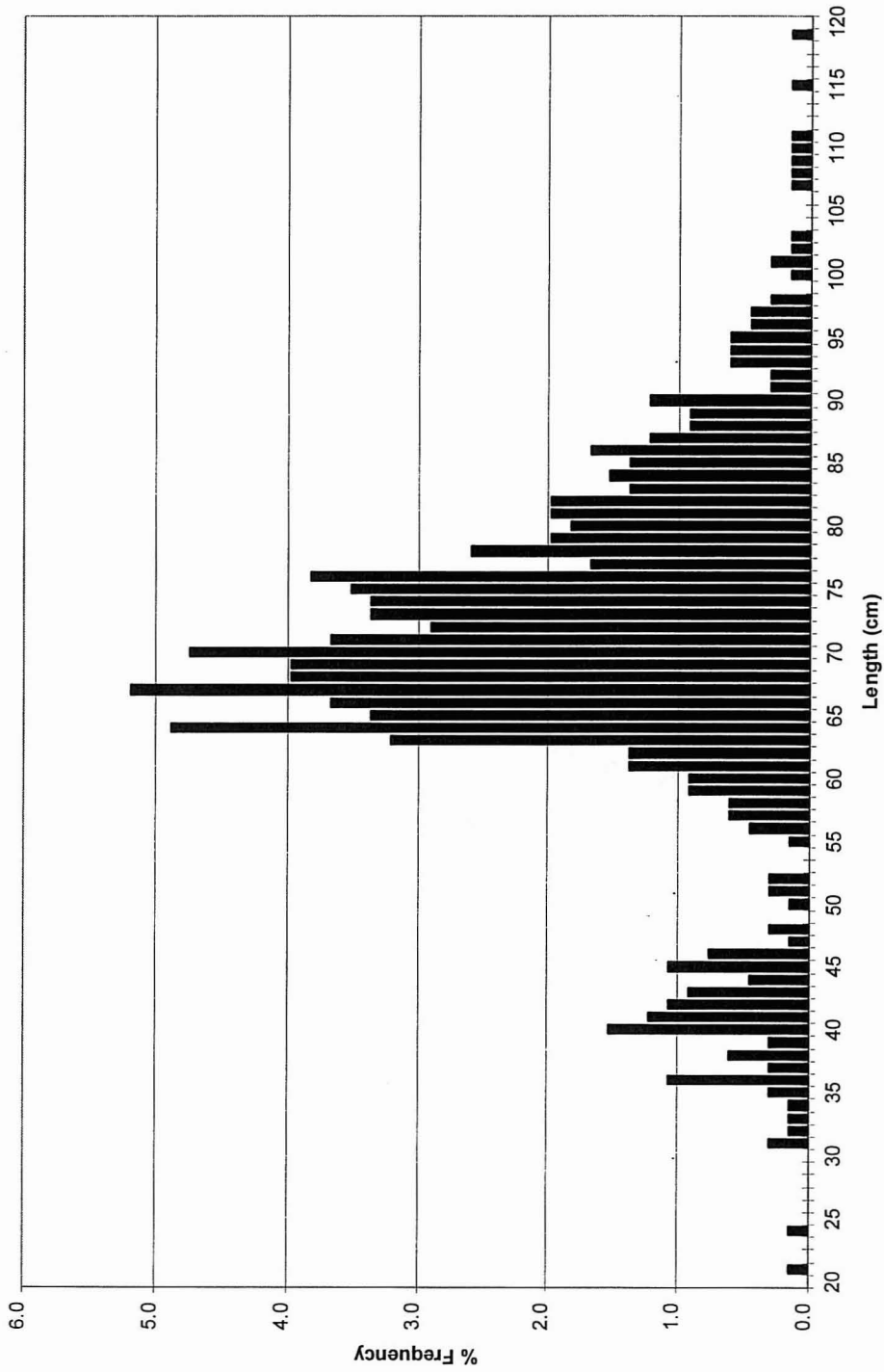
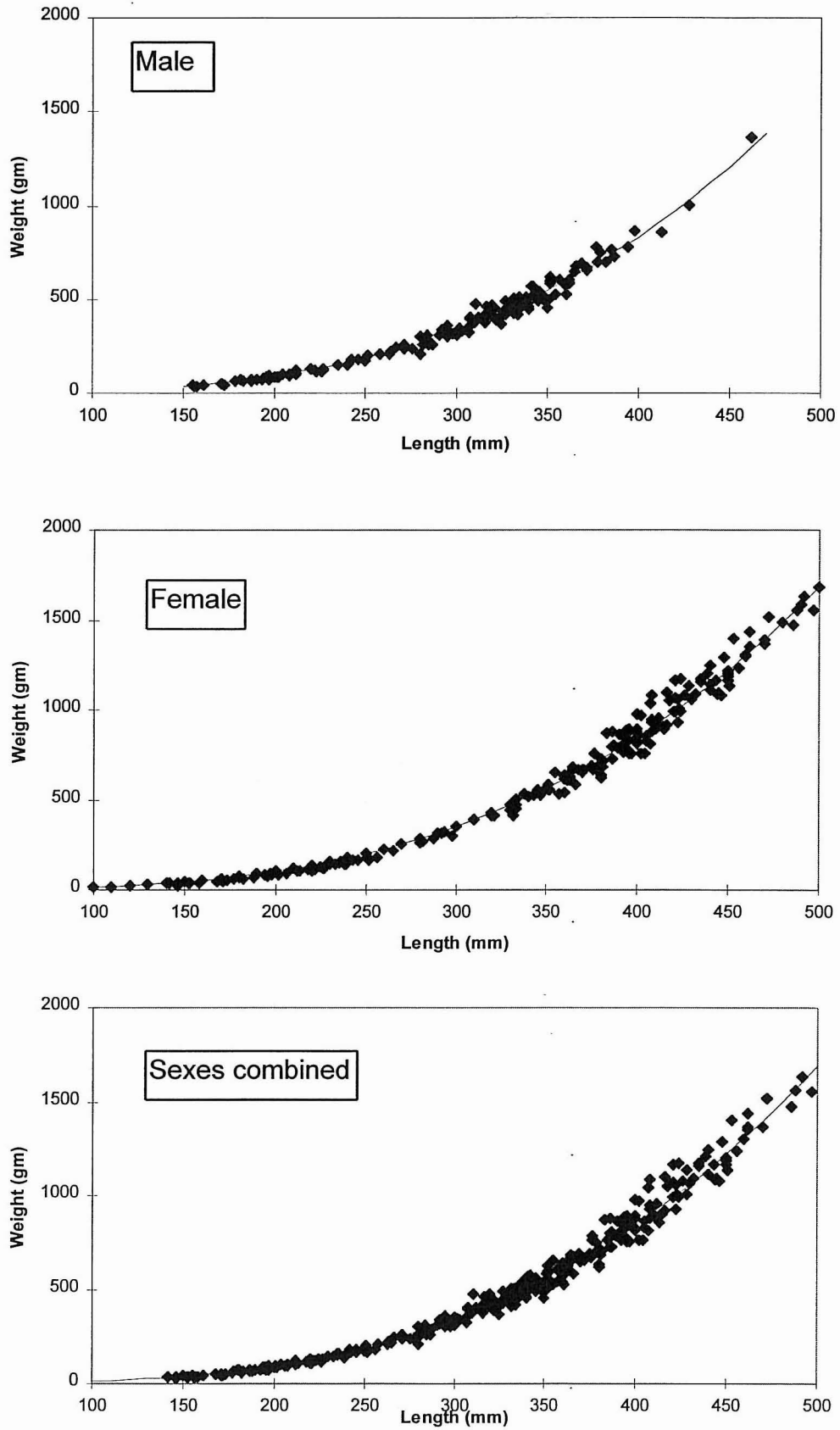


Fig. 10. Length frequency histogram for Pacific halibut sampled aboard the W.E. RICKER during the 1996 Hecate Strait trawl survey, May 30 - June 13.



-Fig. 11. Length-weight relationships by sex for rock sole caught by the W.E. RICKER on the 1996 Hecate Strait survey.

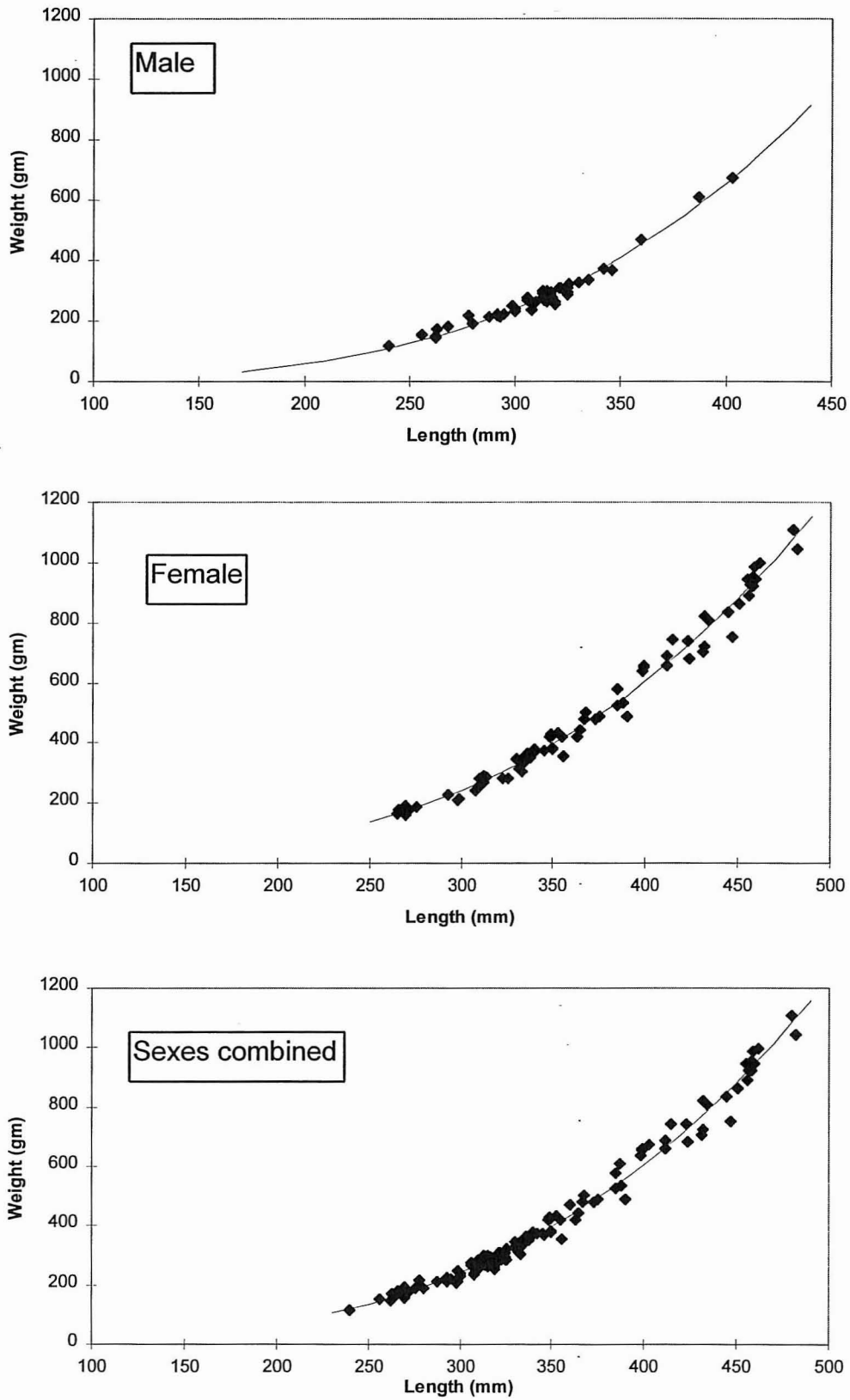


Fig. 12. Length-weight relationships by sex for Dover sole caught by the W.E. RICKER on the 1996 Hecate Strait survey.

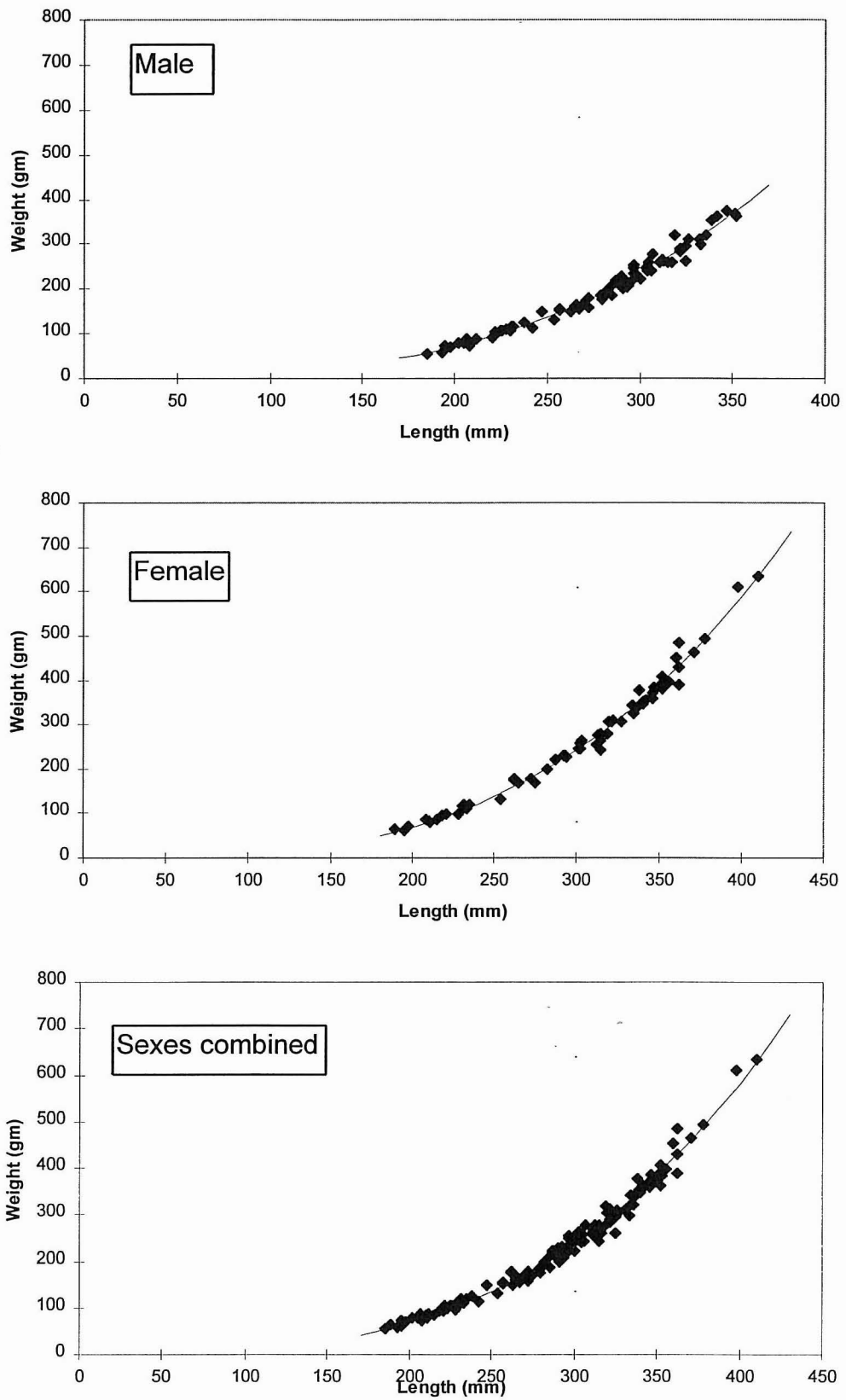


Fig. 13. Length-weight relationships by sex for English sole caught by the W.E. RICKER on the 1996 Hecate Strait survey.

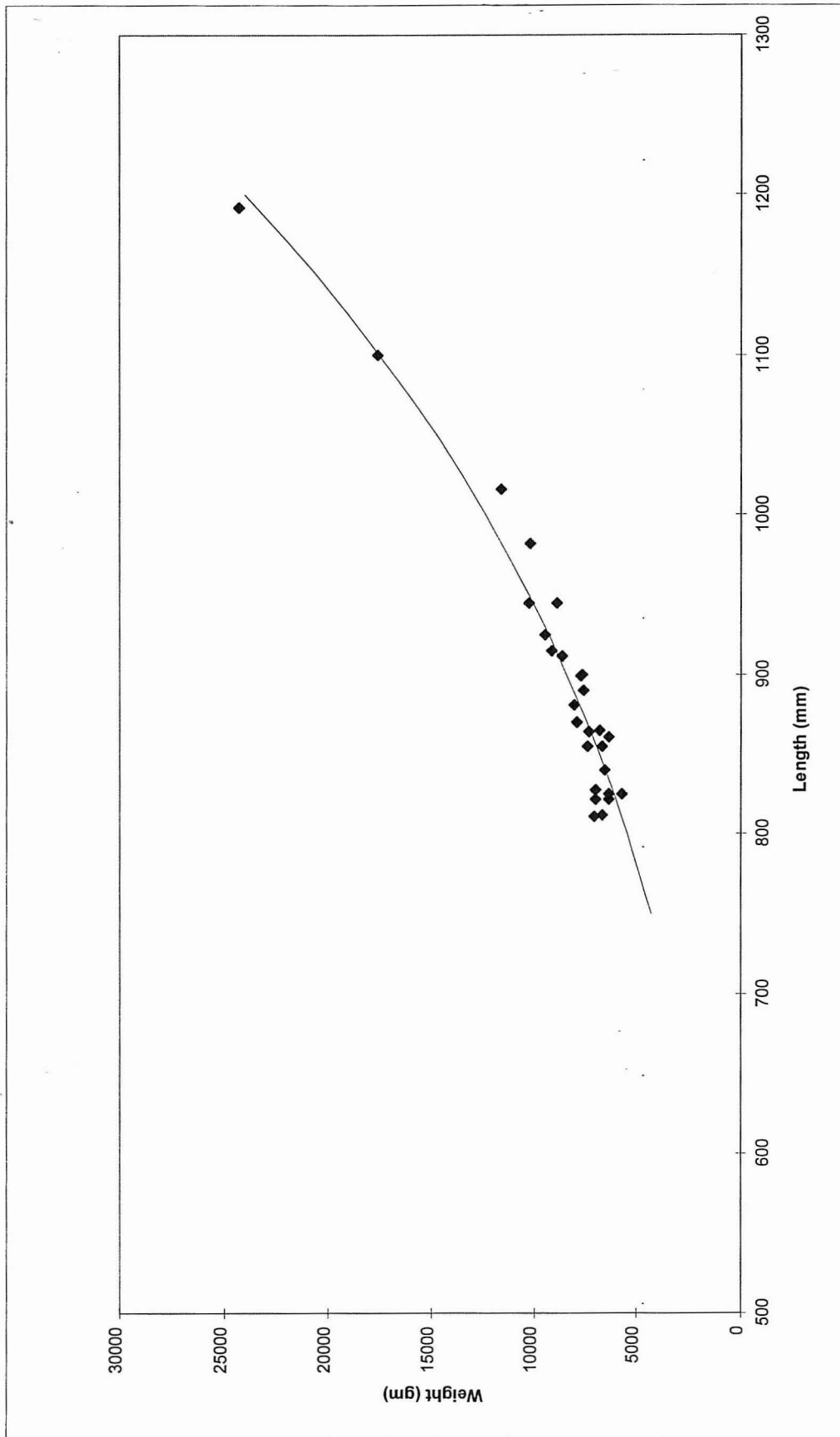


Fig. 14. Length-weight relationships for Pacific halibut caught by the W.E. RICKER on the 1996 Hecate Strait survey.

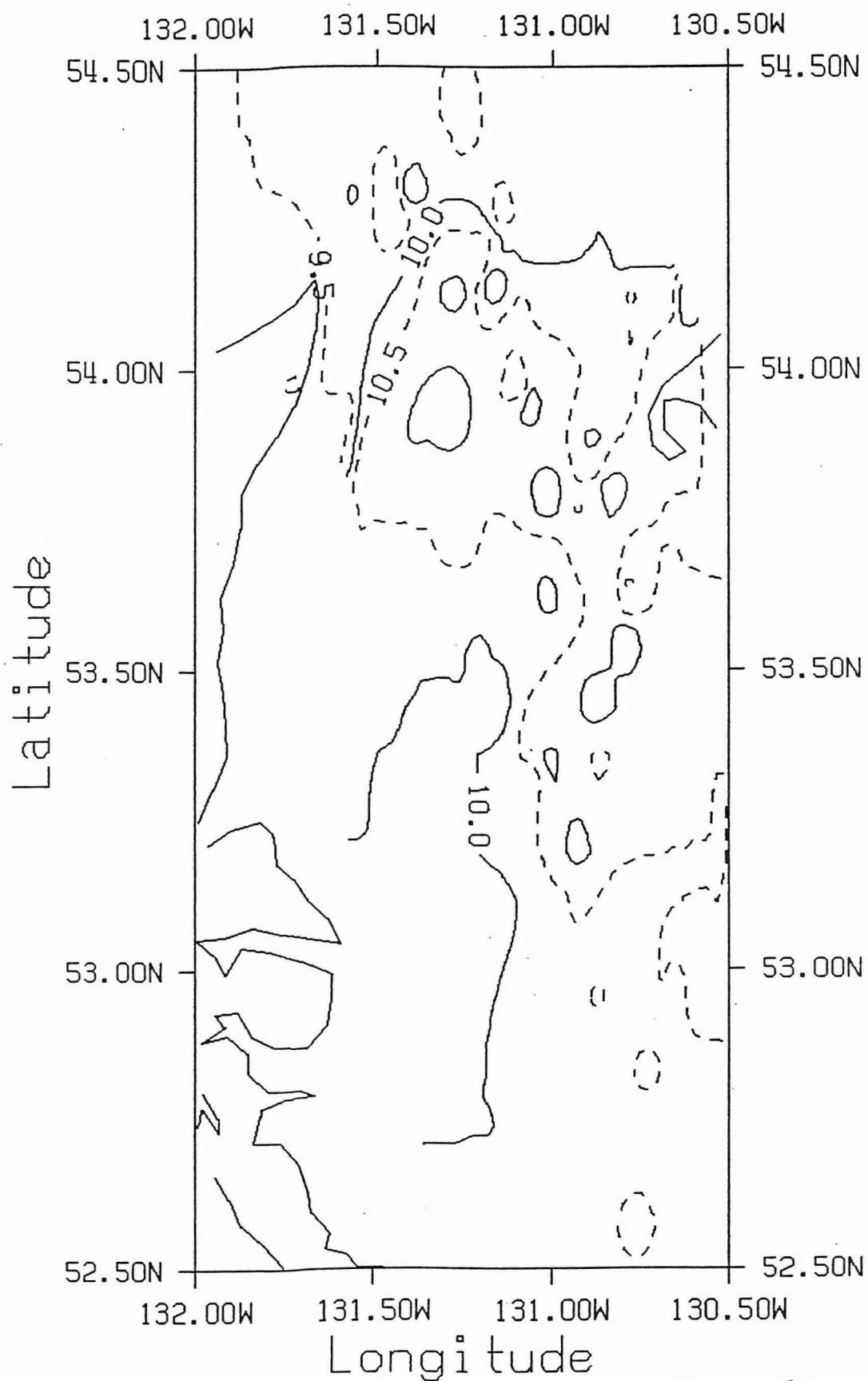


Fig. 15. Contour plot of Hecate Strait surface temperature (C) by 0.5 °C intervals during May-June 1996.

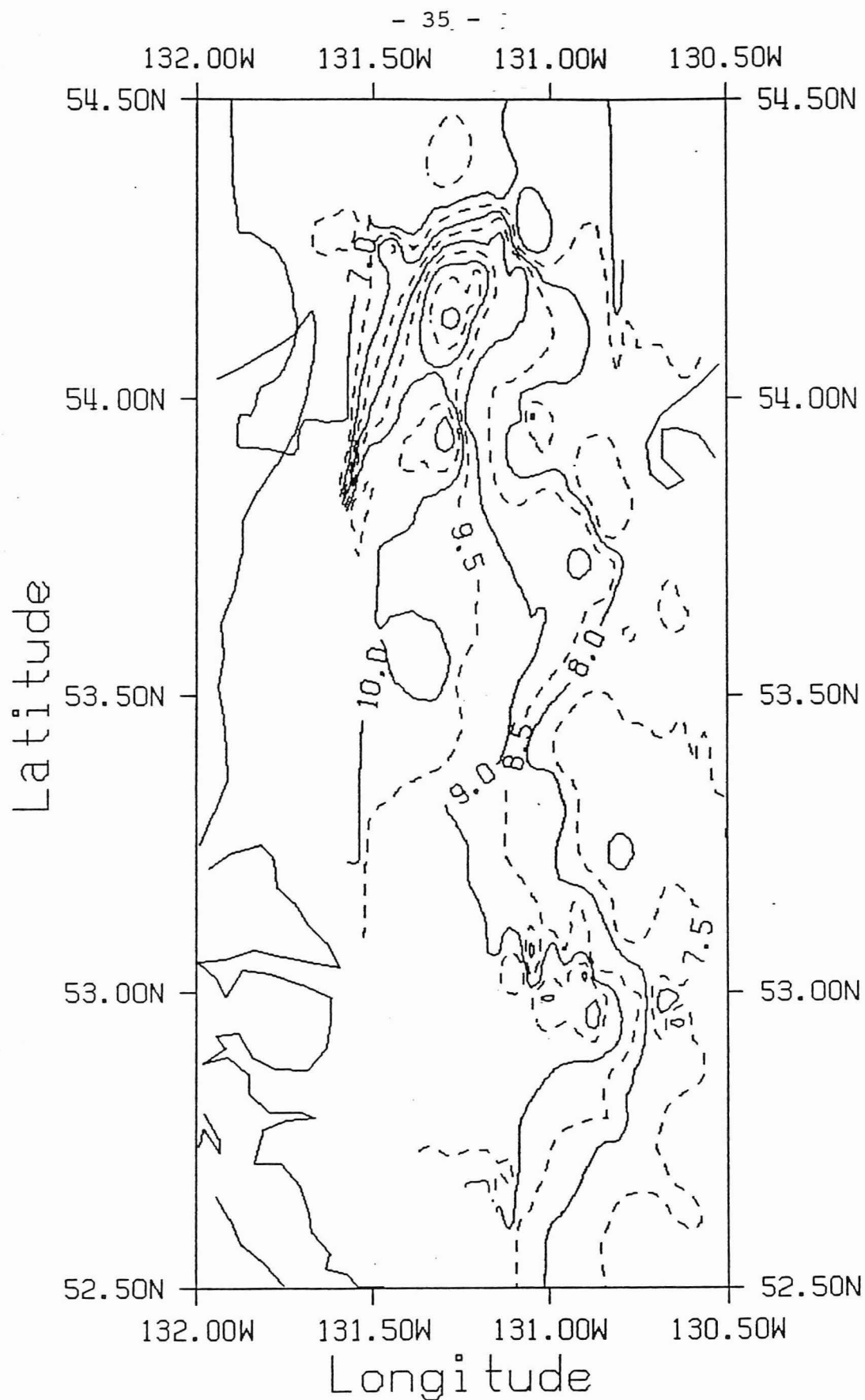


Fig. 16. Contour plot of Hecate Strait bottom temperature (C) by 0.5 °C intervals during May-June 1996.

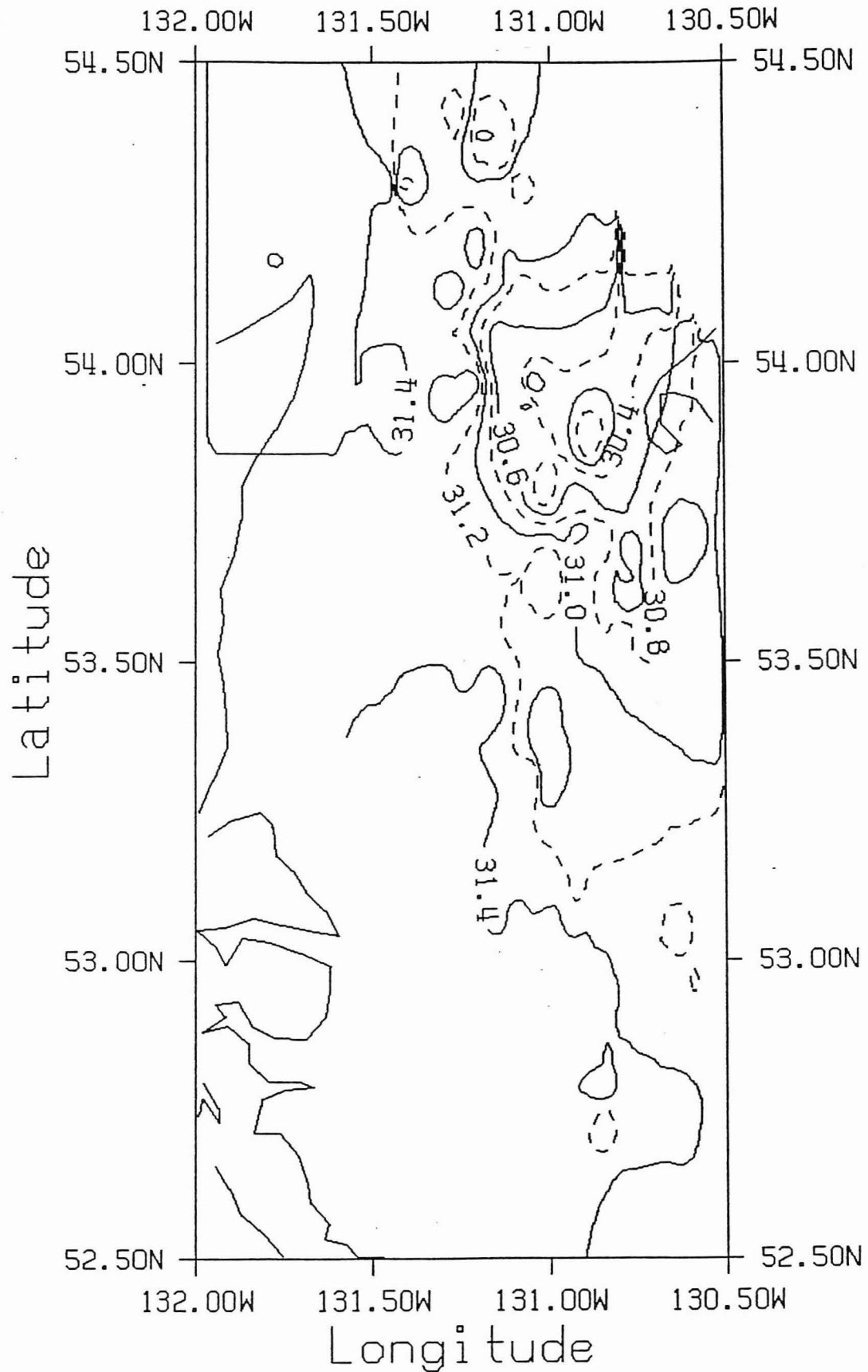


Fig. 17. Contour plot of Hecate Strait surface salinity (ppt) by 0.2 ppt intervals during May-June 1996.

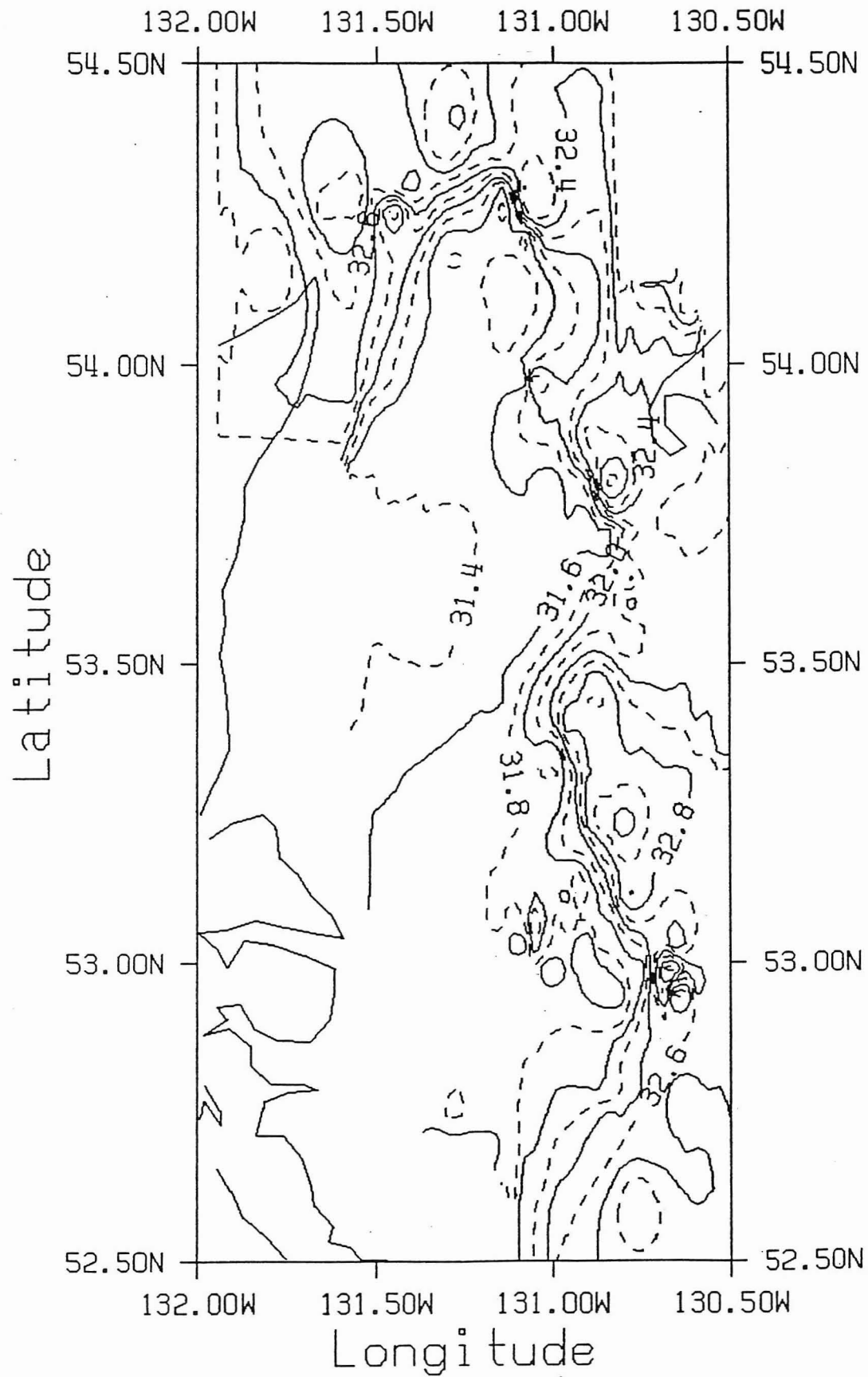


Fig. 18. Contour plot of Hecate Strait bottom salinity (ppt) by 0.2 ppt intervals during May-June 1996.

Appendix Table 1. Criteria used for determining stage of maturity of sole sampled during the R/V W.E. RICKER trawl survey of Heacte Strait, May 30 - June 13, 1996.

Maturity stage	Code	Testes	Ovaries
Immature	1	Testes very small, string-like and somewhat translucent or pinkish in colour.	Ovaries very small, translucent or pinkish in colour and somewhat gelatinous in texture.
Immature	2	Testes enlarged, a distinct bulge evident but still translucent or pinkish in colour.	Ovaries relatively small, pinkish-yellow or cream in colour, granular in texture. No distinct eggs visible.
Developing	3	Testes enlarged, brown-white or white in colour, firm in texture.	Ovaries large, cream or yellow in colour, containing opaque eggs that can be distinguished by direct observation. Sex may be determined externally.
Ripe	4	Testes large, white and easily broken. No sperm evident.	Ovaries containing partly or wholly translucent eggs. Sex easily determined externally.
Spawning	5	Testes large, white and sperm evident.	Ovaries containing entirely translucent, mature ova. Eggs loose and will run from oviducts under slight pressure.
Spent	6	Testes flaccid, shrunken and yellow-brown in colour. Sperm ducts enlarged and a small amount of sperm may be present.	Ovaries large, flaccid and purple in colour; a few translucent eggs may be left. Ovarian membrane very bloodshot and sac-like.
Resting	7	Testes firm, small and yellow-brown in colour. Sperm ducts small.	Ovaries contracted and firm, pinkish-grey to cream-yellow in colour and may appear granular in texture but no distinct eggs are visible.

Appendix Table 2. Bridge log and catch data for the R/V W.E. RICKER, Hecate Strait assemblage survey, May 30 - June 13, 1996.

HAUL NO.	1		2		3	
BLOCK	J505		J506		J504	
DATE (1996)	JUNE 01		JUNE 01		JUNE 01	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	335		300		138	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	8:22	8:52	9:37	10:07	10:52	11:22
LAT. (DEG,MIN)	52 56.1	52 57.8	52 57.9	52 58.8	52 57.9	52 56.9
LONG. (DEG,MIN)	130 34.8	130 35.3	130 38.1	130 40.6	130 39.2	130 38.5
DEPTH (FM)	51	49	57	62	40	40
SPECIES CATCH (KG)						
Arrowtooth flounder	13		26		32	
Butter sole	-		-		TRACE	
Curlfin sole	-		-		2	
Dover sole	-		7		TRACE	
English sole	-		9		4	
Flathead sole	TRACE		3		-	
Pacific halibut	52		19		22	
Pacific sanddab	-		-		19	
Petrals sole	1		1		-	
Rex sole	2		201		2	
Rock sole	-		-		12	
Sand sole	-		-		-	
Slender sole	-		-		-	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		2		-	
Copper rockfish	-		-		-	
Darkblotched rockfish	-		-		-	
Greenstriped rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	TRACE		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Sharpchin rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Widow rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		TRACE		-	
Eulachon	-		1		-	
Greenlings	-		-		-	
Lingcod	4		-		69	
Pacific cod	3		99		26	
Pacific hake	-		-		-	
Pacific herring	34		2		8	
Pacific tomcod	-		-		-	
Poachers	-		-		-	
Sablefish	-		2		56	
Salmon	-		-		-	
Sandlance	-		-		7	
Sculpins	TRACE		TRACE		TRACE	
Shiner perch	-		-		-	
Walleye pollock	9		-		-	
Wolfeel	-		-		-	
Big skate	-		52		49	
Longnose skate	-		-		-	
Sandpaper skate	-		1		-	
Spiny dogfish	8		124		35	
Spotted ratfish	3		98		6	
Crabs (Other)	-		-		-	
Dungeness Crab	-		-		-	
Octopus	-		-		-	
TOTAL CATCH (KG)	129		647		349	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 2. Continued.

HAUL NO.	4		5		6	
BLOCK	J503		I506		I405	
DATE (1996)	JUNE 01		JUNE 01		JUNE 01	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	340		320		150	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	12:15	12:45	13:30	14:00	14:55	15:25
LAT. (DEG,MIN)	52 56.2	52 58.2	53 00.1	53 01.5	53 00.6	52 59.4
LONG. (DEG,MIN)	130 39.6	130 40.3	130 37.7	130 38.8	130 44	130 42.8
DEPTH (FM)	35	35	68	60	55	55
SPECIES CATCH (KG)						
Arrowtooth flounder	1		2		12	
Butter sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	-		-		17	
English sole	-		-		5	
Flathead sole	-		-		9	
Pacific halibut	24		-		-	
Pacific sanddab	1		-		-	
Petrale sole	-		-		-	
Rex sole	-		-		137	
Rock sole	TRACE		-		-	
Sand sole	-		-		-	
Slender sole	-		-		TRACE	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Darkblotched rockfish	-		-		-	
Greenstriped rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Sharpchin rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Widow rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	TRACE		-		2	
Eelpouts	-		-		1	
Eulachon	-		-		TRACE	
Greenlings	-		-		-	
Lingcod	7		-		-	
Pacific cod	TRACE		-		-	
Pacific hake	-		-		-	
Pacific herring	37		3		1	
Pacific tomcod	-		-		TRACE	
Poachers	-		-		-	
Sablefish	3		-		TRACE	
Salmon	-		-		-	
Sandlance	5		TRACE		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	-		-		-	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		-		3	
Sandpaper skate	-		-		-	
Spiny dogfish	9		2		44	
Spotted ratfish	1		1		9	
Crabs (Other)	-		-		-	
Dungeness Crab	-		-		-	
Octopus	-		-		-	
Shrimp (pink)	-		-		-	
TOTAL CATCH (KG)	88		8		240	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 2. Continued.

HAUL NO.	7		8		9	
BLOCK	NEW		J402		J402	
DATE (1996)	JUNE 01		JUNE 01		JUNE 01	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	284		275		335	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	16:00	16:30	17:17	17:47	18:20	18:50
LAT. (DEG,MIN)	52 58.6	52 58.8	52 57.1	52 57	52 56.7	52 57.6
LONG. (DEG,MIN)	130 43.1	130 44.7	130 46.9	130 48.8	130 51.2	130 51.9
DEPTH (FM)	46	46	26	27	20	18
SPECIES CATCH(KG)						
Arrowtooth flounder	127		4		-	
Butter sole	-		3		-	
Curlfin sole	-		1		2	
Dover sole	77		1		-	
English sole	104		69		4	
Flathead sole	TRACE		-		-	
Pacific halibut	106		38		7	
Pacific sanddab	-		18		4	
Petrale sole	5		-		-	
Rex sole	108		1		-	
Rock sole	TRACE		17		37	
Sand sole	-		-		1	
Slender sole	-		-		-	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Darkblotched rockfish	-		-		-	
Greenstriped rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Sharpchin rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Widow rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	1		TRACE		-	
Eulachon	-		-		-	
Greenlings	-		TRACE		-	
Lingcod	TRACE		-		-	
Pacific cod	-		TRACE		TRACE	
Pacific hake	-		-		-	
Pacific herring	3		10		5	
Pacific tomcod	TRACE		3		TRACE	
Poachers	-		-		-	
Sablefish	4		5		-	
Salmon	-		-		-	
Sandlance	18		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	-		TRACE		-	
Wolfeel	-		-		-	
Big skate	65		13		17	
Longnose skate	2		-		-	
Sandpaper skate	-		-		-	
Spiny dogfish	6		24		4	
Spotted ratfish	18		-		-	
Crabs (Other)	-		-		-	
Dungeness Crab	-		-		-	
Octopus	-		-		-	
Shrimp (pink)	-		-		-	
TOTAL CATCH (KG)	644		207		81	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 2. Continued.

