



NOAA Technical Memorandum NMFS-AFSC-128

**Appendices to  
The 2001 Pacific West Coast  
Bottom Trawl Survey of Groundfish  
Resources: Estimates of Distribution,  
Abundance, and Length and  
Age Composition**

by  
M. E. Wilkins and K. L. Weinberg

**U.S. DEPARTMENT OF COMMERCE**  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
Alaska Fisheries Science Center

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Alaska Fisheries Science Center  
7600 Sand Point Way N.E.  
Seattle, WA 98115-0070

**U.S. DEPARTMENT OF COMMERCE**

Donald L. Evans, Secretary

**National Oceanic and Atmospheric Administration**

Scott B. Gudes, Acting Under Secretary and Administrator

**National Marine Fisheries Service**

William T. Hogarth, Assistant Administrator for Fisheries

June 2002

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# INTRODUCTION

The information appended in this volume is provided for those interested in the detailed results of the analyses performed on the catch and biological data collected during the National Marine Fisheries Service's 2001 West Coast triennial bottom trawl survey of groundfish resources. The format in which the information is presented in this document has not been scrutinized by editorial staff and thus should not be referenced in a scientific publication. The three appendices are intended to be used in association with the summaries included in NOAA Technical Memorandum NMFS-AFSC-128. These appendices provide summarized station and catch data, relative rankings and absolute catch rates in terms of CPUE (kg caught per hectare trawled) of fish and invertebrates within various International North Pacific Fisheries Commission (INPFC) areas and depth strata, and abundance estimates (population numbers and biomass) for the most commercially or ecologically important species.

To avoid excess printing, abundance and size and age compositions estimates have not been included for many of the less important fish and invertebrates, though these estimates can be easily calculated upon request. Electronic data files containing the results of any of these analyses are available from the authors or other staff listed below.

<i>To request data files or special analyses, please contact:</i>		
Frank Shaw	(206) 526-4120	frank.shaw@noaa.gov
Mark Wilkins	(206) 526-4104	mark.wilkins@noaa.gov
Ken Weinberg	(206) 526-6109	ken.weinberg@noaa.gov
Bob Lauth	(206) 526-4121	bob.lauth@noaa.gov
Mark Zimmermann	(206) 526-4119	mark.zimmermann@noaa.gov

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# APPENDIX A

## HAUL AND CATCH DATA SUMMARY

Appendix A contains information from the 2001 West Coast triennial bottom trawl survey data about each haul's location, depth, performance codes, measures of effort in time and distance, and amount caught (kg) for selected important species or species groups. Geodetic positions are displayed in the table as degrees and decimal minutes, e.g. 123°46.39' corresponds to 123°46.39'W longitude. Appendix Table A-1 contains information from the F/V *Frosti* and Table A-2 contains information from the F/V *Sea Storm*.

Haul performance is coded as to any problems which occurred during the trawl haul and whether or not the haul was accepted as a successful sample; negative codes indicate unsuccessful hauls. Performance codes that appear in this appendix are as follows:

<u>Code</u>	<u>Explanation</u>
-5.6	Unsatisfactory performance, codend not closed properly
-5.41	Unsatisfactory performance, doors digging or falling over
-5.1	Unsatisfactory performance, net came off bottom
-2.4	Unsatisfactory performance, belly damaged
0	Good performance
3	Satisfactory performance, gear conflict, unspecified
3.1	Satisfactory performance, caught pot, unspecified type
4	Satisfactory performance, caught unspecified object
4.1	Satisfactory performance, caught large rock
4.3	Satisfactory performance, caught debris or wreckage
5.1	Satisfactory performance, net came off bottom

Table A-1.--Station and catch data (kg caught) by major species groups for stations fished by the *Frosti*.

Haul	1	2	3	4	5	6	7	8	9	10	11
Start date & time	6/8/2001 8:18	6/8/2001 10:59	6/8/2001 13:47	6/8/2001 17:34	6/9/2001 7:17	6/9/2001 11:01	6/9/2001 14:02	6/9/2001 16:53	6/9/2001 18:20	6/10/2001 7:00	6/10/2001 10:27
Station	1a	1b	1c	1d	1e	1f	1d	3b	3a	3c	3d
Start latitude	3433.86	3434.72	3434.10	3432.97	3434.42	3433.98	3432.66	3443.35	3443.48	3440.92	3443.37
Start longitude	12042.19	12045.43	12048.39	12050.23	12051.74	12052.24	12050.92	12046.47	12044.23	12049.15	12056.50
End latitude	3435.22	3435.98	3435.52	3434.34	3435.83	3435.44	3433.98	3444.97	3445.02	3442.44	3444.80
End longitude	12043.04	12046.38	12048.47	12050.53	12052.09	12052.79	12050.83	12046.55	12044.20	12049.42	12056.90
Bottom depth (m)	75	111	203	347	344	408	392	96	72	119	321
Duration (hr)	0.52	0.51	0.51	0.53	0.51	0.54	0.53	0.56	0.54	0.53	0.51
Distance fished (km)	2.892	2.871	2.761	2.792	2.74	2.91	2.889	3.07	2.922	2.893	2.775
Net width (m)	13.1	13.677	14.267	13.782	13.124	14.588	13.648	12.951	13.17	14.011	14.28
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	-6.1	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish		4.9		0.4	0.2		1.3	3.7	10.8		1.9
Skates	0.1	1.9	0.1	1.4	0.7	6.0	11.4	0.0	61.9	0.4	13.3
Spotted ratfish		1.0	2.9	3.2	2.4	4.9	1.9	2.1	1.3	0.8	0.8
Other elasmobranchs	0.3	0.5		33.5	18.3	621.0	13.0	0.1			0.9
Pacific sanddab	7.4	55.1						74.0	13.8	88.6	
Arrowtooth flounder											
Pacific halibut											
Petrale sole	1.1	18.0	2.6					0.9	0.9	14.7	
English sole	1.9	20.0	4.0					5.8	11.3	0.9	
Dover sole	0.0	1.8	47.3	97.4	148.0	318.3	181.9		0.1	7.9	80.0
Rex sole		0.2	3.9	83.2	67.9	102.6	31.2		0.1	2.4	163.2
Other flatfish	2.6	0.5	1.0					0.8	3.5	3.2	
Sablefish			28.9	115.3	69.6	24.5	33.0				191.4
Pacific cod											59.9
Lingcod	0.1		0.4					0.3	0.1	0.4	
Pacific whiting		0.0	466.6	100.5	258.0	133.4	57.8				269.7
Other roundfish	9.4	6.5	1.2	9.2	5.2	4.0	6.1	12.5	15.9	17.2	6.6
Shortspine thornyhead				0.6	0.4	1.3	3.7				
Longspine thornyhead											
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish											
Splitnose rockfish			1.1	102.4	73.8	17.3	8.5				103.7
Yellowtail rockfish											
Chilipepper			12.6	0.5							133.6
Bocaccio											2.5
Canary rockfish											2.1
Redstripe rockfish											
Stripetail rockfish		0.9	49.7							0.5	0.1
Other rockfish			0.5		0.6	6.4	10.0	0.7		7.2	2.6
Jellyfish	0.3							0.4			
Shrimps	0.3							0.1	0.8		
Crabs		3.0	0.4					0.0		0.7	
Octopuses				0.2	1.0	0.5	0.6				0.3
Squids	14.4	16.3	0.1	0.0	0.1		0.1	2.9	2.2	43.1	
Sea stars	9.5	7.3	4.7			0.4	0.2	3.5	2.3	3.1	0.2
Sea urchins			22.7	8.4	15.3	1.4	25.6				43.4
Total catch weight	48.5	138.5	651.5	556.5	662.2	1,242.3	390.8	108.4	125.2	531.3	747.3



Table A-1.--Continued.

Haul	12	13	14	15	16	17	18	19	20	21	22
Start date & time	6/10/2001 13:31	6/10/2001 15:47	6/11/2001 6:47	6/11/2001 8:30	6/11/2001 11:09	6/11/2001 13:43	6/11/2001 17:35	6/12/2001 6:58	6/12/2001 9:09	6/12/2001 13:41	6/12/2001 15:47
Station	3e	3f	7a	7b	7c	7d	7e	7f	7g	11e	11d
Start latitude	3443.77	3443.63	3503.24	3503.70	3503.97	3503.81	3504.28	3502.88	3502.75	3523.45	3523.79
Start longitude	12058.00	12100.15	12046.04	12050.15	12057.33	12059.46	12102.01	12123.91	12127.89	12112.13	12110.49
End latitude	3445.15	3445.06	3504.75	3505.15	3505.49	3505.31	3505.70	3504.02	3504.12	3524.93	3525.17
End longitude	12058.62	12100.83	12046.54	12050.60	12057.71	12059.76	12102.23	12125.03	12128.49	12112.98	12111.20
Bottom depth (m)	375	440	72	112	298	372	439	450	444	375	342
Duration (hr)	0.51	0.58	0.53	0.51	0.55	0.55	0.53	0.52	0.5	0.55	0.54
Distance fished (km)	2.792	2.946	2.966	2.825	2.97	2.906	2.739	2.77	2.769	2.821	2.864
Net width (m)	14.625	14.796	12.636	13.425	12.626	15.335	13.784	13.369	13.827	14.595	14.523
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish		0.9	5.2								2.8
Skates	8.2	21.2	0.5	27.0	5.5	16.9	3.3	0.3		10.3	4.1
Spotted ratfish	2.7			0.3	1.3	5.0				13.7	7.1
Other elasmobranchs	11.3	26.4			32.9	17.3	22.1			44.0	55.4
Pacific sanddab			14.9	213.5							
Arrowtooth flounder											
Pacific halibut											
Petrable sole			1.2	2.9							
English sole			4.1	3.1							
Dover sole	128.4	260.7	0.1	1.7	20.6	53.6	89.2	117.8	71.4	59.1	39.2
Rex sole	114.9	123.0	0.1	0.1	42.0	41.8	59.8	27.4	5.6	11.3	15.0
Other flatfish	0.8		0.3	1.1	4.1	7.3		0.2			
Sablefish	57.7	33.1		18.9	84.5	130.0	15.7	20.9	5.5	167.4	96.3
Pacific cod											
Lingcod			0.7	0.1							0.4
Pacific whiting	208.8	234.6		130.6	178.8	102.7	57.9	232.6	59.0	108.4	127.1
Other roundfish	10.9	51.0	38.5	157.3	6.4	6.4	16.6	20.2	6.3	4.6	3.7
Shortspine thornyhead	2.5	19.5			0.3	1.6	42.8	12.2	17.9	4.4	0.9
Longspine thornyhead											
Rougeye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish					0.2						
Splitnose rockfish	70.0	7.0			21.0	20.9	0.6	2.3		10.0	81.5
Yellowtail rockfish											
Chilipepper				0.6	0.9	1.1					
Bocaccio											
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish				0.1	8.1	3.9					
Other rockfish	11.0	34.3	0.1	12.1	1.0	0.3	18.6	17.1	30.6	41.1	0.2
Jellyfish			1.4								
Shrimps			0.5	0.1	0.2						
Crabs			2.5		0.1	0.6		0.0			
Octopuses	0.6	1.2		0.5	0.6	1.9	0.9	0.0		1.5	3.3
Squids			4.1	4.7	7.6	0.2	0.1	0.8	1.1	0.6	0.7
Sea stars		0.2	0.3	1.3		61.2	4.3			0.2	
Sea urchins	87.9	49.7		0.1	202.4	183.4	139.5			8.2	23.4
Total catch weight	722.0	895.3	74.7	579.1	620.1	657.8	475.0	452.2	202.8	485.0	461.8

Table A-1.--Continued.

Haul	23	24	25	26	27	28	29	30	31	32	33
Start date & time	6/12/2001 18:18	6/13/2001 6:45	6/13/2001 8:28	6/13/2001 14:07	6/13/2001 16:23	6/13/2001 18:45	6/14/2001 6:49	6/14/2001 8:39	6/14/2001 12:03	6/15/2001 7:02	6/15/2001 9:59
Station	11c	11b	11a	16c	16b	16a	19a	19b	19c	21a	21b
Start latitude	3523.45	3524.13	3524.74	3553.12	3553.42	3552.80	3623.78	3623.41	3624.40	3643.60	3643.88
Start longitude	12108.50	12101.70	12100.58	12132.72	12131.06	12130.01	12156.22	12159.50	12159.73	12152.04	12155.86
End latitude	3524.79	3525.25	3525.73	3554.60	3554.87	3554.22	3625.31	3624.84	3625.75	3645.11	3645.33
End longitude	12109.20	12102.87	12101.92	12133.01	12131.50	12130.65	12156.53	12158.98	12159.06	12151.87	12155.86
Bottom depth (m)	308	118	97	377	244	109	75	205	405	66	100
Duration (hr)	0.51	0.51	0.5	0.52	0.51	0.51	0.53	0.51	0.51	0.52	0.51
Distance fished (km)	2.778	2.789	2.791	2.861	2.854	2.858	2.948	2.829	2.774	2.873	2.768
Net width (m)	13.988	13.465	13.394	14.355	12.889	13.918	13.404	12.378	14.193	13.236	13.934
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	19.4	8.0	29.3			5.3		3.3	0.2	20.0	17.8
Skates	11.3	4.0		28.7	13.1				20.7	34.4	0.2
Spotted ratfish	7.5	2.7	0.9	21.8	13.0	8.2	4.7	32.9		12.2	0.7
Other elasmobranchs	11.4			8.0			0.4		38.6	0.4	
Pacific sanddab		61.9	14.4			1.5	19.1			217.3	57.5
Arrowtooth flounder											0.2
Pacific halibut											
Petrale sole			2.3			6.1				2.2	7.7
English sole		1.1	1.5		0.6	0.7	1.1	31.4		54.1	53.1
Dover sole	29.7	0.1	0.3	78.0	116.7	1.4		148.6	1,067.4	0.1	3.3
Rex sole	6.0	0.7	0.1	2.6	0.5	0.1		9.8	341.9	0.2	3.7
Other flatfish		0.6	0.2		1.6		1.2	1.0		22.8	2.7
Sablefish	42.3	7.6	0.6	44.0	16.0			4.0	50.6		3.9
Pacific cod											
Lingcod		1.0	3.6			3.9	0.7			0.5	2.0
Pacific whiting	220.8	0.9		135.9	20.7				4.2		0.3
Other roundfish	3.2	1.9	13.7	9.7	5.1	15.4	0.4	0.3	13.9	827.7	34.8
Shortspine thornyhead	0.3			3.7					1.0		
Longspine thornyhead											
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish								0.3			
Splitnose rockfish	157.3	0.6	0.2	64.8	49.2			13.3	0.3		
Yellowtail rockfish											
Chilipepper	0.2	192.3	0.1		7.0	15.5		2.5		0.3	2.1
Bocaccio		0.9			1.4					0.1	
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish					111.6	4.4		1.0		1.0	3.8
Other rockfish	9.7	15.6	10.5	9.8		7.3		3,871.7	14.5		4.3
Jellyfish			2.8				1.3			0.6	17.0
Shrimps					0.2						
Crabs	0.1		0.4		1.0	1.5				5.1	0.2
Octopuses	0.9			0.5	1.8						
Squids		10.5	2.1			0.1	0.4		0.3	6.2	118.5
Sea stars			1.9	0.0	0.0		0.8	0.1	0.2	1.1	5.1
Sea urchins	20.5			82.1	16.6				1.9		0.2
Total catch weight	540.7	310.5	84.9	496.1	380.4	71.3	31.6	4,120.2	1,555.7	1,208.0	346.5

Table A-1.--Continued.

Haul	34	35	36	37	38	39	40	41	42	43	44
Start date & time	6/15/2001 12:40	6/15/2001 18:06	6/16/2001 6:50	6/16/2001 8:48	6/16/2001 10:33	6/16/2001 12:40	6/16/2001 16:17	6/17/2001 6:52	6/17/2001 8:29	6/17/2001 10:24	6/17/2001 12:23
Station	21c	24a	24b	24c	24d	24e	24f	28a	28b	28c	28d
Start latitude	3641.43	3703.21	3703.92	3703.95	3704.11	3705.36	3703.57	3724.25	3724.01	3724.20	3724.05
Start longitude	12200.08	12220.53	12226.51	12233.06	12238.31	12240.76	12241.41	12237.70	12240.80	12244.74	12247.85
End latitude	3642.39	3704.16	3704.90	3704.81	3705.24	3704.48	3704.87	3725.67	3725.35	3725.47	3725.39
End longitude	12159.30	12221.93	12227.89	12234.61	12239.49	12239.80	12242.33	12238.37	12241.72	12245.71	12248.62
Bottom depth (m)	246	68	99	118	140	207	390	73	84	90	99
Duration (hr)	0.39	0.51	0.51	0.51	0.51	0.4	0.52	0.52	0.52	0.52	0.51
Distance fished (km)	2.19	2.765	2.779	2.824	2.787	2.217	2.85	2.873	2.9	2.82	2.81
Net width (m)	12.577	13.59	13.78	13.901	13.815	13.096	14.712	13.96	13.798	12.992	13.642
Net measured?	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	-5.1	0	0	0	0	5.1	5.1	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish				1.8			10.0	2.0	3.3	0.5	
Skates	15.3	0.6	1.6	2.8			7.3	7.5	2.1		4.3
Spotted ratfish	0.7						5.8				
Other elasmobranchs	0.1	0.4					0.7		0.5		
Pacific sanddab		6.2	26.8	254.5	1.7			32.2	134.0	113.1	10.2
Arrowtooth flounder											
Pacific halibut											
Petrale sole	5.2	0.8	0.5	5.3				1.3	2.7	8.9	4.7
English sole	15.4	2.4	84.7	39.3	3.3	7.1		6.5	8.0	46.0	88.6
Dover sole	18.6		1.1	2.9	23.8	89.4	330.8	1.0	5.9	8.8	26.3
Rex sole	6.5	2.2	2.2	4.5	36.0	5.8	211.9	5.4	10.0	7.5	9.6
Other flatfish	0.8	3.0	3.1	3.6	4.2		0.3	2.8	2.4	2.2	5.0
Sablefish	21.0			2.5	4.0	2.1	39.0				1,080.8
Pacific cod											
Lingcod	5.1		0.1	0.3	0.2			3.0	0.6	0.2	0.2
Pacific whiting	356.1				2.7		100.0				
Other roundfish	5.8	12.2	35.5	32.9	23.6	4.1	56.7	25.4	344.3	18.3	6.1
Shortspine thornyhead	1.4						7.7				
Longspine thornyhead											
Roughey rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish						2.6					
Splitnose rockfish	49.3					11.8	20.3				
Yellowtail rockfish											
Chilipepper	7.6		0.4	0.3	19.1	1,535.9				0.2	2.2
Bocaccio	18.1										
Canary rockfish											
Redstipe rockfish											
Stripetail rockfish	81.1		0.2	0.4	24.0	436.0					0.1
Other rockfish	22.8		0.3	1.7	5.2	3,602.6	12.0	0.4	0.4	5.2	5.3
Jellyfish		82.3			0.4			34.0	13.0	14.6	
Shrimps	10.5										
Crabs	0.3	1.3	0.4	2.6	1.2	0.5	0.0	1.1	15.7		
Octopuses	0.4			0.1			2.2				
Squids		6.5	2.3	0.9	0.1			19.3	12.3	7.6	2.0
Sea stars	21.3	2.4	4.7	3.1	2.0		0.1	7.3	12.0	2.9	0.9
Sea urchins							0.4			0.0	
Total catch weight	669.0	139.1	173.7	362.3	152.8	5,700.7	809.4	153.9	567.6	242.1	1,247.6

Table A-1.--Continued.

Haul	45	46	47	48	49	50	51	52	53	54	55
Start date & time	6/17/2001 15:39	6/17/2001 18:32	6/18/2001 6:49	6/18/2001 8:53	6/18/2001 11:28	6/18/2001 13:12	6/18/2001 16:08	6/19/2001 10:10	6/19/2001 12:25	6/19/2001 15:40	6/19/2001 18:01
Station	28e	28f	32a	32b	32c	32d	32e	44a	44b	44c	44d
Start latitude	3721.54	3724.66	3745.57	3744.54	3744.56	3743.71	3744.87	3922.73	3923.63	3923.54	3923.84
Start longitude	12253.07	12257.11	12255.75	12258.55	12305.43	12309.14	12311.13	12355.00	12357.14	12358.70	12400.20
End latitude	3722.96	3725.63	3744.42	3744.54	3744.55	3744.84	3745.77	3924.28	3925.11	3925.01	3925.39
End longitude	12253.54	12255.72	12257.00	12300.42	12306.72	12310.34	12312.22	12355.03	12357.34	12358.79	12400.20
Bottom depth (m)	218	419	59	63	72	119	196	137	166	321	456
Duration (hr)	0.51	0.51	0.52	0.51	0.35	0.51	0.44	0.53	0.51	0.53	0.56
Distance fished (km)	2.815	2.773	2.857	2.745	1.909	2.798	2.397	2.916	2.802	2.767	2.926
Net width (m)	14.069	14.047	12.772	13.03	13.12	14.228		14.216	14.781	14.516	15.069
Net measured?	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Performance	5.1	0	0	0	0	0	-5.1	0	0	0	3.11
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	0.6							10.2	7.6		
Skates	0.8	4.0		0.5		7.4	0.1	4.4	0.6	6.0	
Spotted ratfish		0.8			0.8			12.3	3.0	1.6	
Other elasmobranchs		18.0				1.6				1.3	6.8
Pacific sanddab			72.3	66.1	56.1	33.8	0.2	1.6			
Arrowtooth flounder						0.1	0.2	0.3	0.2		
Pacific halibut											
Petrale sole			0.1	1.3	1.3	1.0		2.8	0.5		
English sole			29.2	33.2	11.0	5.8	0.5	42.6	3.4		
Dover sole	171.9	335.6				6.9	26.5	81.8	57.8	1.6	146.8
Rex sole	16.0	8.9	1.0	0.4	0.6	14.7	23.3	28.3	13.8	1.2	22.2
Other flatfish	4.8		5.6	2.4	3.7	0.2	5.5	1.7	1.7		
Sablefish	96.0	47.0					4.4	6.0	5,848.0	300.3	236.0
Pacific cod											
Lingcod					30.8			0.4			
Pacific whiting	170.0	27.8					0.4	1,197.2	152.9	9.4	12.0
Other roundfish	1.4	14.6	1.9	1.7	1.2	14.1	0.0	0.4		1.3	16.5
Shortspine thornyhead		11.7								3.7	7.8
Longspine thornyhead											
Rougheye rockfish									0.6		
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish	0.2								4.7	0.4	
Splitnose rockfish	15.4	0.8							0.1	26.0	0.5
Yellowtail rockfish											
Chilipepper	16.0						10.6		2.4		
Bocaccio							14.0				
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish	180.3					0.1	825.7		4.5		
Other rockfish	6.3	156.2				0.1	285.5		2.8	1.5	19.1
Jellyfish			11.6	3.0				0.7	2.6	1.1	
Shrimps	0.2						0.2				
Crabs	0.0		3.6	0.9		4.8	2.1	0.3	0.3	0.1	0.1
Octopuses		0.4									2.2
Squids		0.5	12.2			5.9		0.0		7.2	0.2
Sea stars	6.9	2.6	0.8	0.1	0.9	0.2	0.1	2.8	0.2	3.1	0.8
Sea urchins	0.0	0.8				0.0	0.1	0.0		3.8	11.0
Total catch weight	688.0	629.9	138.8	110.1	78.7	128.0	1,199.7	1,396.1	6,111.0	371.1	490.0

Table A-1.--Continued.

Haul	56	57	58	59	60	61	62	63	64	65	66
Start date & time	6/20/2001 10:05	6/20/2001 12:02	6/20/2001 14:48	6/20/2001 18:01	6/21/2001 9:07	6/21/2001 10:44	6/21/2001 12:30	6/21/2001 14:40	6/21/2001 17:24	6/22/2001 7:52	6/22/2001 10:13
Station	54d	54c	54b	54a	64a	64b	64c	64d	64e	74a	74b
Start latitude	4104.13	4104.02	4103.99	4104.26	4243.38	4242.03	4242.60	4243.04	4245.24	4425.35	4423.48
Start longitude	12424.74	12421.98	12420.87	12418.13	12434.42	12436.97	12442.63	12445.35	12451.37	12417.71	12424.07
End latitude	4102.79	4105.50	4105.45	4105.78	4244.30	4243.25	4244.07	4244.51	4246.04	4423.88	4424.59
End longitude	12425.23	12421.67	12420.62	12418.02	12436.07	12438.12	12442.92	12445.45	12449.78	12417.13	12425.43
Bottom depth (m)	404	204	165	111	78	112	201	484	407	68	84
Duration (hr)	0.47	0.51	0.53	0.51	0.51	0.51	0.5	0.53	0.52	0.52	0.51
Distance fished (km)	2.625	2.838	2.788	2.844	2.855	2.826	2.795	2.805	2.806	2.892	2.789
Net width (m)	13.876	14.441	12.363	12.607	12.836	12.235	13.561	14.308	14.652	12.959	13.067
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	5.1	0	0	0	0	6.24	0	5.1	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			0.2	2.4		2.5				4.2	
Skates	2.7	3.5	12.4	1.3			9.0		10.0	4.7	2.2
Spotted ratfish					13.6		1.2			2.5	1.1
Other elasmobranchs	7.0	8.0	0.3					29.2	2.7		
Pacific sanddab			0.1	67.0	0.3	0.1				295.0	94.3
Arrowtooth flounder		3.0	9.8	4.6			5.2				
Pacific halibut				47.8							14.1
Petrale sole			0.8		1.3	0.7	0.7			1.9	
English sole				23.4	5.1	2.5	32.3			93.0	1.6
Dover sole	32.4	47.6	22.5	4.0	0.3	0.5	87.6	19.0	124.0	17.0	0.4
Rex sole	17.3	92.6	3.5	42.0	1.4	2.9	35.4	10.0	22.3	17.5	
Other flatfish		2.7	32.1	0.5		0.4	0.7			19.8	0.4
Sablefish	88.5	33.8	41.2	35.8			6.0	56.9	22.2		
Pacific cod											
Lingcod		3.0	0.7	12.6	0.4		18.0			1.3	1.4
Pacific whiting	18.0	254.2	235.6	1,061.6		0.0	256.7	22.0	197.8	0.5	
Other roundfish	5.3	10.0	2.6	1.5	15.3	0.1	4.4	12.5	10.9	0.4	
Shortspine thornyhead	5.3	5.0						6.9	9.3		
Longspine thornyhead											
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish						0.4	12.1				
Splitnose rockfish		31.3	40.6				1.5				
Yellowtail rockfish						3.2					
Chilipepper											
Bocaccio											
Canary rockfish			4.5		8.5						
Redstripe rockfish											
Stripetail rockfish		3.6	20.6				13.9				
Other rockfish	13.6	1.3	3.3		0.7		0.7	0.6	10.3		
Jellyfish					1.6		0.1			0.1	
Shrimps	0.0	0.2	30.1				0.0	0.0			
Crabs	0.4	0.9	0.7		0.7	0.5	0.7	0.9			
Octopuses											
Squids	1.0	0.2	0.0	0.4	0.1	1.2	0.1	1.4	0.4	1.3	0.4
Sea stars	0.5	4.0		0.5	2.4	0.9	1.6	0.5	0.2	0.7	0.3
Sea urchins	72.0	40.5	468.9			1.0	0.1	15.6	12.2		
Total catch weight	268.0	548.9	936.4	1,306.0	106.9	22.9	488.4	177.4	432.5	460.1	117.3

Table A-1.--Continued.

Haul	67	68	69	70	71	72	73	74	75	76	77
Start date & time	6/22/2001 11:43	7/17/2001 7:14	7/17/2001 10:35	7/17/2001 13:38	7/17/2001 17:01	7/18/2001 6:52	7/18/2001 8:52	7/18/2001 11:23	7/18/2001 14:02	7/18/2001 15:52	7/18/2001 17:59
Station	74c	74i	74h	74g	74f	63e	63d	63c	63b	63a	62A
Start latitude	4425.22	4423.96	4424.17	4422.75	4423.03	4233.41	4236.27	4233.92	4234.04	4235.76	4225.21
Start longitude	12429.45	12450.13	12448.08	12446.33	12443.76	12446.57	12443.11	12441.35	12436.42	12429.05	12431.64
End latitude	4425.12	4425.43	4425.53	4424.02	4424.29	4234.71	4234.84	4235.40	4235.51	4234.32	4226.53
End longitude	12429.47	12450.50	12447.29	12445.31	12442.63	12445.61	12443.64	12441.17	12435.92	12429.72	12432.69
Bottom depth (m)	92	447	282	168	131	369	267	151	107	62	64
Duration (hr)	0.07	0.54	0.52	0.51	0.51	0.51	0.51	0.51	0.51	0.52	0.53
Distance fished (km)	0.257	2.834	2.806	2.801	2.831	2.806	2.815	2.808	2.869	2.896	2.905
Net width (m)	11.858	14.906	14.626	14.268	13.362	14.793	14.223	14	14.13	13.49	13.59
Net measured?	Y	Y	Y	Y	Y	Y	Y	N	N	N	N
Performance	-1.2	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			0.9					5.1			
Skates		12.0	3.5	21.5	2.4	0.8	8.3	0.2	3.6	2.4	
Spotted ratfish			6.4		3.6			0.6	1.4	0.4	3.2
Other elasmobranchs		12.2	0.3			3.4	1.2	0.1			
Pacific sanddab					3.9				30.3	15.7	38.5
Arrowtooth flounder		11.8	24.3	17.1	6.0	3.6	45.9	1.6	8.3	0.2	
Pacific halibut			6.8	6.8							
Petrale sole				0.7	7.1				7.3	1.4	3.7
English sole				0.8	19.2			11.9	36.5	10.2	22.7
Dover sole		41.9	61.5	42.0	52.7	55.0	63.5	42.4	9.3	0.3	0.1
Rex sole		6.3	20.2	13.2	9.1	11.1	29.3	25.4	26.4	3.3	9.6
Other flatfish			4.9	13.0	26.0		2.3	4.8	0.5	3.4	3.7
Sablefish		18.2	46.5	188.3	13.3	49.5	21.7	28.9	11.0		
Pacific cod											
Lingcod				4.8				0.5	6.4		0.3
Pacific whiting		10.3	62.7	84.6	41.2	16.0	27.2	366.6	670.1	0.2	1.1
Other roundfish		7.1	11.4	1.9	0.7	43.0	10.1	6.4	0.5	8.7	0.4
Shortspine thornyhead		2.3	4.7			8.6	4.5				
Longspine thornyhead											
Rougheye rockfish			0.3			2.6					
Pacific ocean perch			1.2				2.5	0.1			
Silvergray rockfish											
Darkblotched rockfish			3.5			0.6	0.9	2.5			
Splitnose rockfish		0.2	4.7	0.2		4.7	7.3	1.3			
Yellowtail rockfish				9.7	11.4						
Chilipepper								0.1			
Bocaccio				2.8							
Canary rockfish				7.4	76.5			7.9			
Redstripe rockfish					0.2						
Stripetail rockfish								2.1			
Other rockfish		5.6	1.5	1.5	41.1	0.2	0.2	0.7			
Jellyfish		0.2					2.0	0.7	2.1	14.3	2.9
Shrimps		0.7	0.3	0.0	0.1	0.0	0.1	0.1		0.0	
Crabs		0.1	0.0	1.6	3.1	0.1	0.4				
Octopuses		0.1									0.1
Squids		0.5	0.0		0.0	0.2			0.1	1.7	1.4
Sea stars		0.1				4.7	4.0	3.9	4.3	0.6	3.0
Sea urchins		3.8	14.8		0.9	23.7	14.4	0.4	0.9		
Total catch weight		134.9	280.9	417.6	319.5	229.9	247.0	516.0	825.6	63.2	91.3

Table A-1.--Continued.

Haul	78	79	80	81	82	83	84	85	86	87	88
Start date & time	7/18/2001 19:20	7/19/2001 6:52	7/19/2001 9:10	7/19/2001 12:04	7/19/2001 14:35	7/19/2001 17:32	7/20/2001 6:59	7/20/2001 8:56	7/20/2001 11:02	7/20/2001 13:41	7/20/2001 17:19
Station	62b	65e	65d	65c	65b	65a	67f	67e	67d	67c	67a
Start latitude	4224.56	4253.33	4253.72	4252.97	4254.03	4256.94	4315.14	4315.67	4315.90	4317.22	4317.86
Start longitude	12434.19	12454.40	12449.78	12447.71	12443.41	12437.78	12451.32	12450.59	12442.68	12435.38	12429.32
End latitude	4225.97	4254.80	4254.28	4254.29	4255.54	4255.65	4313.74	4314.49	4314.44	4315.87	4316.28
End longitude	12434.87	12454.85	12451.66	12448.60	12443.50	12438.77	12450.70	12449.43	12442.96	12436.28	12429.77
Bottom depth (m)	80	407	251	223	143	93	354	367	208	119	79
Duration (hr)	0.52	0.53	0.52	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.52
Distance fished (km)	2.849	2.862	2.785	2.804	2.872	2.846	2.811	2.807	2.79	2.843	3.04
Net width (m)	13.92	14.55	15.114	13.947	13.321	13.586	13.061	13.783	13.547	13.77	13.222
Net measured?	N	N	Y	Y	Y	Y	Y	Y	Y	N	Y
Performance	0	0	0	0	0	0	0	0	0	0	5.5
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			1.8		0.6						
Skates		0.5	12.3	5.4	4.6	0.5	0.9	2.2	6.8	16.4	38.3
Spotted ratfish	0.3	3.9	43.0	32.9	0.5	0.4		0.5	0.7	2.7	0.6
Other elasmobranchs		3.6	0.2			0.3	1.9	2.2	0.1		
Pacific sanddab	19.6				2.5	44.8				1.2	51.3
Arrowtooth flounder	0.4	3.7	8.6	6.7	14.7	6.9	3.1		10.5	1.2	5.1
Pacific halibut			9.5							12.7	4.4
Petrale sole	2.3				2.0	7.1				5.0	3.4
English sole	9.4				83.0	98.1				225.3	11.3
Dover sole	0.1	13.8	170.2	98.2	200.4	6.5	32.8	57.9	107.8	48.5	0.9
Rex sole	8.6	6.6	71.8	27.5	176.1	27.6	17.9	34.3	20.1	26.1	17.4
Other flatfish	0.2		1.7	0.6	12.2	1.4	0.1	0.1	10.0	4.6	6.1
Sablefish		51.9	43.4	58.0	14.4	1.0	13.0	5.8	72.4	7.0	
Pacific cod											
Lingcod	0.9		2.7	2.7	2.2	3.0				2.1	6.4
Pacific whiting		19.7	89.2	215.5	344.7	9.4	23.6	18.8	311.1	706.6	114.2
Other roundfish	29.9	11.2	11.4	5.4	3.0	16.3	1.8	7.6	5.8	2.7	68.5
Shortspine thornyhead		10.0	9.8	9.4			4.4	9.0	20.7		
Longspine thornyhead											
Rougeye rockfish		2.5									
Pacific ocean perch		0.6	1.1	0.8							
Silvergray rockfish											
Darkblotched rockfish		0.6	6.0	0.4	0.3				0.1		
Splitnose rockfish		1.1	2.8	3.6	0.6		1.5	0.8	1.9		
Yellowtail rockfish					5.2					3.0	
Chilipepper									0.3		
Bocaccio									2.9		
Canary rockfish					18.8					3.8	
Redstripe rockfish											
Stripetail rockfish									0.2		
Other rockfish		3.7	1.3	1.8	4.9				0.3	2.1	0.1
Jellyfish	51.4	0.4		1.4			1.5	1.4			0.2
Shrimps		0.1	0.1	0.2	10.1	1.0	0.0	0.0	1.3	0.1	0.0
Crabs			0.0	0.0				0.2	4.1	1.1	0.0
Octopuses			0.1			0.1	1.3		0.1	0.2	0.1
Squids	4.3	0.2	0.5		0.0			0.8			0.8
Sea stars	0.1	1.7	17.4	2.7	2.0	1.1	2.4	2.7	0.9	0.6	6.7
Sea urchins		1.3	3.3	0.5	1.1		1.3	2.2	17.8	0.6	
Total catch weight	127.3	137.5	562.7	477.7	905.9	229.4	108.3	152.5	598.5	1,080.9	373.2

Table A-1.--Continued.

Haul	89	90	91	92	93	94	95	96	97	98	99
Start date & time	7/21/2001 6:59	7/21/2001 9:06	7/21/2001 11:38	7/21/2001 13:30	7/21/2001 15:59	7/21/2001 18:07	7/22/2001 6:38	7/22/2001 8:58	7/22/2001 11:24	7/22/2001 13:45	7/22/2001 16:09
Station	70f	70e	70d	70c	70b	70a	72a	72b	72c	72d	72e
Start latitude	4342.89	4343.43	4343.19	4343.63	4343.83	4344.16	4403.69	4403.29	4403.89	4403.47	4404.54
Start longitude	12442.10	12438.58	12432.20	12430.74	12423.35	12419.16	12412.58	12417.79	12424.07	12427.83	12431.18
End latitude	4344.39	4344.93	4344.66	4345.11	4345.23	4345.60	4405.23	4404.77	4405.32	4404.87	4404.42
End longitude	12442.16	12438.58	12432.39	12430.97	12424.16	12419.78	12412.53	12418.30	12424.68	12428.49	12433.28
Bottom depth (m)	475	347	177	159	115	105	57	84	112	123	128
Duration (hr)	0.53	0.52	0.51	0.51	0.51	0.51	0.53	0.53	0.51	0.51	0.51
Distance fished (km)	2.818	2.821	2.788	2.815	2.879	2.843	2.888	2.904	2.85	2.816	2.835
Net width (m)	15.596	15.845	14.327	14.3	13.558	13.037	12.566	12.741	14.033	14.25	14.022
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	3.12	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish				0.4	0.1	0.3		0.9	1.9		
Skates	0.5	1.3	7.4	21.8	7.6	10.4	0.3	0.1	0.8	2.4	9.7
Spotted ratfish			0.3	0.2	7.5	1.6			2.8	4.1	4.1
Other elasmobranchs	11.6	0.2									0.2
Pacific sanddab	0.1				62.0	104.7	264.7	829.8	41.4	3.9	2.2
Arrowtooth flounder	3.6	12.1	1.7	1.6	0.7	3.3	1.2	1.4	8.7	16.6	25.4
Pacific halibut											
Petrale sole				0.3	1.2	6.8	9.0	8.2	2.1	6.3	10.8
English sole			0.5	2.1	36.5	51.0	105.4	58.5	4.1	1.7	0.3
Dover sole	53.1	58.9	21.2	38.8	10.7	9.8	5.8	28.5	109.8	128.9	151.7
Rex sole	102.2	101.5	2.2	31.2	9.3	9.6	62.0	42.5	84.7	72.6	83.8
Other flatfish		0.8	7.0	12.9	5.0	7.4	10.1	0.8	8.6	17.4	35.8
Sablefish	56.8	31.9	11.2	28.6	2.7	3.0		1.3	68.8	88.9	93.5
Pacific cod											
Lingcod			2.9		0.3	0.4	0.2	0.2	1.5	0.7	1.5
Pacific whiting	9.2	34.0	21.9	19.7	40.9	80.0	14.5	127.3	184.6	547.5	38.2
Other roundfish	18.3	10.3	4.1	3.8	1.1	2.2	1.3		0.8	3.3	8.5
Shortspine thornyhead	27.5	22.6									
Longspine thornyhead											
Rougheye rockfish											
Pacific ocean perch		0.6	0.1								
Silvergray rockfish											
Darkblotched rockfish		2.6	1.3				0.0			0.0	0.1
Splitnose rockfish		18.5	3.6								
Yellowtail rockfish				0.9							
Chilipepper											
Bocaccio											
Canary rockfish				20.9	4.6						
Redstripe rockfish											
Stripetail rockfish			0.2								
Other rockfish	2.4	1.5	3.4	4.5	0.9				1.4	8.4	4.5
Jellyfish					14.6	1.3	0.3	0.3			
Shrimps	0.3	0.0	5.0	1.5	0.2		0.0		0.9	1.6	7.0
Crabs	0.1	0.1	1.6	3.0	0.1	1.2	36.0	7.6		2.6	4.5
Octopuses			0.1	0.1				0.1			
Squids	0.7	0.1	0.2	0.1	0.0		0.0			0.0	
Sea stars	1.2	2.0	1.0	0.5	33.7	2.3	0.3	0.1		1.8	1.0
Sea urchins	7.3	37.1	4.9	3.6	13.9	37.0					
Total catch weight	300.4	337.6	102.1	196.7	298.7	350.6	514.3	1,108.4	523.6	909.5	484.6



Table A-1.--Continued.

Haul	100	101	102	103	104	105	106	107	108	109	110
Start date & time	7/22/2001 18:11	7/23/2001 7:00	7/23/2001 9:26	7/23/2001 12:40	7/23/2001 14:35	7/23/2001 17:59	7/24/2001 6:51	7/24/2001 10:36	7/24/2001 12:28	7/24/2001 14:50	7/24/2001 17:28
Station	72f	72j	72i	72g	72h	74e	74d	76h	76g	76f	76d
Start latitude	4403.80	4404.21	4404.42	4402.52	4404.03	4424.34	4424.33	4443.16	4443.78	4444.07	4443.39
Start longitude	12433.84	12457.26	12455.89	12445.35	12445.23	12437.87	12433.46	12445.76	12442.02	12435.18	12428.73
End latitude	4404.53	4405.62	4405.90	4403.99	4404.60	4425.51	4425.70	4444.62	4445.04	4445.51	4444.66
End longitude	12435.63	12457.98	12456.14	12445.85	12447.12	12436.59	12432.66	12445.68	12443.10	12434.75	12427.73
Bottom depth (m)	130	400	211	115	117	122	105	387	326	215	136
Duration (hr)	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.5	0.5	0.51	0.51
Distance fished (km)	2.785	2.846	2.815	2.857	2.766	2.806	2.81	2.732	2.811	2.791	2.759
Net width (m)	14	14.903	13.823	13.84	13.52	13.641	13.8	15.026	14.33	14.169	13.232
Net measured?	N	Y	Y	N	N	Y	N	Y	Y	Y	Y
Performance	0	0	0	0	4	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			2.1								
Skates	12.9	22.4		3.8	7.3	0.4	4.7		10.8	15.5	4.9
Spotted ratfish	7.3	2.1	0.0	1.2		3.4	1.1	0.8	3.1		
Other elasmobranchs	0.1	7.0	0.1	0.0					0.1		0.2
Pacific sanddab	0.2			14.8	0.9	72.9	2.7				0.1
Arrowtooth flounder	21.3		2.5	0.2	0.2	16.5	0.7	2.8	3.8	33.9	7.3
Pacific halibut				10.1							
Petrale sole	31.4		0.9	3.6	0.9	44.3	2.2				6.1
English sole			12.2	3.1	2.4	15.4	2.8				1.1
Dover sole	51.0	60.9	38.3	3.5	2.1	12.2	49.7	14.7	52.1	59.7	23.2
Rex sole	96.8	20.2	17.1	5.4	2.4	11.4	3.0	0.5	7.0	6.9	18.7
Other flatfish	15.9	1.1	9.2	5.0	0.1	4.0	2.2	0.3	3.2	2.9	7.1
Sablefish	107.9	73.7	139.6	12.5	8.6	4.3	6.2	64.1	23.4	7.9	107.3
Pacific cod											
Lingcod	0.8			2.5	5.4	1.6	5.5			2.9	8.6
Pacific whiting	29.7	27.8	280.4	117.8	226.3	332.8	589.0	28.8	116.2	241.4	961.7
Other roundfish	6.8	8.0	11.7	1.9	2.1	2.3	2.0	3.3	11.1	15.6	3.4
Shortspine thornyhead		7.4						39.2	31.0		23.6
Longspine thornyhead											
Rougheye rockfish		12.8						1.9			0.0
Pacific ocean perch		1.1							1.3		0.9
Silvergray rockfish											
Darkblotched rockfish	0.1		0.1								1.4
Splitnose rockfish		1.1	66.8					2.7	7.2		159.6
Yellowtail rockfish				1.1	1.1	2.5					
Chilipepper											
Bocaccio											
Canary rockfish				1.4			1.0				
Redstripe rockfish				13.7	39.8						
Stripetail rockfish			12.3							2.0	
Other rockfish	3.5	7.9	9.5	42.0	110.0	26.9	52.9	2.3	2.7	6.0	0.6
Jellyfish						1.8	3.9	1.0	0.9		
Shrimps	7.1	0.0	0.4			0.1		0.1	0.0	19.2	
Crabs	1.2	0.4	0.0		0.3			0.1	0.0	0.7	2.8
Octopuses		0.6							0.1		
Squids		0.0		0.0				0.0			2.1
Sea stars	2.3	4.4	0.6	0.2	0.6	0.1		1.1	6.8		0.1
Sea urchins	0.2	50.5	1.7	0.0				0.1	6.6	1.2	
Total catch weight	398.3	331.1	606.2	244.1	410.4	552.9	729.6	170.6	289.0	601.2	1,155.4

Table A-1.--Continued.

