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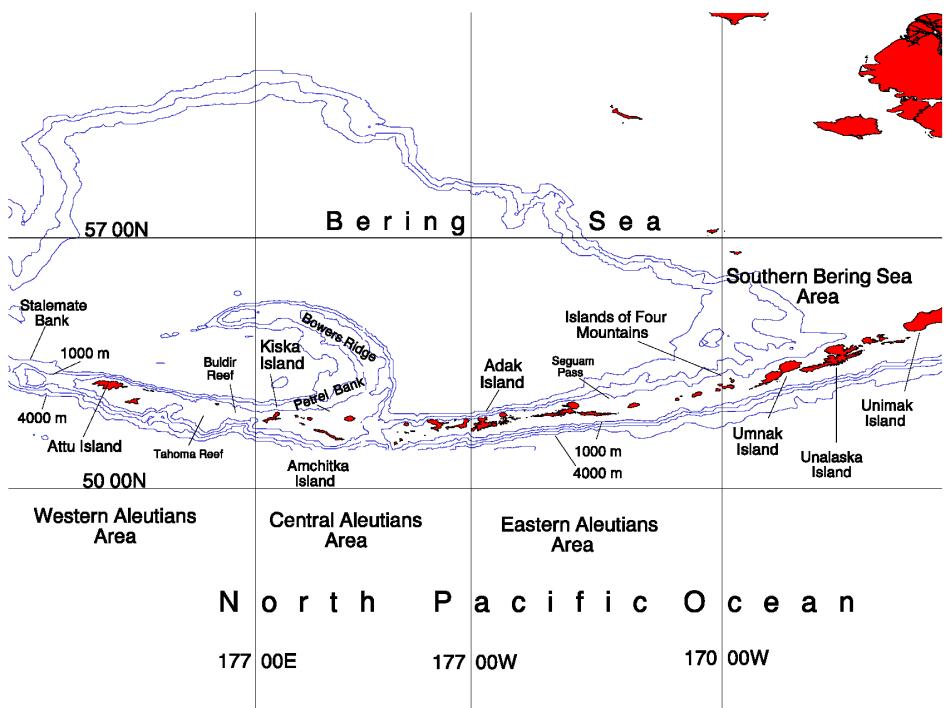
National Marine
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AFSC PROCESSED REPORT 2002-07

Report to Industry: Fishing Log for the 2002 Bottom Trawl Survey of the Aleutian Islands

December 2002



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REPORT TO INDUSTRY: FISHING LOG FOR THE 2002 BIENNIAL
BOTTOM TRAWL SURVEY OF THE ALEUTIAN ISLANDS REGION

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INTRODUCTION

The eighth comprehensive bottom trawl survey of the Aleutian Islands region was conducted from May 13 through August 15, 2002 by the Resource Assessment and Conservation Engineering Division (RACE) of the Alaska Fisheries Science Center (AFSC), National Marine Fisheries Service (NMFS), Seattle, Washington. It was the second in a series of biennial surveys. Earlier surveys were mostly conducted on a triennial schedule. Previous major Aleutian groundfish surveys occurred in 1980, 1983, 1986, 1991, 1994, 1997, and 2000. The primary focus of these ongoing surveys is to build a standardized time series of data to assess, describe, and monitor the distribution, abundance, and biological condition of various Aleutian groundfish and invertebrate stocks.

The Aleutian region is an extensive archipelago of volcanic origin typified by a relatively narrow continental shelf that is crossed by numerous deep passes. Strong currents flow through the passes and across the shelf, sometimes making productive sampling operations difficult or impossible.

Commercially valuable roundfish such as Atka mackerel (*Pleurogrammus monopterygius*), Pacific cod (*Gadus macrocephalus*), walleye pollock (*Theragra chalcogramma*), and sablefish (*Anoplopoma fimbria*); flatfish, most notably Pacific halibut (*Hippoglossus stenolepis*) and Greenland turbot (*Reinhardtius hippoglossoides*); rockfish species including Pacific ocean perch (*Sebastes alutus*), northern, rougheye, and shortraker rockfishes (*S. polyspinis*, *S. aleutianus* and *S. borealis*); and invertebrates including golden king crab (*Lithodes aequispina*) and scallops (*Chlamys* spp.) inhabit the area. Extensive areas of rough, rocky bottom provide abundant substrate for many species of bryozoans, hydroids, sponges, and corals.

METHODS

For survey purposes, the Aleutian region was divided into four major sections based on geographic features and North Pacific Fishery Management Council (NPFMC) regulatory areas (Fig. 1). Those sections were further divided into 45 area-depth strata to a depth of 500 m as follows: 0-100, 101-200, 201-300,

and 301-500 m. A Neyman optimum allocation strategy drawing on data from previous surveys was used to develop a stratified random sampling distribution among the strata. Most tow locations were pre-selected, but to satisfy the sampling requirements some new and previously unsampled stations were added. In choosing exact tow location, only bottom characteristics indicated by the echo sounder were considered and not the presence or absence of fish sign. A target speed over ground of 3 knots was maintained whenever possible. However, on some occasions tidal currents slowed tow speeds somewhat.

Tow tracklines and start and end positions were recorded using global positioning system (GPS) data. Standard trawl hauls were 15 minutes in estimated on-bottom duration. Actual trawl time on bottom was determined using real-time net configuration data transmitted to the vessel by acoustic net mensuration equipment. Those data were verified and adjusted subsequently by time and depth recordings from a bathythermograph and a bottom contact sensor (tilt sensor). The acoustic devices continuously measured wing spread and headrope height above the bottom. Tilt sensors attached to the fishing line monitored footrope contact with the bottom. Surface to bottom temperature profiles were recorded at virtually every sampling site using a headrope-mounted bathythermograph. After each tow, depth profile data were integrated with net mensuration data to verify actual fishing time on bottom and net configuration.

Catches of fish and most invertebrates were sorted to species or species group, weighed and enumerated according to standard RACE survey protocol. Extensive size-composition data were collected with barcode-based recording devices. A variety of biological data including age structures (otoliths), lengths, and weights of individual specimens were collected.

Total catches weighing less than approximately 1,000 kg were sorted completely as outlined above. Larger catches were split to obtain a representative sample of approximately 1,000 kg.

Vessel and Gear Characteristics

Survey sampling was conducted aboard the chartered commercial trawlers *Sea Storm*, *Vesteraalen*, and *Morning Star*. All three

vessels are house-forward stern trawlers with stern ramps, aft net storage reels (mounted over the stern ramp), telescoping deck cranes, propeller nozzles, and paired, controlled-tension hydraulic trawl winches containing between 1,645 and 2,200 m of 2.54 cm diameter steel cable. Before sampling operations began, trawl cables were marked at 25-fathom intervals using a calibrated wheel and counter. The *Sea Storm* is 37.5 m in overall length (LOA) and is powered by a single, 1,710 continuous horsepower (HP) main engine. The *Vesteraalen* is 38 m LOA with a 1,725 HP main engine. The *Morning Star* is 45 m LOA with a 1,710 HP main engine. On all three vessels electronic equipment included GPS with video position plotters, at least two radars, single sideband and VHF transmitter-receivers, color video fishfinders, paper recorder depth sounders, and auto-pilots.

Captains Tim Cosgrove, Brad Lougheed, and Ken Sjong operated the *Vesteraalen* on one survey leg apiece. Captain Steve Branstiter operated the *Sea Storm* for the entire 70-day charter period, and Captain Tim Carrier operated the *Morning Star*.

Standard RACE Division Poly-Nor'easter high-opening bottom trawls (see Section 6, Trawl and Accessories Specifications and Diagrams), rigged with roller gear, were utilized by all three vessels. A small chain-weighted mesh pouch, known as a "snail bag", was attached to the footrope to sample benthic substrate and organisms.

RESULTS

The *Morning Star* contributed a short leg of the survey between May 25 and June 4. Cruise legs on the *Sea Storm* and *Vesteraalen* were generally 23-24 days each. Survey sampling operations began on the north side of the Aleutian Islands between Unimak Pass (165° W long.) and the Islands of Four Mountains (170° W long.) and extended westward throughout the Aleutian Archipelago to Stalemate Bank (170° E long., Fig. 1).

Relatively little time was lost to bad weather or gear damage, but during periods of extreme tidal flow, heavy currents sometimes caused work to be postponed or tows to be aborted.

Sampling proceeded from east to west as far as Islands of Four Mountains. Due to an unusual staggered vessel schedule and to ensure that a single charter vessel was not left working alone at the extreme western end of the survey area, sampling proceeded rapidly to Stalemate Bank, skipping stations. Skipped stations were sampled roughly west-to-east as the survey progressed. When satisfactory bottom conditions could not be found at a pre-assigned station, a pre-selected alternate location, or in some cases a newly found location within the proper area-depth stratum was sampled. Four hundred eighty-three (483) tows were attempted during the survey. Successful tows were performed at 417 of 423 assigned assessment sites or alternates. Six pre-assigned stations could not be sampled due to unsuitable bottom conditions and to concentrations of stored crab pots. Stations ranged in depth from 20 to 470 m.

The dominant fish species are ranked by catch per unit effort (CPUE) in Table 1. CPUE is expressed as average kilograms of catch per hectare ($10,000 \text{ m}^2$) trawled (kg/ha) for each of the three Aleutian management areas, all three Aleutian areas combined, the Southern Bering Sea management area, and all survey areas combined. Previously, CPUE for the Aleutian survey fishing logs was expressed in kilograms per square kilometer. Atka mackerel was the dominant species found in the Western and Central Aleutian areas and was ranked second in the Eastern Aleutian and Southern Bering Sea areas. Walleye pollock was very abundant in the Southern Bering Sea area. Generally, Pacific ocean perch catch rates ranked behind Atka mackerel in all areas. Catch rates of Pacific cod were more or less uniform throughout the survey area. The relative abundance of Pacific halibut was highest in the Southern Bering Sea area. Catch rates of Kamchatka flounder and northern rock sole were highest in the Central Aleutian area.

ORGANIZATION OF THE REPORT AND DATA STANDARDIZATION

This report focuses on the catch data collected at each tow location, including estimated total catch and CPUE for the principal species or species groups encountered during the survey. The locations of the survey tows are summarized in maps in Section 1. Total catches by species or species group are

presented in Sections 2, 3, and 4 for the *Morning Star*, *Vesteraalen*, and *Sea Storm*, respectively. Section 5 is a combined summary listing of CPUE in descending order of magnitude for most species or species groups. Explanations of the symbols and codes appearing in the fishing logs are summarized in Table 2. Fishing gear specifications and diagrams used during the survey are listed in Section 6 (Table 3 and Fig. 3).

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Find cruise results and other additional information
on the World Wide Web at:

http://www.afsc.noaa.gov/race/surveys/cruise_results.htm

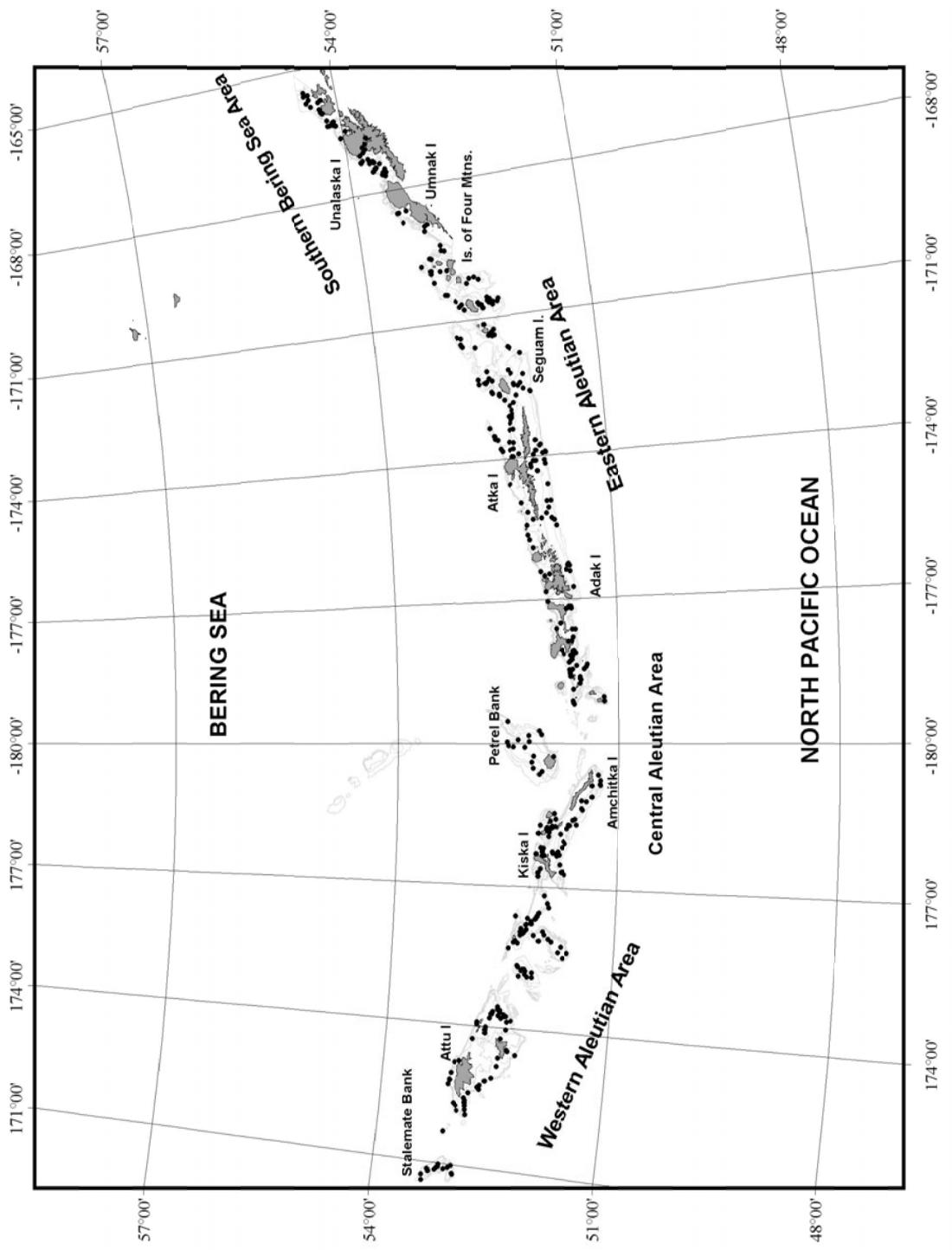


Figure 1.--Locations of trawl hauls (black dot symbol) performed during the 2002 biennial groundfish survey of the Aleutian Islands region.

Table 1.-- Mean CPUE in kilograms per hectare (kg/ha) for the 20 most abundant groundfish and total sampling effort in each North Pacific Fishery Management Council regulatory area during the 2002 Alaska Fisheries Science Center biennial Aleutian Islands bottom trawl survey.

<u>Western Aleutian Area</u>	<u>CPUE</u>	<u>Central Aleutian Area</u>	<u>CPUE</u>	<u>Eastern Aleutian Area</u>	<u>CPUE</u>
Atka mackerel	167.95	Atka mackerel	197.59	giant grenadier	81.16
Pacific ocean perch	133.06	Pacific ocean perch	84.85	Atka mackerel	75.72
northern rockfish	88.56	walleye pollock	65.41	Pacific ocean perch	43.57
Pacific cod	15.67	northern rockfish	23.09	walleye pollock	21.68
arrowtooth flounder	9.44	Pacific cod	14.63	arrowtooth flounder	19.48
walleye pollock	8.19	northern rock sole	13.76	Pacific cod	10.02
northern rock sole	6.96	Kamchatka flounder	12.14	Kamchatka flounder	8.62
shortspine thornyhead	5.43	arrowtooth flounder	7.81	Pacific halibut	7.33
Pacific halibut	5.14	shortraker rockfish	5.22	northern rock sole	5.75
giant grenadier	3.82	giant grenadier	4.73	whiteblotched skate	3.97
Alaska skate	3.41	Pacific halibut	3.94	Greenland turbot	2.78
whiteblotched skate	2.77	shortspine thornyhead	3.30	sculpin unident.	2.16
shortraker rockfish	2.60	sculpin unident.	3.06	northern rockfish	1.29
prowfish	2.14	Alaska skate	2.41	rougheye rockfish	1.23
Kamchatka flounder	2.00	rougheye rockfish	2.38	flathead sole	1.19
flathead sole	1.58	sablefish	2.28	shortraker rockfish	1.11
sculpin unident.	1.14	whiteblotched skate	1.37	rex sole	0.83
Aleutian skate	0.89	Greenland turbot	1.00	Aleutian skate	0.65
rougheye rockfish	0.87	Aleutian skate	0.92	sablefish	0.55
rex sole	0.60	rex sole	0.70	Alaska skate	0.52
Number of hauls	109	Number of hauls	115	Number of hauls	132
<u>All Aleutian Areas</u>	<u>CPUE</u>	<u>Southern Bering Sea Area</u>	<u>CPUE</u>	<u>All Areas</u>	<u>CPUE</u>
Atka mackerel	135.74	walleye pollock	242.38	Atka mackerel	129.27
Pacific ocean perch	79.44	Atka mackerel	80.04	Pacific ocean perch	72.75
giant grenadier	38.32	Pacific ocean perch	21.80	walleye pollock	55.36
northern rockfish	30.90	arrowtooth flounder	16.51	giant grenadier	33.87
walleye pollock	30.79	Pacific cod	12.83	northern rockfish	27.36
arrowtooth flounder	13.41	Pacific halibut	10.50	arrowtooth flounder	13.77
Pacific cod	12.87	southern rock sole	8.27	Pacific cod	12.86
northern rock sole	8.40	flathead sole	5.89	northern rock sole	7.92
Kamchatka flounder	7.88	Kamchatka flounder	5.59	Kamchatka flounder	7.61
Pacific halibut	5.76	rex sole	4.30	Pacific halibut	6.31
whiteblotched skate	2.90	northern rock sole	4.26	shortraker rockfish	2.62
shortraker rockfish	2.70	sculpin unident.	2.67	whiteblotched skate	2.60
shortspine thornyhead	2.50	shortraker rockfish	1.96	shortspine thornyhead	2.37
sculpin unident.	2.15	rougheye rockfish	1.67	sculpin unident.	2.21
Alaska skate	1.84	shortspine thornyhead	1.35	Alaska skate	1.63
Greenland turbot	1.66	squid	0.94	flathead sole	1.54
rougheye rockfish	1.47	starry flounder	0.90	Greenland turbot	1.54
sablefish	1.06	Greenland turbot	0.59	rougheye rockfish	1.49
flathead sole	0.96	sablefish	0.59	rex sole	1.15
Aleutian skate	0.80	Aleutian skate	0.49	southern rock sole	1.04
Number of hauls	356	Number of hauls	61	Number of hauls	417

Table 2.--Definitions of fishing log labels.

TERMINOLOGY	DEFINITION
Bottom Depth	Depths are in meters.
Duration of tow	Hundredths of an hour (Standard tow is 0.25 hour.)
Distance fished	Distance is in kilometers.
Performance codes:	
0	Good performance tow
1.1	Good performance, minor hangs
1.11	Satisfactory, completed tow
1.12	Satisfactory, hauled back early due to hang(s)
2.1	Satisfactory, wing damaged
3.13	Satisfactory performance, Alaskan crab pot
3.2	Satisfactory performance, caught longline gear
4.1	Satisfactory, caught large rock
4.4	Satisfactory, large fish catch affected net performance
4.6	Satisfactory, large kelp catch affected performance
5	Satisfactory, unspecified gear performance problem
5.1	Satisfactory, net came off bottom
5.5	Satisfactory performance, net crabbing severely
5.8	Satisfactory performance, light footrope contact
6.1	Satisfactory performance, depth change exceeds defined limits
-1	Unsatisfactory performance, hung up
-1.11	Unsatisfactory performance, completed tow
-1.12	Unsatisfactory performance, hauled back early due to hang(s)
-1.2	Unsatisfactory performance, major hang, stopped vessel
-2.1	Unsatisfactory performance, wing damaged
-2.4	Unsatisfactory performance, belly damaged
-2.7	Unsatisfactory performance, net completely destroyed
-3	Unsatisfactory performance, footrope damaged
-3.13	Unsatisfactory performance, caught Alaskan crab pot
-5	Unsatisfactory performance, unspecified gear problem
-5.1	Unsatisfactory performance, net came off bottom
-5.23	Unsatisfactory performance, headrope/footrope tangled
-5.6	Unsatisfactory performance, codend not closed properly
-5.7	Unsatisfactory performance, net off bottom, strong currents
-5.8	Unsatisfactory performance, light footrope contact
-6.21	Unsatisfactory performance, wire out less than recommended scope
Gear type code	172 = polyethylene Nor'easter bottom trawl with roller gear
Catch weights	Catch is in kilograms. (0.0 indicates a catch less than 0.1 kg)

Section 1

**Trawl haul location maps for the 2002 AFSC
Aleutian Islands biennial groundfish survey**

**Vessel-specific haul numbers are plotted adjacent to
their respective symbols and geographic locations**

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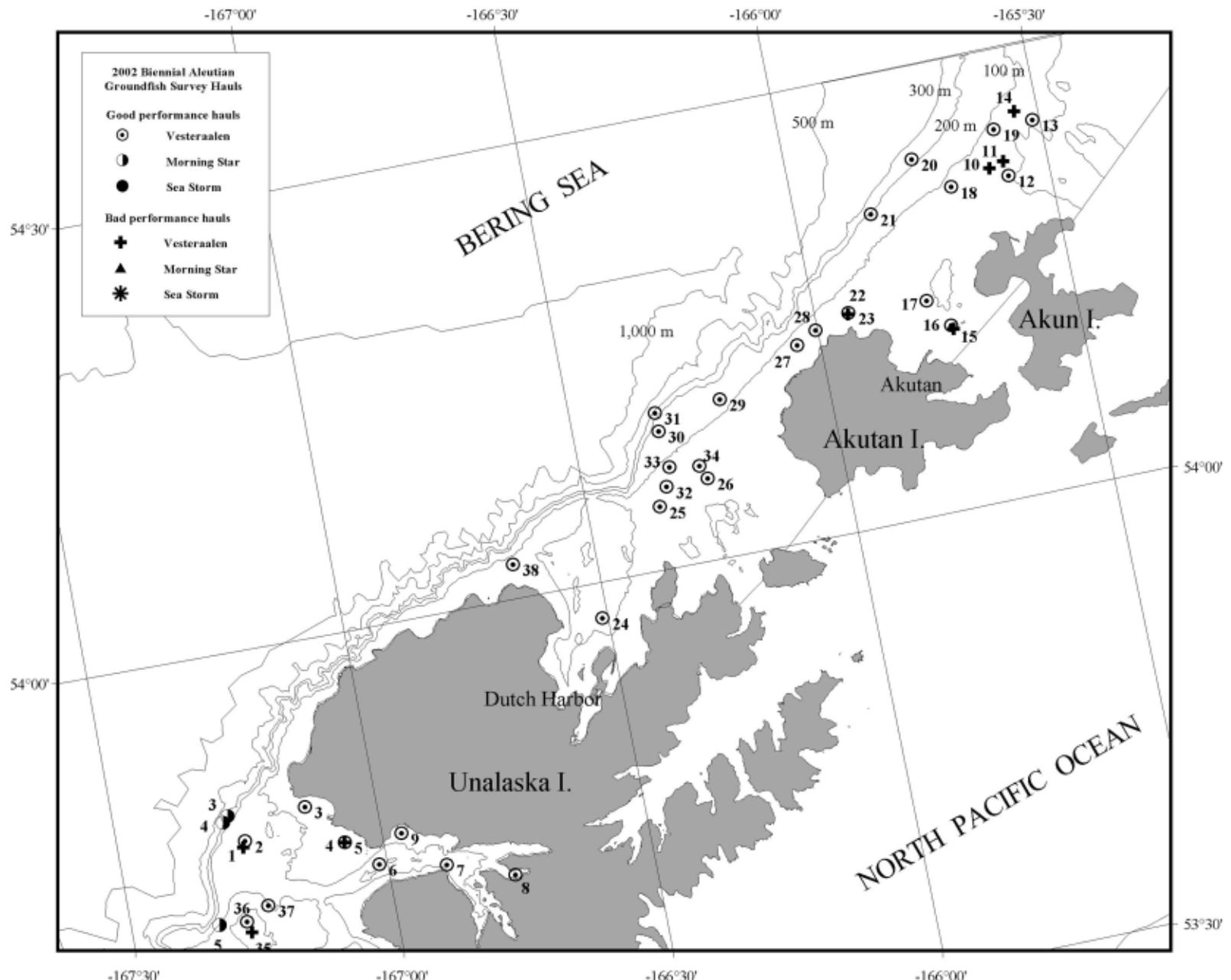
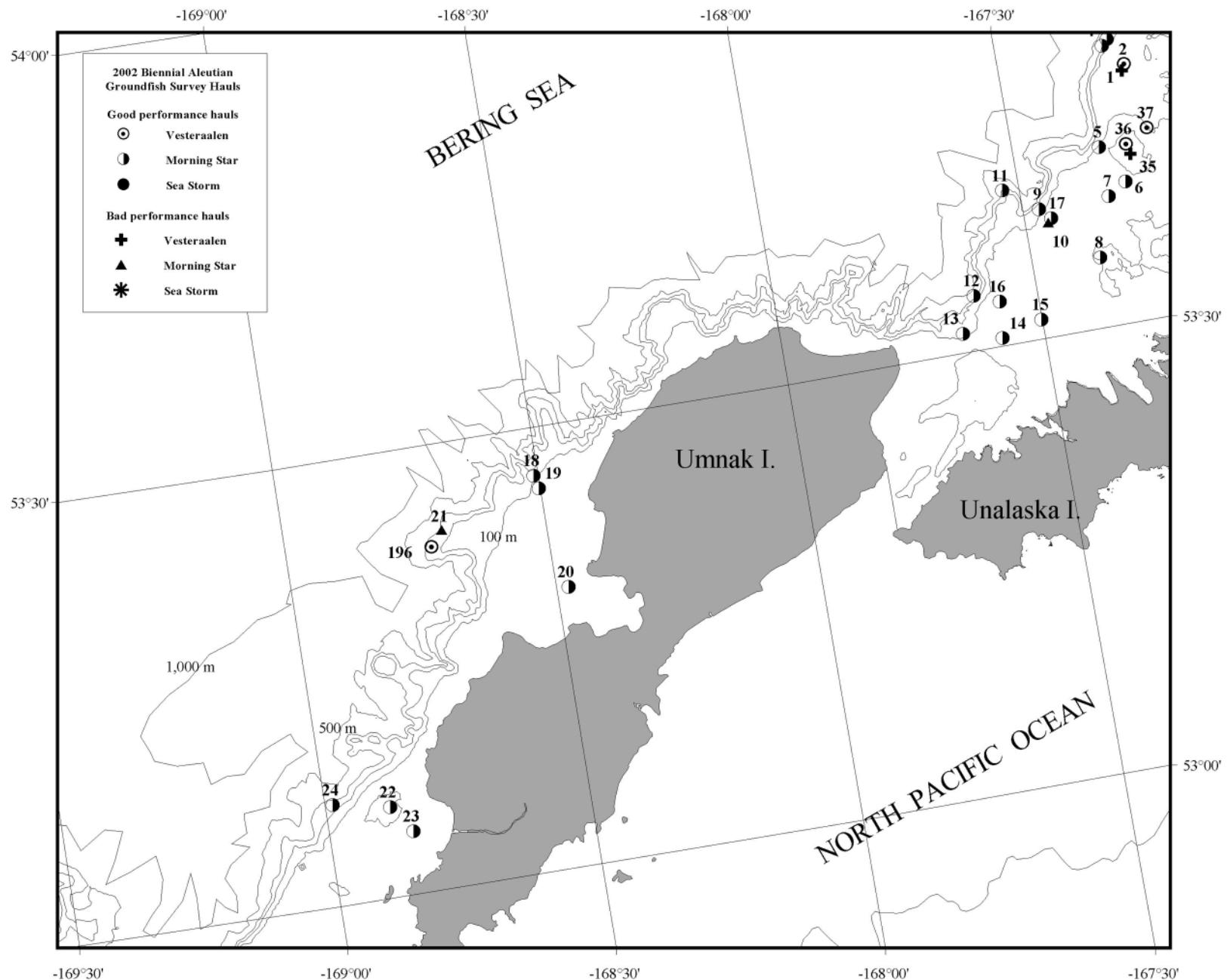


Figure 2a.—Distribution of trawl hauls conducted by three charter vessels during the 2002 AFSC biennial groundfish trawl survey of the Aleutian Islands region.



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Figure 2b.—Distribution of trawl hauls conducted by three charter vessels during the 2002 AFSC biennial groundfish trawl survey of the Aleutian Islands region.

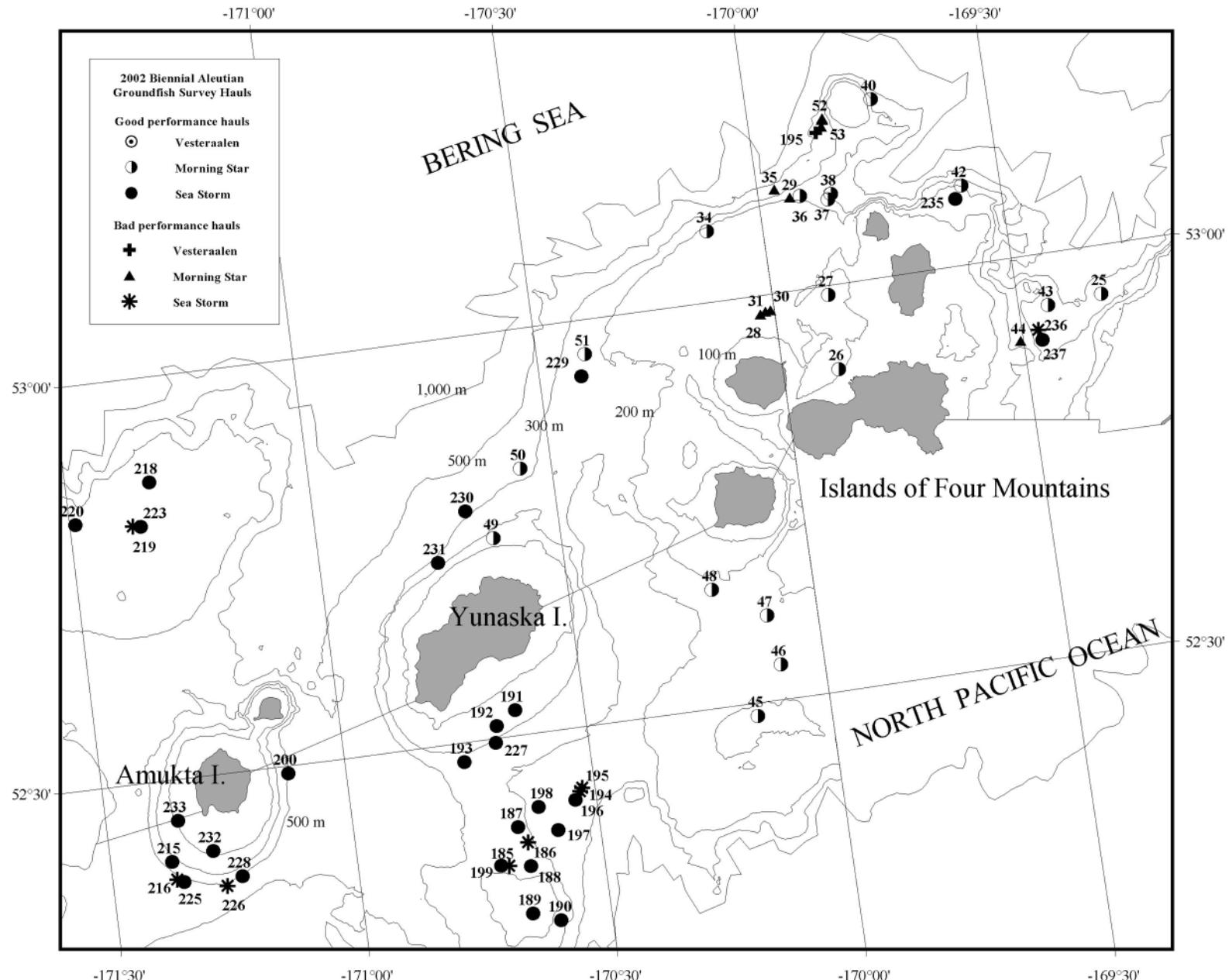


Figure 2c.—Distribution of trawl hauls conducted by three charter vessels during the 2002 AFSC biennial groundfish trawl survey of the Aleutian Islands region.

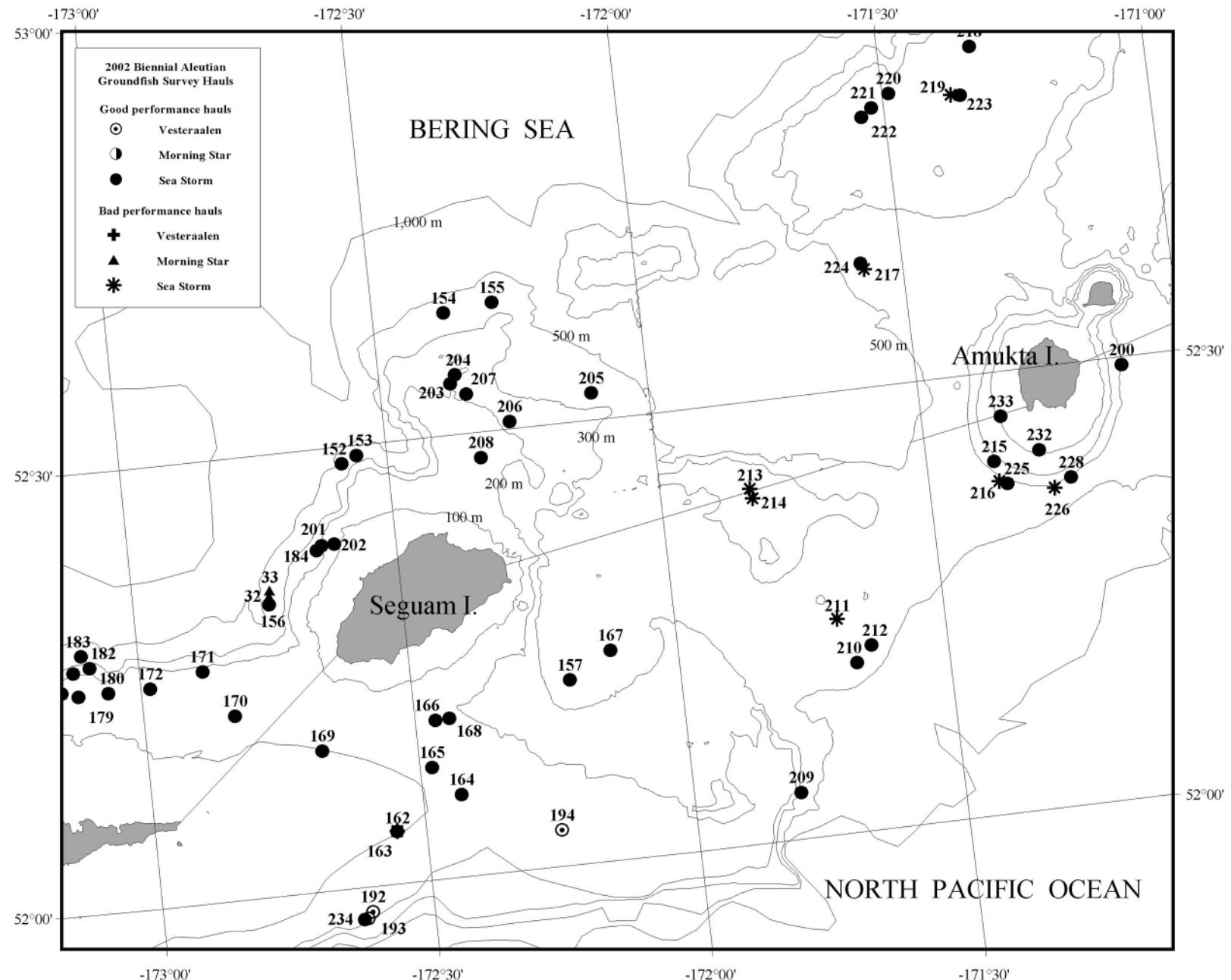


Figure 2d.—Distribution of trawl hauls conducted by three charter vessels during the 2002 AFSC biennial groundfish trawl survey of the Aleutian Islands region.

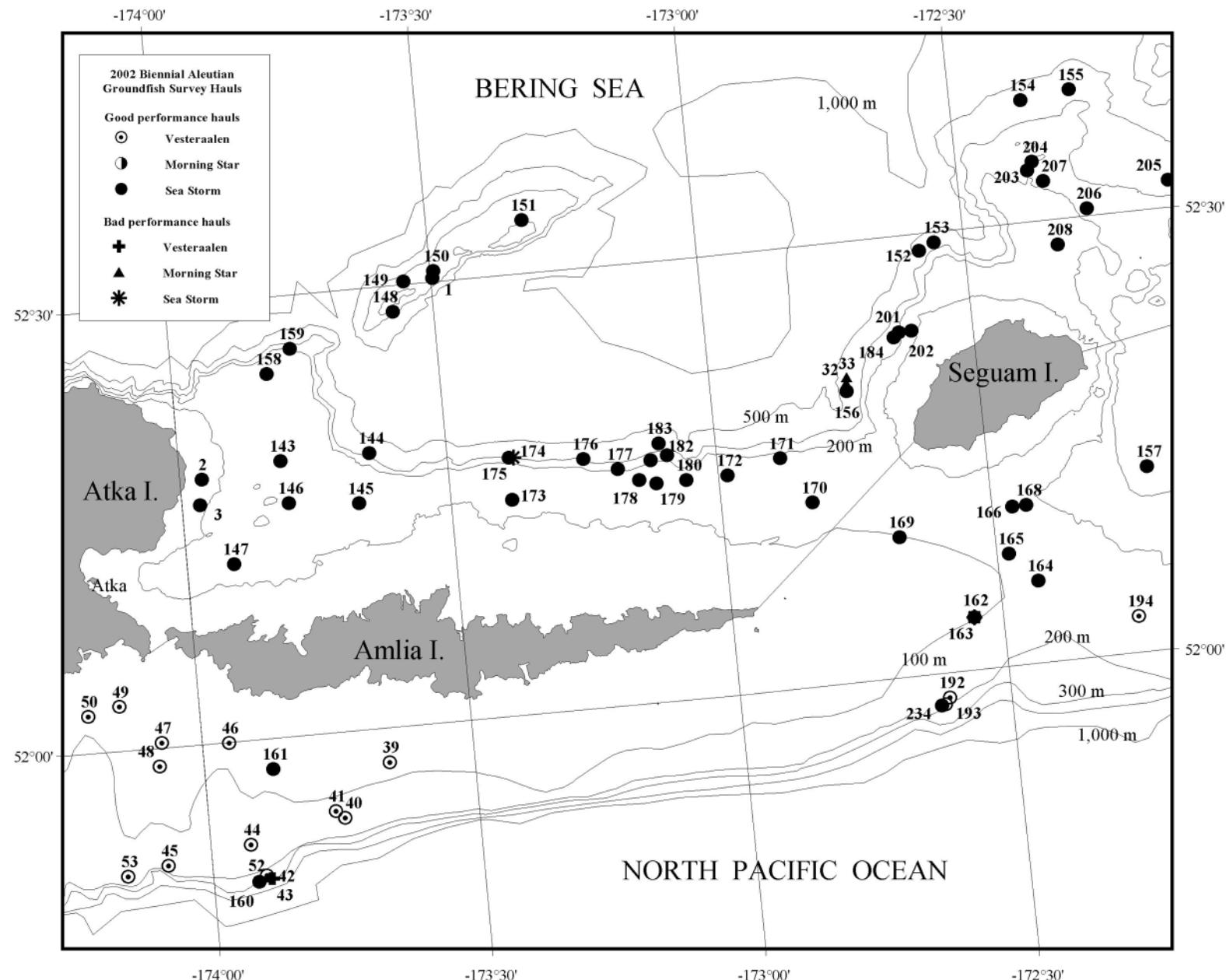


Figure 2e.—Distribution of trawl hauls conducted by three charter vessels during the 2002 AFSC biennial groundfish trawl survey of the Aleutian Islands region.