HAUL NO.	10	11	12			
BLOCK	I401	I403	I404			
DATE (1996)	JUNE 01	JUNE 02	JUNE 02			
DURATION (H)	0.50	0.50	0.50			
DIRECTION (DEG. TRUE)	335	335	300			
	START	STOP	START	STOP	START	STOP
TIME (PDT)	19:30	20:00	8:03	8:33	9:15	9:45
LAT. (DEG,MIN)	53 00	53 01.1	53 01.4	53 02.6	53 06.1	53 07.1
LONG. (DEG,MIN)	130 52.9	130 53.7	130 51.5	130 51.7	130 54.2	130 55.6
DEPTH (FM)	15	15	31	31	42	40
SPECIES CATCH(KG)						
Arrowtooth flounder	-	-	-	-	2	-
Butter sole	-	-	-	-	-	-
Curlfin sole	TRACE	-	3	-	-	-
Dover sole	-	-	3	-	1	-
English sole	6	-	13	-	72	-
Flathead sole	-	-	-	-	-	-
Pacific halibut	5	-	29	-	-	-
Pacific sanddab	2	-	1	-	288	-
Petrale sole	-	-	1	-	TRACE	-
Rex sole	-	-	5	-	28	-
Rock sole	60	-	13	-	2	-
Sand sole	TRACE	-	-	-	-	-
Slender sole	-	-	-	-	-	-
Starry flounder	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-
Canary rockfish	-	-	TRACE	-	-	-
Copper rockfish	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-
Greenstriped rockfish	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	-	-
Pygmy rockfish	-	-	5	-	-	-
Quillback rockfish	-	-	27	-	-	-
Redbanded rockfish	-	-	-	-	-	-
Redstripe rockfish	-	-	1	-	-	-
Sharpchin rockfish	-	-	-	-	-	-
Silvergray rockfish	-	-	-	-	-	-
Widow rockfish	-	-	TRACE	-	-	-
Yelloweye rockfish	-	-	10	-	-	-
Yellowtail rockfish	-	-	5	-	-	-
Eelpouts	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-
Greenlings	-	-	4	-	-	-
Lingcod	-	-	16	-	-	-
Pacific cod	2	-	2	-	-	-
Pacific hake	-	-	-	-	-	-
Pacific herring	2	-	TRACE	-	6	-
Pacific tomcod	-	-	-	-	1	-
Poachers	-	-	-	-	TRACE	-
Sablefish	-	-	-	-	2	-
Salmon	-	-	-	-	-	-
Sandlance	1	-	TRACE	-	-	-
Sculpins	-	-	TRACE	-	-	-
Shiner perch	TRACE	-	-	-	-	-
Walleye pollock	-	-	-	-	TRACE	-
Wolfeel	-	-	5	-	-	-
Big skate	-	-	-	-	-	-
Longnose skate	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-
Spiny dogfish	8	-	31	-	12	-
Spotted ratfish	-	-	199	-	14	-
Crabs (Other)	-	-	-	-	1	-
Dungeness Crab	-	-	-	-	-	-
Octopus	-	-	-	-	-	-
Shrimp (pink)	-	-	-	-	-	-
TOTAL CATCH (KG)	86	-	373	-	429	-
REMARKS	USABLE	-	USABLE	-	USABLE	-

Appendix Table 2. Continued.

HAUL NO.	13		14		15	
BLOCK	H407		H406		H405	
DATE (1996)	JUNE 02		JUNE 02		JUNE 02	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	15		350		190	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	11:03	11:33	12:25	12:55	13:27	13:57
LAT. (DEG,MIN)	53 11.6	53 13.3	53 12.8	53 14.5	53 14	53 12.8
LONG. (DEG,MIN)	130 46.9	130 47.8	130 51.5	130 52.4	130 54.2	130 55.4
DEPTH (FM)	73	75	62	62	55	51
SPECIES CATCH (KG)						
Arrowtooth flounder	14		9		3	
Butter sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	6		12		31	
English sole	1		12		69	
Flathead sole	1		2		TRACE	
Pacific halibut	-		-		-	
Pacific sanddab	3		-		-	
Petrals sole	-		1		5	
Rex sole	10		30		67	
Rock sole	-		-		-	
Sand sole	-		-		-	
Slender sole	TRACE		TRACE		TRACE	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Darkblotched rockfish	TRACE		TRACE		-	
Greenstriped rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	20		-		-	
Redstripe rockfish	-		-		-	
Sharpchin rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Widow rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	15		-		-	
Eelpouts	-		TRACE		TRACE	
Eulachon	1		14		1	
Greenlings	-		-		-	
Lingcod	-		-		-	
Pacific cod	-		-		6	
Pacific hake	-		-		-	
Pacific herring	TRACE		TRACE		5	
Pacific tomcod	-		-		-	
Poachers	-		-		TRACE	
Sablefish	1		TRACE		-	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	-		2		4	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		-		-	
Sandpaper skate	-		-		-	
Spiny dogfish	2		43		23	
Spotted ratfish	2		18		11	
Crabs (Other)	-		-		-	
Dungeness Crab	-		-		-	
Octopus	-		-		-	
Shrimp (pink)	-		-		-	
TOTAL CATCH (KG)	76		143		225	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 2. Continued.

HAUL NO.	16	17	18
BLOCK	H304	H304	G303
DATE (1996)	JUNE 02	JUNE 02	JUNE 02
DURATION (H)	0.50	0.50	0.50
DIRECTION (DEG. TRUE)	350	10	355
TIME (PDT)	START 14:45 STOP 15:15	START 15:45 STOP 16:15	START 17:06 STOP 17:36
LAT. (DEG,MIN)	53 15.1 53 16.6	53 18.3 53 19.7	53 21.8 53 23.2
LONG. (DEG,MIN)	130 59.8 131 00.2	131 00.4 131 00.3	131 00.6 131 00.9
DEPTH (FM)	46 44	40 42	38 44

SPECIES CATCH (KG)

Arrowtooth flounder	7	2	9
Butter sole	-	-	TRACE
Curlfin sole	TRACE	-	TRACE
Dover sole	1	2	4
English sole	128	88	97
Flathead sole	-	-	-
Pacific halibut	-	8	6
Pacific sanddab	20	104	10
Petrale sole	-	-	-
Rex sole	24	19	31
Rock sole	3	7	-
Sand sole	-	-	-
Slender sole	-	-	TRACE
Starry flounder	-	-	-
Bocaccio	-	-	5
Canary rockfish	-	-	-
Copper rockfish	-	-	-
Darkblotched rockfish	-	-	-
Greenstriped rockfish	-	-	-
Harlequin rockfish	-	-	-
Pacific ocean perch	-	-	-
Pygmy rockfish	-	-	-
Quillback rockfish	-	-	-
Redbanded rockfish	-	-	-
Redstripe rockfish	-	-	-
Sharpchin rockfish	-	-	-
Silvergray rockfish	-	-	-
Widow rockfish	-	-	-
Yelloweye rockfish	-	-	-
Yellowtail rockfish	2	-	-
Eelpouts	-	-	-
Eulachon	-	-	TRACE
Greenlings	-	-	-
Lingcod	8	14	-
Pacific cod	3	-	-
Pacific hake	-	-	-
Pacific herring	10	60	17
Pacific tomcod	-	-	-
Poachers	TRACE	-	TRACE
Sablefish	5	44	6
Salmon	-	-	-
Sandlance	-	-	-
Sculpins	-	-	-
Shiner perch	-	-	-
Walleye pollock	12	1401	172
Wolfeel	-	-	-
Big skate	-	-	-
Longnose skate	-	-	-
Sandpaper skate	-	-	-
Spiny dogfish	51	30	5
Spotted ratfish	6	15	1
Crabs (Other)	-	-	-
Dungeness Crab	-	-	-
Octopus	-	-	-
Shrimp (pink)	-	-	-
TOTAL CATCH (KG)	280	1794	235
REMARKS	USABLE	USABLE	USABLE

Appendix Table 2. Continued.

HAUL NO.	19	20	21			
BLOCK	G304	G405	F405			
DATE (1996)	JUNE 02	JUNE 02	JUNE 03			
DURATION (H)	0.50	0.50	0.50			
DIRECTION (DEG. TRUE)	25	45	15			
	START	STOP	START	STOP	START	STOP
TIME (PDT)	18:14	18:44	19:23	19:53	8:18	8:48
LAT. (DEG,MIN)	53 22.8	53 23.4	53 25.4	53 26.3	53 31.9	53 33.1
LONG. (DEG,MIN)	130 59.7	130 59.1	130 54.7	130 53.1	130 47.4	130 47.1
DEPTH (FM)	46	46	59	60	51	51
SPECIES CATCH(KG)						
Arrowtooth flounder	14		70		93	
Butter sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	15		43		28	
English sole	36		33		52	
Flathead sole	2		4		9	
Pacific halibut	4		-		-	
Pacific sanddab	-		-		-	
Petrable sole	TRACE		2		TRACE	
Rex sole	44		80		90	
Rock sole	-		-		-	
Sand sole	-		-		-	
Slender sole	1		3		3	
Starry flounder	-		-		-	
Bocaccio	18		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Darkblotched rockfish	-		-		-	
Greenstriped rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Sharpchin rockfish	-		-		-	
Silvergray rockfish	-		2		-	
Widow rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		TRACE		TRACE	
Eulachon	4		TRACE		-	
Greenlings	-		-		-	
Lingcod	-		5		-	
Pacific cod	13		5		-	
Pacific hake	-		-		-	
Pacific herring	9		TRACE		-	
Pacific tomcod	-		-		-	
Poachers	-		TRACE		-	
Sablefish	4		TRACE		7	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	10		4		44	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		-		-	
Sandpaper skate	-		-		-	
Spiny dogfish	17		5		-	
Spotted ratfish	4		7		5	
Crabs (Other)	-		-		-	
Dungeness Crab	-		-		-	
Octopus	-		-		-	
Shrimp (pink)	-		-		-	
TOTAL CATCH (KG)	195		263		331	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 2. Continued.

HAUL NO.	22		23		24	
BLOCK	F407		F404		F406	
DATE (1996)	JUNE 03		JUNE 03		JUNE 03	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	25		0		10	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	9:40	10:10	10:49	11:19	12:06	12:36
LAT. (DEG,MIN)	53 35.5	53 36.9	53 36.2	53 37.6	53 38.5	53 40
LONG. (DEG,MIN)	130 46.2	130 46.3	130 47.8	130 47.2	130 46.2	130 45.8
DEPTH (FM)	62	70	38	42	60	60
SPECIES CATCH (KG)						
Arrowtooth flounder	178		180		300	
Butter sole	-		TRACE		-	
Curlfin sole	-		-		-	
Dover sole	96		-		78	
English sole	86		160		57	
Flathead sole	6		-		3	
Pacific halibut	7		4		-	
Pacific sanddab	-		TRACE		-	
Petrale sole	-		1		-	
Rex sole	144		53		167	
Rock sole	-		TRACE		-	
Sand sole	-		-		-	
Slender sole	TRACE		-		1	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Darkblotched rockfish	-		-		-	
Greenstriped rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Sharpchin rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Widow rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		1	
Eelpouts	TRACE		-		TRACE	
Eulachon	1		-		-	
Greenlings	-		-		-	
Lingcod	-		-		-	
Pacific cod	23		119		18	
Pacific hake	-		-		-	
Pacific herring	-		4		TRACE	
Pacific tomcod	-		-		-	
Poachers	-		-		-	
Sablefish	4		5		12	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	8		565		25	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		-		-	
Sandpaper skate	-		-		-	
Spiny dogfish	TRACE		5		3	
Spotted ratfish	29		5		16	
Crabs (Other)	-		-		-	
Dungeness Crab	-		6		TRACE	
Octopus	-		-		-	
Shrimp (pink)	-		-		-	
TOTAL CATCH (KG)	582		1107		681	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 2. Continued.

HAUL NO.	25	26	27
BLOCK	E402	E402	E402
DATE (1996)	JUNE 03	JUNE 03	JUNE 03
DURATION (H)	0.50	0.50	0.50
DIRECTION (DEG. TRUE)	295	290	5
TIME (PDT)	START 13:09 STOP 13:39	START 14:06 STOP 14:36	START 14:56 STOP 15:26
LAT. (DEG,MIN)	53 41.1 53 42	53 42.7 53 43.4	53 44.2 53 45.8
LONG. (DEG,MIN)	130 48.5 130 50.5	130 52.2 130 54.3	130 55.4 130 55.1
DEPTH (FM)	27 24	27 26	29 29
SPECIES CATCH(KG)			
Arrowtooth flounder	1	TRACE	4
Butter sole	TRACE	-	17
Curlfin sole	-	1	2
Dover sole	TRACE	-	-
English sole	2	1	52
Flathead sole	TRACE	-	-
Pacific halibut	2	-	63
Pacific sanddab	TRACE	TRACE	34
Petrale sole	-	-	-
Rex sole	2	TRACE	1
Rock sole	223	53	28
Sand sole	1	-	8
Slender sole	-	TRACE	-
Starry flounder	-	-	-
Bocaccio	-	-	-
Canary rockfish	-	-	-
Copper rockfish	-	-	-
Darkblotched rockfish	-	-	-
Greenstriped rockfish	-	-	-
Harlequin rockfish	-	-	-
Pacific ocean perch	-	-	-
Pygmy rockfish	-	-	-
Quillback rockfish	-	-	2
Redbanded rockfish	-	-	-
Redstripe rockfish	-	-	-
Sharpchin rockfish	-	-	-
Silvergray rockfish	-	-	-
Widow rockfish	-	-	-
Yelloweye rockfish	-	-	-
Yellowtail rockfish	-	-	-
Eelpouts	-	-	-
Eulachon	-	-	-
Greenlings	-	-	-
Lingcod	6	-	6
Pacific cod	-	-	1
Pacific hake	-	-	-
Pacific herring	TRACE	-	TRACE
Pacific tomcod	-	-	1
Poachers	-	-	-
Sablefish	-	-	TRACE
Salmon	-	-	-
Sandlance	9	4	TRACE
Sculpins	-	-	-
Shiner perch	-	-	-
Walleye pollock	-	-	-
Wolfeel	-	-	-
Big skate	92	28	-
Longnose skate	-	-	-
Sandpaper skate	-	-	-
Spiny dogfish	1	1	2
Spotted ratfish	132	191	25
Crabs (Other)	-	-	-
Dungeness Crab	1	-	-
Octopus	-	-	-
Shrimp (pink)	-	-	-
TOTAL CATCH (KG)	472	279	246
REMARKS	USABLE	USABLE	USABLE

Appendix Table 2. Continued.

HAUL NO.	28		29		30	
BLOCK	E405		D404		E303	
DATE (1996)	JUNE 03		JUNE 03		JUNE 03	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	60		300		190	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	15:54	16:24	17:20	17:50	18:54	19:24
LAT. (DEG,MIN)	53 46.5	53 47.7	53 51.7	53 52.1	53 49	53 47.7
LONG. (DEG,MIN)	130 46.5	130 50.4	130 50.6	130 52.6	131 00.1	131 00.5
DEPTH (FM)	55	62	46	46	29	29
SPECIES CATCH(KG)						
Arrowtooth flounder	111		338		1	
Butter sole	-		4		-	
Curlfin sole	-		TRACE		TRACE	
Dover sole	226		13		TRACE	
English sole	20		47		3	
Flathead sole	57		69		-	
Pacific halibut	5		5		63	
Pacific sanddab	TRACE		12		1	
Petrale sole	-		-		-	
Rex sole	249		40		TRACE	
Rock sole	TRACE		8		57	
Sand sole	-		-		-	
Slender sole	15		TRACE		-	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Darkblotched rockfish	-		-		-	
Greenstriped rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Sharpchin rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Widow rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	1		-		-	
Eelpouts	-		-		-	
Eulachon	2		-		-	
Greenlings	-		-		-	
Lingcod	-		-		TRACE	
Pacific cod	44		14		TRACE	
Pacific hake	1		-		-	
Pacific herring	-		-		TRACE	
Pacific tomcod	-		-		-	
Poachers	-		-		-	
Sablefish	6		3		-	
Salmon	-		-		-	
Sandlance	TRACE		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	75		212		TRACE	
Wolfeel	-		-		-	
Big skate	-		-		46	
Longnose skate	10		-		4	
Sandpaper skate	-		-		-	
Spiny dogfish	5		8		3	
Spotted ratfish	57		25		96	
Crabs (Other)	-		-		-	
Dungeness Crab	-		-		-	
Octopus	-		-		-	
Shrimp (pink)	-		-		-	
TOTAL CATCH (KG)	884		798		274	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	31		32		33	
BLOCK	D303		D304		D303	
DATE (1996)	JUNE 04		JUNE 04		JUNE 04	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	340		327		340	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	8:11	8:41	9:19	9:49	10:24	10:54
LAT. (DEG,MIN)	53 53.9	53 55.3	53 55.7	53 56.9	53 57.1	53 58.1
LONG. (DEG,MIN)	131 03.5	131 04	131 00.9	131 02.3	131 05.1	131 06
DEPTH (FM)	31	31	40	40	33	29
SPECIES CATCH(KG)						
Arrowtooth flounder	31		865		16	
Butter sole	TRACE		1		5	
Curlfin sole	1		-		-	
Dover sole	2		15		TRACE	
English sole	63		66		35	
Flathead sole	-		40		-	
Pacific halibut	79		5		50	
Pacific sanddab	139		2		37	
Petrable sole	-		-		-	
Rex sole	9		37		2	
Rock sole	30		592		74	
Sand sole	-		-		24	
Slender sole	-		TRACE		-	
Starry flounder	-		-		-	
Bocaccio	4		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Darkblotched rockfish	-		-		-	
Greenstriped rockfish	-		-		-	
Harlequin rockfish	-		TRACE		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		11		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Sharpchin rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Widow rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		-		-	
Eulachon	-		-		-	
Greenlings	-		TRACE		-	
Lingcod	-		TRACE		-	
Pacific cod	32		15		3	
Pacific hake	-		-		-	
Pacific herring	20		TRACE		TRACE	
Pacific tomcod	-		-		TRACE	
Poachers	-		-		-	
Sablefish	4		19		313	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	22		14		TRACE	
Wolfeel	-		-		-	
Big skate	-		-		12	
Longnose skate	-		-		-	
Sandpaper skate	-		-		-	
Spiny dogfish	32		6		8	
Spotted ratfish	10		11		19	
Crabs (Other)	-		-		-	
Dungeness Crab	-		-		1	
Octopus	-		-		-	
Shrimp (pink)	-		-		-	
TOTAL CATCH (KG)	478		1699		599	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	34		35		36	
BLOCK	D302		C302		C301	
DATE (1996)	JUNE 04		JUNE 04		JUNE 04	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	355		185		340	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	11:20	11:50	12:38	13:08	13:39	14:09
LAT. (DEG,MIN)	53 58	53 59.3	54 01.3	53 59.7	54 00.4	54 01.8
LONG. (DEG,MIN)	131 06.9	131 06.9	131 05.9	131 05.9	131 07.7	131 08.2
DEPTH (FM)	26	20	16	20	22	18
SPECIES CATCH(KG)						
Arrowtooth flounder	3		-		TRACE	
Butter sole	-		-		TRACE	
Curlfin sole	-		-		-	
Dover sole	-		-		-	
English sole	1		TRACE		2	
Flathead sole	-		-		-	
Pacific halibut	11		44		19	
Pacific sanddab	-		-		1	
Petrals sole	-		-		-	
Rex sole	-		-		-	
Rock sole	56		86		34	
Sand sole	1		3		4	
Slender sole	-		-		-	
Starry flounder	-		1		1	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Darkblotched rockfish	-		-		-	
Greenstriped rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Sharpchin rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Widow rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		-		-	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	-		-		-	
Pacific cod	-		-		-	
Pacific hake	-		-		-	
Pacific herring	5		TRACE		-	
Pacific tomcod	-		-		-	
Poachers	-		TRACE		-	
Sablefish	-		279		3	
Salmon	-		-		-	
Sandlance	-		TRACE		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	-		-		-	
Wolfeel	-		-		-	
Big skate	-		18		30	
Longnose skate	-		-		2	
Sandpaper skate	-		-		-	
Spiny dogfish	1		-		6	
Spotted ratfish	5		5		-	
Crabs (Other)	-		TRACE		-	
Dungeness Crab	-		-		-	
Octopus	-		-		-	
Shrimp (pink)	-		-		-	
TOTAL CATCH (KG)	83		436		102	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 2. Continued.

HAUL NO.	37		38		39	
BLOCK	C301		C301		B301	
DATE (1996)	JUNE 04		JUNE 04		JUNE 04	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	18		0		150	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	14:42	15:12	15:57	16:27	17:17	17:47
LAT. (DEG,MIN)	54 02.6	54 04	54 06.9	54 08.3	54 10.9	54 09.6
LONG. (DEG,MIN)	131 06.4	131 06.5	131 09.6	131 09.6	131 08.2	131 07.3
DEPTH (FM)	15	16	18	15	16	18
SPECIES CATCH(KG)						
Arrowtooth flounder	-	-	-	-	-	-
Butter sole	-	-	TRACE	-	-	-
Curlfin sole	-	-	-	-	-	-
Dover sole	-	-	-	-	-	-
English sole	TRACE	-	2	-	TRACE	-
Flathead sole	-	-	-	-	-	-
Pacific halibut	22	-	51	-	36	-
Pacific sanddab	1	-	1	-	1	-
Petrale sole	-	-	-	-	-	-
Rex sole	-	-	-	-	-	-
Rock sole	42	-	97	-	31	-
Sand sole	5	-	2	-	2	-
Slender sole	-	-	-	-	-	-
Starry flounder	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-
Greenstriped rockfish	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	-	-
Pygmy rockfish	-	-	-	-	-	-
Quillback rockfish	-	-	-	-	-	-
Redbanded rockfish	-	-	-	-	-	-
Redstripe rockfish	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	-	-	-
Silvergray rockfish	-	-	-	-	-	-
Widow rockfish	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	-
Eelpouts	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-
Greenlings	-	-	-	-	-	-
Lingcod	9	-	-	-	-	-
Pacific cod	-	-	-	-	TRACE	-
Pacific hake	-	-	-	-	-	-
Pacific herring	TRACE	-	1	-	42	-
Pacific tomcod	-	-	-	-	-	-
Poachers	-	-	-	-	-	-
Sablefish	TRACE	-	-	-	-	-
Salmon	-	-	-	-	-	-
Sandlance	12	-	1	-	1	-
Sculpins	-	-	-	-	-	-
Shiner perch	-	-	TRACE	-	-	-
Walleye pollock	-	-	-	-	-	-
Wolfeel	-	-	-	-	-	-
Big skate	47	-	17	-	4	-
Longnose skate	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-
Spiny dogfish	-	-	6	-	2	-
Spotted ratfish	-	-	132	-	5	-
Crabs (Other)	-	-	-	-	1	-
Dungeness Crab	1	-	3	-	-	-
Octopus	-	-	-	-	-	-
Shrimp (pink)	-	-	-	-	-	-
TOTAL CATCH (KG)	139	-	313	-	125	-
REMARKS	USABLE	-	USABLE	-	USABLE	-

Appendix Table 2. Continued.

HAUL NO.	40		41		42	
BLOCK	C303		B302		B304	
DATE (1996)	JUNE 04		JUNE 05		JUNE 05	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	155		5		5	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	18:26	18:56	8:11	8:41	9:45	10:15
LAT. (DEG,MIN)	54 09.2	54 07.7	54 10.4	54 12	54 13.4	54 14.9
LONG. (DEG,MIN)	131 04.9	131 04.6	131 04.9	131 04.6	130 03.3	130 03.2
DEPTH (FM)	27	31	33	37	48	49
SPECIES CATCH(KG)						
Arrowtooth flounder	103		27		78	
Butter sole	-		TRACE		-	
Curlfin sole	-		-		-	
Dover sole	14		46		23	
English sole	775		170		339	
Flathead sole	-		14		2	
Pacific halibut	101		40		131	
Pacific sanddab	35		TRACE		-	
Petrale sole	-		-		-	
Rex sole	22		211		64	
Rock sole	38		-		2	
Sand sole	35		3		-	
Slender sole	-		-		-	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Darkblotched rockfish	-		-		-	
Greenstriped rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Sharpchin rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Widow rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		-		-	
Eulachon	-		TRACE		10	
Greenlings	-		-		-	
Lingcod	3		-		-	
Pacific cod	639		24		45	
Pacific hake	-		-		-	
Pacific herring	3		8		-	
Pacific tomcod	35		41		2	
Poachers	3		-		-	
Sablefish	348		14		2	
Salmon	-		-		-	
Sandlance	3		-		-	
Sculpins	3		3		-	
Shiner perch	-		-		-	
Walleye pollock	27		8		15	
Wolfeel	-		-		-	
Big skate	-		11		103	
Longnose skate	-		-		-	
Sandpaper skate	-		-		-	
Spiny dogfish	3		18		48	
Spotted ratfish	84		25		284	
Crabs (Other)	-		-		-	
Dungeness Crab	-		-		-	
Octopus	-		-		-	
Shrimp (pink)	-		-		-	
TOTAL CATCH (KG)	2274		663		1148	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 2. Continued.

HAUL NO.	43	44	45
BLOCK	B306	B305	B302
DATE (1996)	JUNE 05	JUNE 05	JUNE 05
DURATION (H)	0.50	0.50	0.50
DIRECTION (DEG. TRUE)	0	330	260
TIME (PDT)	START 10:47 STOP 11:17	START 12:04 STOP 12:34	START 13:07 STOP 13:37
LAT. (DEG,MIN)	54 14.6 54 15.9	54 17 54 18.3	54 17.2 54 16.7
LONG. (DEG,MIN)	131 02.6 131 02.8	131 04 131 04.9	131 06 131 08.1
DEPTH (FM)	60 60	55 59	27 20
SPECIES CATCH(KG)			
Arrowtooth flounder	179	127	13
Butter sole	-	-	7
Curlfin sole	-	-	-
Dover sole	43	27	TRACE
English sole	38	312	73
Flathead sole	1	-	-
Pacific halibut	138	154	8
Pacific sanddab	-	-	2
Petrale sole	-	-	-
Rex sole	58	148	-
Rock sole	1	-	TRACE
Sand sole	-	-	-
Slender sole	-	-	-
Starry flounder	-	-	-
Bocaccio	-	-	-
Canary rockfish	-	-	-
Copper rockfish	-	-	-
Darkblotched rockfish	-	-	-
Greenstriped rockfish	-	-	-
Harlequin rockfish	-	-	-
Pacific ocean perch	-	-	-
Pygmy rockfish	-	-	-
Quillback rockfish	-	-	-
Redbanded rockfish	-	-	-
Redstripe rockfish	-	-	-
Sharpchin rockfish	-	-	-
Silvergray rockfish	-	-	-
Widow rockfish	-	-	-
Yelloweye rockfish	-	-	-
Yellowtail rockfish	-	-	-
Eelpouts	-	-	-
Eulachon	18	-	-
Greenlings	-	-	-
Lingcod	-	-	-
Pacific cod	44	101	1
Pacific hake	-	-	-
Pacific herring	-	-	54
Pacific tomcod	-	3	5
Poachers	-	-	-
Sablefish	3	-	-
Salmon	-	-	-
Sandlance	TRACE	-	-
Sculpins	-	-	-
Shiner perch	-	-	-
Walleye pollock	3	27	1
Wolfeel	-	-	5
Big skate	23	64	75
Longnose skate	-	-	7
Sandpaper skate	-	-	-
Spiny dogfish	46	54	-
Spotted ratfish	218	802	-
Crabs (Other)	-	-	-
Dungeness Crab	2	-	8
Octopus	-	-	-
Shrimp (pink)	TRACE	-	-
TOTAL CATCH (KG)	815	1819	264
REMARKS	USABLE	USABLE	USABLE

Appendix Table 2. Continued.

HAUL NO.	46		47		48	
BLOCK	A304		A303		B204	
DATE (1996)	JUNE 05		JUNE 05		JUNE 05	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	335		318		255	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	14:25	14:55	15:28	15:58	17:49	18:19
LAT. (DEG,MIN)	54 19.9	54 21.1	54 21.7	54 22.8	54 18.1	54 18.1
LONG. (DEG,MIN)	131 07.6	131 08	131 09.9	131 11.2	131 20.6	131 23.4
DEPTH (FM)	40	40	37	38	40	48
SPECIES CATCH (KG)						
Arrowtooth flounder	155		626		715	
Butter sole	-		3		-	
Curlfin sole	-		-		-	
Dover sole	95		9		3	
English sole	324		91		332	
Flathead sole	7		-		-	
Pacific halibut	10		11		103	
Pacific sanddab	-		-		-	
Petrале sole	-		3		-	
Rex sole	47		8		37	
Rock sole	3		-		-	
Sand sole	-		-		3	
Slender sole	-		-		-	
Starry flounder	-		-		-	
Bocaccio	-		-		12	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Darkblotched rockfish	-		-		-	
Greenstriped rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		TRACE		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Sharpchin rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Widow rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		1		43	
Eelpouts	-		-		-	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	-		-		27	
Pacific cod	41		19		15	
Pacific hake	-		-		-	
Pacific herring	3		-		-	
Pacific tomcod	3		-		3	
Poachers	-		-		-	
Sablefish	10		11		3	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	10		1		24	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		2		-	
Sandpaper skate	-		-		-	
Spiny dogfish	14		7		128	
Spotted ratfish	871		417		12	
Crabs (Other)	-		-		-	
Dungeness Crab	3		TRACE		-	
Octopus	-		-		-	
Shrimp (pink)	-		-		-	
TOTAL CATCH (KG)	1596		1209		1460	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 2. Continued.

HAUL NO.	49	50	51			
BLOCK	B202	B102	B103			
DATE (1996)	JUNE 05	JUNE 06	JUNE 06			
DURATION (H)	0.50	0.50	0.50			
DIRECTION (DEG. TRUE)	230	55	52			
	START	STOP	START	STOP	START	STOP
TIME (PDT)	18:54	19:24	13:41	14:11	14:35	15:05
LAT. (DEG,MIN)	54 17.3	54 16.4	54 09.3	54 10.6	54 11.7	54 12.2
LONG. (DEG,MIN)	131 24.6	131 26.7	131 48	131 46.4	131 45.1	131 42.6
DEPTH (FM)	27	26	18	22	38	37

SPECIES CATCH(KG)	49	50	51
Arrowtooth flounder	56	9	130
Butter sole	124	-	2
Curfin sole	-	-	-
Dover sole	-	-	11
English sole	93	9	147
Flathead sole	-	-	-
Pacific halibut	416	77	10
Pacific sanddab	-	5	107
Petrable sole	-	-	8
Rex sole	-	5	28
Rock sole	-	9	-
Sand sole	-	-	-
Slender sole	-	-	-
Starry flounder	-	14	-
Bocaccio	-	-	-
Canary rockfish	-	-	-
Copper rockfish	-	-	-
Darkblotched rockfish	-	-	-
Greenstriped rockfish	-	-	-
Harlequin rockfish	-	-	-
Pacific ocean perch	-	-	-
Pygmy rockfish	-	-	-
Quillback rockfish	-	-	-
Redbanded rockfish	-	-	-
Redstripe rockfish	-	-	-
Sharpchin rockfish	-	-	-
Silvergray rockfish	-	-	-
Widow rockfish	-	-	-
Yelloweye rockfish	-	-	-
Yellowtail rockfish	-	-	-
Eelpouts	-	-	-
Eulachon	-	-	-
Greenlings	-	-	-
Lingcod	-	36	3
Pacific cod	47	-	329
Pacific hake	-	-	-
Pacific herring	5	1397	32
Pacific tomcod	-	-	1
Poachers	-	-	-
Sablefish	-	-	11
Salmon	-	-	-
Sandlance	-	-	-
Sculpins	-	-	-
Shiner perch	-	-	-
Walleye pollock	22	5	2
Wolfeel	-	-	-
Big skate	20	-	-
Longnose skate	-	-	-
Sandpaper skate	-	-	-
Spiny dogfish	118	14	102
Spotted ratfish	-	23	33
Crabs (Other)	-	-	-
Dungeness Crab	-	-	-
Octopus	-	-	-
Shrimp (pink)	-	-	-
TOTAL CATCH (KG)	901	1608	956
REMARKS	USABLE	USABLE	USABLE

HAUL NO.	52		53		54	
BLOCK	B105		B106		B204	
DATE (1996)	JUNE 06		JUNE 06		JUNE 07	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	70		98		275	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	15:33	16:03	17:07	17:37	8:07	8:37
LAT. (DEG,MIN)	54 13.9	54 15.1	54 16.3	54 16.5	54 17.7	54 17.7
LONG. (DEG,MIN)	131 41.1	131 39.1	131 36.9	131 34.1	131 24.1	131 26.8
DEPTH (FM)	55	59	68	66	38	49
SPECIES CATCH (KG)						
Arrowtooth flounder	208		178		140	
Butter sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	3		58		1	
English sole	30		7		45	
Flathead sole	2		6		-	
Pacific halibut	-		3		15	
Pacific sanddab	-		-		-	
Petrale sole	1		2		-	
Rex sole	21		13		4	
Rock sole	-		-		-	
Sand sole	-		-		5	
Slender sole	-		-		-	
Starry flounder	-		-		-	
Bocaccio	4		3		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Darkblotched rockfish	-		-		-	
Greenstriped rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	TRACE		1		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Sharpchin rockfish	-		-		-	
Silvergray rockfish	-		10		-	
Widow rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	21		-		-	
Eelpouts	-		-		-	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	-		-		-	
Pacific cod	4		28		2	
Pacific hake	-		-		-	
Pacific herring	-		-		-	
Pacific tomcod	-		-		-	
Poachers	-		-		-	
Sablefish	-		-		2	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	25		78		TRACE	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		4		-	
Sandpaper skate	-		-		4	
Spiny dogfish	17		19		425	
Spotted ratfish	79		33		9	
Crabs (Other)	-		-		1	
Dungeness Crab	-		-		-	
Octopus	-		-		-	
Shrimp (pink)	-		-		-	
TOTAL CATCH (KG)	415		443		653	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 2. Continued.

HAUL NO.	55		56		57	
BLOCK	A207		A206		B302	
DATE (1996)	JUNE 07		JUNE 07		JUNE 07	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	30		22		103	
TIME (PDT)	START	STOP	START	STOP	START	STOP
LAT. (DEG,MIN)	9:42	10:12	10:54	11:24	12:50	13:20
LAT. (DEG,MIN)	54 18.1	54 16.7	54 22.3	54 23.9	54 18.1	54 18.2
LONG. (DEG,MIN)	131 27.6	131 26.2	131 16.2	131 15.9	131 09.7	131 07
DEPTH (FM)	77	77	60	77	27	27
SPECIES CATCH(KG)						
Arrowtooth flounder	326		3483		32	
Butter sole	-		-		4	
Curlfin sole	-		-		-	
Dover sole	13		7		2	
English sole	TRACE		-		97	
Flathead sole	-		-		-	
Pacific halibut	-		-		14	
Pacific sanddab	-		-		-	
Petrals sole	1		-		-	
Rex sole	4		7		7	
Rock sole	-		-		-	
Sand sole	-		-		-	
Slender sole	-		-		-	
Starry flounder	-		-		-	
Bocaccio	4		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Darkblotched rockfish	-		-		-	
Greenstriped rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Sharpchin rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Widow rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		83		-	
Eelpouts	-		-		-	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	-		-		15	
Pacific cod	10		-		1	
Pacific hake	-		-		-	
Pacific herring	-		-		55	
Pacific tomcod	-		-		2	
Poachers	-		-		-	
Sablefish	1		42		4	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	-		-		206	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	2		-		-	
Sandpaper skate	-		-		-	
Spiny dogfish	8		7		-	
Spotted ratfish	31		-		8	
Dungeness Crab	-		-		1	
Octopus	-		-		-	
Shrimp (pink)	7		-		-	
Shrimp (sidestripe)	7		-		-	
TOTAL CATCH (KG)	414		3629		448	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 2. Continued.

HAUL NO.	58		59		60	
BLOCK	B301		B201		C201	
DATE (1996)	JUNE 07		JUNE 07		JUNE 07	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	187		295		193	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	14:17	14:47	15:17	15:47	16:17	16:47
LAT. (DEG,MIN)	54 13.4	54 11.9	54 10.2	54 10.3	54 09.5	54 08.4
LONG. (DEG,MIN)	131 11.7	131 11.8	131 14.5	131 16.3	131 14.7	131 16.2
DEPTH (FM)	13	13	13	15	13	13
SPECIES CATCH(KG)						
Arrowtooth flounder	-	-	-	-	-	-
Butter sole	1	-	1	-	-	-
Curlfin sole	-	-	-	-	-	-
Dover sole	-	-	-	-	-	-
English sole	3	-	16	-	5	-
Flathead sole	-	-	-	-	-	-
Pacific halibut	67	-	89	-	169	-
Pacific sanddab	TRACE	-	TRACE	-	-	-
Petrale sole	-	-	-	-	-	-
Rex sole	-	-	-	-	-	-
Rock sole	122	-	53	-	27	-
Sand sole	9	-	2	-	2	-
Slender sole	-	-	-	-	-	-
Starry flounder	8	-	-	-	-	-
Bocaccio	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-
Greenstriped rockfish	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	-	-
Pygmy rockfish	-	-	-	-	-	-
Quillback rockfish	-	-	-	-	-	-
Redbanded rockfish	-	-	-	-	-	-
Redstripe rockfish	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	-	-	-
Silvergray rockfish	-	-	-	-	-	-
Widow rockfish	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	-
Eelpouts	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-
Greenlings	-	-	-	-	-	-
Lingcod	-	-	-	-	-	-
Pacific cod	-	-	-	-	-	-
Pacific hake	-	-	-	-	-	-
Pacific herring	8	-	20	-	5	-
Pacific tomcod	-	-	-	-	-	-
Poachers	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-
Salmon	-	-	-	-	-	-
Sandlance	-	-	-	-	-	-
Sculpins	-	-	-	-	-	-
Shiner perch	-	-	-	-	-	-
Walleye pollock	-	-	-	-	-	-
Wolfeel	-	-	-	-	-	-
Big skate	64	-	106	-	6	-
Longnose skate	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-
Spiny dogfish	2	-	9	-	3	-
Spotted ratfish	-	-	-	-	-	-
Crabs (Other)	-	-	-	-	-	-
Dungeness Crab	14	-	7	-	1	-
Octopus	-	-	-	-	-	-
Shrimp (pink)	-	-	-	-	-	-
TOTAL CATCH (KG)	298	-	303	-	218	-
REMARKS	USABLE	-	USABLE	-	USABLE	-

Appendix Table 2. Continued.

HAUL NO.	61		62		63	
BLOCK	D301		D201		E505	
DATE (1996)	JUNE 07		JUNE 07		JUNE 08	
DURATION (H)	0.50		0.40		0.50	
DIRECTION (DEG. TRUE)	156		187		180	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	18:19	18:49	19:26	19:50	8:11	8:41
LAT. (DEG,MIN)	53 59.7	53 58.4	53 57.4	53 56.5	53 44.1	53 42.7
LONG. (DEG,MIN)	131 13.9	131 12.9	131 16	131 16.6	130 37.5	130 37.8
DEPTH (FM)	18	20	16	15	51	55
SPECIES CATCH(KG)						
Arrowtooth flounder	-	-	-	-	99	-
Butter sole	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-
Dover sole	-	-	-	-	22	-
English sole	-	-	1	-	4	-
Flathead sole	-	-	-	-	13	-
Pacific halibut	25	-	31	-	3	-
Pacific sanddab	-	-	-	-	TRACE	-
Petrale sole	-	-	-	-	-	-
Rex sole	-	-	-	-	32	-
Rock sole	32	-	88	-	TRACE	-
Sand sole	2	-	-	-	-	-
Slender sole	-	-	-	-	16	-
Starry flounder	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-
Copper rockfish	2	-	2	-	-	-
Darkblotched rockfish	-	-	-	-	-	-
Greenstriped rockfish	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	-	-
Pygmy rockfish	-	-	-	-	-	-
Quillback rockfish	1	-	-	-	-	-
Redbanded rockfish	-	-	-	-	-	-
Redstripe rockfish	-	-	-	-	TRACE	-
Sharpchin rockfish	-	-	-	-	-	-
Silvergray rockfish	-	-	-	-	1	-
Widow rockfish	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	TRACE	-
Eelpouts	-	-	-	-	TRACE	-
Eulachon	-	-	-	-	TRACE	-
Greenlings	-	-	TRACE	-	-	-
Lingcod	TRACE	-	-	-	-	-
Pacific cod	TRACE	-	2	-	4	-
Pacific hake	-	-	-	-	1	-
Pacific herring	4	-	1	-	TRACE	-
Pacific tomcod	-	-	-	-	TRACE	-
Poachers	-	-	-	-	-	-
Sablefish	87	-	12	-	2	-
Salmon	-	-	-	-	-	-
Sandlance	-	-	-	-	-	-
Sculpins	-	-	-	-	-	-
Shiner perch	-	-	-	-	-	-
Walleye pollock	-	-	-	-	114	-
Wolfeel	-	-	-	-	-	-
Big skate	-	-	-	-	-	-
Longnose skate	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-
Spiny dogfish	2	-	8	-	4	-
Spotted ratfish	22	-	181	-	30	-
Crabs (Other)	-	-	-	-	-	-
Dungeness Crab	-	-	-	-	-	-
Octopus	-	-	-	-	-	-
Shrimp (pink)	-	-	-	-	-	-
TOTAL CATCH (KG)	177	-	326	-	345	-
REMARKS	USABLE	-	USABLE	-	USABLE	-

Appendix Table 2. Continued.