Haul	111	112	113	114	115	116	117	118	119	120	121
Start date & time	7/25/2001 6:37	7/25/2001 9:29	7/25/2001 12:03	7/25/2001 14:39	7/26/2001 6:53	7/26/2001 9:43	7/26/2001 12:23	7/26/2001 14:55	7/26/2001 17:31	7/27/2001 6:45	7/27/2001 8:50
Station	76e	76c	76b	76a	80i	80h	80g	80f	80e	80d	80c
Start latitude	4444.91	4443.88	4443.69	4443.06	4503.68	4502.92	4503.90	4504.41	4503.57	4503.88	4504.43
Start longitude	12432.03	12423.21	12420.15	12416.90	12444.16	12440.90	12435.65	12431.93	12427.50	12422.36	12414.48
End latitude	4446.18	4444.90	4444.70	4444.19	4504.83	4504.35	4505.30	4505.38	4504.83	4505.25	4505.90
End longitude	12431.01	12421.70	12418.66	12415.41	12445.56	12440.72	12436.49	12433.56	12426.33	12421.59	12413.99
Bottom depth (m)	173	112	102	83	492	333	417	347	338	250	156
Duration (hr)	0.51	0.51	0.51	0.54	0.54	0.53	0.53	0.53	0.53	0.51	0.51
Distance fished (km)	2.777	2.793	2.775	2.936	2.89	2.853	2.895	2.839	2.867	2.806	2.864
Net width (m)	14.05	12.629	13.06	12.909	14.416	14.485	14.762	15.231	15.304	14.066	13.55
Net measured?	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			1.1	1.3							
Skates	0.8	7.8			3.7	2.6	2.1	1.4		1.5	
Spotted ratfish	1.6	1.0		0.8							0.9
Other elasmobranchs					4.6	0.6				0.1	
Pacific sanddab		239.9	269.0	117.3							39.9
Arrowtooth flounder	34.4	23.6	1.5	0.2	2.0	2.3	8.1	0.8	33.5	16.3	23.8
Pacific halibut											
Petrale sole		12.2		0.5							5.4
English sole		3.7	7.4	6.0							0.5
Dover sole	26.9	0.9	0.9	0.5	23.3	22.5	35.3	108.4	37.2	14.2	29.5
Rex sole	17.6	1.7	2.0	2.7	6.4	53.4	1.3	39.6	4.2	5.4	11.3
Other flatfish	24.6	0.8		2.1		0.9		3.3	3.6	9.7	17.2
Sablefish	34.7	356.2	661.7	2.0	3.0	4.4	39.3	15.8	18.2	36.6	26.9
Pacific cod											
Lingcod	16.2	10.5	1.0	7.3						1.1	0.2
Pacific whiting	1,436.3	63.8	921.8	5.7	23.9	97.9	57.1	83.0	42.7	87.7	14.6
Other roundfish	4.4	140.7	10.6	310.4	7.4	5.3	12.2	17.2	9.9	4.6	10.0
Shortspine thornyhead					45.8	78.8	43.6	51.0	53.2	27.2	
Longspine thornyhead					19.9						
Rougheye rockfish						1.8	1.9	1.6			
Pacific ocean perch						5.3	17.9	0.6			
Silvergray rockfish											
Darkblotched rockfish						11.5	1.3	6.9	0.6	0.5	2.9
Splitnose rockfish						89.6		30.3	28.4	5.2	0.1
Yellowtail rockfish											
Chilipepper											
Bocaccio											
Canary rockfish	3.8										1.1
Redstripe rockfish											
Stripetail rockfish											
Other rockfish	36.0	0.0			1.4	34.3	7.7	1.3	2.9	1.4	0.1
Jellyfish							0.1				
Shrimps					1.2	0.0	0.3		0.1	7.7	7.2
Crabs	0.4	0.8	0.7	4.8	4.0		0.8	0.2	0.6	2.7	1.6
Octopuses	0.1						0.4	0.3	0.1	0.1	
Squids	0.0	7.7	0.4	15.6	1.1			0.1	0.0		0.0
Sea stars	0.2			0.3	0.4	1.8	1.3	4.6	4.8	0.7	1.3
Sea urchins	0.6					0.0	0.5	11.9	4.1	24.5	6.2
Total catch weight	1,638.7	871.5	1,878.0	477.5	151.2	450.7	297.3	398.2	255.2	249.4	203.9

Table A-1.--Continued.

Haul	122	123	124	125	126	127	128	129	130	131	132
Start date & time	7/27/2001 11:15	7/27/2001 14:18	7/27/2001 17:36	7/28/2001 6:43	7/28/2001 8:44	7/29/2001 6:40	7/29/2001 9:27	7/29/2001 11:35	7/29/2001 13:52	7/29/2001 17:45	7/30/2001 7:17
Station	80b	80a	84d	84c	84b	84a	84e	84f	84g	88j	88i
Start latitude	4502.84	4502.59	4523.26	4523.53	4523.14	4524.83	4523.96	4524.41	4523.77	4545.93	4544.65
Start longitude	12411.89	12406.98	12416.21	12413.29	12410.37	12406.70	12422.12	12430.34	12437.30	12445.17	12440.40
End latitude	4504.32	4504.06	4524.74	4525.01	4524.64	4523.33	4525.34	4524.88	4525.01	4544.56	4545.91
End longitude	12411.61	12406.70	12416.51	12413.46	12410.49	12406.50	12422.96	12432.38	12436.11	12445.94	12439.27
Bottom depth (m)	128	87	171	153	127	89	204	419	415	388	240
Duration (hr)	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.53	0.52	0.52	0.52
Distance fished (km)	2.827	2.81	2.822	2.806	2.838	2.832	2.806	2.827	2.83	2.803	2.828
Net width (m)	13.151	13.18	13.834	13.817	13.82	13.252	15.185	15.085	15.335	14.655	14.833
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	3.12	0	0	0	0	0	1.11
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	1.5	6.4									
Skates	1.5		7.2		3.5						
Spotted ratfish	0.6	1.6	2.3	3.0	2.1	0.4		1.0	0.5	8.1	23.7
Other elasmobranchs								0.9			10.1
Pacific sanddab	90.4	92.8		0.2	158.3	231.5					0.9
Arrowtooth flounder	1.0	0.3	17.5	41.5	12.1	1.0	23.4	4.6		4.3	
Pacific halibut											
Petrale sole	1.3	0.1	0.4	7.2	4.2	16.0					
English sole	48.0	10.5			22.6	22.6					
Dover sole	4.9	0.8	18.2	83.8	14.1	2.7	59.1	4.8	22.9	36.4	58.5
Rex sole	6.0	14.4	33.4	48.4	21.8	8.3	0.6		5.2	14.0	22.4
Other flatfish	2.2	8.7	6.8	7.7	15.3	0.7	1.2			0.2	2.9
Sablefish	1,036.0	0.9	3.1		19.1	754.3	7.2	24.3	19.8	26.5	2.4
Pacific cod											
Lingcod		1.0	9.3	1.7	0.7		8.2				1.6
Pacific whiting	2,290.2	364.8	2.3	1.0	924.5	1,349.3	0.2	28.2	42.5	100.2	10.4
Other roundfish	54.4	39.5	8.5	6.1	22.8	23.8	2.9	7.8	3.9	2.5	1.6
Shortspine thornyhead			1.0	0.3			2.6	48.6	53.4	15.3	9.2
Longspine thornyhead								0.9			
Rougheye rockfish			0.5				0.6	10.7	8.4	20.1	
Pacific ocean perch								1.8	22.8	0.8	0.7
Silvergray rockfish											
Darkblotched rockfish			10.3	3.5	0.6		0.8	0.5		0.6	
Splitnose rockfish							1.9			0.6	
Yellowtail rockfish											542.2
Chilipepper											
Bocaccio											
Canary rockfish					1.3						
Redstripe rockfish											
Stripetail rockfish					0.1		0.7				3.3
Other rockfish			1.6	0.4	0.6		2.7	3.9	2.3		1,685.3
Jellyfish				0.1		0.3		3.1	0.7		
Shrimps			4.9	9.6			1.9	5.8	0.7		3.8
Crabs	1.6	5.4	1.9	3.4	4.4	0.4		2.2	0.0	0.3	1.0
Octopuses				0.2				0.4	0.1	0.6	0.3
Squids		0.3	0.1	0.0		0.2	0.1	2.5	2.9	1.3	0.0
Sea stars		1.3	0.8	1.6	0.5	0.1	0.7	1.1	4.5	1.3	0.2
Sea urchins			71.7	8.7			29.3	2.6	0.5	0.0	32.7
Total catch weight	3,539.6	549.3	202.9	234.9	1,230.1	2,411.8	149.3	155.8	249.6	294.4	2,392.8

Table A-1.--Continued.

Haul	133	134	135	136	137	138	139	140	141	142	143
Start date & time	7/30/2001 11:16	7/30/2001 14:02	7/30/2001 16:38	7/31/2001 6:38	7/31/2001 9:04	7/31/2001 10:54	7/31/2001 13:04	7/31/2001 14:52	7/31/2001 17:46	8/1/2001 6:54	8/1/2001 8:56
Station	88h	88g	88f	88e	88d	88c	88a	88b	92a	92i	92h
Start latitude	4543.97	4544.72	4544.59	4543.84	4546.15	4543.01	4544.53	4543.59	4603.49	4603.81	4603.62
Start longitude	12435.71	12434.23	12431.53	12428.45	12420.54	12415.50	12403.78	12411.44	12406.08	12445.74	12442.26
End latitude	4545.43	4546.12	4545.65	4545.17	4544.96	4544.50	4543.01	4545.10	4604.97	4605.23	4605.08
End longitude	12436.16	12435.02	12433.04	12429.47	12421.91	12415.39	12404.04	12411.56	12406.61	12444.94	12442.02
Bottom depth (m)	209	196	188	177	147	137	76	113	69	399	230
Duration (hr)	0.52	0.51	0.51	0.51	0.51	0.51	0.52	0.51	0.53	0.54	0.51
Distance fished (km)	2.834	2.854	2.829	2.852	2.88	2.816	2.893	2.846	2.9	2.923	2.811
Net width (m)	14.925	14.49	14.512	14.142	14.044	14.768	13.241	13.733	12.876	14.497	14.924
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	2.1	0	0	0	0	0	0	0	0	6.1	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish							3.2		2.5		
Skates	2.6		6.4	6.8	3.4	6.4	56.9			0.3	8.0
Spotted rattfish	0.9	0.2	1.6	2.8	2.9	2.2		1.2	1.5		0.8
Other elasmobranchs					0.2	0.3				2.3	
Pacific sanddab							119.2	163.0	427.9		0.3
Arrowtooth flounder	44.2	27.1	38.7	17.6	13.4	14.0	0.8	18.4	1.8	6.8	46.6
Pacific halibut							9.5				63.0
Petrale sole			1.3			2.2	10.2	9.0	24.2		0.4
English sole		0.4					21.1	30.6	43.7		5.4
Dover sole	69.0	88.5	94.0	55.5	19.1	37.8	0.8	5.6	5.6	79.9	31.7
Rex sole	73.6	60.4	65.3	49.6	54.3	19.7	20.5	8.2	74.7	12.2	4.3
Other flatfish	5.9	12.4	18.6	12.0	18.7	19.2	0.5	11.5	1.3	0.2	1.8
Sablefish	33.5	23.9	27.4	22.4		12.8		4.2	16.6	68.9	82.5
Pacific cod											
Lingcod	0.9	14.3	8.5		2.6		3.6		14.8		
Pacific whiting	10.5	1.0	3.6	2.9	1.5	2.6	2.6	1,386.5	11.6	71.2	
Other roundfish	2.3	2.3	6.3	12.0	10.0	12.5	625.7	3.0	22.6	7.2	7.1
Shortspine thornyhead	4.5	11.4	16.7	10.3						41.1	6.3
Longspine thornyhead											
Rougheye rockfish				0.0	0.0					8.8	
Pacific ocean perch										0.8	223.0
Silvergray rockfish											
Darkblotched rockfish			0.0	0.3	0.1	4.9		0.1		2.8	24.7
Splitnose rockfish	0.6	2.0	1.4	0.1	0.1					0.5	51.6
Yellowtail rockfish	3.1	25.8									
Chilipepper	1.5										
Bocaccio											
Canary rockfish			1.4								1.2
Redstripe rockfish											
Stripetail rockfish	68.3	5.2									
Other rockfish	27.0	24.3	1.4	3.2	0.0	0.4		0.2		7.2	6.8
Jellyfish						0.1			12.3	0.0	0.1
Shrimps	2.0	0.7	4.9	3.8	8.3	1.4				1.8	0.1
Crabs			1.8	1.5	0.5	2.3		2.5	40.6	0.6	0.7
Octopuses					0.0	0.0					0.1
Squids			0.1	0.3	0.1	0.0	0.6			0.8	
Sea stars	1.5	2.1	3.6	2.9	1.4	2.4	0.6	2.7	0.3	1.3	2.4
Sea urchins	33.1	58.9	153.5	174.1	35.3	20.7				0.0	33.0
Total catch weight	386.0	361.4	458.5	380.5	172.1	165.5	877.6	1,649.1	702.0	326.7	604.2

Table A-1.--Continued.

Haul	144	145	146	147	148	149	150	151	152	153	154
Start date & time	8/1/2001 11:12	8/1/2001 13:20	8/1/2001 15:21	8/1/2001 17:00	8/2/2001 6:34	8/2/2001 8:36	8/2/2001 11:21	8/2/2001 13:34	8/2/2001 16:33	8/3/2001 7:05	8/3/2001 8:55
Station	92g	92f	92e	92d	92c	92b	94c	94d	94e	98d	98e
Start latitude	4603.99	4603.73	4603.44	4603.82	4605.31	4605.31	4614.76	4614.56	4616.06	4634.81	4634.51
Start longitude	12438.00	12431.65	12428.45	12425.69	12423.77	12412.83	12421.85	12424.41	12425.24	12433.57	12436.00
End latitude	4605.47	4604.80	4604.82	4605.19	4603.90	4603.79	4613.40	4615.97	4614.62	4634.15	4634.71
End longitude	12437.90	12433.17	12429.14	12426.69	12423.05	12412.61	12422.70	12423.82	12425.59	12431.71	12433.90
Bottom depth (m)	176	145	140	133	124	90	126	230	414	195	197
Duration (hr)	0.51	0.51	0.5	0.51	0.51	0.51	0.5	0.51	0.53	0.51	0.54
Distance fished (km)	2.787	2.844	2.784	2.938	2.839	2.89	2.832	2.801	2.79	2.878	2.758
Net width (m)	14.181	13.875	14.016	13.547	13.816	12.81	12.782	13.99	15.181	13.872	14.015
Net measured?	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	5.1	1.12
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish						1.0					
Skates	1.2	0.0	0.6	2.9	10.4		0.2	25.0	2.4	3.9	10.0
Spotted rattfish	1.0	1.6	4.8	9.2	2.9	0.4		4.8			53.3
Other elasmobranchs				0.0				1.0			
Pacific sanddab	0.0	0.1	0.0	0.1	1.6	75.7					
Arrowtooth flounder	18.2	24.9	8.2	4.4	5.7	13.6	36.4	44.0	4.4	52.8	41.5
Pacific halibut											10.2
Petrale sole	0.3			0.5	1.1	2.6	3.8				
English sole		0.3			0.5	28.8	5.2				
Dover sole	103.3	145.8	69.5	112.3	244.6	10.2	135.5	347.8	184.3	54.6	58.2
Rex sole	85.7	56.2	29.5	40.2	36.2	52.3	76.5	159.6	91.6	4.0	4.0
Other flatfish	15.3	4.7	4.2	6.4	5.4	0.9	4.1	1.1		4.6	1.4
Sablefish	36.9	60.1	27.9	54.0	64.0	64.5	99.4	56.6	88.6	20.3	7.3
Pacific cod											
Lingcod	6.6				3.0	0.2	2.9			0.4	704.7
Pacific whiting	0.6		6.3	1.1	31.0	608.7	75.0	75.3	2.3	1.4	0.7
Other roundfish	2.9	3.1	5.3	12.0	14.8	0.2	0.6	7.1	7.3	8.4	4.6
Shortspine thornyhead	2.7	0.3	0.6	0.9	0.4			73.2	122.9	43.1	15.6
Longspine thornyhead											
Rougeye rockfish		0.0						0.0	3.3		
Pacific ocean perch											14.4
Silvergray rockfish											
Darkblotched rockfish	1.8	6.2	6.7	1.2	5.5					1.5	15.2
Splitnose rockfish	0.2	0.2	0.1	0.0				1.5	0.2	44.3	15.1
Yellowtail rockfish											5.8
Chilipepper											
Bocaccio											
Canary rockfish	1.5										
Redstripe rockfish	1.3										
Stripetail rockfish											4.4
Other rockfish	8.1	2.6	0.3	0.1	0.9		12.4			0.4	16.1
Jellyfish		0.4	14.7	11.5	5.6	13.1	0.7	2.0	20.2	0.1	
Shrimps	0.0	6.4	2.7	7.2	9.3			0.1	9.3	5.9	5.3
Crabs	0.7	2.0	0.4	1.4	5.3	3.4		1.4	0.1	1.0	1.0
Octopuses		1.3		0.1	0.1			0.1	0.0		0.1
Squids		0.0	0.0	0.1		0.0	0.0		0.2	0.0	
Sea stars	2.9	1.7	0.8	1.8	0.7	0.1		4.5	21.9	2.7	5.0
Sea urchins	23.9	6.8	9.3	21.6	29.0		0.0	215.8	44.1	0.5	1.9
Total catch weight	317.6	328.3	194.4	298.9	482.4	875.7	453.0	1,021.4	594.7	252.9	1,001.7

Table A-1.--Continued.

Haul	155	156	157	158	159	160	161	162	163	164	165
Start date & time	8/3/2001 12:20	8/3/2001 14:16	8/3/2001 17:04	8/4/2001 6:53	8/4/2001 9:01	8/4/2001 10:55	8/4/2001 13:06	8/4/2001 15:26	8/4/2001 17:40	8/5/2001 6:48	8/5/2001 8:49
Station	99e	99f	99g	99a	99b	99c	99d	100e	100f	100d	100c
Start latitude	4645.03	4644.39	4643.45	4644.02	4643.41	4643.49	4643.61	4655.07	4651.47	4655.00	4654.88
Start longitude	12444.77	12448.95	12450.91	12420.87	12423.97	12429.37	12438.95	12447.02	12453.81	12443.57	12438.93
End latitude	4643.72	4643.25	4644.77	4645.46	4644.87	4644.98	4645.07	4653.66	4652.90	4653.57	4653.63
End longitude	12443.72	12447.57	12451.86	12421.30	12424.53	12429.81	12439.40	12446.36	12453.56	12443.04	12437.81
Bottom depth (m)	160	194	382	68	80	97	139	148	209	131	112
Duration (hr)	0.51	0.51	0.54	0.52	0.52	0.52	0.52	0.51	0.52	0.52	0.51
Distance fished (km)	2.829	2.793	2.922	2.721	2.875	2.866	2.843	2.81	2.829	2.806	2.779
Net width (m)	14.397	13.925	15.228	13.618	14.637	14.266	15.136	14.144	15.124	14.585	13.422
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	0.6										
Skates	0.5	11.6	9.6	1.1		0.1	8.1	22.3	22.0	20.8	0.1
Spotted ratfish	1.6	7.7	5.0			0.9	3.2	2.1		4.1	
Other elasmobranchs	0.2										
Pacific sanddab				203.0	83.3	21.6					0.2
Arrowtooth flounder	19.8	22.0	20.1		2.3	3.4	15.9	60.7	126.2	63.7	3.9
Pacific halibut	10.5		22.6								
Petrale sole		1.9		0.1		0.5	1.0	6.4	0.7	15.8	4.2
English sole	0.4	3.5		21.0	45.5	7.5	0.2	0.3	16.7		6.5
Dover sole	36.6	8.2	162.9	24.5	57.5	32.3	10.9	61.1	26.9	41.8	35.9
Rex sole	4.2	34.1	34.5	70.1	14.7	15.3	20.2	21.0	48.0	30.3	18.6
Other flatfish	4.8	6.1	3.0	4.7	9.5	7.2	16.3	17.1	8.7	20.3	5.3
Sablefish	6.2	9.7	39.4			6.7	4.0	0.9	896.6	8.1	1.8
Pacific cod	4.2	26.3							10.4		
Lingcod	5.6	76.0		3.3	0.8	0.7	1.1	17.0	14.4	15.3	
Pacific whiting	0.3		58.6	385.9	298.1	650.9	6.2		0.7	8.9	257.3
Other roundfish	8.5	1.7	17.9	2.0	0.6	5.7	24.8	18.0	0.6	16.8	2.4
Shortspine thornyhead			45.1						0.2		
Longspine thornyhead											
Rougheye rockfish	0.0		11.9							0.0	
Pacific ocean perch			8.5				0.1		13.6		
Silvergray rockfish									15.1		
Darkblotched rockfish	0.5	0.6	1.4			0.2	0.7	0.4	8.1	0.3	0.2
Splitnose rockfish	0.2	60.6	0.3				0.7	0.0	2.4		
Yellowtail rockfish											
Chilipepper											
Bocaccio											
Canary rockfish	1.8			0.3				0.8	3.5	1.0	
Redstripe rockfish	0.5										
Stripetail rockfish	1.1	26.7	0.4					0.0	0.1		
Other rockfish	39.5	25.6	4.2		0.0	0.2	0.6	0.3	156.2	0.2	0.1
Jellyfish	0.7		0.1	2.4	0.3			1.9			0.3
Shrimps	15.6	6.4	0.0			0.1	26.0	32.4	2.3	5.1	0.4
Crabs	2.9	1.8	0.2	0.5	2.2	2.3	0.9		0.2	2.2	6.2
Octopuses			0.1		0.1						
Squids	0.0		1.0	0.1		0.1	0.1	0.1	0.0	0.1	
Sea stars	3.9	7.3	1.5	0.8	3.0	1.2	1.3	1.4	4.9	1.6	2.1
Sea urchins	1.7	31.0	0.7		0.0	0.4	15.9	0.2	15.8	0.4	2.1
Total catch weight	174.2	385.9	463.3	720.6	518.6	758.4	158.4	266.2	1,396.2	256.9	351.6

Table A-1.--Continued.

Haul	166	167	168	169	170	171	172	173	174	175	176
Start date & time	8/5/2001 10:24	8/5/2001 12:13	8/7/2001 6:37	8/7/2001 9:53	8/7/2001 13:15	8/7/2001 15:06	8/7/2001 16:41	8/8/2001 6:54	8/8/2001 10:40	8/8/2001 14:16	8/8/2001 16:35
Station	100b	100a	101a	101b	101c	101d	101e	102g	102e	102d	102c
Start latitude	4654.69	4654.89	4704.22	4703.88	4704.05	4704.96	4704.25	4713.47	4715.78	4713.37	4714.63
Start longitude	12435.09	12429.45	12433.68	12439.38	12443.17	12448.21	12451.06	12500.16	12451.22	12448.52	12443.62
End latitude	4653.25	4653.46	4705.69	4702.40	4702.67	4703.52	4702.94	4714.97	4714.47	4714.45	4713.27
End longitude	12434.49	12428.87	12433.61	12439.14	12442.64	12447.62	12449.92	12500.06	12452.42	12447.52	12444.44
Bottom depth (m)	100	83	77	98	114	136	150	450	192	145	122
Duration (hr)	0.52	0.52	0.53	0.51	0.5	0.52	0.51	0.53	0.51	0.51	0.51
Distance fished (km)	2.831	2.841	2.777	2.84	2.704	2.837	2.871	2.822	2.778	2.778	2.805
Net width (m)	13.748	14.059	13.756	13.789	13.438	13.585	13.567	14.359	13.661	14.542	13.885
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	-2.1	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish											
Skates			3.3		1.0	9.4	44.3	5.6	7.7	7.7	
Spotted ratfish		3.4	57.6			8.1	2.1			0.5	1.6
Other elasmobranchs		0.2						4.1			
Pacific sanddab	6.6	5.3	386.7	34.3	0.3						
Arrowtooth flounder	4.6			1.1	3.2	24.2	38.3	4.5	190.7	127.7	63.6
Pacific halibut							18.6		92.4	39.3	5.8
Petrale sole	1.6	0.2	2.4	0.6	2.0	4.3	4.4			9.3	2.1
English sole	5.0	23.1	58.8	16.2	2.8	1.9			0.4		7.8
Dover sole	70.6	16.2	175.2	198.5	90.9	13.8	18.8	98.1	14.8	20.1	35.0
Rex sole	13.0	12.9	57.3	37.7	19.6	22.1	30.9	15.7	10.5	24.9	28.8
Other flatfish	24.5	0.8	8.0	9.9	13.8	8.6	12.3		2.8	20.9	22.1
Sablefish	0.9	83.9	0.2	18.4	1.9	1.1	13.1	2.6	35.0	19.2	12.4
Pacific cod									3.1		
Lingcod	0.5	0.9	68.9	9.8	2.4	18.6	32.4		647.6	26.5	15.0
Pacific whiting	526.8	135.2	5.9	2,351.5	231.1	0.7		21.1	0.4	113.0	2,450.3
Other roundfish	0.1	0.1	8.1	0.4	0.6	2.4	18.9	5.8	39.9	39.9	3.9
Shortspine thornyhead								18.6	1.3		
Longspine thornyhead											
Rougheye rockfish							0.2		3.2		
Pacific ocean perch							0.1	10.1			
Silvergray rockfish			1.0								
Darkblotched rockfish	0.0			0.2	0.3	0.4	0.4		18.0		
Splitnose rockfish							0.0		10.9		
Yellowtail rockfish											3.5
Chilipepper											
Bocaccio											
Canary rockfish			520.7			3.4				4.6	0.8
Redstripe rockfish											
Stripetail rockfish											
Other rockfish	0.0		52.7	0.1	0.3	0.9	0.1	4.7	3.1		0.1
Jellyfish	0.1	0.5	5.6	0.2	1.5	0.3					
Shrimps	0.0				0.4	3.5	8.1	1.9	5.8	1.1	
Crabs	1.4	1.6	1.0		1.4		0.4	0.6			
Octopuses								2.1			
Squids	0.0	0.2						2.1	0.1	0.1	
Sea stars	4.8	5.3	2.4	0.9	1.8	4.0	2.8	0.8	0.1	1.3	0.2
Sea urchins	3.2	0.2			1.7	20.6	13.0	0.1		3.4	
Total catch weight	670.4	292.4	1,439.9	2,679.7	378.1	148.9	262.7	226.1	1,044.6	459.7	2,652.9

Table A-1.--Continued.

Haul	177	178	179	180	181	182	183	184	185	186	187
Start date & time	8/9/2001 6:49	8/9/2001 8:39	8/9/2001 10:34	8/9/2001 13:02	8/9/2001 15:11	8/9/2001 17:41	8/10/2001 6:42	8/10/2001 8:38	8/10/2001 10:31	8/10/2001 12:57	8/10/2001 15:05
Station	102a	102b	103a	103b	103c	104c	104f	104e	104d	104b	104a
Start latitude	4713.90	4713.39	4725.44	4724.57	4724.62	4735.00	4734.41	4733.89	4734.86	4732.68	4733.39
Start longitude	12434.86	12439.38	12438.50	12442.08	12444.85	12454.22	12506.04	12501.77	12457.38	12449.54	12438.85
End latitude	4715.40	4714.18	4723.87	4723.05	4723.21	4736.05	4735.79	4735.14	4736.15	4733.97	4734.87
End longitude	12435.06	12439.29	12437.98	12442.02	12444.07	12455.82	12507.03	12503.01	12458.36	12450.68	12439.46
Bottom depth (m)	78	95	81	106	123	140	466	208	168	119	68
Duration (hr)	0.53	0.27	0.53	0.51	0.52	0.52	0.53	0.51	0.51	0.51	0.53
Distance fished (km)	2.866	1.481	3.03	2.85	2.853	2.9	2.929	2.869	2.777	2.85	2.91
Net width (m)	13.488	14.22	14.111	14.671	15.756	13.793	14.955	14.322	14.79	14.408	12.907
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	0.1	2.7			0.8						44.8
Skates			1.7		2.1	0.9		8.7	1.1	3.4	
Spotted ratfish						2.4		10.4	1.5	2.4	0.5
Other elasmobranchs					0.2	0.2	1.8				
Pacific sanddab	49.6	0.8	48.1								146.3
Arrowtooth flounder	0.6	10.1	2.5	34.3	193.7	48.4		35.8	32.6	35.2	
Pacific halibut					4.9			17.0			
Petrale sole	1.7			2.0	6.9			0.5		6.8	1.0
English sole	25.3	10.0	7.0	0.3						1.0	17.3
Dover sole	54.9	49.7	91.3	82.4	87.5	17.5	54.2	37.6	20.2	69.8	21.0
Rex sole	103.7	18.7	67.7	20.9	27.7	14.1	4.8	27.7	0.2	47.3	33.2
Other flatfish	1.4	1.4	1.0	24.5	36.5	6.0	0.2	2.4	2.1	21.5	1.2
Sablefish	83.3	59.6	43.7	318.3	122.6	51.8	20.6	164.9	58.4	77.5	1.5
Pacific cod								5.8			
Lingcod	5.2	0.8	0.8	12.6					11.1		1.3
Pacific whiting	50.5	621.5	1,154.8	1,875.1	5.1	7.0	48.9	0.6	0.8	383.7	50.6
Other roundfish	7.2	2.6	205.6	137.3	41.9	3.4	14.1	1.2	6.8	0.4	11.8
Shortspine thornyhead							17.1				
Longspine thornyhead							7.6				
Rougheye rockfish					0.1				11.4		
Pacific ocean perch					0.2	0.2		5.1	0.3		
Silvergray rockfish											
Darkblotched rockfish				0.7	2.4	0.5				0.8	
Splitnose rockfish					0.0		0.7	8.0	1.1		
Yellowtail rockfish		8.7		0.9	5.0						
Chilipepper											
Bocaccio											
Canary rockfish	3.0	3.0	1.3						1.7		0.7
Redstripe rockfish											
Stripetail rockfish					0.0			0.1	0.1		
Other rockfish	3.2	0.1		0.1	0.2	0.8	12.8	44.8		0.1	
Jellyfish									1.3		0.2
Shrimps				0.1	0.7	3.1	0.5	0.0	6.3	1.0	
Crabs	2.0	0.3		1.4	2.3	0.1	0.0	0.0	0.0		12.1
Octopuses	5.9						1.1		0.0		
Squids	0.4	0.2	0.0	0.0			0.1		0.0	0.0	0.0
Sea stars	0.2	0.0	0.1	1.1	1.8	0.5	0.7	0.5	1.1	1.2	0.2
Sea urchins					2.5	0.2	1.6	34.0	0.4	0.4	
Total catch weight	398.1	790.6	1,625.6	2,512.2	545.1	157.0	193.1	406.5	158.9	653.0	343.9



Table A-1.--Continued.

Haul	188	189	190	191	192	193	194	195	196	197	198
Start date & time	8/11/2001 6:35	8/11/2001 8:11	8/11/2001 10:19	8/11/2001 11:39	8/11/2001 13:25	8/11/2001 16:08	8/11/2001 17:47	8/12/2001 6:34	8/12/2001 8:19	8/12/2001 8:39	8/12/2001 12:54
Station	105a	105b	105c	105d	105e	106b	106a	106c	106d	106d	106g
Start latitude	4745.04	4744.45	4745.32	4744.68	4745.07	4755.65	4752.76	4753.48	4753.63	4754.52	4754.60
Start longitude	12442.56	12446.61	12457.84	12500.92	12504.33	12455.21	12448.94	12502.81	12506.55	12506.75	12517.73
End latitude	4743.59	4742.93	4744.54	4743.39	4743.69	4754.17	4754.28	4754.98	4753.89	4755.27	4753.36
End longitude	12441.95	12446.28	12457.59	12459.92	12505.09	12454.66	12449.46	12502.95	12506.60	12506.95	12516.95
Bottom depth (m)	61	78	122	145	200	93	74	128	153	152	422
Duration (hr)	0.52	0.52	0.27	0.51	0.5	0.53	0.53	0.52	0.13	0.27	0.47
Distance fished (km)	2.871	2.894	1.526	2.762	2.882	2.887	2.972	2.842	0.519	1.44	2.603
Net width (m)	13.261	13.476	14.334	14.195	14.551	13.997	13.48	14.895	9.858	15.345	15.096
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	1.12	0	0	0	0	0	-1.12	-2.4	5.1
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	15.3	35.4	13.9	16.0	0.9	303.4	18.8	27.3			
Skates		27.5	3.7	4.8	0.1	0.3		41.9		2.5	11.0
Spotted ratfish	1.4	8.4	2.9			0.8	0.9	1.0		0.0	
Other elasmobranchs							22.0				1.3
Pacific sanddab	134.8	38.3				12.7	81.1	1.1			
Arrowtooth flounder	0.3	0.1	13.4	59.2	73.2		0.3	37.2		4.5	5.2
Pacific halibut		20.6				4.1		8.8			
Petrale sole	5.7	3.4	2.2	1.6	1.3	4.9	5.1	3.2			
English sole	64.9	25.1	0.5		10.9	17.5	25.1	0.9			
Dover sole	5.1	9.7	41.7	7.9	39.1	2.2	1.7	64.6		0.8	14.9
Rex sole	9.3	12.5	9.4	11.1	4.8	14.1	8.7	20.9		0.0	0.6
Other flatfish	1.4	7.3	11.9	9.1	1.3	0.1		53.3		1.2	
Sablefish		0.7	15.7	43.6	234.5	8.0		6.1		1.1	
Pacific cod	5.1	5.0			5.8		8.3				
Lingcod	0.9	2.7	0.3			3.8		1.6			
Pacific whiting	6.4	8.6	174.0	17.3	4.8	217.0	35.2	126.5		4.7	15.5
Other roundfish	24.2	10.8	16.5	3.0	0.4	27.7	80.8	8.0		0.9	0.6
Shortspine thornyhead					15.2						4.3
Longspine thornyhead											
Rougheye rockfish			0.1								10.4
Pacific ocean perch					557.5			0.3			9.3
Silvergray rockfish											
Darkblotched rockfish			1.9		718.4			0.9		3.5	
Splitnose rockfish					18.6					0.0	
Yellowtail rockfish				1.0	7.1			5.1		0.7	
Chilipepper											
Bocaccio											
Canary rockfish					1.6					0.7	
Redstripe rockfish											
Stripetail rockfish			0.0								
Other rockfish				0.1	0.6	0.0				2.0	
Jellyfish			0.2	3.2		0.2	0.7			3.5	1.8
Shrimps	0.0		0.1	0.5	0.7			0.1		0.1	1.9
Crabs	4.2	1.1	0.0			0.0					0.6
Octopuses	0.3										
Squids	0.1	0.1					0.6	0.0		0.0	2.7
Sea stars	0.8	0.2	0.5	1.8	0.9	0.5	0.4	0.5		2.4	0.4
Sea urchins			1.0	1.3	4.4			1.5		9.3	4.1
Total catch weight	281.1	219.4	310.0	181.4	1,704.4	620.4	290.6	410.9		38.6	90.4

Table A-1.--Continued.

Haul	199	200	201	202	203	204	205	206	207	208	209
Start date & time	8/12/2001 14:43	8/12/2001 17:27	8/13/2001 6:42	8/13/2001 8:43	8/13/2001 10:44	8/13/2001 13:54	8/13/2001 18:36	8/14/2001 6:35	8/14/2001 8:16	8/14/2001 9:31	8/14/2001 12:01
Station	106f	108d	108a	108c	108e	108g	108k	108h	108j	108i	110p
Start latitude	4754.59	4804.52	4805.14	4803.56	4803.76	4806.24	4806.05	4803.56	4803.41	4806.28	4815.00
Start longitude	12515.73	12509.20	12457.91	12506.43	12518.13	12529.11	12539.73	12532.50	12538.04	12539.10	12549.00
End latitude	4753.13	4804.53	4803.75	4802.40	4803.36	4805.33	4807.51	4804.21	4803.17	4807.67	4814.49
End longitude	12515.17	12510.66	12458.75	12507.88	12518.09	12528.75	12540.43	12533.50	12538.18	12539.86	12548.52
Bottom depth (m)	330	139	107	137	234	134	225	165	442	203	245
Duration (hr)	0.51	0.35	0.51	0.51	0.25	0.32	0.53	0.32	0.4	0.5	0.2
Distance fished (km)	2.876	1.824	2.841	2.865	1.146	1.794	2.928	1.752	1.94	2.824	1.129
Net width (m)	14.546	13.75	13.016	13.71		13.156	14.919	14.396	13.25	14.19	14.47
Net measured?	Y	N	Y	N	N	Y	Y	Y	N	N	N
Performance	5.1	0	0	0	-2.4	-2.4	0	0	-1.12	0	-2.6
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			64.0	12.9		1.3					
Skates	0.6			0.4				3.6			9.3
Spotted ratfish	1.3					1.1		4.7			2.4
Other elasmobranchs									0.2		
Pacific sanddab			0.7			4.3					
Arrowtooth flounder	32.3	51.3	25.1	48.6	6.0	21.0	160.9	292.5		1,034.0	15.6
Pacific halibut	19.6	32.9	15.0	14.8			15.8	7.3		19.5	18.5
Petrale sole		3.4	19.3	2.2		13.5		3.2			
English sole		4.3	8.6	1.2		1.2	2.1	0.5		0.6	
Dover sole	45.6	48.2	12.1	46.4	0.2	2.7	54.3	65.1	51.7	21.8	15.1
Rex sole	14.0	7.0	16.8	17.4	1.5		2.4	0.3		4.3	10.8
Other flatfish	0.5	7.7	9.1	41.6	1.1	2.6	13.9	1.5		4.4	1.9
Sablefish	2.8	1.3	847.8	3.2			53.5	58.4	29.5	164.0	5.4
Pacific cod		1.3	6.1				1.7	3.6		3.2	
Lingcod		6.1	8.0	6.4		3.7		1.1		4.6	
Pacific whiting	39.4		540.6	0.9			6.0		2.2	2.8	
Other roundfish	1.4	0.9	257.7	8.4	0.1	2.2	4.7	0.8	0.6		
Shortspine thornyhead	11.8	0.8			3.0		1.7		11.5	1.4	1.6
Longspine thornyhead									0.1		
Rougheye rockfish	24.7								4.4		
Pacific ocean perch	9.4				50.6		27.3		5.1	5.7	1,482.3
Silvergray rockfish						2.8		4.9		1.9	
Darkblotched rockfish							14.5			0.1	97.0
Splitnose rockfish	0.4						3.9				30.8
Yellowtail rockfish		107.9		19.7	1.7			5.2	1.4	2.0	14.2
Chilipepper											
Bocaccio											
Canary rockfish		13.4						5.9		12.3	
Redstripe rockfish		21.4									
Stripetail rockfish							0.2				
Other rockfish	0.6	36.8		3.9	31.7	3.9	5.8	132.0	6.0	6.4	7.0
Jellyfish				0.3	0.1			0.2	1.0		0.1
Shrimps	0.5	0.2			1.6		2.3		1.2	1.8	0.0
Crabs	0.0				0.2			0.0	1.2		0.0
Octopuses	0.2	0.1									
Squids	1.9	0.6					1.2				
Sea stars	6.4	1.2	0.1	0.3	0.3	1.0	0.2	0.0	0.8	0.0	0.8
Sea urchins	0.4				3.3		0.3	0.5	0.0	0.1	
Total catch weight	217.5	346.9	1,831.1	230.4	101.9	61.5	372.7	592.6	117.9	1,291.0	1,713.1

Table A-1.--Continued.

Haul	210	211	212	213	214	215	216	217	218	219	220
Start date & time	8/14/2001 15:19	8/14/2001 17:30	8/15/2001 6:32	8/15/2001 8:20	8/15/2001 10:05	8/15/2001 12:53	8/15/2001 14:25	8/15/2001 17:09	8/16/2001 6:53	8/16/2001 8:41	8/16/2001 10:18
Station	110q	110o	110m	110L	110k	110j	110i	110h	110f	110d	110c
Start latitude	4813.44	4814.31	4812.12	4814.66	4812.99	4813.14	4813.44	4812.59	4814.42	4814.92	4814.52
Start longitude	12551.44	12545.17	12530.04	12527.16	12522.23	12519.16	12517.63	12514.16	12509.52	12501.90	12459.83
End latitude	4814.39	4813.82	4813.46	4815.84	4813.25	4814.25	4812.46	4813.69	4815.14	4813.42	4814.92
End longitude	12553.18	12547.36	12531.24	12527.34	12522.11	12517.63	12519.21	12512.70	12509.25	12502.41	12459.63
Bottom depth (m)	442	419	149	130	105	133	144	253	214	311	161
Duration (hr)	0.58	0.62	0.52	0.4	0.15	0.51	0.5	0.5	0.25	0.53	0.16
Distance fished (km)	2.863	3.31	2.972	2.232	0.769	2.923	2.744	2.798	1.421	2.921	0.814
Net width (m)	14.83	13.9	14.45	14.304	14.72	14.87	14.87	15.891	14.029	15.626	15.286
Net measured?	N	N	N	Y	N	N	N	Y	Y	Y	Y
Performance	0	5.1	0	0	-2.4	0	5.1	0	0	0	-2.4
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			0.7	1,230.7		130.0	40.8	62.2	5.5	6.3	2.6
Skates		7.8	7.4			6.0		8.2	0.7	2.4	34.1
Spotted ratfish					1.2	0.5	0.1	0.5		7.1	3.0
Other elasmobranchs		1.2						0.2			
Pacific sanddab			0.4	7.2		7.9	1.4				
Arrowtooth flounder		5.0	101.8	55.4	13.3	146.6	106.3	38.9	62.0	43.6	21.4
Pacific halibut			7.3		11.8			6.5			46.0
Petrale sole			3.9	2.5							
English sole			11.2	11.4		1.7	8.8		2.4		
Dover sole	72.0	135.8	31.9	17.2		3.1	31.4	47.8	71.1	131.0	1.2
Rex sole	13.2	17.3	3.3	0.2		2.0	67.8	21.7	12.4	0.6	
Other flatfish		0.3	4.4	1.1	0.8	4.5	37.6	6.1	2.6	0.7	0.1
Sablefish	17.7	37.6	2.3	1.2		17.5	14.8	18.3	59.4	51.7	
Pacific cod			4.7	1.4		21.5	10.9	1.9			
Lingcod			2.8	1.8	2.9	0.7	9.0				21.2
Pacific whiting	30.4	32.8	2.9	2.0			4.2	83.6	6.2	19.8	1.5
Other roundfish	1.8	3.0	1.0	166.2	0.9	1.4	3.6	13.9	7.1	6.2	2.1
Shortspine thornyhead	41.6	64.0						25.6	2.9	23.0	0.3
Longspine thornyhead	6.1	0.6									
Rougheye rockfish	27.7	38.7						5.3		0.9	
Pacific ocean perch	9.0	17.3				0.3	2.6		0.5		0.1
Silvergray rockfish				2.7							
Darkblotched rockfish											
Splitnose rockfish											
Yellowtail rockfish			111.9	90.5	152.3	203.3	290.0				
Chilipepper											
Bocaccio											
Canary rockfish			1.8	2.4	13.5						
Redstripe rockfish					106.3	8.3	33.7				
Stripetail rockfish											
Other rockfish	26.0	52.9	22.0	0.9	42.6	4.1	5.0			0.4	6.8
Jellyfish							0.3				
Shrimps	0.0	0.2				0.1	0.0	1.5	0.3	0.3	
Crabs	0.0		2.3					1.1			
Octopuses	2.5							0.1			
Squids	0.7	1.6	0.0					0.0		0.1	
Sea stars	0.4	1.2		0.2	0.6	0.6	0.8	0.9	0.4	0.1	5.1
Sea urchins	0.0	0.2	0.3		0.0	5.5	0.1	25.1	0.2	7.2	0.3
Total catch weight	256.0	431.6	324.7	1,595.1	355.6	565.7	669.2	370.0	234.4	302.2	148.3

Table A-1.--Continued.

