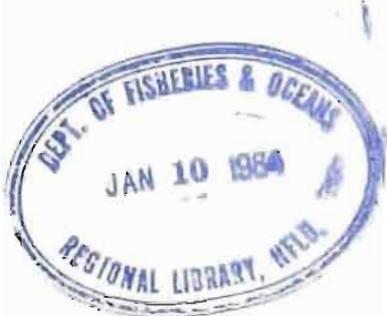


# **A Summary of Lingcod Tagging Studies Conducted in 1978 by the Pacific Biological Station**

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**Canadian Data Report of  
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A SUMMARY OF LINGCOD TAGGING STUDIES CONDUCTED  
IN 1978 BY THE PACIFIC BIOLOGICAL STATION

by

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ABSTRACT

Cass, A. J., M. S. Smith, I. Barber, and K. Rinhofer. 1983. A summary of lingcod tagging studies conducted in 1978 by the Pacific Biological Station. Can. Data Rep. Fish. Aquat. Sci. 417: iv + 283 p.

Tagging studies were undertaken by the Groundfish Program in 1978 to examine distribution, migration and growth of lingcod in southern British Columbia waters. A total of 3749 lingcod were tagged with a FLOY FD68 anchor tag. Approximately 8% received a second "sew-on" tag to examine rates of tag loss and approximately 70% received intraperitoneal injections of oxytetracycline for validation purposes. Tagging was concentrated primarily in the Strait of Georgia and off the southwest coast of Vancouver Island. Approximately 60% of all tagged lingcod consisted of pre-recruited size-classes. By December 31, 1982, 43 tags or 1.0% of all tag releases were recovered. High dosages of oxytetracycline and high natural mortality in juvenile stages are suspected causes of the low tag recovery rate in this study compared to earlier lingcod tagging studies. There was a tendency for increased movement with time and a higher rate of movement in juvenile lingcod than previously reported for lingcod.

Key words: lingcod, tagging, migration, age determination

RÉSUMÉ

Cass, A. J., M. S. Smith, I. Barber, and K. Rinhofer. 1983. A summary of lingcod tagging studies conducted in 1978 by the Pacific Biological Station. Can. Data Rep. Fish. Aquat. Sci. 417: iv + 283 p.

Dans le cadre du programme du poisson de fond, des études d'étiquetage ont été réalisées en 1978 pour l'étude de la répartition, de la migration et de la croissance de la morue-lingue dans les eaux méridionales de la Colombie-Britannique. Au total, 3,749 poissons ont été marqués avec des étiquettes Floy 7D 68 à double ancrage. En outre, on a apposé à environ 8 % de ce nombre une seconde étiquette "cousue" afin d'étudier le taux de perte d'étiquette et environ 70 % ont reçu une injection intrapéritonéale d'oxytétracycline pour fins de validation. La plus grande partie de l'étiquetage a été effectuée dans le détroit de Géorgie et au large de la côte sud-ouest de l'île Vancouver. Environ 60 % de toutes les morues-lingues étiquetées consistaient en des classes de taille pré-recrutement. Au 31 décembre 1982, 43 étiquettes (ou 1,0 % du total) avaient été récupérées. On croit que les doses élevées d'oxytétracycline et une forte mortalité naturelle des juvéniles sont les causes du faible taux de récupération des étiquettes par rapport aux études ultérieures d'étiquetage de la morue-lingue. On a enregistré une certaine tendance aux déplacements accrus en fonction du temps et un taux plus élevé du mouvement des juvéniles que ceux mentionnés auparavant chez cette espèce.

Mots-clés: morue-lingue, étiquetage, migration, détermination de l'âge.

## INTRODUCTION

Three cruises were undertaken by the Groundfish Program during June-September, 1978 to conduct lingcod tagging studies in southern British Columbia waters. The primary purpose of the tagging studies was to examine the distribution, migration and growth of lingcod. Tag releases during the first cruise concentrated on marketable size lingcod. Tag releases during the second, and particularly the third cruise, concentrated on partially and pre-recruited age classes of lingcod.

Intraperitoneal injections of oxytetracycline (OTC) were given to approximately 70% of all tag releases to validate the methods used to determine the age of lingcod.

The report describes the sampling and tagging methods and results based on recoveries to December 31, 1982. Results of the age validation studies are reported in Cass and Beamish (1983).

## METHODS

### SET INFORMATION

During June 26-30, 1978, lingcod tagging studies were conducted during normal commercial fishing operations on board the 30-m stern trawler M/V SUN MAIDEN. The M/V ARCTIC HARVESTER, a 43-m stern trawler, was chartered during July 6-26 and September 8-19, 1978.

In June, fishing locations (Fig. 1) were distributed over a number of commercial trawling banks off the southwest coast of Vancouver Island. A total of 20 sets were completed using a conventional commercial flat bottom-trawl equipped with a 9-cm stretched mesh cod-end. Towing times ranged from 25-180 min and averaged 103 min. Bottom depths fished ranged from 73-146 m and averaged 104 m.

In July, 97 sets were completed using a west coast flat bottom-trawl. Set locations in July were distributed in the Strait of Georgia (Fig. 2), off the southwest coast of Vancouver Island (Fig. 3) and, to a lesser extent, off the north and northwest coasts of Vancouver Island (Fig. 4). Sets ranged from 10-100 min and averaged 23 min in duration. Fishing depths ranged from 21-174 m and averaged 80 m.

In September, 84 of 85 sets completed were distributed off the southwest coast of Vancouver Island. The last set in September was made in Swanson Channel (Fig. 5). An Engel high-lift bottom-trawl was used on the first three sets and a flat bottom-trawl was used on all other sets. Sets ranged from 4-30 min and averaged 15 min in duration. Fishing depths ranged from 22-95 m and averaged 64 m.

In both July and September the cod-end was equipped with a 2-cm stretched mesh liner.

Set information for the three cruises is compiled in Appendix 1.

#### SAMPLING AND TAGGING METHODS

During each cruise the cod-end was emptied on deck at the completion of each set. The lingcod were transferred by hand into holding tanks. In June, one 1200 L holding tank was used throughout the cruise. In July and September, two 3000 L tanks were used as holding tanks and a 1200<sup>4</sup> tank was used to anaesthetize lingcod before tagging. The anaesthetic MS222 (tricaine methane sulphonate) was added directly into the anaesthetic tank and dissolved in sea water. All lingcod greater than 60 cm in fork length were anaesthetized to minimize the injuries to the larger and otherwise unmanageable fish. The holding tanks were supplied, at regular intervals, with fresh flowing sea water. The behavior of the fish was monitored to assess the response to the dosage level of MS222 used. Fresh sea water and MS222 were added to the anaesthetic tank if opercular movement was judged to be excessively reduced.

All lingcod were measured for fork length to the nearest millimeter. The presence of the external anal papillae in male lingcod was used to differentiate the sex of all tag releases.

Observations on injuries and general condition of each fish were recorded. Because the sampling periods were in the summer, water temperatures in the holding tanks were monitored to prevent temperatures from exceeding surface water temperatures. This was accomplished by providing a fresh supply of ambient sea water at regular intervals. Surface temperatures were consistently higher than bottom temperatures. It was not possible to reduce temperatures in the holding tanks to below surface water temperature readings despite attempts in July using blocks of frozen seawater.

In a number of sets some lingcod were considered unfit for tagging and were sampled for fork length (to the nearest centimeter), sex and, to a lesser extent, for stomach contents. In July, sections of the second dorsal fin-rays were collected from the total catch of young-of-the-year lingcod in two sets for age determination purposes.

When time permitted, other species in the catch were sampled for fork length, sex, maturity, stomach contents and age.

Bathythermograph readings were taken at selected stations during July and September over the range of depths and locations sampled (Appendix 2).

All lingcod were tagged using a yellow FLOY FD-68 anchor tag. Each tag was number coded (e.g. B7712345) for identification. The vinyl label measured 6.5 cm and contained the following message: (Side 1) Reward Pacific Biological Station/(Side 2) Nanaimo, B.C. Canada. B7712345. The tag was

positioned in the connective tissue matrix just below the base of the anterior portion of the first dorsal fin. Each anchor tag was attached using the FLOY FT Mark II SS long tagging gun equipped with a heavy duty stainless steel needle.

A random sample of 7.5% of all tagged fish were also tagged with a "suture" tag (White and Beamish 1972) to test the retention rates of the tags. The suture tag was attached just below the base of the posterior portion of the first dorsal fin.

A total of 99% of all tagged lingcod released in June and July and 48% of all tagged lingcod released in September were given intraperitoneal injections of oxytetracycline (OTC). OTC places a "time-mark" in bone and therefore provides a method to validate techniques used to determine the ages of fishes. Dosage rates of 100 mg of OTC/kg of body weight were administered. This dosage rate was obtained from previously published studies (Jones 1969; Kobayashi et al. 1964; Weber and Ridgeway 1962) and were tested in the laboratory with no observable adverse reactions to the fish. However, subsequent studies have demonstrated that this dosage does cause mortality of sablefish in the natural environment (Beamish et al. 1980), but not in the laboratory (Beamish et al. 1983). Therefore, it is suspected that this dosage is too concentrated and we recommend approximately 25 mg/kg according to the studies of Beamish et al. (1983).

At periodic intervals throughout the release periods, samples of from 10-40 tagged and injected lingcod were kept in holding tanks overnight to assess short-term mortality that might be associated with the tagging operation.

During September, a number of untagged and uninjected juvenile lingcod were transferred to a 2400 L holding tank at the Pacific Biological Station that contained flowing sea water of ambient temperatures from the Strait of Georgia. Twelve of the 14 fish were tagged, injected, and maintained in holding tanks. Two were not tagged and not injected.

#### ADVERTISING

In 1978, letters and posters describing the tagging studies and offering a reward for the return of tag recoveries, tagged fish and relevant capture information were distributed to commercial vessel owners, processing plants and marinas likely to encounter tagged lingcod.

A reward of \$2.00 was paid for each tag recovery. Commercial fishermen were compensated for the return of whole lingcod at the market value. In addition to the reward, a summary of the distance travelled, area of release, growth and time at liberty since tagging was forwarded to persons reporting tag recoveries.

## SAMPLING OF TAG RECOVERIES

When whole tagged fish were returned they were measured for fork length to the nearest millimeter, sampled for sex and maturity and a portion of the second dorsal fin was removed for age determination. Sections of fins from lingcod injected with OTC were examined in a dark room using a microscope equipped with reflected ultraviolet light, which causes the OTC mark to fluoresce, and regular transmitted light. Ages were assigned according to the method of Beamish and Chilton (1977) and compared to the observed growth patterns deposited after the OTC mark.

## RESULTS AND DISCUSSION

### GENERAL CRUISE SUMMARIES

Tag release information by set for each cruise is compiled in Appendix 3. The length-frequency distribution of lingcod for each set is compiled in Appendix 4.

A total of 3989 lingcod were caught of which 3744 (94%) were tagged, 296 (7%) were double tagged and 2676 (67%) were injected with OTC. Tag release and recovery data by region of release for each cruise is summarized in Table 1.

In June, lingcod caught off the west coast of Vancouver Island ranged in length from 37-116 cm. Females accounted for 70% of the total number of lingcod caught and accounted for all fish over 80 cm. The average lengths for male and female lingcod were 60 cm and 71 cm, respectively. Length-frequency distributions of male and female lingcod were characterized by a dominant modal length range from 54-63 cm (Fig. 6).

In July, highest concentrations of lingcod were encountered off the southwest coast of Vancouver Island in the vicinity of Clayoquot Sound, Lennard Island and La Perouse Bank. For combined sets off southwest Vancouver Island, lingcod ranged in lengths from 12-118 cm. Males accounted for 52% of all lingcod examined for sex. As observed in June, length-frequency distributions of males and females were dominated by a modal length range from 54-63 cm (Fig. 7). Length modes ranging from 12-17 cm and 32-41 cm were also present in the length distribution.

In September, sampling effort was distributed off the southwest coast of Vancouver Island particularly in areas where concentrations of juvenile lingcod were found in July. Lingcod in all sets combined ranged in length from 12-116 cm. The catch was dominated by lingcod ranging in length from 12-27 cm with less prominent modal ranges from 34-45 cm and 58-66 cm (Fig. 8). It was not always possible to identify the sex of juvenile lingcod externally. The mean length of all lingcod caught in September was 27 cm.

Lingcod caught in the Strait of Georgia in July ranged in lengths from 22-111 cm. Males accounted for 62% of the total catch. Mean lengths of male and female lingcod were 43 cm, and 44 cm, respectively. Length-frequency distributions of male and female lingcod from the Strait of Georgia were characterized by three modes ranging from 29-37 cm, 42-47 cm, and 53-61 cm (Fig. 9).

Although fin-ray sections were not collected during this study, the age distribution of juvenile lingcod was distinguished from the length frequency modes (Fig. 6-9). Off the west coast of Vancouver Island in July and September the modal ranges from 12-27 cm, 34-35 cm, and 54-63 cm correspond to fin-ray ages of age-0, age-1, and ages 3-4 yr old lingcod (Beamish and Chilton 1977). The absence of an identifiable modal length range corresponding to age-2 lingcod is noteworthy and suggests recruitment failure in 1976 may have occurred off the southwest coast of Vancouver Island. Natural variations in growth after age 3 do not permit the identification of age on the basis of length (Beamish and Chilton 1977). Nevertheless, the age composition of lingcod in catches from the west coast of Vancouver Island was dominated by age 3-4 yr old lingcod in June and July and by age-0 lingcod in September. The differences in age compositions between the June-July and September cruises were attributed to differences in fishing distribution and to a general proliferation of age-0 lingcod over the nearshore trawlable regions off the west coast of Vancouver Island between July and September.

In the Strait of Georgia in July, the three length modes of 29-37 cm, 42-47 cm and 53-61 cm (Fig. 9) correspond to lingcod age-1, age-2, and age 3-4 yr. No age-0 lingcod were captured in the Strait and age-1 and age-2 fish dominated.

#### FEEDING

In September, 43 age-0 lingcod caught in sets 4 and 5 were examined for stomach contents. Twenty-three percent were empty, 58% contained digested fish remains of which 20% (5 fish) contained herring, sandlance, flatfish and shiner perch. Nineteen percent (8 fish) contained unidentifiable digested matter. The average volume of the stomach contents for all lingcod examined, including empty stomachs, was 4 cc.

#### TAGGING MORTALITY

A total of 45 juvenile lingcod were held in holding tanks overnight during tagging operations and no mortality occurred despite some bleeding from tag wounds. The 12 tagged and injected lingcod held in the laboratory survived for 3 months without any mortality.

## RECOVERY RATES

A total of 43 tag recoveries or 1% of all tag releases were recovered by December 31, 1982. The recovery rate in this study was less than recovery rates of 20% (Forrester 1973), 65% (Reeves 1966) and 13% (Chatwin 1956) observed in other lingcod tagging studies. It is important to note that tag releases in the earlier studies concentrated on recruited age classes while in this study about 60% of all tag releases were less than age 3; the age of first recruitment to the commercial fisheries. The relatively low fishing mortality and high natural mortality expected in pre-recruited age classes compared to recruited age classes would reduce the overall recovery rate in this study. However, the recovery rate of age 3 or older tagged lingcod was still only 2.2% or substantially less than reported in earlier studies. In September 1978, where approximately 48% of the tagged lingcod received OTC injections and 52% did not, the recovery rates of the uninjected and injected fish were similar, suggesting that there was no mortality associated with the injections of OTC. However, as mentioned, the results of other studies (Beamish et al. 1980, 1983) indicated that the dosage used in this study may be too high.

## MOVEMENT OF TAGGED FISH

A total of 36 tag recaptures were reported from releases off the west coast of Vancouver Island. Of these, 15 recoveries were reported by specific recapture location. All tag recoveries except two were off the west coast of Vancouver Island. Nine were recovered within 1 km of the release site; four were recovered off the west coast of Vancouver Island at distances ranging from 13-50 km from their respective release sites; and two were recovered off the United States - one off northwest Washington at a distance of about 130 km from the release site and one off the coast of Oregon at a distance of 510 km from the release site (Fig. 10). There was a tendency for increased movement of recoveries from releases off the southwest coast of Vancouver Island with time at liberty (Table 2).

Of the six tag recoveries from releases in the Strait of Georgia, all were recovered in the Strait of Georgia (Fig. 10). Five out of the six recoveries were recaptured less than 19 km from the area of release. The remaining fish was recaptured 95 km from the area of release (Table 3).

Out of the 21 recaptures from both areas reported by specific recovery locations, four (19%) were recovered in excess of 20 km from their respective release sites and nine (43%) were recovered less than 1 km from the area of release. Movements of tagged lingcod during this study were more extensive than reported from other studies (Hart 1943, Chatwin 1956, and Reeves 1966). In this study, all except one of the four fish showing movements in excess of 20 km were older than age 2 while only 12% or 2 of the 17 fish remaining within 20 km off the release sites were estimated to be age 2 or less. The tendency for lingcod age-2 or less to undertake greater movements than older lingcod may explain the higher overall rates of movements in this study.

Because of the small sample size of tag recoveries reported in this study it has not been possible to provide a quantitative assessment of the rate and range of movements of lingcod nor has it been possible to estimate the degree of intermingling among different areas. However, some juvenile lingcod are capable of relatively extensive movements, shown by the movement of an age 0 lingcod a distance of 510 km by the third year at liberty.

Of the 43 tag recoveries, four (9%) were double tagged and all were recaptured with both tags intact. Based on such a small sample size it was not possible to estimate the rates of tag loss for the two tag types used in the study.

Thirty-six tag recoveries were from fish injected with OTC. Of these, 12 had been at liberty for more than 1 yr after tagging. Unfortunately, only 4 of these 12 fish were returned in a condition suitable for age validation purposes. Preliminary results of the age validation studies (Cass and Beamish 1983) showed that the fin-ray method for estimating the age of lingcod appeared valid for the small sample size examined.

#### OTHER FISHES

A summary of species sampled other than lingcod is compiled in Table 4.

In June the total catch of pollock from one set (Set 18) off the southwest coast of Vancouver Island was sampled for fork length by sex. Females comprised 84% of the 95 pollock sampled. The average length of males and females was 46 cm and 50 cm, respectively. All pollock over 50 cm in length were females (Table 5). In July a random sample of 306 juvenile pollock caught in Swanson Channel (Set 77) was sampled for fork length by sex. Females accounted for 53% of the total number of pollock sampled. The majority of pollock ranged from 15-27 cm with modal length ranges of from 19-21 cm for males and 20-23 cm for females (Table 6). Average lengths of 21 cm for males and 27 cm for females were similar to the average lengths of age-1 pollock observed in other cruises (Beamish et al. 1976, 1978).

A random sample of 187 young sablefish caught off northern Vancouver Island in July (Set 21) was sampled for fork length and otoliths were collected for age determination purposes. Sablefish ranged in length from 29-40 cm. The modal length ranged from 31-35 cm (Table 7). The average length was 34 cm. Although estimates of age based on otolith readings were not determined, the mean length and modal length range correspond to age 1 sablefish from the 1977 year-class (Beamish et al. 1980).

A random sample of 314 juvenile hake caught in Sydney Inlet in July (Set 72) was sampled for fork length by sex. Male hake accounted for 54% of all the hake sampled and averaged 18 cm in length. Females averaged 19 cm in total length. The modal length for both sexes ranged from 16-20 cm (Table 8). The size composition of juvenile hake in this study was similar to size composition of age 1 hake observed in other cruises (Beamish et al. 1976, 1978).

A random sample of 402 hake caught in July in the Strait of Georgia (Set 82) was sampled for fork length by sex. Females accounted for 71% of the total number of hake sampled. The majority of hake captured ranged in lengths of 41-51 cm. The modal length range was 43-46 cm for males and 45-50 cm for females (Table 8). The average length for male and female lingcod was 44 cm and 47, respectively.

Other less dominant species sampled in July and September were chinook salmon and halibut (Table 4). The small numbers of chinook salmon and halibut sampled precluded an assessment of the size, age and sex composition of these species encountered during the June-September 1978 period.

#### ACKNOWLEDGMENTS

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Table 1. Summary of lingcod tag releases in 1978 and recoveries to December 31, 1982.

Release period	West coast Vancouver Island						Strait of Georgia					
	Tagged			Recovered			Tagged			Recovered		
	Double	OTC <sup>a</sup>	Total	Double	OTC	Total	Double	OTC	Total	Double	OTC	Total
June 25-30	40	149	151	1	6	6	-	-	-	-	-	-
July 6-25	147	789	798	1	10	10	112	747	751	2	6	6
September 8-19	0	980	2048	-	14	21	0	0	1	-	-	0
Total	187	1918	2997	2	30	37	112	747	752	2	6	6

<sup>a</sup>OTC = oxytetracycline.

Table 2. Recoveries of tagged lingcod reported by specific recovery location to December 31, 1982 from releases off the west coast of Vancouver Island in 1978.

Tag no.	Length		Estimated age at tagging <sup>a</sup>	Days at large	Distance travelled (km)
	Tagged (cm)	Recovery (cm)			
B7738941	56	56	> 3	198	<1
B7736952	72	-	≥ 3	255	<1
B7735125	59	-	≥ 3	465	<1
B7735965	65	-	≥ 3	400	<1
B7737263	16	-	≤ 0	<600	<1
B7736760	67	-	> 3	<600	<1
B7735003	69	74	≥ 3	660	<1
B7737000	55	-	≥ 3	670	<1
B7738057	58	67	≥ 3	712	13
B7737428	18-22	60	≤ 0	786	510
B7736519	77	80 <sup>b</sup>	> 3	1100	<1
B7735931	60	77	≥ 3	1100	5
B7736949	39	-	T-2	1320	50
B7735008	55	85	> 3	1403	20
B7736978	60	-	≥ 3	1521	128

<sup>a</sup>Estimates of age were based on the relationship between length and age.

<sup>b</sup>Dressed length.

Table 3. Recoveries of tagged lingcod reported by specific recovery location to December 31, 1982 from releases in the Strait of Georgia in 1978.

Tag no.	Length		Estimated age at tagging <sup>a</sup>	Days at large	Distance travelled (km)
	Tagged (cm)	Recovery (cm)			
B7738365	59	58	> 3	92	19
B7738501	53	55	> 3	99	9
B7738589	57	-	> 3	124	7
B7738470	44	50	T-2	373	95
B7738630	59	-	> 3	1100	9
B7735514	42	-	T-2	1195	5

<sup>a</sup>Estimates of age were based on the relationship between length and age.

Table 4. Summary of species sampled, other than lingcod.

SUN MAIDEN, June 25-30, 1978.

Species	Set no.	Type of sample taken						Remarks
		Length	Sex	Maturity	Stomach contents	Age determination	Total catch	
Pollock	18	92	92	-	-	-	92	total catch

ARCTIC HARVESTER, July 6-26, 1982.

Species	Set no.	Type of sample taken						Remarks
		Length	Sex	Maturity	Stomach contents	Age determination	Total catch	
Chinook salmon	14	5	5	5	5	-	5	total catch
Sablefish	21	187	-	-	-	187	~5000	random
Halibut	22	2	2	-	-	2	2	total catch
	23	1	1	-	-	1	1	total catch
	26	1	1	-	-	1	1	total catch
	32	1	1	-	-	1	1	total catch
	37	1	1	-	-	1	1	total catch
	47	1	1	-	-	1	1	total catch
	59	1	1	-	-	1	1	total catch

Table 4 (cont'd)

Species	Set no.	Type of sample taken						Remarks
		Length	Sex	Maturity	Stomach contents	Age determination	Total catch	
Hake	72	314	314	-	-	-	~4000	random
	82	402	402	-	-	-	~1400	random
Pollock	77	306	306	-	-	-	~1500	random

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ARCTIC HARVESTER, September 8-19, 1978.

Species	Set no.	Type of sample taken						Remarks
		Length	Sex	Maturity	Stomach contents	Age determination	Total catch	
Halibut	14	1	1	-	-	-	1	total catch
	21	1	1	-	-	-	1	total catch
	51	1	1	-	-	-	1	total catch
	54	1	1	-	-	-	1	total catch
	65	1	1	-	-	-	1	total catch

Table 5. Length frequency of pollock sampled,  
SUN MAIDEN, June 25-30, 1978.

Fork length (cm)	Set 18		
	M	F	T
31		1	1
2		0	0
3		0	0
4		0	0
5		0	0
6		0	0
7		0	0
8		0	0
9		0	0
40		0	0
1	1	1	2
2	1	4	5
3	2	0	2
4	1	1	2
5	2	1	3
6	3	2	5
7	0	4	4
8	1	15	16
9	3	6	9
50	1	6	7
1	-	5	5
2	-	8	8
3	-	4	4
4	-	3	3
5	-	11	11
6	-	2	2
7	-	3	3
8	-	2	2
9	-	0	0
60		1	1
Total	15	80	95

Table 6. Length frequency of pollock sampled,  
ARCTIC HARVESTER, July 6-26, 1978.

Fork length (cm)	Set number		
	77		
	M	F	T
15	-	1	1
16	-	0	0
17	-	1	1
18	7	1	8
19	30	7	37
20	38	30	68
21	36	44	80
22	18	37	55
23	6	24	30
24	4	9	13
25	4	4	8
26	-	2	2
27	-	1	1
28	-	0	0
29	-	0	0
30	-	0	0
31	-	1	1
32	-	0	0
33	-	0	0
34	-	0	0
35	-	0	0
36	-	0	0
37	-	0	0
38	-	0	0
39	-	0	0
40	-	0	0
41	-	0	0
42	-	0	0
43	-	0	0
44	-	0	0
45	-	0	0
46	-	0	0
47	-	0	0
48	-	1	1
Total	143	163	306

Table 7. Length frequency of sablefish,  
ARCTIC HARVESTER, July 6-26, 1978.

Fork length (cm)	Set 21 Ta
29	2
30	4
1	21
2	20
3	56
4	33
5	27
6	11
7	5
8	4
9	2
40	2
Total	187

<sup>a</sup>Juvenile sablefish were not examined by sex.

Table 8. Length frequency of hake, ARCTIC HARVESTER,  
July 6-26, 1978.

Fork length (cm)	Set number		
	72		
	M	F	T
15	3	5	8
16	20	12	32
17	37	27	64
18	40	35	75
19	26	22	48
20	24	21	45
21	8	10	18
22	7	6	13
23	3	3	6
24	0	1	1
25	2	0	2
26	0	0	0
27	0	0	0
28	0	0	0
29	0	0	0
30	0	0	0
31	0	1	1
32	1	-	1
33	-	-	-
34	-	-	-
35	-	-	-
36	-	-	-
37	-	-	-
38	-	-	-
39	-	-	-

Table 8 (cont'd).

Fork length (cm)	Set number					
	72			82		
	M	F	T	M	F	T
40	-	-	-	0	0	0
1	-	-	-	7	3	10
2	-	-	-	5	8	13
3	-	-	-	20	18	38
4	-	-	-	20	17	37
5	-	-	-	12	37	49
6	-	-	-	20	30	50
7	-	-	-	8	43	51
8	-	-	-	10	33	43
9	-	-	-	2	27	29
50	-	-	-	2	17	19
1	-	-	-	1	9	10
2	-	-	-	0	6	6
3	-	-	-	0	2	2
4	-	-	-	0	4	4
5	-	-	-	0	3	3
6	-	-	-	0	1	1
7	-	-	-	0	0	0
8	-	-	-	0	0	0
9	-	-	-	0	0	0
60	-	-	-	1	4	5
1	-	-	-	-	3	3
2	-	-	-	-	0	0
3	-	-	-	-	0	0
4	-	-	-	-	0	0
5	-	-	-	-	3	3
6	-	-	-	-	0	0
7	-	-	-	-	2	2
Total	171	143	314	117	285	402



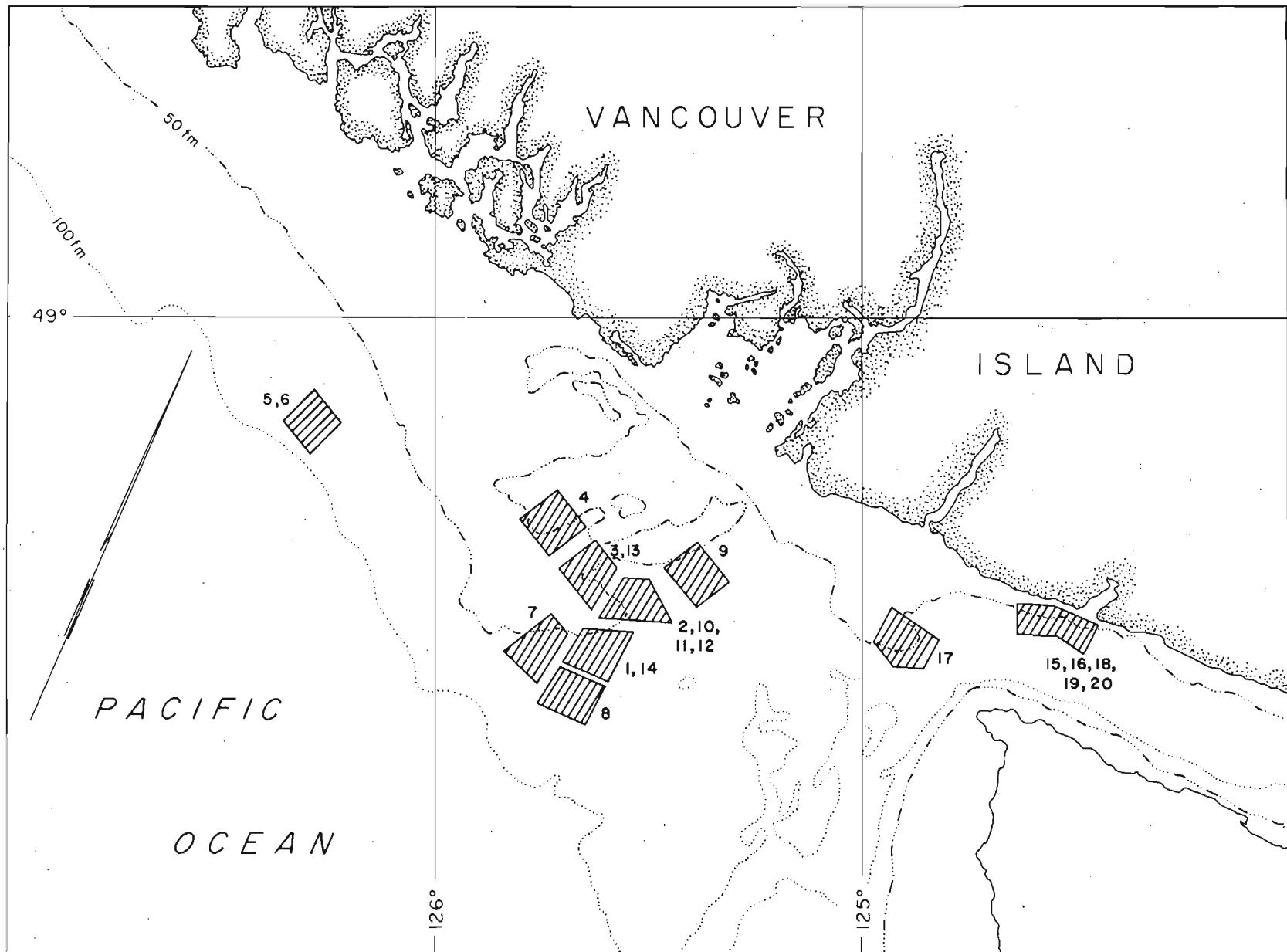


Fig. 1. Set locations during lingcod tagging studies off the southwest coast of Vancouver Island, M/V SUN MAIDEN, June 26-30, 1978.



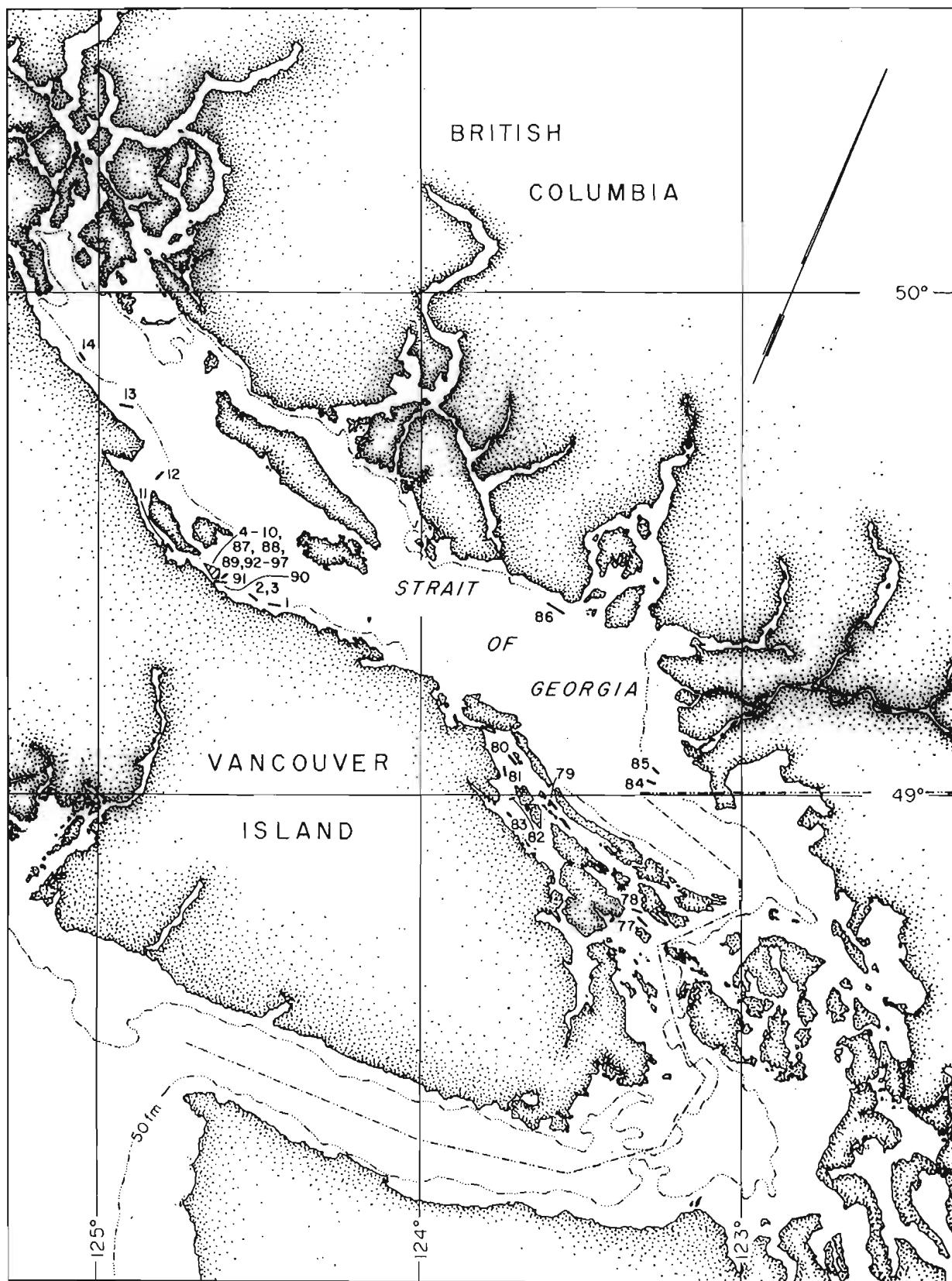


Fig. 2. Set locations during lingcod tagging studies in the Strait of Georgia, M/V ARCTIC HARVESTER, July 6-26, 1978.



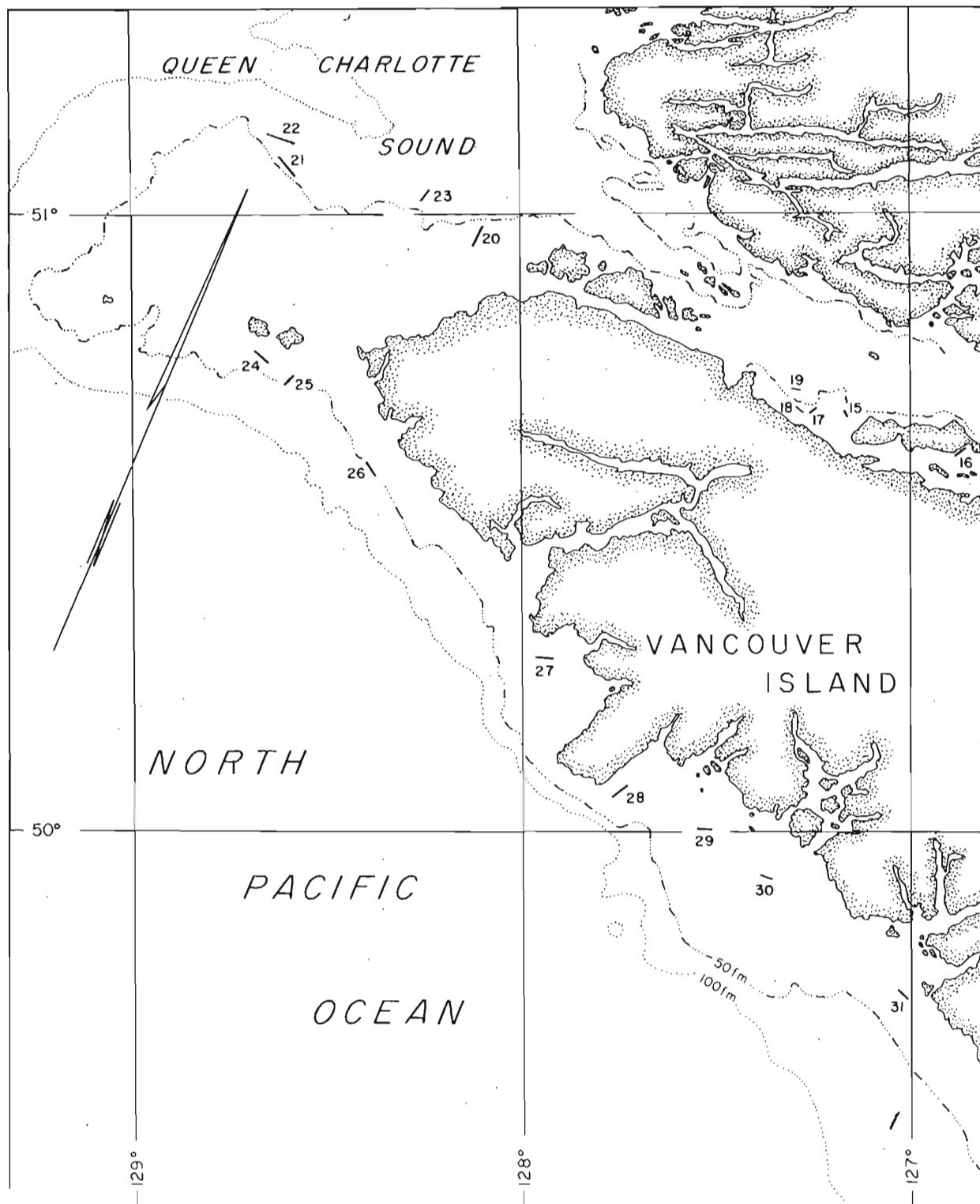


Fig. 3. Set locations during lingcod tagging studies off the north and northwest coast of Vancouver Island, M/V ARCTIC HARVESTER, July 6-26, 1978.