HAUL NO.	64		65		66	
BLOCK	E504		E302		F303	
DATE (1996)	JUNE 08		JUNE 08		JUNE 08	
DURATION (H)	0.50		0.73		0.50	
DIRECTION (DEG. TRUE)	184		168		231	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	9:13	9:43	11:28	12:12	12:40	13:10
LAT. (DEG,MIN)	53 41.1	53 39.9	53 41.7	53 40	53 38.5	53 37.8
LONG. (DEG,MIN)	130 37.1	130 38.5	130 60	131 00.3	131 00.7	131 02.5
DEPTH (FM)	44	48	24	24	31	38
SPECIES CATCH(KG)						
Arrowtooth flounder	186	-	-	-	-	-
Butter sole	-	-	-	-	-	-
Curlfin sole	-	-	-	-	TRACE	-
Dover sole	16	-	-	-	-	-
English sole	33	-	-	-	8	-
Flathead sole	2	-	-	-	-	-
Pacific halibut	2	-	74	-	238	-
Pacific sanddab	-	-	-	-	-	-
Petrable sole	-	-	-	-	-	-
Rex sole	28	-	-	-	-	-
Rock sole	TRACE	-	28	-	27	-
Sand sole	-	-	-	-	-	-
Slender sole	TRACE	-	-	-	-	-
Starry flounder	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-
Canary rockfish	-	-	-	-	25	-
Copper rockfish	-	-	3	-	43	-
Darkblotched rockfish	-	-	-	-	-	-
Greenstriped rockfish	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-
Pacific ocean perch	TRACE	-	-	-	-	-
Pygmy rockfish	-	-	-	-	-	-
Quillback rockfish	-	-	14	-	26	-
Redbanded rockfish	-	-	-	-	-	-
Redstripe rockfish	-	-	-	-	TRACE	-
Sharpchin rockfish	-	-	-	-	-	-
Silvergray rockfish	-	-	-	-	-	-
Widow rockfish	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	-
Eelpouts	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-
Greenlings	-	-	4	-	13	-
Lingcod	-	-	10	-	13	-
Pacific cod	17	-	-	-	1	-
Pacific hake	-	-	-	-	-	-
Pacific herring	-	-	-	-	-	-
Pacific tomcod	1	-	-	-	-	-
Poachers	-	-	-	-	-	-
Sablefish	13	-	-	-	-	-
Salmon	-	-	-	-	-	-
Sandlance	-	-	1	-	-	-
Sculpins	-	-	-	-	-	-
Shiner perch	-	-	-	-	-	-
Walleye pollock	79	-	-	-	-	-
Wolfeel	-	-	-	-	-	-
Big skate	-	-	-	-	86	-
Longnose skate	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-
Spiny dogfish	2	-	-	-	2	-
Spotted ratfish	7	-	42	-	14	-
Crabs (Other)	-	-	-	-	-	-
Dungeness Crab	-	-	-	-	-	-
Octopus	-	-	-	-	12	-
Shrimp (pink)	-	-	-	-	-	-
TOTAL CATCH (KG)	386	-	176	-	508	-
REMARKS	USABLE	-	USABLE	-	USABLE	-

Appendix Table 2. Continued.

HAUL NO.	67		68		69	
BLOCK	F303		F302		F302	
DATE (1996)	JUNE 08		JUNE 08		JUNE 08	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	231		170		31	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	13:40	14:10	14:35	15:05	15:29	15:59
LAT. (DEG,MIN)	53 36.6	53 35.5	53 34.7	53 35.5	53 34.1	53 35.5
LONG. (DEG,MIN)	131 05.7	131 06.7	131 06.7	131 06.5	131 06.7	131 06.5
DEPTH (FM)	29	38	29	27	27	27
SPECIES CATCH (KG)						
Arrowtooth flounder	-	-	-	-	-	-
Butter sole	-	-	-	-	TRACE	-
Curlfin sole	-	-	-	-	-	-
Dover sole	-	-	-	-	-	-
English sole	1	-	-	-	TRACE	-
Flathead sole	-	-	-	-	-	-
Pacific halibut	22	-	-	-	21	-
Pacific sanddab	TRACE	-	-	-	-	-
Petrale sole	-	-	-	-	-	-
Rex sole	-	-	-	-	-	-
Rock sole	89	-	34	-	42	-
Sand sole	1	-	-	-	TRACE	-
Slender sole	-	-	-	-	-	-
Starry flounder	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-
Copper rockfish	-	-	-	-	1	-
Darkblotched rockfish	-	-	-	-	-	-
Greenstriped rockfish	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	-	-
Pygmy rockfish	-	-	-	-	-	-
Quillback rockfish	-	-	-	-	-	-
Redbanded rockfish	-	-	-	-	-	-
Redstripe rockfish	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	-	-	-
Silvergray rockfish	-	-	-	-	-	-
Widow rockfish	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	-
Eelpouts	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-
Greenlings	-	-	-	-	-	-
Lingcod	6	-	-	-	1	-
Pacific cod	57	-	-	-	-	-
Pacific hake	-	-	-	-	-	-
Pacific herring	1	-	-	-	-	-
Pacific tomcod	-	-	-	-	-	-
Poachers	-	-	TRACE	-	TRACE	-
Sablefish	-	-	-	-	-	-
Salmon	1	-	-	-	-	-
Sandlance	1	-	1	-	TRACE	-
Sculpins	-	-	TRACE	-	TRACE	-
Shiner perch	-	-	-	-	-	-
Walleye pollock	-	-	-	-	-	-
Wolfeel	-	-	-	-	-	-
Big skate	15	-	-	-	14	-
Longnose skate	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-
Spiny dogfish	-	-	-	-	1	-
Spotted ratfish	6	-	4	-	29	-
Crabs (Other)	-	-	-	-	-	-
Dungeness Crab	-	-	-	-	-	-
Octopus	-	-	-	-	-	-
Shrimp (pink)	-	-	-	-	-	-
TOTAL CATCH (KG)	200	-	39	-	109	-
REMARKS	USABLE	-	USABLE	-	USABLE	-

Appendix Table 2. Continued.

HAUL NO.	70		71		72	
BLOCK	F301		F201		F201	
DATE (1996)	JUNE 08		JUNE 08		JUNE 08	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	172		352		126	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	17:06	17:36	18:22	18:52	19:30	20:00
LAT. (DEG,MIN)	53 33.4	53 32.1	53 31.6	53 33	53 35.7	53 35.3
LONG. (DEG,MIN)	131 12.7	131 12.6	131 18.6	131 19.5	131 18.6	131 16.5
DEPTH (FM)	15	16	15	15	13	13
SPECIES CATCH(KG)						
Arrowtooth flounder	-	-	-	-	-	-
Butter sole	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-
Dover sole	-	-	-	-	-	-
English sole	1	-	9	-	TRACE	-
Flathead sole	-	-	-	-	-	-
Pacific halibut	-	-	-	-	71	-
Pacific sanddab	TRACE	-	TRACE	-	-	-
Petrale sole	-	-	-	-	-	-
Rex sole	-	-	-	-	-	-
Rock sole	71	-	78	-	19	-
Sand sole	1	-	8	-	-	-
Slender sole	-	-	-	-	-	-
Starry flounder	1	-	-	-	22	-
Bocaccio	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-
Greenstriped rockfish	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	-	-
Pygmy rockfish	-	-	-	-	-	-
Quillback rockfish	-	-	-	-	-	-
Redbanded rockfish	-	-	-	-	-	-
Redstripe rockfish	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	-	-	-
Silvergray rockfish	-	-	-	-	-	-
Widow rockfish	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	-
Eelpouts	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-
Greenlings	-	-	-	-	-	-
Lingcod	-	-	-	-	-	-
Pacific cod	-	-	-	-	-	-
Pacific hake	-	-	-	-	-	-
Pacific herring	-	-	1	-	3	-
Pacific tomcod	-	-	-	-	-	-
Poachers	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-
Salmon	-	-	-	-	-	-
Sandlance	1	-	TRACE	-	1	-
Sculpins	-	-	-	-	-	-
Shiner perch	-	-	-	-	-	-
Walleye pollock	-	-	TRACE	-	-	-
Wolfeel	-	-	-	-	-	-
Big skate	-	-	3	-	23	-
Longnose skate	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-
Spiny dogfish	-	-	2	-	7	-
Spotted ratfish	1	-	-	-	-	-
Crabs (Other)	-	-	-	-	-	-
Dungeness Crab	-	-	20	-	21	-
Octopus	-	-	-	-	-	-
Shrimp (pink)	-	-	-	-	-	-
TOTAL CATCH (KG)	76	-	121	-	167	-
REMARKS	USABLE	-	USABLE	-	USABLE	-

Appendix Table 2. Continued.

HAUL NO.	73		74		75	
BLOCK	E201		G301		G201	
DATE (1996)	JUNE 08		JUNE 09		JUNE 09	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	335		303		303	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	20:45	21:15	8:08	8:38	9:25	9:55
LAT. (DEG,MIN)	53 40.8	53 42.2	53 25.3	53 26.2	53 26.2	53 27
LONG. (DEG,MIN)	131 15.6	131 16	131 08.1	131 09.9	131 17.2	131 19
DEPTH (FM)	16	20	18	18	15	15
SPECIES CATCH(KG)						
Arrowtooth flounder	-	-	-	-	-	-
Butter sole	10	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-
Dover sole	2	-	-	-	-	-
English sole	149	-	-	-	TRACE	-
Flathead sole	-	-	-	-	-	-
Pacific halibut	47	-	36	-	17	-
Pacific sanddab	2	-	TRACE	-	TRACE	-
Petrale sole	-	-	-	-	-	-
Rex sole	-	-	-	-	-	-
Rock sole	10	-	105	-	67	-
Sand sole	43	-	10	-	4	-
Slender sole	-	-	-	-	-	-
Starry flounder	-	-	-	-	3	-
Bocaccio	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-
Greenstriped rockfish	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	-	-
Pygmy rockfish	-	-	-	-	-	-
Quillback rockfish	-	-	-	-	-	-
Redbanded rockfish	-	-	-	-	-	-
Redstripe rockfish	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	-	-	-
Silvergray rockfish	-	-	-	-	-	-
Widow rockfish	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	-
Eelpouts	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-
Greenlings	-	-	-	-	TRACE	-
Lingcod	-	-	-	-	TRACE	-
Pacific cod	-	-	TRACE	-	3	-
Pacific hake	-	-	-	-	-	-
Pacific herring	11	-	TRACE	-	TRACE	-
Pacific tomcod	2	-	-	-	-	-
Poachers	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-
Salmon	-	-	-	-	-	-
Sandlance	-	-	1	-	-	-
Sculpins	-	-	-	-	-	-
Shiner perch	-	-	-	-	-	-
Walleye pollock	-	-	-	-	-	-
Wolfeel	-	-	-	-	-	-
Big skate	32	-	8	-	27	-
Longnose skate	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-
Spiny dogfish	5	-	3	-	8	-
Spotted ratfish	2	-	88	-	4	-
Crabs (Other)	-	-	-	-	-	-
Dungeness Crab	-	-	-	-	-	-
Octopus	-	-	-	-	-	-
Shrimp (pink)	-	-	-	-	-	-
TOTAL CATCH (KG)	315	-	251	-	133	-
REMARKS	USABLE	-	USABLE	-	USABLE	-

Appendix Table 2. Continued.

HAUL NO.	76		77		78	
BLOCK	H201		H201		H302	
DATE (1996)	JUNE 09		JUNE 09		JUNE 09	
DURATION (H)	0.53		0.50		0.50	
DIRECTION (DEG. TRUE)	143		347		338	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	10:59	11:31	12:43	13:13	14:02	14:32
LAT. (DEG,MIN)	53 19.6	53 18.4	53 11.7	53 13.1	53 14.4	53 15.8
LONG. (DEG,MIN)	131 17.6	131 15.8	131 16.3	131 16.7	131 09.7	131 10.3
DEPTH (FM)	15	15	16	16	20	20
SPECIES CATCH (KG)						
Arrowtooth flounder	-	-	-	-	-	-
Butter sole	-	-	-	-	-	-
Curlfin sole	2	-	-	-	TRACE	-
Dover sole	-	-	-	-	-	-
English sole	-	-	1	-	5	-
Flathead sole	-	-	-	-	-	-
Pacific halibut	75	-	-	-	13	-
Pacific sanddab	TRACE	-	TRACE	-	11	-
Petrале sole	-	-	-	-	-	-
Rex sole	-	-	-	-	-	-
Rock sole	43	-	54	-	31	-
Sand sole	1	-	3	-	-	-
Slender sole	-	-	-	-	-	-
Starry flounder	TRACE	-	-	-	-	-
Bocaccio	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-
Copper rockfish	-	-	-	-	1	-
Darkblotched rockfish	-	-	-	-	-	-
Greenstriped rockfish	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	-	-
Pygmy rockfish	-	-	-	-	-	-
Quillback rockfish	14	-	6	-	1	-
Redbanded rockfish	-	-	-	-	-	-
Redstripe rockfish	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	-	-	-
Silvergray rockfish	-	-	-	-	-	-
Widow rockfish	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	-
Eelpouts	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-
Greenlings	1	-	-	-	3	-
Lingcod	TRACE	-	2	-	4	-
Pacific cod	-	-	-	-	1	-
Pacific hake	-	-	-	-	-	-
Pacific herring	-	-	TRACE	-	1	-
Pacific tomcod	-	-	-	-	-	-
Poachers	-	-	-	-	-	-
Sablefish	-	-	-	-	TRACE	-
Salmon	-	-	-	-	-	-
Sandlance	-	-	TRACE	-	-	-
Sculpins	-	-	-	-	TRACE	-
Shiner perch	-	-	-	-	-	-
Walleye pollock	-	-	-	-	TRACE	-
Wolfeel	-	-	-	-	-	-
Big skate	26	-	6	-	8	-
Longnose skate	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-
Spiny dogfish	20	-	6	-	9	-
Spotted ratfish	53	-	-	-	-	-
Crabs (Other)	-	-	-	-	-	-
Dungeness Crab	-	-	-	-	-	-
Octopus	-	-	-	-	-	-
Shrimp (pink)	-	-	-	-	-	-
TOTAL CATCH (KG)	235	-	78	-	88	-
REMARKS	USABLE	-	USABLE	-	USABLE	-

Appendix Table 2. Continued.

HAUL NO.	79		80		81	
BLOCK	H301		H303		G407	
DATE (1996)	JUNE 09		JUNE 09		JUNE 09	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	118		12		157	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	14:55	15:25	16:04	16:34	17:44	18:14
LAT. (DEG,MIN)	53 16.3	53 15.5	53 15.9	53 17.4	53 21.9	53 20.7
LONG. (DEG,MIN)	131 08.9	131 07.2	131 03.6	131 03.2	130 53.6	130 52.8
DEPTH (FM)	18	18	33	35	71	75
SPECIES CATCH(KG)						
Arrowtooth flounder	-	-	TRACE	-	192	-
Butter sole	-	-	-	-	-	-
Curlfin sole	-	-	1	-	-	-
Dover sole	-	-	-	-	267	-
English sole	1	-	14	-	8	-
Flathead sole	-	-	-	-	48	-
Pacific halibut	-	-	-	-	-	-
Pacific sanddab	3	-	22	-	-	-
Petrале sole	-	-	-	-	-	-
Rex sole	-	-	TRACE	-	76	-
Rock sole	41	-	4	-	-	-
Sand sole	-	-	-	-	-	-
Slender sole	-	-	-	-	1	-
Starry flounder	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-
Canary rockfish	-	-	-	-	1	-
Copper rockfish	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-
Greenstriped rockfish	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	107	-
Pygmy rockfish	-	-	-	-	-	-
Quillback rockfish	-	-	-	-	-	-
Redbanded rockfish	-	-	-	-	-	-
Redstripe rockfish	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	-	-	-
Silvergray rockfish	-	-	-	-	-	-
Widow rockfish	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	1	-
Eelpouts	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-
Greenlings	-	-	-	-	-	-
Lingcod	8	-	4	-	-	-
Pacific cod	-	-	TRACE	-	1	-
Pacific hake	-	-	-	-	-	-
Pacific herring	TRACE	-	TRACE	-	-	-
Pacific tomcod	-	-	-	-	-	-
Poachers	-	-	-	-	-	-
Sablefish	-	-	-	-	21	-
Salmon	-	-	-	-	-	-
Sandlance	1	-	-	-	-	-
Sculpins	-	-	-	-	-	-
Shiner perch	-	-	-	-	-	-
Walleye pollock	-	-	TRACE	-	4	-
Wolfeel	-	-	-	-	-	-
Big skate	43	-	206	-	-	-
Longnose skate	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-
Spiny dogfish	-	-	3	-	5	-
Spotted ratfish	-	-	3	-	8	-
Crabs (Other)	-	-	-	-	-	-
Dungeness Crab	-	-	-	-	-	-
Octopus	-	-	-	-	-	-
Shrimp (pink)	-	-	-	-	-	-
TOTAL CATCH (KG)	97	-	257	-	740	-
REMARKS	USABLE	-	USABLE	-	USABLE	-

Appendix Table 2. Continued.

- 66 -

HAUL NO.	82		83		84	
BLOCK	I407		I303		I302	
DATE (1996)	JUNE 10		JUNE 10		JUNE 10	
DURATION (H)	0.58		0.50		0.50	
DIRECTION (DEG. TRUE)	185		184		258	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	8:05	8:40	9:50	10:20	10:55	11:25
LAT. (DEG,MIN)	53 09.2	53 07.5	53 07.1	53 05.8	53 03.6	53 03.5
LONG. (DEG,MIN)	130 46.6	130 46.3	130 59.1	130 58.6	130 57	130 59.2
DEPTH (FM)	71	71	35	33	26	26
SPECIES CATCH(KG)						
Arrowtooth flounder	15		-		-	
Butter sole	-		-		TRACE	
Curlfin sole	-		-		2	
Dover sole	71		TRACE		1	
English sole	11		1		114	
Flathead sole	17		-		-	
Pacific halibut	-		7		36	
Pacific sanddab	-		8		62	
Petrale sole	-		-		-	
Rex sole	120		TRACE		-	
Rock sole	-		4		1	
Sand sole	-		-		-	
Slender sole	1		-		-	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Darkblotched rockfish	-		-		-	
Greenstriped rockfish	1		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	7		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	2		5		-	
Redstripe rockfish	-		-		-	
Sharpchin rockfish	TRACE		-		-	
Silvergray rockfish	1		-		-	
Widow rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	2		-		-	
Eelpouts	TRACE		-		-	
Eulachon	6		-		-	
Greenlings	-		-		-	
Lingcod	-		-		1	
Pacific cod	6		-		4	
Pacific hake	-		-		-	
Pacific herring	TRACE		-		TRACE	
Pacific tomcod	-		-		TRACE	
Poachers	-		-		-	
Sablefish	1		-		-	
Salmon	-		-		-	
Sandlance	-		TRACE		TRACE	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	13		-		TRACE	
Wolfeel	-		-		-	
Big skate	-		-		2	
Longnose skate	-		-		-	
Sandpaper skate	-		-		-	
Spiny dogfish	11		10		5	
Spotted ratfish	6		10		1	
Crabs (Other)	-		-		-	
Dungeness Crab	-		-		-	
Octopus	-		-		-	
Shrimp (pink)	-		-		-	
TOTAL CATCH (KG)	291		45		229	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	85		86		87	
BLOCK	I302		I301		I302	
DATE (1996)	JUNE 10		JUNE 10		JUNE 10	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	269		297		335	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	12:08	12:38	13:05	13:35	14:02	14:32
LAT. (DEG,MIN)	53 03.2	53 03.4	53 02.1	53 02.5	53 03.7	53 04.8
LONG. (DEG,MIN)	131 00.2	131 02.2	131 03.2	131 05.3	131 08.9	131 10.1
DEPTH (FM)	24	24	18	16	20	22
SPECIES CATCH(KG)						
Arrowtooth flounder	-	-	-	-	-	-
Butter sole	-	-	-	-	-	-
Curlfin sole	1	-	-	-	1	-
Dover sole	-	-	-	-	-	-
English sole	3	-	TRACE	-	TRACE	-
Flathead sole	-	-	-	-	-	-
Pacific halibut	31	-	1	-	20	-
Pacific sanddab	11	-	1	-	1	-
Petrable sole	-	-	-	-	-	-
Rex sole	-	-	-	-	-	-
Rock sole	27	-	131	-	69	-
Sand sole	1	-	2	-	1	-
Slender sole	-	-	-	-	-	-
Starry flounder	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-
Greenstriped rockfish	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	-	-
Pygmy rockfish	-	-	-	-	-	-
Quillback rockfish	-	-	-	-	-	-
Redbanded rockfish	-	-	-	-	-	-
Redstripe rockfish	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	-	-	-
Silvergray rockfish	-	-	-	-	-	-
Widow rockfish	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	-
Eelpouts	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-
Greenlings	-	-	-	-	-	-
Lingcod	-	-	-	-	8	-
Pacific cod	-	-	-	-	TRACE	-
Pacific hake	-	-	-	-	-	-
Pacific herring	2	-	TRACE	-	TRACE	-
Pacific tomcod	TRACE	-	-	-	-	-
Poachers	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-
Salmon	-	-	-	-	-	-
Sandlance	1	-	TRACE	-	TRACE	-
Sculpins	-	-	-	-	-	-
Shiner perch	-	-	-	-	-	-
Walleye pollock	-	-	-	-	-	-
Wolfeel	-	-	-	-	-	-
Big skate	-	-	5	-	5	-
Longnose skate	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-
Spiny dogfish	14	-	40	-	12	-
Spotted ratfish	-	-	-	-	-	-
Crabs (Other)	-	-	-	-	-	-
Dungeness Crab	-	-	-	-	-	-
Octopus	-	-	-	-	-	-
Shrimp (pink)	-	-	-	-	-	-
TOTAL CATCH (KG)	91	-	180	-	117	-
REMARKS	USABLE	-	USABLE	-	USABLE	-

Appendix Table 2. Continued.

HAUL NO.	88		89		90	
BLOCK	I302		I201		NEW	
DATE (1996)	JUNE 10		JUNE 10		JUNE 10	
DURATION (H)	0.50		0.50		0.28	
DIRECTION (DEG. TRUE)	352		35		48	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	15:00	15:30	16:24	16:54	18:18	18:35
LAT. (DEG,MIN)	53 03.5	53 05	53 02.7	53 04	52 56.1	52 56.9
LONG. (DEG,MIN)	131 09.2	131 09.4	131 15.7	131 14.6	131 16.4	131 15.4
DEPTH (FM)	18	18	16	15	13	13
SPECIES CATCH (KG)						
Arrowtooth flounder	-	-	-	-	-	-
Butter sole	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-
Dover sole	-	-	-	-	-	-
English sole	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-
Pacific halibut	-	-	TRACE	-	-	-
Pacific sanddab	TRACE	-	TRACE	-	-	-
Petrale sole	-	-	-	-	-	-
Rex sole	-	-	-	-	-	-
Rock sole	197	-	112	-	-	-
Sand sole	2	-	2	-	-	-
Slender sole	-	-	-	-	-	-
Starry flounder	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-
Greenstriped rockfish	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	-	-
Pygmy rockfish	-	-	-	-	-	-
Quillback rockfish	-	-	-	-	-	-
Redbanded rockfish	-	-	-	-	-	-
Redstripe rockfish	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	-	-	-
Silvergray rockfish	-	-	-	-	-	-
Widow rockfish	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	-
Eelpouts	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-
Greenlings	-	-	-	-	-	-
Lingcod	11	-	-	-	-	-
Pacific cod	-	-	-	-	-	-
Pacific hake	-	-	-	-	-	-
Pacific herring	TRACE	-	TRACE	-	-	-
Pacific tomcod	-	-	-	-	-	-
Poachers	TRACE	-	-	-	-	-
Sablefish	TRACE	-	-	-	-	-
Salmon	-	-	-	-	-	-
Sandlance	-	-	-	-	-	-
Sculpins	-	-	-	-	-	-
Shiner perch	-	-	-	-	-	-
Walleye pollock	TRACE	-	-	-	-	-
Wolfeel	-	-	-	-	-	-
Big skate	-	-	-	-	-	-
Longnose skate	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-
Spiny dogfish	8	-	1	-	-	-
Spotted ratfish	-	-	13	-	-	-
Crabs (Other)	-	-	-	-	-	-
Dungeness Crab	-	-	-	-	-	-
Octopus	-	-	-	-	-	-
Shrimp (pink)	-	-	-	-	-	-
TOTAL CATCH (KG)	218	-	128	-	0	-
REMARKS	USABLE	-	USABLE	-	UNUSABLE	-

Appendix Table 2. Continued.

HAUL NO.	91		92		93	
BLOCK	J301		J402		J402	
DATE (1996)	JUNE 11		JUNE 11		JUNE 11	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	1		159		139	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	8:07	8:37	10:16	10:46	11:15	11:45
LAT. (DEG,MIN)	52 58	52 59.6	52 51.4	52 50.1	52 51.4	52 50.1
LONG. (DEG,MIN)	131 00.3	131 00.4	130 54.8	130 53.6	130 54.7	130 53.4
DEPTH (FM)	15	16	24	26	24	26
SPECIES CATCH (KG)						
Arrowtooth flounder	-	-	-	-	-	-
Butter sole	-	-	-	-	-	-
Curlfin sole	1	-	1	-	-	-
Dover sole	-	-	-	-	-	-
English sole	-	-	2	-	TRACE	-
Flathead sole	-	-	-	-	-	-
Pacific halibut	6	-	9	-	22	-
Pacific sanddab	1	-	1	-	1	-
Petrable sole	-	-	-	-	-	-
Rex sole	-	-	-	-	-	-
Rock sole	35	-	90	-	145	-
Sand sole	2	-	TRACE	-	1	-
Slender sole	-	-	-	-	-	-
Starry flounder	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-
Greenstriped rockfish	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	-	-
Pygmy rockfish	-	-	-	-	-	-
Quillback rockfish	-	-	-	-	-	-
Redbanded rockfish	-	-	-	-	-	-
Redstripe rockfish	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	-	-	-
Silvergray rockfish	-	-	-	-	-	-
Widow rockfish	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	-
Eelpouts	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-
Greenlings	-	-	-	-	-	-
Lingcod	-	-	-	-	-	-
Pacific cod	-	-	-	-	-	-
Pacific hake	-	-	-	-	-	-
Pacific herring	TRACE	-	TRACE	-	TRACE	-
Pacific tomcod	-	-	-	-	-	-
Poachers	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-
Salmon	TRACE	-	-	-	-	-
Sandlance	TRACE	-	-	-	TRACE	-
Sculpins	TRACE	-	TRACE	-	-	-
Shiner perch	-	-	-	-	-	-
Walleye pollock	-	-	-	-	-	-
Wolfeel	-	-	-	-	-	-
Big skate	-	-	10	-	27	-
Longnose skate	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-
Spiny dogfish	11	-	187	-	189	-
Spotted ratfish	2	-	2	-	TRACE	-
Crabs (Other)	-	-	-	-	-	-
Dungeness Crab	-	-	-	-	-	-
Octopus	-	-	-	-	-	-
Squid	2	-	-	-	-	-
TOTAL CATCH (KG)	60	-	304	-	387	-
REMARKS	USABLE	-	USABLE	-	USABLE	-

HAUL NO.	94	95	96			
BLOCK	J402	K403	K403			
DATE (1996)	JUNE 11	JUNE 11	JUNE 11			
DURATION (H)	0.50	0.50	0.50			
DIRECTION (DEG. TRUE)	163	230	220			
	START	STOP	START	STOP	START	STOP
TIME (PDT)	13:32	14:02	14:13	14:43	15:11	15:41
LAT. (DEG,MIN)	52 51.1	52 50	52 48.4	52 47.3	52 49.6	52 48.7
LONG. (DEG,MIN)	130 54.6	130 53.1	130 49.2	130 50.7	130 45.9	130 47.4
DEPTH (FM)	24	26	35	35	37	37
SPECIES CATCH(KG)						
Arrowtooth flounder	-		TRACE		TRACE	
Butter sole	-		TRACE		-	
Curlfin sole	1		2		3	
Dover sole	-		TRACE		1	
English sole	-		46		90	
Flathead sole	-		1		-	
Pacific halibut	25		16		32	
Pacific sanddab	2		23		42	
Petrale sole	-		-		1	
Rex sole	-		1		2	
Rock sole	201		41		3	
Sand sole	-		-		-	
Slender sole	-		-		-	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		1		-	
Copper rockfish	-		-		-	
Darkblotched rockfish	-		-		-	
Greenstriped rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		1		-	
Quillback rockfish	-		1		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Sharpchin rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Widow rockfish	-		-		-	
Yelloweye rockfish	-		7		-	
Yellowtail rockfish	-		4		-	
Eelpouts	-		-		-	
Eulachon	-		-		-	
Greenlings	-		TRACE		-	
Lingcod	-		TRACE		-	
Pacific cod	TRACE		9		TRACE	
Pacific hake	-		-		-	
Pacific herring	1		-		1	
Pacific tomcod	-		-		TRACE	
Poachers	-		-		-	
Sablefish	-		-		-	
Salmon	-		-		-	
Sandlance	TRACE		-		-	
Sculpins	TRACE		-		-	
Shiner perch	-		-		-	
Walleye pollock	-		-		-	
Wolfeel	-		-		-	
Big skate	49		-		-	
Longnose skate	-		-		-	
Sandpaper skate	-		-		-	
Spiny dogfish	144		207		19	
Spotted ratfish	-		60		5	
Crabs (Other)	-		-		-	
Dungeness Crab	-		-		-	
Octopus	-		-		-	
Shrimp (pink)	-		-		-	
TOTAL CATCH (KG)	423		420		219	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 2. Continued.

HAUL NO.	97		98		99	
BLOCK	K404		K506		K404	
DATE (1996)	JUNE 11		JUNE 11		JUNE 11	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	42		191		225	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	16:14	16:44	17:37	18:07	19:09	19:39
LAT. (DEG,MIN)	52 48.2	52 49.2	52 47.5	52 46.2	52 44.1	52 43.5
LONG. (DEG,MIN)	130 45.7	130 44	130 37.3	130 38.2	130 48.1	130 50.2
DEPTH (FM)	42	42	60	60	48	48
SPECIES CATCH (KG)						
Arrowtooth flounder	1		5		3	
Butter sole	-		-		-	
Curlfin sole	2		-		-	
Dover sole	TRACE		13		1	
English sole	14		13		8	
Flathead sole	-		2		TRACE	
Pacific halibut	-		-		-	
Pacific sanddab	26		1		23	
Petrale sole	2		3		1	
Rex sole	36		9		22	
Rock sole	18		-		1	
Sand sole	-		-		-	
Slender sole	TRACE		1		TRACE	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		TRACE	
Copper rockfish	-		-		-	
Darkblotched rockfish	-		-		-	
Greenstriped rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		10	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		TRACE	
Sharpchin rockfish	-		-		TRACE	
Silvergray rockfish	-		3		-	
Widow rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	TRACE		TRACE		-	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	-		-		-	
Pacific cod	2		-		2	
Pacific hake	-		-		-	
Pacific herring	2		1		-	
Pacific tomcod	-		-		-	
Poachers	-		-		-	
Sablefish	TRACE		TRACE		TRACE	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	TRACE		TRACE		-	
Shiner perch	-		-		-	
Walleye pollock	3		14		13	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		-		-	
Sandpaper skate	-		-		-	
Spiny dogfish	19		26		40	
Spotted ratfish	4		3		5	
Crabs (Other)	-		-		-	
Dungeness Crab	-		-		-	
Octopus	-		-		-	
Shrimp (pink)	-		-		-	
TOTAL CATCH (KG)	129		94		129	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 2. Continued.

HAUL NO.	100	101	102			
BLOCK	K405	K406	L406			
DATE (1996)	JUNE 12	JUNE 12	JUNE 12			
DURATION (H)	0.50	0.50	0.50			
DIRECTION (DEG. TRUE)	83	212	182			
	START	STOP	START	STOP	START	STOP
TIME (PDT)	8:05	8:35	9:10	9:40	10:11	10:41
LAT. (DEG,MIN)	52 42.3	52 42.9	52 41	52 39.8	52 39.5	52 36.3
LONG. (DEG,MIN)	130 46.8	130 44.6	130 44.1	130 45.4	130 45.7	130 46
DEPTH (FM)	55	55	60	60	62	66
SPECIES CATCH(KG)						
Arrowtooth flounder	5		16		16	
Butter sole	-		-		-	
Curlfin sole	TRACE		-		-	
Dover sole	TRACE		2		5	
English sole	5		7		13	
Flathead sole	-		-		TRACE	
Pacific halibut	27		-		4	
Pacific sanddab	5		2		1	
Petrable sole	6		8		20	
Rex sole	14		23		28	
Rock sole	4		-		2	
Sand sole	-		-		-	
Slender sole	TRACE		1		1	
Starry flounder	-		-		-	
Bocaccio	-		4		-	
Canary rockfish	-		-		-	
Copper rockfish	-		-		-	
Darkblotched rockfish	-		-		-	
Greenstriped rockfish	-		-		-	
Harlequin rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Pygmy rockfish	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Redstripe rockfish	-		-		-	
Sharpchin rockfish	-		-		-	
Silvergray rockfish	-		2		31	
Widow rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Eelpouts	-		-		-	
Eulachon	-		-		-	
Greenlings	-		-		-	
Lingcod	-		-		9	
Pacific cod	5		2		2	
Pacific hake	-		-		TRACE	
Pacific herring	3		5		9	
Pacific tomcod	-		-		-	
Poachers	-		-		-	
Sablefish	1		3		7	
Salmon	-		-		-	
Sandlance	-		-		-	
Sculpins	-		-		-	
Shiner perch	-		-		-	
Walleye pollock	7		14		34	
Wolfeel	-		-		-	
Big skate	-		-		-	
Longnose skate	-		-		1	
Sandpaper skate	-		-		-	
Spiny dogfish	3		4		10	
Spotted ratfish	7		5		6	
Crabs (Other)	-		-		-	
Dungeness Crab	-		-		-	
Octopus	-		-		-	
Shrimp (pink)	-		-		-	
TOTAL CATCH (KG)	92		98		199	
REMARKS	USABLE		USABLE		USABLE	

HAUL NO.	M1		M2		M3	
BLOCK	NEW		NEW		NEW	
DATE (1996)	JUNE 6		JUNE 6		JUNE 6	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	270		075		205	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	8:08	8:38	9:03	9:33	10:05	10:35
LAT. (DEG,MIN)	54 8.8	54 9.3	54 9.1	54 9.9	54 11.4	54 11.2
LONG. (DEG,MIN)	132 2.9	132 5.9	132 8.1	132 5.7	132 5.9	132 9.2
DEPTH (FM)	18	22	22	23	30	38
SPECIES CATCH (KG)						
Arrowtooth flounder	-	-	-	-	-	-
Butter sole	-	-	-	-	-	-
Curlfin sole	-	-	-	-	-	-
Dover sole	-	-	-	-	-	-
English sole	-	-	-	-	-	-
Flathead sole	-	-	-	-	-	-
Pacific halibut	168	-	10	-	-	-
Pacific sanddab	-	-	-	-	-	-
Petrale sole	-	-	-	-	-	-
Rex sole	-	-	-	-	-	-
Rock sole	18	-	9	-	6	-
Sand sole	-	-	-	-	-	-
Slender sole	-	-	-	-	-	-
Starry flounder	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-
Copper rockfish	-	-	-	-	-	-
Darkblotched rockfish	-	-	-	-	-	-
Greenstriped rockfish	-	-	-	-	-	-
Harlequin rockfish	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	-	-
Pygmy rockfish	-	-	-	-	-	-
Quillback rockfish	-	-	-	-	-	-
Redbanded rockfish	-	-	-	-	-	-
Redstripe rockfish	-	-	-	-	-	-
Sharpchin rockfish	-	-	-	-	-	-
Silvergray rockfish	-	-	-	-	-	-
Widow rockfish	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	-
Eelpouts	-	-	-	-	-	-
Eulachon	-	-	-	-	-	-
Greenlings	-	-	-	-	-	-
Lingcod	-	-	-	-	50	-
Pacific cod	-	-	-	-	-	-
Pacific hake	-	-	-	-	-	-
Pacific herring	-	-	-	-	-	-
Pacific tomcod	-	-	-	-	-	-
Poachers	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-
Salmon	-	-	-	-	-	-
Sandlance	-	-	-	-	-	-
Sculpins	-	-	-	-	-	-
Shiner perch	-	-	-	-	-	-
Walleye pollock	-	-	-	-	-	-
Wolfeel	-	-	-	-	-	-
Big skate	-	-	-	-	-	-
Longnose skate	-	-	-	-	-	-
Sandpaper skate	-	-	-	-	-	-
Spiny dogfish	-	-	-	-	247	-
Spotted ratfish	1014	-	181	-	197	-
Crabs (Other)	-	-	-	-	-	-
Dungeness Crab	-	-	-	-	-	-
Octopus	-	-	-	-	-	-
Shrimp (pink)	-	-	-	-	-	-
TOTAL CATCH (KG)	1200*	-	200*	-	500*	-
REMARKS	USABLE	-	USABLE	-	USABLE	-

HAUL NO. M4
 BLOCK NEW
 DATE (1996) JUNE 6
 DURATION (H) 0.50
 DIRECTION (DEG. TRUE) 97

	START	STOP
TIME (PDT)	11:05	11:35
LAT. (DEG,MIN)	54 11.2	54 12.1
LONG. (DEG,MIN)	132 11.0	132 8.9
DEPTH (FM)	45	49

SPECIES CATCH (KG)

Arrowtooth flounder	40
Butter sole	-
Curlfin sole	-
Dover sole	-
English sole	-
Flathead sole	-
Pacific halibut	-
Pacific sanddab	-
Petrable sole	-
Rex sole	TRACE
Rock sole	-
Sand sole	-
Slender sole	-
Starry flounder	-
Bocaccio	-
Canary rockfish	-
Copper rockfish	-
Darkblotched rockfish	-
Greenstriped rockfish	-
Harlequin rockfish	-
Pacific ocean perch	-
Pygmy rockfish	-
Quillback rockfish	-
Redbanded rockfish	-
Redstripe rockfish	-
Sharpchin rockfish	-
Silvergray rockfish	-
Widow rockfish	-
Yelloweye rockfish	-
Yellowtail rockfish	-
Eelpouts	-
Eulachon	-
Greenlings	-
Lingcod	-
Pacific cod	-
Pacific hake	-
Pacific herring	-
Pacific tomcod	-
Poachers	-
Sablefish	-
Salmon	-
Sandlance	-
Sculpins	-
Shiner perch	-
Walleye pollock	-
Wolfeel	-
Big skate	-
Longnose skate	-
Sandpaper skate	-
Spiny dogfish	200
Spotted ratfish	160
Crabs (Other)	-
Dungeness Crab	-

TOTAL CATCH (KG) 400*
 REMARKS USABLE

* Visual estimates of catch comp and total weight.

Appendix Table 3. Bridge log and catch data for the F/V STEADFMST, Hecate Strait assemblage survey, June 1-6, 1996.

HAUL NO.	1		2		3	
BLOCK	J505		J506		J504	
DATE (1996)	JUNE 01		JUNE 01		JUNE 01	
DURATION (H)	0.50		0.50		0.52	
DIRECTION (DEG. TRUE)	289		241		100	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	8:25	8:55	9:37	10:07	10:52	11:23
LAT. (DEG, MIN)	52 56	52 57.3	52 57.9	52 58.6	52 58.1	52 57.3
LONG. (DEG, MIN)	130 34.3	130 34.8	130 37.3	130 39.6	130 39.1	130 38.3
DEPTH (FM)	55	51	70	72	45	44
<hr/>						
SPECIES CATCH (KG)						
Arrowtooth flounder	11		27		26	
Butter sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	3		TRACE		-	
English sole	1		1		3	
Flathead sole	-		1		-	
Pacific halibut	48		26		14	
Pacific sanddab	-		-		-	
Petrale sole	3		2		-	
Rex sole	4		20		TRACE	
Rock sole	-		-		-	
Sand sole	-		-		-	
Slender sole	-		-		-	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Quillback rockfish	TRACE		-		-	
Redbanded rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Chinook salmon	-		-		-	
Kelp greenling	-		-		-	
Lingcod	11		-		88	
Pacific cod	2		221		7	
Pacific herring	-		-		TRACE	
Poachers	-		-		-	
Sablefish	TRACE		-		12	
Sculpins	-		-		-	
Walleye pollock	-		-		-	
Wolfeel	-		-		-	
Skates	-		2		15	
Spiny dogfish	48		-		70	
Spotted ratfish	13		67		76	
Dungeness Crab	-		-		-	
Invertebrates	-		-		-	
Octopus	-		-		-	
Starfish	-		-		-	
TOTAL CATCH (KG)	144		367		311	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 3. Continued.

HAUL NO.	4		5		6	
BLOCK	J503		I506		I405	
DATE (1996)	JUNE 01		JUNE 01		JUNE 01	
DURATION (H)	0.50		0.53		0.58	
DIRECTION (DEG. TRUE)	282		282		102	
TIME (PDT)	START	STOP	START	STOP	START	STOP
LAT. (DEG,MIN)	12:15	12:45	13:34	14:06	15:00	15:35
LONG. (DEG,MIN)	52 55.9	52 57.5	52 59.8	53 01.2	53 00.9	52 59.5
DEPTH (FM)	130 39.4	130 40.3	130 37.1	130 38.1	130 44	130 42.9
	39	34	68	61	60	60
SPECIES CATCH (KG)						
Arrowtooth flounder	TRACE		81		4	
Butter sole	-		-		-	
Curlfin sole	1		TRACE		-	
Dover sole	-		2		4	
English sole	1		35		8	
Flathead sole	-		3		1	
Pacific halibut	87		28		7	
Pacific sanddab	TRACE		-		-	
Petrale sole	-		2		-	
Rex sole	TRACE		38		19	
Rock sole	428		18		1	
Sand sole	-		-		-	
Slender sole	-		-		-	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		1	
Pacific ocean perch	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	1		-		-	
Chinook salmon	-		-		-	
Kelp greenling	-		-		-	
Lingcod	30		-		8	
Pacific cod	-		-		-	
Pacific herring	-		-		-	
Poachers	-		-		-	
Sablefish	23		3		-	
Sculpins	-		-		-	
Walleye pollock	-		-		-	
Wolfeel	-		-		-	
Skates	87		2		-	
Spiny dogfish	22		21		16	
Spotted ratfish	-		-		23	
Dungeness Crab	-		-		-	
Invertebrates	-		-		-	
Octopus	-		-		-	
Starfish	-		-		-	
TOTAL CATCH (KG)	679		234		92	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 3. Continued.