Haul	221	222	223	224	225	226	227	228	229	230	231
Start date & time	8/16/2001 13:07	8/16/2001 14:36	8/16/2001 17:10	8/16/2001 18:13	8/16/2001 18:47	8/17/2001 6:38	8/17/2001 9:06	8/17/2001 10:37	8/17/2001 13:03	8/17/2001 14:41	8/17/2001 16:42
Station	110b	110a	112d	112e	112e	114g	114f	114d	114c	114b	114a
Start latitude	4814.47	4814.17	4825.51	4824.49	4824.64	4844.94	4844.45	4844.53	4844.45	4844.93	4844.40
Start longitude	12457.74	12453.91	12503.31	12505.96	12505.18	12549.52	12548.14	12537.45	12533.79	12531.41	12520.71
End latitude	4813.06	4815.69	4824.81	4824.50	4824.65	4844.19	4844.62	4844.12	4844.08	4843.91	4844.49
End longitude	12458.18	12453.25	12502.72	12505.87	12506.51	12551.65	12546.90	12535.27	12531.61	12529.80	12519.15
Bottom depth (m)	208	78	154	112	113	90	107	163	156	136	104
Duration (hr)	0.5	0.54	0.27	0.13	0.29	0.53	0.3	0.5	0.5	0.51	0.36
Distance fished (km)	2.72	3.021	1.595	0.466	1.647	3.013	1.593	2.794	2.786	2.779	1.939
Net width (m)	13.707	13.759	13.7		14.41	13.75	14.09	13.579	13.556	14.341	15.656
Net measured?	Y	Y	N	N	N	N	N	Y	Y	Y	Y
Performance	5.8	0	0	-1.2	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	23.6	11.6	11.2		15.3	481.7	79.0	15.3	12.6	11.1	2.2
Skates	2.8	43.9	9.7		6.3			20.1	1.3	11.8	7.6
Spotted ratfish	0.8		2.7		2.1	18.5	1.1	37.7	11.7	10.1	2.0
Other elasmobranchs	0.3										
Pacific sanddab		47.4			0.6	223.8	2.3		0.1		1.6
Arrowtooth flounder	56.1	2.8	24.2		34.7	31.4	34.8	16.5	19.9	32.0	55.7
Pacific halibut		9.1				103.4					
Petrale sole		1.0			3.7	24.6	2.4				1.2
English sole		48.7	0.5		22.3	47.6	7.6			0.4	1.0
Dover sole	48.7	12.1	5.7		31.1	10.6	6.1	42.6	15.8	26.0	29.6
Rex sole	17.5	35.7	0.2		21.4	10.1	4.2	21.0	25.6	59.2	10.7
Other flatfish	6.1		0.1		2.9	0.3	1.9	29.3	43.3	111.3	7.4
Sablefish	14.5	3,134.3	33.4		2.6	26.8	5.1		0.4	0.6	2.5
Pacific cod						18.9	1.2				
Lingcod					3.4	18.1	5.4	1.7			1.7
Pacific whiting	39.7	1.0	4.3				24.2	66.1	10.1	12.6	16.6
Other roundfish	0.7	4.4	68.0		1.8	589.1	592.9	167.3	47.0	47.8	1,155.6
Shortspine thornyhead	5.5	0.2									
Longspine thornyhead									3.2	1.0	
Rougheye rockfish	1.0										
Pacific ocean perch			0.2		0.0						
Silvergray rockfish											
Darkblotched rockfish	2.0	0.4									
Splitnose rockfish	0.0							0.2			
Yellowtail rockfish					2.9	1.2					
Chilipepper											
Bocaccio											
Canary rockfish					7.5						
Redstripe rockfish						1.3			0.4		
Stripetail rockfish											
Other rockfish	0.6				0.7						
Jellyfish					0.2			0.2			
Shrimps	2.9		2.8		0.0		0.0	17.7	10.4	7.8	0.1
Crabs								0.0		0.0	0.0
Octopuses											
Squids			0.1			0.7					0.0
Sea stars	2.6	0.5	0.1		0.8	3.8	0.3	4.0	0.2	4.3	3.9
Sea urchins	0.0		3.2					2.9	3.3	2.2	0.0
Total catch weight	226.2	3,353.2	166.5		161.5	1,612.6	768.7	442.7	206.2	339.0	1,301.8

Table A-1.--Continued.

Haul	232	233	234	235	236	237	238	239	240	241	242
Start date & time	8/18/2001 7:14	8/19/2001 8:20	8/19/2001 12:46	8/19/2001 14:13	8/19/2001 15:40	8/19/2001 17:48	8/20/2001 6:37	8/20/2001 8:25	8/20/2001 10:42	8/20/2001 13:04	8/20/2001 15:01
Station	115a	113p	113o	112q	112r	112p	112L	112k	112i	112g	112h
Start latitude	4854.45	4834.66	4835.15	4826.39	4823.18	4825.29	4822.60	4823.61	4825.38	4825.68	4825.11
Start longitude	12536.12	12609.11	12607.19	12604.84	12609.11	12556.27	12547.25	12541.18	12523.78	12516.53	12520.83
End latitude	4854.42	4833.87	4834.28	4825.42	4821.85	4824.81	4823.59	4824.47	4824.01	4824.36	4824.61
End longitude	12533.87	12609.19	12606.46	12604.54	12607.69	12557.67	12547.36	12541.04	12524.64	12517.51	12521.68
Bottom depth (m)	97	193	161	206	402	190	150	138	165	173	165
Duration (hr)	0.52	0.28	0.34	0.34	0.56	0.36	0.34	0.29	0.5	0.5	0.27
Distance fished (km)	2.825	1.503	1.884	1.874	3.084	1.981	1.889	1.619	2.812	2.8	1.425
Net width (m)	13.432		13.792	14.26	14.29			14.11	13.959	13.979	14.02
Net measured?	Y	N	Y	N	N	N	N	N	Y	Y	N
Performance	0	-2.4	0	0	1.11	-2.4	-4.4	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			5.8	1.5		302.0	6,500.5	59.6		11.1	71.2
Skates	11.0	0.8	1.4		3.5	2.5			30.5		0.6
Spotted ratfish	2.6	1.2		1.8				0.1	0.9	2.6	2.5
Other elasmobranchs						0.2					
Pacific sanddab	11.2									0.2	
Arrowtooth flounder	16.7	57.6	154.9	111.0	2.3	791.8	30.0	28.2	401.9	77.0	80.8
Pacific halibut		5.8		12.0				8.8	14.6		
Petrale sole	1.2		4.7	0.3	2.1	3.3					
English sole	64.5					0.7	15.0	0.3	0.6	1.8	0.5
Dover sole	55.1	2.2	29.9	15.3	70.3	20.8	10.0	90.8	75.3	18.0	25.7
Rex sole	5.6	0.5	23.0	3.2	26.0	10.9		32.0	249.0	28.4	10.9
Other flatfish	30.7	0.2	1.2	4.8	1.9	9.6		7.1	70.7	73.3	6.2
Sablefish	8.2		1.2	28.9		654.4		21.9	42.2	27.4	110.4
Pacific cod	29.0			1.4							
Lingcod		4.7	22.2			6.4					
Pacific whiting	23.0				31.7	6.5		29.2	3.2	6.3	
Other roundfish	474.9	0.5	1.4	1.5	0.6	0.0		1.4	13.8	10.4	0.2
Shortspine thornyhead		3.7			30.2	1.4				1.3	
Longspine thornyhead											
Rougeye rockfish					128.9				0.6	0.9	
Pacific ocean perch		2.1		66.7	109.7	103.7		0.1			
Silvergray rockfish		4.9		7.3	3.3	6.9	4.5				
Darkblotched rockfish				0.1		0.6				1.3	
Splitnose rockfish									0.3	1.1	
Yellowtail rockfish		83.1	5.1			4.5					
Chilipepper											
Bocaccio											
Canary rockfish		20.0		2.6		39.3	70.0				
Redstripe rockfish						837.6		0.7			0.0
Stripetail rockfish											
Other rockfish	4.0	358.7	4.8	29.2	2.8	442.4	57.0	1.9		0.3	
Jellyfish			3.6	2.5					1.2		0.1
Shrimps	19.3	2.1	0.2	0.2	0.0	0.8		0.4	22.9	42.6	6.2
Crabs	0.4				0.0					0.8	
Octopuses	0.1										
Squids	0.2				2.1			0.0			0.0
Sea stars	1.3	1.1		0.0	0.1	0.9		7.1	2.3	0.8	0.3
Sea urchins	0.8	0.1	1.3	0.1				2.9	29.3	9.4	0.2
Total catch weight	767.1	550.1	260.7	290.5	418.6	3,247.4	6,687.0	292.5	959.5	324.4	317.2

Table A-1.--Continued.

Haul	243	244	245	246	247	248	249	250	251	252	253
Start date & time	8/20/2001 16:26	8/21/2001 7:58	8/21/2001 9:46	8/21/2001 13:08	8/21/2001 16:17	8/22/2001 7:51	8/22/2001 11:55	8/22/2001 13:12	8/22/2001 14:26	8/22/2001 15:36	8/22/2001 17:25
Station	112f	112a	112c	113d	113e	115b	115c	115d	115e	115f	115g
Start latitude	4824.66	4823.81	4825.37	4835.27	4835.08	4854.30	4855.32	4856.21	4854.48	4854.68	4854.23
Start longitude	12513.63	12447.93	12452.31	12503.59	12506.07	12545.52	12600.23	12607.21	12611.15	12615.44	12618.18
End latitude	4823.20	4824.71	4823.95	4836.80	4836.28	4854.51	4855.95	4854.87	4855.22	4856.01	4855.65
End longitude	12514.15	12446.13	12453.21	12503.91	12505.56	12543.30	12600.96	12605.93	12611.83	12616.48	12618.94
Bottom depth (m)	191	179	295	95	112	106	68	87	111	129	142
Duration (hr)	0.51	0.51	0.53	0.52	0.42	0.5	0.27	0.54	0.29	0.5	0.52
Distance fished (km)	2.853	2.83	2.936	2.912	2.412	2.754	1.504	2.982	1.636	2.827	2.844
Net width (m)	15.633	13.697	14.963	13.9	14.104	14.13	13.99	14.306	14.767	14.756	14.954
Net measured?	Y	Y	Y	N	Y	N	N	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	5.8	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	78.5	6.8	66.5	614.2	425.9	3.6	15.8	52.5	326.0	206.1	30.5
Skates	4.3	1.0	30.5	0.7	7.3	8.8				4.3	11.5
Spotted ratfish	5.9	3.5	39.5			1.4				1.3	1.9
Other elasmobranchs			0.6								
Pacific sanddab		1.3	0.2	85.3	0.6	35.7	25.3	39.0	46.0		
Arrowtooth flounder	150.2	32.2	159.1	98.5	70.5	34.1		0.7	2.4	77.7	127.5
Pacific halibut					9.5		5.8	30.3			
Petrale sole		1.8	0.6	14.3	3.8	1.7	1.0	0.2	2.0		0.7
English sole		16.8	0.6	43.2	0.6	80.5	15.3	11.3	7.4		
Dover sole	12.5	106.6	205.5	16.6	23.6	266.5	0.8	5.4	2.3	7.9	56.2
Rex sole	18.5	13.0	2.3	5.3	2.9	13.3	0.9	6.8	8.9	16.6	30.1
Other flatfish	53.8	1.0		0.0	3.3	5.0	3.0		1.9	30.7	26.2
Sablefish	73.5	10.2		1.9	1.6	3.4			1.0	12.8	14.5
Pacific cod					1.4	9.1					
Lingcod				5.8	1.5			11.0	3.1	11.6	2.4
Pacific whiting	88.0	30.3	56.4	4.3	17.4	2.1			0.3	1,397.8	6.9
Other roundfish	15.0	1.8	10.1	2,975.1	53.8	1,103.4	3.9	4.3	58.7	12.6	15.3
Shortspine thornyhead	15.1		4.5								
Longspine thornyhead											
Rougheye rockfish	4.6		10.7								0.6
Pacific ocean perch		0.0								0.0	0.1
Silvergray rockfish											
Darkblotched rockfish										0.2	0.6
Splitnose rockfish											
Yellowtail rockfish					1.6					18.0	4.3
Chilipepper											
Bocaccio											
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish											
Other rockfish	0.2		8.7								1.7
Jellyfish			0.2			0.6			0.6		
Shrimps	74.5	1.0	0.6			43.6	0.0			0.0	1.1
Crabs	3.4		0.0			1.3					
Octopuses											
Squids	0.0		0.5			0.0	0.1				0.0
Sea stars	0.2	2.0	1.7	0.1	0.3	0.3	0.1		0.2	0.3	0.8
Sea urchins	7.1	0.1	1.8							0.7	18.6
Total catch weight	607.4	229.6	601.1	3,865.4	626.4	1,616.3	72.0	161.5	460.8	1,800.6	351.5

Table A-1.--Continued.

Haul	254	255	256	257	258	259	260	261	262	263	264
Start date & time	8/23/2001 6:41	8/23/2001 8:29	8/23/2001 10:16	8/23/2001 12:16	8/23/2001 14:46	8/23/2001 16:51	8/23/2001 18:10	8/24/2001 7:43	8/24/2001 9:21	8/24/2001 11:32	8/24/2001 13:52
Station	116j	116i	116h	116g	116d	116c	116b	116e	116f	115h	115i
Start latitude	4904.37	4904.76	4904.56	4902.99	4905.36	4905.82	4904.28	4904.23	4904.68	4854.30	4853.31
Start longitude	12655.85	12653.16	12646.28	12637.44	12625.63	12615.61	12607.78	12629.62	12635.48	12628.10	12631.16
End latitude	4905.63	4906.01	4905.46	4904.07	4904.04	4905.23	4904.46	4904.88	4904.33	4855.59	4851.83
End longitude	12657.05	12654.35	12648.08	12639.19	12624.53	12614.83	12609.01	12631.88	12633.24	12629.30	12630.73
Bottom depth (m)	450	293	178	147	128	79	64	139	137	168	200
Duration (hr)	0.63	0.51	0.5	0.53	0.52	0.27	0.29	0.53	0.5	0.51	0.49
Distance fished (km)	2.979	2.807	2.798	2.97	2.855	1.482	1.548	3.035	2.832	2.867	2.851
Net width (m)	14.809	14.732	14.857	15.132	14.413	14.46	14.007	15.686	14.212	14.25	13.57
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			4.7	29.1	113.3	14.1	6.9	23.0	7.2		
Skates	1.8				3.2			3.8		4.0	1.5
Spotted ratfish		0.5				0.9					
Other elasmobranchs	2.7						0.8	0.8	1.0		13.1
Pacific sanddab						49.2	24.5				
Arrowtooth flounder	3.9	65.5	64.3	434.6	82.6	1.3		77.6	93.4	170.0	81.9
Pacific halibut			4.7				3.1				25.7
Petrale sole				31.9		6.5	0.7	1.5	17.7	3.4	2.1
English sole				21.7		19.7	15.7		0.4		
Dover sole	80.4	61.8	75.1	65.6	150.3	3.4	1.3	21.6	27.2	29.5	20.3
Rex sole	5.2	1.8	39.1	37.5	27.9	8.0	7.1	27.1	26.4		0.7
Other flatfish		0.1	2.2	3.9	47.6	1.5	10.1	25.0	4.9	0.8	0.4
Sablefish	62.6	17.3	57.5	53.3	31.9			6.2	23.4	20.5	53.8
Pacific cod			1.4	15.1	0.0			11.6	35.0	18.8	4.1
Lingcod			2.0	34.7	0.3	4.1		4.4	6.7	41.7	1.3
Pacific whiting	42.1	38.3		3.3	31.5			45.6	65.3		
Other roundfish	8.9	1.0	6.7	13.9	33.9	5.5	10.9	9.3	6.4	15.3	3.2
Shortspine thornyhead	47.2	8.4	1.2								4.9
Longspine thornyhead											
Rougheye rockfish	15.1	5.3						0.0			
Pacific ocean perch		44.0	26.2					0.3		0.5	435.4
Silvergray rockfish			17.3	24.0						5.1	3.1
Darkblotched rockfish		1.5			0.9						
Splitnose rockfish		13.2									
Yellowtail rockfish			63.1	379.0	3.3			99.9	2.7	464.1	1,530.0
Chillipepper											0.6
Bocaccio			5.2								22.5
Canary rockfish				35.4						3.1	11.9
Redstripe rockfish			35.6							332.3	58.8
Stripetail rockfish			1.3								
Other rockfish	20.8	9.7	44.6	2.5			0.0			40.4	42.4
Jellyfish		0.3				2.5				0.2	
Shrimps	0.1	0.1	1.9		0.8			1.2	0.0	0.2	0.2
Crabs							0.3			0.1	
Octopuses	1.7							0.1			
Squids	4.2	5.4			0.0						
Sea stars	0.3	0.4	2.4	0.2		0.5	0.2	0.2	1.1	0.2	0.0
Sea urchins	0.2	0.3	1.2	5.6	0.8			2.2	0.4		
Total catch weight	304.1	274.7	459.6	1,191.3	529.5	123.9	82.9	361.5	320.4	1,153.1	2,318.0

Table A-1.--Continued.

Haul	265	266	267	268	269
Start date & time	8/24/2001 17:36	8/25/2001 6:49	8/25/2001 9:12	8/25/2001 11:15	8/25/2001 13:53
Station	114h	113i	113h	113g	113f
Start latitude	4844.37	4836.53	4835.46	4835.26	4835.13
Start longitude	12557.25	12534.48	12526.75	12517.60	12515.47
End latitude	4844.52	4835.01	4835.30	4835.42	4836.68
End longitude	12559.66	12534.48	12524.47	12519.85	12515.62
Bottom depth (m)	84	132	141	130	118
Duration (hr)	0.53	0.51	0.52	0.51	0.52
Distance fished (km)	3.026	2.871	3.123	2.817	2.92
Net width (m)	13.97	13.929	15.111	13.806	14.363
Net measured?	N	Y	Y	Y	Y
Performance	0	0	0	0	0
Gear	172	172	172	172	172
Spiny dogfish	450.9	767.4	83.3	341.7	288.8
Skates		16.1	14.9	8.5	25.1
Spotted ratfish	3.3	7.5	5.3	2.3	2.5
Other elasmobranchs					
Pacific sanddab	247.0		0.2		
Arrowtooth flounder	1.7	459.9	93.0	44.5	50.9
Pacific halibut	32.4	6.3	20.3		11.3
Petrale sole	1.2				3.8
English sole	27.8	0.9	0.2	0.4	
Dover sole	3.5	87.5	86.1	50.7	51.8
Rex sole	16.7	92.5	40.3	36.8	30.4
Other flatfish	7.6	101.1	185.1	65.8	60.1
Sablefish		259.0	195.7	12.1	3.4
Pacific cod	0.0				
Lingcod	32.7			1.0	
Pacific whiting		69.9	112.0	1,104.3	1,172.3
Other roundfish	4.3	54.1	98.5	542.7	250.9
Shortspine thornyhead					
Longspine thornyhead					
Rougheye rockfish			0.6	0.5	
Pacific ocean perch					
Silvergray rockfish					
Darkblotched rockfish					
Splitnose rockfish			0.0		
Yellowtail rockfish					
Chilipepper					
Bocaccio					
Canary rockfish		2.9			
Redstripe rockfish					
Stripetail rockfish			0.1		
Other rockfish					
Jellyfish				0.4	0.2
Shrimps		2.0	1.6	0.3	0.0
Crabs					
Octopuses	12.1				
Squids		0.0	0.0		0.1
Sea stars	0.1	2.4	2.4	0.2	0.3
Sea urchins		2.5	9.4	3.1	1.4
Total catch weight	841.3	1,935.5	949.8	2,215.6	1,953.5



Table A-2.--Station and catch data (kg caught) by major species groups for stations fished by the *Sea Storm*.

Haul	1	2	3	4	5	6	7	8	9	10	11
Start date & time	6/8/2001 6:52	6/8/2001 10:59	6/8/2001 13:10	6/8/2001 15:53	6/8/2001 18:32	6/9/2001 6:31	6/9/2001 9:12	6/9/2001 11:15	6/9/2001 15:03	6/9/2001 18:47	6/10/2001 5:58
Station	3g	5f	5f	5g	5h	5e	5d	5c	5b	5a	9a
Start latitude	3445.43	3454.75	3454.95	3454.54	3454.72	3456.16	3453.64	3453.31	3453.15	3453.87	3513.70
Start longitude	12114.70	12118.94	12119.25	12120.92	12125.19	12102.32	12057.16	12054.14	12051.05	12044.82	12058.27
End latitude	3444.59	3455.44	3454.10	3453.15	3453.32	3454.69	3455.08	3454.60	3454.57	3454.70	3514.71
End longitude	12113.18	12120.53	12117.72	12120.27	12124.68	12102.03	12056.77	12054.20	12051.32	12044.74	12058.88
Bottom depth (m)	483	475	474	454	456	468	310	230	169	68	155
Duration (hr)	0.5	0.51	0.5	0.52	0.5	0.51	0.51	0.45	0.5	0.3	0.4
Distance fished (km)	2.823	2.767	2.838	2.84	2.779	2.809	2.772	2.438	2.73	1.586	2.134
Net width (m)	13.69		13.97	14.34	14.11	15.21	13.78	13.92	13.97	13.24	12.83
Net measured?	N	N	N	N	N	N	N	N	N	N	N
Performance	0	-5.6	0	0	0	0	0	0	0	1.12	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish								0.0	0.3	12.4	2.1
Skates	1.1		2.7	2.5		17.2	30.4	18.6	33.4	6.0	
Spotted ratfish	1.2						1.1	1.4	4.0		0.8
Other elasmobranchs	2.5		2.3			21.9	16.1	0.1	0.1	1.0	
Pacific sanddab									1,706.8	5.8	0.2
Arrowtooth flounder											
Pacific halibut											
Petrale sole								3.1	19.8	0.3	1.3
English sole								0.4	11.5	1.1	0.5
Dover sole	128.2		52.8	158.7	155.3	267.5	172.8	145.1	36.1		0.1
Rex sole	37.4		8.6	21.4	66.2	34.7	327.8	58.8	8.4		
Other flatfish							1.6	5.6	7.1	0.3	0.2
Sablefish	31.8		22.5	25.4	14.3	9.6	52.0	82.4	15.2		60.1
Pacific cod											
Lingcod								1.3		0.2	
Pacific whiting	49.2		235.5	104.4	86.5	20.5	207.9	641.2	367.8	0.6	
Other roundfish	13.0		19.6	8.5	8.9	7.3	8.0	6.9	16.7	17.6	2.7
Shortspine thornyhead	3.6		27.0	1.3	2.1	27.3	4.2	0.3			
Longspine thornyhead	4.5		54.8	28.1	20.5	29.0	0.3				
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish								0.3			
Splitnose rockfish							81.5	6.5	0.1		0.0
Yellowtail rockfish											
Chilipepper							0.1	3.0	1.7		4.7
Bocaccio									6.3		
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish								50.6	12.5		0.4
Other rockfish	76.9		24.3	54.8	70.1	59.6	2.0	3.6	0.1	7.1	2.2
Jellyfish											0.1
Shrimps			0.5				0.0	0.1	0.3		0.7
Crabs											0.2
Octopuses	0.2			0.1		0.5	0.6	0.3	0.5		
Squids	0.7		0.4	0.5	0.1	0.5	0.2	0.1		0.1	
Sea stars			0.3	0.1		1.1	0.6	0.5		0.9	0.6
Sea urchins	0.0		7.6	0.1		46.9	18.6	8.2	0.2		
Total catch weight	350.5		465.9	406.4	424.1	550.3	926.0	1,038.4	2,262.5	41.9	76.0

Table A-2.--Continued.

Haul	12	13	14	15	16	17	18	19	20	21	22
Start date & time	6/10/2001 8:12	6/10/2001 10:08	6/10/2001 12:10	6/10/2001 16:20	6/11/2001 6:14	6/11/2001 8:55	6/11/2001 11:33	6/11/2001 17:12	6/12/2001 6:08	6/12/2001 9:24	6/12/2001 14:38
Station	9b	9c	9d	13a	13b	13c	13d	15c	15a	15b	17a
Start latitude	3512.97	3514.85	3514.11	3534.01	3534.26	3533.98	3533.87	3546.43	3545.29	3546.71	3604.97
Start longitude	12100.34	12104.10	12107.92	12112.24	12116.06	12117.39	12122.39	12130.25	12123.72	12128.78	12138.15
End latitude	3514.36	3513.51	3515.10	3534.96	3535.35	3534.99	3534.93	3545.10	3543.81	3545.61	3603.94
End longitude	12101.21	12103.22	12109.23	12113.75	12117.38	12118.80	12123.63	12129.51	12123.11	12128.14	12137.49
Bottom depth (m)	261	370	489	97	138	236	474	373	74	240	101
Duration (hr)	0.52	0.51	0.5	0.51	0.51	0.51	0.5	0.5	0.51	0.42	0.4
Distance fished (km)	2.952	2.885	2.755	2.915	2.923	2.887	2.757	2.788	2.951	2.313	2.203
Net width (m)	13.19	14.33	14.119	13.26	12.928	12.166	13.853	12.445	13.645	13.99	13.71
Net measured?	N	N	Y	Y	Y	Y	Y	Y	Y	N	N
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	1.8	0.6		3.8	1.8			0.2	14.0		
Skates	0.1	3.0	12.4				15.1	12.0			
Spotted ratfish	0.6	1.3			19.8	2.8		1.5	0.5	5.5	0.9
Other elasmobranchs	4.1	12.0	33.1	4.0	2.3	4.7	3.9	2.6			6.1
Pacific sanddab				111.6	4.1				123.9		24.2
Arrowtooth flounder											
Pacific halibut											
Petrale sole				2.7	1.1				4.0		12.9
English sole				35.5	3.8	2.1			11.1		2.5
Dover sole	16.9	18.5	127.2	1.2	0.5	37.3	45.9	77.7	0.3	15.4	0.2
Rex sole	25.0	16.4	2.9	0.1	1.2	4.8	0.4	1.5		0.2	0.2
Other flatfish	2.0			0.3	3.0				3.4		0.3
Sablefish	57.0	12.5	6.8		17.7	92.3	24.0	25.3		23.2	
Pacific cod											
Lingcod					18.3				0.9	6.1	0.1
Pacific whiting	84.4	10.7	7.9			680.4	11.8	42.0		45.9	4.0
Other roundfish	1.8	5.6	3.5	6.5	3.3		2.4	5.5	8.7	0.4	16.3
Shortspine thomyhead		1.7	26.2	0.7			24.6	0.8			
Longspine thomyhead			9.6								
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish	0.4										
Splitnose rockfish	21.4	14.0	0.3			93.7		24.9		156.6	1.6
Yellowtail rockfish											
Chilipepper	1.6			2.8	4,998.3	15.3			3.5	2.3	11.8
Bocaccio					4.8	4.3					
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish	85.7	0.5			0.8	308.2				75.2	0.4
Other rockfish	0.9	24.0	21.5	0.1	327.1	299.1	33.9	12.4	0.8	0.6	1.1
Jellyfish											18.0
Shrimps	0.2	0.0		0.1						0.3	
Crabs	0.2	0.2			1.1				0.3	0.5	
Octopuses			0.3	0.1				0.1			0.1
Squids	3.5	0.0	1.0	1.2	0.1				14.4		0.1
Sea stars	0.1	0.0	2.8	0.3	0.7		2.8	2.9		1.0	0.2
Sea urchins	2.3	7.3	33.0				0.1	1.6	0.0		
Total catch weight	310.0	129.0	291.6	172.4	5,414.0	1,545.0	169.0	211.1	186.6	333.7	100.8

Table A-2.--Continued.

Haul	23	24	25	26	27	28	29	30	31	32	33
Start date & time	6/13/2001 6:58	6/13/2001 10:52	6/13/2001 14:40	6/13/2001 17:32	6/14/2001 6:35	6/14/2001 9:48	6/14/2001 11:30	6/15/2001 6:10	6/15/2001 7:53	6/15/2001 9:28	6/15/2001 11:40
Station	17c	18a	18e	18d	20c	20b	20a	22a	22b	22c	22d
Start latitude	3607.00	3614.84	3615.63	3616.94	3631.67	3634.54	3637.66	3655.17	3655.30	3654.80	3655.65
Start longitude	12142.40	12153.99	12202.66	12203.23	12201.73	12200.67	12200.55	12206.76	12212.05	12215.10	12221.13
End latitude	3606.99	3614.45	3614.63	3615.99	3633.11	3633.91	3636.36	3654.33	3654.42	3654.27	3655.47
End longitude	12140.90	12152.93	12200.92	12201.87	12201.54	12200.08	12200.62	12205.15	12210.47	12214.16	12219.31
Bottom depth (m)	453	81	425	301	468	360	109	60	90	117	260
Duration (hr)	0.41	0.32	0.59	0.51	0.52	0.27	0.43	0.52	0.52	0.31	0.51
Distance fished (km)	2.261	1.768	3.255	2.76	2.837	1.506	2.459	2.886	2.905	1.718	2.758
Net width (m)	14.21	13.43	12.72	13.5	14.168	13.64	13.85	13.063	13.097	12.846	11.541
Net measured?	N	N	N	N	Y	N	N	Y	Y	Y	Y
Performance	5.1	0	5.1	0	0	0	0	5.8	0	5.8	5.8
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	1.9		2.9	0.9			12.9		2.6		
Skates	5.5	3.5	0.8	2.1	20.8	0.6	3.9	0.2	0.3		0.5
Spotted ratfish	0.8		1.5	9.8	0.8	1.2	66.6	1.3	0.6	1.1	0.3
Other elasmobranchs	15.5	0.7	6.2	12.2	27.5	1.8	0.5	1.0	0.5		
Pacific sanddab		11.2					12.8	13.4	39.8	32.7	
Arrowtooth flounder				0.2							
Pacific halibut											
Petrale sole		4.6		1.4				2.2	1.0	1.8	1.4
English sole		3.7		14.1		0.4	0.4	20.7	48.7	31.1	6.0
Dover sole	294.7	0.7	191.4	383.9	952.4	134.2	0.8	0.3	0.4	4.7	68.3
Rex sole	3.3		21.3	64.1	51.1	25.8	0.8	0.2	0.7	6.5	16.3
Other flatfish		0.4		5.5		0.4	5.3	3.1	3.4	1.0	0.3
Sablefish	83.3		24.2	39.3	54.1	27.2		0.3			10.2
Pacific cod											
Lingcod		5.0					3.8		3.9		
Pacific whiting	16.1		11.9	225.2	10.3	43.3	1.0				1,355.1
Other roundfish	4.6	1.3	2.0	11.4	15.0	7.2	11.8	42.1	114.7	7.7	1.7
Shortspine thornyhead	65.2		8.3	4.2	30.0	16.5					0.2
Longspine thornyhead	7.8										
Rougeye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish				0.1							0.8
Splitnose rockfish				791.6							1,785.7
Yellowtail rockfish		19.3									
Chilipepper		0.7		0.3			1.0		0.1		9.0
Bocaccio		1.4							0.2	0.1	1.4
Canary rockfish		2.9							0.1		
Redstripe rockfish				0.3							0.6
Stripetail rockfish				5.6							24.4
Other rockfish	51.5	124.7	50.9	12.5	42.8	36.0	0.5		40.0	4.3	1.0
Jellyfish			10.9			0.2	26.3	121.5	16.7	6.3	1.1
Shrimps	0.0										0.3
Crabs					0.0	0.0					
Octopuses	0.1	0.2			1.5						
Squids	0.7	1.0	0.1	0.0	0.7	0.3	10.6	0.5	0.5	0.7	
Sea stars	1.2	0.0	0.0	0.1		0.0	0.1	0.0	1.0	1.3	0.1
Sea urchins	4.5		0.0		0.2	11.7	0.0				0.0
Total catch weight	562.2	182.1	332.8	1,585.0	1,227.4	307.0	159.2	206.9	296.2	107.3	3,285.0

Table A-2.--Continued.

Haul	34	35	36	37	38	39	40	41	42	43	44
Start date & time	6/15/2001 15:06	6/16/2001 6:25	6/16/2001 7:52	6/16/2001 9:15	6/16/2001 11:12	6/16/2001 13:55	6/16/2001 15:51	6/16/2001 17:57	6/17/2001 6:17	6/17/2001 7:54	6/17/2001 9:13
Station	22f	26a	26b	26c	26e	26g	26f	26d	30a	30b	30c
Start latitude	3654.73	3713.55	3715.83	3715.86	3715.27	3712.29	3714.04	3713.71	3735.94	3733.68	3735.47
Start longitude	12222.00	12230.67	12237.00	12243.79	12250.60	12255.94	12253.14	12245.83	12246.75	12247.28	12252.30
End latitude	3654.46	3714.20	3715.16	3714.84	3713.96	3713.50	3715.40	3714.33	3734.71	3734.85	3734.12
End longitude	12220.20	12231.16	12236.62	12243.28	12249.61	12257.05	12254.03	12246.44	12245.53	12248.50	12251.48
Bottom depth (m)	426	79	95	112	244	462	337	167	63	72	88
Duration (hr)	0.5	0.26	0.25	0.37	0.5	0.5	0.51	0.26	0.54	0.51	0.51
Distance fished (km)	2.746	1.447	1.4	2.09	2.877	2.852	2.914	1.484	2.949	2.868	2.819
Net width (m)	12.471	14.006	13.364	13.398	12.81	13.881	13.587	13.737	12.08	13.215	13.074
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	1.12	0	1.12	0	0	5.8	5.8	4.5	5.8	5.8
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			5.7	10.9	0.5		1.1				0.8
Skates	16.5	2.0		16.8	0.8	4.1	2.5			0.2	
Spotted ratfish				0.5		0.7	0.6				
Other elasmobranchs	5.0	0.5		0.1		0.7	0.1		0.3		
Pacific sanddab		10.8	43.4	108.6					6.4	40.6	12.2
Arrowtooth flounder											
Pacific halibut											
Petrale sole		0.8	0.3							2.2	1.2
English sole		3.1	34.7	1.4			10.2		3.8	5.1	19.8
Dover sole	276.9	0.2	0.6	9.8	89.2	302.3	192.2	47.1	0.1	0.6	1.7
Rex sole	46.3	2.3	5.1	8.2	46.5	52.4	105.5	52.5	0.7	8.5	11.5
Other flatfish		1.0	1.3	1.8	1.7		1.2		0.1	1.2	1.9
Sablefish	13.6			1,188.9	12.8	10.4	8.1	157.9			0.4
Pacific cod											
Lingcod		0.3	1.0							0.1	0.2
Pacific whiting	25.5		0.1	1.3	275.2	52.0	424.5	2,152.3			
Other roundfish	18.3	814.2	295.1	4.5	0.6	6.3	25.8	21.3	6.9	254.5	15.0
Shortspine thomyhead	8.0					2.2	3.5				
Longspine thomyhead											
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish											
Splitnose rockfish					25.3		315.9				
Yellowtail rockfish											
Chilipepper	0.4		0.1	4.0	2.0			64.1	1.3		
Bocaccio								4.4			
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish			0.0	0.7	223.9			33.3			
Other rockfish	39.4		0.1	6.2		23.0	1.2	2.2			0.0
Jellyfish		0.4			0.4				3,157.2	161.7	8.2
Shrimps											
Crabs		0.3	1.1	0.2					1.3	2.5	3.0
Octopuses											
Squids	0.8	0.9	4.8	1.5	0.1		7.3			2.5	5.0
Sea stars		0.8	1.0	1.2	0.5					0.3	0.1
Sea urchins	0.0		0.1			0.0	0.2				
Total catch weight	450.9	841.6	395.3	1,366.7	679.4	454.4	1,099.9	2,535.0	3,178.0	479.9	80.9

Table A-2.--Continued.

Haul	45	46	47	48	49	50	51	52	53	54	55
Start date & time	6/17/2001 10:29	6/17/2001 13:17	6/17/2001 16:43	6/18/2001 6:45	6/18/2001 11:34	6/18/2001 13:29	6/18/2001 14:48	6/18/2001 16:09	6/18/2001 17:24	6/18/2001 18:29	6/19/2001 6:06
Station	30d	30e	30f	34i	34g	34f	34e	34d	34c	34b	34a
Start latitude	3733.42	3732.26	3734.72	3754.87	3753.77	3755.87	3753.78	3755.57	3754.98	3755.07	3755.35
Start longitude	12253.90	12300.52	12302.44	12327.53	12321.23	12316.04	12311.89	12306.77	12301.57	12257.77	12255.51
End latitude	3734.67	3733.72	3735.67	3755.96	3755.22	3754.39	3755.24	3754.49	3754.32	3754.31	3754.73
End longitude	12254.93	12300.74	12303.17	12327.83	12321.62	12316.06	12312.18	12305.42	12259.83	12256.23	12254.52
Bottom depth (m)	100	285	417	415	115	107	97	90	72	66	59
Duration (hr)	0.51	0.51	0.38	0.38	0.52	0.51	0.5	0.51	0.52	0.48	0.34
Distance fished (km)	2.819	2.791	2.127	2.108	2.824	2.772	2.791	2.851	2.842	2.686	1.882
Net width (m)	13.546	13.6			13.244	13.263	13.293	13.278	13.097	12.872	12.881
Net measured?	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y
Performance	0	5.1	-5.6	-2.4	0	0	0	0	5.8	5.8	1.12
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	3.2					18.8	3.4				6.9
Skates	2.7	0.3			1.0	14.7	1.8	71.6			
Spotted ratfish			2.1	4.0		0.6		2.7			0.3
Other elasmobranchs	1.3		0.1	3.0	1.0			0.6			
Pacific sanddab	13.0				78.5	152.7	125.8	8.3	19.6	8.1	4.9
Arrowtooth flounder					0.2			0.4			
Pacific halibut											
Petrale sole	1.6				3.9	7.9	1.1	3.7	2.2	0.4	0.5
English sole	45.4	0.9			8.5	11.6	2.9	16.5	22.0	3.6	0.3
Dover sole	20.1	265.2	484.6	268.7	7.7	1.6	0.8	0.3	0.1		
Rex sole	11.5	48.0	69.9	119.0	10.0	1.4	3.4	7.6	0.3	1.0	0.4
Other flatfish	0.6	0.7			2.0	2.6	0.8	0.8	1.6	10.9	9.7
Sablefish	0.3	42.1	33.4	15.9	0.7	5.0	0.4				
Pacific cod											
Lingcod	0.3				8.1	6.3	2.4	0.5			0.1
Pacific whiting		188.7	38.9	14.0		73.6	1.5	41.3	28.2		
Other roundfish	18.5	35.6	1.1	2.0	1.8	1.6	10.0	109.9	14.5	48.3	428.4
Shortspine thornyhead		5.7	13.9	65.2							
Longspine thornyhead				11.8							
Rougheye rockfish											
Pacific ocean perch		0.9									
Silvergray rockfish											
Darkblotched rockfish		0.1									
Splitnose rockfish		146.6									
Yellowtail rockfish											
Chilipepper	1.2				0.2						
Bocaccio											
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish	0.3	7.3									
Other rockfish	13.1	1.1	25.4	25.9	31.6			1.2			
Jellyfish	1.2	2.1	0.6		0.5		2.0	12.0	14.0	100.0	245.0
Shrimps		0.3									
Crabs	2.0	0.4							1.0	1.3	2.3
Octopuses			0.6								
Squids	1.5	2.9	0.4			0.0	0.9	0.1	2.0	1.2	
Sea stars	0.2	0.4	0.9	0.0	1.5		0.3	0.5	0.4	0.4	0.2
Sea urchins		0.6	0.0	0.1							
Total catch weight	140.0	750.0	679.4	538.2	161.0	298.6	158.9	279.3	113.6	182.7	692.1

Table A-2.--Continued.

Haul	56	57	58	59	60	61	62	63	64	65	66
Start date & time	6/19/2001 8:34	6/19/2001 10:24	6/19/2001 11:52	6/19/2001 13:26	6/19/2001 15:19	6/19/2001 17:01	6/20/2001 6:21	6/20/2001 9:54	6/20/2001 12:07	6/20/2001 12:50	6/20/2001 15:53
Station	36a	36b	36c	36d	36e	36f	36h	36i	36g	36g	37g
Start latitude	3804.09	3805.33	3804.92	3805.15	3805.18	3804.54	3806.04	3805.61	3804.81	3804.69	3814.63
Start longitude	12307.51	12310.94	12314.72	12317.95	12320.96	12322.07	12329.06	12331.67	12327.36	12326.66	12330.65
End latitude	3805.73	3804.57	3804.12	3803.69	3804.41	3805.33	3805.18	3806.83	3804.79	3804.50	3815.80
End longitude	12307.50	12311.01	12314.58	12317.57	12320.83	12322.53	12330.87	12330.65	12327.28	12325.70	12331.85
Bottom depth (m)	78	99	113	130	168	208	223	392	136	135	407
Duration (hr)	0.56	0.27	0.26	0.51	0.26	0.3	0.37	0.5	0.03	0.27	0.54
Distance fished (km)	3.109	1.438	1.522	2.829	1.474	1.638	2.056	2.778	0.134	1.452	2.952
Net width (m)	13.745	13.714	13.313	13.83	13.613	12.918	12.253	12.318	13.688	12.74	14.368
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Performance	0	0	0	0	0	0	-5.8	0	-1.2	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	2.4	2.2	3.7	9.9	0.5					8.8	
Skates	23.6	1.0	6.5	2.3				7.0		1.0	0.7
Spotted ratfish	0.7		0.4	0.4	0.2		1.5			2.0	3.0
Other elasmobranchs								3.1			2.2
Pacific sanddab	39.4	10.0	9.1	9.2						0.9	
Arrowtooth flounder				0.5	0.7	0.4					
Pacific halibut											
Petrale sole	2.5	10.6	0.6	3.1	6.9						
English sole	20.4	13.9	5.0	7.1	2.4	13.9	0.7			0.4	
Dover sole	0.7	2.0	0.6	1.6	1.4	13.2	3.2	222.6		2.2	288.5
Rex sole	2.7	4.8	3.3	6.8	11.0	18.1	0.7	94.2		6.2	43.1
Other flatfish	1.5	0.2	1.1	0.4	1.9	1.4	0.6	5.1		2.1	0.6
Sablefish		17.3	7.2		6.0	5.6	3.7	42.5			42.7
Pacific cod											
Lingcod	7.2	1.4		8.6	3.0	0.7	7.6			2.5	
Pacific whiting	945.3	755.9	281.9	196.4	1,819.8	2,001.8	563.2	237.0			24.9
Other roundfish	158.2	220.4	3.1	17.7	0.5	1.7	2.8	9.5		80.9	11.2
Shortspine thornyhead							0.2	12.9			10.4
Longspine thornyhead											
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish											
Splitnose rockfish							223.7				1.7
Yellowtail rockfish										3.1	
Chilipepper				0.2	5.9	6.4	1.3			29.0	
Bocaccio				4.0	1.2		8.5			2.3	
Canary rockfish										7.4	
Redstripe rockfish											
Stripetail rockfish						71.4	28.5	101.3			
Other rockfish				6.0	8.5	5.6	148.1	37.0		23.1	2.4
Jellyfish	10.0	26.0	15.6				0.2				
Shrimps							5.4				
Crabs	8.5					1.1	0.4				0.2
Octopuses											
Squids	0.3	0.1	0.1	0.0							2.0
Sea stars	0.9	0.7	0.3	0.2							0.1
Sea urchins		0.1									0.9
Total catch weight	1,229.6	1,066.7	338.8	275.0	1,941.4	2,098.3	1,073.0	671.1		172.2	436.1

Table A-2.--Continued.

Haul	67	68	69	70	71	72	73	74	75	76	77
Start date & time	6/20/2001 17:39	6/21/2001 6:16	6/21/2001 7:48	6/21/2001 9:17	6/21/2001 10:45	6/21/2001 12:05	6/22/2001 6:09	6/22/2001 7:39	6/22/2001 8:59	6/22/2001 11:01	6/23/2001 6:09
Station	37f	37e	37d	37b	37b	37a	38a	38b	38c	38d	38e
Start latitude	3814.90	3814.75	3814.04	3814.05	3814.82	3814.31	3823.94	3825.58	3823.94	3825.00	3824.86
Start longitude	12328.98	12319.29	12314.11	12311.71	12307.66	12303.50	12311.13	12317.09	12319.52	12326.38	12330.47
End latitude	3815.58	3815.46	3815.49	3815.42	3813.54	3815.65	3824.48	3824.26	3825.24	3823.60	3823.60
End longitude	12330.62	12319.52	12314.51	12312.46	12306.74	12304.24	12311.89	12316.13	12320.46	12325.74	12329.48
Bottom depth (m)	343	126	103	97	86	69	74	94	111	137	177
Duration (hr)	0.5	0.25	0.5	0.51	0.51	0.51	0.28	0.52	0.52	0.52	0.51
Distance fished (km)	2.74	1.388	2.819	2.827	2.784	2.767	1.524	2.87	2.826	2.836	2.801
Net width (m)	14.261	13.231	13.58	14.155	13.77	14.005	14.033	13.737	14.324	13.783	13.365
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	0.4	1.8	0.7	4.7	1.5	0.6	1.6	2.5	0.7	3.2	2.1
Skates	0.7	3.1	1.5	1.6	8.0	0.3	0.8	0.2		0.3	0.5
Spotted ratfish	7.2	2.3	1.2		0.8		0.6	0.8	1.5	1.2	1.3
Other elasmobranchs	3.8			0.0							
Pacific sanddab		3.7	42.6	62.6	5.4	9.4	4.0	17.4	7.4	2.3	
Arrowtooth flounder				0.1					0.1		0.2
Pacific halibut											
Petrale sole			6.1	7.3	2.3	0.3	1.3	4.2	2.1		4.9
English sole		9.4	36.9	31.9	12.0	5.7	6.5	11.3	5.2	10.0	24.1
Dover sole	173.6	2.5	2.1	0.7	0.5	0.1	0.1	0.5	4.6	17.1	23.4
Rex sole	77.5	10.8	9.6	11.4	0.1		0.0	3.2	26.0	52.8	25.0
Other flatfish	1.5	0.3	2.0	1.6	0.1	11.6	2.7	0.8	3.9	1.4	4.8
Sablefish	55.0		2.9	4.8	0.4						7.0
Pacific cod											
Lingcod				0.2	1.3		0.4	0.2			1.3
Pacific whiting	122.9	2,403.9	7.7	52.9	280.6		1,111.0	21.9	22.3	113.7	104.8
Other roundfish	11.0		9.5	11.6	70.0	428.9	48.8	2.0	10.2	0.7	0.8
Shortspine thornyhead	18.9	1.3									
Longspine thornyhead											
Rougeye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish		9.1									0.7
Splitnose rockfish	3.4										
Yellowtail rockfish									0.4		
Chilipepper		7.2							0.2	971.6	19.5
Bocaccio											0.9
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish									3.2		126.7
Other rockfish	1.0	13.2			0.3	0.3				61.8	14.7
Jellyfish			0.6	1.1	6.6	4.4	4.8	3.8	0.1	0.1	0.3
Shrimps		1.1				0.0	0.0	1.1	0.0	0.1	0.1
Crabs	1.1				1.6	1.5	1.2	1.5			
Octopuses	0.1			0.1							
Squids			0.1	0.1	0.0	0.7	0.1	0.1			
Sea stars	0.8	0.3	1.7	1.1	2.5	1.8	1.6	0.9	2.5	2.0	0.5
Sea urchins	0.4		0.2	0.6				0.8	0.8		
Total catch weight	480.6	2,472.0	125.7	195.5	394.2	465.8	1,186.3	76.7	92.3	1,238.8	365.9

Table A-2.--Continued.

