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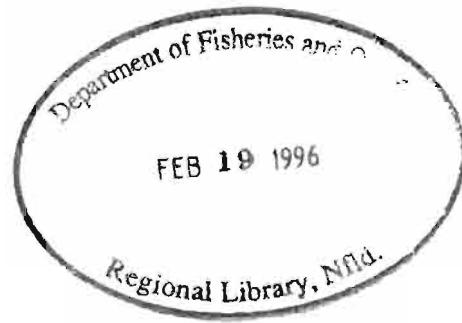
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# A Summary of Sablefish Tagging and Biological Studies Conducted During 1982-1987 by the Pacific Biological Station

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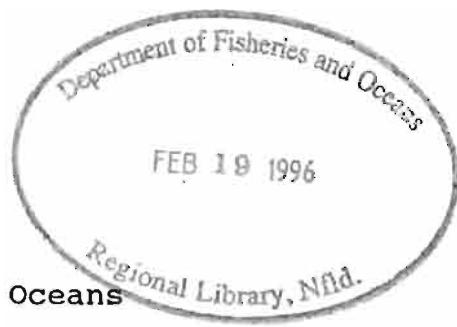
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A SUMMARY OF SABLEFISH TAGGING AND BIOLOGICAL STUDIES  
CONDUCTED DURING 1982-1987 BY THE PACIFIC BIOLOGICAL STATION

by

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ABSTRACT

Murie, D. J., W. Mitton, M. W. Saunders and G. A. McFarlane. 1995. A summary of sablefish tagging and biological studies conducted during 1982-87 by the Pacific Biological Station. Can. Data Rep. Fish. Aquat. Sci. 959: 84 p.

During 1982-87, a total of 35,837 sablefish were tagged and released off the coast of British Columbia, of which 3,318 (9.3%) were double tagged. Of these fish, 13,675 (38.2%) were tagged and released off the west coast of Vancouver Island, 6,134 (17.1%) were tagged in Queen Charlotte Sound, 15,412 (43.0%) were tagged off the west coast of the Queen Charlotte Islands, and 616 (1.7%) were tagged and released off Bowie and Union Seamounts. The majority of tagged fish (76%) were less than 60 cm fork length.

RÉSUMÉ

Murie, D. J., W. Mitton, M. W. Saunders and G. A. McFarlane. 1995. A summary of sablefish tagging and biological studies conducted during 1982-87 by the Pacific Biological Station. Can. Data Rep. Fish. Aquat. Sci. 959: 84 p.

Entre 1982 et 1987, 35 837 morues charbonnières ont été étiquetées (dont 3 319, soit 9,3%, en double) puis relâchées au large de la Colombie-Britannique, soit 13 675 (38,2%) au large de la côte ouest de l'île de Vancouver, 6 134 (17,1%) dans le détroit de la Reine-Charlotte, 15 412 (43%) au large de la côte ouest des îles de la Reine-Charlotte et 616 (1,7%) au large des monts sous-marins Bowie et Union. La majorité des poissons étiquetés (76%) mesurait moins de 60 cm (longueur à la fourche).

## INTRODUCTION

The sablefish (*Anoplopoma fimbria*) tagging program in Canadian waters was initiated in 1977. The primary purpose of the tagging program was to identify sablefish stocks by determining the movements of tagged fish. Summaries of the tagging program prior to 1982 are provided by Beamish *et al.* (1978, 1979, 1980, 1983). Between 1977 and 1981, 114,349 sablefish were tagged and 5.5% (6,341) of these fish received a second tag (Table 1).

This report summarises the tagging program during 1982-1987. The numbers of sablefish tagged from 1982-1987 have been documented, as well as the tag identification numbers and release locations. In addition, length and age frequencies were determined for male and female sablefish collected during the tagging cruises.

Tagging did not take place in 1988, 1989, or 1990. The tagging program from 1991-1993 has been summarised by Saunders *et al.* (1995).

## METHODS

### TAG AND RELEASE SITES

During 1982-87, tagging and release cruises for sablefish were conducted in three primary areas: off the west coast of the Queen Charlotte Islands, in Queen Charlotte Sound, and off the west coast of Vancouver Island, B.C. One cruise was conducted at Bowie and Union Seamounts.

Ten tagging cruises were conducted during 1982-1987 (Table 2). In October/November 1982, the commercial fishing vessel *M/V OCEAN PEARL* was used for a tagging and release cruise off the west coast of Vancouver Island, the west coast of the Queen Charlotte Islands, and in Queen Charlotte Sound. In November/December 1983, sablefish were tagged off the west coast of Vancouver Island and the west coast of the Queen Charlotte Islands using the commercial fishing vessel *M/V JEANNA MARIE*. In April 1984, sablefish were captured by trawl from the research vessel *R/V G.B. REED* off the west coast of Vancouver Island and in Queen Charlotte Sound. Sablefish were also tagged and released from the commercial trap vessel *M/V OCEAN PEARL* (April 1984) in Queen Charlotte Sound and from the *M/V JEANNA MARIE* (May 1984) off the west coast of the Queen Charlotte Islands. Three cruises were conducted in 1985: one cruise tagged fish on the west coast of the Queen Charlotte Islands in March/April (*M/V JEANNA MARIE*), and two cruises conducted tagging off the

west coast of Vancouver Island, one in April and one in May/June. Both of these latter cruises used the commercial trap vessel *M/V CHALLENGER*. There were no tagging cruises for sablefish in 1986. In 1987, sablefish were tagged and released from Bowie and Union Seamounts during February using the commercial trap vessel *M/V LA PORSCHE*. Fish were also tagged and released off the west coast of Vancouver Island in March using trawls deployed from the research vessel *R/V W.E. RICKER*.

## FISHING

For each fishing set, the date, set number, statistical area of capture/release, gear type, starting position of the set, position at the finish of the set, starting time of the set, soak time of the set, and depth of the set (mean or modal, start, and end depth) were recorded when possible.

Sablefish on eight cruises (Table 2) were captured using Korean-style traps set between 265 and 1052 m, with hake (*Merluccius productus*) used as bait. Cruises in April 1984 and March 1987 captured fish using a Granton/Eastern 400 bottom trawl towed at depths between 100 and 256 m. The methods of fishing were similar to those used in the previous tagging programs (Beamish et al. 1978, 1979, 1980, 1983).

## TAGGING AND BIOLOGICAL SAMPLING

Fish for tagging were either chosen randomly or were specifically selected from the catch (Table 2, re: tag sample type). For random samples, fish from an entire set of traps were sampled, or fish were chosen at random throughout the total catch, or fish from the first ten traps in each set were assumed to be a random sample of the catch. Fish tagged from commercial fishing vessels were primarily selected samples because they were all small sablefish, either sublegal-sized fish (i.e., <55 cm length) or fish too small to be considered valuable. These latter fish would have otherwise been discarded by the commercial vessels.

The primary tag used on all sablefish captured was a Floy FD-68 anchor tag. Handling of the fish, and application and position of the primary tag was the same as in the previous tagging programs (e.g., Beamish et al. 1983). During 1982-87, approximately 10% of sablefish were double tagged using a second anchor tag. Previous to 1982, this second tag had been a suture tag rather than an anchor tag (Beamish et al. 1983). Fish were not injected with oxytetracycline for age validation during 1982-1987.

For each fish, the identification number of the primary tag and any

secondary tag was recorded. Fork length (FL) was measured to the nearest mm and any problem with the tag implant was coded and recorded (e.g., tag not well implanted). In addition, any injury to the fish was coded and recorded (e.g., any bleeding or cuts). The machine used to record the fish length and tag number periodically failed. In these cases, the number of fish released with one tag could only be approximated and the number of fish released with a second tag was unknown. Length was also unknown for these fish.

Random samples were taken for males and females during the majority of the cruises to determine length and sex frequencies (Table 2). Fish sampled for age frequencies were measured for fork length, sexed, and their sagittal otoliths were removed and stored for ageing. Fish were later aged using burnt cross-sections of the otoliths (Beamish and Chilton 1982).

Other species trapped incidentally during the fishing were not monitored or sampled for biological information.

## RESULTS AND DISCUSSION

### TAGGING AND RELEASES

In total, 35,837 fish were tagged and released during 1982-1987 (Table 3). Of these fish, 3,318 (9.3%) received a double tag. Date, set number, location, soak time, and depths of the tagging sets are provided in Tables 4-13. Specific location of the sets are charted in Figures 1-10. Tag identification numbers and cumulative total numbers of tagged fish, including double-tagged fish, are provided in Tables 14-23.

#### 1982

In total, 7,039 fish were tagged and released in 1982 (Table 14). Of these fish, 587 (9.7%) received a double tag. Fish were captured from 22 October to 4 November at depths between 265-823 m (Table 4). Approximately 43% of the fish were tagged and released off the west coast of Vancouver Island (Figure 1a), ~43% from Queen Charlotte Sound (Figure 1b), and ~14% off the west coast of the Queen Charlotte Islands (Figure 1c) (Table 3).

1983

In November/December 1983, 8,025 fish were tagged and released with 796 (9.9%) receiving double tags (Table 15). Fish were trapped from 21 November to 6 December at depths of 457-960 m (Table 5). Approximately 50% of the fish were tagged and released off the west coast of Vancouver Island (Figure 2a) and 50% were tagged off the west coast of the Queen Charlotte Islands (Figure 2b) (Table 3).

1984

During April and May 1984, a combined total of 10,730 sablefish were tagged and 1,110 fish (10.3%) were double tagged during three cruises (Table 3).

From 17-29 April, 326 fish were caught in trawls off Vancouver Island and in Queen Charlotte Sound (Figure 3) in water depths of 165-256 m (Table 6). None of these fish received a second tag (Table 16).

In Queen Charlotte Sound (Figure 4), 5,025 fish were tagged and released, of which 542 (10.8%) were double-tagged (Table 17). Fish were captured from 19-30 April between depths of 274 and 914 m (Table 7).

During May 9-16, 5,379 fish were tagged with 568 receiving a second tag (Table 18). All fish were tagged off the west coast of the Queen Charlotte Islands (Figure 5) between 9-16 May in 525-844 m (Table 8).

1985

In 1985, a combined total of 8,326 fish were tagged from March to June during three cruises, with 825 (9.9%) of the fish double-tagged (Table 3).

From 30 March to 9 April, fish were tagged in 475-1052 m (Table 9) off the west coast of the Queen Charlotte Islands (Figure 6). In total, 3,024 fish were tagged and released, with 307 (10.2%) fish receiving a second tag (Table 19).

Fish were tagged off the west coast of Vancouver Island (Figure 7) during 23-30 April from 307-805 m depths (Table 10). Approximately 9% of the 2,297 fish released were double-tagged (Table 20).

Fish were also tagged off the west coast of Vancouver Island

(Figure 8) during 29 May to 2 June from water depths of 475-786 m (Table 11). A total of 3,005 fish were released with 317 fish receiving second tags (Table 21).

1987

On February 12-13, 616 sablefish were tagged off Bowie and Union Seamounts (Figure 9) (Table 12); none received a double tag (Table 22).

On March 19, 1,101 juvenile sablefish were captured off the west coast of Vancouver Island (Figure 10) using trawls towed between 100 and 150 m depths (Table 13). None of these fish were double tagged (Table 23).

LENGTH AND AGE FREQUENCIES

1982

Fork lengths were measured for 7,031 tagged and released fish during October/November. Released fish ranged between 41 cm and 99 cm FL (Figure 11). Lengths and sex were also determined for 2,932 fish, of which 60% were females (Figure 12). Female lengths overlapped the entire range of male lengths, but most males were less than 70 cm FL. Ages were obtained for 1,816 fish, with the majority of males and females less than 15 years of age (Figure 13). Age 5 females seemed to be especially prominent in the samples.

1983

In total, 8,018 tagged and released fish were measured for length in November/December (Figure 14). Fish ranged from 33 to 60 cm FL with a median FL of ~50 cm. The length distribution for tagged fish was truncated because these fish were discards from a commercial trap vessel. Biological samples were random samples from throughout the catch, however, and lengths were obtained for 2,183 male and female fish (Figure 15). Males ranged from 41-80 cm FL and females ranged from 43-97 cm FL. Ages of 919 sampled male and female fish were predominantly less than 7 years (Figure 16).

1984

In April 1984, juvenile sablefish captured by bottom trawling and tagged ranged between 32 cm and 63 cm FL with a median FL of ~43 cm ( $n=326$ ) (Figure 17). Length, sex, and age frequencies were not collected during this trip.

Trap caught sablefish tagged in April 1984 in Queen Charlotte Sound ranged between 41 and 62 cm FL with a median FL of ~55 cm ( $n=4893$ ) (Figure 18). Again, the length distribution for the tagged fish was truncated because the fish were discards off a commercial trap vessel. From random sampling of the catch, however, the length frequencies ranged from 45-76 cm (Figure 19). Only 50 of these fish were aged and most of the fish were <10 years old (Figure 20).

Fish tagged off the west coast of the Queen Charlotte Islands in May 1984 ranged in size from 31 cm to 59 cm FL with a median FL of ~51 cm ( $n=5282$ ) (Figure 21). These fish were tagged from a commercial trap vessel and hence were all small fish, which produced the truncated length frequency for tagged fish. Fish randomly sampled from the total catch for length and sex frequencies, however, ranged from 42-89 cm FL ( $n=683$ ) and were predominantly males (Figure 22). The majority of fish aged were <9 years old (Figure 23).

1985

In March/April, fish tagged off the west coast of the Queen Charlotte Islands ranged from 38 cm to 59 cm FL with a median FL of ~51 cm FL ( $n=2966$ ) (Figure 24). These tagged fish were also discards and hence were all small fish. Males and females randomly sampled from the total catch for length and sex frequencies ranged from 42-89 cm FL (Figure 25). The majority of fish sampled for age ( $n=50$ ) were <12 years old (Figure 26).

In April 1985, fish tagged and released from the west coast of Vancouver Island ranged in size from 40 cm to 59 cm FL with a median FL of ~49-50 cm ( $n=2286$ ) (Figure 27). Again these fish were all discards and hence small. Fish randomly sampled from the total catch for length and sex frequencies ranged from <41-86 cm in length (Figure 28). Females predominated in these samples. Of 100 fish aged, the majority of both males and females were <10 years old (Figure 29).

During May/June 1985, released fish ranged from 38 cm to 68 cm FL with a median length of ~50-51 cm (Figure 30). The length frequency

was truncated because these fish were discards from a commercial trap vessel. There were no biological samples taken during this tagging trip.

### 1987

Sablefish tagged and released off Bowie and Union Seamounts ranged in size between 31 cm and 89 cm FL with a median FL of ~62 cm ( $n=616$ ) (Figure 31). Length frequency samples taken from the seamounts ranged from 48-100 cm (Figure 32), with females longer overall than males. Fish were not aged from the seamount samples.

Sablefish captured off the west coast of Vancouver Island in bottom trawls in March ranged in size from 24 cm to 57 cm with a median FL of ~34 cm ( $n=1101$ ) (Figure 33). These fish were not sampled for length, sex, and age frequencies.

### SUMMARY

During 1982-87, 35,837 fish were tagged and released from the west coast of Vancouver Island, Queen Charlotte Sound, west coast of the Queen Charlotte Islands, and Bowie and Union Seamounts. The majority (76%) of these tagged fish were discards from commercial trap vessels and hence were mostly <60 cm FL. Tagging effort to date (1977-1987) totals 150,186 fish, with 9,659 (6.4%) of these fish having received a second tag.

### ACKNOWLEDGEMENTS

Many vessels and personnel were involved in a tagging program of this duration. Skippers and crew of the *M/V OCEAN PEARL* (1982 and 1984), *M/V JEANNA MARIE* (1983, 1984, and 1985), *M/V CHALLENGER* (1985), *M/V LA PORSCHE* (1987), and Department of Fisheries and Oceans Canada research vessels *R/V G.B. REED* (1984) and *R/V W.E. RICKER* (1987), provided fishing and technical assistance. We especially thank all the tagging and sampling personnel that have been involved in the tagging program over the years. We also thank the personnel of the Ageing Laboratory at the Pacific Biological Station for ageing the sablefish.

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Table 1. Summary of tagging effort for sablefish from 1977-1981.

Year	Release Area	No. of fish released with one tag <sup>a</sup>	No. (%) of fish released with double tag	Reference
1977 July	Queen Charlotte Islands	5,159	511 ( 9.9)	Beamish et al. (1978); Table 5
1977 September	Vancouver Island	5,506	509 ( 9.2)	Beamish et al. (1978); Table 6
1978 May/June	Queen Charlotte Islands	5,210	515 ( 9.9)	Beamish et al. (1979); Table 1
1978 June/July	Vancouver Island-Queen Charlotte Sound	5,565	532 ( 9.5)	Beamish et al. (1979); Table 2 <sup>b</sup>
1978 October	Queen Charlotte Islands	121	0 ( 0)	Beamish et al. (1979); Table 3
1979 May.	Vancouver Island	9,111	750 ( 8.2)	Beamish et al. (1980); App. 2 Table 1
1979 June	Queen Charlotte Islands	6,339	666 ( 10.5)	Beamish et al. (1980); App. 2 Table 2
1979 August	Queen Charlotte Islands	281	0 ( 0)	Beamish et al. (1980); App. 2 Table 3
1979 October	Queen Charlotte Sound-Hecate Strait	12,986	0 ( 0)	Beamish et al. (1980); App. 2 Table 4
1979 November	Queen Charlotte Sound-Hecate Strait	12,485	0 ( 0)	Beamish et al. (1980); App. 2 Table 5
1979 December	Departure Bay	26	0 ( 0)	Beamish et al. (1980); App. 2 Table 6
1980 Jan/Feb	Queen Charlotte Islands	1,538	104 ( 6.8)	Beamish et al. (1983); App. Table 1
1980 March	Vancouver Island	4,706	388 ( 8.2)	Beamish et al. (1983); App. Table 2
1980 March	Queen Charlotte Sound	3,112	308 ( 9.9)	Beamish et al. (1983); App. Table 3
1980 May	Inlets	7,022	526 ( 7.5)	Beamish et al. (1983); App. Table 4

Table 1 (Cont'd). Summary of tagging effort for sablefish from 1977-1981.

Year	Release Area	No. of fish released with one tag <sup>a</sup>	No. (%) of fish released with double tag	Reference
1980 June/July	Queen Charlotte Islands	2,547	281 ( 11.0)	Beamish et al. (1983); App. Table 5
1980 Sept/Oct	Queen Charlotte Sound-Hecate Strait	9,898	1,251 ( 12.6)	Beamish et al. (1983); App. Table 6
1981 March	Queen Charlotte Islands	3,113	0 ( 0)	Beamish et al. (1983); App. Table 7
1981 June	Queen Charlotte Islands	2,908	0 ( 0)	Beamish et al. (1983); App. Table 8
1981 August	Queen Charlotte Sound-Hecate Strait	12,306	0 ( 0)	Beamish et al. (1983); App. Table 9
1981 November	Queen Charlotte Islands	4,410	0 ( 0)	Beamish et al. (1983); App. Table 10
TOTAL		114,349	6,341 ( 5.5)	

<sup>a</sup> Tag may have been an anchor tag or a suture tag.

<sup>b</sup> Table 2 in Beamish et al. (1979) contains an addition error. The original text has 5,465 fish released with one tag.

Table 2. Summary of tagging cruises for sablefish from 1982-1987. (See text for explanation of Tag Sample Type).

Year	Vessel	Release Area	Gear	Tag Sample Type	Biological Samples
1982 Oct/Nov	<i>M/V OCEAN PEARL</i>	Vancouver Island Queen Charlotte Islands Queen Charlotte Sound	trap	random	length/age
1983 Nov/Dec	<i>M/V JEANNA MARIE</i>	Vancouver Island Queen Charlotte Islands	trap	selected	length/age
1984 April	<i>R/V G.B. REED</i>	Vancouver Island Queen Charlotte Sound	trawl	random	none
1984 April	<i>M/V OCEAN PEARL</i>	Queen Charlotte Sound	trap	selected	length/age
1984 May	<i>M/V JEANNA MARIE</i>	Queen Charlotte Islands	trap	selected	length/age
1985 Mar/Apr	<i>M/V JEANNA MARIE</i>	Queen Charlotte Islands	trap	selected	length/age
1985 April	<i>M/V CHALLENGER</i>	Vancouver Island	trap	selected	length/age
1985 May/June	<i>M/V CHALLENGER</i>	Vancouver Island	trap	selected	none
1987 Feb.	<i>M/V LA PORSCHE</i>	Bowie and Union Seamounts	trap	random	length
1987 March	<i>R/V W.E. RICKER</i>	Vancouver Island	trawl	random	none

Table 3. Summary of tagging effort for sablefish from 1982-87.

Year	Release Area	No. of fish released with one anchor tag	No. (%) of fish released with double tag
1982 Oct/Nov	Vancouver Island	3,013	290 ( 9.6)
	Queen Charlotte Islands	3,007	297 ( 9.9)
	Queen Charlotte Sound	1,019	0 ( 0)
1983 Nov/Dec	Vancouver Island	4,023	401 ( 10.0)
	Queen Charlotte Islands	4,002	395 ( 9.9)
1984 April	Vancouver Island	236	0 ( 0)
	Queen Charlotte Sound	90	0 ( 0)
1984 April	Queen Charlotte Sound	5,025	542 ( 10.8)
1984 May	Queen Charlotte Islands	5,379	568 ( 10.6)
1985 Mar/Apr	Queen Charlotte Islands	3,024	307 ( 10.2)
1985 April	Vancouver Island	2,297	201 ( 8.7)
1985 May/June	Vancouver Island	3,005	317 ( 10.5)
1987 Feb	Bowie/Union Seamounts	616	0 ( 0)
1987 March	Vancouver Island	1,101	0 ( 0)
TOTAL		35,837	3,318 ( 9.3)

Table 4. Set information for sablefish traps deployed by the *M/V OCEAN PEARL* off the west coast of Vancouver Island, Queen Charlotte Sound, and the west coast of the Queen Charlotte Islands in October/November 1982.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Mean	Start	End
821022	9	042703	50 20.3	128 22.2				677	439	914	
821022	10	042703	50 19.9	128 24.5				476	347	603	
821022	13	042703	50 20.2	128 26.4				512	338	686	
821024	15	042701	50 22.6	128 29.0				521	347	658	
821024	16	051104	50 24.9	128 29.4				393	265	713	
821024	17	051104	50 25.8	128 30.9						658	
821025	18	051104	50 26.9	128 32.3				457	274	658	
821025	19	051104	50 27.6	128 33.9					274		
821025	20	051104	50 27.8	128 35.8					274		
821025	21	051104	50 30.7	128 36.7				457	274	640	
821029	41	060802	51 12.8	129 44.8				658	585	731	
821029	42	060802	51 14.4	129 43.1				366	274	457	
821029	43	060802	51 15.7	129 44.0				384	274	549	
821029	44	060802	51 13.7	129 46.2				567	549	603	
821030	47	060805	51 29.5	129 59.5				384	274	549	
821030	48	060805	51 27.8	130 01.5				549	530	549	
821103	67	093107	53 16.1	132 44.2				530	439	640	
821104	68	093107	53 13.7	132 46.9				567			
821104	69	093107	53 12.6	132 45.4				512	366	658	
821104	70	093107	53 11.6	132 44.1				538	421	695	
821104	71	093107	53 10.3	132 43.5				549	439	658	
821104	72	093107	53 08.9	132 43.1				549	439	677	

Table 4 (Cont'd). Set information for sablefish traps deployed by the *M/V OCEAN PEARL* off the west coast of Vancouver Island, Queen Charlotte Sound, and the west coast of the Queen Charlotte Islands in October/November 1982.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Mean	Start	End
821104	73	093103	53 08.1	132 41.3				549	366	731	
821104	74	093103	53 06.1	132 42.3				640	457	823	
821103	75	093103	53 05.2	132 38.7				512	475	576	
821103	76	093103	53 03.2	132 39.1					439		
821103	77	093103	53 02.3	132 36.6				530	421	640	
821103	78	093103	53 01.8	132 35.3				494	402	594	

<sup>a</sup> Department of Fisheries and Oceans codes for major area, minor area, and location based on statistical areas of the British Columbia trawl fishery.