HAUL NO.	7		8		9	
BLOCK	XXXX		J402		J402	
DATE (1996)	JUNE 01		JUNE 01		JUNE 01	
DURATION (H)	0.53		0.50		0.58	
DIRECTION (DEG. TRUE)	227		216		242	
TIME (PDT)	START	STOP	START	STOP	START	STOP
LAT. (DEG, MIN)	16:08	16:40	17:15	17:45	18:20	18:55
LONG. (DEG, MIN)	52 58.4	52 58.3	52 57	52 56.6	52 56.4	52 57.4
DEPTH (FM)	130 42	130 43.9	130 45.9	130 48.5	130 51.1	130 52.2
	35	42	26	27	22	20
<hr/>						
SPECIES CATCH (KG)						
Arrowtooth flounder	8		-		-	
Butter sole	-		-		-	
Curlfin sole	2		3		2	
Dover sole	-		-		-	
English sole	9		-		2	
Flathead sole	-		1		1	
Pacific halibut	44		25		3	
Pacific sanddab	20		2		-	
Petrale sole	1		-		-	
Rex sole	1		1		-	
Rock sole	4		55		39	
Sand sole	-		-		-	
Slender sole	-		-		-	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Chinook salmon	-		-		-	
Kelp greenling	-		-		-	
Lingcod	46		10		-	
Pacific cod	40		4		-	
Pacific herring	-		-		-	
Poachers	-		-		-	
Sablefish	56		22		-	
Sculpins	-		-		-	
Walleye pollock	-		-		-	
Wolfeel	-		-		-	
Skates	82		14		21	
Spiny dogfish	15		8		5	
Spotted ratfish	34		2		2	
Dungeness Crab	-		-		-	
Invertebrates	-		-		-	
Octopus	-		-		-	
Starfish	1		-		4	
TOTAL CATCH (KG)	363		147		79	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 3. Continued.

HAUL NO.	10		11		12	
BLOCK	I401		I403		I404	
DATE (1996)	JUNE 01		JUNE 02		JUNE 02	
DURATION (H)	0.67		0.12		0.50	
DIRECTION (DEG. TRUE)	292		305		294	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	19:30	20:10	8:05	8:12	9:30	10:00
LAT. (DEG,MIN)	52 59.1	53 00.5	53 01.2	53 01	53 06.1	53 07.9
LONG. (DEG,MIN)	130 52.6	130 53.6	130 51.1	130 51.1	130 54.4	130 54.8
DEPTH (FM)	20	17	34	34	45	46
<hr/>						
SPECIES CATCH(KG)						
Arrowtooth flounder	-	-	-	-	-	-
Butter sole	-	-	-	-	-	-
Curlfin sole	2	-	-	-	-	-
Dover sole	-	-	-	-	TRACE	-
English sole	-	-	-	-	22	-
Flathead sole	-	-	-	-	-	-
Pacific halibut	57	-	-	-	-	-
Pacific sanddab	-	-	-	-	50	-
Petrале sole	-	-	-	-	1	-
Rex sole	-	-	-	-	12	-
Rock sole	82	-	-	-	4	-
Sand sole	1	-	-	-	-	-
Slender sole	-	-	-	-	-	-
Starry flounder	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	-	-
Quillback rockfish	-	-	-	-	-	-
Redbanded rockfish	-	-	-	-	-	-
Silvergray rockfish	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	-
Chinook salmon	-	-	-	-	-	-
Kelp greenling	-	-	-	-	-	-
Lingcod	5	-	-	-	4	-
Pacific cod	2	-	-	-	-	-
Pacific herring	TRACE	-	-	-	-	-
Poachers	-	-	-	-	-	-
Sablefish	-	-	-	-	1	-
Sculpins	-	-	-	-	-	-
Walleye pollock	-	-	-	-	-	-
Wolfeel	-	-	-	-	-	-
Skates	3	-	-	-	-	-
Spiny dogfish	-	-	-	-	16	-
Spotted ratfish	1	-	-	-	31	-
Dungeness Crab	-	-	-	-	-	-
Invertebrates	-	-	-	-	1	-
Octopus	-	-	-	-	-	-
Starfish	TRACE	-	-	-	-	-
TOTAL CATCH (KG)	153		0		142	
REMARKS	USABLE		UNUSABLE		USABLE	

Appendix Table 3. Continued.

HAUL NO.	13	14	15			
BLOCK	H407	H406	H405			
DATE (1996)	JUNE 02	JUNE 02	JUNE 02			
DURATION (H)	0.67	0.58	0.53			
DIRECTION (DEG. TRUE)	307	314	162			
	START	STOP	START	STOP	START	STOP
TIME (PDT)	11:05	11:45	12:25	13:00	13:30	14:02
LAT. (DEG,MIN)	53 11.4	53 13.3	53 12.6	53 14.4	53 14.1	53 12.8
LONG. (DEG,MIN)	130 47.2	130 48.2	130 51.2	130 52	130 54.3	130 55.3
DEPTH (FM)	72	77	67	66	57	54
<hr/>						
SPECIES CATCH(KG)						
Arrowtooth flounder	104		4		6	
Butter sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	172		10		5	
English sole	59		19		46	
Flathead sole	8		3		-	
Pacific halibut	-		-		3	
Pacific sanddab	2		-		-	
Petrable sole	-		3		9	
Rex sole	123		23		39	
Rock sole	3		-		-	
Sand sole	-		-		-	
Slender sole	-		-		-	
Starry flounder	-		-		-	
Bocaccio	-		-		4	
Canary rockfish	3		-		-	
Pacific ocean perch	TRACE		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	102		3		4	
Silvergray rockfish	8		-		3	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Chinook salmon	-		-		-	
Kelp greenling	-		-		-	
Lingcod	-		-		-	
Pacific cod	15		2		-	
Pacific herring	-		-		-	
Poachers	-		-		TRACE	
Sablefish	3		-		1	
Sculpins	-		-		-	
Walleye pollock	-		4		-	
Wolfeel	-		-		-	
Skates	4		-		-	
Spiny dogfish	-		44		21	
Spotted ratfish	29		22		11	
Dungeness Crab	-		-		-	
Invertebrates	1		10		-	
Octopus	-		-		-	
Starfish	-		-		-	
TOTAL CATCH (KG)	636		147		152	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 3. Continued.

HAUL NO.	16	17	18			
BLOCK	H304	H304	G303			
DATE (1996)	JUNE 02	JUNE 02	JUNE 02			
DURATION (H)	1.00	0.52	0.60			
DIRECTION (DEG. TRUE)	302	282	325			
TIME (PDT)	START	STOP	START	STOP	START	STOP
LAT. (DEG,MIN)	14:55	15:55	17:14	17:45	18:15	18:51
LONG. (DEG,MIN)	53 15	53 17.7	53 21.7	53 23	53 22.9	53 24.2
DEPTH (FM)	131 00	131 00.3	131 00.7	131 01.1	130 59.9	130 58.6
	46	46	46	45	48	54
<hr/>						
SPECIES CATCH (KG)						
Arrowtooth flounder	-	-	5	-	8	-
Butter sole	-	-	-	-	-	-
Curlfin sole	2	-	-	-	-	-
Dover sole	-	-	TRACE	-	-	-
English sole	102	-	23	-	17	-
Flathead sole	-	-	-	-	-	-
Pacific halibut	21	-	-	-	20	-
Pacific sanddab	-	-	-	-	-	-
Petrale sole	5	-	2	-	1	-
Rex sole	6	-	8	-	9	-
Rock sole	5	-	TRACE	-	-	-
Sand sole	-	-	-	-	-	-
Slender sole	4	-	-	-	-	-
Starry flounder	-	-	-	-	-	-
Bocaccio	2	-	-	-	9	-
Canary rockfish	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	-	-
Quillback rockfish	2	-	-	-	-	-
Redbanded rockfish	-	-	-	-	-	-
Silvergray rockfish	-	-	-	-	-	-
Yelloweye rockfish	5	-	-	-	-	-
Yellowtail rockfish	3	-	1	-	TRACE	-
Chinook salmon	-	-	-	-	-	-
Kelp greenling	-	-	-	-	-	-
Lingcod	17	-	5	-	5	-
Pacific cod	45	-	-	-	14	-
Pacific herring	-	-	-	-	TRACE	-
Poachers	TRACE	-	-	-	-	-
Sablefish	10	-	-	-	TRACE	-
Sculpins	-	-	-	-	-	-
Walleye pollock	-	-	1	-	-	-
Wolfeel	-	-	-	-	-	-
Skates	1	-	-	-	-	-
Spiny dogfish	71	-	7	-	12	-
Spotted ratfish	72	-	7	-	7	-
Dungeness Crab	-	-	4	-	-	-
Invertebrates	50	-	10	-	-	-
Octopus	-	-	-	-	-	-
Starfish	-	-	-	-	-	-
TOTAL CATCH (KG)	423	-	73	-	102	-
REMARKS	USABLE	-	USABLE	-	USABLE	-

Appendix Table 3. Continued.

HAUL NO.	19		20		21	
BLOCK	G304		G405		F405	
DATE (1996)	JUNE 02		JUNE 03		JUNE 03	
DURATION (H)	0.60		0.60		0.55	
DIRECTION (DEG. TRUE)	347		337		317	
TIME (PDT)	START	STOP	START	STOP	START	STOP
LAT. (DEG,MIN)	19:30	20:06	8:08	8:44	9:25	9:58
LONG. (DEG,MIN)	53 25.5	53 26.6	53 32	53 33.4	53 35.6	53 36.8
DEPTH (FM)	130 54.9	130 53.1	130 47.2	130 46.5	130 46	130 45.7
	60	62	56	57	73	78
<hr/>						
SPECIES CATCH(KG)						
Arrowtooth flounder	159		147		309	
Butter sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	4		4		44	
English sole	28		31		28	
Flathead sole	-		2		4	
Pacific halibut	-		4		3	
Pacific sanddab	-		-		-	
Petrале sole	1		3		1	
Rex sole	21		32		57	
Rock sole	-		-		-	
Sand sole	-		-		-	
Slender sole	2		-		-	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Chinook salmon	-		-		-	
Kelp greenling	-		-		-	
Lingcod	-		-		-	
Pacific cod	6		5		51	
Pacific herring	-		-		-	
Poachers	-		-		-	
Sablefish	TRACE		TRACE		-	
Sculpins	-		-		-	
Walleye pollock	TRACE		14		2	
Wolfeel	-		-		-	
Skates	-		-		1	
Spiny dogfish	32		4		5	
Spotted ratfish	13		8		24	
Dungeness Crab	-		-		-	
Invertebrates	-		-		-	
Octopus	-		-		-	
Starfish	-		-		-	
TOTAL CATCH (KG)	266		254		529	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 3. Continued.

HAUL NO.	22		23		24	
BLOCK	F407		F404		F406	
DATE (1996)	JUNE 03		JUNE 03		JUNE 03	
DURATION (H)	0.58		0.50		0.58	
DIRECTION (DEG. TRUE)	284		295		252	
TIME (PDT)	START	STOP	START	STOP	START	STOP
LAT. (DEG,MIN)	10:35	11:10	12:00	12:30	13:10	13:45
LONG. (DEG,MIN)	53 35.9	53 37.5	53 38.5	53 40.1	53 41.2	53 42.4
DEPTH (FM)	130 47	130 46.7	130 45.8	130 45.4	130 48.5	130 51
	49	48	69	68	45	31
<hr/>						
SPECIES CATCH (KG)						
Arrowtooth flounder	179		352		3	
Butter sole	-		-		-	
Curlfin sole	-		-		1	
Dover sole	-		53		4	
English sole	44		31		5	
Flathead sole	-		3		-	
Pacific halibut	-		-		29	
Pacific sanddab	-		-		-	
Petrable sole	8		-		-	
Rex sole	20		46		-	
Rock sole	-		-		166	
Sand sole	-		-		14	
Slender sole	-		TRACE		-	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Chinook salmon	-		-		-	
Kelp greenling	-		-		-	
Lingcod	-		-		25	
Pacific cod	32		28		-	
Pacific herring	-		-		-	
Poachers	-		-		-	
Sablefish	3		TRACE		-	
Sculpins	-		-		-	
Walleye pollock	3		-		-	
Wolfeel	-		-		-	
Skates	4		-		400	
Spiny dogfish	3		5		3	
Spotted ratfish	6		-		294	
Dungeness Crab	6		-		-	
Invertebrates	-		-		-	
Octopus	-		-		-	
Starfish	-		-		-	
TOTAL CATCH (KG)	308		490		944	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 3. Continued.

HAUL NO.	25		26		27	
BLOCK	E402		E402		E402	
DATE (1996)	JUNE 03		JUNE 03		JUNE 03	
DURATION (H)	0.50		0.50		0.50	
DIRECTION (DEG. TRUE)	227		317		63	
TIME (PDT)	START	STOP	START	STOP	START	STOP
LAT. (DEG,MIN)	14:03	14:33	15:00	15:30	16:00	16:30
LONG. (DEG,MIN)	53 42.8	53 43.5	53 44.1	53 45.7	53 46.4	53 47.3
DEPTH (FM)	130 51.9	130 54	130 55.3	130 55.2	130 52.8	130 51
	29	30	32	35	54	61

SPECIES CATCH (KG)

Arrowtooth flounder	5	2	84
Butter sole	-	7	-
Curlfin sole	2	5	-
Dover sole	-	-	20
English sole	1	4	19
Flathead sole	1	-	14
Pacific halibut	49	55	-
Pacific sanddab	-	3	-
Petrale sole	-	2	-
Rex sole	-	-	47
Rock sole	58	38	-
Sand sole	-	10	-
Slender sole	-	-	-
Starry flounder	-	-	-
Bocaccio	-	-	-
Canary rockfish	-	-	-
Pacific ocean perch	-	-	-
Quillback rockfish	-	-	-
Redbanded rockfish	-	-	-
Silvergray rockfish	-	-	-
Yelloweye rockfish	-	-	-
Yellowtail rockfish	-	-	-
Chinook salmon	-	-	-
Kelp greenling	-	-	-
Lingcod	-	11	-
Pacific cod	-	1	88
Pacific herring	-	-	-
Poachers	-	-	-
Sablefish	-	-	-
Sculpins	-	-	-
Walleye pollock	-	-	54
Wolfeel	-	-	-
Skates	-	150	-
Spiny dogfish	-	1	-
Spotted ratfish	317	185	50
Dungeness Crab	-	-	-
Invertebrates	-	-	-
Octopus	-	-	-
Starfish	-	-	-

TOTAL CATCH (KG)	433	474	376
REMARKS	USABLE	USABLE	USABLE

Appendix Table 3. Continued.

HAUL NO.	28		29		30	
BLOCK	E405		D404		E303	
DATE (1996)	JUNE 03		JUNE 04		JUNE 04	
DURATION (H)	0.62		0.42		0.50	
DIRECTION (DEG. TRUE)	250		301		297	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	17:23	18:00	8:05	8:30	9:00	9:30
LAT. (DEG,MIN)	53 51.7	53 52.6	53 54	53 54.9	53 56	53 56.8
LONG. (DEG,MIN)	130 50.4	130 52.6	131 03.2	131 03.5	131 01.1	131 01
DEPTH (FM)	49	47	36	36	42	46
<hr/>						
SPECIES CATCH(KG)						
Arrowtooth flounder	487		46		504	
Butter sole	-		-		-	
Curlfin sole	-		-		-	
Dover sole	4		1		3	
English sole	61		36		14	
Flathead sole	42		2		20	
Pacific halibut	11		12		6	
Pacific sanddab	29		61		3	
Petrale sole	-		-		4	
Rex sole	-		-		3	
Rock sole	3		24		12	
Sand sole	-		1		-	
Slender sole	-		-		-	
Starry flounder	-		-		-	
Bocaccio	3		-		-	
Canary rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Quillback rockfish	-		-		22	
Redbanded rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Chinook salmon	-		-		-	
Kelp greenling	-		TRACE		TRACE	
Lingcod	-		-		5	
Pacific cod	68		49		14	
Pacific herring	-		-		-	
Poachers	-		-		-	
Sablefish	9		4		7	
Sculpins	-		-		-	
Walleye pollock	29		-		3	
Wolfeel	-		-		-	
Skates	-		-		-	
Spiny dogfish	-		37		-	
Spotted ratfish	15		25		31	
Dungeness Crab	-		3		-	
Invertebrates	-		4		3	
Octopus	-		-		-	
Starfish	-		-		-	
TOTAL CATCH (KG)	761		305		654	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 3. Continued.

HAUL NO.	31		32		33	
BLOCK	D303		D304		D303	
DATE (1996)	JUNE 04		JUNE 04		JUNE 04	
DURATION (H)	0.50		0.58		0.50	
DIRECTION (DEG. TRUE)	259		285		151	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	10:05	10:35	11:20	11:55	12:44	13:14
LAT. (DEG,MIN)	53 57.1	53 58.3	53 57.6	53 58.9	54 01.3	53 59.6
LONG. (DEG,MIN)	131 04.7	131 05.9	131 06.9	131 07	131 06	131 05.9
DEPTH (FM)	39	25	27	20	16	19
<hr/>						
SPECIES CATCH(KG)						
Arrowtooth flounder	32		2		-	
Butter sole	-		1		-	
Curlfin sole	-		-		-	
Dover sole	-		-		-	
English sole	31		2		-	
Flathead sole	7		TRACE		-	
Pacific halibut	36		-		27	
Pacific sanddab	39		1		-	
Petrable sole	3		-		-	
Rex sole	5		-		-	
Rock sole	84		14		236	
Sand sole	42		4		29	
Slender sole	-		-		-	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Quillback rockfish	4		-		-	
Redbanded rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Chinook salmon	-		-		-	
Kelp greenling	-		-		-	
Lingcod	-		-		11	
Pacific cod	34		1		-	
Pacific herring	-		-		-	
Poachers	-		-		-	
Sablefish	56		-		-	
Sculpins	-		-		-	
Walleye pollock	-		-		-	
Wolfeel	-		-		-	
Skates	75		3		-	
Spiny dogfish	38		-		5	
Spotted ratfish	142		6		2	
Dungeness Crab	-		-		18	
Invertebrates	-		-		-	
Octopus	-		-		-	
Starfish	-		-		8	
TOTAL CATCH (KG)	628		34		336	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 3. Continued.

HAUL NO.	34		35		36	
BLOCK	D302		C302		C301	
DATE (1996)	JUNE 04		JUNE 04		JUNE 04	
DURATION (H)	0.50		0.55		0.58	
DIRECTION (DEG. TRUE)	282		308		307	
TIME (PDT)	START	STOP	START	STOP	START	STOP
LAT. (DEG,MIN)	54 00.1	54 01.5	54 02.1	54 03.5	54 06.4	54 08
LONG. (DEG,MIN)	131 07.5	131 08.2	131 06.8	131 06.7	131 09.1	131 09.3
DEPTH (FM)	22	22	18	17	20	18
<hr/>						
SPECIES CATCH(KG)						
Arrowtooth flounder	-	-	-	-	-	-
Butter sole	-	-	TRACE	-	-	-
Curlfin sole	-	-	-	-	-	-
Dover sole	-	-	-	-	-	-
English sole	1	-	-	-	3	-
Flathead sole	-	-	-	-	-	-
Pacific halibut	2	-	4	-	40	-
Pacific sanddab	-	-	-	-	-	-
Petrale sole	-	-	-	-	-	-
Rex sole	-	-	-	-	-	-
Rock sole	33	-	43	-	186	-
Sand sole	2	-	3	-	9	-
Slender sole	-	-	-	-	-	-
Starry flounder	-	-	-	-	-	-
Bocaccio	-	-	-	-	-	-
Canary rockfish	-	-	-	-	-	-
Pacific ocean perch	-	-	-	-	-	-
Quillback rockfish	-	-	-	-	1	-
Redbanded rockfish	-	-	-	-	-	-
Silvergray rockfish	-	-	-	-	-	-
Yelloweye rockfish	-	-	-	-	-	-
Yellowtail rockfish	-	-	-	-	-	-
Chinook salmon	-	-	-	-	-	-
Kelp greenling	-	-	-	-	TRACE	-
Lingcod	-	-	-	-	-	-
Pacific cod	-	-	-	-	1	-
Pacific herring	-	-	-	-	-	-
Poachers	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-
Sculpins	-	-	-	-	-	-
Walleye pollock	-	-	-	-	-	-
Wolfeel	-	-	2	-	-	-
Skates	7	-	61	-	-	-
Spiny dogfish	-	-	-	-	-	-
Spotted ratfish	2	-	2	-	219	-
Dungeness Crab	3	-	6	-	13	-
Invertebrates	-	-	-	-	-	-
Octopus	-	-	-	-	-	-
Starfish	-	-	15	-	44	-
TOTAL CATCH (KG)	50	-	136	-	516	-
REMARKS	USABLE	-	USABLE	-	USABLE	-

Appendix Table 3. Continued.

HAUL NO.	37	38	39			
BLOCK	C301	C301	B301			
DATE (1996)	JUNE 04	JUNE 04	JUNE 05			
DURATION (H)	0.50	0.50	0.42			
DIRECTION (DEG. TRUE)	120	141	319			
	START	STOP	START	STOP	START	STOP
TIME (PDT)	17:20	17:50	18:30	19:00	8:20	8:45
LAT. (DEG, MIN)	54 11.1	54 09.9	54 09.6	54 08.3	54 10.9	54 11.9
LONG. (DEG, MIN)	131 08.3	131 07.4	131 04.8	131 04.7	131 04.8	131 04.8
DEPTH (FM)	18	20	37	28	35	33
<hr/>						
SPECIES CATCH (KG)						
Arrowtooth flounder	-		188		29	
Butter sole	-		-		3	
Curlfin sole	-		-		-	
Dover sole	-		-		-	
English sole	2		593		247	
Flathead sole	-		-		3	
Pacific halibut	6		61		78	
Pacific sanddab	-		11		-	
Petrale sole	-		9		5	
Rex sole	-		143		30	
Rock sole	69		17		12	
Sand sole	3		24		5	
Slender sole	-		-		-	
Starry flounder	-		-		4	
Bocaccio	-		-		-	
Canary rockfish	-		-		2	
Pacific ocean perch	-		-		-	
Quillback rockfish	-		-		1	
Redbanded rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Chinook salmon	-		3		-	
Kelp greenling	-		-		-	
Lingcod	-		-		2	
Pacific cod	-		176		105	
Pacific herring	-		-		TRACE	
Poachers	-		-		-	
Sablefish	-		135		45	
Sculpins	-		-		5	
Walleye pollock	-		-		-	
Wolfeel	-		-		-	
Skates	-		-		113	
Spiny dogfish	-		-		27	
Spotted ratfish	1		-		79	
Dungeness Crab	-		-		4	
Invertebrates	TRACE		-		-	
Octopus	-		20		-	
Starfish	26		-		-	
TOTAL CATCH (KG)	107		1380		799	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 3. Continued.

HAUL NO.	40	41	42			
BLOCK	C303	B302	B304			
DATE (1996)	JUNE 05	JUNE 05	JUNE 05			
DURATION (H)	0.48	0.48	0.50			
DIRECTION (DEG. TRUE)	283	293	257			
	START	STOP	START	STOP	START	STOP
TIME (PDT)	9:41	10:10	10:35	11:04	11:25	11:55
LAT. (DEG,MIN)	54 13.8	54 14.9	54 14.9	54 16	54 16.4	54 17.3
LONG. (DEG,MIN)	131 03.2	131 03.5	131 02.5	131 02.7	131 03.6	131 04.3
DEPTH (FM)	50	44	65	66	57	57
<hr/>						
SPECIES CATCH(KG)						
Arrowtooth flounder	37		197		123	
Butter sole	-		25		-	
Curlfin sole	-		-		-	
Dover sole	-		74		14	
English sole	161		111		383	
Flathead sole	-		12		-	
Pacific halibut	31		70		80	
Pacific sanddab	-		-		-	
Petrale sole	-		-		-	
Rex sole	88		37		232	
Rock sole	3		25		-	
Sand sole	-		12		-	
Slender sole	-		-		-	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	5		-		-	
Chinook salmon	-		-		-	
Kelp greenling	-		-		-	
Lingcod	-		-		-	
Pacific cod	40		12		366	
Pacific herring	-		-		-	
Poachers	-		-		-	
Sablefish	-		12		-	
Sculpins	2		-		-	
Walleye pollock	6		25		14	
Wolfeel	-		-		-	
Skates	60		87		100	
Spiny dogfish	8		62		55	
Spotted ratfish	127		591		533	
Dungeness Crab	4		-		-	
Invertebrates	TRACE		12		-	
Octopus	-		-		-	
Starfish	7		12		13	
TOTAL CATCH (KG)	579		1376		1913	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 3. Continued.

HAUL NO.	43		44		45	
BLOCK	B306		B305		B302	
DATE (1996)	JUNE 05		JUNE 05		JUNE 05	
DURATION (H)	0.57		0.50		0.45	
DIRECTION (DEG. TRUE)	232		303		252	
	START	STOP	START	STOP	START	STOP
TIME (PDT)	13:00	13:34	14:30	15:00	15:33	16:00
LAT. (DEG,MIN)	54 17.5	54 17.1	54 19.7	54 20.8	54 21.3	54 22
LONG. (DEG,MIN)	131 05.6	131 07.3	131 07.1	131 07.1	131 09.6	131 10.5
DEPTH (FM)	33	33	44	49	40	40
<hr/>						
SPECIES CATCH (KG)						
Arrowtooth flounder	30		46		728	
Butter sole	TRACE		-		-	
Curlfin sole	-		-		-	
Dover sole	-		4		14	
English sole	144		54		69	
Flathead sole	-		4		7	
Pacific halibut	37		12		26	
Pacific sanddab	-		-		-	
Petrale sole	-		-		14	
Rex sole	8		2		14	
Rock sole	TRACE		-		-	
Sand sole	-		-		-	
Slender sole	-		-		-	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Silvergray rockfish	-		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Chinook salmon	-		-		-	
Kelp greenling	-		-		-	
Lingcod	-		-		-	
Pacific cod	8		5		107	
Pacific herring	-		-		-	
Poachers	-		-		-	
Sablefish	TRACE		-		14	
Sculpins	-		-		-	
Walleye pollock	-		4		14	
Wolfeel	-		-		-	
Skates	300		4		163	
Spiny dogfish	9		4		35	
Spotted ratfish	141		1000		728	
Dungeness Crab	-		2		7	
Invertebrates	-		-		-	
Octopus	-		-		8	
Starfish	5		TRACE		104	
TOTAL CATCH (KG)	682		1150		2052	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 3. Continued.

HAUL NO.	46	47	48			
BLOCK	A304	A303	B204			
DATE (1996)	JUNE 05	JUNE 05	JUNE 06			
DURATION (H)	0.50	0.58	0.50			
DIRECTION (DEG. TRUE)	181	185	223			
TIME (PDT)	START	STOP	START	STOP	START	STOP
LAT. (DEG,MIN)	17:55	18:25	19:00	19:35	8:00	8:30
LONG. (DEG,MIN)	54 18.2	54 18	54 17.5	54 16.9	54 08.2	54 09.1
DEPTH (FM)	131 19.9	131 22.6	131 24.2	131 27.1	132 01.3	132 04.4
	48	44	30	30	17	21
<hr/>						
SPECIES CATCH(KG)						
Arrowtooth flounder	850		110		-	
Butter sole	5		37		-	
Curlfin sole	-		-		-	
Dover sole	5		-		-	
English sole	121		106		-	
Flathead sole	10		-		-	
Pacific halibut	105		122		331	
Pacific sanddab	-		-		-	
Petrale sole	5		-		-	
Rex sole	10		-		-	
Rock sole	-		-		14	
Sand sole	-		-		-	
Slender sole	-		-		-	
Starry flounder	-		-		-	
Bocaccio	-		-		-	
Canary rockfish	-		-		-	
Pacific ocean perch	-		-		-	
Quillback rockfish	-		-		-	
Redbanded rockfish	-		-		-	
Silvergray rockfish	2		-		-	
Yelloweye rockfish	-		-		-	
Yellowtail rockfish	-		-		-	
Chinook salmon	-		-		-	
Kelp greenling	-		-		-	
Lingcod	-		3		12	
Pacific cod	31		132		-	
Pacific herring	-		-		-	
Poachers	-		-		-	
Sablefish	-		-		-	
Sculpins	-		-		-	
Walleye pollock	36		-		-	
Wolfeel	-		-		-	
Skates	-		-		-	
Spiny dogfish	85		33		-	
Spotted ratfish	73		-		1000	
Dungeness Crab	-		-		-	
Invertebrates	-		-		-	
Octopus	-		-		-	
Starfish	12		6		-	
TOTAL CATCH (KG)	1354		549		1357	
REMARKS	USABLE		USABLE		USABLE	

Appendix Table 3. Continued.

HAUL NO.	49		50		51	
BLOCK	B202		B102		B103	
DATE (1996)	JUNE 06		JUNE 06		JUNE 06	
DURATION (H)	0.58		0.53		0.60	
DIRECTION (DEG. TRUE)	101		161		30	
TIME (PDT)	START	STOP	START	STOP	START	STOP
	9:05	9:40	10:20	10:52	11:16	11:52
LAT. (DEG,MIN)	54 09.6	54 09.5	54 11.7	54 10.8	54 11.4	54 11.8
LONG. (DEG,MIN)	132 08.1	132 06.1	132 06.5	132 08.2	132 07.8	132 05.4
DEPTH (FM)	28	25	38	33	39	47

SPECIES CATCH (KG)

Arrowtooth flounder	-	3	10
Butter sole	-	-	-
Curlfin sole	-	-	-
Dover sole	-	-	-
English sole	-	-	-
Flathead sole	-	-	-
Pacific halibut	21	18	-
Pacific sanddab	-	-	-
Petrable sole	-	-	-
Rex sole	-	-	-
Rock sole	18	17	3
Sand sole	-	-	-
Slender sole	-	-	-
Starry flounder	-	-	-
Bocaccio	-	-	-
Canary rockfish	-	-	-
Pacific ocean perch	-	-	-
Quillback rockfish	-	-	-
Redbanded rockfish	-	-	-
Silvergray rockfish	-	-	-
Yelloweye rockfish	-	-	-
Yellowtail rockfish	-	-	-
Chinook salmon	-	-	-
Kelp greenling	-	-	-
Lingcod	-	32	1634
Pacific cod	-	-	-
Pacific herring	-	-	-
Poachers	-	-	-
Sablefish	-	-	-
Sculpins	-	-	-
Walleye pollock	-	-	-
Wolfeel	5	3	3
Skates	15	-	-
Spiny dogfish	1	35	10
Spotted ratfish	175	400	450
Dungeness Crab	-	-	-
Invertebrates	TRACE	TRACE	2
Octopus	-	-	-
Starfish	-	-	-
TOTAL CATCH (KG)	235	508	2112
REMARKS	USABLE	USABLE	USABLE

Appendix Table 3. Continued.

HAUL NO.	52	53		
BLOCK	B105	B106		
DATE (1996)	JUNE 06	JUNE 06		
DURATION (H)	0.45	0.52		
DIRECTION (DEG. TRUE)	352	351		
	START	STOP	START	STOP
TIME (PDT)	13:50	14:17	15:05	15:36
LAT. (DEG,MIN)	54 09.5	54 10.9	54 12.7	54 13.9
LONG. (DEG,MIN)	131 48.3	131 46.6	131 43.1	131 41.2
DEPTH (FM)	26	34	51	57

SPECIES CATCH(KG)

Arrowtooth flounder	14	194
Butter sole	2	-
Curlfin sole	-	-
Dover sole	-	15
English sole	164	20
Flathead sole	-	-
Pacific halibut	82	-
Pacific sanddab	-	-
Petrale sole	4	-
Rex sole	-	-
Rock sole	5	-
Sand sole	-	-
Slender sole	-	-
Starry flounder	-	-
Bocaccio	-	5
Canary rockfish	-	-
Pacific ocean perch	-	-
Quillback rockfish	-	-
Redbanded rockfish	-	-
Silvergray rockfish	-	3
Yelloweye rockfish	-	-
Yellowtail rockfish	-	197
Chinook salmon	-	-
Kelp greenling	-	-
Lingcod	-	-
Pacific cod	22	-
Pacific herring	TRACE	-
Poachers	-	-
Sablefish	-	-
Sculpins	-	-
Walleye pollock	-	-
Wolfeel	-	-
Skates	20	30
Spiny dogfish	26	50
Spotted ratfish	47	146
Dungeness Crab	-	-
Invertebrates	TRACE	-
Octopus	-	-
Starfish	-	-
TOTAL CATCH (KG)	386	660
REMARKS	USABLE	USABLE

Appendix Table 4. Length-frequency (numbers measured), by haul, of Pacific cod collected during R/V W.E. RICKER trawl survey, Hecate Strait, May 30-June 13, 1996.

Fork Length (cm)	Haul no.																			
	2	3	10	11	15	16	19	22	23	24	27	28	29	31	32	33	41	42	43	44
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	6	1	-	-	-	-	-	-	1	-	-	-	2	-	1	-	-	-	-
25	-	5	0	-	-	1	-	-	-	0	-	-	-	0	-	3	-	-	-	-
26	-	8	0	-	-	0	-	-	-	0	-	-	-	1	-	3	-	-	-	-
27	-	8	0	-	-	0	-	-	-	3	-	-	-	2	-	2	-	-	-	-
28	-	11	2	-	-	0	-	-	1	0	-	-	-	3	-	0	-	-	-	-
29	-	9	1	-	-	0	-	-	0	0	-	-	-	1	-	1	1	-	-	-
30	-	5	1	-	-	0	-	-	0	2	-	-	-	4	-	2	0	-	-	-
31	-	5	2	-	-	0	-	-	0	0	-	-	-	2	-	1	0	-	-	-
32	-	8	-	-	-	0	-	-	0	1	-	-	-	0	-	1	0	-	-	-
33	-	5	-	1	-	0	-	-	2	-	-	-	-	0	-	0	0	-	-	-
34	-	1	-	0	-	0	-	-	0	-	-	-	-	1	-	1	0	-	1	-
35	-	3	-	0	-	0	-	-	0	-	-	-	-	1	-	-	0	-	0	-
36	-	0	-	0	-	0	-	-	0	-	-	-	-	0	-	-	0	-	0	-
37	-	0	-	0	-	0	-	-	0	-	-	-	-	0	-	-	0	-	0	-
38	-	0	-	0	-	0	-	-	0	-	-	-	-	0	-	-	1	-	0	-
39	-	0	-	0	-	0	-	-	0	-	-	-	-	0	-	-	0	-	0	-
40	-	1	-	1	-	0	-	-	0	-	-	-	-	1	-	-	0	-	0	-
41	-	0	-	0	-	0	-	-	0	-	-	-	-	4	-	-	0	-	0	-
42	-	0	-	0	-	0	-	-	2	-	-	-	-	0	-	-	1	-	0	-
43	-	1	-	0	-	0	-	-	2	-	-	-	-	2	-	-	0	2	0	-
44	-	0	-	0	-	0	-	-	0	-	-	-	-	3	-	-	0	1	1	-
45	-	1	-	0	-	0	-	-	1	-	-	-	-	5	2	-	1	0	0	-
46	-	0	-	0	-	0	-	-	0	-	-	-	-	3	1	-	0	1	0	-
47	-	0	-	1	-	1	-	-	4	-	-	-	-	1	1	-	2	1	1	1
48	-	0	-	-	-	0	-	-	3	-	-	-	-	2	0	-	0	2	0	0
49	-	0	-	-	-	0	-	-	9	-	-	-	-	1	0	-	0	0	1	1
50	-	0	-	-	-	0	-	-	1	-	-	-	1	0	1	-	0	0	1	1
51	-	0	-	-	-	1	-	-	0	-	-	-	0	1	0	-	0	0	0	0
52	-	0	-	-	-	-	-	-	4	-	-	-	0	1	0	-	0	0	0	0
53	-	0	-	-	-	-	-	-	3	-	-	-	0	0	0	-	0	0	1	0
54	-	0	-	-	-	-	-	-	2	-	-	1	0	0	1	-	1	0	0	0
55	-	0	-	-	-	-	-	-	5	-	-	0	0	0	2	-	2	1	0	0
56	-	0	-	-	-	-	-	-	5	-	-	0	1	0	0	-	0	3	0	0
57	-	0	-	-	-	-	1	-	1	-	-	0	0	0	1	-	1	0	0	2
58	-	0	-	-	-	-	0	-	1	-	-	1	0	1	0	-	1	1	1	0
59	-	0	-	-	-	-	0	1	2	-	-	0	0	0	0	-	1	0	1	0
60	-	0	-	-	-	-	0	0	1	-	-	0	0	1	0	-	0	0	0	2
61	-	0	-	-	-	-	0	0	5	-	-	0	0	-	0	-	1	1	0	0
62	-	0	-	-	-	-	0	0	2	-	-	0	1	-	0	-	0	0	0	0
63	-	0	-	-	-	-	0	0	0	2	-	1	0	-	0	-	0	1	0	0
64	-	0	-	-	-	-	1	1	2	2	-	0	0	-	0	-	0	1	2	0

Appendix Table 4. Continued.

Species: Pacific Cod

Fork Length (cm)	Haul no.																			
	2	3	10	11	15	16	19	22	23	24	27	28	29	31	32	33	41	42	43	44
65	-	1	-	-	-	-	0	0	0	0	-	0	0	-	0	-	0	2	0	1
66	-	-	-	-	-	-	0	2	2	0	-	0	0	-	1	-	0	0	0	0
67	-	-	-	-	-	-	1	1	0	0	-	0	0	-	-	-	0	1	0	0
68	1	-	-	-	-	-	0	0	1	0	-	0	1	-	-	-	0	0	1	1
69	0	-	-	-	-	-	0	0	0	0	-	0	0	-	-	-	0	0	0	0
70	0	-	-	-	-	-	0	0	1	0	-	1	0	-	-	-	0	0	0	0
71	0	-	-	-	-	-	0	0	0	0	-	0	1	-	-	-	0	0	0	1
72	0	-	-	-	-	-	0	0	0	0	-	1	-	-	-	-	0	0	0	0
73	0	-	-	-	-	-	0	0	0	0	-	0	-	-	-	-	0	0	1	0
74	1	-	-	-	-	-	0	0	0	0	-	0	-	-	-	-	0	0	0	0
75	3	-	-	-	-	-	0	0	0	0	-	1	-	-	-	-	0	1	0	1
76	3	-	-	-	1	-	0	0	0	0	-	1	-	-	-	-	1	1	0	0
77	2	-	-	-	-	-	1	0	0	0	-	0	-	-	-	-	-	-	0	0
78	2	-	-	-	-	-	-	0	1	1	-	1	-	-	-	-	-	-	0	0
79	3	-	-	-	-	-	-	0	-	-	-	1	-	-	-	-	-	-	0	0
80	1	-	-	-	-	-	-	0	-	-	-	0	-	-	-	-	-	-	0	0
81	1	-	-	-	-	-	-	0	-	-	-	0	-	-	-	-	-	-	2	1
82	0	-	-	-	-	-	-	1	-	-	-	0	-	-	-	-	-	-	-	-
83	0	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-
84	0	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-
85	1	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-
86	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	18	82	7	3	1	3	4	6	63	5	7	10	5	43	10	15	14	20	14	12

Appendix Table 4. Continued.

Species : Pacific cod

Fork Length (cm)	Haul no.									Total Number Measured
	46	47	51	64	67	75	84	95	100	
21	-	-	-	-	2	-	-	-	-	2
22	-	-	-	-	2	-	2	-	-	5
23	-	-	-	-	2	-	1	2	-	8
24	-	-	-	-	12	-	5	3	-	31
25	-	-	-	-	23	1	2	1	1	37
26	-	-	-	-	33	2	3	1	0	51
27	-	-	-	-	13	0	3	1	1	33
28	-	-	-	-	22	1	1	3	0	44
29	-	-	-	-	27	1	1	5	0	47
30	-	-	-	-	26	0	2	1	0	43
31	-	-	-	1	23	0	-	5	1	40
32	-	-	-	0	14	3	-	2	0	29
33	-	-	-	0	9	1	-	3	0	21
34	-	-	-	0	6	-	-	2	0	12
35	-	-	-	0	9	-	-	0	0	13
36	-	-	-	0	2	-	-	1	0	3
37	-	-	-	0	2	-	-	0	0	2
38	-	-	1	0	1	-	-	0	0	3
39	-	-	1	1	-	-	-	0	0	2
40	1	-	0	0	-	-	-	0	0	4
41	0	-	0	0	-	-	-	0	0	4
42	0	-	1	0	-	-	-	0	0	4
43	0	-	0	0	-	-	-	0	2	9
44	0	-	3	1	-	-	-	0	1	10
45	0	-	2	0	-	-	-	0	0	12
46	0	-	3	0	-	-	-	0	0	8
47	0	2	0	0	-	-	-	0	0	15
48	0	2	3	2	-	-	-	0	0	14
49	0	0	1	1	-	-	-	0	0	14
50	0	1	1	0	-	-	-	0	0	7
51	0	1	2	1	-	-	-	0	0	6
52	0	3	2	0	-	-	-	0	0	10
53	0	1	2	0	-	-	-	0	0	7
54	0	1	1	0	-	-	-	0	0	7
55	1	0	4	1	-	-	-	0	1	17
56	0	0	1	0	-	-	-	1	-	11
57	0	0	3	2	-	-	-	-	-	11
58	0	0	3	1	-	-	-	-	-	10
59	0	0	5	0	-	-	-	-	-	10
60	0	0	4	1	-	-	-	-	-	9
61	0	0	12	-	-	-	-	-	-	19
62	0	0	13	-	-	-	-	-	-	16
63	0	0	8	-	-	-	-	-	-	12
64	0	0	8	-	-	-	-	-	-	17

Appendix Table 4. Continued.