Haul	78	79	80	81	82	83	84	85	86	87	88
Start date & time	6/23/2001 8:10	6/23/2001 10:21	6/23/2001 14:01	6/24/2001 8:20	6/24/2001 9:52	6/24/2001 11:12	6/26/2001 10:43	6/26/2001 15:12	6/26/2001 17:51	6/27/2001 6:16	6/27/2001 8:02
Station	38f	38g	39f	52d	52c	52b	40C	39E	39D	39C	39B
Start latitude	3823.53	3824.47	3831.45	4047.97	4044.96	4043.41	3845.12	3832.00	3835.81	3835.35	3833.70
Start longitude	12332.92	12337.21	12340.59	12429.96	12429.78	12427.88	12345.50	12340.16	12338.08	12334.15	12329.65
End latitude	3824.72	3823.03	3832.76	4046.59	4043.55	4044.16	3843.88	3833.29	3834.38	3834.04	3834.99
End longitude	12333.97	12336.82	12341.45	12430.79	12430.48	12427.49	12344.37	12341.17	12337.43	12333.30	12330.58
Bottom depth (m)	213	471	443	414	214	100	131	321	156	140	121
Duration (hr)	0.5	0.5	0.51	0.51	0.51	0.28	0.51	0.52	0.53	0.51	0.51
Distance fished (km)	2.738	2.797	2.809	2.872	2.847	1.529	2.879	2.85	2.862	2.788	2.807
Net width (m)	13.65	13.794	14.11	12.29	12.929	12.297	12.431	12.74	12.573	13.016	14.225
Net measured?	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	1.12	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	0.5				1.7	0.3	14.5	1.4		0.1	4.6
Skates	4.9		3.9		0.3		9.1	9.5	1.1	1.1	7.8
Spotted ratfish	0.4		0.7				0.5	9.1	1.3	2.5	0.6
Other elasmobranchs		4.7	9.0	4.5	0.6	0.0	7.3	3.0			
Pacific sanddab						21.9	39.4		1.5	5.7	21.5
Arrowtooth flounder					3.3	1.2	0.1				0.4
Pacific halibut											
Petrale sole						1.0	10.4		0.1	0.5	5.4
English sole	37.2				15.1	35.3	130.1	51.4	17.7	6.7	65.5
Dover sole	59.1	175.5	328.9	3.5	156.5	13.3	16.6	297.4	36.0	2.9	3.0
Flex sole	59.9	10.9	22.7	11.0	21.2	11.6	6.4	121.9	38.4	9.0	16.0
Other flatfish	4.9		1.6		0.3	0.8	3.0	2.9	2.9	1.5	9.3
Sablefish	7.4	89.6	42.6	17.7	19.0		3.3	25.7	2.3		4.6
Pacific cod											
Lingcod	1.0					1.3	6.7		0.5		4.6
Pacific whiting	35.6	30.8	11.8	13.2	246.7	326.0	228.1	14.0	177.8	58.1	157.5
Other roundfish	0.4	6.5	18.1	2.5	2.9	1.4	1.9	4.6	0.1	0.9	4.9
Shortspine thornyhead		6.3	8.3	1.7	3.3			3.0			
Longspine thornyhead			0.1								
Rougheye rockfish											
Pacific ocean perch					1.0			1.1			
Silvergray rockfish											
Darkblotched rockfish	0.8				21.1	0.1		4.5	0.5		
Splitnose rockfish					1.7			137.6			
Yellowtail rockfish											
Chilipepper	38.7					0.1	269.1		299.5		0.9
Bocaccio	2.4				4.8		0.4		1.3		
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish	226.4				41.1				6.8		2.9
Other rockfish	23.5	8.5	17.0	18.4	15.3		22.0	3.7	13.9		
Jellyfish	1.5	2.1	1.4				26.0	1.3			2.6
Shrimps			0.0	0.2	0.8		0.4	0.4			
Crabs		0.0	0.0	0.0	0.0			0.6			
Octopuses			1.3		1.5		39.8				
Squids		0.1	0.2	0.0			0.0	0.1			0.1
Sea stars	2.8	0.6	0.1	0.4	1.1	0.1	3.8	0.1	1.5	15.7	2.4
Sea urchins	4.8	0.1	0.1	19.6	0.4				0.2	1.3	0.2
Total catch weight	513.2	337.8	469.9	93.4	560.8	414.9	865.1	693.4	605.4	115.3	322.0



Table A-2.--Continued.

Haul	89	90	91	92	93	94	95	96	97	98	99
Start date & time	6/27/2001 10:24	6/27/2001 12:36	6/27/2001 14:23	6/27/2001 16:49	6/28/2001 7:05	6/28/2001 9:24	6/28/2001 11:54	6/28/2001 14:22	6/28/2001 16:27	6/28/2001 18:14	6/29/2001 6:43
Station	39A	40A	40B	40D	40E	41E	41D	41C	41B	41A	42A
Start latitude	3834.32	3844.72	3843.67	3843.50	3843.84	3854.12	3854.44	3853.00	3855.06	3855.34	3905.64
Start longitude	12323.80	12335.12	12341.11	12348.25	12350.81	12358.43	12356.90	12351.98	12349.54	12346.99	12346.93
End latitude	3835.64	3845.65	3844.96	3844.81	3845.15	3855.40	3855.93	3854.32	3856.52	3854.14	3904.15
End longitude	12324.83	12336.67	12342.10	12349.22	12351.69	12359.36	12357.01	12352.88	12349.93	12346.41	12347.27
Bottom depth (m)	84	79	124	249	422	400	291	136	110	87	88
Duration (hr)	0.52	0.53	0.52	0.52	0.51	0.51	0.51	0.51	0.52	0.43	0.52
Distance fished (km)	2.902	2.892	2.861	2.854	2.807	2.797	2.817	2.825	2.825	2.432	2.857
Net width (m)	13.882	13.929	14.997	14.642	13.14	13.191	12.818	14.376	14.161	12.139	13.623
Net measured?	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	5.1	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	6.5	3.4	3.3	0.7		0.4	2.2	2.6	2.0	11.0	66.6
Skates	8.5	5.4	19.6	25.9	0.9	3.5	4.2	6.9	2.4		0.8
Spotted ratfish	0.4		1.5	19.1			2.0	0.4	1.0		1.8
Other elasmobranchs					5.1	5.4					
Pacific sanddab	13.6	12.8	18.7					1.6	19.4	1.6	1.1
Arrowtooth flounder		0.3	0.4								
Pacific halibut											
Petrale sole	3.4	1.3	2.0						4.9	2.6	13.9
English sole	9.3	2.4	18.2	3.5			0.9	1.3	4.5	4.8	3.4
Dover sole	0.2		1.8	71.8	71.3	31.2	110.4	1.3	2.1		0.0
Rex sole		0.2	8.1	89.3	20.0	10.7	65.7	1.7	4.2	0.5	0.2
Other flatfish	7.8	3.7	2.6	6.2	0.3	0.7	1.1	0.4	1.5	1.2	1.0
Sablefish				328.7	15.7	24.9	36.5				
Pacific cod											
Lingcod	1.3	0.5	6.2	9.2				1.3	0.7		
Pacific whiting	2.0	5.1	672.6	102.6	18.3	33.1	214.7	360.6	281.2	1,613.8	239.8
Other roundfish	8.6	32.0	2.7	3.5	1.7	49.7	14.0	0.5	0.1	0.1	0.1
Shortspine thornyhead				9.9	2.3	1.5	3.2				
Longspine thornyhead					6.3	0.1					
Rougeye rockfish											
Pacific ocean perch						0.7					
Silvergray rockfish											
Darkblotched rockfish				0.6		1.0	15.3	0.4	0.1		
Splitnose rockfish				15.4	2.8		53.2				
Yellowtail rockfish											
Chilipepper		0.1	1.4	140.9			0.5	247.7			
Bocaccio				11.0							
Canary rockfish			1.5	1.1				12.2			1.1
Redstripe rockfish											
Stripetail rockfish			2.5	63.3				0.1	0.1		
Other rockfish				4.8	18.3	15.4	2.9	2.9			
Jellyfish	5.0	14.1	12.6	6.4	30.3		68.7	7.2	5.7	1.9	7.9
Shrimps				0.6				0.5			
Crabs	11.2	5.6		0.1		0.0	0.2			1.2	0.4
Octopuses											
Squids	0.3	0.5		0.1	0.3	1.3	0.4		0.0		
Sea stars	1.7	6.3	20.4	5.8	0.9	0.1	1.0	1.3	11.4	0.8	1.5
Sea urchins	0.6			4.9		0.2	12.9	0.0			
Total catch weight	84.2	95.7	799.2	926.6	195.1	182.0	612.2	653.6	358.3	1,639.5	340.9

Table A-2.--Continued.

Haul	100	101	102	103	104	105	106	107	108	109	110
Start date & time	6/29/2001 8:13	6/29/2001 9:58	6/29/2001 13:09	6/29/2001 15:58	6/30/2001 6:54	6/30/2001 9:23	6/30/2001 11:31	6/30/2001 13:55	7/1/2001 6:42	7/1/2001 8:20	7/1/2001 11:32
Station	42B	42C	42D	42E	43D	43C	43B	43A	45A	45B	45C
Start latitude	3904.74	3904.62	3905.06	3903.75	3912.99	3914.17	3913.58	3913.55	3933.39	3933.95	3936.24
Start longitude	12350.47	12355.34	12358.19	12358.33	12400.00	12357.97	12351.50	12348.61	12353.05	12356.21	12357.89
End latitude	3903.21	3903.09	3903.51	3905.13	3914.61	3914.92	3915.04	3915.06	3934.91	3935.50	3934.75
End longitude	12350.57	12355.29	12357.76	12358.96	12359.96	12357.94	12351.57	12348.91	12353.03	12356.59	12357.71
Bottom depth (m)	104	136	352	417	422	264	115	76	116	165	230
Duration (hr)	0.53	0.52	0.54	0.52	0.57	0.26	0.51	0.52	0.51	0.53	0.51
Distance fished (km)	2.884	2.895	3.022	2.784	3.054	1.414	2.767	2.875	2.861	2.976	2.828
Net width (m)	13.427	13.102	12.778	13.812	13.778	14.04	12.348	12.777	12.821	12.961	12.996
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	5.8	0	0	0	0	5.8	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	5.9	15.7	0.2	0.7		0.1	1,324.0	83.5	4.9	1.5	
Skates	3.5	2.6	16.0	0.2	3.3	7.6			0.3	1.4	5.9
Spotted ratfish						0.4		0.6			
Other elasmobranchs			1.5	4.4	7.9	0.4					
Pacific sanddab	8.0	0.9					0.7	2.2	2.0	0.1	
Arrowtooth flounder	0.1	0.2					0.1	0.1	0.3	0.6	0.2
Pacific halibut											
Petrale sole	8.5	0.3					1.4	5.9	2.2	0.5	
English sole	10.9	11.6				2.0	35.3	3.1	4.9	14.2	
Dover sole	0.4	3.5	153.5	3.0	48.2	16.3	1.0		1.6	34.0	48.5
Rex sole	1.7	5.5	38.0	10.3	24.3	16.6	0.5	0.6	2.9	9.2	19.7
Other flatfish	2.5	0.8					0.6	6.0	0.4	0.2	0.1
Sablefish			60.3	34.6	15.2	40.7	40.6		0.9	81.5	24.8
Pacific cod											
Lingcod	6.0	5.3					4.4	1.8	0.2	10.4	10.0
Pacific whiting	340.2	261.9	52.2	21.0	24.1	52.6	3,172.2	10.3	6.3	267.3	324.3
Other roundfish	0.5	3.8	8.2	4.0	6.8	2.0	0.1	0.2			0.0
Shortspine thornyhead			9.4	15.1	9.5	3.5					2.3
Longspine thornyhead											
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish		1.2	1.6			2.4				39.0	5.4
Splitnose rockfish			26.9			49.1				0.1	23.4
Yellowtail rockfish											
Chilipepper		647.3							0.5	122.3	0.8
Bocaccio		2.0									
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish	0.1	8.7				4.6			2.5	335.8	48.3
Other rockfish		1.3	1.7	30.0	28.4	3.4				4.7	1.6
Jellyfish	14.0	5.5	12.0	3.8	3.7	0.1		1.2			
Shrimps		0.1				0.9					
Crabs		0.0	2.7	0.2	0.2	0.1	2.6	6.1	0.6		0.1
Octopuses				1.4	2.0		0.1	22.2	0.1		
Squids			1.9	0.1	1.3	15.4		1.0			0.5
Sea stars	2.1	1.0	0.5	1.3	6.3	2.1	0.2	5.4	2.8	0.8	6.3
Sea urchins		0.4	0.4	20.8	2.5	6.0			0.1	0.0	
Total catch weight	406.9	982.2	393.6	155.4	188.9	226.4	4,584.0	150.5	46.2	924.4	522.1

Table A-2.--Continued.

Haul	111	112	113	114	115	116	117	118	119	120	121
Start date & time	7/1/2001 14:31	7/1/2001 17:14	7/2/2001 6:57	7/2/2001 9:19	7/2/2001 12:05	7/2/2001 12:56	7/2/2001 15:39	7/2/2001 17:24	7/3/2001 6:55	7/3/2001 9:49	7/3/2001 11:51
Station	45D	46D	46C	46B	46A	46A	47A	47B	47C	48F	48E
Start latitude	3934.80	3943.69	3943.21	3946.83	3945.56	3946.16	3956.87	3950.98	3951.15	4003.16	4003.29
Start longitude	12400.62	12403.65	12402.46	12402.15	12353.80	12354.39	12407.34	12407.40	12409.09	12417.80	12415.67
End latitude	3936.30	3945.05	3944.60	3945.36	3945.33	3945.35	3955.57	3952.36	3952.62	4004.64	4004.57
End longitude	12400.50	12404.46	12403.29	12401.42	12353.65	12353.90	12406.21	12408.34	12409.80	12418.55	12416.76
Bottom depth (m)	469	407	321	170	102	106	95	276	419	431	254
Duration (hr)	0.51	0.51	0.51	0.52	0.08	0.31	0.54	0.51	0.52	0.53	0.52
Distance fished (km)	2.877	2.836	2.907	2.987	0.484	1.702	2.967	2.954	2.965	2.998	2.893
Net width (m)	13.78	13.406	13.648	12.898	14.219	14.188	13.15	13.991	14.789	14.498	14.074
Net measured?	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Performance	0	0	0	0	-5.2	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			0.4	1.7	10.9	42.2	2.7	3.4			
Skates	4.6	2.0	21.5	1.3	15.2	3.3	1.6	6.9	3.0		1.8
Spotted ratfish			0.9					0.7			
Other elasmobranchs	17.2	3.5	1.1						4.4	23.9	3.7
Pacific sanddab					1.6	2.7	56.9	0.2			
Arrowtooth flounder			0.9	0.5	0.1	0.2	0.4	0.1			2.2
Pacific halibut											
Petrale sole					3.0	5.1	19.2	0.5			
English sole				18.2	0.6		25.1				
Dover sole	95.5	126.1	98.6	8.6		0.4	1.2	174.7	191.8	120.0	188.1
Rex sole	0.3	24.0	87.0	13.4		0.8	4.1	62.4	14.7	17.3	33.7
Other flatfish			0.4	0.4	0.4	0.6		0.5	0.1		0.2
Sablefish	142.1	22.5	48.2	44.2		1.6		77.4	14.3	67.1	24.9
Pacific cod											
Lingcod				2.6		3.9	10.2				8.9
Pacific whiting	10.1	630.6	196.2	327.4	1,205.4	445.7		417.4	102.2	33.7	50.4
Other roundfish	57.9	20.2	22.5	12.6		1.0	5.0	25.1	19.4	19.8	3.8
Shortspine thornyhead	57.0	7.8	3.7					0.5	3.7	3.1	9.9
Longspine thornyhead	16.2										
Rougeye rockfish										0.1	
Pacific ocean perch			0.6								
Silvergray rockfish											
Darkblotched rockfish		0.8	1.9					5.0			1.1
Splitnose rockfish			10.1					39.9			31.4
Yellowtail rockfish											
Chilipepper				430.8	3.3						1.7
Bocaccio											
Canary rockfish						1.0					
Redstripe rockfish											
Stripetail rockfish				135.0	0.3		0.1	0.1			0.5
Other rockfish	29.6	11.3	0.5	8.3				0.6	5.3	33.2	1.4
Jellyfish							2.5		5.3	2.3	9.5
Shrimps	0.1					0.1				0.2	
Crabs	0.0	0.5	2.2		1.2	2.5		0.3	0.1	0.0	2.6
Octopuses							4.2			1.9	
Squids	0.2	0.0			0.1	0.1	0.0			0.3	
Sea stars	1.6	1.2	0.8	3.0	0.4	1.1	4.1	7.0	0.3	0.0	0.6
Sea urchins		0.5	0.5	0.0		0.0		16.8	0.1	0.1	0.7
Total catch weight	436.5	853.6	505.8	1,011.0	1,242.4	512.3	137.3	840.8	368.7	325.6	378.8

Table A-2.--Continued.

Haul	122	123	124	125	126	127	128	129	130	131	132
Start date & time	7/3/2001 14:05	7/3/2001 15:59	7/4/2001 6:40	7/4/2001 9:49	7/4/2001 12:36	7/5/2001 7:30	7/6/2001 10:37	7/6/2001 12:55	7/6/2001 14:56	7/6/2001 17:51	7/6/2001 18:23
Station	48D	48C	48A	49A	49B	49D	51A	51B	51C	52A	52A
Start latitude	4004.05	4004.53	4002.64	4010.68	4011.69	4011.77	4033.26	4032.50	4033.41	4043.19	4043.50
Start longitude	12412.98	12411.46	12408.21	12419.20	12422.57	12431.35	12431.06	12435.63	12437.46	12425.45	12425.30
End latitude	4004.94	4005.18	4004.13	4011.50	4012.68	4012.61	4032.24	4033.77	4034.96	4043.39	4044.78
End longitude	12414.63	12413.27	12408.33	12421.01	12424.04	12433.01	12432.65	12434.55	12437.40	12425.31	12424.31
Bottom depth (m)	142	129	66	74	100	481	92	132	169	68	68
Duration (hr)	0.52	0.51	0.51	0.54	0.5	0.51	0.54	0.52	0.52	0.08	0.51
Distance fished (km)	2.911	2.913	2.886	3.019	2.739	2.883	2.986	2.874	2.913	0.436	2.816
Net width (m)	13.914	13.777	12.607	13.6	13.5	13.45	13.798	13.663	14.383	12.385	12.923
Net measured?	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	5.1	0	0	0	-5.1	-5.8
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish		1.1	45.0	132.9	41.0	0.8	2.6		2.9	5.3	21.8
Skates	5.8	1.1	4.1	71.2	1.9			41.5	0.1	37.7	
Spotted ratfish				49.9	18.7	1.6		0.2			0.7
Other elasmobranchs	0.2					2.6					
Pacific sanddab	10.0	10.2	31.7	23.4	48.7		39.8	3.3		7.0	33.9
Arrowtooth flounder	4.9	2.4					7.9	14.8	5.5		0.2
Pacific halibut				7.1			8.7				9.8
Petrale sole	10.8	3.8	15.4	13.7	5.2		21.9	1.7		1.5	3.9
English sole	1.0		11.4	22.9	11.1		14.3	1.2		1.6	8.7
Dover sole	8.9	9.7	0.2	0.6	0.9	28.3	2.1	49.4	63.4		1.1
Rex sole	7.6	13.3	4.8	4.1	4.6	3.5	3.5	29.6	8.4		1.5
Other flatfish	1.3	0.6	8.7	2.4	1.7		0.8	3.5	1.5		11.1
Sablefish	16.9	0.9				27.1		3.6	3.3		
Pacific cod											
Lingcod	12.5	5.9	0.4	9.9	8.6		15.7	16.2	9.1		
Pacific whiting	6.3	356.2			2.1	10.7			0.8		
Other roundfish			2.3	0.6		2.0	26.0			1.2	13.8
Shortspine thornyhead	1.1					7.9			2.1		
Longspine thornyhead											
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish	0.5								0.3		
Splitnose rockfish	4.1								17.9		
Yellowtail rockfish											
Chilipepper	0.3							0.2	4.2		
Bocaccio									4.5		
Canary rockfish								0.8	1.6		
Redstripe rockfish											
Stripetail rockfish	0.1							0.1	285.1	2.4	
Other rockfish	2.7	0.3				3.7		152.8	26.6		
Jellyfish	4.9	3.1			2.6	3.5				2.8	
Shrimps	2.3							0.1	0.0		
Crabs			0.3	1.0	12.6	0.1	0.6		0.0		
Octopuses		1.0					0.1	2.4			
Squids	0.2		5.4	6.3	0.6		0.2				0.1
Sea stars	4.5	4.8		0.2	0.0	0.0	0.4	0.0	0.3		
Sea urchins	0.0	0.1				0.6		3.0	5.0		
Total catch weight	108.3	415.4	129.6	346.2	160.4	93.3	145.1	324.5	443.0	61.5	111.3

Table A-2.--Continued.

Haul	133	134	135	136	137	138	139	140	141	142	143
Start date & time	7/7/2001 11:09	7/7/2001 13:02	7/7/2001 16:00	7/7/2001 17:51	7/8/2001 6:53	7/8/2001 11:48	7/8/2001 13:56	7/8/2001 15:46	7/8/2001 17:58	7/9/2001 7:11	7/9/2001 9:31
Station	50B	50A	50C	50D	51D	53D	53C	53B	53A	55E	55D
Start latitude	4027.73	4023.31	4027.23	4026.39	4034.48	4053.70	4053.62	4055.29	4053.12	4115.55	4111.81
Start longitude	12434.90	12426.87	12436.76	12437.15	12440.78	12429.41	12425.19	12420.24	12416.40	12425.93	12423.16
End latitude	4026.30	4023.93	4026.62	4027.68	4033.22	4055.30	4055.14	4053.81	4054.53	4114.21	4113.28
End longitude	12434.30	12427.60	12436.49	12437.55	12441.39	12429.38	12424.92	12420.76	12415.62	12425.19	12423.71
Bottom depth (m)	115	64	256	390	345	437	217	106	67	377	256
Duration (hr)	0.51	0.28	0.22	0.44	0.47	0.53	0.51	0.52	0.52	0.5	0.52
Distance fished (km)	2.848	1.568	1.22	2.536	2.552	2.99	2.917	2.905	2.904	2.845	2.918
Net width (m)	13.066		13.67	14.064	14.687	13.6	13.493	13.405	13.414		14.45
Net measured?	Y	N	N	Y	Y	Y	Y	Y	Y	N	N
Performance	0	-5.1	-5.8	0	0	5.1	0	0	0	-5.1	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	1.5	0.9		0.5				12.3	19.6	2.7	
Skates	2.7			35.8	0.7	5.1	2.1	6.7	46.1		24.1
Spotted ratfish	0.4			7.3	0.9	0.4					2.7
Other elasmobranchs	3.4			8.8	1.1	7.1				4.2	3.7
Pacific sanddab	10.6	1.5						66.7	133.4	0.0	0.1
Arrowtooth flounder	14.2		0.2	0.8	3.1	3.3	0.7	3.9	0.9		
Pacific halibut								12.4			
Petrale sole	9.0	1.6						2.3	4.2		
English sole	16.7	0.1						11.7	4.7		
Dover sole	37.2		72.3	606.7	314.8	39.5	95.4	6.4	0.3	4.2	58.9
Rex sole	14.8		5.9	57.2	80.2	55.0	6.6	11.4	3.6	5.4	77.6
Other flatfish	1.0	0.5			0.0		1.5	1.2	2.3	0.0	
Sablefish	2.6		14.6	23.1	26.2	104.3	4.4	7.7		27.2	27.3
Pacific cod											
Lingcod	2.4	0.6	1.2					0.8	0.6		
Pacific whiting	0.6		46.0	17.1	45.2	15.4	100.9	2,187.3	4.2	85.9	80.0
Other roundfish	8.5	2.4	4.7	14.3	5.6	68.6	12.8	4.1	152.3	2.6	17.1
Shortspine thomyhead			2.5	1.2	8.4	5.6	6.8			3.2	9.3
Longspine thomyhead											
Rougheye rockfish										6.6	
Pacific ocean perch							7.2				
Silvergray rockfish											
Darkblotched rockfish			0.2	2.0	0.6		10.3	1.5		0.7	3.2
Splitnose rockfish			20.6	0.2	1.5		1.2			0.5	29.4
Yellowtail rockfish											
Chillipepper											
Bocaccio							4.2				
Canary rockfish		7.5									
Redstripe rockfish											
Stripetail rockfish					0.1		10.9	0.6			
Other rockfish	39.1			2.5	2.3	39.0	1.3	0.3		11.5	3.6
Jellyfish		4,234.9	3.2	0.7		0.0					3.2
Shrimps				0.0		0.4	1.0			0.0	
Crabs						2.1	1.8	4.1	1.6	0.1	0.4
Octopuses	1.5			3.2		3.1	0.1				0.0
Squids			0.2			1.7		0.2	10.0		0.3
Sea stars				4.5	1.0	1.1	1.9	1.0	1.0	0.3	1.9
Sea urchins	0.4		0.1	0.2	0.0	19.1	0.1			7.7	46.3
Total catch weight	167.1	4,250.0	171.8	787.8	492.1	371.2	272.6	2,344.0	388.2	163.8	389.1

Table A-2.--Continued.

Haul	144	145	146	147	148	149	150	151	152	153	154
Start date & time	7/9/2001 11:41	7/9/2001 14:20	7/9/2001 17:17	7/10/2001 6:42	7/10/2001 9:01	7/10/2001 10:55	7/10/2001 13:06	7/10/2001 15:01	7/10/2001 17:08	7/11/2001 6:37	7/11/2001 8:15
Station	55C	55B	55A	56E	56D	56C	56B	56A	57A	57B	57C
Start latitude	4115.97	4114.39	4112.86	4122.56	4126.56	4123.30	4125.46	4123.02	4134.51	4133.02	4134.41
Start longitude	12423.42	12417.12	12412.98	12428.65	12425.24	12420.46	12417.54	12413.93	12419.21	12422.31	12426.08
End latitude	4114.49	4115.94	4114.36	4124.12	4125.68	4124.84	4123.88	4124.59	4133.01	4133.87	4135.94
End longitude	12422.42	12417.26	12412.49	12429.12	12424.94	12420.96	12417.45	12414.05	12418.62	12422.30	12425.66
Bottom depth (m)	168	98	67	224	115	94	81	72	72	98	130
Duration (hr)	0.56	0.52	0.52	0.53	0.3	0.52	0.53	0.52	0.53	0.29	0.52
Distance fished (km)	3.145	2.927	2.918	3.027	1.714	3.001	2.983	2.941	2.967	1.63	2.946
Net width (m)	11.277	14.121	13.548	14.423	12.655	14.347	12.984	13.792	13.3	14.568	14.138
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	5.5
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	5.2	1,237.9		0.3	6.1	210.6	3.9			0.3	0.1
Skates	0.5	4.7	0.1		7.3	19.1	15.8		5.1	3.9	
Spotted ratfish		1.5		0.6		0.3	0.5		0.9		
Other elasmobranchs		0.1	0.2								
Pacific sanddab	0.1	173.6	207.2	0.6	0.2	83.9	221.2	297.1	81.9	14.5	
Arrowtooth flounder	1.3	5.3	2.3	4.7	1.9	3.9	3.8	0.6	3.6	1.6	5.2
Pacific halibut						16.4	9.2				
Petrale sole		4.9	2.4		0.7	3.0	3.8	2.4	5.5	1.3	
English sole	5.8	13.3	14.6	1.8	1.7	0.5	33.3	32.9	11.2	1.1	6.6
Dover sole	28.2	6.3	0.5	56.8	5.8	11.6	3.3	1.1	0.6	8.2	64.1
Rex sole	15.7	17.7	7.7	50.1	19.2	34.2	9.6	14.6	9.6	24.4	15.1
Other flatfish	0.2	1.2	2.6	1.9	0.2	2.0	0.7	0.5	0.2	1.4	1.5
Sablefish	14.7	28.4		8.2	31.9	26.1				7.6	16.9
Pacific cod											
Lingcod		8.4	0.6		1.7	8.3	2.4	7.4	2.6	0.7	14.0
Pacific whiting	1,371.5	1,661.1	16.7	314.2	2,153.1	334.2	19.9	9.1	355.1	1,025.7	91.5
Other roundfish	0.7	20.9	4.4	6.8		15.5	497.3	52.6	25.1	5.0	8.9
Shortspine thornyhead				3.6							
Longspine thornyhead											
Rougheye rockfish											
Pacific ocean perch				0.4							
Silvergray rockfish											
Darkblotched rockfish	2.5	0.1		4.1	2.0						17.1
Splitnose rockfish	0.2			211.5	1.8						
Yellowtail rockfish											
Chilipepper											1.0
Bocaccio											
Canary rockfish	8.4										
Redstripe rockfish											
Stripetail rockfish	195.8	1.0		1.3							
Other rockfish	32.9			6.6	1.8	0.4				0.1	8.5
Jellyfish							1.3				
Shrimps	0.1			1.7							
Crabs		1.0	2.9	0.3		0.4		1.0		0.5	
Octopuses	0.1										
Squids		0.1	0.3	0.6		0.2	0.1		0.1		
Sea stars	1.4	0.1	1.3	0.9	0.4	0.8	1.9	1.9	0.7	0.9	0.1
Sea urchins	2.5			1.9	0.0						0.0
Total catch weight	1,688.0	3,188.0	280.0	679.3	2,236.0	772.2	839.6	441.8	539.0	1,100.1	251.1

Table A-2.--Continued.

Haul	155	156	157	158	159	160	161	162	163	164	165
Start date & time	7/11/2001 10:12	7/11/2001 13:45	7/11/2001 15:28	7/11/2001 17:39	7/12/2001 6:35	7/12/2001 8:11	7/12/2001 10:52	7/12/2001 12:30	7/12/2001 14:27	7/12/2001 17:34	7/13/2001 6:42
Station	57D	58D	58D	58C	58A	58B	59E	59E	59D	59C	59A
Start latitude	4133.70	4146.02	4145.46	4143.03	4143.82	4143.56	4156.60	4155.08	4156.29	4154.45	4154.58
Start longitude	12429.39	12431.93	12431.50	12428.19	12419.98	12423.86	12436.07	12435.09	12433.86	12428.49	12422.73
End latitude	4135.19	4145.15	4147.05	4144.58	4145.36	4145.16	4155.80	4156.51	4157.78	4155.28	4156.10
End longitude	12429.02	12431.80	12431.67	12428.26	12420.39	12423.80	12435.50	12435.98	12434.57	12428.88	12422.33
Bottom depth (m)	215	457	436	207	79	110	404	409	201	113	65
Duration (hr)	0.52	0.3	0.53	0.52	0.52	0.54	0.33	0.53	0.52	0.29	0.53
Distance fished (km)	2.859	1.66	2.993	2.913	2.975	2.994		2.972	3.002	1.661	2.926
Net width (m)	15.242	12.117	14.962	14.921	14.008	14.681	12.18	14.425	14.938	14.781	13.119
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	4.3	-5.1	0	0	0	0	-5.1	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish				1.0	12.2	5.2			2.1		
Skates	5.5		0.7	4.4	0.1	2.4			0.6		
Spotted ratfish				0.6		1.3			0.5	0.9	0.6
Other elasmobranchs		4.2	7.9	1.8				4.5	0.2	0.1	
Pacific sanddab					49.2	0.3				0.0	88.8
Arrowtooth flounder	1.2			0.9	6.7	6.6				3.0	1.1
Pacific halibut				33.7					15.0		
Petrale sole					7.9	0.9				0.5	2.2
English sole					90.2	34.8			4.6	19.2	13.8
Dover sole	112.2	9.1	100.2	74.3	2.1	9.2		11.9	63.2	7.6	0.3
Rex sole	41.9	0.1	34.1	97.9	2.6	65.2		27.5	132.8	40.1	3.6
Other flatfish	2.4		0.0	3.1	1.4	5.3			2.2	2.4	0.3
Sablefish	12.2	1.9	38.1	22.6		6.8		70.1	20.9	12.5	
Pacific cod											
Lingcod	11.3			13.7	2.9	2.3			33.0	2.3	11.6
Pacific whiting	407.5	20.1	28.4	702.8	59.4	932.6	16.8	25.4	313.6	1,681.5	
Other roundfish	16.2	0.0	13.8	2.1	16.9	2.6	0.0	5.8	0.5	0.1	35.9
Shortspine thornyhead	7.5	1.1	25.1	6.3				14.9			
Longspine thornyhead			0.2								
Rougeye rockfish											
Pacific ocean perch			0.5								
Silvergray rockfish											
Darkblotched rockfish	2.3		0.7	23.2		0.0		0.9	0.5	0.2	
Splitnose rockfish	60.5		0.2	12.3			0.4	4.3	1.6		
Yellowtail rockfish											
Chilipepper	0.5								39.8		
Bocaccio											
Canary rockfish				4.4					5.9		
Redstripe rockfish	0.4										
Stripetail rockfish	1.9			96.6					107.2	0.2	
Other rockfish	4.5	3.0	12.9	37.9				24.4	36.0	0.5	
Jellyfish				8.5	0.2	0.3			0.0		1.7
Shrimps	0.3	0.0	0.0	1.5				0.0	0.0		
Crabs	0.7		0.5	1.9		1.1		0.7	0.7		
Octopuses	0.3		0.1								
Squids	0.0	0.0	0.8	0.0	0.2		0.0	0.9			1.3
Sea stars	6.1	1.9	1.9	3.6	1.8	2.2		0.4	4.5	0.6	
Sea urchins	10.9	1.7	25.8	48.8		0.7		46.6	51.9	0.0	
Total catch weight	709.5	45.0	299.0	1,205.9	262.3	1,079.9	19.8	239.4	838.7	1,772.0	162.0

Table A-2.--Continued.

Haul	166	167	168	169	170	171	172	173	174	175	176
Start date & time	7/13/2001 8:29	7/13/2001 11:13	7/13/2001 14:00	7/13/2001 16:36	7/14/2001 6:41	7/14/2001 8:34	7/15/2001 6:43	7/15/2001 8:16	7/15/2001 10:05	7/17/2001 9:19	7/17/2001 12:09
Station	59B	60E	60D	60C	60A	60B	68C	68B	68A	68D	68E
Start latitude	4154.32	4202.59	4203.26	4204.16	4204.34	4203.89	4323.81	4323.78	4324.10	4323.45	4322.51
Start longitude	12425.63	12438.42	12436.44	12430.62	12424.80	12427.61	12432.48	12428.18	12425.12	12438.72	12443.57
End latitude	4155.85	4204.17	4204.80	4205.65	4205.82	4205.41	4325.32	4325.19	4325.49	4324.94	4323.99
End longitude	12425.61	12438.63	12436.45	12430.44	12425.17	12427.62	12432.32	12427.40	12424.28	12438.15	12443.34
Bottom depth (m)	81	452	323	119	81	104	121	103	88	193	470
Duration (hr)	0.53	0.54	0.53	0.52	0.52	0.54	0.52	0.52	0.52	0.52	0.51
Distance fished (km)	2.867	3.007	2.894	2.816	2.861	2.857	2.863	2.887	2.87	2.933	2.811
Net width (m)	13.713	14.823	14.851	14.888	14.07	13.833	13.893	13.357	13.453	14.144	13.359
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	3.11	0	-3.11
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			1.2	3.6	1.1				0.1	1.3	
Skates		0.8	10.1			4.6	2.6	7.3		5.9	7.2
Spotted ratfish				0.3				3.1	2.6		
Other elasmobranchs		14.9	6.6							0.1	9.7
Pacific sanddab	39.4			10.0	6.8	5.8	17.8	77.9	90.2		
Arrowtooth flounder	3.9			4.2	2.3	2.4	5.1	3.4	9.8	5.4	8.7
Pacific halibut											
Petrale sole	2.5			1.7	1.1	0.2	2.8	8.4	13.5		
English sole	22.0			2.0	22.1	23.0	38.3	51.2	21.6	3.9	
Dover sole	2.4	74.7	85.2	8.8	2.0	6.0	6.3	3.4	3.1	94.9	13.9
Rex sole	22.2	52.6	173.6	33.0	8.6	54.7	8.3	6.8	8.3	40.8	12.2
Other flatfish	0.7	0.1	0.2	3.5	0.4	2.6	4.2	2.6	1.7	3.2	
Sablefish		50.4	32.6	9.1		3.3	2.2	0.4		47.1	156.1
Pacific cod											
Lingcod	7.9		1.9	15.5	1.6	5.1				15.2	
Pacific whiting	1.1	4.0	45.6	374.2	126.4	387.1	27.6	48.4	616.6	41.5	15.7
Other roundfish	362.8	10.8	31.9	0.2	8.2	25.9	0.3	1.6	22.9	7.6	5.5
Shortspine thomyhead		12.6	11.8							4.4	69.3
Longspine thomyhead		3.4									
Rougeye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish			1.8	0.2		0.0				1.3	
Splitnose rockfish			12.2							2.4	
Yellowtail rockfish											
Chilipepper				0.1							
Bocaccio											
Canary rockfish				1.4				2.6		3.1	
Redstripe rockfish											
Stripetail rockfish										0.4	
Other rockfish		7.8	0.7	0.4						24.7	1.5
Jellyfish					0.5			0.5			8.0
Shrimps			0.0				0.2	0.3	0.0	0.6	
Crabs		2.3	7.8	0.5	1.7		0.3	0.5	1.8	0.6	
Octopuses			1.3	0.4					0.1	0.4	0.2
Squids		0.2	0.3	0.1	2.4	0.0				0.0	
Sea stars	0.7	5.5	5.0	2.7	1.0	10.4	1.4	2.6	3.0	0.6	2.7
Sea urchins		9.6	44.4	1.9		1.7	0.5	0.5		44.1	37.1
Total catch weight	466.9	254.0	475.1	474.1	190.3	534.3	120.5	230.7	797.1	356.6	356.0



Table A-2.--Continued.

Haul	177	178	179	180	181	182	183	184	185	186	187
Start date & time	7/17/2001 14:09	7/17/2001 16:54	7/18/2001 6:42	7/18/2001 8:14	7/18/2001 10:25	7/18/2001 12:49	7/18/2001 15:44	7/18/2001 17:36	7/19/2001 6:40	7/19/2001 13:28	7/19/2001 16:00
Station	68E	67G	61A	61B	61C	61D	62E	62D	62C	66F	66E
Start latitude	4323.52	4314.35	4213.00	4215.21	4215.05	4213.06	4223.19	4223.19	4222.19	4303.52	4305.53
Start longitude	12443.39	12452.69	12427.96	12431.49	12436.13	12439.43	12445.68	12443.88	12436.19	12453.89	12447.32
End latitude	4322.06	4315.81	4214.39	4213.62	4213.69	4214.56	4224.66	4224.49	4223.15	4304.99	4305.94
End longitude	12443.63	12452.12	12428.76	12431.14	12435.86	12439.76	12446.48	12445.01	12437.90	12453.54	12449.32
Bottom depth (m)	474	391	104	133	222	422	458	254	120	435	234
Duration (hr)	0.5	0.52	0.51	0.54	0.47	0.52	0.54	0.52	0.55	0.52	0.51
Distance fished (km)	2.768	2.837	2.847	3.049	2.614	2.87	3.005	2.924	3.003	2.827	2.837
Net width (m)	13.805	14.312	13.632	13.443	13.133	13.984	14.21	14.636	14.058	14.738	13.233
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	6.24	0	0	6.24	6.24	0	0	0	0	0	5.5
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			0.4					2.6			
Skates	0.9		1.0	3.3	0.1	0.0	20.5	11.4	0.0	2.7	
Spotted ratfish								13.9	3.0		0.4
Other elasmobranchs	30.6	1.7				9.2	3.1	70.4		4.4	
Pacific sanddab			5.9	3.6	0.1				6.9		
Arrowtooth flounder	16.9		0.3	3.3	1.9		1.5	4.1	1.7	4.4	
Pacific halibut											
Petrale sole			3.3	2.9						3.6	
English sole			19.8	31.8	1.3			1.5	35.4		30.9
Dover sole	57.7	76.9	1.2	4.2	22.7	36.8	184.1	295.2	9.7	57.0	38.7
Rex sole	29.4	17.9	13.3	32.6	33.7	24.4	25.5	106.4	18.3	11.7	58.7
Other flatfish			0.8	2.7	1.6		0.3	2.9	6.6		4.5
Sablefish	69.0	32.2		6.2	6.4	47.6	100.8	74.3	19.7	51.4	18.9
Pacific cod											
Lingcod			1.5	2.2	7.1			19.7	1.8	3.3	3.8
Pacific whiting	1.6	11.5	3.9	52.1	439.8	17.0	47.5	311.5	0.7	14.1	9.4
Other roundfish	6.5	6.2	3.9	0.6	1.7	22.5	22.3	17.8	3.0	18.5	2.4
Shortspine thornyhead	38.1	14.3	1.8		1.7	12.8	12.4	10.4		8.9	0.6
Longspine thornyhead										2.0	
Rougheye rockfish											
Pacific ocean perch		7.8						1.1			0.9
Silvergray rockfish											
Darkblotched rockfish		1.3	0.0	0.9	3.3		0.6				1.5
Splitnose rockfish		0.6		0.0	42.5			12.0			13.1
Yellowtail rockfish											
Chilipepper											
Bocaccio											
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish					10.0						
Other rockfish	2.2	4.8		0.1	12.9	6.4	8.0	6.3	5.7	4.5	0.7
Jellyfish	1.0		2.5			2.4		3.8	2.6		0.3
Shrimps					3.4		0.0	0.1		0.0	
Crabs	0.2	0.0			0.1	0.3	0.0	0.3	1.4	1.6	
Octopuses		0.3			0.1	0.2	2.7	0.1	1.8	0.0	0.1
Squids	23.3	0.1	1.4	0.2		0.4	1.1	16.8	0.1	0.1	
Sea stars	14.7	7.6	2.0	1.9	1.8	1.3	0.8	3.7		18.5	
Sea urchins	72.6	19.1	0.2	15.3	14.5	19.8	24.3	1.0	5.4	119.8	0.4
Total catch weight	367.9	204.7	71.0	167.6	607.7	202.2	478.0	1,017.6	127.9	332.7	186.1

Table A-2.--Continued.

Haul	188	189	190	191	192	193	194	195	196	197	198
Start date & time	7/19/2001 17:50	7/20/2001 6:39	7/20/2001 8:06	7/20/2001 9:34	7/20/2001 15:06	7/20/2001 17:33	7/21/2001 6:35	7/21/2001 8:30	7/21/2001 10:43	7/21/2001 12:20	7/21/2001 16:49
Station	66D	66A	66B	66C	69F	69E	69A	69B	69C	69D	71H
Start latitude	4303.88	4305.28	4301.68	4303.26	4336.09	4336.73	4333.44	4336.62	4335.36	4333.73	4355.26
Start longitude	12446.32	12430.61	12435.03	12437.63	12439.14	12438.26	12417.03	12420.63	12428.54	12432.66	12455.99
End latitude	4304.74	4303.65	4303.19	4304.71	4334.52	4335.21	4334.85	4335.14	4333.92	4335.14	4354.99
End longitude	12448.00	12430.65	12434.63	12437.15	12439.25	12438.32	12416.33	12421.23	12429.35	12431.88	12455.43
Bottom depth (m)	210	64	103	129	372	335	73	106	140	174	378
Duration (hr)	0.51	0.56	0.53	0.52	0.52	0.52	0.51	0.53	0.52	0.52	0.15
Distance fished (km)	2.822	3.041	2.917	2.83	2.948	2.865	2.844	2.922	2.938	2.881	0.91
Net width (m)	13.14	12.804	13.834	14.087	13.487	13.19	13.187	13.388	13.47	14.487	12.662
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	6.24	0	0	0	6.24	0	0	6.24	6.24	0	-5.2
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			0.9	1.3			2.3		2.6	2.0	
Skates	0.2	32.6	16.6	19.2	2.2	2.9	2.1	0.9	0.0	6.7	
Spotted ratfish		55.5	5.5	4.7	0.7			4.2			
Other elasmobranchs									3.6		0.6
Pacific sanddab		2.6	11.8	0.7			66.5	68.4	1.9		
Arrowtooth flounder	1.9	0.6	16.3	20.3	6.9	1.3	9.2	2.9	5.4	20.3	
Pacific halibut		64.8				10.2			18.5	18.5	
Petrale sole		3.4	7.7	5.9			9.0	6.1	0.9	0.9	
English sole	15.9	14.7	96.1	15.5			43.7	18.5	9.8	3.5	
Dover sole	23.8	0.7	86.6	193.5	13.9	21.4	13.8	11.8	10.5	18.9	9.1
Rex sole	12.5	4.6	29.3	119.0	50.4	29.3	36.1	16.9	3.0	35.0	1.2
Other flatfish	35.1	10.7	7.3	12.0	0.2	0.3	1.2	3.6	2.9	4.1	0.2
Sablefish	13.1		6.1	2.8	46.7	47.2		0.3	21.2	26.7	5.5
Pacific cod											
Lingcod		1.1	17.4	7.3			0.3		2.2		
Pacific whiting	30.9	1.8	67.1	1,557.3	25.1	66.7	148.7	621.7	357.1	787.2	11.0
Other roundfish	6.2	70.1	2.2	2.1	7.7	4.3	10.7	1.1	2.2	3.0	0.7
Shortspine thomyhead	11.6	0.5			23.6	4.0					1.4
Longspine thomyhead											
Rougeye rockfish										0.6	
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish	1.1		0.1	0.5	0.7	1.0			1.9	3.5	
Splitnose rockfish	20.9				13.6	4.9				10.1	
Yellowtail rockfish				11.6				1.7			
Chilipepper											
Bocaccio	3.5										
Canary rockfish			13.9	26.0				2.3	9.7	1.4	
Redstripe rockfish											
Stripetail rockfish	12.5										
Other rockfish	9.0	0.0	14.2	0.6	0.4	0.9			2.9	0.1	0.5
Jellyfish		0.4	0.2	0.1		0.3	2.9	0.7			
Shrimps	3.7	0.2	0.1	2.4		0.0		2.6	0.2	1.2	0.0
Crabs		0.0			0.2	0.5	1.6		0.8	3.4	0.1
Octopuses		0.1			0.0	0.1					
Squids					34.5	0.2	0.2				0.7
Sea stars	0.0	1.1	0.8	0.8	11.3	6.5	5.1	9.5	2.4	1.9	0.8
Sea urchins			0.0	1.7	6.3	11.2		36.7	14.1	1.6	0.5
Total catch weight	202.1	275.5	412.8	2,006.0	247.4	214.2	366.4	817.4	473.3	954.0	35.5

Table A-2.--Continued.