Table 5. Set information for sablefish traps deployed by the *M/V JEANNA MARIE* off the west coast of Vancouver Island and the west coast of the Queen Charlotte Islands in November/December 1983.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Mean	Start	End
831121	1	032401	48 57.5	126 32.0	48 57.0	126 35.0	1300	21.0	617	549	659
831121	2	032401	48 56.2	126 30.0	48 55.6	126 33.0	1500	24.0	695	567	823
831122	3	032401	48 54.6	126 30.0	48 54.0	126 32.5	0435	35.0	686	503	869
831122	4	032401	48 53.5	126 30.0	48 54.2	126 32.0	0145	31.0	594	457	731
831121	5	032401	48 51.0	126 34.0	48 52.2	126 35.2	2130	26.0	741	503	960
831122	6	032401	48 55.5	126 38.8	48 54.2	126 40.0	1300	18.0	585	503	731
831122	7	032401	48 56.8	126 41.5	48 55.5	126 43.0	1500	21.0	658	549	777
831123	8	032401	48 58.2	126 43.5	48 57.0	126 45.0	2330	18.0	594	503	695
831123	9	032401	48 59.4	126 45.8	48 58.2	126 47.0	0500	21.0	594	503	686
831127	11	042501	49 02.0	126 51.0	49 00.8	126 52.6	0950	108.0	594	503	686
831205	22	093108	52 48.6	132 16.0	52 50.5	132 17.2	0100	24.0	523	503	549
831205	23	093108	52 50.6	132 17.4	52 52.0	132 21.3	0500	27.0	598	503	731
831205	24	093108	52 52.0	132 21.8	52 53.8	132 23.5	0700	28.0	525	503	549
831205	25	093108	52 55.0	132 23.5	52 55.8	132 25.2		39.0	525	503	549
831205	26	093108	52 55.0	132 25.6	52 56.2	132 28.2	1500	35.0	594	503	686
831205	27	093108	52 57.4	132 29.0	52 58.0	132 31.5		25.0	695	475	914
831206	28	093108	52 58.8	132 31.0	52 59.8	132 32.0		26.0	480	503	457
831206	29	093108	53 01.0	132 34.5	53 02.0	132 35.8		27.0	594	549	640
831206	30	093108	53 02.5	132 35.2	53 02.4	132 37.4		40.0	540	457	622

<sup>a</sup> Department of Fisheries and Oceans codes for major area, minor area, and location based on statistical areas of the British Columbia trawl fishery.

Table 6. Set information for bottom trawls deployed by the *R/V G.B. REED* off the west coast of Vancouver Island and in Queen Charlotte Sound in April 1984.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Modal	Start	End
840417	1	032310	48 35.0	126 07.7					165		
840418	4	032310	48 35.7	126 08.6					187		
840420	8	032312	48 42.7	126 14.3					183		
840424	9	042502	49 11.4	126 58.8					238		
840426	12	060802	51 25..6	128 59.2					165		
840428	13	032407	48 54.7	126 40.1					256		
840429	17	042501	49 00.2	126 42.0					227		

<sup>a</sup> Department of Fisheries and Oceans codes for major area, minor area, and location based on statistical areas of the British Columbia trawl fishery.

Table 7. Set information for sablefish traps deployed by the *M/V OCEAN PEARL* in Queen Charlotte Sound in April 1984.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Mean	Start	End
840419	1	060810	51 15.0	129 49.0				32.0	439		
840419	2	060810	51 12.0	129 45.0				20.0	457		
840419	3	060810	51 12.0	129 46.0				20.0	457		
840420	4	060810	51 11.0	129 46.0				30.0	457		
840420	5	060810	51 08.5	129 46.0	51 07.5	129 47.0		20.0	549	457	640
840420	6	060810	51 15.2	129 43.5	51 14.0	129 44.7		21.0	457	457	457
840420	7	060810	51 14.0	129 43.5	51 12.5	129 46.0		23.0	503	457	549
840421	8	060810	51 15.5	129 43.2	51 13.5	129 47.7		26.5	525	503	549
840421	9	060810	51 10.5	130 00.5	51 10.0	130 02.5		20.0	594	549	640
840421	10	060810	51 14.0	129 51.5	51 12.5	129 53.0		23.0	320	274	366
840422	11	060810	51 12.5	129 54.0	51 11.5	129 55.5		23.0	549	366	731
840422	12	060810	51 14.0	129 49.0	51 13.4	129 50.0		30.0	549	457	640
840422	13	060810	51 14.0	129 49.5	51 13.5	129 51.2		24.0	594	549	640
840422	14	060810	51 29.5	130 00.0	51 28.0	130 02.2			457	366	549
840423	15	060810	51 28.0	130 00.5	51 27.0	130 03.5			549	549	549
840423	16	060810	51 28.4	130 06.8	51 27.2	130 08.0			503	457	549
840423	17	060810	51 38.5	130 13.0	51 37.3	130 13.9		25.0	439	329	549
840424	18	060810	51 35.0	130 08.0	51 36.5	130 26.0		24.0	503	457	549
840424	19	060810	51 36.9	130 08.5	51 35.5	130 09.8		23.0	503	457	549
840424	20	060810	51 37.6	130 09.4	51 36.3	130 11.5		25.0	521	494	549
840424	21	060806	51 46.0	130 25.7	51 44.5	130 28.6		20.0	549	366	731
840424	22	060806	51 44.4	130 28.5	51 43.4	130 30.0		24.0	686	640	823

Table 7 (Cont'd). Set information for sablefish traps deployed by the *M/V OCEAN PEARL* in Queen Charlotte Sound in April 1984.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Mean	Start	End
840425	23	060806	51 43.2	130 26.5	51 42.4	130 28.2			732	640	731
840425	24	060806	51 41.4	130 27.5	51 40.5	130 28.5		25.0	686	549	823
840425	25	060806	51 40.5	130 27.5	51 39.5	130 28.5		20.0	805	878	914
840425	26	060812	51 44.7	130 52.4	51 43.5	130 53.5		20.0		549	
840426	27	060806	51 45.2	130 32.5	51 43.8	130 33.7		24.0	640	549	731
840426	28	060806	51 43.5	130 32.4	51 42.2	130 33.5		20.0	869	823	914
840426	29	060806	51 45.0	130 29.8	51 43.5	130 31.8		25.0	594	366	823
840426	30	060812	51 46.2	130 51.2	51 45.9	130 53.5		26.5	594	274	914
840427	31	060812	51 41.0	130 42.6	51 40.5	130 40.0		24.0	549	366	731
840427	32	060812	51 43.7	130 43.4	51 42.4	130 41.3		26.5	594	731	457
840427	33	060812	51 42.5	130 45.0	51 41.4	130 46.8		18.0	594	457	731
840427	34	060812	51 40.5	130 43.0	51 39.3	130 44.0		19.0	549	366	731
840427	35	060806	51 45.4	130 33.5	51 43.6	130 35.5		23.5	686	549	823
840428	36	060806	51 43.6	130 43.6	51 43.4	130 40.5		20.0	594	457	731
840428	37	060806	51 42.2	130 42.4	51 42.0	130 39.8		24.0	686	549	823
840428	38	060806	51 48.0	130 35.4	51 46.6	130 37.1		16.5	503	366	640
840428	39	060806	51 46.2	130 37.7	51 44.9	130 39.6		16.5	549		
840429	40	060806	51 52.0	130 34.0	51 53.0	130 36.5		20.0	302	274	329
840429	41	060806	51 51.5	130 41.0	51 51.0	130 38.4		16.5	320	274	366
840429	42	060806	51 50.2	130 41.3	51 49.6	130 39.2		16.5	393	366	421
840429	43	060806	51 48.6	130 37.9	51 48.8	130 39.8		20.0	366	274	457

Table 7 (Cont'd). Set information for sablefish traps deployed by the *M/V OCEAN PEARL* in Queen Charlotte Sound in April 1984.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Modal	Start	End
840429	44	060806	51 44.5	130 41.7	51 45.0	130 43.5		24.0	503	366	640
840430	45	060806	51 47.6	130 32.4	51 47.0	130 31.9		24.0	412	366	457

<sup>a</sup> Department of Fisheries and Oceans codes for major area, minor area, and location based on statistical areas of the British Columbia trawl fishery.

Table 8. Set information for sablefish traps deployed by the *M/V JEANNA MARIE* off the west coast of the Queen Charlotte Islands in May 1984.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Mean	Start	End
840509	1	093105	52 55.0	132 26.0				86.0	618		
840510	2	093105	52 54.8	132 28.5				105.0	789		
840510	3	093108	52 59.0	132 32.0				82.5	778		
840510	4	093103	53 02.5	132 40.0				28.5	832		
840511	5	093108	53 01.6	132 37.0				40.0	844		
840511	6	093108	53 00.2	132 37.0				122.0	834		
840511	7	093108	52 58.8	132 35.8				102.0	823		
840511	8	093101	53 25.5	133 00.2				25.5	644		
840511	9	093101	53 26.1	133 03.2				26.5	760		
840511	10	093101	53 27.6	133 04.0				27.5	741		
840511	11	093112	53 28.5	133 06.0				27.5	786		
840512	12	093106	53 36.1	133 12.0				21.0	654		
840512	13	093106	53 37.7	133 12.5				22.0	626		
840512	14	093104	53 42.1	133 19.5				26.0	704		
840512	15	093104	53 43.6	133 21.0				13.0	736		
840512	16	093111	53 45.5	133 24.9				40.0	723		
840513	17	093106	53 38.6	133 14.1				20.0	640		
840513	18	093106	53 39.8	133 16.5				21.0	661		
840513	19	093106	53 41.5	133 27.0				20.0	525		
840514	20	093104	53 44.8	133 22.5				40.0	615		
840514	21	093104	53 47.0	133 26.2				40.5	677		
840514	22	093104	53 48.1	133 28.0				26.0	671		

Table 8 (Cont'd). Set information for sablefish traps deployed by the *M/V JEANNA MARIE* off the west coast of the Queen Charlotte Islands in May 1984.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Mean	Start	End
840514	23	093111	53 49.4	133 30.0				31.0	667		
840514	24	093102	53 51.0	133 31.0				18.5	671		
840515	25	093102	53 57.6	133 38.1				36.0	711		
840516	26	093102	53 59.8	133 36.5				41.5	574		
840516	27	093102	53 59.0	133 40.0				19.0	795		
840516	28	093502	54 01.5	133 38.2				51.0	622		
840516	29	093502	54 02.5	133 41.0				16.0	692		
840516	30	093502	54 04.0	133 42.0				19.5	668		

<sup>a</sup> Department of Fisheries and Oceans codes for major area, minor area, and location based on statistical areas of the British Columbia trawl fishery.

Table 9. Set information for sablefish traps deployed by the *M/V JEANNA MARIE* off the west coast of the Queen Charlotte Islands in March/April 1985.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Mean	Start	End
850330	1	093106	53 36.0	133 11.0			2300	18.0	675	512	777
850330	2	093106	53 37.5	133 15.5			2330	20.5	644	549	658
850330	3	093112	53 30.0	133 15.0			2200	26.0	615	549	686
850331	4	093101	53 22.5	132 58.0			1900	34.0	632	549	713
850331	6	093101	53 25.5	133 05.0			2000	41.0	655	549	759
850331	7	093112	53 28.5	133 05.5			2030	43.5	614	549	686
850331	8	093112	53 33.5	133 12.0			2200	20.0	594	549	640
850331	9	093106	53 35.5	133 11.5			2100	23.5	618	503	731
850401	10	093107	53 13.0	132 46.5			1700	62.5	631	549	713
850401	11	093107	53 10.0	132 45.5			1130	22.0	667	549	786
850401	12	093107	53 12.0	132 45.5			0930	28.5	640	549	731
850401	13	093107	53 11.5	132 45.0			1030	29.5	686	549	823
850402	14	093105	52 55.0	132 27.0			0330	29.0	686	549	823
850402	15	093105	52 56.5	132 32.0			0400	30.5	640	549	731
850402	16	093108	52 58.5	132 30.0			0430	31.5	663	594	731
850402	17	093108	53 00.0	132 34.0			0500	36.0	709	549	869
850402	18	093103	53 06.0	132 41.0			1200	31.5	603	549	658
850403	19	093115	53 16.5	132 50.0			1900	41.0	631	567	695
850404	20	093115	53 17.5	132 52.0			1930	58.5	617	549	686
850404	21	093108	53 01.5	132 34.5			1400	46.0	655	549	759
850404	22	093108	53 02.0	132 36.0			1500	48.5	640	549	731
850404	23	093103	53 04.5	132 41.5			1530	49.5	640	549	731

Table 9 (Cont'd). Set information for sablefish traps deployed by the *M/V JEANNA MARIE* off the west coast of the Queen Charlotte Islands in March/April 1985.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Mean	Start	End
850404	24	093103	53 08.0	132 42.0			1200	80.0	649	549	750
850405	25	093115	53 19.5	132 55.5			2230	53.5	603	549	658
850405	26	093115	53 20.5	133 02.0			2300	55.0	631	549	713
850405	27	093101	53 21.5	132 58.5			0830	27.5	640	549	731
850405	28	093101	53 22.5	133 00.5			0900	31.0	673	549	777
850405	29	093101	53 24.0	133 00.0			2330	22.5	655	549	759
850405	30	093101	53 25.5	133 01.5			0830	9.5	649	475	823
850406	31	093101	53 27.5	133 02.5			0100	27.0	677	549	805
850406	32	093112	53 28.0	133 05.0			0200	28.0	709	549	869
850406	33	093101	53 26.0	133 09.0			0900	25.0	667	512	823
850406	34	093112	53 29.0	133 15.5			1000	26.0	612	549	677
850406	35	093112	53 29.5	133 07.5			1630	24.0	631	549	713
850406	36	093112	53 31.0	133 11.0			1730	25.5	612	549	677
850407	37	093106	53 36.0	133 11.0			0130	30.5	677	549	805
850407	38	093106	53 37.5	133 13.0			0200	30.5	622	494	750
850408	44	093106	53 41.0	133 19.0			2100	38.0	732	549	914
850408	45	093106	53 42.0	133 21.0			1100	27.0	732	549	914
850408	46	093104	53 43.5	133 21.0			1200	28.0	777	549	1006
850408	47	093104	53 44.5	133 23.0			2030	22.5	800	549	1052
850409	48	093104	53 46.0	133 26.5			2130	34.0	722	549	896
850409	49	093104	53 47.0	133 27.0			0730	26.0	686	549	823
850409	50	093106	53 48.0	133 27.5			0800	31.0	686	549	823

Table 9 (Cont'd). Set information for sablefish traps deployed by the *M/V JEANNA MARIE* off the west coast of the Queen Charlotte Islands in March/April 1985.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Mean	Start	End
850409	51	093104	53 49.5	133 27.5			0900	31.5	677	549	805
850409	52	093102	53 51.0	133 28.5			2000	23.5	704	549	859

<sup>a</sup> Department of Fisheries and Oceans codes for major area, minor area, and location based on statistical areas of the British Columbia trawl fishery.

Table 10. Set information for sablefish traps deployed by the *M/V CHALLENGER* off the west coast of Vancouver Island in April 1985.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Mean	Start	End
850423	1	032407	48 50.0	126 39.0					556	640	475
850423	2	032407	48 54.0	126 33.0					549	439	658
850424	3	032407	48 57.5	126 35.0					549	695	402
850424	4	032407	48 58.5	126 36.0					521	494	549
850424	5	032407	48 57.5	126 37.0					549	475	622
850424	6	032407	48 56.0	126 33.5					649	585	713
850425	7	032407	48 52.0	126 34.0					603	658	549
850425	8	032407	48 53.5	126 33.0					440	402	393
850427	9	032407	48 58.0	126 37.0					576	549	603
850427	10	032407	48 56.5	126 35.5					614	585	567
850428	12	032407	48 53.5	126 33.0					558	622	494
850428	13	032407	48 55.5	126 32.5					443	402	393
850428	14	032407	48 59.5	126 34.0					622	695	549
850428	15	032407	48 52.0	126 34.0					428	307	549
850428	16	032407	48 57.5	126 35.0					549	549	512
850428	17	032407	48 58.0	126 37.0					585		
850429	18	032407	48 53.5	126 33.0			0530		686		
850429	19	032407	48 55.0	126 33.5					530	439	622
850429	20	032407	48 57.0	126 34.0			1300		540	530	549
850429	21	032407	48 51.0	126 36.5					530	585	475
850429	22	032407	48 56.5	126 37.0					- 25 -		

Table 10 (Cont'd). Set information for sablefish traps deployed by the *M/V CHALLENGER* off the west coast of Vancouver Island in April 1985.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Mean	Start	End
850429	23	032407	48 58.0	126 37.5				622	512	731	
850430	24	032407	48 54.5	126 32.0				494	402	585	
850430	25	032407	48 57.0	126 32.5				439	402	475	
850430	26	032407	48 57.0	126 34.0				579	750	411	

<sup>a</sup> Department of Fisheries and Oceans codes for major area, minor area, and location based on statistical areas of the British Columbia trawl fishery.

Table 11. Set information for sablefish traps deployed by the *M/V CHALLENGER* off the west coast of Vancouver Island in May/June 1985.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Mean	Start	End
850529	1	032310	48 42.4	126 18.8							
850530	2	032406	48 43.5	126 21.7							640
850530	3	032306	48 45.1	126 33.7							
850530	4	032407	48 53.3	126 33.5							
850530	5	032407	48 57.1	126 37.7					686	640	731
850530	6	032407	48 55.0	126 41.5							
850531	7	032310	48 42.2	126 18.5							640
850531	8	032406	48 43.8	126 23.2					594	549	640
850531	9	032407	48 52.4	126 35.4							
850531	10	032407	48 56.0	126 34.7					632	695	576
850531	11	032406	48 44.4	126 33.1							
850531	12	032406	48 46.7	126 35.7							
850601	13	032310	48 41.8	126 18.7					686		
850601	14	032406	48 43.3	126 23.6					531		
850601	15	032407	48 53.2	126 33.3					650		
850601	16	032407	48 57.6	126 35.7					646	786	512
850601	17	032406	48 45.5	126 34.2					622		
850601	18	032407	48 46.8	126 36.4					577		
850602	19	032410	48 40.5	126 18.4					550	475	622
850602	20	032406	48 43.9	126 22.2					659		
850602	21	032407	48 42.8	126 50.1					604	585	622
850602	22	032406	48 44.2	126 27.8					760		

Table 11 (Cont'd). Set information for sablefish traps deployed by the *M/V CHALLENGER* off the west coast of Vancouver Island in May/June 1985.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Mean	Start	End
850602	23	032407	48 47.2	126 36.8							
850602	24	032407	48 47.4	126 36.9				722	677	768	

<sup>a</sup> Department of Fisheries and Oceans codes for major area, minor area, and location based on statistical areas of the British Columbia trawl fishery.

Table 12. Set information for sablefish traps deployed by the *M/V LA PORSCHE* off Bowie and Union Seamounts in February 1987.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Mean	Start	End
870212	1	093110	53 18.0	135 35.0							
870213	2	051108	49 33.0	132 40.0							

<sup>a</sup> Department of Fisheries and Oceans codes for major area, minor area, and location based on statistical areas of the British Columbia trawl fishery.

Table 13. Set information for bottom trawls deployed by the *R/V W.E. RICKER* off the west coast of Vancouver Island in March 1987.

Date Y/M/D	Set No.	Statistical Area <sup>a</sup>	Start		End		Start Time	Soak Time (hr)	Depth (m)		
			Lat.	Long.	Lat.	Long.			Mean	Start	End
870319	3,4	032101	48 29.5	125 23.0					125	100	150

<sup>a</sup> Department of Fisheries and Oceans codes for major area, minor area, and location based on statistical areas of the British Columbia trawl fishery.

Table 14. Numbers and identification of tags of sablefish released off Vancouver Island and the Queen Charlotte Islands in 1982, in order of tag identification number<sup>a</sup>.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag		2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released	ID. No.	No. Released with 2 <sup>nd</sup> tag	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
Oct. 22	9	Winter Harbour	B82-	69000-69240	217	69011-69239	20	217	20
Oct. 22	10		B82-	69241-69495	231	69251-69493	23	448	43
Oct. 22	13		B82-	69496-69773	251	69506-69771	25	699	68
Oct. 24	15	Kaines Island	B82-	69775-70066	264	69784-70059	26	963	94
Oct. 24	16	Lippy Point	B82-	70067-70357	262	70077-70352	26	1225	120
Oct. 24	17	Topknot Sound	B82-	70358-70887	476	70368-70880	46	1701	166
Oct. 25	18		B82-	70888-71361	428	70899-71362	41	2129	207
Oct. 25	19	C. Palmerston	B82-	71363-71874	464	71374-71867	46	2593	253
Oct. 25	20		B82-	71875-72215	313	71885-72200	26	2906	279
Oct. 25	21		B82-	72216-72335	107	72227-72336	11	3013	290
Oct. 29	43	Goose Island	P81-	82001-82222	221		0	3234	290
Oct. 29	44	Gully	P81-	82223-82352	130		0	3364	290
Oct. 29	41		P81-	82353-82559	207		0	3571	290
Oct. 29	42		P81-	82560-82645	86		0	3657	290
Oct. 30	47		P81-	82646-82815	169		0	3826	290
Oct. 30	48		P81-	82816-83023	206		0	4032	290
Nov. 3	75	Buck Point	B82-	72337-72641	271	72347-72633	27	4303	317
Nov. 3	76	Kitgoro Point	B82-	72642-72961	289	72652-72959	29	4592	346
Nov. 3	77		B82-	72962-73271	281	72972-73269	28	4873	374

Table 14 (Cont'd). Numbers and identification of tags of sablefish released off Vancouver Island and the Queen Charlotte Islands in 1982, in order of tag identification number.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag		2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released	ID. No.	No. Released with 2 <sup>nd</sup> tag	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
Nov. 3	78	Kitgoro Point	B82-	73272-73533	235	73282-73524	23	5108	397
Nov. 3	67	Hunter Point	B82-	73534-73747	193	73544-73741	19	5301	416
Nov. 4	74	Buck Point	B82-	73748-74074	298	73758-74066	29	5599	445
Nov. 4	73		B82-	74075-74337	239	74085-74327	23	5838	468
Nov. 4	72	Marble Island	B82-	74338-74702	332	74348-74703	33	6170	501
Nov. 4	71		B82-	74704-75009	280	74714-75010	27	6450	528
Nov. 4	70		B82-	75011-75340	289	75021-75339	29	6739	557
Nov. 4	69		B82-	75341-75652	280	75352-75651	28	7019	585
Nov. 4	68		B82	75653-75673	20	75663-75674	2	7039	587

<sup>a</sup> Identification number series may include some unused or broken tags.

Table 15. Numbers and identification of tags of sablefish released off Vancouver Island and the Queen Charlotte Islands in 1983, in order of tag identification number<sup>a</sup>.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag		2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released	ID. No.	No. Released with 2 <sup>nd</sup> tag	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
Nov. 21	1	Clayoquot Sound	B82-	83000-83375	319	83010-83376	32	319	32
Nov. 21	2	Lennard Island	B82-	83377-83580	185	83387-83574	18	504	50
Nov. 22	3		B82-	84178-84462	260	84188-84463	26	764	76
Nov. 22	4		B82-	83956-84177	198	83966-84176	20	962	96
Nov. 21	5		B82-	83581-83954	332	83591-83955	34	1294	130
Nov. 22	6		B82-	84464-85379	828	84474-85376	83	2122	213
Nov. 22	7		B82-	85380-86135	686	85390-86127	68	2808	281
Nov. 23	8		B82-	86136-86713	524	86146-86707	52	3332	333
Nov. 23	9		B82-	86714-87388	612	86724-87384	61	3944	394
Nov. 29	11		B82-	87389-87474	79	87399-87465	7	4023	401
Dec. 5	22	Kootenay Cape	B82-	87475-88093	563	87485-88090	56	4586	457
Dec. 5	23	Chads Point	B82-	88094-88358	240	88104-88357	24	4826	481
Dec. 5	24		B82-	88359-88599	220	88370-88589	21	5046	502
Dec. 5	26	Englefield Bay	B82-	88600-89259	601	88610-89246	58	5647	560
Dec. 5	25	Cape Henry	B82-	89260-89648	354	89270-89644	35	6001	595
Dec. 5	27	Englefield Bay	B82-	89649-89869	201	89659-89868	20	6202	615
Dec. 6	28		B82-	89870-90387	470	89880-90386	47	6672	662
Dec. 6	29		B82-	90388-91336	863	90398-91333	86	7535	748
Dec. 6	30		B82-	91337-91874	490	91347-91864	48	8025	796

<sup>a</sup> Identification number series may include some unused or broken tags.