Species: Pacific Cod

Fork Length (cm)	Haul no.									Total Number Measured
	46	47	51	64	67	75	84	95	100	
65	0	0	7	-	-	-	-	-	-	11
66	0	0	6	-	-	-	-	-	-	11
67	0	0	3	-	-	-	-	-	-	6
68	0	0	2	-	-	-	-	-	-	7
69	0	1	2	-	-	-	-	-	-	3
70	0	-	3	-	-	-	-	-	-	5
71	0	-	1	-	-	-	-	-	-	3
72	0	-	0	-	-	-	-	-	-	1
73	0	-	3	-	-	-	-	-	-	4
74	0	-	1	-	-	-	-	-	-	2
75	0	-	2	-	-	-	-	-	-	8
76	0	-	1	-	-	-	-	-	-	8
77	0	-	-	-	-	-	-	-	-	3
78	0	-	-	-	-	-	-	-	-	5
79	0	-	-	-	-	-	-	-	-	4
80	0	-	-	-	-	-	-	-	-	1
81	0	-	-	-	-	-	-	-	-	4
82	0	-	-	-	-	-	-	-	-	1
83	0	-	-	-	-	-	-	-	-	0
84	0	-	-	-	-	-	-	-	-	0
85	0	-	-	-	-	-	-	-	-	1
86	0	-	-	-	-	-	-	-	-	1
87	0	-	-	-	-	-	-	-	-	0
88	0	-	-	-	-	-	-	-	-	0
89	1	-	-	-	-	-	-	-	-	1
Total	3	12	115	12	228	9	20	31	7	779

Appendix Table 5. Length-frequency (numbers measured), by haul, of rock sole collected during the R/V W.E. RICKER trawl survey, Hecate Strait, May 30-June 13, 1996.

Fork Length (cm)	Haul no.																			
	3	8	9	10	11	12	17	25	27	29	30	31	32	33	34	35	36	37	38	39
7	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-
8	-	1	-	1	-	-	-	0	1	-	-	-	-	-	-	-	1	-	1	-
9	-	1	-	1	-	-	-	0	0	-	-	-	-	-	1	-	0	-	0	-
10	-	1	-	0	-	-	-	0	0	-	0	-	-	-	0	-	0	-	0	1
11	-	1	1	0	-	-	-	0	0	-	3	-	-	-	0	-	0	-	0	0
12	1	1	6	1	-	-	-	3	1	-	23	-	-	3	2	1	3	-	2	0
13	1	3	19	2	-	-	1	7	3	-	36	-	-	8	0	0	5	3	5	0
14	1	5	18	5	1	-	1	1	2	-	23	-	-	5	0	0	6	2	3	0
15	2	6	13	3	1	-	0	2	2	-	7	1	-	1	0	0	2	1	3	1
16	2	8	11	1	2	-	0	16	7	-	30	0	-	6	1	1	2	6	4	0
17	7	6	19	2	12	-	0	51	10	1	43	4	-	0	4	1	9	13	6	0
18	10	19	30	18	11	-	0	69	19	5	35	5	-	4	3	3	7	10	11	0
19	6	10	32	8	3	-	0	26	9	10	31	11	-	4	5	3	9	13	8	4
20	4	3	21	5	3	-	0	31	16	4	19	7	-	6	8	5	11	22	10	7
21	7	6	17	2	3	1	1	68	16	10	20	9	-	3	5	2	12	20	17	8
22	4	3	18	5	2	0	0	57	6	5	10	15	-	11	4	2	14	22	13	9
23	5	3	6	1	3	0	0	49	3	4	14	10	-	7	4	3	18	17	19	11
24	5	2	10	9	2	0	0	30	5	5	9	7	-	1	5	5	11	15	21	11
25	2	2	3	5	3	0	1	35	2	3	8	6	-	6	2	7	13	15	21	5
26	1	5	0	7	1	0	3	35	5	5	5	8	-	0	3	3	6	7	18	12
27	2	2	4	4	3	0	2	35	4	0	4	9	1	5	1	4	7	9	19	4
28	0	1	2	2	2	0	1	35	2	2	5	3	1	2	2	4	5	5	18	1
29	2	1	0	2	1	0	0	39	3	0	3	4	0	2	2	5	7	2	6	4
30	0	0	2	2	1	0	2	38	6	0	5	3	2	1	1	7	0	1	14	7
31	0	0	3	1	4	0	0	26	3	2	4	4	6	7	6	8	2	2	18	7
32	0	2	2	4	2	0	1	26	0	0	2	2	28	11	3	12	3	7	17	3
33	0	0	4	2	0	0	1	30	4	2	3	4	53	19	9	12	10	8	13	4
34	0	1	1	4	0	0	1	27	4	-	4	5	64	11	7	15	3	3	18	5
35	0	1	2	3	0	1	0	20	2	-	3	3	47	5	7	14	0	2	16	6
36	1	1	0	5	2	1	1	18	0	-	4	0	40	11	3	9	3	2	9	2
37	1	0	1	4	2	0	0	16	1	-	0	1	27	7	10	9	0	2	9	1
38	0	0	0	3	2	1	0	9	2	-	4	0	22	7	5	11	3	1	6	0
39	0	1	2	3	0	-	0	8	2	-	2	2	19	7	5	11	0	3	2	2
40	0	1	2	4	0	-	0	4	0	-	5	2	23	5	5	3	0	1	1	1
41	0	0	1	4	0	-	0	1	0	-	2	1	23	6	2	6	0	1	0	-
42	2	0	0	5	1	-	0	3	1	-	3	0	17	2	5	1	0	1	0	-
43	1	0	2	2	-	-	1	0	1	-	0	1	9	1	1	2	1	0	1	-
44	-	0	1	5	-	-	-	0	0	-	1	1	3	2	0	2	0	0	-	-
45	-	0	2	3	-	-	-	1	1	-	1	-	4	1	3	1	1	1	-	-
46	-	0	1	3	-	-	-	2	-	-	1	-	0	-	-	0	1	-	-	-
47	-	2	0	2	-	-	-	0	-	-	0	-	2	-	-	0	-	-	-	-
48	-	1	0	-	-	-	-	1	-	-	0	-	-	-	-	1	-	-	-	-
49	-	-	0	-	-	-	-	0	-	-	0	-	-	-	-	-	-	-	-	-
50	-	-	1	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	67	98	257	143	67	4	17	822	143	58	378	128	391	177	124	173	175	217	329	116

Appendix Table 5. Continued.

Species : Rock Sole

Fork Length (cm)	Haul no.																			
	58	59	60	61	65	66	67	68	69	70	71	72	74	75	76	77	78	79	80	85
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	2	-	-	-
9	0	-	2	1	-	-	-	-	0	-	-	-	-	-	-	-	0	2	-	1
10	0	-	0	0	-	-	-	-	0	-	-	-	1	1	2	2	0	0	-	4
11	1	-	1	0	-	-	7	-	4	-	-	-	1	0	0	0	0	1	-	5
12	3	1	2	2	3	-	14	6	11	1	-	-	0	0	1	1	1	1	-	0
13	0	2	2	10	2	-	16	5	13	3	1	-	1	1	1	0	2	7	-	0
14	2	0	3	12	4	-	1	1	2	1	2	-	2	0	1	1	0	10	-	2
15	3	8	4	3	0	-	4	1	1	3	2	-	1	0	1	3	3	1	-	3
16	0	3	2	4	0	2	14	1	12	1	0	-	1	2	0	7	10	1	-	2
17	2	6	4	7	7	2	28	8	8	3	1	-	2	2	3	6	8	13	2	1
18	1	3	2	14	2	1	34	10	8	5	1	1	5	6	5	4	18	26	0	7
19	8	7	4	6	9	2	37	8	18	4	6	0	7	8	6	9	8	17	0	17
20	2	5	2	1	4	3	49	9	28	10	1	2	7	4	6	12	7	21	2	14
21	2	8	3	13	3	1	46	17	10	17	4	4	4	7	4	5	11	21	1	4
22	8	6	5	11	0	1	24	8	9	14	3	0	7	10	3	6	6	18	0	6
23	5	3	6	11	1	3	26	2	4	7	4	3	4	7	7	7	7	5	0	2
24	9	3	4	7	3	0	27	4	2	10	3	3	10	9	2	3	5	8	0	2
25	11	2	5	7	1	2	16	1	2	4	6	4	4	7	1	2	2	5	1	0
26	10	8	0	4	2	2	12	1	5	7	6	4	2	7	1	1	5	4	0	0
27	10	8	7	3	1	0	15	2	3	8	8	3	3	4	1	1	0	1	0	0
28	18	9	7	2	4	2	10	1	2	9	6	2	2	7	1	0	1	3	0	1
29	14	13	8	4	4	3	8	0	4	4	7	5	7	8	0	3	1	1	0	0
30	16	2	3	0	6	0	9	0	2	6	14	5	10	9	4	1	0	4	0	1
31	15	5	6	4	2	2	15	2	1	8	7	3	15	9	2	5	1	0	0	0
32	11	10	3	2	6	0	5	1	2	9	5	4	11	8	1	7	3	0	0	1
33	19	7	5	6	2	0	9	2	3	4	3	2	14	10	1	8	1	2	0	2
34	14	12	5	2	3	0	8	2	4	9	6	5	9	7	5	2	3	3	0	4
35	12	5	4	4	3	0	7	2	5	5	1	0	8	3	3	3	2	2	2	3
36	9	3	3	1	0	1	4	1	3	8	3	2	6	11	3	6	7	2	0	3
37	11	5	3	4	2	2	5	3	5	4	1	1	6	4	2	3	0	2	0	2
38	3	3	-	0	1	0	4	2	5	6	0	0	7	2	3	5	0	4	0	1
39	7	2	-	0	3	1	4	5	1	6	1	1	4	2	5	5	2	1	1	2
40	6	3	-	3	3	2	1	0	4	3	2	1	5	2	0	0	2	3	1	4
41	7	1	-	0	2	1	3	2	2	3	2	1	5	2	1	4	1	1	0	1
42	1	1	-	1	2	0	4	2	1	2	2	-	1	1	1	3	1	3	1	0
43	1	-	-	1	0	1	0	3	2	1	1	-	4	1	6	3	3	1	-	1
44	1	-	-	0	1	2	0	0	1	1	2	-	2	2	1	4	1	0	-	0
45	0	-	-	1	-	2	2	0	-	1	1	-	0	1	1	4	1	1	-	2
46	1	-	-	1	-	2	1	1	-	3	2	-	1	1	0	2	0	2	-	0
47	0	-	-	-	-	3	-	2	-	0	0	-	3	3	2	1	0	1	-	1
48	0	-	-	-	-	2	-	0	-	2	1	-	1	0	4	-	0	-	-	-
49	1	-	-	-	-	1	-	1	-	-	0	-	-	1	0	-	0	-	-	-
50	-	-	-	-	-	-	-	-	-	-	1	-	-	0	1	-	1	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Total	245	154	105	152	86	46	469	116	188	192	116	56	183	170	92	139	126	198	11	99

Appendix Table 5. Continued.

Species : Rock Sole

Fork Length (cm)	Haul no.											Total Number Measured	
	86	87	88	89	91	92	93	94	95	96	97		100
7	-	-	-	-	-	-	-	-	-	-	-	-	2
8	-	-	-	-	-	-	-	1	-	1	-	-	15
9	-	-	-	-	-	-	-	3	-	0	-	-	11
10	2	2	-	-	-	-	-	0	-	0	-	-	16
11	5	3	-	-	-	-	-	0	-	0	-	-	33
12	2	0	-	-	-	-	1	4	-	0	-	-	101
13	1	0	1	-	-	1	4	12	1	1	2	-	182
14	3	2	0	-	-	1	4	11	2	6	0	-	146
15	6	6	2	-	-	3	5	11	1	3	0	-	123
16	11	10	2	1	1	2	7	9	4	0	0	-	206
17	11	6	3	3	3	4	9	22	6	1	3	-	372
18	13	12	7	3	1	6	11	20	4	13	3	-	505
19	17	15	4	1	1	2	3	11	3	12	2	1	445
20	14	8	7	7	2	2	7	12	6	4	3	0	443
21	9	14	5	2	1	2	3	9	2	2	3	0	464
22	11	8	3	2	1	1	2	9	5	7	1	1	396
23	9	6	2	5	2	2	2	5	1	2	1	0	328
24	9	1	1	3	3	1	0	1	1	0	3	0	290
25	7	2	2	3	2	1	0	2	3	1	2	0	247
26	6	0	1	3	3	0	0	3	1	1	3	0	226
27	2	1	2	3	1	0	0	3	2	-	2	0	213
28	4	2	4	5	1	1	3	3	1	-	0	0	204
29	6	2	1	4	0	0	3	0	3	-	1	0	197
30	8	3	7	16	3	1	2	2	1	-	0	0	227
31	11	10	13	26	1	0	6	10	2	-	2	0	286
32	15	1	19	19	0	0	9	15	1	-	0	0	293
33	23	10	32	23	1	1	8	7	0	-	4	1	388
34	21	10	29	25	0	4	13	17	2	-	2	2	401
35	12	8	24	12	1	3	7	10	6	-	0	2	291
36	15	10	7	6	3	4	8	8	2	-	1	1	253
37	10	5	16	8	1	2	10	14	1	-	2	-	225
38	9	2	11	5	5	3	8	13	2	-	0	-	180
39	6	4	11	2	1	1	10	8	0	-	0	-	165
40	5	3	15	5	2	3	7	14	4	-	2	-	162
41	5	5	12	3	1	3	8	12	1	-	1	-	137
42	6	5	15	5	1	3	12	16	2	-	1	-	134
43	6	5	12	9	1	0	10	11	4	-	3	-	113
44	3	3	5	6	3	4	9	14	5	-	1	-	86
45	3	2	7	1	4	6	11	17	2	-	-	-	89
46	1	2	5	5	1	7	3	10	0	-	-	-	59
47	1	1	2	2	1	1	10	6	0	-	-	-	46
48	-	-	3	1	0	2	7	5	4	-	-	-	35
49	-	-	1	-	1	1	3	3	0	-	-	-	13
50	-	-	1	-	1	1	0	3	1	-	-	-	13
51	-	-	1	-	-	-	1	2	-	-	-	-	5
Total	308	189	295	224	54	79	226	368	86	54	48	8	8766

Appendix Table 6. Length-frequency (numbers measured), by haul, of Dover sole collected during the R/V W.E. RICKER trawl survey, Hecate Strait, May 30-June 13, 1996.

Fork length (cm)	Haul no.																			
	2	6	7	11	13	14	15	18	19	21	22	24	28	29	31	41	42	43	44	46
12	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	1	0	-	-	-	-	-	-	-	-	-	-	3	-	-	1	-	-
16	-	-	1	1	-	-	-	-	-	-	-	-	-	-	0	-	-	0	-	-
17	-	-	3	1	-	-	-	1	-	-	-	-	-	-	5	-	-	0	-	-
18	-	-	11	1	-	-	-	1	-	-	-	-	-	-	0	-	1	0	-	-
19	-	-	31	0	-	-	-	1	-	-	-	-	-	-	0	3	0	0	-	-
20	-	-	53	1	-	-	-	4	1	-	-	-	-	-	2	6	0	0	-	-
21	-	-	51	3	-	-	-	4	1	-	-	-	-	1	1	16	1	1	-	-
22	1	1	28	1	-	-	1	4	0	-	-	-	1	3	4	22	2	0	-	-
23	2	7	53	2	-	-	3	6	2	1	-	-	1	5	5	27	0	2	-	-
24	1	7	35	4	-	-	3	4	7	1	-	-	1	7	2	24	1	1	-	-
25	6	11	29	2	-	-	6	2	7	7	1	1	3	7	1	35	1	1	1	2
26	2	11	37	5	-	6	9	2	11	8	5	5	7	4	2	31	3	8	2	1
27	4	13	24	0	-	3	16	1	11	6	10	20	22	11	0	37	4	3	0	6
28	4	17	5	2	-	4	24	2	8	9	15	15	20	8	0	49	2	7	2	2
29	4	8	7	1	-	0	19	1	5	14	32	30	36	8	0	12	7	8	0	5
30	4	8	4	1	1	3	10	1	6	11	45	40	37	4	0	13	11	9	2	9
31	1	4	3	-	2	7	12	-	6	19	39	44	34	3	0	11	10	9	4	17
32	2	2	1	-	1	3	9	-	2	7	46	39	25	0	1	5	15	11	4	11
33	2	4	3	-	0	3	4	-	4	3	22	21	12	0	-	2	9	7	7	9
34	1	2	1	-	4	3	2	-	3	2	12	16	14	1	-	1	6	9	0	6
35	0	2	0	-	2	4	1	-	1	4	6	10	10	2	-	-	2	9	2	9
36	0	1	0	-	2	1	4	-	-	2	6	7	3	0	-	-	2	7	2	2
37	0	-	0	-	0	0	3	-	-	2	6	0	5	0	-	-	1	10	1	1
38	0	-	0	-	1	2	3	-	-	0	3	3	3	0	-	-	-	4	0	3
39	1	-	0	-	1	0	0	-	-	0	1	2	1	1	-	-	-	1	1	2
40	-	-	0	-	1	0	0	-	-	0	3	2	2	0	-	-	-	5	-	1
41	-	-	0	-	-	0	0	-	-	2	4	1	0	0	-	-	-	0	-	0
42	-	-	0	-	-	0	0	-	-	0	1	2	0	0	-	-	-	0	-	0
43	-	-	0	-	-	1	0	-	-	0	1	1	0	0	-	-	-	0	-	0
44	-	-	0	-	-	-	1	-	-	0	1	1	1	0	-	-	-	0	-	0
45	-	-	0	-	-	-	-	-	-	1	0	0	0	0	-	-	-	1	-	0
46	-	-	0	-	-	-	-	-	-	-	0	0	0	0	-	-	-	0	-	0
47	-	-	0	-	-	-	-	-	-	-	0	0	1	0	-	-	-	0	-	0
48	-	-	0	-	-	-	-	-	-	-	1	1	-	1	-	-	-	0	-	1
49	-	-	0	-	-	-	-	-	-	-	0	1	-	-	-	-	-	0	-	-
50	-	-	0	-	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
51	-	-	0	-	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
52	-	-	0	-	-	-	-	-	-	-	0	-	-	-	-	-	-	1	-	-
53	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-

Appendix Table 6. Continued.

Species: Dover Sole

Fork length (cm)	Haul no.																			
	2	6	7	11	13	14	15	18	19	21	22	24	28	29	31	41	42	43	44	46
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Total	35	98	389	26	15	40	130	34	75	99	261	262	239	66	26	294	78	117	28	87

Appendix Table 6. Continued.

Species: Dover Sole

Fork Length (cm)	Haul no.										Total Number Measured
	47	51	53	55	63	64	81	82	101	102	
56	-	-	0	-	-	-	-	-	-	-	0
57	-	-	0	-	-	-	-	-	-	-	0
58	-	-	0	-	-	-	-	-	-	-	0
59	-	-	0	-	-	-	-	-	-	-	0
60	-	-	1	-	-	-	-	-	-	-	1
61	-	-	-	-	-	-	-	-	-	-	0
62	-	-	-	-	-	-	-	-	-	-	0
63	-	-	-	-	-	-	-	-	-	-	0
64	-	-	-	-	-	-	-	-	-	-	0
65	-	-	-	-	-	-	-	-	-	-	0
66	-	-	-	-	-	-	-	-	-	-	1
Total	33	29	105	20	70	62	110	191	9	19	3047

Appendix Table 7. Length-frequency (numbers measured), by haul, of English sole collected during the R/V W.E. RICKER trawl survey, Hecate Strait, May 30-June 13, 1996.

Fork Length (cm)	Haul no.																			
	2	3	6	7	8	9	10	11	12	13	14	15	16	17	18	19	21	22	23	24
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	4	10	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	4	40	68	-	-	-	-	-	-	1	-	-	-	-	-	-
13	-	-	-	-	5	38	74	-	-	-	-	-	3	2	-	-	-	-	-	-
14	-	-	-	-	1	21	34	-	-	-	-	-	0	1	-	-	-	-	-	-
15	-	-	-	1	3	9	10	-	-	-	-	-	1	1	1	-	-	-	-	-
16	-	-	-	0	3	1	0	-	-	-	-	-	2	8	0	-	-	-	-	-
17	-	-	-	1	5	1	1	-	4	-	-	-	5	8	12	0	-	-	-	-
18	-	1	-	0	17	2	3	1	16	-	-	-	9	12	34	3	-	-	1	-
19	-	0	-	4	29	2	2	2	38	1	-	1	7	11	48	3	-	-	1	-
20	-	2	-	3	38	3	2	2	89	2	-	3	16	13	49	4	-	-	3	2
21	-	1	-	5	32	2	4	7	111	1	1	6	13	18	50	5	-	-	8	2
22	2	0	-	9	49	1	1	9	107	2	2	12	14	15	52	5	1	-	4	0
23	0	0	-	25	41	0	1	10	71	0	0	20	40	14	61	3	0	-	8	1
24	0	1	-	30	44	0	3	13	64	3	1	26	61	38	52	6	0	-	11	3
25	2	0	-	38	27	1	1	13	46	1	5	41	66	27	57	16	0	1	16	4
26	2	1	1	45	31	1	1	14	39	-	4	47	92	35	64	13	0	1	23	9
27	1	0	2	51	27	0	1	5	21	-	11	38	76	29	41	23	3	6	34	13
28	1	0	3	30	21	0	-	5	14	-	8	39	74	37	38	22	11	9	38	8
29	4	0	1	23	16	1	-	2	8	-	3	26	49	36	30	23	12	17	40	10
30	1	0	3	15	11	0	-	1	5	-	5	18	27	27	23	18	7	20	20	17
31	2	1	1	14	11	0	-	1	4	-	2	10	29	27	26	8	13	24	30	17
32	4	0	4	10	5	0	-	0	4	-	3	14	27	26	20	12	9	30	21	21
33	0	0	0	3	8	0	-	0	6	-	2	11	27	22	9	4	7	30	33	13
34	1	0	0	1	5	0	-	3	2	-	2	8	16	18	4	2	8	35	29	20
35	0	0	1	4	3	0	-	-	4	-	1	6	3	8	6	1	10	24	25	11
36	4	2	0	4	6	1	-	-	0	-	2	4	7	1	2	2	1	13	12	6
37	2	1	0	2	3	-	-	-	0	-	1	2	4	1	1	1	4	9	3	7
38	0	1	0	2	5	-	-	-	0	-	1	3	4	0	2	1	2	4	1	1
39	0	1	1	0	2	-	-	-	1	-	-	4	2	1	2	0	0	1	0	2
40	2	1	-	2	4	-	-	-	-	-	-	-	5	2	-	2	0	1	0	3
41	0	-	-	-	1	-	-	-	-	-	-	-	1	2	-	-	0	1	1	1
42	0	-	-	-	0	-	-	-	-	-	-	-	0	-	-	-	1	0	-	0
43	1	-	-	-	2	-	-	-	-	-	-	-	0	-	-	-	0	1	-	1
44	-	-	-	-	0	-	-	-	-	-	-	-	0	-	-	-	1	-	-	0
45	-	-	-	-	0	-	-	-	-	-	-	-	0	-	-	-	-	-	-	1
46	-	-	-	-	0	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
47	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	29	13	17	322	460	128	250	88	654	10	54	339	675	434	696	178	90	227	362	173

Appendix Table 7. Continued.

Species : English sole

Fork Length (cm)	Haul no.																			
	27	28	29	31	32	33	34	36	41	42	43	44	45	46	47	48	51	52	54	57
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	5	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
13	9	-	-	-	-	-	0	-	-	-	-	1	-	-	-	-	-	-	-	-
14	4	-	-	1	-	-	0	1	-	-	-	0	-	-	-	-	-	-	-	-
15	5	-	-	6	-	-	0	2	1	-	-	1	-	-	-	-	-	-	-	-
16	12	1	-	16	-	-	1	3	0	-	-	3	-	-	-	-	-	-	-	-
17	26	0	-	24	1	-	3	1	1	-	-	5	-	-	-	-	-	-	-	-
18	30	0	1	31	2	-	0	4	3	-	-	20	-	-	-	-	-	-	-	-
19	21	2	5	39	1	-	2	4	10	-	-	24	-	-	-	-	-	-	-	2
20	16	6	9	55	2	-	4	0	11	-	-	31	3	-	-	-	-	-	-	5
21	14	1	15	46	4	-	5	4	10	1	1	33	1	1	-	1	-	-	-	10
22	19	2	12	49	6	-	1	1	9	2	1	42	2	1	-	1	-	-	-	18
23	17	2	15	35	14	1	2	6	19	5	2	37	1	3	1	2	-	-	-	20
24	15	2	16	36	6	0	0	0	19	8	4	38	1	1	2	1	-	-	-	33
25	16	7	10	25	8	3	1	0	16	14	0	34	2	15	6	2	-	1	-	26
26	24	4	6	30	8	5	-	0	30	19	1	29	2	15	8	6	-	3	-	40
27	17	8	13	19	11	7	-	0	31	12	1	5	24	4	26	13	8	-	4	35
28	19	10	13	18	14	24	-	1	25	18	3	3	15	3	29	21	9	1	7	36
29	20	5	11	6	10	23	-	0	16	14	4	5	12	15	40	23	11	0	9	37
30	7	3	8	9	8	27	-	1	17	24	4	7	11	14	26	22	12	0	10	28
31	14	3	14	7	7	22	-	-	20	22	1	11	11	27	25	35	16	1	16	27
32	11	6	25	4	7	18	-	-	31	20	3	15	14	17	22	22	20	0	11	20
33	6	5	17	4	5	13	-	-	16	24	4	13	8	22	15	27	15	2	7	21
34	11	9	14	1	4	15	-	-	19	18	4	16	7	24	8	21	22	2	9	10
35	5	2	6	2	4	8	-	-	10	17	2	26	4	14	4	11	14	6	8	9
36	7	5	1	3	4	6	-	-	11	19	7	12	5	13	7	6	11	4	7	5
37	4	0	4	2	1	2	-	-	2	6	3	20	5	8	1	5	13	11	8	5
38	3	0	1	0	1	1	-	-	3	11	9	10	5	4	0	2	4	11	11	5
39	2	1	1	2	1	2	-	-	3	9	10	8	1	1	0	1	4	7	5	2
40	1	-	2	-	1	2	-	-	1	3	5	7	2	1	1	2	2	2	3	4
41	1	-	-	-	1	2	-	-	0	1	6	2	3	1	-	-	2	3	0	2
42	-	-	-	-	-	2	-	-	1	-	0	2	3	4	-	-	0	4	1	1
43	-	-	-	-	-	0	-	-	-	-	2	1	1	1	-	-	1	1	0	0
44	-	-	-	-	-	0	-	-	-	-	0	1	1	-	-	-	-	0	0	5
45	-	-	-	-	-	1	-	-	-	-	0	0	0	-	-	-	-	2	1	2
46	-	-	-	-	-	2	-	-	-	-	2	0	1	-	-	-	-	1	0	0
47	-	-	-	-	-	0	-	-	-	-	0	0	1	-	-	-	-	-	0	2
48	-	-	-	-	-	1	-	-	-	-	1	1	1	-	-	-	-	-	0	0
49	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	0	1
50	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1
51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	362	84	219	470	131	187	20	28	335	267	81	169	433	185	240	228	177	58	122	412

Appendix Table 7. Continued.

Species : English sole

Fork Length (cm)	Haul no.																	Total Number Measured
	59	63	64	66	71	78	79	80	84	92	95	96	97	98	100	101	102	
7	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
8	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	1
9	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	3
10	-	-	-	-	0	-	1	6	-	-	-	-	-	-	-	-	-	11
11	3	-	-	-	1	12	7	15	1	1	-	-	-	-	-	-	-	54
12	17	-	-	-	1	22	21	21	3	2	-	1	-	-	-	-	-	207
13	30	-	-	-	9	24	9	10	6	14	1	1	-	-	-	-	-	236
14	20	-	-	-	2	13	3	5	3	6	0	0	-	-	-	-	-	115
15	10	-	-	-	2	6	2	2	0	4	2	2	-	-	-	-	-	71
16	1	-	-	-	0	3	1	0	0	0	0	1	-	-	-	-	-	56
17	2	-	-	-	0	2	0	2	4	0	8	4	-	-	-	-	-	120
18	2	-	-	3	0	4	0	12	10	1	6	17	2	-	1	-	-	248
19	1	1	-	0	1	6	2	11	26	0	32	27	1	-	0	1	1	369
20	3	0	1	1	3	2	1	16	36	0	44	45	1	1	0	1	1	529
21	0	0	0	2	3	1	2	17	29	0	42	45	8	3	1	2	3	571
22	1	0	0	4	0	0	1	9	27	0	49	40	6	1	2	3	1	595
23	2	0	2	0	1	1	0	6	26	0	37	46	6	0	4	1	5	615
24	1	0	5	1	0	3	1	6	14	0	27	34	7	3	4	2	11	658
25	1	0	7	0	1	1	-	7	14	0	25	22	6	4	2	4	11	653
26	1	0	6	3	1	2	-	9	18	0	16	10	4	5	2	6	10	748
27	2	0	14	5	1	5	-	3	7	0	7	18	5	6	4	3	6	706
28	1	0	21	2	0	1	-	6	4	0	6	7	5	4	1	4	5	694
29	3	4	10	5	0	0	-	0	4	0	6	4	5	8	0	0	6	617
30	2	2	17	2	0	1	-	1	1	0	5	1	2	6	1	3	3	503
31	3	0	14	5	0	0	-	1	1	0	1	4	3	2	1	0	1	535
32	2	3	13	2	0	0	-	1	6	0	1	4	3	3	1	1	1	517
33	2	2	6	0	0	0	-	0	2	1	3	4	2	1	1	2	3	428
34	2	1	13	2	2	0	-	4	1	0	3	3	2	5	0	0	2	408
35	2	0	3	0	0	1	-	0	1	0	0	0	0	1	0	1	0	268
36	5	1	3	2	0	-	-	0	0	0	0	1	0	0	0	0	1	213
37	7	-	2	0	0	-	-	1	1	0	1	-	0	2	2	0	0	157
38	0	-	1	0	0	-	-	2	1	1	0	-	0	1	-	1	0	115
39	1	-	-	0	1	-	-	-	-	-	0	-	2	-	-	-	0	81
40	0	-	-	0	0	-	-	-	-	-	0	-	2	-	-	-	0	63
41	1	-	-	1	2	-	-	-	-	-	0	-	-	-	-	-	1	36
42	1	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	22
43	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	12
44	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	-	9
45	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	7
46	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	7
47	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	6
48	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	4
49	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	1
50	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	3
51	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Total	129	14	138	40	36	110	51	173	246	30	324	341	72	56	27	35	72	11274

Appendix Table 8. Length data collected for halibut during the 1996 Hecate Strait trawl survey, May30 to June 13, 1996. Length frequencies for hauls with large catches of halibut.

Fork length (cm)	Haul no.				Fork length (cm)	Haul no.			
	49	60	66	Total		49	60	66	Total
32	-	1	-	1	68	15	2	2	19
33	-	0	-	0	69	8	1	3	12
34	-	0	-	0	70	10	0	6	16
35	-	1	-	1	71	6	0	1	7
36	-	0	-	0	72	5	3	3	11
37	-	0	-	0	73	4	0	3	7
38	-	1	-	1	74	5	1	1	7
39	-	1	-	1	75	3	1	2	6
40	-	0	-	0	76	2	0	3	5
41	-	0	-	0	77	0	0	1	1
42	-	0	-	0	78	1	3	1	5
43	-	0	-	0	79	0	1	1	2
44	-	0	-	0	80	1	0	1	2
45	-	0	-	0	81	0	1	0	1
46	-	0	-	0	82	0	1	0	1
47	-	0	-	0	83	2	0	0	2
48	-	0	-	0	84	0	0	1	1
49	-	0	-	0	85	1	1	0	2
50	-	0	-	0	86	0	0	1	1
51	-	0	-	0	87	2	0	0	2
52	-	0	1	1	88	-	2	0	2
53	-	0	0	0	89	-	1	1	2
54	-	0	0	0	90	-	1	0	1
55	-	0	0	0	91	-	0	0	0
56	-	0	0	0	92	-	0	0	0
57	1	0	0	1	93	-	0	1	1
58	1	0	0	1	94	-	1	0	1
59	2	0	0	2	95	-	0	1	1
60	3	1	1	5	96	-	1	-	1
61	0	1	0	1	97	-	0	-	0
62	5	0	1	6	98	-	0	-	0
63	7	1	0	8	99	-	0	-	0
64	14	1	5	20	100	-	1	-	1
65	8	2	4	14					
66	8	0	5	13					
67	13	1	2	16					
					Total	127	33	52	212

Appendix Table 9. Length data collected for halibut during the 1996 Hecate Strait trawl survey, May30 to June 13, 1996. Lengths of individual fish for hauls with small catches.

Haul no.	Lengths of individual fish (cm)
1	82,98,90,102
2	86,79,73,65
3	76,69,63,79,69
4	78,65,80,74,82
7	65,80,66,77,74,77,63,75,67,71,76,87,86,86,89,92,95,83,83
8	77,79,76,68,91,93
9	81
10	76
11	71,119
16	65,84
17	83
18	80
19	67
26	42,56,75,76,59,45,56,46,67,40,42,41,44,41,86
27	69,81,73,76,73,80,88,84,95,87
29	74
30	66,60,75,69,75,67,67,48,52,65,61,38,45,72,31,81,81,90
31	74,63,80,71,63,75,86,86,67,67,73,70,75,109
32	76
33	63,72,73,74,73,83,62,66,64,67,74,71,57
34	84,71
35	40,73,85,64,71,77,57,58,110
36	36,41,41,38,90,88
37	59,37,36,36,41,42,37,36,75,76,77
38	63,70,97,97,70,67,82,66,64,61,40
39	88,87,93,75,41,73,40
40	43,63,63,59,81,76,78,71,70
41	69,76,78,79,72,91,61
42	68,76,67,85,72,76,80,74,63,84,70,76,64,101,70,83,94,76,84,81,76,80,75,68
43	82,85,83,82,90,73,78,89,80,73,73,76,74,62,82,86,87,56,82,79,78,75,78,77,75,69
44	76,94,90,71,64,89,93
45	78,64
46	63
47	78,61,67
48	69,74,69,71,64,68,64,64,66,70
50	61,63,64,68,70
51	81

Appendix Table 9. Continued.

Haul no.	Lengths of individual fish (cm)
----------	---------------------------------

52	66
53	69
54	66,71,71
57	62,67,81
58	74,75,82,92,75,84,71,78,74,67,73,68,65
59	82,69,76,74,69,77,78,67,87,72,71,84,77,69,87,82,18,51,36,18
61	82,107,59,40,44,64,36,33,38,43,35
62	68,43,61,41,111,31,84,34
63	66
64	63
65	57,70,72,58,69,76,71,71,77,73,67,76,58,65,64,61,67,40,42,50,45,39,40,36,42,40,40,45
67	61,78,71,75,72
69	101,75,70
72	85,70,74,98,95,86,115
73	108,82,86,70,96
74	85,63,72,81,73,86
75	79,90
76	47,43,42,85,134,132
78	66,94,21
83	78
84	83,70,73,77,79,96
85	79,79,84,67,86
86	41
87	81,103,40
91	46,75,24,42,43
92	46,45,46,45,71
93	67,89,75,70,45,55,51
94	48,43,46,44,81,97,66
95	70,66,88
96	79,65,80,74,79,81
100	80,85,90,74
102	69

Appendix Table 10. Length-frequency (numbers measured), by haul, of Pacific cod collected during F/V STEADFAST trawl survey, Hecate Strait, June 1 - 6, 1996.

Fork Length (cm)	Haul no.																			
	1	2	3	4	7	8	10	13	16	18	19	20	21	22	23	26	27	28	29	30
23	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	1	-	-	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	1	-	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	0	-	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	1	-	0	4	0	-	-	-	-	-	-	-	-	-	-	-	1	-
29	-	-	1	-	3	1	1	-	-	-	-	-	-	-	-	-	-	-	0	-
30	-	-	3	-	2	0	2	-	-	-	-	-	-	-	-	-	-	-	0	-
31	-	-	1	-	0	2	1	-	-	-	-	-	-	-	-	1	-	-	1	1
32	-	-	2	1	1	1	-	-	-	-	-	-	-	-	-	0	-	-	0	0
33	-	-	0	1	1	0	-	-	-	-	-	-	-	-	-	1	-	-	1	0
34	1	-	0	2	1	0	-	-	-	-	-	-	-	-	-	-	-	-	1	0
35	0	-	0	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	2	0
36	0	-	0	0	1	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
37	0	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0	0
38	0	-	0	0	0	0	-	-	1	-	-	-	-	-	-	-	-	-	0	0
39	0	-	1	0	0	0	-	-	0	-	-	-	-	-	-	-	-	1	0	0
40	0	-	-	0	1	0	-	-	0	-	-	-	-	-	-	-	-	0	1	0
41	0	-	-	0	0	0	-	-	0	-	-	-	-	-	-	-	-	1	3	0
42	0	-	-	0	0	0	-	-	1	-	-	-	-	1	-	-	-	0	1	0
43	0	-	-	0	1	0	-	-	5	-	-	-	-	0	1	-	-	0	0	0
44	0	-	-	0	3	0	-	-	1	-	-	-	-	1	0	-	-	1	0	3
45	0	-	-	0	2	0	-	-	1	-	-	1	-	0	0	-	-	1	3	1
46	0	-	-	0	2	0	-	-	1	-	-	0	-	0	0	-	-	3	0	0
47	0	-	-	1	2	0	-	-	2	-	-	0	-	0	0	-	-	2	0	0
48	0	-	-	0	2	0	-	1	5	1	-	1	1	1	0	-	-	2	1	1
49	0	-	-	0	1	1	-	1	1	0	-	0	0	0	0	-	-	2	1	0
50	0	-	-	0	2	0	-	0	4	0	-	0	0	1	0	-	1	2	0	0
51	0	-	-	0	1	0	-	0	2	0	-	0	0	0	0	-	1	2	0	0
52	0	-	-	1	1	1	-	0	0	2	-	1	0	0	0	-	0	0	1	0
53	0	-	-	-	0	-	-	0	2	0	-	0	0	0	0	-	0	4	0	0
54	0	-	-	-	1	-	-	1	3	0	-	0	0	1	0	-	2	3	1	1
55	0	1	-	-	0	-	-	0	1	0	-	0	0	1	0	-	0	2	0	0
56	0	0	-	-	0	-	-	1	0	0	-	0	1	2	0	-	0	1	0	0
57	0	0	-	-	1	-	-	-	1	0	-	0	1	2	0	-	2	2	0	0
58	1	0	-	-	0	-	-	-	1	1	-	0	1	1	1	-	1	0	0	0
59	-	0	-	-	0	-	-	-	0	1	-	0	1	1	1	-	1	3	1	0
60	-	0	-	-	0	-	-	-	0	0	-	0	0	0	1	-	1	1	0	0
61	-	0	-	-	0	-	-	-	0	0	-	0	0	1	0	-	0	2	0	0
62	-	0	-	-	0	-	-	-	0	0	-	0	0	0	1	-	0	2	0	1
63	-	0	-	-	0	-	-	-	0	0	-	1	2	0	1	-	2	0	0	0
64	-	0	-	-	0	-	-	-	1	0	-	-	1	1	0	-	1	2	1	0
65	-	0	-	-	0	-	-	-	-	0	-	-	2	1	2	-	0	1	1	0

Appendix Table 10. Continued.

Species : Pacific cod

Fork Length (cm)	Haul no.																			
	1	2	3	4	7	8	10	13	16	18	19	20	21	22	23	26	27	28	29	30
66	-	0	-	-	0	-	-	-	-	1	1	-	1	0	0	-	1	4	1	0
67	-	0	-	-	0	-	-	-	-	0	0	-	0	1	0	-	2	-	0	0
68	-	2	-	-	0	-	-	-	-	0	1	-	1	0	0	-	3	-	0	0
69	-	0	-	-	0	-	-	-	-	1	-	-	0	1	0	-	1	-	0	0
70	-	1	-	-	0	-	-	-	-	-	-	-	1	-	0	-	1	-	0	0
71	-	1	-	-	0	-	-	-	-	-	-	-	0	-	0	-	0	-	0	0
72	-	2	-	-	0	-	-	-	-	-	-	-	1	-	0	-	1	-	0	0
73	-	3	-	-	0	-	-	-	-	-	-	-	0	-	1	-	0	-	2	0
74	-	3	-	-	1	-	-	-	-	-	-	-	0	-	0	-	1	-	1	0
75	-	2	-	-	-	-	-	-	-	-	-	-	1	-	1	-	0	-	0	0
76	-	4	-	-	-	-	-	-	-	-	-	-	1	-	-	-	0	-	1	0
77	-	3	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	0	0
78	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	1
79	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-
80	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-
81	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	0	-
82	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	0	-
83	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	2	-
84	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	2	42	11	7	33	14	8	4	33	7	2	4	17	17	10	2	26	44	28	9

Appendix Table 10. Continued.

Species : Pacific cod

Fork Length (cm)	Haul no.												Total Number Measured
	31	32	36	38	39	40	43	44	45	46	47	52	
23	-	-	-	-	-	-	-	-	-	-	-	-	2
24	-	-	-	-	-	-	-	-	-	-	-	-	1
25	-	-	-	-	-	-	-	-	-	-	-	-	2
26	-	1	-	-	-	-	-	-	-	-	-	-	4
27	-	-	1	-	-	1	-	-	-	-	-	-	4
28	-	-	1	-	-	1	-	-	-	-	-	-	8
29	1	-	0	-	-	1	-	-	-	-	-	-	8
30	1	-	0	-	-	0	-	-	-	-	-	-	8
31	0	-	0	-	-	0	-	-	-	-	-	-	7
32	2	-	1	-	-	0	-	-	-	-	-	-	8
33	0	-	-	-	-	0	-	-	-	-	-	-	4
34	0	-	-	-	-	0	-	-	-	-	-	-	5
35	0	-	-	-	-	0	-	-	-	-	-	-	6
36	1	-	-	-	-	0	-	-	-	-	-	-	2
37	1	-	-	-	-	0	-	-	-	1	-	-	2
38	2	-	-	1	-	0	-	-	-	0	-	1	5
39	0	-	-	0	-	0	-	-	-	0	-	2	4
40	0	-	-	2	-	0	-	-	-	0	-	0	4
41	1	-	-	2	-	0	-	-	-	0	-	0	7
42	0	-	-	1	-	0	-	-	-	1	1	0	6
43	0	-	-	6	-	0	-	-	-	0	0	0	13
44	0	-	-	7	-	0	-	-	-	0	0	0	16
45	1	-	-	9	3	0	-	-	-	0	0	0	22
46	1	-	-	10	2	1	-	-	-	4	1	0	25
47	0	-	-	5	2	1	1	-	-	1	0	1	18
48	0	-	-	8	2	0	0	-	-	1	5	0	32
49	1	-	-	9	3	0	0	-	1	0	6	0	27
50	0	-	-	7	3	0	0	-	2	0	2	0	24
51	0	-	-	2	3	2	0	-	3	0	0	0	16
52	0	-	-	5	1	1	0	1	1	1	1	0	18
53	0	-	-	2	2	0	0	0	2	1	1	0	14
54	1	-	-	3	3	0	0	0	1	0	0	0	21
55	0	-	-	2	1	0	0	1	1	0	0	0	10
56	1	-	-	2	3	0	0	0	0	1	0	0	12
57	0	-	-	2	2	1	0	0	3	1	1	0	19
58	0	-	-	2	0	1	0	0	1	2	2	2	17
59	0	-	-	1	3	0	0	0	0	1	0	0	14
60	1	-	-	0	1	2	0	0	4	1	4	0	16
61	0	-	-	3	1	1	0	0	3	1	2	0	14
62	0	-	-	1	1	0	0	1	1	1	1	1	11
63	1	-	-	3	-	1	1	-	1	0	3	0	16
64	1	-	-	0	-	-	0	-	1	0	4	1	14
65	0	-	-	1	-	-	0	-	1	0	4	0	13

Appendix Table 10. Continued.