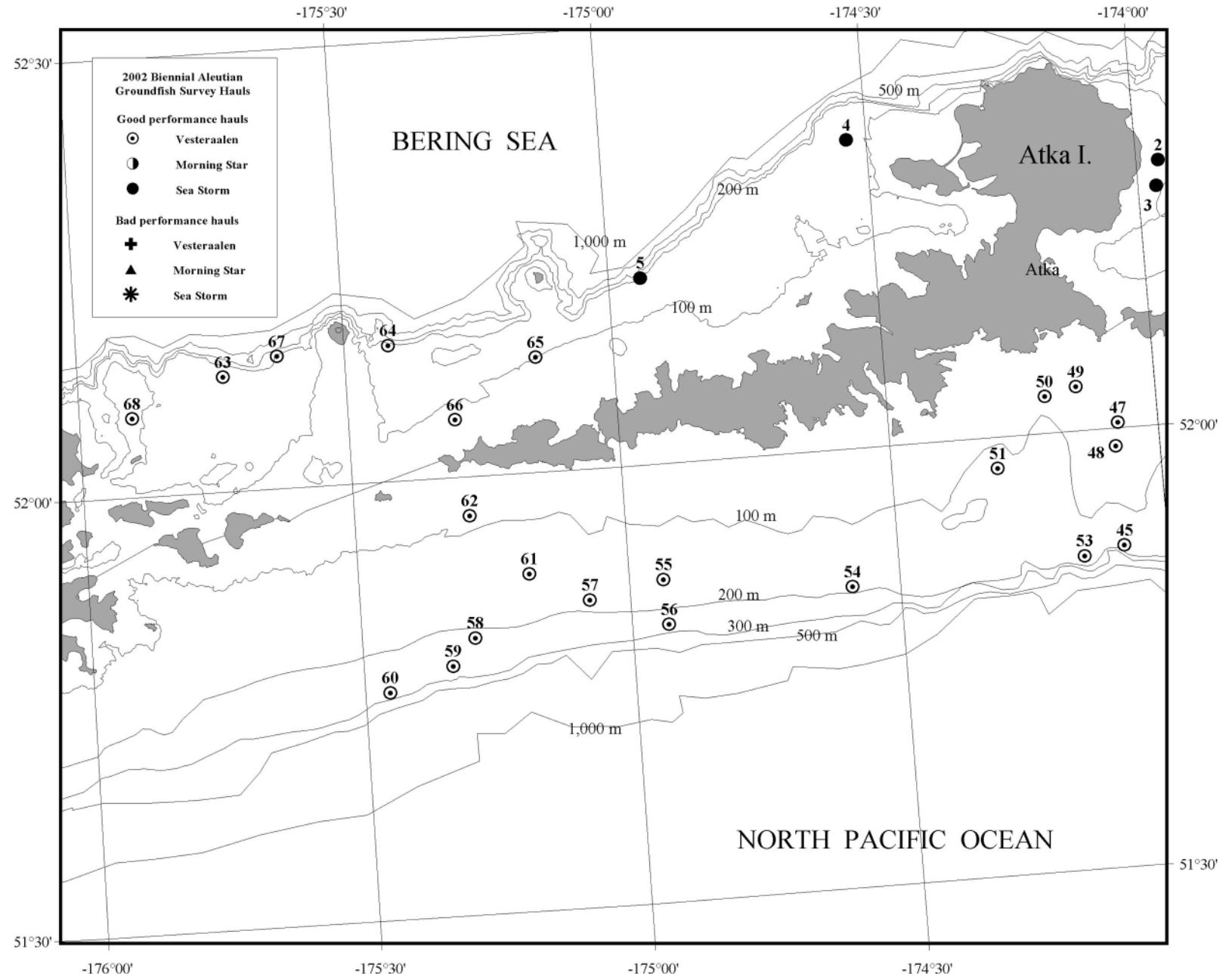


Figure 2f.—Distribution of trawl hauls conducted by three charter vessels during the 2002 AFSC biennial groundfish trawl survey of the Aleutian Islands region.

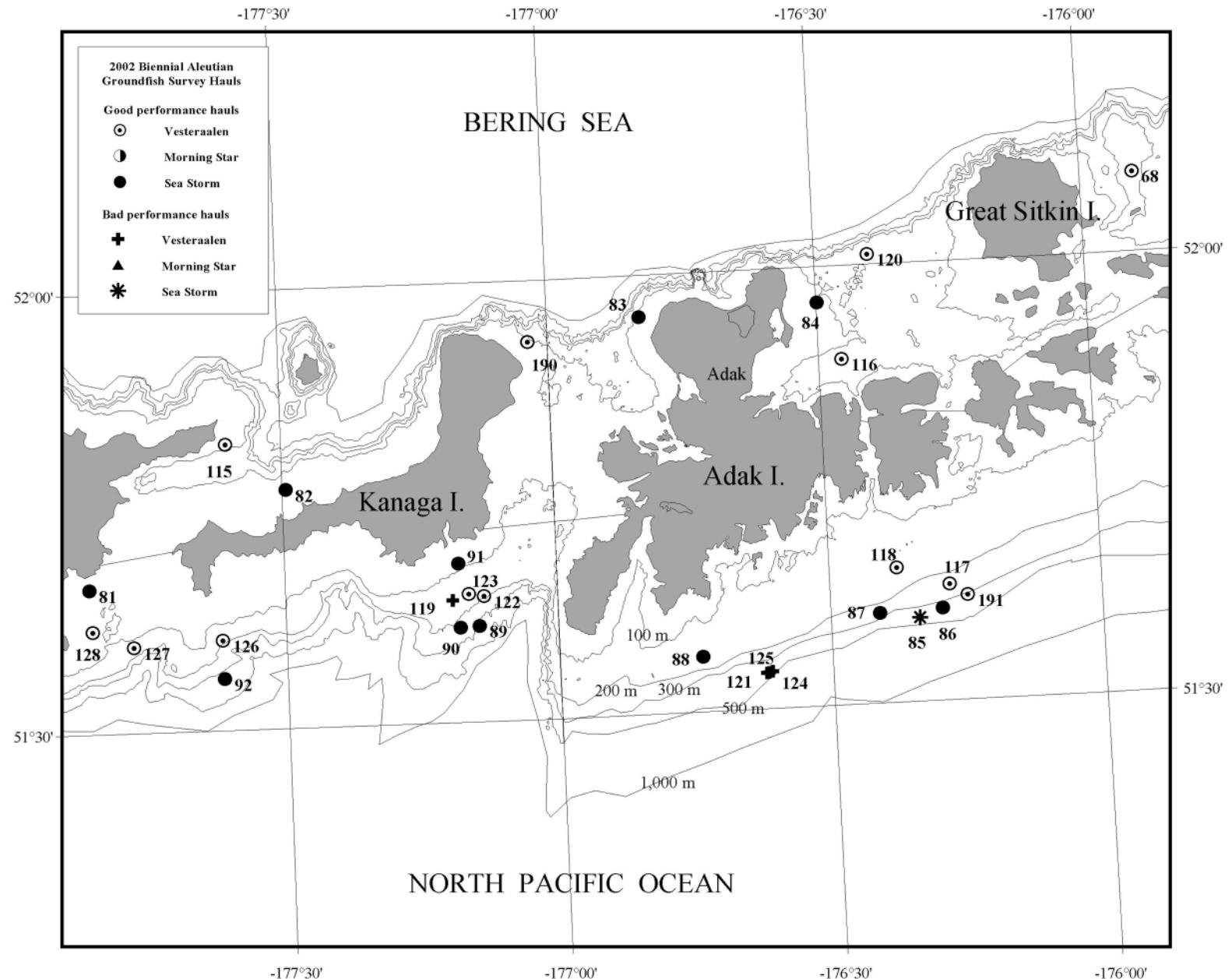


Figure 2g.—Distribution of trawl hauls conducted by three charter vessels during the 2002 AFSC biennial groundfish trawl survey of the Aleutian Islands region.

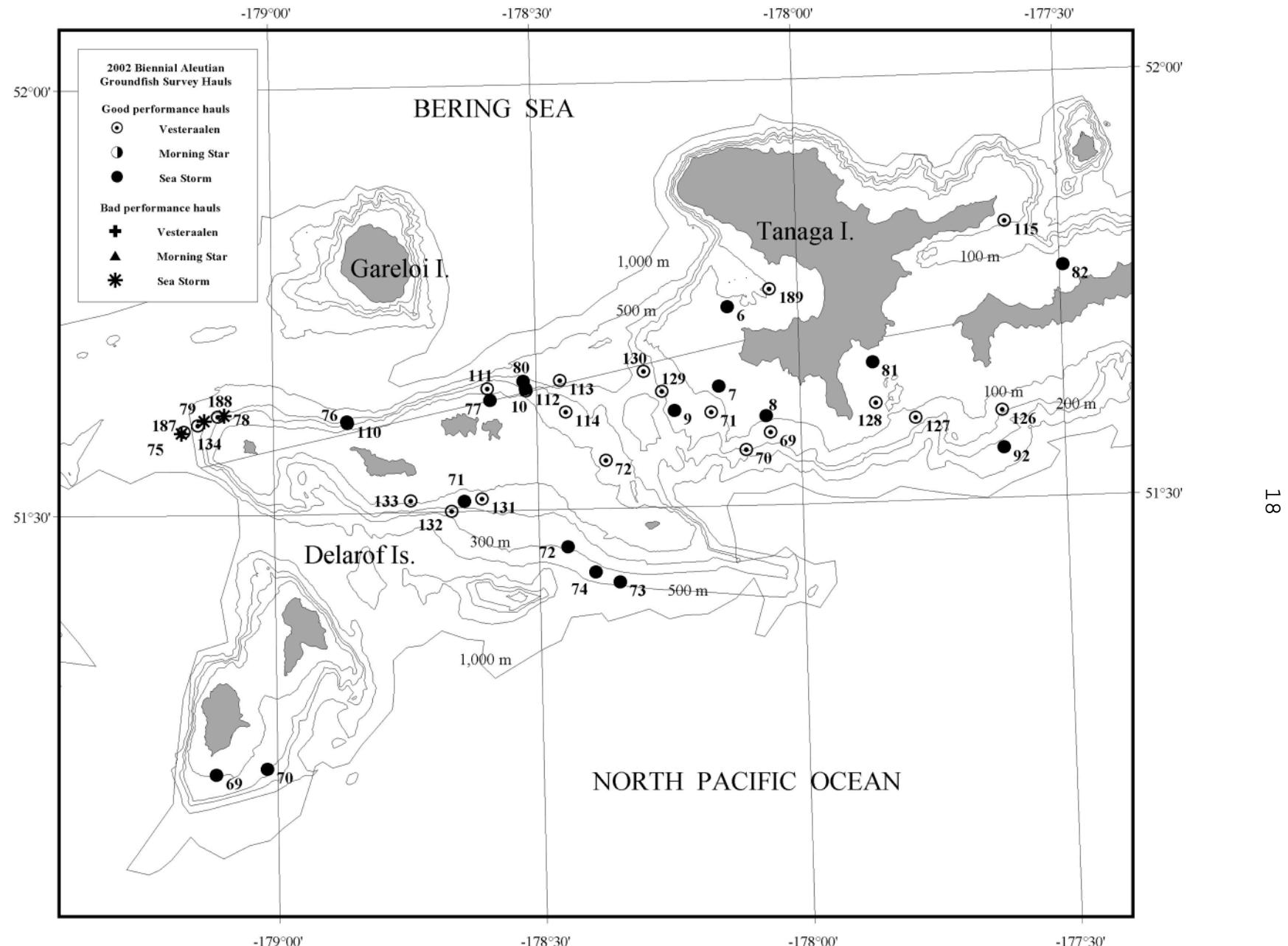


Figure 2h.—Distribution of trawl hauls conducted by three charter vessels during the 2002 AFSC biennial groundfish trawl survey of the Aleutian Islands region.

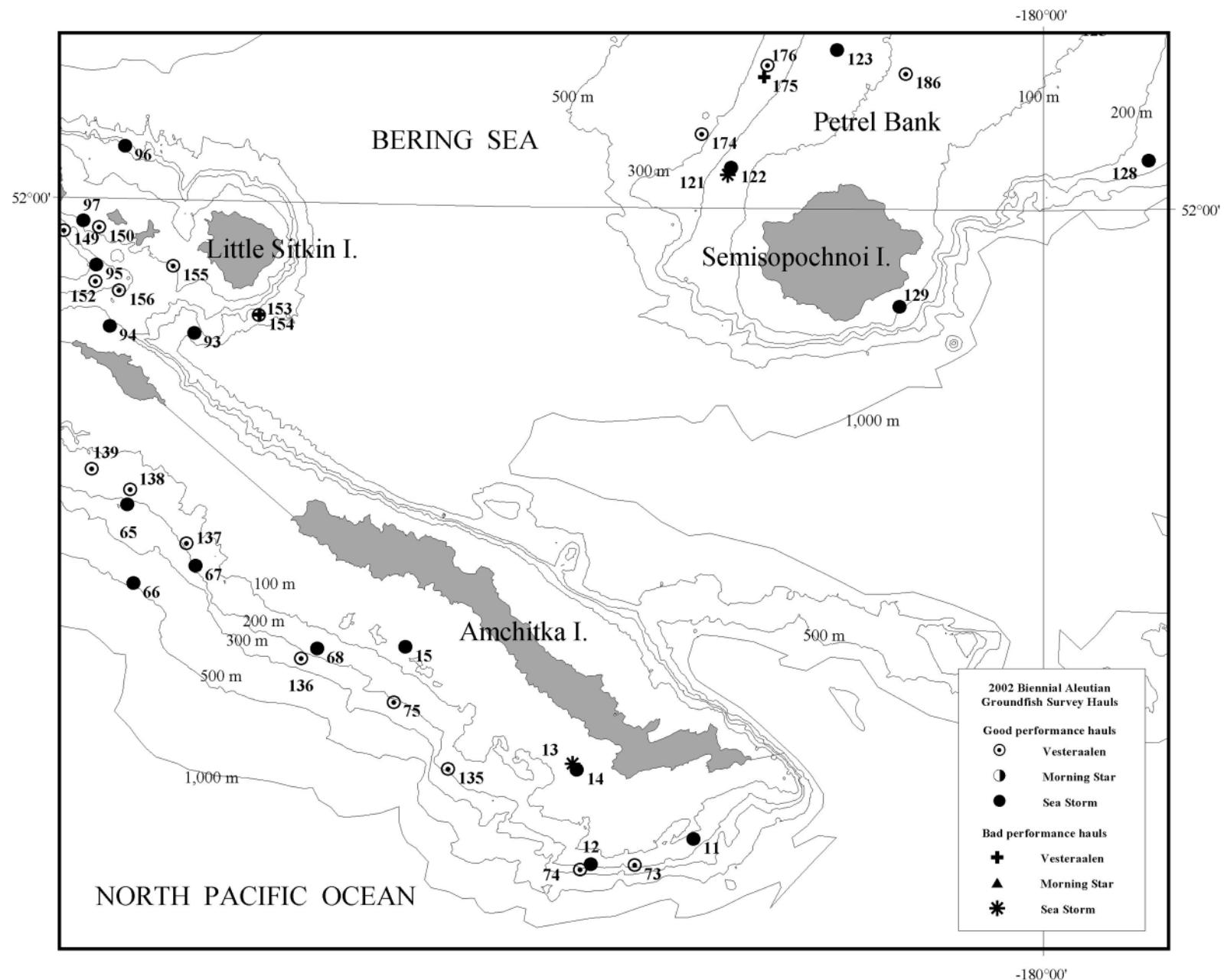


Figure 2i.—Distribution of trawl hauls conducted by three charter vessels during the 2002 AFSC biennial groundfish trawl survey of the Aleutian Islands region.

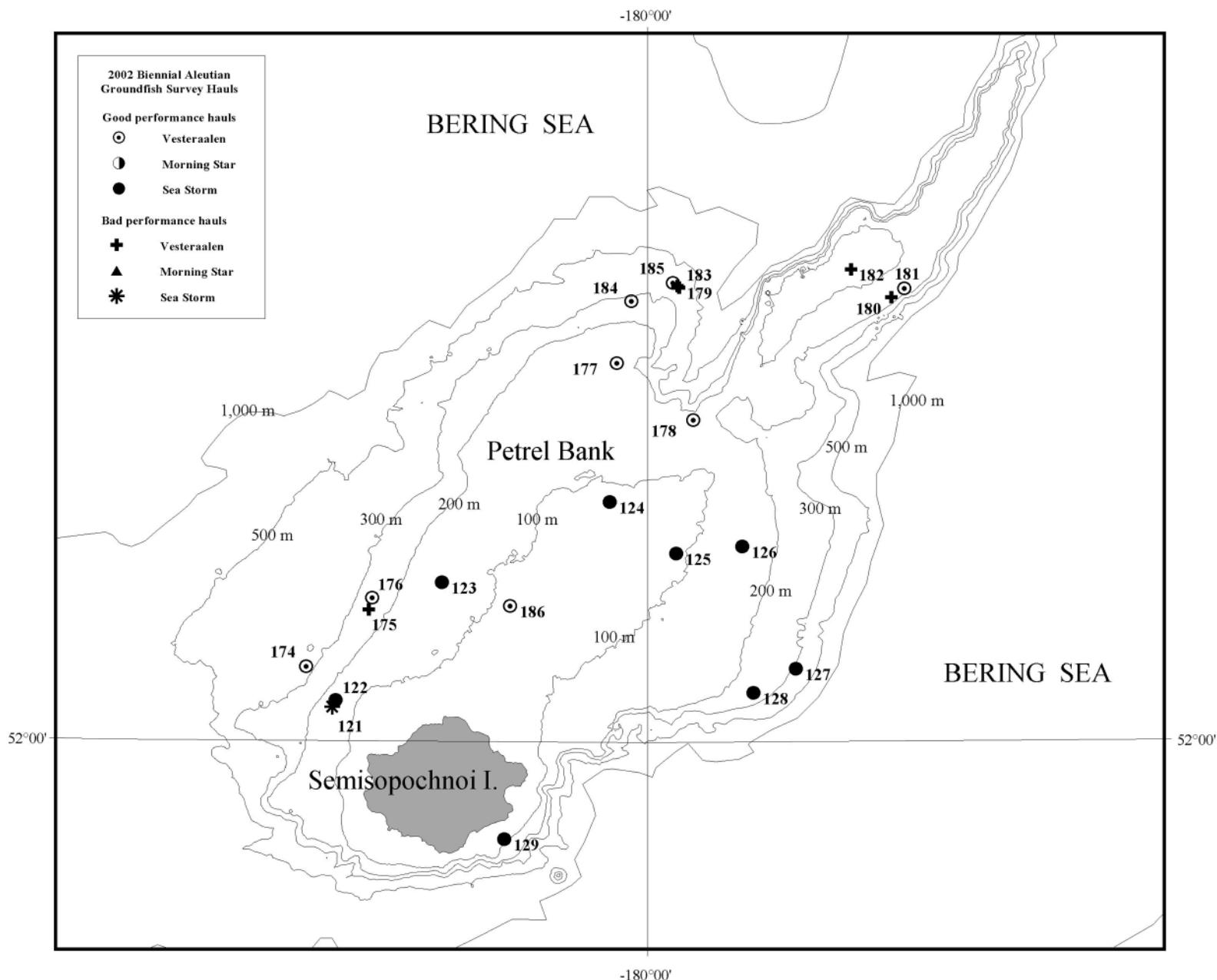


Figure 2j.—Distribution of trawl hauls conducted by three charter vessels during the 2002 AFSC biennial groundfish trawl survey of the Aleutian Islands region.

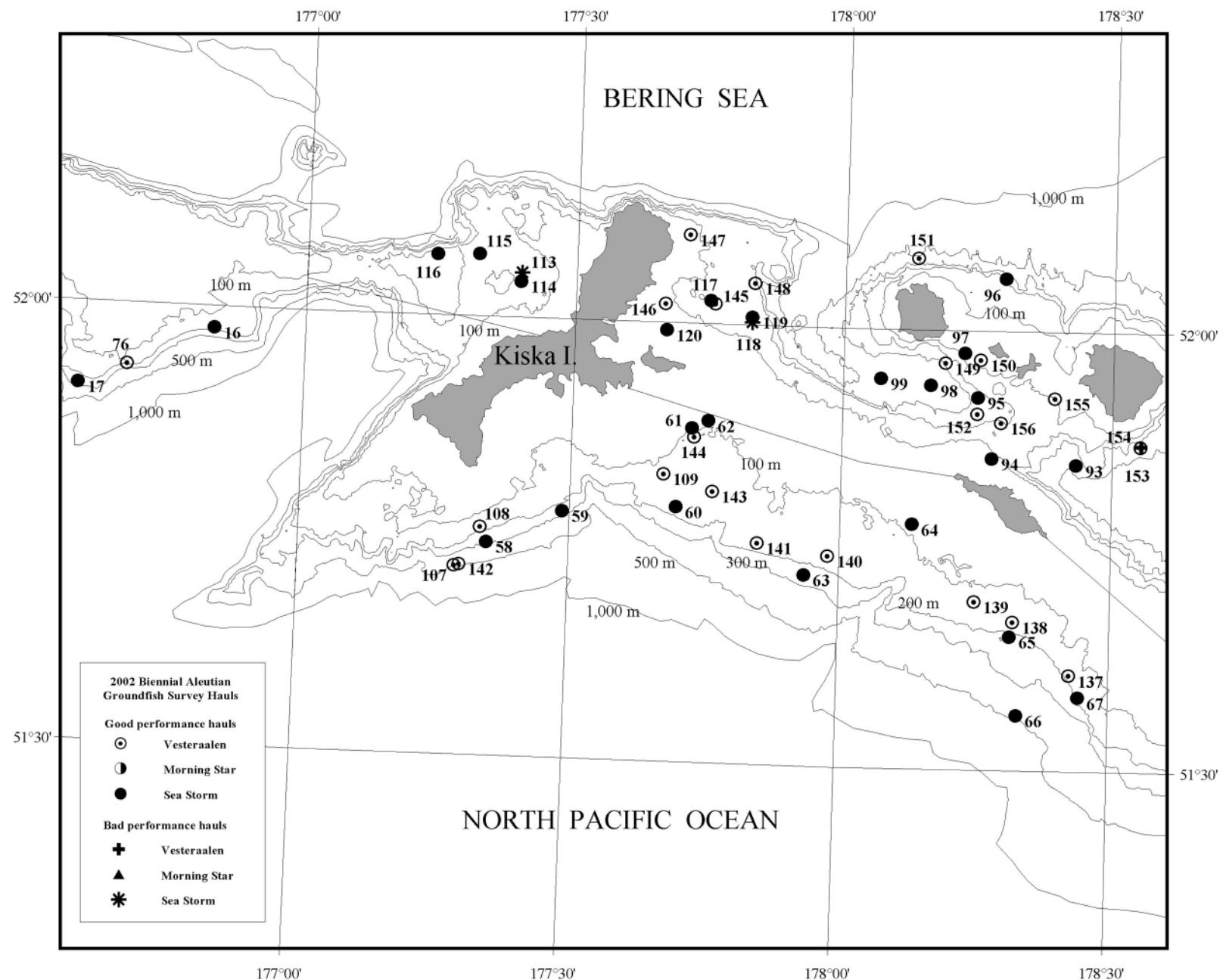


Figure 2k.—Distribution of trawl hauls conducted by three charter vessels during the 2002 AFSC biennial groundfish trawl survey of the Aleutian Islands region.

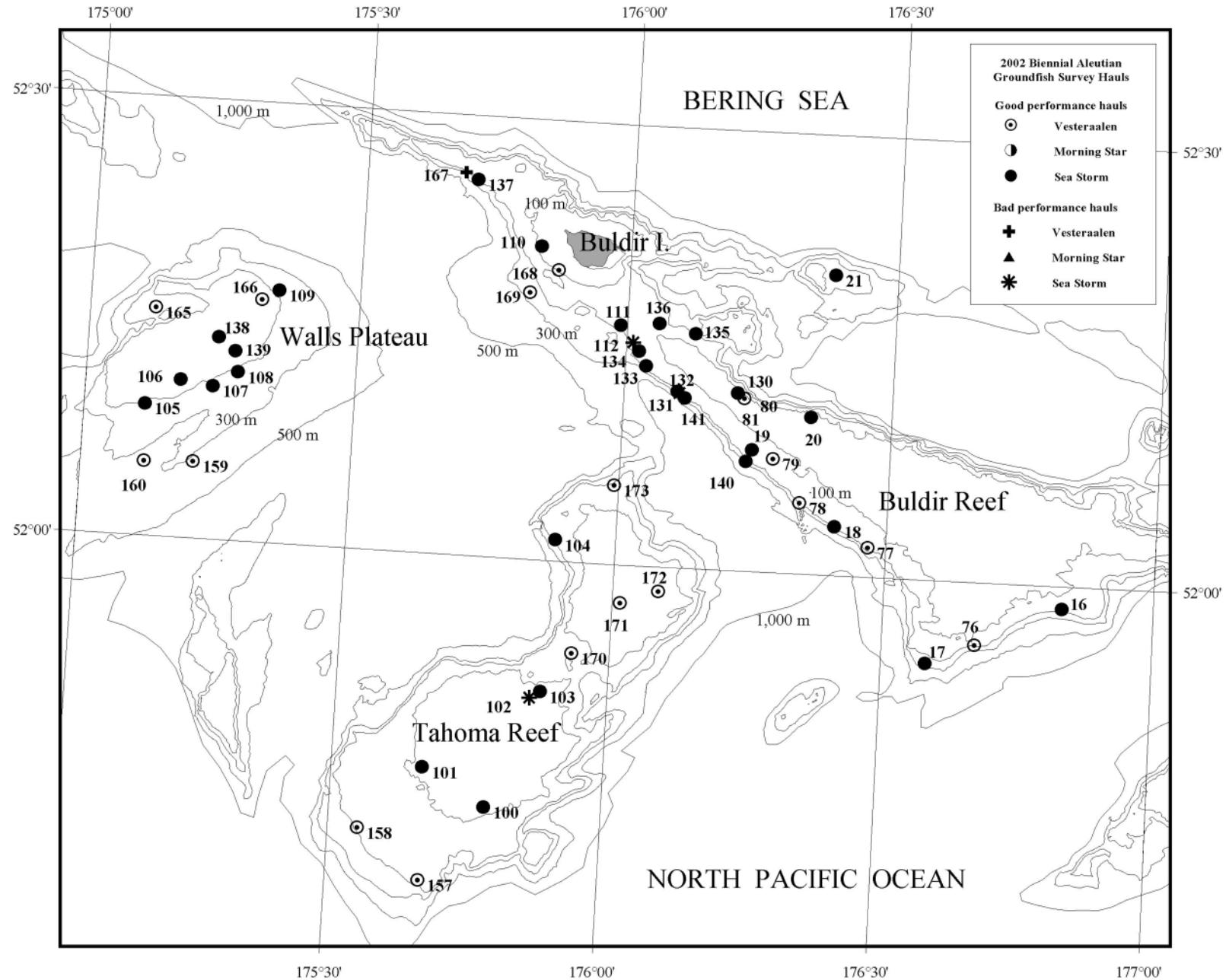


Figure 21.—Distribution of trawl hauls conducted by three charter vessels during the 2002 AFSC biennial groundfish trawl survey of the Aleutian Islands region.

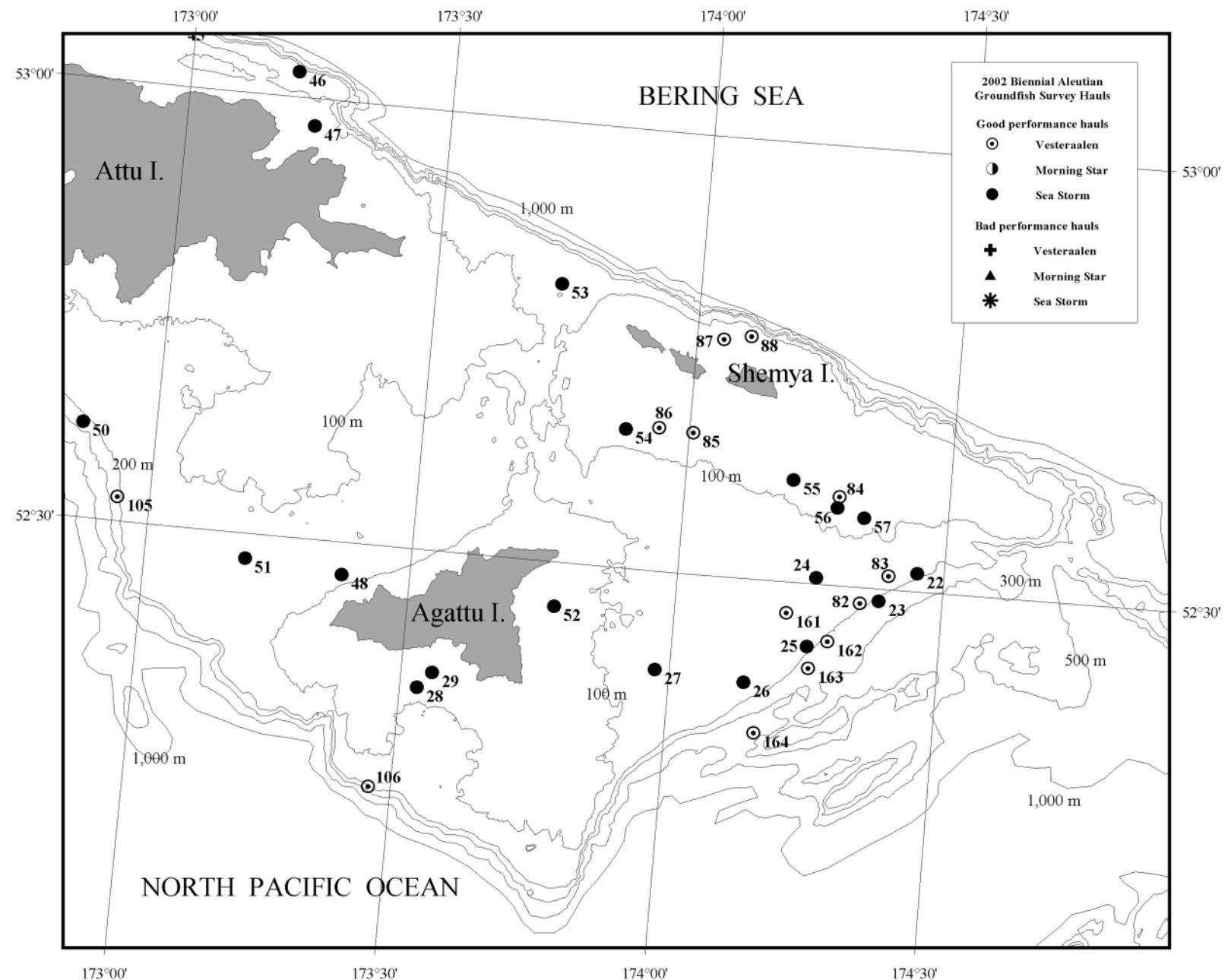


Figure 2m.—Distribution of trawl hauls conducted by three charter vessels during the 2002 AFSC biennial groundfish trawl survey of the Aleutian Islands region.

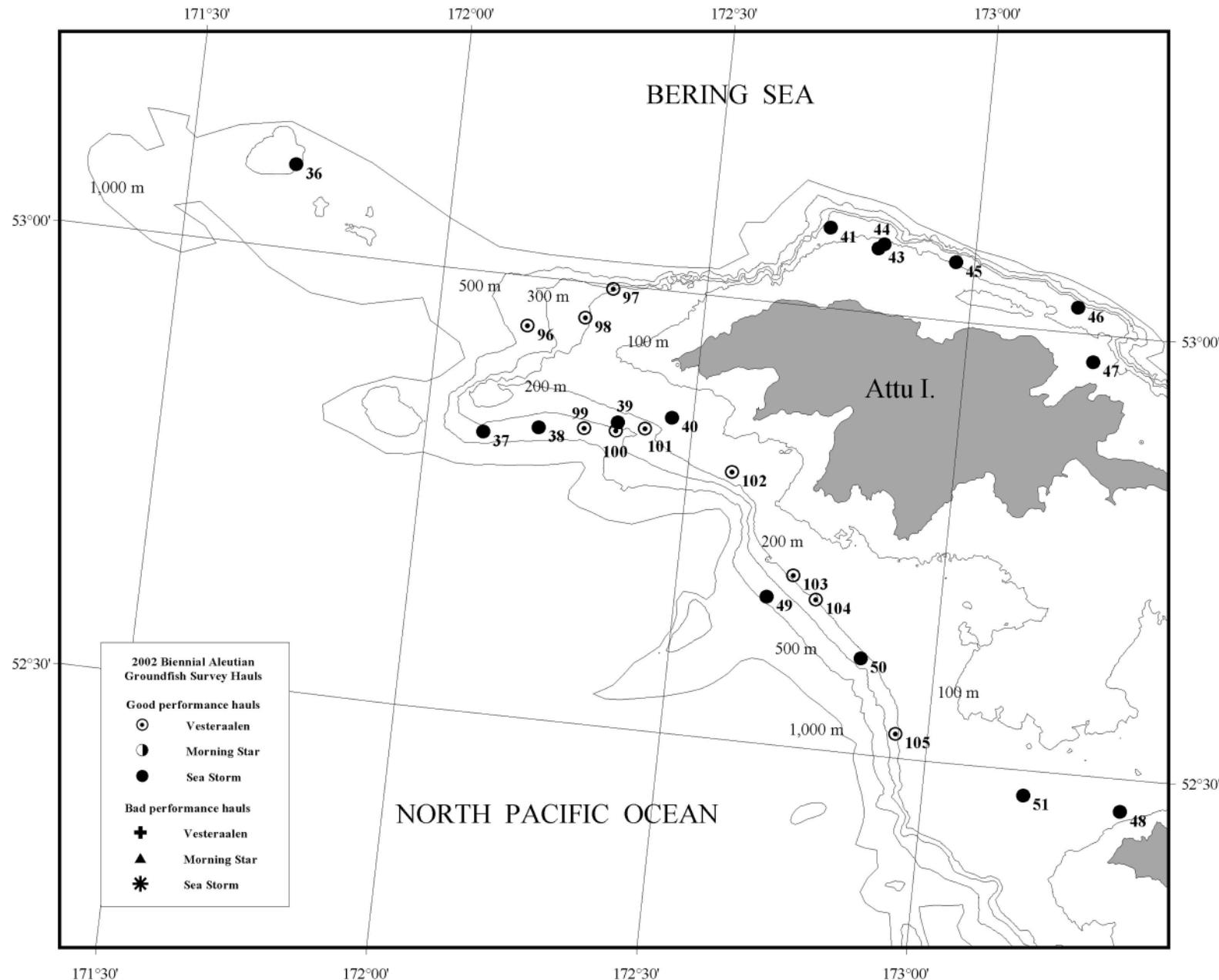


Figure 2n.—Distribution of trawl hauls conducted by three charter vessels during the 2002 AFSC biennial groundfish trawl survey of the Aleutian Islands region.

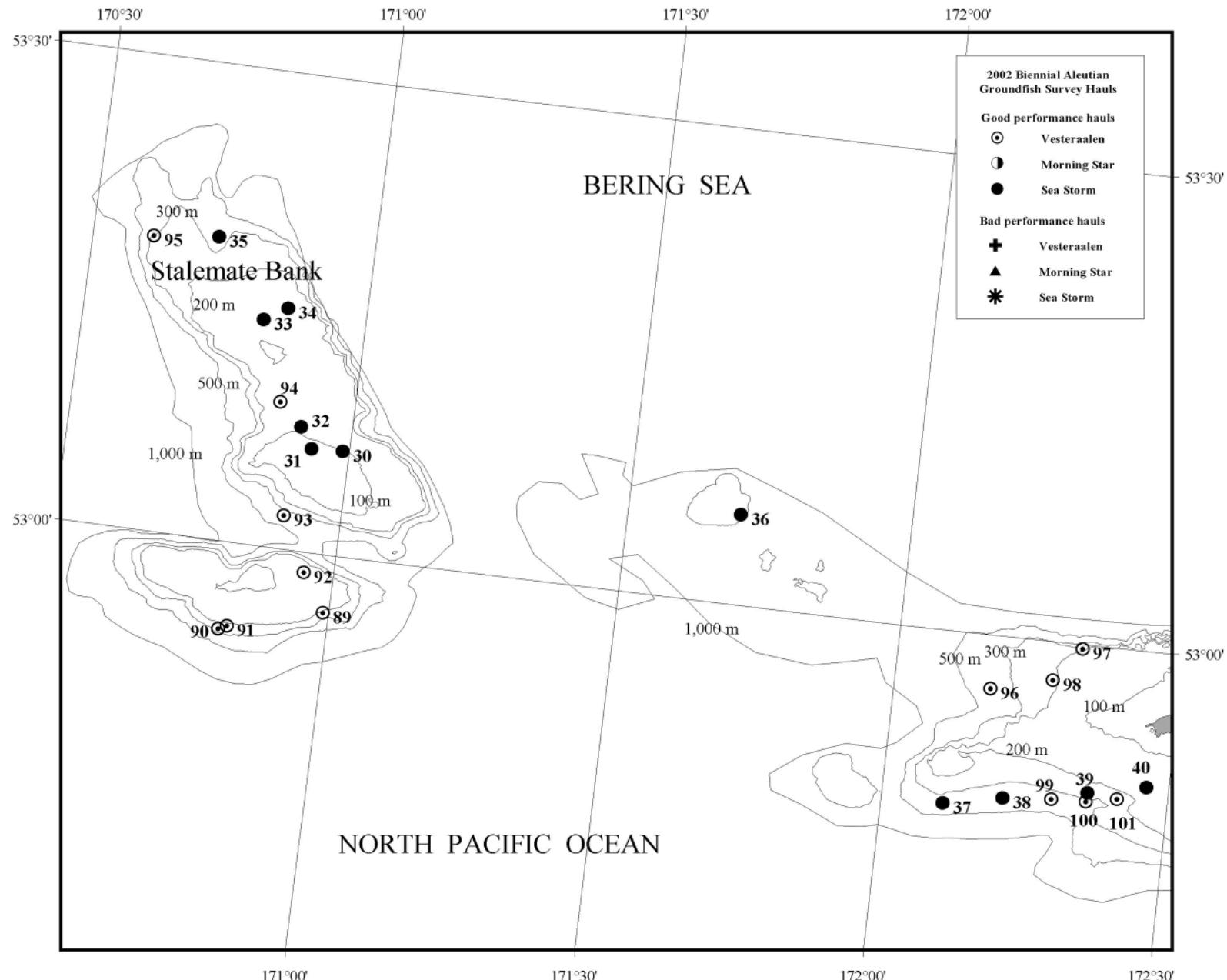


Figure 2o.—Distribution of trawl hauls conducted by three charter vessels during the 2002 AFSC biennial groundfish trawl survey of the Aleutian Islands region.