Table 16. Numbers and identification of tags of sablefish caught in bottom trawls and released off Vancouver Island and in Queen Charlotte Sound in 1984, in order of tag identification number<sup>a</sup>.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag		2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released	ID. No.	No. Released with 2 <sup>nd</sup> tag	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
Apr. 17	1	W. LaPerouse	P81-	91000-91009	6		0	6	0
Apr. 18	4	Bank	P81-	91010-91014	5		0	11	0
Apr. 20	8		P81-	91015-91024	10		0	21	0
Apr. 24	9	Nootka	P81-	91025-91078	51		0	72	0
Apr. 26	12	Goose Isl. Gully	P81-	91079-91168	90		0	162	0
Apr. 28	13	Esteven Point	P81-	91170-91267	90		0	252	0
Apr. 29	17		P81-	91268-91341	74		0	326	0

<sup>a</sup> Identification number series may include some unused or broken tags.

Table 17. Numbers and identification of tags of sablefish released in Queen Charlotte Sound in 1984, in order of tag identification number<sup>a</sup>.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag		2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released <sup>b</sup>	ID. No.	No. Released with 2 <sup>nd</sup> tag <sup>c</sup>	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
Apr. 19	1	West Goose	P81-	85500-85597	87	85511-85596	5	87	5
Apr. 19	1	Island Gully	P81-	85600-85624	~25	85600-85624	rf	112	5
Apr. 19	2		P81-	85625-85697	53	85628-85676	6	165	11
Apr. 19	3		P81-	85698-85835	118	85702-85829	16	283	27
Apr. 20	4		P81-	85836-85999	145	85843-85979	16	428	43
Apr. 20	5		P81-	85000-85134	110	85001-85131	17	538	60
Apr. 20	6		P81-	85135-85247	98	85152-85233	11	636	71
	6		P81-	85248-85265	~18	85248-85265	rf	654	71
Apr. 20	7		P81-	85266-85349	70	85278-85330	9	724	80
Apr. 21	8		P81-	85350-85474	104	85351-85455	14	828	94
Apr. 21	9		P81-	85475-85475	20	85476-85480	3	848	97
	9		P81-	86000-86318	254	86001-86307	40	1102	137
Apr. 21	10		P81-	86319-86452	117	86326-86453	17	1219	154
Apr. 22	11		P81-	86454-86574	108	86455-86555	13	1327	167
Apr. 22	12		P81-	86575-86699	105	86576-86682	16	1432	183
Apr. 22	13		P81-	86700-86725	22	86701-86726	4	1454	187
Apr. 22	14		P81-	86727-86749	18	86728-86730	2	1472	189
	14		P81-	86925-87042	100	86926-87030	15	1572	204
Apr. 23	15		P81-	87043-87157	98	87051-87155	13	1670	217
Apr. 23	16		P81-	87158-87249	80	87177-87230	10	1750	227

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Table 17 (Cont'd). Numbers and identification of tags of sablefish released in Queen Charlotte Sound in 1984<sup>a</sup>.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag		2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released <sup>b</sup>	ID. No.	No. Released with 2 <sup>nd</sup> tag <sup>c</sup>	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
Apr. 23	17	West Mitchell	P81-	87250-87339	77	87251-87330	12	1827	239
Apr. 24	18	Gully	P81-	87341-87399	49	87351-87380	6	1876	245
	18		P81-	87425-87481	41	87426-87479	8	1917	253
	18		P81-	87500-87524	20	87502-87506	3	1937	256
Apr. 24	19		P81-	87400-87424	22	87401-87405	3	1959	259
	19		P81-	87482-87499	17		0	1976	259
	19		P81-	87525-87699	133	87526-87680	17	2109	276
Apr. 24	20		P81-	87700-87849	131	87701-87830	18	2240	294
Apr. 24	21	West Moresby	P81-	87850-88024	155	87851-88003	19	2395	313
Apr. 24	22	Gully	P81-	88025-88199	160	88026-88178	14	2555	327
	22		P81-	88300-88324	23	88301-88303	2	2578	329
Apr. 25	23		P81-	88200-88299	92	88201-88278	8	2670	337
Apr. 25	24		P81-	88325-88446	109	88326-88428	10	2779	347
Apr. 25	25		P81-	88447-88595	130	88451-88579	12	2909	359
Apr. 25	26		P81-	88596-88724	112	88601-88703	9	3021	368
Apr. 26	27		P81-	88725-88874	132	88726-88853	12	3153	380
Apr. 26	28		P81-	88875-88910	30	88876-88903	4	3183	384
Apr. 26	29	West Moresby	P81-	88911-88963	45	88926-88953	4	3228	388
Apr. 26	29	Gully	P81-	88964-89016	~53	88964-89016	rf	3281	388
Apr. 26	29		P81-	89017-89048	28	89027-89029	2	3309	390
Apr. 26	30		P81-	89075-89187	98	89076-89178	10	3407	400
Apr. 27	31		P81-	89189-89295	93	89190-89276	8	3500	408

Table 17 (Cont'd). Numbers and identification of tags of sablefish released in Queen Charlotte Sound in 1984<sup>a</sup>.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag		2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released <sup>b</sup>	ID. No.	No. Released with 2 <sup>nd</sup> tag <sup>c</sup>	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
Apr. 27	32	West Moresby	P81-	89297-89356	53	89301-89353	6	3553	414
Apr. 27	33	Gully	P81-	89357-89448	85	89376-89428	6	3638	420
Apr. 27	34		P81-	89449-89567	105	89451-89553	9	3743	429
Apr. 27	35		P81-	89568-89749	164	89576-89728	14	3907	443
Apr. 28	36		P81-	89750-89893	132	89751-89878	11	4039	454
Apr. 28	37		P81-	89894-90009	100	89901-90003	10	4139	464
Apr. 28	38		P81-	90010-90259	222	90026-90253	20	4361	484
Apr. 28	39		P81-	90261-90440	160	90276-90428	14	4521	498
Apr. 29	40		P81-	90441-90566	112	90451-90553	10	4633	508
Apr. 29	41		P81-	90567-90620	49	90576-90603	4	4682	512
Apr. 29	42		P81-	90621-90693	67	90626-90678	6	4749	518
Apr. 29	43		P81-	90694-90768	67	90701-90754	6	4816	524
Apr. 29	44		P81-	90770-90945	159	90776-90978	14	4975	538
Apr. 30	45		P81-	90946-90999	50	90951-90978	4	5025	542

<sup>a</sup> Identification number series may include some unused or broken tags.

<sup>b</sup> Numbers of fish tagged and released with one anchor tag may be approximate due to a failure in the device recording the tag number.

<sup>c</sup> Numbers of fish double tagged may be unknown due to a failure in the recording device (=rf).

Table 18. Numbers and identification of tags of sablefish released off the west coast of the Queen Charlotte Islands in 1984, in order of tag identification number<sup>a</sup>.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag		2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released <sup>b</sup>	ID. No.	No. Released with 2 <sup>nd</sup> tag <sup>c</sup>	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
May 9	1	West coast	B82-	75675-75744	~70	75675-75744	rf	70	0
May 10	2	Moresby Island	B82-	75745-75819	68	75757-75812	5	138	5
May 10	3		B82-	75820-75975	136	75821-75971	15	274	20
May 10	4		B82-	75976-76197	205	75983-76198	17	479	37
May 11	5		B82-	76199-76329	114	76204-76330	18	593	55
May 11	6		B82-	76331-76446	101	76337-76445	14	694	69
May 11	7		B82-	76447-76542	87	76449-76537	9	781	78
May 11	8	West coast	B82-	76543-76763	201	76554-76747	20	982	98
May 11	9	Graham Island	B82-	76764-76953	167	76767-76949	23	1149	121
May 11	10		B82-	76954-76999	40	76959-76996	6	1189	127
	10		B82-	92375-92495	110	92387-92487	11	1299	138
May 11	11		B82-	92496-92649	138	92501-92647	16	1437	154
May 12	12		B82-	92650-92820	153	92662-92818	18	1590	172
May 12	13		B82-	92821-93015	175	92824-93016	21	1765	193
May 12	14		B82-	93017-93385	369		0	2134	193
May 12	15		B82-	93386-93722	303	93387-93723	35	2437	228
May 12	16		B82-	93724-93938	192	93726-93937	23	2629	251
May 13	17		B82-	93939-94150	195	93944-94146	17	2824	268
May 13	18		B82-	94151-94264	104	94153-94248	10	2928	278
May 13	19		B82-	94265-94326	58	94273-94317	4	2986	282
May 14	20		B82-	94327-94545	203	94332-94542	16	3189	298

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Table 18 (Cont'd). Numbers and identification of tags of sablefish released off the west coast of the Queen Charlotte Islands in 1984, in order of tag identification number<sup>a</sup>.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag		2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released <sup>b</sup>	ID. No.	No. Released with 2 <sup>nd</sup> tag <sup>c</sup>	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
May 14	21		B82-	94546-94810	237	94557-94809	26	3426	324
May 14	22		B82-	94811-95713	360	94816-95712	43	3786	367
May 14	23		B82-	95000-95125	108	95004-95122	40	3894	407
	23		B82-	95714-95999	263	95720-95993	23	4157	430
May 14	24		B82-	95126-95459	295	95127-95458	39	4452	469
May 15	25		B82-	95460-96107	131	95462-96104	17	4583	486
May 16	26		B82-	96108-96369	242	96112-96368	20	4825	506
May 16	27		B82-	96370-96534	149	96372-96533	15	4974	521
May 16	28		B82-	96535-96662	113	96539-96657	14	5087	535
May 16	29		B82-	96663-96848	166	96665-96849	20	5253	555
May 16	30		B82-	96850-96988	126	96851-96986	13	5379	568

<sup>a</sup> Identification number series may include some unused or broken tags.

<sup>b</sup> Numbers of fish tagged and released with one anchor tag may be approximate due to a failure in the device recording the tag number.

<sup>c</sup> Numbers of fish double tagged may be unknown due to a failure in the recording device (=rf).

Table 19. Numbers and identification of tags of sablefish released off the west coast of the Queen Charlotte Islands in 1985, in order of tag identification number<sup>a</sup>.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag		2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released <sup>b</sup>	ID. No.	No. Released with 2 <sup>nd</sup> tag <sup>c</sup>	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
Mar. 30	1	Queen Charlotte Islands	B83-	19282-19332	46	19295-19324	5	46	5
Mar. 30	2		B83-	19333-19427	88	19339-19428	8	134	13
Mar. 30	3		B83-	19429-19654	206	19438-19655	21	340	34
Mar. 31	4		B83-	19656-19727	63	19663-19721	9	403	43
Mar. 31	6		B83-	19728-19771	37	19732-19767	5	440	48
Mar. 31	7		B83-	19772-19823	47	19774-19824	6	487	54
Mar. 31	8		B83-	19825-19864	36	19829-19856	4	523	58
Mar. 31	9		B83-	19865-19890	23	19868-19889	3	546	61
Apr. 1	10		B83-	19891-19971	74	19898-19970	7	620	68
Apr. 1	11		B83-	19972-19999	25	19977-19994	3	645	71
	11		B83-	23000-23059	54	23008-23052	6	699	77
Apr. 1	12		B83-	23060-23140	75	23065-23136	6	774	83
Apr. 1	13		B83-	23141-23214	70	23155-23194	4	844	87
Apr. 2	14		B83-	23215-23245	28	23220-23244	3	872	90
	14		B83-	23247-23263	~17	23247-23263	rf	889	90
	14		B83-	23264-23359	84	23265-23358	12	973	102
Apr. 2	15		B83-	23360-23527	145	23374-23520	19	1118	121
Apr. 2	16		B83-	23528-23652	113	23535-23647	12	1231	133
Apr. 2	17		B83-	23653-23743	81	23656-23740	9	1312	142
Apr. 2	18		B83-	23744-23877	122	23753-23878	12	1434	154
Apr. 3	19		B83-	23879-23923	42	23885-23913	3	1476	157

Table 19 (Cont'd). Numbers and identification of tags of sablefish released off the west coast of the Queen Charlotte Islands in 1985, in order of tag identification number<sup>a</sup>.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag		2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released <sup>b</sup>	ID. No.	No. Released with 2 <sup>nd</sup> tag <sup>c</sup>	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
Apr. 4	20	Queen Charlotte Islands	B83-	23924-23942	19		0	1495	157
Apr. 4	21		B83-	23943-24043	92	23949-24020	6	1587	163
Apr. 4	22		B83-	24044-24113	65	24060-24108	4	1652	167
Apr. 4	23		B83-	24114-24188	70	24136-24173	4	1722	171
Apr. 4	24		B83-	24189-24278	84	24214-24261	5	1806	176
Apr. 5	25		B83-	24279-24331	45	24284-24327	7	1851	183
Apr. 5	26		B83-	24334-24432	89	24346-24431	9	1940	192
Apr. 5	27		B83-	24433-24464	30	24437-24446	2	1970	194
Apr. 5	28		B83-	24465-24527	55	24478-24520	6	2025	200
Apr. 5	29		B83-	24528-24542	13	24532-24537	2	2038	202
Apr. 5	30		B83-	24543-24563	19	24558-24561	2	2057	204
Apr. 6	31		B83-	24565-24595	28	24570-24593	3	2085	207
Apr. 6	32		B83-	24596-24646	44	24604-24645	7	2129	214
Apr. 6	33		B83-	24647-24711	57	24653-24710	7	2186	221
Apr. 6	34		B83-	24712-24839	115	24718-24834	12	2301	233
Apr. 6	35		B83-	24840-24902	58	24856-24887	4	2359	237
Apr. 6	36		B83-	24903-25013	99	24909-25012	12	2458	249
Apr. 7	37		B83-	25014-25038	23	25022-25029	2	2481	251
Apr. 7	38		B83-	25039-25061	21	25051-25059	2	2502	253
Apr. 8	44		B83-	25062-25097	32	25071-25096	4	2534	257
Apr. 8	45		B83-	25098-25120	21	25101-25113	2	2555	259

Table 19 (Cont'd). Numbers and identification of tags of sablefish released off the west coast of the Queen Charlotte Islands in 1985, in order of tag identification number<sup>a</sup>.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag		2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released <sup>b</sup>	ID. No.	No. Released with 2 <sup>nd</sup> tag <sup>c</sup>	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
Apr. 8	46	Queen Charlotte Islands	B83-	25121-25151 25152-25185 25186-25218	29 30 ~31	25129-25138 25161-25178 25186-25218	2 3 ~2rf	2584	261
Apr. 8	47							2614	264
	47							2645	266
Apr. 9	48		B83-	25219-25304	73	25223-25305	12	2718	278
Apr. 9	49		B83-	25306-25388	78	25348-25381	5	2796	283
Apr. 9	50		B83-	25389-25474	79	25420-25469	7	2875	290
Apr. 9	51		B83-	25475-25614	124	25486-25612	15	2999	305
Apr. 9	52		B83-	25615-25642	25	25634-25639	2	3024	307

<sup>a</sup> Identification number series may include some unused or broken tags.

<sup>b</sup> Numbers of fish tagged and released with one anchor tag may be approximate due to a failure in the device recording the tag number.

<sup>c</sup> Numbers of fish double tagged may be unknown due to a failure in the recording device (=rf).

Table 20. Numbers and identification of tags of sablefish released off the west coast of Vancouver Island in 1985, in order of tag identification number<sup>a</sup>.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag			2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released		ID. No.	No. Released with 2 <sup>nd</sup> tag	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
Apr. 23	1	Clayoquot	B83-	29000-29127	128			0	128	0
Apr. 23	2		B83-	29128-29229	100			0	228	0
Apr. 24	3		B83-	29230-29365	136			0	364	0
Apr. 24	4		B83-	29367-29506	138			0	502	0
Apr. 24	5		B83-	29507-29354	46			0	548	0
Apr. 24	6		B83-	29556-19682	114	29567-29683	12	662	12	
Apr. 25	7		B83-	29684-29803	107	29686-29795	12	769	24	
Apr. 25	8		B83-	29804-29974	154	29805-29975	18	923	42	
Apr. 27	9		B83-	29976-30006	28	29977-30007	4	951	46	
Apr. 27	10		B83-	30008-30161	134	30009-30157	16	1085	62	
Apr. 27	11		B83-	30162-30236	65	30163-30233	8	1150	70	
Apr. 28	12		B83-	30237-30321	75	30238-30318	9	1225	79	
Apr. 28	13		B83-	30322-30389	61	30323-30383	7	1286	86	
Apr. 28	14		B83-	30390-30449	54	30391-30441	6	1340	92	
Apr. 28	15		B83-	30450-30599	134	30451-30590	15	1474	107	
Apr. 28	16		B83-	30600-30775	156	30601-30771	18	1630	125	
Apr. 28	17		B83-	30776-30894	107	30777-30887	12	1737	137	
Apr. 29	18		B83-	30895-31013	107	30896-31006	12	1844	149	
Apr. 29	19		B83-	31014-31052	36	31015-31045	3	1880	152	
Apr. 29	20		B83-	31053-31123	64	31054-31124	8	1944	160	
Apr. 29	21		B83-	31126-31219	83	31127-31217	10	2027	170	

Table 20 (Cont'd). Numbers and identification of tags of sablefish released off the west coast of Vancouver Island in 1985, in order of tag identification number<sup>a</sup>.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag		2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released	ID. No.	No. Released with 2 <sup>nd</sup> tag	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
Apr. 29	22	Clayoquot	B83-	31220-31319	90	31221-31311	10	2117	180
Apr. 29	23		B83-	31320-31386	60	31321-31381	7	2177	187
Apr. 30	24		B83-	31387-31409	20	31388-31407	3	2197	190
Apr. 30	25		B83-	31410-31447	33	31411-31442	4	2230	194
Apr. 30	26		B83-	31448-31521	67	31449-31520	7	2297	201

<sup>a</sup> Identification number series may include some unused or broken tags.

Table 21. Numbers and identification of tags of sablefish released off the west coast of Vancouver Island in 1985, in order of tag identification number<sup>a</sup>.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag		2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released	ID. No.	No. Released with 2 <sup>nd</sup> tag	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
May 29	1	Vancouver Is.	B83-	31523-31558	32	31524-31554	4	32	4
May 30	2		B83-	31559-31624	58	31560-31621	7	90	11
May 30	3		B83-	31625-31890	233	31626-31886	27	323	38
May 30	4		B83-	31891-31998	96	31892-31992	11	419	49
May 30	5		B83-	42000-42096	87	42001-42091	10	506	59
May 30	6		B83-	42097-42309	190	42098-42308	22	696	81
May 31	7	N. Father Charles	B83-	42310-42376	59	42311-42371	7	755	88
May 31	8		B83-	42377-42531	139	42378-42528	16	894	104
May 31	9	Clayoquot	B83-	42532-42624	83	42533-42623	10	977	114
May 31	10		B83-	42625-42675	46	42626-42676	6	1023	120
May 31	11		B83-	42677-42930	229	42678-42928	26	1252	146
May 31	12		B83-	42931-43141	190	42932-43132	21	1442	167
Jun. 1	13	Father Charles	B83-	43142-43181	36	43143-43182	5	1478	172
Jun. 1	14		B83-	43183-43337	138	43184-43334	16	1616	188
Jun. 1	15		B83-	43338-43400	56	43339-43399	7	1672	195
Jun. 1	16	No Clayoquot	B83-	43401-43451	46	43402-43452	6	1718	201
Jun. 1	17		B83-	43453-43680	204	43454-43675	23	1922	224
Jun. 1	18		B83-	43681-43856	158	43682-43852	18	2080	242
Jun. 2	19	Father Charles	B83-	43857-43894	34	43858-43888	4	2114	246
Jun. 2	20		B83-	43895-44073	161	43897-44074	18	2275	264
Jun. 2	21		B83-	44075-44324	225	44076-44316	25	2500	289

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Table 21 (Cont'd). Numbers and identification of tags of sablefish released off the west coast of Vancouver Island in 1985, in order of tag identification number<sup>a</sup>.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag		2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released	ID. No.	No. Released with 2 <sup>nd</sup> tag	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
Jun. 2	22	Father Charles	B83-	44325-44538	185	44326-44536	20	2685	309
Jun. 2	23		B83-	44540-44708	151	44541-44631	8	2836	317
Jun. 2	24		B83-	44710-44888	169		0	3005	317

<sup>a</sup> Identification number series may include some unused or broken tags.

Table 22. Numbers and identification of tags of sablefish released off Bowie and Union Seamounts in 1987, in order of tag identification number<sup>a</sup>.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag		2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released	ID. No.	No. Released with 2 <sup>nd</sup> tag	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
Feb. 12	1	Bowie Seamount	B83-	25643-25960	299		0	299	0
Feb. 17	2	Union Seamount	B83-	25962-26289	317		0	616	0

<sup>a</sup> Identification number series may include some unused or broken tags.

Table 23. Numbers and identification of tags of sablefish captured in a bottom trawl and released off the west coast of Vancouver Island in 1987, in order of tag identification number<sup>a</sup>.

Release Date	Set No.	Location	Prefix of Tags	1 <sup>st</sup> Anchor Tag		2 <sup>nd</sup> Anchor Tag		Cumulative Totals	
				ID. No.	No. Released	ID. No.	No. Released with 2 <sup>nd</sup> tag	1 <sup>st</sup> Tag	2 <sup>nd</sup> Tag
Mar. 19	3-4	Finger Bank	B83-	26290-27411	1101		0	1101	0

<sup>a</sup> Identification number series may include some unused or broken tags.

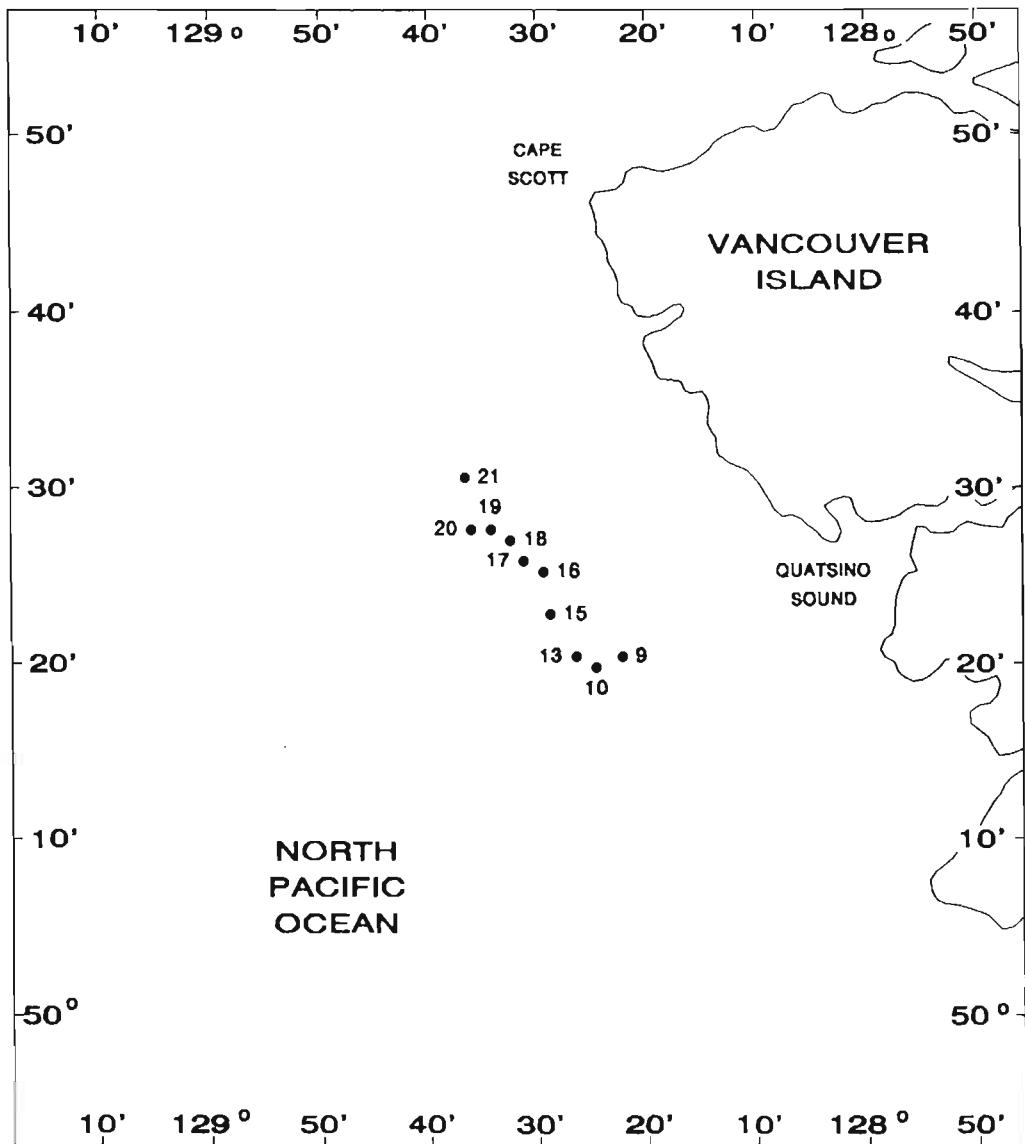


Figure 1a. Set locations for tag and release of sablefish off the west coast of Vancouver Island in October/November 1982.