Species : Pacific cod

Fork Length (cm)	Haul no.												Total Number Measured
	31	32	36	38	39	40	43	44	45	46	47	52	
66	0	-	-	1	-	-	0	-	1	0	3	0	14
67	0	-	-	0	-	-	1	-	1	1	4	0	10
68	1	-	-	0	-	-	-	-	0	-	2	0	10
69	0	-	-	1	-	-	-	-	2	-	0	1	7
70	0	-	-	0	-	-	-	-	0	-	1	0	4
71	1	-	-	1	-	-	-	-	0	-	0	0	3
72	0	-	-	-	-	-	-	-	1	-	0	0	5
73	0	-	-	-	-	-	-	-	3	-	2	0	11
74	0	-	-	-	-	-	-	-	2	-	0	0	8
75	0	-	-	-	-	-	-	-	0	-	0	1	5
76	1	-	-	-	-	-	-	-	0	-	1	-	8
77	0	-	-	-	-	-	-	-	0	-	0	-	5
78	1	-	-	-	-	-	-	-	1	-	1	-	7
79	-	-	-	-	-	-	-	-	0	-	1	-	1
80	-	-	-	-	-	-	-	-	1	-	1	-	5
81	-	-	-	-	-	-	-	-	0	-	-	-	6
82	-	-	-	-	-	-	-	-	0	-	-	-	6
83	-	-	-	-	-	-	-	-	0	-	-	-	5
84	-	-	-	-	-	-	-	-	0	-	-	-	2
85	-	-	-	-	-	-	-	-	0	-	-	-	0
86	-	-	-	-	-	-	-	-	1	-	-	-	1
Total	21	1	3	99	36	14	3	3	39	19	54	10	622

Appendix Table 11. Length-frequency (numbers measured), by haul, of rock sole collected during F/V STEADFAST trawl survey, Hecate Strait, June 1 - 6, 1996

Fork Length (cm)	Haul no.																			
	4	5	6	7	9	10	12	13	16	17	24	25	26	28	29	30	31	32	33	34
21	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	0	-	1	-	-	-	-	-	-	-
23	1	1	-	1	-	-	-	-	-	-	0	-	0	-	-	-	-	1	-	1
24	2	0	-	1	-	1	-	-	-	-	0	-	0	-	1	-	-	0	1	2
25	2	2	-	0	-	0	-	-	1	-	0	2	0	-	0	-	1	0	2	3
26	1	2	-	0	-	0	-	-	0	-	0	0	0	2	0	-	0	0	3	0
27	4	1	-	1	-	0	-	-	0	-	3	0	1	2	0	-	0	0	0	3
28	4	3	-	0	-	2	-	-	0	-	4	4	3	1	0	-	0	0	1	0
29	3	0	-	0	1	0	-	-	0	-	9	4	0	3	0	-	0	0	4	1
30	3	1	-	3	0	0	-	-	0	-	16	8	1	0	1	-	1	0	4	4
31	4	3	-	0	1	0	-	1	0	-	19	9	2	0	3	-	0	1	7	4
32	6	1	-	0	0	7	1	0	1	-	20	10	6	0	2	2	9	4	6	4
33	4	2	-	0	3	3	2	1	2	1	12	12	9	0	5	3	18	3	18	2
34	4	0	-	2	3	4	2	0	3	-	30	7	3	0	5	4	24	5	25	7
35	5	2	-	2	3	11	1	0	0	-	29	9	3	2	5	6	18	1	24	5
36	9	5	-	1	4	4	0	0	2	-	12	10	8	0	2	1	16	2	20	4
37	6	3	-	1	4	10	1	0	0	-	9	7	3	0	3	3	11	1	22	1
38	13	1	-	-	0	8	0	0	1	-	9	5	2	0	2	0	6	4	14	1
39	10	1	-	-	2	4	2	0	0	-	13	2	3	0	3	0	10	1	14	2
40	7	1	1	-	3	7	-	0	0	-	7	5	4	0	3	2	7	0	9	1
41	12	1	-	-	3	5	-	0	1	-	1	1	6	0	3	0	8	1	14	2
42	8	1	-	-	1	6	-	0	-	-	3	2	2	1	0	1	5	1	12	0
43	6	0	-	-	1	6	-	1	-	-	5	1	0	-	0	-	2	-	10	1
44	6	1	-	-	4	5	-	0	-	-	0	2	0	-	1	-	4	-	10	1
45	5	0	-	-	3	4	-	1	-	-	1	0	2	-	0	-	5	-	4	-
46	3	1	-	-	2	3	-	-	-	-	3	1	0	-	1	-	-	-	4	-
47	3	-	-	-	4	2	-	-	-	-	2	1	0	-	-	-	-	-	0	-
48	4	-	-	-	0	1	-	-	-	-	0	1	1	-	-	-	-	-	1	-
49	3	-	-	-	1	4	-	-	-	-	1	-	0	-	-	-	-	-	1	-
50	-	-	-	-	1	1	-	-	-	-	0	-	0	-	-	-	-	-	1	-
51	-	-	-	-	0	-	-	-	-	-	0	-	1	-	-	-	-	-	-	-
52	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
53	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	138	33	1	12	45	98	9	4	11	1	210	103	61	11	40	22	145	25	231	49

Appendix Table 11. Continued.

Species : rock sole

Fork Length (cm)	Haul no.										Total Number Measured
	35	36	37	38	39	40	43	48	49	50	
21	-	-	-	-	-	-	-	-	-	-	1
22	-	-	1	-	-	-	-	-	-	-	2
23	-	-	1	-	-	-	-	-	-	-	6
24	-	4	5	-	-	-	-	-	-	-	17
25	2	5	0	-	-	-	-	-	-	-	20
26	0	3	2	1	-	-	-	-	-	-	14
27	0	6	5	0	-	-	-	-	-	1	27
28	0	3	2	0	-	-	-	-	-	0	27
29	0	3	2	0	-	-	-	-	-	0	30
30	1	7	2	0	-	-	-	-	1	1	54
31	1	37	7	0	5	-	-	-	0	0	104
32	3	47	16	2	0	-	-	-	1	0	148
33	3	58	4	6	1	-	1	2	0	0	175
34	8	70	24	4	3	-	0	1	3	0	241
35	10	51	13	1	0	1	0	0	1	1	204
36	6	32	10	0	0	0	0	3	0	1	152
37	8	17	7	3	1	0	0	2	1	1	125
38	3	14	8	2	0	0	0	0	2	4	99
39	5	3	3	3	0	0	0	1	1	3	86
40	5	2	4	2	1	0	0	0	2	1	74
41	1	1	3	1	1	2	0	1	1	4	73
42	0	1	3	0	-	-	1	1	3	2	54
43	0	0	0	1	-	-	-	2	5	3	44
44	2	1	1	1	-	-	-	3	1	4	47
45	3	0	1	-	-	-	-	3	1	2	35
46	-	1	-	-	-	-	-	-	-	0	19
47	-	-	-	-	-	-	-	-	-	0	12
48	-	-	-	-	-	-	-	-	-	2	10
49	-	-	-	-	-	-	-	-	-	1	11
50	-	-	-	-	-	-	-	-	-	-	3
51	-	-	-	-	-	-	-	-	-	-	1
52	-	-	-	-	-	-	-	-	-	-	1
53	-	-	-	-	-	-	-	-	-	-	0
54	-	-	-	-	-	-	-	-	-	-	0
55	-	-	-	-	-	-	-	-	-	-	1
Total	61	366	124	27	12	3	2	19	23	31	1917

Appendix Table 12. Length-frequency (numbers measured), by haul, of Dover sole collected during F/V STEADFAST trawl survey, Hecate Strait, June 1- 6, 1996.

Fork length (cm)	Haul no.																			
	1	2	5	6	12	13	14	15	17	19	20	21	23	27	29	30	40	41	42	44
25	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	1	-	-	-	-
26	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	0	-	-	-	-
27	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	0	-	-	-	-
28	-	-	-	-	-	2	1	0	1	-	-	-	-	0	-	0	-	-	-	2
29	-	-	-	2	-	2	0	2	-	-	-	1	-	4	-	0	-	-	-	0
30	-	-	-	1	1	2	2	2	-	1	2	2	2	4	-	0	-	-	-	1
31	-	-	-	1	-	8	0	4	-	0	0	5	7	8	-	0	1	-	-	2
32	-	-	-	0	-	5	0	2	-	2	1	5	1	14	-	0	0	2	1	1
33	-	-	-	2	-	10	1	1	-	1	1	6	3	8	-	0	0	1	2	2
34	-	-	-	1	-	7	3	3	-	0	0	8	5	1	1	0	1	0	0	1
35	-	1	-	0	-	8	3	1	-	0	0	5	3	2	0	0	1	0	1	1
36	-	-	-	0	-	7	0	0	-	0	1	1	0	0	0	0	0	3	0	4
37	-	-	1	0	-	9	3	1	-	0	1	1	4	2	0	0	0	1	1	2
38	-	-	0	0	-	11	1	0	-	0	0	5	5	0	0	0	1	1	1	0
39	-	-	0	1	-	13	0	0	-	0	1	5	5	3	1	0	-	1	-	2
40	-	-	0	0	-	16	1	0	-	0	0	4	0	1	-	0	-	2	-	3
41	-	-	0	0	-	12	1	0	-	1	0	6	6	1	-	0	-	2	-	0
42	-	-	0	0	-	10	1	0	-	0	2	4	9	2	-	0	-	1	-	0
43	1	-	1	0	-	13	0	0	-	1	0	5	10	0	-	1	-	1	-	0
44	0	-	0	0	-	14	1	1	-	0	1	6	6	0	-	0	-	0	-	0
45	0	-	1	2	-	8	1	1	-	0	0	1	3	0	-	0	-	0	-	0
46	1	-	1	-	-	7	1	1	-	1	0	5	6	1	-	1	-	0	-	0
47	0	-	-	-	-	9	0	-	-	-	1	2	2	1	-	0	-	0	-	1
48	0	-	-	-	-	6	0	-	-	-	-	0	2	0	-	0	-	0	-	0
49	0	-	-	-	-	5	0	-	-	-	-	2	0	1	-	0	-	0	-	0
50	0	-	-	-	-	3	1	-	-	-	-	1	1	0	-	2	-	0	-	0
51	1	-	-	-	-	4	-	-	-	-	-	2	0	1	-	-	-	0	-	0
52	1	-	-	-	-	3	-	-	-	-	-	-	2	-	-	-	-	0	-	0
53	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	1	-	1
54	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	1	-	0
55	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	0	-	1
56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	0
57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	1
58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Total	4	1	4	10	1	200	21	22	1	7	11	82	82	55	2	5	4	21	6	25

Appendix Table 12. Continued.

Species : Dover sole

Fork Length (cm)	Haul no.	Total Number Measured
25	-	3
26	-	0
27	-	2
28	-	6
29	-	11
30	-	20
31	-	36
32	-	34
33	-	38
34	-	31
35	1	27
36	0	16
37	0	26
38	0	25
39	0	32
40	1	28
41	0	29
42	0	29
43	0	33
44	0	29
45	0	17
46	0	25
47	0	16
48	0	8
49	0	8
50	0	8
51	1	9
52	-	6
53	-	4
54	-	4
55	-	2
56	-	2
57	-	1
58	-	1
59	-	1
Total	3	567

Appendix Table 13. Length-frequency (numbers measured), by haul, of English sole collected during F/V STEADFAST trawl survey, Hecate Strait, June 1- 6, 1996.

Fork Length (cm)	Haul no.																						
	1	2	3	4	5	6	7	9	12	13	14	15	16	17	18	19	20	21	22	23			
19	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-		
20	-	-	-	-	-	-	-	-	5	-	-	3	-	-	-	-	-	-	-	-	-		
21	-	-	-	-	-	-	-	-	7	1	1	1	1	1	-	-	-	-	1	-	-		
22	-	-	-	-	-	-	-	-	15	1	1	4	1	0	-	-	-	-	1	-	-		
23	-	-	-	-	-	-	-	-	28	1	0	3	5	4	-	-	1	-	0	-	-		
24	-	-	-	-	-	-	1	-	19	2	1	10	10	4	1	-	0	-	3	-	-		
25	-	-	-	-	3	-	1	-	25	6	2	16	15	3	0	-	1	-	1	-	-		
26	-	-	-	-	0	1	1	-	15	7	6	18	26	10	3	3	0	-	5	1	-		
27	-	-	-	-	5	0	0	-	16	14	7	37	37	10	6	3	4	-	7	3	-		
28	-	-	-	-	5	2	1	1	13	22	6	29	26	11	2	4	0	1	15	5	-		
29	1	-	1	-	6	1	0	0	7	25	9	28	22	6	6	6	5	0	11	6	-		
30	1	-	1	-	5	1	0	0	1	26	7	17	18	2	2	4	8	1	17	7	-		
31	-	-	0	1	8	6	0	0	6	33	6	13	27	5	4	8	9	5	10	14	-		
32	-	1	0	0	9	3	0	0	3	17	2	8	31	6	3	10	5	7	10	7	-		
33	-	0	0	0	6	0	0	0	1	19	8	10	20	9	5	12	8	15	18	13	-		
34	-	0	1	0	9	3	3	0	1	12	6	5	18	7	8	9	12	12	15	12	-		
35	-	0	2	0	9	1	2	0	1	8	2	5	16	2	9	11	10	17	16	10	-		
36	-	0	0	1	14	1	0	0	1	8	2	5	19	4	2	10	10	8	7	4	-		
37	-	0	0	1	2	1	7	1	0	7	2	1	9	2	2	6	4	5	5	5	-		
38	-	0	0	0	0	1	1	1	1	2	1	1	5	0	4	3	3	2	0	4	-		
39	-	0	0	0	3	0	3	-	1	3	0	1	7	1	2	1	1	2	1	2	-		
40	-	0	0	0	2	1	1	-	-	1	0	2	7	0	-	-	3	0	0	2	-		
41	-	0	0	1	1	-	1	-	-	2	2	0	0	1	-	-	0	2	2	-	-		
42	-	0	1	-	1	-	1	-	-	-	-	2	2	1	-	-	0	-	0	-	-		
43	-	0	1	-	2	-	-	-	-	-	-	-	1	-	-	-	1	-	1	-	-		
44	-	0	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-		
45	-	0	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-		
46	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
47	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
48	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Total	2	2	7	4	90	22	23	3	166	217	71	220	325	89	59	90	85	77	146	95			

Appendix Table 13. Continued.

Species : English sole

Fork Length (cm)	Haul no.																			
	24	25	26	27	28	29	30	31	32	34	36	37	38	39	40	41	42	43	44	45
19	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	3	-	1	0	-	-	-	-	1	-	-	-	-	-	-
21	-	-	-	-	-	0	1	2	0	-	-	-	3	1	-	-	-	1	-	-
22	-	-	-	-	-	9	1	8	0	-	-	-	5	2	-	-	-	2	-	-
23	-	-	1	-	2	7	1	9	1	-	-	-	4	4	-	-	-	4	-	-
24	-	-	0	-	4	9	4	12	0	-	-	-	9	3	3	-	2	5	1	-
25	-	-	0	-	2	11	3	5	0	-	-	-	13	5	4	-	1	5	2	1
26	-	-	1	-	4	12	3	5	0	-	1	-	18	14	9	1	1	11	1	1
27	-	-	0	-	13	10	3	9	0	-	0	-	26	12	9	0	7	9	1	2
28	-	1	0	3	14	15	5	8	0	-	0	-	13	11	14	1	2	15	2	1
29	-	0	0	3	14	7	4	6	1	-	0	-	26	11	12	1	6	19	2	1
30	-	0	0	5	13	11	6	5	0	-	0	-	20	12	13	0	5	19	6	6
31	-	0	0	3	21	9	5	7	0	-	0	-	18	15	9	0	3	17	13	5
32	1	0	1	2	14	6	3	8	2	-	0	-	8	12	7	0	11	15	16	6
33	1	1	2	4	24	9	4	4	1	-	0	-	11	10	15	1	10	14	17	3
34	0	0	2	8	27	7	6	10	0	-	0	-	9	15	6	6	7	16	12	2
35	2	1	3	5	12	6	5	6	2	-	0	-	7	9	7	5	15	12	7	2
36	3	-	1	2	6	6	3	5	0	-	0	-	7	8	9	6	8	10	20	3
37	1	-	1	3	8	7	0	7	0	-	0	-	2	10	5	6	12	6	11	0
38	-	-	0	5	6	5	1	1	1	-	0	-	3	9	11	4	8	7	8	1
39	-	-	1	2	3	0	-	5	-	-	1	1	2	6	5	0	6	8	6	1
40	-	-	1	0	3	0	-	0	-	-	1	0	-	4	2	4	0	9	2	-
41	-	-	-	0	1	0	-	1	-	-	-	1	-	2	0	2	2	2	2	-
42	-	-	-	0	2	1	-	1	-	1	-	1	-	0	0	1	1	2	-	-
43	-	-	-	1	0	0	-	0	-	-	-	1	-	0	1	1	3	2	-	-
44	-	-	-	-	1	0	-	1	-	-	-	-	-	1	1	2	0	1	-	-
45	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	1	1	2	-	-
46	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	0	-	0	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	0	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	8	3	14	46	194	151	58	128	9	1	3	4	204	177	142	43	111	214	129	35

Appendix Table 13. Continued.

Species : English sole

length (cm)	Haul no.			Total Number Measured
	46	47	52	
19	-	-	-	4
20	-	-	-	13
21	-	-	-	21
22	-	-	2	52
23	-	-	0	75
24	1	2	3	109
25	0	1	3	129
26	0	2	8	188
27	1	3	18	272
28	2	4	10	264
29	2	5	11	271
30	4	4	16	263
31	3	9	12	304
32	10	7	13	264
33	9	9	22	315
34	11	9	20	306
35	9	18	26	280
36	4	16	20	233
37	3	18	18	178
38	6	12	20	137
39	2	11	11	99
40	1	10	6	62
41	0	8	6	39
42	1	4	2	25
43	0	2	-	17
44	0	2	-	10
45	1	1	-	7
46	-	0	-	1
47	-	1	-	2
48	-	1	-	3
49	-	0	-	0
50	-	1	-	1
Total	70	160	247	4118

Appendix Table 14. Length-sex-maturity-otolith (numbers measured) data, for rock sole collected during the R/V W.E. RICKER trawl survey, Hecate Strait, May 30 - June 13, 1996. See Appendix Table 1 for maturity codes.

Haul: 032

Sex Maturity Length	M			F		Total
	6	7	3	7		
32	-	3	-	-		3
33	-	6	-	-		6
34	1	6	-	-		7
35	-	2	-	1		3
36	-	6	1	-		7
37	-	3	-	-		3
38	-	2	1	-		3
39	-	-	4	1		5
40	-	-	1	2		3
41	-	-	3	-		3
42	-	-	5	-		5
44	-	-	-	1		1
46	-	-	1	-		1
Total	1	28	16	5		50

Haul: 058

Sex Maturity Length	M						F			Total
	1	2	6	7	1	2	3	5	7	
17	-	-	-	-	1	-	-	-	-	1
18	-	-	-	-	1	-	-	-	-	1
20	1	-	-	-	-	-	-	-	-	1
22	2	-	-	-	1	-	-	-	-	3
23	1	-	-	-	1	-	-	-	1	3
24	1	1	-	-	-	-	-	-	-	2
25	2	-	-	-	-	-	-	-	-	2
26	1	1	-	-	1	-	-	-	-	3
27	-	-	-	-	1	-	-	-	-	1
28	1	2	-	-	-	-	-	-	-	3
29	-	1	-	-	-	-	-	-	-	1
30	-	1	-	1	-	-	-	-	-	2
31	-	-	-	4	-	-	-	1	-	5
32	-	-	1	-	-	-	-	-	2	3
33	-	-	-	1	-	-	-	-	1	2
34	-	-	-	1	-	-	-	-	2	3
35	-	-	-	1	-	1	-	-	1	3
36	-	-	-	1	-	-	-	-	2	3
37	-	-	-	1	-	-	-	-	1	2
39	-	-	-	1	-	-	-	-	-	1
40	-	-	-	-	-	-	1	-	-	1
41	-	-	-	-	-	-	-	-	1	1
43	-	-	-	-	-	-	1	-	-	1
44	-	-	-	-	-	-	-	-	1	1
46	-	-	-	-	-	-	1	-	-	1
Total	9	6	1	11	6	1	3	1	12	50

Appendix Table 14. Continued.

Haul: 071

Sex Maturity Length	M					F				Total
	1	2	5	6	7	1	3	5	7	
14	-	-	-	-	-	1	-	-	-	1
15	-	-	-	-	-	1	-	-	-	1
19	1	-	-	-	-	-	-	-	-	1
21	1	-	-	-	-	-	-	-	-	1
24	-	-	-	-	-	1	-	-	-	1
25	-	-	-	-	-	-	-	-	1	1
26	1	-	-	-	-	-	-	-	-	1
27	-	-	-	-	2	-	-	-	-	2
28	-	1	-	-	1	1	-	-	-	3
29	-	-	1	-	-	1	-	-	-	2
30	-	-	-	-	1	-	-	-	-	1
31	-	-	-	2	4	-	-	-	-	6
32	-	-	-	-	1	-	-	-	-	1
33	-	-	-	-	1	-	-	1	-	2
34	-	-	-	-	1	-	-	-	-	1
35	-	-	-	-	-	-	-	-	1	1
36	-	-	-	-	1	-	-	-	2	3
37	-	-	-	-	-	-	-	-	2	2
38	-	-	-	-	1	-	-	-	2	3
39	-	-	-	-	1	-	-	-	1	2
40	-	-	-	-	-	-	2	-	3	5
41	-	-	-	-	-	-	-	-	2	2
42	-	-	-	-	-	-	-	-	2	2
44	-	-	-	-	-	-	1	-	-	1
45	-	-	-	-	-	-	-	-	2	2
46	-	-	-	-	-	-	-	-	1	1
49	-	-	-	-	-	-	1	-	-	1
Total	3	1	1	2	14	5	4	1	19	50

Haul: 074

Sex Maturity Length	M					F				Total
	1	2	5	6	7	1	2	3	7	
15	-	-	-	-	-	1	-	-	-	1
16	1	-	-	-	-	-	-	-	-	1
17	1	-	-	-	-	-	-	-	-	1
18	-	-	-	-	-	1	-	-	-	1
19	1	-	-	-	-	-	-	-	-	1
20	8	-	-	-	-	2	-	-	-	10
21	2	-	-	-	-	1	-	-	-	3
22	-	-	-	-	-	2	-	-	-	2
23	-	-	-	-	-	1	1	-	-	2
24	1	-	-	-	-	1	-	-	-	2
25	1	-	-	-	-	-	-	-	-	1
28	-	-	-	-	-	1	-	-	-	1
29	-	1	-	-	1	-	-	-	-	2
30	-	-	1	-	2	-	-	-	-	3
32	-	-	-	1	3	-	-	-	-	4
33	-	-	-	-	2	-	-	-	1	3
34	-	-	-	-	1	-	-	-	1	2
35	-	-	-	-	2	-	-	-	1	3
36	-	-	-	-	-	-	-	-	3	3
37	-	-	-	-	-	-	-	-	1	1
38	-	-	-	-	-	-	-	1	2	3
39	-	-	-	-	-	-	-	-	3	3
40	-	-	-	-	-	-	-	-	2	2
41	-	-	-	-	-	-	-	1	-	1
42	-	-	-	-	-	-	-	-	2	2
46	-	-	-	-	-	-	-	-	2	2
Total	15	1	1	1	11	10	1	2	18	60

Appendix Table 14. Continued.

Haul: 086

Sex Maturity	M			F			Total		
	1	2	7	1	2	3		5	7
Length									
15	-	-	-	1	-	-	-	-	1
19	-	-	-	1	-	-	-	-	1
20	-	-	-	1	-	-	-	-	1
21	-	-	-	1	-	-	1	-	2
23	1	-	-	1	-	-	-	-	2
24	-	1	-	-	-	-	-	-	1
25	-	-	-	1	-	-	-	-	1
27	-	-	1	-	-	-	-	-	1
29	-	1	-	-	1	-	-	-	2
30	-	-	1	-	-	-	-	-	1
32	-	-	3	-	-	-	-	-	3
33	-	-	-	-	1	-	-	1	2
35	-	-	2	-	-	-	-	1	3
37	-	-	-	-	-	-	-	1	1
39	-	-	-	-	-	-	-	1	1
40	-	-	-	-	-	-	-	1	1
42	-	-	-	-	-	-	-	1	1
44	-	-	-	-	-	1	-	-	1
47	-	-	-	-	-	1	-	-	1
Total	1	2	7	6	2	2	1	6	27

Haul: 088

Sex Maturity	M			F			Total		
	1	5	6	7	1	3		4	7
Length									
15	-	-	-	-	1	-	-	-	1
16	1	-	-	-	-	-	-	-	1
18	1	-	-	-	-	-	-	-	1
19	-	-	-	-	1	-	-	-	1
20	-	-	-	-	1	-	-	-	1
21	1	-	-	-	-	-	-	-	1
23	-	-	-	1	2	-	-	-	3
24	-	-	-	-	2	-	-	-	2
30	-	-	-	1	-	-	-	-	1
32	-	-	-	1	-	-	-	-	1
33	-	1	-	4	-	-	-	-	5
34	-	-	1	3	-	-	-	-	4
35	-	-	-	1	-	-	-	-	1
36	-	-	-	-	-	-	1	1	2
37	-	-	-	1	-	-	-	-	1
38	-	-	-	1	-	-	-	2	3
39	-	-	-	1	-	-	-	-	1
40	-	-	-	1	-	-	-	2	3
41	-	-	-	-	-	-	1	3	4
43	-	-	-	1	-	-	-	-	1
44	-	-	-	-	-	-	-	1	1
45	-	-	-	-	-	-	-	1	1
47	-	-	-	-	-	1	-	-	1
Total	3	1	1	16	7	1	2	10	41

Appendix Table 14. Continued.

Haul: 092

Sex Maturity	M			F			Total	
	1	5	7	1	2	3		7
Length								
8	1	-	-	-	-	-	-	1
9	1	-	-	1	-	-	-	2
15	-	-	-	2	-	-	-	2
16	2	-	-	1	-	-	-	3
17	1	-	-	2	-	-	-	3
18	2	-	-	1	-	-	-	3
19	3	-	-	-	-	-	-	3
20	1	-	-	1	-	-	-	2
21	1	-	-	-	-	-	-	1
22	1	-	-	3	-	-	-	4
23	1	-	-	-	-	-	-	1
24	-	-	-	1	-	-	-	1
25	-	-	-	1	-	-	-	1
29	-	-	-	1	-	-	-	1
30	-	-	-	1	1	-	-	2
31	-	-	1	-	-	-	-	1
32	-	-	2	-	-	-	-	2
33	-	1	2	-	2	-	1	6
34	-	-	2	-	-	-	-	2
35	-	1	2	-	-	-	-	3
36	-	-	-	-	-	-	1	1
37	-	-	-	-	-	-	1	1
38	-	-	-	-	1	-	1	2
39	-	-	1	-	-	-	2	3
40	-	-	-	-	-	1	1	2
41	-	-	1	-	-	-	-	1
42	-	-	-	-	-	-	3	3
43	-	-	-	-	-	-	3	3
44	-	-	-	-	-	-	2	2
45	-	-	-	-	-	-	5	5
46	-	-	1	-	-	-	-	1
49	-	-	-	-	-	1	1	2
50	-	-	-	-	-	-	1	1
Total	14	2	12	15	4	2	22	71

Haul: M1

Sex Maturity	M			F			Total
	5	6	1	2	3	7	
Length							
26	-	-	1	-	-	-	1
31	1	-	-	-	-	-	1
32	-	-	-	1	-	-	1
33	-	1	-	-	-	-	1
36	-	-	-	-	-	1	1
37	-	-	-	-	-	2	2
40	-	-	-	-	-	3	3
41	-	1	-	-	-	1	2
42	-	-	-	-	1	-	1
43	-	-	-	-	-	2	2
44	-	-	-	-	-	1	1
45	-	-	-	-	-	1	1
48	-	-	-	-	-	2	2
50	-	-	-	-	-	1	1
Total	1	2	1	1	1	14	20

Appendix Table 14. Continued.

Haul: M2

Sex	F		
Maturity	1	7	Total
Length			
23	1	-	1
34	-	3	3
39	-	1	1
41	-	2	2
44	-	2	2
46	-	1	1
48	-	1	1
Total	1	10	11

Haul: M3

Sex	F		
Maturity	7		Total
Length			
36	1		1
42	1		1
43	1		1
47	1		1
55	1		1
Total	5		5

Haul: M4

Sex	F		
Maturity	7		Total
Length			
43	1		1
Total	1		1

Appendix Table 15. Length-sex-maturity-otolith (numbers measured) data, for Dover sole collected during the R/V W.E. RICKER trawl survey, Hecate Strait, May 30 - June 13, 1996. See Appendix Table 1 for maturity codes.

Haul: 022

Sex Maturity Length	M			F			Total
	1	5	6	7	2	7	
26	-	-	1	1	1	-	3
27	-	-	1	-	1	-	2
28	-	-	1	1	-	-	2
29	-	-	2	1	-	-	3
30	-	-	-	2	2	-	4
31	1	1	2	5	3	1	13
32	-	1	3	3	1	-	8
33	-	-	2	-	1	-	3
34	-	-	1	-	2	-	3
35	-	1	-	-	1	1	3
36	-	-	-	-	1	-	1
37	-	-	-	-	-	1	1
39	-	-	-	-	-	1	1
42	-	-	-	-	-	2	2
43	-	-	-	-	-	1	1
Total	1	3	13	13	13	7	50

Haul: 082

Sex Maturity Length	M			F			Total	
	1	2	6	7	1	2		7
24	-	-	1	-	-	-	1	
27	-	-	-	-	1	-	1	
28	-	-	-	-	-	1	1	
29	-	-	1	1	-	-	2	
30	1	-	-	1	-	-	2	
31	-	-	-	-	-	1	1	
32	-	1	1	2	-	-	4	
33	-	-	-	3	2	-	5	
34	-	-	1	-	-	2	3	
35	-	-	-	-	1	1	2	
36	-	-	1	-	-	-	1	
37	-	-	-	-	-	-	1	
38	-	-	-	-	-	-	1	
39	-	-	-	1	-	1	2	
40	-	-	-	1	-	-	2	
41	-	-	-	-	-	-	1	
43	-	-	-	-	-	-	2	
45	-	-	-	-	-	-	3	
46	-	-	-	-	-	-	7	
48	-	-	-	-	-	-	1	
Total	1	1	5	9	4	6	18	44

Appendix Table 15. Continued

Haul: 098

Sex Maturity	M		F		Total
	7	1	2	7	
Length					
26	1	-	-	-	1
27	-	3	-	-	3
29	-	1	-	-	1
31	1	2	-	-	3
33	1	1	2	-	4
34	-	-	2	-	2
35	-	1	2	-	3
36	-	-	2	-	2
37	-	-	2	-	2
39	-	1	1	-	2
40	-	-	1	-	1
41	-	-	-	1	1
42	-	-	-	1	1
43	-	-	-	1	1
46	-	-	-	1	1
48	-	-	-	1	1
Total	3	9	12	5	29

Appendix Table 16. Length-sex-maturity-otolith (numbers measured) data, for English sole collected during the R/V W.E. RICKER trawl survey, Hecate Strait, May 30 - June 13, 1996. See Appendix Table 1 for maturity codes.

Haul: 021

Sex Maturity Length	M			F		Total
	5	6	7	2	7	
24	-	1	-	-	-	1
25	-	1	-	-	-	1
26	-	1	-	-	-	1
27	-	4	1	1	-	6
28	-	3	-	-	-	3
29	1	6	1	1	-	9
30	-	5	-	2	-	7
31	-	5	-	1	-	6
32	-	2	1	2	2	7
33	1	3	-	-	1	5
34	1	-	-	2	3	6
35	-	-	-	1	3	4
36	-	-	-	-	3	3
37	-	-	-	-	1	1
38	-	-	-	-	1	1
41	-	-	-	-	1	1
Total	3	31	3	10	15	62

Haul: 082

Sex Maturity Length	5	M			F			Total
		6	7	1	2	3	7	
17	-	1	-	-	-	-	-	1
26	-	1	-	-	-	-	-	1
27	-	3	-	-	-	-	-	3
28	-	1	-	-	-	-	-	1
29	-	2	2	1	-	-	-	5
30	1	2	-	-	1	-	-	4
31	-	1	-	-	-	-	1	2
32	-	2	-	-	-	-	2	4
33	-	1	-	-	1	-	-	2
34	1	-	1	-	1	-	1	4
35	1	2	-	-	-	-	3	6
36	-	-	-	-	-	2	-	2
40	-	-	-	-	-	1	-	1
Total	3	16	3	1	3	3	7	36

Appendix Table 16. Continued

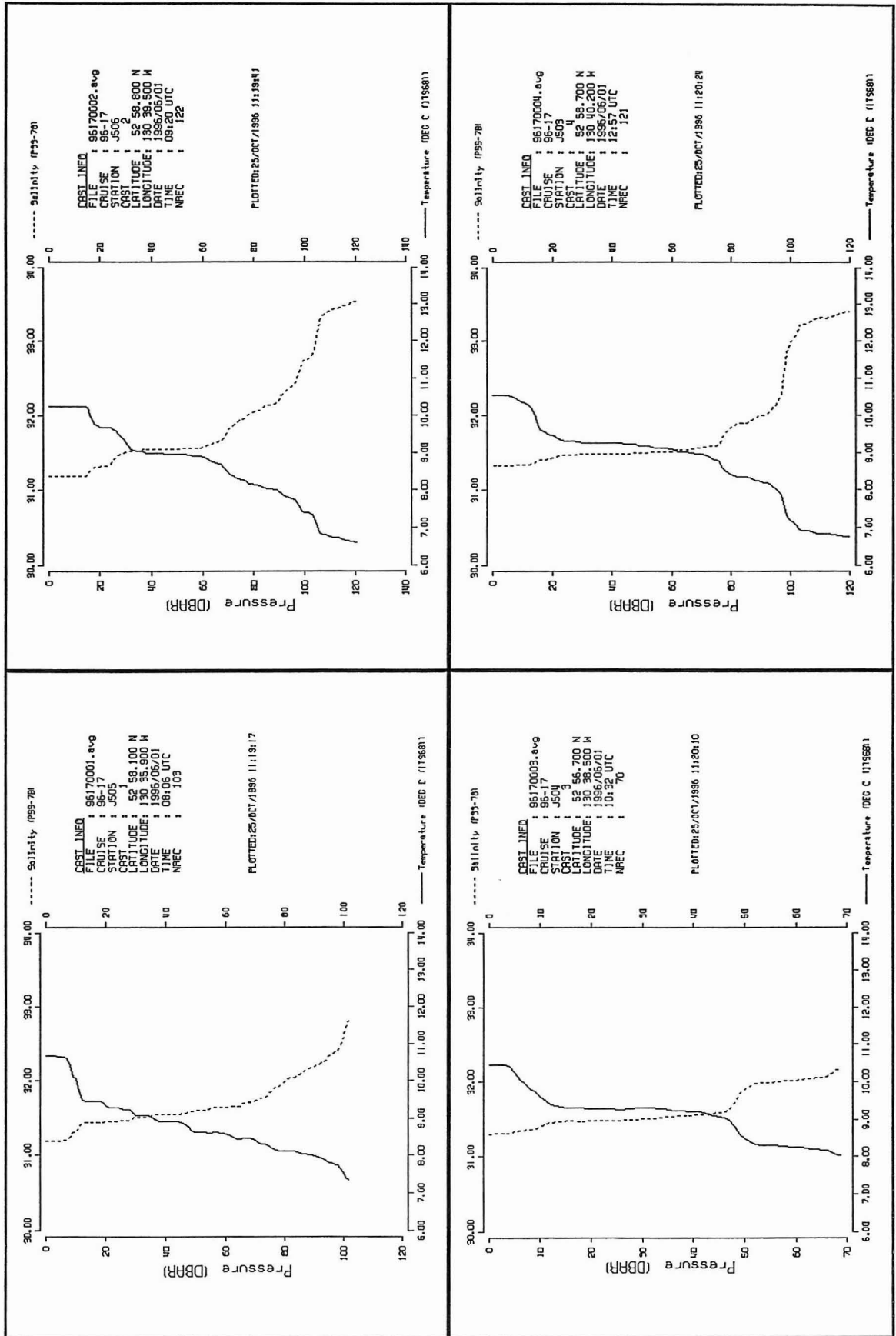
Haul: 095

Sex Maturity Length	M				F		Total
	1	5	6	7	1	2	
19	1	-	1	-	1	-	3
20	1	-	3	1	2	-	7
21	2	-	1	2	3	-	8
22	1	-	1	2	3	-	7
23	-	-	4	2	4	-	10
24	-	1	-	-	1	-	2
25	-	-	1	-	1	-	2
26	-	-	1	-	2	-	3
27	-	-	1	-	1	-	2
28	-	-	-	-	1	1	2
29	-	-	-	-	-	2	2
30	-	-	-	-	-	1	1
32	-	-	-	-	-	1	1
Total	5	1	13	7	19	5	50

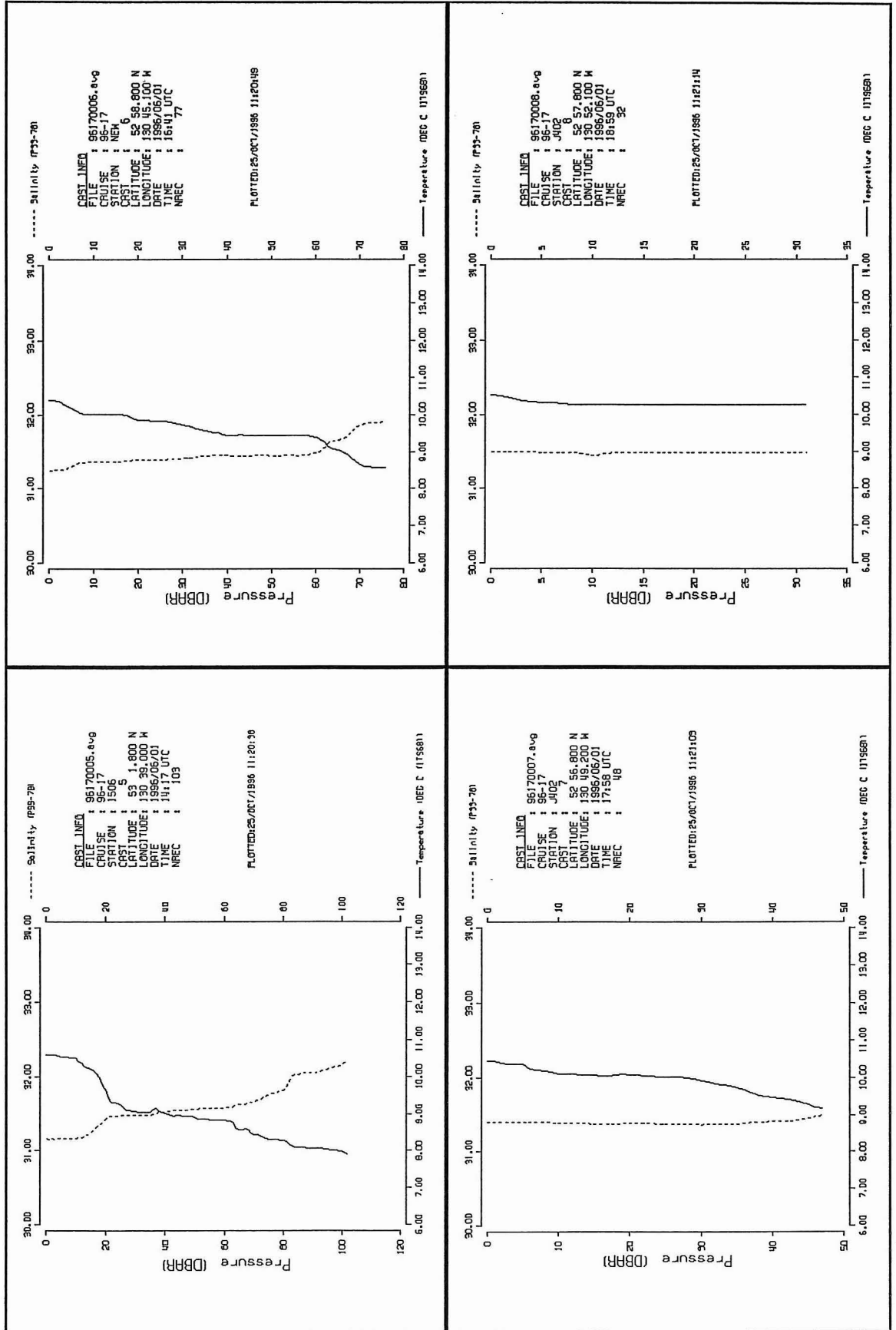
Appendix Table 17. Length-sex-maturity-otolith data (numbers measured) for Quillback rockfish collected during the R/V W.E. RICKER trawl survey, Hecate Strait, May 30 - June 13. See Appendix Table 1 for maturity codes.