Section 2**Fishing Log for the F/V *Morning Star***

Summary listings of estimated catches by haul and species or species group

- Date format: Month/day/year and hour (24 h clock)
- Haul start and end latitude and longitude in degrees, minutes and decimal minutes
- Bottom depth in meters
- Duration of tow in minutes
- Distance fished in kilometers
- Performance codes found in Table 2
- Catch weight in kilograms

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Fishing log: F/V Morning Star, Cruise 200201

Haul number	3	4	5	6	7	8	9
Start date & time	05/26/02 19	05/26/02 21	05/27/02 07	05/27/02 10	05/27/02 12	05/27/02 13	05/27/02 15
Start latitude	N 5349.28	N 5348.90	N 5342.17	N 5339.55	N 5338.78	N 5334.80	N 5338.75
Start longitude	W 16716.94	W 16717.62	W 16720.06	W 16717.77	W 16719.95	W 16722.18	W 16728.13
End latitude	N 5348.80	N 5348.47	N 5342.68	N 5340.28	N 5339.55	N 5335.53	N 5339.35
End longitude	W 16717.74	W 16718.46	W 16719.04	W 16718.32	W 16719.63	W 16722.19	W 16727.25
Bottom depth (m)	318	335	95	91	85	106	111
Duration (minutes)	13.8	13.2	15.6	15.6	15.6	14.4	15.6
Distance fished (km)	1.283	1.226	1.497	1.509	1.489	1.37	1.508
Performance	5.1	5.1	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	8	1	< 1	6	1
Pacific cod	6	6	34	9	1	12	6
Walleye pollock	3	5	7	165	3	231	249
Pacific ocean perch	865	20	33	0	0	0	< 1
Northern rockfish	0	< 1	49	0	0	0	4
Shortraker rockfish	114	20	0	0	0	0	0
Rougheye rockfish	97	22	0	0	0	0	0
Shortspine thornyhead	16	16	0	0	0	0	0
Light dusky rockfish	0	0	< 1	1	0	0	0
Other rockfish	0	< 1	0	0	0	0	0
Sablefish	6	0	0	0	0	1	0
Arrowtooth flounder	38	7	12	2	3	9	23
Pacific halibut	27	12	4	28	1	0	0
Northern rock sole	0	0	24	5	1	0	14
Southern rock sole	0	0	74	28	19	< 1	28
Kamchatka flounder	17	0	0	0	0	0	2
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	8	18	2	3	1	9	10
Rex sole	7	8	5	< 1	1	5	18
Dover sole	2	5	< 1	0	0	0	< 1
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	0	0	0	0	0	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	< 1	0	< 1	0	0
Other sculpins	15	9	0	0	0	< 1	2
Eelpout unident.	< 1	0	0	0	0	0	0
Other fish	13	< 1	8	0	0	0	< 1
Bairdi tanner crab	0	0	0	0	0	< 1	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	< 1	0	0	0	0	0	< 1
Sidestripe shrimp	< 1	< 1	0	0	0	0	0
Scallop unident.	0	< 1	< 1	< 1	0	0	< 1
Magistrate arмhook squid	< 1	< 1	< 1	< 1	0	0	< 1
Sponge	2	2	50	2	< 1	2	< 1
Starfish	< 1	< 1	< 1	< 1	< 1	0	< 1
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	0	< 1	12	3	2	< 1	< 1
Octopus	< 1	0	0	0	0	0	0
Snail	0	< 1	< 1	0	0	< 1	< 1
Other invertebrate	2	< 1	4	< 1	< 1	< 1	< 1
Total catch	1,238	154	331	249	36	277	359

Fishing log: F/V Morning Star, Cruise 200201

Haul number	10	11	12	13	14	15	16
Start date & time	05/27/02 16	05/27/02 21	05/28/02 09	05/28/02 11	05/28/02 13	05/28/02 14	05/28/02 16
Start latitude	N 5337.75	N 5340.44	N 5333.75	N 5331.33	N 5330.58	N 5331.35	N 5333.05
Start longitude	W 16727.31	W 16731.91	W 16737.27	W 16739.23	W 16734.86	W 16730.08	W 16734.45
End latitude	N 5338.44	N 5340.90	N 5333.39	N 5331.44	N 5329.81	N 5330.92	N 5332.39
End longitude	W 16726.69	W 16730.86	W 16738.25	W 16740.55	W 16735.09	W 16731.20	W 16735.11
Bottom depth (m)	93	312	365	106	74	74	86
Duration (minutes)	15.6	15.6	14.4	16.2	15.6	16.2	15.6
Distance fished (km)	1.474	1.468	1.303	1.487	1.488	1.501	1.454
Performance	-2.1	0	5.1	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	< 1	0	0	0	4	1	10
Pacific cod	41	7	0	9	10	11	6
Walleye pollock	449	52	52	96	10	95	243
Pacific ocean perch	0	236	23	< 1	0	0	0
Northern rockfish	4	0	0	4	0	0	0
Shortraker rockfish	0	0	112	0	0	0	0
Rougheye rockfish	0	17	22	0	0	0	0
Shortspine thornyhead	0	26	27	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	3	0	< 1	0	0
Arrowtooth flounder	6	44	50	53	64	31	18
Pacific halibut	44	19	42	13	4	0	17
Northern rock sole	11	0	0	0	27	6	9
Southern rock sole	92	0	0	2	151	87	34
Kamchatka flounder	0	2	8	< 1	0	0	0
Greenland turbot	0	0	11	0	0	0	0
Flathead sole	0	2	11	3	9	13	1
Rex sole	4	88	124	32	6	4	9
Dover sole	0	< 1	3	< 1	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	< 1	0
Skate unident.	0	4	3	0	0	0	0
Shark unident.	0	39	0	0	0	0	0
Yellow Irish lord	< 1	0	0	0	0	2	0
Other sculpins	< 1	5	19	< 1	0	4	0
Eelpout unident.	0	0	< 1	0	0	0	0
Other fish	1	< 1	< 1	3	0	< 1	< 1
Bairdi tanner crab	0	0	0	0	< 1	0	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	< 1	< 1	0	0	0
Sidestripe shrimp	0	< 1	< 1	0	0	0	0
Scallop unident.	< 1	0	0	0	0	0	0
Magistrate armhook squid	0	< 1	2	5	< 1	0	0
Sponge	8	< 1	0	0	< 1	0	0
Starfish	< 1	< 1	2	< 1	0	0	0
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	< 1	0	0	0	0	< 1	0
Octopus	0	0	0	0	0	0	0
Snail	< 1	0	0	< 1	< 1	0	< 1
Other invertebrate	1	< 1	< 1	2	< 1	< 1	< 1
Total catch	662	545	516	224	288	254	347

Fishing log: F/V Morning Star, Cruise 200201

Haul number	17	18	19	20	21	22	23
Start date & time	05/28/02 18	05/29/02 08	05/29/02 09	05/29/02 11	05/29/02 13	05/29/02 18	05/29/02 19
Start latitude	N 5338.01	N 5326.77	N 5325.88	N 5318.95	N 5324.18	N 5306.13	N 5304.26
Start longitude	W 16726.91	W 16830.50	W 16830.17	W 16828.66	W 16841.89	W 16852.72	W 16850.56
End latitude	N 5337.32	N 5327.31	N 5326.62	N 5319.72	N 5324.77	N 5305.50	N 5304.87
End longitude	W 16727.50	W 16829.41	W 16829.27	W 16828.78	W 16841.08	W 16853.56	W 16849.84
Bottom depth (m)	93	114	86	83	284	113	68
Duration (minutes)	15.6	16.2	17.4	15.6	15.6	15.6	15
Distance fished (km)	1.467	1.593	1.733	1.449	1.447	1.533	1.413
Performance	0	1.1	0	0	-2.4	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	4	2	< 1	< 1	0	7	5
Pacific cod	7	5	18	10	34	7	15
Walleye pollock	860	43	3	25	10	2	40
Pacific ocean perch	0	0	0	0	8,931	0	0
Northern rockfish	3	< 1	0	0	1	0	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	67	0	0
Shortspine thornyhead	0	0	0	0	56	0	0
Light dusky rockfish	0	0	0	0	1	0	0
Other rockfish	0	0	0	0	< 1	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	7	3	3	10	9	8	30
Pacific halibut	6	0	34	1	4	72	36
Northern rock sole	13	33	11	9	0	16	21
Southern rock sole	76	< 1	6	2	0	13	20
Kamchatka flounder	0	0	0	< 1	0	0	0
Greenland turbot	10	0	0	0	0	0	0
Flathead sole	3	3	< 1	< 1	0	0	0
Rex sole	< 1	3	0	< 1	5	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	< 1
English sole	0	0	0	2	0	0	0
Other flatfish	0	0	0	0	0	0	< 1
Skate unident.	2	0	0	0	1	0	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	< 1	0	0	2	0	4	4
Other sculpins	0	0	0	0	3	< 1	0
Eelpout unident.	0	0	0	0	0	0	0
Other fish	< 1	0	< 1	1	0	< 1	0
Bairdi tanner crab	0	0	0	0	0	< 1	0
Golden king crab	0	0	0	0	< 1	0	0
Red king crab	0	0	0	0	2	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	< 1	< 1
Magistrate armhook squid	< 1	0	0	0	11	0	0
Sponge	1	0	< 1	0	3	< 1	0
Starfish	0	< 1	0	0	< 1	< 1	< 1
Soft coral	0	0	0	0	0	0	< 1
Stony coral unident.	0	0	0	0	< 1	0	0
Octopus	0	0	0	0	0	0	0
Snail	0	0	0	0	0	< 1	0
Other invertebrate	1	< 1	< 1	0	< 1	4	< 1
Total catch	995	94	77	63	9,140	134	174

Fishing log: F/V Morning Star, Cruise 200201

Haul number	24	25	26	27	28	29	30
Start date & time	05/30/02 07	05/30/02 11	05/30/02 14	05/30/02 15	05/30/02 16	05/30/02 18	05/30/02 20
Start latitude	N 5306.88	N 5256.40	N 5253.74	N 5259.29	N 5258.75	N 5306.90	N 5258.79
Start longitude	W 16859.16	W 16919.58	W 16953.010	W 16953.08	W 17001.09	W 16956.08	W 17000.47
End latitude	N 5307.32	N 5256.92	N 5254.37	N 5258.51	N 5259.02	N 5306.90	N 5259.01
End longitude	W 16858.08	W 16918.56	W 16952.42	W 16953.37	W 16959.48	W 16954.77	W 16959.62
Bottom depth (m)	266	401	110	125	116	226	118
Duration (minutes)	15.6	16.2	15	15.6	22.2	16.2	12
Distance fished (km)	1.47	1.524	1.425	1.508	1.916	1.466	1.075
Performance	0	0	0	0	-5.7	-3.13	-3
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	< 1	2	0	5	7
Pacific cod	50	0	4	27	0	62	72
Walleye pollock	22	6	< 1	1	0	5	< 1
Pacific ocean perch	201	7	< 1	0	0	167	9
Northern rockfish	0	0	1	0	0	15	2
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	11	2	0	0	0	4	0
Shortspine thornyhead	6	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	6	4
Other rockfish	< 1	0	0	0	0	0	0
Sablefish	7	0	0	0	0	0	0
Arrowtooth flounder	49	71	7	1	2	197	6
Pacific halibut	19	2	69	31	0	16	68
Northern rock sole	0	0	0	3	0	< 1	4
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	62	0	0	0	6	0
Greenland turbot	0	3	0	0	0	0	0
Flathead sole	< 1	0	0	0	0	0	0
Rex sole	11	4	0	0	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	4	11	0	0	0	0	5
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	< 1	< 1	0	0	1	< 1
Other sculpins	< 1	3	0	8	0	11	< 1
Eelpout unident.	0	0	0	0	0	0	0
Other fish	< 1	< 1	0	0	0	< 1	0
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	5	5	< 1	0	0	14	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	< 1	< 1	0	6	1	0	0
Magistrate armhook squid	6	2	< 1	0	0	0	0
Sponge	30	2	12	2	< 1	80	14
Starfish	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Soft coral	< 1	< 1	0	0	0	< 1	0
Stony coral unident.	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Octopus	< 1	0	0	0	0	< 1	0
Snail	< 1	0	< 1	< 1	0	< 1	0
Other invertebrate	3	1	2	7	< 1	23	10
Total catch	427	180	97	89	5	614	202

Fishing log: F/V Morning Star, Cruise 200201

Haul number	31	32	33	34	35	36	37
Start date & time	05/30/02 21	05/31/02 19	05/31/02 20	06/01/02 08	06/01/02 11	06/01/02 14	06/01/02 15
Start latitude	N 5258.59	N 5220.43	N 5220.83	N 5305.26	N 5307.64	N 5306.88	N 5306.35
Start longitude	W 17001.76	W 17244.73	W 17244.63	W 17006.90	W 16957.86	W 16954.86	W 16951.46
End latitude	N 5258.67	N 5221.44	N 5220.34	N 5304.88	N 5307.32	N 5306.92	N 5306.89
End longitude	W 17001.43	W 17244.62	W 17244.65	W 17008.02	W 16958.93	W 16956.16	W 16952.36
Bottom depth (m)	120	448	368	178	394	221	274
Duration (minutes)	6	17.4	15.6	15.6	15.6	15.6	15.6
Distance fished (km)	0.406	1.91	0.927	1.462	1.353	1.461	1.447
Performance	-3	-5	-5	0	-2.4	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	6	5	< 1	27	3	6	< 1
Pacific cod	25	0	0	330	0	130	1
Walleye pollock	0	23	26	0	4	< 1	0
Pacific ocean perch	0	< 1	0	0	4	5	5
Northern rockfish	0	0	0	1	0	1	0
Shortraker rockfish	0	2	0	0	6	0	0
Rougheye rockfish	0	12	0	0	13	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	28	0	0	0	0	0
Arrowtooth flounder	< 1	0	0	0	7	107	45
Pacific halibut	3	0	0	12	0	39	56
Northern rock sole	2	0	0	0	0	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	17	0	0	4	0	8
Greenland turbot	0	40	0	0	0	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	0	0	0	0	1
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	8	136	0	0	9	9	8
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	< 1	0	0	0	0	0	0
Other sculpins	< 1	< 1	0	3	18	1	1
Eelpout unident.	0	< 1	0	0	0	0	0
Other fish	0	< 1	0	4	< 1	< 1	< 1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	2	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	0
Magistrate armhook squid	0	22	1	0	9	0	< 1
Sponge	2	< 1	0	27	27	8	< 1
Starfish	< 1	< 1	< 1	< 1	< 1	0	0
Soft coral	0	< 1	0	0	0	0	0
Stony coral unident.	< 1	< 1	< 1	< 1	< 1	0	< 1
Octopus	0	1	0	0	0	0	0
Snail	0	0	0	0	< 1	0	0
Other invertebrate	5	5	3	3	2	< 1	< 1
Total catch	54	296	32	410	107	307	129

Fishing log: F/V Morning Star, Cruise 200201

Haul number	38	39	40	41	42	43	44
Start date & time	06/01/02 17	06/01/02 19	06/02/02 08	06/02/02 10	06/02/02 15	06/02/02 19	06/02/02 21
Start latitude	N 5306.71	N 5311.79	N 5313.24	N 5312.29	N 5305.91	N 5256.15	N 5253.84
Start longitude	W 16950.99	W 16950.92	W 16944.37	W 16950.65	W 16934.79	W 16926.35	W 16930.31
End latitude	N 5307.08	N 5311.95	N 5313.73	N 5312.46	N 5306.27	N 5256.010	N 5254.23
End longitude	W 16952.12	W 16950.84	W 16944.71	W 16950.63	W 16935.66	W 16925.04	W 16930.48
Bottom depth (m)	321	395	328	398	221	429	240
Duration (minutes)	15.6	4.2	10.8	6	13.8	16.2	12
Distance fished (km)	1.445	0.311	1.003	0.331	1.211	1.479	0.822
Performance	0	-1.12	0	-1.12	2.1	0	-2.4
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	0	0	16	0	0
Pacific cod	0	0	0	0	83	5	129
Walleye pollock	0	0	61	3	2	2	8
Pacific ocean perch	3	0	12	< 1	498	9	53
Northern rockfish	0	0	0	0	3	0	0
Shortraker rockfish	0	209	0	31	0	0	0
Rougheye rockfish	0	11	8	11	12	7	3
Shortspine thornyhead	0	4	43	1	0	0	0
Light dusky rockfish	0	0	0	0	4	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	6	0
Arrowtooth flounder	9	6	25	5	4	25	4
Pacific halibut	0	0	13	0	20	0	45
Northern rock sole	0	0	0	0	0	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	1	0	5	< 1	0	99	1
Greenland turbot	0	0	0	0	0	24	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	< 1	0	0	0	15	2
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	< 1	0	0	0	0	46	8
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	0	0
Other sculpins	< 1	3	12	9	8	15	2
Eelpout unident.	0	0	0	0	0	0	0
Other fish	< 1	< 1	0	< 1	< 1	< 1	< 1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	2	< 1	< 1	3
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	< 1	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	< 1
Magistrate arnithook squid	0	0	4	1	37	11	2
Sponge	0	10	< 1	14	213	6	136
Starfish	0	0	< 1	0	< 1	< 1	< 1
Soft coral	0	3	< 1	< 1	< 1	< 1	< 1
Stony coral unident.	0	< 1	< 1	< 1	7	< 1	2
Octopus	0	0	0	0	0	0	< 1
Snail	0	0	0	0	0	0	0
Other invertebrate	< 1	2	< 1	< 1	9	5	6
Total catch	14	248	184	79	918	276	404

Fishing log: F/V Morning Star, Cruise 200201

Haul number	45	46	47	48	49	50	51
Start date & time	06/03/02 08	06/03/02 09	06/03/02 11	06/03/02 13	06/03/02 16	06/03/02 19	06/04/02 07
Start latitude	N 5229.05	N 5232.60	N 5236.35	N 5238.80	N 5244.81	N 5249.70	N 5257.49
Start longitude	W 17009.02	W 17005.37	W 17006.20	W 17012.50	W 17038.27	W 17033.86	W 17024.03
End latitude	N 5229.82	N 5232.95	N 5236.56	N 5238.92	N 5244.87	N 5250.19	N 5258.17
End longitude	W 17009.01	W 17006.51	W 17004.96	W 17013.76	W 17037.01	W 17032.87	W 17023.43
Bottom depth (m)	190	237	277	233	159	338	226
Duration (minutes)	15	15.6	16.2	15	15	15.6	15.6
Distance fished (km)	1.45	1.451	1.506	1.452	1.437	1.461	1.457
Performance	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	< 1	0	0	0	< 1	0	0
Pacific cod	4	0	0	8	1,450	0	33
Walleye pollock	1	0	3	4	< 1	2	0
Pacific ocean perch	1	< 1	1	77	0	9	139
Northern rockfish	0	< 1	0	0	0	< 1	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	9	< 1
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	5	2	0	0	4	0
Arrowtooth flounder	16	601	48	28	0	143	140
Pacific halibut	8	0	55	0	98	0	19
Northern rock sole	0	1	0	< 1	2	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	0	0	0	32	0
Greenland turbot	0	0	0	0	0	3	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	3	< 1	0	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	0	2	6	41	13	11
Shark unident.	0	0	0	25	0	0	0
Yellow Irish lord	0	0	0	0	3	0	0
Other sculpins	< 1	< 1	< 1	9	< 1	2	19
Eelpout unident.	0	0	0	0	0	0	0
Other fish	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	0	3
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	0
Magistrate armhook squid	0	< 1	< 1	< 1	0	< 1	< 1
Sponge	3	0	0	39	32	< 1	26
Starfish	< 1	< 1	0	< 1	0	< 1	1
Soft coral	0	0	0	< 1	0	0	0
Stony coral unident.	< 1	0	0	< 1	< 1	< 1	< 1
Octopus	0	0	0	0	0	0	2
Snail	0	< 1	0	< 1	0	0	0
Other invertebrate	6	3	1	4	3	2	8
Total catch	41	616	116	202	1,630	221	403

Fishing log: F/V Morning Star, Cruise 200201

Haul number	52	53
Start date & time	06/04/02 11	06/04/02 13
Start latitude	N 5312.40	N 5312.26
Start longitude	W 16950.71	W 16950.77
End latitude	N 5312.61	N 5311.91
End longitude	W 16950.55	W 16950.82
Bottom depth (m)	406	417
Duration (minutes)	9	8.4
Distance fished (km)	0.522	0.68
Performance	-1.2	-1.2
Gear	172	172
Atka mackerel	0	0
Pacific cod	0	0
Walleye pollock	2	2
Pacific ocean perch	11	10
Northern rockfish	0	0
Shortraker rockfish	34	83
Rougheye rockfish	6	16
Shortspine thornyhead	1	19
Light dusky rockfish	0	0
Other rockfish	0	0
Sablefish	0	0
Arrowtooth flounder	5	5
Pacific halibut	0	0
Northern rock sole	0	0
Southern rock sole	0	0
Kamchatka flounder	0	0
Greenland turbot	0	0
Flathead sole	0	0
Rex sole	0	0
Dover sole	0	0
Yellowfin sole	0	0
English sole	0	0
Other flatfish	0	0
Skate unident.	0	0
Shark unident.	0	0
Yellow Irish lord	0	0
Other sculpins	5	9
Eelpout unident.	0	0
Other fish	2	1
Bairdi tanner crab	0	0
Golden king crab	0	3
Red king crab	0	0
Northern shrimp	0	0
Sidestripe shrimp	0	0
Scallop unident.	0	0
Magistrate armhook squid	< 1	< 1
Sponge	18	49
Starfish	< 1	< 1
Soft coral	0	< 1
Stony coral unident.	< 1	< 1
Octopus	0	0
Snail	0	0
Other invertebrate	2	7
Total catch	86	204

Section 3**Fishing Log for the F/V *Vesteraalen***

Summary listings of estimated catches by haul and species or species group

- Date format: Month/day/year and hour (24 h clock)
- Haul start and end latitude and longitude in degrees, minutes and decimal minutes
- Bottom depth in meters
- Duration of tow in minutes
- Distance fished in kilometers
- Performance codes found in Table 2
- Catch weight in kilograms

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Fishing log: F/V Vesterålen, Cruise 200201

Haul number	1	2	3	4	5	6	7
Start date & time	05/17/02 08	05/17/02 10	05/17/02 12	05/17/02 16	05/17/02 16	05/17/02 18	05/18/02 08
Start latitude	N 5347.03	N 5347.42	N 5348.93	N 5346.13	N 5346.12	N 5344.23	N 5343.39
Start longitude	W 16715.79	W 16715.49	W 16708.09	W 16704.36	W 16704.36	W 16700.94	W 16653.40
End latitude	N 5346.99	N 5346.91	N 5348.17	N 5345.86	N 5345.36	N 5344.56	N 5343.67
End longitude	W 16715.85	W 16716.49	W 16707.26	W 16704.10	W 16703.66	W 16659.66	W 16654.74
Bottom depth (m)	162	164	41	62	65	187	192
Duration (minutes)	1.2	16.2	19.8	7.2	18.6	16.8	18
Distance fished (km)	0.089	1.488	1.742	0.599	1.676	1.561	1.627
Performance	-6.21	0	0	-5.23	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	8	0	1	0	0
Pacific cod	0	19	420	0	32	23	36
Walleye pollock	22	252	0	0	< 1	20	62
Pacific ocean perch	0	1	< 1	0	0	0	0
Northern rockfish	0	0	0	0	0	< 1	2
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	8	7
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	5
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	2	3
Arrowtooth flounder	< 1	38	48	0	54	18	154
Pacific halibut	0	4	24	0	1	< 1	31
Northern rock sole	0	0	17	0	12	0	2
Southern rock sole	0	0	189	0	197	0	3
Kamchatka flounder	0	0	0	0	0	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	< 1	1	12	0	35	154	166
Rex sole	0	9	< 1	0	< 1	13	22
Dover sole	0	< 1	0	0	0	< 1	< 1
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	5	0	0	0	< 1
Skate unident.	0	0	29	0	10	16	7
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	4	0	2	0	3
Other sculpins	0	0	< 1	0	< 1	< 1	< 1
Eelpout unident.	0	0	0	0	0	< 1	< 1
Other fish	< 1	0	< 1	0	< 1	11	6
Bairdi tanner crab	0	< 1	0	0	< 1	< 1	< 1
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	< 1	0	0	0	1	0
Sidestripe shrimp	0	0	0	0	0	< 1	0
Scallop unident.	0	0	0	0	< 1	0	0
Magistrate armhook squid	< 1	7	0	0	0	0	0
Sponge	< 1	1	< 1	0	< 1	0	0
Starfish	0	0	0	0	0	< 1	< 1
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	0	0	0	0	0	0	0
Octopus	0	0	0	0	0	0	0
Snail	0	< 1	0	0	0	0	0
Other invertebrate	< 1	1	< 1	0	1	2	2
Total catch	24	334	758	0	347	269	513

Fishing log: F/V *Vesteraalen*, Cruise 200201

Haul number	8	9	10	11	12	13	14
Start date & time	05/18/02 11	05/18/02 14	05/19/02 07	05/19/02 08	05/19/02 10	05/19/02 13	05/19/02 18
Start latitude	N 5341.86	N 5346.01	N 5422.12	N 5422.40	N 5421.39	N 5424.71	N 5425.54
Start longitude	W 16645.94	W 16657.83	W 16536.77	W 16535.05	W 16534.79	W 16530.82	W 16532.66
End latitude	N 5341.92	N 5345.51	N 5422.36	N 5422.45	N 5421.23	N 5424.71	N 5425.69
End longitude	W 16647.14	W 16656.65	W 16536.46	W 16536.42	W 16535.92	W 16529.32	W 16533.52
Bottom depth (m)	89	22	86	85	82	91	92
Duration (minutes)	16.8	18.6	6.6	17.4	16.2	19.8	12
Distance fished (km)	1.371	1.626	0.57	1.51	1.28	1.65	0.995
Performance	0	0	-1.2	-2.4	0	0	-2.4
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	4	4	2	58	3,720
Pacific cod	34	6	15	22	18	168	811
Walleye pollock	238	< 1	542	1,531	2,330	8,650	830
Pacific ocean perch	0	0	0	5	1	< 1	335
Northern rockfish	< 1	0	0	21	0	0	296
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	1	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	< 1	0	0	0	0	0	0
Arrowtooth flounder	7	0	< 1	< 1	9	32	0
Pacific halibut	< 1	151	12	6	36	196	0
Northern rock sole	< 1	59	13	1	7	72	2
Southern rock sole	< 1	4	< 1	0	7	8	0
Kamchatka flounder	0	0	0	0	0	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	327	23	< 1	0	0	8	0
Rex sole	0	0	0	0	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	4	11	0	0	0	0	0
English sole	0	< 1	0	0	0	0	0
Other flatfish	52	137	0	0	0	0	0
Skate unident.	0	0	0	0	0	0	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	2	1	13	6	52	34	81
Other sculpins	2	0	0	< 1	8	< 1	0
Eelpout unident.	1	0	0	0	0	0	0
Other fish	< 1	0	< 1	15	1	0	0
Bairdi tanner crab	20	< 1	0	0	0	0	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	< 1	1	0
Magistrate armhook squid	0	0	0	0	0	0	0
Sponge	0	0	32	242	16	9	52
Starfish	0	0	< 1	< 1	1	< 1	0
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	0	0	0	0	0	0	0
Octopus	0	0	0	0	0	15	0
Snail	0	0	< 1	< 1	2	< 1	< 1
Other invertebrate	12	< 1	< 1	3	14	2	< 1
Total catch	702	395	633	1,859	2,505	9,256	6,128

Fishing log: F/V Vesterlaen, Cruise 200201

Haul number	15	16	17	18	19	20	21
Start date & time	05/20/02 07	05/20/02 08	05/20/02 10	05/20/02 12	05/20/02 15	05/22/02 07	05/22/02 09
Start latitude	N 5412.09	N 5412.33	N 5414.28	N 5421.41	N 5424.62	N 5423.75	N 5420.69
Start longitude	W 16544.60	W 16544.80	W 16547.01	W 16541.59	W 16535.40	W 16545.43	W 16551.31
End latitude	N 5412.49	N 5412.99	N 5413.49	N 5421.12	N 5425.07	N 5423.32	N 5420.19
End longitude	W 16544.98	W 16545.36	W 16546.91	W 16542.37	W 16534.92	W 16546.57	W 16552.25
Bottom depth (m)	93	93	83	96	93	242	159
Duration (minutes)	8.4	17.4	16.8	12	11.4	18	16.2
Distance fished (km)	0.874	1.425	1.474	1.026	1.023	1.514	1.43
Performance	-2.1	0	0	4.4	4.4	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	0	3	10,064	0	0
Pacific cod	2	19	33	37	138	32	3
Walleye pollock	5	45	228	4,758	6,346	364	520
Pacific ocean perch	0	0	0	< 1	< 1	28	6
Northern rockfish	0	< 1	0	0	0	0	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	< 1	0	1	0	0	1
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	< 1
Arrowtooth flounder	5	30	13	24	< 1	47	11
Pacific halibut	0	17	6	14	3	4	0
Northern rock sole	< 1	< 1	2	16	10	4	0
Southern rock sole	0	2	12	2	0	0	0
Kamchatka flounder	0	0	0	0	0	2	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	2	17	7	20	0	< 1	< 1
Rex sole	2	18	4	< 1	0	94	12
Dover sole	0	0	< 1	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	0	0	26	0	1	0
Shark unident.	0	26	0	0	0	0	9
Yellow Irish lord	< 1	< 1	< 1	10	12	3	2
Other sculpins	0	1	2	0	0	16	2
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	< 1	< 1	0	0	3	< 1
Bairdi tanner crab	3	5	0	0	0	0	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	< 1	< 1
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	< 1	0	0
Magistrate armhook squid	0	0	0	1	0	2	16
Sponge	< 1	< 1	< 1	< 1	0	0	0
Starfish	< 1	< 1	0	0	0	< 1	0
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	0	0	0	0	0	0	0
Octopus	0	0	0	0	0	0	0
Snail	< 1	< 1	< 1	< 1	< 1	0	0
Other invertebrate	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total catch	21	183	308	4,914	16,574	599	586

Fishing log: F/V *Vesteraalen*, Cruise 200201

Haul number	22	23	24	25	26	27	28
Start date & time	05/22/02 11	05/22/02 12	05/23/02 07	05/23/02 10	05/23/02 13	05/23/02 14	05/23/02 15
Start latitude	N 5414.46	N 5414.53	N 5357.65	N 5404.25	N 5405.50	N 5413.07	N 5413.81
Start longitude	W 16556.16	W 16556.09	W 16630.64	W 16621.76	W 16615.73	W 16602.62	W 16600.21
End latitude	N 5414.36	N 5414.37	N 5358.30	N 5404.26	N 5405.73	N 5412.59	N 5413.48
End longitude	W 16554.96	W 16554.81	W 16630.05	W 16620.44	W 16614.45	W 16603.60	W 16601.37
Bottom depth (m)	57	62	136	85	86	82	71
Duration (minutes)	16.8	15.6	16.8	16.8	16.2	15.6	15.6
Distance fished (km)	1.386	1.454	1.366	1.467	1.524	1.442	1.438
Performance	-3.13	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	< 1	< 1	0	< 1	3	1	0
Pacific cod	45	27	68	223	9	3	57
Walleye pollock	369	3,769	381	2,439	4	2	0
Pacific ocean perch	0	0	3	< 1	0	0	0
Northern rockfish	< 1	0	0	0	0	0	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	6	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	2	0	0	0	0	0	2
Other rockfish	0	1	0	0	0	0	0
Sablefish	0	0	< 1	0	0	0	0
Arrowtooth flounder	23	49	181	46	36	14	17
Pacific halibut	42	27	3	78	50	17	64
Northern rock sole	9	6	0	8	3	3	25
Southern rock sole	140	172	< 1	38	< 1	30	36
Kamchatka flounder	< 1	0	8	0	0	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	< 1	< 1	35	13	0	0	0
Rex sole	0	0	56	< 1	0	0	0
Dover sole	0	0	2	0	0	0	0
Yellowfin sole	0	< 1	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	0	0	0	0	0	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	2	0	0	8	24	2	6
Other sculpins	< 1	< 1	0	0	0	4	3
Eelpout unident.	0	0	0	0	0	0	0
Other fish	3	< 1	1	0	0	< 1	1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	< 1	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	< 1	< 1	< 1	0
Magistrate armhook squid	3	0	< 1	0	0	0	0
Sponge	4	0	0	< 1	< 1	< 1	1
Starfish	0	0	0	< 1	2	< 1	< 1
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	0	0	0	0	0	0	0
Octopus	0	0	0	0	0	0	0
Snail	< 1	0	< 1	< 1	< 1	0	< 1
Other invertebrate	13	< 1	< 1	< 1	13	1	4
Total catch	657	4,055	746	2,855	146	78	217

Fishing log: F/V *Vesteraalen*, Cruise 200201

Haul number	29	30	31	32	33	34	35
Start date & time	05/23/02 17	05/28/02 10	05/28/02 12	05/30/02 07	05/30/02 10	05/30/02 12	06/01/02 07
Start latitude	N 5410.53	N 5409.24	N 5410.49	N 5405.47	N 5406.72	N 5406.44	N 5341.34
Start longitude	W 16612.61	W 16620.21	W 16620.23	W 16620.56	W 16619.78	W 16616.38	W 16716.55
End latitude	N 5410.16	N 5409.66	N 5410.95	N 5405.65	N 5407.12	N 5407.08	N 5342.20
End longitude	W 16613.86	W 16619.14	W 16618.92	W 16621.92	W 16618.53	W 16615.28	W 16716.87
Bottom depth (m)	122	153	273	90	95	90	116
Duration (minutes)	16.2	15.6	19.2	17.4	16.8	18	17.4
Distance fished (km)	1.547	1.44	1.714	1.558	1.564	1.72	1.666
Performance	0	0	0	0	0	0	-5.6
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	0	3	< 1	< 1	0
Pacific cod	9	4	3	34	68	7	0
Walleye pollock	836	325	137	1,725	1,551	1,082	2
Pacific ocean perch	< 1	22	416	0	< 1	0	0
Northern rockfish	0	0	< 1	0	< 1	0	0
Shortraker rockfish	0	0	2	0	0	0	0
Rougheye rockfish	0	0	3	0	0	0	0
Shortspine thornyhead	0	0	21	0	0	0	0
Light dusky rockfish	0	0	2	0	3	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	38	202	28	38	51	48	4
Pacific halibut	32	0	15	29	38	23	0
Northern rock sole	32	22	2	22	13	< 1	0
Southern rock sole	1	0	0	15	12	< 1	0
Kamchatka flounder	< 1	0	3	0	0	0	0
Greenland turbot	0	0	64	0	0	0	0
Flathead sole	4	11	0	8	3	0	9
Rex sole	2	34	25	< 1	0	0	2
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	2	0	0	12	0	0	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	20	6	0	8	12	3	0
Other sculpins	< 1	< 1	< 1	< 1	< 1	0	0
Eelpout unident.	0	0	< 1	0	0	0	0
Other fish	< 1	< 1	< 1	< 1	0	0	0
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	< 1	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	< 1	0	0	< 1	< 1	< 1	0
Magistrate armhook squid	29	2	18	0	0	0	< 1
Sponge	< 1	0	< 1	4	< 1	< 1	0
Starfish	< 1	0	0	0	0	0	0
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	0	0	0	0	0	0	0
Octopus	0	< 1	0	0	0	0	0
Snail	< 1	< 1	0	< 1	2	< 1	0
Other invertebrate	< 1	< 1	0	< 1	17	2	< 1
Total catch	1,008	628	739	1,900	1,770	1,168	18

Fishing log: F/V *Vesteraalen*, Cruise 200201

Haul number	36	37	38	39	40	41	42
Start date & time	06/01/02 08	06/01/02 10	06/03/02 07	06/07/02 17	06/08/02 08	06/08/02 10	06/08/02 12
Start latitude	N 5342.06	N 5342.88	N 5402.33	N 5157.69	N 5154.20	N 5154.69	N 5150.75
Start longitude	W 16716.94	W 16714.21	W 16639.55	W 17339.43	W 17344.93	W 17345.87	W 17354.08
End latitude	N 5341.21	N 5343.12	N 5402.32	N 5157.60	N 5154.25	N 5154.65	N 5150.69
End longitude	W 16717.01	W 16715.51	W 16640.94	W 17338.41	W 17344.25	W 17347.12	W 17355.39
Bottom depth (m)	116	99	90	100	128	125	249
Duration (minutes)	18	16.8	16.8	15.6	11.4	16.2	16.2
Distance fished (km)	1.599	1.535	1.549	1.278	0.849	1.451	1.518
Performance	0	0	0	0	1.1	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	1	< 1	< 1	0	0
Pacific cod	28	< 1	18	0	12	0	25
Walleye pollock	50	11	1,246	0	< 1	2	24
Pacific ocean perch	0	0	0	0	35	1	1,120
Northern rockfish	0	0	1	0	33	4	7
Shortraker rockfish	0	0	0	0	0	0	14
Rougheye rockfish	0	0	0	0	0	0	7
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	3	0	1
Other rockfish	0	0	0	0	< 1	0	0
Sablefish	4	0	0	0	0	0	0
Arrowtooth flounder	13	22	125	0	0	< 1	4
Pacific halibut	9	0	12	0	0	12	0
Northern rock sole	0	14	21	6	2	12	< 1
Southern rock sole	0	130	28	2	0	0	0
Kamchatka flounder	0	0	0	0	0	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	7	20	71	0	0	0	0
Rex sole	22	6	7	0	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	2	0	0	0	0	0	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	6	< 1	1	1	0
Other sculpins	< 1	< 1	< 1	0	< 1	0	34
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	0	< 1	< 1	0	0	0
Bairdi tanner crab	0	< 1	0	0	0	0	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	< 1	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	< 1	< 1	< 1	< 1	< 1	< 1
Magistrate armhook squid	< 1	0	< 1	0	0	0	0
Sponge	0	3	2	14	74	4	4
Starfish	0	0	< 1	< 1	< 1	< 1	< 1
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	0	0	0	0	2	2	4
Octopus	0	0	0	0	0	0	0
Snail	0	0	2	< 1	1	0	< 1
Other invertebrate	2	2	3	3	22	< 1	2
Total catch	137	209	1,546	27	187	40	1,248

Fishing log: F/V Vesterålen, Cruise 200201

Haul number	43	44	45	46	47	48	49
Start date & time	06/08/02 15	06/08/02 17	06/08/02 18	06/09/02 09	06/09/02 11	06/09/02 12	06/09/02 14
Start latitude	N 5150.49	N 5152.92	N 5151.97	N 5159.97	N 5200.38	N 5158.77	N 5203.05
Start longitude	W 17353.39	W 17355.59	W 17404.87	W 17357.01	W 17404.46	W 17404.91	W 17408.81
End latitude	N 5150.39	N 5152.85	N 5151.100	N 5159.50	N 5200.48	N 5159.35	N 5202.69
End longitude	W 17354.64	W 17356.87	W 17403.72	W 17357.90	W 17405.72	W 17405.78	W 17407.69
Bottom depth (m)	314	148	149	93	91	93	86
Duration (minutes)	16.8	16.2	15.6	15.6	16.8	16.2	16.2
Distance fished (km)	1.462	1.481	1.336	1.373	1.466	1.508	1.482
Performance	-2.4	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	0	32	17	1	0
Pacific cod	0	0	3	32	1	0	<1
Walleye pollock	15	0	<1	<1	0	2	<1
Pacific ocean perch	57	0	<1	0	0	0	0
Northern rockfish	0	<1	<1	42	<1	0	0
Shortraker rockfish	60	0	0	0	0	0	0
Rougheye rockfish	136	0	0	0	0	0	0
Shortspine thornyhead	4	0	0	0	0	0	0
Light dusky rockfish	0	0	0	2	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	10	0	0	0	0	0	0
Arrowtooth flounder	<1	3	2	0	<1	<1	2
Pacific halibut	0	17	0	9	19	19	6
Northern rock sole	0	8	2	8	4	6	21
Southern rock sole	0	0	0	4	4	1	1
Kamchatka flounder	0	0	0	0	0	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	0	0	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	33	0	0	0	0	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	2	0	10	1	1	1
Other sculpins	26	<1	2	<1	0	0	0
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	<1	<1	9	0	0	0
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	2	0	0	0	0	0
Magistrate armhook squid	4	0	0	0	0	0	0
Sponge	35	4	25	40	<1	<1	1
Starfish	<1	1	<1	1	<1	<1	<1
Soft coral	0	0	0	0	<1	0	0
Stony coral unident.	0	0	<1	<1	<1	0	0
Octopus	0	9	0	0	0	0	0
Snail	<1	<1	<1	<1	0	0	0
Other invertebrate	<1	10	16	9	<1	<1	<1
Total catch	348	91	52	200	50	32	33

Fishing log: F/V Vesterålen, Cruise 200201

Haul number	50	51	52	53	54	55	56
Start date & time	06/09/02 15	06/09/02 18	06/10/02 08	06/10/02 14	06/10/02 16	06/10/02 19	06/11/02 08
Start latitude	N 5202.55	N 5157.91	N 5150.50	N 5151.47	N 5150.63	N 5152.08	N 5148.100
Start longitude	W 17412.37	W 17418.20	W 17353.71	W 17409.40	W 17435.34	W 17456.21	W 17455.93
End latitude	N 5202.04	N 5157.88	N 5150.41	N 5151.39	N 5150.63	N 5151.94	N 5148.97
End longitude	W 17411.37	W 17417.02	W 17354.98	W 17410.66	W 17434.08	W 17454.97	W 17457.14
Bottom depth (m)	93	106	314	152	187	158	256
Duration (minutes)	16.2	15.6	16.2	16.2	15.6	15.6	15.6
Distance fished (km)	1.522	1.371	1.49	1.483	1.466	1.461	1.397
Performance	0	0	-2.4	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	44	813	0	0	0	0	0
Pacific cod	0	2	4	12	0	0	12
Walleye pollock	< 1	0	5	0	0	0	2
Pacific ocean perch	0	0	9	0	0	0	156
Northern rockfish	0	< 1	0	0	0	0	0
Shortraker rockfish	0	0	31	0	0	0	0
Rougheye rockfish	0	0	62	0	0	0	0
Shortspine thornyhead	0	0	3	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	< 1	0	0	0	0
Sablefish	0	0	7	0	0	0	2
Arrowtooth flounder	2	2	2	226	120	6	44
Pacific halibut	1	3	231	4	6	42	0
Northern rock sole	16	23	0	28	7	5	43
Southern rock sole	1	0	0	0	0	0	0
Kamchatka flounder	0	< 1	0	0	0	0	< 1
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	< 1	0	0	0	0	0	0
Rex sole	< 1	< 1	0	0	< 1	0	20
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	0	0	0	0	0	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	5	0	4	0	2	0
Other sculpins	0	< 1	12	0	0	0	< 1
Eelpout unident.	0	0	0	0	0	0	0
Other fish	< 1	< 1	< 1	< 1	< 1	0	< 1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	< 1
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	< 1	0	9	3	< 1	0
Magistrate armhook squid	0	0	2	0	0	0	0
Sponge	0	8	11	3	< 1	0	0
Starfish	0	0	< 1	1	< 1	< 1	0
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	0	< 1	< 1	< 1	0	0	0
Octopus	0	0	0	4	0	0	0
Snail	0	< 1	0	< 1	< 1	0	0
Other invertebrate	< 1	< 1	< 1	3	1	< 1	0
Total catch	67	857	380	295	139	55	281

Fishing log: F/V Vesterålen, Cruise 200201

Haul number	57	58	59	60	61	62	63
Start date & time	06/11/02 10	06/11/02 13	06/11/02 15	06/11/02 17	06/11/02 19	06/12/02 08	06/12/02 11
Start latitude	N 5151.04	N 5148.99	N 5147.17	N 5145.64	N 5153.12	N 5157.37	N 5207.89
Start longitude	W 17504.51	W 17517.49	W 17520.16	W 17527.31	W 17511.05	W 17517.21	W 17543.71
End latitude	N 5151.01	N 5149.05	N 5147.28	N 5145.82	N 5153.06	N 5157.31	N 5207.80
End longitude	W 17505.75	W 17516.18	W 17518.95	W 17526.05	W 17512.25	W 17516.03	W 17542.44
Bottom depth (m)	177	214	262	278	153	90	113
Duration (minutes)	16.2	15.6	15.6	16.2	16.2	16.2	16.2
Distance fished (km)	1.441	1.515	1.422	1.5	1.389	1.369	1.477
Performance	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	0	0	0	13	3
Pacific cod	0	0	0	0	7	8	0
Walleye pollock	< 1	0	0	< 1	< 1	< 1	0
Pacific ocean perch	< 1	0	487	32	0	0	0
Northern rockfish	0	0	< 1	0	0	0	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	2	0	0	0	0
Arrowtooth flounder	6	82	136	44	7	1	2
Pacific halibut	21	3	0	0	16	0	44
Northern rock sole	27	43	18	16	5	14	21
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	< 1	< 1	3	< 1	0	< 1
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	27	11	0	0	< 1
Rex sole	< 1	4	61	63	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	20	0	31	14	0	2	14
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	4	< 1	0
Other sculpins	0	0	< 1	< 1	< 1	0	0
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	0	5	3	< 1	< 1	< 1
Bairdi tanner crab	0	0	0	0	< 1	0	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	< 1	< 1	< 1	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	< 1	0	0	0	< 1	0	2
Magistrate armhook squid	0	0	0	1	0	0	0
Sponge	0	< 1	0	< 1	< 1	< 1	< 1
Starfish	0	0	0	0	0	0	< 1
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	0	0	0	0	0	0	0
Octopus	0	0	0	0	0	0	0
Snail	0	< 1	0	0	< 1	0	< 1
Other invertebrate	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Total catch	76	133	769	188	42	41	88

Fishing log: F/V Vesterålen, Cruise 200201

Haul number	64	65	66	67	68	69	70
Start date & time	06/12/02 14	06/12/02 18	06/13/02 08	06/13/02 11	06/13/02 16	06/14/02 08	06/14/02 10
Start latitude	N 5209.34	N 5207.86	N 5203.98	N 5209.09	N 5205.41	N 5135.14	N 5133.94
Start longitude	W 17525.07	W 17508.69	W 17518.14	W 17537.55	W 17554.09	W 17803.46	W 17806.26
End latitude	N 5209.18	N 5208.20	N 5204.23	N 5209.82	N 5206.11	N 5135.07	N 5134.02
End longitude	W 17523.85	W 17507.52	W 17516.94	W 17537.79	W 17553.57	W 17802.23	W 17805.13
Bottom depth (m)	148	108	93	208	89	124	178
Duration (minutes)	16.2	16.2	16.2	15.6	15.6	15.6	14.4
Distance fished (km)	1.447	1.499	1.464	1.474	1.476	1.434	1.312
Performance	0	0	0	4.4	0	0	6.1
Gear	172	172	172	172	172	172	172
Atka mackerel	0	6	0	0	< 1	2	< 1
Pacific cod	73	23	< 1	49	121	58	76
Walleye pollock	0	0	0	114	< 1	0	0
Pacific ocean perch	0	0	0	8,131	0	0	0
Northern rockfish	0	0	0	3	0	0	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	1	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	177	34	12	199	0	43	119
Pacific halibut	60	40	5	66	34	18	14
Northern rock sole	33	28	10	0	1	41	18
Southern rock sole	0	3	8	0	0	0	0
Kamchatka flounder	16	1	0	9	0	< 1	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	0	0	0	2	0
Rex sole	0	0	< 1	22	0	0	0
Dover sole	0	0	0	< 1	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	20	0	0	0	22	31	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	12	3	< 1	0	5	1	7
Other sculpins	0	< 1	0	0	< 1	< 1	< 1
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	< 1	< 1	< 1	< 1	0	< 1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	< 1	0	0	0	< 1	< 1	< 1
Magistrate armhook squid	0	0	0	0	0	0	0
Sponge	< 1	< 1	0	0	< 1	< 1	24
Starfish	< 1	0	0	< 1	1	< 1	0
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	0	0	0	0	0	0	0
Octopus	0	14	0	0	0	0	< 1
Snail	< 1	< 1	< 1	0	2	< 1	0
Other invertebrate	1	< 1	< 1	< 1	3	< 1	1
Total catch	394	153	35	8,596	191	198	264