Haul	199	200	201	202	203	204	205	206	207	208	209
Start date & time	7/21/2001 17:56	7/22/2001 6:43	7/22/2001 8:46	7/22/2001 10:41	7/22/2001 12:22	7/22/2001 13:48	7/22/2001 15:36	7/22/2001 17:40	7/23/2001 6:35	7/23/2001 8:35	7/23/2001 10:02
Station	71H	71G	71F	71E	71D	71C	71B	71A	73A	71B	73C
Start latitude	4354.49	4353.89	4354.49	4353.95	4354.51	4354.22	4354.04	4353.62	4413.97	4414.01	4414.27
Start longitude	12454.49	12449.84	12443.19	12434.31	12432.03	12429.29	12418.13	12415.25	12416.85	12421.35	12425.23
End latitude	4355.36	4354.56	4354.87	4355.38	4356.06	4355.80	4355.55	4355.17	4415.49	4415.57	4415.78
End longitude	12456.26	12451.76	12441.14	12435.04	12432.26	12429.28	12418.08	12415.24	12417.02	12421.44	12425.89
Bottom depth (m)	373	223	202	185	143	130	108	84	74	85	94
Duration (hr)	0.52	0.52	0.52	0.52	0.52	0.54	0.52	0.53	0.53	0.54	0.52
Distance fished (km)	2.911	2.882	2.861	2.897	2.946	2.949	2.84	2.896	2.88	2.943	2.993
Net width (m)	14.795	14.455	12.777	14.808	14.313	14.219	13.799	13.023	12.815	13.176	13.096
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	3.12
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			2.8					0.7	2.5	0.2	0.7
Skates	9.5	3.4	0.5	3.9	7.8	5.8		0.8	0.9		
Spotted ratfish	3.0	7.6		0.4	0.9	1.5	1.4		1.0		
Other elasmobranchs	5.6										
Pacific sanddab					21.5	51.1	228.0	505.1	147.0	63.0	11.6
Arrowtooth flounder	0.9	7.8	1.9	6.6	5.7	3.4	2.2	2.2		0.3	
Pacific halibut			45.5								
Petrale sole		0.6	0.4	0.8	4.9	2.9	10.2	3.6	0.2	0.4	
English sole		1.1			80.5	14.8	34.7	75.9	17.9	24.0	17.7
Dover sole	144.3	140.0	28.0	11.3	22.5	37.8	24.2	20.0	2.7	1.9	5.5
Rex sole	38.5	55.7	25.3		59.4	41.6	10.4	22.6	49.1	19.4	28.9
Other flatfish	1.8	5.2	0.4	15.2	19.3	12.2	6.8	3.2	3.8	0.3	0.5
Sablefish	84.5	213.0	29.8	37.2	18.8	6.0	76.8			4.7	2.7
Pacific cod											
Lingcod			0.7		3.0					0.7	0.1
Pacific whiting	61.6	240.8	147.7	76.6	85.3	26.1	262.7	587.3	170.0	362.7	277.2
Other roundfish	5.7	15.9	1.9	2.0	1.3	2.9	2.4	0.1	0.0	2.0	
Shortspine thornyhead	8.7	4.7	1.5								
Longspine thornyhead											
Rougeye rockfish	16.5			0.0							
Pacific ocean perch	0.8										
Silvergray rockfish											
Darkblotched rockfish	0.9		2.4	0.1							
Splitnose rockfish	1.2	1.4	0.6	11.0							
Yellowtail rockfish											
Chilipepper											
Bocaccio											
Canary rockfish		1.9		3.5	10.6						
Redstripe rockfish					0.4						
Stripetail rockfish		4.3	31.1	0.4							
Other rockfish	0.9	12.6	2.0	0.6	8.0	3.9					
Jellyfish									0.4		
Shrimps	0.1	3.5	16.8	7.2							
Crabs	1.5	1.5	0.6	1.9	2.5	2.2	1.2	0.7	4.7	6.3	2.2
Octopuses	0.2				23.1				0.2		
Squids				0.6	0.0					0.1	
Sea stars	17.3			0.4	0.7	1.9	0.9	0.4		0.3	
Sea urchins	19.6	0.9	6.4	6.1	0.2	2.5	0.6				
Total catch weight	465.9	724.4	347.1	186.6	376.5	216.8	665.0	1,223.3	400.6	487.0	349.0

Table A-2.--Continued.

Haul	210	211	212	213	214	215	216	217	218	219	220
Start date & time	7/23/2001 11:44	7/23/2001 13:59	7/23/2001 17:56	7/24/2001 6:50	7/24/2001 10:03	7/24/2001 12:36	7/24/2001 15:59	7/24/2001 17:43	7/25/2001 6:39	7/25/2001 9:19	7/25/2001 12:40
Station	73D	73E	73F	73I	73J	73H	75H	75I	75J	75F	75B
Start latitude	4413.97	4414.03	4412.01	4415.09	4411.01	4417.58	4434.27	4433.95	4432.69	4432.82	4435.71
Start longitude	12430.13	12435.66	12442.13	12455.51	12459.43	12448.79	12447.63	12448.18	12448.38	12439.92	12421.00
End latitude	4415.47	4415.44	4412.78	4416.35	4412.50	4416.49	4435.27	4434.99	4433.83	4434.29	4434.06
End longitude	12430.59	12434.87	12442.11	12454.37	12459.41	12450.18	12449.16	12449.61	12449.75	12439.68	12420.93
Bottom depth (m)	103	110	111	217	372	150	354	368	401	294	82
Duration (hr)	0.51	0.52	0.26	0.51	0.51	0.52	0.51	0.51	0.52	0.51	0.54
Distance fished (km)	2.897	2.895	1.447	2.838	2.805	2.807	2.791	2.757	2.841	2.808	3.088
Net width (m)	13.339	13.417	13.49	13.9	13.996	13.921	14.723	14.755	14.425	13.808	13.332
Net measured?	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	2.4	0	0	5.5	5.5	5.5	5.5	0	5.5
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish				1.0		0.8					5.1
Skates		0.7	2.7	1.1	6.9	15.2	2.6	1.1	0.4	8.5	69.0
Spotted ratfish		0.8	0.4	5.1	10.7	2.2	3.7	4.9	1.0	1.7	2.6
Other elasmobranchs					6.4		1.5	1.2	1.8		
Pacific sanddab	1.7	38.9				0.4					234.6
Arrowtooth flounder	0.6	2.1	0.1	0.8	8.4	8.3	5.5	10.5	6.3	22.2	
Pacific halibut						9.5					54.7
Petrale sole		1.1	0.6	0.4		17.6					4.7
English sole	31.6	27.6	0.6	14.7		21.3					14.2
Dover sole	28.5	68.8	1.1	57.5	91.1	28.2	39.1	98.1	41.8	85.4	1.7
Rex sole	28.5	28.4	1.4	46.7	10.1	13.1	31.7	26.6	10.2	37.1	6.8
Other flatfish	0.6	1.8	0.4	7.6	0.6	30.9	3.9	4.8	0.3	5.8	8.6
Sablefish	8.9	23.4	1.2	65.4	8.4	60.2	46.2	76.4	113.1	26.3	0.8
Pacific cod											
Lingcod	1.5	3.9				11.1					6.2
Pacific whiting	2,845.2	116.8	32.1	5.7	24.2	307.7	15.7	15.8	5.2	22.9	
Other roundfish	0.0	1.1	8.6	11.1	7.3	1.9	20.4	37.7	10.0	9.7	0.0
Shortspine thornyhead						3.8	26.9	52.8	53.0	31.8	
Longspine thornyhead						4.7	2.1			1.1	
Rougheye rockfish						1.2		0.6	1.5	3.7	
Pacific ocean perch											
Silvergray rockfish				1.3							
Darkblotched rockfish					4.7		90.3	26.7	2.9	4.0	
Splitnose rockfish				20.3	1.1		3.5	4.9	0.7	6.6	
Yellowtail rockfish		7.2		2.9		168.5					
Chilipepper											
Bocaccio						4.8					
Canary rockfish						7.4					
Redstripe rockfish			11.2								
Stripetail rockfish		0.1		38.3							
Other rockfish	2.0	31.2	61.7	62.8		111.7	1.4	1.3	8.9	2.2	
Jellyfish			0.4		4.1			0.2	2.6	1.6	
Shrimps				1.2	0.0		0.0		0.0	0.3	
Crabs		19.5	1.4	0.7	1.6	2.8	4.4	0.2		0.0	
Octopuses							1.2				0.1
Squids	0.1	0.0					0.6	0.7		0.0	2.4
Sea stars	0.6	1.1	1.0	0.2	2.2	0.7	1.4	1.4	0.5	0.4	
Sea urchins		0.3	0.1	13.0	0.9		4.0	1.3	0.1	1.9	
Total catch weight	2,950.0	380.1	126.7	358.0	209.1	826.7	306.8	369.7	267.5	275.5	411.5

Table A-2.--Continued.

Haul	221	222	223	224	225	226	227	228	229	230	231
Start date & time	7/26/2001 7:39	7/26/2001 10:08	7/26/2001 12:06	7/26/2001 14:52	7/26/2001 18:37	7/27/2001 6:53	7/27/2001 8:48	7/27/2001 11:07	7/27/2001 13:36	7/27/2001 18:25	7/28/2001 6:46
Station	75A	75D	75E	75G	78F	78G	78H	78I	78J	78E	78D
Start latitude	4433.24	4432.21	4432.49	4434.50	4454.34	4453.54	4453.36	4454.05	4454.99	4454.38	4454.45
Start longitude	12417.41	12432.66	12435.86	12444.48	12434.84	12437.20	12439.40	12442.93	12446.12	12427.03	12423.98
End latitude	4434.75	4433.35	4434.00	4435.57	4455.38	4454.77	4454.79	4455.49	4454.05	4455.63	4455.46
End longitude	12417.52	12431.81	12435.76	12446.07	12433.27	12438.39	12439.65	12443.49	12444.93	12425.79	12422.41
Bottom depth (m)	81	125	165	331	410	409	348	460	340	219	171
Duration (hr)	0.52	0.44	0.53	0.52	0.52	0.51	0.52	0.52	0.43	0.52	0.52
Distance fished (km)	2.829	2.453	2.856	2.934	2.877	2.824	2.873	2.852	2.388	2.902	2.831
Net width (m)	12.606	13.17	14.101	14.545	13.921	14.012	14.099	13.951	14.55	13.606	14.184
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Performance	-3.12	0	0	5.5	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	4.7	1.0	1.1								
Skates			11.1	2.0	1.8	9.0			14.0	3.6	0.2
Spotted ratfish	0.1			2.6	0.4	0.9		1.1			
Other elasmobranchs				0.7		1.9	67.0	3.6	0.4		
Pacific sanddab	108.0										
Arrowtooth flounder		7.2	42.2		2.6	2.0	9.3	5.3		23.5	15.7
Pacific halibut			4.3								
Petrale sole	0.9	1.8	14.7	0.4							
English sole	49.2	17.0									0.2
Dover sole	3.2	6.9	32.7	120.1	22.5	44.3	85.0	9.5	48.2	5.2	15.7
Rex sole	7.9	4.5	20.4	26.7	6.6	11.4	29.6	6.6	24.2	6.7	28.3
Other flatfish	4.6	4.6	5.7	4.1	0.6	0.3	0.5		0.1	4.8	28.5
Sablefish	1.3	109.2	361.9	50.7	29.2	7.7	11.2	21.2	14.8	28.7	31.7
Pacific cod	1.4										
Lingcod	0.3	7.8	6.7							4.1	7.5
Pacific whiting	347.8	1,530.6	201.9	18.1	22.1	38.7	97.9	16.7	56.5	45.7	13.3
Other roundfish	0.3	0.1	9.0	7.2	12.6	6.3	16.9	3.5	2.1	2.0	19.2
Shortspine thornyhead				38.6	41.5	13.5	14.5	14.1	48.2	1.8	
Longspine thornyhead											
Rougeye rockfish					2.1	3.2			45.9		
Pacific ocean perch					0.6	0.7	1.8	1.5	2.4	4.0	
Silvergray rockfish											
Darkblotched rockfish				12.6		0.8	2.9	2.4	8.9	12.3	13.9
Splitnose rockfish				4.8	3.6	0.2	7.1		172.5	61.0	
Yellowtail rockfish			6.9								
Chilipepper											
Bocaccio											7.8
Canary rockfish			5.9								
Redstripe rockfish											
Stripetail rockfish											
Other rockfish		1.6	537.8	2.2		1.4	1.6	5.1	10.6	38.2	71.9
Jellyfish		1.7		3.7		0.2			0.1		
Shrimps			0.1	0.0	0.4	0.4	0.0	0.5	0.0	20.7	2.2
Crabs	1.9		0.8	0.2	0.1	0.2		0.3	0.1		
Octopuses				0.2		0.6		0.4			
Squids				0.5		0.0	0.8	0.0	36.0		
Sea stars				2.7	1.2	2.5	0.3	2.3	3.0	0.9	0.8
Sea urchins				15.1	0.5	0.0		0.6	0.0	40.4	1.6
Total catch weight	533.0	1,694.0	1,263.3	315.3	149.2	153.4	348.4	123.7	501.9	382.2	259.1

Table A-2.--Continued.

Haul	232	233	234	235	236	237	238	239	240	241	242
Start date & time	7/28/2001 8:34	7/29/2001 8:32	7/29/2001 10:18	7/29/2001 13:31	7/29/2001 15:43	7/29/2001 17:37	7/29/2001 19:03	7/30/2001 6:51	7/30/2001 8:43	7/30/2001 10:37	7/30/2001 14:12
Station	78C	78B	78A	82D	82C	82B	82A	82E	82F	82G	86H
Start latitude	4453.00	4454.28	4453.32	4514.32	4513.82	4512.92	4513.12	4512.84	4513.66	4513.48	4534.18
Start longitude	12420.18	12414.35	12411.22	12419.33	12413.71	12410.47	12406.58	12425.84	12428.57	12433.37	12439.94
End latitude	4454.20	4455.75	4454.82	4515.83	4515.38	4513.98	4514.63	4514.42	4515.20	4515.00	4534.62
End longitude	12418.91	12413.57	12410.70	12419.63	12413.74	12410.40	12406.13	12425.28	12428.63	12433.02	12442.10
Bottom depth (m)	147	123	99	206	161	129	92	391	406	435	427
Duration (hr)	0.52	0.55	0.53	0.52	0.54	0.38	0.54	0.57	0.52	0.53	0.54
Distance fished (km)	2.856	3.014	2.935	2.864	2.931	1.989	2.92	3.083	2.88	2.915	2.956
Net width (m)	14.281	13.585	13.387	15.114	14.662	13.835	13.34	13.875	14.195	14.684	14.32
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish		1.1	5.3								
Skates	4.0			1.8	10.6					2.9	0.8
Spotted ratfish	11.8		1.7	1.1	2.7	0.6					
Other elasmobranchs				0.2					0.0	1.5	0.3
Pacific sanddab	0.3	73.7	101.0			58.0	83.0				
Arrowtooth flounder	34.8			51.4	33.6	9.3			1.5	2.9	4.3
Pacific halibut											
Petrale sole	17.0		1.3		3.4	1.3	3.5				
English sole	4.3	46.3	20.8			12.4	13.9				
Dover sole	30.2	1.6	1.8	73.5	31.7	7.4	2.2	3.9	19.4	45.5	25.6
Rex sole	4.6	1.7	10.9	26.3	47.2	10.9	23.2	2.4	2.9	1.0	
Other flatfish	12.6	2.3	0.6	6.6	8.4	6.2	0.8	0.5	0.5		0.1
Sablefish	7,182.4	195.1	8.6	214.8	12.0	33.3	49.4	50.6	38.5	18.3	41.3
Pacific cod											
Lingcod	4.2		1.1		0.5	6.7					
Pacific whiting	718.0	130.9	16.7	47.6	96.2	2,741.8	81.4	103.2	93.2	87.2	41.6
Other roundfish	56.8	0.9	85.6	4.7	10.1	4.4	6.7	3.4	7.4	4.1	1.9
Shortspine thornyhead				16.6				50.4	83.6	72.2	52.7
Longspine thornyhead									4.4	37.4	18.9
Rougheye rockfish								10.7	5.3	11.6	13.3
Pacific ocean perch				0.1				7.8	11.5	0.7	2.8
Silvergray rockfish											
Darkblotched rockfish				14.4	5.9			0.8	1.3	1.6	
Splitnose rockfish				59.7				1.3			
Yellowtail rockfish	20.3				1.9						
Chilipepper											
Bocaccio											
Canary rockfish	7.7	1.8			3.9						
Redstripe rockfish											
Stripetail rockfish				0.1							
Other rockfish		0.0		9.9	1.3	0.7		1.6	32.9	14.5	15.9
Jellyfish			0.1				0.1	1.3			0.0
Shrimps				1.6	7.7			0.6	0.9	0.8	0.9
Crabs	1.0	0.5	2.7	1.8	3.3	0.5	6.8	0.2	0.7	0.5	0.0
Octopuses								0.2			
Squids		2.0	3.5				0.4	0.4	0.2	0.3	0.6
Sea stars	0.1	0.1	0.0	1.4	0.4	0.1		0.6	0.1	2.8	1.7
Sea urchins	0.0	0.0		9.9	12.9			1.4	1.2		0.5
Total catch weight	8,111.4	458.2	262.0	544.6	297.0	2,894.0	271.7	246.6	329.2	307.2	230.9

Table A-2.--Continued.

Haul	243	244	245	246	247	248	249	250	251	252	253
Start date & time	7/30/2001 16:29	7/30/2001 18:07	7/30/2001 19:35	7/31/2001 6:37	7/31/2001 8:02	7/31/2001 10:07	7/31/2001 11:55	7/31/2001 16:26	7/31/2001 18:09	7/31/2001 20:04	8/1/2001 6:48
Station	86G	86F	86E	86A	86B	86C	86D	90I	90H	90G	90F
Start latitude	4532.97	4534.43	4532.73	4533.55	4535.24	4534.90	4535.80	4554.59	4552.99	4553.09	4552.73
Start longitude	12431.34	12427.94	12424.52	12408.13	12411.65	12420.20	12423.00	12445.70	12442.43	12429.85	12425.10
End latitude	4534.32	4533.05	4534.19	4535.09	4533.92	4533.43	4534.26	4555.99	4554.51	4554.62	4554.29
End longitude	12432.37	12426.98	12425.19	12408.33	12411.54	12419.79	12422.67	12444.89	12442.73	12429.93	12425.28
Bottom depth (m)	378	220	194	99	121	162	177	428	206	154	147
Duration (hr)	0.52	0.51	0.52	0.53	0.46	0.51	0.51	0.52	0.52	0.52	0.53
Distance fished (km)	2.906	2.903	2.896	2.9	2.492	2.831	2.93	2.872	2.891	2.879	2.936
Net width (m)	14.693	12.808	14.904	13.652	14.076	14.062	13.272	14.82	14.662	14.357	14.712
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	3.2	3.2	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish											
Skates		1.0	4.4	1.7		1.1	3.8	1.8	1.9	8.2	2.5
Spotted ratfish	1.0		1.0	0.5	3.3	4.4	0.5	5.8	2.3	0.7	1.8
Other elasmobranchs	0.4							0.2	0.1		
Pacific sanddab				149.3	69.0						
Arrowtooth flounder	9.1	10.1	11.0	4.4	4.1	6.3	12.9	14.0	31.6	11.6	12.7
Pacific halibut		36.2		7.6					9.2		
Petrale sole			0.5	3.0	2.3	2.7	0.4		0.9		0.6
English sole				31.3	9.0		0.3		6.3	0.8	
Dover sole	8.4	7.3	20.3	2.5	19.3	52.0	69.7	36.4	24.7	44.5	12.7
Rex sole	23.6	9.3	6.4	3.2	7.3	33.8	32.1	5.6	28.6	42.2	30.4
Other flatfish	1.8	0.6	6.8	1.4	3.8	18.6	5.3	0.0	3.3	18.1	12.2
Sablefish	93.0	17.7	21.2	0.3	55.9		11.2	26.5	42.3	3.4	29.9
Pacific cod											
Lingcod			4.6	2.3	1.3	1.9	6.3				
Pacific whiting	54.8	17.2	1.1	458.8	457.4	3.1	0.6	46.3	2.5	3.1	11.5
Other roundfish	7.6	1.6	19.0	45.6	0.7	5.3	4.3	13.6	4.0	7.3	3.2
Shortspine thornyhead	53.7	12.2	4.5			1.6	5.2	36.0	12.7		0.7
Longspine thornyhead								0.2			
Rougheye rockfish	9.5						0.6	20.0	1.7		
Pacific ocean perch	1.3	0.2	0.2					1.6			
Silvergray rockfish											
Darkblotched rockfish	0.5	0.6	7.7		0.1	6.0	0.4		2.0	1.1	0.5
Splitnose rockfish	1.1	30.6	71.3					0.4	8.1	0.6	0.8
Yellowtail rockfish					3.5	12.9	4.6				
Chilipepper											
Bocaccio											
Canary rockfish											
Redstripe rockfish			0.2				2.0				
Stripetail rockfish			0.1							0.0	
Other rockfish	2.9	1.6	4.4		1.4	3.1	18.9	6.3	1.6	0.4	
Jellyfish								2.1		6.8	8.3
Shrimps	2.2	4.2	8.4			0.8	0.2	0.3	0.3	0.3	4.8
Crabs	0.1		0.7	0.3	4.9	0.6		0.4	0.2	1.3	0.5
Octopuses			0.2			0.0		0.2	0.0		
Squids	14.1	0.0	0.2				0.0	1.5		0.1	
Sea stars	0.4	0.1	1.0	0.2	0.3		0.3	0.7	1.3	1.1	0.8
Sea urchins	3.3	1.2	34.2				25.5	4.0	11.4	33.7	119.8
Total catch weight	289.6	151.9	229.3	713.8	655.1	191.9	184.1	226.6	198.0	186.5	253.8

Table A-2.--Continued.

Haul	254	255	256	257	258	259	260	261	262	263	264
Start date & time	8/1/2001 8:16	8/1/2001 9:41	8/1/2001 10:58	8/1/2001 12:39	8/1/2001 13:57	8/1/2001 17:01	8/1/2001 18:44	8/2/2001 6:58	8/2/2001 8:52	8/2/2001 10:31	8/2/2001 12:27
Station	90E	90D	90C	90B	90A	94A	94B	96A	96B	96C	96D
Start latitude	4553.20	4553.68	4555.60	4553.20	4553.22	4613.53	4612.41	4623.77	4623.39	4623.70	4624.02
Start longitude	12421.21	12416.27	12412.04	12406.94	12403.95	12415.44	12420.18	12416.93	12425.01	12428.25	12432.75
End latitude	4554.76	4555.23	4554.19	4554.80	4554.76	4615.05	4613.94	4625.33	4624.89	4625.31	4625.45
End longitude	12421.29	12416.55	12411.45	12407.39	12404.00	12415.90	12419.85	12417.33	12425.38	12428.00	12431.85
Bottom depth (m)	143	121	102	85	72	78	113	66	108	124	150
Duration (hr)	0.52	0.53	0.5	0.55	0.53	0.52	0.53	0.54	0.52	0.55	0.53
Distance fished (km)	2.935	2.936	2.78	3.085	2.902	2.945	2.926	3.003	2.874	3.038	2.961
Net width (m)	14.302	14.264	12.889	13.242	13.165	13.312	14.269	12.317	13.471	14.321	14.543
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	5.5	5.5	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			1.9	0.8	0.8						1.1
Skates		4.4			5.4		1.0				
Spotted ratfish	2.3	4.5		1.0	1.3	8.9	3.5	0.3	0.7	0.2	
Other elasmobranchs											
Pacific sanddab	0.2		96.0	230.3	345.3	55.4		60.1	25.1		
Arrowtooth flounder	2.8	26.6	5.1	2.1	0.2	5.7	19.3		7.2	10.5	66.5
Pacific halibut											
Petrale sole	0.3	5.4	4.9	20.4	16.4	11.9	5.3		1.9	3.5	1.5
English sole		1.4	59.3	61.9	49.1	37.9	2.4	6.6	4.5	4.9	24.4
Dover sole	23.2	90.9	2.8	5.7	1.8	87.0	192.8	210.7	74.7	159.9	33.9
Rex sole	39.2	34.8	5.4	18.6	15.0	160.3	114.2	6.1	60.6	60.5	154.8
Other flatfish	14.4	16.8	4.1	0.4	1.1	1.0	8.5	6.1	4.9	22.7	24.6
Sablefish	22.9	19.6	18.4	337.2	0.8	68.9	267.9	1.4	15.7	7.5	14.7
Pacific cod											
Lingcod	0.8		0.2	5.7	4.7	0.3	0.3		2.5	1.9	
Pacific whiting	5.8	64.6	715.8	113.0	2.4	268.2	437.9	15.2	551.6	13.7	1.7
Other roundfish	2.4	17.5	4.2	0.6	1,532.7	6.3	0.4	1.1	5.0	3.1	0.4
Shortspine thornyhead											
Longspine thornyhead											
Rougheye rockfish											
Pacific ocean perch											0.1
Silvergray rockfish											
Darkblotched rockfish	0.3	0.7					0.3		0.3	1.1	5.4
Splitnose rockfish	0.1									0.0	0.1
Yellowtail rockfish					1.2					18.1	1.0
Chillipepper											
Bocaccio											
Canary rockfish	1.1	3.2								5.8	
Redstripe rockfish											
Stripetail rockfish											
Other rockfish	0.5	1.3					0.2			9.7	0.5
Jellyfish	24.0	2.7	5.7			53.8		193.8			0.1
Shrimps	3.9	1.3								0.0	
Crabs	1.1	1.7			3.4		0.4		1.8	2.7	0.8
Octopuses											
Squids	0.0	0.1	0.0	0.0						0.1	
Sea stars	2.6	1.0						0.3	0.1	0.9	0.7
Sea urchins	58.3	3.6					0.1		0.3	0.0	0.0
Total catch weight	206.1	302.1	924.0	798.0	1,982.0	765.6	1,054.5	501.6	757.1	327.2	332.8



Table A-2.--Continued.

Haul	265	266	267	268	269	270
Start date & time	8/2/2001 15:51	8/2/2001 17:39	8/2/2001 19:34	8/3/2001 6:52	8/3/2001 10:04	8/3/2001 13:12
Station	98C	98B	98A	108c	110G	112B
Start latitude	4632.94	4632.75	4633.41	4803.73	4816.52	4824.06
Start longitude	12428.14	12423.85	12416.52	12505.48	12510.32	12450.67
End latitude	4634.49	4633.90	4634.97	4804.69	4816.98	4825.21
End longitude	12428.40	12424.16	12416.40	12507.28	12509.34	12449.15
Bottom depth (m)	139	89	61	128	120	282
Duration (hr)	0.54	0.41	0.53	0.53	0.28	0.51
Distance fished (km)	2.936	2.227	2.953	2.908	1.503	2.888
Net width (m)	14.838	14.239	13.44	14.434	13.319	14.688
Net measured?	Y	Y	Y	Y	Y	Y
Performance	0	0	5.5	1.11	1.12	0
Gear	172	172	172	172	172	172
Spiny dogfish		0.3		23.3	15.4	13.4
Skates	3.7	6.7		2.3	0.0	63.5
Spotted ratfish	1.2	0.3			1.1	27.0
Other elasmobranchs						
Pacific sanddab		44.5	74.6	0.4		0.1
Arrowtooth flounder	148.8	13.4		47.3	67.9	610.4
Pacific halibut				28.6	42.1	4.7
Petrale sole	12.7	4.3		38.8	2.8	
English sole	1.8	19.9	12.0	19.6		
Dover sole	142.5	38.1	0.6	141.3	11.1	332.7
Rex sole	76.6	53.3	11.7	14.7	0.3	11.3
Other flatfish	41.4	3.3	0.8	11.7	2.5	1.3
Sablefish	58.1	13.4			9.1	42.6
Pacific cod				46.2	31.5	
Lingcod	3.4	1.6		35.8	9.2	
Pacific whiting	33.1	1,403.9	661.2		154.2	22.3
Other roundfish	2.6	467.8	1.1	66.7	2,630.4	3.5
Shortspine thornyhead	8.9					28.3
Longspine thornyhead						
Rougheye rockfish	15.9					13.0
Pacific ocean perch						1.9
Silvergray rockfish						
Darkblotched rockfish	19.5					0.5
Splitnose rockfish	0.2					
Yellowtail rockfish				29.1	36.0	
Chilipepper						
Bocaccio						
Canary rockfish					8.2	
Redstripe rockfish					6.5	
Stripetail rockfish	0.0					0.1
Other rockfish	1.1			12.6	18.7	47.4
Jellyfish			1.7		0.1	
Shrimps	1.6			0.0		15.4
Crabs	29.9	4.7		0.0		
Octopuses						
Squids						
Sea stars	2.2	1.6	0.3	0.7	0.3	0.9
Sea urchins	1.8	0.0		0.2	0.6	41.8
Total catch weight	609.6	2,077.0	764.0	519.9	3,048.0	1,283.1

# APPENDIX B

## RELATIVE ABUNDANCE OF SPECIES BY AREA AND DEPTH STRATUM

Appendix Tables B-1 through B-36 list all fish and invertebrate species encountered in each depth stratum of each International North Pacific Fisheries Commission (INPFC) area of the 2001 West Coast triennial bottom trawl survey. Species in each table are listed in order of decreasing relative abundance, measured by average catch per unit of effort (CPUE, in units of kg/ha). Average CPUE values have been weighted by the size of the sampling strata. For each INPFC area, tables are presented for the shallow (55-183 m), middle (184-366 m), and deep (367-500 m) depth strata, as well as for the entire INPFC area. Tables B-29 through B-32 list the relative abundance of species in the U.S. portion of the survey area and Tables B-33 through B-36 present the relative abundance listings for the entire survey area.

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Table B-1.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the INPFC Conception shallow stratum (55-183 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Sebastes goodei</i>	88.421	0.5241	0.5241
2	<i>Citharichthys sordidus</i>	40.756	0.2416	0.7657
3	<i>Merluccius productus</i>	8.212	0.0487	0.8143
4	<i>Sebastes jordani</i>	5.583	0.0331	0.8474
5	<i>Anoplopoma fimbria</i>	5.312	0.0315	0.8789
6	<i>Parophrys vetulus</i>	1.852	0.0110	0.8899
7	<i>Loligo opalescens</i>	1.848	0.0110	0.9008
8	<i>Squalus acanthias</i>	1.841	0.0109	0.9118
9	<i>Raja binoculata</i>	1.732	0.0103	0.9220
10	<i>Genyonemus lineatus</i>	1.639	0.0097	0.9318
11	<i>Porichthys notatus</i>	1.349	0.0080	0.9398
12	<i>Clupea pallasii</i>	1.277	0.0076	0.9473
13	<i>Eopsetta jordani</i>	1.251	0.0074	0.9547
14	<i>Microstomus pacificus</i>	0.838	0.0050	0.9597
15	<i>Hydrolagus colieii</i>	0.692	0.0041	0.9638
16	<i>Sebastes semicinctus</i>	0.685	0.0041	0.9679
17	<i>Ophiodon elongatus</i>	0.488	0.0029	0.9708
18	<i>Engraulis mordax</i>	0.450	0.0027	0.9734
19	<i>Raja rhina</i>	0.359	0.0021	0.9755
20	<i>Luidia foliolata</i>	0.355	0.0021	0.9776
21	<i>Zalembeius rosaceus</i>	0.348	0.0021	0.9797
22	<i>Sebastes saxicola</i>	0.319	0.0019	0.9816
23	<i>Pleuronichthys decurrens</i>	0.250	0.0015	0.9831
24	<i>Oncorhynchus tshawytscha</i>	0.249	0.0015	0.9846
25	<i>Sebastes paucispinis</i>	0.237	0.0014	0.9860
26	<i>Glyptocephalus zachirus</i>	0.216	0.0013	0.9872
27	<i>Lyopsetta exilis</i>	0.187	0.0011	0.9884
28	<i>Sebastes miniatus</i>	0.187	0.0011	0.9895
29	<i>Metridium</i> sp.	0.180	0.0011	0.9905
30	<i>Rathbunaster californicus</i>	0.165	0.0010	0.9915
31	<i>Peprilus simillimus</i>	0.126	0.0007	0.9922
32	Zoarcidae	0.122	0.0007	0.9930
33	<i>Torpedo californica</i>	0.111	0.0007	0.9936
34	<i>Metridium farcimen</i>	0.099	0.0006	0.9942
35	<i>Paralithodes californiensis</i>	0.089	0.0005	0.9948
36	Scyphozoa (class)	0.084	0.0005	0.9953
37	<i>Lycodes pacificus</i>	0.077	0.0005	0.9957
38	<i>Pleurobranchaea californica</i>	0.067	0.0004	0.9961
39	<i>Sebastes entomelas</i>	0.064	0.0004	0.9965
40	<i>Lycodes brevipes</i>	0.057	0.0003	0.9968
41	<i>Argentina sialis</i>	0.049	0.0003	0.9971

Table B-1.-Continued.

42	Argentinidae	0.044	0.0003	0.9974
43	Cancer productus	0.042	0.0002	0.9976
44	Sebastes pinniger	0.032	0.0002	0.9978
45	Penaeidae	0.028	0.0002	0.9980
46	Alosa sapidissima	0.028	0.0002	0.9982
47	Chilara taylori	0.023	0.0001	0.9983
48	Sebastes caurinus	0.023	0.0001	0.9984
49	Cancer magister	0.021	0.0001	0.9986
50	Sicyonia ingentis	0.021	0.0001	0.9987
51	Apristurus brunneus	0.020	0.0001	0.9988
52	Lycodes cortezianus	0.017	0.0001	0.9989
53	Bathyraja interrupta	0.016	0.0001	0.9990
54	Thaliacea unident.	0.015	0.0001	0.9991
55	Sebastes diploproa	0.014	0.0001	0.9992
56	Parmaturus xaniurus	0.014	0.0001	0.9992
57	Holothuroidea unident.	0.011	0.0001	0.9993
58	Sebastolobus alascanus	0.011	0.0001	0.9994
59	Parastichopus sp.	0.009	0.0001	0.9994
60	Octopodidae	0.009	0.0001	0.9995
61	Zaniolepis latipinnis	0.008	Trace	0.9995
62	Nudibranchia unident.	0.007	Trace	0.9996
63	Sebastes elongatus	0.007	Trace	0.9996
64	Ptilosarcus gurneyi	0.007	Trace	0.9996
65	Laqueus californianus	0.007	Trace	0.9997
66	Cancer gracilis	0.006	Trace	0.9997
67	Sebastes levis	0.005	Trace	0.9998
68	Pandalus jordani	0.005	Trace	0.9998
69	skate egg case unident.	0.004	Trace	0.9998
70	Stomphia coccinea	0.004	Trace	0.9998
71	Brisaster sp.	0.003	Trace	0.9998
72	Scyliorhinidae	0.003	Trace	0.9999
73	Pleuronichthys verticalis	0.003	Trace	0.9999
74	Mediaster aequalis	0.003	Trace	0.9999
75	Careproctus melanurus	0.002	Trace	0.9999
76	Scomber japonicus	0.002	Trace	0.9999
77	Scorpaena guttata	0.002	Trace	1.0000
78	Pandalus platyceros	0.001	Trace	1.0000
79	Opisthoteuthis californiana	0.001	Trace	1.0000
80	Astropecten californicus	0.001	Trace	1.0000
81	Hippasteria spinosa	0.001	Trace	1.0000
82	Brisaster latifrons	0.001	Trace	1.0000
83	Molpadia intermedia	0.001	Trace	1.0000
84	Pennatulacea (order)	0.001	Trace	1.0000
85	Sebastes rosenblatti	0.001	Trace	1.0000

Table B-1.-Continued.

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86 Aphroditidae	Trace	Trace	1.0000
87 Mediaster sp.	Trace	Trace	1.0000
88 Allocentrotus fragilis	Trace	Trace	1.0000
89 Urticina sp.	Trace	Trace	1.0000
90 Virgularidae	Trace	Trace	1.0000
91 Isopoda (order)	Trace	Trace	1.0000

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Table B-2.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the INPFC Conception middle stratum (184-366 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Merluccius productus</i>	72.658	0.3914	0.3914
2	<i>Microstomus pacificus</i>	19.612	0.1056	0.4970
3	<i>Sebastes diploproa</i>	19.154	0.1032	0.6002
4	<i>Sebastes saxicola</i>	16.088	0.0867	0.6868
5	<i>Anoplopoma fimbria</i>	15.726	0.0847	0.7715
6	<i>Glyptocephalus zachirus</i>	15.713	0.0846	0.8562
7	<i>Sebastes jordani</i>	7.174	0.0386	0.8948
8	<i>Brisaster latifrons</i>	6.801	0.0366	0.9314
9	Scyliorhinidae	2.528	0.0136	0.9451
10	<i>Raja rhina</i>	1.952	0.0105	0.9556
11	<i>Hydrolagus colliei</i>	1.039	0.0056	0.9612
12	<i>Sebastes goodei</i>	0.982	0.0053	0.9665
13	<i>Strongylocentrotus franciscanus</i>	0.730	0.0039	0.9704
14	<i>Brisaster</i> sp.	0.611	0.0033	0.9737
15	<i>Squalus acanthias</i>	0.564	0.0030	0.9767
16	<i>Lycodes cortezianus</i>	0.532	0.0029	0.9796
17	<i>Lyopsetta exilis</i>	0.364	0.0020	0.9816
18	<i>Moroteuthis robusta</i>	0.230	0.0012	0.9828
19	<i>Parmaturus xaniurus</i>	0.230	0.0012	0.9840
20	<i>Apristurus brunneus</i>	0.210	0.0011	0.9852
21	<i>Ophiodon elongatus</i>	0.207	0.0011	0.9863
22	<i>Bathyraja interrupta</i>	0.201	0.0011	0.9874
23	<i>Lycodes diapterus</i>	0.199	0.0011	0.9884
24	<i>Sebastes borealis</i>	0.191	0.0010	0.9894
25	<i>Parophrys vetulus</i>	0.161	0.0009	0.9903
26	<i>Lycodes brevipes</i>	0.146	0.0008	0.9911
27	<i>Rathbunaster californicus</i>	0.144	0.0008	0.9919
28	<i>Sebastolobus alascanus</i>	0.139	0.0007	0.9926
29	<i>Sebastes paucispinis</i>	0.133	0.0007	0.9933
30	<i>Eopsetta jordani</i>	0.130	0.0007	0.9940
31	<i>Torpedo californica</i>	0.112	0.0006	0.9946
32	<i>Opisthoteuthis californiana</i>	0.103	0.0006	0.9952
33	<i>Sebastes melanostomus</i>	0.080	0.0004	0.9956
34	<i>Pleurobranchaea californica</i>	0.077	0.0004	0.9960
35	Octopodidae	0.068	0.0004	0.9964
36	<i>Sebastes rufus</i>	0.061	0.0003	0.9967
37	<i>Lycodes pacificus</i>	0.055	0.0003	0.9970
38	<i>Chilara taylori</i>	0.045	0.0002	0.9973
39	<i>Careproctus melanurus</i>	0.042	0.0002	0.9975
40	Zoarcidae	0.037	0.0002	0.9977
41	<i>Allocentrotus fragilis</i>	0.036	0.0002	0.9979

Table B-2.—Continued.

42	<i>Paractinostola faeculenta</i>	0.031	0.0002	0.9981
43	<i>Metridium</i> sp.	0.031	0.0002	0.9982
44	<i>Cancer productus</i>	0.024	0.0001	0.9984
45	<i>Hexactinellida</i>	0.022	0.0001	0.9985
46	<i>Sebastes helvomaculatus</i>	0.018	0.0001	0.9986
47	<i>Pandalus platyceros</i>	0.018	0.0001	0.9987
48	<i>Sebastes crameri</i>	0.017	0.0001	0.9988
49	<i>Pseudostichopus</i> sp.	0.017	0.0001	0.9989
50	<i>Paralithodes rathbuni</i>	0.017	0.0001	0.9990
51	<i>Sebastes zacentrus</i>	0.016	0.0001	0.9990
52	<i>Porichthys notatus</i>	0.015	0.0001	0.9991
53	<i>Berryteuthis magister</i>	0.013	0.0001	0.9992
54	<i>Histioteuthis</i> sp.	0.013	0.0001	0.9993
55	<i>Sebastes levis</i>	0.013	0.0001	0.9993
56	<i>Loligo opalescens</i>	0.010	0.0001	0.9994
57	<i>Paralithodes californiensis</i>	0.010	0.0001	0.9994
58	<i>Molpadia</i> sp.	0.009	0.0001	0.9995
59	<i>Spatangus californicus</i>	0.009	Trace	0.9995
60	<i>Sebastolobus altivelis</i>	0.007	Trace	0.9996
61	<i>Sebastes entomelas</i>	0.007	Trace	0.9996
62	<i>Parastichopus</i> sp.	0.007	Trace	0.9997
63	skate egg case unident.	0.007	Trace	0.9997
64	<i>Luidia foliolata</i>	0.006	Trace	0.9997
65	<i>Sebastes rosenblatti</i>	0.006	Trace	0.9998
66	<i>Pandalus jordani</i>	0.006	Trace	0.9998
67	<i>Sebastes hopkinsi</i>	0.005	Trace	0.9998
68	<i>Argentina sialis</i>	0.005	Trace	0.9998
69	<i>Thaliacea</i> unident.	0.004	Trace	0.9999
70	<i>Sebastes aurora</i>	0.004	Trace	0.9999
71	<i>Sipuncula</i> (phylum)	0.004	Trace	0.9999
72	<i>Nudibranchia</i> unident.	0.003	Trace	0.9999
73	<i>Gorgonocephalus eucnemis</i>	0.002	Trace	0.9999
74	<i>Stomphia coccinea</i>	0.002	Trace	0.9999
75	<i>Rossia pacifica</i>	0.001	Trace	1.0000
76	<i>Hippasteria spinosa</i>	0.001	Trace	1.0000
77	<i>Sebastes babcocki</i>	0.001	Trace	1.0000
78	<i>Raja binoculata</i>	0.001	Trace	1.0000
80	<i>Sebastes semicinctus</i>	0.001	Trace	1.0000
79	<i>Calinaticina oldroyi</i>	0.001	Trace	1.0000
81	<i>Chiroteuthis</i> sp.	0.001	Trace	1.0000
82	Aphroditidae	0.001	Trace	1.0000
83	<i>Pentamera</i> sp.	0.001	Trace	1.0000
84	<i>Chauliodus macouni</i>	Trace	Trace	1.0000
85	<i>Mediaster aequalis</i>	Trace	Trace	1.0000

Table B-2.—Continued.