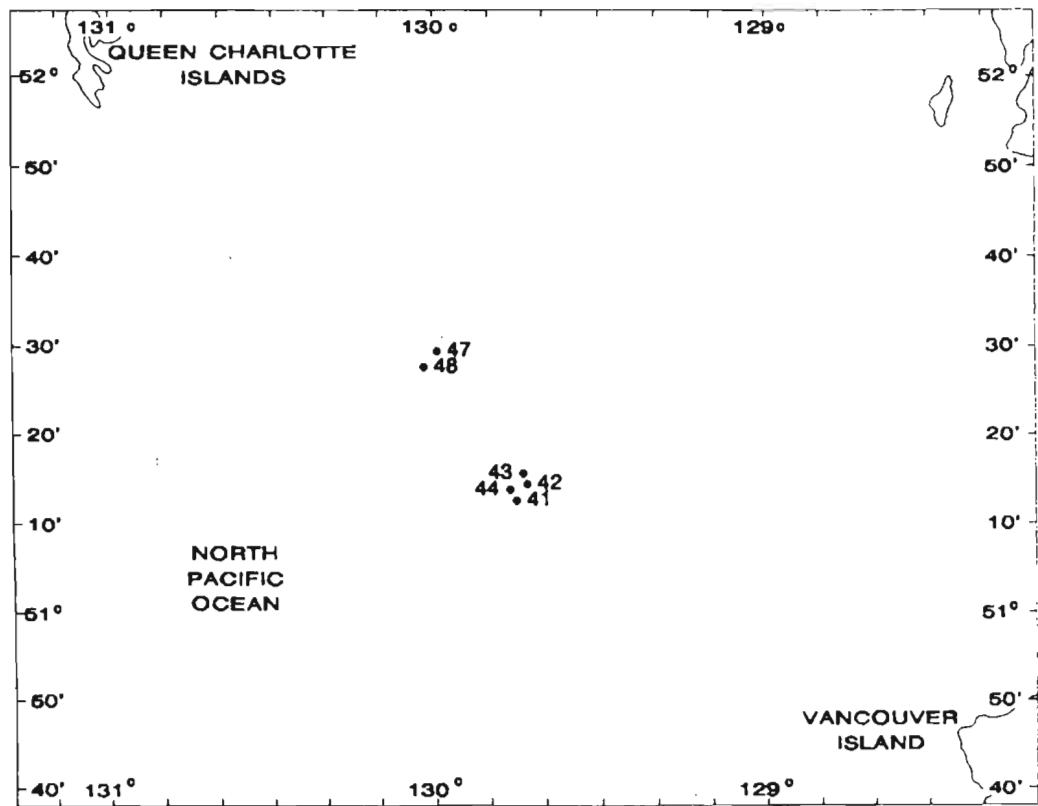


Figure 1b. Set locations for tag and release of sablefish off the west coast of the Queen Charlotte Islands in October/November 1982.

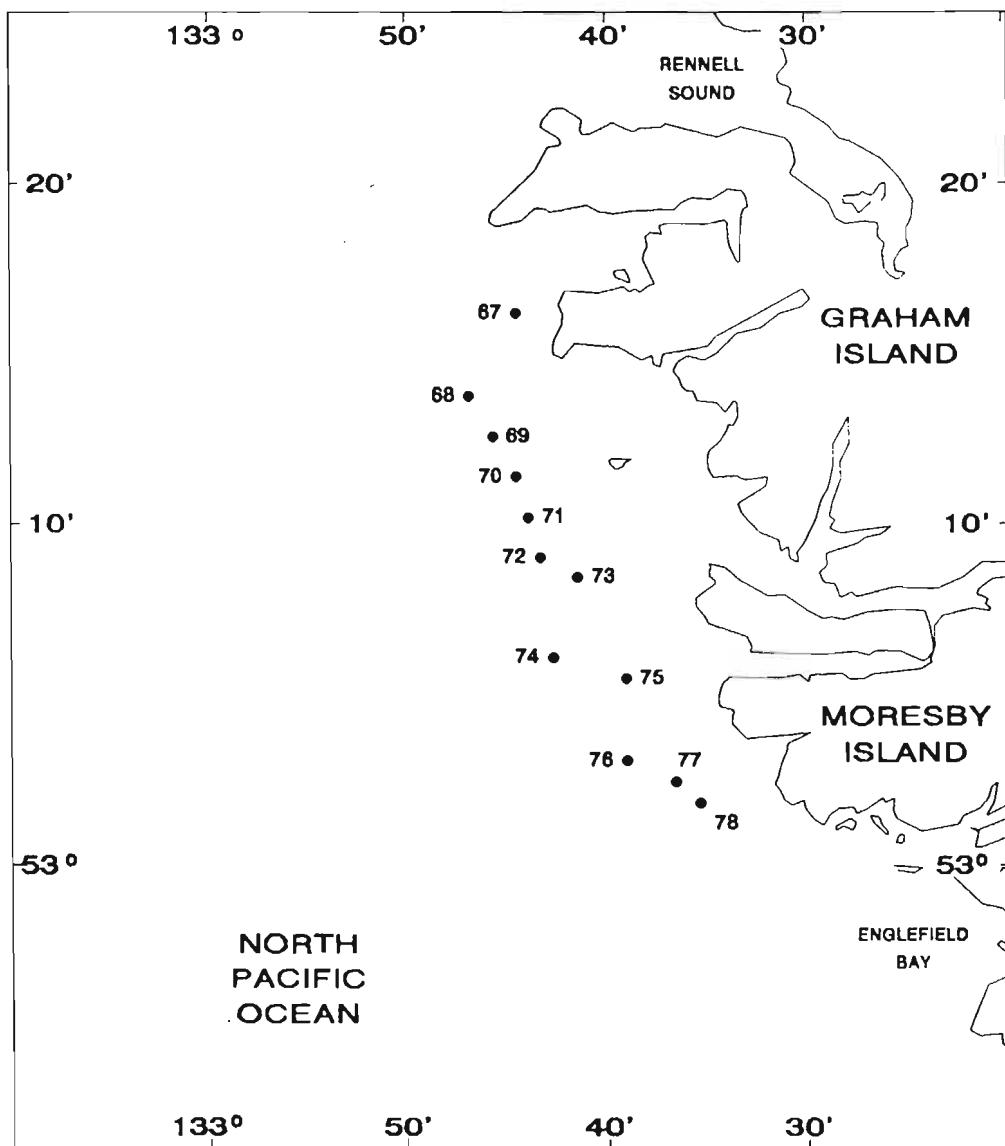
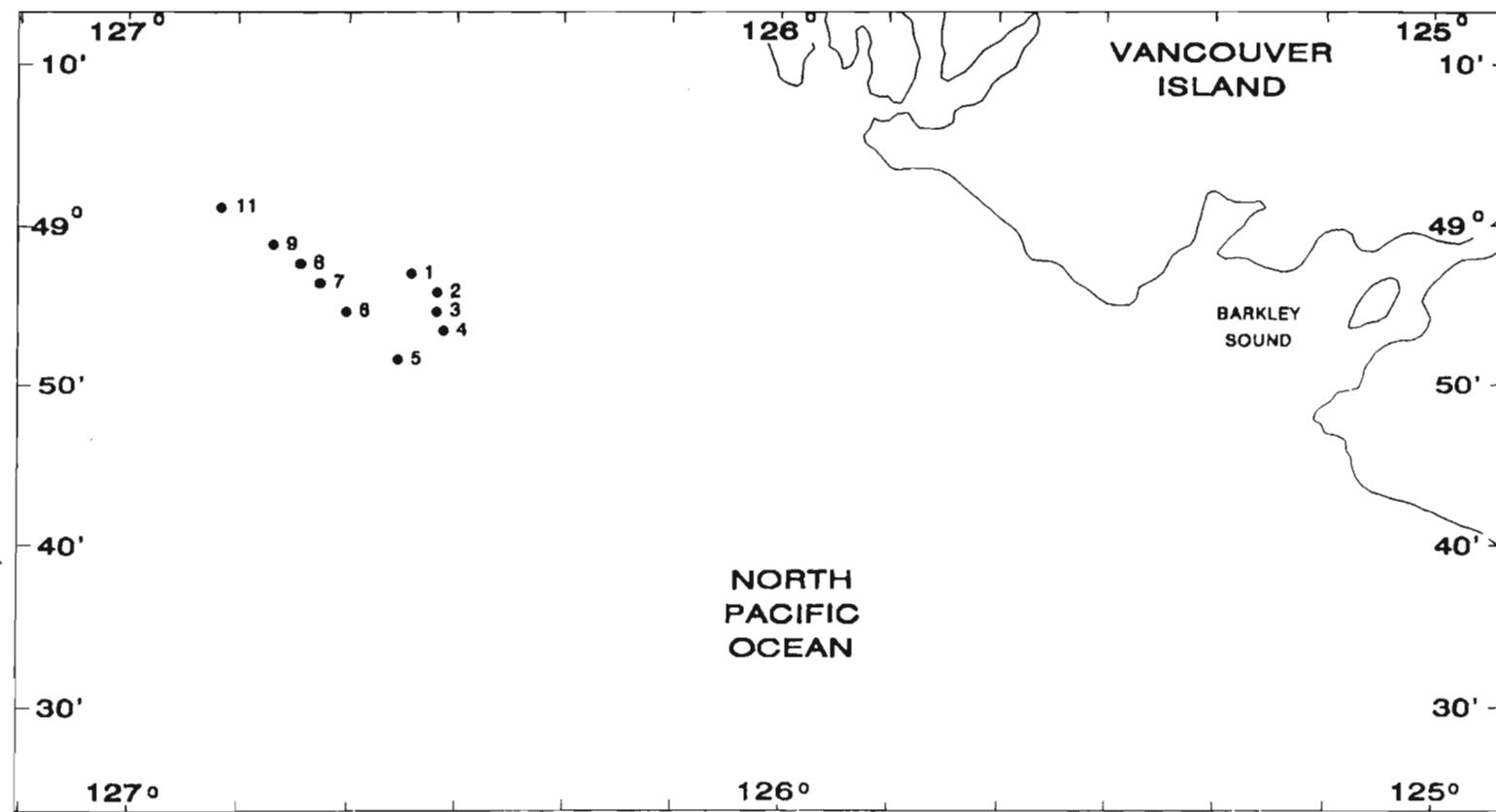


Figure 1c. Set locations for tag and release of sablefish in Queen Charlotte Sound in October/November 1982.



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Figure 2a. Set locations for tag and release of sablefish off the west coast of Vancouver Island in April 1983.

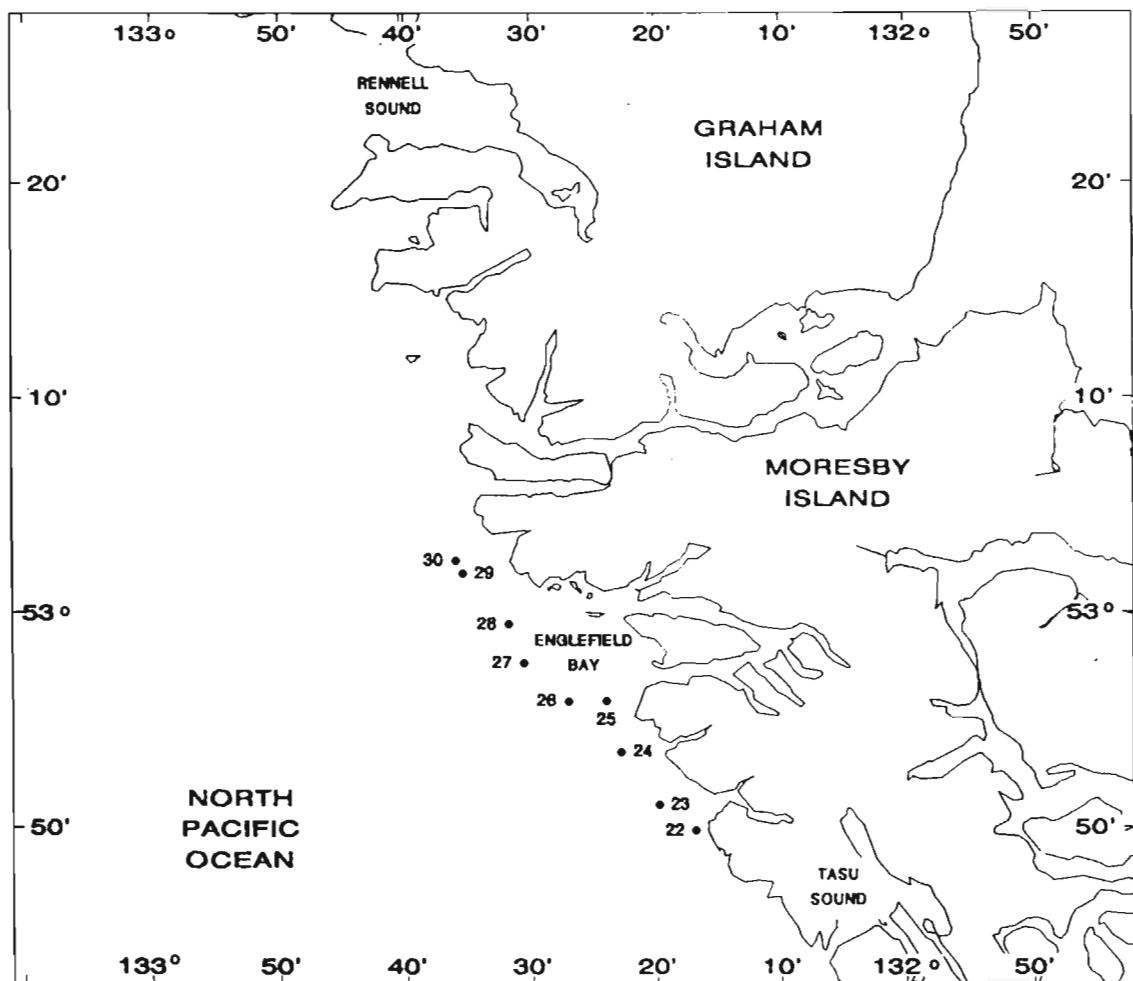


Figure 2b. Set locations for tag and release of sablefish off the west coast of the Queen Charlotte Islands in April 1983.

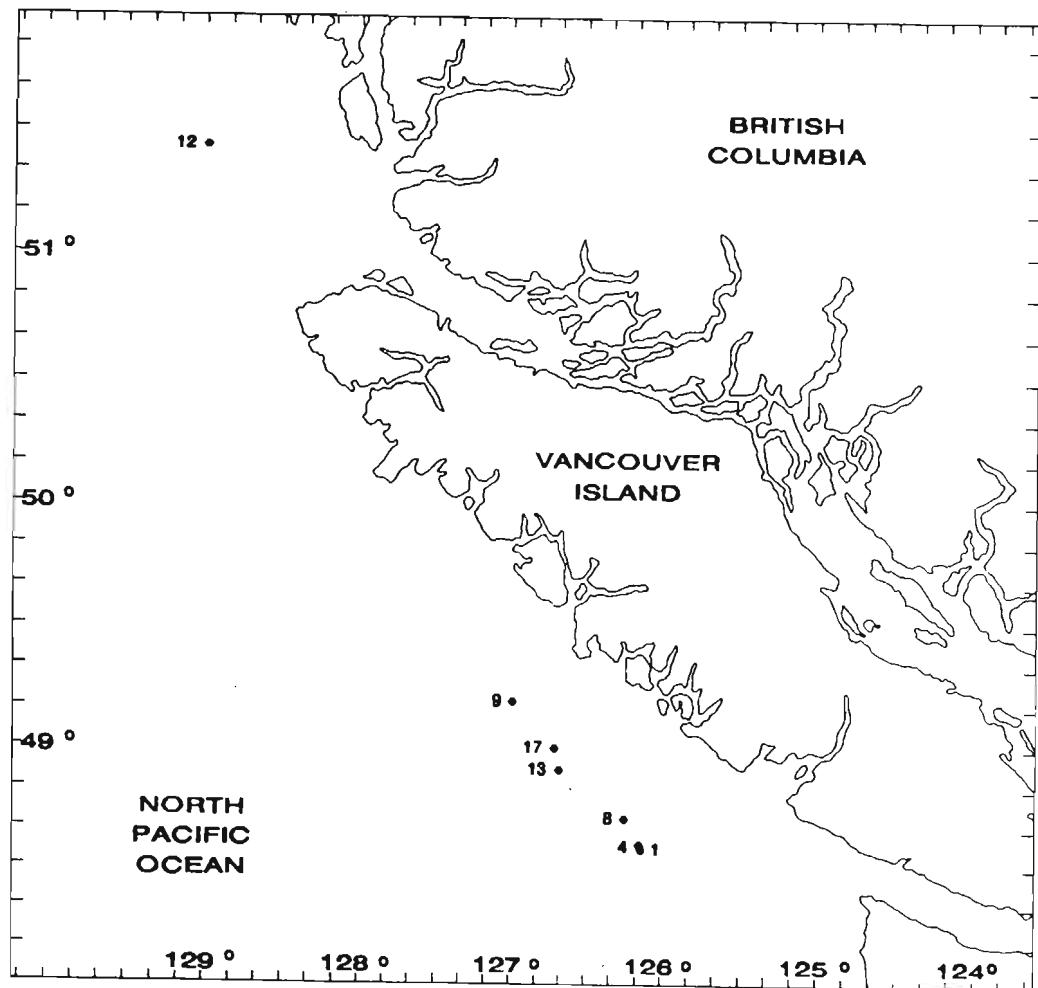


Figure 3. Set locations for tag and release of sablefish caught in bottom trawls off the west coast of Vancouver Island and in Queen Charlotte Sound in April 1984.

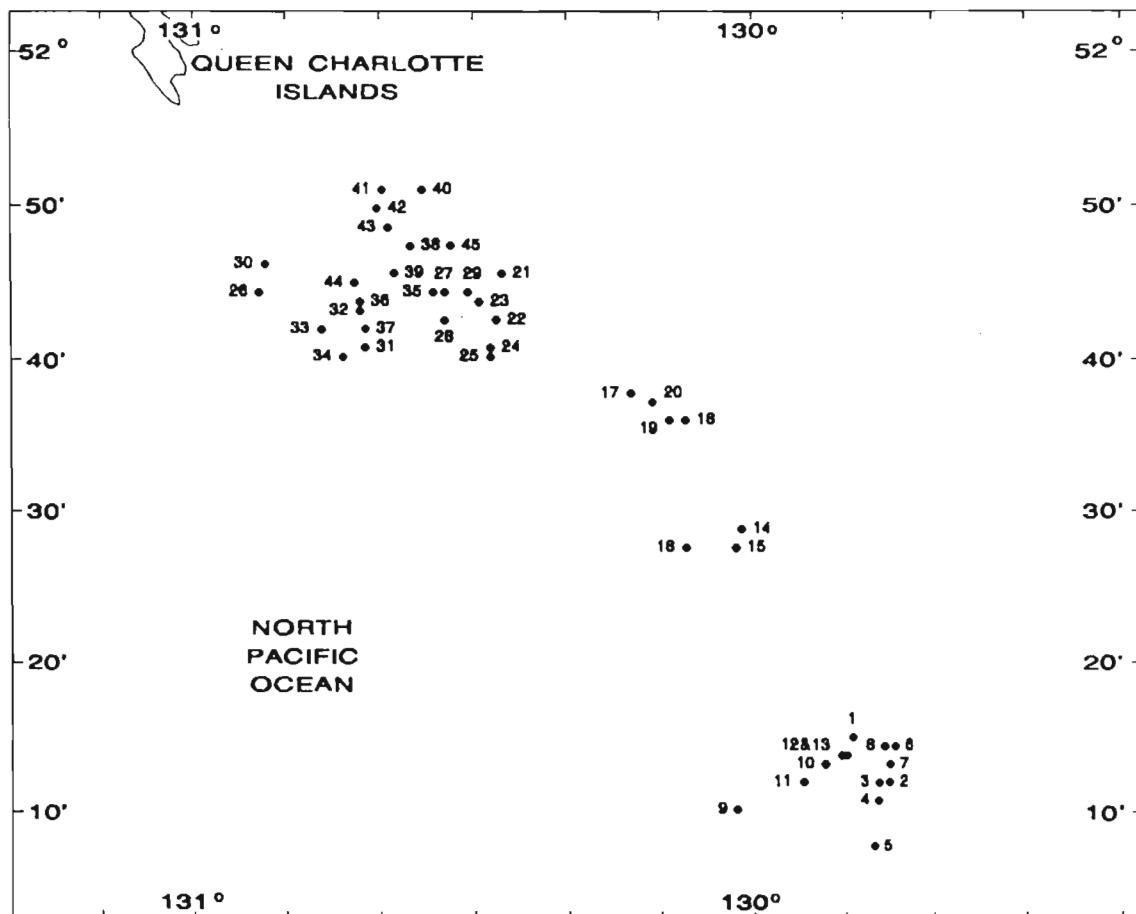


Figure 4. Set locations for tag and release of sablefish in Queen Charlotte Sound in April 1984.

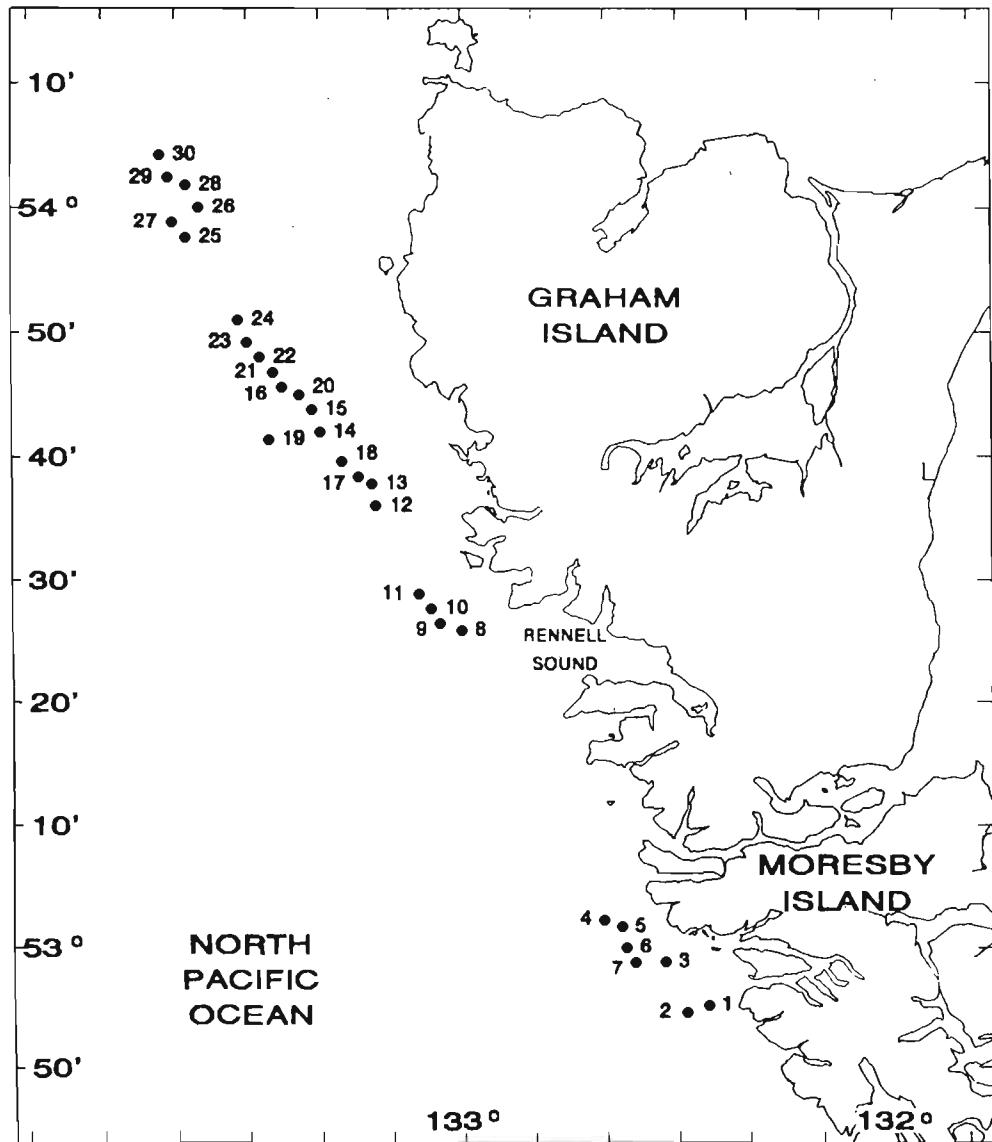


Figure 5. Set locations for tag and release of sablefish off the west coast of the Queen Charlotte Islands in May 1984.