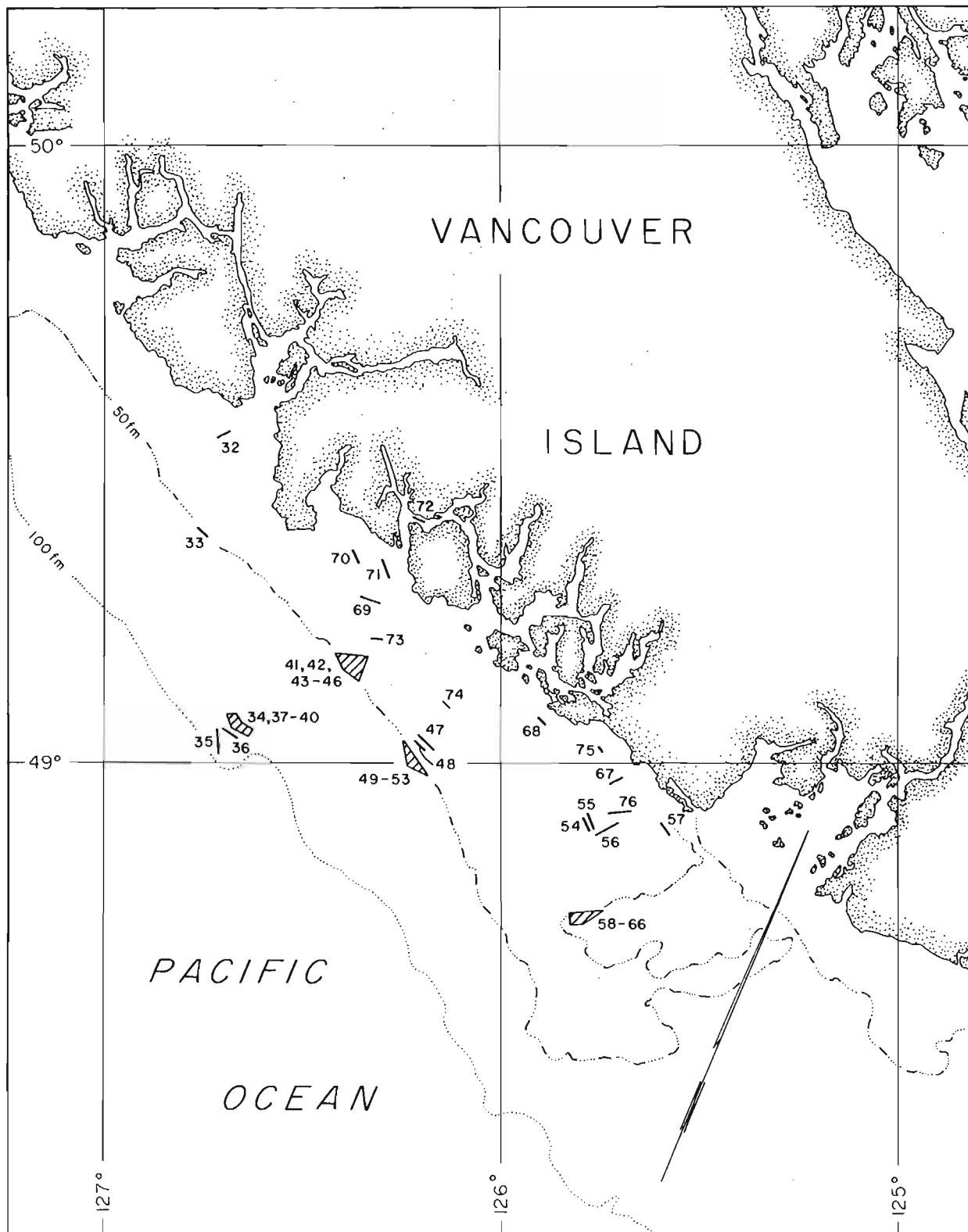


Fig. 4. Set locations during lingcod tagging studies off the southwest coast of Vancouver Island, M/V ARCTIC HARVESTER, July 6-26, 1978.



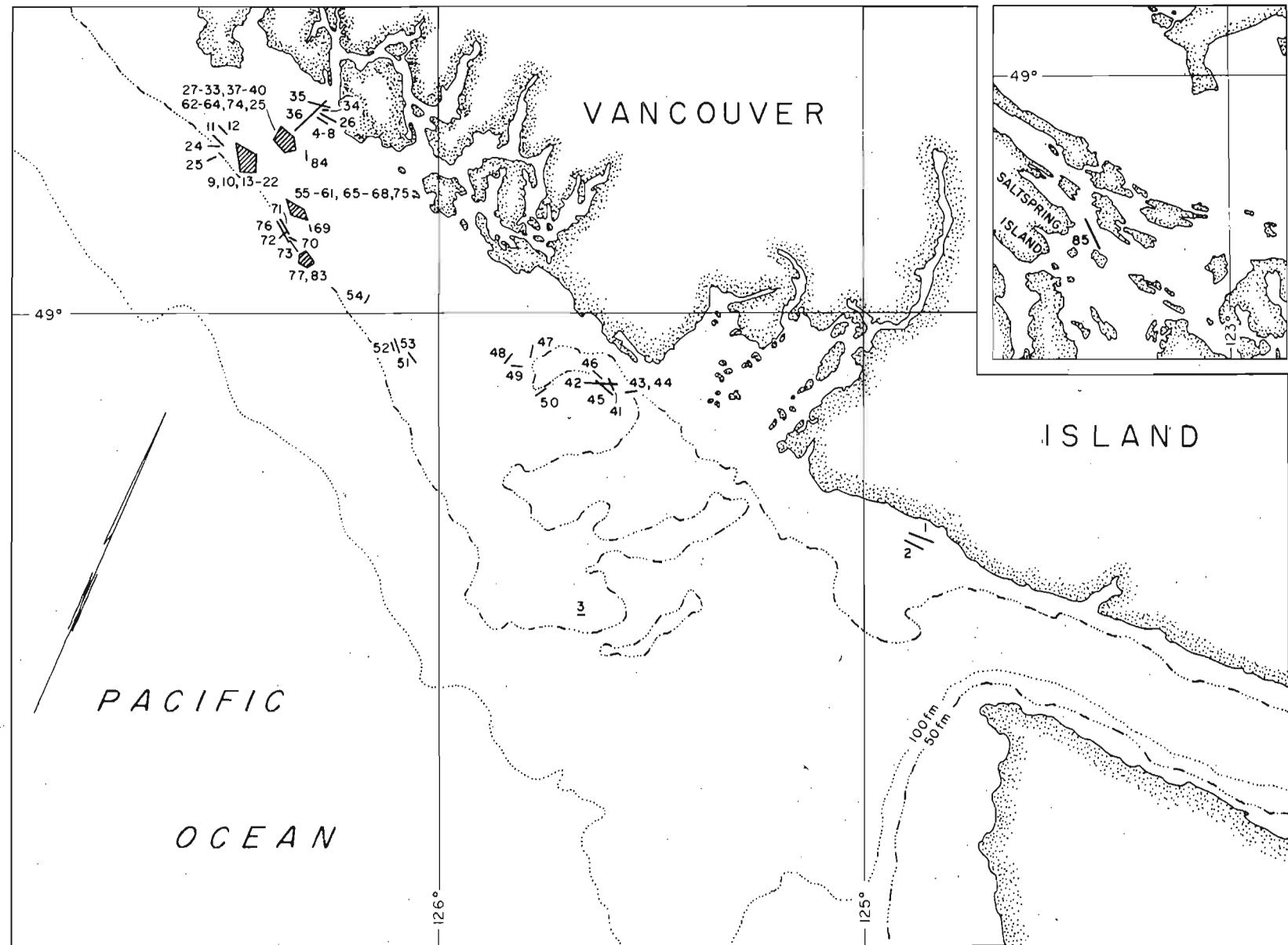


Fig. 5. Set locations during lingcod tagging studies off the southwest coast of Vancouver Island and in Swanson Channel, M/V ARCTIC HARVESTER, September 8-19, 1978.



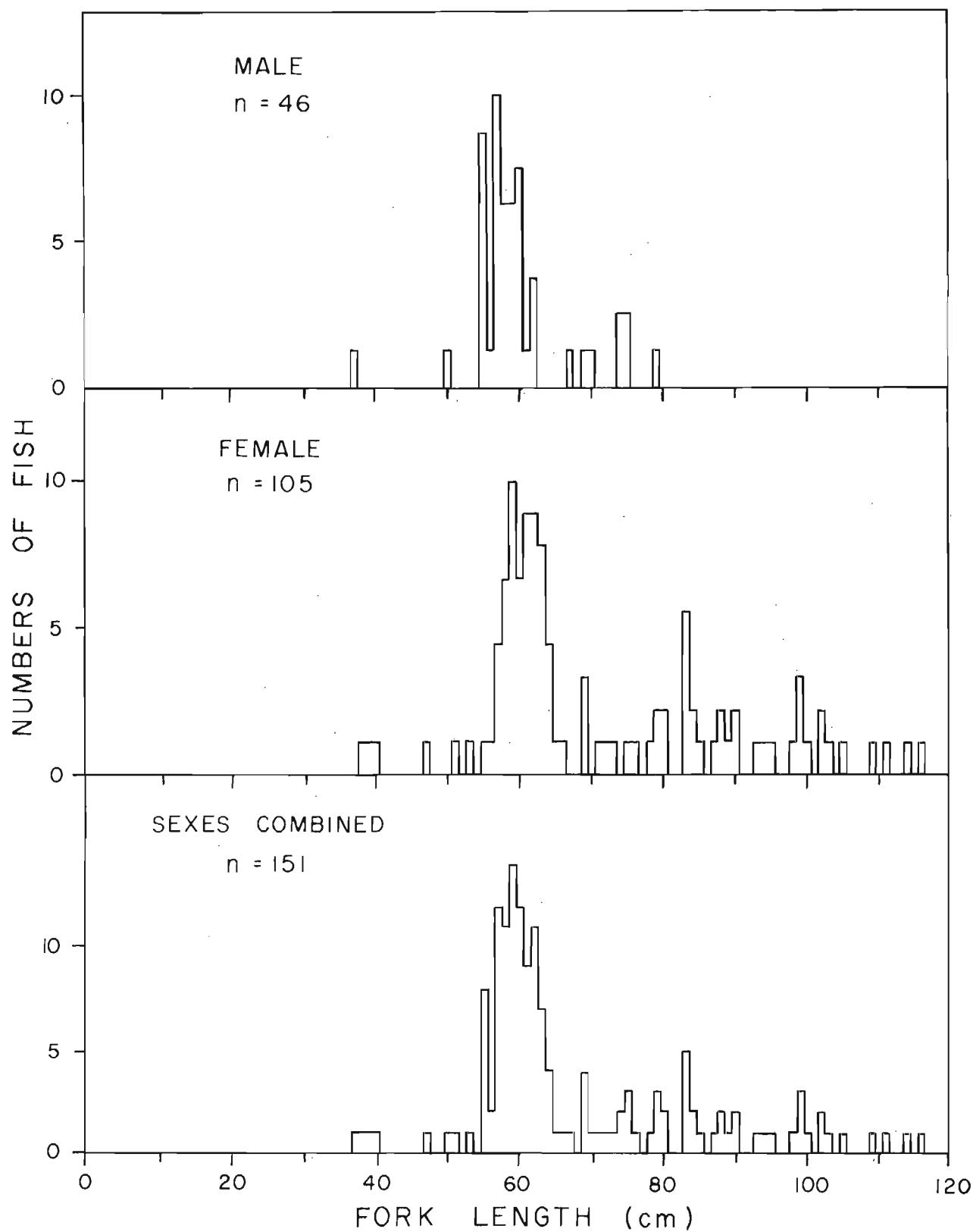


Fig. 6. Length-frequency histograms of lingcod caught during tagging studies off the southwest coast of Vancouver Island, M/V SUN MAIDEN, June 26-30, 1978.



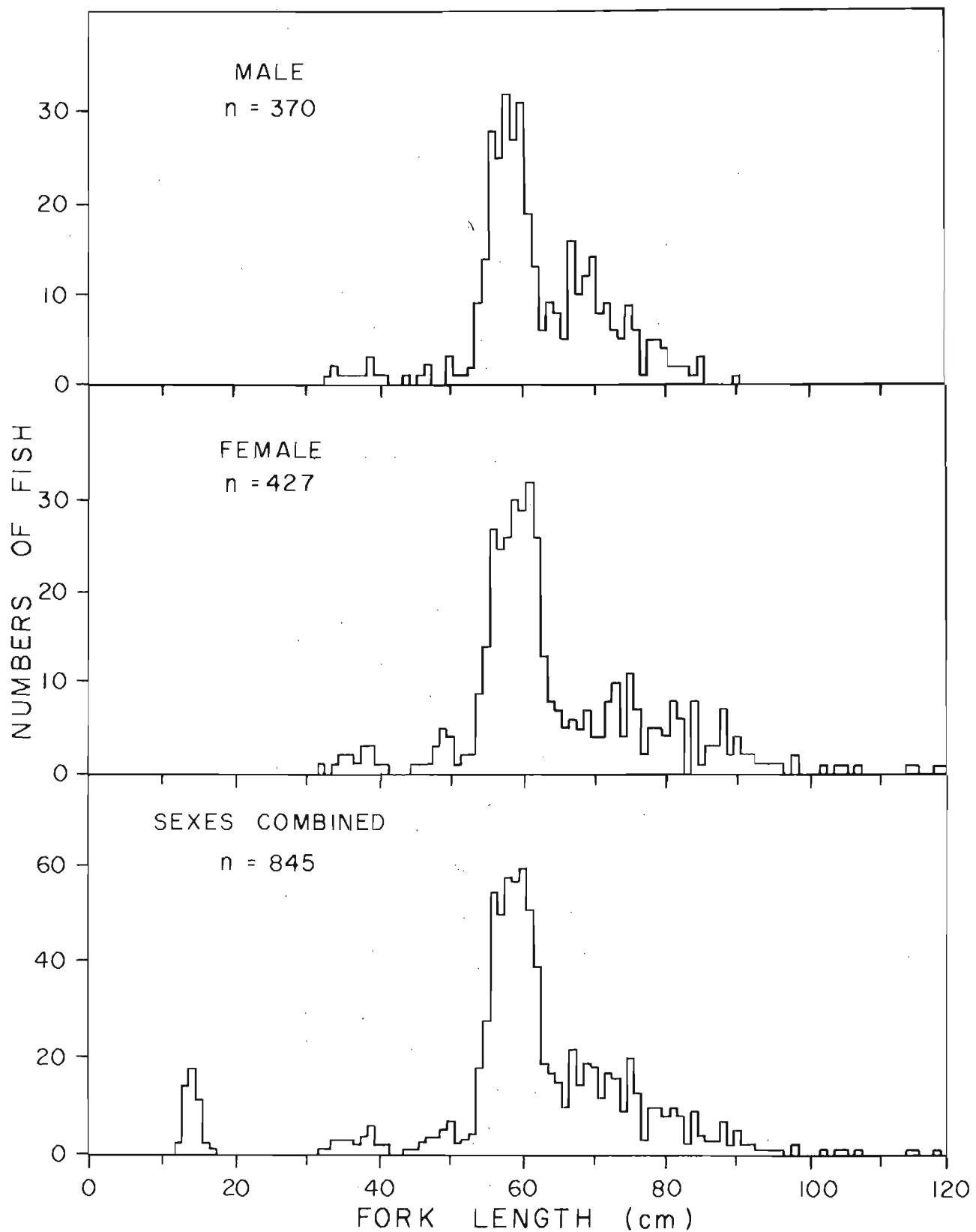


Fig. 7. Length-frequency histograms of lingcod caught during tagging studies off the southwest coast of Vancouver Island, M/V ARCTIC HARVESTER, July 6-26, 1978.



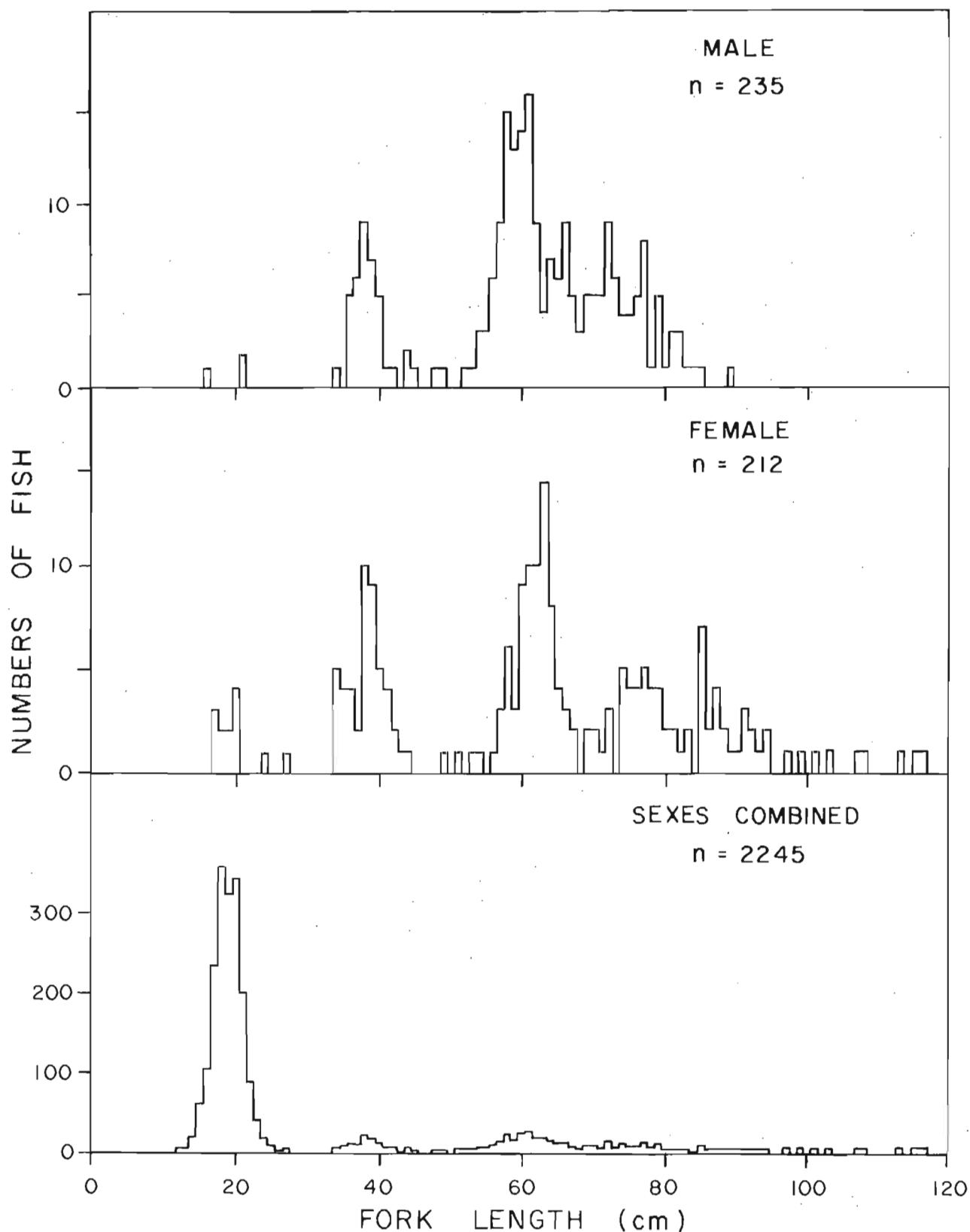


Fig. 8. Length-frequency histograms of lingcod caught during tagging studies off the southwest coast of Vancouver Island, M/V ARCTIC HARVESTER, September 8-19, 1978.



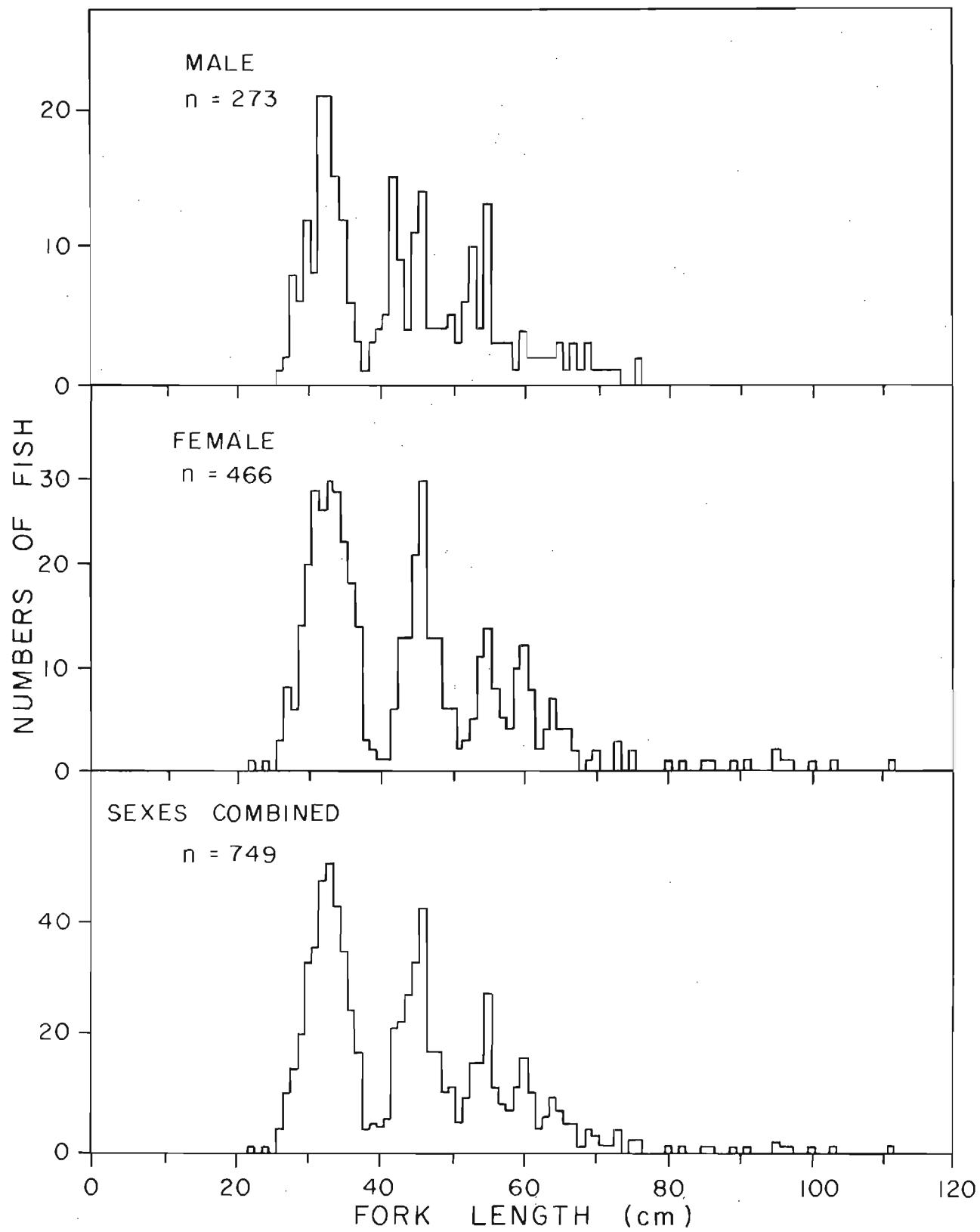


Fig. 9. Length-frequency histograms of lingcod caught during tagging studies in the Strait of Georgia, M/V ARCTIC HARVESTER, July 6-26, 1978.



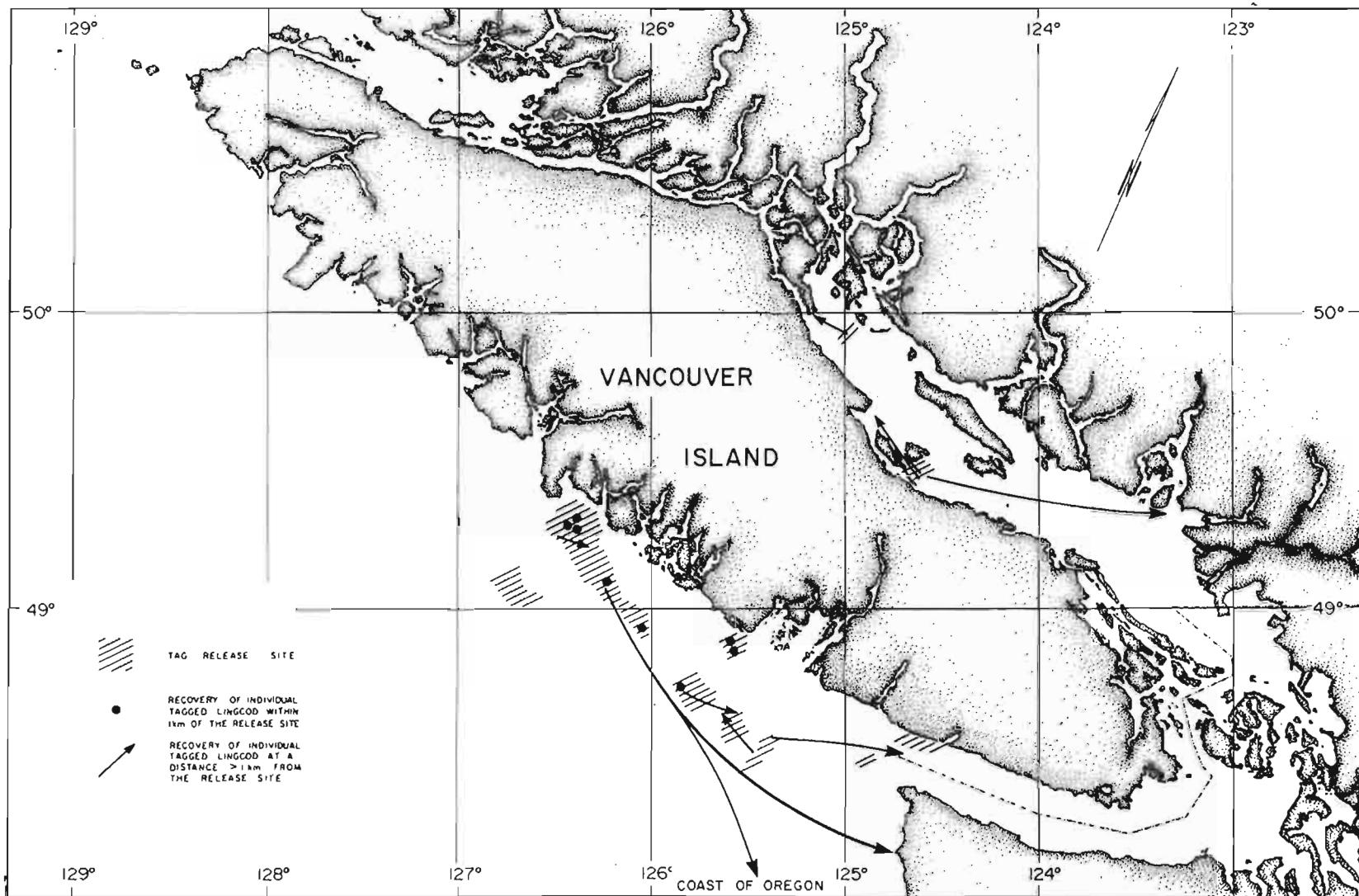


Fig. 10. Net movements of tagged trawl-caught lingcod released during June-September 1978 based on recoveries to December 31, 1982.



Appendix 1. Table 1. Set Information, M/V SUN MAIDEN, June 26-30, 1978a.

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 26 SET/HAUL NO. 1

LOCATION: Finger Bank AREA: West coast Vancouver Island

LAT: 48° 29' N LONG: 125° 37' W

GEAR: F.B.T.b START TIME (PDT) : 0645 DURATION (min): 75

BOTTOM DEPTH (m): Start: 95 End: 102 Est. av. Depth: 99

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SONDER SUMMARY: Light to moderate scatter: 27-73 m. Nothing on bottom.

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 26 SET/HAUL NO. 2

LOCATION: Big Bank AREA: West coast Vancouver Island

LAT: 48° 35' N LONG: 125° 35' W

GEAR: F.B.T.b START TIME (P.D.T.): 1045 DURATION (min): 45

BOTTOM DEPTH (m): Start: 70 End: 70 Est. av. Depth: 70

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SONDER SUMMARY: Moderate scatter layer 0-27 m. Light spotting 18-36 m.

Moderate - heavy spotting layer on bottom.

Appendix 1. Table 1 (cont'd)

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 26 SET/HAUL NO. 3

LOCATION: N. side Big Bank AREA: West coast Vancouver Island

LAT: 48° 36' N LONG: 125° 38' W

GEAR: F.B.T.Ψ START TIME (PDT) : 1130 DURATION (min): 45

BOTTOM DEPTH (m): Start: 81 End: 77 Est. av. Depth: 79

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Light to moderate scatter 0-18 m. Moderate spotting  
on bottom.

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 26 SET/HAUL NO. 4

LOCATION: South west corner AREA: West coast Vancouver Island

LAT: 48° 90' N LONG: 125° 43' W

GEAR: F.B.T.Ψ START TIME (PDT) : 1330 DURATION (min): 50

BOTTOM DEPTH (m): Start: 77 End: 84 Est. av. Depth: 81

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: -

Appendix I. Table I (cont'd)

Yr Mo. Day  
VESSEL: SUN MAIDEN DATE: 78 6 26 SET/HAUL NO. 5  
LOCATION: West La Perouse AREA: West coast Vancouver Island  
LAT: 48° 51' N LONG: 126° 20' W  
GEAR: F.B.T.b START TIME (PDT) : 1630 DURATION (min): 180  
BOTTOM DEPTH (m): Start: 161 End: - Est. av. Depth: 152  
DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: - TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Some light spotting 110-146 m but generally very little showing.

Yr Mo. Day  
VESSEL: SUN MAIDEN DATE: 78 6 26 SET/HAUL NO. 6  
LOCATION: West La Perouse AREA: West coast Vancouver Island  
LAT: 48° 51' N LONG: 126° 20' W  
GEAR: F.B.T.b START TIME (PDT) : 1930 DURATION (min): 180  
BOTTOM DEPTH (m): Start: 143 End: 146 Est. av. Depth: 145  
DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: - TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very little showing.

Appendix 1. Table 1 (cont'd)

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 27 SET/HAUL NO. 7

LOCATION: South La Perouse AREA: West coast Vancouver Island

LAT: 48° 28' N LONG: 125° 45' W

GEAR: F.B.T.Ψ START TIME (PDT) : 0645 DURATION (min): 25

BOTTOM DEPTH (m): Start: 132 End: 135 Est. av. Depth: 133

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: -

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 27 SET/HAUL NO. 8

LOCATION: Finger Bank AREA: West coast Vancouver Island

LAT: 48° 27' N LONG: 125° 40' W

GEAR: F.B.T.Ψ START TIME (PDT) : 0745 DURATION (min): -

BOTTOM DEPTH (m): Start: 81 End: 81 Est. av. Depth: 81

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Heavy scatter 0-37 m. Moderate spotting 2-20 m

off bottom.

Appendix 1. Table 1 (cont'd)

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 27 SET/HAUL NO. 9

LOCATION: North end Finger Bank AREA: West coast Vancouver Island

LAT: 48° 35' N LONG: 125° 25' W

GEAR: F.B.T.b START TIME (PDT) : 0930 DURATION (min): 55

BOTTOM DEPTH (m): Start: 92 End: 95 Est. av. Depth: 93

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SONDER SUMMARY: -

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 27 SET/HAUL NO. 10

LOCATION: N. side 40 mile AREA: West coast Vancouver Island

LAT: 48° 35' N LONG: 125° 35' W

GEAR: F.B.T.b START TIME (PDT) : 1200 DURATION (min): 150

BOTTOM DEPTH (m): Start: 73 End: 79 Est. av. Depth: 76

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SONDER SUMMARY: Heavy scatter 55-73 m.

Appendix 1. Table 1 (cont'd)

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 27 SET/HAUL NO. 11

LOCATION: Big Bank AREA: West coast Vancouver Island

LAT: 48° 35' N LONG: 125° 35' W

GEAR: F.B.T.b START TIME (PDT) : 1500 DURATION (min): 150

BOTTOM DEPTH (m): Start: 73 End: 79 Est. av. Depth: 76

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Heavy scatter 55-73 m.

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 28 SET/HAUL NO. 12

LOCATION: N. 40 mile AREA: West coast Vancouver Island

LAT: 48° 35' N LONG: 125° 35' W

GEAR: F.B.T.b START TIME (PDT) : 0700 DURATION (min): 90

BOTTOM DEPTH (m): Start: 77 End: 82 Est. av. Depth: 76

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Light to moderate scatter 55 m to bottom.

Appendix I. Table 1 (cont'd)

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 28 SET/HAUL NO. 13

LOCATION: N. 40 mile AREA: West coast Vancouver Island

LAT: 48° 35' N LONG: 125° 36' W

GEAR: F.B.T.b START TIME (PDT) : 0915 DURATION (min): 90

BOTTOM DEPTH (m): Start: - End: - Est. av. Depth: 76

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: -

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 28 SET/HAUL NO. 14

LOCATION: Finger Bank AREA: West coast Vancouver Island

LAT: 48° 29' N LONG: 125° 37' W

GEAR: F.B.T.b START TIME (PDT) : 1130 DURATION (min): 90

BOTTOM DEPTH (m): Start: 102 End: 99 Est. av. Depth: 101

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: -

Appendix 1. Table 1 (cont'd)

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 28 SET/HAUL NO. 15

LOCATION: San Juan AREA: West coast Vancouver Island

LAT: 48° 31' N LONG: 124° 30' W

GEAR: F.B.T.Ψ START TIME (PDT) : 1430 DURATION (min): 150

BOTTOM DEPTH (m): Start: 128 End: 128 Est. av. Depth: 128

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Heavy spotting 37-73 m throughout tow. Light scatter  
surface to 18 m.

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 28 SET/HAUL NO. 16

LOCATION: San Juan AREA: West coast Vancouver Island

LAT: 48° 31' N LONG: 124° 30' W

GEAR: F.B.T.Ψ START TIME (PDT) : 2000 DURATION (min): 90

BOTTOM DEPTH (m): Start: 73 End: 82 Est. av. Depth: 78

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Moderate to heavy spotting 51-73 m.

Appendix 1. Table 1 (cont'd)

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 28 SET/HAUL NO. 17

LOCATION: Swiftsure AREA: West coast Vancouver Island

LAT: 48° 29' N LONG: 124° 55' W

GEAR: F.B.T.Ψ START TIME (PDT) : 0710 DURATION (min): 60

BOTTOM DEPTH (m): Start: 99 End: 99 Est. av. Depth: 99

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SONDWER SUMMARY: -

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 29 SET/HAUL NO. 18

LOCATION: San Juan AREA: West coast Vancouver Island

LAT: 48° 31' N LONG: 124° 30' W

GEAR: F.B.T.Ψ START TIME (PDT) : 1215 DURATION (min): -

BOTTOM DEPTH (m): Start: 143 End: 146 Est. av. Depth: 145

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SONDWER SUMMARY: Heavy spotting 84 - 102 m. Light spotting 44 - 73 m.

Appendix I. Table 1 (cont'd)

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 29 SET/HAUL NO. 19

LOCATION: San Juan AREA: West coast Vancouver Island

LAT: 48° 31' N LONG: 124° 30' W

GEAR: F.B.T.b START TIME (PDT) : 1730 DURATION (min): 60

BOTTOM DEPTH (m): Start: - End: - Est. av. Depth: 128

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: -

Yr Mo. Day

VESSEL: SUN MAIDEN DATE: 78 6 29 SET/HAUL NO. 20

LOCATION: San Juan AREA: West coast Vancouver Island

LAT: 48° 31' N LONG: 124° 30' W

GEAR: F.B.T.b START TIME (PDT) : 0710 DURATION (min): 90

BOTTOM DEPTH (m): Start: 145 End: 154 Est. av. Depth: 146

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A.C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: -

<sup>a</sup>Because information obtained from commercial vessels during non-charter arrangements is highly confidential, the exact locations of sets were not recorded in this report.

<sup>b</sup>F.B.T = flat bottom trawl.

Appendix 1. Table 2. Set information, M/V ARCTIC HARVESTER, July 6-26, 1978.