86 Mediaster sp.	Trace	Trace	1.0000
87 Holothuroidea unident	Trace	Trace	1.0000
88 pineapple cucumber	Trace	Trace	1.0000
89 Crangon sp.	Trace	Trace	1.0000
91 Sternoptychidae unident.	Trace	Trace	1.0000
90 Idiacanthus antrostomus	Trace	Trace	1.0000
92 Myctophidae	Trace	Trace	1.0000
93 Pasiphaea pacifica	Trace	Trace	1.0000
94 Apristurus brunneus	Trace	Trace	1.0000



Table B-3.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the INPFC Conception deep stratum (367-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Microstomus pacificus</i>	31.110	0.2666	0.2666
2	<i>Merluccius productus</i>	24.816	0.2127	0.4792
3	<i>Glyptocephalus zachirus</i>	9.119	0.0781	0.5574
4	<i>Anoplopoma fimbria</i>	9.054	0.0776	0.6350
5	<i>Somniosus pacificus</i>	7.315	0.0627	0.6976
6	<i>Brisaster latifrons</i>	6.101	0.0523	0.7499
7	<i>Sebastes aurora</i>	4.766	0.0408	0.7908
8	<i>Sebastes diploproa</i>	3.120	0.0267	0.8175
9	<i>Sebastolobus alascanus</i>	2.989	0.0256	0.8431
10	<i>Sebastes melanostomus</i>	2.535	0.0217	0.8648
11	Scyliorhinidae	2.200	0.0188	0.8837
12	<i>Sebastolobus altivelis</i>	1.914	0.0164	0.9001
13	<i>Raja rhina</i>	1.903	0.0163	0.9164
14	<i>Lycodes cortezianus</i>	1.844	0.0158	0.9322
15	<i>Strongylocentrotus franciscanus</i>	1.259	0.0108	0.9430
16	<i>Brisaster</i> sp.	1.210	0.0104	0.9534
17	<i>Lycodes diapterus</i>	0.801	0.0069	0.9602
18	<i>Henricia</i> sp.	0.784	0.0067	0.9669
19	<i>Hydrolagus colliei</i>	0.689	0.0059	0.9728
20	<i>Parmaturus xaniurus</i>	0.688	0.0059	0.9787
21	<i>Paractinostola faeculenta</i>	0.571	0.0049	0.9836
22	<i>Apristurus brunneus</i>	0.340	0.0029	0.9866
23	<i>Pannychia moseleyi</i>	0.330	0.0028	0.9894
24	<i>Bathyraja interrupta</i>	0.324	0.0028	0.9922
25	<i>Myxoderma platyacanthum</i>	0.133	0.0011	0.9933
26	<i>Lyopsetta exilis</i>	0.099	0.0008	0.9942
27	Octopodidae	0.059	0.0005	0.9947
28	<i>Careproctus melanurus</i>	0.057	0.0005	0.9951
29	<i>Aphrocallistes vastus</i>	0.055	0.0005	0.9956
30	<i>Stomphia</i> sp.	0.053	0.0005	0.9961
31	<i>Sebastes saxicola</i>	0.052	0.0004	0.9965
32	<i>Opisthoteuthis californiana</i>	0.044	0.0004	0.9969
33	<i>Squalus acanthias</i>	0.038	0.0003	0.9972
34	<i>Histioteuthis</i> sp.	0.033	0.0003	0.9975
35	<i>Allocentrotus fragilis</i>	0.033	0.0003	0.9978
36	<i>Sebastes rufus</i>	0.027	0.0002	0.9980
37	<i>Loligo opalescens</i>	0.020	0.0002	0.9982
38	<i>Sebastes miniatus</i>	0.019	0.0002	0.9984
39	<i>Berryteuthis magister</i>	0.018	0.0001	0.9985
40	<i>Careproctus cypselurus</i>	0.017	0.0001	0.9986
41	<i>Molpadia intermedia</i>	0.014	0.0001	0.9988

Table B-3.—Continued.

42	<i>Sebastes goodei</i>	0.013	0.0001	0.9989
43	<i>Pseudostichopus</i> sp.	0.012	0.0001	0.9990
44	<i>Hippasteria spinosa</i>	0.010	0.0001	0.9991
45	<i>Histioteuthis hoylei</i>	0.009	0.0001	0.9992
46	<i>Psolus</i> sp.	0.008	0.0001	0.9992
47	<i>Nezumia stelgidolepis</i>	0.008	0.0001	0.9993
48	<i>Paralithodes californiensis</i>	0.007	0.0001	0.9994
49	<i>Icosteus aenigmaticus</i>	0.007	0.0001	0.9994
50	Myctophidae	0.007	0.0001	0.9995
51	<i>Pasiphaea pacifica</i>	0.006	0.0001	0.9995
52	<i>Molpadia</i> sp.	0.006	0.0001	0.9996
53	<i>Metridium</i> sp.	0.005	Trace	0.9996
54	<i>Sebastes babcocki</i>	0.004	Trace	0.9997
55	<i>Metridium farcimen</i>	0.004	Trace	0.9997
56	<i>Paralithodes rathbuni</i>	0.003	Trace	0.9997
57	<i>Spatangus californicus</i>	0.003	Trace	0.9998
58	<i>Liponema brevicornis</i>	0.003	Trace	0.9998
59	Virgularidae	0.002	Trace	0.9998
60	<i>Vampyroteuthis infernalis</i>	0.002	Trace	0.9998
61	<i>Nudibranchia</i> unident.	0.002	Trace	0.9998
62	<i>Lampetra tridentata</i>	0.002	Trace	0.9998
63	<i>Anthoptilum grandiflorum</i>	0.001	Trace	0.9998
64	pineapple cucumber	0.001	Trace	0.9999
65	<i>Pseudarchaster</i> sp.	0.001	Trace	0.9999
66	<i>Neptunea amianta</i>	0.001	Trace	0.9999
67	<i>Asteronyx longifissa</i>	0.001	Trace	0.9999
68	<i>Sebastes jordani</i>	0.001	Trace	0.9999
69	<i>Thrissacanthias penicillatus</i>	0.001	Trace	0.9999
70	<i>Lycodes brevipes</i>	0.001	Trace	0.9999
71	<i>Rathbunaster californicus</i>	0.001	Trace	0.9999
72	<i>Lampanyctus</i> sp.	0.001	Trace	0.9999
73	<i>Actinauge verrillii</i>	0.001	Trace	1.0000
74	Paguridae	0.001	Trace	1.0000
75	<i>Sagamichthys abei</i>	0.001	Trace	1.0000
77	<i>Chauliodus macouni</i>	0.001	Trace	1.0000
76	<i>Asteronyx loveni</i>	0.001	Trace	1.0000
78	Aphroditidae	Trace	Trace	1.0000
79	<i>Sipuncula</i> (phylum)	Trace	Trace	1.0000
80	<i>Neptunea lyrata</i>	Trace	Trace	1.0000
81	<i>Thetys vagina</i>	Trace	Trace	1.0000
82	<i>Serrivomer sector</i>	Trace	Trace	1.0000
85	<i>Idiacanthus anrostomus</i>	Trace	Trace	1.0000
84	<i>Tactostoma macropus</i>	Trace	Trace	1.0000
83	<i>Aristostomias scintillans</i>	Trace	Trace	1.0000

Table B-3.-Continued.

86 gastropod eggs	Trace	Trace	1.0000
87 Mediaster aequalis	Trace	Trace	1.0000
88 Buccinum sp.	Trace	Trace	1.0000
89 Pagurus sp.	Trace	Trace	1.0000
90 Antiplanes sp.	Trace	Trace	1.0000
91 Mediaster sp.	Trace	Trace	1.0000
92 Gnathophausia ingens	Trace	Trace	1.0000
93 Callianassa sp.	Trace	Trace	1.0000
94 Sternoptychidae unident.	Trace	Trace	1.0000
95 Apristurus brunneus	Trace	Trace	1.0000
96 Tarletonbeania crenularis	Trace	Trace	1.0000

Table B-4.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the entire INPFC Conception area (55-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Merluccius productus</i>	31.378	0.2064	0.2064
2	<i>Sebastes goodei</i>	30.357	0.1997	0.4061
3	<i>Microstomus pacificus</i>	17.869	0.1176	0.5237
4	<i>Citharichthys sordidus</i>	13.874	0.0913	0.6150
5	<i>Anoplopoma fimbria</i>	9.484	0.0624	0.6773
6	<i>Glyptocephalus zachirus</i>	7.772	0.0511	0.7285
7	<i>Sebastes diploproa</i>	6.156	0.0405	0.7690
8	<i>Sebastes saxicola</i>	4.237	0.0279	0.7968
9	<i>Brisaster latifrons</i>	4.203	0.0276	0.8245
10	<i>Sebastes jordani</i>	3.733	0.0246	0.8490
11	<i>Somniosus pacificus</i>	2.957	0.0195	0.8685
12	<i>Sebastes aurora</i>	1.928	0.0127	0.8812
13	Scyliorhinidae	1.536	0.0101	0.8913
14	<i>Raja rhina</i>	1.390	0.0091	0.9004
15	<i>Sebastolobus alascanus</i>	1.247	0.0082	0.9086
16	<i>Sebastes melanostomus</i>	1.045	0.0069	0.9155
17	<i>Lycodes cortezianus</i>	0.887	0.0058	0.9214
18	<i>Squalus acanthias</i>	0.786	0.0052	0.9265
19	<i>Hydrolagus colliei</i>	0.780	0.0051	0.9316
20	<i>Sebastolobus altivelis</i>	0.776	0.0051	0.9368
21	<i>Strongylocentrotus franciscanus</i>	0.695	0.0046	0.9413
22	<i>Parophrys vetulus</i>	0.672	0.0044	0.9457
23	<i>Brisaster</i> sp.	0.646	0.0043	0.9500
24	<i>Loligo opalescens</i>	0.640	0.0042	0.9542
25	<i>Raja binoculata</i>	0.590	0.0039	0.9581
26	<i>Genyonemus lineatus</i>	0.558	0.0037	0.9618
27	<i>Porichthys notatus</i>	0.463	0.0030	0.9648
28	<i>Eopsetta jordani</i>	0.459	0.0030	0.9678
29	<i>Clupea pallasii</i>	0.435	0.0029	0.9707
30	<i>Lycodes diapterus</i>	0.374	0.0025	0.9731
31	<i>Parmaturus xaniurus</i>	0.342	0.0022	0.9754
32	<i>Henricia</i> sp.	0.317	0.0021	0.9775
33	<i>Paractinostola faeculenta</i>	0.239	0.0016	0.9790
34	<i>Sebastes semicinctus</i>	0.233	0.0015	0.9806
35	<i>Ophiodon elongatus</i>	0.219	0.0014	0.9820
36	<i>Apristurus brunneus</i>	0.198	0.0013	0.9833
37	<i>Lypsetta exilis</i>	0.197	0.0013	0.9846
38	<i>Bathyraja interrupta</i>	0.188	0.0012	0.9858
39	<i>Engraulis mordax</i>	0.153	0.0010	0.9869
40	<i>Pannychia moseleyi</i>	0.133	0.0009	0.9877
41	<i>Luidia foliolata</i>	0.123	0.0008	0.9885

Table B-4.-Continued.

42	Zalambius rosaceus	0.118	0.0008	0.9893
43	Sebastes paucispinis	0.114	0.0008	0.9901
44	Rathbunaster californicus	0.093	0.0006	0.9907
45	Pleuronichthys decurrens	0.085	0.0006	0.9912
46	Oncorhynchus tshawytscha	0.085	0.0006	0.9918
47	Metridium sp.	0.071	0.0005	0.9923
48	Sebastes miniatus	0.071	0.0005	0.9928
49	Torpedo californica	0.066	0.0004	0.9932
50	Moroteuthis robusta	0.059	0.0004	0.9936
51	Lycodes brevipes	0.057	0.0004	0.9939
52	Myxoderma platyacanthum	0.054	0.0004	0.9943
53	Zoarcidae	0.051	0.0003	0.9946
54	Sebastes borealis	0.049	0.0003	0.9950
55	Opisthoteuthis californiana	0.045	0.0003	0.9952
56	Octopodidae	0.044	0.0003	0.9955
57	Peprilus simillimus	0.043	0.0003	0.9958
58	Pleurobranchaea californica	0.043	0.0003	0.9961
59	Lycodes pacificus	0.040	0.0003	0.9964
60	Paralithodes californiensis	0.036	0.0002	0.9966
61	Metridium farcimen	0.035	0.0002	0.9968
62	Careproctus melanurus	0.034	0.0002	0.9971
63	Scyphozoa (class)	0.029	0.0002	0.9972
64	Sebastes rufus	0.026	0.0002	0.9974
65	Sebastes entomelas	0.024	0.0002	0.9976
66	Allocentrotus fragilis	0.023	0.0001	0.9977
67	Aphrocallistes vastus	0.022	0.0001	0.9979
68	Stomphia sp.	0.021	0.0001	0.9980
69	Cancer productus	0.020	0.0001	0.9982
70	Chilara taylori	0.019	0.0001	0.9983
71	Argentina sialis	0.018	0.0001	0.9984
72	Histioteuthis sp.	0.017	0.0001	0.9985
73	Argentinidae	0.015	0.0001	0.9986
74	Sebastes pinniger	0.011	0.0001	0.9987
75	Berryteuthis magister	0.010	0.0001	0.9987
76	Penaeidae	0.010	0.0001	0.9988
77	Alosa sapidissima	0.010	0.0001	0.9989
78	Pseudostichopus sp.	0.009	0.0001	0.9989
79	Sebastes caurinus	0.008	0.0001	0.9990
80	Cancer magister	0.007	Trace	0.9990
81	Sicyonia ingentis	0.007	Trace	0.9991
82	Careproctus cypselurus	0.007	Trace	0.9991
83	Thaliacea unident.	0.006	Trace	0.9992
84	Molpadia intermedia	0.006	Trace	0.9992
85	Hexactinellida	0.006	Trace	0.9992

Table B-4.-Continued.

86	<i>Paralithodes rathbuni</i>	0.006	Trace	0.9993
87	<i>Sebastes levis</i>	0.005	Trace	0.9993
88	<i>Pandalus platyceros</i>	0.005	Trace	0.9993
89	<i>Molpadia</i> sp.	0.005	Trace	0.9994
90	<i>Parastichopus</i> sp.	0.005	Trace	0.9994
91	<i>Hippasteria spinosa</i>	0.005	Trace	0.9994
92	<i>Sebastes helvomaculatus</i>	0.005	Trace	0.9995
93	<i>Sebastes crameri</i>	0.004	Trace	0.9995
94	<i>Sebastes zacentrus</i>	0.004	Trace	0.9995
95	<i>Nudibranchia</i> unident.	0.004	Trace	0.9996
96	<i>Histioteuthis hoylei</i>	0.004	Trace	0.9996
97	<i>Holothuroidea</i> unident.	0.004	Trace	0.9996
98	<i>Spatangus californicus</i>	0.004	Trace	0.9996
99	<i>Psolus</i> sp.	0.003	Trace	0.9996
100	skate egg case unident.	0.003	Trace	0.9997
101	<i>Nezumia stelgidolepis</i>	0.003	Trace	0.9997
102	<i>Pandalus jordani</i>	0.003	Trace	0.9997
103	<i>Icosteus aenigmaticus</i>	0.003	Trace	0.9997
104	Myctophidae	0.003	Trace	0.9998
105	<i>Zaniolepis latipinnis</i>	0.003	Trace	0.9998
106	<i>Pasiphaea pacifica</i>	0.003	Trace	0.9998
107	<i>Sebastes elongatus</i>	0.002	Trace	0.9998
108	<i>Ptilosarcus gurneyi</i>	0.002	Trace	0.9998
109	<i>Laqueus californianus</i>	0.002	Trace	0.9998
110	<i>Sebastes babcocki</i>	0.002	Trace	0.9998
111	<i>Cancer gracilis</i>	0.002	Trace	0.9999
112	<i>Sebastes rosenblatti</i>	0.002	Trace	0.9999
113	<i>Stomphia coccinea</i>	0.002	Trace	0.9999
114	<i>Sebastes hopkinsi</i>	0.001	Trace	0.9999
115	<i>Sipuncula</i> (phylum)	0.001	Trace	0.9999
116	<i>Pleuronichthys verticalis</i>	0.001	Trace	0.9999
117	<i>Mediaster aequalis</i>	0.001	Trace	0.9999
118	<i>Liponema brevicornis</i>	0.001	Trace	0.9999
119	Virgularidae	0.001	Trace	0.9999
120	<i>Scomber japonicus</i>	0.001	Trace	0.9999
121	<i>Vampyroteuthis infernalis</i>	0.001	Trace	0.9999
122	<i>Lampetra tridentata</i>	0.001	Trace	0.9999
123	pineapple cucumber	0.001	Trace	0.9999
124	<i>Scorpaena guttata</i>	0.001	Trace	0.9999
125	<i>Anthoptilum grandiflorum</i>	0.001	Trace	1.0000
126	<i>Pseudarchaster</i> sp.	0.001	Trace	1.0000
127	<i>Neptunea amianta</i>	0.001	Trace	1.0000
128	<i>Asteronyx longifissa</i>	0.001	Trace	1.0000
129	Aphroditidae	0.001	Trace	1.0000

Table B-4.-Continued.

130 Thrissacanthias penicillatus	Trace	Trace	1.0000
131 Gorgonocephalus eucnemis	Trace	Trace	1.0000
132 Astropecten californicus	Trace	Trace	1.0000
133 Rossia pacifica	Trace	Trace	1.0000
134 Chauliodus macouni	Trace	Trace	1.0000
135 Mediaster sp.	Trace	Trace	1.0000
136 Lampanyctus sp.	Trace	Trace	1.0000
137 Actinauge verrillii	Trace	Trace	1.0000
138 Paguridae	Trace	Trace	1.0000
139 Sagamichthys abei	Trace	Trace	1.0000
140 Pennatulacea (order)	Trace	Trace	1.0000
141 Calinaticina oldroyi	Trace	Trace	1.0000
142 Asteronyx loveni	Trace	Trace	1.0000
143 Chiroteuthis sp.	Trace	Trace	1.0000
144 Pentamera sp.	Trace	Trace	1.0000
145 Neptunea lyrata	Trace	Trace	1.0000
146 Thetys vagina	Trace	Trace	1.0000
147 Idiacanthus antrostomus	Trace	Trace	1.0000
148 Serrivomer sector	Trace	Trace	1.0000
150 Tactostoma macropus	Trace	Trace	1.0000
149 Aristostomias scintillans	Trace	Trace	1.0000
151 Urticina sp.	Trace	Trace	1.0000
152 gastropod eggs	Trace	Trace	1.0000
153 Buccinum sp.	Trace	Trace	1.0000
154 Pagurus sp.	Trace	Trace	1.0000
155 Antiplanes sp.	Trace	Trace	1.0000
156 Sternoptychidae unident.	Trace	Trace	1.0000
157 Gnathophausia ingens	Trace	Trace	1.0000
158 Crangon sp.	Trace	Trace	1.0000
159 Callinassa sp.	Trace	Trace	1.0000
160 Isopoda (order)	Trace	Trace	1.0000
161 Apristurus brunneus	Trace	Trace	1.0000
162 Tarletonbeania crenularis	Trace	Trace	1.0000

Table B-5.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the INPFC Monterey shallow stratum (55-183 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Merluccius productus</i>	96.542	0.4594	0.4594
2	<i>Anoplopoma fimbria</i>	28.431	0.1353	0.5947
3	Scyphozoa (class)	15.374	0.0732	0.6678
4	<i>Genyonemus lineatus</i>	13.133	0.0625	0.7303
5	<i>Sebastes goodei</i>	10.698	0.0509	0.7812
6	<i>Citharichthys sordidus</i>	8.608	0.0410	0.8222
7	<i>Squalus acanthias</i>	7.206	0.0343	0.8564
8	<i>Parophrys vetulus</i>	5.119	0.0244	0.8808
9	<i>Clupea pallasi</i>	4.938	0.0235	0.9043
10	<i>Sebastes saxicola</i>	2.802	0.0133	0.9176
11	<i>Glyptocephalus zachirus</i>	2.326	0.0111	0.9287
12	<i>Microstomus pacificus</i>	1.960	0.0093	0.9380
13	<i>Eopsetta jordani</i>	1.034	0.0049	0.9430
14	<i>Loligo opalescens</i>	0.819	0.0039	0.9469
15	<i>Argentina sialis</i>	0.738	0.0035	0.9504
16	<i>Sebastes elongatus</i>	0.729	0.0035	0.9538
17	<i>Ophiodon elongatus</i>	0.699	0.0033	0.9572
18	<i>Hydrolagus colliciei</i>	0.697	0.0033	0.9605
19	<i>Porichthys notatus</i>	0.687	0.0033	0.9638
20	<i>Raja rhina</i>	0.597	0.0028	0.9666
21	<i>Raja binoculata</i>	0.578	0.0027	0.9693
22	<i>Sebastes miniatus</i>	0.505	0.0024	0.9717
23	<i>Zalembeus rosaceus</i>	0.492	0.0023	0.9741
24	<i>Metridium</i> sp.	0.467	0.0022	0.9763
25	<i>Luidia foliolata</i>	0.331	0.0016	0.9779
26	<i>Cancer magister</i>	0.310	0.0015	0.9794
27	<i>Sebastes semicinctus</i>	0.299	0.0014	0.9808
28	<i>Lyopsetta exilis</i>	0.259	0.0012	0.9820
29	<i>Octopus dofleini</i>	0.236	0.0011	0.9831
30	<i>Metridium farcimen</i>	0.215	0.0010	0.9842
31	<i>Sebastes crameri</i>	0.213	0.0010	0.9852
32	<i>Rathbunaster californicus</i>	0.174	0.0008	0.9860
33	<i>Pleuronichthys decurrens</i>	0.174	0.0008	0.9868
34	<i>Sebastes jordani</i>	0.155	0.0007	0.9876
35	<i>Acipenser medirostris</i>	0.144	0.0007	0.9883
36	<i>Peprilus simillimus</i>	0.139	0.0007	0.9889
37	<i>Platichthys stellatus</i>	0.135	0.0006	0.9896
38	<i>Sebastes caurinus</i>	0.126	0.0006	0.9902
39	<i>Alosa sapidissima</i>	0.125	0.0006	0.9908
40	<i>Microgadus proximus</i>	0.124	0.0006	0.9913
41	<i>Sebastes flavidus</i>	0.124	0.0006	0.9919



Table B-5.--Continued.

42 skate egg case unident.	0.120	0.0006	0.9925
43 Sebastes pinniger	0.117	0.0006	0.9930
44 Oncorhynchus tshawytscha	0.111	0.0005	0.9936
45 Argentinidae	0.103	0.0005	0.9941
46 Lepidopsetta bilineata	0.100	0.0005	0.9946
47 Sebastes chlorostictus	0.095	0.0005	0.9950
48 Atheresthes stomias	0.095	0.0004	0.9955
49 Paralichthys californicus	0.089	0.0004	0.9959
50 Sebastes paucispinis	0.088	0.0004	0.9963
51 Torpedo californica	0.080	0.0004	0.9967
52 Lopholithodes foraminatus	0.057	0.0003	0.9970
53 Thaliacea unident.	0.047	0.0002	0.9972
54 Raja inornata	0.042	0.0002	0.9974
55 Scomber japonicus	0.035	0.0002	0.9975
56 Sebastes hopkinsi	0.031	0.0001	0.9977
57 Hippoglossus stenolepis	0.022	0.0001	0.9978
58 Engraulis mordax	0.021	0.0001	0.9979
59 Sebastes diploproa	0.020	0.0001	0.9980
60 Laqueus californianus	0.019	0.0001	0.9981
61 Sardinops sagax	0.017	0.0001	0.9982
62 Sebastes entomelas	0.017	0.0001	0.9982
63 Hippasteria spinosa	0.017	0.0001	0.9983
64 Stomphia sp.	0.016	0.0001	0.9984
65 Parastichopus sp.	0.016	0.0001	0.9985
66 Trachurus symmetricus	0.015	0.0001	0.9986
67 Pycnopodia helianthoides	0.014	0.0001	0.9986
68 Bathyraja interrupta	0.013	0.0001	0.9987
69 Stylatula sp.	0.013	0.0001	0.9987
70 Sebastes helvomaculatus	0.013	0.0001	0.9988
71 Apristurus brunneus	0.013	0.0001	0.9989
72 Pandalus platyceros	0.012	0.0001	0.9989
73 Gorgonocephalus eucnemis	0.012	0.0001	0.9990
74 Sebastolobus alascanus	0.012	0.0001	0.9990
75 Psettichthys melanostictus	0.012	0.0001	0.9991
76 Brisaster latifrons	0.012	0.0001	0.9992
77 Icelinus filamentosus	0.011	0.0001	0.9992
78 Pandalus jordani	0.010	Trace	0.9992
79 Nudibranchia unident.	0.010	Trace	0.9993
80 Brisaster sp.	0.009	Trace	0.9993
81 brachiopod unident.	0.009	Trace	0.9994
82 Oncorhynchus kisutch	0.009	Trace	0.9994
83 Zaniolepis latipinnis	0.008	Trace	0.9995
84 Pleurobranchaea californica	0.008	Trace	0.9995
85 Pleuronichthys ritteri	0.007	Trace	0.9995

Table B-5.--Continued.

86	<i>Chilara taylori</i>	0.007	Trace	0.9996
87	<i>Asterina miniata</i>	0.006	Trace	0.9996
88	<i>Cancer productus</i>	0.005	Trace	0.9996
89	<i>Mursia gaudichaudii</i>	0.004	Trace	0.9996
90	<i>Hexanchus griseus</i>	0.004	Trace	0.9997
91	<i>Hyperprosopon anale</i>	0.004	Trace	0.9997
92	<i>Anarrhichthys ocellatus</i>	0.004	Trace	0.9997
93	<i>Sebastes melanostomus</i>	0.004	Trace	0.9997
94	<i>Tritonia sp.</i>	0.004	Trace	0.9997
95	<i>Lycodes cortezianus</i>	0.004	Trace	0.9998
96	<i>Mediaster aequalis</i>	0.003	Trace	0.9998
97	<i>Lycodes pacificus</i>	0.003	Trace	0.9998
98	<i>Parastichopus californicus</i>	0.003	Trace	0.9998
99	<i>Dermasterias imbricata</i>	0.003	Trace	0.9998
100	<i>Sebastes sp.</i>	0.002	Trace	0.9998
101	<i>Rossia pacifica</i>	0.002	Trace	0.9998
102	<i>Histioteuthis sp.</i>	0.002	Trace	0.9998
103	<i>Sebastes rosaceus</i>	0.002	Trace	0.9998
104	<i>Sebastes carnatus</i>	0.002	Trace	0.9999
105	<i>Parastichopus leucothele</i>	0.002	Trace	0.9999
106	<i>Stylasterias forreri</i>	0.002	Trace	0.9999
107	Virgularidae	0.002	Trace	0.9999
108	Aphroditidae	0.002	Trace	0.9999
109	Porifera	0.002	Trace	0.9999
110	<i>Pisaster brevispinus</i>	0.002	Trace	0.9999
111	<i>Sebastes alutus</i>	0.002	Trace	0.9999
112	<i>Urticina sp.</i>	0.002	Trace	0.9999
113	<i>Allosmerus elongatus</i>	0.002	Trace	0.9999
114	Zoarcidae	0.001	Trace	0.9999
115	<i>Hexagrammos decagrammus</i>	0.001	Trace	0.9999
116	<i>Opisthoteuthis californiana</i>	0.001	Trace	1.0000
117	Octopodidae	0.001	Trace	1.0000
118	<i>Gonatus sp.</i>	0.001	Trace	1.0000
119	<i>Sebastes wilsoni</i>	0.001	Trace	1.0000
120	<i>Hippasteria californica</i>	0.001	Trace	1.0000
121	<i>Raja binoculata</i>	0.001	Trace	1.0000
122	<i>Sebastes levis</i>	Trace	Trace	1.0000
123	<i>Pseudarchaster dissonus</i>	Trace	Trace	1.0000
124	<i>Sebastes dalli</i>	Trace	Trace	1.0000
125	<i>Mediaster sp.</i>	Trace	Trace	1.0000
126	<i>Calinaticina oldroyi</i>	Trace	Trace	1.0000
127	<i>Enophrys taurina</i>	Trace	Trace	1.0000
128	Ascidian unident.	Trace	Trace	1.0000
129	<i>Astropecten californicus</i>	Trace	Trace	1.0000

Table B-5.--Continued.

130 Pennatulacea (order)	Trace	Trace	1.0000
131 Sebastes rosenblatti	Trace	Trace	1.0000
132 Pseudarchaster parelii	Trace	Trace	1.0000
133 Icelinus tenuis	Trace	Trace	1.0000
134 Paractinostola faeculenta	Trace	Trace	1.0000
135 Molpadia sp.	Trace	Trace	1.0000
136 Chitonotus pugetensis	Trace	Trace	1.0000
137 Hippasteria sp.	Trace	Trace	1.0000
138 Orthasterias koehleri	Trace	Trace	1.0000
139 Pteraster tessellatus	Trace	Trace	1.0000
140 Holothuroidea unident.	Trace	Trace	1.0000
141 Polinices sp.	Trace	Trace	1.0000
142 Symphurus atricauda	Trace	Trace	1.0000
143 Paguridae	Trace	Trace	1.0000
144 Pseudarchaster sp.	Trace	Trace	1.0000
145 Isopoda (order)	Trace	Trace	1.0000
146 Polinices lewisi	Trace	Trace	1.0000
147 Stomphia coccinea	Trace	Trace	1.0000
148 Eptatretus stouti	Trace	Trace	1.0000
149 Petromyzontidae	Trace	Trace	1.0000
150 Pagurus sp.	Trace	Trace	1.0000
151 Zaprora silenus	Trace	Trace	1.0000
152 Actiniaria (order)	Trace	Trace	1.0000
153 Pandalus stenolepis	Trace	Trace	1.0000
154 Ophiuroid unident.	Trace	Trace	1.0000
155 Florometra sp.	Trace	Trace	1.0000
156 Trachipterus altivelis	Trace	Trace	1.0000
157 Crangon sp.	Trace	Trace	1.0000

Table B-6.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the INPFC Monterey middle stratum (184-366 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Sebastes jordani</i>	106.587	0.2829	0.2829
2	<i>Merluccius productus</i>	97.729	0.2594	0.5423
3	<i>Sebastes diploproa</i>	46.914	0.1245	0.6668
4	<i>Microstomus pacificus</i>	37.276	0.0989	0.7657
5	<i>Sebastes goodei</i>	26.593	0.0706	0.8363
6	<i>Sebastes saxicola</i>	16.937	0.0450	0.8813
7	<i>Anoplopoma fimbria</i>	15.406	0.0409	0.9222
8	<i>Glyptocephalus zachirus</i>	12.833	0.0341	0.9562
9	<i>Parophrys vetulus</i>	2.403	0.0064	0.9626
10	<i>Lycodes cortezianus</i>	2.182	0.0058	0.9684
11	<i>Sebastolobus alascanus</i>	1.352	0.0036	0.9720
12	Scyphozoa (class)	1.281	0.0034	0.9754
13	<i>Raja rhina</i>	1.187	0.0032	0.9785
14	<i>Hydrolagus colliei</i>	1.064	0.0028	0.9814
15	<i>Allocentrotus fragilis</i>	0.881	0.0023	0.9837
16	<i>Sebastes aurora</i>	0.816	0.0022	0.9858
17	<i>Sebastes crameri</i>	0.560	0.0015	0.9873
18	<i>Moroteuthis robusta</i>	0.548	0.0015	0.9888
19	<i>Lyopsetta exilis</i>	0.419	0.0011	0.9899
20	<i>Ophiodon elongatus</i>	0.351	0.0009	0.9908
21	<i>Apristurus brunneus</i>	0.327	0.0009	0.9917
22	<i>Sebastes zacentrus</i>	0.310	0.0008	0.9925
23	<i>Bathyraja interrupta</i>	0.276	0.0007	0.9933
24	<i>Rathbunaster californicus</i>	0.205	0.0005	0.9938
25	<i>Squalus acanthias</i>	0.190	0.0005	0.9943
26	<i>Sebastes elongatus</i>	0.183	0.0005	0.9948
27	<i>Luidia foliolata</i>	0.180	0.0005	0.9953
28	<i>Sebastes paucispinis</i>	0.169	0.0004	0.9957
29	<i>Sebastes rufus</i>	0.167	0.0004	0.9962
30	<i>Sebastes melanostomus</i>	0.167	0.0004	0.9966
31	<i>Liponema brevicornis</i>	0.152	0.0004	0.9970
32	<i>Sebastes babcocki</i>	0.121	0.0003	0.9973
33	<i>Parastichopus</i> sp.	0.060	0.0002	0.9975
34	<i>Cancer magister</i>	0.057	0.0001	0.9976
35	Paguridae	0.049	0.0001	0.9978
36	<i>Atheresthes stomias</i>	0.049	0.0001	0.9979
37	Argentinidae	0.048	0.0001	0.9980
38	<i>Pandalus platyceros</i>	0.043	0.0001	0.9981
39	<i>Eopsetta jordani</i>	0.043	0.0001	0.9983
40	<i>Chilara taylori</i>	0.042	0.0001	0.9984
41	<i>Brisaster latifrons</i>	0.039	0.0001	0.9985

Table B-6.--Continued.

42 Ophiuroid unident.	0.034	0.0001	0.9986
43 <i>Sebastes alutus</i>	0.032	0.0001	0.9986
44 <i>Metridium</i> sp.	0.031	0.0001	0.9987
45 <i>Chionoecetes tanneri</i>	0.031	0.0001	0.9988
46 Thaliacea unident.	0.029	0.0001	0.9989
47 <i>Sebastes levis</i>	0.028	0.0001	0.9990
48 <i>Gonatopsis borealis</i>	0.028	0.0001	0.9990
49 <i>Paractinostola faeculenta</i>	0.026	0.0001	0.9991
50 <i>Parastichopus californicus</i>	0.024	0.0001	0.9992
51 <i>Myxoderma platyacanthum</i>	0.024	0.0001	0.9992
52 <i>Parmaturus xaniurus</i>	0.022	0.0001	0.9993
53 <i>Sebastes chlorostictus</i>	0.022	0.0001	0.9994
54 Scyliorhinidae	0.015	Trace	0.9994
55 <i>Lycodes diapterus</i>	0.014	Trace	0.9994
56 <i>Sebastes rosenblatti</i>	0.013	Trace	0.9995
57 <i>Paralithodes californiensis</i>	0.013	Trace	0.9995
58 <i>Sebastes entomelas</i>	0.013	Trace	0.9995
59 <i>Sebastes pinniger</i>	0.012	Trace	0.9996
60 <i>Pleuronichthys decurrens</i>	0.012	Trace	0.9996
61 <i>Hippasteria spinosa</i>	0.012	Trace	0.9996
62 <i>Sebastes proriger</i>	0.012	Trace	0.9997
63 <i>Strongylocentrotus franciscanus</i>	0.010	Trace	0.9997
64 <i>Calinaticina oldroyi</i>	0.007	Trace	0.9997
65 <i>Parastichopus leucothele</i>	0.007	Trace	0.9997
66 <i>Sebastes helvomaculatus</i>	0.006	Trace	0.9997
67 <i>Mediaster aequalis</i>	0.006	Trace	0.9998
68 <i>Histioteuthis</i> sp.	0.006	Trace	0.9998
69 <i>Gonatus</i> sp.	0.006	Trace	0.9998
70 <i>Careproctus melanurus</i>	0.006	Trace	0.9998
71 Actiniaria (order)	0.005	Trace	0.9998
72 Liparidinae	0.005	Trace	0.9998
73 <i>Porichthys notatus</i>	0.005	Trace	0.9998
74 <i>Ophiura sarsi</i>	0.005	Trace	0.9999
75 vase sponge	0.005	Trace	0.9999
76 <i>Berryteuthis magister</i>	0.004	Trace	0.9999
77 <i>Argentina sialis</i>	0.004	Trace	0.9999
78 <i>Stomphia</i> sp.	0.003	Trace	0.9999
79 <i>Hippasteria californica</i>	0.003	Trace	0.9999
80 <i>Citharichthys sordidus</i>	0.003	Trace	0.9999
81 Gastropod unident.	0.003	Trace	0.9999
82 <i>Loligo opalescens</i>	0.003	Trace	0.9999
83 <i>Gorgonocephalus eucnemis</i>	0.002	Trace	0.9999
84 <i>Crossaster borealis</i>	0.002	Trace	0.9999
85 <i>Stomphia coccinea</i>	0.002	Trace	0.9999

Table B-6.--Continued.

86 Buccinum sp.	0.002	Trace	1.0000
87 Sagamichthys abei	0.001	Trace	1.0000
88 Icelinus filamentosus	0.001	Trace	1.0000
89 Nudibranchia unident.	0.001	Trace	1.0000
90 Apristurus brunneus	0.001	Trace	1.0000
91 Ophidion scrippsae	0.001	Trace	1.0000
92 Aphroditidae	0.001	Trace	1.0000
93 Rossia pacifica	0.001	Trace	1.0000
94 Octopodidae	0.001	Trace	1.0000
95 Holothuroidea unident.	0.001	Trace	1.0000
96 Mediaster sp.	0.001	Trace	1.0000
97 Asterina miniata	0.001	Trace	1.0000
98 pink hormathiid anemone	0.001	Trace	1.0000
99 Pleurobranchaea californica	0.001	Trace	1.0000
100 Shark egg	0.001	Trace	1.0000
101 Pisaster brevispinus	0.001	Trace	1.0000
102 Thrissacanthias penicillatus	0.001	Trace	1.0000
103 Pagurus sp.	0.001	Trace	1.0000
104 Zoarcidae	0.001	Trace	1.0000
105 Pagurus tanneri	Trace	Trace	1.0000
106 Astropecten californicus	Trace	Trace	1.0000
107 Ptilosarcus gurneyi	Trace	Trace	1.0000
108 Mursia gaudichaudii	Trace	Trace	1.0000
109 skate egg case unident.	Trace	Trace	1.0000
110 Molpadia intermedia	Trace	Trace	1.0000
111 Pseudarchaster sp.	Trace	Trace	1.0000
112 Myctophidae	Trace	Trace	1.0000
113 Antiplanes sp.	Trace	Trace	1.0000
114 Henricia aspera	Trace	Trace	1.0000
115 Virgularidae	Trace	Trace	1.0000

Table B-7.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the INPFC Monterey deep stratum (367-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Microstomus pacificus</i>	69.962	0.5192	0.5192
2	<i>Merluccius productus</i>	16.697	0.1239	0.6431
3	<i>Anoplopoma fimbria</i>	12.763	0.0947	0.7379
4	<i>Glyptocephalus zachirus</i>	12.347	0.0916	0.8295
5	<i>Sebastes aurora</i>	5.618	0.0417	0.8712
6	<i>Sebastolobus alascanus</i>	3.348	0.0248	0.8960
7	<i>Lycodes cortezianus</i>	2.423	0.0180	0.9140
8	<i>Sebastes melanostomus</i>	1.720	0.0128	0.9268
9	<i>Raja rhina</i>	1.459	0.0108	0.9376
10	<i>Apristurus brunneus</i>	1.341	0.0099	0.9476
11	<i>Lycodes diapterus</i>	1.200	0.0089	0.9565
12	Scyphozoa (class)	0.716	0.0053	0.9618
13	Scyliorhinidae	0.701	0.0052	0.9670
14	<i>Sebastolobus altivelis</i>	0.521	0.0039	0.9708
15	<i>Parmaturus xaniurus</i>	0.406	0.0030	0.9739
16	<i>Icosteus aenigmaticus</i>	0.384	0.0029	0.9767
17	<i>Sebastes diploproa</i>	0.282	0.0021	0.9788
18	<i>Paractinostola faeculenta</i>	0.273	0.0020	0.9808
19	<i>Hydrolagus colliei</i>	0.256	0.0019	0.9827
20	<i>Bathyraja interrupta</i>	0.215	0.0016	0.9843
21	<i>Squalus acanthias</i>	0.187	0.0014	0.9857
22	<i>Liponema brevicornis</i>	0.152	0.0011	0.9868
23	<i>Allocentrotus fragilis</i>	0.149	0.0011	0.9880
24	<i>Brisaster latifrons</i>	0.144	0.0011	0.9890
25	<i>Strongylocentrotus franciscanus</i>	0.143	0.0011	0.9901
26	<i>Careproctus melanurus</i>	0.102	0.0008	0.9908
27	<i>Lyopsetta exilis</i>	0.100	0.0007	0.9916
28	<i>Myxoderma platyacanthum</i>	0.099	0.0007	0.9923
29	<i>Rathbunaster californicus</i>	0.094	0.0007	0.9930
30	<i>Neptunea</i> sp.	0.085	0.0006	0.9936
31	<i>Antimora microlepis</i>	0.084	0.0006	0.9943
32	<i>Brisaster</i> sp.	0.062	0.0005	0.9947
33	<i>Trachipterus altivelis</i>	0.061	0.0005	0.9952
34	Octopodidae	0.060	0.0004	0.9956
35	<i>Octopus dofleini</i>	0.058	0.0004	0.9961
36	<i>Gonatopsis borealis</i>	0.052	0.0004	0.9964
37	<i>Histioteuthis</i> sp.	0.050	0.0004	0.9968
38	<i>Opisthoteuthis californiana</i>	0.050	0.0004	0.9972
39	<i>Sebastes crameri</i>	0.045	0.0003	0.9975
40	<i>Stomphia</i> sp.	0.036	0.0003	0.9978
41	<i>Neptunea amianta</i>	0.034	0.0003	0.9980

Table B-7.--Continued.

42	<i>Sebastes rufus</i>	0.026	0.0002	0.9982
43	<i>Alepisaurus ferox</i>	0.019	0.0001	0.9984
44	<i>Luidia foliolata</i>	0.019	0.0001	0.9985
45	<i>Sebastes babcocki</i>	0.016	0.0001	0.9986
46	Thaliacea unident.	0.016	0.0001	0.9988
47	<i>Thrissacanthias penicillatus</i>	0.015	0.0001	0.9989
48	<i>Apristurus brunneus</i>	0.014	0.0001	0.9990
49	<i>Mediaster aequalis</i>	0.010	0.0001	0.9990
50	<i>Atheresthes stomias</i>	0.009	0.0001	0.9991
51	<i>Coryphaenoides acrolepis</i>	0.009	0.0001	0.9992
52	Actiniaria (order)	0.009	0.0001	0.9992
53	Paguridae	0.008	0.0001	0.9993
54	<i>Sebastes alutus</i>	0.008	0.0001	0.9994
55	<i>Argentina sialis</i>	0.008	0.0001	0.9994
56	pink hormathiid anemone	0.007	0.0000	0.9995
57	<i>Chionoecetes tanneri</i>	0.006	Trace	0.9995
58	<i>Sebastes goodei</i>	0.006	Trace	0.9996
59	<i>Parastichopus</i> sp.	0.006	Trace	0.9996
60	<i>Hippasteria californica</i>	0.004	Trace	0.9996
61	Aphroditidae	0.003	Trace	0.9996
62	<i>Raja binoculata</i>	0.003	Trace	0.9997
63	<i>Thetys vagina</i>	0.003	Trace	0.9997
64	gastropod eggs	0.003	Trace	0.9997
65	<i>Buccinum</i> sp.	0.003	Trace	0.9997
66	<i>Antiplanes</i> sp.	0.002	Trace	0.9998
67	<i>Embassichthys bathybius</i>	0.002	Trace	0.9998
68	<i>Metridium</i> sp.	0.002	Trace	0.9998
69	<i>Nezumia steligidolepis</i>	0.002	Trace	0.9998
70	<i>Pandalus jordani</i>	0.002	Trace	0.9998
71	<i>Nudibranchia</i> unident.	0.002	Trace	0.9998
72	<i>Pseudarchaster</i> sp.	0.002	Trace	0.9998
73	<i>Pasiphaea pacifica</i>	0.002	Trace	0.9999
74	<i>Metridium farcimen</i>	0.001	Trace	0.9999
75	Liparidinae	0.001	Trace	0.9999
76	Holothuroidea unident.	0.001	Trace	0.9999
77	Asteroidea unident.	0.001	Trace	0.9999
78	<i>Sebastes aleutianus</i>	0.001	Trace	0.9999
79	<i>Hippasteria</i> sp.	0.001	Trace	0.9999
80	<i>Chorilia longipes</i>	0.001	Trace	0.9999
81	<i>Anthomastus</i> sp.	0.001	Trace	0.9999
82	<i>Gonatus</i> sp.	0.001	Trace	0.9999
83	<i>Neomenia</i> sp.	0.001	Trace	0.9999
84	<i>Mediaster</i> sp.	0.001	Trace	0.9999
85	<i>Pannychia moseleyi</i>	0.001	Trace	1.0000



Table B-7.--Continued.