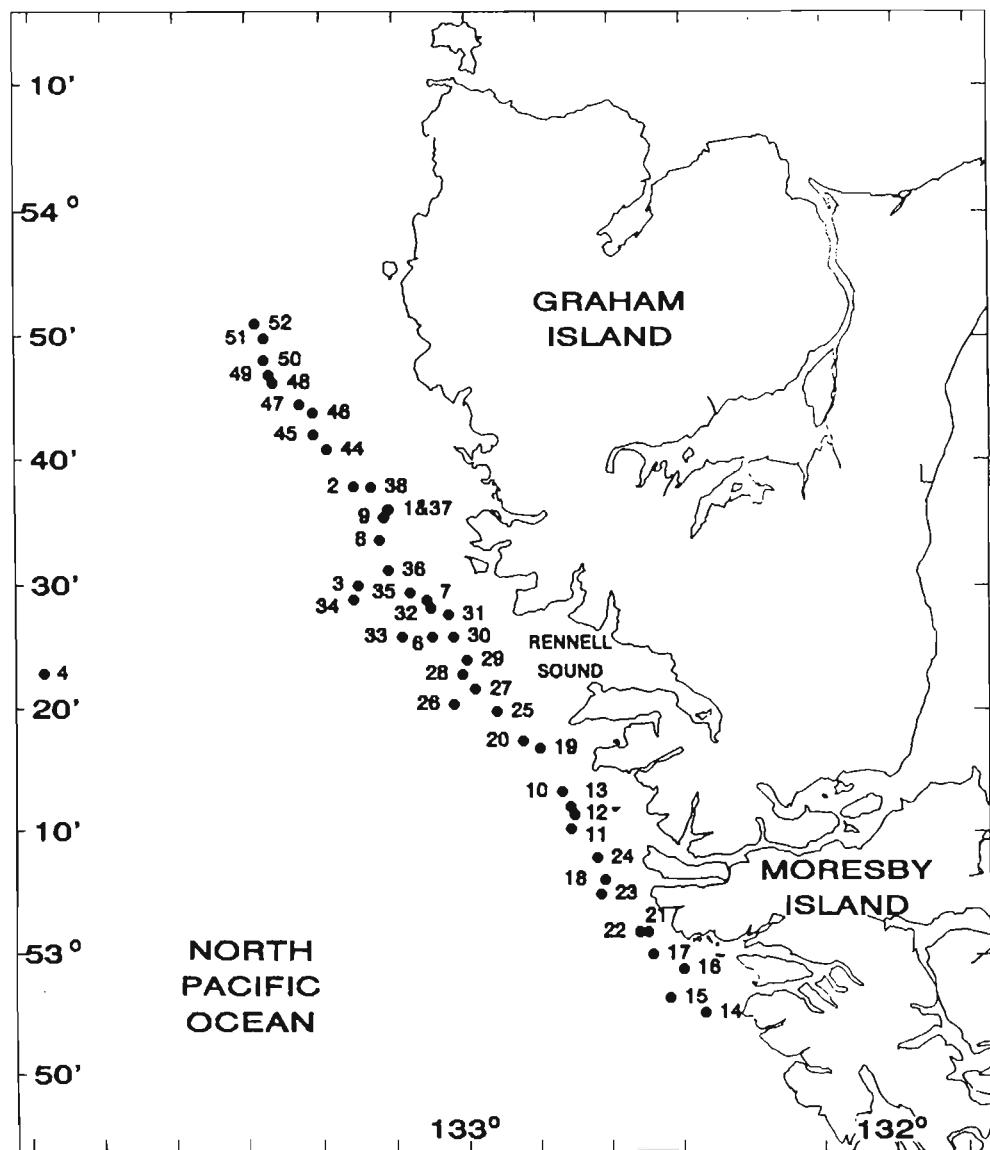


Figure 6. Set locations for tag and release of sablefish off the west coast of the Queen Charlotte Islands in March/April 1985.

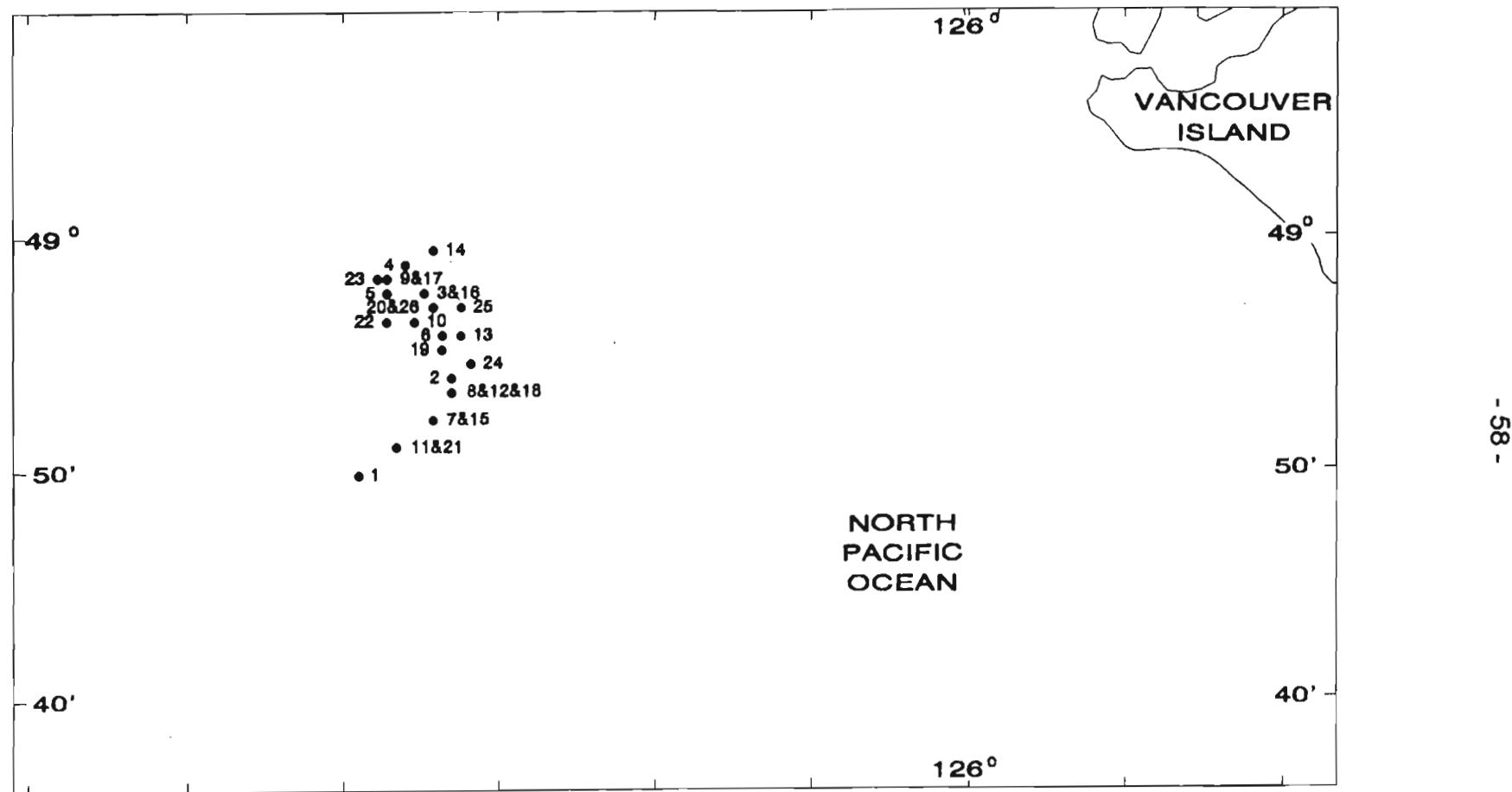


Figure 7. Set locations for tag and release of sablefish off the west coast of Vancouver Island in April 1985.

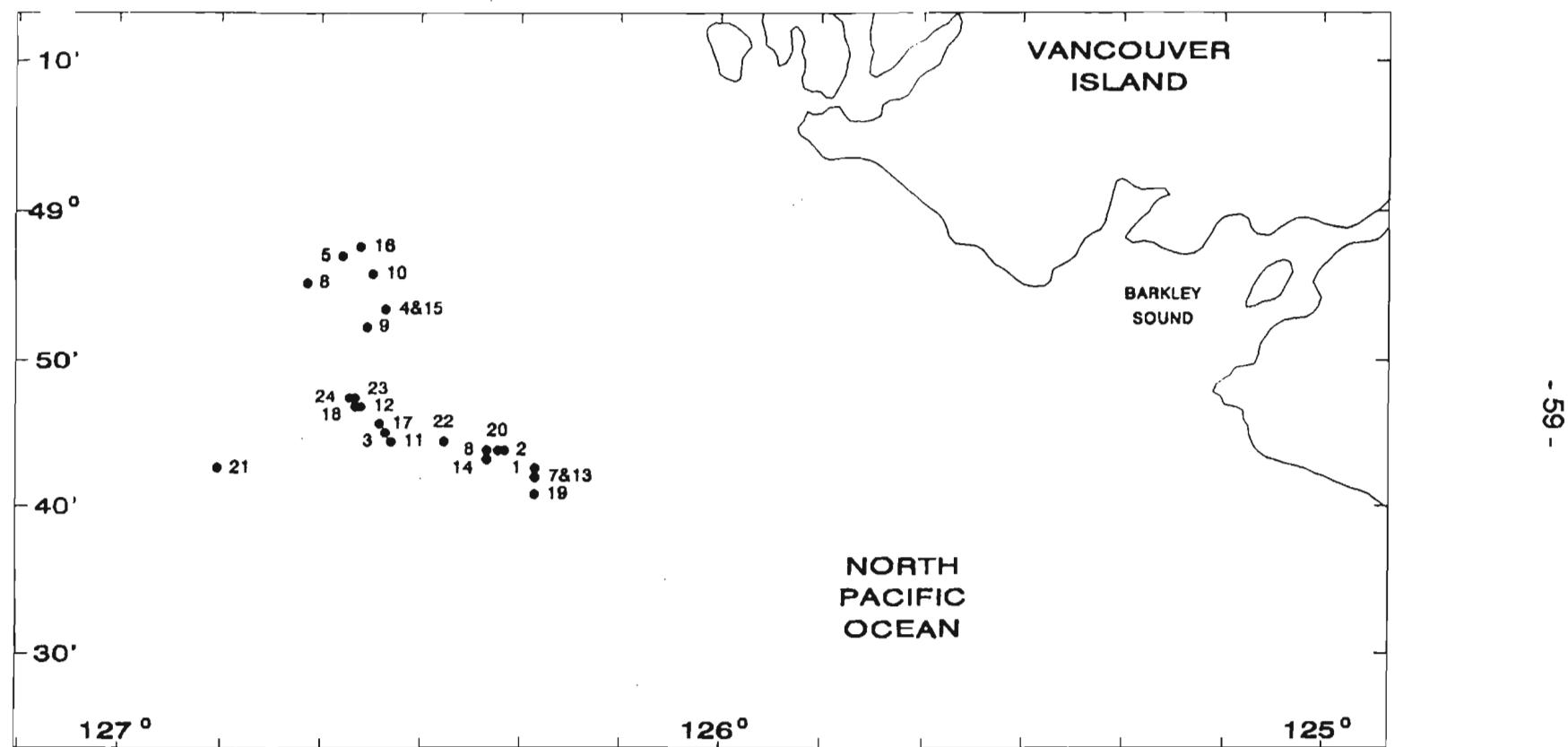


Figure 8. Set locations for tag and release of sablefish off the west coast of Vancouver Island in May/June 1985.

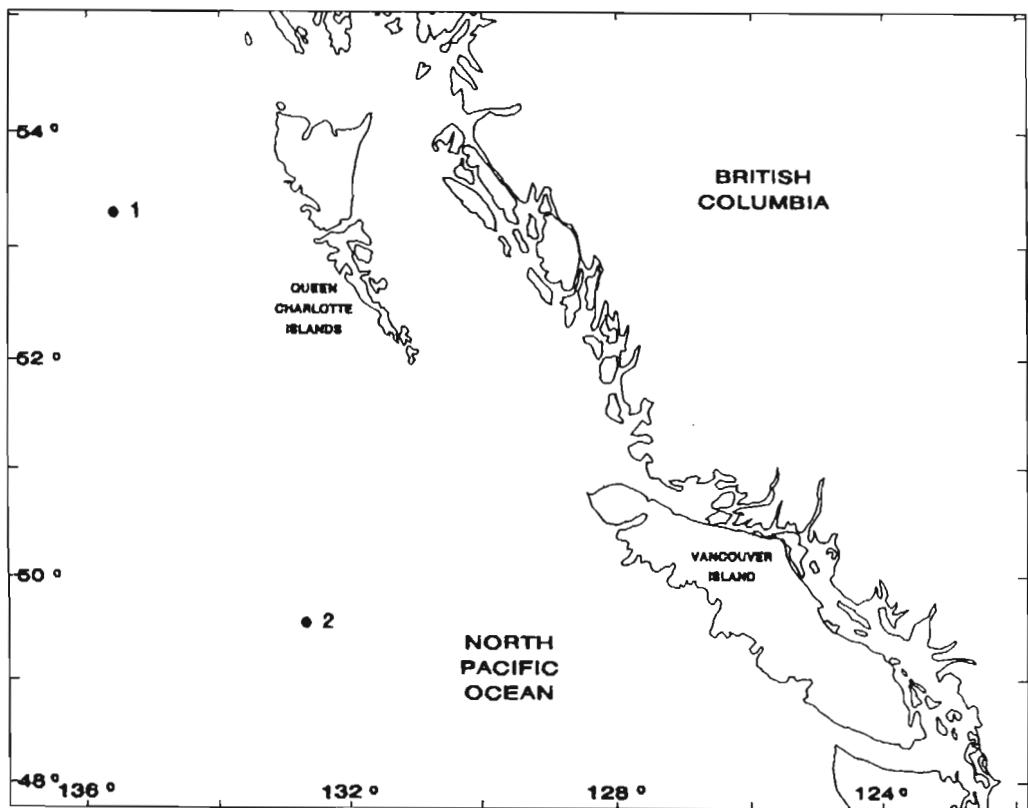


Figure 9. Set locations for tag and release of sablefish off Bowie and Union Seamounts in February 1987.

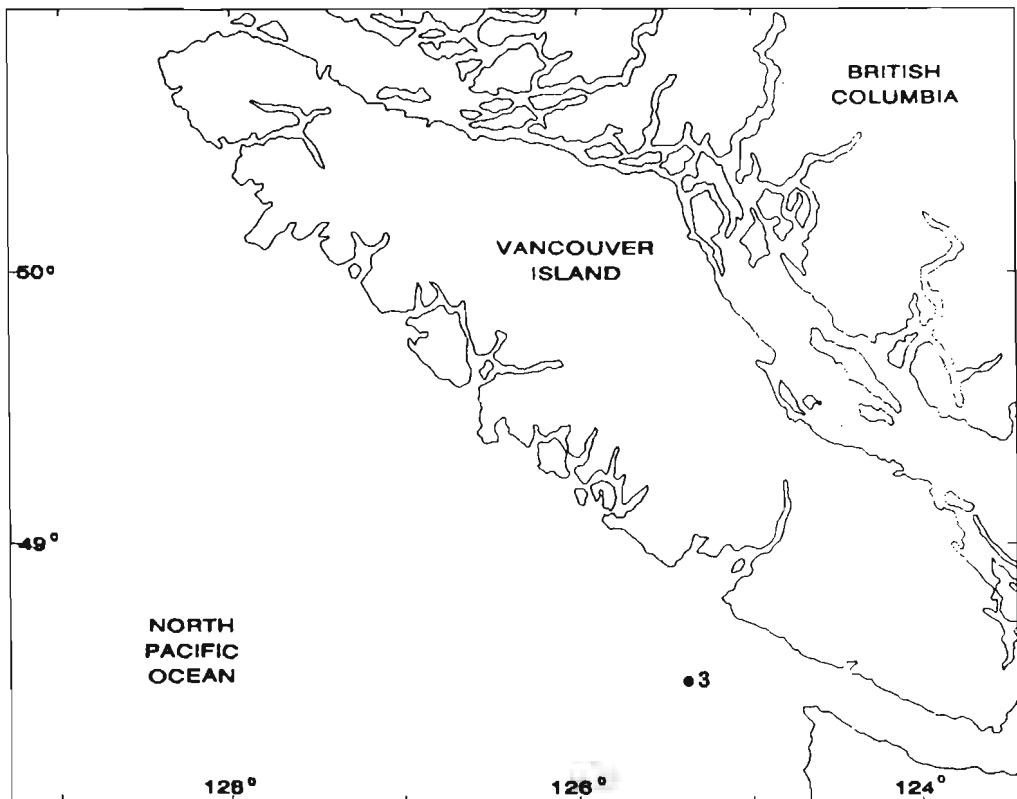


Figure 10. Set locations for tag and release of sablefish captured in a bottom trawl off the west coast of Vancouver Island in March 1987.

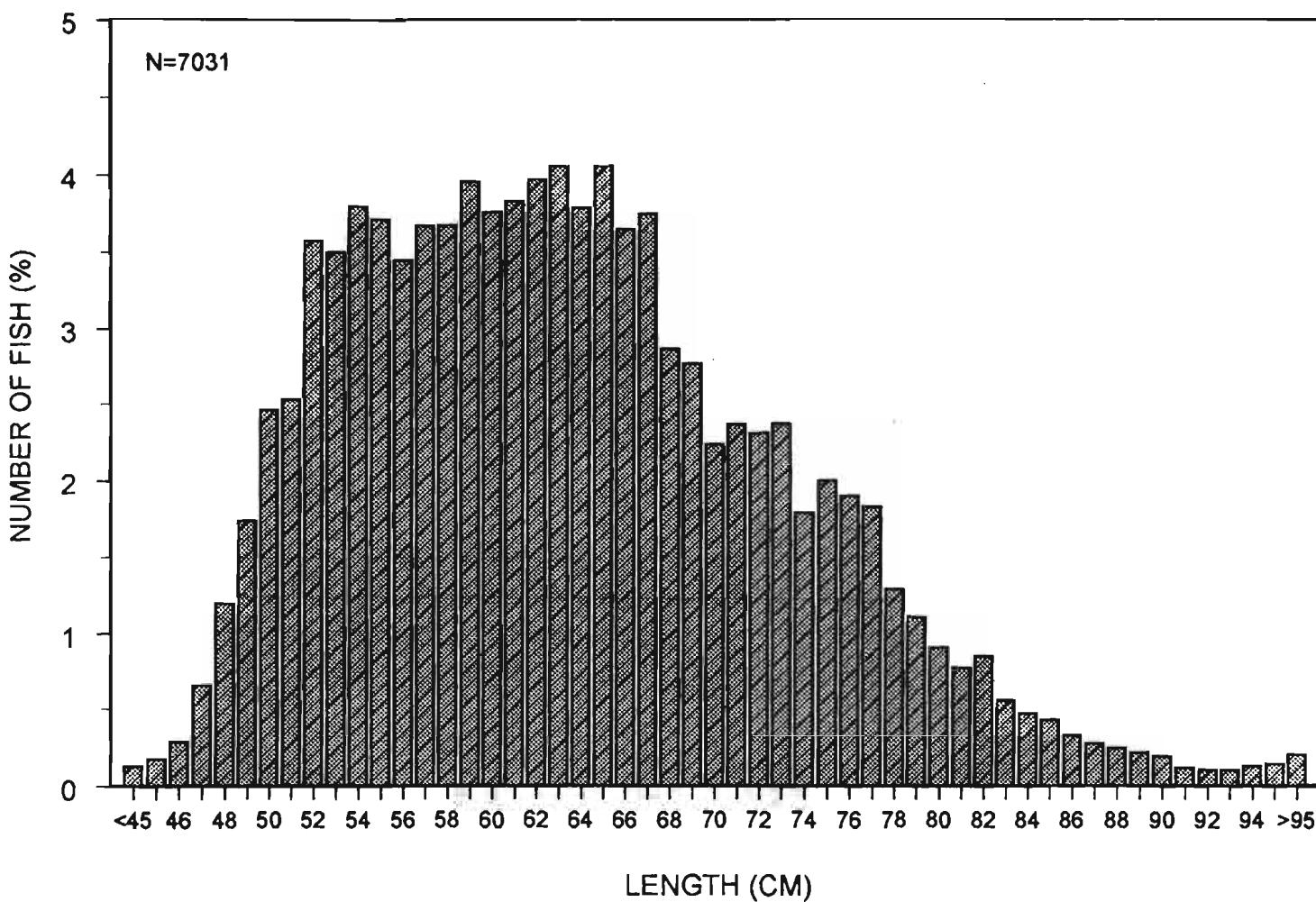


Figure 11. Length frequencies for sablefish tagged and released off the west coast of Vancouver Island in October/November 1982.

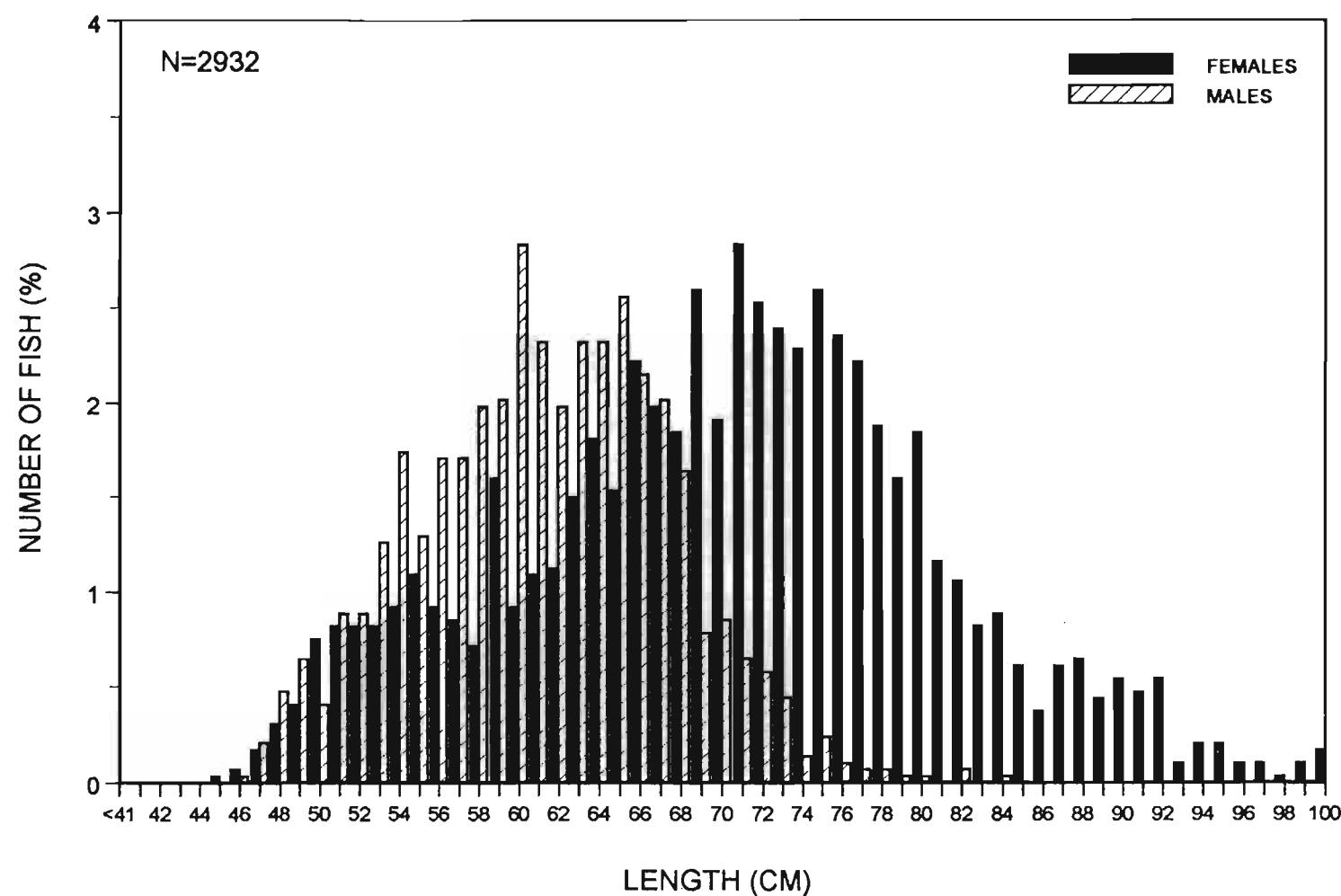


Figure 12. Length frequencies for male and female sablefish sampled off the west coast of Vancouver Island in October/November 1982.