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>		DATE:	<u>78</u> <u>7</u> <u>6</u> SET/HAUL NO. <u>1</u>
LOCATION:	<u>Qualicum Beach</u>		AREA:	<u>Strait of Georgia</u>
START:	Lat.	<u>49° 22.8' N</u>		Long. <u>124° 26.3' W</u>
END:	Lat.	<u>49° 23.7' N</u>		Long. <u>124° 28.2' W</u>
GEAR:	<u>F.B.T.<sup>oo</sup></u>	START TIME	<u>(PDT)</u> : <u>2105</u>	DURATION (min): <u>30</u>
BOTTOM DEPTH (m):	Start:	<u>97</u>	End: <u>110</u>	Est. av. Depth: <u>100</u>
DIRECTION OF SET °true:	<u>290</u>	SPEED kn:	<u>-</u>	DISTANCE TRAVELED mi. <u>-</u>
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>calm</u>	TIDE: <u>ebb</u>
WIND DIRECTION:	<u>-</u>	WIND SPEED:	<u>-</u>	RECORDER: <u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT: <u>1</u> OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY: <u>Dense spotting 82 m to just off bottom.</u>				

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>		DATE:	<u>78</u> <u>7</u> <u>7</u> SET/HAUL NO. <u>2</u>
LOCATION:	<u>Qualicum Beach</u>		AREA:	<u>Strait of Georgia</u>
START:	Lat.	<u>49° 23.3' N</u>		Long. <u>124° 30.0' W</u>
END:	Lat.	<u>49° 24.3' N</u>		Long. <u>124° 32.2' W</u>
GEAR:	<u>F.B.T.<sup>oo</sup></u>	START TIME	<u>(PDT)</u> : <u>0915</u>	DURATION (min): <u>30</u>
BOTTOM DEPTH (m):	Start:	<u>97</u>	End: <u>102</u>	Est. av. Depth: <u>100</u>
DIRECTION OF SET °true:	<u>300</u>	SPEED kn:	<u>3.5</u>	DISTANCE TRAVELED mi. <u>-</u>
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>ripple</u>	TIDE: <u>ebb</u>
WIND DIRECTION:	<u>-</u>	WIND SPEED:	<u>-</u>	RECORDER: <u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT: <u>-</u> OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY: <u>Light scatter 0 - 18 m. Some light to moderate spotting on bottom.</u>				

Appendix 1. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 7 SET/HAUL NO. 3

LOCATION: Qualicum Beach AREA: Strait of Georgia

START: Lat. 49° 23.3' N Long. 124° 30.0' W

END: Lat. 49° 24.3' N Long. 124° 32.2' W

GEAR: F.B.T.a START TIME (PDT) : 1125 DURATION (min): 30

BOTTOM DEPTH (m): Start: 143 End: 145 Est. av. Depth: 144

DIRECTION OF SET °true: 120 SPEED kn: 3.6 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: flood

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: 2 OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Moderate to heavy spotting 110 m to bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 7 SET/HAUL NO. 4

LOCATION: Chrome Is. AREA: Strait of Georgia

START: Lat. 49° 26.2' N Long. 124° 37.7' W

END: Lat. 49° 27.4' N Long. 124° 40.0' W

GEAR: F.B.T.a START TIME (PDT) : 1405 DURATION (min): 50

BOTTOM DEPTH (m): Start: 59 End: 49 Est. av. Depth: 55

DIRECTION OF SET °true: 310 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: slack

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Moderate spotting throughout water column.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 7 SET/HAUL NO. 5

LOCATION: Chrome Is. AREA: Strait of Georgia

START: Lat. 49° 26.8' N Long. 124° 38.8' W

END: Lat. 49° 26.2' N Long. 124° 37.2' W

GEAR: F.B.T.a START TIME (PDT) : 1530 DURATION (min): 30

BOTTOM DEPTH (m): Start: 57 End: 60 Est. av. Depth: 60

DIRECTION OF SET °true: 110 SPEED kn: 3.4 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: flood

WIND DIRECTION: - WIND SPEED: - RECORDER: K. W.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Occasional spotting 9 - 46 m. Occasional spotting  
on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 7 SET/HAUL NO. 6

LOCATION: Chrome Is. AREA: Strait of Georgia

START: Lat. 49° 26.4' N Long. 124° 37.6' W

END: Lat. 49° 27.2' N Long. 124° 39.2' W

GEAR: F.B.T.a START TIME (PDT) : 1848 DURATION (min): 15

BOTTOM DEPTH (m): Start: 59 End: 57 Est. av. Depth: 58

DIRECTION OF SET °true: 300 SPEED kn: 4.2 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: ebb

WIND DIRECTION: - WIND SPEED: - RECORDER: K. W.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Occasional spots 46 - 55 m. Nothing showing on bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 7 SET/HAUL NO. 7  
LOCATION: Chrome Is. AREA: Straight of Georgia  
START: Lat. 49° 27.0' N Long. 124° 39.0' W  
END: Lat. 49° 26.0' N Long. 124° 27.7' W  
GEAR: F.B.T.∞ START TIME (PDT) : 2000 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 50 End: 64 Est. av. Depth: 60  
DIRECTION OF SET °true: 130 SPEED kn: 3.6 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: flood  
WIND DIRECTION: - WIND SPEED: - RECORDER: K. W.  
TTM: - TDM: - BT: 3 OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Occasional spotting on bottom.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 8 SET/HAUL NO. 8  
LOCATION: Chrome Is. AREA: Straight of Georgia  
START: Lat. 49° 26.2' N Long. 124° 38.1' W  
END: Lat. 49° 26.7' N Long. 124° 38.9' W  
GEAR: F.B.T.∞ START TIME (PDT) : 0755 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 40 End: 37 Est. av. Depth: 39  
DIRECTION OF SET °true: 310-315 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: ebb  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: 4 OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Light sporadic spotting throughout water column.

Appendix 1. Table 2 (cont'd)

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>			DATE: 78 7 8 SET/HAUL NO. 9
LOCATION:	<u>Chrome Is.</u>			AREA: <u>Strait of Georgia</u>
START:	Lat.	<u>49° 26.8' N</u>		Long. <u>124° 38.6' W</u>
END:	Lat.	<u>49° 26.4' N</u>		Long. <u>124° 37.3' W</u>
GEAR:	<u>F.B.T.a</u>	START TIME	(PDT) : <u>0920</u>	DURATION (min): <u>15</u>
BOTTOM DEPTH (m):	Start:	<u>55</u>	End: <u>57</u>	Est. av. Depth: <u>56</u>
DIRECTION OF SET °true:	<u>130</u>	SPEED kn:	<u>3.5</u>	DISTANCE TRAVELED mi. <u>-</u>
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>calm</u>	TIDE: <u>ebb</u>
WIND DIRECTION:	<u>-</u>	WIND SPEED:	<u>-</u>	RECORDER: <u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT: <u>-</u> OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY:	<u>Light scatter 0 - 10 m. Light sporadic spotting</u>			
	<u>below 37 m.</u>			

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>			DATE: 78 7 8 SET/HAUL NO. 10
LOCATION:	<u>Chrome Is.</u>			AREA: <u>Strait of Georgia</u>
START:	Lat.	<u>49° 26.2' N</u>		Long. <u>124° 37.8' W</u>
END:	Lat.	<u>49° 26.9' N</u>		Long. <u>124° 38.6' W</u>
GEAR:	<u>F.B.T.a</u>	START TIME	(PDT) : <u>1055</u>	DURATION (min): <u>15</u>
BOTTOM DEPTH (m):	Start:	<u>55</u>	End: <u>55</u>	Est. av. Depth: <u>55</u>
DIRECTION OF SET °true:	<u>310</u>	SPEED kn:	<u>4.2</u>	DISTANCE TRAVELED mi. <u>-</u>
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>ripple</u>	TIDE: <u>ebb</u>
WIND DIRECTION:	<u>east</u>	WIND SPEED:	<u>5</u>	RECORDER: <u>K. W.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT: <u>-</u> OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY:	<u>Occasional spotting on bottom.</u>			

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 8 SET/HAUL NO. 11  
LOCATION: Baynes Sd. AREA: Strait of Georgia  
START: Lat. 49° 30.2' N Long. 124° 46.9' W  
END: Lat. 49° 29.4' N Long. 124° 46.0' W  
GEAR: F.B.T.∞ START TIME (PDT) : 1300 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 55 End: 53 Est. av. Depth: 54  
DIRECTION OF SET °true: 140 SPEED kn: 3.8 DISTANCE TRAVELED mi. 1.2  
SET ON: Pre-selected WATER CONDITION: ripple TIDE: ebb  
WIND DIRECTION: east WIND SPEED: 5 RECORDER: K. W.  
TTM: - TDM: - BT: 5 OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Moderate spotting 27 m - bottom.  
Occasional spotting 9 - 18 m.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 8 SET/HAUL NO. 12  
LOCATION: Comox Bay AREA: Strait of Georgia  
START: Lat. 49° 37.7' N Long. 124° 49.0' W  
END: Lat. 49° 38.6' N Long. 124° 48.0' W  
GEAR: F.B.T.∞ START TIME (PDT) : 1512 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 64 End: 62 Est. av. Depth: 63  
DIRECTION OF SET °true: 330 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: - TIDE: flood  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: 6 OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Light scatter 0-10 m. Light sporadic spotting throughout  
water column.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 8 SET/HAUL NO. 13  
LOCATION: Cape Lazo AREA: Strait of Georgia  
START: Lat. 49° 46.8' N Long. 124° 55.9' W  
END: Lat. 49° 46.4' N Long. 124° 55.3' W  
GEAR: F.B.T.∞ START TIME (PDT) : 1743 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 64 End: 68 Est. av. Depth: 66  
DIRECTION OF SET °true: - SPEED kn: 4.0 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: Slight chop TIDE: flood  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Light scatter 0 - 10 m. Light sporadic spotting  
throughout water column.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 8 SET/HAUL NO. 14  
LOCATION: Mittlenatch Is. AREA: Strait of Georgia  
START: Lat. 49° 52.0' N Long. 125° 02.3' W  
END: Lat. 49° 52.7' N Long. 125° 03.0' W  
GEAR: F.B.T.∞ START TIME (PDT) : 1917 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 124 End: 124 Est. av. Depth: 124  
DIRECTION OF SET °true: - SPEED kn: 3.6 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: chop TIDE: ebb  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: 7 OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Dense spotting 91 m to bottom.  
Light scatter 0 - 10 m.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 9 SET/HAUL NO. 15

LOCATION: W. Malcolm Is. AREA: Queen Charlotte Strait

START: Lat. 50° 40.2' N Long. 127° 9.8' W

END: Lat. 50° 40.3' N Long. 127° 10.8' W

GEAR: F.B.T.a START TIME (PDT) : 0750 DURATION (min): 15

BOTTOM DEPTH (m): Start: 46 End: 57 Est. av. Depth: 50

DIRECTION OF SET °true: - SPEED kn: 3.5 DISTANCE TRAVELED mi. 0.9

SET ON: Pre-selected WATER CONDITION: calm TIDE: ebb

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Light spotting just off bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 9 SET/HAUL NO. 16

LOCATION: Malcolm Is. AREA: Queen Charlotte Strait

START: Lat. 50° 37.5' N Long. 126° 51.7' W

END: Lat. 50° 36.8' N Long. 126° 52.9' W

GEAR: F.B.T.a START TIME (PDT) : 1105 DURATION (min): 11

BOTTOM DEPTH (m): Start: 60 End: 71 Est. av. Depth: 60

DIRECTION OF SET °true: 235 SPEED kn: 4.0 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: flood

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Moderate spotting on and just off bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 9 SET/HAUL NO. 17  
LOCATION: W. Malcolm Is. AREA: Queen Charlotte Strait  
START: Lat. 50° 41.1' N Long. 127° 14.8' W  
END: Lat. 50° 40.9' N Long. 127° 15.7' W  
GEAR: F.B.T.a START TIME (PDT) : 1335 DURATION (min): 13  
BOTTOM DEPTH (m): Start: 88 End: 84 Est. av. Depth: 86  
DIRECTION OF SET °true: 280 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: 8 OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Moderate spotting 73 m to bottom.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 9 SET/HAUL NO. 18  
LOCATION: W. Malcolm Is. AREA: Queen Charlotte Strait  
START: Lat. 50° 41.4' N Long. 127° 17.8' W  
END: Lat. 50° 41.9' N Long. 127° 17.2' W  
GEAR: F.B.T.a START TIME (PDT) : 1510 DURATION (min): 13  
BOTTOM DEPTH (m): Start: 70 End: 57 Est. av. Depth: 60  
DIRECTION OF SET °true: 120 SPEED kn: 3.8 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: chop TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Light spotting 10 m.  
Very sporadic dense spotting on bottom.

Appendix I. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 10 SET/HAUL NO. 19

LOCATION: W. Malcolm Is. AREA: Queen Charlotte Strait

START: Lat. 50° 42.7' N Long. 127° 17.5' W

END: Lat. 50° 42.9' N Long. 127° 18.0' W

GEAR: F.B.T.a START TIME (PDT) : 1600 DURATION (min): 5

BOTTOM DEPTH (m): Start: 139 End: 139 Est. av. Depth: 139

DIRECTION OF SET °true: 300 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: chop TIDE: flood

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: -

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 10 SET/HAUL NO. 20

LOCATION: Mexicana Pt. AREA: Queen Charlotte Sound

START: Lat. 51° 02.5' N Long. 128° 06.0' W

END: Lat. 51° 01.0' N Long. 128° 08.0' W

GEAR: F.B.T.a START TIME (PDT) : 0810 DURATION (min): 15

BOTTOM DEPTH (m): Start: 77 End: 57 Est. av. Depth: 65

DIRECTION OF SET °true: 190 SPEED kn: 3.1 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: slight swell TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: -

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 10 SET/HAUL NO. 21  
LOCATION: Mexicana Pt. AREA: Queen Charlotte Sound  
START: Lat. 51° 03.5' N Long. 128° 35.3' W  
END: Lat. 51° 05.5' N Long. 128° 37.8' W  
GEAR: F.B.T.a START TIME (PDT) : 1035 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 95 End: 91 Est. av. Depth: 91  
DIRECTION OF SET °true: 320 SPEED kn: 3.0 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: swell TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: 10 OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Light sporadic spotting 82 m.  
Some spotting on bottom near end of tow.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 10 SET/HAUL NO. 22  
LOCATION: Mexicana Pt. AREA: Queen Charlotte Sound  
START: Lat. 51° 07.8' N Long. 128° 39.1' W  
END: Lat. 51° 06.7' N Long. 128° 35.6' W  
GEAR: F.B.T.a START TIME (PDT) : 1250 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 119 End: 119 Est. av. Depth: 119  
DIRECTION OF SET °true: 130 SPEED kn: 3.8 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: swell TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very little showing.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 10 SET/HAUL NO. 23  
LOCATION: Mexicana Pt. AREA: Queen Charlotte Sound  
START: Lat. 51° 1.0' N Long. 128° 15.0' W  
END: Lat. 51° 1.9' N Long. 128° 14.0' W  
GEAR: F.B.T.a START TIME (PDT) : 1550 DURATION (min): 25  
BOTTOM DEPTH (m): Start: 101 End: 88 Est. av. Depth: 95  
DIRECTION OF SET °true: 130 SPEED kn: 3.9 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: flood  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Moderate spotting on bottom and 82 - 91 m.  
Moderate spotting 46 - 64 m.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 11 SET/HAUL NO. 24  
LOCATION: Cape Scott AREA: West coast Vancouver Island  
START: Lat. 50° 46.7' N Long. 128° 41.3' W  
END: Lat. 50° 45.9' N Long. 128° 39.7' W  
GEAR: F.B.T.a START TIME (PDT) : 0925 DURATION (min): 20  
BOTTOM DEPTH (m): Start: 75 End: 83 Est. av. Depth: 79  
DIRECTION OF SET °true: 145 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Light sporadic spotting 40 - 46 m; nothing on bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 11 SET/HAUL NO. 25  
LOCATION: Cape Scott AREA: West coast Vancouver Island  
START: Lat. 50° 44.6' N Long. 128° 35.8' W  
END: Lat. 50° 43.8' N Long. 128° 37.0' W  
GEAR: Engel trawl START TIME (PDT) : 1035 DURATION (min): 20  
BOTTOM DEPTH (m): Start: 91 End: 82 Est. av. Depth: 90  
DIRECTION OF SET °true: 280 SPEED kn: 2.6 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: ebb  
WIND DIRECTION: - WIND SPEED: - RECORDER: K. W.  
TTM: - TDM: - BT: 11 OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Light scattering 27 - 64 m .

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 11 SET/HAUL NO. 26  
LOCATION: Cape Palmerston AREA: West coast Vancouver Island  
START: Lat. 50° 35.2' N Long. 128° 23.2' W  
END: Lat. 50° 36.3' N Long. 128° 24.6' W  
GEAR: F.B.T.a START TIME (PDT) : 1455 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 91 End: 91 Est. av. Depth: 91  
DIRECTION OF SET °true: 325 SPEED kn: 3.6 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Heavy sporadic spotting at about 82 m.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 11 SET/HAUL NO. 27

LOCATION: Brooks Bay AREA: West coast Vancouver Island

START: Lat. 50° 16.9' N Long. 127° 55.7' W

END: Lat. 50° 17.1' N Long. 127° 58.0' W

GEAR: F.B.T.a START TIME (PDT) : 1900 DURATION (min): 30

BOTTOM DEPTH (m): Start: 42 End: 57 Est. av. Depth: 47

DIRECTION OF SET °true: 270 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: ebb

WIND DIRECTION: - WIND SPEED: 12 RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Some moderate spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 12 SET/HAUL NO. 28

LOCATION: Chelleset Bay AREA: West coast Vancouver Island

START: Lat. 50° 04.8' N Long. 127° 44.0' W

END: Lat. 50° 03.3' N Long. 127° 46.1' W

GEAR: F.B.T.a START TIME (PDT) : - DURATION (min): 30

BOTTOM DEPTH (m): Start: 51 End: 44 Est. av. Depth: 48

DIRECTION OF SET °true: 215 SPEED kn: 3.2 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: 13 OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Very light spotting on bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 12 SET/HAUL NO. 29  
LOCATION: Lookout Is. AREA: West coast Vancouver Island  
START: Lat. 50° 00.2' N Long. 127° 32.8' W  
END: Lat. 50° 01.4' N Long. 127° 31.1' W  
GEAR: F.B.T.a START TIME (PDT) : 1050 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 53 End: 42 Est. av. Depth: 48  
DIRECTION OF SET °true: 140 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: ebb  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: 14 OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: sporadic light scatter on and just off bottom.  
Very light spotting throughout.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 12 SET/HAUL NO. 30  
LOCATION: Kyuquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 56.1' N Long. 127° 23.7' W  
END: Lat. 49° 55.4' N Long. 127° 21.7' W  
GEAR: F.B.T.a START TIME (PDT) : 1230 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 60 End: 57 Est. av. Depth: 58  
DIRECTION OF SET °true: 120 SPEED kn: 3.4 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: 15 OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Light spotting throughout water column.  
Very light spotting on bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 12 SET/HAUL NO. 31  
LOCATION: Esperanza In. AREA: West coast Vancouver Island  
START: Lat. 49° 44.4' N Long. 127° 01.6' W  
END: Lat. 49° 43.4' N Long. 127° 00.0' W  
GEAR: F.B.T.a START TIME (PDT) : 1530 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 53 End: 53 Est. av. Depth: 53  
DIRECTION OF SET °true: 145 SPEED kn: 3.4 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: 16 OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Heavy spotting on bottom.  
Moderate spotting throughout water column.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 12 SET/HAUL NO. 32  
LOCATION: Nootka Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 32.2' N Long. 126° 42.7' W  
END: Lat. 49° 32.7' N Long. 126° 41.6' W  
GEAR: F.B.T.a START TIME (PDT) : 1800 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 46 End: 48 Est. av. Depth: 47  
DIRECTION OF SET °true: 130 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: high slack  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: 17 OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Some heavy spotting on and just off bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 13 SET/HAUL NO. 33  
LOCATION: Estevan Pt. AREA: West coast Vancouver Island  
START: Lat. 49° 23.7' N Long. 126° 45.2' W  
END: Lat. 49° 22.8' N Long. 126° 44.5' W  
GEAR: F.B.T.a START TIME (PDT) : 1230 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 82 End: 79 Est. av. Depth: 81  
DIRECTION OF SET °true: 160 SPEED kn: 3.6 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: - TIDE: low slack  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: 18 OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Moderate spotting 55 m to bottom.  
Some scatter and spotting 0 - 10 m.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 13 SET/HAUL NO. 34  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 04.6' N Long. 126° 40.3' W  
END: Lat. 49° 03.3' N Long. 126° 39.5' W  
GEAR: F.B.T.a START TIME (PDT) : 1530 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 143 End: 145 Est. av. Depth: 144  
DIRECTION OF SET °true: 140 SPEED kn: 3.4 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Light sporadic spotting on bottom.

Appendix 1. Table 2 (cont'd)

	Yr	Mo.	Day				
VESSEL:	<u>ARCTIC HARVESTER</u>	DATE:	<u>78</u>	<u>7</u>	<u>13</u>	SET/HAUL NO.	<u>35</u>
LOCATION:	<u>Clayoquot Sd.</u>			AREA:	<u>West coast Vancouver Island</u>		
START:	Lat.	<u>49° 01.8' N</u>		Long.	<u>126° 42.8' W</u>		
END:	Lat.	<u>49° 03.8' N</u>		Long.	<u>126° 43.0' W</u>		
GEAR:	<u>F.B.T.a</u>	START TIME	(PDT)	<u>:1735</u>	DURATION (min):	<u>30</u>	
BOTTOM DEPTH (m):	Start:	<u>165</u>	End:	<u>161</u>	Est. av. Depth:	<u>163</u>	
DIRECTION OF SET °true:	<u>380</u>		SPEED kn:	<u>3.8</u>	DISTANCE TRAVELED mi.	<u>-</u>	
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>swell</u>		TIDE:	<u>flood</u>	
WIND DIRECTION:	<u>west</u>		WIND SPEED:	<u>-</u>		RECORDER:	<u>K. W.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT:	<u>-</u>	OTHER OCEANOGRAPHIC DATA:	<u>-</u>
SOUNDER SUMMARY:	<u>Very light occasional spotting on bottom.</u>						

	Yr	Mo.	Day				
VESSEL:	<u>ARCTIC HARVESTER</u>	DATE:	<u>78</u>	<u>7</u>	<u>13</u>	SET/HAUL NO.	<u>36</u>
LOCATION:	<u>Clayoquot Sd.</u>			AREA:	<u>West coast Vancouver Island</u>		
START:	Lat.	<u>49° 03.6' N</u>		Long.	<u>126° 42.3' W</u>		
END:	Lat.	<u>49° 02.2' N</u>		Long.	<u>126° 39.2' W</u>		
GEAR:	<u>F.B.T.a</u>	START TIME	(PDT)	<u>:1840</u>	DURATION (min):	<u>30</u>	
BOTTOM DEPTH (m):	Start:	<u>155</u>	End:	<u>155</u>	Est. av. Depth:	<u>155</u>	
DIRECTION OF SET °true:	<u>150</u>		SPEED kn:	<u>3.2</u>	DISTANCE TRAVELED mi.	<u>-</u>	
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>calm</u>		TIDE:	<u>-</u>	
WIND DIRECTION:	<u>-</u>		WIND SPEED:	<u>-</u>		RECORDER:	<u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT:	<u>-</u>	OTHER OCEANOGRAPHIC DATA:	<u>-</u>
SOUNDER SUMMARY:	<u>Light to moderate occasional spotting on bottom.</u>						

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 14 SET/HAUL NO. 37  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 03.5' N Long. 126° 40.0' W  
END: Lat. 49° 04.5' N Long. 126° 41.2' W  
GEAR: F.B.T.∞ START TIME (PDT) : 0750 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 144 End: 144 Est. av. Depth: -  
DIRECTION OF SET °true: 325 SPEED kn: 3.8 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: high slack  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: -

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 14 SET/HAUL NO. 38  
LOCATION: Off Tofino AREA: West coast Vancouver Island  
START: Lat. 49° 04.0' N Long. 126° 40.6' W  
END: Lat. 49° 03.1' N Long. 126° 37.8' W  
GEAR: F.B.T.∞ START TIME (PDT) : 0850 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 145 End: 145 Est. av. Depth: 145  
DIRECTION OF SET °true: 120 SPEED kn: 3.6 DISTANCE TRAVELED mi. 1.8  
SET ON: Pre-selected WATER CONDITION: light swell TIDE: flood  
WIND DIRECTION: west WIND SPEED: - RECORDER: K. W.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Moderate spotting 46 - 64 m;  
Occasional spotting on bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 14 SET/HAUL NO. 39  
LOCATION: Off Tofino AREA: West coast Vancouver Island  
START: Lat. 49° 3.0' N Long. 126° 37.8' W  
END: Lat. 49° 4.0' N Long. 126° 40.2' W  
GEAR: F.B.T.a START TIME (PDT) : 1000 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 145 End: 145 Est. av. Depth: 145  
DIRECTION OF SET °true: 330 SPEED kn: 3.6 DISTANCE TRAVELED mi. 1.8  
SET ON: Pre-selected WATER CONDITION: slight swell TIDE: flood  
WIND DIRECTION: west WIND SPEED: - RECORDER: K. W.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Continuous spotting on bottom.  
Moderate spotting 55 m - bottom .

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 14 SET/HAUL NO. 40  
LOCATION: Off Tofino AREA: West coast Vancouver Island  
START: Lat. 49° 3.6' N Long. 126° 40.0' W  
END: Lat. 49° 2.8' N Long. 126° 38.2' W  
GEAR: F.B.T.a START TIME (PDT) : 1100 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 145 End: 146 Est. av. Depth: 145  
DIRECTION OF SET °true: 120 SPEED kn: 2.8 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: slight swell TIDE: flood  
WIND DIRECTION: west WIND SPEED: - RECORDER: K. W.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Moderate continuous spotting on bottom.  
Moderate occasional spotting 55 m.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 14 SET/HAUL NO. 41  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 9.6' N Long. 126° 23.4' W  
END: Lat. 49° 8.6' N Long. 126° 21.8' W  
GEAR: F.B.T.∞ START TIME (PDT) : 1310 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 91 End: 90 Est. av. Depth: 91  
DIRECTION OF SET °true: 120 SPEED kn: 3.9 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: slight swell TIDE: flood  
WIND DIRECTION: west WIND SPEED: - RECORDER: K. W.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Moderate spotting 64 m to bottom.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 14 SET/HAUL NO. 42  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 9.6' N Long. 126° 21.8' W  
END: Lat. 49° 10.4' N Long. 126° 23.8' W  
GEAR: F.B.T.∞ START TIME (PDT) : 1415 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 91 End: 91 Est. av. Depth: 91  
DIRECTION OF SET °true: 320 SPEED kn: 3.4 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: Light swell TIDE: flood  
WIND DIRECTION: west WIND SPEED: - RECORDER: K. W.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Moderate continuous spotting 64 - 82 m.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 14 SET/HAUL NO. 43  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 10.4' N Long. 126° 3.6' W  
END: Lat. 49° 9.1' N Long. 126° 22.8' W  
GEAR: F.B.T.a START TIME (PDT) : 1515 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 90 End: 90 Est. av. Depth: 90  
DIRECTION OF SET °true: 125 SPEED kn: 3.7 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: swell TIDE: flood  
WIND DIRECTION: west WIND SPEED: - RECORDER: K. W.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Moderate continuous spotting 64 m to bottom.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 14 SET/HAUL NO. 44  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 9.2' N Long. 126° 23.0' W  
END: Lat. 49° 10.6' N Long. 126° 25.0' W  
GEAR: F.B.T.a START TIME (PDT) : 1730 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 91 End: 91 Est. av. Depth: 91  
DIRECTION OF SET °true: 320 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: light swell TIDE: flood  
WIND DIRECTION: west WIND SPEED: - RECORDER: K. W.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Light scattering 0 - 18 m .  
Moderate continuous spotting 55 m - bottom .

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 14 SET/HAUL NO. 45  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 10.4' N Long. 126° 24.6' W  
END: Lat. 49° 9.1' N Long. 126° 22.8' W  
GEAR: F.B.T.a START TIME (PDT) : 1830 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 91 End: 91 Est. av. Depth: 91  
DIRECTION OF SET °true: 130 SPEED kn: 3.8 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: light swell TIDE: flood  
WIND DIRECTION: west WIND SPEED: - RECORDER: K. W.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Moderate spotting 55 m to bottom.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 14 SET/HAUL NO. 46  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 9.1' N Long. 126° 22.0' W  
END: Lat. 49° 10.6' N Long. 126° 20.5' W  
GEAR: F.B.T.a START TIME (PDT) : 1930 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 93 End: 93 Est. av. Depth: 93  
DIRECTION OF SET °true: 315 SPEED kn: 3.1 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: light swell TIDE: flood  
WIND DIRECTION: west WIND SPEED: - RECORDER: K. W.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Moderate spotting 46 m to bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 15 SET/HAUL NO. 47

LOCATION: Lennard Is. AREA: West coast Vancouver Island

START: Lat. 49° 1.4' N Long. 126° 10.1' W

END: Lat. 49° 2.8' N Long. 126° 11.7' W

GEAR: F.B.T.∞ START TIME (PDT) : 0930 DURATION (min): 30

BOTTOM DEPTH (m): Start: 73 End: 71 Est. av. Depth: 73

DIRECTION OF SET °true: 320 SPEED kn: 3.2 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: swell TIDE: high slack

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Moderate light occasional spotting at 18 m and 62 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 15 SET/HAUL NO. 48

LOCATION: Lennard Is. AREA: West coast Vancouver Island

START: Lat. 49° 2.5' N Long. 126° 13.0' W

END: Lat. 49° 1.2' N Long. 126° 11.6' W

GEAR: F.B.T.∞ START TIME (PDT) : 1035 DURATION (min): 30

BOTTOM DEPTH (m): Start: 81 End: 79 Est. av. Depth: 80

DIRECTION OF SET °true: 130 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Light to moderate spotting 64 m to just off bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 15 SET/HAUL NO. 49

LOCATION: Lennard Is. AREA: West coast Vancouver Island

START: Lat. 49° 00.6' N Long. 126° 13.2' W

END: Lat. 49° 01.6' N Long. 126° 14.2' W

GEAR: F.B.T.a START TIME (PDT) : 1225 DURATION (min): 30

BOTTOM DEPTH (m): Start: 91 End: 90 Est. av. Depth: 91

DIRECTION OF SET °true: 330 SPEED kn: 3.5 DISTANCE TRAVELED mi. 1.2

SET ON: Pre-selected WATER CONDITION: swell TIDE: ebb

WIND DIRECTION: west WIND SPEED: - RECORDER: K. W.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Continuous spotting 73 m to bottom; occasional spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 15 SET/HAUL NO. 50

LOCATION: Lennard Is. AREA: West coast Vancouver Island

START: Lat. 49° 01.2' N Long. 126° 13.6' W

END: Lat. 48° 59.6' N Long. 126° 11.8' W

GEAR: F.B.T.a START TIME (PDT) : 1325 DURATION (min): 30

BOTTOM DEPTH (m): Start: 90 End: 91 Est. av. Depth: 90

DIRECTION OF SET °true: 130 SPEED kn: 4.5 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: swell TIDE: low slack

WIND DIRECTION: west WIND SPEED: - RECORDER: K. W.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Light continuous spotting 43 m to bottom

Appendix 1. Table 2 (cont'd)

	Yr	Mo.	Day				
VESSEL:	<u>ARCTIC HARVESTER</u>	DATE:	<u>78</u>	<u>7</u>	<u>15</u>	SET/HAUL NO.	<u>51</u>
LOCATION:	<u>Lennard Is.</u>			AREA:	<u>West coast Vancouver Island</u>		
START:	Lat.	<u>49° 00.0' N</u>		Long.	<u>126° 12.6' W</u>		
END:	Lat.	<u>49° 01.2' N</u>		Long.	<u>126° 14.0' W</u>		
GEAR:	<u>F.B.T.∞</u>	START TIME	(PDT)	: <u>1430</u>	DURATION (min):	<u>30</u>	
BOTTOM DEPTH (m):	Start:	<u>91</u>	End:	<u>93</u>	Est. av. Depth:	<u>92</u>	
DIRECTION OF SET °true:	<u>320</u>		SPEED kn:	<u>3.2</u>	DISTANCE TRAVELED mi.	<u>-</u>	
SET ON:	<u>Pre-selected</u>		WATER CONDITION:	<u>swell</u>		TIDE:	<u>flood</u>
WIND DIRECTION:	<u>west</u>		WIND SPEED:	<u>-</u>		RECORDER:	<u>K. W.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT:	<u>-</u>	OTHER OCEANOGRAPHIC DATA:	<u>-</u>
SOUNDER SUMMARY:	<u>Moderate continuous spotting on bottom.</u>						

	Yr	Mo.	Day				
VESSEL:	<u>ARCTIC HARVESTER</u>	DATE:	<u>78</u>	<u>7</u>	<u>15</u>	SET/HAUL NO.	<u>52</u>
LOCATION:	<u>Lennard Is.</u>			AREA:	<u>West coast Vancouver Island</u>		
START:	Lat.	<u>49° 00.9' N</u>		Long.	<u>126° 13.4' W</u>		
END:	Lat.	<u>48° 59.2' N</u>		Long.	<u>126° 11.8' W</u>		
GEAR:	<u>F.B.T.∞</u>	START TIME	(PDT)	: <u>1530</u>	DURATION (min):	<u>30</u>	
BOTTOM DEPTH (m):	Start:	<u>93</u>	End:	<u>93</u>	Est. av. Depth:	<u>93</u>	
DIRECTION OF SET °true:	<u>140</u>		SPEED kn:	<u>3.6</u>	DISTANCE TRAVELED mi.	<u>-</u>	
SET ON:	<u>Pre-selected</u>		WATER CONDITION:	<u>swell</u>		TIDE:	<u>flood</u>
WIND DIRECTION:	<u>west</u>		WIND SPEED:	<u>-</u>		RECORDER:	<u>K. W.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT:	<u>-</u>	OTHER OCEANOGRAPHIC DATA:	<u>-</u>
SOUNDER SUMMARY:	<u>Moderate continuous spotting 73 m to bottom.</u>						
	<u>Occasional heavy spotting on bottom.</u>						

Appendix 1. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 15 SET/HAUL NO. 53

LOCATION: Lennard Is. AREA: West coast Vancouver Island

START: Lat. 48° 59.8' N Long. 126° 12.8' W

END: Lat. 49° 01.4' N Long. 126° 13.8' W

GEAR: F.B.T.a START TIME (PDT) : 1800 DURATION (min): 30

BOTTOM DEPTH (m): Start: 91 End: 93 Est. av. Depth: 92

DIRECTION OF SET °true: 170 SPEED kn: 3.2 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: swell TIDE: flood

WIND DIRECTION: west WIND SPEED: - RECORDER: K. W.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Moderate continuous spotting 64 m to bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 16 SET/HAUL NO. 54

LOCATION: Firing Range AREA: West coast Vancouver Island

START: Lat. 48° 53.4' N Long. 125° 46.5' W

END: Lat. 48° 54.8' N Long. 125° 46.8' W

GEAR: F.B.T.a START TIME (PDT) : 0850 DURATION (min): 30

BOTTOM DEPTH (m): Start: 90 End: 101 Est. av. Depth: 100

DIRECTION OF SET °true: 0 SPEED kn: 2.4 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: slight swell TIDE: flood

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Moderate spotting 82 m to just off bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 16 SET/HAUL NO. 55  
  
LOCATION: Firing Range AREA: West coast Vancouver Island  
  
START: Lat. 48° 55.1' N Long. 125° 47.0' W  
  
END: Lat. 48° 53.6' N Long. 125° 46.3' W  
  
GEAR: F.B.T.∞ START TIME (PDT) : 1005 DURATION (min): 30  
  
BOTTOM DEPTH (m): Start: 95 End: 97 Est. av. Depth: 96  
  
DIRECTION OF SET °true: 150 SPEED kn: 3.7 DISTANCE TRAVELED mi. -  
  
SET ON: Pre-selected WATER CONDITION: calm TIDE: flood  
  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
  
SOUNDER SUMMARY: Dense spotting at about 64 m.  
  
Moderate spotting 64 m to just off bottom.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 16 SET/HAUL NO. 56  
  
LOCATION: Firing Range AREA: West coast Vancouver Island  
  
START: Lat. 48° 52.7' N Long. 125° 46.1' W  
  
END: Lat. 48° 54.2' N Long. 125° 42.8' W  
  
GEAR: F.B.T.∞ START TIME (PDT) : 1100 DURATION (min): 30  
  
BOTTOM DEPTH (m): Start: 91 End: 97 Est. av. Depth: 94  
  
DIRECTION OF SET °true: 40 SPEED kn: 3.5 DISTANCE TRAVELED mi. -  
  
SET ON: Pre-selected WATER CONDITION: calm TIDE: ebb  
  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
  
SOUNDER SUMMARY: Light spotting 64 m to just off bottom at start of tow,  
  
becoming very light midway to end of tow.