Fishing log: F/V *Vesteraalen*, Cruise 200201

Haul number	71	72	73	74	75	76	77
Start date & time	06/14/02 12	06/14/02 18	06/15/02 09	06/15/02 15	06/15/02 19	06/16/02 08	06/16/02 10
Start latitude	N 5136.66	N 5133.44	N 5115.15	N 5114.80	N 5126.05	N 5155.79	N 5202.07
Start longitude	W 17810.15	W 17822.24	E 17915.41	E 17909.45	E 17848.81	E 17640.30	E 17627.97
End latitude	N 5136.98	N 5134.22	N 5115.12	N 5114.92	N 5125.74	N 5155.73	N 5201.70
End longitude	W 17811.15	W 17822.36	E 17914.18	E 17910.22	E 17849.87	E 17639.03	E 17629.04
Bottom depth (m)	126	144	173	195	219	162	162
Duration (minutes)	17.4	15.6	16.2	12.6	15.6	15.6	15.6
Distance fished (km)	1.338	1.477	1.445	0.935	1.399	1.479	1.429
Performance	6.1	0	0	5.1	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	1,599	6,099	11,528	2,766	< 1	2	< 1
Pacific cod	135	144	439	59	4	0	8
Walleye pollock	0	6	332	96	37	< 1	< 1
Pacific ocean perch	0	0	191	27	87	< 1	0
Northern rockfish	0	0	73	31	< 1	< 1	10
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	2	0	6	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	28	0	0	0	0
Other rockfish	0	0	< 1	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	2	0	0	0	0	0	0
Pacific halibut	12	7	0	0	0	0	0
Northern rock sole	10	2	59	3	< 1	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	7	0	0	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	0	0	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	12	0	80	0	0	0	6
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	8	21	0	0	0	< 1	0
Other sculpins	0	0	< 1	< 1	< 1	2	2
Eelpout unident.	0	0	0	0	0	0	0
Other fish	< 1	0	0	0	0	< 1	< 1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	< 1	< 1	0	0	0	0	< 1
Magistrate armhook squid	0	0	0	0	0	0	0
Sponge	26	1	0	< 1	< 1	15	42
Starfish	0	< 1	0	< 1	< 1	< 1	< 1
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	2	0	0	0	0	0	< 1
Octopus	0	0	0	0	0	0	< 1
Snail	0	0	0	0	0	< 1	0
Other invertebrate	< 1	< 1	0	0	2	3	5
Total catch	1,805	6,280	12,740	2,982	139	24	77

Fishing log: F/V *Vesteraalen*, Cruise 200201

Haul number	78	79	80	81	82	83	84
Start date & time	06/16/02 12	06/16/02 14	06/16/02 18	06/16/02 19	06/17/02 08	06/17/02 10	06/17/02 12
Start latitude	N 5204.89	N 5207.80	N 5212.13	N 5211.82	N 5228.95	N 5230.95	N 5236.09
Start longitude	E 17620.16	E 17616.96	E 17612.83	E 17613.46	E 17420.77	E 17423.75	E 17417.54
End latitude	N 5204.63	N 5207.53	N 5212.13	N 5212.13	N 5229.42	N 5231.35	N 5236.08
End longitude	E 17620.80	E 17617.86	E 17612.92	E 17612.92	E 17421.76	E 17424.81	E 17416.17
Bottom depth (m)	163	115	91	98	184	128	92
Duration (minutes)	10.2	15	3	9.6	16.2	15.6	17.4
Distance fished (km)	0.909	1.187	0.131	0.91	1.465	1.434	1.573
Performance	1.12	4.1	-1.2	1.12	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	3	69	470	0	0	91
Pacific cod	4	6	2	36	51	25	<1
Walleye pollock	0	0	0	0	1	0	0
Pacific ocean perch	<1	0	0	<1	0	0	0
Northern rockfish	8	641	0	32	0	0	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	0	0	0	0	69	6	<1
Pacific halibut	0	0	0	21	0	0	54
Northern rock sole	0	2	0	0	12	33	50
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	0	0	5	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	0	0	9	2	<1
Rex sole	0	0	0	0	<1	<1	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	12	0	0	0	0	0	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	<1	0	0	0	0	4
Other sculpins	0	<1	<1	<1	<1	0	3
Eelpout unident.	0	0	0	0	0	0	0
Other fish	<1	9	0	<1	<1	0	<1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	2	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	<1	<1	0	0	0	0	0
Magistrate armhook squid	0	0	0	0	0	0	0
Sponge	7	24	19	138	0	0	2
Starfish	<1	<1	0	2	<1	<1	<1
Soft coral	0	0	0	0	0	0	58
Stony coral unident.	<1	<1	<1	<1	0	0	<1
Octopus	0	0	0	<1	0	0	0
Snail	<1	0	0	0	<1	0	0
Other invertebrate	2	5	8	16	<1	<1	4
Total catch	34	692	99	718	150	67	269

Fishing log: F/V *Vesteraalen*, Cruise 200201

Haul number	85	86	87	88	89	90	91
Start date & time	06/17/02 14	06/17/02 15	06/17/02 18	06/17/02 19	06/18/02 09	06/18/02 13	06/18/02 17
Start latitude	N 5239.64	N 5239.76	N 5246.15	N 5246.50	N 5256.34	N 5254.50	N 5254.75
Start longitude	E 17400.47	E 17356.57	E 17403.02	E 17406.11	E 17059.41	E 17048.65	E 17049.52
End latitude	N 5239.46	N 5239.75	N 5246.23	N 5246.64	N 5256.08	N 5254.56	N 5254.74
End longitude	E 17401.73	E 17357.85	E 17401.73	E 17404.84	E 17058.60	E 17047.81	E 17048.65
Bottom depth (m)	81	78	78	87	184	223	187
Duration (minutes)	16.2	15.6	16.2	16.8	10.8	11.4	10.8
Distance fished (km)	1.481	1.458	1.482	1.494	1.034	0.962	0.999
Performance	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	< 1	1,577	5,398	6,990	2,631
Pacific cod	0	55	0	211	0	0	0
Walleye pollock	< 1	0	0	4	0	0	< 1
Pacific ocean perch	0	0	0	0	3,081	325	477
Northern rockfish	0	0	0	< 1	29	4	33
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	5	0
Shortspine thornyhead	0	0	0	0	0	41	2
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	< 1	< 1	< 1	< 1	0	2	< 1
Pacific halibut	9	82	94	9	0	0	0
Northern rock sole	63	39	72	56	0	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	0	0	0	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	5	< 1	0	< 1	0	0	0
Rex sole	0	0	0	0	0	0	0
Dover sole	0	0	0	0	< 1	4	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	16	7	13	42	86	32	156
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	< 1	0	0	0	0	0	0
Other sculpins	0	0	2	8	4	4	12
Eelpout unident.	0	0	0	0	0	2	2
Other fish	0	< 1	0	< 1	36	24	60
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	4	5
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	0
Magistrate armhook squid	0	0	0	0	< 1	< 1	0
Sponge	0	< 1	0	0	0	0	2
Starfish	0	0	0	< 1	< 1	0	0
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	0	0	0	0	0	0	0
Octopus	0	0	0	0	0	1	0
Snail	0	0	0	0	< 1	0	0
Other invertebrate	0	< 1	1	< 1	< 1	0	2
Total catch	94	183	184	1,910	8,635	7,439	3,384

Fishing log: F/V Vesteraalen, Cruise 200201

Haul number	92	93	94	95	96	97	98
Start date & time	06/19/02 08	06/19/02 13	06/19/02 15	06/19/02 18	06/20/02 08	06/20/02 11	06/20/02 12
Start latitude	N 5258.70	N 5302.13	N 5309.23	N 5318.61	N 5256.63	N 5259.77	N 5257.60
Start longitude	E 17056.84	E 17053.98	E 17052.09	E 17036.49	E 17210.19	E 17219.40	E 17216.61
End latitude	N 5258.99	N 5302.43	N 5309.60	N 5319.35	N 5257.36	N 5259.36	N 5256.93
End longitude	E 17056.14	E 17052.70	E 17050.92	E 17036.84	E 17209.35	E 17218.35	E 17216.31
Bottom depth (m)	128	314	131	331	402	175	209
Duration (minutes)	10.8	16.8	16.2	15.6	18	15.6	14.4
Distance fished (km)	0.982	1.609	1.506	1.492	1.696	1.438	1.379
Performance	0	0	0	0	6.1	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	22	1	10	0	0	< 1	0
Pacific cod	0	0	0	0	0	0	8
Walleye pollock	0	0	12	0	0	0	1
Pacific ocean perch	144	7	876	0	0	0	1,158
Northern rockfish	4,343	0	2,249	0	0	0	0
Shortraker rockfish	0	21	0	20	5	0	0
Rougheye rockfish	0	2	0	2	0	0	0
Shortspine thornyhead	0	27	0	24	45	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	< 1	0	0	0
Sablefish	0	0	0	0	3	0	0
Arrowtooth flounder	0	0	2	0	3	0	121
Pacific halibut	0	0	0	0	0	78	0
Northern rock sole	0	0	9	0	0	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	2	6	200	0	5
Greenland turbot	0	0	0	4	8	0	0
Flathead sole	0	0	8	0	0	0	0
Rex sole	0	0	5	0	4	0	0
Dover sole	0	1	1	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	53	17	80	< 1	< 1	2	< 1
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	0	0
Other sculpins	2	2	< 1	0	0	< 1	< 1
Eelpout unident.	0	2	0	0	0	0	0
Other fish	87	0	< 1	< 1	90	< 1	< 1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	5	0	0	1	< 1	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	< 1	< 1
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	0
Magistrate armhook squid	0	< 1	< 1	4	0	< 1	0
Sponge	4	91	0	108	12	160	89
Starfish	< 1	0	< 1	< 1	< 1	< 1	1
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	0	0	0	0	0	0	0
Octopus	0	2	0	0	0	16	0
Snail	< 1	0	0	0	0	< 1	0
Other invertebrate	< 1	1	< 1	< 1	1	44	15
Total catch	4,660	175	3,256	169	372	302	1,398

Fishing log: F/V Vesterålen, Cruise 200201

Haul number	99	100	101	102	103	104	105
Start date & time	06/20/02 15	06/20/02 17	06/21/02 08	06/21/02 10	06/21/02 12	06/21/02 13	06/21/02 16
Start latitude	N 5250.11	N 5250.19	N 5250.55	N 5248.24	N 5241.67	N 5240.19	N 5231.63
Start longitude	E 17217.84	E 17221.44	E 17224.70	E 17235.02	E 17243.13	E 17245.95	E 17256.37
End latitude	N 5250.12	N 5250.11	N 5250.66	N 5248.71	N 5242.16	N 5240.63	N 5232.39
End longitude	E 17216.60	E 17222.70	E 17223.89	E 17234.00	E 17242.12	E 17244.92	E 17256.17
Bottom depth (m)	362	314	222	143	176	183	213
Duration (minutes)	15.6	15	10.2	16.2	15.6	15.6	15.6
Distance fished (km)	1.403	1.439	0.957	1.478	1.504	1.459	1.465
Performance	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	0	0	0	< 1	0
Pacific cod	0	0	0	0	12	15	14
Walleye pollock	0	0	256	2	4	0	18
Pacific ocean perch	0	4	6	< 1	0	0	1,060
Northern rockfish	0	0	0	4	0	0	1
Shortraker rockfish	12	9	0	0	0	0	0
Rougheye rockfish	12	0	0	0	0	0	0
Shortspine thornyhead	98	64	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	8	29	76	45	86	271	298
Pacific halibut	0	0	0	4	0	5	7
Northern rock sole	0	0	0	30	< 1	2	< 1
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	5	7	13	3	1	2	12
Greenland turbot	5	0	0	0	0	0	0
Flathead sole	0	0	< 1	11	< 1	< 1	16
Rex sole	9	< 1	0	4	0	0	< 1
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	< 1	0	0	0	< 1	2
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	0	0
Other sculpins	0	2	< 1	0	< 1	< 1	< 1
Eelpout unident.	< 1	0	0	0	0	0	0
Other fish	< 1	0	< 1	< 1	< 1	0	0
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	3	0	0	8	1	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	< 1	< 1	< 1
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	0
Magistrate armhook squid	6	< 1	0	0	0	0	0
Sponge	0	9	< 1	< 1	3	< 1	< 1
Starfish	0	< 1	< 1	0	< 1	< 1	0
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	0	0	0	0	0	0	0
Octopus	0	0	0	0	0	0	0
Snail	0	0	0	< 1	0	0	0
Other invertebrate	0	1	0	< 1	< 1	< 1	< 1
Total catch	156	129	353	104	116	298	1,431

Fishing log: F/V Vesterålen, Cruise 200201

Haul number	106	107	108	109	110	111	112
Start date & time	06/21/02 20	06/22/02 14	06/22/02 16	06/22/02 19	06/23/02 11	06/23/02 13	06/23/02 15
Start latitude	N 5213.58	N 5142.96	N 5145.64	N 5149.67	N 5136.37	N 5138.63	N 5138.45
Start longitude	E 17327.55	E 17717.46	E 17720.16	E 17740.29	W 17851.54	W 17835.54	W 17831.17
End latitude	N 5213.90	N 5143.13	N 5145.94	N 5149.54	N 5136.65	N 5138.65	N 5138.53
End longitude	E 17326.38	E 17718.56	E 17721.28	E 17739.11	W 17850.45	W 17834.35	W 17829.93
Bottom depth (m)	175	454	157	134	267	123	194
Duration (minutes)	15.6	15.6	16.2	15.6	15.6	16.2	16.8
Distance fished (km)	1.482	1.33	1.433	1.384	1.387	1.396	1.527
Performance	0	6.1	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	2	101	< 1	495	4,016
Pacific cod	15	0	11	22	8	354	69
Walleye pollock	2	0	6	< 1	99	0	3
Pacific ocean perch	129	0	0	0	735	0	50
Northern rockfish	87	0	11	25	1	0	0
Shortraker rockfish	0	20	0	0	0	0	0
Rougheye rockfish	0	3	0	0	1	0	0
Shortspine thornyhead	0	4	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	2	0	0
Sablefish	0	4	0	0	3	0	0
Arrowtooth flounder	47	2	3	2	78	< 1	1
Pacific halibut	0	0	0	7	0	6	17
Northern rock sole	37	0	57	198	2	25	27
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	13	0	3	< 1	2	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	4	0	0	1	0	0	0
Rex sole	0	0	0	0	< 1	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	0	0	0	3	0	31
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	2	21	2	3	22
Other sculpins	0	0	< 1	< 1	9	< 1	0
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	9	< 1	< 1	0	< 1	7
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	< 1	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	< 1	0	< 1	< 1
Magistrate armhook squid	0	3	< 1	0	< 1	0	0
Sponge	< 1	0	< 1	11	29	< 1	< 1
Starfish	< 1	0	0	< 1	< 1	< 1	< 1
Soft coral	0	0	0	0	< 1	0	0
Stony coral unident.	0	0	0	0	2	< 1	< 1
Octopus	0	0	0	2	0	0	0
Snail	0	0	0	< 1	< 1	0	0
Other invertebrate	< 1	1	0	< 1	1	< 1	3
Total catch	333	46	97	393	978	885	4,248

Fishing log: F/V Vesterlaalen, Cruise 200201

Haul number	113	114	115	116	117	118	119
Start date & time	06/24/02 10	06/24/02 16	06/25/02 08	06/25/02 19	06/26/02 09	06/26/02 10	06/26/02 18
Start latitude	N 5139.12	N 5136.91	N 5149.56	N 5153.65	N 5137.95	N 5139.23	N 5138.37
Start longitude	W 17827.28	W 17826.70	W 17736.09	W 17627.44	W 17616.78	W 17622.53	W 17711.56
End latitude	N 5139.04	N 5137.18	N 5149.92	N 5153.74	N 5138.17	N 5139.36	N 5138.43
End longitude	W 17828.04	W 17827.85	W 17735.08	W 17626.18	W 17615.79	W 17621.43	W 17711.39
Bottom depth (m)	333	156	53	153	.233	150	133
Duration (minutes)	10.8	15.6	15.6	15.6	16.2	15.6	4.2
Distance fished (km)	0.892	1.442	1.377	1.495	1.257	1.341	0.277
Performance	3.13	0	0	0	0	0	-1.12
Gear	172	172	172	172	172	172	172
Atka mackerel	0	6,640	< 1	0	0	5	4
Pacific cod	0	158	10	13	2	19	5
Walleye pollock	4,868	2	0	5	13	< 1	0
Pacific ocean perch	6	0	0	0	754	21	7
Northern rockfish	0	2	0	0	4	< 1	57
Shortraker rockfish	199	0	0	0	0	0	0
Rougheye rockfish	7	0	0	0	7	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	8
Other rockfish	0	0	0	0	< 1	0	0
Sablefish	264	0	0	0	0	0	0
Arrowtooth flounder	113	0	0	22	9	1	0
Pacific halibut	0	36	10	0	0	0	12
Northern rock sole	0	0	12	< 1	0	3	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	256	0	0	7	0	< 1	0
Greenland turbot	10	0	0	0	0	0	0
Flathead sole	0	0	0	17	0	0	0
Rex sole	0	0	0	2	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	3	7	0	0	< 1	12	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	16	0	0	0	0	0
Other sculpins	1	0	0	< 1	3	< 1	< 1
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	1	0	< 1	0	< 1	0
Bairdi tanner crab	0	0	0	< 1	< 1	0	0
Golden king crab	12	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	< 1	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	< 1	0	0	0	0	0
Magistrate armhook squid	0	0	0	0	< 1	0	0
Sponge	38	11	0	0	12	4	36
Starfish	0	< 1	0	1	< 1	< 1	0
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	0	0	0	0	0	0	0
Octopus	0	0	0	0	< 1	0	0
Snail	0	< 1	< 1	0	0	0	0
Other invertebrate	9	1	1	< 1	< 1	< 1	0
Total catch	5,786	6,877	33	69	808	69	128

Fishing log: F/V Vesterålen, Cruise 200201

Haul number	120	121	122	123	124	125	126
Start date & time	06/27/02 08	06/28/02 19	06/29/02 08	06/29/02 10	06/29/02 17	06/29/02 18	06/30/02 08
Start latitude	N 5200.72	N 5132.51	N 5138.57	N 5138.78	N 5132.47	N 5132.58	N 5136.22
Start longitude	W 17624.06	W 17637.05	W 17708.11	W 17709.79	W 17637.30	W 17636.67	W 17737.04
End latitude	N 5201.11	N 5132.71	N 5138.19	N 5138.39	N 5132.50	N 5132.34	N 5136.58
End longitude	W 17622.100	W 17635.86	W 17709.17	W 17710.77	W 17637.18	W 17637.96	W 17735.85
Bottom depth (m)	113	368	179	143	368	374	149
Duration (minutes)	15.6	18	15.6	16.2	1.8	15.6	16.2
Distance fished (km)	1.445	1.439	1.446	1.383	0.162	1.578	1.557
Performance	0	-5.7	0	0	-1	-1.11	0
Gear	172	172	172	172	172	172	172
Atka mackerel	1	0	< 1	< 1	0	0	0
Pacific cod	0	0	44	24	3	7	39
Walleye pollock	< 1	0	40	< 1	0	1	1
Pacific ocean perch	0	0	3,751	3	2	3	< 1
Northern rockfish	0	0	0	< 1	0	0	0
Shortraker rockfish	0	4	3	0	2	82	0
Rougheye rockfish	0	4	0	0	5	60	0
Shortspine thornyhead	0	2	< 1	0	2	25	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	16	0	0	5	0
Arrowtooth flounder	33	0	21	5	< 1	7	6
Pacific halibut	73	0	0	0	0	0	6
Northern rock sole	12	0	9	< 1	0	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	< 1	0	5	< 1	0	0	< 1
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	< 1	0	0	0	0
Rex sole	0	0	0	0	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	5	0	3	0	0	3	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	1	0	0	< 1	0	0	< 1
Other sculpins	0	< 1	2	< 1	< 1	< 1	1
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	0	< 1	< 1	0	2	6
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	2	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	6	0	< 1	< 1	0	0	< 1
Magistrate armhook squid	0	0	0	0	< 1	< 1	0
Sponge	< 1	1	1	6	3	21	43
Starfish	< 1	< 1	< 1	< 1	< 1	< 1	2
Soft coral	0	0	0	0	0	< 1	< 1
Stony coral unident.	0	0	0	< 1	< 1	< 1	< 1
Octopus	28	0	0	2	0	< 1	2
Snail	< 1	0	< 1	< 1	0	0	< 1
Other invertebrate	2	< 1	< 1	2	1	1	26
Total catch	163	11	3,898	47	19	221	136

Fishing log: F/V *Vesteraalen*, Cruise 200201

Haul number	127	128	129	130	131	132	133
Start date & time	06/30/02 10	06/30/02 12	06/30/02 17	06/30/02 18	07/01/02 08	07/01/02 10	07/01/02 12
Start latitude	N 5135.88	N 5137.00	N 5138.19	N 5139.64	N 5130.90	N 5130.05	N 5130.85
Start longitude	W 17746.89	W 17751.39	W 17815.70	W 17817.74	W 17836.41	W 17839.87	W 17844.48
End latitude	N 5136.03	N 5137.60	N 5138.62	N 5140.16	N 5130.70	N 5129.96	N 5130.84
End longitude	W 17745.58	W 17750.79	W 17816.06	W 17818.47	W 17837.63	W 17838.66	W 17845.82
Bottom depth (m)	114	89	198	270	166	240	91
Duration (minutes)	16.2	13.8	11.4	16.2	15.6	16.2	16.2
Distance fished (km)	1.559	1.35	0.949	1.339	1.471	1.425	1.556
Performance	0	0	5.1	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	< 1	12	3	2	< 1	0	2
Pacific cod	5	6	50	4	28	10	22
Walleye pollock	0	< 1	< 1	11	5	< 1	0
Pacific ocean perch	0	0	320	210	0	< 1	2
Northern rockfish	0	0	9	3	0	0	55
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	2	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	13
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	4	0
Arrowtooth flounder	5	0	20	43	44	42	< 1
Pacific halibut	6	20	3	14	21	9	17
Northern rock sole	48	32	4	5	119	18	41
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	< 1	0	1	49	3	2	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	< 1	0	0	0	0	0	0
Rex sole	< 1	0	0	0	0	4	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	17	0	58	77	59	56	15
Shark unident.	0	126	0	0	0	0	0
Yellow Irish lord	3	< 1	2	0	0	5	4
Other sculpins	0	< 1	3	27	< 1	1	< 1
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	2	< 1	< 1	0	< 1	2
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	3	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	8	< 1	0	0	< 1	0	0
Magistrate armhook squid	0	0	0	0	0	0	0
Sponge	3	10	44	27	< 1	8	50
Starfish	2	< 1	2	< 1	< 1	< 1	< 1
Soft coral	0	< 1	1	< 1	0	0	0
Stony coral unident.	< 1	< 1	< 1	3	0	< 1	4
Octopus	0	0	0	< 1	0	0	0
Snail	< 1	< 1	< 1	< 1	0	0	< 1
Other invertebrate	8	2	6	20	33	9	5
Total catch	108	212	527	502	313	169	235

Fishing log: F/V Vesteraalen, Cruise 200201

Haul number	134	135	136	137	138	139	140
Start date & time	07/01/02 15	07/02/02 08	07/02/02 11	07/02/02 14	07/02/02 17	07/02/02 20	07/03/02 08
Start latitude	N 5136.35	N 5121.54	N 5128.91	N 5136.61	N 5140.21	N 5141.54	N 5144.40
Start longitude	W 17908.53	E 17854.87	E 17838.53	E 17825.66	E 17819.36	E 17815.03	E 17758.73
End latitude	N 5136.17	N 5121.99	N 5129.31	N 5137.17	N 5139.94	N 5141.31	N 5144.23
End longitude	W 17909.45	E 17853.90	E 17837.68	E 17824.85	E 17820.60	E 17816.18	E 17759.90
Bottom depth (m)	219	180	229	170	148	122	150
Duration (minutes)	11.4	15.6	15	15.6	16.8	15	15.6
Distance fished (km)	1.139	1.435	1.277	1.448	1.547	1.416	1.403
Performance	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	6	10	< 1	258	540	829	4
Pacific cod	6	53	8	72	16	19	10
Walleye pollock	8,593	946	89	1,174	0	9	5
Pacific ocean perch	820	139	1,829	304	0	36	7
Northern rockfish	0	90	3	442	0	168	118
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	4	2	0	0	0
Shortspine thornyhead	0	0	4	0	0	0	0
Light dusky rockfish	0	0	0	4	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	72	0	0	0	0	0	0
Arrowtooth flounder	22	3	5	18	0	< 1	2
Pacific halibut	0	0	0	0	0	2	0
Northern rock sole	13	5	0	19	61	128	44
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	14	< 1	< 1	0	0	< 1	< 1
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	0	0	< 1	0	8
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	41	52	0	0	0	0	< 1
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	5	3	0	0
Other sculpins	< 1	14	4	3	0	0	< 1
Eelpout unident.	0	0	0	0	0	0	0
Other fish	12	< 1	4	26	0	0	1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	14	2	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	< 1	< 1	0	0
Magistrate armhook squid	0	0	0	0	0	0	0
Sponge	2	83	28	4	< 1	< 1	14
Starfish	< 1	< 1	< 1	< 1	< 1	< 1	0
Soft coral	< 1	< 1	< 1	0	0	0	0
Stony coral unident.	< 1	0	< 1	< 1	< 1	0	0
Octopus	0	4	0	3	1	0	3
Snail	< 1	< 1	< 1	1	< 1	0	< 1
Other invertebrate	3	22	8	4	2	< 1	2
Total catch	9,619	1,425	1,988	2,340	627	1,192	221

Fishing log: F/V Vesterålen, Cruise 200201

Haul number	141	142	143	144	145	146	147
Start date & time	07/03/02 10	07/03/02 13	07/03/02 17	07/03/02 19	07/04/02 08	07/04/02 11	07/05/02 08
Start latitude	N 5145.15	N 5143.04	N 5148.57	N 5152.26	N 5201.39	N 5201.31	N 5206.06
Start longitude	E 17750.87	E 17717.98	E 17745.76	E 17743.56	E 17745.53	E 17739.96	E 17742.47
End latitude	N 5144.95	N 5143.25	N 5147.80	N 5152.06	N 5201.57	N 5200.67	N 5205.45
End longitude	E 17752.13	E 17719.29	E 17745.80	E 17742.27	E 17744.32	E 17739.88	E 17742.76
Bottom depth (m)	160	458	135	107	198	92	92
Duration (minutes)	16.2	16.8	16.2	17.4	16.2	13.8	13.8
Distance fished (km)	1.511	1.578	1.448	1.557	1.454	1.21	1.226
Performance	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	683	0	30	10	0	39	91
Pacific cod	4	0	24	7	0	5	66
Walleye pollock	53	0	< 1	0	3	68	< 1
Pacific ocean perch	11	0	< 1	0	< 1	0	0
Northern rockfish	563	0	5	72	0	0	15
Shortraker rockfish	0	41	0	0	0	0	0
Rougheye rockfish	0	8	0	0	0	0	0
Shortspine thornyhead	0	42	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	2	13	< 1	11	11	2	0
Pacific halibut	0	0	9	0	9	3	3
Northern rock sole	58	0	21	87	5	22	421
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	2	12	0	< 1	9	< 1	0
Greenland turbot	0	5	0	0	0	0	0
Flathead sole	0	0	0	1	0	2	0
Rex sole	2	< 1	0	< 1	0	0	0
Dover sole	0	0	0	0	0	< 1	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	< 1	0	0	0	< 1	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	4	1	0	0	< 1
Other sculpins	0	0	< 1	2	2	< 1	17
Eelpout unident.	0	4	0	0	0	0	0
Other fish	0	90	< 1	< 1	3	< 1	0
Bairdi tanner crab	0	0	0	0	0	< 1	0
Golden king crab	0	0	< 1	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	< 1	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	< 1	< 1	14	< 1	< 1
Magistrate armhook squid	0	1	< 1	0	< 1	0	0
Sponge	0	< 1	99	3	7	0	< 1
Starfish	0	0	< 1	< 1	< 1	< 1	< 1
Soft coral	0	0	< 1	0	0	0	0
Stony coral unident.	0	0	6	0	0	0	0
Octopus	0	0	< 1	0	0	6	0
Snail	0	0	< 1	0	< 1	0	< 1
Other invertebrate	0	< 1	15	2	10	< 1	12
Total catch	1,380	218	218	198	75	151	626

Fishing log: F/V Vesterålen, Cruise 200201

Haul number	148	149	150	151	152	153	154
Start date & time	07/05/02 11	07/05/02 14	07/05/02 16	07/05/02 19	07/06/02 08	07/06/02 12	07/06/02 14
Start latitude	N 5202.88	N 5157.78	N 5158.05	N 5204.90	N 5154.36	N 5152.34	N 5152.29
Start longitude	E 17749.87	E 17811.29	E 17815.19	E 17807.100	E 17814.93	E 17833.22	E 17833.14
End latitude	N 5203.54	N 5158.32	N 5157.54	N 5204.85	N 5154.12	N 5152.68	N 5152.56
End longitude	E 17749.66	E 17810.43	E 17816.12	E 17806.76	E 17814.08	E 17834.21	E 17834.01
Bottom depth (m)	237	258	88	446	256	405	407
Duration (minutes)	15	16.2	16.2	16.2	12.6	15.6	13.8
Distance fished (km)	1.309	1.444	1.479	1.463	1.103	1.348	1.146
Performance	5.1	0	0	0	0	-5.1	1.12
Gear	172	172	172	172	172	172	172
Atka mackerel	11	0	332	0	0	0	0
Pacific cod	0	10	< 1	0	5	0	0
Walleye pollock	139	< 1	0	0	2,602	< 1	2
Pacific ocean perch	1,546	1,253	0	< 1	439	< 1	< 1
Northern rockfish	4	6	0	0	< 1	0	0
Shortraker rockfish	0	15	0	26	82	28	15
Rougheye rockfish	74	2	0	4	121	10	29
Shortspine thornyhead	0	0	0	20	0	12	18
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	3	0
Arrowtooth flounder	14	137	0	12	268	11	16
Pacific halibut	0	0	0	41	20	0	0
Northern rock sole	< 1	27	40	< 1	5	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	3	< 1	0	256	46	10	14
Greenland turbot	0	0	0	75	13	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	0	0	3	0	1
Dover sole	< 1	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	< 1	0	4	3	3	1
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	0	0
Other sculpins	5	3	3	0	< 1	3	3
Eelpout unident.	0	0	0	3	0	< 1	< 1
Other fish	1	< 1	0	436	2	< 1	< 1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	< 1	0	0	1
Red king crab	0	0	4	0	0	0	0
Northern shrimp	0	< 1	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	0
Magistrate armhook squid	0	0	0	3	0	< 1	2
Sponge	12	2	< 1	7	0	2	15
Starfish	< 1	< 1	< 1	< 1	< 1	< 1	0
Soft coral	0	0	0	0	0	< 1	< 1
Stony coral unident.	0	< 1	0	0	0	0	0
Octopus	0	0	0	1	0	0	0
Snail	< 1	< 1	0	< 1	0	0	0
Other invertebrate	4	2	2	< 1	0	< 1	< 1
Total catch	1,815	1,460	382	890	3,611	84	119

Fishing log: F/V *Vesteraalen*, Cruise 200201

Haul number	155	156	157	158	159	160	161
Start date & time	07/06/02 16	07/06/02 18	07/07/02 08	07/07/02 13	07/07/02 17	07/07/02 19	07/08/02 08
Start latitude	N 5155.52	N 5153.78	N 5137.75	N 5141.06	N 5205.26	N 5205.07	N 5227.91
Start longitude	E 17823.51	E 17817.59	E 17540.34	E 17533.34	E 17512.55	E 17507.09	E 17412.60
End latitude	N 5155.08	N 5153.93	N 5138.21	N 5141.76	N 5204.74	N 5204.57	N 5228.04
End longitude	E 17824.64	E 17816.48	E 17539.62	E 17532.70	E 17511.68	E 17506.25	E 17413.71
Bottom depth (m)	90	197	185	187	342	390	118
Duration (minutes)	17.4	16.2	13.2	15.6	18	15.6	15.6
Distance fished (km)	1.567	1.337	1.226	1.542	1.442	1.384	1.301
Performance	0	4.4	4.4	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	127	9	12	< 1	0	0	0
Pacific cod	8	13	0	0	0	0	11
Walleye pollock	0	541	8	0	0	1	10
Pacific ocean perch	0	7,361	7,998	78	36	4	0
Northern rockfish	0	80	38	18	0	0	0
Shortraker rockfish	3	29	0	0	8	6	0
Rougheye rockfish	0	2	0	0	3	0	0
Shortspine thornyhead	0	0	0	3	96	22	1
Light dusky rockfish	0	13	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	5	0
Arrowtooth flounder	0	131	3	28	3	4	< 1
Pacific halibut	6	10	0	0	0	0	17
Northern rock sole	6	50	0	3	0	0	11
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	12	0	2	12	4	< 1
Greenland turbot	0	0	0	0	0	11	0
Flathead sole	0	0	0	7	0	0	0
Rex sole	0	0	0	6	1	2	0
Dover sole	0	0	0	< 1	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	26	0	0	12	< 1	1	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	3	< 1	0	0	0	0	2
Other sculpins	2	< 1	16	4	5	< 1	< 1
Eelpout unident.	0	0	0	0	0	0	0
Other fish	< 1	0	20	2	0	0	< 1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	1	0	0	0	< 1	< 1	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	< 1	0	0	0	0	0	0
Magistrate armhook squid	< 1	0	< 1	0	5	1	0
Sponge	60	2	3	42	116	82	< 1
Starfish	1	< 1	< 1	< 1	< 1	< 1	< 1
Soft coral	< 1	0	0	0	0	0	10
Stony coral unident.	< 1	< 1	< 1	0	< 1	0	0
Octopus	5	0	0	0	< 1	0	0
Snail	< 1	0	0	0	0	0	< 1
Other invertebrate	13	< 1	< 1	7	10	28	< 1
Total catch	263	8,254	8,101	213	298	173	65

Fishing log: F/V Vesterålen, Cruise 200201

Haul number	162	163	164	165	166	167	168
Start date & time	07/08/02 10	07/08/02 13	07/08/02 15	07/09/02 08	07/09/02 12	07/09/02 20	07/10/02 11
Start latitude	N 5226.18	N 5224.24	N 5219.54	N 5215.57	N 5216.57	N 5226.12	N 5219.83
Start longitude	E 17417.45	E 17415.57	E 17410.06	E 17507.28	E 17519.05	E 17540.99	E 17551.95
End latitude	N 5226.67	N 5224.66	N 5219.66	N 5215.83	N 5217.07	N 5225.62	N 5220.38
End longitude	E 17418.38	E 17416.58	E 17411.08	E 17508.32	E 17518.70	E 17542.20	E 17550.95
Bottom depth (m)	224	259	381	266	168	147	82
Duration (minutes)	15.6	16.2	13.8	14.4	11.4	18	16.2
Distance fished (km)	1.436	1.423	1.202	1.295	1.05	1.709	1.566
Performance	0	0	0	5.8	0	-5.1	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	0	0	2	386	240
Pacific cod	5	3	0	0	0	0	99
Walleye pollock	5	4	0	2	0	0	0
Pacific ocean perch	9	2	< 1	3,487	516	0	6
Northern rockfish	< 1	2	0	0	< 1	0	0
Shortraker rockfish	0	0	10	0	0	0	0
Rougheye rockfish	0	< 1	0	0	< 1	0	0
Shortspine thornyhead	0	0	45	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	18	1	6	7	0	0	0
Pacific halibut	0	0	0	0	0	0	1
Northern rock sole	3	0	0	0	0	0	22
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	3	5	< 1	107	0	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	3	0	0	0	0	0	0
Rex sole	1	0	3	< 1	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	0	0	0	< 1	0	14
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	0	1
Other sculpins	< 1	3	< 1	4	< 1	< 1	0
Eelpout unident.	0	0	< 1	0	0	0	0
Other fish	1	5	< 1	< 1	2	< 1	0
Bairdi tanner crab	< 1	0	0	0	0	0	0
Golden king crab	0	0	0	0	< 1	3	1
Red king crab	0	0	0	0	0	0	0
Northern shrimp	< 1	1	< 1	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	< 1	0
Magistrate armhook squid	0	0	2	< 1	0	0	0
Sponge	4	0	3	21	212	< 1	18
Starfish	< 1	0	0	< 1	< 1	< 1	< 1
Soft coral	0	0	0	0	< 1	0	< 1
Stony coral unident.	0	0	0	0	9	0	0
Octopus	0	0	0	0	0	0	0
Snail	0	0	0	0	< 1	< 1	0
Other invertebrate	< 1	< 1	< 1	12	22	< 1	1
Total catch	54	29	70	3,639	767	392	405

Fishing log: F/V *Vesteraalen*, Cruise 200201

Haul number	169	170	171	172	173	174	175
Start date & time	07/10/02 12	07/10/02 17	07/11/02 09	07/11/02 11	07/11/02 14	07/13/02 08	07/13/02 11
Start latitude	N 5218.19	N 5153.82	N 5157.41	N 5158.35	N 5205.40	N 5205.08	N 5209.01
Start longitude	E 17548.90	E 17555.82	E 17600.88	E 17605.05	E 17559.48	E 17922.00	E 17928.90
End latitude	N 5218.94	N 5153.76	N 5157.82	N 5158.93	N 5206.04	N 5205.67	N 5209.24
End longitude	E 17548.15	E 17554.56	E 17601.95	E 17605.77	E 17600.17	E 17922.78	E 17929.03
Bottom depth (m)	250	168	71	86	179	312	249
Duration (minutes)	17.4	17.4	16.8	15.6	15.6	16.2	5.4
Distance fished (km)	1.676	1.495	1.468	1.395	1.477	1.449	0.47
Performance	0	0	0	0	0	0	-5.1
Gear	172	172	172	172	172	172	172
Atka mackerel	20	473	849	523	55	0	< 1
Pacific cod	0	0	0	0	0	0	0
Walleye pollock	1	518	0	0	52	7	64
Pacific ocean perch	195	42	0	0	6,277	4	< 1
Northern rockfish	0	275	1,742	345	1,468	0	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	1	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	3	0	1	0	0
Other rockfish	0	0	28	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	0	224	< 1	< 1	12	10	2
Pacific halibut	0	0	0	0	0	0	0
Northern rock sole	< 1	2	30	6	< 1	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	2	6	0	0	14	183	6
Greenland turbot	0	0	0	0	0	20	0
Flathead sole	0	1	0	0	0	0	0
Rex sole	0	5	0	9	2	0	0
Dover sole	0	2	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	23	3	0	11	19	9	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	6	3	0	0	0
Other sculpins	4	< 1	0	< 1	7	15	4
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	1	23	3	53	4	< 1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	6	3	0	0	0	0	0
Red king crab	0	0	0	8	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	< 1	0	0	0	0
Magistrate armhook squid	0	0	0	0	0	6	0
Sponge	86	5	24	28	139	2	1
Starfish	1	< 1	< 1	< 1	< 1	< 1	< 1
Soft coral	0	0	0	0	0	< 1	0
Stony coral unident.	< 1	< 1	0	< 1	2	0	< 1
Octopus	0	0	11	0	0	0	0
Snail	0	< 1	1	< 1	< 1	0	< 1
Other invertebrate	17	< 1	4	4	10	< 1	< 1
Total catch	358	1,562	2,724	940	8,114	260	79

Fishing log: F/V Vesterålen, Cruise 200201

Haul number	176	177	178	179	180	181	182
Start date & time	07/13/02 12	07/13/02 16	07/13/02 18	07/13/02 20	07/14/02 08	07/14/02 09	07/14/02 11
Start latitude	N 5209.80	N 5225.87	N 5221.98	N 5231.02	N 5230.33	N 5230.90	N 5232.23
Start longitude	E 17929.27	E 17956.54	W 17954.86	W 17956.44	W 17932.58	W 17931.13	W 17937.12
End latitude	N 5208.82	N 5226.40	N 5222.53	N 5230.57	N 5230.39	N 5230.46	N 5232.40
End longitude	E 17928.78	E 17955.53	W 17955.92	W 17955.79	W 17932.43	W 17932.40	W 17936.17
Bottom depth (m)	249	171	176	396	143	141	93
Duration (minutes)	20.4	16.2	16.2	12	2.4	18	13.2
Distance fished (km)	1.988	1.551	1.613	1.164	0.218	1.693	1.128
Performance	0	0	0	-2.4	-5.1	0	-5.1
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	< 1	0	77	277	0
Pacific cod	0	0	0	0	0	5	0
Walleye pollock	67	< 1	488	0	17	39	0
Pacific ocean perch	5	1	510	< 1	0	< 1	0
Northern rockfish	< 1	0	0	0	0	0	0
Shortraker rockfish	0	0	0	89	16	0	0
Rougheye rockfish	0	0	0	7	0	0	0
Shortspine thornyhead	0	0	0	29	< 1	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	5	0	0	0
Arrowtooth flounder	18	6	22	9	0	0	0
Pacific halibut	0	0	21	0	0	0	0
Northern rock sole	33	0	3	0	0	< 1	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	55	2	11	10	2	11	0
Greenland turbot	0	0	0	0	10	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	2	3	0	0	0
Dover sole	1	0	3	3	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	7	< 1	< 1	6	0	89	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	0	0
Other sculpins	107	< 1	1	< 1	10	13	0
Eelpout unident.	< 1	0	0	< 1	0	0	0
Other fish	2	< 1	< 1	4	< 1	3	0
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	13	2	0	3	2	7	0
Red king crab	0	7	14	0	0	0	0
Northern shrimp	0	< 1	< 1	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	< 1	0	0	0	< 1	0
Magistrate armhook squid	0	0	0	2	0	0	0
Sponge	13	4	1	4	3	526	0
Starfish	< 1	< 1	< 1	< 1	0	6	0
Soft coral	< 1	< 1	0	0	0	0	0
Stony coral unident.	< 1	0	0	0	0	< 1	0
Octopus	0	0	0	0	0	< 1	0
Snail	< 1	0	0	0	0	< 1	0
Other invertebrate	9	< 1	< 1	3	< 1	39	0
Total catch	331	24	1,078	181	137	1,017	0