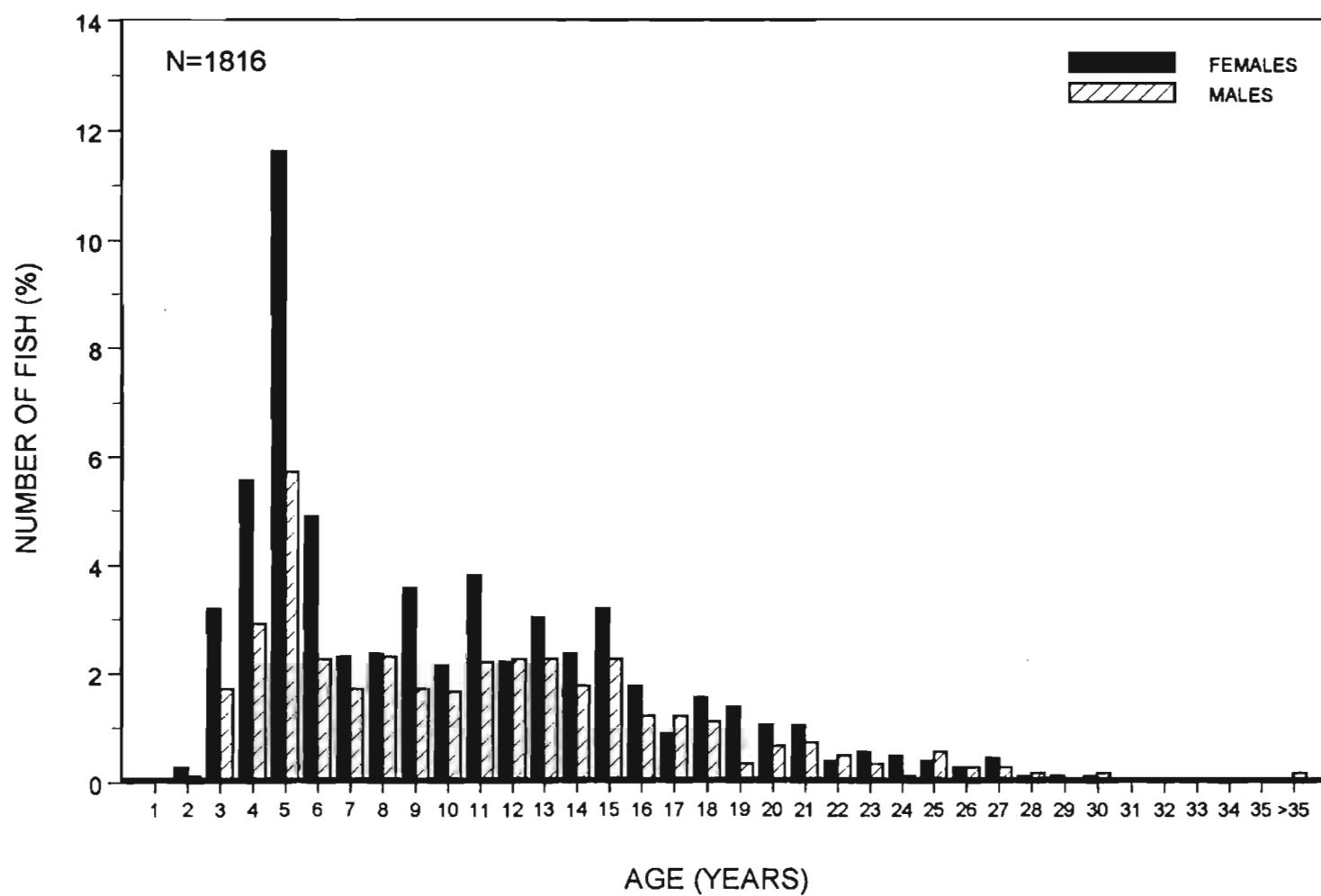


Figure 13. Age frequencies for male and female sablefish sampled off the west coast of Vancouver Island in October/November 1982.

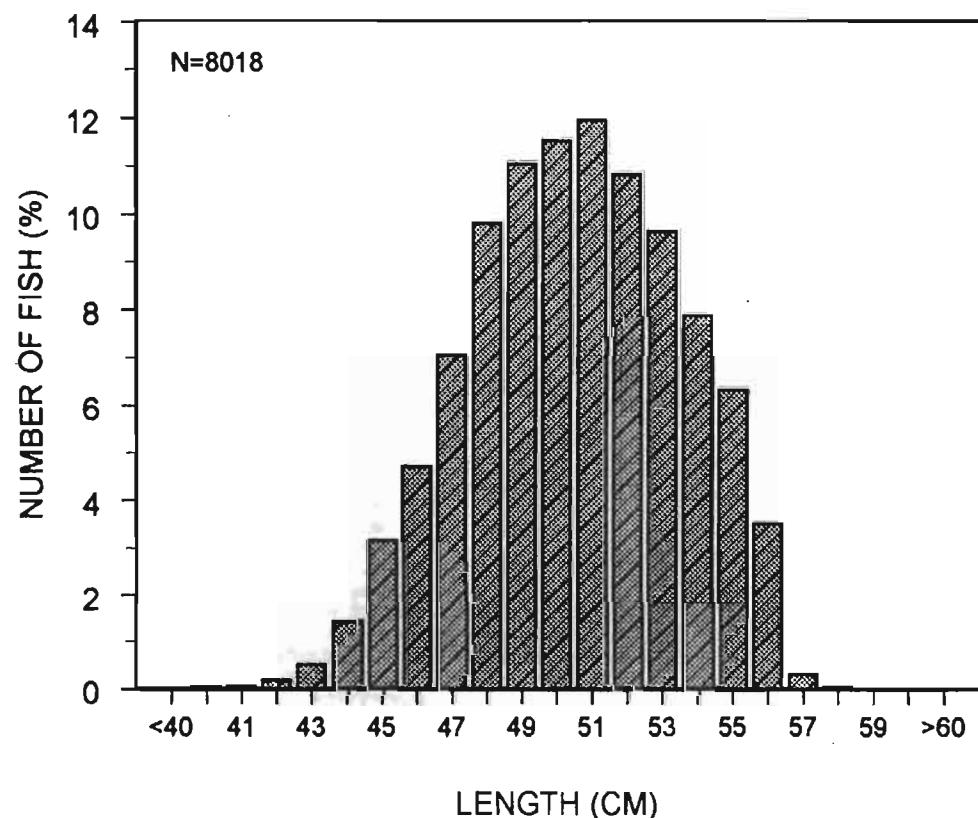


Figure 14. Length frequencies of sablefish tagged and released off the west coast of Vancouver Island and the west coast of the Queen Charlotte Islands in November/December 1983.

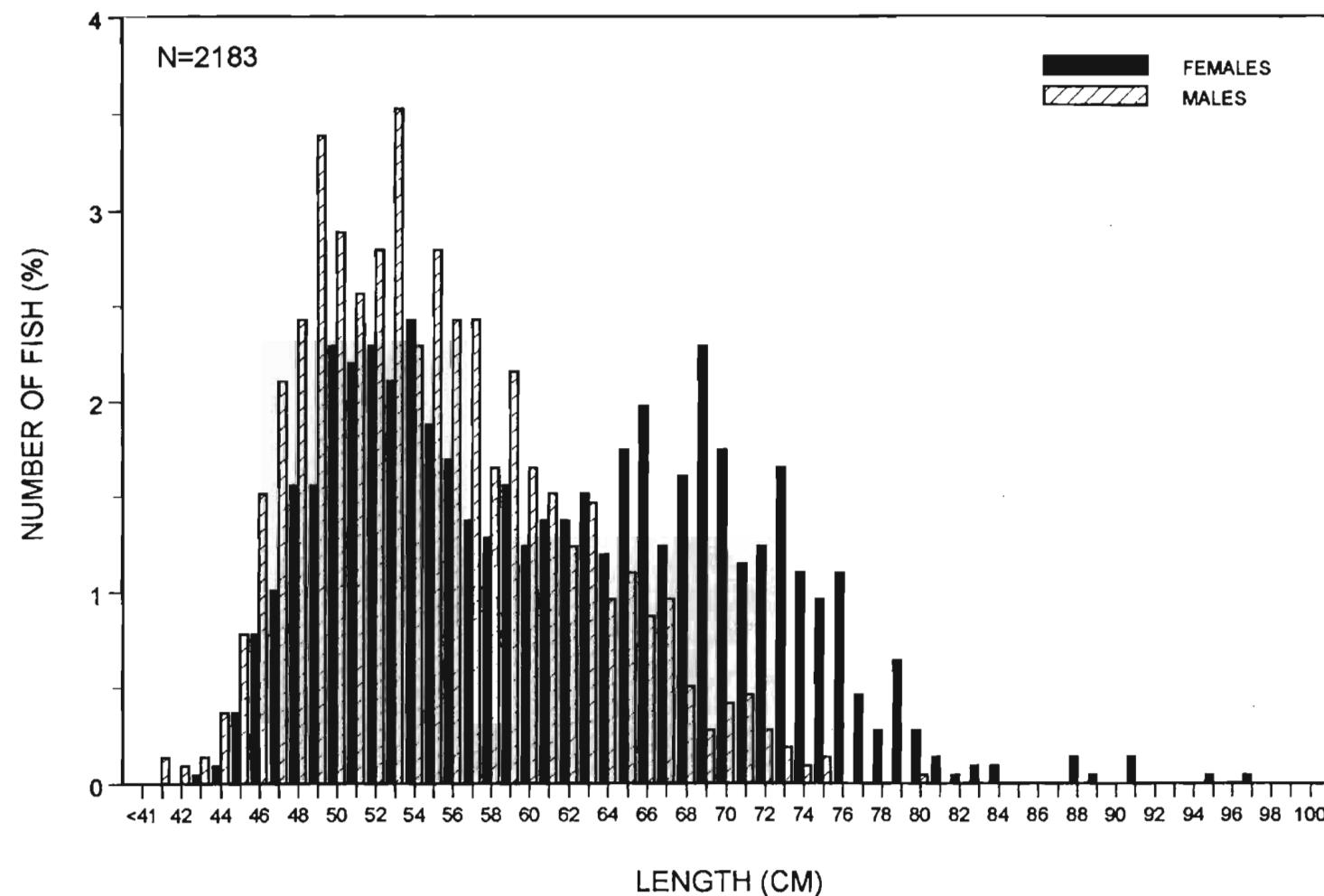


Figure 15. Length frequencies of male and female sablefish sampled off the west coast of Vancouver Island and the west coast of the Queen Charlotte Islands in November/December 1983.

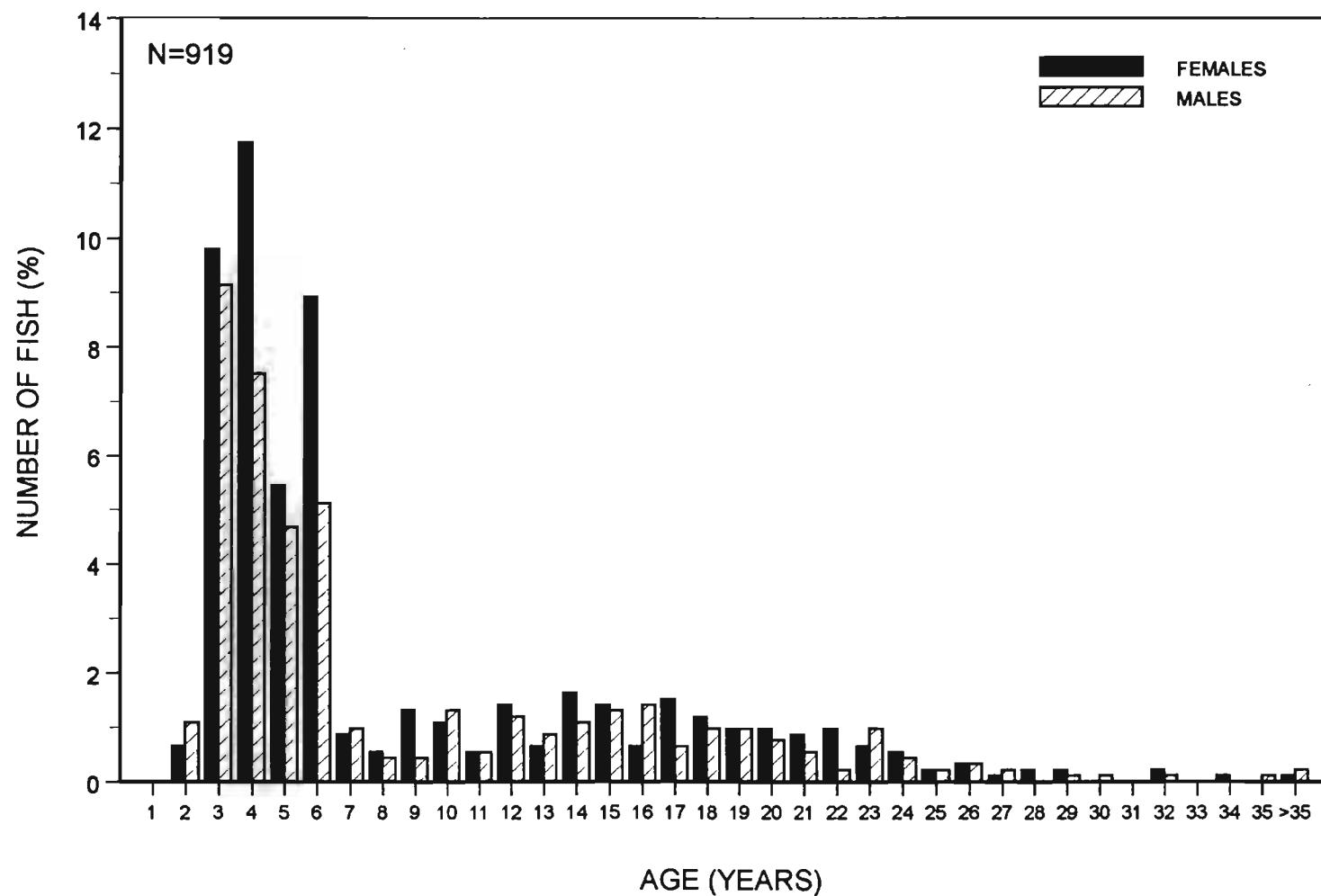


Figure 16. Age frequencies of male and female sablefish sampled off the west coast of Vancouver Island and the west coast of the Queen Charlotte Islands in November/December 1983.

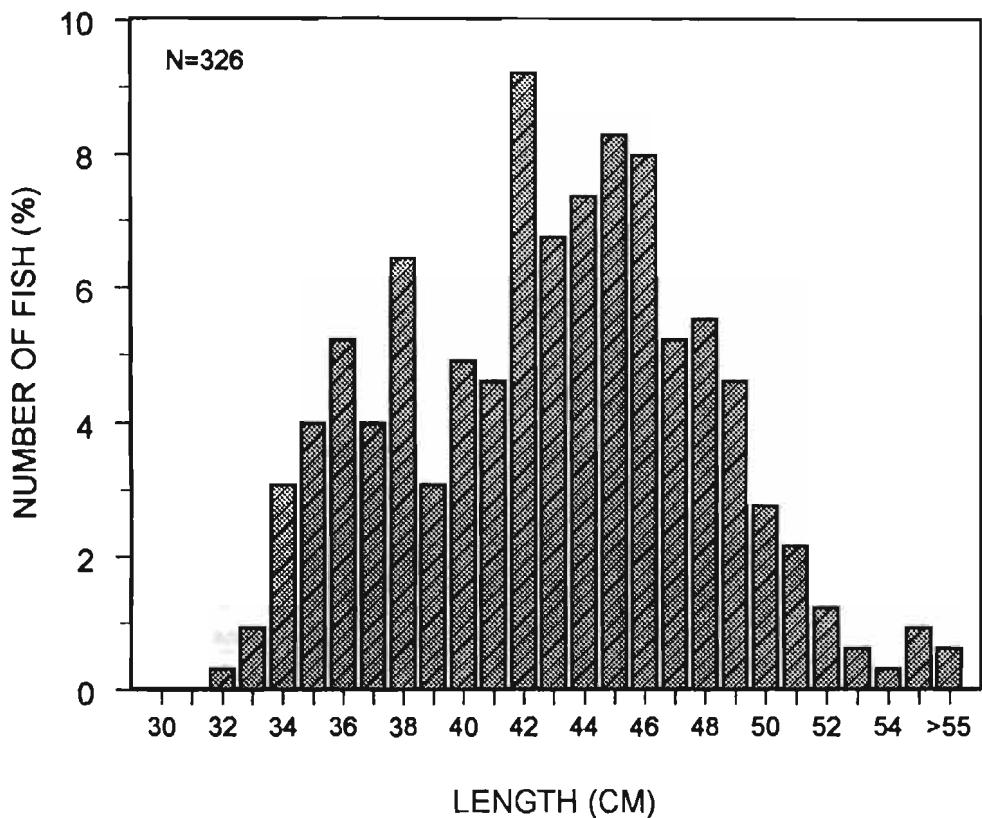


Figure 17. Length frequencies of sablefish caught in bottom trawls off the west coast of Vancouver Island and in Queen Charlotte Sound in April 1984.

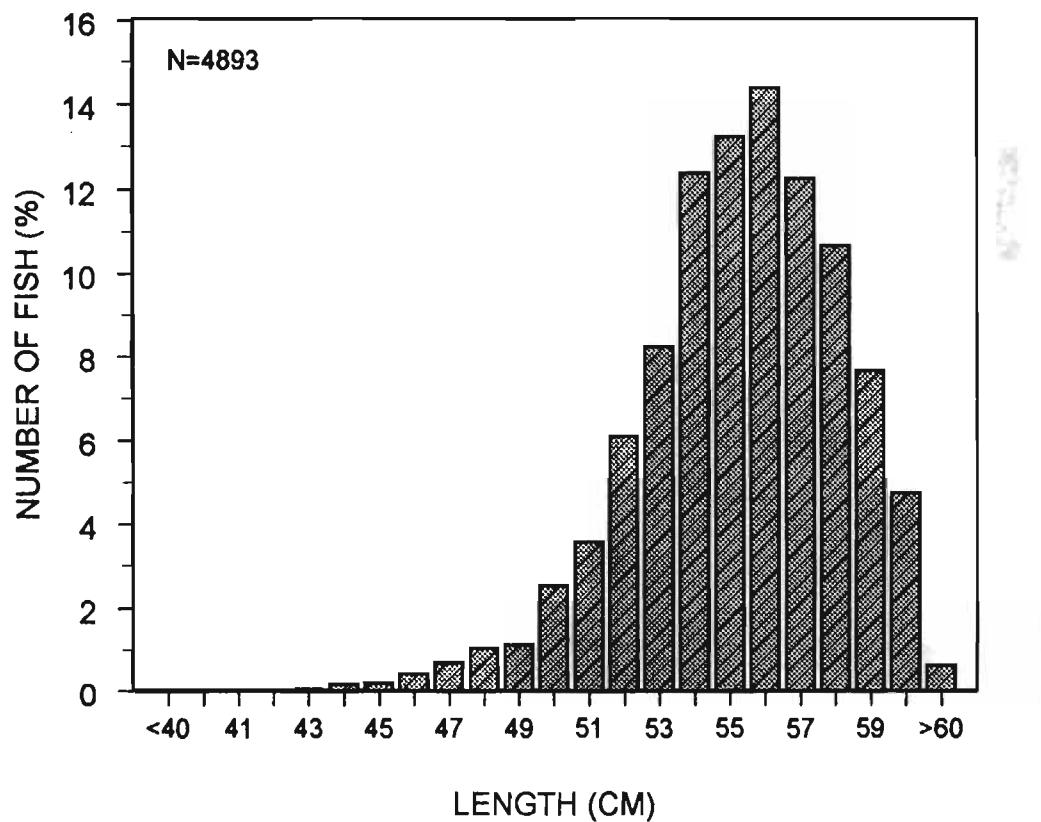


Figure 18. Length frequencies of sablefish tagged and released in Queen Charlotte Sound in April 1984.

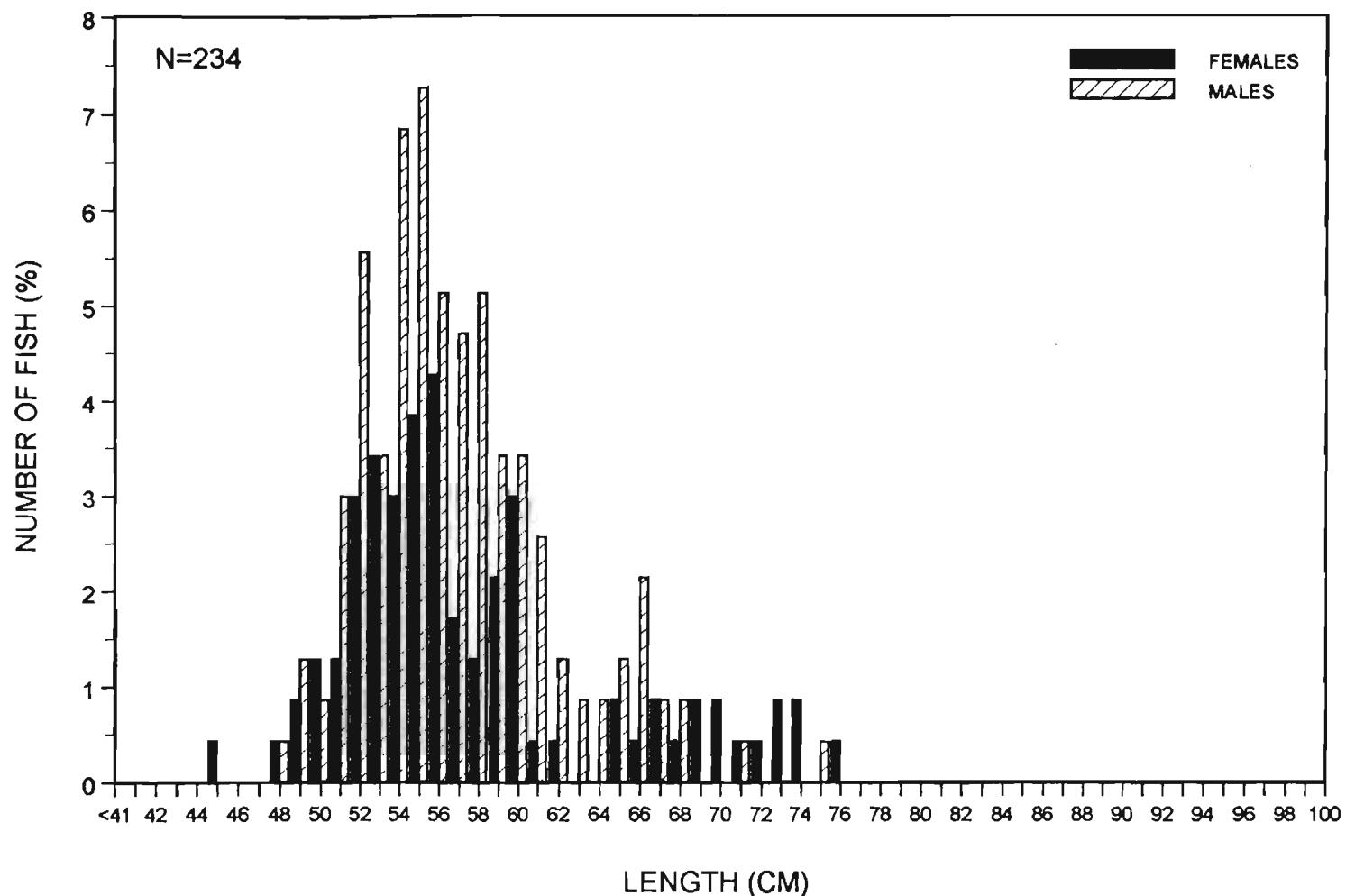


Figure 19. Length frequencies of male and female sablefish sampled in Queen Charlotte Sound in April 1984.