Appendix I. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 16 SET/HAUL NO. 57  
  
LOCATION: Firing Range AREA: West coast Vancouver Island  
  
START: Lat. 48° 54.2' N Long. 125° 36.2' W  
  
END: Lat. 48° 53.1' N Long. 125° 34.4' W  
  
GEAR: F.B.T.a START TIME (PDT) : 1240 DURATION (min): 30  
  
BOTTOM DEPTH (m): Start: 86 End: 75 Est. av. Depth: 81  
  
DIRECTION OF SET °true: 125 SPEED kn: 3.6 DISTANCE TRAVELED mi. -  
  
SET ON: Pre-selected WATER CONDITION: calm TIDE: ebb  
  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
  
SOUNDER SUMMARY: Moderate spotting 73 m.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 16 SET/HAUL NO. 58  
  
LOCATION: S. W. Corner AREA: West coast Vancouver Island  
  
START: Lat. 48° 45.0' N Long. 125° 47.2' W  
  
END: Lat. 48° 45.0' N Long. 125° 49.6' W  
  
GEAR: F.B.T.a START TIME (PDT) : 1500 DURATION (min): 30  
  
BOTTOM DEPTH (m): Start: 90 End: 101 Est. av. Depth: 96  
  
DIRECTION OF SET °true: 200 SPEED kn: 3.2 DISTANCE TRAVELED mi. -  
  
SET ON: Pre-selected WATER CONDITION: swell TIDE: low slack  
  
WIND DIRECTION: west WIND SPEED: - RECORDER: K. W.  
  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
  
SOUNDER SUMMARY: Continuous heavy spotting 46 - 64 m.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 16 SET/HAUL NO. 59

LOCATION: S. W. Corner AREA: West coast Vancouver Island

START: Lat. 48° 45.0' N Long. 125° 47.2' W

END: Lat. 48° 45.2' N Long. 125° 46.6' W

GEAR: F.B.T.a START TIME (PDT) : 1815 DURATION (min): 15

BOTTOM DEPTH (m): Start: 90 End: 81 Est. av. Depth: 85

DIRECTION OF SET °true: 60 SPEED kn: 4.1 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: swell TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Dense spotting 91 m to just off bottom,  
touching bottom near end of tow.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 17 SET/HAUL NO. 60

LOCATION: S. W. Corner AREA: West coast Vancouver Island

START: Lat. 48° 45.2' N Long. 125° 46.5' W

END: Lat. 48° 44.9' N Long. 125° 48.5' W

GEAR: F.B.T.a START TIME (PDT) : 0800 DURATION (min): 15

BOTTOM DEPTH (m): Start: 91 End: 91 Est. av. Depth: 91

DIRECTION OF SET °true: 220 SPEED kn: 3.9 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Dense spotting 70 - 88 m.  
Moderate spotting on bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 17 SET/HAUL NO. 61  
LOCATION: S. W. Corner AREA: West coast Vancouver Island  
START: Lat. 48° 45.0' N Long. 125° 46.6' W  
END: Lat. 48° 45.6' N Long. 125° 45.4' W  
GEAR: F.B.T.a START TIME (PDT) : 0930 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 91 End: 91 Est. av. Depth: 91  
DIRECTION OF SET °true: 080 SPEED kn: 4.0 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: swell TIDE: flood  
WIND DIRECTION: west WIND SPEED: - RECORDER: K. W.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Moderate continuous scattering layer 64 m to bottom.  
Some spotting on bottom.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 17 SET/HAUL NO. 62  
LOCATION: S. W. Corner AREA: West coast Vancouver Island  
START: Lat. 48° 45.0' N Long. 125° 46.7' W  
END: Lat. 48° 44.6' N Long. 125° 48.2' W  
GEAR: F.B.T.a START TIME (PDT) : 1015 DURATION (min): 20  
BOTTOM DEPTH (m): Start: 93 End: 93 Est. av. Depth: 93  
DIRECTION OF SET °true: 250 SPEED kn: 3.9 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: swell TIDE: flood  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Dense spotting 64 - 82 m.  
Very little showing on bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 17 SET/HAUL NO. 63

LOCATION: S. W. Corner. AREA: West coast Vancouver Island

START: Lat. 48° 44.8' N Long. 125° 47.4' W

END: Lat. 48° 45.0' N Long. 125° 49.0' W

GEAR: F.B.T.a START TIME (PDT) : 1350 DURATION (min): 15

BOTTOM DEPTH (m): Start: 95 End: 95 Est. av. Depth: 95

DIRECTION OF SET °true: 70 SPEED kn: 3.4 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Dense spotting between 55 - 85 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 17 SET/HAUL NO. 64

LOCATION: S. W. Corner AREA: West coast Vancouver Island

START: Lat. 48° 44.9' N Long. 125° 46.3' W

END: Lat. 48° 45.0' N Long. 125° 49.0' W

GEAR: F.B.T.a START TIME (PDT) : 1430 DURATION (min): 15

BOTTOM DEPTH (m): Start: 91 End: 91 Est. av. Depth: 91

DIRECTION OF SET °true: 230 SPEED kn: 3.4 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Dense spotting 46 - 73 m.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 17 SET/HAUL NO. 65

LOCATION: S. W. Corner AREA: West coast Vancouver Island

START: Lat. 48° 44.6' N Long. 125° 48.1' W

END: Lat. 48° 44.7' N Long. 125° 44.7' W

GEAR: F.B.T.a START TIME (PDT) : 1530 DURATION (min): 15

BOTTOM DEPTH (m): Start: 101 End: 101 Est. av. Depth: 101

DIRECTION OF SET °true: - SPEED kn: 3.0 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Dense spotting 46 m.  
Moderate spotting 55 m to bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 17 SET/HAUL NO. 66

LOCATION: S. W. Corner AREA: West coast Vancouver Island

START: Lat. 48° 44.8' N Long. 125° 46.8' W

END: Lat. 48° 45.0' N Long. 125° 49.0' W

GEAR: F.B.T.a START TIME (PDT) : 1620 DURATION (min): 15

BOTTOM DEPTH m: Start: 86 End: 95 Est. av. Depth: 91

DIRECTION OF SET °true: 240 SPEED kn: 3.9 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: chop TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Dense spotting 46 - 73 m.  
Scattered spotting below 73 m to just off bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 18 SET/HAUL NO. 67

LOCATION: Wickaninnish Bay AREA: West coast Vancouver Island

START: Lat. 48° 58.2' N Long. 125° 43.1' W

END: Lat. 48° 58.4' N Long. 125° 42.0' W

GEAR: F.B.T.a START TIME (PDT) : 0900 DURATION (min): 15

BOTTOM DEPTH (m): Start: 49 End: 62 Est. av. Depth: 55

DIRECTION OF SET °true: 130 SPEED kn: 3.5 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: flood

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Dense continuous spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 18 SET/HAUL NO. 68

LOCATION: Lennard Is. AREA: West coast Vancouver Island

START: Lat. 49° 04.5' N Long. 125° 54.4' W

END: Lat. 49° 03.9' N Long. 125° 53.2' W

GEAR: F.B.T.a START TIME (PDT) : 1050 DURATION (min): 15

BOTTOM DEPTH (m): Start: 37 End: 40 Est. av. Depth: 38

DIRECTION OF SET °true: 145 SPEED kn: 4.4 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: swell TIDE: flood

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Nothing showing.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 18 SET/HAUL NO. 69

LOCATION: Sydney In. AREA: West coast Vancouver Island

START: Lat. 49° 16.4' N Long. 126° 21.2' W

END: Lat. 49° 15.8' N Long. 126° 18.9' W

GEAR: F.B.T.a START TIME (PDT) : 1355 DURATION (min): 30

BOTTOM DEPTH (m): Start: 49 End: 49 Est. av. Depth: 49

DIRECTION OF SET °true: 115 SPEED kn: 3.6 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: ebb

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Dense occasional spotting on bottom  
sporadic dense spotting 0-13 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 18 SET/HAUL NO. 70

LOCATION: Sydney In. AREA: West coast Vancouver Island

START: Lat. 49° 20.9' N Long. 126° 21.3' W

END: Lat. 49° 21.0' N Long. 126° 22.1' W

GEAR: F.B.T.a START TIME (PDT) : 1630 DURATION (min): 15

BOTTOM DEPTH (m): Start: 44 End: 40 Est. av. Depth: 40

DIRECTION OF SET °true: 280 SPEED kn: - DISTANCE TRAVELED mi. 40

SET ON: Pre-selected WATER CONDITION: swell TIDE: ebb

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Very little showing.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 18 SET/HAUL NO. 71  
LOCATION: Sydney In. AREA: West coast Vancouver Island  
START: Lat. 40° 18.7' N Long. 126° 16.4' W  
END: Lat. 49° 20.5' N Long. 126° 17.0' W  
GEAR: F.B.T.a START TIME (PDT) : 1800 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 27 End: 27 Est. av. Depth: 27  
DIRECTION OF SET °true: 350 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: swell TIDE: low slack  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very little showing.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 19 SET/HAUL NO. 72  
LOCATION: Sydney In. AREA: West coast Vancouver Island  
START: Lat. 49° 23.7' N Long. 126° 12.2' W  
END: Lat. 49° 28.8' N Long. 126° 12.9' W  
  
BOTTOM DEPTH (m): Start: 64 End: 60 Est. av. Depth: 62  
DIRECTION OF SET °true: 280 SPEED kn: 3.5 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: flood  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Dense spotting on bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 19 SET/HAUL NO. 73  
LOCATION: Sydney In. AREA: West coast Vancouver Island  
START: Lat. 49° 12.4' N Long. 126° 18.5' W  
END: Lat. 49° 12.5' N Long. 126° 19.7' W  
GEAR: F.B.T.a START TIME (PDT) : 1030 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 59 End: 64 Est. av. Depth: 62  
DIRECTION OF SET °true: 290 SPEED kn: 3.5 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: flood  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Occasional dense spotting 0 - 18 m.  
Very little spotting showing on bottom.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 19 SET/HAUL NO. 74  
LOCATION: Cleland Is. AREA: West coast Vancouver Island  
START: Lat. 49° 05.8' N Long. 126° 07.6' W  
END: Lat. 49° 06.2' N Long. 126° 08.6' W  
GEAR: F.B.T.a START TIME (PDT) : 1235 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 55 End: 55 Est. av. Depth: 55  
DIRECTION OF SET °true: 230 SPEED kn: 3.3 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: swell TIDE: slack  
WIND DIRECTION: northwest WIND SPEED: - RECORDER: K. W.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very light showing.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 19 SET/HAUL NO. 75  
LOCATION: Wikaninnish Bay AREA: West coast Vancouver Island  
START: Lat. 49° 01.6' N Long. 125° 45.5' W  
END: Lat. 49° 01.5' N Long. 125° 45.0' W  
GEAR: F.B.T.a START TIME (PDT) : 1515 DURATION (min): 10  
BOTTOM DEPTH (m): Start: 29 End: 27 Est. av. Depth: 28  
DIRECTION OF SET °true: 120 SPEED kn: 3.7 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: swell TIDE: ebb  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Some occasional spotting on bottom.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 19 SET/HAUL NO. 76  
LOCATION: Amphitrite Pt. AREA: West coast Vancouver Island  
START: Lat. 48° 55.2' N Long. 125° 44.1' W  
END: Lat. 48° 55.6' N Long. 125° 40.2' W  
GEAR: F.B.T.a START TIME (PDT) : 1735 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 106 End: 88 Est. av. Depth: 97  
DIRECTION OF SET °true: 80 SPEED kn: 3.5 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: ebb  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very little showing on bottom.  
Some moderate spotting 46 - 64 m.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 21 SET/HAUL NO. 77  
LOCATION: Swanson Ch. AREA: Strait of Georgia  
START: Lat. 48° 44.4' N Long. 123° 18.2' W  
END: Lat. 48° 45.3' N Long. 123° 19.7' W  
GEAR: F.B.T.a START TIME (PDT) : 0800 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 73 End: 64 Est. av. Depth: 68  
DIRECTION OF SET °true: 330 SPEED kn: 4.2 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: ebb  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Moderate scatter below 64 m.  
Some moderate spotting on bottom.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 21 SET/HAUL NO. 78  
LOCATION: Swanson Ch. AREA: Strait of Georgia  
START: Lat. 48° 45.4' N Long. 123° 21.1' W  
END: Lat. 48° 46.0' N Long. 123° 20.9' W  
GEAR: F.B.T.a START TIME (PDT) : 0900 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 68 End: 71 Est. av. Depth: 64  
DIRECTION OF SET °true: 310 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: ebb  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Where bottom depths greater than 72 m, moderate  
continuous scatter 64 m to bottom. Occasional spotting  
on bottom at depth < 72 m.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 21 SET/HAUL NO. 79

LOCATION: Porlier Pass AREA: Strait of Georgia

START: Lat. 48° 59.7' N Long. 123° 35.6' W

END: Lat. 48° 58.6' N Long. 123° 34.5' W

GEAR: F.B.T.∞ START TIME (PDT) : 1230 DURATION (min): 10

BOTTOM DEPTH (m): Start: 64 End: 49 Est. av. Depth: 55

DIRECTION OF SET °true: 150 SPEED kn: 3.7 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: low slack

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Dense spotting on bottom below 55 m, spotting decreased to light above 55 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 21 SET/HAUL NO. 80

LOCATION: Tree Is. AREA: Strait of Georgia

START: Lat. 49° 03.2' N Long. 123° 41.6' W

END: Lat. 49° 04.0' N Long. 123° 43.0' W

GEAR: F.B.T.∞ START TIME (PDT) : 1400 DURATION (min): 15

BOTTOM DEPTH (m): Start: 49 End: 57 Est. av. Depth: 53

DIRECTION OF SET °true: 310 SPEED kn: 3.5 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: flood

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Light to moderate spotting on bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 21 SET/HAUL NO. 81

LOCATION: Yellow Pt. AREA: Strait of Georgia

START: Lat. 49° 03.4' N Long. 123° 44.5' W

END: Lat. 49° 02.4' N Long. 123° 43.9' W

GEAR: F.B.T.a START TIME (PDT) : 1500 DURATION (min): 20

BOTTOM DEPTH (m): Start: 62 End: 82 Est. av. Depth: 72

DIRECTION OF SET °true: 160 SPEED kn: 3.1 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: flood

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Dense continuous spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 21 SET/HAUL NO. 82

LOCATION: Yellow Pt. AREA: Strait of Georgia

START: Lat. 48° 59.8' N Long. 123° 42.8' W

END: Lat. 48° 59.3' N Long. 123° 43.1' W

GEAR: F.B.T.a START TIME (PDT) : 1630 DURATION (min): 15

BOTTOM DEPTH (m): Start: 68 End: 64 Est. av. Depth: 66

DIRECTION OF SET °true: 340 SPEED kn: 3.6 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Dense spotting on bottom.

Appendix I. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 21 SET/HAUL NO. 83  
LOCATION: Yellow Pt. AREA: Strait of Georgia  
START: Lat. 48° 57.4' N Long. 123° 43.4' W  
END: Lat. 48° 58.0' N Long. 123° 43.6' W  
GEAR: F.B.T.a START TIME (PDT) : 1750 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 83 End: 82 Est. av. Depth: 83  
DIRECTION OF SET °true: 345 SPEED kn: 3.5 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: flood  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Dense spotting on bottom.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 22 SET/HAUL NO. 84  
LOCATION: Canoe Pass AREA: Strait of Georgia  
START: Lat. 49° 01.4' N Long. 123° 16.6' W  
END: Lat. 49° 02.0' N Long. 123° 17.7' W  
GEAR: F.B.T.a START TIME (PDT) : 0910 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 135 End: 137 Est. av. Depth: 136  
DIRECTION OF SET °true: 325 SPEED kn: 2.6 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: ripple TIDE: ebb  
WIND DIRECTION: northwest WIND SPEED: - RECORDER: K. W.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Moderate continuous spotting 55 m to bottom,  
a few spots showing on bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 22 SET/HAUL NO. 85  
LOCATION: Roberts Bank AREA: Strait of Georgia  
START: Lat. 49° 02.4' N Long. 123° 16.0' W  
END: Lat. 49° 03.0' N Long. 123° 17.4' W  
GEAR: F.B.T.a START TIME (PDT) : 1025 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 62 End: 73 Est. av. Depth: 68  
DIRECTION OF SET °true: 310 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Continuous moderate spotting 46 m to bottom.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 22 SET/HAUL NO. 86  
LOCATION: McCall Bank AREA: Strait of Georgia  
START: Lat. 49° 21.9' N Long. 123° 33.8' W  
END: Lat. 49° 23.2' N Long. 123° 36.4' W  
GEAR: F.B.T.a START TIME (PDT) : 1330 DURATION (min): 30  
BOTTOM DEPTH (m): Start: 174 End: 170 Est. av. Depth: 172  
DIRECTION OF SET °true: 300 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: ebb  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Moderate scatter layer 137 m ~ bottom.  
Moderate spotting within scatter layer.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 23 SET/HAUL NO. 87

LOCATION: Chrome Is. AREA: Strait of Georgia

START: Lat. 49° 26.0' N Long. 124° 37.4' W

END: Lat. 49° 26.7' N Long. 124° 38.3' W

GEAR: F.B.T.a START TIME (PDT) : 1050 DURATION (min): 15

BOTTOM DEPTH (m): Start: 53 End: 57 Est. av. Depth: 55

DIRECTION OF SET °true: 310 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: ebb

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Some occasional moderate spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 23 SET/HAUL NO. 88

LOCATION: Crome Is. AREA: Strait of Georgia

START: Lat. 49° 26.6' N Long. 124° 38.3' W

END: Lat. 49° 27.1' N Long. 124° 39.2' W

GEAR: F.B.T.a START TIME (PDT) : 1225 DURATION (min): 15

BOTTOM DEPTH (m): Start: 60 End: 53 Est. av. Depth: -

DIRECTION OF SET °true: 310 SPEED kn: 4.1 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: ebb

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Light occasional spotting on bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 23 SET/HAUL NO. 89

LOCATION: Chrome Is. AREA: Strait of Georgia

START: Lat. 49° 27.1' N Long. 124° 38.9' W

END: Lat. 49° 26.4' N Long. 124° 37.8' W

GEAR: F.B.T.a START TIME (PDT) : 1315 DURATION (min): 15

BOTTOM DEPTH (m): Start: 55 End: 60 Est. av. Depth: 58

DIRECTION OF SET °true: 120 SPEED kn: 3.7 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: ebb

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Nothing showing on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 23 SET/HAUL NO. 90

LOCATION: Chrome Is. AREA: Strait of Georgia

START: Lat. 49° 26.0' N Long. 124° 37.2' W

END: Lat. 49° 25.7' N Long. 124° 36.1' W

GEAR: F.B.T.a START TIME (PDT) : 1425 DURATION (min): 15

BOTTOM DEPTH (m): Start: 55 End: 60 Est. av. Depth: 58

DIRECTION OF SET °true: 125 SPEED kn: 3.7 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: ebb

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Very light spotting on bottom.

Appendix 1. Table 2 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 23 SET/HAUL NO. 91

LOCATION: Chrome Is. AREA: Strait of Georgia

START: Lat. 49° 26.3' N Long. 124° 36.9' W

END: Lat. 49° 26.6' N Long. 124° 36.8' W

GEAR: F.B.T.a START TIME (PDT) : 1515 DURATION (min): 15

BOTTOM DEPTH (m): Start: 64 End: 64 Est. av. Depth: 64

DIRECTION OF SET °true: 310 SPEED kn: 3.5 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: flood

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Light spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 7 23 SET/HAUL NO. 92

LOCATION: Chrome Is. AREA: Strait of Georgia

START: Lat. 49° 26.7' N Long. 124° 37.8' W

END: Lat. 49° 26.0' N Long. 124° 37.2' W

GEAR: F.B.T.a START TIME (PDT) : 1555 DURATION (min): 15

BOTTOM DEPTH (m): Start: 62 End: 55 Est. av. Depth: 58

DIRECTION OF SET °true: 130 SPEED kn: 3.7 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: flood

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Very light spotting on and just off bottom.

Appendix 1. Table 2 (cont'd)

	Yr	Mo.	Day	
VESSEL:	ARCTIC HARVESTER		DATE:	78 7 23 SET/HAUL NO. 93
LOCATION:	Chrome Is.		AREA:	Strait of Georgia
START:	Lat.	49° 25.7' N	Long.	124° 37.4' W
END:	Lat.	49° 25.3' N	Long.	124° 36.5' W
GEAR:	F.B.T.a	START TIME (PDT)	: 1735	DURATION (min): 15
BOTTOM DEPTH (m):	Start:	53	End:	37 Est. av. Depth: 48
DIRECTION OF SET °true:	-	SPEED kn:	-	DISTANCE TRAVELED mi. -
SET ON:	Pre-selected	WATER CONDITION:	calm	TIDE: flood
WIND DIRECTION:	-	WIND SPEED:	-	RECORDER: A. C.
TTM:	-	TDM:	-	BT: OTHER OCEANOGRAPHIC DATA: -
SOUNDER SUMMARY: Very little showing on bottom.				

	Yr	Mo.	Day	
VESSEL:	ARCTIC HARVESTER		DATE:	78 7 24 SET/HAUL NO. 94
LOCATION:	Chrome Is.		AREA:	Strait of Georgia
START:	Lat.	49° 26.2' N	Long.	124° 37.5' W
END:	Lat.	49° 26.6' N	Long.	124° 38.2' W
GEAR:	F.B.T.a	START TIME (PDT)	: 0745	DURATION (min): 15
BOTTOM DEPTH (m):	Start:	53	End:	55 Est. av. Depth: 54
DIRECTION OF SET °true:	310	SPEED kn:	3.9	DISTANCE TRAVELED mi. -
SET ON:	Pre-selected	WATER CONDITION:	calm	TIDE: flood
WIND DIRECTION:	-	WIND SPEED:	-	RECORDER: A. C.
TTM:	-	TDM:	-	BT: OTHER OCEANOGRAPHIC DATA: -
SOUNDER SUMMARY: Very little showing on bottom.				

Appendix 1. Table 2 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 24 SET/HAUL NO. 95  
LOCATION: Chrome Is. AREA: Strait of Georgia  
START: Lat. 49° 26.6' N Long. 124° 38.5' W  
END: Lat. 49° 26.2' N Long. 124° 37.6' W  
GEAR: F.B.T.a START TIME (PDT) : 0910 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 46 End: 46 Est. av. Depth: 46  
DIRECTION OF SET °true: 130 SPEED kn: 3.9 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: high slack  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very light spotting on bottom.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 7 24 SET/HAUL NO. 96  
LOCATION: Chrome Is. AREA: Strait of Georgia  
START: Lat. 49° 26.4' N Long. 124° 38.0' W  
END: Lat. 49° 27.0' N Long. 124° 38.6' W  
GEAR: F.B.T.a START TIME (PDT) : 1020 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 46 End: 49 Est. av. Depth: 49  
DIRECTION OF SET °true: 310 SPEED kn: 3.8 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: ebb  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very little showing.

Appendix 1. Table 2 (cont'd)

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>		DATE:	78    7    24    SET/HAUL NO.    97
LOCATION:	<u>Chrome Is.</u>		AREA:	<u>Strait of Georgia</u>
START:	Lat.	<u>49° 26.4' N</u>		Long. <u>124° 38.0' W</u>
END:	Lat.	<u>49° 26.0' N</u>		Long. <u>124° 37.5' W</u>
GEAR:	<u>F.B.T.a</u>	START TIME	(PDT) : <u>1230</u>	DURATION (min): <u>15</u>
BOTTOM DEPTH (m):	Start:	<u>53</u>	End:	<u>49</u> Est. av. Depth: <u>51</u>
DIRECTION OF SET °true:	<u>145</u>	SPEED kn:	<u>-</u>	DISTANCE TRAVELED mi. <u>-</u>
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>calm</u>	TIDE: <u>ebb</u>
WIND DIRECTION:	<u>-</u>	WIND SPEED:	<u>-</u>	RECORDER: <u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT: <u>-</u> OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY:	<u>Light spotting on bottom.</u>			

a F.B.T. = Flat bottom trawl.

Appendix 1. Table 3. Set information, M/V ARCTIC HARVESTER,  
September 8-19, 1978.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 8 SET/HAUL NO. 1

LOCATION: Clo-ose AREA: West coast Vancouver Island

START: Lat. 48° 38.1' N Long. 124° 50.0' W

END: Lat. 48° 39.0' N Long. 124° 53.0' W

GEAR: Engel trawl START TIME (PDT) : 0800 DURATION (min): 30

BOTTOM DEPTH (m): Start: 42 End: 38 Est. av. Depth: 40

DIRECTION OF SET °true: 295 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: chop TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Very little occasional spotting on bottom.  
Some moderate spotting in water column.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 8 SET/HAUL NO. 2

LOCATION: Clo-ose AREA: West coast Vancouver Island

START: Lat. 48° 38.2' N Long. 124° 53.4' W

END: Lat. 48° 37.5' N Long. 124° 51.0' W

GEAR: Engel trawl START TIME (PDT) : 0920 DURATION (min): 30

BOTTOM DEPTH (m): Start: 44 End: 49 Est. av. Depth: 47

DIRECTION OF SET °true: 130 SPEED kn: 3.4 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: chop TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Light occasional spotting throughout water column.  
Light occasional spotting on bottom.

Appendix 1. Table 3 (cont'd)

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>		DATE: 78 9 8	SET/HAUL NO. 3
LOCATION:	<u>40-Mile</u>		AREA: <u>West coast Vancouver Island</u>	
START:	Lat.	<u>48° 31.2' N</u>		Long. <u>125° 38.5' W</u>
END:	Lat.	<u>48° 31.2' N</u>		Long. <u>125° 38.9' W</u>
GEAR:	<u>Engel trawl</u>		START TIME (PDT) : <u>1320</u>	DURATION (min): <u>20</u>
BOTTOM DEPTH (m):	Start:	<u>81</u>	End: <u>81</u>	Est. av. Depth: <u>81</u>
DIRECTION OF SET °true:	<u>320</u>		SPEED km: <u>3.4</u>	DISTANCE TRAVELED mi. <u>-</u>
SET ON:	<u>Pre-selected</u>		WATER CONDITION: <u>chop - swell</u>	TIDE: <u>-</u>
WIND DIRECTION:	<u>-</u>		WIND SPEED: <u>-</u>	RECORDER: <u>A. C.</u>
TTM:	<u>-</u>	TDM: <u>-</u>	BT: <u>-</u>	OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY:	<u>Moderate occasional spotting on bottom.</u>			

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>		DATE: 78 9 10	SET/HAUL NO. 4
LOCATION:	<u>Sydney Inlet</u>		AREA: <u>West coast Vancouver Island</u>	
START:	Lat.	<u>49° 17.8' N</u>		Long. <u>126° 14.5' W</u>
END:	Lat.	<u>49° 18.6' N</u>		Long. <u>126° 17.0' W</u>
GEAR:	<u>F.B.T.a</u>		START TIME (PDT) : <u>1030</u>	DURATION (min): <u>30</u>
BOTTOM DEPTH (m):	Start:	<u>27</u>	End: <u>27</u>	Est. av. Depth: <u>27</u>
DIRECTION OF SET °true:	<u>340</u>		SPEED km: <u>3.7</u>	DISTANCE TRAVELED mi. <u>-</u>
SET ON:	<u>Pre-selected</u>		WATER CONDITION: <u>calm</u>	TIDE: <u>-</u>
WIND DIRECTION:	<u>-</u>		WIND SPEED: <u>-</u>	RECORDER: <u>A. C.</u>
TTM:	<u>-</u>	TDM: <u>-</u>	BT: <u>-</u>	OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY:	<u>Moderate spotting on bottom.</u>			

Appendix 1. Table 3 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 10 SET/HAUL NO. 5

LOCATION: Sydney Inlet AREA: West coast Vancouver Island

START: Lat. 49° 17.8' N Long. 126° 14.5' W

END: Lat. 49° 18.6' N Long. 126° 17.0' W

GEAR: F.B.T.∞ START TIME (PDT) : 1130 DURATION (min): 15

BOTTOM DEPTH (m): Start: 27 End: 31 Est. av. Depth: 30

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: 1 OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Very little showing.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 10 SET/HAUL NO. 6

LOCATION: Sydney Inlet AREA: West coast Vancouver Island

START: Lat. 49° 17.8' N Long. 126° 14.5' W

END: Lat. 49° 18.6' N Long. 126° 17.0' W

GEAR: F.B.T.∞ START TIME (PDT) : 1405 DURATION (min): 15

BOTTOM DEPTH (m): Start: 22 End: 22 Est. av. Depth: 22

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: -

Appendix 1. Table 3 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 10 SET/HAUL NO. 7  
LOCATION: Sydney Inlet AREA: West coast Vancouver Island  
START: Lat. 49° 17.8' N Long. 126° 14.5' W  
END: Lat. 49° 18.6' N Long. 126° 17.0' W  
GEAR: F.B.T.a START TIME (PDT) : 1445 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 24 End: 29 Est. av. Depth: 27  
DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very light occasional spotting.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 10 SET/HAUL NO. 8  
LOCATION: Sydney Inlet AREA: West coast Vancouver Island  
START: Lat. 49° 17.8' N Long. 126° 14.5' W  
END: Lat. 49° 18.6' N Long. 126° 17.0' W  
GEAR: F.B.T.a START TIME (PDT) : 1645 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 27 End: 24 Est. av. Depth: 25  
DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very little showing on bottom. Occasional spotting in  
water column.

Appendix 1. Table 3 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 11 SET/HAUL NO. 9

LOCATION: Sydney Inlet AREA: West coast Vancouver Island

START: Lat. 49° 14.0' N Long. 126° 27.7' W

END: Lat. 49° 13.6' N Long. 126° 26.9' W

GEAR: F.B.T.∞ START TIME (PDT) : 0800 DURATION (min): 15

BOTTOM DEPTH (m): Start: 75 End: 77 Est. av. Depth: 76

DIRECTION OF SET °true: 110 SPEED kn: 4.3 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: 2 OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Dense spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 11 SET/HAUL NO. 10

LOCATION: Sydney Inlet AREA: West coast Vancouver Island

START: Lat. 49° 14.3' N Long. 126° 27.0' W

END: Lat. 49° 14.5' N Long. 126° 28.3' W

GEAR: F.B.T.∞ START TIME (PDT) : 0915 DURATION (min): 15

BOTTOM DEPTH (m): Start: 71 End: 73 Est. av. Depth: 72

DIRECTION OF SET °true: 300 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: - TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: K. W.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: -

Appendix 1. Table 3 (cont'd)

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>		DATE: <u>78</u> <u>9</u> <u>11</u>	SET/HAUL NO. <u>11</u>
LOCATION:	<u>Sydney Inlet</u>		AREA: <u>West coast Vancouver Island</u>	
START:	Lat. <u>49° 15.4' N</u>		Long. <u>126° 30.0' W</u>	
END:	Lat. <u>49° 16.2' N</u>		Long. <u>126° 31.6' W</u>	
GEAR:	<u>F.B.T.a</u>	START TIME <u>(PDT)</u> : <u>1030</u>	DURATION (min): <u>15</u>	
BOTTOM DEPTH (m):	Start: <u>-</u>	End: <u>-</u>	Est. av. Depth: <u>42</u>	
DIRECTION OF SET °true:	<u>300</u>	SPEED kn: <u>-</u>	DISTANCE TRAVELED mi. <u>-</u>	
SET ON:	<u>Pre-selected</u>	WATER CONDITION: <u>-</u>	TIDE: <u>-</u>	
WIND DIRECTION:	<u>-</u>	WIND SPEED: <u>-</u>	RECORDER: <u>K. W.</u>	
TTM:	<u>-</u>	TDM: <u>-</u>	BT: <u>-</u>	OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY: <u>-</u>				

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>		DATE: <u>78</u> <u>9</u> <u>11</u>	SET/HAUL NO. <u>12</u>
LOCATION:	<u>Sydney Inlet</u>		AREA: <u>West coast Vancouver Island</u>	
START:	Lat. <u>49° 16.5' N</u>		Long. <u>126° 30.2' W</u>	
END:	Lat. <u>49° 16.5' N</u>		Long. <u>126° 30.2' W</u>	
GEAR:	<u>F.B.T.a</u>	START TIME <u>(PDT)</u> : <u>1235</u>	DURATION (min): <u>4</u>	
BOTTOM DEPTH (m):	Start: <u>70</u>	End: <u>70</u>	Est. av. Depth: <u>70</u>	
DIRECTION OF SET °true:	<u>-</u>	SPEED kn: <u>-</u>	DISTANCE TRAVELED mi. <u>-</u>	
SET ON:	<u>Pre-selected</u>	WATER CONDITION: <u>-</u>	TIDE: <u>-</u>	
WIND DIRECTION:	<u>-</u>	WIND SPEED: <u>-</u>	RECORDER: <u>A. C.</u>	
TTM:	<u>-</u>	TDM: <u>-</u>	BT: <u>-</u>	OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY: <u>Dense spotting on bottom.</u>				

Appendix 1. Table 3 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 11 SET/HAUL NO. 13  
LOCATION: Sydney Inlet AREA: West coast Vancouver Island  
START: Lat. 49° 15.0' N Long. 126° 28.8' W  
END: Lat. 49° 15.0' N Long. 126° 28.0' W  
GEAR: F.B.T.a START TIME (PDT) : 1515 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 73 End: 73 Est. av. Depth: 73  
DIRECTION OF SET °true: 120 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: - TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Moderate occasional spotting on bottom, very little  
showing near end of tow.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 11 SET/HAUL NO. 14  
LOCATION: Sydney Inlet AREA: West coast Vancouver Island  
START: Lat. 49° 13.8' N Long. 126° 27.0' W  
END: Lat. 49° 15.2' N Long. 126° 28.0' W  
GEAR: F.B.T.a START TIME (PDT) : 1725 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 73 End: 71 Est. av. Depth: 72  
DIRECTION OF SET °true: 280 SPEED kn: 3.6 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very little on bottom.  
Some occasional moderate spotting near end of tow.

Appendix 1. Table 3 (cont'd)

	Yr	Mo.	Day				
VESSEL:	<u>ARCTIC HARVESTER</u>	DATE:	<u>78</u> <u>9</u> <u>11</u>				
LOCATION:	<u>Sydney Inlet</u>	AREA:	<u>West coast Vancouver Island</u>				
START:	Lat. <u>49° 14.5' N</u>	Long.	<u>126° 28.0' W</u>				
END:	Lat. <u>49° 14.4' N</u>	Long.	<u>126° 26.5' W</u>				
GEAR:	<u>F.B.T.a</u>	START TIME	<u>(PDT) : 1810</u>	DURATION (min):	<u>15</u>		
BOTTOM DEPTH (m):	Start: <u>73</u>	End: <u>70</u>	Est. av. Depth:	<u>71</u>			
DIRECTION OF SET °true:	<u>130</u>	SPEED kn:	<u>-</u>	DISTANCE TRAVELED mi.	<u>-</u>		
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>calm</u>	TIDE:	<u>-</u>		
WIND DIRECTION:	<u>-</u>	WIND SPEED:	<u>-</u>	RECORDER:	<u>A. C.</u>		
TTM:	<u>-</u>	TDM:	<u>-</u>	BT:	<u>-</u>	OTHER OCEANOGRAPHIC DATA:	<u>-</u>
SOUNDER SUMMARY: <u>-</u>							

	Yr	Mo.	Day				
VESSEL:	<u>ARCTIC HARVESTER</u>	DATE:	<u>78</u> <u>9</u> <u>12</u>				
LOCATION:	<u>Sydney Inlet</u>	AREA:	<u>West coast Vancouver Island</u>				
START:	Lat. <u>49° 14.4' N</u>	Long.	<u>126° 26.2' W</u>				
END:	Lat. <u>49° 15.4' N</u>	Long.	<u>126° 28.8' W</u>				
GEAR:	<u>F.B.T.a</u>	START TIME	<u>(PDT) : 0810</u>	DURATION (min):	<u>15</u>		
BOTTOM DEPTH (m):	Start: <u>73</u>	End: <u>77</u>	Est. av. Depth:	<u>75</u>			
DIRECTION OF SET °true:	<u>310</u>	SPEED kn:	<u>-</u>	DISTANCE TRAVELED mi.	<u>-</u>		
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>calm</u>	TIDE:	<u>-</u>		
WIND DIRECTION:	<u>-</u>	WIND SPEED:	<u>-</u>	RECORDER:	<u>A. C.</u>		
TTM:	<u>-</u>	TDM:	<u>-</u>	BT:	<u>-</u>	OTHER OCEANOGRAPHIC DATA:	<u>-</u>
SOUNDER SUMMARY: <u>Very little showing.</u>							

Appendix I. Table 3 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 12 SET/HAUL NO. 17  
LOCATION: Sydney Inlet AREA: West coast Vancouver Island  
START: Lat. 49° 15.3' N Long. 126° 28.8' W  
END: Lat. 49° 14.7' N Long. 126° 27.8' W  
GEAR: F.B.T.a START TIME (PDT) : 0850 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 71 End: 75 Est. av. Depth: 73  
DIRECTION OF SET °true: 170 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Nothing showing.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 12 SET/HAUL NO. 18  
LOCATION: Sydney Inlet AREA: West coast Vancouver Island  
START: Lat. 49° 15.3' N Long. 126° 28.6' W  
END: Lat. 49° 15.1' N Long. 126° 28.1' W  
GEAR: F.B.T.a START TIME (PDT) : 0945 DURATION (min): 12  
BOTTOM DEPTH (m): Start: 77 End: 73 Est. av. Depth: 75  
DIRECTION OF SET °true: 90 SPEED kn: 3.6 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Nothing showing.

Appendix 1. Table 3 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 12 SET/HAUL NO. 19  
LOCATION: Sydney Inlet AREA: West coast Vancouver Island  
START: Lat. 49° 14.0' N Long. 126° 28.1' W  
END: Lat. 49° 13.7' N Long. 126° 26.8' W  
GEAR: F.B.T.a START TIME (PDT) : 1040 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 75 End: 79 Est. av. Depth: 77  
DIRECTION OF SET °true: 120 SPEED kn: 4.1 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: 3 OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very little showing.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 12 SET/HAUL NO. 20  
LOCATION: Sydney Inlet AREA: West coast Vancouver Island  
START: Lat. 49° 14.4' N Long. 126° 28.3' W  
END: Lat. 49° 13.9' N Long. 126° 27.6' W  
GEAR: F.B.T.a START TIME (PDT) : 1220 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 77 End: 77 Est. av. Depth: 77  
DIRECTION OF SET °true: 160 SPEED kn: 4.2 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very little showing.

Appendix 1. Table 3 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 12 SET/HAUL NO. 21

LOCATION: Sydney Inlet AREA: West coast Vancouver Island

START: Lat. 49° 13.8' N Long. 126° 27.2' W

END: Lat. 49° 13.8' N Long. 126° 26.6' W

GEAR: F.B.T.a START TIME (PDT) : 1305 DURATION (min): 10

BOTTOM DEPTH (m): Start: 77 End: 75 Est. av. Depth: 76

DIRECTION OF SET °true: 110 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: ripple TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Light spotting on bottom.  
Hard bottom showing after 10 minutes.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 12 SET/HAUL NO. 22

LOCATION: Sydney Inlet AREA: West coast Vancouver Island

START: Lat. 49° 14.3' N Long. 126° 27.9' W

END: Lat. 49° 14.9' N Long. 126° 28.4' W

GEAR: F.B.T.a START TIME (PDT) : 1355 DURATION (min): 15

BOTTOM DEPTH (m): Start: 73 End: 79 Est. av. Depth: 76

DIRECTION OF SET °true: 280 SPEED kn: 3.2 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Very little showing.

Appendix 1. Table 3 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 12 SET/HAUL NO. 23  
LOCATION: Sydney Inlet AREA: West coast Vancouver Island  
START: Lat. 49° 14.4' N Long. 126° 31.8' W  
END: Lat. 49° 14.0' N Long. 126° 32.8' W  
GEAR: F.B.T.a START TIME (PDT) : 1450 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 93 End: 95 Est. av. Depth: 94  
DIRECTION OF SET °true: 290 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Dense spotting on bottom.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 12 SET/HAUL NO. 24  
LOCATION: Sydney Inlet AREA: West coast Vancouver Island  
START: Lat. 49° 15.1' N Long. 126° 32.7' W  
END: Lat. 49° 15.0' N Long. 126° 31.5' W  
GEAR: F.B.T.a START TIME (PDT) : 1520 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 93 End: 91 Est. av. Depth: 92  
DIRECTION OF SET °true: 120 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Moderate to dense occasional spotting on bottom.

Appendix 1. Table 3 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 12 SET/HAUL NO. 25

LOCATION: Sydney Inlet AREA: West coast Vancouver Island

START: Lat. 49° 15.8' N Long. 126° 22.0' W

END: Lat. 49° 15.5' N Long. 126° 21.4' W

GEAR: F.B.T.a START TIME (PDT) : 1720 DURATION (min): 15

BOTTOM DEPTH (m): Start: 46 End: 49 Est. av. Depth: 47

DIRECTION OF SET °true: 130 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: 4 OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Very light occasional spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 12 SET/HAUL NO. 26

LOCATION: Sydney Inlet AREA: West coast Vancouver Island

START: Lat. 49° 17.8' N Long. 126° 14.5' W

END: Lat. 49° 18.6' N Long. 126° 17.0' W

GEAR: F.B.T.a START TIME (PDT) : 1815 DURATION (min): 15

BOTTOM DEPTH (m): Start: 44 End: 44 Est. av. Depth: 44

DIRECTION OF SET °true: - SPEED kn: 4.3 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Light occasional spotting on bottom.

Appendix 1. Table 3 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 13 SET/HAUL NO. 27

LOCATION: Sydney Inlet AREA: West coast Vancouver Island

START: Lat. 49° 16.2' N Long. 126° 22.1' W

END: Lat. 49° 16.4' N Long. 126° 20.8' W

GEAR: F.B.T.a START TIME (PDT) : 0810 DURATION (min): 15

BOTTOM DEPTH (m): Start: 46 End: 46 Est. av. Depth: 46

DIRECTION OF SET °true: 85 SPEED kn: 4.3 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: 4 OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Very little spotting on bottom.  
Some moderate sporadic spotting at 37 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 13 SET/HAUL NO. 28

LOCATION: Sydney Inlet AREA: West coast Vancouver Island

START: Lat. 49° 16.0' N Long. 126° 21.4' W

END: Lat. 49° 16.8' N Long. 126° 21.8' W

GEAR: F.B.T.a START TIME (PDT) : 0850 DURATION (min): 15

BOTTOM DEPTH (m): Start: 46 End: 48 Est. av. Depth: 47

DIRECTION OF SET °true: 290 SPEED kn: 3.8 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Very little showing on bottom.  
Moderate occasional spotting about 42 m.

Appendix I. Table 3 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 13 SET/HAUL NO. 29  
LOCATION: Sydney Inlet AREA: West coast Vancouver Island  
START: Lat. 49° 16.2' N Long. 126° 22.1' W  
END: Lat. 49° 15.4' N Long. 126° 21.6' W  
GEAR: F.B.T.a START TIME (PDT) : 0940 DURATION (min): 12  
BOTTOM DEPTH (m): Start: 48 End: 49 Est. av. Depth: 49  
DIRECTION OF SET °true: 140 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very little showing.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 13 SET/HAUL NO. 30  
LOCATION: Sydney Inlet AREA: West coast Vancouver Island  
START: Lat. 49° 15.8' N Long. 126° 21.6' W  
END: Lat. 49° 16.3' N Long. 126° 21.7' W  
GEAR: F.B.T.a START TIME (PDT) : 1020 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 48 End: 48 Est. av. Depth: 48  
DIRECTION OF SET °true: 330 SPEED kn: 3.4 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very little showing.