Fishing log: F/V Vesterålen, Cruise 200201

Haul number	183	184	185	186	187	188	189
Start date & time	07/14/02 14	07/14/02 16	07/14/02 17	07/15/02 09	07/15/02 19	07/16/02 08	07/16/02 14
Start latitude	N 5231.12	N 5230.010	N 5231.35	N 5209.28	N 5135.92	N 5136.96	N 5145.21
Start longitude	W 17956.66	E 17958.18	W 17957.14	E 17944.68	W 17910.12	W 17906.25	W 17803.16
End latitude	N 5231.19	N 5230.19	N 5230.92	N 5209.82	N 5135.59	N 5137.18	N 5144.40
End longitude	W 17956.83	E 17959.48	W 17956.34	E 17945.46	W 17910.94	W 17904.98	W 17803.37
Bottom depth (m)	386	275	395	89	245	285	85
Duration (minutes)	2.4	16.2	13.8	15	13.8	16.2	16.2
Distance fished (km)	0.23	1.499	1.237	1.385	1.182	1.557	1.594
Performance	-5.1	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	0	< 1	1	1	0
Pacific cod	0	0	0	8	0	0	0
Walleye pollock	8	10	0	0	584	987	< 1
Pacific ocean perch	0	180	6	0	1,093	366	0
Northern rockfish	0	0	0	0	0	0	0
Shortraker rockfish	25	0	27	3	0	0	0
Rougheye rockfish	1	0	1	0	0	0	0
Shortspine thornyhead	3	71	22	0	< 1	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	30	101	0
Arrowtooth flounder	0	7	0	0	10	56	6
Pacific halibut	0	0	0	0	0	0	12
Northern rock sole	0	0	0	6	0	0	52
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	7	12	19	0	101	78	2
Greenland turbot	2	8	14	0	0	0	0
Flathead sole	0	0	0	0	0	< 1	1
Rex sole	0	14	5	0	0	20	3
Dover sole	< 1	< 1	4	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	< 1	2	0	9	60	< 1
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	10	0	0	0
Other sculpins	< 1	3	0	3	4	3	0
Eelpout unident.	0	0	< 1	0	0	0	0
Other fish	< 1	< 1	0	1	0	2	0
Bairdi tanner crab	0	0	0	0	0	0	2
Golden king crab	0	0	< 1	0	0	6	0
Red king crab	0	0	0	< 1	0	0	0
Northern shrimp	0	0	0	0	0	< 1	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	0
Magistrate armhook squid	< 1	2	0	0	0	1	0
Sponge	0	3	2	1,038	< 1	6	< 1
Starfish	0	< 1	< 1	2	< 1	< 1	< 1
Soft coral	0	0	< 1	< 1	0	0	0
Stony coral unident.	0	0	< 1	9	0	0	0
Octopus	0	0	0	0	0	2	0
Snail	0	0	< 1	< 1	0	0	0
Other invertebrate	0	< 1	< 1	17	3	10	1
Total catch	49	311	105	1,097	1,836	1,701	82

Fishing log: F/V Vesterålen, Cruise 200201

Haul number	190	191	192	193	194	195	196
Start date & time	07/17/02 08	07/17/02 20	07/18/02 14	07/18/02 16	07/18/02 20	07/19/02 15	07/19/02 21
Start latitude	N 5155.80	N 5137.16	N 5158.36	N 5157.94	N 5202.50	N 5311.39	N 5323.13
Start longitude	W 17702.16	W 17614.84	W 17236.86	W 17237.41	W 17215.08	W 16951.73	W 16843.37
End latitude	N 5155.19	N 5136.91	N 5158.56	N 5158.13	N 5201.82	N 5312.03	N 5323.71
End longitude	W 17701.38	W 17615.94	W 17235.69	W 17236.28	W 17214.84	W 16950.95	W 16842.55
Bottom depth (m)	90	328	167	220	169	404	274
Duration (minutes)	15.6	15	15.6	15	15.6	16.8	14.4
Distance fished (km)	1.494	1.371	1.412	1.359	1.346	1.501	1.432
Performance	0	0	5.8	5.1	0	-2.7	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	0	< 1	183	3	0
Pacific cod	4	0	0	0	0	0	26
Walleye pollock	< 1	12	0	5	0	1	239
Pacific ocean perch	0	< 1	21	52	3	< 1	604
Northern rockfish	0	0	89	5	0	0	0
Shortraker rockfish	0	21	0	0	0	53	0
Rougheye rockfish	0	31	0	0	0	32	1
Shortspine thornyhead	0	< 1	0	0	0	54	39
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	7	4
Arrowtooth flounder	19	20	0	292	0	58	31
Pacific halibut	10	0	16	0	78	0	40
Northern rock sole	77	0	3	9	4	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	3	< 1	0	0	0	6	3
Greenland turbot	0	0	0	0	0	6	0
Flathead sole	1	0	0	0	0	0	0
Rex sole	0	< 1	0	0	0	< 1	19
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	0	17	18	10	42	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	< 1	0	< 1	< 1	0	0	0
Other sculpins	0	1	< 1	9	< 1	7	< 1
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	< 1	< 1	< 1	< 1	5	2
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	3	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	< 1
Sidestripe shrimp	0	< 1	0	0	0	0	0
Scallop unident.	< 1	0	0	0	0	0	< 1
Magistrate armhook squid	0	2	0	0	0	2	2
Sponge	< 1	9	25	16	4	49	0
Starfish	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Soft coral	0	< 1	0	0	0	2	0
Stony coral unident.	0	< 1	< 1	< 1	< 1	< 1	0
Octopus	0	0	0	3	0	0	0
Snail	0	0	< 1	0	0	0	< 1
Other invertebrate	1	1	3	2	< 1	12	3
Total catch	117	99	174	413	283	346	1,015

Section 4**Fishing Log for the F/V *Sea Storm***

**Summary listings of estimated catches by haul
and species or species group**

- Date format: Month/day/year and hour (24 h clock)
- Haul start and end latitude and longitude in degrees, minutes and decimal minutes
- Bottom depth in meters
- Duration of tow in minutes
- Distance fished in kilometers
- Performance codes found in Table 2
- Catch weight in kilograms

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Fishing log: F/V Sea Storm, Cruise 200201

Haul number	1	2	3	4	5	6	7
Start date & time	06/12/02 18	06/13/02 07	06/13/02 09	06/13/02 14	06/13/02 17	06/14/02 07	06/14/02 09
Start latitude	N 5230.31	N 5218.03	N 5216.28	N 5221.12	N 5212.76	N 5144.03	N 5138.46
Start longitude	W 17329.77	W 17357.51	W 17357.95	W 17432.21	W 17456.39	W 17807.100	W 17809.18
End latitude	N 5229.91	N 5217.26	N 5215.58	N 5220.99	N 5212.44	N 5144.45	N 5138.70
End longitude	W 17330.94	W 17357.93	W 17358.37	W 17433.53	W 17457.64	W 17808.92	W 17810.37
Bottom depth (m)	211	73	91	116	213	89	81
Duration (minutes)	16.8	16.8	15.6	16.2	16.8	16.8	16.2
Distance fished (km)	1.549	1.552	1.437	1.539	1.579	1.382	1.467
Performance	0	0	0	0	0	6.1	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	2	2	2	0	0	221
Pacific cod	6	15	18	12	83	7	226
Walleye pollock	0	4	50	< 1	20	0	0
Pacific ocean perch	133	0	0	1	5,978	0	0
Northern rockfish	0	0	0	< 1	< 1	0	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	13	89	158	10	8	0	0
Pacific halibut	0	12	4	45	0	27	34
Northern rock sole	0	156	14	1	0	61	79
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	0	0	0	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	7	61	0	0	0	0
Rex sole	0	0	13	0	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	< 1	5	0	16	0	34	17
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	2	2	2	0	2	45
Other sculpins	10	2	4	3	0	0	70
Eelpout unident.	0	0	0	0	0	0	0
Other fish	< 1	2	< 1	5	3	< 1	2
Bairdi tanner crab	0	< 1	< 1	0	< 1	0	0
Golden king crab	19	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	< 1	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	< 1	0	0	0	< 1	< 1
Magistrate armhook squid	0	0	0	0	3	0	0
Sponge	166	0	0	11	1	< 1	562
Starfish	15	4	< 1	< 1	< 1	< 1	1
Soft coral	< 1	0	0	0	0	0	0
Stony coral unident.	2	0	< 1	< 1	< 1	0	1
Octopus	575	0	0	4	0	0	0
Snail	0	< 1	< 1	< 1	1	0	< 1
Other invertebrate	11	2	13	6	< 1	2	70
Total catch	951	300	340	119	6,101	134	1,328

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	8	9	10	11	12	13	14
Start date & time	06/14/02 13	06/14/02 15	06/14/02 19	06/15/02 08	06/15/02 12	06/15/02 15	06/15/02 16
Start latitude	N 5136.28	N 5136.82	N 5138.60	N 5116.97	N 5115.18	N 5122.03	N 5121.61
Start longitude	W 17803.89	W 17814.31	W 17831.18	E 17921.78	E 17910.59	E 17908.51	E 17908.96
End latitude	N 5136.29	N 5137.56	N 5138.77	N 5117.41	N 5115.15	N 5121.40	N 5122.27
End longitude	W 17804.60	W 17814.83	W 17829.90	E 17922.79	E 17911.48	E 17909.26	E 17908.23
Bottom depth (m)	94	116	213	135	153	70	70
Duration (minutes)	9.6	16.2	16.8	15.6	11.4	16.2	15.6
Distance fished (km)	0.831	1.564	1.529	1.48	1.044	1.493	1.524
Performance	3.2	5.5	0	0	0	5.8	0
Gear	172	172	172	172	172	172	172
Atka mackerel	53	5,093	18	7,393	3,872	0	55
Pacific cod	8	101	12	740	210	0	7
Walleye pollock	5	0	2	2	10	0	0
Pacific ocean perch	0	19	3,631	157	999	< 1	0
Northern rockfish	0	1,268	0	359	1,723	0	2
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	2	0	20	2	0	0
Other rockfish	0	0	0	0	3	1	0
Sablefish	0	0	9	0	0	0	0
Arrowtooth flounder	0	0	537	2	0	0	< 1
Pacific halibut	3	29	9	0	0	2	2
Northern rock sole	4	0	36	23	2	5	27
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	0	0	0	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	< 1	0	1	0	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	7	9	2	45	10	0	15
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	2	12	8	0	0	0
Other sculpins	0	7	0	0	< 1	0	< 1
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	10	0	0	25	0	1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	< 1	0	0	0	0
Magistrate armhook squid	0	0	0	0	0	0	0
Sponge	< 1	18	< 1	< 1	< 1	0	< 1
Starfish	< 1	< 1	< 1	0	< 1	0	0
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	< 1	< 1	< 1	< 1	< 1	0	< 1
Octopus	0	0	0	0	0	0	0
Snail	0	0	< 1	0	0	0	0
Other invertebrate	< 1	5	2	< 1	< 1	0	< 1
Total catch	82	6,563	4,274	8,751	6,856	8	109

Fishing log: F/V *Sea Storm*, Cruise 200201

Haul number	15	16	17	18	19	20	21
Start date & time	06/15/02 19	06/16/02 08	06/16/02 10	06/16/02 13	06/16/02 15	06/16/02 17	06/16/02 19
Start latitude	N 5129.83	N 5158.50	N 5154.40	N 5203.39	N 5208.34	N 5210.76	N 5220.52
Start longitude	E 17849.98	E 17649.85	E 17634.97	E 17624.19	E 17614.60	E 17620.97	E 17622.95
End latitude	N 5130.30	N 5158.59	N 5154.37	N 5203.72	N 5208.81	N 5210.79	N 5221.14
End longitude	E 17848.97	E 17648.55	E 17635.74	E 17623.15	E 17613.54	E 17619.70	E 17622.28
Bottom depth (m)	92	165	270	169	123	93	229
Duration (minutes)	16.2	16.8	9.6	14.4	16.2	16.2	15.6
Distance fished (km)	1.497	1.529	0.884	1.362	1.523	1.46	1.42
Performance	0	0	4.4	0	2.1	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	7	9	3	0	181	707	3
Pacific cod	0	13	0	7	18	0	0
Walleye pollock	0	6	6	0	0	0	265
Pacific ocean perch	0	18	2,447	4	1	0	1,166
Northern rockfish	0	2	0	1	458	56	< 1
Shortraker rockfish	0	0	7	0	0	0	0
Rougheye rockfish	0	4	6	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	0	4	0	0	0	0	< 1
Pacific halibut	< 1	0	0	0	0	< 1	17
Northern rock sole	12	2	0	0	4	19	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	0	0	0	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	0	0	0	0	< 1
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	0	0	0	0	0	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	< 1	0	0	0	0	0
Other sculpins	0	< 1	< 1	< 1	< 1	0	4
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	3	0	0	< 1	0	7
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	5	0	< 1	0	0	4
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	< 1
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	< 1	0	0	0
Magistrate armhook squid	0	0	0	0	0	0	0
Sponge	8	20	26	24	2	0	202
Starfish	< 1	< 1	< 1	1	< 1	< 1	< 1
Soft coral	< 1	0	0	0	0	0	< 1
Stony coral unident.	0	< 1	< 1	< 1	< 1	< 1	< 1
Octopus	0	0	< 1	0	0	0	2
Snail	0	< 1	0	< 1	0	0	1
Other invertebrate	< 1	4	< 1	4	10	< 1	6
Total catch	28	90	2,498	43	676	783	1,677

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	22	23	24	25	26	27	28
Start date & time	06/17/02 08	06/17/02 10	06/17/02 11	06/17/02 13	06/17/02 14	06/17/02 16	06/17/02 18
Start latitude	N 5231.27	N 5229.19	N 5230.45	N 5225.71	N 5222.94	N 5223.27	N 5220.63
Start longitude	E 17426.96	E 17422.88	E 17415.64	E 17415.22	E 17408.46	E 17358.40	E 17331.96
End latitude	N 5230.89	N 5228.62	N 5230.23	N 5226.33	N 5223.33	N 5222.55	N 5220.26
End longitude	E 17425.88	E 17422.02	E 17414.42	E 17415.94	E 17409.56	E 17357.89	E 17330.83
Bottom depth (m)	189	221	109	173	155	121	86
Duration (minutes)	15.6	15.6	16.2	15.6	16.2	15.6	15.6
Distance fished (km)	1.451	1.482	1.459	1.458	1.48	1.499	1.484
Performance	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	< 1	0	0	< 1	0
Pacific cod	28	0	< 1	9	1	0	0
Walleye pollock	0	20	< 1	0	0	0	0
Pacific ocean perch	0	0	0	0	0	0	0
Northern rockfish	0	0	0	0	0	0	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	38	147	1	60	9	2	< 1
Pacific halibut	0	0	6	6	0	0	19
Northern rock sole	2	< 1	28	66	61	59	48
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	0	0	0	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	41	123	3	2	0	2	12
Rex sole	2	29	1	< 1	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	13	0	0	0	0	0	4
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	2	0	2	0	0
Other sculpins	< 1	0	< 1	< 1	0	4	0
Eelpout unident.	0	0	0	0	0	0	0
Other fish	< 1	< 1	< 1	< 1	0	0	< 1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	< 1	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	0
Magistrate armhook squid	0	0	0	0	0	0	0
Sponge	0	1	< 1	0	< 1	< 1	< 1
Starfish	< 1	< 1	< 1	0	< 1	< 1	< 1
Soft coral	0	0	16	0	0	9	0
Stony coral unident.	0	0	0	0	0	0	0
Octopus	0	0	0	0	0	0	0
Snail	0	0	0	0	0	0	0
Other invertebrate	< 1	< 1	3	< 1	< 1	2	3
Total catch	125	320	62	144	74	79	87

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	29	30	31	32	33	34	35
Start date & time	06/17/02 19	06/18/02 08	06/18/02 10	06/18/02 12	06/18/02 14	06/18/02 16	06/18/02 19
Start latitude	N 5221.73	N 5306.62	N 5306.54	N 5307.83	N 5314.25	N 5315.15	N 5319.08
Start longitude	E 17333.55	E 17059.30	E 17055.100	E 17054.62	E 17049.19	E 17051.62	E 17043.38
End latitude	N 5221.80	N 5307.08	N 5306.79	N 5308.32	N 5314.44	N 5315.37	N 5319.85
End longitude	E 17332.30	E 17058.28	E 17054.67	E 17053.63	E 17047.98	E 17050.42	E 17043.32
Bottom depth (m)	62	116	100	119	140	170	362
Duration (minutes)	15.6	15.6	16.2	15.6	15	15.6	15.6
Distance fished (km)	1.433	1.448	1.566	1.453	1.402	1.417	1.43
Performance	0	5.1	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	25	19	8	129	33	0
Pacific cod	11	0	0	0	0	0	0
Walleye pollock	0	8	37	8	< 1	31	0
Pacific ocean perch	0	2	< 1	394	40	274	0
Northern rockfish	0	82	689	1,807	404	772	0
Shortraker rockfish	0	0	0	0	0	0	349
Rougheye rockfish	0	0	0	0	0	0	2
Shortspine thornyhead	0	0	0	0	6	13	9
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	0	< 1	< 1	0	< 1	6	6
Pacific halibut	12	0	0	0	0	0	0
Northern rock sole	24	10	4	10	0	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	0	0	0	0	2
Greenland turbot	0	0	0	0	0	0	16
Flathead sole	7	3	6	5	2	2	0
Rex sole	0	7	4	6	< 1	5	0
Dover sole	0	< 1	0	< 1	< 1	4	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	18	112	182	167	70	73	< 1
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	0	0
Other sculpins	15	2	2	3	< 1	2	0
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	2	18	11	< 1	13	41
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	0	< 1
Red king crab	0	0	4	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	0
Magistrate armhook squid	0	1	0	0	0	0	2
Sponge	0	< 1	< 1	0	2	3	94
Starfish	0	< 1	0	< 1	< 1	< 1	< 1
Soft coral	< 1	0	0	0	0	0	0
Stony coral unident.	0	0	< 1	0	0	0	0
Octopus	0	0	0	0	0	0	1
Snail	0	0	0	0	< 1	< 1	0
Other invertebrate	< 1	2	0	0	< 1	< 1	8
Total catch	86	258	968	2,420	657	1,233	533

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	36	37	38	39	40	41	43
Start date & time	06/19/02 08	06/19/02 15	06/19/02 17	06/19/02 19	06/19/02 21	06/20/02 08	06/20/02 11
Start latitude	N 5305.74	N 5249.12	N 5249.84	N 5250.75	N 5251.48	N 5305.49	N 5304.43
Start longitude	E 17141.93	E 17206.54	E 17212.71	E 17221.55	E 17227.62	E 17243.27	E 17248.96
End latitude	N 5305.18	N 5249.02	N 5249.90	N 5250.91	N 5251.75	N 5304.97	N 5304.24
End longitude	E 17141.08	E 17205.27	E 17213.98	E 17220.30	E 17226.27	E 17242.26	E 17247.72
Bottom depth (m)	458	365	381	240	149	116	94
Duration (minutes)	16.2	16.2	15.6	15.6	16.8	16.2	15.6
Distance fished (km)	1.454	1.457	1.437	1.458	1.62	1.52	1.449
Performance	1.11	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	0	0	0	< 1	0
Pacific cod	0	0	0	0	158	323	107
Walleye pollock	0	3	0	217	5	< 1	0
Pacific ocean perch	0	0	0	745	0	0	0
Northern rockfish	0	0	0	0	0	0	0
Shortraker rockfish	24	66	22	0	0	0	0
Rougheye rockfish	0	19	3	0	0	0	0
Shortspine thornyhead	8	233	47	< 1	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	113	0	2	0	0	0	0
Arrowtooth flounder	11	< 1	68	156	46	0	0
Pacific halibut	0	0	0	17	11	4	14
Northern rock sole	0	0	0	0	50	< 1	13
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	2	3	12	2	0	0
Greenland turbot	0	3	31	0	0	0	0
Flathead sole	0	0	0	0	33	0	0
Rex sole	0	0	5	0	< 1	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	5	3	0	22	0	0	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	0	< 1
Other sculpins	0	< 1	< 1	1	6	12	6
Eelpout unident.	0	0	0	0	0	0	0
Other fish	731	3	31	0	< 1	< 1	< 1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	1	5	0	3	2	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	0
Magistrate armhook squid	2	1	2	< 1	0	0	0
Sponge	205	147	12	91	< 1	2	4
Starfish	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Soft coral	< 1	< 1	< 1	0	0	0	< 1
Stony coral unident.	2	1	0	< 1	< 1	< 1	< 1
Octopus	< 1	< 1	0	2	0	0	0
Snail	0	0	< 1	< 1	0	0	< 1
Other invertebrate	2	< 1	< 1	< 1	< 1	3	< 1
Total catch	1,105	487	227	1,268	315	345	146

Fishing log: F/V *Sea Storm*, Cruise 200201

Haul number	44	45	46	47	48	49	50
Start date & time	06/20/02 12	06/20/02 13	06/20/02 16	06/20/02 17	06/21/02 08	06/21/02 12	06/21/02 14
Start latitude	N 5304.74	N 5304.02	N 5301.75	N 5258.16	N 5227.83	N 5240.03	N 5236.52
Start longitude	E 17249.58	E 17257.91	E 17312.22	E 17314.53	E 17322.38	E 17240.37	E 17251.67
End latitude	N 5304.60	N 5303.85	N 5302.010	N 5258.64	N 5228.07	N 5239.56	N 5237.03
End longitude	E 17250.87	E 17259.17	E 17311.010	E 17315.62	E 17323.60	E 17241.45	E 17250.69
Bottom depth (m)	98	116	135	87	166	415	209
Duration (minutes)	15.6	15.6	15.6	16.2	15.6	16.2	15.6
Distance fished (km)	1.479	1.463	1.437	1.555	1.481	1.529	1.503
Performance	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	< 1	0	0	0	0	0
Pacific cod	21	228	0	0	25	0	7
Walleye pollock	0	0	< 1	0	77	0	5
Pacific ocean perch	0	80	1	0	0	0	1,033
Northern rockfish	0	1,199	12	0	0	0	< 1
Shortraker rockfish	0	0	0	0	0	4	0
Rougheye rockfish	0	0	0	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	27	< 1
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	0	< 1	11	2	428	7	139
Pacific halibut	65	4	11	39	10	0	0
Northern rock sole	9	17	12	14	39	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	0	0	16	< 1	17
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	2	9	< 1	63	< 1	0
Rex sole	0	0	2	0	3	< 1	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	12	11	0	0	0	0	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	< 1	1	0	2	< 1	0
Other sculpins	0	11	7	0	3	0	< 1
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	10	< 1	0	4	58	< 1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	1	3
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	2
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	< 1	0	0	< 1	0	0	0
Magistrate armhook squid	0	0	0	0	0	1	1
Sponge	4	12	< 1	6	0	2	19
Starfish	< 1	< 1	< 1	< 1	1	< 1	< 1
Soft coral	< 1	41	2	0	0	0	0
Stony coral unident.	0	< 1	0	0	0	< 1	0
Octopus	0	0	8	0	0	0	0
Snail	< 1	0	< 1	0	0	0	< 1
Other invertebrate	1	6	< 1	1	36	< 1	< 1
Total catch	113	1,623	79	63	706	104	1,229

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	51	52	53	54	55	56	57
Start date & time	06/21/02 16	06/21/02 20	06/22/02 08	06/22/02 10	06/22/02 13	06/22/02 14	06/22/02 17
Start latitude	N 5228.30	N 5226.99	N 5248.97	N 5239.48	N 5236.100	N 5235.34	N 5234.77
Start longitude	E 17311.37	E 17346.50	E 17344.21	E 17352.83	E 17412.22	E 17417.39	E 17420.53
End latitude	N 5229.11	N 5227.69	N 5249.38	N 5239.54	N 5236.87	N 5235.54	N 5235.03
End longitude	E 17310.97	E 17347.09	E 17343.13	E 17351.55	E 17410.96	E 17416.12	E 17419.38
Bottom depth (m)	117	76	116	83	88	92	95
Duration (minutes)	16.8	16.2	16.2	15.6	16.2	16.8	15.6
Distance fished (km)	1.604	1.52	1.467	1.466	1.473	1.498	1.403
Performance	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	2	0	0	0	0
Pacific cod	0	0	20	27	11	277	0
Walleye pollock	< 1	0	0	0	0	< 1	0
Pacific ocean perch	0	0	0	0	0	< 1	0
Northern rockfish	0	0	0	0	0	668	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	58	4	12	0	< 1	< 1	0
Pacific halibut	18	3	17	20	6	139	20
Northern rock sole	44	110	27	65	51	< 1	8
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	0	0	0	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	8	3	0	0	13	0	0
Rex sole	0	0	0	0	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	0	0	24	2	0	13
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	2	5	0	0	0
Other sculpins	0	0	0	7	0	0	1
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	0	< 1	3	< 1	< 1	13
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	< 1	0	0	0	< 1	0
Magistrate armhook squid	0	< 1	0	0	0	0	0
Sponge	< 1	< 1	< 1	13	< 1	95	1
Starfish	0	< 1	< 1	< 1	< 1	< 1	< 1
Soft coral	0	0	0	159	1	234	1
Stony coral unident.	0	0	0	0	0	0	0
Octopus	0	0	0	0	0	0	0
Snail	0	0	< 1	< 1	0	0	0
Other invertebrate	< 1	< 1	< 1	2	2	2	< 1
Total catch	129	120	80	324	85	1,417	58

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	58	59	60	61	62	63	64
Start date & time	06/23/02 08	06/23/02 10	06/23/02 13	06/24/02 08	06/24/02 10	06/24/02 12	06/24/02 14
Start latitude	N 5144.64	N 5146.92	N 5147.46	N 5152.87	N 5153.40	N 5143.07	N 5146.73
Start longitude	E 17720.92	E 17729.21	E 17741.77	E 17743.30	E 17745.10	E 17756.13	E 17807.98
End latitude	N 5144.44	N 5146.53	N 5147.82	N 5152.52	N 5153.37	N 5143.33	N 5146.77
End longitude	E 17719.67	E 17728.13	E 17740.50	E 17742.09	E 17743.83	E 17754.94	E 17806.66
Bottom depth (m)	274	264	161	99	93	252	91
Duration (minutes)	16.2	15.6	17.4	16.8	15.6	15.6	16.8
Distance fished (km)	1.496	1.478	1.623	1.559	1.47	1.476	1.526
Performance	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	2	0	3	56	31	2	30
Pacific cod	0	0	22	13	56	1	3
Walleye pollock	10	209	1	< 1	0	243	0
Pacific ocean perch	104	76	2	0	0	1	0
Northern rockfish	0	0	12	30	0	0	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	1	0	0	0	0	0	0
Shortspine thornyhead	60	113	0	0	0	7	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	5	12	60	3	< 1	8	0
Pacific halibut	12	0	0	4	35	0	< 1
Northern rock sole	0	< 1	95	134	100	7	30
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	19	15	5	0	0	4	0
Greenland turbot	4	0	0	0	0	0	0
Flathead sole	0	0	2	0	0	0	0
Rex sole	0	10	< 1	< 1	0	8	0
Dover sole	0	2	0	0	0	< 1	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	3	3	1	0	8	1	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	5	0	< 1	0
Other sculpins	7	8	< 1	1	2	< 1	0
Eelpout unident.	0	2	0	0	0	< 1	0
Other fish	1	3	< 1	< 1	0	< 1	135
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	10	0	0	0	6	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	< 1	0	0	0	< 1	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	< 1	< 1	< 1	0	0
Magistrate armhook squid	2	0	0	0	0	< 1	0
Sponge	221	11	1	5	1	< 1	< 1
Starfish	< 1	< 1	< 1	< 1	< 1	< 1	0
Soft coral	0	< 1	0	< 1	0	0	0
Stony coral unident.	< 1	0	0	< 1	0	0	0
Octopus	< 1	2	0	0	4	0	0
Snail	1	0	< 1	< 1	0	0	< 1
Other invertebrate	2	< 1	< 1	< 1	< 1	< 1	< 1
Total catch	455	476	208	251	239	292	199

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	65	66	67	68	69	70	71
Start date & time	06/25/02 08	06/25/02 10	06/25/02 16	06/25/02 19	06/26/02 10	06/26/02 12	06/26/02 15
Start latitude	N 5139.18	N 5133.82	N 5135.11	N 5129.61	N 5111.72	N 5112.07	N 5130.74
Start longitude	E 17819.04	E 17819.93	E 17826.71	E 17840.29	W 17906.91	W 17901.17	W 17838.39
End latitude	N 5139.03	N 5134.09	N 5135.72	N 5129.94	N 5111.93	N 5112.69	N 5130.86
End longitude	E 17820.31	E 17818.79	E 17826.36	E 17839.13	W 17905.84	W 17900.52	W 17837.25
Bottom depth (m)	213	467	156	160	94	175	159
Duration (minutes)	16.2	15.6	13.8	16.2	14.4	15	14.4
Distance fished (km)	1.508	1.444	1.267	1.51	1.314	1.422	1.353
Performance	4.6	0	4.4	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	9	0	6,308	65	3,923	6,944	267
Pacific cod	5	0	180	72	40	4	2
Walleye pollock	11	0	1	1	0	2	0
Pacific ocean perch	< 1	0	< 1	20	0	0	0
Northern rockfish	3	< 1	3,753	63	0	0	0
Shortraker rockfish	0	28	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	0	0
Shortspine thornyhead	0	67	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	7	0
Arrowtooth flounder	59	16	< 1	< 1	2	29	2
Pacific halibut	0	42	0	0	0	0	17
Northern rock sole	43	< 1	15	9	41	0	181
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	6	425	0	0	< 1	< 1	0
Greenland turbot	0	6	0	0	0	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	11	0	0	0	0	1	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	26	0	0	8	0	18
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	< 1	0	2	0	0	0	< 1
Other sculpins	< 1	< 1	0	< 1	0	0	0
Eelpout unident.	0	0	0	0	0	0	0
Other fish	< 1	0	20	< 1	0	0	0
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	< 1	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	< 1	0	0	0	0	0
Scallop unident.	< 1	0	0	< 1	0	0	0
Magistrate armhook squid	0	7	0	1	< 1	0	0
Sponge	< 1	22	0	72	< 1	< 1	0
Starfish	< 1	< 1	0	< 1	< 1	0	< 1
Soft coral	0	< 1	0	0	0	< 1	0
Stony coral unident.	0	2	0	< 1	< 1	< 1	0
Octopus	0	0	0	1	0	0	0
Snail	0	0	0	< 1	0	0	0
Other invertebrate	< 1	23	0	3	0	0	5
Total catch	148	666	10,280	311	4,014	6,987	491

Fishing log: F/V *Sea Storm*, Cruise 200201

Haul number	72	73	74	75	76	77	78
Start date & time	06/26/02 17	06/28/02 08	06/28/02 10	06/28/02 14	06/28/02 18	06/29/02 09	06/29/02 12
Start latitude	N 5127.38	N 5124.83	N 5125.56	N 5135.81	N 5136.50	N 5137.81	N 5137.02
Start longitude	W 17826.75	W 17820.93	W 17823.67	W 17910.41	W 17851.59	W 17835.26	W 17905.52
End latitude	N 5127.59	N 5125.14	N 5125.87	N 5135.70	N 5136.92	N 5137.81	N 5137.03
End longitude	W 17827.97	W 17822.07	W 17824.81	W 17910.72	W 17850.66	W 17833.97	W 17905.53
Bottom depth (m)	280	409	407	243	322	84	266
Duration (minutes)	16.2	16.2	16.2	4.2	14.4	16.2	9
Distance fished (km)	1.493	1.474	1.466	0.41	1.403	1.498	0.706
Performance	0	0	0	-5	0	0	-1.2
Gear	172	172	172	172	172	172	172
Atka mackerel	8	0	19	0	0	5,707	0
Pacific cod	35	0	0	0	0	155	0
Walleye pollock	2	0	< 1	0	6	0	0
Pacific ocean perch	304	< 1	0	0	158	0	0
Northern rockfish	0	0	0	0	0	0	0
Shortraker rockfish	5	54	105	0	103	0	0
Rougheye rockfish	0	3	11	0	63	0	0
Shortspine thornyhead	0	6	13	0	< 1	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	9	0	0	43	0	0
Arrowtooth flounder	53	0	6	0	32	0	0
Pacific halibut	15	0	0	0	40	46	0
Northern rock sole	0	0	0	0	3	109	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	14	2	2	0	16	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	0	0	9	0	0
Dover sole	0	5	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	36	4	1	0	4	1	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	4	0
Other sculpins	13	< 1	0	0	5	< 1	0
Eelpout unident.	0	< 1	2	0	0	0	0
Other fish	< 1	48	5	0	< 1	1	0
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	3	0	0	0	< 1	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	< 1	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	0
Magistrate armhook squid	0	< 1	3	0	4	0	0
Sponge	9	< 1	< 1	0	24	16	0
Starfish	< 1	< 1	< 1	0	< 1	< 1	0
Soft coral	0	0	0	0	< 1	0	0
Stony coral unident.	1	< 1	< 1	0	0	< 1	0
Octopus	0	0	0	0	0	0	0
Snail	0	0	0	0	0	0	0
Other invertebrate	2	< 1	< 1	0	< 1	2	0
Total catch	499	133	168	0	510	6,042	0

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	79	80	81	82	83	84	85
Start date & time	06/29/02 13	06/29/02 17	06/30/02 08	06/30/02 10	06/30/02 14	06/30/02 16	07/03/02 13
Start latitude	N 5136.66	N 5139.12	N 5139.87	N 5146.34	N 5157.15	N 5157.60	N 5135.75
Start longitude	W 17907.81	W 17831.43	W 17751.61	W 17729.58	W 17649.72	W 17629.88	W 17620.15
End latitude	N 5136.91	N 5139.04	N 5139.51	N 5146.69	N 5156.39	N 5158.31	N 5135.67
End longitude	W 17906.26	W 17832.65	W 17752.73	W 17728.41	W 17650.08	W 17630.41	W 17620.74
Bottom depth (m)	157	260	56	80	92	93	354
Duration (minutes)	16.8	15	15.6	16.2	15.6	15.6	13.2
Distance fished (km)	1.848	1.426	1.479	1.515	1.519	1.501	1.128
Performance	-5.7	0	0	0	0	0	-1.2
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	3	0	0	0	0
Pacific cod	0	0	15	1	0	12	4
Walleye pollock	0	429	0	0	0	< 1	5
Pacific ocean perch	0	651	0	0	0	0	1
Northern rockfish	0	< 1	0	0	0	0	0
Shortraker rockfish	0	0	0	0	0	0	54
Rougheye rockfish	0	0	0	0	0	0	49
Shortspine thornyhead	0	0	0	0	0	0	7
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	36	0	0	0	0	3
Arrowtooth flounder	0	37	2	26	0	49	< 1
Pacific halibut	0	0	10	12	121	14	0
Northern rock sole	0	20	18	103	6	176	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	38	2	< 1	0	3	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	1	0	0	0	8	0
Rex sole	0	31	0	< 1	0	10	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	4	0	0	0	0	11
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	< 1	0	0	0
Other sculpins	0	10	0	< 1	13	3	< 1
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	< 1	< 1	< 1	< 1	< 1	< 1
Bairdi tanner crab	0	0	0	0	0	< 1	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	< 1	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	< 1	< 1	0
Magistrate armhook squid	0	0	0	0	0	0	< 1
Sponge	0	< 1	< 1	0	2	< 1	5
Starfish	0	0	0	< 1	1	1	0
Soft coral	0	< 1	0	< 1	0	0	< 1
Stony coral unident.	0	0	0	0	0	0	< 1
Octopus	0	0	0	< 1	0	0	0
Snail	0	0	0	0	< 1	< 1	0
Other invertebrate	0	< 1	< 1	2	10	1	< 1
Total catch	0	1,258	51	147	153	278	141

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	86	87	88	89	90	91	92
Start date & time	07/03/02 15	07/03/02 16	07/04/02 08	07/04/02 11	07/04/02 14	07/04/02 15	07/04/02 19
Start latitude	N 5136.35	N 5136.20	N 5133.79	N 5136.57	N 5136.49	N 5140.86	N 5133.57
Start longitude	W 17617.65	W 17624.59	W 17644.25	W 17708.71	W 17710.80	W 17710.82	W 17736.98
End latitude	N 5136.010	N 5136.00	N 5133.54	N 5136.06	N 5136.95	N 5140.59	N 5133.23
End longitude	W 17618.85	W 17625.76	W 17645.39	W 17709.56	W 17709.87	W 17711.98	W 17738.08
Bottom depth (m)	352	244	175	303	224	90	375
Duration (minutes)	15.6	15	15	15	14.4	15.6	15
Distance fished (km)	1.484	1.426	1.409	1.397	1.398	1.447	1.445
Performance	0	0	0	0	5.8	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	2	0	0	45	0
Pacific cod	12	28	27	0	7	25	0
Walleye pollock	8	70	4	3	11	0	0
Pacific ocean perch	0	361	20	56	390	4	<1
Northern rockfish	0	0	0	0	<1	0	0
Shortraker rockfish	22	6	0	67	3	0	84
Rougheye rockfish	42	30	0	42	<1	0	27
Shortspine thornyhead	13	10	0	13	3	0	27
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	3	0	0	3	1	0	3
Arrowtooth flounder	0	5	3	117	28	0	3
Pacific halibut	0	0	0	0	7	5	15
Northern rock sole	0	0	0	0	1	75	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	3	<1	0	0	<1	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	<1	<1	0	11	1	0	13
Dover sole	0	0	0	0	0	0	<1
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	25	<1	0	2	8	1	15
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	<1	0
Other sculpins	<1	7	3	11	10	<1	2
Eelpout unident.	0	0	0	0	0	0	0
Other fish	<1	0	<1	44	<1	0	267
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	<1	0	0	0	4
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	<1	0	0	0	<1	0	0
Scallop unident.	0	0	0	0	0	<1	0
Magistrate armhook squid	<1	<1	0	3	<1	0	<1
Sponge	17	15	13	14	25	<1	19
Starfish	<1	<1	<1	1	<1	<1	<1
Soft coral	<1	0	0	<1	0	0	1
Stony coral unident.	<1	<1	0	<1	<1	<1	<1
Octopus	0	0	<1	<1	0	0	0
Snail	<1	0	0	<1	0	0	0
Other invertebrate	2	<1	<1	9	9	5	4
Total catch	148	534	74	398	509	162	487

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	93	94	95	96	97	98	99
Start date & time	07/05/02 11	07/05/02 13	07/05/02 16	07/06/02 09	07/06/02 11	07/06/02 14	07/06/02 17
Start latitude	N 5150.98	N 5151.33	N 5155.48	N 5203.64	N 5158.49	N 5156.25	N 5156.63
Start longitude	E 17826.03	E 17816.66	E 17814.98	E 17817.85	E 17813.45	E 17809.73	E 17804.15
End latitude	N 5150.41	N 5151.67	N 5155.83	N 5203.27	N 5158.90	N 5155.92	N 5156.08
End longitude	E 17826.82	E 17815.56	E 17814.37	E 17818.90	E 17812.41	E 17810.81	E 17804.87
Bottom depth (m)	397	92	242	350	92	344	435
Duration (minutes)	15	15	10.2	15	15.6	15	14.4
Distance fished (km)	1.378	1.436	0.974	1.433	1.378	1.403	1.356
Performance	1.11	0	4.4	0	0	0	5.8
Gear	172	172	172	172	172	172	172
Atka mackerel	0	256	0	0	115	0	0
Pacific cod	0	72	20	0	0	0	0
Walleye pollock	0	< 1	418	36	< 1	246	2
Pacific ocean perch	2	0	8,641	206	0	9	0
Northern rockfish	0	0	6	0	0	< 1	0
Shortraker rockfish	54	0	124	11	0	3	29
Rougheye rockfish	31	0	124	149	0	26	3
Shortspine thornyhead	35	0	0	8	0	7	12
Light dusky rockfish	0	0	2	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	2	0	0	0	0	0	0
Arrowtooth flounder	28	0	789	50	0	22	0
Pacific halibut	0	18	42	0	11	0	36
Northern rock sole	0	45	21	2	13	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	198	0	14	6	0	95	22
Greenland turbot	7	0	0	0	0	6	5
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	0	1	0	4	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	1	12	0	13	0	4	9
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	1	0	0	2	0	0
Other sculpins	8	< 1	< 1	1	2	0	< 1
Eelpout unident.	0	0	0	< 1	0	4	3
Other fish	1	< 1	0	3	< 1	17	60
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	< 1	1	0	< 1	2
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	< 1	0	0
Magistrate armhook squid	1	0	0	< 1	0	4	< 1
Sponge	15	1	0	6	< 1	0	< 1
Starfish	< 1	< 1	0	< 1	2	< 1	< 1
Soft coral	< 1	< 1	< 1	0	0	0	0
Stony coral unident.	< 1	< 1	0	0	0	0	< 1
Octopus	0	0	0	0	0	0	0
Snail	< 1	< 1	0	< 1	< 1	< 1	< 1
Other invertebrate	2	2	0	6	31	< 1	0
Total catch	386	408	10,203	500	177	449	184