Haul: 011

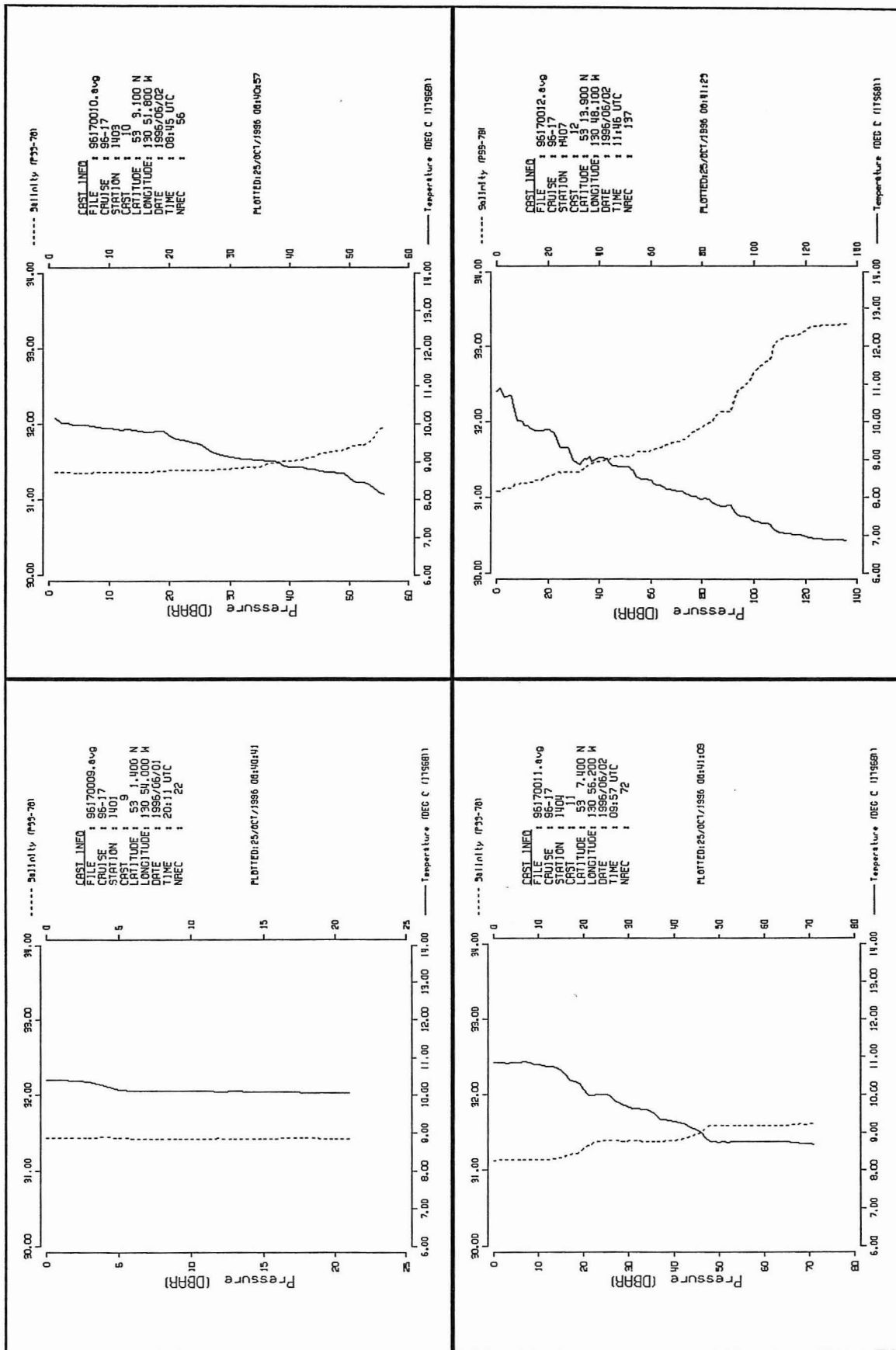
Sex Maturity Length	M			F			Total
	1	2	7	1	2	7	
18	-	-	-	1	-	-	1
20	1	-	-	1	-	-	2
21	1	-	-	-	-	-	1
22	1	-	-	-	-	-	1
23	1	-	-	-	1	-	2
24	-	-	-	1	1	-	2
25	1	-	-	-	2	-	3
26	2	1	-	-	1	-	4
27	-	1	-	-	1	-	2
28	1	1	-	-	3	1	6
29	-	-	2	1	-	-	3
30	-	1	2	-	1	-	4
31	-	1	2	-	-	1	4
32	-	-	1	-	-	3	4
33	-	-	2	-	-	-	2
34	-	-	2	-	-	-	2
35	-	-	1	-	-	2	3
36	-	-	4	-	-	-	4
37	-	-	1	-	-	1	2
39	-	-	-	-	-	1	1
40	-	-	1	-	-	-	1
Total	8	5	18	4	10	9	54



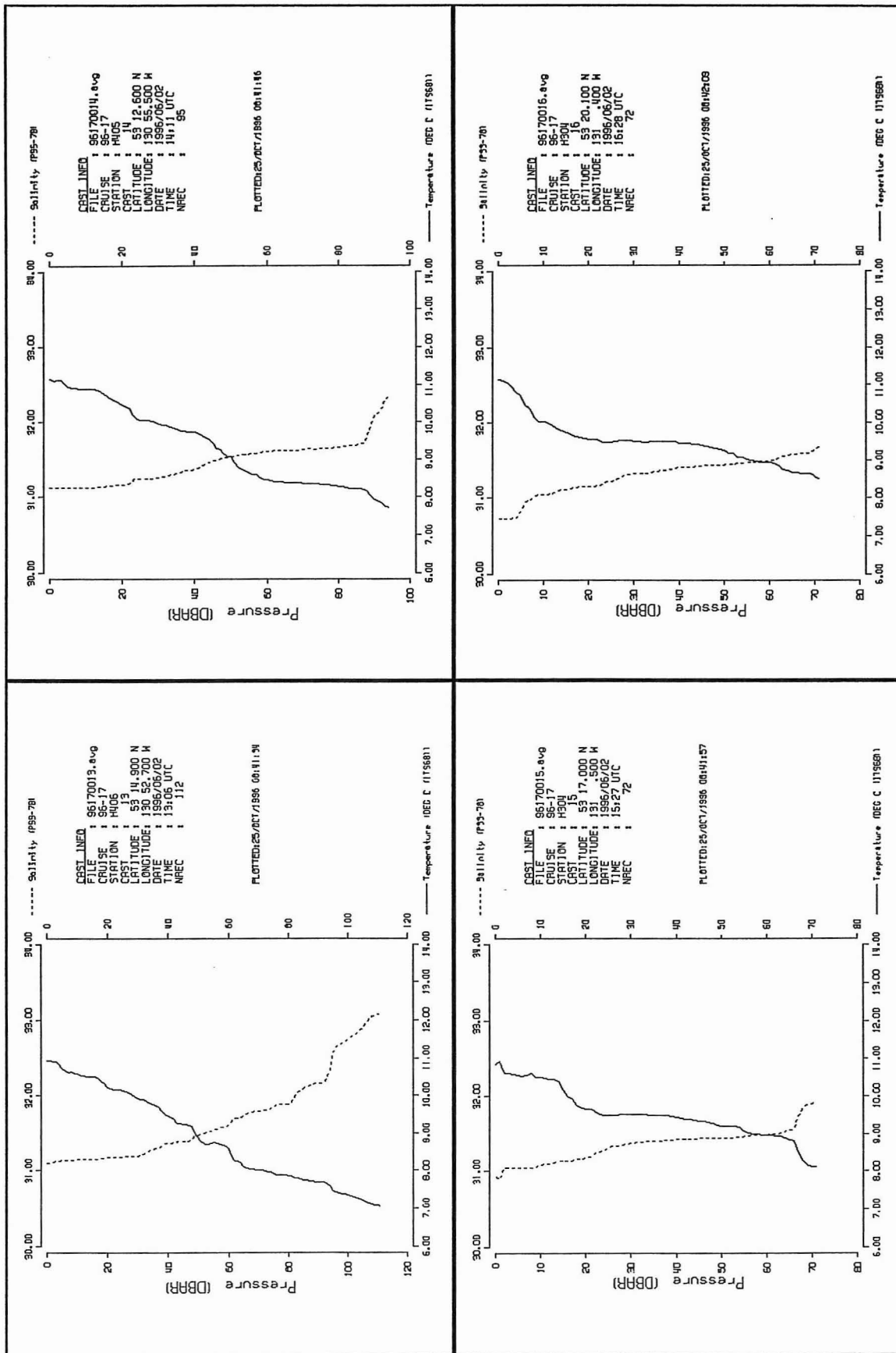
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



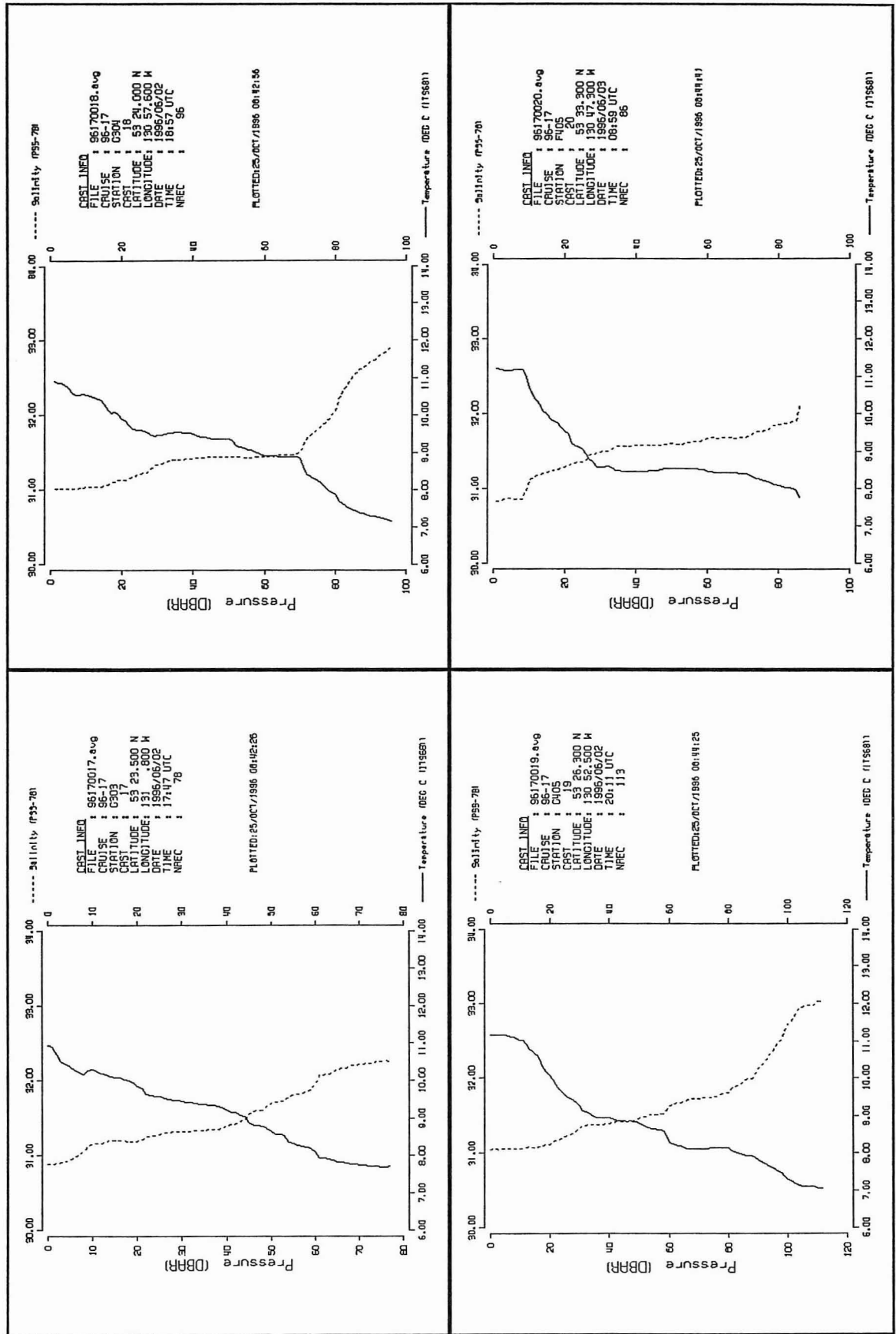
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



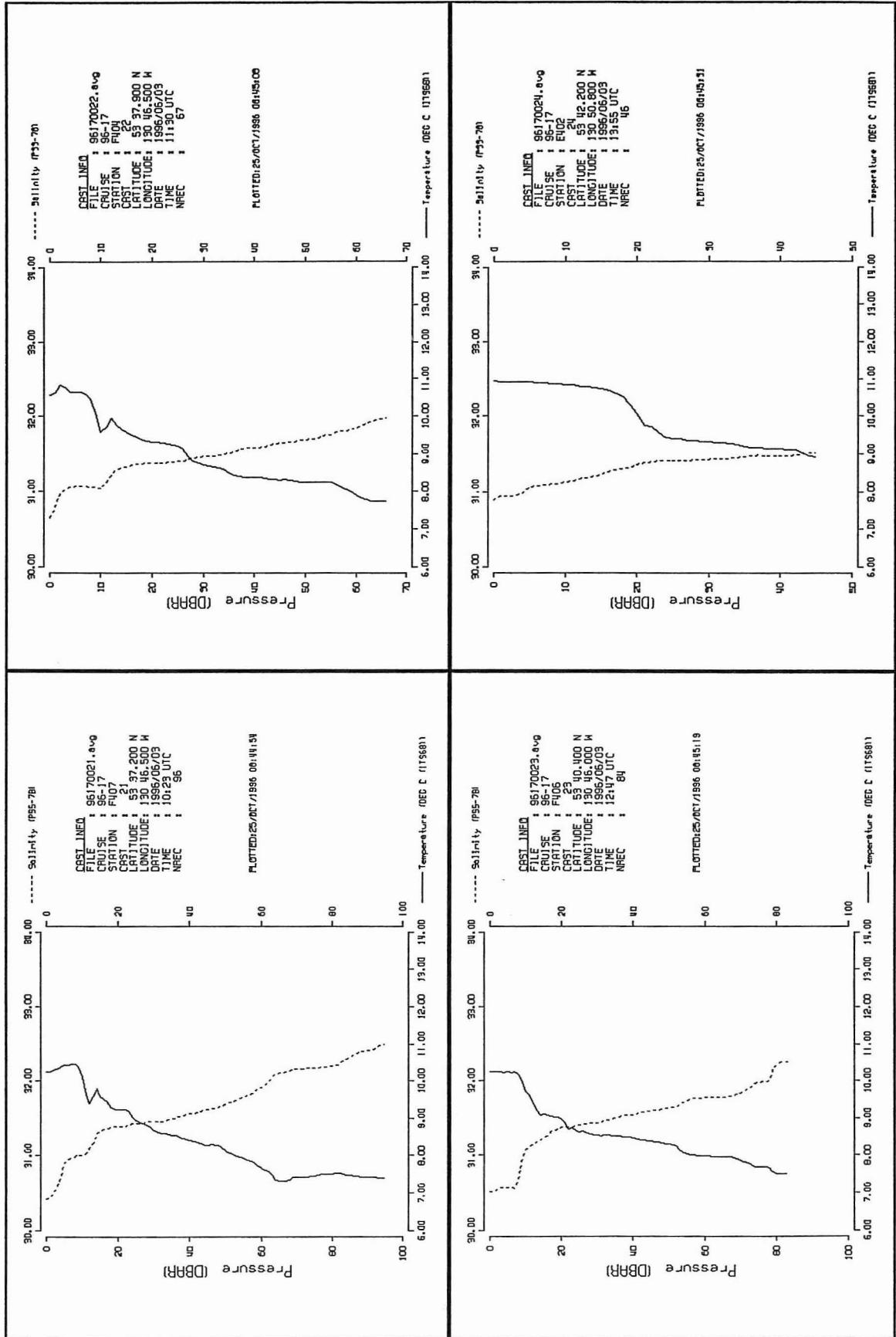
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



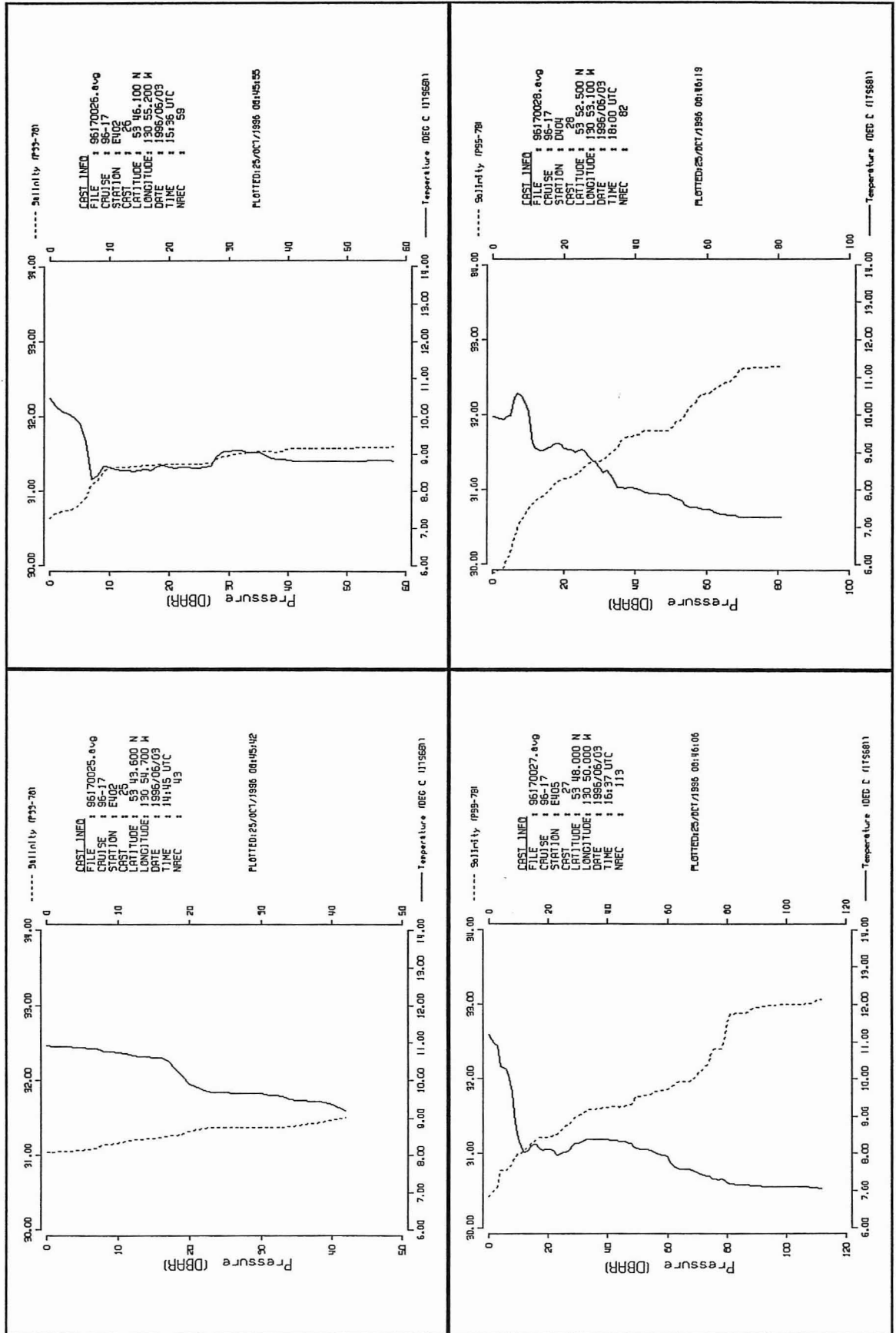
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



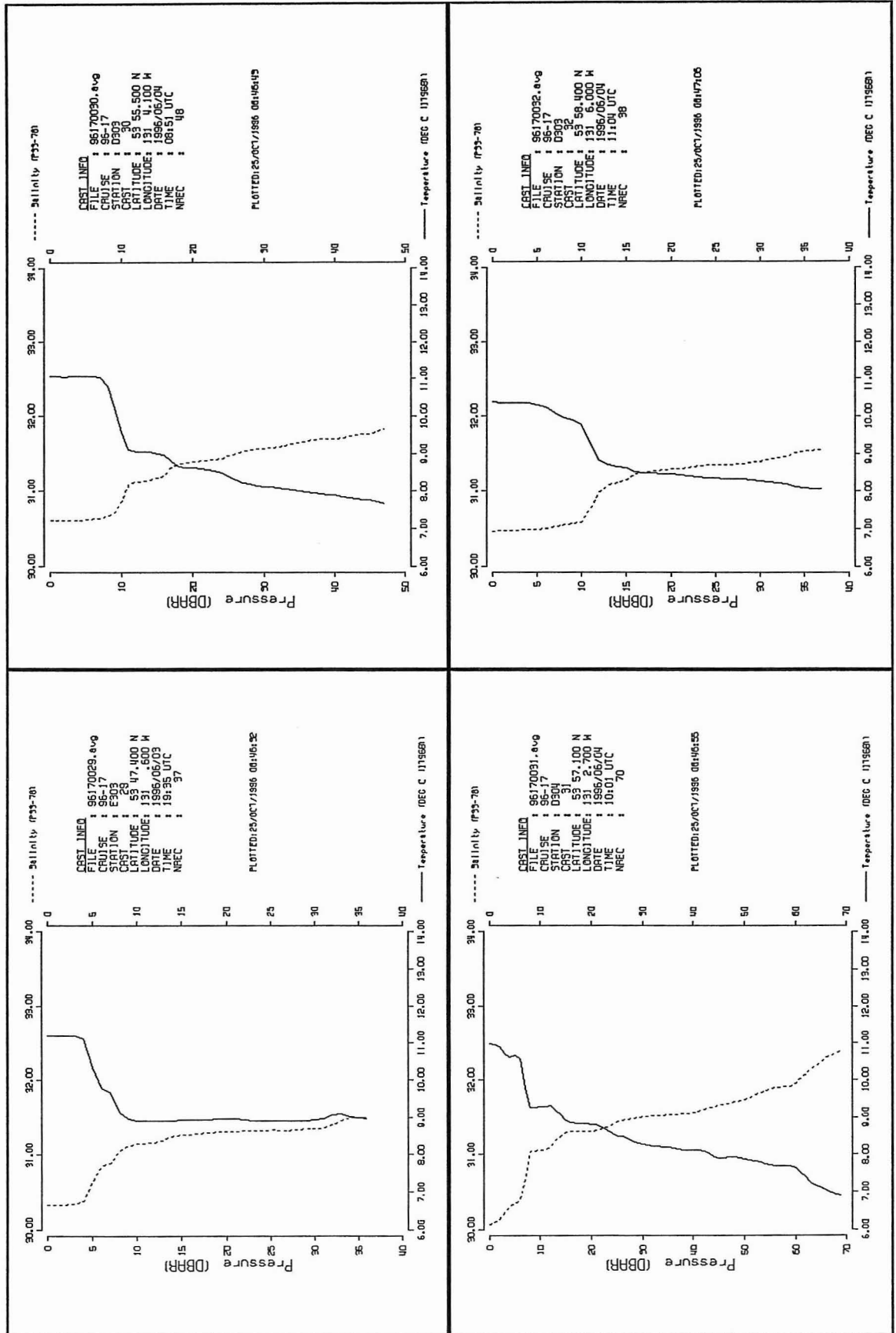
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



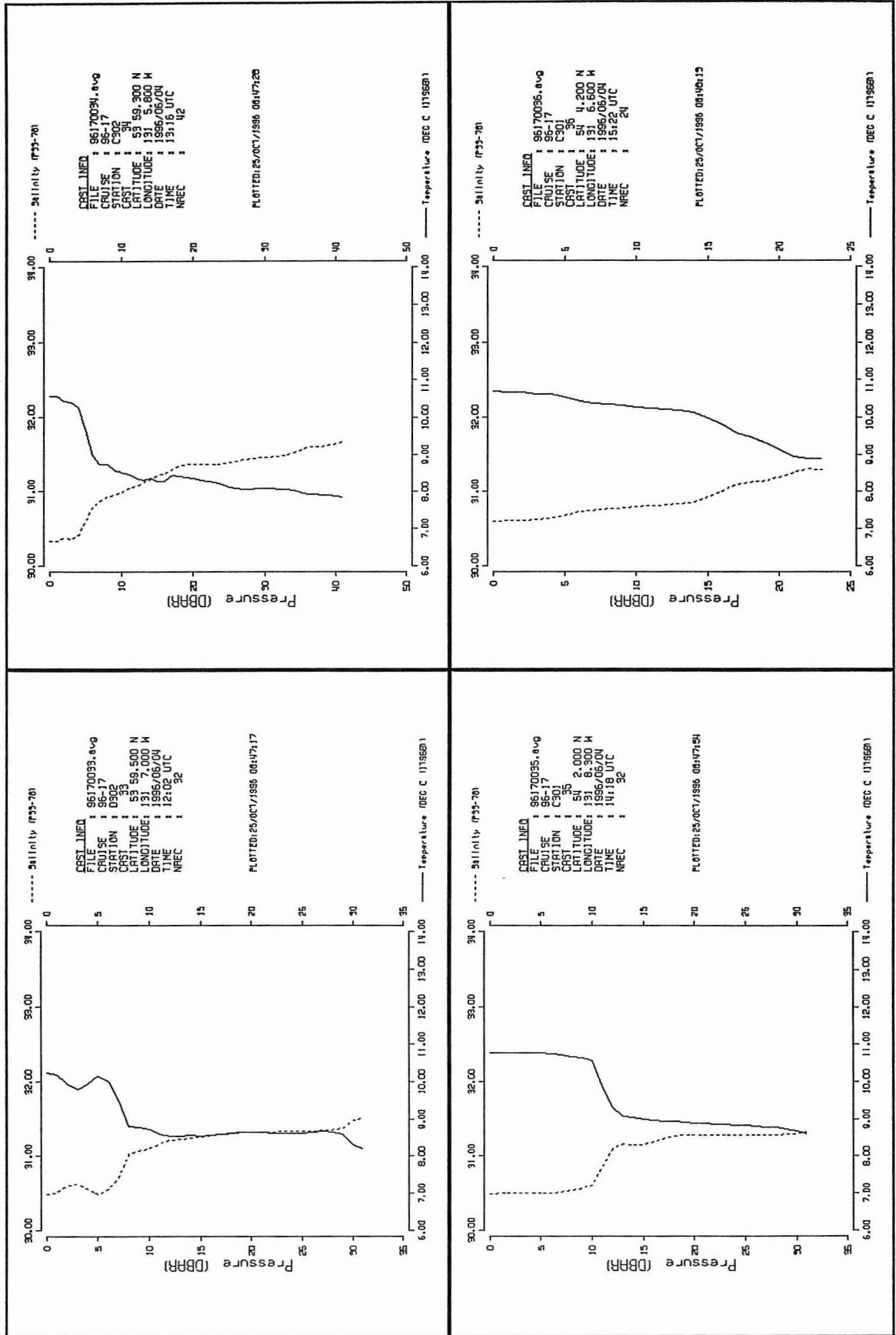
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



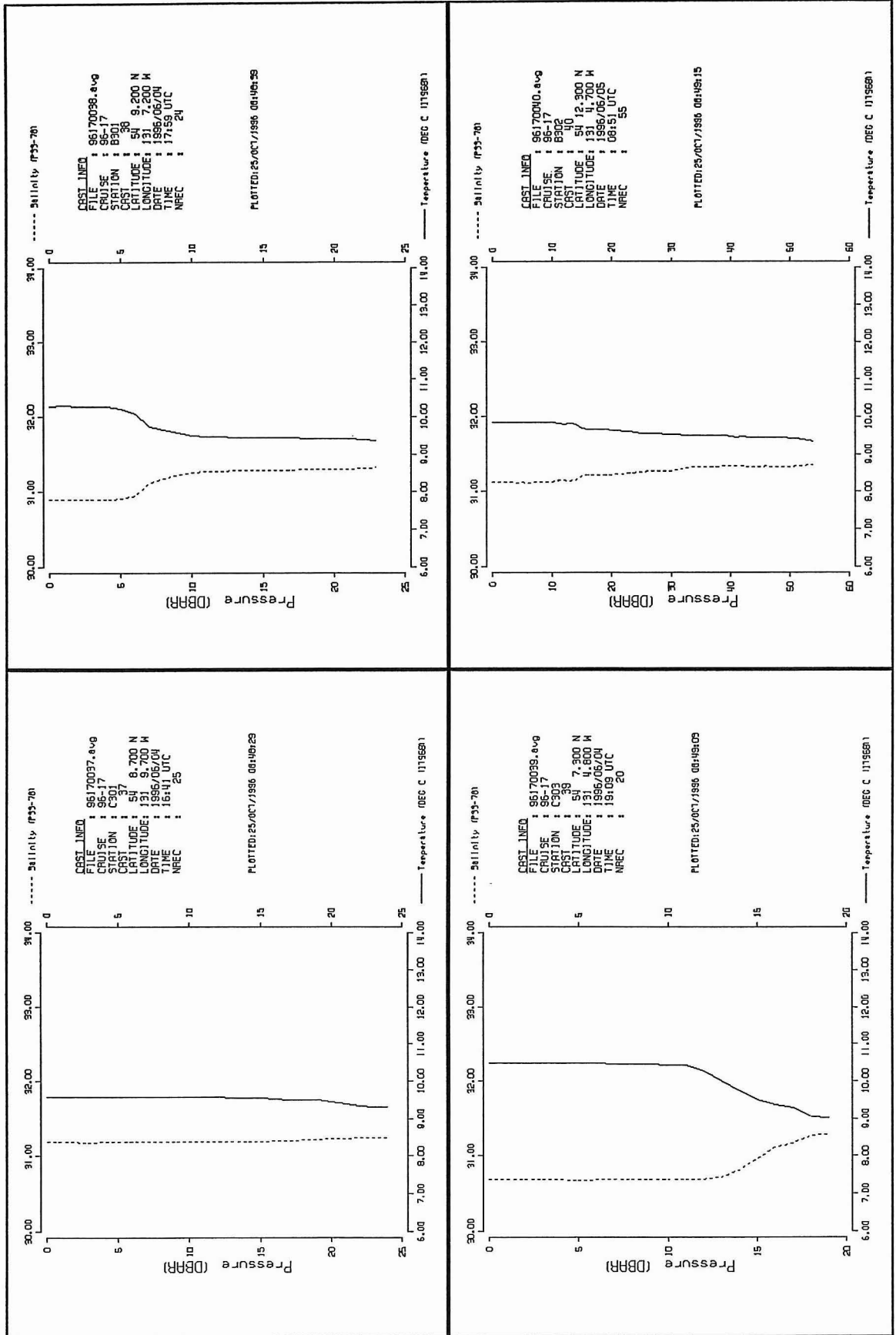
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



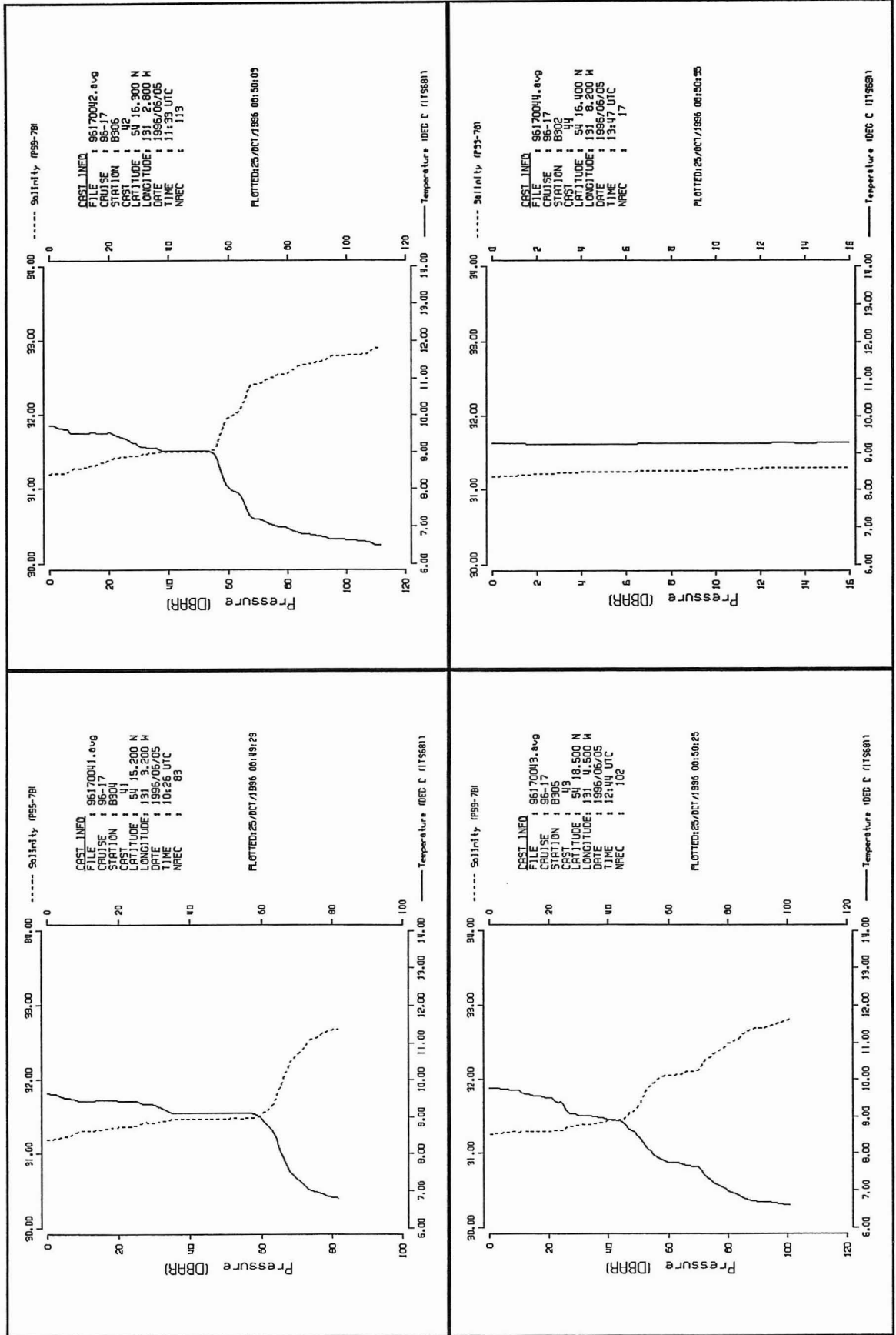
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



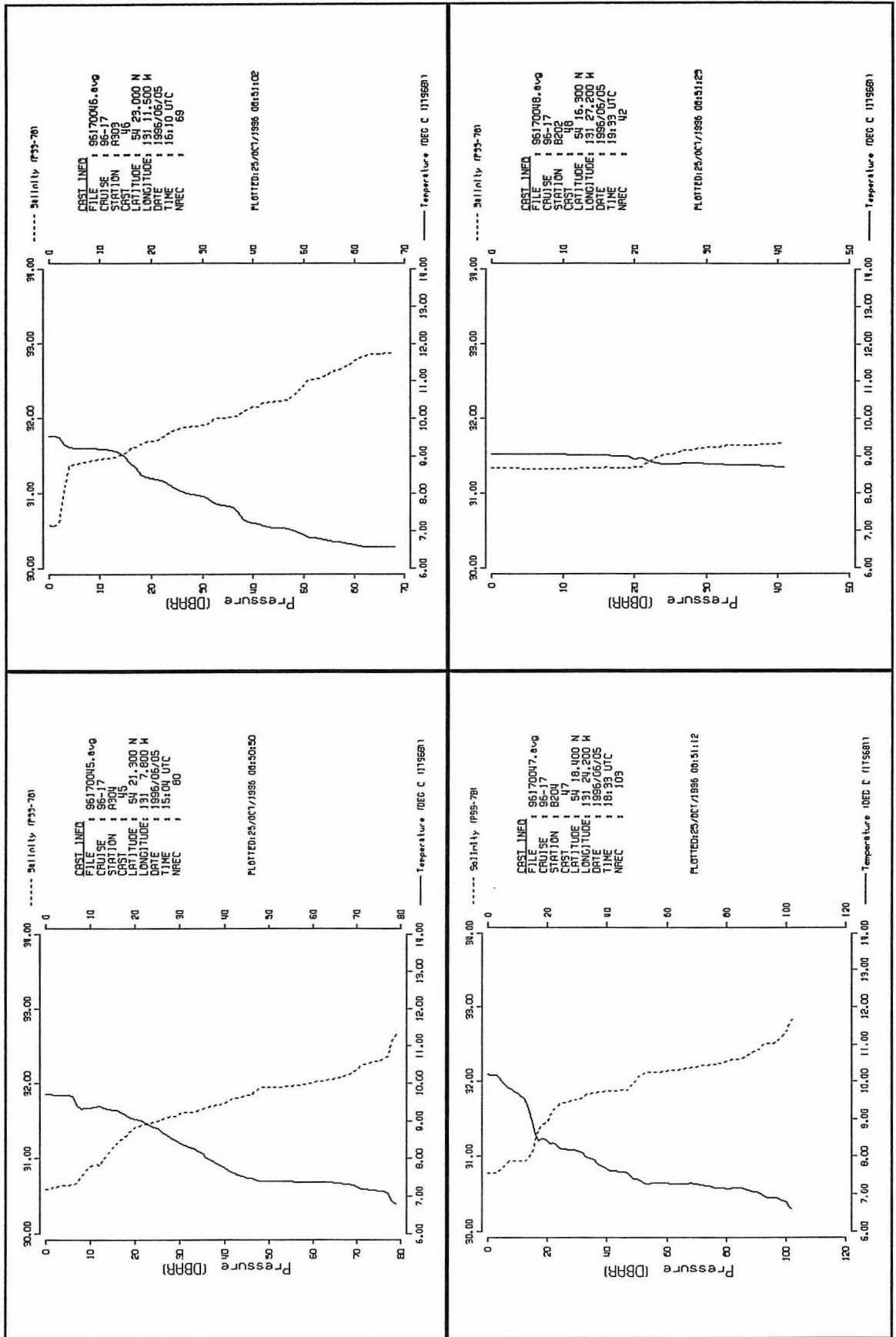
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



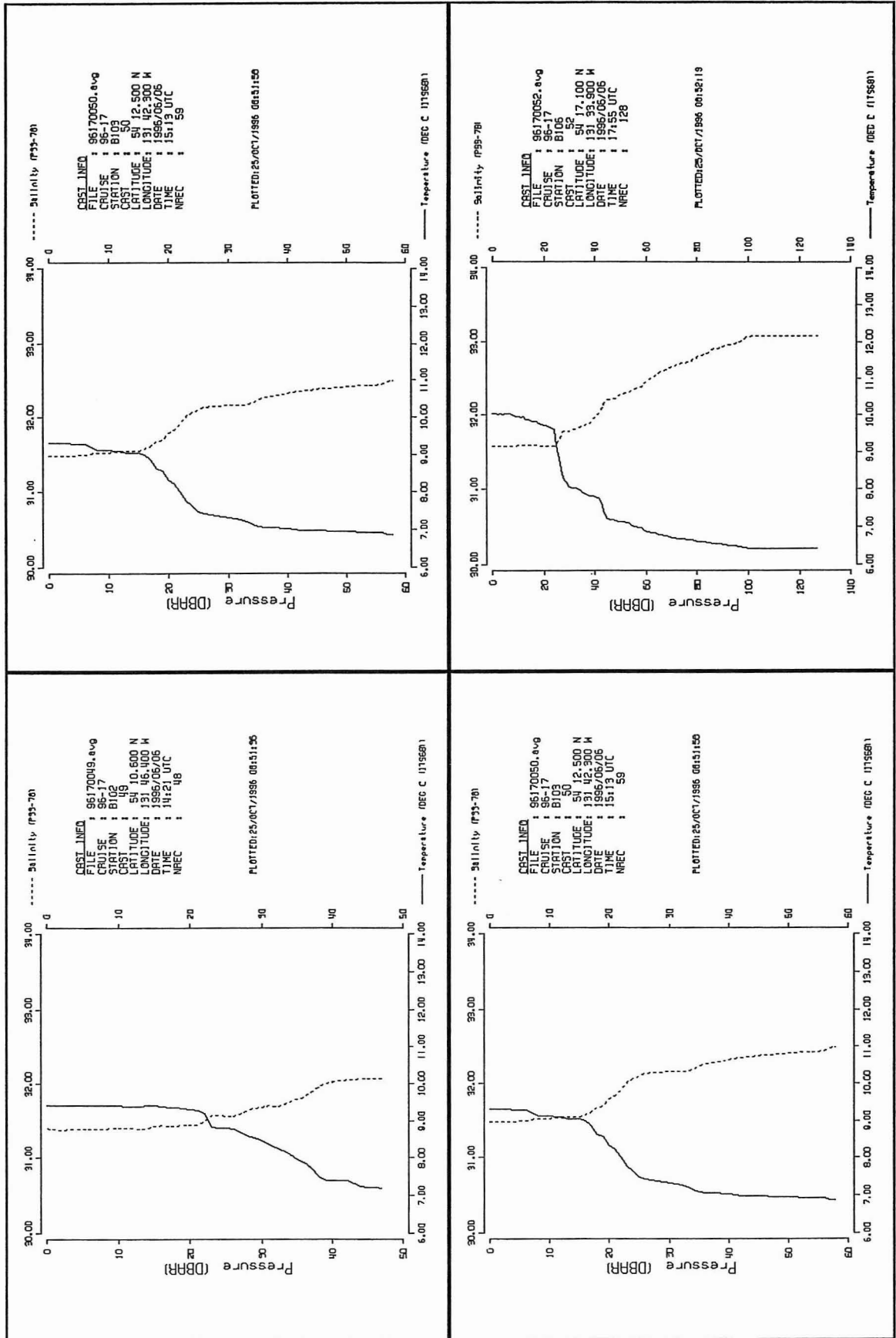
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