Appendix 1. Table 3 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 13 SET/HAUL NO. 31

LOCATION: Sydney Inlet AREA: West coast Vancouver Island

START: Lat. 49° 16.2' N Long. 126° 22.3' W

END: Lat. 49° 16.3' N Long. 126° 21.0' W

GEAR: F.B.T.a START TIME (PDT) : 1055 DURATION (min): 15

BOTTOM DEPTH (m): Start: 48 End: 48 Est. av. Depth: 48

DIRECTION OF SET °true: 100 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Very little showing on bottom.  
Very few dense spots at about 42 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 13 SET/HAUL NO. 32

LOCATION: Sydney Inlet AREA: West coast Vancouver Island

START: Lat. 49° 16.3' N Long. 126° 21.6' W

END: Lat. 49° 16.2' N Long. 126° 23.3' W

GEAR: F.B.T.a START TIME (PDT) : 1230 DURATION (min): 15

BOTTOM DEPTH (m): Start: 48 End: 49 Est. av. Depth: 49

DIRECTION OF SET °true: 320 SPEED kn: 3.6 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Nothing showing.

Appendix 1. Table 3 (cont'd)

			Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>	DATE:	78	9	13	SET/HAUL NO. <u>33</u>
LOCATION:	<u>Sydney Inlet</u>	AREA:	<u>West coast Vancouver Island</u>			
START:	Lat. <u>49° 16.1' N</u>	Long.	<u>126° 22.0' W</u>			
END:	Lat. <u>49° 15.6' N</u>	Long.	<u>126° 20.2' W</u>			
GEAR:	<u>F.B.T.a</u>	START TIME	(PDT)	: <u>1315</u>	DURATION (min):	<u>15</u>
BOTTOM DEPTH (m):	Start: <u>48</u>	End: <u>48</u>	Est. av. Depth:	<u>48</u>		
DIRECTION OF SET °true:	<u>90</u>	SPEED kn:	<u>4.4</u>	DISTANCE TRAVELED mi. <u>-</u>		
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>calm</u>	TIDE:	<u>-</u>	
WIND DIRECTION:	<u>-</u>	WIND SPEED:	<u>-</u>	RECORDER:	<u>A. C.</u>	
TTM:	<u>-</u>	TDM:	<u>-</u>	BT:	<u>-</u>	OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY: <u>Very little showing.</u>						

			Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>	DATE:	78	9	13	SET/HAUL NO. <u>34</u>
LOCATION:	<u>Sydney Inlet</u>	AREA:	<u>West coast Vancouver Island</u>			
START:	Lat. <u>49° 17.8' N</u>	Long.	<u>126° 15.6' W</u>			
END:	Lat. <u>49° 18.7' N</u>	Long.	<u>126° 15.9' W</u>			
GEAR:	<u>F.B.T.a</u>	START TIME	(PDT)	: <u>1410</u>	DURATION (min):	<u>15</u>
BOTTOM DEPTH (m):	Start: <u>24</u>	End: <u>23</u>	Est. av. Depth:	<u>24</u>		
DIRECTION OF SET °true:	<u>355</u>	SPEED kn:	<u>3.7</u>	DISTANCE TRAVELED mi. <u>-</u>		
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>calm</u>	TIDE:	<u>-</u>	
WIND DIRECTION:	<u>-</u>	WIND SPEED:	<u>-</u>	RECORDER:	<u>A. C.</u>	
TTM:	<u>-</u>	TDM:	<u>-</u>	BT:	<u>-</u>	OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY: <u>Moderate spotting on bottom.</u>						
Some light spotting at about 9 m.						

Appendix 1. Table 3 (cont'd)

	Yr	Mo.	Day		
VESSEL:	<u>ARCTIC HARVESTER</u>	DATE:	78 9 13	SET/HAUL NO.	35
LOCATION:	<u>Sydney Inlet</u>	AREA:	<u>West coast Vancouver Island</u>		
START:	Lat. <u>49° 19.7' N</u>	Long.	<u>126° 18.5' W</u>		
END:	Lat. <u>49° 19.0' N</u>	Long.	<u>126° 15.0' W</u>		
GEAR:	<u>F.B.T.a</u>	START TIME	(PDT)	: <u>1450</u>	DURATION (min): <u>15</u>
BOTTOM DEPTH (m):	Start: <u>26</u>	End: <u>24</u>	Est. av. Depth:	<u>25</u>	
DIRECTION OF SET °true:	<u>110</u>	SPEED kn:	<u>3.4</u>	DISTANCE TRAVELED mi. <u>-</u>	
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>swell</u>	TIDE:	<u>-</u>
WIND DIRECTION:	<u>-</u>	WIND SPEED:	<u>-</u>	RECORDER:	<u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT:	<u>-</u>
OTHER OCEANOGRAPHIC DATA: <u>-</u>					
SOUNDER SUMMARY: <u>Very little occasional spotting on bottom.</u>					

	Yr	Mo.	Day		
VESSEL:	<u>ARCTIC HARVESTER</u>	DATE:	78 9 13	SET/HAUL NO.	36
LOCATION:	<u>Sydney Inlet</u>	AREA:	<u>West coast Vancouver Island</u>		
START:	Lat. <u>49° 16.8' N</u>	Long.	<u>126° 20.0' W</u>		
END:	Lat. <u>49° 19.4' N</u>	Long.	<u>126° 15.7' W</u>		
GEAR:	<u>F.B.T.a</u>	START TIME	(PDT)	: <u>1530</u>	DURATION (min): <u>15</u>
BOTTOM DEPTH (m):	Start: <u>27</u>	End: <u>22</u>	Est. av. Depth:	<u>24</u>	
DIRECTION OF SET °true:	<u>100</u>	SPEED kn:	<u>4.0</u>	DISTANCE TRAVELED mi. <u>-</u>	
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>calm</u>	TIDE:	<u>-</u>
WIND DIRECTION:	<u>-</u>	WIND SPEED:	<u>-</u>	RECORDER:	<u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT:	<u>-</u>
OTHER OCEANOGRAPHIC DATA: <u>-</u>					
SOUNDER SUMMARY: <u>Moderate spotting on bottom.</u>					

Appendix I. Table 3 (cont'd)

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>		DATE: 78 9 14	SET/HAUL NO. 37
LOCATION:	<u>Sydney Inlet</u>		AREA: <u>West coast Vancouver Island</u>	
START:	Lat.	<u>49° 15.7' N</u>		Long. <u>126° 22.0' W</u>
END:	Lat.	<u>49° 16.0' N</u>		Long. <u>126° 21.0' W</u>
GEAR:	<u>F.B.T.a</u>		START TIME <u>(PDT)</u> : <u>0635</u>	DURATION (min): <u>15</u>
BOTTOM DEPTH (m):	Start:	<u>48</u>	End: <u>48</u>	Est. av. Depth: <u>48</u>
DIRECTION OF SET °true:	<u>100</u>		SPEED kn: <u>-</u>	DISTANCE TRAVELED mi. <u>-</u>
SET ON:	<u>Pre-selected</u>		WATER CONDITION: <u>calm</u>	TIDE: <u>-</u>
WIND DIRECTION:	<u>-</u>		WIND SPEED: <u>-</u>	RECORDER: <u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT: <u>-</u> OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY:	<u>Nothing showing.</u>			

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>		DATE: 78 9 14	SET/HAUL NO. 38
LOCATION:	<u>Sydney Inlet</u>		AREA: <u>West coast Vancouver Island</u>	
START:	Lat.	<u>49° 15.1' N</u>		Long. <u>126° 22.5' W</u>
END:	Lat.	<u>49° 16.3' N</u>		Long. <u>126° 21.0' W</u>
GEAR:	<u>F.B.T.a</u>		START TIME <u>(PDT)</u> : <u>0740</u>	DURATION (min): <u>15</u>
BOTTOM DEPTH (m):	Start:	<u>48</u>	End: <u>46</u>	Est. av. Depth: <u>47</u>
DIRECTION OF SET °true:	<u>100</u>		SPEED kn: <u>4.1</u>	DISTANCE TRAVELED mi. <u>-</u>
SET ON:	<u>Pre-selected</u>		WATER CONDITION: <u>calm</u>	TIDE: <u>-</u>
WIND DIRECTION:	<u>-</u>		WIND SPEED: <u>-</u>	RECORDER: <u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT: <u>5</u> OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY:	<u>Very little showing.</u>			

Appendix 1. Table 3 (cont'd)

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>	DATE:	78 9 14	SET/HAUL NO. <u>39</u>
LOCATION:	<u>Sydney Inlet</u>			AREA: <u>West coast Vancouver Island</u>
START:	Lat.	<u>49° 16.2' N</u>		Long. <u>126° 22.6' W</u>
END:	Lat.	<u>49° 16.8' N</u>		Long. <u>126° 22.9' W</u>
GEAR:	<u>F.B.T.a</u>	START TIME	(PDT) : <u>0815</u>	DURATION (min): <u>15</u>
BOTTOM DEPTH (m):	Start:	<u>48</u>	End: <u>48</u>	Est. av. Depth: <u>48</u>
DIRECTION OF SET °true:	<u>260</u>	SPEED kn:	<u>3.6</u>	DISTANCE TRAVELED mi. <u>-</u>
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>calm</u>	TIDE: <u>-</u>
WIND DIRECTION:	<u>-</u>	WIND SPEED:	<u>-</u>	RECORDER: <u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT: <u>-</u> OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY: <u>Very little showing.</u>				

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>	DATE:	78 9 14	SET/HAUL NO. <u>40</u>
LOCATION:	<u>Sydney Inlet</u>			AREA: <u>West coast Vancouver Island</u>
START:	Lat.	<u>49° 16.4' N</u>		Long. <u>126° 21.8' W</u>
END:	Lat.	<u>49° 16.2' N</u>		Long. <u>126° 20.6' W</u>
GEAR:	<u>F.B.T.a</u>	START TIME	(PDT) : <u>0855</u>	DURATION (min): <u>15</u>
BOTTOM DEPTH (m):	Start:	<u>48</u>	End: <u>48</u>	Est. av. Depth: <u>48</u>
DIRECTION OF SET °true:	<u>110</u>	SPEED kn:	<u>4.1</u>	DISTANCE TRAVELED mi. <u>-</u>
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>-</u>	TIDE: <u>-</u>
WIND DIRECTION:	<u>-</u>	WIND SPEED:	<u>-</u>	RECORDER: <u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT: <u>-</u> OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY: <u>Very little showing.</u>				

Appendix 1. Table 3 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 15 SET/HAUL NO. 41  
LOCATION: Amphitrite Pt. AREA: West coast Vancouver Island  
START: Lat. 48° 52.5' N Long. 125° 34.3' W  
END: Lat. 48° 53.3' N Long. 125° 34.7' W  
GEAR: F.B.T.∞ START TIME (PDT) : 0740 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 51 End: 53 Est. av. Depth: 52  
DIRECTION OF SET °true: 300 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: chop - swell TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very little showing.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 15 SET/HAUL NO. 42  
LOCATION: Amphitrite Pt. AREA: West coast Vancouver Island  
START: Lat. 48° 52.9' N Long. 125° 38.5' W  
END: Lat. 48° 52.4' N Long. 125° 34.0' W  
GEAR: F.B.T.∞ START TIME (PDT) : 0820 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 53 End: 55 Est. av. Depth: 54  
DIRECTION OF SET °true: 130 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: chop TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very light spotting just off bottom and at about 30 m.

Appendix 1. Table 3 (cont'd)

	Yr	Mo.	Day
VESSEL: <u>ARCTIC HARVESTER</u>	DATE: 78	9	15
LOCATION: <u>Amphitrite Pt.</u>	AREA: <u>West coast Vancouver Island</u>		
START: Lat. <u>48° 52.1' N</u>	Long. <u>125° 31.8' W</u>		
END: Lat. <u>48° 52.0' N</u>	Long. <u>125° 31.8' W</u>		
GEAR: <u>F.B.T.∞</u>	START TIME <u>(PDT)</u> : <u>0900</u>	DURATION (min):	<u>15</u>
BOTTOM DEPTH (m): Start: <u>53</u>	End: <u>55</u>	Est. av. Depth:	<u>54</u>
DIRECTION OF SET °true: <u>75</u>	SPEED kn: <u>-</u>	DISTANCE TRAVELED mi.	<u>-</u>
SET ON: <u>Pre-selected</u>	WATER CONDITION: <u>calm</u>	TIDE:	<u>-</u>
WIND DIRECTION: <u>-</u>	WIND SPEED: <u>-</u>	RECORDER:	<u>A. C.</u>
TTM: <u>-</u>	TDM: <u>-</u>	BT: <u>-</u>	OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY: <u>Very occasional spotting just off bottom.</u>			

	Yr	Mo.	Day
VESSEL: <u>ARCTIC HARVESTER</u>	DATE: 78	9	15
LOCATION: <u>Amphitrite Pt.</u>	AREA: <u>West coast Vancouver Island</u>		
START: Lat. <u>48° 52.2' N</u>	Long. <u>125° 32.5' W</u>		
END: Lat. <u>48° 52.1' N</u>	Long. <u>125° 33.5' W</u>		
GEAR: <u>F.B.T.∞</u>	START TIME <u>(PDT)</u> : <u>0940</u>	DURATION (min):	<u>15</u>
BOTTOM DEPTH (m): Start: <u>64</u>	End: <u>55</u>	Est. av. Depth:	<u>57</u>
DIRECTION OF SET °true: <u>250</u>	SPEED kn: <u>-</u>	DISTANCE TRAVELED mi.	<u>-</u>
SET ON: <u>Pre-selected</u>	WATER CONDITION: <u>swell - chop</u>	TIDE:	<u>-</u>
WIND DIRECTION: <u>-</u>	WIND SPEED: <u>-</u>	RECORDER:	<u>A. C.</u>
TTM: <u>-</u>	TDM: <u>-</u>	BT: <u>-</u>	OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY: <u>Occasional dense spotting 37 m to bottom.</u>			

Appendix 1. Table 3 (cont'd)

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>		DATE: 78 9 15	SET/HAUL NO. 45
LOCATION:	<u>Amphitrite Pt.</u>		AREA: <u>West coast Vancouver Island</u>	
START:	Lat.	<u>48° 52.6' N</u>		Long. <u>125° 35.0' W</u>
END:	Lat.	<u>48° 53.3' N</u>		Long. <u>125° 36.1' W</u>
GEAR:	<u>F.B.T.a</u>		START TIME (PDT) : <u>1020</u>	DURATION (min): <u>15</u>
BOTTOM DEPTH (m):	Start:	<u>48</u>	End: <u>48</u>	Est. av. Depth: <u>48</u>
DIRECTION OF SET °true:	<u>315</u>		SPEED kn: <u>3.3</u>	DISTANCE TRAVELED mi. <u>-</u>
SET ON:	<u>Pre-selected</u>		WATER CONDITION: <u>swell</u>	TIDE: <u>-</u>
WIND DIRECTION:	<u>-</u>		WIND SPEED: <u>-</u>	RECORDER: <u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT: <u>-</u> OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY:	<u>Very little showing.</u>			

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>		DATE: 78 9 15	SET/HAUL NO. 46
LOCATION:	<u>Amphitrite Pt.</u>		AREA: <u>West coast Vancouver Island</u>	
START:	Lat.	<u>48° 53.6' N</u>		Long. <u>125° 36.0' W</u>
END:	Lat.	<u>48° 54.3' N</u>		Long. <u>125° 37.6' W</u>
GEAR:	<u>F.B.T.a</u>		START TIME (PDT) : <u>1055</u>	DURATION (min): <u>15</u>
BOTTOM DEPTH (m):	Start:	<u>57</u>	End: <u>60</u>	Est. av. Depth: <u>58</u>
DIRECTION OF SET °true:	<u>320</u>		SPEED kn: <u>-</u>	DISTANCE TRAVELED mi. <u>-</u>
SET ON:	<u>Pre-selected</u>		WATER CONDITION: <u>swell</u>	TIDE: <u>-</u>
WIND DIRECTION:	<u>-</u>		WIND SPEED: <u>-</u>	RECORDER: <u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT: <u>6</u> OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY:	<u>Very occasional moderate spotting on bottom.</u>			

Appendix 1. Table 3 (cont'd)

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>		DATE: 78 9 15	SET/HAUL NO. 47
LOCATION:	<u>Amphitrite Pt.</u>		AREA: <u>West coast Vancouver Island</u>	
START:	Lat.	<u>48° 56.8' N</u>		Long. <u>125° 46.0' W</u>
END:	Lat.	<u>48° 55.9' N</u>		Long. <u>125° 46.8' W</u>
GEAR:	<u>F.B.T.a</u>		START TIME <u>(PDT)</u> : 1240	DURATION (min): 15
BOTTOM DEPTH (m):	Start:	55	End: 86	Est. av. Depth: 76
DIRECTION OF SET °true:	200-260		SPEED kn: -	DISTANCE TRAVELED mi. -
SET ON:	<u>Pre-selected</u>		WATER CONDITION: <u>swell</u>	TIDE: -
WIND DIRECTION:	- -		WIND SPEED: - -	RECORDER: <u>A. C.</u>
TTM:	-	TDM:	-	BT: - OTHER OCEANOGRAPHIC DATA: -
SOUNDER SUMMARY:	<u>Moderate spotting on bottom.</u>			

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>		DATE: 78 9 15	SET/HAUL NO. 48
LOCATION:	<u>Amphitrite Pt.</u>		AREA: <u>West coast Vancouver Island</u>	
START:	Lat.	<u>48° 55.6' N</u>		Long. <u>125° 48.6' W</u>
END:	Lat.	<u>48° 54.9' N</u>		Long. <u>125° 49.7' W</u>
GEAR:	<u>F.B.T.a</u>		START TIME <u>(PDT)</u> : 1320	DURATION (min): 15
BOTTOM DEPTH (m):	Start:	64	End: 46	Est. av. Depth: 50
DIRECTION OF SET °true:	205		SPEED kn: -	DISTANCE TRAVELED mi. -
SET ON:	<u>Pre-selected</u>		WATER CONDITION: <u>swell</u>	TIDE: -
WIND DIRECTION:	- -		WIND SPEED: - -	RECORDER: <u>A. C.</u>
TTM:	-	TDM:	-	BT: - OTHER OCEANOGRAPHIC DATA: -
SOUNDER SUMMARY:	<u>Some occasional light spotting on bottom.</u>			

Appendix 1. Table 3 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 15 SET/HAUL NO. 49  
  
LOCATION: Amphitrite Pt. AREA: West coast Vancouver Island  
  
START: Lat. 48° 54.6' N Long. 125° 48.8' W  
  
END: Lat. 48° 54.0' N Long. 125° 47.5' W  
  
GEAR: F.B.T.a START TIME (PDT) : 1400 DURATION (min): 15  
  
BOTTOM DEPTH (m): Start: 48 End: 59 Est. av. Depth: 54  
  
DIRECTION OF SET °true: 180 SPEED kn: - DISTANCE TRAVELED mi. -  
  
SET ON: Pre-selected WATER CONDITION: swell TIDE: -  
  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
  
SOUNDER SUMMARY: Very little showing.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 15 SET/HAUL NO. 50  
  
LOCATION: Amphitrite Pt. AREA: West coast Vancouver Island  
  
START: Lat. 48° 51.8' N Long. 125° 45.7' W  
  
END: Lat. 48° 52.8' N Long. 125° 44.2' W  
  
GEAR: F.B.T.a START TIME (PDT) : 1520 DURATION (min): 15  
  
BOTTOM DEPTH (m): Start: 60 End: 64 Est. av. Depth: 62  
  
DIRECTION OF SET °true: 10 SPEED kn: 3.5 DISTANCE TRAVELED mi. -  
  
SET ON: Pre-selected WATER CONDITION: swell TIDE: -  
  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
  
SOUNDER SUMMARY: Occasional light spotting on bottom.  
  
Same spotting at about 40 m.

Appendix 1. Table 3 (cont'd)

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>	DATE:	78 9 16	SET/HAUL NO. <u>51</u>
LOCATION:	<u>Lennard Is.</u>	AREA:	<u>West coast Vancouver Island</u>	
START:	Lat. <u>48° 55.0' N</u>	Long.	<u>126° 2.4' W</u>	
END:	Lat. <u>48° 56.1' N</u>	Long.	<u>126° 2.6' W</u>	
GEAR:	<u>F.B.T.a</u>	START TIME	(PDT) : <u>0825</u>	DURATION (min): <u>15</u>
BOTTOM DEPTH (m):	Start: <u>75</u>	End: <u>57</u>	Est. av. Depth:	<u>66</u>
DIRECTION OF SET °true:	<u>280</u>	SPEED kn:	<u>-</u>	DISTANCE TRAVELED mi. <u>-</u>
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>swell</u>	TIDE: <u>-</u>
WIND DIRECTION:	<u>-</u>	WIND SPEED:	<u>-</u>	RECORDER: <u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT: <u>7</u> OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY: <u>Light to moderate spotting on bottom.</u>				

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>	DATE:	78 9 16	SET/HAUL NO. <u>52</u>
LOCATION:	<u>Lennard Is.</u>	AREA:	<u>West coast Vancouver Island</u>	
START:	Lat. <u>48° 56.3' N</u>	Long.	<u>126° 5.6' W</u>	
END:	Lat. <u>48° 57.0' N</u>	Long.	<u>126° 5.8' W</u>	
GEAR:	<u>F.B.T.a</u>	START TIME	(PDT) : <u>0915</u>	DURATION (min): <u>15</u>
BOTTOM DEPTH (m):	Start: <u>81</u>	End: <u>82</u>	Est. av. Depth:	<u>82</u>
DIRECTION OF SET °true:	<u>280</u>	SPEED kn:	<u>3.3</u>	DISTANCE TRAVELED mi. <u>-</u>
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>calm</u>	TIDE: <u>-</u>
WIND DIRECTION:	<u>-</u>	WIND SPEED:	<u>-</u>	RECORDER: <u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT: <u>-</u> OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY: <u>Dense spotting on bottom.</u>				

Appendix 1. Table 3 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 16 SET/HAUL NO. 53

LOCATION: Lennard Is. AREA: West coast Vancouver Island

START: Lat. 48° 57.0' N Long. 126° 5.8' W

END: Lat. 48° 55.8' N Long. 126° 5.0' W

GEAR: F.B.T.a START TIME (PDT) : 0955 DURATION (min): 15

BOTTOM DEPTH (m): Start: 81 End: 81 Est. av. Depth: 81

DIRECTION OF SET °true: 90 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Dense occasional spotting on bottom.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 16 SET/HAUL NO. 54

LOCATION: Lennard Is. AREA: West coast Vancouver Island

START: Lat. 49° 0.8' N Long. 126° 10.1' W

END: Lat. 49° 1.6' N Long. 126° 9.8' W

GEAR: F.B.T.a START TIME (PDT) : 1100 DURATION (min): 15

BOTTOM DEPTH (m): Start: 73 End: 71 Est. av. Depth: 72

DIRECTION OF SET °true: 340 SPEED kn: 3.5 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: rippled TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Moderate occasional spotting on bottom.

Appendix 1. Table 3 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 16 SET/HAUL NO. 55  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 8.5' N Long. 126° 18.3' W  
END: Lat. 49° 9.3' N Long. 126° 20.0' W  
GEAR: F.B.T.a START TIME (PDT) : 1230 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 73 End: 73 Est. av. Depth: 73  
DIRECTION OF SET °true: 300 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Nothing showing on bottom.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 16 SET/HAUL NO. 56  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 9.3' N Long. 126° 19.5' W  
END: Lat. 49° 8.8' N Long. 126° 18.5' W  
GEAR: F.B.T.a START TIME (PDT) : 1310 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 73 End: 71 Est. av. Depth: 72  
DIRECTION OF SET °true: 130 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: 8 OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Nothing showing.

Appendix 1. Table 3 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 16 SET/HAUL NO. 57  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 8.6' N Long. 126° 19.8' W  
END: Lat. 49° 9.5' N Long. 126° 20.7' W  
GEAR: F.B.T.a START TIME (PDT) : 1415 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 77 End: 77 Est. av. Depth: 77  
DIRECTION OF SET °true: 320 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very light spotting just off bottom.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 16 SET/HAUL NO. 58  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 9.0' N Long. 126° 20.4' W  
END: Lat. 49° 9.2' N Long. 126° 19.4' W  
GEAR: F.B.T.a START TIME (PDT) : 1455 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 71 End: 71 Est. av. Depth: 71  
DIRECTION OF SET °true: 130 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: -

Appendix 1. Table 3 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 16 SET/HAUL NO. 59

LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island

START: Lat. 49° 9.5' N Long. 126° 20.0' W

END: Lat. 49° 10.1' N Long. 126° 21.0' W

GEAR: F.B.T.a START TIME (PDT) : 1535 DURATION (min): 15

BOTTOM DEPTH (m): Start: 71 End: 73 Est. av. Depth: 72

DIRECTION OF SET °true: 330 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Nothing showing.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 16 SET/HAUL NO. 60

LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island

START: Lat. 49° 9.9' N Long. 126° 20.7' W

END: Lat. 49° 9.4' N Long. 126° 19.7' W

GEAR: F.B.T.a START TIME (PDT) : 1620 DURATION (min): 15

BOTTOM DEPTH (m): Start: 73 End: 71 Est. av. Depth: 72

DIRECTION OF SET °true: 135 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Nothing showing on bottom. One spot 64 m.

Appendix 1. Table 3 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 16 SET/HAUL NO. 61

LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island

START: Lat. 49° 9.0' N Long. 126° 19.5' W

END: Lat. 49° 9.7' N Long. 126° 20.2' W

GEAR: F.B.T.a START TIME (PDT) : 1730 DURATION (min): 15

BOTTOM DEPTH (m): Start: 73 End: 71 Est. av. Depth: 72

DIRECTION OF SET °true: 230 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: -

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 16 SET/HAUL NO. 62

LOCATION: Sydney Inlet AREA: West coast Vancouver Island

START: Lat. 49° 15.5' N Long. 126° 21.9' W

END: Lat. 49° 15.6' N Long. 126° 21.4' W

GEAR: F.B.T.a START TIME (PDT) : 0750 DURATION (min): 15

BOTTOM DEPTH (m): Start: 46 End: 46 Est. av. Depth: 46

DIRECTION OF SET °true: 140-70 SPEED kn: 4.3 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Light occasional spotting on bottom.

Appendix 1. Table 3 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 17 SET/HAUL NO. 63  
LOCATION: Sydney Inlet AREA: West coast Vancouver Island  
START: Lat. 49° 15.5' N Long. 126° 21.7' W  
END: Lat. 49° 16.4' N Long. 126° 22.8' W  
GEAR: F.B.T.a START TIME (PDT) : 0825 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 46 End: 46 Est. av. Depth: 46  
DIRECTION OF SET °true: 330 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very light occasional spotting.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 17 SET/HAUL NO. 64  
LOCATION: Sydney Inlet AREA: West coast Vancouver Island  
START: Lat. 49° 15.9' N Long. 126° 21.7' W  
END: Lat. 49° 15.4' N Long. 126° 21.3' W  
GEAR: F.B.T.a START TIME (PDT) : 0900 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 46 End: 46 Est. av. Depth: 46  
DIRECTION OF SET °true: 120 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: 9 OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Nothing showing.

Appendix 1. Table 3 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 17 SET/HAUL NO. 65  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 10.4' N Long. 126° 21.0' W  
END: Lat. 49° 9.4' N Long. 126° 19.6' W  
GEAR: F.B.T.a START TIME (PDT) : 1005 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 73 End: 73 Est. av. Depth: 73  
DIRECTION OF SET °true: 160 SPEED kn: 3.7 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: swell TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: 10 OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very little showing on bottom.  
Some sporadic spotting throughout water column.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 17 SET/HAUL NO. 66  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 9.5' N Long. 126° 19.8' W  
END: Lat. 49° 10.4' N Long. 126° 20.4' W  
GEAR: F.B.T.a START TIME (PDT) : 1040 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 73 End: 73 Est. av. Depth: 73  
DIRECTION OF SET °true: 330 SPEED kn: 3.5 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: swell TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very little showing on bottom.  
Occasional light spotting at about 64 m.

Appendix 1. Table 3 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 17 SET/HAUL NO. 67  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 9.7' N Long. 126° 20.0' W  
END: Lat. 49° 9.1' N Long. 126° 19.3' W  
GEAR: F.B.T.a START TIME (PDT) : 1135 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 75 End: 73 Est. av. Depth: 74  
DIRECTION OF SET °true: 130 SPEED kn: 3.5 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: swell TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Very little showing on bottom.  
Light occasional spotting at 64 m.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 17 SET/HAUL NO. 68  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 9.7' N Long. 126° 20.2' W  
END: Lat. 49° 10.4' N Long. 126° 21.1' W  
GEAR: F.B.T.a START TIME (PDT) : 1240 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 71 End: 71 Est. av. Depth: 71  
DIRECTION OF SET °true: 310 SPEED kn: 3.5 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: swell TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Light spotting on bottom.  
Light spotting at about 64 m.

Appendix 1. Table 3 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 17 SET/HAUL NO. 69

LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island

START: Lat. 48° 8.4' N Long. 126° 18.0' W

END: Lat. 48° 7.4' N Long. 126° 17.9' W

GEAR: F.B.T.∞ START TIME (PDT) : 1330 DURATION (min): 15

BOTTOM DEPTH (m): Start: 73 End: 73 Est. av. Depth: 73

DIRECTION OF SET °true: - SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: swell TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: -----

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 17 SET/HAUL NO. 70

LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island

START: Lat. 49° 6.4' N Long. 126° 20.6' W

END: Lat. 49° 7.3' N Long. 126° 21.5' W

GEAR: F.B.T.∞ START TIME (PDT) : 1420 DURATION (min): 15

BOTTOM DEPTH (m): Start: 91 End: 91 Est. av. Depth: 91

DIRECTION OF SET °true: 310 SPEED kn: 3.3 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Dense occasional spotting on bottom.

Light occasional spotting at about 64 m.

Appendix 1. Table 3 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 17 SET/HAUL NO. 71

LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island

START: Lat. 49° 7.0' N Long. 126° 20.9' W

END: Lat. 49° 8.6' N Long. 126° 22.2' W

GEAR: F.B.T.a START TIME (PDT) : 1500 DURATION (min): 15

BOTTOM DEPTH (m): Start: 91 End: 90 Est. av. Depth: 90

DIRECTION OF SET °true: 120 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: swell TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: 11 OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Dense spotting on and just off bottom.  
Occasional light to moderate spotting at 60 - 65 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 17 SET/HAUL NO. 72

LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island

START: Lat. 49° 7.1' N Long. 126° 20.9' W

END: Lat. 49° 7.3' N Long. 126° 21.9' W

GEAR: F.B.T.a START TIME (PDT) : 1525 DURATION (min): 15

BOTTOM DEPTH (m): Start: 91 End: 91 Est. av. Depth: 91

DIRECTION OF SET °true: 310 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: swell TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Occasional moderate to dense spotting on and just off  
bottom. Light occasional spotting at 64 m.

Appendix I. Table 3 (cont'd)

	Yr	Mo.	Day		
VESSEL:	<u>ARCTIC HARVESTER</u>	DATE:	78 9 17	SET/HAUL NO.	73
LOCATION:	<u>Clayoquot Sd.</u>	AREA:	<u>West coast Vancouver Island</u>		
START:	Lat. <u>49° 6.5' N</u>	Long.	<u>126° 20.9' W</u>		
END:	Lat. <u>49° 5.9' N</u>	Long.	<u>126° 19.8' W</u>		
GEAR:	<u>F.B.T.a</u>	START TIME	(PDT)	: <u>1730</u>	DURATION (min): <u>15</u>
BOTTOM DEPTH (m):	Start: <u>91</u>	End: <u>90</u>	Est. av. Depth:	<u>91</u>	
DIRECTION OF SET °true:	<u>130</u>	SPEED kn:	<u>-</u>	DISTANCE TRAVELED mi.	<u>-</u>
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>swell</u>	TIDE:	<u>-</u>
WIND DIRECTION:	<u>-</u>	WIND SPEED:	<u>-</u>	RECORDER:	<u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT:	<u>-</u>
OTHER OCEANOGRAPHIC DATA: <u>-</u>					
SOUNDER SUMMARY: <u>Light occasional spotting on bottom.</u>					
<u>Dense occasional spotting just off bottom and 60 m.</u>					

	Yr	Mo.	Day		
VESSEL:	<u>ARCTIC HARVESTER</u>	DATE:	78 9 18	SET/HAUL NO.	74
LOCATION:	<u>Sydney Inlet</u>	AREA:	<u>West coast Vancouver Island</u>		
START:	Lat. <u>49° 15.4' N</u>	Long.	<u>126° 21.8' W</u>		
END:	Lat. <u>49° 15.2' N</u>	Long.	<u>126° 20.0' W</u>		
GEAR:	<u>F.B.T.a</u>	START TIME	(PDT)	: <u>0745</u>	DURATION (min): <u>15</u>
BOTTOM DEPTH (m):	Start: <u>48</u>	End: <u>48</u>	Est. av. Depth:	<u>48</u>	
DIRECTION OF SET °true:	<u>130</u>	SPEED kn:	<u>3.9</u>	DISTANCE TRAVELED mi.	<u>-</u>
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>swell</u>	TIDE:	<u>-</u>
WIND DIRECTION:	<u>-</u>	WIND SPEED:	<u>-</u>	RECORDER:	<u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT:	<u>-</u>
OTHER OCEANOGRAPHIC DATA: <u>-</u>					
SOUNDER SUMMARY: <u>-</u>					

Appendix 1. Table 3 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 18 SET/HAUL NO. 75

LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island

START: Lat. 49° 9.0' N Long. 126° 19.8' W

END: Lat. 49° 9.8' N Long. 126° 20.8' W

GEAR: F.B.T.a START TIME (PDT) : 0955 DURATION (min): 15

BOTTOM DEPTH (m): Start: 73 End: 71 Est. av. Depth: 72

DIRECTION OF SET °true: 320 SPEED kn: 3.7 DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: swell TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Nothing showing.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 18 SET/HAUL NO. 76

LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island

START: Lat. 49° 8.2' N Long. 126° 22.6' W

END: Lat. 49° 7.2' N Long. 126° 21.7' W

GEAR: F.B.T.a START TIME (PDT) : 1040 DURATION (min): 15

BOTTOM DEPTH (m): Start: 91 End: 91 Est. av. Depth: 91

DIRECTION OF SET °true: 140 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: swell TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Dense spotting 64 - 73 m.

Moderate to dense spotting on and just off bottom.

Appendix 1. Table 3 (cont'd)

	Yr	Mo.	Day	
VESSEL:	ARCTIC HARVESTER	DATE:	78 9 18	SET/HAUL NO. 77
LOCATION:	Clayoquot Sd.	AREA:	West coast Vancouver Island	
START:	Lat. 49° 6.6' N	Long.	126° 20.7' W	
END:	Lat. 49° 6.1' N	Long.	126° 20.0' W	
GEAR:	F.B.T.a	START TIME (PDT)	1130	DURATION (min) 15
BOTTOM DEPTH (m):	Start: 91	End:	91	Est. av. Depth: 91
DIRECTION OF SET °true:	140	SPEED kn:	3.6	DISTANCE TRAVELED mi. -
SET ON:	Pre-selected	WATER CONDITION:	calm	TIDE: -
WIND DIRECTION:	-	WIND SPEED:	-	RECORDER: A. C.
TTM:	-	TDM:	-	BT: OTHER OCEANOGRAPHIC DATA: -
SOUNDER SUMMARY: Light to moderate occasional spotting on and just off bottom. Dense spotting 60 - 75 m.				

	Yr	Mo.	Day	
VESSEL:	ARCTIC HARVESTER	DATE:	78 9 18	SET/HAUL NO. 78
LOCATION:	Clayoquot Sd.	AREA:	West coast Vancouver Island	
START:	Lat. 49° 5.4' N	Long.	126° 19.2' W	
END:	Lat. 49° 4.6' N	Long.	126° 18.2' W	
GEAR:	F.B.T.a	START TIME (PDT)	1220	DURATION (min) 15
BOTTOM DEPTH (m):	Start: 91	End:	91	Est. av. Depth: 91
DIRECTION OF SET °true:	140	SPEED kn:	-	DISTANCE TRAVELED mi. -
SET ON:	Pre-selected	WATER CONDITION:	calm	TIDE: -
WIND DIRECTION:	-	WIND SPEED:	-	RECORDER: A. C.
TTM:	-	TDM:	-	BT: OTHER OCEANOGRAPHIC DATA: -
SOUNDER SUMMARY: Moderate spotting on and off bottom. Dense spotting 60 - 70 m.				

Appendix 1. Table 3 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 18 SET/HAUL NO. 79  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 4.7' N Long. 126° 18.6' W  
END: Lat. 49° 5.4' N Long. 126° 19.2' W  
GEAR: F.B.T.a START TIME (PDT) : 1300 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 91 End: 91 Est. av. Depth: 91  
DIRECTION OF SET ° true: 320 SPEED kn: 3.3 DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Dense spotting on and just off bottom and 64 m.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 18 SET/HAUL NO. 80  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 5.4' N Long. 126° 19.0' W  
END: Lat. 49° 4.6' N Long. 126° 17.5' W  
GEAR: F.B.T.a START TIME (PDT) : 1340 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 91 End: 91 Est. av. Depth: 91  
DIRECTION OF SET ° true: 140 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Dense occasional spotting on bottom,  
Dense spotting at 65 m.

Appendix I. Table 3 (cont'd)

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 18 SET/HAUL NO. 81

LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island

START: Lat. 49° 4.6' N Long. 126° 18.8' W

END: Lat. 49° 5.6' N Long. 126° 19.3' W

GEAR: F.B.T.a START TIME (PDT) : 1340 DURATION (min): 15

BOTTOM DEPTH (m): Start: 91 End: 91 Est. av. Depth: 91

DIRECTION OF SET °true: 320 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Moderate to dense spotting on bottom. Moderate  
spotting at 65 m.

Yr Mo. Day

VESSEL: ARCTIC HARVESTER DATE: 78 9 18 SET/HAUL NO. 82

LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island

START: Lat. 49° 5.5' N Long. 126° 19.4' W

END: Lat. 49° 4.4' N Long. 126° 18.5' W

GEAR: F.B.T.a START TIME (PDT) : 1500 DURATION (min): 15

BOTTOM DEPTH (m): Start: 91 End: 93 Est. av. Depth: 92

DIRECTION OF SET °true: 140 SPEED kn: - DISTANCE TRAVELED mi. -

SET ON: Pre-selected WATER CONDITION: calm TIDE: -

WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.

TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -

SOUNDER SUMMARY: Dense spotting just off bottom and at 65 m.