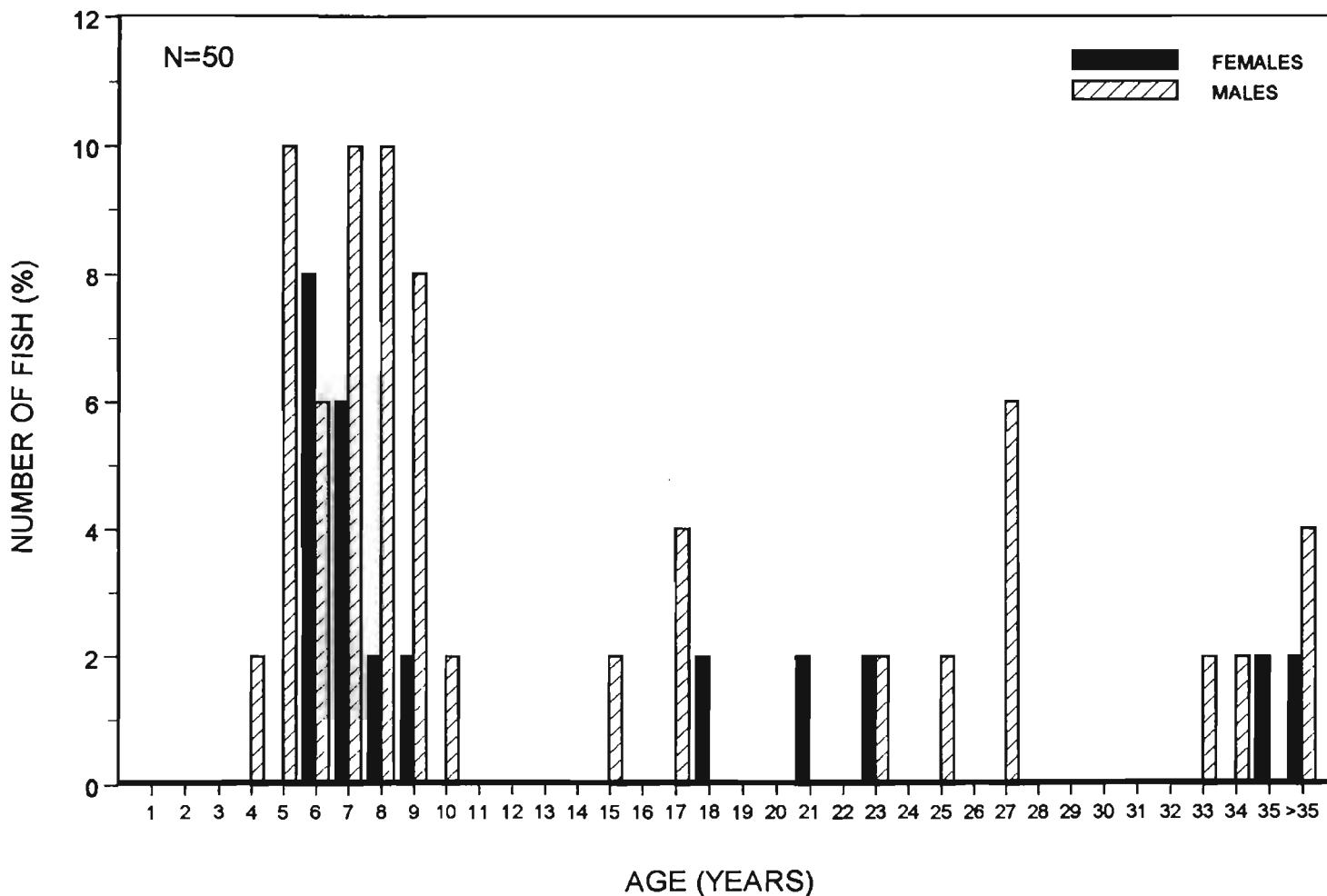


Figure 20. Age frequencies of male and female sablefish sampled in Queen Charlotte Sound in April 1984.

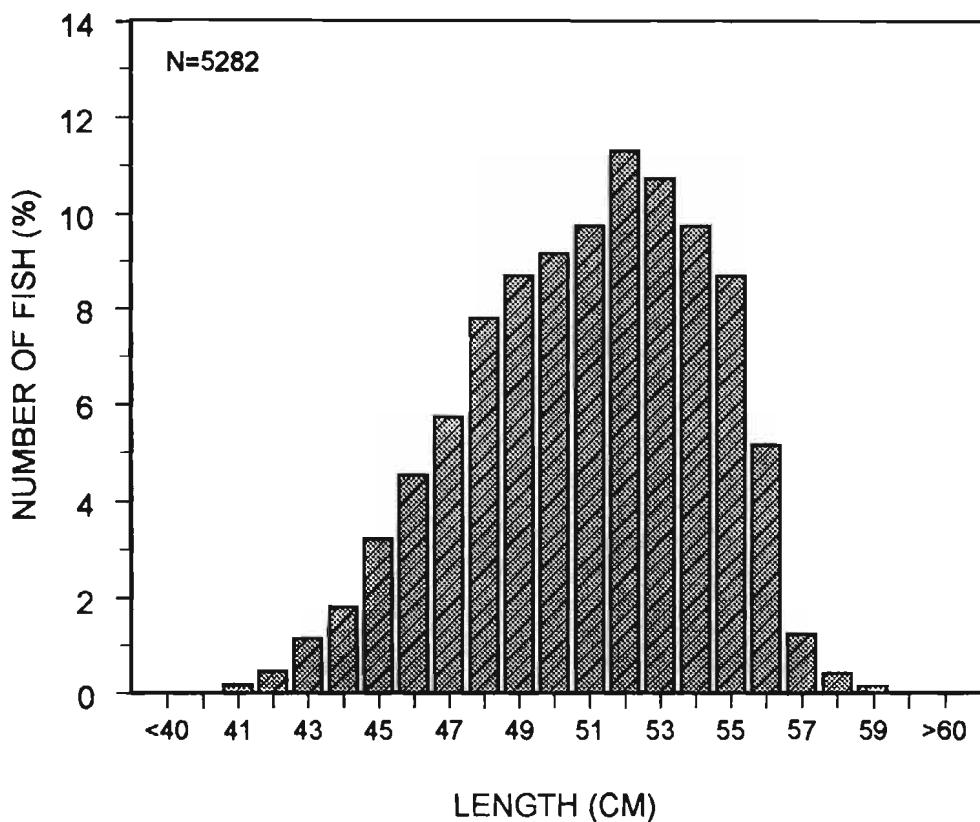


Figure 21. Length frequencies of sablefish tagged and released off the west coast of the Queen Charlotte Islands in May 1984.

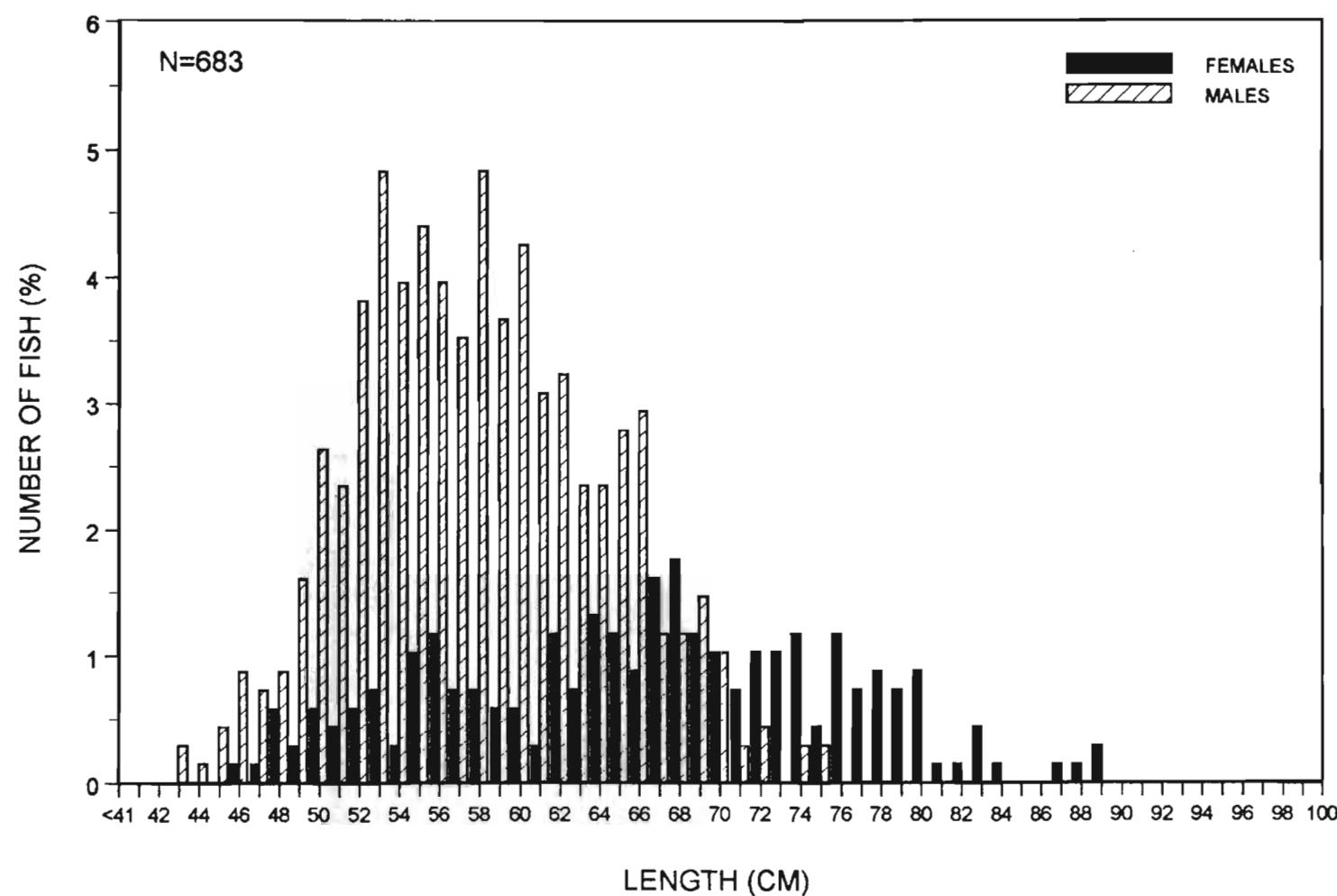


Figure 22. Length frequencies of male and female sablefish sampled off the west coast of the Queen Charlotte Islands in May 1984.

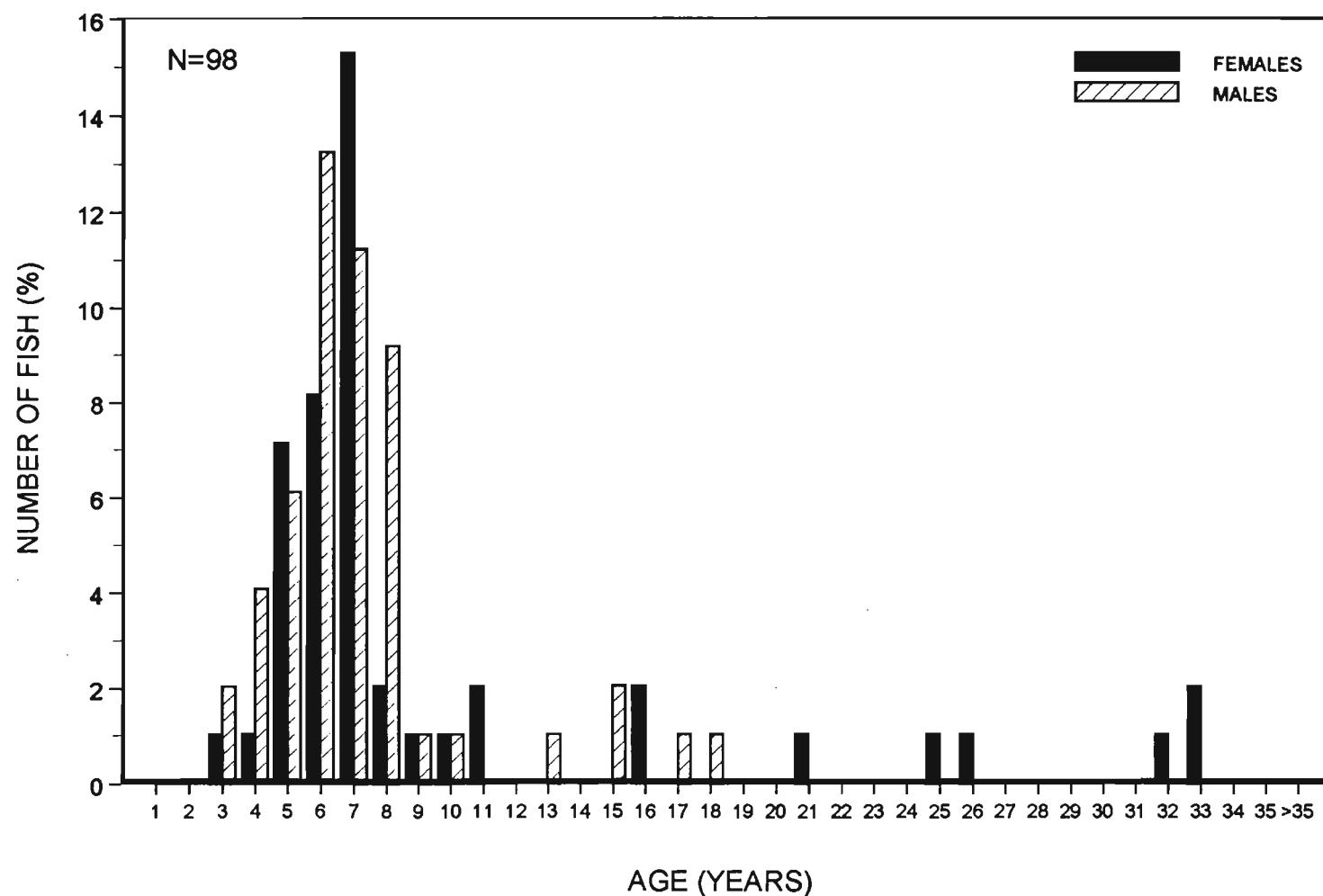


Figure 23. Age frequencies of male and female sablefish sampled off the west coast of the Queen Charlotte Islands in May 1984.

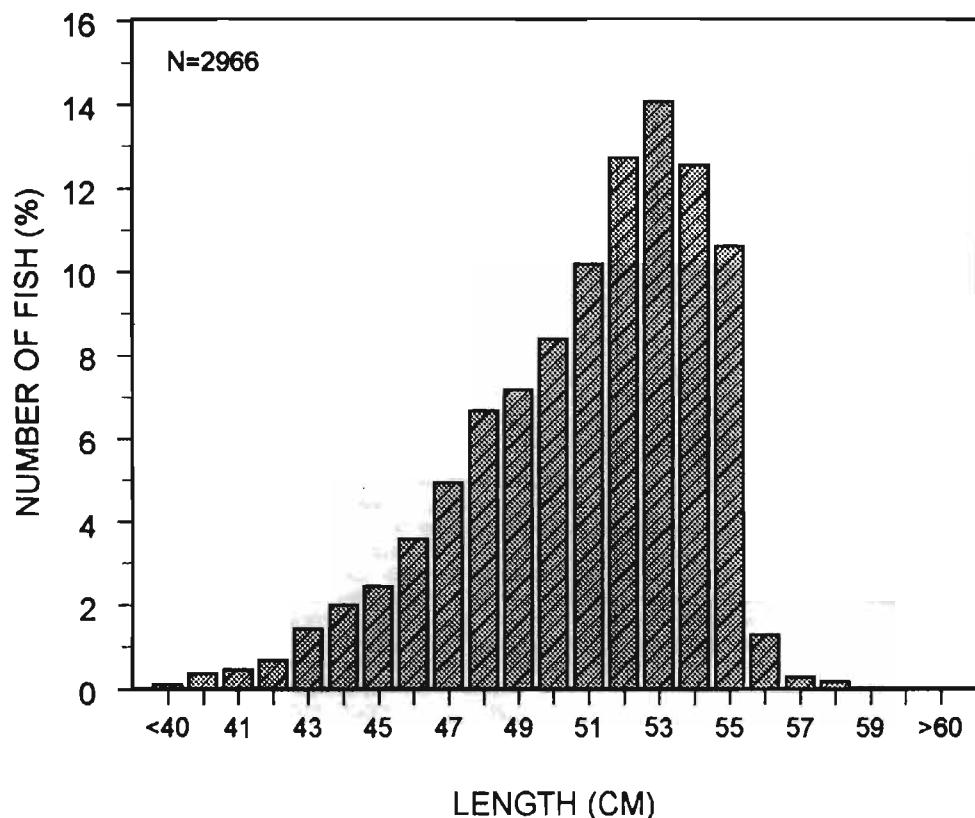


Figure 24. Length frequencies of sablefish tagged and released off the west coast of the Queen Charlotte Islands in March/April 1985.

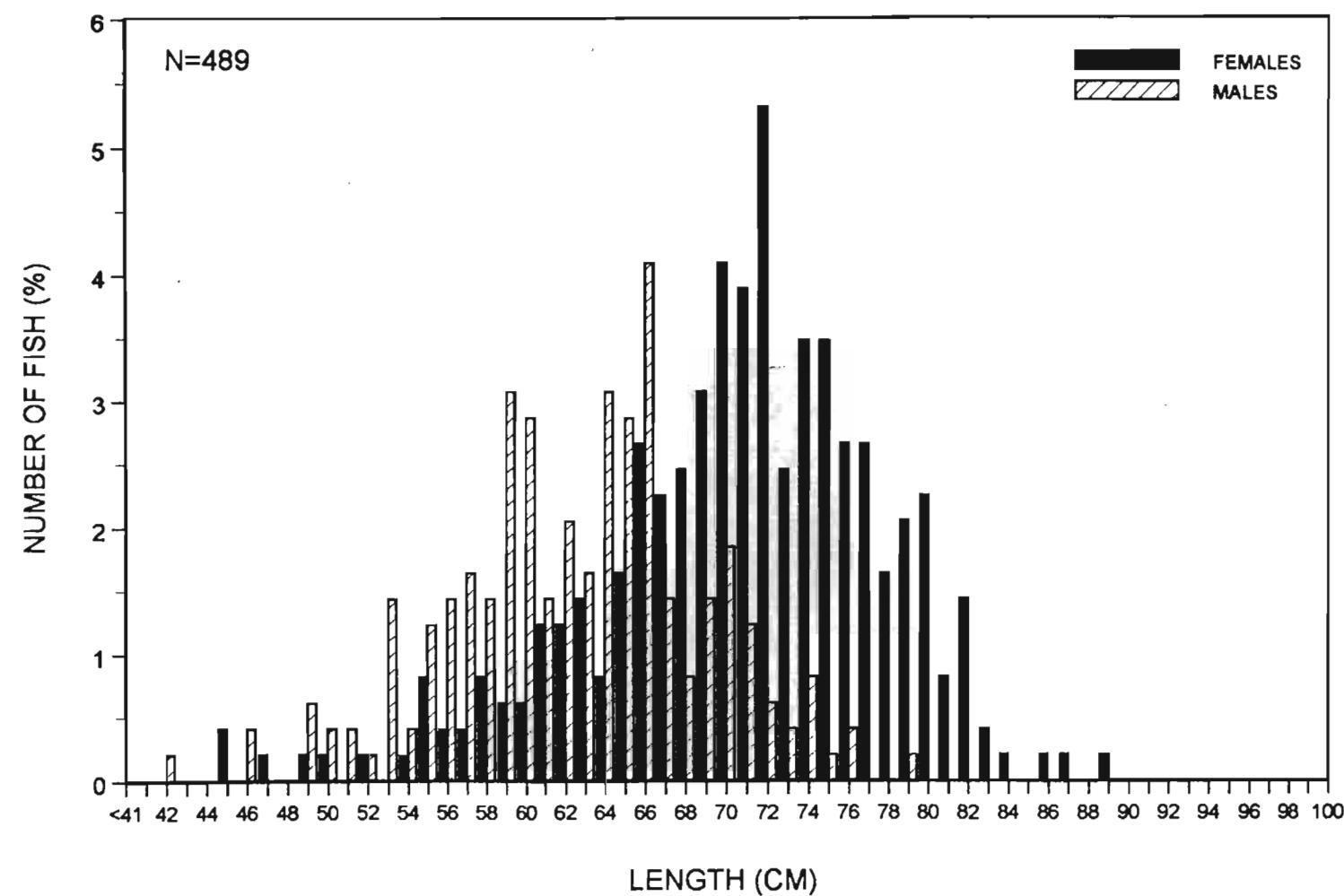


Figure 25. Length frequencies of male and female sablefish sampled off the west coast of the Queen Charlotte Islands in March/April 1985.

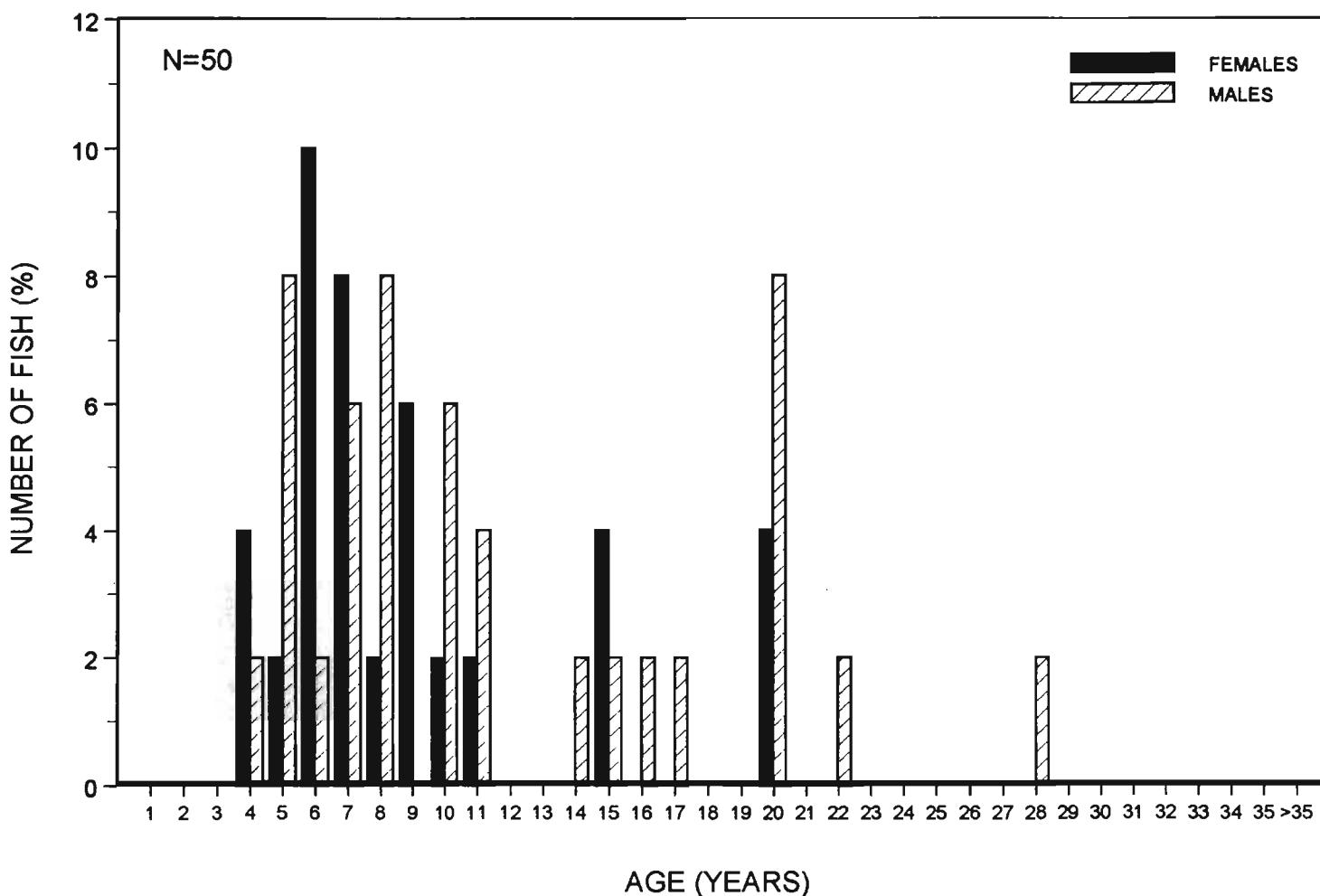


Figure 26. Age frequencies of male and female sablefish sampled off the west coast of the Queen Charlotte Islands in March/April 1985.