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86 Myctophidae	0.001	Trace	1.0000
87 Pseudostichopus mollis	0.001	Trace	1.0000
88 Porifera	0.001	Trace	1.0000
89 Loligo opalescens	0.001	Trace	1.0000
90 Parastichopus californicus	0.001	Trace	1.0000
91 pineapple cucumber	0.001	Trace	1.0000
92 Platyroctidae	Trace	Trace	1.0000
93 Parastichopus leucothele	Trace	Trace	1.0000
94 Pagurus tanneri	Trace	Trace	1.0000
95 Ophiuroid unident.	Trace	Trace	1.0000
96 Anoplogaster cornuta	Trace	Trace	1.0000
97 Pseudostichopus sp.	Trace	Trace	1.0000
98 Hippasteria spinosa	Trace	Trace	1.0000
99 Pagurus sp.	Trace	Trace	1.0000
100 Oregonia bifurca	Trace	Trace	1.0000
101 Buccinum strigillatum	Trace	Trace	1.0000
102 Calliostoma platinum	Trace	Trace	1.0000
103 Gastropod unident.	Trace	Trace	1.0000
104 Ophiura sp.	Trace	Trace	1.0000
105 Actinauge verrillii	Trace	Trace	1.0000
106 Chiroteuthis sp.	Trace	Trace	1.0000

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Table B-8.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the entire INPFC Monterey area (55-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Merluccius productus</i>	82.059	0.3637	0.3637
2	<i>Anoplopoma fimbria</i>	23.256	0.1031	0.4668
3	<i>Microstomus pacificus</i>	20.688	0.0917	0.5585
4	<i>Sebastes jordani</i>	18.858	0.0836	0.6421
5	<i>Sebastes goodei</i>	11.528	0.0511	0.6932
6	Scyphozoa (class)	10.196	0.0452	0.7384
7	<i>Genyonemus lineatus</i>	8.405	0.0373	0.7756
8	<i>Sebastes diploproa</i>	8.321	0.0369	0.8125
9	<i>Glyptocephalus zachirus</i>	6.019	0.0267	0.8392
10	<i>Citharichthys sordidus</i>	5.509	0.0244	0.8636
11	<i>Sebastes saxicola</i>	4.774	0.0212	0.8848
12	<i>Squalus acanthias</i>	4.680	0.0207	0.9055
13	<i>Parophrys vetulus</i>	3.699	0.0164	0.9219
14	<i>Clupea pallasii</i>	3.160	0.0140	0.9359
15	<i>Sebastes aurora</i>	1.177	0.0052	0.9412
16	<i>Sebastolobus alascanus</i>	0.862	0.0038	0.9450
17	<i>Raja rhina</i>	0.860	0.0038	0.9488
18	<i>Lycodes cortezianus</i>	0.832	0.0037	0.9525
19	<i>Hydrolagus colliei</i>	0.680	0.0030	0.9555
20	<i>Eopsetta jordani</i>	0.669	0.0030	0.9585
21	<i>Loligo opalescens</i>	0.525	0.0023	0.9608
22	<i>Ophiodon elongatus</i>	0.509	0.0023	0.9630
23	<i>Sebastes elongatus</i>	0.499	0.0022	0.9652
24	<i>Argentina sialis</i>	0.474	0.0021	0.9674
25	<i>Porichthys notatus</i>	0.441	0.0020	0.9693
26	<i>Raja binoculata</i>	0.370	0.0016	0.9710
27	<i>Sebastes melanostomus</i>	0.348	0.0015	0.9725
28	<i>Sebastes miniatus</i>	0.323	0.0014	0.9739
29	<i>Zalembeius rosaceus</i>	0.315	0.0014	0.9753
30	<i>Apristurus brunneus</i>	0.312	0.0014	0.9767
31	<i>Metridium</i> sp.	0.305	0.0014	0.9781
32	<i>Lyopsetta exilis</i>	0.258	0.0011	0.9792
33	<i>Luidia foliolata</i>	0.247	0.0011	0.9803
34	<i>Sebastes crameri</i>	0.243	0.0011	0.9814
35	<i>Lycodes diapterus</i>	0.223	0.0010	0.9824
36	<i>Cancer magister</i>	0.209	0.0009	0.9833
37	<i>Sebastes semicinctus</i>	0.191	0.0008	0.9841
38	<i>Alloctrotus fragilis</i>	0.183	0.0008	0.9850
39	<i>Rathbunaster californicus</i>	0.165	0.0007	0.9857
40	<i>Octopus dofleini</i>	0.162	0.0007	0.9864
41	<i>Metridium farcimen</i>	0.138	0.0006	0.9870

Table B-8.--Continued.

42 Scyliorhinidae	0.132	0.0006	0.9876
43 Pleuronichthys decurrens	0.113	0.0005	0.9881
44 Bathyraja interrupta	0.097	0.0004	0.9885
45 Moroteuthis robusta	0.097	0.0004	0.9890
46 Sebastolobus altivelis	0.096	0.0004	0.9894
47 Acipenser medirostris	0.092	0.0004	0.9898
48 Peprilus simillimus	0.089	0.0004	0.9902
49 Platichthys stellatus	0.086	0.0004	0.9906
50 Sebastes paucispinis	0.086	0.0004	0.9909
51 Sebastes caurinus	0.080	0.0004	0.9913
52 Alosa sapidissima	0.080	0.0004	0.9916
53 Microgadus proximus	0.080	0.0004	0.9920
54 Sebastes flavidus	0.079	0.0004	0.9924
55 Parmaturus xaniurus	0.079	0.0003	0.9927
56 skate egg case unident.	0.077	0.0003	0.9930
57 Sebastes pinniger	0.077	0.0003	0.9934
58 Argentinidae	0.075	0.0003	0.9937
59 Oncorhynchus tshawytscha	0.071	0.0003	0.9940
60 Atheresthes stomias	0.071	0.0003	0.9944
61 Icosteus aenigmaticus	0.071	0.0003	0.9947
62 Sebastes chlorostictus	0.065	0.0003	0.9950
63 Lepidopsetta bilineata	0.064	0.0003	0.9952
64 Paralichthys californicus	0.057	0.0003	0.9955
65 Paractinostola faeculenta	0.055	0.0002	0.9957
66 Liponema brevicornis	0.055	0.0002	0.9960
67 Sebastes zacentrus	0.055	0.0002	0.9962
68 Torpedo californica	0.051	0.0002	0.9964
69 Brisaster latifrons	0.041	0.0002	0.9966
70 Thaliacea unident.	0.038	0.0002	0.9968
71 Lopholithodes foraminatus	0.037	0.0002	0.9970
72 Sebastes rufus	0.034	0.0002	0.9971
73 Strongylocentrotus franciscanus	0.028	0.0001	0.9972
74 Raja inornata	0.027	0.0001	0.9974
75 Sebastes babcocki	0.024	0.0001	0.9974
76 Scomber japonicus	0.023	0.0001	0.9976
77 Myxoderma platyacanthum	0.022	0.0001	0.9976
78 Parastichopus sp.	0.022	0.0001	0.9978
79 Sebastes hopkinsi	0.020	0.0001	0.9978
80 Careproctus melanurus	0.020	0.0001	0.9979
81 Brisaster sp.	0.017	0.0001	0.9980
82 Stomphia sp.	0.017	0.0001	0.9981
83 Neptunea sp.	0.016	0.0001	0.9982
84 Antimora microlepis	0.016	0.0001	0.9982
85 Pandalus platyceros	0.015	0.0001	0.9983

Table B-8.--Continued.

86	<i>Gonatopsis borealis</i>	0.014	0.0001	0.9984
87	<i>Hippoglossus stenolepis</i>	0.014	0.0001	0.9984
88	<i>Sebastes entomelas</i>	0.013	0.0001	0.9985
89	<i>Engraulis mordax</i>	0.013	0.0001	0.9985
90	<i>Hippasteria spinosa</i>	0.013	0.0001	0.9986
91	<i>Laqueus californianus</i>	0.012	0.0001	0.9986
92	<i>Chilara taylori</i>	0.012	0.0001	0.9987
93	Octopodidae	0.012	0.0001	0.9988
94	<i>Histioteuthis</i> sp.	0.012	0.0001	0.9988
95	<i>Trachipterus altivelis</i>	0.011	0.0000	0.9988
96	<i>Sardinops sagax</i>	0.011	0.0000	0.9989
97	Paguridae	0.010	Trace	0.9989
98	<i>Opisthoteuthis californiana</i>	0.010	Trace	0.9990
99	<i>Trachurus symmetricus</i>	0.010	Trace	0.9990
100	<i>Sebastes helvomaculatus</i>	0.010	Trace	0.9991
101	<i>Pycnopodia helianthoides</i>	0.009	Trace	0.9991
102	<i>Stylatula</i> sp.	0.009	Trace	0.9992
103	<i>Sebastes alutus</i>	0.008	Trace	0.9992
104	<i>Gorgonocephalus eucnemis</i>	0.008	Trace	0.9992
105	<i>Psettichthys melanostictus</i>	0.008	Trace	0.9993
106	<i>Icelinus filamentosus</i>	0.007	Trace	0.9993
107	<i>Nudibranchia</i> unident.	0.007	Trace	0.9993
108	<i>Pandalus jordani</i>	0.007	Trace	0.9994
109	<i>Chionoecetes tanneri</i>	0.007	Trace	0.9994
110	<i>Neptunea amianta</i>	0.006	Trace	0.9994
111	<i>Parastichopus californicus</i>	0.006	Trace	0.9994
112	Ophiuroid unident.	0.006	Trace	0.9995
113	brachiopod unident.	0.006	Trace	0.9995
114	<i>Oncorhynchus kisutch</i>	0.006	Trace	0.9995
115	<i>Sebastes levis</i>	0.005	Trace	0.9995
116	<i>Zaniolepis latipinnis</i>	0.005	Trace	0.9996
117	<i>Pleurobranchaea californica</i>	0.005	Trace	0.9996
118	<i>Mediaster aequalis</i>	0.005	Trace	0.9996
119	<i>Pleuronichthys ritteri</i>	0.005	Trace	0.9996
120	<i>Asterina miniata</i>	0.004	Trace	0.9996
121	<i>Alepisaurus ferox</i>	0.004	Trace	0.9996
122	<i>Cancer productus</i>	0.003	Trace	0.9997
123	<i>Mursia gaudichaudii</i>	0.003	Trace	0.9997
124	<i>Thrissacanthias penicillatus</i>	0.003	Trace	0.9997
125	<i>Apristurus brunneus</i>	0.003	Trace	0.9997
126	<i>Hexanchus griseus</i>	0.003	Trace	0.9997
127	<i>Parastichopus leucothele</i>	0.003	Trace	0.9997
128	<i>Hyperprosopon anale</i>	0.003	Trace	0.9997
129	<i>Sebastes rosenblatti</i>	0.003	Trace	0.9998

Table B-8.--Continued.

130 Actiniaria (order)	0.003	Trace	0.9998
131 Anarrhichthys ocellatus	0.002	Trace	0.9998
132 Paralithodes californiensis	0.002	Trace	0.9998
133 Tritonia sp.	0.002	Trace	0.9998
134 Sebastes proriger	0.002	Trace	0.9998
135 Aphroditidae	0.002	Trace	0.9998
136 Lycodes pacificus	0.002	Trace	0.9998
137 Dermasterias imbricata	0.002	Trace	0.9998
138 Gonatus sp.	0.002	Trace	0.9998
139 Coryphaenoides acrolepis	0.002	Trace	0.9998
140 Hippasteria californica	0.002	Trace	0.9998
141 Rossia pacifica	0.002	Trace	0.9999
142 Calinaticina oldroyi	0.002	Trace	0.9999
143 Sebastes sp.	0.001	Trace	0.9999
144 pink hormathiid anemone	0.001	Trace	0.9999
145 Sebastes rosaceus	0.001	Trace	0.9999
146 Sebastes carnatus	0.001	Trace	0.9999
147 Porifera	0.001	Trace	0.9999
148 Stylasterias forreri	0.001	Trace	0.9999
149 Virgularidae	0.001	Trace	0.9999
150 Pisaster brevispinus	0.001	Trace	0.9999
151 Liparidinae	0.001	Trace	0.9999
152 Zoarcidae	0.001	Trace	0.9999
153 Urticina sp.	0.001	Trace	0.9999
154 Allosmerus elongatus	0.001	Trace	0.9999
155 Hexagrammos decagrammus	0.001	Trace	0.9999
156 Ophiura sarsi	0.001	Trace	0.9999
157 vase sponge	0.001	Trace	0.9999
158 Buccinum sp.	0.001	Trace	0.9999
159 Berryteuthis magister	0.001	Trace	1.0000
160 Mediaster sp.	0.001	Trace	1.0000
161 Thetys vagina	0.001	Trace	1.0000
162 gastropod eggs	0.001	Trace	1.0000
163 Holothuroidea unident.	0.001	Trace	1.0000
164 Gastropod unident.	Trace	Trace	1.0000
165 Antiplanes sp.	Trace	Trace	1.0000
166 Embassichthys bathybius	Trace	Trace	1.0000
167 Sebastes wilsoni	Trace	Trace	1.0000
168 Pseudarchaster sp.	Trace	Trace	1.0000
169 Stomphia coccinea	Trace	Trace	1.0000
170 Nezumia stelgidolepis	Trace	Trace	1.0000
171 Crossaster borealis	Trace	Trace	1.0000
172 Raja binoculata	Trace	Trace	1.0000
173 Hippasteria sp.	Trace	Trace	1.0000

Table B-8.--Continued.

174 Pseudarchaster dissonus	Trace	Trace	1.0000
175 Pasiphaea pacifica	Trace	Trace	1.0000
176 Astropecten californicus	Trace	Trace	1.0000
177 Sagamichthys abei	Trace	Trace	1.0000
178 Sebastes dalli	Trace	Trace	1.0000
179 Enophrys taurina	Trace	Trace	1.0000
180 Ascidian unident.	Trace	Trace	1.0000
181 Pennatulacea (order)	Trace	Trace	1.0000
182 Ophidion scrippsae	Trace	Trace	1.0000
183 Pseudarchaster parelii	Trace	Trace	1.0000
184 Icelinus tenuis	Trace	Trace	1.0000
185 Asteroidea unident.	Trace	Trace	1.0000
186 Sebastes aleutianus	Trace	Trace	1.0000
187 Pagurus sp.	Trace	Trace	1.0000
188 Chorilia longipes	Trace	Trace	1.0000
189 Molpadia sp.	Trace	Trace	1.0000
190 Pagurus tanneri	Trace	Trace	1.0000
191 Anthomastus sp.	Trace	Trace	1.0000
192 Myctophidae	Trace	Trace	1.0000
193 Neomenia sp.	Trace	Trace	1.0000
194 Chitonotus pugetensis	Trace	Trace	1.0000
195 Pannychia moseleyi	Trace	Trace	1.0000
196 Orthasterias koehleri	Trace	Trace	1.0000
197 Pteraster tesselatus	Trace	Trace	1.0000
198 Polinices sp.	Trace	Trace	1.0000
199 Pseudostichopus mollis	Trace	Trace	1.0000
200 Shark egg	Trace	Trace	1.0000
201 Symphurus atricauda	Trace	Trace	1.0000
202 pineapple cucumber	Trace	Trace	1.0000
203 Platytroctidae	Trace	Trace	1.0000
204 Isopoda (order)	Trace	Trace	1.0000
205 Polinices lewisi	Trace	Trace	1.0000
206 Anoplogaster cornuta	Trace	Trace	1.0000
207 Pseudostichopus sp.	Trace	Trace	1.0000
208 Ptilosarcus gurneyi	Trace	Trace	1.0000
209 Eptatretus stouti	Trace	Trace	1.0000
210 Petromyzontidae	Trace	Trace	1.0000
211 Molpadia intermedia	Trace	Trace	1.0000
212 Henricia aspera	Trace	Trace	1.0000
213 Oregonia bifurca	Trace	Trace	1.0000
214 Zaprora silenus	Trace	Trace	1.0000
215 Pandalus stenolepis	Trace	Trace	1.0000
216 Buccinum strigillatum	Trace	Trace	1.0000
217 Calliostoma platinum	Trace	Trace	1.0000

Table B-8.--Continued.

218 Florometra sp.	Trace	Trace	1.0000
219 Ophiura sp.	Trace	Trace	1.0000
220 Actinauge verrillii	Trace	Trace	1.0000
221 Chiroteuthis sp.	Trace	Trace	1.0000
222 Crangon sp.	Trace	Trace	1.0000

Table B-9.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the INPFC Eureka shallow stratum (55-183 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Merluccius productus</i>	131.859	0.6584	0.6584
2	<i>Citharichthys sordidus</i>	12.016	0.0600	0.7184
3	<i>Squalus acanthias</i>	9.784	0.0489	0.7672
4	<i>Glyptocephalus zachirus</i>	6.152	0.0307	0.7980
5	<i>Parophrys vetulus</i>	5.680	0.0284	0.8263
6	<i>Microstomus pacificus</i>	4.244	0.0212	0.8475
7	<i>Brisaster latifrons</i>	3.830	0.0191	0.8666
8	<i>Sebastes saxicola</i>	3.428	0.0171	0.8838
9	<i>Clupea pallasi</i>	3.324	0.0166	0.9003
10	<i>Anoplopoma fimbria</i>	2.489	0.0124	0.9128
11	<i>Trachurus symmetricus</i>	2.400	0.0120	0.9248
12	<i>Oncorhynchus tshawytscha</i>	1.629	0.0081	0.9329
13	<i>Sebastes elongatus</i>	1.570	0.0078	0.9407
14	<i>Microgadus proximus</i>	1.446	0.0072	0.9479
15	<i>Metridium</i> sp.	1.217	0.0061	0.9540
16	<i>Ophiodon elongatus</i>	1.155	0.0058	0.9598
17	<i>Atheresthes stomias</i>	1.006	0.0050	0.9648
18	<i>Raja binoculata</i>	0.806	0.0040	0.9688
19	<i>Eopsetta jordani</i>	0.730	0.0036	0.9725
20	<i>Hippoglossus stenolepis</i>	0.653	0.0033	0.9757
21	<i>Lyopsetta exilis</i>	0.625	0.0031	0.9789
22	<i>Raja rhina</i>	0.479	0.0024	0.9813
23	<i>Sebastes diploproa</i>	0.459	0.0023	0.9836
24	Scyphozoa (class)	0.417	0.0021	0.9856
25	<i>Sebastes pinniger</i>	0.364	0.0018	0.9874
26	<i>Pandalus jordani</i>	0.308	0.0015	0.9890
27	<i>Sebastes crameri</i>	0.229	0.0011	0.9901
28	<i>Hydrolagus colliei</i>	0.208	0.0010	0.9912
29	<i>Loligo opalescens</i>	0.173	0.0009	0.9920
30	<i>Luidia foliolata</i>	0.160	0.0008	0.9928
31	<i>Pycnopodia helianthoides</i>	0.147	0.0007	0.9936
32	<i>Lycodes cortezianus</i>	0.114	0.0006	0.9941
33	<i>Cancer magister</i>	0.109	0.0005	0.9947
34	<i>Aurelia</i> sp.	0.108	0.0005	0.9952
35	<i>Metridium farcimen</i>	0.078	0.0004	0.9956
36	<i>Allosmerus elongatus</i>	0.076	0.0004	0.9960
37	<i>Alosa sapidissima</i>	0.061	0.0003	0.9963
38	<i>Sebastes flavidus</i>	0.059	0.0003	0.9966
39	<i>Pleuronichthys decurrens</i>	0.049	0.0002	0.9968
40	Thaliacea unident.	0.044	0.0002	0.9970
41	<i>Hippoglossoides elassodon</i>	0.039	0.0002	0.9972



Table B-9.--Continued.

42	<i>Sebastes goodei</i>	0.037	0.0002	0.9974
43	<i>Lycodes pacificus</i>	0.037	0.0002	0.9976
44	<i>Octopus dofleini</i>	0.031	0.0002	0.9978
45	<i>Bathyraja interrupta</i>	0.028	0.0001	0.9979
46	<i>Sebastes paucispinis</i>	0.028	0.0001	0.9980
47	<i>Sebastolobus alascanus</i>	0.025	0.0001	0.9982
48	<i>Scomber japonicus</i>	0.025	0.0001	0.9983
49	<i>Thaleichthys pacificus</i>	0.022	0.0001	0.9984
50	<i>Hippasteria spinosa</i>	0.021	0.0001	0.9985
51	<i>Sebastes entomelas</i>	0.019	0.0001	0.9986
52	<i>Sebastes zacentrus</i>	0.018	0.0001	0.9987
53	<i>Parastichopus leucothele</i>	0.017	0.0001	0.9988
54	Virgularidae	0.017	0.0001	0.9989
55	<i>Isopsetta isolepis</i>	0.016	0.0001	0.9990
56	<i>Pisaster brevispinus</i>	0.016	0.0001	0.9990
57	<i>Platichthys stellatus</i>	0.015	0.0001	0.9991
58	<i>Lopholithodes foraminatus</i>	0.015	0.0001	0.9992
59	<i>Sebastes jordani</i>	0.014	0.0001	0.9992
60	<i>Dermasterias imbricata</i>	0.014	0.0001	0.9993
61	<i>Cyanea capillata</i>	0.014	0.0001	0.9994
62	<i>Parastichopus californicus</i>	0.014	0.0001	0.9995
63	<i>Psettichthys melanostictus</i>	0.011	0.0001	0.9995
64	Zoarcidae	0.011	0.0001	0.9996
65	<i>Chrysaora</i> sp.	0.007	Trace	0.9996
66	<i>Sebastes maliger</i>	0.007	Trace	0.9996
67	<i>Allocentrotus fragilis</i>	0.006	Trace	0.9997
68	<i>Nudibranchia unident.</i>	0.006	Trace	0.9997
69	<i>Molpadia</i> sp.	0.005	Trace	0.9997
70	<i>Chilara taylori</i>	0.005	Trace	0.9998
71	Myxinidae	0.004	Trace	0.9998
72	Aphroditidae	0.003	Trace	0.9998
73	<i>Hexagrammos decagrammus</i>	0.003	Trace	0.9998
74	<i>Myxoderma platyacanthum</i>	0.003	Trace	0.9998
75	Actiniaria (order)	0.002	Trace	0.9998
76	Pennatulacea (order)	0.002	Trace	0.9998
77	<i>Rossia pacifica</i>	0.002	Trace	0.9998
78	<i>Rathbunaster californicus</i>	0.002	Trace	0.9999
79	Scyliorhinidae	0.002	Trace	0.9999
80	<i>Gorgonocephalus eucnemis</i>	0.002	Trace	0.9999
81	Onychoteuthidae	0.002	Trace	0.9999
82	<i>Chionoecetes tanneri</i>	0.002	Trace	0.9999
83	Octopodidae	0.002	Trace	0.9999
84	Paguridae	0.001	Trace	0.9999
85	<i>Porichthys notatus</i>	0.001	Trace	0.9999

Table B-9.--Continued.

86 Apristurus brunneus	0.001	Trace	0.9999
87 Apristurus brunneus	0.001	Trace	0.9999
88 Urticina sp.	0.001	Trace	0.9999
89 Molpadia intermedia	0.001	Trace	0.9999
90 Sebastes alutus	0.001	Trace	0.9999
91 Icelinus filamentosus	0.001	Trace	1.0000
92 Ophiuroid unident.	0.001	Trace	1.0000
93 skate egg case unident.	0.001	Trace	1.0000
94 Mediaster aequalis	0.001	Trace	1.0000
95 Pleurobranchaea californica	0.001	Trace	1.0000
96 Hippasteria sp.	0.001	Trace	1.0000
97 Pseudarchaster parelii	0.001	Trace	1.0000
98 Icosteus aenigmaticus	0.001	Trace	1.0000
99 Ptilosarcus gurneyi	0.001	Trace	1.0000
100 Holothuroidea unident.	0.001	Trace	1.0000
101 Mya sp.	0.001	Trace	1.0000
102 Solaster sp.	Trace	Trace	1.0000
103 Bathyagonus pentacanthus	Trace	Trace	1.0000
104 Pandalus platyceros	Trace	Trace	1.0000
105 Lycodes diapterus	Trace	Trace	1.0000
106 Chitonotus pugetensis	Trace	Trace	1.0000
107 Pasiphaea pacifica	Trace	Trace	1.0000
108 Stylasterias forreri	Trace	Trace	1.0000
109 Aphrodita sp.	Trace	Trace	1.0000
110 Calinaticina oldroyi	Trace	Trace	1.0000
111 Ascidian unident.	Trace	Trace	1.0000
112 Pandalus hypsinotus	Trace	Trace	1.0000
113 fish unident.	Trace	Trace	1.0000
114 Sebastes sp.	Trace	Trace	1.0000
115 Sipuncula (phylum)	Trace	Trace	1.0000
116 Armina californica	Trace	Trace	1.0000
117 Astropecten californicus	Trace	Trace	1.0000
118 pink hormathiid anemone	Trace	Trace	1.0000
119 Isopoda (order)	Trace	Trace	1.0000
120 Polychaeta (class)	Trace	Trace	1.0000

Table B-10.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the INPFC Eureka middle stratum (184-366 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Merluccius productus</i>	59.071	0.4050	0.4050
2	<i>Microstomus pacificus</i>	27.888	0.1912	0.5962
3	<i>Glyptocephalus zachirus</i>	16.180	0.1109	0.7071
4	<i>Sebastes diploproa</i>	6.447	0.0442	0.7514
5	<i>Anoplopoma fimbria</i>	6.343	0.0435	0.7948
6	<i>Sebastes saxicola</i>	4.267	0.0293	0.8241
7	<i>Brisaster latifrons</i>	2.814	0.0193	0.8434
8	<i>Lycodes cortezianus</i>	1.784	0.0122	0.8556
9	<i>Ophiodon elongatus</i>	1.689	0.0116	0.8672
10	<i>Sebastolobus alascanus</i>	1.487	0.0102	0.8774
11	<i>Hydrolagus colliei</i>	1.464	0.0100	0.8874
12	<i>Sebastes crameri</i>	1.449	0.0099	0.8974
13	<i>Atheresthes stomias</i>	1.394	0.0096	0.9069
14	<i>Allocentrotus fragilis</i>	1.313	0.0090	0.9159
15	<i>Parastichopus leucothele</i>	1.296	0.0089	0.9248
16	<i>Raja rhina</i>	1.268	0.0087	0.9335
17	<i>Apristurus brunneus</i>	1.182	0.0081	0.9416
18	<i>Parophrys vetulus</i>	0.924	0.0063	0.9480
19	<i>Sebastes elongatus</i>	0.874	0.0060	0.9540
20	<i>Hippoglossus stenolepis</i>	0.834	0.0057	0.9597
21	<i>Sebastes zacentrus</i>	0.614	0.0042	0.9639
22	<i>Sebastes goodei</i>	0.561	0.0038	0.9677
23	<i>Luidia foliolata</i>	0.400	0.0027	0.9705
24	<i>Lyopsetta exilis</i>	0.362	0.0025	0.9730
25	<i>Sebastes entomelas</i>	0.307	0.0021	0.9751
26	<i>Lycodes diapterus</i>	0.305	0.0021	0.9772
27	Scyphozoa (class)	0.259	0.0018	0.9789
28	<i>Moroteuthis robusta</i>	0.245	0.0017	0.9806
29	<i>Sebastes alutus</i>	0.220	0.0015	0.9821
30	<i>Rathbunaster californicus</i>	0.218	0.0015	0.9836
31	<i>Bathyraja interrupta</i>	0.205	0.0014	0.9850
32	<i>Oncorhynchus tshawytscha</i>	0.194	0.0013	0.9864
33	<i>Sebastes babcocki</i>	0.171	0.0012	0.9875
34	<i>Squalus acanthias</i>	0.159	0.0011	0.9886
35	<i>Sebastes paucispinis</i>	0.148	0.0010	0.9896
36	<i>Sebastes pinniger</i>	0.145	0.0010	0.9906
37	<i>Metridium</i> sp.	0.130	0.0009	0.9915
38	Scyliorhinidae	0.122	0.0008	0.9924
39	<i>Pycnopodia helianthoides</i>	0.115	0.0008	0.9932
40	<i>Chionoecetes tanneri</i>	0.112	0.0008	0.9939
41	<i>Myxoderma platyacanthum</i>	0.112	0.0008	0.9947

Table B-10.--Continued.

42	<i>Pandalus platyceros</i>	0.090	0.0006	0.9953
43	<i>Torpedo californica</i>	0.073	0.0005	0.9958
44	Paguridae	0.062	0.0004	0.9962
45	<i>Pandalus jordani</i>	0.060	0.0004	0.9966
46	<i>Cancer magister</i>	0.054	0.0004	0.9970
47	<i>Pseudarchaster parelii</i>	0.049	0.0003	0.9974
48	Thaliacea unident.	0.037	0.0003	0.9976
49	<i>Octopus dofleini</i>	0.028	0.0002	0.9978
50	Octopodidae	0.025	0.0002	0.9980
51	<i>Chrysaora</i> sp.	0.023	0.0002	0.9981
52	<i>Metridium farcimen</i>	0.020	0.0001	0.9983
53	<i>Careproctus melanurus</i>	0.020	0.0001	0.9984
54	<i>Trachurus symmetricus</i>	0.020	0.0001	0.9985
55	<i>Careproctus</i> sp.	0.017	0.0001	0.9986
56	<i>Sebastes jordani</i>	0.012	0.0001	0.9987
57	<i>Berryteuthis magister</i>	0.011	0.0001	0.9988
58	<i>Eopsetta jordani</i>	0.011	0.0001	0.9989
59	<i>Citharichthys sordidus</i>	0.011	0.0001	0.9990
60	<i>Sebastes rufus</i>	0.010	0.0001	0.9990
61	<i>Chilara taylori</i>	0.010	0.0001	0.9991
62	Ophiuroid unident.	0.009	0.0001	0.9992
63	<i>Gonatopsis borealis</i>	0.008	0.0001	0.9992
64	<i>Gonatus</i> sp.	0.008	0.0001	0.9993
65	<i>Sebastes chlorostictus</i>	0.008	0.0001	0.9993
66	<i>Ophiura sarsi</i>	0.007	Trace	0.9994
67	<i>Mediaster aequalis</i>	0.007	Trace	0.9994
68	<i>Pagurus confragosus</i>	0.007	Trace	0.9994
69	Actiniaria (order)	0.006	Trace	0.9995
70	<i>Sebastes proriger</i>	0.006	Trace	0.9995
71	Petromyzontidae	0.005	Trace	0.9996
72	Virgularidae	0.005	Trace	0.9996
73	<i>Stylasterias forreri</i>	0.004	Trace	0.9996
74	<i>Pleurobranchaea californica</i>	0.003	Trace	0.9996
75	<i>Tritonia</i> sp.	0.003	Trace	0.9997
76	<i>Rossia pacifica</i>	0.003	Trace	0.9997
77	<i>Icelinus filamentosus</i>	0.003	Trace	0.9997
78	Aphroditidae	0.003	Trace	0.9997
79	<i>Pandalopsis dispar</i>	0.003	Trace	0.9998
80	<i>Antimora microlepis</i>	0.003	Trace	0.9998
81	<i>Parastichopus</i> sp.	0.003	Trace	0.9998
82	Holothuroidea unident.	0.002	Trace	0.9998
83	<i>Parastichopus californicus</i>	0.002	Trace	0.9998
84	<i>Lopholithodes foraminatus</i>	0.002	Trace	0.9998
85	Gastropod unident.	0.002	Trace	0.9998

Table B-10.--Continued.

86	Brisaster sp.	0.002	Trace	0.9999
87	Apristurus brunneus	0.002	Trace	0.9999
88	Hippasteria californica	0.002	Trace	0.9999
89	Sagamichthys abei	0.001	Trace	0.9999
90	Paractinostola faeculenta	0.001	Trace	0.9999
91	Hippasteria spinosa	0.001	Trace	0.9999
92	Loligo opalescens	0.001	Trace	0.9999
93	Melanostomiidae	0.001	Trace	0.9999
94	Stomphia coccinea	0.001	Trace	0.9999
95	Aphrocallistes vastus	0.001	Trace	1.0000
96	Nudibranchia unident.	0.001	Trace	1.0000
97	Calinaticina oldroyi	0.001	Trace	1.0000
98	Physiculus rastrelliger	0.001	Trace	1.0000
99	Buccinum sp.	0.001	Trace	1.0000
100	Bathyagonus pentacanthus	0.001	Trace	1.0000
101	Liponema brevicornis	Trace	Trace	1.0000
102	Xeneretmus latifrons	Trace	Trace	1.0000
103	skate egg case unident.	Trace	Trace	1.0000
104	Pagurus capillatus	Trace	Trace	1.0000
105	Opisthoteuthis californiana	Trace	Trace	1.0000
106	Shark egg	Trace	Trace	1.0000
107	Munida quadrispina	Trace	Trace	1.0000
108	Pannychia moseleyi	Trace	Trace	1.0000
109	gastropod eggs	Trace	Trace	1.0000
110	Nemichthyidae	Trace	Trace	1.0000
111	Aphrodita sp.	Trace	Trace	1.0000
112	Antiplanes sp.	Trace	Trace	1.0000
113	Pasiphaea pacifica	Trace	Trace	1.0000
114	pink hormathiid anemone	Trace	Trace	1.0000
115	Myctophidae	Trace	Trace	1.0000
116	Zoarcidae	Trace	Trace	1.0000
117	Lycodapus mandibularis	Trace	Trace	1.0000

Table B-11.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the INPFC Eureka deep stratum (367-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Anoplopoma fimbria</i>	14.213	0.2212	0.2212
2	<i>Microstomus pacificus</i>	13.774	0.2144	0.4356
3	<i>Merluccius productus</i>	8.597	0.1338	0.5693
4	<i>Glyptocephalus zachirus</i>	5.955	0.0927	0.6620
5	<i>Brisaster latifrons</i>	4.944	0.0769	0.7390
6	<i>Sebastes aurora</i>	2.951	0.0459	0.7849
7	<i>Sebastolobus alascanus</i>	2.481	0.0386	0.8235
8	<i>Lycodes diapterus</i>	2.035	0.0317	0.8552
9	<i>Lycodes cortezianus</i>	1.444	0.0225	0.8776
10	<i>Apristurus brunneus</i>	1.145	0.0178	0.8955
11	Scyliorhinidae	0.817	0.0127	0.9082
12	<i>Icosteus aenigmaticus</i>	0.807	0.0126	0.9207
13	<i>Brisaster</i> sp.	0.460	0.0072	0.9279
14	<i>Neptunea</i> sp.	0.417	0.0065	0.9344
15	<i>Raja rhina</i>	0.416	0.0065	0.9409
16	<i>Strongylocentrotus franciscanus</i>	0.413	0.0064	0.9473
17	<i>Bathyraja interrupta</i>	0.407	0.0063	0.9536
18	<i>Paractinostola faeculenta</i>	0.264	0.0041	0.9578
19	<i>Atheresthes stomias</i>	0.243	0.0038	0.9615
20	<i>Allocentrotus fragilis</i>	0.206	0.0032	0.9647
21	<i>Sebastes diploproa</i>	0.204	0.0032	0.9679
22	<i>Neptunea amianta</i>	0.201	0.0031	0.9710
23	<i>Myxoderma platyacanthum</i>	0.150	0.0023	0.9734
24	<i>Octopus dofleini</i>	0.115	0.0018	0.9752
25	<i>Antimora microlepis</i>	0.114	0.0018	0.9769
26	<i>Sebastes aleutianus</i>	0.101	0.0016	0.9785
27	Paguridae	0.099	0.0015	0.9801
28	<i>Hydrolagus colliei</i>	0.087	0.0013	0.9814
29	<i>Luidia foliolata</i>	0.086	0.0013	0.9828
30	<i>Albatrossia pectoralis</i>	0.080	0.0012	0.9840
31	Metridium sp.	0.076	0.0012	0.9852
32	<i>Ophiura sarsi</i>	0.073	0.0011	0.9863
33	<i>Sebastolobus altivelis</i>	0.068	0.0011	0.9874
34	<i>Gonatopsis borealis</i>	0.066	0.0010	0.9884
35	<i>Sebastes crameri</i>	0.066	0.0010	0.9894
36	Thaliacea unident.	0.053	0.0008	0.9902
37	Scyphozoa (class)	0.050	0.0008	0.9910
38	<i>Histioteuthis</i> sp.	0.049	0.0008	0.9918
39	<i>Careproctus</i> sp.	0.047	0.0007	0.9925
40	<i>Rathbunaster californicus</i>	0.045	0.0007	0.9932
41	<i>Chionoecetes tanneri</i>	0.043	0.0007	0.9939

Table B-11.--Continued.

42 Berryteuthis magister	0.029	0.0004	0.9943
43 Myctophidae	0.026	0.0004	0.9947
44 Careproctus melanurus	0.026	0.0004	0.9951
45 Liponema brevicornis	0.024	0.0004	0.9955
46 Sebastes alutus	0.021	0.0003	0.9958
47 Sebastes melanostomus	0.021	0.0003	0.9962
48 Stomphia sp.	0.021	0.0003	0.9965
49 Sebastes rufus	0.017	0.0003	0.9968
50 Pasiphaea pacifica	0.016	0.0003	0.9970
51 squid unident.	0.016	0.0002	0.9973
52 Myxinidae	0.014	0.0002	0.9975
53 gastropod eggs	0.012	0.0002	0.9977
54 Bothrocara brunneum	0.010	0.0002	0.9978
55 Lepidopus xantusi	0.009	0.0001	0.9980
56 Buccinum sp.	0.008	0.0001	0.9981
57 Aurelia sp.	0.008	0.0001	0.9982
58 Lyopsetta exilis	0.007	0.0001	0.9983
59 Mediaster aequalis	0.006	0.0001	0.9984
60 Gonatus sp.	0.006	0.0001	0.9985
61 Idiacanthus antrostomus	0.005	0.0001	0.9986
62 Sebastes babcocki	0.005	0.0001	0.9986
63 Actiniaria (order)	0.004	0.0001	0.9987
64 Metridium farcimen	0.004	0.0001	0.9988
65 Petromyzontidae	0.004	0.0001	0.9988
66 Aphroditidae	0.004	0.0001	0.9989
67 Chauliodus macouni	0.004	0.0001	0.9990
68 Parastichopus sp.	0.004	0.0001	0.9990
69 Loligo opalescens	0.003	0.0001	0.9991
70 Thrissacanthias penicillatus	0.003	0.0000	0.9991
71 Lampetra tridentata	0.003	0.0000	0.9992
72 Opisthoteuthis californiana	0.003	0.0000	0.9992
73 Buccinum strigillatum	0.003	Trace	0.9993
74 Melanostomiidae	0.003	Trace	0.9993
75 Bathylagus sp.	0.003	Trace	0.9994
77 Neomenia sp.	0.003	Trace	0.9994
76 Hippasteria spinosa	0.003	Trace	0.9994
78 pink hormathiid anemone	0.002	Trace	0.9995
79 Diaphus theta	0.002	Trace	0.9995
80 Coryphaenoides acrolepis	0.002	Trace	0.9996
81 Pagurus confragosus	0.002	Trace	0.9996
82 Cephalopoda unident.	0.002	Trace	0.9996
83 Stomphia coccinea	0.002	Trace	0.9996
84 Ophiuroid unident.	0.002	Trace	0.9997
85 Mediaster sp.	0.002	Trace	0.9997

Table B-11.--Continued.

86 Molpadia sp.	0.001	Trace	0.9997
87 Pisaster brevispinus	0.001	Trace	0.9997
88 Liparidinae	0.001	Trace	0.9998
89 Gastropod unident.	0.001	Trace	0.9998
90 Lampanyctus ritteri	0.001	Trace	0.9998
91 purple striated sea anemone	0.001	Trace	0.9998
92 Bathylagus milleri	0.001	Trace	0.9998
93 Holothuroidea unident.	0.001	Trace	0.9999
94 Gorgonocephalus eucnemis	0.001	Trace	0.9999
95 Lycodapus sp.	0.001	Trace	0.9999
96 Benthabella dentata	0.001	Trace	0.9999
97 Bathyagonus nigripinnis	0.001	Trace	0.9999
98 Aphrodita sp.	0.001	Trace	0.9999
99 Apristurus brunneus	0.001	Trace	0.9999
100 Virgularidae	Trace	Trace	0.9999
101 Leuroglossus stilbius	Trace	Trace	1.0000
102 Tactostoma macropus	Trace	Trace	1.0000
103 Nudibranchia unident.	Trace	Trace	1.0000
104 Bathylagidae unident.	Trace	Trace	1.0000
106 Tarletonbeania crenularis	Trace	Trace	1.0000
105 Pagurus tanneri	Trace	Trace	1.0000
107 Chauliodontidae	Trace	Trace	1.0000
108 Gephyreaster swifti	Trace	Trace	1.0000
109 Zoarcidae	Trace	Trace	1.0000
110 Chorilia longipes	Trace	Trace	1.0000
111 Gorgonacea (order)	Trace	Trace	1.0000
112 Periphylla periphylla	Trace	Trace	1.0000
113 Lycodapus mandibularis	Trace	Trace	1.0000
114 Pseudarchaster parelii	Trace	Trace	1.0000
115 Antiplanes sp.	Trace	Trace	1.0000
116 Pleuronectiformes larvae	Trace	Trace	1.0000



Table B-12.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the entire INPFC Eureka area (55-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Merluccius productus</i>	91.802	0.5655	0.5654
2	<i>Microstomus pacificus</i>	11.709	0.0721	0.6376
3	<i>Glyptocephalus zachirus</i>	8.547	0.0526	0.6902
4	<i>Citharichthys sordidus</i>	6.921	0.0426	0.7328
5	<i>Squalus acanthias</i>	5.672	0.0349	0.7678
6	<i>Anoplopoma fimbria</i>	5.555	0.0342	0.8020
7	<i>Brisaster latifrons</i>	3.787	0.0233	0.8253
8	<i>Parophrys vetulus</i>	3.494	0.0215	0.8468
9	<i>Sebastes saxicola</i>	3.008	0.0185	0.8654
10	<i>Clupea pallasii</i>	1.914	0.0118	0.8772
11	<i>Sebastes diploproa</i>	1.864	0.0115	0.8886
12	<i>Trachurus symmetricus</i>	1.386	0.0085	0.8972
13	<i>Sebastes elongatus</i>	1.116	0.0069	0.9041
14	<i>Ophiodon elongatus</i>	1.075	0.0066	0.9107
15	<i>Oncorhynchus tshawytscha</i>	0.985	0.0061	0.9167
16	<i>Atheresthes stomias</i>	0.961	0.0059	0.9227
17	<i>Microgadus proximus</i>	0.833	0.0051	0.9278
18	<i>Sebastolobus alascanus</i>	0.826	0.0051	0.9329
19	<i>Lycodes cortezianus</i>	0.760	0.0047	0.9376
20	<i>Metridium</i> sp.	0.746	0.0046	0.9422
21	<i>Raja rhina</i>	0.659	0.0041	0.9462
22	<i>Hippoglossus stenolepis</i>	0.578	0.0036	0.9498
23	<i>Sebastes aurora</i>	0.537	0.0033	0.9531
24	<i>Apristurus brunneus</i>	0.495	0.0031	0.9561
25	<i>Sebastes crameri</i>	0.495	0.0030	0.9592
26	<i>Hydrolagus collicii</i>	0.490	0.0030	0.9622
27	<i>Raja binoculata</i>	0.464	0.0029	0.9651
28	<i>Lyopsetta exilis</i>	0.449	0.0028	0.9678
29	<i>Lycodes diapterus</i>	0.444	0.0027	0.9706
30	<i>Eopsetta jordani</i>	0.423	0.0026	0.9732
31	<i>Allocentrotus fragilis</i>	0.360	0.0022	0.9754
32	<i>Parastichopus leucothele</i>	0.324	0.0020	0.9774
33	Scyphozoa (class)	0.312	0.0019	0.9793
34	<i>Sebastes pinniger</i>	0.245	0.0015	0.9808
35	<i>Luidia foliolata</i>	0.205	0.0013	0.9821
36	<i>Pandalus jordani</i>	0.192	0.0012	0.9832
37	Scyliorhinidae	0.179	0.0011	0.9844
38	<i>Sebastes zacentrus</i>	0.159	0.0010	0.9853
39	<i>Sebastes goodei</i>	0.158	0.0010	0.9863
40	<i>Icosteus aenigmaticus</i>	0.147	0.0009	0.9872
41	<i>Bathyraja interrupta</i>	0.140	0.0009	0.9881

Table B-12.--Continued.

42	<i>Pycnopodia helianthoides</i>	0.112	0.0007	0.9888
43	<i>Loligo opalescens</i>	0.101	0.0006	0.9894
44	<i>Sebastes entomelas</i>	0.085	0.0005	0.9899
45	<i>Brisaster</i> sp.	0.084	0.0005	0.9904
46	<i>Neptunea</i> sp.	0.076	0.0005	0.9909
47	<i>Cancer magister</i>	0.076	0.0005	0.9914
48	<i>Strongylocentrotus franciscanus</i>	0.075	0.0005	0.9918
49	<i>Aurelia</i> sp.	0.064	0.0004	0.9922
50	<i>Rathbunaster californicus</i>	0.062	0.0004	0.9926
51	<i>Moroteuthis robusta</i>	0.059	0.0004	0.9930
52	<i>Sebastes alutus</i>	0.058	0.0004	0.9933
53	<i>Myxoderma platyacanthum</i>	0.056	0.0003	0.9937
54	<i>Sebastes paucispinis</i>	0.052	0.0003	0.9940
55	<i>Metridium farcimen</i>	0.051	0.0003	0.9943
56	<i>Paractinostola faeculenta</i>	0.048	0.0003	0.9946
57	<i>Octopus dofleini</i>	0.046	0.0003	0.9949
58	<i>Thaliacea</i> unident.	0.044	0.0003	0.9952
59	<i>Allosmerus elongatus</i>	0.044	0.0003	0.9954
60	<i>Sebastes babcocki</i>	0.042	0.0003	0.9957
61	<i>Neptunea amianta</i>	0.037	0.0002	0.9959
62	<i>Chionoecetes tanneri</i>	0.036	0.0002	0.9961
63	<i>Alosa sapidissima</i>	0.035	0.0002	0.9964
64	<i>Sebastes flavidus</i>	0.034	0.0002	0.9966
65	Paguridae	0.034	0.0002	0.9968
66	<i>Pleuronichthys decurrens</i>	0.028	0.0002	0.9969
67	<i>Hippoglossoides elassodon</i>	0.022	0.0001	0.9971
68	<i>Pandalus platyceros</i>	0.022	0.0001	0.9972
69	<i>Lycodes pacificus</i>	0.021	0.0001	0.9974
70	<i>Antimora microlepis</i>	0.021	0.0001	0.9975
71	<i>Sebastes aleutianus</i>	0.018	0.0001	0.9976
72	<i>Torpedo californica</i>	0.018	0.0001	0.9977
73	<i>Ophiura sarsi</i>	0.015	0.0001	0.9978
74	<i>Albatrossia pectoralis</i>	0.014	0.0001	0.9979
75	<i>Scomber japonicus</i>	0.014	0.0001	0.9980
76	<i>Gonatopsis borealis</i>	0.014	0.0001	0.9980
77	<i>Hippasteria spinosa</i>	0.013	0.0001	0.9981
78	<i>Thaleichthys pacificus</i>	0.013	0.0001	0.9982
79	<i>Careproctus</i> sp.	0.013	0.0001	0.9983
80	<i>Pseudarchaster parelii</i>	0.012	0.0001	0.9984
81	<i>Sebastolobus altivelis</i>	0.012	0.0001	0.9984
82	<i>Sebastes jordani</i>	0.011	0.0001	0.9985
83	Virgularidae	0.011	0.0001	0.9986
84	<i>Chrysaora</i> sp.	0.010	0.0001	0.9986
85	<i>Careproctus melanurus</i>	0.010	0.0001	0.9987

Table B-12.--Continued.