Appendix 1. Table 3 (cont'd)

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 18 SET/HAUL NO. 83  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 4.5' N Long. 126° 18.9' W  
END: Lat. 49° 5.4' N Long. 126° 19.1' W  
GEAR: F.B.T.a START TIME (PDT) : 1540 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 93 End: 93 Est. av. Depth: 93  
DIRECTION OF SET °true: 320 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Occasional dense spotting 6 m off bottom.  
Occasional dense spotting 65 m. Very little on bottom.

Yr Mo. Day  
VESSEL: ARCTIC HARVESTER DATE: 78 9 18 SET/HAUL NO. 84  
LOCATION: Clayoquot Sd. AREA: West coast Vancouver Island  
START: Lat. 49° 15.3' N Long. 126° 18.6' W  
END: Lat. 49° 14.4' N Long. 126° 18.6' W  
GEAR: F.B.T.a START TIME (PDT) : 1620 DURATION (min): 15  
BOTTOM DEPTH (m): Start: 93 End: 93 Est. av. Depth: 93  
DIRECTION OF SET °true: 140 SPEED kn: - DISTANCE TRAVELED mi. -  
SET ON: Pre-selected WATER CONDITION: calm TIDE: -  
WIND DIRECTION: - WIND SPEED: - RECORDER: A. C.  
TTM: - TDM: - BT: - OTHER OCEANOGRAPHIC DATA: -  
SOUNDER SUMMARY: Dense spotting 65 m. Light spotting on bottom.

Appendix 1. Table 3 (cont'd)

	Yr	Mo.	Day	
VESSEL:	<u>ARCTIC HARVESTER</u>		DATE:	<u>78 9 18</u> SET/HAUL NO. <u>85</u>
LOCATION:	<u>Swanson Channel</u>		AREA:	<u>Strait of Georgia</u>
START:	Lat.	<u>48° 44.2' N</u>		Long. <u>123° 17.9' W</u>
END:	Lat.	<u>48° 45.6' N</u>		Long. <u>123° 19.2' W</u>
GEAR:	<u>F.B.T.a</u>	START TIME	(PDT)	: <u>0815</u> DURATION (min): <u>15</u>
BOTTOM DEPTH (m):	Start:	<u>82</u>	End:	<u>75</u> Est. av. Depth: <u>78</u>
DIRECTION OF SET °true:	<u>340</u>		SPEED kn:	<u>-</u> DISTANCE TRAVELED mi. <u>-</u>
SET ON:	<u>Pre-selected</u>	WATER CONDITION:	<u>calm</u>	TIDE: <u>-</u>
WIND DIRECTION:	<u>-</u>	WIND SPEED:	<u>-</u>	RECORDER: <u>A. C.</u>
TTM:	<u>-</u>	TDM:	<u>-</u>	BT: <u>-</u> OTHER OCEANOGRAPHIC DATA: <u>-</u>
SOUNDER SUMMARY:	<u>Dense spotting on bottom.</u>			

<sup>a</sup> F.B.T. = Flat bottom trawl.

Appendix 2. Table 1. Bathythermograph readings, ARCTIC HARVESTER, July 6-26, 1978.

Depth (m)	Set no.																	
	1	3	7	8	11	12	14	17	20	21	25	27	28	29	30	31	32	33
Surface	17.5	18.5	18.0	18.0	11.2	11.5	12.8	10.5	12.4	13.5	12.5	14.4	13.5	14.5	13.8	13.9	12.0	13.3
10	13.0	13.0	16.5	17.5	10.5	9.7	12.8	9.7	10.0	10.5	11.0	12.0	11.0	13.5	12.0	13.9	9.0	13.3
20	11.0	11.0	12.0	13.0	10.5	8.5	10.0	9.7	8.3	8.8	9.4	10.5	9.2	9.5	8.5	8.8	6.5	10.5
30	10.2	10.2	11.2	11.5	9.5	8.5	9.5	9.5	8.0	8.5	8.8	9.5	9.0	8.2	8.0	8.4	5.6	9.2
40	10.0	10.0	10.2	11.5	9.0	8.5	8.5	9.5	8.0	8.5	8.4	9.5	9.0	8.0	8.0	8.2	5.5	8.8
50	10.0	10.0	10.0	11.0	9.0	7.8	8.2	8.5	7.5	-	-	9.0	9.0	7.5	7.6	7.9	5.5	8.8
60	10.0	10.0	10.0	11.0	-	7.0	8.0	8.0	-	-	-	-	8.2	7.5	7.5	7.6	5.2	8.6
70	9.5	10.0	-	10.5	-	-	7.6	7.5	-	-	-	-	8.0	7.3	7.5	7.5	5.0	8.6
80	9.5	9.8	-	10.5	-	-	-	7.5	-	-	-	-	-	7.2	7.5	7.2	5.0	8.0
90	9.5	9.5	-	10.0	-	-	-	7.0	-	-	-	-	-	7.0	7.0	7.0	5.0	8.0
100	9.0	9.5	-	10.0	-	-	-	6.5	-	-	-	-	-	7.0	7.0	-	4.5	8.0
120	9.0	8.8	-	9.2	-	-	-	-	-	-	-	-	-	7.0	-	-	-	-
140	9.0	8.8	-	9.0	-	-	-	-	-	-	-	-	-	6.5	-	-	-	-
160	9.0	8.8	-	9.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Appendix 2. Table 2. Bathythermograph readings, ARCTIC HARVESTER, September 8-19, 1978.**

Appendix 3. Table 1. Numbers and identification of tags released at different locations off the southwest coast of Vancouver Island, June 25-30, 1978.

Date	Set no.	Location	Anchor tags		Suture tags		Cumulative totals	
			Identification no. B77 <sup>a</sup>	No. released	Identification no. DF	No. released with double tags	Anchor tags	Anchor+ suture tags
June 26	1	Finger Bank	38000-38001	2	45000-45001	2	2	2
	2-3	Big Bank	38002-38033	31	45002-45013	12	33	14
	4	Steep Edge	38034-38042	9	-	-	42	23
	5-6	West La Perouse	38043-38046	3	-	-	45	23
June 27	8-9	Finger Bank	38047-38076	29	45014-45024	11	74	34
	10-13	Big Bank	38077-38176	70	45025-45036	12	144	46
	15-16	San Juan	38177-38178	2	-	-	146	46
	18-20	San Juan	38180-38185	5	45037-45038	2	151	48

<sup>a</sup>Identification numbers include some unused tags.

Appendix 3. Table 2. Numbers and identification of tags released at different locations in the Strait of Georgia and off the north and west coasts of Vancouver Island, ARCTIC HARVESTER, July 2-26, 1978.

Date	Set no.	Location	Anchor tags		Suture tags		Cumulative totals	
			Identification no. B77a	No. released	Identification no. DF	No. released with double tags	Anchor tags	Anchor+ suture tags
July 6	1-3	Qualicum	38187-38290	75	45039-45066	26	75	26
July 7	4-10	Chrome Is.	38294-38606	278	45067-45133	63	353	89
July 8	11	Baynes Sd.	38607-38621	13	-	-	366	89
	12	Comox Bar	38622-38623	2	-	-	368	89
July 9	13	Cape Lazo	38624-38629	6	45134-45135	2	374	91
	14	Mitlenatch Is.	38630	1	45136	1	375	92
	15-19	W. Malcom Is.	38650	1	-	-	376	92
July 10	20-23	Mexicana Pt.	38651-38653	3	-	-	379	92
	27	Brooks Bay	38654	1	45137	1	380	93
July 12	28	Checleset Bay	38655-38657	3	45138-45140	3	383	96
	29	Lookout Is.	38658	1			384	96
July 12	30	Kyuquot Sd.	38658	1			385	96

Appendix 3. Table 2 (cont'd)

Date	Set No.	Location	Anchor tags		Suture tags		Cumulative totals	
			Identification No. B77 <sup>a</sup>	No. released	Identification No. DF	No. released with double tags	Anchor tags	Anchor+ suture tags
July 13	33	Estevan Pt.	38659	1	45141	1	386	97
	34-37	Clayoquot Sd.	38662-38695	25	45124-45165	25	411	122
July 14	38-40	Off Tofino	38696-38712	31	45167-45181	15	442	137
	41-46	Clayoquot Sd.	38715-38821	94	45182-45230	49	536	186
July 15	47-53	Lennard Is.	38822-38929	101	45231-45265	32	637	218
July 16	54-57	Firing Range	38930-38947	18	45266-45284	17	655	235
July 16-17	58-66	SW Corner Big Bank	38948-38999 35000-35431	482			1137	235
July 18	67	Wickaninnish Bay	35432	1			1138	235
	68	Lennard Is.	35433-35435	3	45286-45288	3	1141	238
	69-73	Sidney Inlet	35436-35459	24			1165	238
July 19	74	Cleland Is.	35460-35461	2			1167	238
	75	Wickaninnish Bay	35462-35467	6			1173	238
	76	Amphitrite Pt.	35468	1			1174	238

Appendix 3. Table 2 (cont'd)

Date	Set No.	Location	Anchor tags		Suture tags		Cumulative totals	
			Identification No. B77 <sup>a</sup>	No. released	Identification No. DF	No. released with double tags	Anchor tags	Anchor+ suture tags
July 21	77-78	Swanson Ch.	35469-35470	2	45289-	1	1176	239
	80	Tree Is.	35471-35483	13	45290-45303	14	1189	253 <sup>b</sup>
	81-83	Yellow Pt.	35484-35505	22	45304-45309	6	1211	259
July 22	84	Cande Pass Buoy	35506	1			1212	259
July 23	87-97	Chrome Is.	35507-35843	337			1549	259

<sup>a</sup>Identification numbers include some <sup>unused</sup> ~~mixed~~ tags.

<sup>b</sup>One lingcod was released with a suture tag only.

Appendix 3, Table 3. Number and identification of tags released at different locations off the southwest coast of Vancouver Island and in the Strait of Georgia, ARCTIC HARVESTER, September 8-19, 1978.

Date	Set no.	Location	Anchor tags		Suture tags		Cumulative totals	
			Identification no. B77 <sup>a</sup>	No. released	Identification no. DF	No. released with double tags	Anchor tags	Anchor+ suture tags
Sept. 10-14	4-40	Sidney Inlet	35844-36830	981	-	-	981	-
Sept. 15	41-43	Cabbage Patch	36831-36874	44	-	-	1025	-
	44-46	Amphitrite Pt.	36875-36900	26	-	-	1051	-
	47-50	Firing Range	36901-36952	52	-	-	1103	-
Sept. 16	51-54	Lennard Is.	36953-37072	120	-	-	1223	-
	55-61	Clayoquot Sd.	37073-37267	194	-	-	1417	-
	62-64	Sidney Inlet	37268-37322	55	-	-	1472	-
Sept. 17	65-73	Clayoquot Sd.	37323-37517	195	-	-	1667	-
Sept. 18	74	Sidney Inlet	37518-37534	17	-	-	1684	-
	75-84	Clayoquot Sd.	37535-37899	364	-	-	2048	-
Sept. 19	85	Swanson Ch.	37900	1	-	-	2049	-

<sup>a</sup>Identification numbers include some unused tags.

Appendix 4. Table 1. Length frequency of lingcod by sets completed off the west coast of Vancouver Island, SUN MAIDEN, June 25-30, 1978.

Set no. Fork length (cm)	1			2			3			4		
	M	F	T	M	F	T	M	F	T	M	F	T
37	-	-	-	-	-	-	1	-	1	-	-	-
38	-	-	-	-	-	-	0	-	0	-	-	-
39	-	-	-	-	-	-	0	-	0	-	-	-
40	-	-	-	-	-	-	0	1	1	-	-	-
41	-	-	-	-	-	-	0	0	0	-	-	-
42	-	-	-	-	-	-	0	0	0	-	-	-
43	-	-	-	-	-	-	0	0	0	-	-	-
44	-	-	-	-	-	-	0	0	0	-	-	-
45	-	-	-	-	-	-	0	0	0	-	-	-
46	-	-	-	-	-	-	0	0	0	-	-	-
47	-	-	-	-	-	-	0	0	0	-	-	-
48	-	-	-	-	-	-	0	0	0	-	-	-
49	-	-	-	-	-	-	0	0	0	-	-	-
50	-	-	-	-	-	-	0	0	0	-	-	-
51	-	-	-	-	-	-	0	0	0	-	-	-
52	-	-	-	-	-	-	0	0	0	-	-	-
53	-	-	-	-	-	-	0	0	0	-	1	1
54	-	-	-	-	-	-	0	0	0	-	0	0
55	-	-	-	-	-	-	3	0	3	1	0	1
56	-	-	-	-	-	-	0	0	0	0	1	1
57	-	-	-	-	-	-	2	2	4	0	0	0
58	-	1	1	-	-	-	2	2	4	1	1	2
59	-	1	1	-	-	-	2	2	4	-	0	0
60	-	-	-	-	-	-	1	0	1	-	0	0
61	-	-	-	-	-	-	0	1	1	-	1	1
62	-	-	-	-	-	-	1	2	3	-	0	0
63	-	-	-	-	-	-	0	1	1	-	0	0
64	-	-	-	-	-	-	0	0	0	-	0	0
65	-	-	-	-	-	-	0	0	0	-	0	0
66	-	-	-	-	-	-	0	0	0	-	0	0
67	-	-	-	-	-	-	0	0	0	-	0	0
68	-	-	-	-	-	-	0	0	0	-	0	0
69	-	-	-	-	-	-	1	0	1	-	1	1
70	-	-	-	-	-	-	1	0	1	-	0	0
71	-	-	-	-	-	-	-	0	0	-	0	0
72	-	-	-	-	-	-	-	0	0	-	0	0
73	-	-	-	-	-	-	-	0	0	-	0	0
74	-	-	-	-	-	-	-	0	0	-	0	0
75	-	-	-	-	-	-	-	0	0	-	0	0
76	-	-	-	-	-	-	-	0	0	-	0	0
77	-	-	-	-	-	-	-	0	0	-	0	0
78	-	-	-	-	-	-	-	0	0	-	0	0
79	-	-	-	-	-	-	-	0	0	-	0	0

Appendix 4. Table 1 (cont'd)

Set no. Fork length (cm)	1			2			3			4		
	M	F	T	M	F	T	M	F	T	M	F	T
80	-	-	-	-	-	-	-	0	0	-	0	0
81	-	-	-	-	-	-	-	0	0	-	0	0
82	-	-	-	-	-	-	-	0	0	-	0	0
83	-	-	-	-	-	-	-	0	0	-	0	0
84	-	-	-	-	-	-	-	0	0	-	0	0
85	-	-	-	-	-	-	-	1	1	-	0	0
86	-	-	-	-	-	-	-	0	0	-	0	0
87	-	-	-	-	-	-	-	0	0	-	0	0
88	-	-	-	-	-	-	-	1	1	-	0	0
89	-	-	-	-	-	-	-	0	0	-	0	0
90	-	-	-	-	1	1	-	0	0	-	0	0
91	-	-	-	-	0	0	-	0	0	-	0	0
92	-	-	-	-	0	0	-	0	0	-	0	0
93	-	-	-	-	0	0	-	0	0	-	0	0
94	-	-	-	-	1	1	-	0	0	-	0	0
95	-	-	-	-	-	-	-	1	1	-	0	0
96	-	-	-	-	-	-	-	0	0	-	0	0
97	-	-	-	-	-	-	-	0	0	-	0	0
98	-	-	-	-	-	-	-	0	0	-	1	1
99	-	-	-	-	-	-	-	0	0	-	0	0
100	-	-	-	-	-	-	-	0	0	-	0	0
101	-	-	-	-	-	-	-	0	0	-	0	0
102	-	-	-	-	-	-	-	1	1	-	0	0
103	-	-	-	-	-	-	-	-	-	-	0	0
104	-	-	-	-	-	-	-	-	-	-	0	0
105	-	-	-	-	-	-	-	-	-	-	0	0
106	-	-	-	-	-	-	-	-	-	-	0	0
107	-	-	-	-	-	-	-	-	-	-	0	0
108	-	-	-	-	-	-	-	-	-	-	0	0
109	-	-	-	-	-	-	-	-	-	-	0	0
110	-	-	-	-	-	-	-	-	-	-	0	0
111	-	-	-	-	-	-	-	-	-	-	1	1
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	0	2	2	0	2	2	14	15	29	2	7	9

Appendix 4. Table 1 (cont'd)

Set no. Fork length (cm)	5			8			9			10		
	M	F	T	M	F	T	M	F	T	M	F	T
37	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-
39	-	1	1	-	-	-	-	-	-	-	-	-
40	-	0	0	-	-	-	-	-	-	-	-	-
41	-	0	0	-	-	-	-	-	-	-	-	-
42	-	0	0	-	-	-	-	-	-	-	-	-
43	-	0	0	-	-	-	-	-	-	-	-	-
44	-	0	0	-	-	-	-	-	-	-	-	-
45	-	0	0	-	-	-	-	-	-	-	-	-
46	-	0	0	-	-	-	-	-	-	-	-	-
47	-	0	0	-	-	-	-	-	-	-	-	-
48	-	0	0	-	-	-	-	-	-	-	-	-
49	-	0	0	-	-	-	-	-	-	-	-	-
50	-	0	0	-	-	-	-	-	-	1	-	1
51	-	0	0	-	-	-	-	-	-	0	-	0
52	-	0	0	-	-	-	-	-	-	0	-	0
53	-	0	0	-	-	-	-	-	-	0	-	0
54	-	0	0	-	-	-	-	-	-	0	-	0
55	-	0	0	1	1	2	-	-	-	1	-	1
56	-	0	0	0	0	0	-	-	-	0	-	0
57	-	0	0	2	2	4	-	-	-	1	-	1
58	-	0	0	1	0	1	-	2	2	0	-	0
59	-	0	0	1	0	1	-	0	0	1	3	4
60	-	0	0	2	1	3	-	0	0	1	1	2
61	-	0	0	-	2	2	-	1	1	0	1	1
62	-	0	0	-	2	2	-	2	2	1	1	2
63	-	0	0	-	0	0	-	0	0	0	2	2
64	-	0	0	-	0	0	-	0	0	0	4	4
65	-	0	0	-	0	0	-	0	0	0	1	1
66	-	0	0	-	0	0	-	1	1	0	0	0
67	-	0	0	-	0	0	-	0	0	0	0	0
68	-	0	0	-	0	0	-	0	0	0	0	0
69	-	0	0	-	0	0	-	0	0	0	0	0
70	-	0	0	-	0	0	-	0	0	0	0	0
71	-	0	0	-	0	0	-	0	0	0	0	0
72	-	0	0	-	0	0	-	0	0	0	0	0
73	-	0	0	-	0	0	-	0	0	0	0	0
74	-	0	0	-	0	0	1	0	1	0	0	0
75	-	0	0	-	0	0	-	0	0	1	0	1
76	-	0	0	-	0	0	-	0	0	-	0	0
77	-	0	0	-	0	0	-	0	0	-	0	0
78	-	0	0	-	0	0	-	0	0	-	0	0
79	-	0	0	-	1	1	-	0	0	-	0	0

Appendix 4. Table 1 (cont'd)

Set no. Fork length (cm)	5			8			9			10		
	M	F	T	M	F	T	M	F	T	M	F	T
80	-	0	0	-	0	0	-	0	0	-	0	0
81	-	0	0	-	0	0	-	0	0	-	0	0
82	-	0	0	-	0	0	-	0	0	-	0	0
83	-	1	1	-	0	0	-	2	2	-	1	1
84	-	0	0	-	0	0	-	1	1	-	1	1
85	-	0	0	-	0	0	-	-	-	-	0	0
86	-	0	0	-	0	0	-	-	-	-	0	0
87	-	0	0	-	0	0	-	-	-	-	0	0
88	-	0	0	-	1	1	-	-	-	-	0	0
89	-	0	0	-	0	0	-	-	-	-	0	0
90	-	0	0	-	0	0	-	-	-	-	0	0
91	-	0	0	-	0	0	-	-	-	-	0	0
92	-	0	0	-	0	0	-	-	-	-	0	0
93	-	0	0	-	0	0	-	-	-	-	1	1
94	-	0	0	-	0	0	-	-	-	-	0	0
95	-	0	0	-	0	0	-	-	-	-	0	0
96	-	0	0	-	0	0	-	-	-	-	0	0
97	-	0	0	-	0	0	-	-	-	-	0	0
98	-	0	0	-	0	0	-	-	-	-	0	0
99	-	1	1	-	0	0	-	-	-	-	0	0
100	-	-	-	-	0	0	-	-	-	-	0	0
101	-	-	-	-	0	0	-	-	-	-	0	0
102	-	-	-	-	0	0	-	-	-	-	0	0
103	-	-	-	-	1	1	-	-	-	-	0	0
104	-	-	-	-	0	0	-	-	-	-	0	0
105	-	-	-	-	0	0	-	-	-	-	0	0
106	-	-	-	-	0	0	-	-	-	-	0	0
107	-	-	-	-	0	0	-	-	-	-	0	0
108	-	-	-	-	0	0	-	-	-	-	0	0
109	-	-	-	-	1	1	-	-	-	-	0	0
110	-	-	-	-	-	-	-	-	-	-	0	0
111	-	-	-	-	-	-	-	-	-	-	0	0
112	-	-	-	-	-	-	-	-	-	-	0	0
113	-	-	-	-	-	-	-	-	-	-	0	0
114	-	-	-	-	-	-	-	-	-	-	1	1
115	-	-	-	-	-	-	-	-	-	-	0	0
116	-	-	-	-	-	-	-	-	-	-	1	1
TOTAL	0	3	3	7	12	19	1	9	10	7	18	25

Appendix 4. Table 1 (cont'd)

Set no. Fork length (cm)	11			12			13			15		
	M	F	T	M	F	T	M	F	T	M	F	T
37	-	-	-	-	-	-	-	-	-	-	-	-
38	-	1	1	-	-	-	-	-	-	-	-	-
39	-	0	0	-	-	-	-	-	-	-	-	-
40	-	0	0	-	-	-	-	-	-	-	-	-
41	-	0	0	-	-	-	-	-	-	-	-	-
42	-	0	0	-	-	-	-	-	-	-	-	-
43	-	0	0	-	-	-	-	-	-	-	-	-
44	-	0	0	-	-	-	-	-	-	-	-	-
45	-	0	0	-	-	-	-	-	-	-	-	-
46	-	0	0	-	-	-	-	-	-	-	-	-
47	-	1	1	-	-	-	-	-	-	-	-	-
48	-	0	0	-	-	-	-	-	-	-	-	-
49	-	0	0	-	-	-	-	-	-	-	-	-
50	-	0	0	-	-	-	-	-	-	-	-	-
51	-	1	1	-	-	-	-	-	-	-	-	-
52	-	0	0	-	-	-	-	-	-	-	-	-
53	-	0	0	-	-	-	-	-	-	-	-	-
54	-	0	0	-	-	-	-	-	-	-	-	-
55	-	0	0	-	-	-	1	-	1	-	-	-
56	1	0	1	-	-	-	0	-	0	-	-	-
57	1	0	1	2	-	2	0	-	0	-	-	-
58	1	0	1	0	-	0	0	-	0	-	-	-
59	0	1	1	1	1	2	0	1	1	-	-	-
60	2	3	5	0	1	1	0	0	0	-	-	-
61	-	0	0	1	0	1	0	2	2	-	-	-
62	-	0	0	-	1	1	0	0	0	-	-	-
63	-	1	1	-	1	1	0	2	2	-	-	-
64	-	0	0	-	0	0	0	0	0	-	-	-
65	-	0	0	-	0	0	0	0	0	-	-	-
66	-	0	0	-	0	0	0	0	0	-	-	-
67	-	0	0	-	0	0	0	0	0	-	-	-
68	-	0	0	-	0	0	0	0	0	-	-	-
69	-	1	1	-	0	0	0	1	1	-	-	-
70	-	0	0	-	0	0	0	0	0	-	-	-
71	-	0	0	-	0	0	0	1	1	-	-	-
72	-	0	0	-	1	1	0	0	0	-	-	-
73	-	1	1	-	0	0	0	0	0	-	-	-
74	-	0	0	-	0	0	1	0	1	-	-	-
75	-	0	0	-	0	0	-	1	1	-	-	-
76	-	0	0	-	0	0	-	0	0	-	-	-
77	-	0	0	-	0	0	-	0	0	-	-	-
78	-	0	0	-	0	0	-	0	0	-	1	1
79	-	0	0	-	1	1	-	0	0	1	-	1

Appendix 4. Table 1 (cont'd)

Set no. Fork length (cm)	11			12			13			14		
	M	F	T	M	F	T	M	F	T	M	F	T
80	-	0	0	-	1	1	-	0	0	-	-	-
81	-	0	0	-	0	0	-	0	0	-	-	-
82	-	0	0	-	0	0	-	0	0	-	-	-
83	-	0	0	-	0	0	-	1	1	-	-	-
84	-	0	0	-	0	0	-	0	0	-	-	-
85	-	0	0	-	0	0	-	0	0	-	-	-
86	-	0	0	-	0	0	-	0	0	-	-	-
87	-	0	0	-	0	0	-	1	1	-	-	-
88	-	0	0	-	0	0	-	0	0	-	-	-
89	-	0	0	-	0	0	-	1	1	-	-	-
90	-	0	0	-	0	0	-	1	1	-	-	-
91	-	0	0	-	0	0	-	-	-	-	-	-
92	-	0	0	-	0	0	-	-	-	-	-	-
93	-	0	0	-	0	0	-	-	-	-	-	-
94	-	0	0	-	0	0	-	-	-	-	-	-
95	-	0	0	-	0	0	-	-	-	-	-	-
96	-	0	0	-	0	0	-	-	-	-	-	-
97	-	0	0	-	0	0	-	-	-	-	-	-
98	-	0	0	-	0	0	-	-	-	-	-	-
99	-	1	1	-	1	1	-	-	-	-	-	-
100	-	0	0	-	1	1	-	-	-	-	-	-
101	-	0	0	-	-	-	-	-	-	-	-	-
102	-	1	1	-	-	-	-	-	-	-	-	-
103	-	0	0	-	-	-	-	-	-	-	-	-
104	-	0	0	-	-	-	-	-	-	-	-	-
105	-	1	1	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	5	13	18	4	9	13	2	12	14	1	1	2

Appendix 4. Table 1 (cont'd)

Set no. Fork length (cm)	18			20			TOTAL		
	M	F	T	M	F	T	M	F	T
37	-	-	-	-	-	-	1	-	1
38	-	-	-	-	-	-	0	1	1
39	-	-	-	-	-	-	0	1	1
40	-	-	-	-	-	-	0	1	1
41	-	-	-	-	-	-	0	0	0
42	-	-	-	-	-	-	0	0	0
43	-	-	-	-	-	-	0	0	0
44	-	-	-	-	-	-	0	0	0
45	-	-	-	-	-	-	0	0	0
46	-	-	-	-	-	-	0	0	0
47	-	-	-	-	-	-	0	1	1
48	-	-	-	-	-	-	0	0	0
49	-	-	-	-	-	-	0	0	0
50	-	-	-	-	-	-	1	0	1
51	-	-	-	-	-	-	0	1	1
52	-	-	-	-	-	-	0	0	0
53	-	-	-	-	-	-	0	1	1
54	-	-	-	-	-	-	0	0	0
55	-	-	-	-	-	-	7	1	8
56	-	-	-	-	-	-	1	1	2
57	-	-	-	-	-	-	8	4	12
58	-	-	-	-	-	-	5	6	11
59	-	-	-	-	-	-	5	9	14
60	-	-	-	-	-	-	6	6	12
61	-	-	-	-	-	-	1	8	9
62	-	-	-	1	-	1	3	8	11
63	-	-	-	0	-	0	0	7	7
64	-	-	-	0	-	0	0	4	4
65	-	-	-	0	-	0	0	1	1
66	-	-	-	0	-	0	0	1	1
67	-	-	-	1	-	1	1	0	1
68	-	-	-	0	-	0	0	0	0
69	-	-	-	0	-	0	1	3	4
70	-	-	-	0	-	0	1	0	1
71	-	-	-	0	-	0	0	1	1
72	-	-	-	0	-	0	0	1	1
73	-	-	-	0	-	0	0	1	1
74	-	-	-	0	-	0	2	0	2
75	-	-	-	1	-	1	2	1	3
76	-	1	1	-	-	0	0	1	1
77	-	-	-	-	-	0	0	0	0
78	-	-	-	-	-	0	0	1	1
79	-	-	-	-	-	0	1	2	3

Appendix 4. Table 1 (cont'd)

Set no. Fork length (cm)	18			20			TOTAL		
	M	F	T	M	F	T	M	F	T
80	-	-	-	-	1	1	-	2	2
81	-	-	-	-	-	-	-	0	0
82	-	-	-	-	-	-	-	0	0
83	-	-	-	-	-	-	-	5	5
84	-	-	-	-	-	-	-	2	2
85	-	-	-	-	-	-	-	1	1
86	-	-	-	-	-	-	-	0	0
87	-	-	-	-	-	-	-	1	1
88	-	-	-	-	-	-	-	2	2
89	-	-	-	-	-	-	-	1	1
90	-	-	-	-	-	-	-	2	2
91	-	-	-	-	-	-	-	0	0
92	-	-	-	-	-	-	-	0	0
93	-	-	-	-	-	-	-	1	1
94	-	-	-	-	-	-	-	1	1
95	-	-	-	-	-	-	-	1	1
96	-	-	-	-	-	-	-	0	0
97	-	-	-	-	-	-	-	0	0
98	-	-	-	-	-	-	-	1	1
99	-	-	-	-	-	-	-	3	3
100	-	-	-	-	-	-	-	1	1
101	-	-	-	-	-	-	-	0	0
102	-	-	-	-	-	-	-	2	2
103	-	-	-	-	-	-	-	1	1
104	-	-	-	-	-	-	-	0	0
105	-	-	-	-	-	-	-	1	1
106	-	-	-	-	-	-	-	0	0
107	-	-	-	-	-	-	-	0	0
108	-	-	-	-	-	-	-	0	0
109	-	-	-	-	-	-	-	1	1
110	-	-	-	-	-	-	-	0	0
111	-	-	-	-	-	-	-	1	1
112	-	-	-	-	-	-	-	0	0
113	-	-	-	-	-	-	-	0	0
114	-	-	-	-	-	-	-	1	1
115	-	-	-	-	-	-	-	0	0
116	-	-	-	-	-	-	-	1	1
TOTAL	0	1	1	3	1	4	46	105	151

Appendix 4, Table 2. Length frequency of lingcod by sets, completed in the Strait of Georgia, ARCTIC HARVESTER, July 6-26, 1978.

Total Length (cm)	Set no.											
	1			2			3			4		
	M	F	T	M	F	T	M	F	T	M	F	T
22	0	0	0	0	0	0	0	0	0	0	1	1
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	1	1
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	1	1
27	0	0	0	0	0	0	0	0	0	0	3	3
28	0	0	0	0	0	0	0	0	0	0	2	2
29	0	0	0	0	0	0	0	0	0	0	3	3
30	0	0	0	0	0	0	0	0	0	0	4	4
31	0	0	0	0	0	0	0	0	0	0	4	4
32	0	0	0	0	0	0	0	0	0	0	5	5
33	0	0	0	0	0	0	0	0	0	1	1	2
34	0	0	0	0	0	0	0	0	0	0	3	3
35	0	0	0	0	0	0	0	0	0	0	3	3
36	0	0	0	0	0	0	0	0	0	0	2	2
37	0	0	0	0	0	0	0	0	0	0	0	0
38	0	0	0	0	0	0	0	0	0	0	0	0
39	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0
41	0	0	0	0	0	0	0	0	0	0	0	0
42	0	0	0	0	0	0	0	0	0	1	1	2
43	0	0	0	0	0	0	0	0	0	0	2	2
44	0	0	0	0	0	0	0	0	0	1	1	2
45	0	0	0	0	0	0	0	0	0	1	0	1
46	1	1	2	0	4	4	0	0	0	0	2	2
47	0	0	0	0	1	1	0	0	0	0	0	0
48	0	1	1	0	0	0	0	0	0	1	1	2
49	0	0	0	0	1	1	0	0	0	0	1	1
50	1	0	1	0	0	0	0	0	0	0	0	0
51	0	0	0	0	0	0	0	0	0	0	0	0
52	0	0	0	0	0	0	0	0	0	0	0	0
53	0	0	0	0	1	1	0	0	0	0	0	0
54	0	0	0	0	3	3	0	0	0	0	0	0
55	0	1	1	0	4	4	0	2	2	1	0	1
56	0	2	2	0	2	2	0	0	0	0	0	0
57	0	1	1	0	1	1	0	0	0	0	0	0
58	0	1	1	0	1	1	0	0	0	0	0	0
59	0	3	3	0	1	1	0	0	0	0	0	0
60	0	3	3	0	2	2	0	1	1	1	0	1
61	0	2	2	0	1	1	0	2	2	0	0	0
62	0	0	0	0	1	1	0	0	0	1	0	1
63	0	0	0	0	1	1	0	0	0	0	0	0
64	0	1	1	0	2	2	0	3	3	1	0	1

**Appendix 4. Table 2 (cont'd)**

Appendix 4. Table 2 (cont'd)

Set no. Fork length (cm)	1			2			3			4		
	M	F	T	M	F	T	M	F	T	M	F	T
108	-	0	0	-	-	-	-	-	-	-	-	-
109	-	0	0	-	-	-	-	-	-	-	-	-
110	-	0	0	-	-	-	-	-	-	-	-	-
111	-	1	1	-	-	-	-	-	-	-	-	-
Total	3	25	28	0	31	31	1	15	16	10	41	51

Appendix 4. Table 2 (cont'd)

Set no.	5			6			7			8		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	1	-	1
27	-	-	-	-	-	-	-	-	-	0	2	2
28	-	-	-	-	-	-	-	-	-	0	0	0
29	-	-	-	-	-	-	-	-	-	0	2	2
30	-	-	-	-	-	-	-	-	-	1	0	1
31	1	-	1	-	-	-	-	-	-	0	3	3
32	0	1	1	1	-	1	-	-	-	2	3	5
33	1	1	2	0	-	0	-	-	-	2	3	5
34	0	0	0	0	-	0	-	-	-	0	1	1
35	1	0	1	0	-	0	-	1	1	2	3	5
36	0	0	0	0	-	0	-	-	-	0	2	2
37	0	0	0	0	2	2	-	-	-	0	1	1
38	0	0	0	0	0	0	-	-	-	0	0	0
39	1	0	1	0	0	0	-	-	-	0	0	0
40	2	0	2	0	0	0	-	-	-	0	0	0
41	0	0	0	1	0	1	-	-	-	0	0	0
42	0	0	0	0	1	1	-	-	-	1	0	1
43	0	5	5	1	2	3	-	-	-	0	0	0
44	4	3	7	0	2	2	-	-	-	2	1	3
45	1	4	5	0	1	1	-	-	-	0	1	1
46	5	4	9	1	1	2	-	-	-	0	1	1
47	0	5	5	0	1	1	-	-	-	1	-	1
48	0	6	6	0	2	2	-	-	-	0	-	0
49	0	0	0	0	0	0	-	-	-	0	-	0
50	1	2	3	0	1	1	-	-	-	0	-	0
51	0	0	0	0	0	0	-	-	-	0	-	0
52	3	1	4	0	0	0	-	-	-	0	-	0
53	1	1	2	0	0	0	-	-	-	0	-	0
54	0	2	2	0	1	1	-	-	-	0	-	0
55	0	2	2	1	-	1	-	-	-	0	-	0
56	0	2	2	0	-	0	-	-	-	0	-	0
57	0	0	0	0	-	0	-	-	-	0	-	0
58	0	0	0	1	--	1	-	-	-	0	-	0
59	0	1	1	0	-	0	-	-	-	0	-	0
60	0	1	1	1	-	1	-	-	-	0	-	0
61	0	-	0	0	-	0	-	-	-	0	-	0
62	0	-	0	0	-	0	-	-	-	0	-	0
63	1	-	1	0	-	0	-	-	-	0	-	0
64	-	-	-	0	-	0	-	-	-	0	-	0

**Appendix 4. Table 2 (cont'd)**

Appendix 4. Table 2 (cont'd)

Set no. Fork length (cm)	5			6			7			8		
	M	F	T	M	F	T	M	F	T	M	F	T
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
Total	22	41	63	8	14	22	0	1	1	13	23	36

Appendix 4. Table 2 (cont'd)

Set no.	9			10			11			12		
	M	F	T	M	F	T	M	F	T	M	F	T
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	1	-	1	-	-	-
28	-	1	1	-	-	-	0	-	0	-	-	-
29	-	0	0	-	-	-	1	1	2	-	-	-
30	-	0	0	1	1	2	1	1	2	-	-	-
31	-	0	0	0	1	1	0	0	0	-	-	-
32	-	0	0	0	0	0	1	2	3	1	1	2
33	-	0	0	0	1	1	1	1	2	-	-	-
34	-	0	0	1	0	1	1	-	1	-	-	-
35	-	1	1	0	0	0	2	-	2	-	-	-
36	-	0	0	0	0	0	-	-	-	-	-	-
37	-	1	1	0	0	0	-	-	-	-	-	-
38	-	0	0	0	0	0	-	-	-	-	-	-
39	-	0	0	0	1	1	-	-	-	-	-	-
40	-	0	0	0	0	0	-	-	-	-	-	-
41	-	0	0	0	1	1	-	-	-	-	-	-
42	1	0	1	1	1	2	-	-	-	-	-	-
43	2	0	2	1	1	2	-	-	-	-	-	-
44	1	1	2	2	3	5	-	-	-	-	-	-
45	0	2	2	2	5	7	-	-	-	-	-	-
46	1	2	3	1	1	2	-	-	-	-	-	-
47	0	1	1	1	2	3	-	-	-	-	-	-
48	0	0	0	0	0	0	-	-	-	-	-	-
49	2	0	2	1	1	2	-	-	-	-	-	-
50	1	0	1	1	0	1	-	-	-	-	-	-
51	0	0	0	3	0	3	-	-	-	-	-	-
52	0	0	0	1	1	2	-	-	-	-	-	-
53	3	1	4	3	0	3	-	-	-	-	-	-
54	2	2	4	1	1	2	-	-	-	-	-	-
55	4	2	6	2	1	3	-	-	-	-	-	-
56	2	0	2	0	2	2	-	-	-	-	-	-
57	0	2	2	1	1	2	-	-	-	-	-	-
58	1	2	3	1	-	1	-	-	-	-	-	-
59	0	0	0	1	-	1	-	-	-	-	-	-
60	1	3	4	1	-	1	-	-	-	-	-	-
61	1	3	4	0	-	0	-	-	-	-	-	-
62	1	0	1	0	-	0	-	-	-	-	-	-
63	0	1	1	0	-	0	-	-	-	-	-	-
64	0	-	0	1	-	1	-	-	-	-	-	-

Appendix 4. Table 2 (cont'd)

Appendix 4. Table 2 (cont'd)

Set no. Fork length (cm)	9			10			11			12		
	M	F	T	M	F	T	M	F	T	M	F	T
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
Total	28	25	53	27	25	52	8	5	13	1	1	2