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	100	101	102	103	104	105	106
Start date & time	07/07/02 08	07/07/02 13	07/07/02 15	07/07/02 17	07/07/02 19	07/08/02 08	07/08/02 10
Start latitude	N 5142.98	N 5145.45	N 5150.61	N 5151.07	N 5201.46	N 5208.98	N 5210.77
Start longitude	E 17547.12	E 17540.09	E 17551.47	E 17552.58	E 17553.30	E 17506.79	E 17510.57
End latitude	N 5143.00	N 5144.98	N 5151.03	N 5150.70	N 5202.02	N 5209.27	N 5210.34
End longitude	E 17548.29	E 17540.97	E 17552.46	E 17551.59	E 17552.59	E 17507.81	E 17509.56
Bottom depth (m)	94	90	83	86	153	209	172
Duration (minutes)	15	15	15	14.4	15	14.4	15.6
Distance fished (km)	1.359	1.373	1.413	1.356	1.394	1.316	1.434
Performance	5.1	5.8	-2.1	5.8	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	52	38	8	124	1,565	5	2
Pacific cod	0	0	0	0	0	0	0
Walleye pollock	1	0	0	0	4	2	<1
Pacific ocean perch	800	0	0	<1	1,401	4	23
Northern rockfish	857	89	3	318	1,522	0	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	23	3	0	3	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	0	0	0	0	2	15	62
Pacific halibut	0	0	0	0	90	0	0
Northern rock sole	19	0	0	3	11	<1	5
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	0	0	0	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	1	0	0	0	6	0	0
Rex sole	14	0	0	0	37	<1	<1
Dover sole	0	0	0	0	<1	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	<1	38	0	0	19	0	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	<1	2	0	15	0	0	0
Other sculpins	<1	0	0	0	2	3	<1
Eelpout unident.	0	0	0	0	0	0	0
Other fish	20	16	0	6	66	<1	1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	<1	0	0
Red king crab	<1	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	<1	0	0	0	0	0
Magistrate armhook squid	0	0	0	0	0	0	0
Sponge	36	31	15	9	<1	7	21
Starfish	<1	2	1	0	<1	<1	<1
Soft coral	<1	<1	<1	0	0	0	<1
Stony coral unident.	6	20	<1	<1	0	2	<1
Octopus	0	4	0	0	0	0	<1
Snail	<1	<1	<1	<1	<1	0	0
Other invertebrate	5	17	2	2	<1	<1	2
Total catch	1,837	261	29	481	4,728	40	118

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	107	108	109	110	111	112	113
Start date & time	07/08/02 12	07/08/02 14	07/08/02 17	07/09/02 11	07/09/02 15	07/09/02 18	07/10/02 15
Start latitude	N 5210.47	N 5211.53	N 5217.27	N 5221.39	N 5216.33	N 5215.20	N 5203.11
Start longitude	E 17514.23	E 17516.91	E 17520.94	E 17549.91	E 17559.22	E 17600.70	E 17723.91
End latitude	N 5210.05	N 5211.27	N 5217.10	N 5222.13	N 5215.82	N 5214.66	N 5202.31
End longitude	E 17513.24	E 17515.77	E 17522.11	E 17549.64	E 17600.11	E 17601.44	E 17723.75
Bottom depth (m)	221	215	245	85	144	144	136
Duration (minutes)	15	15	15	15.6	15	14.4	15.6
Distance fished (km)	1.411	1.403	1.414	1.453	1.423	1.345	1.528
Performance	0	0	0	1.11	5.8	-2.4	-5.1
Gear	172	172	172	172	172	172	172
Atka mackerel	2	< 1	0	17	6,146	3,052	20
Pacific cod	0	0	0	19	441	56	.1
Walleye pollock	< 1	2	0	0	3	0	0
Pacific ocean perch	604	911	792	0	256	11	0
Northern rockfish	< 1	0	0	52	2,102	132	2
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	3	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	50	37	15	0	0	0	0
Pacific halibut	15	49	0	< 1	0	0	0
Northern rock sole	2	0	0	18	0	0	3
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	5	0	0	< 1	0	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	3	0	0	0	0	0	0
Dover sole	0	< 1	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	< 1	28	11	0	0	0	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	0	1
Other sculpins	< 1	2	3	0	14	< 1	1
Eelpout unident.	0	0	0	0	0	0	0
Other fish	< 1	< 1	0	7	8	28	< 1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	4	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	< 1	0
Magistrate armhook squid	0	0	0	0	0	0	0
Sponge	4	112	340	55	5	2	5
Starfish	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Soft coral	0	0	< 1	< 1	< 1	0	0
Stony coral unident.	< 1	2	< 1	< 1	1	< 1	2
Octopus	< 1	0	3	0	4	0	0
Snail	0	0	0	0	0	< 1	0
Other invertebrate	< 1	6	2	2	3	< 1	1
Total catch	689	1,151	1,174	171	8,985	3,283	36

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	114	115	116	117	118	119	120
Start date & time	07/10/02 17	07/10/02 19	07/11/02 08	07/11/02 14	07/11/02 15	07/11/02 17	07/11/02 18
Start latitude	N 5202.49	N 5204.27	N 5204.17	N 5201.60	N 5200.23	N 5200.56	N 5159.51
Start longitude	E 17723.77	E 17719.06	E 17714.41	E 17744.99	E 17749.67	E 17749.67	E 17740.18
End latitude	N 5203.32	N 5204.94	N 5204.30	N 5201.73	N 5200.30	N 5201.29	N 5159.74
End longitude	E 17723.79	E 17718.46	E 17715.61	E 17743.82	E 17749.52	E 17749.55	E 17739.01
Bottom depth (m)	138	172	94	198	111	113	83
Duration (minutes)	16.2	15	15.6	15	9	15	15
Distance fished (km)	1.557	1.47	1.415	1.387	0.769	1.395	1.426
Performance	1.11	0	3.2	0	-1.2	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	26	7	2,160	2	11	158	57
Pacific cod	43	21	710	4	45	20	6
Walleye pollock	< 1	8	0	4	0	0	0
Pacific ocean perch	0	70	6	2	< 1	0	0
Northern rockfish	8	8	1,145	0	81	5	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	< 1	0	0	8	0	0	2
Pacific halibut	0	11	0	0	0	0	2
Northern rock sole	26	15	0	9	< 1	5	8
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	< 1	17	0	6	0	0	< 1
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	0	5	0	0	< 1
Rex sole	0	0	0	< 1	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	< 1	32	0	0	0	0	12
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	2	0	0	0	0	< 1	0
Other sculpins	13	6	< 1	2	< 1	1	0
Eelpout unident.	0	0	0	0	0	0	0
Other fish	2	3	18	< 1	< 1	< 1	0
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	< 1	0	0	0	0	0
Red king crab	7	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	< 1	< 1	0	8	< 1	< 1	< 1
Magistrate armhook squid	0	0	0	< 1	< 1	0	0
Sponge	30	53	150	1	197	42	1
Starfish	1	3	2	< 1	< 1	< 1	0
Soft coral	< 1	< 1	< 1	0	0	0	0
Stony coral unident.	< 1	4	120	0	6	4	< 1
Octopus	2	6	0	< 1	0	12	0
Snail	< 1	< 1	< 1	0	< 1	< 1	0
Other invertebrate	46	53	56	3	11	9	< 1
Total catch	208	318	4,368	56	353	261	89

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	121	122	123	124	125	126	127
Start date & time	07/13/02 08	07/13/02 10	07/13/02 12	07/13/02 14	07/13/02 16	07/13/02 18	07/14/02 08
Start latitude	N 5202.34	N 5202.82	N 5210.89	N 5216.41	N 5212.89	N 5213.36	N 5205.00
Start longitude	E 17924.93	E 17925.30	E 17937.04	E 17955.78	W 17956.81	W 17949.43	W 17943.49
End latitude	N 5203.01	N 5202.10	N 5210.34	N 5216.30	N 5212.16	N 5214.11	N 5204.37
End longitude	E 17925.42	E 17924.77	E 17936.14	E 17954.53	W 17956.71	W 17949.67	W 17944.12
Bottom depth (m)	153	151	132	96	96	122	330
Duration (minutes)	15	15.6	16.2	15.6	15	15.6	15
Distance fished (km)	1.424	1.527	1.483	1.453	1.394	1.466	1.422
Performance	-5.8	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	1	< 1	0	< 1	0	< 1	0
Pacific cod	10	12	0	6	0	0	0
Walleye pollock	0	0	< 1	< 1	0	5	0
Pacific ocean perch	0	0	0	0	0	< 1	6
Northern rockfish	0	0	0	0	0	0	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	0	5
Shortspine thornyhead	0	0	0	0	0	0	38
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	0	0	0	0	0	0	11
Pacific halibut	0	0	0	40	0	16	0
Northern rock sole	7	63	8	67	137	6	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	0	0	0	0	3
Greenland turbot	0	0	0	0	0	0	2
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	0	0	0	0	3
Dover sole	0	0	0	0	0	0	9
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	56	47	0	< 1	< 1	1
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	1	0	2	< 1	0	0
Other sculpins	< 1	4	7	2	< 1	7	< 1
Eelpout unident.	0	0	0	0	0	0	< 1
Other fish	< 1	< 1	< 1	< 1	< 1	< 1	23
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	0	0
Red king crab	0	25	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	102	2	< 1	119	0
Magistrate armhook squid	0	0	0	0	0	0	1
Sponge	< 1	190	24	2	15	59	< 1
Starfish	< 1	2	1	< 1	2	< 1	< 1
Soft coral	< 1	0	< 1	0	0	< 1	0
Stony coral unident.	1	4	1	< 1	< 1	< 1	0
Octopus	0	< 1	0	0	0	< 1	0
Snail	0	< 1	< 1	< 1	< 1	< 1	0
Other invertebrate	< 1	2	30	3	2	43	< 1
Total catch	22	360	222	127	158	259	104

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	128	129	130	131	132	133	134
Start date & time	07/14/02 10	07/14/02 16	07/15/02 08	07/15/02 12	07/15/02 14	07/15/02 17	07/15/02 19
Start latitude	N 5203.37	N 5153.39	N 5212.16	N 5211.91	N 5212.04	N 5213.66	N 5214.62
Start longitude	W 17948.22	E 17944.11	E 17612.66	E 17606.17	E 17605.93	E 17602.28	E 17601.42
End latitude	N 5202.92	N 5152.92	N 5211.73	N 5211.84	N 5212.44	N 5214.010	N 5215.21
End longitude	W 17949.19	E 17943.06	E 17613.60	E 17606.19	E 17604.92	E 17601.25	E 17600.62
Bottom depth (m)	249	93	93	157	157	156	146
Duration (minutes)	15	16.2	15	7.2	15.6	15.6	15.6
Distance fished (km)	1.425	1.516	1.375	0.44	1.406	1.459	1.469
Performance	0	0	5.8	-1.2	4.1	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	2,109	2,887	398	7,141	117	5,776
Pacific cod	0	92	196	29	173	13	1,486
Walleye pollock	208	0	0	0	0	0	0
Pacific ocean perch	307	8	< 1	61	312	75	6
Northern rockfish	1	0	239	0	10	45	49
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	0	0
Shortspine thornyhead	13	0	0	0	0	0	0
Light dusky rockfish	0	0	5	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	6	0	0	0	0	0	0
Pacific halibut	0	36	0	0	0	0	0
Northern rock sole	2	30	0	0	12	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	4	0	0	0	0	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	23	0	0	0	0	0	0
Dover sole	6	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	11	87	0	0	32	14	7
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	15	0	0	0	0	0
Other sculpins	42	< 1	< 1	< 1	< 1	1	0
Eelpout unident.	0	0	0	0	0	0	0
Other fish	< 1	< 1	49	9	24	7	4
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	1	0	< 1	0	< 1	5	5
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	< 1	0	0	0	0	0
Magistrate armhook squid	3	< 1	0	0	0	0	0
Sponge	0	186	110	2	10	57	9
Starfish	< 1	8	1	< 1	< 1	2	< 1
Soft coral	0	< 1	2	0	< 1	< 1	0
Stony coral unident.	0	< 1	9	< 1	< 1	< 1	< 1
Octopus	0	0	0	0	3	0	0
Snail	0	< 1	< 1	< 1	< 1	< 1	< 1
Other invertebrate	< 1	43	40	4	3	1	< 1
Total catch	628	2,616	3,539	504	7,725	340	7,342

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	135	136	137	138	139	140	141
Start date & time	07/16/02 08	07/16/02 12	07/16/02 15	07/16/02 19	07/17/02 08	07/17/02 14	07/17/02 18
Start latitude	N 5216.01	N 5216.58	N 5225.66	N 5213.84	N 5212.97	N 5207.52	N 5211.63
Start longitude	E 17607.64	E 17603.54	E 17542.37	E 17514.52	E 17516.48	E 17613.98	E 17606.82
End latitude	N 5216.26	N 5217.08	N 5226.09	N 5214.40	N 5213.51	N 5207.90	N 5211.95
End longitude	E 17606.50	E 17602.66	E 17541.30	E 17515.34	E 17517.35	E 17612.91	E 17605.98
Bottom depth (m)	232	133	153	152	174	237	153
Duration (minutes)	15.6	15	16.2	15	15.6	15.6	12
Distance fished (km)	1.427	1.412	1.476	1.449	1.464	1.444	1.148
Performance	5.8	0	4.4	0	0	4.4	0
Gear	172	172	172	172	172	172	172
Atka mackerel	< 1	2,959	5,590	27	5	2	4,216
Pacific cod	0	815	308	0	2	3	405
Walleye pollock	1,528	1	0	< 1	1	79	11
Pacific ocean perch	4,908	< 1	< 1	268	508	8,375	277
Northern rockfish	0	1,473	7	2	0	< 1	377
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	241	0	0	0	0	4	0
Shortspine thornyhead	3	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	15	0	0	0	8	3	0
Pacific halibut	0	0	0	9	0	0	0
Northern rock sole	4	2	0	0	0	2	7
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	48	0	0	0	0	4	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	0	0	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	50	38	31	0	0	52	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	0	0
Other sculpins	< 1	< 1	0	< 1	< 1	< 1	< 1
Eelpout unident.	0	0	0	0	0	0	0
Other fish	< 1	5	< 1	13	2	8	63
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	1	2	1	2	4	3
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	0
Magistrate armhook squid	2	0	0	0	0	0	0
Sponge	0	13	< 1	282	3	0	2
Starfish	0	< 1	< 1	2	0	< 1	< 1
Soft coral	0	0	0	< 1	0	0	0
Stony coral unident.	0	< 1	< 1	81	0	0	0
Octopus	0	0	0	0	0	2	0
Snail	0	0	0	< 1	0	0	0
Other invertebrate	< 1	< 1	< 1	8	< 1	0	< 1
Total catch	6,800	5,310	5,940	693	532	8,540	5,362

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	142	143	144	145	146	147	148
Start date & time	07/18/02 12	07/20/02 08	07/20/02 10	07/20/02 12	07/20/02 14	07/20/02 16	07/21/02 09
Start latitude	N 5100.78	N 5218.81	N 5218.82	N 5215.47	N 5215.92	N 5212.08	N 5228.27
Start longitude	E 17553.16	W 17348.59	W 17338.60	W 17340.27	W 17348.04	W 17354.75	W 17334.52
End latitude	N 5100.79	N 5218.70	N 5219.14	N 5216.16	N 5215.61	N 5212.11	N 5227.95
End longitude	E 17553.38	W 17349.74	W 17339.70	W 17339.82	W 17346.94	W 17353.55	W 17335.62
Bottom depth (m)	83	112	408	139	120	178	201
Duration (minutes)	7.2	14.4	15.6	15	15	15	15
Distance fished (km)	0.506	1.334	1.416	1.424	1.397	1.382	1.409
Performance	-1.2	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	7	0	0	0	0	2	0
Pacific cod	0	7	0	5	11	0	2
Walleye pollock	0	2	9	0	9	31	2
Pacific ocean perch	3	0	0	0	0	3	379
Northern rockfish	330	0	0	<1	0	0	280
Shortraker rockfish	0	0	34	0	0	0	0
Rougheye rockfish	0	0	2	0	0	1	1
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	9	0	0	0	0	0	0
Sablefish	0	0	3	0	0	0	0
Arrowtooth flounder	0	56	0	3	2	40	9
Pacific halibut	0	3	12	0	0	4	0
Northern rock sole	<1	4	0	0	1	0	0
Southern rock sole	0	0	0	0	0	0	<1
Kamchatka flounder	0	14	8	3	7	5	3
Greenland turbot	0	0	63	0	0	0	0
Flathead sole	0	2	0	14	19	54	2
Rex sole	0	0	10	0	9	10	0
Dover sole	0	0	2	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	2	1	0	<1	0	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	<1	0	0	0	0	0	0
Other sculpins	0	2	<1	2	2	1	11
Eelpout unident.	0	0	<1	0	0	0	0
Other fish	7	3	<1	0	<1	<1	10
Bairdi tanner crab	0	0	0	<1	<1	2	0
Golden king crab	<1	0	1	0	0	0	2
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	<1	0	2	<1	<1	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	<1	0	0	0	0	0
Magistrate armhook squid	0	0	2	1	0	<1	<1
Sponge	98	2	<1	<1	0	<1	75
Starfish	<1	<1	<1	<1	0	<1	<1
Soft coral	0	0	<1	0	0	0	0
Stony coral unident.	2	0	0	<1	<1	0	<1
Octopus	0	0	<1	0	0	0	0
Snail	<1	<1	0	<1	<1	0	<1
Other invertebrate	5	9	1	<1	2	<1	3
Total catch	463	108	152	32	64	156	780

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	149	150	151	152	153	154	155
Start date & time	07/21/02 12	07/21/02 14	07/21/02 16	07/22/02 08	07/22/02 11	07/22/02 14	07/22/02 16
Start latitude	N 5230.25	N 5230.79	N 5233.67	N 5228.89	N 5229.34	N 5238.35	N 5238.71
Start longitude	W 17333.05	W 17329.59	W 17319.17	W 17235.11	W 17233.35	W 17221.94	W 17216.39
End latitude	N 5230.10	N 5231.26	N 5233.67	N 5228.19	N 5229.08	N 5238.01	N 5239.38
End longitude	W 17334.26	W 17328.61	W 17317.96	W 17235.44	W 17234.52	W 17223.06	W 17215.74
Bottom depth (m)	247	220	210	429	417	434	401
Duration (minutes)	15.6	15.6	15	14.4	15.6	15.6	15.6
Distance fished (km)	1.417	1.447	1.387	1.391	1.439	1.445	1.485
Performance	0	0	0	0	4.4	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	0	0	0	0	0
Pacific cod	0	0	0	0	0	0	0
Walleye pollock	1	1	0	0	0	0	0
Pacific ocean perch	985	1,666	10	0	0	0	<1
Northern rockfish	0	0	0	0	0	0	0
Shortraker rockfish	0	0	0	39	6	0	17
Rougheye rockfish	0	1	0	0	6	2	1
Shortspine thornyhead	0	0	0	0	0	<1	5
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	23	3	0	2
Arrowtooth flounder	6	47	54	0	0	<1	0
Pacific halibut	0	0	0	0	0	0	0
Northern rock sole	0	0	0	0	0	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	2	18	5	16	11	25	0
Greenland turbot	0	0	0	51	33	6	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	1	3	0	0	3	0
Dover sole	0	<1	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	9	<1	8	0	2	10
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	0	0
Other sculpins	13	12	4	2	0	0	9
Eelpout unident.	0	0	0	<1	0	<1	<1
Other fish	<1	19	<1	1,532	13,914	26	<1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	8	7	0	0	<1	2
Red king crab	0	0	0	0	0	0	0
Northern shrimp	<1	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	0
Magistrate armhook squid	1	0	0	<1	0	2	<1
Sponge	2	56	62	0	5	<1	24
Starfish	<1	<1	<1	<1	0	0	<1
Soft coral	0	6	<1	0	0	<1	5
Stony coral unident.	<1	<1	<1	0	0	0	<1
Octopus	0	0	0	0	0	0	0
Snail	0	0	<1	0	0	0	0
Other invertebrate	1	2	3	<1	2	<1	<1
Total catch	1,013	1,846	148	1,673	13,980	68	78

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	156	157	158	159	160	161	162
Start date & time	07/23/02 09	07/23/02 15	07/24/02 08	07/24/02 10	07/27/02 10	07/27/02 13	07/27/02 19
Start latitude	N 5219.86	N 5212.59	N 5224.82	N 5226.39	N 5150.37	N 5157.94	N 5203.63
Start longitude	W 17244.82	W 17212.34	W 17349.27	W 17346.43	W 17355.00	W 17352.36	W 17233.24
End latitude	N 5220.62	N 5213.14	N 5224.77	N 5226.22	N 5150.45	N 5157.90	N 5204.26
End longitude	W 17244.84	W 17213.16	W 17348.05	W 17345.40	W 17353.77	W 17351.52	W 17233.36
Bottom depth (m)	447	355	131	253	323	87	150
Duration (minutes)	15.6	15.6	15	13.2	15.6	10.8	6
Distance fished (km)	1.425	1.422	1.401	1.235	1.442	0.984	0.662
Performance	0	0	0	0	0	2.1	-5
Gear	172	172	172	172	172	172	172
Atka mackerel	< 1	0	0	0	< 1	260	313
Pacific cod	0	0	156	12	0	2	0
Walleye pollock	5	6	3	897	15	0	0
Pacific ocean perch	0	0	0	1,208	5	0	0
Northern rockfish	0	0	0	0	0	12	0
Shortraker rockfish	0	0	0	0	48	0	0
Rougheye rockfish	1	4	0	0	124	0	0
Shortspine thornyhead	0	0	0	0	27	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	< 1	0	0
Sablefish	49	8	0	0	14	0	0
Arrowtooth flounder	0	50	25	7	13	0	0
Pacific halibut	17	39	4	0	18	0	3
Northern rock sole	0	2	5	0	0	5	0
Southern rock sole	0	0	0	0	0	4	0
Kamchatka flounder	18	20	3	19	0	0	0
Greenland turbot	390	23	0	0	0	0	0
Flathead sole	0	0	0	5	0	0	0
Rex sole	0	0	0	< 1	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	93	84	1	10	0	0	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	3	3
Other sculpins	< 1	8	< 1	5	14	0	0
Eelpout unident.	1	< 1	0	0	0	0	0
Other fish	2	7	< 1	< 1	8	6	< 1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	8	0	0	0	< 1	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	< 1	< 1	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	< 1	0	< 1	0
Magistrate armhook squid	8	2	0	< 1	2	< 1	0
Sponge	< 1	15	0	< 1	101	414	36
Starfish	< 1	< 1	< 1	< 1	< 1	3	< 1
Soft coral	0	2	0	0	< 1	0	< 1
Stony coral unident.	0	1	0	0	< 1	13	5
Octopus	0	0	0	0	< 1	0	0
Snail	0	0	< 1	0	< 1	< 1	< 1
Other invertebrate	2	11	2	< 1	1	16	10
Total catch	597	282	201	2,165	392	739	371

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	163	164	165	166	167	168	169
Start date & time	07/28/02 08	07/28/02 09	07/28/02 12	07/28/02 15	07/29/02 08	07/29/02 10	07/29/02 12
Start latitude	N 5203.62	N 5205.64	N 5207.69	N 5210.85	N 5214.30	N 5210.88	N 5209.59
Start longitude	W 17233.25	W 17225.72	W 17228.66	W 17227.72	W 17207.48	W 17226.18	W 17240.61
End latitude	N 5204.23	N 5206.03	N 5207.96	N 5210.45	N 5215.03	N 5210.60	N 5209.20
End longitude	W 17233.93	W 17224.72	W 17227.53	W 17226.62	W 17207.21	W 17225.04	W 17239.53
Bottom depth (m)	149	163	163	185	364	197	153
Duration (minutes)	15	15	15	15.6	15	15	15.6
Distance fished (km)	1.41	1.389	1.404	1.482	1.432	1.418	1.45
Performance	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	237	43	117	4	2	7	2
Pacific cod	73	0	8	20	0	23	0
Walleye pollock	1	0	0	15	53	40	0
Pacific ocean perch	< 1	< 1	65	0	< 1	26	0
Northern rockfish	25	0	< 1	< 1	0	< 1	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	3	0	0
Arrowtooth flounder	0	0	0	0	21	< 1	0
Pacific halibut	5	24	49	0	0	0	162
Northern rock sole	4	27	0	0	0	1	75
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	0	0	16	0	0
Greenland turbot	0	0	0	0	4	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	0	0	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	19	43	50	83	63	19	57
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	28	3	0	0	0	0	3
Other sculpins	2	4	15	16	4	12	< 1
Eelpout unident.	0	0	0	0	0	0	0
Other fish	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	< 1	0	0	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	< 1	0	< 1	0
Magistrate armhook squid	0	0	0	0	< 1	0	0
Sponge	89	208	434	14	35	152	193
Starfish	< 1	1	4	1	< 1	< 1	2
Soft coral	< 1	1	< 1	< 1	< 1	< 1	< 1
Stony coral unident.	< 1	4	6	< 1	< 1	< 1	6
Octopus	0	0	0	0	0	0	2
Snail	< 1	< 1	< 1	< 1	0	0	< 1
Other invertebrate	8	35	41	11	8	5	24
Total catch	495	393	789	167	210	287	526

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	170	171	172	173	174	175	176
Start date & time	07/29/02 14	07/29/02 17	07/29/02 19	07/30/02 08	07/30/02 09	07/30/02 10	07/30/02 12
Start latitude	N 5212.56	N 5215.78	N 5214.98	N 5214.74	N 5217.63	N 5217.63	N 5217.06
Start longitude	W 17249.87	W 17252.97	W 17258.96	W 17323.19	W 17322.60	W 17323.09	W 17314.83
End latitude	N 5212.18	N 5215.53	N 5214.64	N 5214.010	N 5217.66	N 5217.55	N 5217.25
End longitude	W 17249.29	W 17251.81	W 17257.86	W 17323.84	W 17322.97	W 17321.87	W 17316.02
Bottom depth (m)	169	168	141	112	365	350	357
Duration (minutes)	10.2	15.6	15	15.6	12.6	15	15
Distance fished (km)	0.979	1.426	1.429	1.451	1.017	1.415	1.442
Performance	0	0	0	0	-1.2	5.1	0
Gear	172	172	172	172	172	172	172
Atka mackerel	1,210	106	22	0	0	0	0
Pacific cod	184	6	78	2	0	0	0
Walleye pollock	4,970	0	3	0	16	122	36
Pacific ocean perch	0	0	0	< 1	< 1	3	2
Northern rockfish	0	0	0	0	0	0	0
Shortraker rockfish	0	0	0	0	0	0	14
Rougheye rockfish	0	0	0	0	2	2	7
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	4	0	0	0	0	3	3
Arrowtooth flounder	39	20	21	7	1	4	0
Pacific halibut	8	31	3	0	6	0	0
Northern rock sole	14	48	15	0	0	< 1	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	7	19	3	2	2	8	3
Greenland turbot	15	0	0	0	8	2	32
Flathead sole	0	0	0	0	0	< 1	0
Rex sole	0	0	0	0	18	14	4
Dover sole	0	0	0	0	1	< 1	< 1
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	293	14	18	0	< 1	0	< 1
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	3	1	0	0	0	0
Other sculpins	0	< 1	< 1	2	< 1	5	7
Eelpout unident.	0	0	0	0	< 1	1	1
Other fish	0	< 1	2	13	< 1	2	0
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	3	< 1
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	< 1	0	0	< 1
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	< 1	1	< 1	0	0	0
Magistrate armhook squid	0	0	< 1	0	< 1	4	3
Sponge	0	1	3	4	< 1	< 1	7
Starfish	< 1	2	1	< 1	< 1	0	< 1
Soft coral	< 1	< 1	< 1	0	0	0	0
Stony coral unident.	< 1	0	< 1	0	0	0	0
Octopus	0	0	0	5	0	0	0
Snail	0	1	< 1	< 1	0	< 1	< 1
Other invertebrate	2	8	3	< 1	0	< 1	2
Total catch	6,746	261	175	37	58	176	123

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	177	178	179	180	181	182	183
Start date & time	07/30/02 14	07/30/02 16	07/30/02 17	07/31/02 08	07/31/02 09	07/31/02 11	07/31/02 14
Start latitude	N 5216.13	N 5215.24	N 5214.91	N 5214.95	N 5216.52	N 5216.77	N 5217.62
Start longitude	W 17311.11	W 17308.84	W 17306.99	W 17303.64	W 17307.37	W 17305.48	W 17306.31
End latitude	N 5216.13	N 5215.40	N 5215.05	N 5214.92	N 5216.25	N 5216.68	N 5217.52
End longitude	W 17312.31	W 17310.06	W 17308.21	W 17304.87	W 17308.50	W 17306.66	W 17307.51
Bottom depth (m)	259	146	138	138	260	271	404
Duration (minutes)	15	15.6	15.6	15	15.6	15	15.6
Distance fished (km)	1.399	1.441	1.425	1.415	1.41	1.37	1.405
Performance	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	1	18	74	4	< 1	0	0
Pacific cod	0	0	21	13	0	0	0
Walleye pollock	46	2	0	3	58	371	7
Pacific ocean perch	108	5	< 1	0	1,012	1,415	4
Northern rockfish	0	< 1	0	0	0	0	0
Shortraker rockfish	4	0	0	0	0	0	2
Rougheye rockfish	0	0	0	0	0	0	11
Shortspine thornyhead	2	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	2	0	0	0	8	2	11
Arrowtooth flounder	10	145	155	107	16	4	0
Pacific halibut	0	0	0	0	0	0	0
Northern rock sole	9	< 1	1	11	0	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	5	11	12	15	11	6	13
Greenland turbot	9	0	0	0	0	0	12
Flathead sole	2	< 1	0	1	0	10	0
Rex sole	2	< 1	0	0	3	9	9
Dover sole	0	0	0	0	0	< 1	< 1
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	2	0	2	2	17	9	< 1
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	0	0
Other sculpins	4	< 1	< 1	< 1	5	6	< 1
Eelpout unident.	0	0	0	0	0	0	3
Other fish	< 1	11	< 1	< 1	1	< 1	40
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	0	2	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	< 1	< 1	< 1	0	< 1	< 1	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	< 1	4	2	< 1	< 1	0
Magistrate armhook squid	1	< 1	0	0	< 1	< 1	1
Sponge	2	< 1	23	14	< 1	< 1	0
Starfish	< 1	< 1	3	< 1	< 1	< 1	0
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	0	0	0	0	0	0	0
Octopus	< 1	0	7	0	0	0	0
Snail	0	< 1	< 1	< 1	0	0	0
Other invertebrate	2	< 1	1	< 1	< 1	< 1	0
Total catch	217	196	306	174	1,133	1,834	114

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	184	185	186	187	188	189	190
Start date & time	07/31/02 17	08/01/02 08	08/01/02 11	08/01/02 13	08/01/02 14	08/01/02 16	08/01/02 18
Start latitude	N 5223.19	N 5220.51	N 5222.04	N 5223.27	N 5220.28	N 5216.75	N 5215.96
Start longitude	W 17238.93	W 17041.69	W 17039.01	W 17040.00	W 17039.04	W 17039.53	W 17036.26
End latitude	N 5222.74	N 5220.53	N 5222.43	N 5222.62	N 5220.48	N 5216.61	N 5216.62
End longitude	W 17239.88	W 17042.69	W 17039.37	W 17039.51	W 17040.06	W 17040.70	W 17035.80
Bottom depth (m)	244	230	289	288	233	161	243
Duration (minutes)	15	13.8	9.6	15	13.2	15	15
Distance fished (km)	1.396	1.173	0.858	1.385	1.234	1.367	1.374
Performance	0	-2.4	-5	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	2	0	< 1	0	0	0	0
Pacific cod	0	0	0	0	4	0	0
Walleye pollock	352	0	3	2	0	< 1	1
Pacific ocean perch	0	288	3	8	72	13	28
Northern rockfish	0	0	< 1	< 1	0	3	0
Shortraker rockfish	0	0	4	0	0	0	0
Rougheye rockfish	0	1	7	2	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	< 1	0	0	0	0	0
Sablefish	2	3	0	0	0	0	0
Arrowtooth flounder	420	178	8	13	14	18	3
Pacific halibut	21	0	0	15	0	19	0
Northern rock sole	15	0	0	0	0	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	154	8	< 1	5	0	0	0
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	3	0	0	0	0	0	0
Dover sole	0	< 1	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	25	16	< 1	10	18	15
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	0	0
Other sculpins	0	21	12	21	6	< 1	15
Eelpout unident.	0	0	0	< 1	0	0	0
Other fish	< 1	0	< 1	< 1	< 1	0	0
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	2	0	3	0	0	0
Red king crab	0	0	0	0	0	2	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	< 1
Magistrate armhook squid	< 1	< 1	< 1	< 1	0	0	< 1
Sponge	0	7	3	6	< 1	1	3
Starfish	0	< 1	0	< 1	< 1	< 1	0
Soft coral	0	< 1	< 1	< 1	0	0	< 1
Stony coral unident.	0	< 1	0	0	< 1	< 1	0
Octopus	0	0	0	0	0	0	0
Snail	0	0	0	0	0	0	0
Other invertebrate	< 1	< 1	3	< 1	< 1	< 1	< 1
Total catch	970	535	62	79	106	75	66

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	191	192	193	194	195	196	197
Start date & time	08/02/02 09	08/02/02 10	08/02/02 12	08/03/02 08	08/03/02 09	08/03/02 11	08/03/02 12
Start latitude	N 5231.93	N 5230.94	N 5228.59	N 5225.30	N 5225.53	N 5224.72	N 5222.67
Start longitude	W 17038.42	W 17040.95	W 17045.44	W 17031.85	W 17031.54	W 17032.59	W 17035.12
End latitude	N 5232.19	N 5231.22	N 5228.65	N 5225.89	N 5225.13	N 5225.25	N 5223.42
End longitude	W 17037.32	W 17039.90	W 17044.38	W 17031.22	W 17032.08	W 17031.81	W 17034.89
Bottom depth (m)	123	133	257	407	400	401	368
Duration (minutes)	15	15	14.4	15	10.8	15	15
Distance fished (km)	1.402	1.318	1.273	1.385	1.008	1.384	1.48
Performance	0	0	0	-5.1	-5	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	< 1	0	0	0	0
Pacific cod	21	385	0	0	0	0	0
Walleye pollock	0	0	0	11	0	0	5
Pacific ocean perch	< 1	0	15	2	< 1	< 1	5
Northern rockfish	0	0	< 1	0	0	0	0
Shortraker rockfish	0	0	0	0	0	11	0
Rougheye rockfish	0	0	0	0	1	6	7
Shortspine thornyhead	0	0	0	0	5	3	2
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	2	0	0
Arrowtooth flounder	6	56	5	0	4	< 1	21
Pacific halibut	54	34	0	0	0	0	0
Northern rock sole	0	2	0	0	0	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	0	3	0	3	10
Greenland turbot	0	0	0	0	0	0	5
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	0	0	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	0	5	0	6	0	27
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	2	3	0	0	0	0	0
Other sculpins	< 1	0	1	< 1	< 1	1	5
Eelpout unident.	0	0	0	< 1	< 1	< 1	2
Other fish	< 1	< 1	< 1	0	< 1	6	6
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	0	0	0	5	1	9
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	0
Magistrate arnhoek squid	< 1	0	< 1	2	2	3	2
Sponge	8	2	< 1	0	1	< 1	< 1
Starfish	< 1	0	0	0	< 1	< 1	< 1
Soft coral	0	0	0	0	0	0	0
Stony coral unident.	0	< 1	0	0	0	0	0
Octopus	0	0	0	0	0	0	0
Snail	< 1	< 1	0	0	< 1	0	< 1
Other invertebrate	3	< 1	< 1	1	2	< 1	1
Total catch	96	483	27	21	32	37	106

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	198	199	200	201	202	203	204
Start date & time	08/03/02 14	08/03/02 15	08/03/02 19	08/04/02 08	08/04/02 10	08/04/02 13	08/04/02 16
Start latitude	N 5224.56	N 5220.58	N 5229.45	N 5223.51	N 5223.48	N 5233.52	N 5234.08
Start longitude	W 17037.15	W 17042.65	W 17106.100	W 17236.89	W 17238.29	W 17222.05	W 17221.40
End latitude	N 5223.85	N 5220.55	N 5228.76	N 5224.02	N 5224.24	N 5233.72	N 5233.42
End longitude	W 17037.37	W 17041.42	W 17107.16	W 17236.64	W 17238.42	W 17223.24	W 17220.81
Bottom depth (m)	319	230	308	117	236	210	229
Duration (minutes)	15	16.2	14.4	10.8	15.6	15.6	15
Distance fished (km)	1.41	1.423	1.337	1.062	1.478	1.425	1.476
Performance	0	0	0	0	0	2.1	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	0	417	4	<1	0
Pacific cod	0	7	0	48	0	53	4
Walleye pollock	51	<1	3	5	710	0	2
Pacific ocean perch	16	132	66	0	2,105	618	227
Northern rockfish	0	<1	<1	0	0	0	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	8	2	0	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	2	0	3	0	0
Arrowtooth flounder	12	71	834	1	355	9	19
Pacific halibut	0	0	78	39	8	77	0
Northern rock sole	0	0	0	12	20	<1	2
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	4	8	207	0	117	4	2
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	9	0	4	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	8	61	33	30	67	11	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	3	0	0	0
Other sculpins	3	3	7	0	2	2	11
Eelpout unident.	<1	0	<1	0	0	0	0
Other fish	<1	6	<1	0	<1	<1	<1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	2	4	3	0	0	8	1
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	<1	0	0	0
Magistrate armhook squid	6	<1	<1	0	0	0	0
Sponge	2	32	8	0	15	236	3
Starfish	<1	<1	<1	1	<1	3	<1
Soft coral	0	<1	<1	<1	1	6	<1
Stony coral unident.	0	<1	<1	<1	0	1	<1
Octopus	<1	1	0	0	0	0	0
Snail	0	<1	<1	<1	<1	0	0
Other invertebrate	2	3	8	1	13	17	7
Total catch	116	335	1,259	559	3,424	1,046	279

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	205	206	207	208	209	210	211
Start date & time	08/05/02 08	08/05/02 11	08/05/02 12	08/05/02 14	08/06/02 08	08/06/02 11	08/06/02 13
Start latitude	N 5231.83	N 5230.52	N 5232.71	N 5228.30	N 5203.19	N 5211.52	N 5214.64
Start longitude	W 17206.40	W 17215.85	W 17220.38	W 17219.50	W 17148.21	W 17140.38	W 17141.99
End latitude	N 5231.72	N 5231.27	N 5232.28	N 5227.59	N 5203.68	N 5211.29	N 5214.38
End longitude	W 17205.58	W 17215.93	W 17219.40	W 17219.29	W 17148.08	W 17141.62	W 17142.23
Bottom depth (m)	356	220	204	148	338	468	394
Duration (minutes)	11.4	15	15	15	10.2	16.2	7.2
Distance fished (km)	0.96	1.426	1.441	1.416	0.915	1.566	0.798
Performance	1.12	0	0	5	1.12	0	-2.4
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	< 1	2,172	2	0	0
Pacific cod	0	17	29	12	0	0	0
Walleye pollock	0	0	0	0	< 1	7	0
Pacific ocean perch	0	7	182	6	5	1	0
Northern rockfish	0	0	11	< 1	0	0	0
Shortraker rockfish	29	0	0	0	23	1	0
Rougheye rockfish	5	0	0	0	4	0	0
Shortspine thornyhead	2	0	0	0	0	0	0
Light dusky rockfish	0	0	1	0	2	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	2	0	0	0	3	0	0
Arrowtooth flounder	1	12	< 1	0	9	0	0
Pacific halibut	0	16	22	30	0	0	0
Northern rock sole	0	2	0	0	0	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	43	3	< 1	0	49	6	0
Greenland turbot	7	0	0	0	0	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	0	0	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	34	10	0	16	1	1	0
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	0	0
Other sculpins	13	3	1	< 1	16	< 1	0
Eelpout unident.	0	0	0	0	0	6	0
Other fish	4,461	< 1	< 1	< 1	< 1	5	0
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	4	16	2	0	0	< 1	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	0
Magistrate arnhook squid	0	0	0	0	0	< 1	0
Sponge	45	89	53	2	< 1	< 1	0
Starfish	< 1	1	< 1	< 1	< 1	0	0
Soft coral	2	6	2	2	0	0	0
Stony coral unident.	< 1	6	3	1	0	0	0
Octopus	0	0	0	0	0	0	0
Snail	< 1	< 1	< 1	0	0	< 1	0
Other invertebrate	9	17	16	8	< 1	< 1	0
Total catch	4,657	206	325	2,250	115	30	0

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	212	213	214	215	216	217	218
Start date & time	08/06/02 15	08/08/02 08	08/08/02 09	08/08/02 13	08/08/02 15	08/08/02 18	08/09/02 08
Start latitude	N 5212.59	N 5224.14	N 5223.47	N 5223.99	N 5222.62	N 5238.06	N 5252.22
Start longitude	W 17138.54	W 17149.100	W 17149.79	W 17122.49	W 17122.16	W 17134.33	W 17119.56
End latitude	N 5213.25	N 5223.59	N 5223.26	N 5223.46	N 5222.35	N 5238.02	N 5252.54
End longitude	W 17137.94	W 17149.78	W 17149.97	W 17121.65	W 17121.22	W 17134.30	W 17118.38
Bottom depth (m)	453	277	275	239	179	460	209
Duration (minutes)	15	11.4	18	15	33.6	1.2	15.6
Distance fished (km)	1.411	1.119	1.641	1.407	2.973	0.084	1.502
Performance	0	-2.4	-2.4	0	-5.7	-5.7	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	0	0	5	0	0	< 1
Pacific cod	0	0	0	0	0	0	28
Walleye pollock	0	20	2	0	0	0	1
Pacific ocean perch	0	35	7	5	0	0	14
Northern rockfish	0	< 1	0	0	0	0	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	2	6	0	0	0	0
Arrowtooth flounder	0	49	3	< 1	0	0	128
Pacific halibut	0	0	0	76	0	0	0
Northern rock sole	0	0	0	0	0	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	2	87	27	0	0	0	< 1
Greenland turbot	28	11	0	0	0	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	0	0	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	42	10	13	0	0	7
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	0	0
Other sculpins	0	35	8	3	0	0	11
Eelpout unident.	4	0	0	0	0	0	0
Other fish	213	< 1	< 1	< 1	0	36	1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	3	0	< 1	0	0	< 1
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	< 1	0	0	< 1
Magistrate armhook squid	0	< 1	< 1	0	0	0	0
Sponge	0	48	29	102	0	0	178
Starfish	0	< 1	< 1	< 1	0	0	< 1
Soft coral	0	1	< 1	< 1	0	0	< 1
Stony coral unident.	0	< 1	< 1	< 1	0	0	2
Octopus	0	0	0	0	0	0	< 1
Snail	< 1	0	0	0	0	0	0
Other invertebrate	< 1	3	2	6	0	12	1
Total catch	249	338	96	213	0	48	374