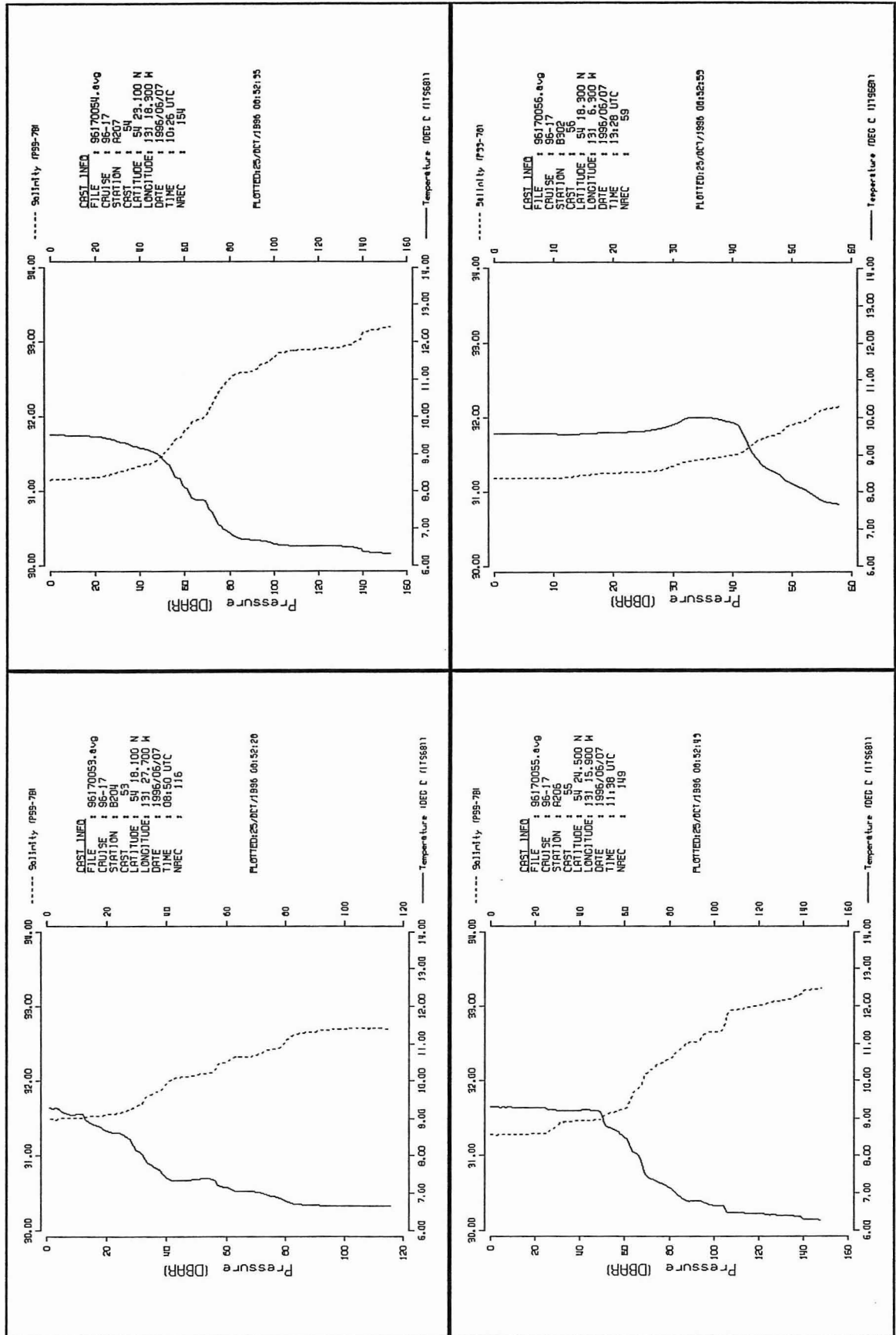
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



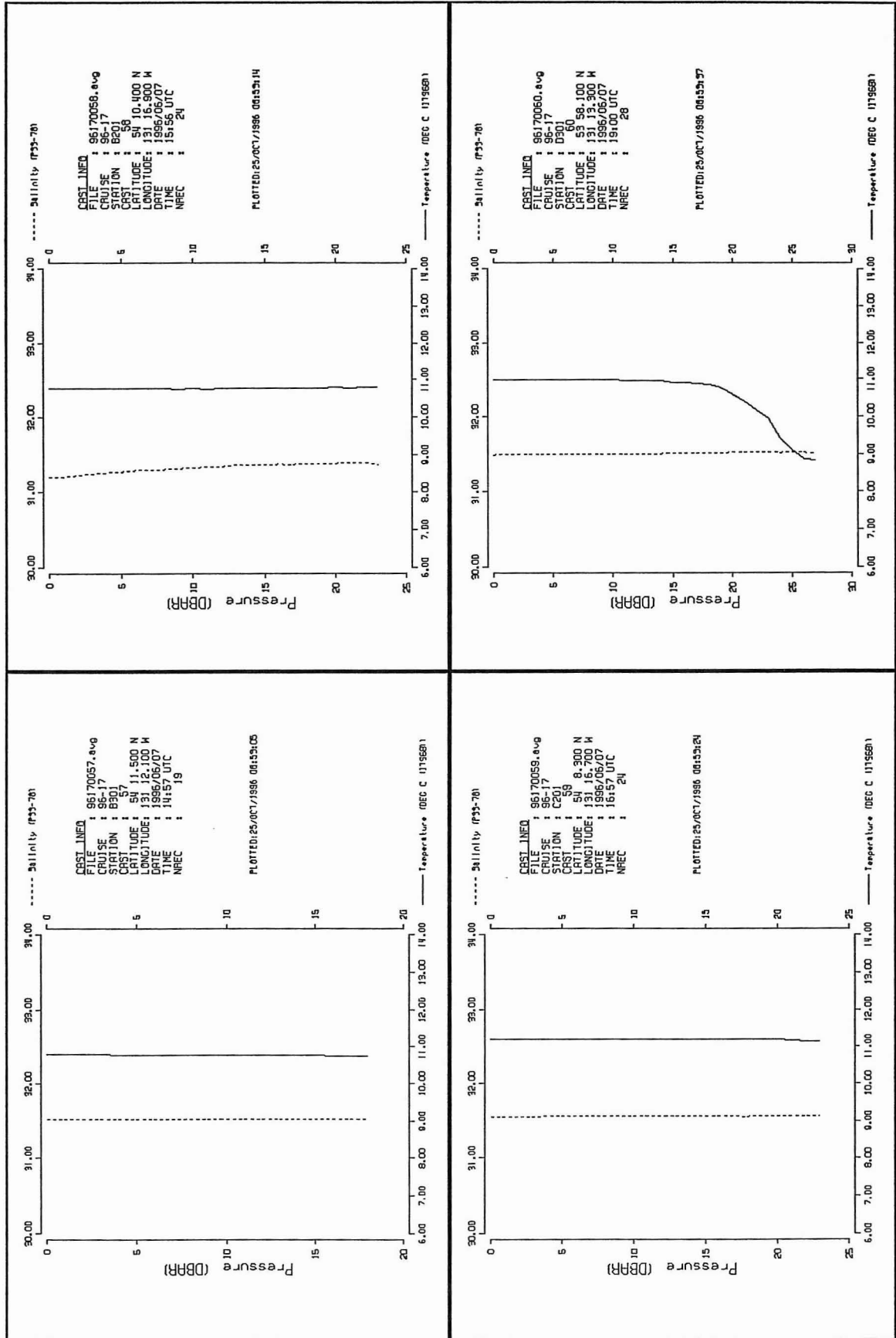
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



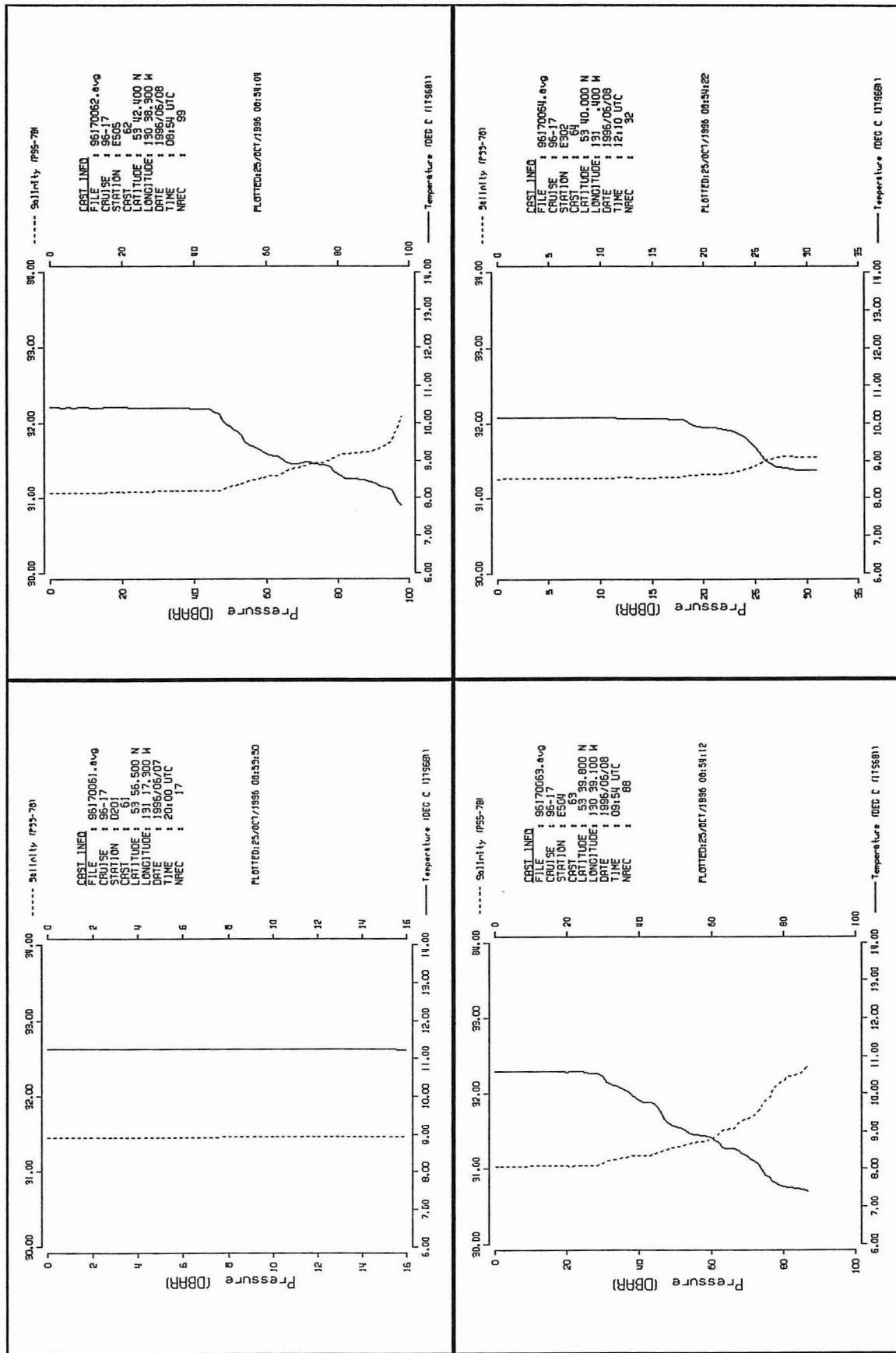
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



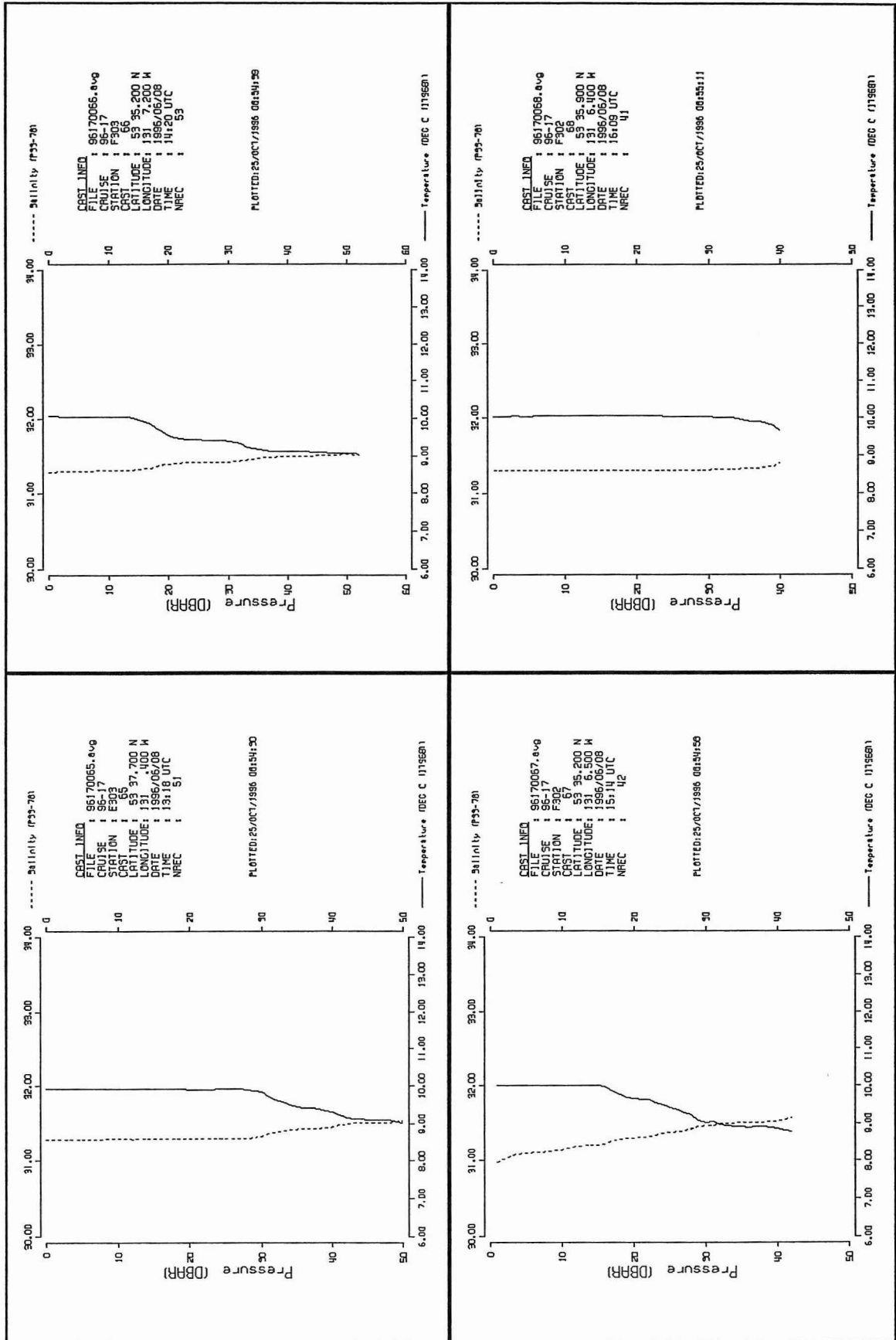
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



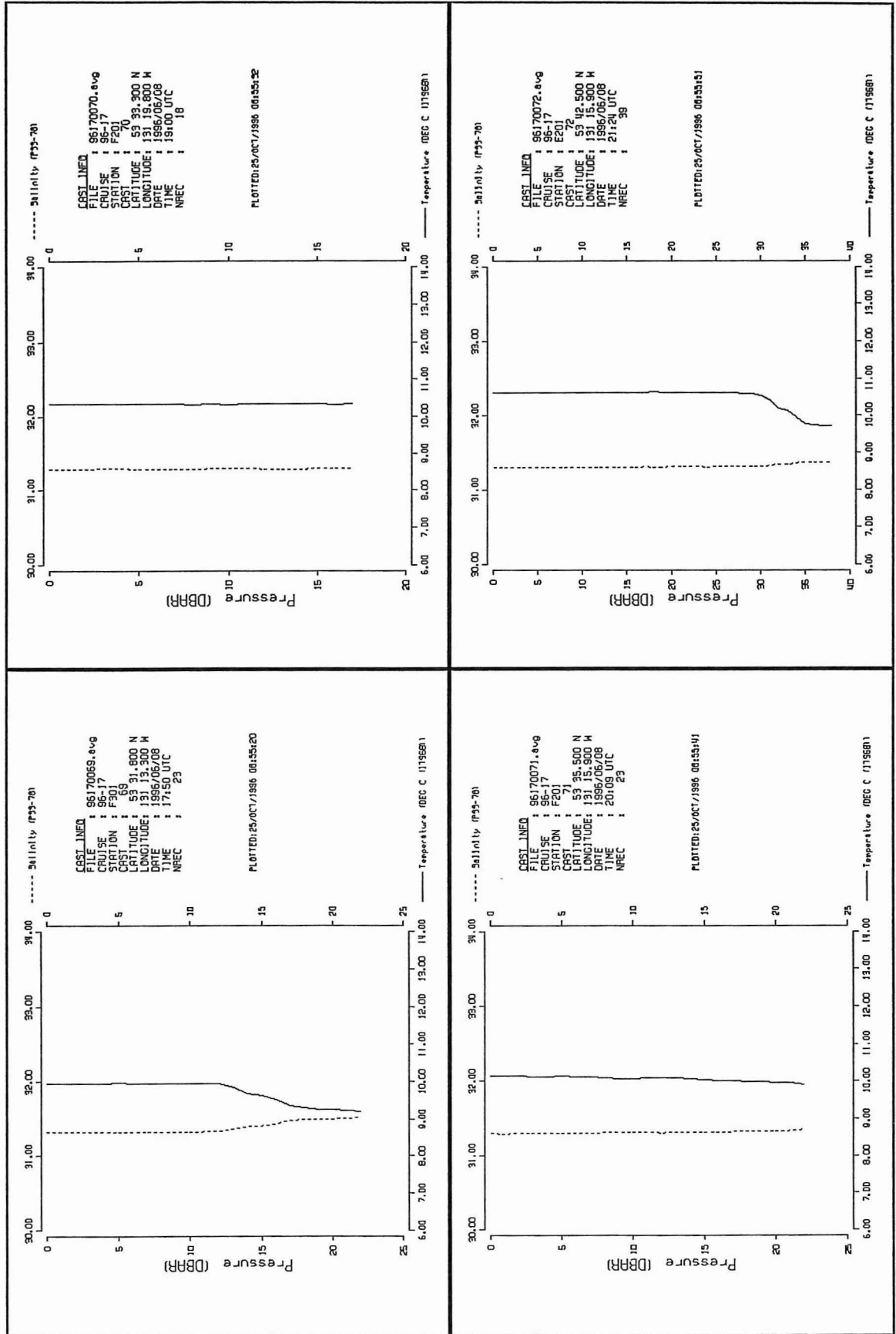
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



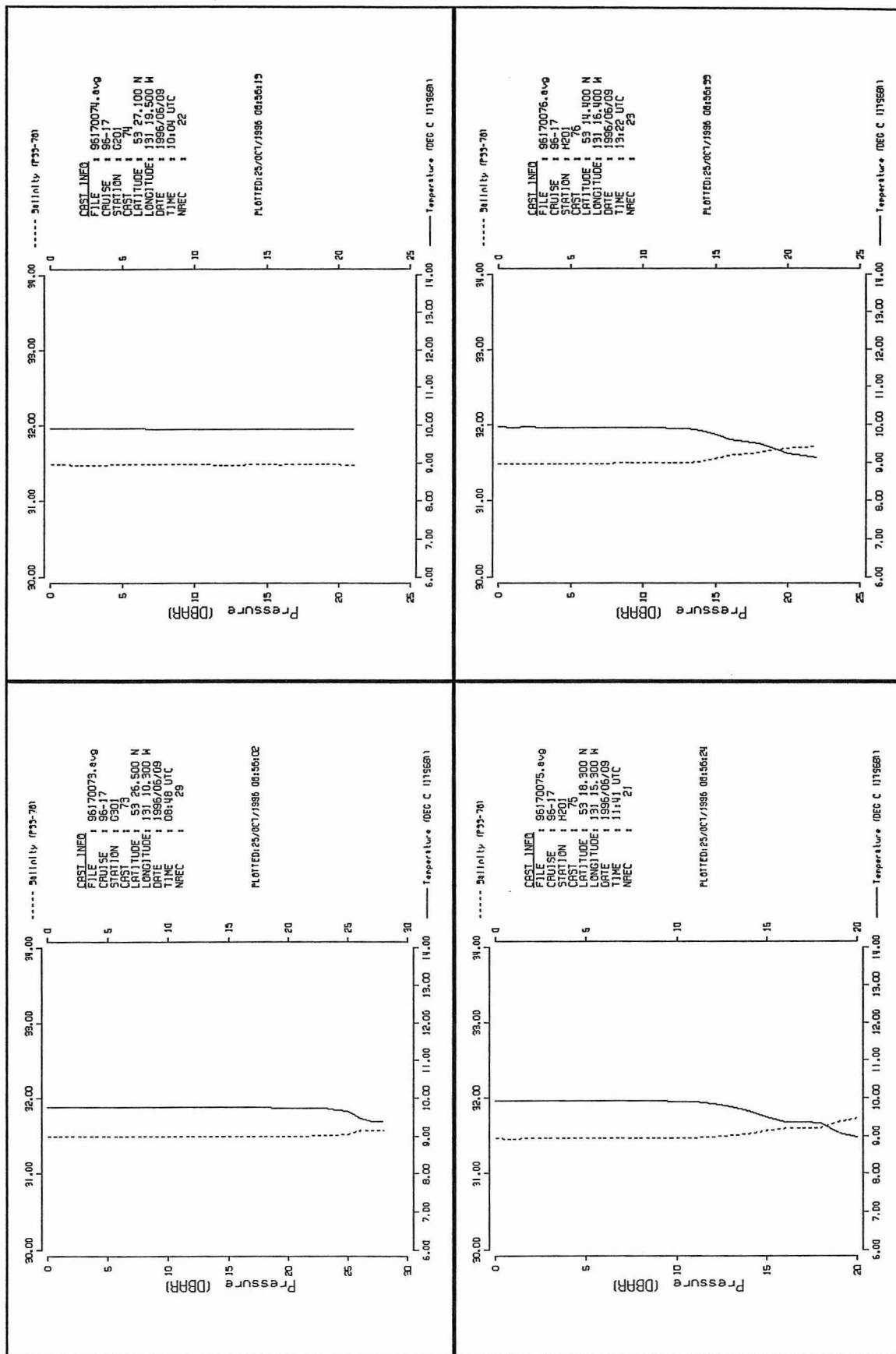
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



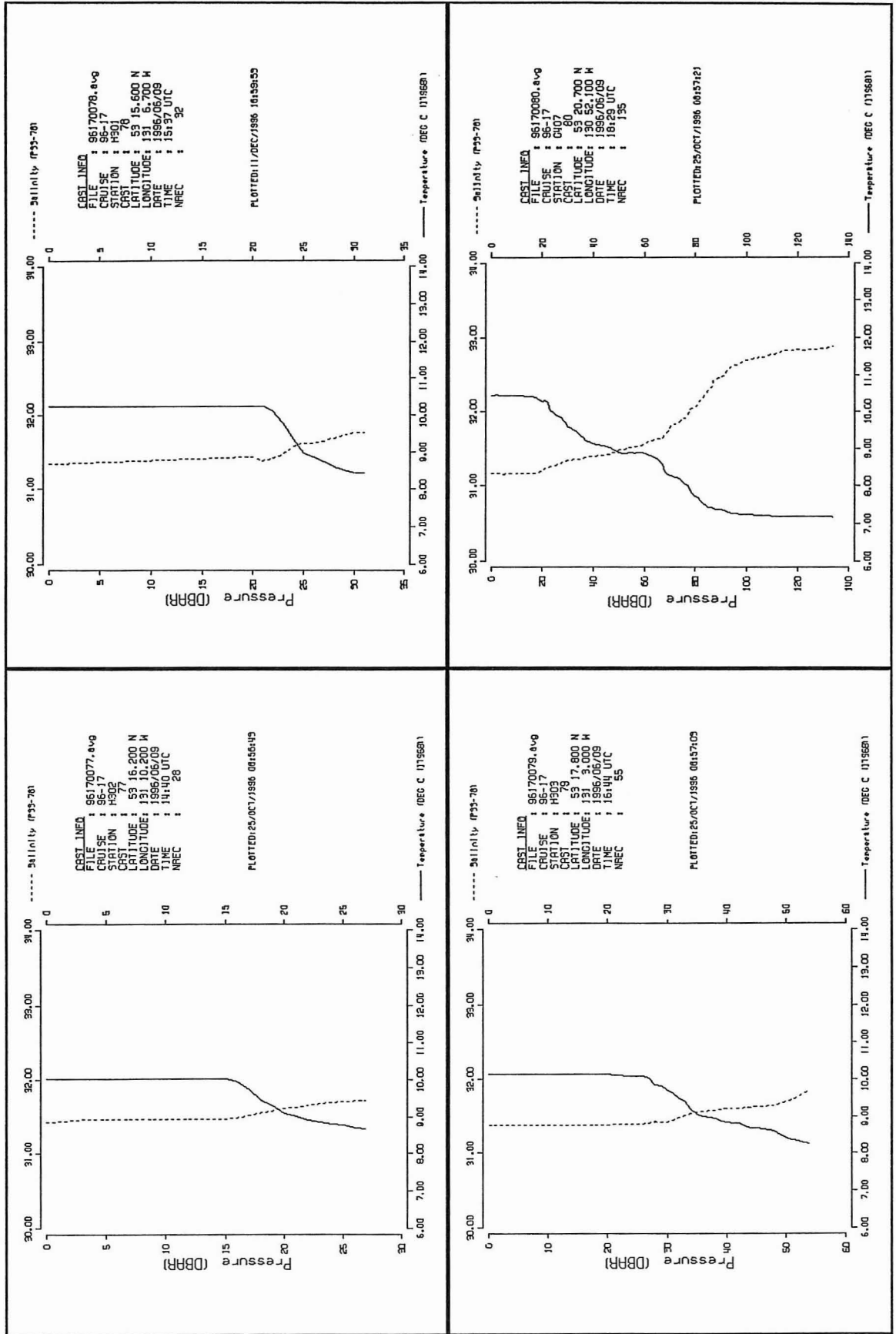
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



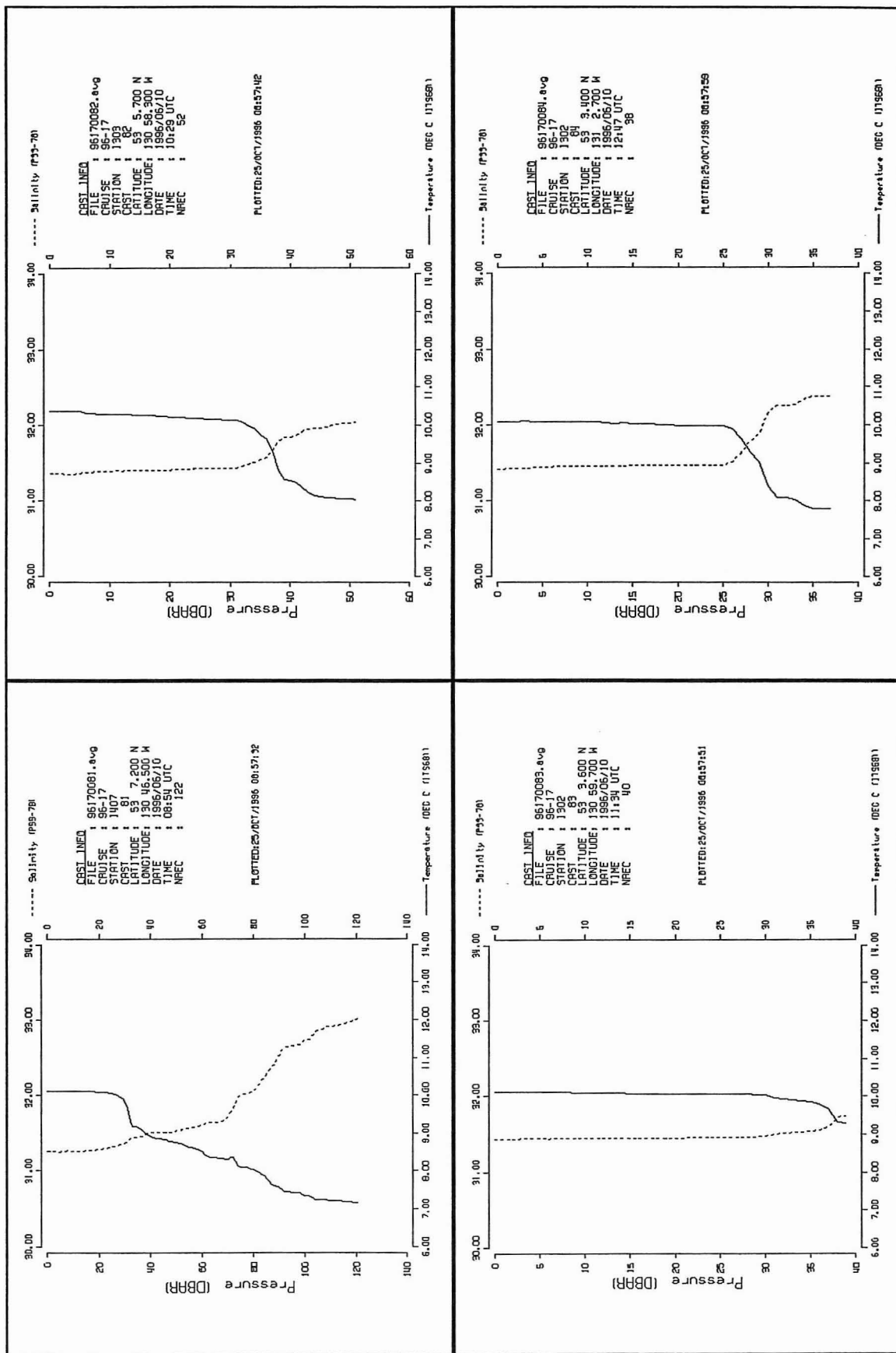
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



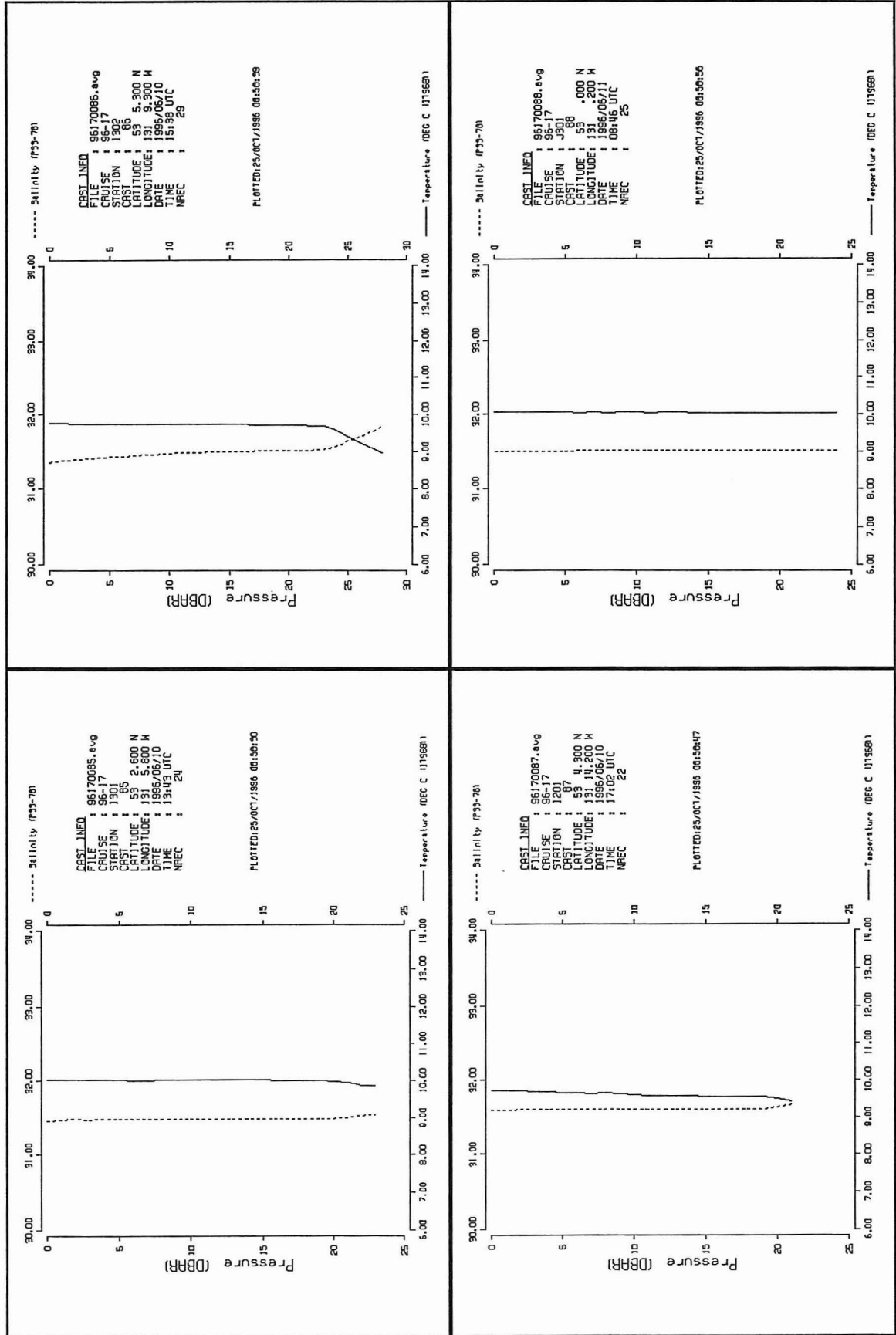
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



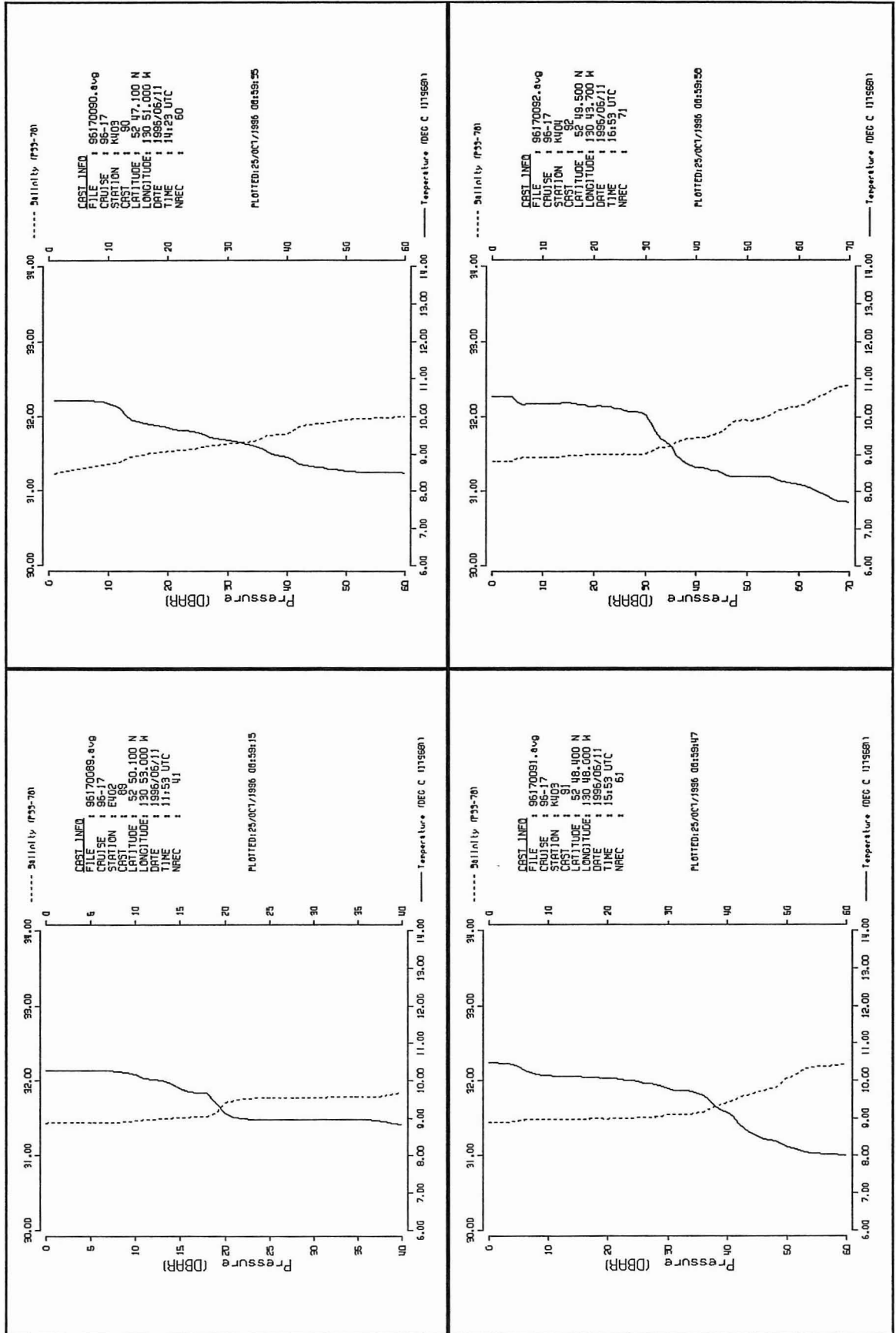
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



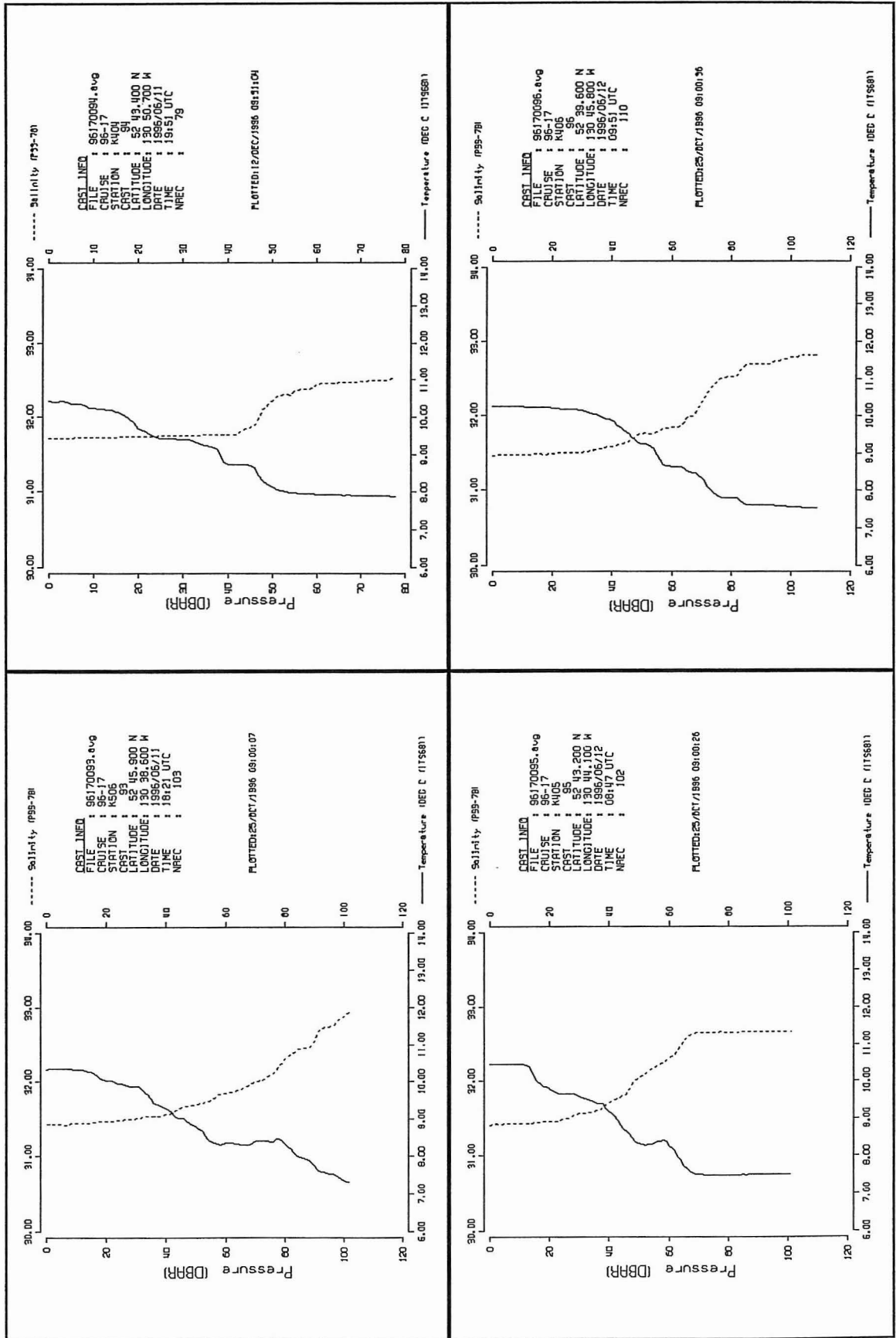
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



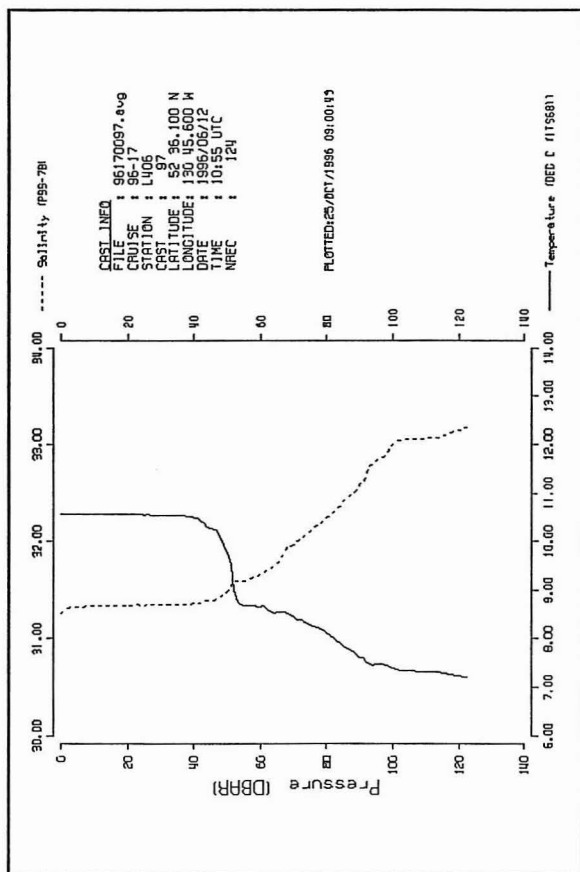
Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.



Appendix Fig. 1. Temperature and salinity profiles for CTD casts performed on the Hecate Strait trawl survey, May 30 - June 13, 1996.