#### Appendix 4. Table 2 (cont'd)

Appendix 4. Table 2 (cont'd)

Appendix 4. Table 2 (cont'd)

Set no. Fork length (cm)	13			14			77			78		
	M	F	T	M	F	T	M	F	T	M	F	T
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
Total	3	2	5	0	1	1	0	1	1	0	1	1

Appendix 4. Table 2 (cont'd)

Set no.	80			81			82			83		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	1	1	-	-	-	-	-	-
34	-	-	-	-	0	0	-	-	-	-	-	-
35	-	-	-	-	0	0	-	1	1	-	-	-
36	2	1	3	-	0	0	-	0	0	-	-	-
37	1	4	5	-	0	0	-	1	1	1	-	1
38	1	1	2	-	0	0	-	1	1	-	-	0
39	0	0	0	-	0	0	-	0	0	-	-	0
40	0	0	0	-	0	0	-	0	0	-	-	0
41	0	0	0	-	0	0	-	0	0	-	-	0
42	0	0	0	-	0	0	-	0	0	-	-	0
43	0	0	0	-	0	0	-	0	0	-	-	0
44	0	0	0	-	0	0	-	0	0	-	-	0
45	0	1	1	-	0	0	-	0	0	-	-	0
46	0	0	0	-	0	0	-	0	0	-	-	0
47	0	0	0	-	0	0	-	0	0	-	-	0
48	0	0	0	-	0	0	-	0	0	-	-	0
49	0	0	0	-	0	0	-	1	1	-	-	0
50	0	1	1	-	0	0	-	-	-	-	-	0
51	0	0	0	-	1	1	-	-	-	-	-	0
52	0	0	0	-	0	0	-	-	-	-	-	0
53	1	0	1	-	0	0	-	-	-	-	-	0
54	-	0	0	-	0	0	-	-	-	-	-	0
55	-	0	0	-	0	0	-	-	-	-	-	0
56	-	0	0	-	0	0	-	-	-	-	-	0
57	-	0	0	-	0	0	-	-	-	-	-	0
58	-	0	0	-	0	0	-	-	-	-	-	0
59	-	0	0	-	0	0	-	-	-	-	-	0
60	-	0	0	-	0	0	-	-	-	-	-	0
61	-	0	0	-	0	0	-	-	-	-	-	0
62	-	0	0	-	0	0	-	-	-	-	-	0
63	-	0	0	-	1	1	-	-	-	-	-	0
64	-	0	0	-	1	1	-	-	-	-	-	0

#### Appendix 4. Table 2 (cont'd)

Appendix 4. Table 2 (cont'd)

Set no.	80			81			82			83		
	M	F	T	M	F	T	M	F	T	M	F	T
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
Total	5	9	14	4	12	16	0	4	4	1	1	2

**Appendix 4. Table 2 (cont'd)**

**Appendix 4. Table 2 (cont'd)**

Appendix 4. Table 2 (cont'd)

Set no. Fork length (cm)	84			87			88			89		
	M	F	T	M	F	T	M	F	T	M	F	T
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
Total	0	1	1	13	17	30	8	6	14	11	11	22

**Appendix 4. Table 2 (cont'd)**

**Appendix 4. Table 2 (cont'd)**

Appendix 4. Table 2 (cont'd)

Set no. Fork length (cm)	90			91			92			93		
	M	F	T	M	F	T	M	F	T	M	F	T
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
Total	8	7	15	3	3	6	1	0	1	6	13	19

Appendix 4. Table 2 (cont'd)

Set no.	94			95			96			97		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	1	1	-	1	1	-	-	-
27	-	-	-	-	2	2	1	0	1	-	-	-
28	1	-	1	4	1	5	2	1	3	-	-	-
29	0	1	1	3	2	5	1	1	2	-	1	1
30	0	1	1	5	1	6	0	5	5	1	1	2
31	0	0	0	1	6	7	1	6	7	1	2	3
32	2	2	4	5	6	11	5	3	8	0	1	1
33	1	0	1	4	6	10	4	6	10	0	2	2
34	1	1	2	5	8	13	2	8	10	0	1	1
35	1	0	1	1	1	2	4	3	7	0	4	4
36	0	0	0	2	3	5	0	4	4	0	0	0
37	0	0	0	1	0	1	0	0	0	0	2	2
38	0	1	1	0	0	0	0	0	0	0	0	0
39	0	0	0	0	0	0	0	1	1	1	0	1
40	0	0	0	0	0	0	2	0	2	0	0	0
41	0	0	0	1	0	1	0	0	0	0	0	0
42	0	0	0	5	0	5	5	1	6	0	2	2
43	0	0	0	2	2	4	2	0	2	0	1	1
44	0	0	0	0	1	1	3	0	3	0	1	1
45	1	0	1	2	1	3	1	2	3	0	3	3
46	0	1	1	0	4	4	3	3	6	0	2	2
47	0	0	0	1	2	3	0	0	0	0	0	0
48	1	0	1	1	2	3	1	1	2	0	0	0
49	0	0	0	0	0	0	0	0	0	1	1	2
50	0	0	0	0	0	0	1	1	2	-	-	-
51	0	0	0	0	0	0	0	-	0	-	-	-
52	0	0	0	1	1	2	1	-	1	-	-	-
53	0	0	0	0	-	0	2	-	2	-	-	-
54	0	0	0	0	-	0	-	-	-	-	-	-
55	0	0	0	0	-	0	-	-	-	-	-	-
56	1	0	1	0	-	0	-	-	-	-	-	-
57	-	0	0	0	-	0	-	-	-	-	-	-
58	-	0	0	0	-	0	-	-	-	-	-	-
59	-	0	0	0	-	0	-	-	-	-	-	-
60	-	1	1	0	-	0	-	-	-	-	-	-
61	-	0	0	0	-	0	-	-	-	-	-	-
62	-	0	0	0	-	0	-	-	-	-	-	-
63	-	1	1	0	-	0	-	-	-	-	-	-
64	-	-	-	0	-	0	-	-	-	-	-	-

**Appendix 4. Table 2 (cont'd)**

Appendix 4. Table 2 (cont'd)

Set no. Fork length (cm)	94			95			96			97		
	M	F	T	M	F	T	M	F	T	M	F	T
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
Total	9	9	18	45	50	95	41	47	88	4	24	28

Appendix 4. Table 2. (cont'd)

Set no. Fork length (cm)	Total		
	M	F	T
22	-	1	1
23	-	0	0
24	-	1	1
25	-	0	0
26	1	3	4
27	2	8	10
28	8	6	14
29	6	14	20
30	12	20	32
31	8	27	35
32	21	25	46
33	21	28	49
34	15	27	42
35	12	22	34
36	6	18	24
37	3	14	17
38	1	3	4
39	3	2	5
40	4	1	5
41	5	1	6
42	15	6	21
43	9	13	22
44	14	13	27
45	11	21	32
46	14	28	42
47	4	13	17
48	4	13	17
49	4	6	10
50	5	6	11
51	3	2	5
52	6	3	9
53	10	5	15
54	4	11	15
55	13	14	27
56	3	8	11
57	3	5	8
58	3	4	7
59	1	10	11
60	4	12	16
61	2	8	10
62	2	2	4
63	2	4	6
64	2	7	9

Appendix 4. Table 2. (cont'd)

Set no. Fork length (cm)	Total		
	M	F	T
65	3	4	7
66	1	4	5
67	3	2	5
68	1	0	1
69	3	1	4
70	1	2	3
71	1	0	1
72	1	0	1
73	1	3	4
74	0	0	0
75	0	2	2
76	2	0	2
77	-	0	0
78	-	0	0
79	-	0	0
80	-	1	1
81	-	0	0
82	-	1	1
83	-	0	0
84	-	0	0
85	-	1	1
86	-	1	1
87	-	0	0
88	-	0	0
89	-	1	1
90	-	0	0
91	-	1	1
92	-	0	0
93	-	0	0
94	-	0	0
95	-	2	2
96	-	1	1
97	-	1	1
98	-	0	0
99	-	0	0
100	-	1	1
101	-	0	0
102	-	0	0
103	-	1	1
104	-	0	0
105	-	0	0
106	-	0	0
107	-	0	0

Appendix 4. Table 2. (cont'd)

Set no. Fork length (cm)	Total		
	M	F	T
108	-	0	0
109	-	0	0
110	-	0	0
111	-	1	1
Total	283	466	749

Appendix 4. Table 3. Length frequency of lingcod by sets completed off the west coast of Vancouver Island, ARCTIC HARVESTER, July 6-26, 1978.

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	16			22			23			27		
	M	F	T	M	F	T	M	F	T	M	F	T
55	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	1	-	1	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	-	-	-
61	-	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-	-	-	-
66	-	-	-	-	-	-	-	-	-	-	-	-
67	-	-	-	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-	-	-	-
69	-	-	-	-	-	-	-	-	-	-	-	-
70	-	-	-	-	-	-	-	-	-	-	-	-
71	-	-	-	-	-	-	-	-	-	-	-	-
72	-	-	-	-	-	-	-	-	-	-	-	-
73	-	-	-	-	-	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-	-	-	-	-	-
75	-	-	-	-	1	1	-	-	-	-	-	-
76	-	-	-	-	0	0	-	-	-	-	-	-
77	-	-	-	-	0	0	-	-	-	-	-	-
78	-	-	-	-	0	0	-	-	-	-	-	-
79	-	-	-	-	0	0	-	-	-	-	-	-
80	-	-	-	-	0	0	-	-	-	-	-	-
81	-	-	-	-	0	0	-	-	-	-	-	-
82	-	-	-	-	0	0	-	-	-	-	-	-
83	-	-	-	-	0	0	-	-	-	-	-	-
84	-	-	-	-	0	0	-	-	-	-	-	-
85	-	-	-	-	0	0	-	-	-	-	-	-
86	-	-	-	-	0	0	-	-	-	-	-	-
87	-	-	-	-	0	0	-	-	-	-	-	-
88	-	-	-	-	0	0	-	-	-	-	-	-
89	-	-	-	-	0	0	-	-	-	-	-	-
90	-	-	-	-	0	0	-	-	-	-	-	-
91	-	-	-	-	0	0	-	-	-	-	-	-
92	-	-	-	-	0	0	-	-	-	-	-	-
93	-	-	-	-	0	0	-	-	-	-	-	-
94	-	-	-	-	0	0	-	-	-	-	-	-
95	-	-	-	-	0	0	-	-	-	-	-	-
96	-	-	-	-	0	0	-	-	-	-	-	-
97	-	-	-	-	0	0	-	-	-	-	-	-

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	16			22			23			27		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	0	0	-	-	-	-	-	-
99	-	-	-	-	0	0	-	-	-	-	-	-
100	-	-	-	-	0	0	-	-	-	-	-	-
101	-	-	-	-	0	0	-	-	-	-	-	-
102	-	-	-	-	0	0	-	-	-	-	-	-
103	-	-	-	-	0	0	-	-	-	-	-	-
104	-	-	-	-	0	0	-	-	-	-	-	-
105	-	-	-	-	0	0	-	-	-	-	-	-
106	-	-	-	-	0	0	-	-	-	-	-	-
107	-	-	-	-	0	0	-	-	-	-	-	-
108	-	-	-	-	0	0	-	-	-	-	-	-
109	-	-	-	-	0	0	-	-	-	-	-	-
110	-	-	-	-	0	0	-	-	-	-	-	-
111	-	-	-	-	0	0	-	-	-	-	-	-
112	-	-	-	-	0	0	-	-	-	-	-	-
113	-	-	-	-	0	0	-	-	-	-	-	-
114	-	-	-	-	1	1	-	-	-	-	-	-
115	-	1	1	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
Total	0	1	1	0	2	2	1	0	1	0	1	1

**Appendix 4. Table 3 (cont'd)**

**Appendix 4. Table 3 (cont'd)**

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	28			29			33			34		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
Total	2	1	3	1	0	1	0	1	1	2	11	13

**Appendix 4. Table 3 (cont'd)**

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	35			37			38			39		
	M	F	T	M	F	T	M	F	T	M	F	T
55	-	-	-	-	1	1	-	-	-	-	-	-
56	-	-	-	-	0	0	-	-	-	-	-	-
57	-	-	-	1	0	1	-	-	-	-	-	-
58	-	-	-	0	0	0	-	-	-	-	-	-
59	-	-	-	0	0	0	-	1	1	-	-	-
60	-	-	-	0	0	0	-	1	1	-	-	-
61	-	-	-	0	0	0	-	1	1	-	-	-
62	-	-	-	0	0	0	-	0	0	-	-	-
63	-	-	-	0	1	1	-	0	0	-	-	-
64	-	-	-	0	0	0	-	0	0	-	-	-
65	-	-	-	1	0	1	1	0	1	-	-	-
66	-	-	-	0	1	1	0	0	0	-	-	-
67	-	-	-	0	1	1	1	0	1	-	-	-
68	1	-	1	0	0	0	0	1	1	-	1	1
69	-	-	-	0	0	0	0	1	1	-	0	0
70	-	-	-	1	0	1	2	1	3	-	0	0
71	-	-	-	-	0	0	1	1	2	-	0	0
72	-	-	-	-	0	0	0	1	1	-	0	0
73	-	-	-	-	0	0	0	1	1	-	0	0
74	-	-	-	-	0	0	1	0	1	-	0	0
75	-	-	-	-	1	1	1	0	1	-	0	0
76	-	-	-	-	0	0	0	0	0	-	0	0
77	-	-	-	-	0	0	0	0	0	-	0	0
78	-	-	-	-	0	0	1	0	1	-	0	0
79	-	-	-	-	0	0	0	1	1	-	0	0
80	-	-	-	-	0	0	1	1	2	-	0	0
81	-	-	-	-	1	1	-	0	0	-	0	0
82	-	-	-	-	1	1	-	0	0	-	1	1
83	-	-	-	-	0	0	-	0	0	-	-	-
84	-	-	-	-	0	0	-	1	1	-	-	-
85	-	-	-	-	0	0	-	0	0	-	-	-
86	-	-	-	-	0	0	-	0	0	-	-	-
87	-	-	-	-	0	0	-	0	0	-	-	-
88	-	-	-	-	0	0	-	1	1	-	-	-
89	-	-	-	-	0	0	-	1	1	-	-	-
90	-	-	-	-	0	0	-	0	0	-	-	-
91	-	-	-	-	1	1	-	0	0	-	-	-
92	-	-	-	-	-	-	-	0	0	-	-	-
93	-	-	-	-	-	-	-	0	0	-	-	-
94	-	-	-	-	-	-	-	0	0	-	-	-
95	-	-	-	-	-	-	-	0	0	-	-	-
96	-	-	-	-	-	-	-	0	0	-	-	-
97	-	-	-	-	-	-	-	0	0	-	-	-

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	35			37			38			39		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	1	1	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
Total	1	0	1	3	8	11	9	15	24	0	2	2

**Appendix 4. Table 3 (cont'd)**

**Appendix 4. Table 3 (cont'd)**

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	40			41			42			43		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
Total	1	4	5	8	11	19	5	16	21	5	16	21

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	44			45			46			47		
	M	F	T	M	F	T	M	F	T	M	F	T
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	1	1	1
36	-	-	-	-	-	-	-	-	-	1	1	1
37	-	-	-	-	-	-	-	-	-	0	0	0
38	-	-	-	-	-	-	-	-	-	0	0	0
39	-	-	-	-	-	-	-	-	-	0	0	0
40	-	-	-	-	-	-	-	-	-	0	0	0
41	-	-	-	-	-	-	-	-	-	0	0	0
42	-	-	-	-	-	-	-	-	-	0	0	0
43	-	-	-	-	-	-	-	-	-	0	0	0
44	-	-	-	-	-	-	-	-	-	0	0	0
45	-	-	-	-	-	-	-	-	-	0	0	0
46	-	-	-	-	-	-	-	-	-	0	0	0
47	-	-	-	-	-	-	-	-	-	0	0	0
48	-	-	-	-	-	-	-	-	-	0	0	0
49	-	-	-	-	-	-	-	-	-	0	0	0
50	-	-	-	-	-	-	-	-	-	0	0	0
51	-	-	-	-	-	-	-	-	-	0	0	0
52	-	-	-	-	-	-	-	-	-	0	0	0
53	-	1	1	1	-	1	-	-	-	0	0	0
54	-	0	0	0	0	-	0	-	-	0	0	0

**Appendix 4. Table 3 (cont'd)**

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	44			45			46			47		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
Total	5	4	9	11	4	15	5	4	9	0	3	3

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	48			49			50			51		
	M	F	T	M	F	T	M	F	T	M	F	T
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-
41	1	-	1	-	-	-	-	-	-	-	-	-
42	0	-	0	-	-	-	-	-	-	-	-	-
43	0	-	0	-	-	-	-	-	-	-	-	-
44	0	-	0	-	-	-	-	-	-	-	-	-
45	0	-	0	-	-	-	-	-	-	-	-	-
46	0	-	0	-	-	-	-	-	-	-	-	-
47	0	-	0	-	-	-	-	-	-	-	-	-
48	0	-	0	-	-	-	-	-	-	-	-	-
49	0	1	1	-	-	-	-	-	-	-	-	-
50	0	0	0	-	-	-	-	-	-	-	-	-
51	0	0	0	-	-	-	-	-	-	-	-	-
52	0	0	0	-	-	-	-	-	-	-	-	-
53	0	0	0	-	-	-	-	-	-	-	-	-
54	0	0	0	1	-	1	-	-	-	-	-	-

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	48			49			50			51		
	M	F	T	M	F	T	M	F	T	M	F	T
55	0	0	0	0	-	0	-	-	-	-	-	-
56	0	0	0	0	-	0	1	-	1	2	-	2
57	0	0	0	1	-	1	0	-	0	1	-	1
58	1	0	1	0	-	0	1	-	1	0	-	0
59	1	0	1	1	-	1	1	-	1	0	-	0
60	0	0	0	2	-	2	2	1	3	1	1	2
61	1	1	2	2	-	2	2	1	3	0	0	0
62	0	1	1	0	1	1	1	0	1	0	1	1
63	0	0	0	1	0	1	0	1	1	0	0	0
64	0	0	0	0	1	1	0	0	0	1	0	1
65	0	0	0	0	0	0	0	0	0	0	0	0
66	0	0	0	0	0	0	0	1	1	0	0	0
67	0	0	0	1	0	1	1	0	1	0	0	0
68	1	1	2	0	0	0	1	0	1	2	0	2
69	2	0	2	0	0	0	0	0	0	0	0	0
70	0	0	0	1	0	1	0	0	0	0	0	0
71	0	0	0	0	0	0	0	0	0	0	0	0
72	0	0	0	0	0	0	0	0	0	0	0	0
73	0	0	0	0	0	0	0	0	0	0	0	0
74	1	0	1	0	0	0	0	0	0	2	0	2
75	-	1	1	1	0	1	0	0	0	0	0	0
76	-	-	-	1	0	1	1	0	1	1	0	1
77	-	-	-	-	0	0	1	0	1	0	0	0
78	-	-	-	-	0	0	-	0	0	1	0	1
79	-	-	-	-	0	0	-	0	0	-	0	0
80	-	-	-	-	0	0	-	1	1	-	0	0
81	-	-	-	-	0	0	-	0	0	-	0	0
82	-	-	-	-	0	0	-	0	0	-	0	0
83	-	-	-	-	0	0	-	0	0	-	0	0
84	-	-	-	-	0	0	-	0	0	-	0	0
85	-	-	-	-	0	0	-	0	0	-	0	0
86	-	-	-	-	0	0	-	0	0	-	0	0
87	-	-	-	-	1	1	-	0	0	-	0	0
88	-	-	-	-	-	-	-	0	0	-	1	1
89	-	-	-	-	-	-	-	0	0	-	-	-
90	-	-	-	-	-	-	-	0	0	-	-	-
91	-	-	-	-	-	-	-	0	0	-	-	-
92	-	-	-	-	-	-	-	0	0	-	-	-
93	-	-	-	-	-	-	-	0	0	-	-	-
94	-	-	-	-	-	-	-	0	0	-	-	-
95	-	-	-	-	-	-	-	0	0	-	-	-
96	-	-	-	-	-	-	-	0	0	-	-	-
97	-	-	-	-	-	-	-	0	0	-	-	-

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	48			49			50			51		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	0	0	-	-	-
99	-	-	-	-	-	-	-	0	0	-	-	-
100	-	-	-	-	-	-	-	0	0	-	-	-
101	-	-	-	-	-	-	-	0	0	-	-	-
102	-	-	-	-	-	-	-	0	0	-	-	-
103	-	-	-	-	-	-	-	0	0	-	-	-
104	-	-	-	-	-	-	-	0	0	-	-	-
105	-	-	-	-	-	-	-	0	0	-	-	-
106	-	-	-	-	-	-	-	0	0	-	-	-
107	-	-	-	-	-	-	-	1	1	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
Total	8	5	13	12	3	15	12	6	18	11	3	14

Appendix 4. Table 3 (cont'd)

**Appendix 4. Table 3 (cont'd)**

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	52			53			54			55		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	0	0	-	-	-	-	-	-	-	-	-
99	-	0	0	-	-	-	-	-	-	-	-	-
100	-	0	0	-	-	-	-	-	-	-	-	-
101	-	0	0	-	-	-	-	-	-	-	-	-
102	-	1	1	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
Total	15	9	24	7	7	14	1	1	2	1	0	1

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	56			57			58			59		
	M	F	T	M	F	T	M	F	T	M	F	T
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	1	-	1
36	-	-	-	-	1	1	-	-	-	0	-	0
37	-	-	-	-	0	0	1	-	1	0	1	1
38	-	-	-	1	0	1	0	-	0	0	0	0
39	-	-	-	0	0	0	2	1	3	0	0	0
40	-	-	-	0	0	0	1	0	1	0	1	1
41	-	-	-	0	0	0	0	0	0	0	0	0
42	-	-	-	0	0	0	0	0	0	0	0	0
43	-	-	-	0	0	0	0	0	0	0	0	0
44	-	-	-	0	0	0	0	0	0	1	0	1
45	-	-	-	0	0	0	0	0	0	0	0	0
46	-	-	-	0	0	0	0	0	0	0	0	0
47	-	-	-	0	0	0	0	0	0	0	0	0
48	-	-	-	0	0	0	0	0	0	0	1	1
49	-	-	-	0	0	0	0	2	2	0	0	0
50	-	-	-	0	0	0	2	1	3	0	0	0
51	-	-	-	0	0	0	0	0	0	0	0	0
52	-	-	-	0	0	0	0	1	1	0	0	0
53	-	-	-	0	0	0	0	0	0	0	0	0
54	-	1	1	0	0	0	5	3	8	0	0	0

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	56			57			58			59		
	M	F	T	M	F	T	M	F	T	M	F	T
55	-	0	0	0	0	0	3	8	11	0	1	1
56	-	2	2	1	0	1	7	3	10	0	0	0
57	-	0	0	0	0	0	7	10	17	0	0	0
58	-	0	0	0	0	0	5	8	13	1	0	1
59	-	0	0	0	0	0	8	7	15	0	3	3
60	-	0	0	0	1	1	10	10	20	0	0	0
61	-	0	0	0	0	0	5	9	14	0	0	0
62	-	0	0	0	0	0	1	5	6	0	1	1
63	-	1	1	0	0	0	3	4	7	0	-	0
64	-	0	0	1	1	2	1	3	4	0	-	0
65	-	0	0	0	-	0	0	1	1	0	-	0
66	-	0	0	0	-	0	1	1	2	0	-	0
67	1	0	1	1	-	1	0	1	1	0	-	0
68	-	0	0	0	-	0	1	0	1	0	-	0
69	-	0	0	0	-	0	1	1	2	0	-	0
70	-	0	0	0	-	0	1	1	2	0	-	0
71	-	0	0	1	-	1	1	0	1	0	-	0
72	-	0	0	-	-	-	2	1	3	0	-	0
73	-	0	0	-	-	-	1	1	2	0	-	0
74	-	0	0	-	-	-	0	0	0	0	-	0
75	-	1	1	-	-	-	0	1	1	0	-	0
76	-	0	0	-	-	-	1	1	2	0	-	0
77	-	0	0	-	-	-	0	0	0	0	-	0
78	-	0	0	-	-	-	0	1	1	0	-	0
79	-	0	0	-	-	-	0	1	1	0	-	0
80	-	0	0	-	-	-	1	0	1	0	-	0
81	-	0	0	-	-	-	1	0	1	0	-	0
82	-	0	0	-	-	-	0	0	0	0	-	0
83	-	0	0	-	-	-	1	0	1	0	-	0
84	-	0	0	-	-	-	0	1	1	0	-	0
85	-	0	0	-	-	-	1	0	1	0	-	0
86	-	0	0	-	-	-	-	0	0	0	-	0
87	-	0	0	-	-	-	-	0	0	0	-	0
88	-	0	0	-	-	-	-	3	3	0	-	0
89	-	0	0	-	-	-	-	0	0	0	-	0
90	-	0	0	-	-	-	-	2	2	1	-	1
91	-	0	0	-	-	-	-	0	0	-	-	-
92	-	1	1	-	-	-	-	1	1	-	-	-
93	-	-	-	-	-	-	-	1	1	-	-	-
94	-	-	-	-	-	-	-	0	0	-	-	-
95	-	-	-	-	-	-	-	1	1	-	-	-
96	-	-	-	-	-	-	-	0	0	-	-	-
97	-	-	-	-	-	-	-	0	0	-	-	-

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	56			57			58			59		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	1	1	-	-	-
99	-	-	-	-	-	-	-	0	0	-	-	-
100	-	-	-	-	-	-	-	0	0	-	-	-
101	-	-	-	-	-	-	-	0	0	-	-	-
102	-	-	-	-	-	-	-	0	0	-	-	-
103	-	-	-	-	-	-	-	0	0	-	-	-
104	-	-	-	-	-	-	-	1	1	-	-	-
105	-	-	-	-	-	-	-	0	0	-	-	-
106	-	-	-	-	-	-	-	0	0	-	-	-
107	-	-	-	-	-	-	-	0	0	-	-	-
108	-	-	-	-	-	-	-	0	0	-	-	-
109	-	-	-	-	-	-	-	0	0	-	-	-
110	-	-	-	-	-	-	-	0	0	-	-	-
111	-	-	-	-	-	-	-	0	0	-	-	-
112	-	-	-	-	-	-	-	0	0	-	-	-
113	-	-	-	-	-	-	-	0	0	-	-	-
114	-	-	-	-	-	-	-	0	0	-	-	-
115	-	-	-	-	-	-	-	0	0	-	-	-
116	-	-	-	-	-	-	-	0	0	-	-	-
117	-	-	-	-	-	-	-	0	0	-	-	-
118	-	-	-	-	-	-	-	1	1	-	-	-
Total	1	6	7	5	3	8	74	98	172	4	8	12

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	60			62			63			64		
	M	F	T	M	F	T	M	F	T	M	F	T
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-
38	-	1	1	-	-	-	-	1	1	-	1	1
39	1	1	2	-	-	-	-	0	0	-	0	0
40	0	0	0	-	-	-	-	0	0	-	0	0
41	0	1	1	-	-	-	-	0	0	-	0	0
42	0	0	0	-	-	-	-	0	0	-	0	0
43	0	0	0	-	-	-	-	0	0	-	0	0
44	0	0	0	-	-	-	-	0	0	-	0	0
45	0	0	0	-	1	1	-	0	0	-	0	0
46	0	0	0	1	0	1	-	0	0	-	1	1
47	1	0	1	1	1	2	-	0	0	-	0	0
48	0	1	1	0	1	1	-	0	0	-	0	0
49	0	1	1	0	0	0	-	0	0	-	0	0
50	0	0	0	0	2	2	-	0	0	-	0	0
51	0	0	0	0	1	1	1	0	1	-	0	0
52	1	1	2	0	0	0	-	0	0	-	0	0
53	1	0	1	0	1	1	-	0	0	-	0	0
54	0	1	1	2	3	5	-	0	0	-	0	0

**Appendix 4. Table 3 (cont'd)**

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	60			62			63			64		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
Total	31	33	64	98	98	196	1	2	3	3	13	16

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	66			67			68			69		
	M	F	T	M	F	T	M	F	T	M	F	T
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-
34	-	1	-	-	-	-	2	-	2	-	-	-
35	-	-	-	-	-	-	0	-	0	-	-	-
36	-	-	-	-	-	-	0	-	0	-	-	-
37	-	-	-	-	-	-	0	-	0	-	-	-
38	-	-	-	-	-	-	0	-	0	-	-	-
39	-	1	1	-	-	-	0	-	0	-	-	-
40	-	0	0	-	-	-	0	-	0	-	-	-
41	-	0	0	-	-	-	0	-	0	-	-	-
42	-	0	0	-	-	-	0	-	0	-	-	-
43	-	0	0	-	-	-	0	-	0	-	-	-
44	-	0	0	-	-	-	0	-	0	-	-	-
45	-	0	0	-	-	-	0	-	0	-	-	-
46	-	0	0	-	-	-	0	-	0	-	-	-
47	-	0	0	-	-	-	0	-	0	-	-	-
48	-	0	0	-	-	-	0	-	0	-	-	-
49	-	1	1	-	-	-	0	-	0	-	-	-
50	-	1	1	-	-	-	0	-	0	-	-	-
51	-	0	0	-	-	-	0	-	0	-	-	-
52	-	0	0	-	-	-	0	-	0	-	-	-
53	-	0	0	-	-	-	0	-	0	-	-	-
54	-	1	1	-	-	-	0	-	0	-	-	-

Appendix 4. Table 3 (cont'd)

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	66			67			68			69		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
Total	5	13	18	1	0	1	3	0	3	4	1	5

Appendix 4. Table 3 (cont'd)

Set No.	70			71			72			73		
	M	F	T	M	F	T	M	F	T	M	F	T
Fork Length (cm)												
12	-	-	1	-	-	1	-	-	-	-	-	-
13	-	-	13	-	-	1	-	-	-	-	-	-
14	-	-	10	-	-	8	-	-	-	-	-	-
15	-	-	7	-	-	4	-	-	-	-	-	-
16	-	-	2	-	-	0	-	-	-	-	-	-
17	-	-	0	-	-	1	-	-	-	-	-	-
18	-	-	0	-	-	0	-	-	-	-	-	-
19	-	-	0	-	-	0	-	-	-	-	-	-
20	-	-	0	-	-	0	-	-	-	-	-	-
21	-	-	0	-	-	0	-	-	-	-	-	-
22	-	-	0	-	-	0	-	-	-	-	-	-
23	-	-	0	-	-	0	-	-	-	-	-	-
24	-	-	0	-	-	0	-	-	-	-	-	-
25	-	-	0	-	-	0	-	-	-	-	-	-
26	-	-	0	-	-	0	-	-	-	-	-	-
27	-	-	0	-	-	0	-	-	-	-	-	-
28	-	-	0	-	-	0	-	-	-	-	-	-
29	-	-	0	-	-	0	-	-	-	-	-	-
30	-	-	0	-	-	0	-	-	-	-	-	-
31	-	-	0	-	-	0	-	-	-	-	-	-
32	-	-	0	-	-	0	-	-	-	-	-	-
33	-	-	0	-	-	0	-	-	-	-	-	-
34	-	-	0	-	-	0	-	-	-	-	-	-
35	-	-	0	-	-	0	-	-	-	-	-	-
36	-	-	0	-	-	0	-	-	-	-	-	-
37	-	-	0	-	-	0	-	-	-	-	-	-
38	-	-	0	-	-	0	-	-	-	-	-	-
39	-	-	0	-	-	0	-	-	-	-	-	-
40	-	-	0	-	-	0	-	-	-	-	-	-
41	-	-	0	-	-	0	-	-	-	-	-	-
42	-	-	0	-	-	0	-	-	-	-	-	-
43	-	-	0	-	-	0	-	-	-	-	-	-
44	-	-	0	-	-	0	-	-	-	-	-	-
45	-	-	0	-	-	0	-	-	-	-	-	-
46	-	-	0	-	-	0	-	-	-	-	-	-
47	-	-	0	-	-	0	-	-	-	-	-	-
48	-	-	0	-	-	0	-	-	-	-	-	-
49	-	-	0	-	-	0	-	-	-	-	-	-
50	-	-	0	-	-	0	-	-	-	-	-	-
51	-	-	0	-	-	0	-	-	-	-	-	-
52	-	-	0	-	-	0	-	-	-	-	-	-
53	-	-	0	-	-	0	-	-	-	-	-	-
54	-	-	0	-	-	0	-	-	-	-	-	-

**Appendix 4. Table 3 (cont'd)**

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	70			71			72			73		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	0	0
99	-	-	-	-	-	-	-	-	-	-	0	0
100	-	-	-	-	-	-	-	-	-	-	0	0
101	-	-	-	-	-	-	-	-	-	-	0	0
102	-	-	-	-	-	-	-	-	-	-	0	0
103	-	-	-	-	-	-	-	-	-	-	0	0
104	-	-	-	-	-	-	-	-	-	-	0	0
105	-	-	-	-	-	-	-	-	-	-	1	1
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
Total	3	0	36	1	2	18	1	2	3	2	8	10

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	74			75			76			TOTAL		
	M	F	T	M	F	T	M	F	T	M	F	T
12	-	-	-	-	-	-	-	-	-	-	-	2
13	-	-	-	-	-	-	-	-	-	-	-	14
14	-	-	-	-	-	-	-	-	-	-	-	18
15	-	-	-	-	-	-	-	-	-	-	-	11
16	-	-	-	-	-	-	-	-	-	-	-	2
17	-	-	-	-	-	-	-	-	-	-	-	1
18	-	-	-	-	-	-	-	-	-	-	-	0
19	-	-	-	-	-	-	-	-	-	-	-	0
20	-	-	-	-	-	-	-	-	-	-	-	0
21	-	-	-	-	-	-	-	-	-	-	-	0
22	-	-	-	-	-	-	-	-	-	-	-	0
23	-	-	-	-	-	-	-	-	-	-	-	0
24	-	-	-	-	-	-	-	-	-	-	-	0
25	-	-	-	-	-	-	-	-	-	-	-	0
26	-	-	-	-	-	-	-	-	-	-	-	0
27	-	-	-	-	-	-	-	-	-	-	-	0
28	-	-	-	-	-	-	-	-	-	-	-	0
29	-	-	-	-	-	-	-	-	-	-	-	0
30	-	-	-	-	-	-	-	-	-	-	-	0
31	-	-	-	-	-	-	-	-	-	-	-	0
32	-	-	-	-	-	-	-	-	-	-	1	1
33	-	-	-	-	-	-	-	-	-	1	0	1
34	-	-	-	-	-	-	-	-	-	2	1	3
35	-	-	-	-	-	-	-	-	-	1	2	3
36	-	-	-	-	-	-	-	-	-	1	2	3
37	-	-	-	-	-	-	-	-	-	1	1	2
38	-	-	-	-	-	-	-	-	-	1	3	4
39	-	-	-	-	-	-	-	-	-	3	3	6
40	-	-	-	-	-	-	-	-	-	1	1	2
41	-	-	-	-	-	-	-	-	-	1	1	2
42	-	-	-	-	-	-	-	-	-	0	0	0
43	-	-	-	-	-	-	-	-	-	0	0	0
44	-	-	-	-	-	-	-	-	-	1	0	1
45	-	-	-	-	-	-	-	-	-	0	1	1
46	-	-	-	-	-	-	-	-	-	1	1	2
47	-	-	-	-	-	-	-	-	-	2	1	3
48	-	-	-	-	-	-	-	-	-	0	3	3
49	-	-	-	-	-	-	-	-	-	0	5	5
50	-	-	-	1	-	1	-	-	-	3	4	7
51	-	-	-	0	-	0	-	-	-	1	1	2
52	-	-	-	0	-	0	-	-	-	1	2	3
53	-	-	-	0	-	0	-	-	-	2	2	4
54	-	-	-	1	-	1	-	-	-	9	9	18

**Appendix 4. Table 3 (cont'd)**

Appendix 4. Table 3 (cont'd)

Set No. Fork Length (cm)	74			75			76			TOTAL		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	2	2
99	-	-	-	-	-	-	-	-	-	-	0	0
100	-	-	-	-	-	-	-	-	-	-	0	0
101	-	-	-	-	-	-	-	-	-	-	0	0
102	-	-	-	-	-	-	-	-	-	-	1	1
103	-	-	-	-	-	-	-	-	-	-	0	0
104	-	-	-	-	-	-	-	-	-	-	1	1
105	-	-	-	-	-	-	-	-	-	-	1	1
106	-	-	-	-	-	-	-	-	-	-	0	0
107	-	-	-	-	-	-	-	-	-	-	1	1
108	-	-	-	-	-	-	-	-	-	-	0	0
109	-	-	-	-	-	-	-	-	-	-	0	0
110	-	-	-	-	-	-	-	-	-	-	0	0
111	-	-	-	-	-	-	-	-	-	-	0	0
112	-	-	-	-	-	-	-	-	-	-	0	0
113	-	-	-	-	-	-	-	-	-	-	0	0
114	-	-	-	-	-	-	-	-	-	-	1	1
115	-	-	-	-	-	-	-	-	-	-	1	1
116	-	-	-	-	-	-	-	-	-	-	0	0
117	-	-	-	-	-	-	-	-	-	-	0	0
118	-	-	-	-	-	-	-	-	-	-	1	1
Total	2	0	2	5	1	6	0	1	1	370	427	845

Appendix 4. Table 4. Length frequencies of lingcod by set, ARCTIC HARVESTER, September 8-19, 1978.