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	219	220	221	222	223	224	225
Start date & time	08/09/02 10	08/09/02 11	08/09/02 13	08/09/02 14	08/09/02 17	08/10/02 08	08/10/02 11
Start latitude	N 5249.13	N 5249.72	N 5248.88	N 5248.31	N 5249.01	N 5238.48	N 5222.39
Start longitude	W 17122.26	W 17129.26	W 17131.37	W 17132.60	W 17121.26	W 17134.69	W 17121.29
End latitude	N 5249.09	N 5250.01	N 5249.31	N 5248.64	N 5249.17	N 5237.81	N 5222.09
End longitude	W 17121.97	W 17128.13	W 17130.39	W 17131.63	W 17122.09	W 17134.25	W 17120.18
Bottom depth (m)	160	211	209	212	166	460	330
Duration (minutes)	4.2	15	15.6	15	10.8	15.6	15.6
Distance fished (km)	0.336	1.415	1.453	1.421	0.988	1.364	1.402
Performance	-1.12	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	< 1	0	0	0	0	< 1	0
Pacific cod	0	0	0	29	0	0	0
Walleye pollock	0	0	0	0	< 1	0	0
Pacific ocean perch	< 1	0	2	96	3	0	5
Northern rockfish	0	0	0	< 1	0	0	0
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	0	0	0	0	3	21
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	0
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	0	35	15	6	0	7	< 1
Pacific halibut	0	0	15	0	24	9	0
Northern rock sole	0	0	0	0	0	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	0	0	0	6	3
Greenland turbot	0	0	0	0	0	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	0	0	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	16	0	21	0	5	12
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	0	0
Other sculpins	< 1	2	1	< 1	< 1	0	24
Eelpout unident.	0	0	0	0	0	1	0
Other fish	< 1	1	< 1	6	< 1	659	< 1
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	< 1	0	< 1	< 1	< 1	< 1	4
Red king crab	< 1	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	0
Magistrate armhook squid	0	0	0	0	0	< 1	0
Sponge	333	105	191	156	134	0	144
Starfish	< 1	< 1	< 1	1	< 1	< 1	2
Soft coral	14	5	1	< 1	< 1	0	< 1
Stony coral unident.	5	2	< 1	< 1	< 1	0	0
Octopus	0	0	0	< 1	0	0	2
Snail	< 1	< 1	0	0	0	< 1	0
Other invertebrate	1	< 1	< 1	< 1	< 1	1	7
Total catch	358	166	230	318	165	694	223

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	226	227	228	229	230	231	232
Start date & time	08/10/02 13	08/10/02 16	08/10/02 19	08/11/02 08	08/11/02 10	08/11/02 13	08/11/02 17
Start latitude	N 5221.72	N 5229.71	N 5222.29	N 5255.87	N 5247.07	N 5243.54	N 5224.41
Start longitude	W 17116.11	W 17041.31	W 17114.15	W 17024.82	W 17041.27	W 17045.46	W 17117.33
End latitude	N 5221.74	N 5229.43	N 5221.97	N 5255.42	N 5247.46	N 5243.96	N 5224.43
End longitude	W 17116.07	W 17042.45	W 17115.31	W 17025.19	W 17040.14	W 17044.44	W 17116.13
Bottom depth (m)	143	228	307	228	321	256	92
Duration (minutes)	12.6	15	15.6	10.8	15.6	15.6	15
Distance fished (km)	1.168	1.418	1.453	1.005	1.45	1.414	1.378
Performance	-5.7	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172
Atka mackerel	0	< 1	< 1	0	2	0	6,833
Pacific cod	0	35	0	26	10	88	0
Walleye pollock	0	< 1	4	5	13	0	0
Pacific ocean perch	0	4	17	6	24	8	< 1
Northern rockfish	0	1	< 1	0	0	0	< 1
Shortraker rockfish	0	0	0	0	0	0	0
Rougheye rockfish	0	4	5	0	1	0	0
Shortspine thornyhead	0	0	0	0	0	0	0
Light dusky rockfish	0	0	0	0	0	0	3
Other rockfish	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0
Arrowtooth flounder	0	10	196	113	24	18	0
Pacific halibut	0	0	85	0	4	34	42
Northern rock sole	0	8	0	0	0	0	0
Southern rock sole	0	0	0	0	0	0	0
Kamchatka flounder	0	0	1,135	< 1	514	5	0
Greenland turbot	0	0	129	0	4	0	0
Flathead sole	0	0	0	0	0	0	0
Rex sole	0	0	0	0	0	0	0
Dover sole	0	0	0	0	0	0	0
Yellowfin sole	0	0	0	0	0	0	0
English sole	0	0	0	0	0	0	0
Other flatfish	0	0	0	0	0	0	0
Skate unident.	0	1	42	0	47	0	16
Shark unident.	0	0	0	0	0	0	0
Yellow Irish lord	0	0	0	0	0	< 1	< 1
Other sculpins	0	6	17	6	28	1	0
Eelpout unident.	0	0	0	0	0	0	0
Other fish	0	< 1	< 1	< 1	< 1	< 1	0
Bairdi tanner crab	0	0	0	0	0	0	0
Golden king crab	0	< 1	4	0	< 1	0	0
Red king crab	0	0	0	0	0	0	0
Northern shrimp	0	0	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0	0	0
Scallop unident.	0	0	0	0	0	0	0
Magistrate armhook squid	0	0	1	2	5	0	< 1
Sponge	0	< 1	37	8	8	3	53
Starfish	0	< 1	< 1	< 1	< 1	< 1	< 1
Soft coral	0	0	< 1	0	< 1	< 1	0
Stony coral unident.	0	0	0	0	0	0	< 1
Octopus	0	0	0	0	0	< 1	0
Snail	0	< 1	0	0	< 1	< 1	< 1
Other invertebrate	0	4	4	2	5	3	1
Total catch	0	76	1,678	169	691	160	6,950

Fishing log: F/V Sea Storm, Cruise 200201

Haul number	233	234	235	236	237
Start date & time	08/12/02 08	08/12/02 14	08/13/02 09	08/13/02 11	08/13/02 13
Start latitude	N 5226.98	N 5157.88	N 5304.98	N 5254.45	N 5253.66
Start longitude	W 17121.14	W 17237.84	W 16935.75	W 16927.95	W 16927.67
End latitude	N 5226.52	N 5158.12	N 5304.100	N 5253.71	N 5254.37
End longitude	W 17120.93	W 17236.68	W 16936.95	W 16927.66	W 16927.97
Bottom depth (m)	93	228	162	343	343
Duration (minutes)	10.8	16.2	15	15.6	15.6
Distance fished (km)	0.917	1.424	1.356	1.442	1.394
Performance	1.1	5.8	0	-2.4	0
Gear	172	172	172	172	172
Atka mackerel	1,180	< 1	< 1	0	0
Pacific cod	< 1	0	23	48	19
Walleye pollock	0	3	2	9	28
Pacific ocean perch	< 1	2	378	10	3
Northern rockfish	< 1	0	< 1	0	0
Shortraker rockfish	0	0	0	0	0
Rougheye rockfish	0	0	0	11	9
Shortspine thornyhead	0	0	0	0	0
Light dusky rockfish	0	0	2	0	0
Other rockfish	0	0	0	0	0
Sablefish	0	0	0	333	41
Arrowtooth flounder	0	29	217	65	81
Pacific halibut	5	58	15	15	0
Northern rocksole	0	0	0	0	0
Southern rocksole	0	0	0	0	0
Kamchatka flounder	0	0	0	652	475
Greenland turbot	0	0	0	20	0
Flathead sole	0	0	0	0	0
Rex sole	0	0	0	0	0
Dover sole	0	0	0	0	0
Yellowfin sole	0	0	0	0	0
English sole	0	0	0	0	0
Other flatfish	0	0	0	0	0
Skate unident.	19	0	0	15	7
Shark unident.	0	0	0	0	0
Yellow Irish lord	7	< 1	3	0	0
Other sculpins	< 1	13	< 1	16	18
Eelpout unident.	0	0	0	0	0
Other fish	< 1	< 1	< 1	< 1	< 1
Bairdi tanner crab	0	0	0	0	0
Golden king crab	0	0	0	4	< 1
Red king crab	0	0	0	0	0
Northern shrimp	0	0	0	0	0
Sidestripe shrimp	0	0	0	0	0
Scallop unident.	0	0	0	0	0
Magistrate armhook squid	0	0	0	2	2
Sponge	145	8	15	34	36
Starfish	< 1	< 1	< 1	< 1	< 1
Soft coral	0	0	< 1	< 1	0
Stony coral unident.	5	4	2	< 1	0
Octopus	0	0	0	< 1	0
Snail	< 1	< 1	0	0	0
Other invertebrate	5	1	2	< 1	< 1
Total.catch (kg)	1,368	121	661	1,234	722

Section 5**Ranked catch-per-unit effort
by species or species group**

- The summary listings of catch rates for selected species are estimated kilograms of catch per hectare (kg/ha) trawled.
- Average individual animal weight (kg).
- Vessel codes (57 = *Morning Star*, 94 = *Vesteraalen*, and 143 = *Sea Storm*)
- Average bottom depth is in meters (m).

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Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Atka mackerel	6537.47	0.87	94	19	93	302.83	0.24	143	20	93
	4869.06	0.73	94	73	173	259.65	0.17	94	172	86
	4618.70	0.47	94	90	223	252.21	0.26	94	180	143
	3628.63	0.60	143	67	156	251.19	0.73	143	201	117
	3347.27	0.39	94	89	184	248.45	0.60	94	138	148
	3334.86	0.70	143	70	175	238.55	0.37	94	111	123
	3287.41	0.55	143	232	92	202.17	0.42	94	170	168
	3150.55	0.68	143	11	135	160.78	0.80	143	161	87
	3098.90	0.46	143	132	157	158.08	0.47	94	150	88
	2934.33	0.64	94	114	156	141.79	0.58	94	167	147
	2783.93	0.52	143	111	144	120.09	0.73	143	71	159
	2598.22	0.60	94	72	144	117.39	0.76	94	137	170
	2517.55	0.30	143	77	84	111.35	0.38	143	94	92
	2413.70	0.47	143	134	146	107.38	0.45	143	163	149
	2410.87	0.88	94	14	92	103.59	0.36	94	168	82
	2342.64	0.52	143	137	153	100.34	0.29	94	181	141
	2341.87	0.68	143	12	153	99.56	0.39	143	7	81
	2207.78	0.51	143	141	153	89.43	0.40	94	194	169
	2130.91	0.24	143	69	94	75.82	0.68	143	19	123
	2086.51	0.44	143	9	116	70.74	0.48	143	119	113
	1885.98	0.74	94	74	195	58.69	0.28	143	103	86
	1706.52	0.62	94	112	194	56.58	0.37	143	33	140
	1519.93	0.36	94	91	187	54.19	0.44	143	165	163
	1467.06	0.31	143	112	144	54.17	0.36	94	155	90
	1369.03	0.28	143	130	93	53.03	0.33	143	97	92
	1283.52	0.49	143	136	133	50.02	0.48	94	147	92
	1074.33	0.29	143	129	93	48.68	0.32	143	171	168
	1014.53	0.78	143	208	148	48.51	0.55	143	133	156
	1011.84	0.32	143	116	94	46.38	0.64	94	109	134
	868.60	0.61	143	233	93	45.47	0.35	143	8	94
	843.85	0.36	94	71	126	36.78	0.57	94	84	92
	785.25	0.94	143	170	169	33.54	0.37	143	179	138
	707.14	0.49	94	88	87	26.47	0.36	143	120	83
	671.35	0.50	143	104	153	26.18	0.72	143	68	160
	636.03	0.61	143	131	157	25.29	0.31	143	100	94
	411.57	0.63	94	139	122	23.68	0.67	143	14	70
	401.53	0.23	94	81	98	23.60	0.47	94	173	179
	383.88	0.28	94	80	91	23.35	0.90	94	13	91
	375.20	0.17	94	171	71	23.03	0.54	143	61	99
	362.89	0.74	94	51	106	22.07	0.55	94	146	92
	334.25	0.49	143	162	150	20.64	0.75	143	91	90
	321.17	0.67	94	141	160					
Pacific cod	636.54	4.28	57	49	159	170.73	9.08	94	111	123
	621.11	7.51	143	134	146	166.99	1.95	94	3	41
	525.78	4.80	94	14	92	147.24	3.03	57	34	178
	353.70	9.94	143	136	133	134.68	2.31	143	41	116
	332.78	8.36	143	116	94	129.26	8.12	143	137	153
	315.46	6.61	143	11	135	127.21	4.78	143	12	153
	211.90	7.93	143	141	153	119.54	8.01	143	170	169
	199.88	7.36	143	111	144	112.20	1.51	143	56	92
	192.29	3.77	143	192	133	103.38	5.80	143	67	156
	185.52	4.58	94	73	173	101.87	3.43	143	7	81

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Pacific cod	95.98	5.32	94	25	85	35.68	1.80	143	5	213
	95.08	4.48	143	45	116	34.46	1.29	143	118	111
	94.51	4.39	94	88	87	34.38	1.49	94	129	198
	94.23	4.95	57	44	240	33.06	3.17	143	163	149
	92.80	8.51	143	130	93	32.70	3.00	94	137	170
	89.77	4.19	94	19	93	31.20	0.72	143	94	92
	75.12	6.18	143	132	157	31.16	9.13	94	81	98
	71.35	4.36	94	71	126	30.41	1.78	94	24	136
	69.82	3.10	94	114	156	30.19	3.30	94	64	148
	68.45	5.97	143	77	84	29.20	4.04	94	112	194
	67.72	3.57	94	13	91	29.04	3.01	143	201	117
	66.49	3.47	143	158	131	28.97	2.06	143	68	160
	61.70	3.43	57	36	221	28.31	3.98	94	33	95
	61.43	2.40	94	72	144	26.96	8.01	143	112	144
	60.46	2.59	143	40	149	26.52	1.39	94	28	71
	49.99	0.85	94	68	89	26.33	3.09	57	29	226
	49.51	2.56	57	30	118	25.56	1.77	94	86	78
	46.71	7.05	143	129	93	25.10	2.86	94	18	96
	46.56	2.67	57	42	221	25.04	1.33	94	69	124
	46.51	4.65	143	43	94	24.46	7.98	143	62	93
	46.38	3.18	57	31	120	24.00	2.02	94	135	180
	45.91	9.58	143	131	157	22.90	1.66	94	22	57
	42.74	9.01	94	168	82	22.23	3.29	143	203	210
	41.43	2.06	143	9	116	21.62	1.96	94	82	184
	40.08	4.18	143	231	256	21.47	3.29	143	69	94
	40.02	3.67	94	74	195	20.55	2.08	57	24	266
	36.34	1.89	94	147	92	20.45	1.16	94	122	179
	36.19	1.19	94	70	178	20.09	1.80	94	67	208
	35.81	4.12	143	172	141					
Walleye pollock	4476.38	1.48	94	134	219	349.73	1.03	94	29	122
	4122.06	0.97	94	19	93	302.60	1.55	94	187	245
	3488.78	0.79	94	13	91	284.65	1.54	143	202	236
	3281.79	1.80	94	113	333	278.03	1.22	94	156	197
	3226.34	1.48	143	170	169	273.57	1.27	143	95	242
	3210.93	0.96	94	18	96	251.23	1.31	94	21	159
	1706.61	0.91	94	23	62	221.40	2.10	94	170	168
	1556.38	1.54	94	152	256	200.75	1.01	57	10	93
	1100.02	0.82	94	12	82	197.82	1.51	94	178	176
	1048.18	0.73	94	25	85	189.02	0.96	94	22	57
	727.50	0.68	94	32	90	182.46	1.68	143	80	260
	688.91	1.61	143	135	232	171.28	1.18	94	24	136
	649.65	0.82	94	33	95	168.93	0.80	94	101	222
	636.68	0.80	94	11	85	163.51	1.36	143	182	271
	570.06	0.78	94	10	86	154.50	1.65	143	184	244
	537.86	0.98	94	14	92	145.91	1.69	94	30	153
	533.76	1.47	94	137	170	144.68	1.59	94	20	242
	515.07	0.85	94	38	90	140.14	1.18	94	73	173
	431.95	1.22	94	135	180	114.79	1.45	143	98	344
	428.02	1.45	143	159	253	113.28	1.02	57	9	111
	409.17	0.76	94	34	90	113.12	0.35	94	8	89
	384.91	0.85	57	17	93	112.46	1.57	143	21	229
	380.89	1.67	94	188	285	109.83	0.45	57	8	106

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Walleye pollock	108.80	0.82	57	16	86	41.03	0.77	57	15	74
	106.86	0.85	94	2	164	40.92	1.09	57	13	106
	100.94	1.33	143	63	252	38.88	0.35	94	146	92
	99.59	0.93	94	17	83	33.69	1.20	143	140	237
	97.62	1.22	94	196	274	32.14	0.49	143	48	166
	90.58	0.73	143	39	240	29.70	1.09	143	87	244
	89.41	1.70	94	175	249	25.42	1.49	143	181	260
	86.63	1.33	143	59	264	25.05	0.85	94	141	160
	86.33	1.32	143	128	249	24.95	0.14	94	7	192
	75.22	0.60	57	6	91	24.83	1.19	57	12	365
	68.40	1.17	94	148	237	23.67	1.35	143	167	364
	65.18	1.14	94	74	195	22.35	1.25	94	173	179
	55.40	1.70	94	180	143	22.06	0.51	143	3	91
	52.77	1.60	143	175	350	21.82	1.25	143	198	319
	47.06	1.23	94	67	208	21.48	1.44	57	11	312
	46.48	1.54	94	31	273	21.12	1.63	143	177	259
	44.70	1.28	94	110	267	20.17	1.72	94	176	249
	43.95	1.46	94	136	229	20.16	1.52	94	183	386
	43.47	0.92	57	40	328	20.09	0.81	94	36	116
Pacific ocean perch	5649.87	0.88	143	95	242	394.22	0.64	143	108	215
	4141.57	0.82	94	157	185	387.06	0.11	143	100	94
	3780.28	0.86	94	156	197	386.10	0.59	94	117	233
	3687.47	0.76	57	21	284	368.75	0.17	94	94	131
	3576.32	0.49	143	140	237	332.56	0.70	94	110	267
	3356.61	0.68	94	67	208	325.83	0.66	143	109	245
	2681.25	0.53	94	173	179	313.37	0.35	94	166	168
	2573.29	0.53	143	5	213	310.92	0.68	143	39	240
	2213.26	0.92	143	135	232	280.29	0.46	57	42	221
	1910.16	0.69	94	89	184	276.80	0.84	143	80	260
	1765.64	0.53	143	17	270	275.52	0.35	94	91	187
	1755.74	0.81	94	165	266	262.76	1.05	94	152	256
	1742.12	0.69	94	122	179	261.19	1.20	143	203	210
	1551.89	1.24	143	10	213	252.71	0.73	143	107	221
	900.79	0.68	94	136	229	247.17	0.78	94	196	274
	843.75	1.18	143	202	236	219.53	0.61	143	139	174
	763.16	0.65	94	148	237	217.85	0.84	94	129	198
	687.26	0.78	143	150	220	216.87	0.40	94	14	92
	624.36	0.71	143	182	271	214.91	0.38	94	90	223
	604.03	0.31	143	12	153	206.57	0.75	94	178	176
	601.20	0.36	143	104	153	201.93	0.88	94	59	262
	576.24	0.70	143	159	253	180.55	0.67	143	90	224
	565.94	1.06	94	187	245	177.37	0.53	143	235	162
	552.63	0.63	94	98	209	169.29	0.14	143	32	119
	511.61	0.86	94	149	258	163.96	0.37	143	148	201
	495.66	0.86	143	21	229	153.21	0.62	143	87	244
	479.11	0.79	143	149	247	149.79	0.93	143	185	230
	452.64	0.51	94	105	213	145.25	0.82	143	141	153
	443.03	0.82	57	3	318	141.21	0.92	94	188	285
	441.35	0.68	143	181	260	141.10	0.86	94	31	273
	427.01	1.01	94	134	219	138.30	0.63	94	137	170
	426.10	0.58	94	42	249	135.47	0.78	143	132	157
	414.69	0.61	143	50	209	127.92	0.98	143	128	249

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Pacific ocean perch	117.66	0.77	143	72	280	55.57	0.89	143	199	230
	115.82	0.36	143	111	144	52.22	0.21	143	1	211
	114.65	0.23	143	34	170	50.12	0.62	143	177	259
	109.79	0.11	143	138	152	44.02	0.69	143	58	274
	106.50	1.03	143	204	229	42.87	0.81	143	222	212
	97.76	0.83	57	11	312	39.08	0.78	143	188	233
	97.31	0.78	143	131	157	39.01	0.61	94	75	219
	93.19	1.01	94	130	270	38.58	0.76	57	44	240
	89.41	0.23	94	92	128	33.47	0.30	143	45	116
	86.02	0.69	143	96	350	31.57	0.72	143	59	264
	83.01	0.66	57	24	266	31.38	0.50	57	48	233
	82.85	0.72	143	207	204	31.02	0.68	143	133	156
	80.54	0.64	94	73	173	30.52	0.36	94	158	187
	71.32	0.97	94	184	275	30.33	0.61	143	200	308
	71.25	0.67	57	29	226	30.28	0.15	143	165	163
	69.55	0.89	143	76	322	29.03	0.64	143	115	172
	67.89	0.80	94	169	250	24.16	0.54	94	193	220
	66.83	0.28	143	11	135	23.81	0.33	94	40	128
	64.33	0.66	94	56	256	23.47	0.67	143	89	303
	63.46	0.64	94	135	180	22.41	0.70	94	43	314
	56.76	1.02	57	51	226	21.25	0.94	94	112	194
	56.37	0.27	94	106	175					
Northern rockfish	2689.80	0.41	94	92	128	150.25	0.28	143	103	86
	2159.15	0.56	143	67	156	131.20		94	119	133
	1042.30	0.47	143	12	153	120.97	0.71	143	148	201
	952.01	0.54	143	111	144	117.42	0.45	94	170	168
	946.43	0.42	94	94	131	113.48	0.38	143	130	93
	775.93	0.25	143	32	119	83.43	0.44	94	139	122
	769.97	0.28	94	171	71	63.56	0.57	143	112	144
	652.95	0.42	143	104	153	61.71	0.43	143	118	111
	638.94	0.49	143	136	133	58.50	0.46	94	140	150
	627.11	0.52	94	173	179	41.27	0.45	94	135	180
	536.45	0.29	143	116	94	41.12	0.47	94	156	197
	519.40	0.58	143	9	116	40.44	0.20	143	101	90
	499.28	0.42	143	45	116	39.71	0.59	94	192	167
	433.96	0.23	143	142	83	38.06	0.38	94	106	175
	414.94	0.25	143	100	94	36.01	0.26	143	30	116
	369.00	0.55	94	79	115	31.47	0.40	94	144	107
	323.04	0.33	143	34	170	31.00	0.51	94	73	173
	283.62	0.20	143	31	100	27.41	0.42	94	81	98
	270.17	0.18	143	56	92	25.16	0.53	143	68	160
	264.82	0.50	94	141	160	23.83	0.46	143	20	93
	200.86	0.56	94	137	170	23.00	0.51	143	110	85
	197.38	0.54	143	141	153	22.62	0.43	94	133	91
	192.13	0.90	94	14	92	22.06	0.62	94	40	128
	191.67	0.50	143	19	123	21.23	0.38	57	5	95
	176.63	0.20	143	33	140	21.20	0.43	94	74	195
	171.25	0.34	94	172	86	20.44	0.50	143	134	146
	152.96	0.53	143	11	135					

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Shortraker rockfish	406.46	2.65	57	39	395	44.34	1.71	143	74	407
	143.26	2.46	143	35	362	43.62	2.18	94	179	396
	134.17	2.97	94	113	333	38.76	1.30	57	52	406
	81.03	4.27	143	95	242	37.37	1.31	143	92	375
	75.67	0.87	57	53	417	29.12	1.20	94	125	374
	65.22	1.76	94	183	386	28.29	1.57	143	89	303
	62.10	1.33	57	41	398	26.37	1.47	143	37	365
	58.54	6.73	57	3	318	24.35	2.45	143	93	397
	53.18	2.55	57	12	365	23.43	1.30	94	43	314
	51.87	2.27	94	180	143	22.21	1.41	143	73	409
	49.20	5.14	94	152	256	20.12	1.14	143	160	323
	45.31	1.60	143	76	322					
Rougheye rockfish	108.86	1.74	143	135	232	15.09	1.55	94	154	407
	80.96	1.65	143	95	242	14.24	1.11	57	53	417
	72.64	1.79	94	152	256	14.11	0.80	94	191	328
	62.36	1.64	143	96	350	13.90	1.54	143	93	397
	53.15	1.20	94	43	314	12.61	0.74	143	87	244
	52.14	1.14	143	160	323	12.33	1.55	143	98	344
	49.55	0.66	57	3	318	12.08	1.29	143	92	375
	36.77	1.73	94	148	237	12.03	1.35	94	195	404
	27.65	1.36	143	76	322	11.77	0.72	57	4	335
	27.56	1.01	57	21	284	10.21	1.44	57	12	365
	25.61	1.01	94	52	314	9.01	1.71	143	225	330
	22.84	1.12	57	41	398	7.55	1.58	143	37	365
	21.13	1.07	94	125	374	7.10	1.56	57	11	312
	20.75	1.33	57	39	395	6.99	1.22	57	52	406
	20.24	0.64	94	124	368	6.99	1.04	57	42	221
	17.68	0.96	143	89	303	6.40	1.40	57	35	394
	16.34	1.13	143	86	352	5.60	0.99	57	40	328
Shortspine thornyhead	92.80	0.74	143	37	365	11.87	0.42	143	92	375
	47.04	0.56	143	59	264	11.51	1.09	143	160	323
	40.99	0.56	94	99	362	10.88	0.36	143	49	415
	39.02	0.87	94	159	342	10.74	0.46	57	11	312
	30.21	0.43	57	40	328	10.27	0.54	94	185	395
	28.49	0.59	94	100	314	10.17	0.41	94	93	314
	28.26	0.41	94	184	275	9.75	0.27	94	95	331
	28.17	1.37	143	66	467	9.27	0.35	94	160	390
	27.13	0.47	94	90	223	9.19	0.25	94	154	407
	25.66	0.62	143	58	274	9.16	0.35	94	183	386
	24.36	0.46	94	164	381	8.98	0.28	94	125	374
	22.96	0.43	57	21	284	8.96	0.44	57	4	335
	20.09	1.64	94	195	404	7.99	0.47	57	3	318
	19.75	0.41	143	38	381	7.69	0.58	94	151	446
	17.91	0.32	94	142	458	7.62	0.65	57	39	395
	17.40	1.36	57	53	417	7.12	0.43	94	31	273
	16.12	0.43	94	196	274	6.50	0.27	94	124	368
	15.90	0.25	143	127	330	5.55	0.35	94	153	405
	15.88	0.60	143	93	397	5.50	2.30	143	99	435
	15.23	0.28	94	96	402	5.44	0.80	143	74	407
	14.02	0.40	94	179	396	5.37	0.75	143	89	303
	12.69	0.62	57	12	365	5.33	0.85	143	128	249

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Shortspine thornyhead	5.27	0.43	143	34	170					
Light dusky rockfish	17.49		94	119	133	1.86	1.38	94	40	128
	11.61	1.02	94	73	173	1.67	1.22	94	137	170
	8.58	1.01	143	11	135	1.58	1.21	143	95	242
	6.70	1.19	94	156	197	1.45	1.51	143	232	92
	5.52	1.21	94	133	91	1.27	0.76	94	33	95
	2.58	1.51	57	29	226	1.22	0.60	94	22	57
	2.52	1.49	57	42	221	1.22	0.55	94	171	71
	2.43	1.76	57	30	118	1.22	1.70	143	209	338
	2.16	1.52	143	130	93	1.11	0.92	143	12	153
	2.07	0.86	94	7	192					
Other rockfish	12.31	0.77	94	171	71	1.43	0.79	143	101	90
	12.21	0.93	143	142	83	1.37	0.73	143	103	86
	11.08	0.79	143	100	94	0.97	2.14	94	110	267
	1.78	0.37	143	12	153					
Sablefish	178.26	2.57	94	113	333	19.19	2.42	143	76	322
	134.70	4.32	143	236	343	19.13	4.59	143	237	343
	44.78	5.39	143	36	458	15.68	3.36	94	187	245
	39.01	2.20	94	188	285	15.41	2.13	143	80	260
	37.25	2.75	94	134	219	9.76	2.08	143	152	429
	20.15	2.74	143	156	447	9.57	2.58	57	32	448
Arrowtooth flounder	515.63	3.02	143	95	242	65.27	1.80	143	39	240
	386.05	1.66	143	200	308	63.59	1.98	57	50	338
	293.11	1.10	57	46	237	61.78	0.34	94	7	192
	229.34	0.90	143	10	213	60.39	0.37	143	23	221
	184.53	0.93	143	184	244	57.53	1.45	94	98	209
	179.51	2.66	143	48	166	57.24	0.49	57	51	226
	160.03	1.94	94	152	256	56.83	0.97	94	70	178
	142.30	1.49	143	202	236	56.44	2.23	94	59	262
	135.68	3.01	94	193	220	55.95	2.45	94	149	258
	127.45	1.02	94	105	213	55.85	0.75	143	50	209
	115.59	0.63	94	104	183	53.08	0.36	94	54	187
	101.88	0.88	143	235	162	52.48	0.81	143	218	209
	97.91	3.14	94	53	152	51.82	0.31	94	38	90
	96.01	1.66	94	170	168	50.52	0.86	57	36	221
	92.74	1.21	143	185	230	50.20	1.85	94	101	222
	90.75	0.71	94	30	153	49.46	1.67	143	180	138
	84.13	0.79	57	29	226	49.23	2.02	143	89	303
	82.14	2.19	94	67	208	37.56	0.66	94	103	176
	81.44	0.22	94	24	136	37.50	1.69	143	237	343
	78.76	2.42	143	228	307	37.25	0.25	143	2	73
	75.92	1.68	94	113	333	35.18	1.85	94	110	267
	73.67	0.87	94	64	148	35.08	1.57	57	25	401
	70.03	0.60	143	229	228	32.58	0.74	94	58	214
	70.02	0.35	143	3	91	29.95	1.19	143	199	230
	69.98	1.09	143	179	138	29.10	0.58	94	82	184
	68.42	1.65	143	178	146	28.61	0.84	143	38	381
	67.13	4.84	94	156	197	28.24	0.21	57	14	74

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Arrowtooth flounder	27.91	0.85	143	192	133	22.19	0.58	94	23	62
	26.37	0.35	143	25	173	21.72	0.20	94	5	65
	26.29	1.76	143	236	343	21.61	2.53	94	195	404
	26.10	0.29	143	143	112	21.54	1.51	94	188	285
	25.76	0.89	143	106	172	21.49	0.68	57	37	274
	25.24	2.74	143	213	277	21.20	0.39	143	84	93
	25.03	3.86	143	170	169	21.19	0.49	94	33	95
	24.80	0.80	143	65	213	20.97	0.77	143	107	221
	23.66	1.35	57	12	365	20.88	3.12	143	96	350
	23.61	0.93	143	60	161	20.69	1.91	143	72	280
	23.17	0.97	143	151	210	20.65	2.01	143	157	355
	22.65	0.56	57	13	106	20.36	1.01	94	106	175
	22.32	0.98	143	51	117	20.21	0.91	57	24	266
Pacific halibut	95.00	115.63	94	52	314	20.15	1.04	94	26	86
	79.01	0.75	94	13	91	19.87	8.39	57	12	365
	66.52	5.82	94	9	22	19.83	11.08	57	10	93
	66.43	9.01	143	169	153	18.92	11.19	143	4	116
	56.10	6.03	143	56	92	18.65	8.89	94	63	113
	53.12	6.73	143	83	92	18.28	19.30	57	36	221
	46.78	2.94	57	30	118	18.23	17.90	143	129	93
	43.01	5.16	57	49	159	17.84	42.39	143	66	467
	41.76	10.44	94	87	78	17.72	10.42	94	55	158
	38.48	89.69	143	104	153	17.66	20.69	94	81	98
	38.20	11.15	94	194	169	17.49	19.83	143	76	322
	37.97	4.29	94	86	78	17.40	39.63	143	124	96
	35.90	15.51	143	200	308	17.39	2.77	57	23	68
	34.76	25.32	143	215	239	17.30	36.15	143	99	435
	34.35	42.67	143	228	307	17.08	11.40	143	192	133
	34.19	11.52	57	26	110	17.06	8.07	94	65	108
	33.75	15.65	94	97	175	16.89	1.15	94	12	82
	33.45	5.99	94	25	85	16.33	13.30	94	196	274
	33.00	15.03	57	44	240	16.28	20.74	94	151	446
	32.47	38.42	143	203	210	16.11	4.72	143	223	166
	30.91	5.64	94	120	113	15.98	36.15	94	114	156
	30.07	8.99	57	22	113	15.92	38.74	143	157	355
	30.02	1.31	94	28	71	15.83	1.22	94	33	95
	28.63	12.44	94	119	133	15.52	4.43	143	62	93
	27.61	14.07	143	95	242	15.50	3.91	143	47	87
	27.27	8.26	94	67	208	15.36	33.68	143	231	256
	27.16	4.65	143	44	98	15.28	3.39	143	7	81
	26.48	19.36	143	234	228	14.20	6.87	94	68	89
	26.46	55.88	57	37	274	14.05	6.13	143	171	168
	25.07	7.55	94	64	148	14.01	6.00	143	208	148
	24.54	6.80	143	191	123	13.89	5.24	57	27	125
	23.67	4.91	143	201	117	13.83	6.75	57	3	318
	22.99	16.49	143	165	163	13.19	3.16	94	29	122
	22.23	13.77	57	47	277	12.62	27.68	57	6	91
	22.04	6.81	94	84	92	12.55	16.91	57	19	86
	21.47	1.35	94	22	57	12.48	7.77	94	7	192
	21.34	49.33	143	108	215	12.46	0.91	94	10	86
	20.49	3.10	143	77	84	12.38	0.92	143	6	89
	20.22	5.25	143	232	92	12.32	2.09	94	23	62

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Pacific halibut	12.26	1.53	94	32	90	7.03	3.65	143	51	117
	11.70	19.56	94	152	256	7.02	8.42	143	39	240
	11.70	7.14	143	9	116	6.94	5.60	143	53	116
	11.31	10.04	57	42	221	6.90	8.08	57	29	226
	10.89	8.09	143	164	163	6.88	8.54	94	44	148
	9.82	10.78	143	207	204	6.88	2.76	94	133	91
	9.73	3.33	94	128	89	6.86	7.32	143	235	162
	9.56	0.89	94	18	96	6.83	7.16	94	70	178
	9.54	0.80	94	3	41	6.80	15.96	143	126	122
	9.40	13.26	57	40	328	6.77	4.13	57	4	335
	9.34	21.26	143	184	244	6.74	8.12	143	206	220
	9.09	20.69	94	57	177	6.49	14.57	143	92	375
	9.09	2.89	143	57	95	6.32	15.02	143	187	288
	9.04	8.36	94	161	118	6.28	14.12	94	130	270
	8.83	6.25	143	189	161	6.24	7.34	143	221	209
	8.80	1.05	94	27	82	6.16	5.84	94	71	126
	8.68	1.44	94	34	90	6.16	15.23	143	236	343
	8.57	3.23	94	47	91	6.12	4.69	143	43	94
	8.54	3.43	94	131	166	6.09	14.57	143	107	221
	8.54	3.28	143	54	83	6.07	1.99	143	84	93
	8.38	20.69	94	178	176	5.96	7.69	143	72	280
	8.36	2.75	94	48	93	5.83	2.04	143	29	62
	8.34	2.73	143	28	86	5.59	2.62	57	13	106
	7.84	9.48	57	11	312	5.54	12.44	57	34	178
	7.81	4.49	143	94	92	5.37	1.03	94	189	85
	7.77	18.48	143	160	323	5.19	5.95	143	82	80
	7.71	9.45	57	51	226	5.13	7.56	94	31	273
	7.67	8.93	94	69	124	5.13	0.93	94	115	53
	7.64	9.26	57	24	266	5.05	9.83	94	156	197
	7.52	3.34	143	71	159	5.04	2.95	94	41	125
	7.46	5.21	94	61	153	5.04	10.90	143	97	92
	7.44	2.77	57	16	86	5.03	1.35	94	38	90
	7.31	4.30	94	112	194	4.97	3.83	143	170	169
	7.21	5.59	94	16	93	4.94	11.65	143	58	274
	7.20	16.94	143	21	229	4.85	3.86	143	2	73
	7.19	8.07	94	192	167	4.84	11.65	143	144	408
	7.13	17.44	143	156	447					
Northern rock sole	231.72	0.40	94	147	92	35.70	0.43	94	190	90
	90.97	0.48	94	109	134	35.43	0.33	143	7	81
	81.37	0.52	143	71	159	34.57	0.37	143	91	90
	76.81	0.16	143	84	93	32.17	0.53	94	87	78
	65.27	0.18	143	2	73	30.54	0.99	143	169	153
	64.80	0.49	143	125	96	29.62	0.60	143	124	96
	63.64	0.37	94	139	122	29.12	0.43	94	13	91
	55.04	0.26	143	61	99	29.01	0.47	143	25	173
	49.48	0.65	94	131	166	28.79	0.39	94	85	81
	47.90	0.61	143	77	84	28.46	0.68	143	122	151
	46.50	0.39	143	52	76	28.42	0.30	143	54	83
	44.76	0.19	143	82	80	28.38	0.24	143	6	89
	43.91	0.33	143	62	93	28.18	0.52	94	138	148
	37.90	0.28	94	144	107	27.15	0.41	94	141	160
	37.39	0.39	143	60	161	26.47	0.44	94	108	157

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Northern rock sole	26.39	0.54	143	26	155	16.42	0.54	143	48	166
	26.00	0.44	94	9	22	16.01	0.69	94	106	175
	25.52	0.55	94	156	197	15.58	0.93	143	10	213
	25.03	0.29	143	27	121	15.56	0.33	94	128	89
	25.02	0.72	94	73	173	15.43	0.58	143	129	93
	24.89	0.43	94	88	87	15.16	0.26	94	83	128
	22.72	0.19	94	189	85	13.83	0.64	94	64	148
	22.15	0.57	143	69	94	13.53	0.54	143	95	242
	22.10	0.63	143	171	168	13.36	0.47	94	10	86
	21.99	0.24	143	55	88	13.30	0.62	94	29	122
	21.66	0.36	94	140	150	13.27	0.54	94	171	71
	21.12	0.38	143	28	86	13.11	0.53	94	102	143
	20.65	0.28	94	127	114	12.70	0.45	57	18	114
	20.07	0.39	94	84	92	12.64	0.21	94	146	92
	19.50	0.52	143	94	92	12.61	0.29	143	64	91
	19.28	0.59	143	40	149	12.30	0.55	94	53	152
	19.21	0.32	94	150	88	12.09	0.90	143	164	163
	18.11	0.44	94	86	78	12.00	0.96	94	111	123
	18.05	0.51	143	65	213	11.87	0.19	143	24	109
	17.77	0.58	94	56	256	11.77	0.30	94	65	108
	17.57	0.22	94	69	124	11.75	0.50	94	28	71
	17.17	0.45	94	133	91	11.73	0.49	94	57	177
	17.07	0.59	94	58	214	11.70	0.33	57	14	74
	17.04	0.44	143	51	117	11.59	0.24	143	14	70
Southern rock sole	78.91	0.46	94	5	65	15.85	1.21	94	27	82
	77.70	0.98	94	23	62	15.09	0.41	57	16	86
	75.34	0.66	94	3	41	12.60	0.46	57	9	111
	71.74	0.70	94	22	57	12.59	0.48	57	6	91
	66.14	0.47	57	14	74	11.49	0.60	94	38	90
	56.95	0.48	94	37	99	9.87	0.47	57	23	68
	40.95	0.24	57	10	93	8.63	0.38	57	7	85
	37.49	0.40	57	15	74	6.45	0.53	94	32	90
	34.21	0.28	57	17	93	5.49	0.31	57	22	113
	31.96	0.31	57	5	95	5.34	0.87	94	17	83
	16.73	0.57	94	28	71	4.82	0.64	94	33	95
	16.46	0.65	94	25	85					
Kamchatka flounder	456.94	3.44	143	228	307	52.25	1.44	94	187	245
	263.81	3.20	143	236	343	46.98	0.93	143	202	236
	219.89	2.40	143	237	343	44.46	1.90	143	98	344
	211.36	3.38	143	230	321	44.32	3.21	143	213	277
	178.88	3.63	143	66	467	44.26	2.59	57	43	429
	172.26	1.46	94	113	333	34.90	4.43	143	209	338
	100.63	2.82	94	151	446	30.78	2.39	57	25	401
	95.88	1.42	143	200	308	30.08	0.82	94	188	285
	89.59	5.83	143	93	397	27.55	2.71	94	152	256
	79.71	3.05	94	174	312	26.22	2.88	143	205	356
	67.84	1.60	94	96	402	21.75	1.79	143	135	232
	67.42	0.80	143	184	244	21.63	2.03	94	130	270
	53.72	4.27	94	165	266					