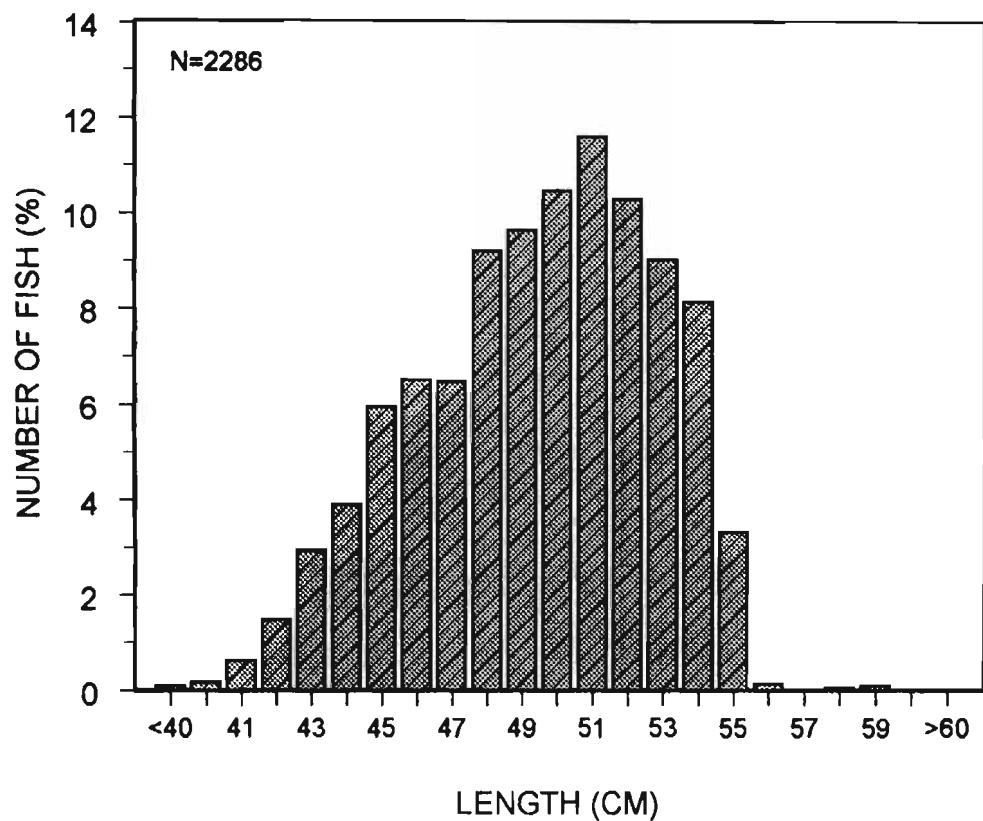


Figure 27. Length frequencies of sablefish tagged and released off the west coast of Vancouver Island during April 1985.

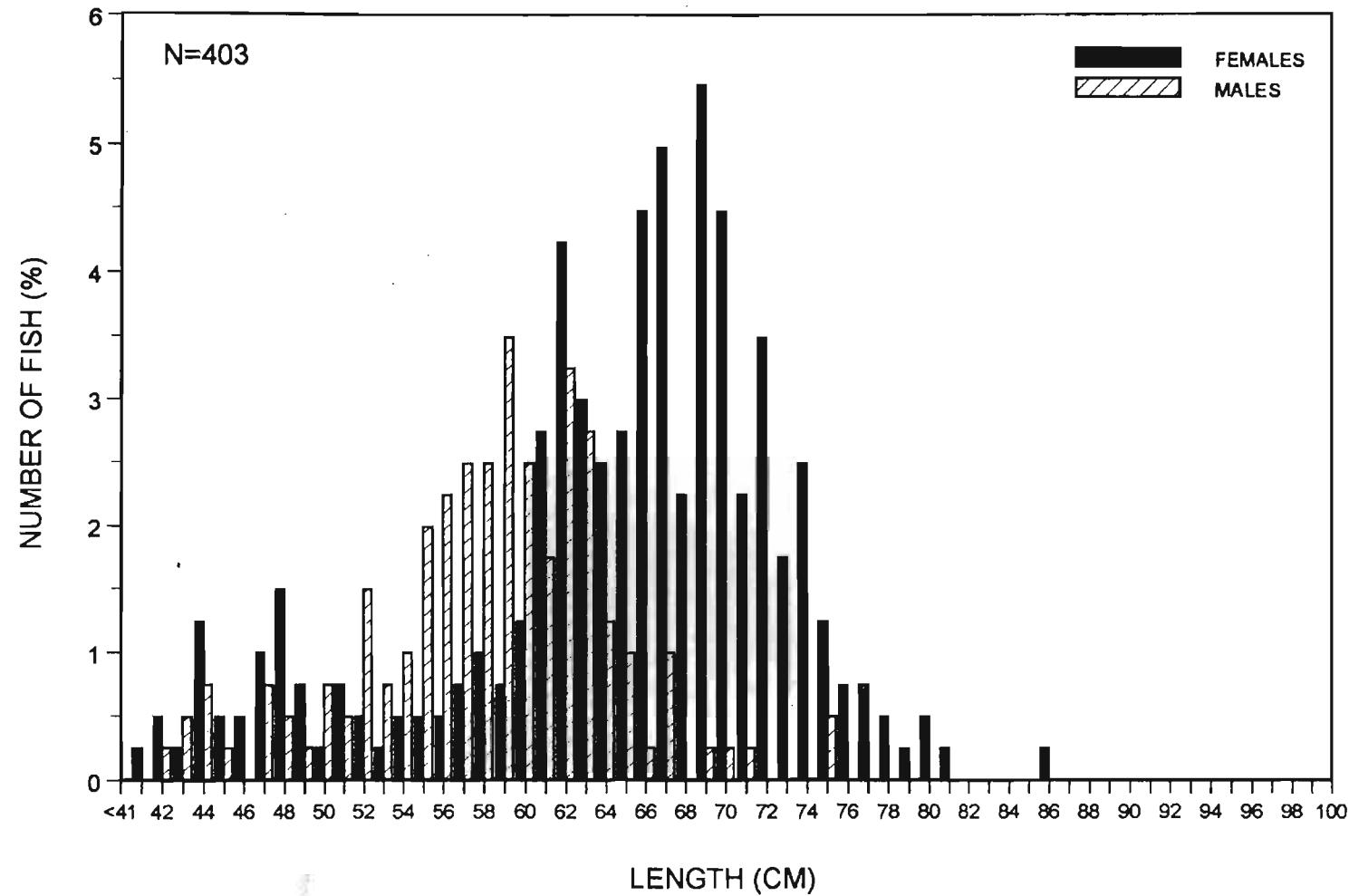


Figure 28. Length frequencies of male and female sablefish sampled off the west coast of Vancouver Island during April 1985.

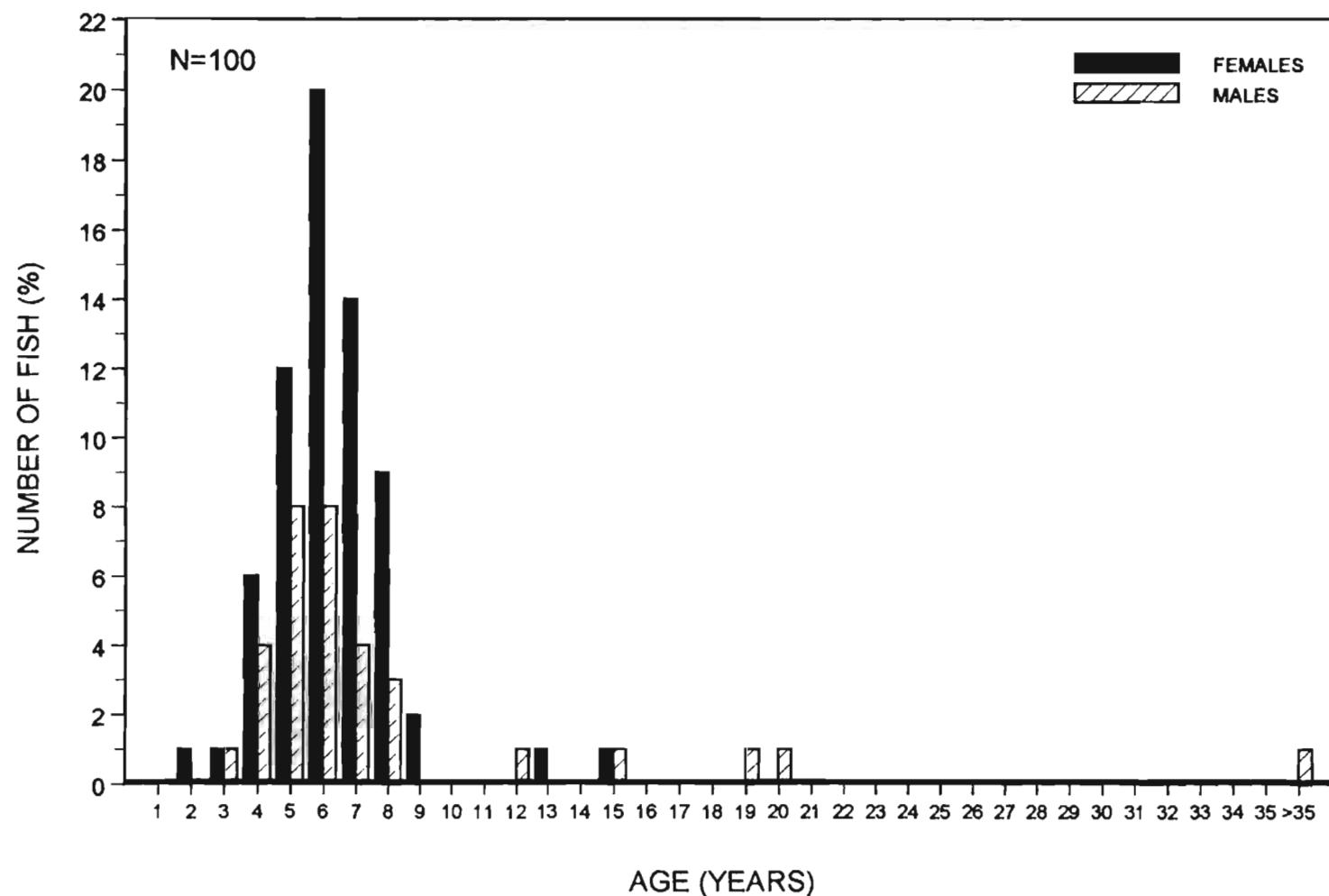


Figure 29. Age frequencies of male and female sablefish sampled off the west coast of Vancouver Island during April 1985.

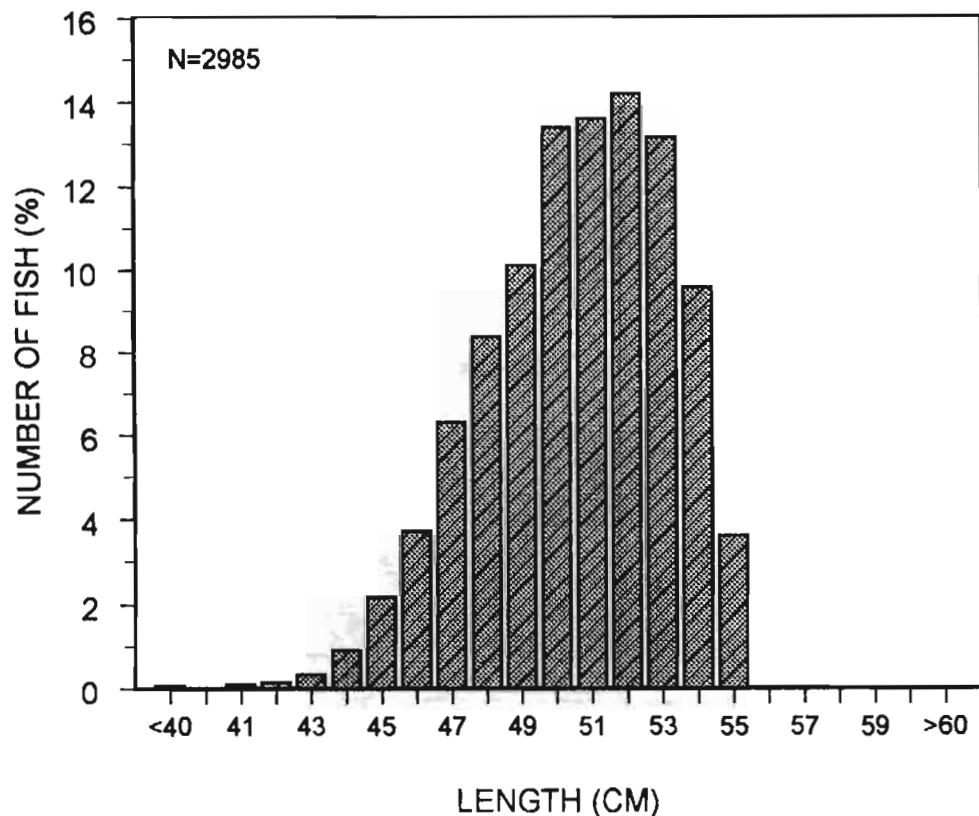


Figure 30. Length frequencies of sablefish tagged and released off the west coast of Vancouver Island during May/June 1985.

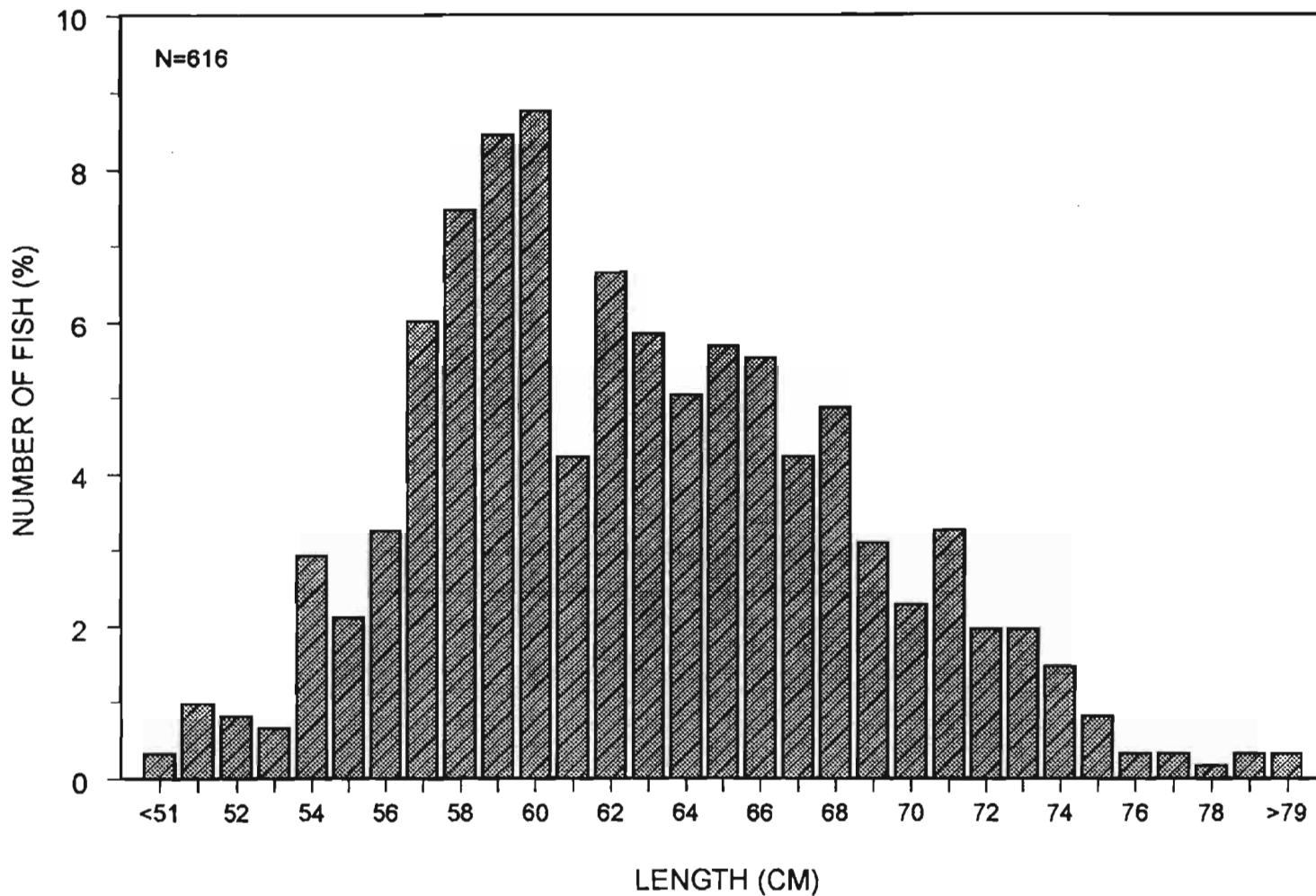


Figure 31. Length frequencies for sablefish tagged and released off Bowie and Union Seamounts in February 1987.

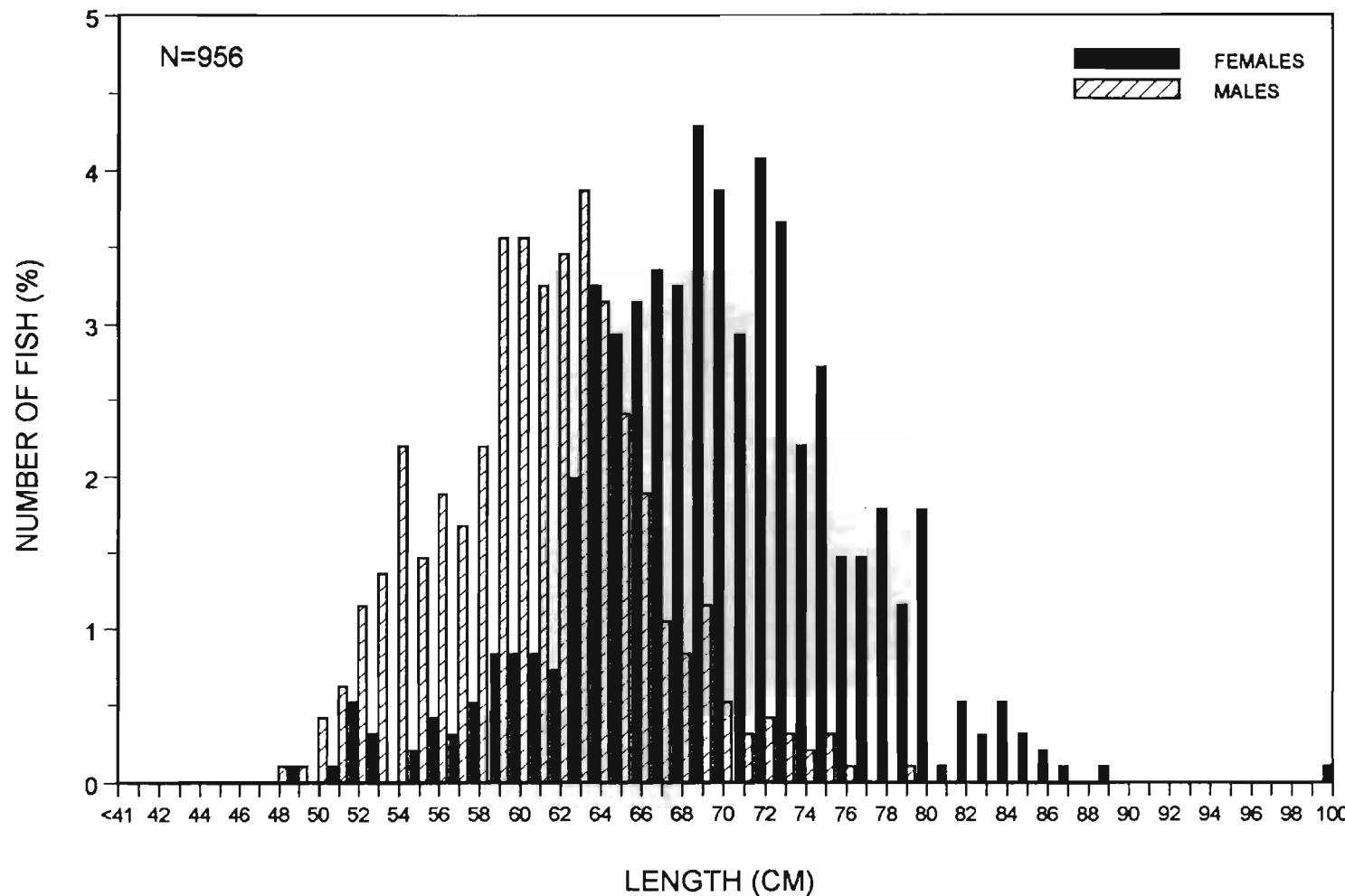


Figure 32. Length frequencies for male and female sablefish sampled from Bowie and Union Seamounts in February 1987.

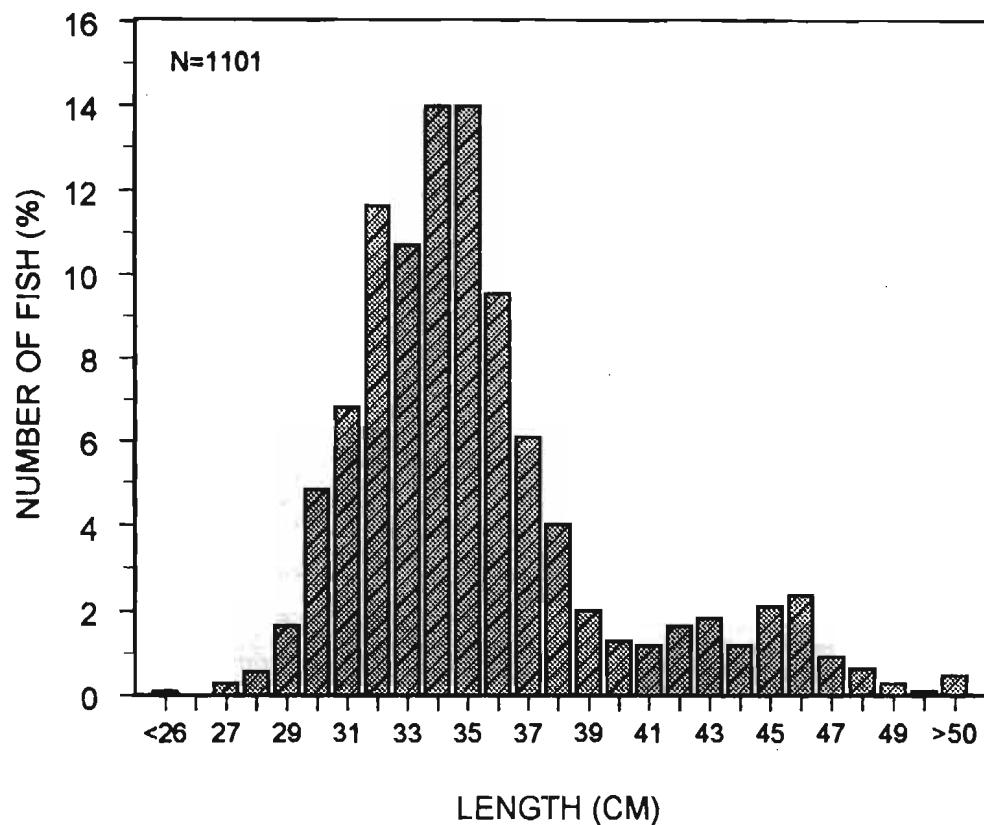


Figure 33. Length frequencies of sablefish captured in a bottom trawl off the west coast of Vancouver Island in March 1987.