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

Appendix 4. Table 4 (cont'd)

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	2			4			5			6		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	0	0	1	4	7	30	4	6	33	2	0	28

Appendix 4. Table 4 (cont'd)

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

**Appendix 4. Table 4 (cont'd)**

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	7			8			9			10		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	6	1	50	2	0	18	2	6	56	3	6	58

Appendix 4. Table 4 (cont'd)

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

**Appendix 4. Table 4 (cont'd)**

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	11			13			14			15		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	6	5	19	3	6	54	6	2	45	0	6	24

Appendix 4. Table 4 (cont'd)

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

**Appendix 4. Table 4 (cont'd)**

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	16			17			18			19		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	0	0
99	-	-	-	-	-	-	-	-	-	-	1	1
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	3	3	35	4	6	52	0	3	40	3	2	42

Appendix 4. Table 4 (cont'd)

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

**Appendix 4. Table 4 (cont'd)**

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	20			21			22			24		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	4	7	36	2	0	18	0	1	3	1	1	2

Appendix 4. Table 4 (cont'd)

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

**Appendix 4. Table 4 (cont'd)**

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	25			26			27			28		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	2	0	25	3	0	5	2	1	65	5	1	65

Appendix 4. Table 4 (cont'd)

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

**Appendix 4. Table 4 (cont'd)**

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	29			30			31			32		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	0	0	-	-	-	-	-	-	-	-	-
99	-	0	0	-	-	-	-	-	-	-	-	-
100	-	0	0	-	-	-	-	-	-	-	-	-
101	-	0	0	-	-	-	-	-	-	-	-	-
102	-	0	0	-	-	-	-	-	-	-	-	-
103	-	1	1	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	1	3	14	2	3	30	2	1	46	1	2	12

Appendix 4. Table 4 (cont'd)

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

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	33			34			35			36		
	M	F	T	M	F	T	M	F	T	M	F	T
55	0	-	0	-	-	0	-	-	0	-	-	0
56	0	-	0	-	-	0	-	-	0	-	-	0
57	0	-	0	-	-	0	-	-	0	-	-	0
58	0	-	0	1	-	1	-	-	0	1	-	1
59	0	-	0	1	-	1	-	-	0	0	-	0
60	0	-	0	0	-	0	-	-	0	0	-	0
61	0	-	0	0	-	0	-	-	0	0	-	0
62	0	-	0	0	-	0	1	-	1	0	-	0
63	0	-	0	0	-	0	0	-	0	0	-	0
64	0	-	0	0	-	0	0	-	0	0	-	0
65	0	-	0	0	-	0	1	-	1	0	-	0
66	0	-	0	1	-	1	-	-	0	0	-	0
67	0	-	0	-	-	-	-	-	0	0	-	0
68	0	-	0	-	-	-	-	-	0	0	-	0
69	0	-	0	-	-	-	-	-	0	0	-	0
70	0	-	0	-	-	-	-	-	0	1	-	1
71	0	-	0	-	-	-	-	-	0	0	-	0
72	0	-	0	-	-	-	-	-	0	0	-	0
73	0	-	0	-	-	-	-	-	0	1	-	1
74	0	-	0	-	-	-	-	-	0	-	-	-
75	0	-	0	-	-	-	-	-	0	-	-	-
76	0	-	0	-	-	-	-	-	0	-	-	-
77	0	-	0	-	-	-	-	-	0	-	-	-
78	0	-	0	-	-	-	-	-	0	-	-	-
79	0	-	0	-	-	-	-	-	0	-	-	-
80	0	-	0	-	-	-	-	-	0	-	-	-
81	1	-	1	-	-	-	-	-	0	-	-	-
82	-	-	0	-	-	-	-	-	0	-	-	-
83	-	-	0	-	-	-	-	-	0	-	-	-
84	-	-	0	-	-	-	-	-	0	-	-	-
85	-	-	0	-	-	-	-	-	0	-	-	-
86	-	-	0	-	-	-	-	-	0	-	-	-
87	-	-	0	-	-	-	-	-	0	-	-	-
88	-	-	0	-	-	-	-	-	0	-	-	-
89	-	-	0	-	-	-	-	-	0	-	-	-
90	-	-	0	-	-	-	-	-	0	-	-	-
91	-	-	0	-	-	-	-	-	0	-	-	-
92	-	-	0	-	-	-	-	-	0	-	-	-
93	-	-	0	-	-	-	-	-	0	-	-	-
94	-	-	0	-	-	-	-	-	0	-	-	-
95	-	-	0	-	-	-	-	-	0	-	-	-
96	-	-	0	-	-	-	-	-	0	-	-	-
97	-	-	0	-	-	-	-	-	0	-	-	-

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	33			34			35			36		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	0	-	-	-	-	-	0	-	-	-
99	-	-	0	-	-	-	-	-	0	-	-	-
100	-	-	0	-	-	-	-	-	0	-	-	-
101	-	-	0	-	-	-	-	1	1	-	-	-
102	-	-	0	-	-	-	-	-	-	-	-	-
103	-	-	0	-	-	-	-	-	-	-	-	-
104	-	-	0	-	-	-	-	-	-	-	-	-
105	-	-	0	-	-	-	-	-	-	-	-	-
106	-	-	0	-	-	-	-	-	-	-	-	-
107	-	-	0	-	-	-	-	-	-	-	-	-
108	-	1	1	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	2	1	9	3	0	6	2	1	46	3	0	23

Appendix 4. Table 4 (cont'd)

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

**Appendix 4. Table 4 (cont'd)**

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	37			38			39			40		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	0	1	69	1	1	60	0	0	32	2	0	18

**Appendix 4. Table 4 (cont'd)**

**Appendix 4. Table 4 (cont'd)**

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	41			42			43			44		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	0	1	26	2	6	14	1	0	7	4	1	5

Appendix 4. Table 4 (cont'd)

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

**Appendix 4. Table 4 (cont'd)**

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	45			46			47			48		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	0	1	11	1	0	10	0	0	6	11	4	20

**Appendix 4. Table 4 (cont'd)**

Appendix 4. Table 4 (cont'd)

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	49			50			51			52		
	M	F	T	M	F	T	M	F	T	M	F	T
	98	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	0	1	10	5	8	16	3	8	24	9	11	39

Appendix 4. Table 4 (cont'd)

Set no.	53			54			55			56		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	2
16	-	-	-	-	-	-	-	-	3	-	-	1
17	-	-	2	-	-	1	-	-	5	-	-	2
18	-	-	3	-	-	4	-	-	3	-	-	4
19	-	-	5	-	-	1	-	-	4	-	-	6
20	-	-	4	-	-	5	-	-	5	-	-	11
21	-	-	5	-	-	1	-	-	2	-	-	7
22	-	-	3	-	-	0	-	-	3	-	-	5
23	-	-	2	-	-	0	-	-	2	-	-	1
24	-	-	1	-	-	0	-	-	1	-	-	0
25	-	-	0	-	-	0	-	-	0	-	-	0
26	-	-	0	-	-	0	-	-	0	-	-	1
27	-	-	0	-	-	0	-	-	0	-	-	0
28	-	-	0	-	-	0	-	-	0	-	-	0
29	-	-	0	-	-	0	-	-	0	-	-	0
30	-	-	0	-	-	0	-	-	0	-	-	0
31	-	-	0	-	-	0	-	-	0	-	-	0
32	-	-	0	-	-	0	-	-	0	-	-	0
33	-	-	0	-	-	0	-	-	0	-	-	0
34	-	1	1	-	-	0	-	-	0	-	-	0
35	-	0	0	-	-	0	-	-	1	-	-	0
36	1	0	1	-	-	0	-	1	1	-	-	0
37	0	0	0	-	-	0	-	0	0	-	-	0
38	0	0	0	1	-	1	1	1	2	-	-	0
39	0	0	0	0	-	0	0	0	0	-	-	0
40	0	0	0	0	-	0	0	0	0	-	-	0
41	0	0	0	0	1	1	0	0	0	-	-	0
42	0	0	0	0	1	1	0	0	0	-	-	0
43	0	0	0	0	1	1	0	0	0	-	-	0
44	0	0	0	0	0	0	0	0	0	-	1	1
45	0	0	0	0	0	0	0	0	0	-	0	0
46	0	0	0	0	0	0	0	0	0	-	0	0
47	0	0	0	0	0	0	0	0	0	-	0	0
48	0	0	0	0	0	0	0	0	0	-	0	0
49	0	0	0	0	0	0	0	0	0	-	0	0
50	0	0	0	0	0	0	0	0	0	-	0	0
51	0	0	0	0	0	0	0	0	0	-	0	0
52	0	0	0	0	0	0	0	0	0	-	0	0
53	0	0	0	0	0	0	0	0	0	-	0	0
54	0	0	0	0	0	0	1	0	1	-	0	0

**Appendix 4. Table 4 (cont'd)**

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	53			54			55			56		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	5	7	37	3	5	20	9	3	41	0	5	45

Appendix 4. Table 4 (cont'd)

Set no.	57			58			59			60		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	1	-	-	1	-	-	-
16	-	-	-	-	-	0	-	-	2	-	-	-
17	-	-	-	-	-	1	-	-	0	-	-	1
18	-	-	1	-	-	3	-	-	4	-	-	4
19	-	-	1	-	-	3	-	-	2	-	-	3
20	-	-	0	-	-	5	-	-	3	-	-	1
21	-	-	4	-	-	3	-	-	2	-	-	3
22	-	-	1	-	-	0	-	-	0	-	-	3
23	-	-	0	-	-	0	-	-	0	-	-	0
24	-	-	0	-	-	0	-	-	1	-	-	0
25	-	-	0	-	-	0	-	-	0	-	-	0
26	-	-	0	-	-	0	-	-	0	-	-	0
27	-	-	0	-	-	0	-	-	0	-	-	0
28	-	-	0	-	-	0	-	-	0	-	-	0
29	-	-	0	-	-	0	-	-	0	-	-	0
30	-	-	0	-	-	0	-	-	0	-	-	0
31	-	-	0	-	-	0	-	-	0	-	-	0
32	-	-	0	-	-	0	-	-	0	-	-	0
33	-	-	0	-	-	0	-	-	0	-	-	0
34	-	-	0	-	-	0	-	-	0	-	-	0
35	-	-	0	-	-	0	-	-	0	-	-	0
36	-	-	0	-	-	0	-	-	0	-	-	0
37	-	-	0	-	-	0	-	-	0	-	-	0
38	-	-	0	-	-	0	1	-	1	-	-	0
39	-	-	0	-	-	0	0	-	0	-	-	0
40	-	-	0	-	-	0	1	-	1	-	-	0
41	-	-	0	-	-	0	0	1	1	-	-	0
42	-	-	0	-	-	0	0	0	0	-	-	0
43	-	-	0	-	-	0	0	0	0	-	-	0
44	-	-	0	-	-	0	0	0	0	-	-	0
45	-	-	0	-	-	0	0	0	0	-	-	0
46	-	-	0	-	-	0	0	0	0	-	-	0
47	-	-	0	-	-	0	0	0	0	-	-	0
48	-	-	0	-	-	0	0	0	0	-	-	0
49	-	-	0	-	-	0	0	0	0	-	-	0
50	-	-	0	-	-	0	0	0	0	-	-	0
51	-	-	0	-	-	0	0	0	0	-	-	0
52	-	-	0	-	-	0	0	0	0	-	-	0
53	-	-	0	-	-	0	0	0	0	-	-	0
54	-	-	0	-	-	0	0	0	0	-	-	0

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	57			58			59			60		
	M	F	T	M	F	T	M	F	T	M	F	T
55	-	-	0	-	-	0	0	0	0	-	-	0
56	-	-	0	-	-	0	0	0	0	-	-	0
57	-	-	0	2	-	2	0	0	1	-	-	0
58	-	-	0	0	-	0	0	0	0	-	-	0
59	-	-	0	0	-	0	2	0	2	-	-	0
60	-	-	0	0	1	1	0	0	0	-	-	0
61	-	-	0	1	0	1	0	1	1	-	-	0
62	-	-	0	0	1	1	0	0	0	-	-	0
63	-	-	0	0	1	1	0	1	1	-	-	0
64	-	-	0	1	0	1	1	0	1	1	-	1
65	-	-	0	0	0	0	0	0	0	0	-	0
66	-	-	0	1	1	2	0	0	0	0	-	0
67	-	-	0	0	0	0	0	0	0	0	-	0
68	-	-	0	0	0	0	0	0	0	0	-	0
69	-	-	0	0	0	0	1	0	1	0	-	0
70	-	-	0	0	0	0	-	0	0	1	1	2
71	-	-	0	0	0	0	-	0	0	1	1	2
72	-	-	0	1	1	2	-	0	0	1	1	2
73	1	-	1	0	-	0	-	0	0	-	-	-
74	0	1	1	0	-	0	-	0	0	-	-	-
75	0	1	1	1	-	1	-	0	0	-	-	-
76	1	0	1	0	-	0	-	0	0	-	-	-
77	-	0	0	0	-	0	-	1	1	-	-	-
78	-	0	0	0	-	0	-	0	0	-	-	-
79	-	0	0	2	-	2	-	0	0	-	-	-
80	-	0	0	-	-	-	-	0	0	-	-	-
81	-	0	0	-	-	-	-	0	0	-	-	-
82	-	0	0	-	-	-	-	0	0	-	-	-
83	-	1	1	-	-	-	-	0	0	-	-	-
84	-	-	-	-	-	-	-	0	0	-	-	-
85	-	-	-	-	-	-	-	0	0	-	-	-
86	-	-	-	-	-	-	-	1	1	-	-	-
87	-	-	-	-	-	-	-	0	0	-	-	-
88	-	-	-	-	-	-	-	1	1	-	-	-
89	-	-	-	-	-	-	-	0	0	-	-	-
90	-	-	-	-	-	-	-	0	0	-	-	-
91	-	-	-	-	-	-	-	0	0	-	-	-
92	-	-	-	-	-	-	-	0	0	-	-	-
93	-	-	-	-	-	-	-	0	0	-	-	-
94	-	-	-	-	-	-	-	0	0	-	-	-
95	-	-	-	-	-	-	-	0	0	-	-	-
96	-	-	-	-	-	-	-	0	0	-	-	-
97	-	-	-	-	-	-	-	0	0	-	-	-

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	57			58			59			60		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	0	0	-	-	-
99	-	-	-	-	-	-	-	0	0	-	-	-
100	-	-	-	-	-	-	-	0	0	-	-	-
101	-	-	-	-	-	-	-	0	0	-	-	-
102	-	-	-	-	-	-	-	0	0	-	-	-
103	-	-	-	-	-	-	-	0	0	-	-	-
104	-	-	-	-	-	-	-	0	0	-	-	-
105	-	-	-	-	-	-	-	0	0	-	-	-
106	-	-	-	-	-	-	-	0	0	-	-	-
107	-	-	-	-	-	-	-	0	0	-	-	-
108	-	-	-	-	-	-	-	0	0	-	-	-
109	-	-	-	-	-	-	-	0	0	-	-	-
110	-	-	-	-	-	-	-	0	0	-	-	-
111	-	-	-	-	-	-	-	0	0	-	-	-
112	-	-	-	-	-	-	-	0	0	-	-	-
113	-	-	-	-	-	-	-	1	1	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	2	3	12	9	5	30	6	7	29	4	3	22

Appendix 4. Table 4 (cont'd)

Set no.	61			62			63			64		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	1	-	-	-
15	-	-	1	-	-	2	-	-	0	-	-	-
16	-	-	3	-	-	1	-	-	1	-	-	-
17	-	-	0	-	-	2	-	-	4	-	-	1
18	-	-	2	-	-	1	-	-	5	-	-	3
19	-	-	3	-	-	1	-	-	4	-	-	3
20	-	-	1	-	-	0	-	-	4	-	-	1
21	-	-	1	-	-	0	-	-	1	-	-	1
22	-	-	0	-	-	0	-	-	0	-	-	1
23	-	-	0	-	-	0	-	-	0	-	-	1
24	-	-	0	-	-	1	-	-	0	-	-	0
25	-	-	0	-	-	0	-	-	0	-	-	0
26	-	-	0	-	-	0	-	-	0	-	-	0
27	-	-	0	-	-	0	-	-	0	-	-	0
28	-	-	0	-	-	0	-	-	0	-	-	0
29	-	-	0	-	-	0	-	-	0	-	-	0
30	-	-	0	-	-	0	-	-	0	-	-	0
31	-	-	0	-	-	0	-	-	0	-	-	0
32	-	-	0	-	-	0	-	-	0	-	-	0
33	-	-	0	-	-	0	-	-	0	-	-	0
34	-	-	0	-	-	0	-	-	0	-	-	0
35	-	-	0	-	-	0	-	-	0	-	-	0
36	-	-	0	-	-	0	-	-	0	-	-	0
37	-	-	0	-	-	0	-	-	0	-	-	0
38	-	-	0	1	-	1	-	-	0	-	-	0
39	-	-	0	0	-	0	-	-	0	-	-	0
40	-	-	0	0	-	0	-	-	0	-	-	0
41	-	-	0	0	-	0	-	-	0	-	-	0
42	-	-	0	0	-	0	-	-	0	-	-	0
43	-	-	0	0	-	0	-	-	0	-	-	0
44	-	-	0	0	-	0	-	-	0	-	-	0
45	-	-	0	0	-	0	-	-	0	-	-	0
46	-	-	0	0	-	0	-	-	0	-	-	0
47	-	-	0	0	-	0	-	-	0	-	-	0
48	-	-	0	0	-	0	-	-	0	-	-	0
49	-	-	0	0	-	0	-	-	0	-	-	0
50	-	-	0	0	-	0	-	-	0	-	-	0
51	-	-	0	0	-	0	-	-	0	-	-	0
52	-	-	0	0	-	0	-	-	0	-	-	0
53	-	-	0	0	-	0	-	-	0	-	-	0
54	-	-	0	0	-	0	-	-	0	-	-	0

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	61			62			63			64		
	M	F	T	M	F	T	M	F	T	M	F	T
55	-	-	0	0	-	0	-	-	0	-	-	0
56	-	-	0	0	-	0	-	-	0	-	-	0
57	-	-	0	0	-	0	-	-	0	-	-	0
58	-	-	0	0	-	0	-	-	0	-	-	0
59	-	-	0	0	-	0	-	-	0	-	-	0
60	-	-	0	0	-	0	-	-	0	-	-	0
61	-	-	0	0	-	0	-	-	0	-	-	0
62	-	-	0	0	-	0	-	-	0	-	-	0
63	-	-	0	0	-	0	-	-	0	-	-	0
64	-	-	0	0	-	0	-	-	0	-	-	0
65	2	1	3	0	-	0	-	-	0	-	-	0
66	1	-	1	0	-	0	-	-	0	-	-	0
67	1	-	1	0	-	0	-	-	0	-	-	0
68	-	-	-	0	-	0	-	-	0	-	-	0
69	-	-	-	0	-	0	-	-	0	-	-	0
70	-	-	-	1	-	1	-	-	0	-	-	0
71	-	-	-	0	-	0	-	-	0	-	-	0
72	-	-	-	0	-	0	1	-	1	1	-	1
73	-	-	-	0	-	0	0	-	0	1	-	1
74	-	-	-	1	-	1	0	-	0	-	-	0
75	-	-	-	-	-	0	0	1	1	-	-	0
76	-	-	-	-	-	0	0	0	0	-	-	0
77	-	-	-	-	-	0	0	0	0	-	-	0
78	-	-	-	-	-	0	0	0	0	-	-	0
79	-	-	-	-	-	0	0	0	0	-	-	0
80	-	-	-	-	-	0	0	0	0	-	-	0
81	-	-	-	-	-	0	0	0	0	-	-	0
82	-	-	-	-	-	0	1	0	1	-	-	0
83	-	-	-	-	-	0	-	0	0	-	-	0
84	-	-	-	-	-	0	-	0	0	-	-	0
85	-	-	-	-	-	0	-	1	1	-	1	1
86	-	-	-	-	-	0	-	1	1	-	0	0
87	-	-	-	-	-	0	-	-	-	-	0	0
88	-	-	-	-	-	0	-	-	-	-	0	0
89	-	-	-	-	-	0	-	-	-	-	0	0
90	-	-	-	-	1	1	-	-	-	-	0	0
91	-	-	-	-	0	0	-	-	-	-	0	0
92	-	-	-	-	1	1	-	-	-	-	0	0
93	-	-	-	-	0	0	-	-	-	-	0	0
94	-	-	-	-	0	0	-	-	-	-	0	0
95	-	-	-	-	0	0	-	-	-	-	0	0
96	-	-	-	-	0	0	-	-	-	-	0	0
97	-	-	-	-	1	1	-	-	-	-	0	0

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	61			62			63			64		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	0	0
99	-	-	-	-	-	-	-	-	-	-	0	0
100	-	-	-	-	-	-	-	-	-	-	0	0
101	-	-	-	-	-	-	-	-	-	-	0	0
102	-	-	-	-	-	-	-	-	-	-	0	0
103	-	-	-	-	-	-	-	-	-	-	0	0
104	-	-	-	-	-	-	-	-	-	-	0	0
105	-	-	-	-	-	-	-	-	-	-	0	0
106	-	-	-	-	-	-	-	-	-	-	0	0
107	-	-	-	-	-	-	-	-	-	-	1	1
108	-	-	-	-	-	-	-	-	-	-	0	0
109	-	-	-	-	-	-	-	-	-	-	0	0
110	-	-	-	-	-	-	-	-	-	-	0	0
111	-	-	-	-	-	-	-	-	-	-	0	0
112	-	-	-	-	-	-	-	-	-	-	0	0
113	-	-	-	-	-	-	-	-	-	-	0	0
114	-	-	-	-	-	-	-	-	-	-	0	0
115	-	-	-	-	-	-	-	-	-	-	0	0
116	-	-	-	-	-	-	-	-	-	-	1	1
Total	4	1	16	3	3	14	2	3	25	2	3	16

Appendix 4. Table 4 (cont'd)

Set no.	65			66			67			68		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	1
17	-	-	-	-	-	-	-	-	-	-	-	0
18	-	-	2	-	-	-	-	-	1	-	-	0
19	-	-	2	-	-	2	-	-	1	-	-	0
20	-	-	3	-	-	2	-	-	1	-	-	3
21	-	-	0	-	-	1	-	-	1	-	-	0
22	-	-	0	-	-	0	-	-	0	-	-	0
23	-	-	0	-	-	0	-	-	0	-	-	0
24	-	-	0	-	-	0	-	-	0	-	-	0
25	-	-	0	-	-	0	-	-	0	-	-	0
26	-	-	0	-	-	0	-	-	0	-	-	0
27	-	-	0	-	-	0	-	-	0	-	-	0
28	-	-	0	-	-	0	-	-	0	-	-	0
29	-	-	0	-	-	0	-	-	0	-	-	0
30	-	-	0	-	-	0	-	-	0	-	-	0
31	-	-	0	-	-	0	-	-	0	-	-	0
32	-	-	0	-	-	0	-	-	0	-	-	0
33	-	-	0	-	-	0	-	-	0	-	-	0
34	-	-	0	-	-	0	-	-	0	-	-	0
35	-	-	0	-	-	0	-	-	0	-	-	0
36	-	-	0	-	-	0	-	-	0	-	-	0
37	-	-	0	-	-	0	-	-	0	-	-	0
38	-	-	0	-	-	0	-	-	0	-	-	0
39	-	-	0	-	-	0	-	-	0	-	1	1
40	-	1	1	-	1	1	-	-	0	-	0	0
41	-	0	0	-	0	0	-	-	0	-	0	0
42	-	0	0	-	0	0	-	-	0	-	0	0
43	-	0	0	-	0	0	-	-	0	-	0	0
44	-	0	0	-	0	0	-	-	0	-	0	0
45	-	0	0	-	0	0	-	-	0	-	0	0
46	-	0	0	-	0	0	-	-	0	-	0	0
47	-	0	0	-	0	0	-	-	0	-	0	0
48	-	0	0	-	Q	0	-	-	0	-	0	0
49	-	0	0	-	0	0	-	-	0	-	0	0
50	-	0	0	-	0	0	-	-	0	-	0	0
51	-	0	0	-	0	0	-	-	0	-	0	0
52	-	0	0	-	0	0	-	-	0	-	0	0
53	-	0	0	-	0	0	-	-	0	1	0	1
54	1	0	1	-	0	0	-	-	0	0	0	0

**Appendix 4. Table 4 (cont'd)**

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	65			66			67			68		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	11	8	26	8	3	16	4	1	9	9	5	18

Appendix 4. Table 4 (cont'd)

Set no.	69			70			71			72		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	1	-	-	-	-	-	2
16	-	-	-	-	-	0	-	-	1	-	-	4
17	-	-	3	-	-	2	-	-	3	-	-	3
18	-	-	0	-	-	8	-	-	2	-	-	3
19	-	-	1	-	-	6	-	-	3	-	-	5
20	-	-	2	-	-	6	-	-	5	-	-	8
21	-	-	1	-	-	7	-	-	6	-	-	2
22	-	-	0	-	-	1	-	-	1	-	-	0
23	-	-	0	-	-	1	-	-	0	-	-	1
24	-	-	0	-	-	0	-	-	0	-	-	0
25	-	-	0	-	-	0	-	-	0	-	-	0
26	-	-	0	-	-	0	-	-	0	-	-	0
27	-	-	0	-	-	0	-	-	0	-	-	0
28	-	-	0	-	-	0	-	-	0	-	-	0
29	-	-	0	-	-	0	-	-	0	-	-	0
30	-	-	0	-	-	0	-	-	0	-	-	0
31	-	-	0	-	-	0	-	-	0	-	-	0
32	-	-	0	-	-	0	-	-	0	-	-	0
33	-	-	0	-	-	0	-	-	0	-	-	0
34	-	-	0	-	-	0	-	-	0	-	-	0
35	-	-	0	-	-	0	-	-	0	-	-	1
36	-	-	0	-	-	1	-	-	0	-	-	1
37	-	-	0	-	-	0	-	-	0	-	-	0
38	-	-	0	-	-	0	-	-	1	-	-	0
39	-	-	0	-	-	0	-	-	0	-	-	0
40	-	-	0	-	-	0	-	-	0	-	-	0
41	-	-	0	-	-	0	-	-	0	-	-	0
42	-	-	0	-	-	0	-	-	0	-	-	0
43	-	-	0	-	-	0	-	-	0	-	-	0
44	-	-	0	-	-	0	-	-	0	-	1	0
45	-	-	0	-	-	0	-	-	0	0	0	0
46	-	-	0	-	-	0	-	-	0	0	0	0
47	-	-	0	-	-	0	-	-	0	0	0	0
48	-	-	0	-	-	0	-	-	0	0	0	0
49	-	-	0	-	-	0	-	-	0	0	0	0
50	-	-	0	-	-	0	-	-	0	0	0	0
51	-	-	0	-	-	0	-	-	0	0	0	0
52	-	-	0	-	-	0	-	-	0	0	0	0
53	-	-	0	-	-	0	-	-	0	0	1	1
54	-	-	0	-	-	0	-	-	0	0	0	0

Appendix 4. Table 4 (cont'd)

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	69			70			71			72		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	0	0	-	-	-	-	-	-	-	-	-
99	-	0	0	-	-	-	-	-	-	-	-	-
100	-	0	0	-	-	-	-	-	-	-	-	-
101	-	0	0	-	-	-	-	-	-	-	-	-
102	-	0	0	-	-	-	-	-	-	-	-	-
103	-	0	0	-	-	-	-	-	-	-	-	-
104	-	0	0	-	-	-	-	-	-	-	-	-
105	-	0	0	-	-	-	-	-	-	-	-	-
106	-	0	0	-	-	-	-	-	-	-	-	-
107	-	0	0	-	-	-	-	-	-	-	-	-
108	-	0	0	-	-	-	-	-	-	-	-	-
109	-	0	0	-	-	-	-	-	-	-	-	-
110	-	0	0	-	-	-	-	-	-	-	-	-
111	-	0	0	-	-	-	-	-	-	-	-	-
112	-	0	0	-	-	-	-	-	-	-	-	-
113	-	0	0	-	-	-	-	-	-	-	-	-
114	-	0	0	-	-	-	-	-	-	-	-	-
115	-	1	1	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	0	2	9	2	2	37	1	0	23	2	3	34

Appendix 4. Table 4 (cont'd)

Set no.	73			74			75			76		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	1	-	-	-	-	-	1
16	-	-	1	-	-	0	-	-	-	-	-	0
17	-	-	1	-	-	4	-	-	-	-	-	2
18	-	-	3	-	-	1	-	-	1	-	-	5
19	-	-	2	-	-	2	-	-	0	-	-	3
20	-	-	4	-	-	2	-	-	1	-	-	3
21	-	-	3	-	-	1	-	-	0	-	-	3
22	-	-	3	-	-	1	-	-	2	-	-	0
23	-	-	0	-	-	1	-	-	0	-	-	1
24	-	-	0	-	-	0	-	-	0	-	-	0
25	-	-	0	-	-	0	-	-	0	-	-	0
26	-	-	0	-	-	0	-	-	0	-	-	0
27	-	-	0	-	-	0	-	-	0	-	-	0
28	-	-	0	-	-	0	-	-	0	-	-	0
29	-	-	0	-	-	0	-	-	0	-	-	0
30	-	-	0	-	-	0	-	-	0	-	-	0
31	-	-	0	-	-	0	-	-	0	-	-	0
32	-	-	0	-	-	0	-	-	0	-	-	0
33	-	-	0	-	-	0	-	-	0	-	-	0
34	-	-	0	-	-	0	-	-	0	-	-	0
35	-	1	1	-	-	0	-	-	0	-	-	0
36	-	0	0	-	-	0	-	-	0	-	-	0
37	-	0	0	-	-	0	-	-	0	-	-	0
38	-	0	0	-	-	0	-	1	1	-	-	0
39	-	0	0	-	-	0	-	-	0	-	-	0
40	-	0	0	-	-	0	-	-	0	-	-	0
41	-	0	0	-	-	0	-	-	0	-	-	0
42	-	0	0	-	-	0	-	-	0	-	-	0
43	-	0	0	-	-	0	-	-	0	-	-	0
44	-	0	0	-	-	0	-	-	0	-	-	0
45	-	0	0	-	-	0	-	-	0	-	-	0
46	-	0	0	-	-	0	-	-	0	-	-	0
47	-	0	0	-	-	0	-	-	0	-	-	0
48	1	0	1	-	-	0	-	-	0	-	-	0
49	0	0	0	-	-	0	-	-	0	-	-	0
50	0	0	0	-	-	0	-	-	0	-	-	0
51	0	0	0	-	-	0	-	-	0	-	-	0
52	0	0	0	-	-	0	-	-	0	-	-	0
53	0	0	0	-	-	0	-	-	0	-	-	0
54	0	0	0	-	-	0	-	-	0	-	-	0

Appendix 4. Table 4 (cont'd)

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	73			74			75			76		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	4	2	23	2	2	17	1	1	6	0	1	19

Appendix 4. Table 4 (cont'd)

Set no.	77			78			79			80		
Fork length (cm)	M	F	T	M	F	T	M	F	T	M	F	T
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	1	-	-	3	-	-	2	-	-	2
17	-	-	3	-	-	11	-	-	7	-	-	7
18	-	-	6	-	-	16	-	-	11	-	-	9
19	-	-	5	-	-	11	-	-	9	-	-	12
20	-	-	7	-	-	4	-	-	8	-	-	8
21	-	-	2	-	-	5	-	-	4	-	-	2
22	-	-	0	-	-	2	-	-	3	-	-	2
23	-	-	2	-	-	0	-	-	0	-	-	1
24	-	-	0	-	-	0	-	-	0	-	-	1
25	-	-	0	-	-	1	-	-	0	-	-	0
26	-	-	0	-	-	0	-	-	0	-	-	0
27	-	-	0	-	-	0	-	-	0	-	-	0
28	-	-	0	-	-	0	-	-	0	-	-	0
29	-	-	0	-	-	0	-	-	0	-	-	0
30	-	-	0	-	-	0	-	-	0	-	-	0
31	-	-	0	-	-	0	-	-	0	-	-	0
32	-	-	0	-	-	0	-	-	0	-	-	0
33	-	-	0	-	-	0	-	-	0	-	-	0
34	-	-	0	-	-	0	-	-	0	-	-	0
35	-	-	0	-	-	0	-	-	0	-	-	1
36	1	-	1	-	-	0	-	-	0	-	0	0
37	0	-	0	-	-	0	-	-	0	-	0	0
38	0	-	0	-	1	1	-	-	0	-	0	0
39	0	-	0	1	-	1	-	-	0	-	0	0
40	0	-	0	0	-	0	-	-	0	-	0	0
41	0	-	0	0	-	0	-	-	0	-	0	0
42	0	-	0	0	-	0	-	-	0	-	0	0
43	0	-	0	0	-	0	-	1	0	-	0	0
44	0	-	0	0	-	0	-	-	0	-	0	0
45	0	-	0	0	-	0	-	-	0	-	0	0
46	0	-	0	0	-	0	-	-	0	-	0	0
47	0	-	0	0	-	0	-	-	0	-	0	0
48	0	-	0	0	-	0	-	-	0	-	0	0
49	0	-	0	0	-	0	-	-	0	-	0	0
50	0	-	0	0	-	0	-	-	0	-	0	0
51	0	-	0	0	-	0	-	-	0	-	0	0
52	0	-	0	0	-	0	-	-	0	-	0	0
53	0	-	0	0	-	0	-	-	0	-	0	0
54	0	-	0	0	-	0	-	-	0	-	0	0

**Appendix 4. Table 4 (cont'd)**

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	77			78			79			80		
	M	F	T	M	F	T	M	F	T	M	F	T
98	-	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	2	0	28	3	1	57	1	0	45	3	2	49

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	81			82			83			84		
	M	F	T	M	F	T	M	F	T	M	F	T
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	1	-	-	-	-	-	1	-	-	2
16	-	-	0	-	-	-	-	-	1	-	-	2
17	-	-	5	-	-	-	-	-	4	-	-	7
18	-	-	13	-	-	6	-	-	3	-	-	10
19	-	-	18	-	-	5	-	-	1	-	-	9
20	-	-	22	-	-	4	-	-	3	-	-	4
21	-	-	6	-	-	8	-	-	1	-	-	3
22	-	-	3	-	-	1	-	-	0	-	-	2
23	-	-	0	-	-	0	-	-	0	-	-	0
24	-	-	0	-	-	0	-	-	0	-	-	1
25	-	-	0	-	-	0	-	-	0	-	-	0
26	-	-	0	-	-	0	-	-	0	-	-	0
27	-	-	0	-	-	0	-	-	0	-	-	0
28	-	-	0	-	-	0	-	-	0	-	-	0
29	-	-	0	-	-	0	-	-	0	-	-	0
30	-	-	0	-	-	0	-	-	0	-	-	0
31	-	-	0	-	-	0	-	-	0	-	-	0
32	-	-	0	-	-	0	-	-	0	-	-	0
33	-	-	0	-	-	0	-	-	0	-	-	0
34	-	-	0	-	-	0	-	-	0	-	-	0
35	-	-	1	-	-	0	-	-	0	-	-	0
36	-	-	0	-	-	0	-	-	0	-	-	0
37	-	-	0	-	-	0	-	-	0	-	-	0
38	-	-	0	-	1	1	-	-	0	-	-	0
39	-	-	0	-	0	0	-	-	0	-	-	0
40	-	-	0	-	0	0	-	-	0	-	-	0
41	-	-	0	-	0	0	-	-	0	-	-	0
42	-	-	0	-	0	0	-	-	0	-	-	0
43	-	-	0	-	0	0	-	-	0	-	-	0
44	-	-	0	-	0	0	-	-	0	-	-	0
45	-	-	0	1	0	1	-	-	0	-	-	0
46	-	-	0	0	0	0	-	-	0	-	-	0
47	-	-	0	0	0	0	-	-	0	-	-	0
48	-	-	0	0	0	0	-	-	0	-	-	0
49	-	-	0	0	0	0	-	-	0	-	-	0
50	-	-	0	0	0	0	-	-	0	-	-	0
51	-	-	0	0	0	0	-	-	0	-	-	0
52	-	-	0	0	0	0	-	-	0	-	-	0
53	-	-	0	0	0	0	-	-	0	-	-	0
54	-	-	0	0	0	0	-	-	0	-	-	0

**Appendix 4. Table 4 (cont'd)**

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	81			82			83			84		
	M	F	T	M	F	T	M	F	T	M	F	T
	98	-	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	-	-	-	-	-	-	-	-	-	-	-
101	-	-	-	-	-	-	-	-	-	-	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-
106	-	-	-	-	-	-	-	-	-	-	-	-
107	-	-	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	-
113	-	-	-	-	-	-	-	-	-	-	-	-
114	-	-	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	-	-	-	-	-	-	-	-	-	-	-
Total	2	1	72	2	3	29	3	2	19	3	1	44

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	85			TOTAL		
	M	F	T	M	F	T
12	-	-	-	-	-	2
13	-	-	-	-	-	4
14	-	-	-	-	-	18
15	-	-	-	-	-	59
16	-	-	-	1	-	103
17	-	-	-	0	3	234
18	-	-	-	0	2	362
19	-	-	-	0	2	326
20	-	-	-	0	4	347
21	-	-	-	2	0	199
22	-	-	-	0	0	86
23	-	-	-	0	0	39
24	-	-	-	0	1	16
25	-	-	-	0	0	7
26	-	-	-	0	0	1
27	-	-	-	0	1	3
28	-	-	-	0	0	0
29	-	-	-	0	0	0
30	-	-	-	0	0	0
31	-	-	-	0	0	0
32	-	-	-	0	0	0
33	-	-	-	0	0	0
34	-	-	-	1	5	6
35	-	-	-	0	4	8
36	-	-	-	5	4	10
37	-	-	-	6	2	9
38	-	-	-	9	10	20
39	-	-	-	7	9	16
40	-	-	-	5	5	10
41	-	-	-	1	4	5
42	-	-	-	1	2	3
43	-	-	-	0	1	1
44	-	-	-	2	1	3
45	-	-	-	1	0	1
46	-	-	-	0	0	0
47	-	-	-	0	0	0
48	-	-	-	1	0	1
49	-	-	-	1	1	2
50	-	-	-	0	0	0
51	-	-	-	0	1	1
52	-	-	-	1	0	1
53	-	-	-	1	1	2
54	-	-	-	3	1	4

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	85			TOTAL		
	M	F	T	M	F	T
	55	-	-	3	0	3
56	-	-	-	6	1	7
57	-	-	-	9	3	13
58	-	-	-	15	6	21
59	-	-	-	13	3	16
60	-	-	-	14	9	23
61	-	-	-	16	10	26
62	-	-	-	9	10	19
63	-	-	-	4	14	18
64	-	-	-	7	8	15
65	-	-	-	6	4	10
66	-	-	-	9	3	12
67	-	-	-	5	2	7
68	-	-	-	3	0	3
69	-	-	-	5	2	7
70	-	-	-	5	2	7
71	-	-	-	5	1	6
72	-	-	-	9	3	12
73	-	-	-	6	0	6
74	-	-	-	4	5	9
75	-	-	-	4	4	8
76	-	-	-	5	4	9
77	-	-	-	8	5	13
78	-	-	-	1	4	5
79	-	-	-	5	4	9
80	-	-	-	1	2	3
81	-	-	-	3	2	5
82	-	-	-	3	1	4
83	1	-	1	1	2	3
84	-	-	-	1	0	1
85	-	-	-	1	7	8
86	-	-	-	0	2	2
87	-	-	-	0	4	4
88	-	-	-	0	2	2
89	-	-	-	1	1	2
90	-	-	-	-	1	1
91	-	-	-	-	3	3
92	-	-	-	-	2	2
93	-	-	-	-	1	1
94	-	-	-	-	2	2
95	-	-	-	-	0	0
96	-	-	-	-	0	0
97	-	-	-	-	1	1

Appendix 4. Table 4 (cont'd)

Set no. Fork length (cm)	85			TOTAL		
	M	F	T	M	F	T
98	-	-	-	-	0	0
99	-	-	-	-	1	1
100	-	-	-	-	0	0
101	-	-	-	-	1	1
102	-	-	-	-	0	0
103	-	-	-	-	1	1
104	-	-	-	-	0	0
105	-	-	-	-	0	0
106	-	-	-	-	0	0
107	-	-	-	-	1	1
108	-	-	-	-	1	1
109	-	-	-	-	0	0
110	-	-	-	-	0	0
111	-	-	-	-	0	0
112	-	-	-	-	0	0
113	-	-	-	-	1	1
114	-	-	-	-	0	0
115	-	-	-	-	1	1
116	-	-	-	-	1	1
Total	1	0	1	235	212	2245