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Greenland turbot	159.45	2.44	143	156	447	13.44	3.55	143	212	453
	51.92	3.39	143	228	307	13.29	2.44	143	176	357
	31.82	9.74	94	180	143	13.07	6.23	143	38	381
	29.39	7.49	94	151	446	10.67	3.96	57	43	429
	26.26	2.26	143	144	408	9.70	7.47	143	170	169
	21.76	4.25	143	152	429	9.48	11.54	143	157	355
	21.68	2.56	94	31	273	8.56	3.28	94	174	312
	14.83	5.58	143	153	417	8.01	4.95	143	236	343
	13.53	2.68	57	32	448	7.98	3.34	94	152	256
Flathead sole	155.64	0.12	94	8	89	15.59	0.23	94	24	136
	66.56	0.20	94	7	192	13.84	0.82	94	5	65
	61.43	0.14	94	6	187	13.36	0.52	94	18	96
	50.63	0.31	143	23	221	12.52	0.32	143	40	149
	29.38	0.48	94	38	90	11.28	0.88	94	59	262
	27.15	0.19	143	3	91	10.21	0.19	94	9	22
	26.42	0.20	143	48	166	9.91	0.60	57	4	335
	23.41	0.17	143	147	178	8.75	0.43	94	37	99
	17.25	0.31	143	22	189	8.27	0.21	143	146	120
Rex sole	58.92	0.66	57	12	365	5.74	0.54	143	92	375
	37.22	0.64	94	20	242	5.69	0.28	143	3	91
	36.39	0.61	57	11	312	5.62	0.49	94	184	275
	25.26	0.62	94	60	278	5.01	0.12	94	6	187
	25.21	0.86	94	59	262	4.67	0.63	57	24	266
	24.93	0.42	94	24	136	4.66	0.55	143	65	213
	15.82	0.43	143	104	153	4.53	0.37	143	89	303
	15.30	0.54	94	30	153	4.47	0.56	94	172	86
	13.65	0.57	57	13	106	4.44	0.36	143	147	178
	13.05	0.73	143	80	260	4.39	0.39	143	84	93
	11.80	0.32	143	23	221	4.21	0.51	143	59	264
	10.66	0.44	143	174	365	4.18	0.34	143	144	408
	9.62	0.47	143	128	249	4.11	0.47	57	4	335
	9.21	0.52	94	67	208	4.06	0.38	57	16	86
	9.11	0.40	94	36	116	4.03	0.41	94	140	150
	8.88	0.19	94	7	192	3.96	1.00	143	76	322
	8.48	0.54	94	31	273	3.95	0.57	143	200	308
	8.35	0.47	94	56	256	3.92	0.42	143	182	271
	8.13	0.39	57	9	111	3.91	0.49	143	146	120
	7.86	0.70	94	188	285	3.90	0.51	143	183	404
	7.73	0.59	94	196	274	3.65	0.54	94	2	164
	7.52	0.37	94	16	93	3.60	0.34	94	99	362
	6.92	1.10	143	100	94	3.38	0.41	57	3	318
	6.83	0.66	57	43	429	3.29	0.66	143	63	252
	5.89	0.53	94	21	159	3.26	0.49	143	30	116
	5.89	0.40	143	175	350	3.00	0.66	94	38	90
Dover sole	3.65	0.62	143	127	330	1.66	1.13	94	179	396
	2.87	0.58	57	4	335	1.64	0.88	94	185	395
	2.57	0.56	143	128	249	1.51	0.57	94	183	386
	2.35	1.78	94	90	223	1.44	0.61	57	12	365
	2.07	2.51	143	73	409	1.39	0.69	94	178	176
	1.73	0.59	143	34	170	0.98	0.57	94	170	168

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Dover sole	0.98	0.48	57	3	318	0.32	0.76	143	63	252
	0.96	0.77	143	59	264	0.31	0.74	94	67	208
	0.87	0.48	143	174	365	0.29	0.38	94	158	187
	0.76	0.61	143	144	408	0.28	0.33	143	176	357
	0.75	0.42	94	24	136	0.26	0.28	57	9	111
	0.61	0.48	94	94	131	0.24	0.54	143	182	271
	0.53	1.43	94	93	314	0.22	0.28	94	6	187
	0.43	0.95	143	92	375	0.22	0.39	94	146	92
	0.40	0.64	94	89	184	0.21	0.25	143	108	215
	0.39	0.30	143	104	153	0.21	0.51	57	11	312
	0.38	0.64	94	176	249	0.20	0.48	57	13	106
	0.34	0.39	143	175	350	0.19	0.14	143	33	140
	0.33	0.67	94	148	237					
Yellowfin sole	4.97	0.66	94	9	22	0.45	1.00	94	23	62
	1.68	0.25	94	8	89	0.10	0.21	57	23	68
English sole	0.83	0.31	57	20	83					
Other flatfish	60.36	1.43	94	9	22	0.28	0.69	94	7	192
	24.65	1.57	94	8	89	0.16	0.34	57	23	68
	1.91	0.40	94	3	41	0.06	0.14	57	15	74
Skate unident.	190.27	4.13	143	170	169	22.46	12.46	143	135	232
	90.13	9.75	94	91	187	22.32	7.47	143	140	237
	75.08	8.68	143	31	100	21.45	4.57	94	134	219
	71.54	7.93	143	32	119	21.45	5.99	143	213	277
	53.52	5.75	94	89	184	21.02	6.36	94	90	223
	49.15	6.99	143	30	116	20.57	9.50	143	123	132
	45.78	1.22	57	32	448	20.49	5.07	57	43	429
	44.53	9.71	143	129	93	20.44	4.81	143	205	356
	39.57	11.63	94	129	198	19.35	3.14	143	230	321
	38.00	2.45	143	156	447	19.34	9.08	143	11	135
	34.47	3.11	143	157	355	19.15	7.11	143	164	163
	34.34	5.15	94	130	270	18.92	10.55	94	88	87
	34.13	9.18	143	166	185	17.88	6.79	57	49	159
	33.87	10.03	94	73	173	17.76	9.83	143	201	117
	33.76	6.69	94	94	131	17.44	12.92	94	18	96
	32.67	5.86	94	92	128	17.44	9.62	143	101	90
	32.33	7.43	94	181	141	16.84	4.18	143	228	307
	30.73	10.50	143	34	170	16.65	12.80	143	136	133
	30.58	6.35	143	33	140	15.90	6.83	143	6	89
	28.36	5.74	143	167	364	15.73	4.71	94	195	404
	26.74	3.51	143	202	236	15.23	3.66	143	200	308
	25.87	14.04	94	132	240	14.08	16.23	143	132	157
	25.65	6.79	143	199	230	13.84	7.58	57	31	120
	25.21	9.32	143	122	151	13.75	17.75	143	72	280
	24.33	19.51	94	131	166	13.66	9.28	143	233	93
	23.55	17.20	94	135	180	13.49	15.70	94	69	124
	23.16	4.71	143	169	153	13.48	6.46	143	115	172
	23.00	8.25	143	165	163	13.21	10.93	94	44	148
	22.95	1.08	94	188	285	13.21	5.08	143	185	230

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Skate unident.	13.13	7.73	94	112	194	11.08	6.59	143	66	467
	12.98	15.65	94	59	262	10.87	12.78	94	155	90
	12.98	10.33	143	137	153	10.63	1.09	143	197	368
	12.20	14.10	143	108	215	10.35	11.92	143	54	83
	11.70	1.42	143	186	289	9.64	0.68	143	86	352
	11.54	29.00	94	3	41					
Shark unident.	61.38	126.00	94	128	89	10.24	25.00	57	48	233
	16.23	39.20	57	11	312	4.54	9.40	94	21	159
	11.09	25.80	94	16	93					
Yellow Irish lord	52.35	1.30	94	14	92	5.47	0.31	143	233	93
	24.46	0.71	94	12	82	5.14	1.09	143	10	213
	20.35	0.71	143	7	81	5.02	0.67	94	33	95
	13.99	1.11	94	10	86	4.94	0.79	94	64	148
	13.87	0.72	94	13	91	4.89	1.30	94	186	89
	12.84	1.05	143	163	149	4.28	0.52	94	46	93
	9.72	0.62	94	109	134	4.17	0.66	94	71	126
	9.48	1.17	94	112	194	3.58	0.85	94	32	90
	9.46	0.73	94	26	86	3.58	1.05	143	11	135
	8.91	1.16	94	72	144	3.48	0.73	94	70	178
	8.15	0.85	94	29	122	3.22	0.75	94	25	85
	7.93	0.87	94	19	93	2.70	1.00	94	30	153
	7.45	0.49	143	129	93	2.70	0.72	94	28	71
	7.21	0.95	143	103	86	2.69	0.29	94	171	71
	7.07	1.07	94	114	156	2.69	0.50	143	162	150
	6.68	0.76	94	18	96					
Other sculpins	32.02	0.07	94	176	249	6.93	7.27	143	29	62
	31.71	5.87	143	7	81	6.91	0.18	94	91	187
	31.54	0.46	94	180	143	6.86	0.11	57	43	429
	18.10	0.07	57	41	398	6.84	0.08	143	228	307
	18.01	0.08	143	213	277	6.76	0.15	143	165	163
	17.64	0.05	143	128	249	6.68	0.08	94	174	312
	12.86	0.21	94	42	249	6.54	7.22	143	111	144
	12.02	0.16	94	130	270	6.47	0.28	143	236	343
	11.56	0.05	143	209	338	6.46	0.23	94	135	180
	11.50	0.09	143	230	321	6.46	0.08	143	149	247
	10.86	0.05	143	185	230	6.41	0.15	143	166	185
	10.53	0.08	143	225	330	6.37	0.53	94	20	242
	10.23	0.15	94	43	314	6.35	0.10	143	190	243
	9.39	2.85	94	147	92	6.16	0.06	57	39	395
	9.29	0.08	57	35	394	5.86	2.23	143	83	92
	9.17	0.06	143	186	289	5.81	0.08	94	175	249
	9.00	2.71	57	12	365	5.76	0.57	143	234	228
	8.91	0.06	143	187	288	5.70	0.06	143	160	323
	8.53	0.05	57	40	328	5.52	0.13	143	114	138
	8.48	0.11	94	157	185	5.51	0.20	143	168	197
	8.38	0.14	57	53	417	5.35	0.11	143	204	229
	8.31	0.21	143	237	343	5.24	0.07	57	52	406
	7.97	0.08	143	205	356	4.97	0.05	94	52	314
	7.72	0.12	57	51	226	4.88	0.13	143	72	280
	7.65	1.00	57	3	318	4.85	0.10	94	181	141

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Other sculpins	4.80	0.09	143	148	201	2.85	0.09	143	87	244
	4.79	1.64	143	41	116	2.82	0.04	143	176	357
	4.79	0.08	143	150	220	2.80	0.08	143	126	122
	4.72	0.08	143	89	303	2.63	0.07	143	115	172
	4.72	0.20	57	42	221	2.59	5.95	143	43	94
	4.69	0.08	143	218	209	2.56	0.10	143	182	271
	4.69	0.72	57	4	335	2.54	0.08	94	148	237
	4.49	0.12	57	29	226	2.53	0.06	94	195	404
	4.44	10.65	143	45	116	2.40	0.07	143	159	253
	4.43	0.32	143	90	224	2.38	0.09	143	227	228
	4.15	0.18	94	110	267	2.33	4.46	94	27	82
	4.09	0.17	143	80	260	2.30	0.19	94	129	198
	4.08	0.40	94	193	220	2.23	1.46	143	40	149
	3.87	0.07	143	1	211	2.23	0.05	143	76	322
	3.83	2.70	94	12	82	2.18	0.13	94	89	184
	3.81	0.68	94	80	91	2.15	0.13	94	187	245
	3.78	0.05	143	155	401	2.14	0.08	143	175	350
	3.72	4.15	94	88	87	2.10	0.06	143	181	260
	3.64	8.23	57	27	125	2.09	0.11	94	136	229
	3.62	0.05	143	93	397	2.07	0.05	143	177	259
	3.53	0.12	57	48	233	2.05	0.62	57	11	312
	3.42	0.11	143	229	228	2.03	0.05	143	197	368
	3.34	0.13	143	157	355	1.96	2.21	143	3	91
	3.31	0.08	143	200	308	1.86	0.04	94	165	266
	3.21	0.04	143	59	264	1.83	0.05	94	159	342
	3.08	0.08	143	123	132	1.83	0.05	143	151	210
	3.06	7.01	143	46	135	1.77	0.10	94	117	233
	3.01	0.05	143	188	233	1.74	2.02	57	15	74
	3.00	1.15	143	54	83	1.72	0.08	143	122	151
	2.97	0.09	143	214	275	1.69	0.21	143	167	364
	2.95	7.20	143	9	116	1.68	0.04	143	105	209
	2.92	0.10	94	173	179	1.64	0.11	94	158	187
	2.91	0.16	94	90	223	1.63	0.06	143	164	163
	2.90	0.03	143	58	274					
Eelpout unident.	2.35	0.59	143	210	468	0.46	0.53	143	175	350
	2.10	0.56	143	98	344	0.45	0.55	143	156	447
	1.92	0.41	143	212	453	0.44	0.26	143	176	357
	1.66	0.50	143	99	435	0.42	0.86	94	179	396
	1.51	0.12	94	142	458	0.36	0.22	143	73	409
	1.34	0.77	94	91	187	0.34	0.37	143	200	308
	1.18	0.50	94	151	446	0.28	0.18	94	7	192
	1.12	0.85	94	90	223	0.27	0.32	143	144	408
	1.06	0.31	143	183	404	0.26	0.10	143	198	319
	0.82	0.28	143	59	264	0.22	0.26	143	187	288
	0.73	0.19	143	195	400	0.20	0.17	94	6	187
	0.68	0.13	94	8	89	0.19	0.15	143	63	252
	0.67	0.80	143	74	407	0.18	0.07	143	127	330
	0.64	0.57	94	93	314	0.16	0.47	57	32	448
	0.63	0.20	143	197	368	0.15	0.13	143	174	365
	0.56	0.21	143	224	460	0.15	0.09	143	194	407
	0.46	0.20	94	185	395	0.14	0.33	143	152	429

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Other fish	6163.30	4.99	143	153	417	38.09	6.01	94	142	458
	2709.89	5.62	143	205	356	34.48	1.22	94	91	187
	653.55	3.15	143	152	429	33.18	3.96	143	141	153
	300.25	2.56	143	217	460	30.59	3.48	94	96	402
	289.23	3.62	143	36	458	28.66	3.15	143	99	435
	285.87	2.98	143	224	460	28.14	1.09	143	104	153
	171.04	3.51	94	151	446	23.22	1.60	143	49	415
	119.00	3.66	143	92	375	23.21	3.06	143	130	93
	101.15	3.23	143	212	453	22.73	1.66	94	173	179
	57.01	0.10	143	64	91	22.04	1.32	94	89	184
	53.70	1.42	94	92	128					
Bairdi tanner crab	9.71	0.27	94	8	89	1.08	0.28	143	147	178
	2.25	0.69	94	15	93	1.06	1.22	94	189	85
	2.19	0.57	94	16	93					
Golden king crab	8.02	0.85	94	113	333	1.63	1.11	94	179	396
	7.40	1.17	143	1	211	1.63	0.55	143	199	230
	7.22	0.82	94	134	219	1.54	0.91	143	21	229
	6.54	0.93	143	206	220	1.45	1.13	94	170	168
	6.19	1.90	94	180	143	1.45	1.09	94	130	270
	6.16	1.20	57	29	226	1.44	0.89	143	236	343
	4.26	3.42	143	59	264	1.41	0.70	143	228	307
	3.94	1.19	94	176	249	1.40	1.34	143	141	153
	3.71	0.69	143	195	400	1.34	0.81	143	39	240
	3.67	2.80	94	103	176	1.34	1.55	143	175	350
	3.62	0.89	57	41	398	1.33	0.52	143	213	277
	3.44	0.63	143	203	210	1.28	0.82	143	72	280
	3.36	0.96	143	197	368	1.27	1.59	143	50	209
	3.26	1.13	143	150	220	1.25	2.69	143	200	308
	3.20	0.98	143	156	447	1.22	1.00	57	51	226
	2.97	2.40	94	92	128	1.16	1.05	94	167	147
	2.91	1.68	94	91	187	1.15	2.74	143	187	288
	2.84	1.09	143	151	210	1.13	1.27	94	100	314
	2.75	1.00	57	53	417	1.05	2.48	143	198	319
	2.58	3.90	94	90	223	1.04	0.56	94	195	404
	2.53	0.70	94	181	141	0.98	1.13	143	139	174
	2.51	0.72	57	25	401	0.98	1.17	143	137	153
	2.50	1.03	143	205	356	0.96	0.32	143	155	401
	2.48	0.72	94	188	285	0.93	2.20	94	82	184
	2.45	2.94	143	63	252	0.89	0.94	143	99	435
	2.35	1.07	57	44	240	0.83	0.80	143	185	230
	2.06	1.25	143	133	156	0.82	1.85	143	182	271
	2.06	1.00	57	24	266	0.82	1.85	57	34	178
	2.04	0.73	94	169	250	0.78	0.86	94	135	180
	1.99	0.83	143	37	365	0.78	0.57	143	207	204
	1.98	1.19	143	134	146	0.75	0.73	94	154	407
	1.84	1.55	143	16	165	0.75	0.87	143	148	201
	1.74	0.97	143	219	160	0.71	0.82	94	177	171
	1.70	0.64	143	92	375	0.67	1.75	143	40	149
	1.70	1.00	143	140	237	0.62	0.72	143	136	133
	1.69	0.39	143	225	330	0.61	0.87	94	125	374
	1.66	1.01	143	109	245	0.60	1.49	143	49	415

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Golden king crab	0.60	0.72	143	96	350	0.49	1.18	143	144	408
	0.58	0.89	143	95	242	0.48	1.16	143	128	249
	0.57	1.21	143	196	401	0.46	0.99	94	185	395
	0.56	0.47	143	36	458	0.44	1.03	94	104	183
	0.54	1.16	143	204	229	0.44	0.51	94	155	90
	0.53	1.30	94	95	331	0.43	0.92	143	98	344
	0.50	0.58	94	168	82	0.43	1.05	143	138	152
Red king crab	11.12	4.11	143	122	151	2.07	1.09	94	150	88
	5.64	3.48	94	178	176	1.75	4.24	143	31	100
	3.80	2.55	94	172	86	0.91	2.21	57	21	284
	3.03	3.55	143	114	138	0.90	1.92	143	189	161
	2.98	3.45	94	177	171					
Northern shrimp	0.84	0.01	143	50	209	0.11	0.00	143	146	120
	0.71	0.01	143	145	139	0.11	0.00	143	143	112
	0.63	0.00	94	163	259	0.09	0.01	94	145	198
	0.45	0.01	94	6	187	0.08	0.01	143	178	146
	0.32	0.01	143	147	178	0.07	0.01	143	149	247
	0.31	0.01	143	177	259	0.07	0.00	143	158	131
	0.19	0.01	143	181	260	0.07	0.01	57	12	365
	0.18	0.01	94	162	224	0.06	0.00	143	4	116
	0.17	0.01	143	21	229	0.05	0.01	143	176	357
Sidestripe shrimp	0.29	0.01	57	12	365	0.02	0.01	143	86	352
	0.14	0.01	57	4	335	0.02	0.02	57	3	318
	0.09	0.02	57	11	312					
Scallop unident.	50.90	0.09	143	126	122	3.90	0.05	94	53	152
	44.07	0.11	143	123	132	3.65	0.03	143	117	198
	6.46	0.04	94	145	198	3.37	0.03	94	127	114
Magistrate armhook squid	21.00	0.32	57	42	221	1.89	0.44	143	175	350
	12.08	0.38	94	29	122	1.80	0.41	143	76	322
	7.96	0.22	94	21	159	1.77	0.20	94	22	57
	7.39	0.52	57	32	448	1.73	0.28	94	95	331
	6.04	0.61	94	31	273	1.72	0.62	143	98	344
	4.89	0.36	57	43	429	1.57	0.24	57	44	240
	4.70	0.37	57	35	394	1.53	0.13	143	195	400
	4.34	0.29	57	21	284	1.45	0.22	94	107	454
	3.38	0.49	143	156	447	1.42	0.46	94	43	314
	3.10	0.38	94	2	164	1.41	0.38	143	229	228
	2.75	0.34	143	66	467	1.37	0.14	143	74	407
	2.68	0.38	57	40	328	1.32	0.56	94	151	446
	2.60	0.29	57	24	266	1.24	0.24	143	196	401
	2.49	0.52	94	174	312	1.23	0.15	143	89	303
	2.40	0.31	143	198	319	1.23	0.33	143	176	357
	2.34	0.38	57	41	398	1.14	0.44	143	5	213
	2.32	0.46	94	99	362	1.14	0.39	143	128	249
	2.09	0.26	57	13	106	1.10	0.19	57	12	365
	2.06	0.39	94	183	386	1.09	0.45	94	179	396
	2.01	0.44	143	230	321	1.06	0.24	57	25	401
	1.89	0.52	94	159	342					

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Sponge	597.81		143	219	160	46.89	57.97	94	159	342
	489.52	54.62	94	186	89	46.63		143	215	239
	256.12		143	161	87	44.81		57	53	417
	252.94		143	7	81	44.20	35.97	94	95	331
	201.86		143	165	163	42.63	0.32	94	143	135
	190.85	0.72	94	181	141	42.53	89.15	94	98	209
	149.97	196.56	143	118	111	42.41		143	160	323
	139.89		143	109	245	40.40	89.17	143	163	149
	129.12		143	142	83	38.75		143	162	150
	128.75	21.20	94	166	168	38.53	47.60	143	56	92
	120.15		57	42	221	38.51		143	35	362
	118.14	9.88	94	81	98	37.93	0.16	94	135	180
	115.66		143	138	152	37.77		143	39	240
	106.59		143	233	93	37.05		143	206	220
	105.60	3.79	94	80	91	35.30	20.53	94	160	390
	100.64	18.62	94	11	85	34.12	2.32	94	10	86
	99.70	117.96	143	203	210	33.99		57	29	226
	99.55		57	44	240	33.85		94	93	314
	94.70	92.96	143	129	93	33.45		94	14	92
	93.86		143	58	274	32.24		143	148	201
	93.56		143	164	163	30.08	0.32	94	169	250
	91.30		143	223	166	29.64	1.28	94	129	198
	85.85	9.06	143	122	151	28.78		57	41	398
	85.68		143	21	229	28.76		143	68	160
	81.94		94	119	133	27.37		143	205	356
	81.31		143	36	458	26.93		143	151	210
	81.20		143	221	209	25.70	0.35	94	155	90
	78.96		143	169	153	25.50		143	232	92
	73.39		143	218	209	25.35		94	113	333
	72.09		143	168	197	25.06	1.63	143	126	122
	70.34		143	116	94	24.76		143	213	277
	69.60		143	222	212	24.57		143	110	85
	69.15		94	97	175	24.16		143	207	204
	65.40	1.25	143	1	211	23.68		143	133	156
	62.96		143	225	330	22.96	11.13	143	150	220
	59.22		94	173	179	22.31		143	115	172
	58.85		143	37	365	21.67		57	5	95
	52.00		143	130	93	20.89		57	52	406
	49.97	1.76	94	40	128	20.88	2.19	94	133	91
	48.61		143	108	215	20.36		57	39	395
	47.71		143	220	211					
Starfish	6.08	0.10	143	1	211	1.08	0.10	143	122	151
	4.28	0.08	143	129	93	0.98	0.31	94	26	86
	2.32	0.04	94	181	141	0.96	0.07	57	31	120
	1.99	0.08	143	161	87	0.92	0.06	143	162	150
	1.64	0.03	143	165	163	0.88	0.09	143	133	156
	1.55	0.06	94	81	98	0.86	0.05	94	127	114
	1.54	0.07	143	2	73	0.86	0.13	57	12	365
	1.38	0.15	143	179	138	0.85	0.07	143	171	168
	1.34	0.08	94	129	198	0.80	0.05	94	126	149
	1.28	0.03	143	115	172	0.77	0.13	143	8	94
	1.19	0.05	143	203	210	0.74	0.10	94	186	89

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Starfish	0.74	0.05	143	169	153	0.43	0.07	94	169	250
	0.73	0.03	143	116	94	0.43	0.08	57	51	226
	0.72	0.03	143	225	330	0.42	0.48	143	82	80
	0.71	0.04	94	12	82	0.42	0.03	143	223	166
	0.71	0.05	143	101	90	0.41	0.26	94	27	82
	0.71	0.06	143	97	92	0.41	0.11	94	134	219
	0.71	0.13	143	125	96	0.41	0.04	143	233	93
	0.70	0.03	94	124	368	0.40	0.05	94	148	237
	0.69	0.38	143	201	117	0.40	0.04	94	137	170
	0.68	0.03	143	138	152	0.39	0.03	94	130	270
	0.65	0.07	143	83	92	0.39	0.05	94	128	89
	0.63	0.12	143	18	169	0.39	0.05	143	124	96
	0.63	0.04	143	164	163	0.38	0.03	94	143	135
	0.61	0.03	143	130	93	0.38	0.32	143	47	87
	0.59	0.04	143	206	220	0.38	0.08	57	53	417
	0.57	0.15	143	48	166	0.37	0.03	94	135	180
	0.57	0.05	143	114	138	0.37	0.03	143	207	204
	0.55	0.22	143	89	303	0.36	0.08	94	41	125
	0.55	0.06	143	7	81	0.36	0.03	143	160	323
	0.54	0.04	143	123	132	0.36	0.05	143	143	112
	0.54	0.06	143	84	93	0.35	0.14	94	168	82
	0.54	0.03	143	222	212	0.35	0.12	143	5	213
	0.53	0.24	94	53	152	0.35	0.06	143	131	157
	0.53	0.11	94	68	89	0.35	0.07	57	29	226
	0.52	0.04	94	98	209	0.34	0.04	94	167	147
	0.52	0.03	143	142	83	0.34	0.04	143	163	149
	0.51	0.06	143	172	141	0.34	0.03	143	126	122
	0.51	0.02	143	166	185	0.33	0.07	143	200	308
	0.50	0.29	94	116	153	0.32	0.24	94	47	91
	0.49	0.10	143	102	83	0.32	0.03	94	138	148
	0.48	0.20	94	44	148	0.32	0.06	143	100	94
	0.47	0.04	94	155	90	0.32	0.10	57	32	448
	0.46	0.03	143	219	160	0.32	0.04	57	4	335
	0.45	0.48	94	190	90	0.31	0.37	94	112	194
	0.44	0.11	94	46	93	0.31	0.05	94	156	197
Stony coral unident.	56.21		143	116	94	5.39		57	5	95
	33.05	13.44	143	138	152	4.96		143	118	111
	9.12	5.07	143	219	160	4.39		94	186	89
	9.04		143	101	90	4.14		143	130	93
	8.01		143	161	87	3.76		57	42	221
	5.54		94	166	168	3.70		143	233	93
	5.44		143	162	150					
Soft coral	94.73		143	56	92	16.90		143	45	116
	68.85		143	54	83	6.92		143	24	109
	25.62		143	219	160	5.67		57	39	395
	23.58		94	84	92	5.53		94	161	118
Octopus	226.17		143	1	211					

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Snails	0.88	0.04	94	12	82	0.13	0.03	94	92	128
	0.85	0.10	94	38	90	0.13	0.06	94	127	114
	0.81	0.05	94	33	95	0.13	0.04	143	165	163
	0.72	0.05	94	68	89	0.13	0.15	143	132	157
	0.70	0.04	94	40	128	0.13	0.21	143	201	117
	0.61	0.05	94	171	71	0.13	0.04	57	27	125
	0.61	0.08	143	58	274	0.12	0.03	143	115	172
	0.59	0.01	143	21	229	0.12	0.25	143	99	435
	0.56	0.16	143	5	213	0.12	0.06	143	169	153
	0.54	0.04	94	137	170	0.12	0.04	143	162	150
	0.52	0.03	143	171	168	0.12	0.03	143	143	112
	0.42	0.07	143	126	122	0.12	0.06	143	197	368
	0.40	0.03	94	13	91	0.11	0.05	94	114	156
	0.37	0.04	94	53	152	0.11	0.05	143	104	153
	0.35	0.06	94	14	92	0.10	0.07	94	192	167
	0.34	0.02	94	126	149	0.10	0.04	94	120	113
	0.33	0.04	143	173	112	0.10	0.07	94	148	237
	0.32	0.32	57	46	237	0.10	0.03	143	4	116
	0.31	0.03	94	44	148	0.10	0.05	143	130	93
	0.31	0.06	143	101	90	0.10	0.03	143	219	160
	0.27	0.16	143	199	230	0.09	0.04	94	97	175
	0.26	0.05	143	114	138	0.09	0.03	143	10	213
	0.26	0.03	143	233	93	0.09	0.07	143	116	94
	0.25	0.02	94	123	143	0.09		143	142	83
	0.25	0.03	143	179	138	0.09	0.23	57	48	233
	0.23	0.07	94	29	122	0.09	0.16	57	4	335
	0.23	0.15	143	16	165	0.08	0.07	143	2	73
	0.22	0.04	94	11	85	0.08	0.06	143	84	93
	0.22	0.03	94	143	135	0.08	0.04	143	83	92
	0.22	0.06	143	172	141	0.08	0.04	143	161	87
	0.21	0.07	94	22	57	0.08	0.18	143	151	210
	0.21	0.06	94	173	179	0.08	0.17	143	234	228
	0.21	0.07	143	118	111	0.08	0.09	143	207	204
	0.20	0.02	94	196	274	0.08	0.04	143	191	123
	0.20	0.06	143	129	93	0.07	0.02	94	45	149
	0.19	0.05	143	68	160	0.07	0.04	94	39	100
	0.19	0.09	143	18	169	0.07	0.10	94	34	90
	0.19	0.05	143	119	113	0.07	0.11	94	89	184
	0.19	0.07	143	112	144	0.07	0.15	94	185	395
	0.19	0.05	143	166	185	0.07	0.16	94	135	180
	0.19	0.07	143	146	120	0.07	0.08	143	123	132
	0.18	0.07	94	32	90	0.07	0.09	143	96	350
	0.18	0.08	94	130	270	0.07	0.04	143	89	303
	0.18	0.11	143	131	157	0.07	0.08	143	206	220
	0.17	0.03	57	5	95	0.06	0.05	94	10	86
	0.16	0.05	143	102	83	0.06	0.08	94	63	113
	0.16	0.05	143	100	94	0.06	0.09	94	78	163
	0.16	0.05	57	24	266	0.06	0.04	94	175	249
	0.15	0.03	94	155	90	0.06	0.05	94	167	147
	0.15	0.03	143	180	138	0.06	0.05	94	149	258
	0.14	0.10	94	24	136	0.06	0.03	94	129	198
	0.14	0.08	143	3	91	0.06	0.14	143	46	135
	0.14	0.06	143	133	156	0.06	0.07	143	34	170

Species	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)	CPUE (kg/ha)	Individual weight (kg)	Vessel code	Haul	Bottom depth (m)
Snails	0.06	0.05	143	33	140	0.05	0.02	94	46	93
	0.06	0.03	143	97	92	0.05	0.06	94	109	134
	0.06	0.04	143	94	92	0.05	0.06	94	138	148
	0.06	0.02	143	232	92	0.05	0.04	94	133	91
	0.06	0.08	143	230	321	0.05	0.06	143	39	240
	0.06	0.04	57	35	394	0.05	0.02	143	7	81
	0.06	0.07	57	22	113	0.05	0.02	143	163	149
	0.05	0.12	94	43	314	0.05	0.04	143	231	256
	0.05	0.07	94	26	86	0.05	0.08	143	205	356
	0.05	0.04	94	19	93	0.05	0.03	57	29	226
Other invertebrates	100.72	12.04	143	217	460	8.90	0.11	94	130	270
	44.43	0.20	94	80	91	8.35	0.17	143	118	111
	31.31	0.33	143	7	81	7.93	0.06	94	186	89
	26.02	0.07	143	116	94	7.68	0.05	143	101	90
	22.28	0.18	143	115	172	7.50	0.23	143	207	204
	21.74	0.45	143	129	93	7.17	0.13	57	30	118
	19.52	0.29	143	114	138	7.16	0.10	94	45	149
	18.97	0.29	94	97	175	7.11	0.12	143	203	210
	18.93	0.14	143	130	93	7.05	0.08	143	206	220
	18.85	0.14	143	165	163	7.03	1.64	94	98	209
	18.27	0.19	143	126	122	6.99	0.16	94	33	95
	15.50	0.13	143	164	163	6.95	0.05	143	142	83
	14.96	0.34	143	48	166	6.76	0.27	94	22	57
	14.52	0.08	94	40	128	6.59	0.04	94	12	82
	14.40	0.06	143	97	92	6.47	0.02	94	143	135
	14.32	0.03	94	181	141	6.41	0.08	143	131	157
	13.75	0.06	94	131	166	6.39	0.03	94	147	92
	13.62	0.14	94	166	168	6.35	1.05	94	113	333
	13.38	0.26	94	81	98	6.06	0.04	94	169	250
	13.05	0.66	143	123	132	5.97	0.16	57	53	417
	12.10	0.11	94	160	390	5.86	0.46	143	3	91
	10.75	0.06	94	126	149	5.83	1.16	94	165	266
	10.51	0.06	143	162	150	5.63	0.08	94	124	368
	10.20	0.02	94	135	180	5.57	0.23	94	8	89
	10.19	0.09	143	161	87	5.37	0.03	94	155	90
	9.91	0.30	57	29	226	5.29	0.14	143	205	356
	9.77	0.06	143	169	153	5.19	0.24	143	202	236
	9.68	0.15	143	66	467	5.18	0.05	94	26	86
	9.46	0.14	57	31	120					

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Section 6

Trawl and Accessories

Specifications and Diagrams

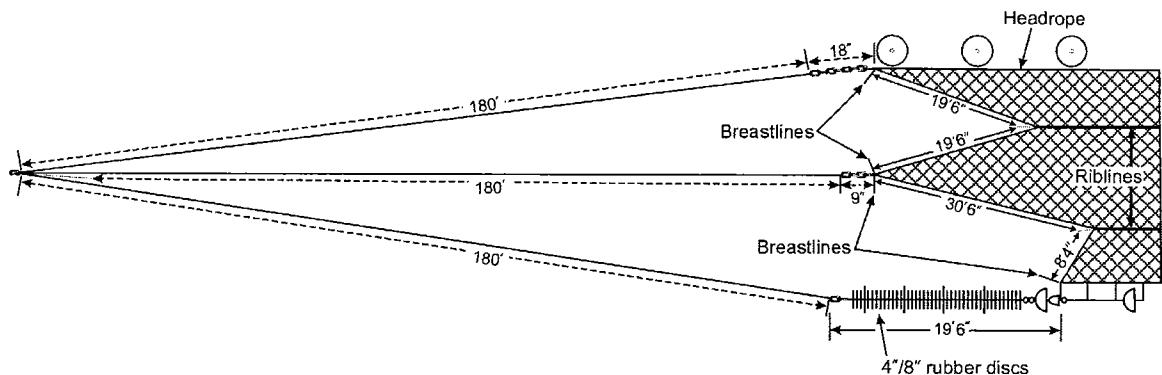
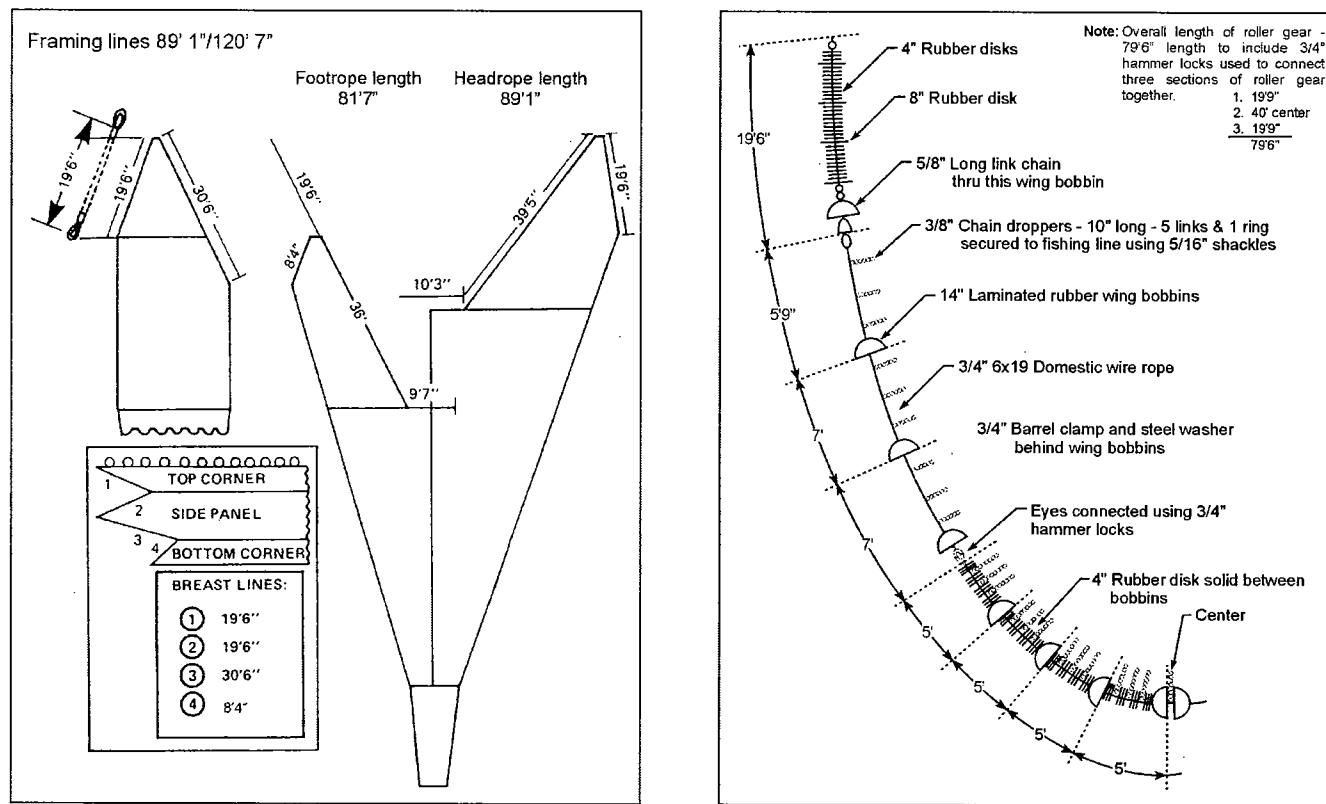
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Table 3.--Specifications of the trawl, otter doors, and accessory gear used by the chartered trawlers *Sea Storm*, *Morning Star*, and *Vesteraalen* during the 2002 biennial bottom trawl survey of the Aleutian Islands region.

Equipment	Specifications
Netting -	Polyethylene, 12.7 cm (5 in), 4 & 5 millimeter (mm) twine.
Headrope -	27.2 m (89 ft-1 in), 1.3 cm (1/2 in) 6 x 19 gauge galvanized wire rope, wrapped with 1 cm (3/8 in) 3-strand polypropylene rope.
Footrope -	24.9 m (81 ft-7 in), 1 cm (3/8 in) 6 x 19 gauge galvanized wire rope wrapped with polypropylene rope.
Fishing line -	24.3 m (79 ft-7 in), shot-peened long-link chain. Safe working load 5.1 metric ton (t).
Roller gear -	24.2 m (79 ft-6 in), 1.9 cm (3/4 in) diameter, 6 x 19 gauge galvanized wire rope strung through 10.2 cm (4 in) diameter rubber disks, 16 rubber wing bobbins 35.6 cm (14 in) in diameter and 34 galvanized rings hung with 30.5 cm (12 in) long dropper chain.
Breastlines -	1 cm (3/8 in) 6 x 19 gauge galvanized wire rope wrapped with 1 cm polypropylene. Top corner 5.9 m (19 ft-6 in); bottom corner 2.6 m (8 ft-8 in); top side panel 5.9 m; bottom side panel 9.3 m (30 ft-6 in).
Riblines -	1.9 cm (3/4 in) Samson® ^{*/} 2 & 1 Duralon® ^{*/} . Top two 34.8 m (114.17 ft) and bottom two 31.8 m (104.45 ft), hung 98% of stretched seam length.
Flotation -	Cycolac® ^{*/} trawl floats, 30.5 cm (12 in) diameter, 21 pieces. Buoyancy 10.2 kg (22.4 lb.) each and rated for 800 m (400 fm) depth.
Codend liner -	Nylon, no. 18, 3.2 cm (1-1/4 in) stretched mesh (M), 315 M circumference and 200 M deep, laced to inner bag. When stretched the liner protrudes 61-91 cm (2 to 3 ft) beyond codend.
Restrictors -	Polypropylene rope, 2.5 cm (1 in) diameter, 4.3 m (14 ft) circumference and secured loosely to codend at each ribline, 1.2 m (4 ft) apart, 5 pieces.
Splitting gear -	1.3 cm (1/2 in) diameter 6.4 m (21 ft) long galvanized wire rope is passed through 4 galvanized steel rings which are secured to the codend with 1.3 cm diameter braided nylon "spiders".
Side seams -	Panels are joined to each other gathering 3 M (4 knots) from each panel. Panels that are secured to framing lines have a selvaged edge created by gathering 3 M.
Rigging -	3 dandylines each side, 1.6 cm (5/8 in) diameter galvanized wire rope, 54.9 m (30 fm) long.
Doors -	1.8 m x 2.7 m (6 x 9 ft), steel V-doors, approximately 800 kg (1,800 lb) each.
Chafing gear -	Polypropylene 10 in M, 1 cm (3/8 in) polyrope hog-ringed (or interwoven) together, 46 M circumference and 21 M deep, laced to outer bag 68.5 M up from the pucker rings.

^{*/}Reference to trade names does not imply endorsement by the National Marine Fisheries Service, NOAA

Figure 3.--Trawl and accessories diagrams

Poly Nor' Eastern Bottom Trawl

Restrictors: 5 ea., 14' circumference, made of 1 1/4" poly rope spliced to form a ring, hung 4' apart, secured loosely at top, bottom, and at riblines.