86	<i>Isopsetta isolepis</i>	0.009	0.0001	0.9988
87	<i>Pisaster brevispinus</i>	0.009	0.0001	0.9988
88	<i>Histioteuthis</i> sp.	0.009	0.0001	0.9989
89	<i>Lopholithodes foraminatus</i>	0.009	0.0001	0.9989
90	<i>Platichthys stellatus</i>	0.009	0.0001	0.9990
91	<i>Parastichopus californicus</i>	0.009	0.0001	0.9990
92	<i>Dermasterias imbricata</i>	0.008	0.0000	0.9991
93	<i>Cyanea capillata</i>	0.008	Trace	0.9991
94	<i>Berryteuthis magister</i>	0.008	Trace	0.9992
95	Octopodidae	0.007	Trace	0.9992
96	<i>Psettichthys melanostictus</i>	0.006	Trace	0.9993
97	Zoarcidae	0.006	Trace	0.9993
98	<i>Sebastes rufus</i>	0.005	Trace	0.9993
99	Myxinidae	0.005	Trace	0.9994
100	<i>Chilara taylori</i>	0.005	Trace	0.9994
101	Myctophidae	0.005	Trace	0.9994
102	<i>Liponema brevicornis</i>	0.005	Trace	0.9994
103	<i>Sebastes maliger</i>	0.004	Trace	0.9995
104	<i>Sebastes melanostomus</i>	0.004	Trace	0.9995
105	<i>Nudibranchia</i> unident.	0.004	Trace	0.9995
106	<i>Stomphia</i> sp.	0.004	Trace	0.9996
107	Actiniaria (order)	0.004	Trace	0.9996
108	<i>Mediaster aequalis</i>	0.003	Trace	0.9996
109	<i>Molpadia</i> sp.	0.003	Trace	0.9996
110	<i>Pasiphaea pacifica</i>	0.003	Trace	0.9996
111	<i>Gonatus</i> sp.	0.003	Trace	0.9996
112	Ophiuroid unident.	0.003	Trace	0.9997
113	Aphroditidae	0.003	Trace	0.9997
114	squid unident.	0.003	Trace	0.9997
115	gastropod eggs	0.002	Trace	0.9997
116	Petromyzontidae	0.002	Trace	0.9997
117	<i>Pagurus confragosus</i>	0.002	Trace	0.9997
118	<i>Rossia pacifica</i>	0.002	Trace	0.9998
119	<i>Sebastes chlorostictus</i>	0.002	Trace	0.9998
120	<i>Bothrocarum brunneum</i>	0.002	Trace	0.9998
121	<i>Buccinum</i> sp.	0.002	Trace	0.9998
122	<i>Lepidopus xantusi</i>	0.002	Trace	0.9998
123	<i>Hexagrammos decagrammus</i>	0.001	Trace	0.9998
124	<i>Sebastes proriger</i>	0.001	Trace	0.9998
125	<i>Pleurobranchaea californica</i>	0.001	Trace	0.9998
126	<i>Gorgonocephalus eucnemis</i>	0.001	Trace	0.9998
127	Pennatulacea (order)	0.001	Trace	0.9998
128	<i>Parastichopus</i> sp.	0.001	Trace	0.9998
129	<i>Icelinus filamentosus</i>	0.001	Trace	0.9998

Table B-12.--Continued.

130 <i>Apristurus brunneus</i>	0.001	Trace	0.9999
131 <i>Holothuroidea unident.</i>	0.001	Trace	0.9999
132 <i>Idiacanthus antrostomus</i>	0.001	Trace	0.9999
133 <i>Stylasterias forreri</i>	0.001	Trace	0.9999
134 <i>Onychoteuthidae</i>	0.001	Trace	0.9999
135 <i>Melanostomiidae</i>	0.001	Trace	0.9999
136 <i>Tritonia sp.</i>	0.001	Trace	0.9999
137 <i>Porichthys notatus</i>	0.001	Trace	0.9999
138 <i>Gastropod unident.</i>	0.001	Trace	0.9999
139 <i>Opisthoteuthis californiana</i>	0.001	Trace	0.9999
140 <i>Pandalopsis dispar</i>	0.001	Trace	0.9999
141 <i>Chauliodus macouni</i>	0.001	Trace	0.9999
142 skate egg case unident.	0.001	Trace	0.9999
143 <i>Urticina sp.</i>	0.001	Trace	0.9999
144 <i>Molpadia intermedia</i>	0.001	Trace	0.9999
145 <i>Stomphia coccinea</i>	0.001	Trace	0.9999
146 <i>Thrissacanthias penicillatus</i>	0.001	Trace	0.9999
147 <i>Lampetra tridentata</i>	0.001	Trace	0.9999
148 <i>Buccinum strigillatum</i>	0.001	Trace	0.9999
149 <i>Bathylagus sp.</i>	Trace	Trace	0.9999
150 <i>Hippasteria sp.</i>	Trace	Trace	1.0000
151 pink hormathiid anemone	Trace	Trace	1.0000
152 <i>Neomenia sp.</i>	Trace	Trace	1.0000
153 <i>Hippasteria californica</i>	Trace	Trace	1.0000
154 <i>Diaphus theta</i>	Trace	Trace	1.0000
155 <i>Coryphaenoides acrolepis</i>	Trace	Trace	1.0000
156 <i>Ptilosarcus gurneyi</i>	Trace	Trace	1.0000
157 <i>Cephalopoda unident.</i>	Trace	Trace	1.0000
158 <i>Mya sp.</i>	Trace	Trace	1.0000
159 <i>Bathyagonus pentacanthus</i>	Trace	Trace	1.0000
160 <i>Sagamichthys abei</i>	Trace	Trace	1.0000
161 <i>Calinaticina oldroyi</i>	Trace	Trace	1.0000
162 <i>Mediaster sp.</i>	Trace	Trace	1.0000
163 <i>Aphrodita sp.</i>	Trace	Trace	1.0000
164 <i>Liparidinae</i>	Trace	Trace	1.0000
165 <i>Lampanyctus ritteri</i>	Trace	Trace	1.0000
166 <i>Aphrocallistes vastus</i>	Trace	Trace	1.0000
167 <i>Solaster sp.</i>	Trace	Trace	1.0000
168 purple striated sea anemone	Trace	Trace	1.0000
169 <i>Bathylagus milleri</i>	Trace	Trace	1.0000
170 <i>Physiculus rastrelliger</i>	Trace	Trace	1.0000
171 <i>Lycodapus sp.</i>	Trace	Trace	1.0000
172 <i>Benthalbella dentata</i>	Trace	Trace	1.0000
173 <i>Chitonotus pugetensis</i>	Trace	Trace	1.0000

Table B-12.--Continued.

174 Bathyagonus nigripinnis	Trace	Trace	1.0000
175 Ascidian unident.	Trace	Trace	1.0000
176 Xeneretmus latifrons	Trace	Trace	1.0000
177 Pagurus capillatus	Trace	Trace	1.0000
178 Pandalus hypsinotus	Trace	Trace	1.0000
179 Shark egg	Trace	Trace	1.0000
180 Leuroglossus stilbius	Trace	Trace	1.0000
181 Tactostoma macropus	Trace	Trace	1.0000
182 Munida quadrispina	Trace	Trace	1.0000
183 Pannychia moseleyi	Trace	Trace	1.0000
184 fish unident.	Trace	Trace	1.0000
185 Bathylagidae unident.	Trace	Trace	1.0000
187 Tarletonbeania crenularis	Trace	Trace	1.0000
186 Pagurus tanneri	Trace	Trace	1.0000
188 Sebastes sp.	Trace	Trace	1.0000
189 Antiplanes sp.	Trace	Trace	1.0000
190 Chauliodontidae	Trace	Trace	1.0000
191 Lycodapus mandibularis	Trace	Trace	1.0000
192 Gephyreaster swifti	Trace	Trace	1.0000
193 Nemichthyidae	Trace	Trace	1.0000
194 Chorilia longipes	Trace	Trace	1.0000
195 Sipuncula (phylum)	Trace	Trace	1.0000
196 Gorgonacea (order)	Trace	Trace	1.0000
197 Periphylla periphylla	Trace	Trace	1.0000
198 Armina californica	Trace	Trace	1.0000
199 Astropecten californicus	Trace	Trace	1.0000
200 Isopoda (order)	Trace	Trace	1.0000
201 Pleuronectiformes larvae	Trace	Trace	1.0000
202 Polychaeta (class)	Trace	Trace	1.0000

Table B-13.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the INPFC Columbia shallow stratum (55-183 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Merluccius productus</i>	102.993	0.4963	0.4963
2	<i>Anoplopoma fimbria</i>	30.312	0.1461	0.6424
3	<i>Citharichthys sordidus</i>	17.514	0.0844	0.7268
4	<i>Microstomus pacificus</i>	11.287	0.0544	0.7812
5	<i>Glyptocephalus zachirus</i>	8.109	0.0391	0.8203
6	<i>Parophrys vetulus</i>	4.959	0.0239	0.8442
7	<i>Clupea pallasii</i>	4.864	0.0234	0.8676
8	<i>Atheresthes stomias</i>	3.717	0.0179	0.8856
9	<i>Sebastes elongatus</i>	2.465	0.0119	0.8974
10	<i>Trachurus symmetricus</i>	1.780	0.0086	0.9060
11	<i>Sebastes pinniger</i>	1.691	0.0081	0.9142
12	<i>Brisaster latifrons</i>	1.685	0.0081	0.9223
13	<i>Lyopsetta exilis</i>	1.666	0.0080	0.9303
14	<i>Scomber japonicus</i>	1.407	0.0068	0.9371
15	<i>Eopsetta jordani</i>	1.225	0.0059	0.9430
16	<i>Ophiodon elongatus</i>	1.075	0.0052	0.9482
17	<i>Raja rhina</i>	0.847	0.0041	0.9523
18	Scyphozoa (class)	0.680	0.0033	0.9555
19	<i>Hydrolagus colliei</i>	0.677	0.0033	0.9588
20	<i>Sebastes flavidus</i>	0.674	0.0032	0.9620
21	<i>Hippoglossus stenolepis</i>	0.670	0.0032	0.9653
22	<i>Cancer magister</i>	0.640	0.0031	0.9684
23	<i>Raja binoculata</i>	0.529	0.0026	0.9709
24	<i>Microgadus proximus</i>	0.527	0.0025	0.9734
25	<i>Hippoglossoides elassodon</i>	0.441	0.0021	0.9756
26	<i>Pandalus jordani</i>	0.436	0.0021	0.9777
27	<i>Thaleichthys pacificus</i>	0.360	0.0017	0.9794
28	<i>Theragra chalcogramma</i>	0.317	0.0015	0.9809
29	<i>Alosa sapidissima</i>	0.240	0.0012	0.9821
30	<i>Sebastes crameri</i>	0.237	0.0011	0.9832
31	<i>Sebastes wilsoni</i>	0.195	0.0009	0.9842
32	<i>Cyanea capillata</i>	0.195	0.0009	0.9851
33	<i>Luidia foliolata</i>	0.187	0.0009	0.9860
34	<i>Stylatula</i> sp.	0.178	0.0009	0.9869
35	<i>Sebastes proriger</i>	0.178	0.0009	0.9877
36	<i>Lycodes pacificus</i>	0.176	0.0008	0.9886
37	<i>Metridium farcimen</i>	0.169	0.0008	0.9894
38	<i>Squalus acanthias</i>	0.140	0.0007	0.9901
39	<i>Sebastes ruberrimus</i>	0.138	0.0007	0.9907

Table B-13.--Continued.

40 Metridium sp.	0.134	0.0006	0.9914
41 Lycodes cortezianus	0.123	0.0006	0.9920
42 Lepidopsetta bilineata	0.115	0.0006	0.9925
43 Allocentrotus fragilis	0.108	0.0005	0.9930
44 Gorgonocephalus eucnemis	0.100	0.0005	0.9935
45 Loligo opalescens	0.089	0.0004	0.9940
46 Sebastes maliger	0.087	0.0004	0.9944
47 Sebastes helvomaculatus	0.076	0.0004	0.9947
48 Parastichopus californicus	0.074	0.0004	0.9951
49 Sebastolobus alascanus	0.069	0.0003	0.9954
50 Octopus dofleini	0.065	0.0003	0.9958
51 Parastichopus leucothele	0.061	0.0003	0.9960
52 Icelinus filamentosus	0.060	0.0003	0.9963
53 Sardinops sagax	0.049	0.0002	0.9966
54 Virgularidae	0.048	0.0002	0.9968
55 Pleuronichthys decurrens	0.048	0.0002	0.9970
56 Bathyrāja interrupta	0.047	0.0002	0.9972
57 Sebastes entomelas	0.042	0.0002	0.9975
58 Sebastes aleutianus	0.040	0.0002	0.9976
59 Sebastes diploproa	0.036	0.0002	0.9978
60 Sebastes paucispinis	0.033	0.0002	0.9980
61 Sebastes chlorostictus	0.029	0.0001	0.9981
62 Pycnopodia helianthoides	0.029	0.0001	0.9983
63 Hexagrammos decagrammus	0.028	0.0001	0.9984
64 Oncorhynchus tshawytscha	0.027	0.0001	0.9985
65 Lopholithodes foraminatus	0.026	0.0001	0.9986
66 Thaliacea unident.	0.022	0.0001	0.9988
67 Psettichthys melanostictus	0.021	0.0001	0.9988
68 Stylasterias forreri	0.019	0.0001	0.9989
69 Hippasteria spinosa	0.017	0.0001	0.9990
70 Oncorhynchus kisutch	0.015	0.0001	0.9991
71 Isopsetta isolepis	0.015	0.0001	0.9992
72 Holothuroidea unident.	0.014	0.0001	0.9992
73 Cryptacanthodes giganteus	0.013	0.0001	0.9993
74 Chrysaora sp.	0.011	0.0001	0.9994
75 Gadus macrocephalus	0.009	Trace	0.9994
76 Bathyrāja sp.	0.009	Trace	0.9994
77 Chilara taylori	0.008	Trace	0.9995
78 Torpedo californica	0.008	Trace	0.9995
79 Platichthys stellatus	0.007	Trace	0.9996
80 Sebastes melanops	0.007	Trace	0.9996
81 Porichthys notatus	0.006	Trace	0.9996

Table B-13.--Continued.

82	<i>Fusitriton oregonensis</i>	0.005	Trace	0.9996
83	<i>Sebastes saxicola</i>	0.004	Trace	0.9997
84	<i>Sebastes zacentrus</i>	0.004	Trace	0.9997
85	Actiniaria (order)	0.004	Trace	0.9997
86	Myxinidae	0.003	Trace	0.9997
87	<i>Aurelia</i> sp.	0.003	Trace	0.9997
88	<i>Bathyagonus pentacanthus</i>	0.003	Trace	0.9998
89	<i>Rossia pacifica</i>	0.003	Trace	0.9998
90	<i>Mediaster aequalis</i>	0.003	Trace	0.9998
91	skate egg case unident.	0.002	Trace	0.9998
92	Porifera	0.002	Trace	0.9998
93	<i>Sebastes brevispinis</i>	0.002	Trace	0.9998
94	<i>Pisaster brevispinus</i>	0.002	Trace	0.9998
95	brachiopod unident.	0.002	Trace	0.9998
96	<i>Hemilepidotus spinosus</i>	0.002	Trace	0.9998
97	Aphroditidae	0.002	Trace	0.9998
98	<i>Sebastes babcocki</i>	0.002	Trace	0.9999
99	<i>Asterias amurensis</i>	0.002	Trace	0.9999
100	<i>Gephyreaster swifti</i>	0.002	Trace	0.9999
101	<i>Engraulis mordax</i>	0.002	Trace	0.9999
102	<i>Patinopecten caurinus</i>	0.001	Trace	0.9999
103	<i>Polinices</i> sp.	0.001	Trace	0.9999
104	<i>Nudibranchia</i> unident.	0.001	Trace	0.9999
105	Asteroidea unident.	0.001	Trace	0.9999
106	<i>Chionoecetes tanneri</i>	0.001	Trace	0.9999
107	<i>Sebastes alutus</i>	0.001	Trace	0.9999
108	<i>Ocella verrucosa</i>	0.001	Trace	0.9999
109	<i>Cancer productus</i>	0.001	Trace	0.9999
110	<i>Pseudarchaster parelii</i>	0.001	Trace	0.9999
111	<i>Molpadia intermedia</i>	0.001	Trace	0.9999
112	<i>Orthasterias koehleri</i>	0.001	Trace	0.9999
113	<i>Stomphia</i> sp.	0.001	Trace	0.9999
114	<i>Molpadia</i> sp.	0.001	Trace	0.9999
115	<i>Agonopsis vulsa</i>	0.001	Trace	0.9999
116	<i>Pleurobranchaea californica</i>	0.001	Trace	0.9999
117	<i>Sebastes jordani</i>	0.001	Trace	1.0000
118	<i>Styela rustica</i>	Trace	Trace	1.0000
119	<i>Careproctus melanurus</i>	Trace	Trace	1.0000
120	<i>Sebastes semicinctus</i>	Trace	Trace	1.0000
121	<i>Leptocottus armatus</i>	Trace	Trace	1.0000
122	red striated sea anemone	Trace	Trace	1.0000
123	<i>Pandalopsis dispar</i>	Trace	Trace	1.0000



Table B-13.--Continued.

124 Bathyagonus nigripinnis	Trace	Trace	1.0000
125 Mursia gaudichaudii	Trace	Trace	1.0000
126 Pteraster tessellatus	Trace	Trace	1.0000
127 Astropecten californicus	Trace	Trace	1.0000
128 Tethya sp.	Trace	Trace	1.0000
129 Hippasteria sp.	Trace	Trace	1.0000
130 Tritonia diomedea	Trace	Trace	1.0000
131 Sebastes sp.	Trace	Trace	1.0000
132 Rathbunaster californicus	Trace	Trace	1.0000
133 Paguridae	Trace	Trace	1.0000
134 Tritonia sp.	Trace	Trace	1.0000
135 Liponema brevicornis	Trace	Trace	1.0000
136 Icelinus oculatus	Trace	Trace	1.0000
137 Sebastes emphaeus	Trace	Trace	1.0000
138 Acantholithodes hispidus	Trace	Trace	1.0000
139 Mytilidae	Trace	Trace	1.0000
140 Trichodon trichodon	Trace	Trace	1.0000
141 Calinaticina oldroyi	Trace	Trace	1.0000
142 Platyhelminthes (phylum)	Trace	Trace	1.0000
143 Pandalus platyceros	Trace	Trace	1.0000
144 Ctenodiscus crispatus	Trace	Trace	1.0000
145 Crossaster papposus	Trace	Trace	1.0000
146 Pseudostichopus mollis	Trace	Trace	1.0000
147 Allosmerus elongatus	Trace	Trace	1.0000
148 Pagurus capillatus	Trace	Trace	1.0000
149 Echinacea unident.	Trace	Trace	1.0000
150 Mollusca (phylum)	Trace	Trace	1.0000
151 Polinices pallidus	Trace	Trace	1.0000
152 Mediaster sp.	Trace	Trace	1.0000
153 Pandalus borealis	Trace	Trace	1.0000
154 Pandalus hypsinotus	Trace	Trace	1.0000
155 Ctenophora (phylum)	Trace	Trace	1.0000
156 Ammodytes hexapterus	Trace	Trace	1.0000
157 Cottidae	Trace	Trace	1.0000
158 Pasiphaea pacifica	Trace	Trace	1.0000
159 Chionoecetes bairdi	Trace	Trace	1.0000
160 gastropod eggs	Trace	Trace	1.0000
161 Chitonotus pugetensis	Trace	Trace	1.0000
162 Cheiraster (=Luidiaster)	Trace	Trace	1.0000
163 Lyconectes aleutensis	Trace	Trace	1.0000
164 Polychaeta (class)	Trace	Trace	1.0000
165 Xeneretmus latifrons	Trace	Trace	1.0000

Table B-13.--Continued.

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166 <i>Paricelinus hopliticus</i>	Trace	Trace	1.0000
167 <i>Munida quadrispina</i>	Trace	Trace	1.0000
168 squid unident.	Trace	Trace	1.0000
169 <i>Chiroteuthis</i> sp.	Trace	Trace	1.0000
170 <i>Pteraster militaris</i>	Trace	Trace	1.0000
171 <i>Crangon communis</i>	Trace	Trace	1.0000
172 <i>Henricia</i> sp.	Trace	Trace	1.0000
173 <i>Cololabis saira</i>	Trace	Trace	1.0000
174 <i>Buccinum</i> sp.	Trace	Trace	1.0000
175 <i>Liparis pulchellus</i>	Trace	Trace	1.0000
176 <i>Ronquilus jordani</i>	Trace	Trace	1.0000
177 <i>Apristurus brunneus</i>	Trace	Trace	1.0000
178 <i>Hydrolagus colliciei</i>	Trace	Trace	1.0000
179 <i>Alyconaria</i> unident.	Trace	Trace	1.0000
180 Nemichthyidae	Trace	Trace	1.0000
181 <i>Triglops macellus</i>	Trace	Trace	1.0000
182 Myctophidae	Trace	Trace	1.0000
183 <i>Diaphus theta</i>	Trace	Trace	1.0000
184 Isopoda (order)	Trace	Trace	1.0000
185 Agonidae	Trace	Trace	1.0000
186 <i>Chorilia longipes</i>	Trace	Trace	1.0000
187 <i>Armina californica</i>	Trace	Trace	1.0000

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Table B-14.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the INPFC Columbia middle stratum (184-366 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	Anoplopoma fimbria	15.082	0.1283	0.1283
2	Merluccius productus	14.952	0.1272	0.2554
3	Microstomus pacificus	14.656	0.1246	0.3801
4	Sebastes zacentrus	10.891	0.0926	0.4727
5	Sebastes diploproa	10.143	0.0863	0.5590
6	Ophiodon elongatus	9.561	0.0813	0.6403
7	Glyptocephalus zachirus	7.685	0.0654	0.7057
8	Atheresthes stomias	5.968	0.0508	0.7564
9	Sebastolobus alascanus	4.447	0.0378	0.7942
10	Allocentrotus fragilis	3.070	0.0261	0.8204
11	Brisaster latifrons	2.478	0.0211	0.8414
12	Sebastes saxicola	1.752	0.0149	0.8563
13	Hippoglossus stenolepis	1.724	0.0147	0.8710
14	Sebastes alutus	1.611	0.0137	0.8847
15	Sebastes crameri	1.569	0.0133	0.8980
16	Lyopsetta exilis	1.310	0.0111	0.9092
17	Sebastes elongatus	1.242	0.0106	0.9198
18	Lycodes cortezianus	1.098	0.0093	0.9291
19	Raja rhina	0.975	0.0083	0.9374
20	Pandalus jordani	0.780	0.0066	0.9440
21	Parophrys vetulus	0.692	0.0059	0.9499
22	Hydrolagus colliei	0.681	0.0058	0.9557
23	Somniosus pacificus	0.397	0.0034	0.9591
24	Sebastes helvomaculatus	0.368	0.0031	0.9622
25	Sebastes aleutianus	0.364	0.0031	0.9653
26	Bathyraja interrupta	0.309	0.0026	0.9679
27	Moroteuthis robusta	0.253	0.0021	0.9701
28	Parastichopus leucothele	0.245	0.0021	0.9722
29	Gadus macrocephalus	0.244	0.0021	0.9742
30	Porifera	0.220	0.0019	0.9761
31	Icelinus filamentosus	0.216	0.0018	0.9780
32	Luidia foliolata	0.184	0.0016	0.9795
33	Lycodes diapterus	0.154	0.0013	0.9808
34	Aphrocallistes vastus	0.140	0.0012	0.9820
35	Sebastes babcocki	0.133	0.0011	0.9831
36	Thaleichthys pacificus	0.129	0.0011	0.9842
37	Cancer magister	0.127	0.0011	0.9853
38	Ctenodiscus crispatus	0.098	0.0008	0.9861
39	Sebastes brevispinis	0.094	0.0008	0.9869

Table B-14.--Continued.

40	<i>Sebastes pinniger</i>	0.085	0.0007	0.9877
41	<i>Sebastes entomelas</i>	0.076	0.0006	0.9883
42	<i>Sebastes flavidus</i>	0.063	0.0005	0.9888
43	<i>Pseudostichopus mollis</i>	0.062	0.0005	0.9894
44	<i>Liponema brevicornis</i>	0.062	0.0005	0.9899
45	<i>Pandalus platyceros</i>	0.055	0.0005	0.9904
46	<i>Stylasterias forreri</i>	0.054	0.0005	0.9908
47	<i>Eopsetta jordani</i>	0.054	0.0005	0.9913
48	<i>Thaliacea</i> unident.	0.052	0.0004	0.9917
49	<i>Squalus acanthias</i>	0.051	0.0004	0.9922
50	<i>Hippoglossoides classodon</i>	0.050	0.0004	0.9926
51	<i>Apristurus brunneus</i>	0.048	0.0004	0.9930
52	<i>Sebastes wilsoni</i>	0.046	0.0004	0.9934
53	<i>Sebastes paucispinis</i>	0.042	0.0004	0.9937
54	<i>Cryptacanthodes giganteus</i>	0.042	0.0004	0.9941
55	<i>Pycnopodia helianthoides</i>	0.040	0.0003	0.9944
56	Scyphozoa (class)	0.036	0.0003	0.9947
57	<i>Sebastes reedi</i>	0.034	0.0003	0.9950
58	Holothuroidea unident.	0.029	0.0002	0.9953
59	<i>Octopus dofleini</i>	0.027	0.0002	0.9955
60	Paguridae	0.027	0.0002	0.9957
61	vase sponge	0.026	0.0002	0.9960
62	<i>Metridium farcimen</i>	0.025	0.0002	0.9962
63	<i>Lopholithodes foraminatus</i>	0.024	0.0002	0.9964
64	<i>Sebastes ruberrimus</i>	0.024	0.0002	0.9966
65	Asteroidea unident.	0.022	0.0002	0.9968
66	<i>Sebastes proriger</i>	0.020	0.0002	0.9969
67	<i>Hippasteria spinosa</i>	0.020	0.0002	0.9971
68	Myctophidae	0.020	0.0002	0.9973
69	<i>Diaphus theta</i>	0.015	0.0001	0.9974
70	<i>Paractinostola faeculenta</i>	0.014	0.0001	0.9975
71	<i>Cyanea capillata</i>	0.013	0.0001	0.9976
72	<i>Sebastes aurora</i>	0.013	0.0001	0.9977
73	<i>Sebastes levis</i>	0.013	0.0001	0.9978
74	Ophiuroid unident.	0.011	0.0001	0.9979
75	<i>Gonatopsis borealis</i>	0.011	0.0001	0.9980
76	<i>Bathyagonus pentacanthus</i>	0.011	0.0001	0.9981
77	Petromyzontidae	0.011	0.0001	0.9982
78	<i>Chrysaora</i> sp.	0.008	0.0001	0.9983
79	<i>Fusitriton oregonensis</i>	0.008	0.0001	0.9984
80	<i>Lycodes pacificus</i>	0.008	0.0001	0.9984
81	<i>Aurelia</i> sp.	0.008	0.0001	0.9985

Table B-14.--Continued.

82	<i>Careproctus melanurus</i>	0.007	0.0001	0.9986
83	<i>Ophiura sarsi</i>	0.007	0.0001	0.9986
84	<i>Buccinum</i> sp.	0.007	0.0001	0.9987
85	<i>Myxoderma platyacanthum</i>	0.007	0.0001	0.9987
86	<i>Scomber japonicus</i>	0.007	0.0001	0.9988
87	Actiniaria (order)	0.006	0.0001	0.9988
88	<i>Theragra chalcogramma</i>	0.006	0.0001	0.9989
89	<i>Pandalopsis dispar</i>	0.005	Trace	0.9989
90	<i>Leptychaster</i> sp.	0.005	Trace	0.9990
91	<i>Sebastes</i> sp.	0.005	Trace	0.9990
92	<i>Gorgonocephalus eucnemis</i>	0.005	Trace	0.9991
93	<i>Actinauge verrillii</i>	0.005	Trace	0.9991
94	<i>Gonatus</i> sp.	0.005	Trace	0.9992
95	<i>Bathyagonus nigripinnis</i>	0.005	Trace	0.9992
96	<i>Ptilosarcus gurneyi</i>	0.004	Trace	0.9992
97	<i>Rathbunaster californicus</i>	0.004	Trace	0.9993
98	Myxinidae	0.004	Trace	0.9993
99	<i>Neptunea</i> sp.	0.004	Trace	0.9993
100	<i>Careproctus</i> sp.	0.004	Trace	0.9994
101	<i>Anthoptilum grandiflorum</i>	0.004	Trace	0.9994
102	<i>Poraniopsis inflata</i>	0.004	Trace	0.9994
103	<i>Sebastes hopkinsi</i>	0.003	Trace	0.9995
104	<i>Stylatula</i> sp.	0.003	Trace	0.9995
105	<i>Pseudarchaster parelii</i>	0.003	Trace	0.9995
106	<i>Rossia pacifica</i>	0.003	Trace	0.9995
107	<i>Pasiphaea pacifica</i>	0.002	Trace	0.9996
108	<i>Gephyreaster swifti</i>	0.002	Trace	0.9996
109	<i>Neptunea amianta</i>	0.002	Trace	0.9996
110	<i>Chilara taylori</i>	0.002	Trace	0.9996
111	<i>Nudibranchia unident.</i>	0.002	Trace	0.9996
112	<i>Cheiraster</i> (=Luidiaster)	0.002	Trace	0.9997
113	Aphroditidae	0.002	Trace	0.9997
114	<i>Diplopteraster multipes</i>	0.002	Trace	0.9997
115	<i>Stomphia</i> sp.	0.002	Trace	0.9997
116	<i>Sebastes goodei</i>	0.002	Trace	0.9997
117	<i>Mediaster aequalis</i>	0.002	Trace	0.9998
118	<i>Pteraster tessellatus</i>	0.002	Trace	0.9998
119	<i>Solaster</i> sp.	0.002	Trace	0.9998
120	<i>Solaster paxillatus</i>	0.002	Trace	0.9998
121	<i>Chionoecetes tanneri</i>	0.002	Trace	0.9998
122	<i>Ophiomusium jolliensis</i>	0.001	Trace	0.9998
123	<i>Molpadia</i> sp.	0.001	Trace	0.9998

Table B-14.--Continued.

124 <i>Citharichthys sordidus</i>	0.001	Trace	0.9998
125 <i>Acantholithodes hispidus</i>	0.001	Trace	0.9998
126 <i>Metridium</i> sp.	0.001	Trace	0.9999
127 <i>Sebastes jordani</i>	0.001	Trace	0.9999
128 Gastropod unident.	0.001	Trace	0.9999
129 <i>Loligo opalescens</i>	0.001	Trace	0.9999
130 <i>Chorilia longipes</i>	0.001	Trace	0.9999
131 <i>Pagurus capillatus</i>	0.001	Trace	0.9999
132 gastropod eggs	0.001	Trace	0.9999
133 <i>Tactostoma macropus</i>	0.001	Trace	0.9999
134 <i>Malacocottus kincaidi</i>	0.001	Trace	0.9999
135 <i>Chauliodus macouni</i>	0.001	Trace	0.9999
136 Bathymasteridae	0.001	Trace	0.9999
137 Chauliodontidae	0.001	Trace	0.9999
138 <i>Asteronyx loveni</i>	Trace	Trace	0.9999
139 <i>Ophiopholis longispina</i>	Trace	Trace	0.9999
140 <i>Pteraster militaris</i>	Trace	Trace	1.0000
141 Virgularidae	Trace	Trace	1.0000
142 <i>Chionoecetes bairdi</i>	Trace	Trace	1.0000
143 squid unident.	Trace	Trace	1.0000
144 <i>Ceramaster patagonicus</i>	Trace	Trace	1.0000
145 <i>Icelinus burchami</i>	Trace	Trace	1.0000
146 crinoid unident.	Trace	Trace	1.0000
147 <i>Lophaster furcilliger</i>	Trace	Trace	1.0000
148 crab unident.	Trace	Trace	1.0000
149 <i>Pagurus confragosus</i>	Trace	Trace	1.0000
150 <i>Pandalus tridens</i>	Trace	Trace	1.0000
151 <i>Pagurus brandti</i>	Trace	Trace	1.0000
152 <i>Chiroteuthis calyx</i>	Trace	Trace	1.0000
153 <i>Malacocottus zonurus</i>	Trace	Trace	1.0000
154 <i>Solaster endeca</i>	Trace	Trace	1.0000
155 <i>Psolus</i> sp.	Trace	Trace	1.0000
156 <i>Apristurus brunneus</i>	Trace	Trace	1.0000
157 <i>Rhabdocalyptus</i> sp.	Trace	Trace	1.0000
158 <i>Henricia</i> sp.	Trace	Trace	1.0000
159 Agonidae	Trace	Trace	1.0000
160 <i>Tritonia diomedea</i>	Trace	Trace	1.0000
161 pink hormathiid anemone	Trace	Trace	1.0000
162 <i>Pagurus aleuticus</i>	Trace	Trace	1.0000
163 <i>Tarletonbeania crenularis</i>	Trace	Trace	1.0000
164 <i>Gersemia</i> sp.	Trace	Trace	1.0000
165 <i>Munida quadrispina</i>	Trace	Trace	1.0000

Table B-14.--Continued.

166 Bivalvia unident.	Trace	Trace	1.0000
167 Chiroteuthis sp.	Trace	Trace	1.0000
168 Bathophilus flemingi	Trace	Trace	1.0000
169 Tritonia sp.	Trace	Trace	1.0000
170 Polychaeta (class)	Trace	Trace	1.0000
171 brachiopod unident.	Trace	Trace	1.0000
172 Polinices pallidus	Trace	Trace	1.0000
173 Benthopectinidae	Trace	Trace	1.0000
174 Idiacanthus antrostomus	Trace	Trace	1.0000
175 Melanostomiidae	Trace	Trace	1.0000
176 Pleuronectiformes larvae	Trace	Trace	1.0000
177 Antiplanes sp.	Trace	Trace	1.0000

Table B-15.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the INPFC Columbia deep stratum (367-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Microstomus pacificus</i>	12.577	0.1934	0.1934
2	<i>Anoplopoma fimbria</i>	10.681	0.1642	0.3576
3	<i>Merluccius productus</i>	9.076	0.1395	0.4972
4	<i>Sebastolobus alascanus</i>	8.942	0.1375	0.6347
5	<i>Glyptocephalus zachirus</i>	4.662	0.0717	0.7063
6	<i>Brisaster latifrons</i>	2.363	0.0363	0.7427
7	<i>Lycodes cortezianus</i>	1.480	0.0228	0.7654
8	<i>Sebastes aleutianus</i>	1.391	0.0214	0.7868
9	<i>Atheresthes stomias</i>	1.320	0.0203	0.8071
10	<i>Sebastes aurora</i>	0.951	0.0146	0.8218
11	<i>Sebastes alutus</i>	0.739	0.0114	0.8331
12	<i>Pseudostichopus mollis</i>	0.693	0.0107	0.8438
13	<i>Sebastolobus altivelis</i>	0.659	0.0101	0.8539
14	<i>Moroteuthis robusta</i>	0.607	0.0093	0.8632
15	<i>Raja rhina</i>	0.596	0.0092	0.8724
16	<i>Aphrocallistes vastus</i>	0.568	0.0087	0.8811
17	<i>Allocentrotus fragilis</i>	0.559	0.0086	0.8897
18	<i>Apristurus brunneus</i>	0.543	0.0084	0.8981
19	<i>Lycodes diapterus</i>	0.464	0.0071	0.9052
20	<i>Sebastes crameri</i>	0.416	0.0064	0.9116
21	<i>Parastichopus leucothele</i>	0.347	0.0053	0.9169
22	<i>Hydrolagus colliei</i>	0.340	0.0052	0.9222
23	<i>Bathyraja interrupta</i>	0.336	0.0052	0.9274
24	<i>Porifera</i>	0.289	0.0044	0.9318
25	<i>Sebastes diploproa</i>	0.289	0.0044	0.9362
26	<i>Luidia foliolata</i>	0.283	0.0043	0.9406
27	<i>Paractinostola faeculenta</i>	0.269	0.0041	0.9447
28	<i>Holothuroidea unident.</i>	0.245	0.0038	0.9485
29	<i>Myxoderma platyacanthum</i>	0.237	0.0036	0.9521
30	<i>Liponema brevicornis</i>	0.229	0.0035	0.9557
31	<i>Prionace glauca</i>	0.214	0.0033	0.9589
32	<i>Ophiuroid unident.</i>	0.197	0.0030	0.9620
33	<i>Neptunea amianta</i>	0.179	0.0028	0.9647
34	<i>Hippoglossus stenolepis</i>	0.169	0.0026	0.9673
35	<i>Cyanea capillata</i>	0.161	0.0025	0.9698
36	<i>Lyopsetta exilis</i>	0.130	0.0020	0.9718
37	<i>Sebastes borealis</i>	0.129	0.0020	0.9738
38	<i>Neptunea sp.</i>	0.112	0.0017	0.9755
39	<i>Rathbunaster californicus</i>	0.096	0.0015	0.9770



Table B-15.--Continued.

40 Scyphozoa (class)	0.096	0.0015	0.9785
41 Chionoecetes tanneri	0.091	0.0014	0.9799
42 Pasiphaea pacifica	0.084	0.0013	0.9812
43 Raja binoculata	0.071	0.0011	0.9822
44 Asteroidea unident.	0.060	0.0009	0.9832
45 Pasiphaeidae	0.060	0.0009	0.9841
46 Lycodes pacificus	0.058	0.0009	0.9850
47 Thaliacea unident.	0.058	0.0009	0.9859
48 Berryteuthis magister	0.057	0.0009	0.9868
49 Sebastes babcocki	0.052	0.0008	0.9876
50 Parmaturus xaniurus	0.051	0.0008	0.9883
51 Ctenodiscus crispatus	0.048	0.0007	0.9891
52 Chrysaora sp.	0.045	0.0007	0.9898
53 Myctophidae	0.045	0.0007	0.9905
54 Leptychaster sp.	0.040	0.0006	0.9911
55 Sebastes melanostomus	0.038	0.0006	0.9916
56 Gonatus sp.	0.036	0.0006	0.9922
57 Octopus dofleini	0.030	0.0005	0.9927
58 Ophiodon elongatus	0.026	0.0004	0.9931
59 Paguridae	0.026	0.0004	0.9935
60 Ptilosarcus gurneyi	0.025	0.0004	0.9938
61 Gastropod unident.	0.022	0.0003	0.9942
62 Albatrossia pectoralis	0.019	0.0003	0.9945
63 Actiniaria (order)	0.019	0.0003	0.9948
64 Antimora microlepis	0.019	0.0003	0.9951
65 Careproctus sp.	0.018	0.0003	0.9953
66 Pycnopodia helianthoides	0.017	0.0003	0.9956
67 Diplopteraster multipes	0.015	0.0002	0.9958
68 Bathyraja aleutica	0.014	0.0002	0.9961
69 Bothrocara brunneum	0.014	0.0002	0.9963
70 Careproctus melanurus	0.012	0.0002	0.9964
71 Pteraster tessellatus	0.012	0.0002	0.9966
72 Actinauge verrillii	0.011	0.0002	0.9968
73 Diaphus theta	0.011	0.0002	0.9970
74 squid unident.	0.011	0.0002	0.9972
75 Anthoptilum grandiflorum	0.011	0.0002	0.9973
76 Gonatopsis borealis	0.010	0.0002	0.9975
77 vase sponge	0.009	0.0001	0.9976
78 Cancer magister	0.008	0.0001	0.9977
79 Pagurus confragosus	0.008	0.0001	0.9978
80 Myxinidae	0.008	0.0001	0.9980
81 Buccinum sp.	0.007	0.0001	0.9981

Table B-15.--Continued.

82 Ophiura sarsi	0.007	0.0001	0.9982
83 Mediaster aequalis	0.007	0.0001	0.9983
84 Chauliodus macouni	0.007	0.0001	0.9984
85 Petromyzontidae	0.006	0.0001	0.9985
86 Sebastes elongatus	0.006	0.0001	0.9986
87 Aphroditidae	0.006	0.0001	0.9987
88 Pseudarchaster parelii	0.005	0.0001	0.9988
89 Lampetra tridentata	0.005	0.0001	0.9988
90 Scomber japonicus	0.004	0.0001	0.9989
91 Aurelia sp.	0.004	0.0001	0.9990
92 Histioteuthis sp.	0.004	0.0001	0.9990
93 Sebastes zacentrus	0.004	0.0001	0.9991
94 Tactostoma macropus	0.004	0.0001	0.9992
95 Stylasterias forreri	0.003	0.0000	0.9992
96 Sebastes saxicola	0.003	0.0000	0.9992
97 Metridium farcimen	0.003	Trace	0.9993
98 Gorgonocephalus eucnemis	0.003	Trace	0.9994
99 Tritonia sp.	0.003	Trace	0.9994
100 Neptunea pribiloffensis	0.003	Trace	0.9994
101 Octopodidae	0.003	Trace	0.9995
102 Chauliodontidae	0.002	Trace	0.9995
103 Sebastes helvomaculatus	0.002	Trace	0.9995
104 Liparidinae	0.002	Trace	0.9996
105 Lampanyctus ritteri	0.002	Trace	0.9996
106 Loligo opalescens	0.002	Trace	0.9996
107 Solaster paxillatus	0.002	Trace	0.9996
108 gastropod eggs	0.001	Trace	0.9997
109 Cheiraster (=Luidiaster)	0.001	Trace	0.9997
110 Icelinus filamentosus	0.001	Trace	0.9997
111 Fusitriton oregonensis	0.001	Trace	0.9997
112 Solaster sp.	0.001	Trace	0.9997
113 Citharichthys sordidus	0.001	Trace	0.9998
114 Stomphia sp.	0.001	Trace	0.9998
115 Pagurus capillatus	0.001	Trace	0.9998
116 Melanostomiidae	0.001	Trace	0.9998
117 Bathophilus flemingi	0.001	Trace	0.9998
118 Solaster endeca	0.001	Trace	0.9998
119 Apristurus brunneus	0.001	Trace	0.9998
120 Sardinops sagax	0.001	Trace	0.9999
121 Pandalus jordani	0.001	Trace	0.9999
122 Chorilia longipes	0.001	Trace	0.9999
123 Mollusca (phylum)	0.001	Trace	0.9999

Table B-15.--Continued.

124 Bathyagonus nigripinnis	0.001	Trace	0.9999
125 Metridium sp.	0.001	Trace	0.9999
126 Pennatulacea (order)	0.001	Trace	0.9999
127 Chiroteuthis sp.	0.001	Trace	0.9999
128 Virgularidae	0.001	Trace	0.9999
129 Psolus sp.	Trace	Trace	1.0000
130 Ophiopholis longispina	Trace	Trace	1.0000
131 Thaleichthys pacificus	Trace	Trace	1.0000
132 Lycodapus mandibularis	Trace	Trace	1.0000
133 Ascidian unident.	Trace	Trace	1.0000
134 Bathyagonus pentacanthus	Trace	Trace	1.0000
135 Chiroteuthis calyx	Trace	Trace	1.0000
136 Molpadia sp.	Trace	Trace	1.0000
137 Pleuronectiformes larvae	Trace	Trace	1.0000
138 Nudibranchia unident.	Trace	Trace	1.0000
139 Melamphaidae	Trace	Trace	1.0000
140 Asteronyx loveni	Trace	Trace	1.0000
141 Stylatula sp.	Trace	Trace	1.0000
142 Crossaster papposus	Trace	Trace	1.0000
143 brachiopod unident.	Trace	Trace	1.0000
144 Tarletonbeania crenularis	Trace	Trace	1.0000
145 Sternoptychidae unident.	Trace	Trace	1.0000
146 Diaphus sp.	Trace	Trace	1.0000
147 shrimp unident.	Trace	Trace	1.0000
148 crab unident.	Trace	Trace	1.0000
149 Florometra serratissima	Trace	Trace	1.0000
150 Gersemia sp.	Trace	Trace	1.0000
151 Anotopterus pharao	Trace	Trace	1.0000
152 Ophiopholis sp.	Trace	Trace	1.0000
153 Polynoidae	Trace	Trace	1.0000
154 Leuroglossus stilbius	Trace	Trace	1.0000
155 Isopoda (order)	Trace	Trace	1.0000
156 Pectinid unident.	Trace	Trace	1.0000
157 Agonidae	Trace	Trace	1.0000

Table B-16.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the entire INPFC Columbia area (55-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Merluccius productus</i>	68.987	0.4171	0.4171
2	<i>Anoplopoma fimbria</i>	23.892	0.1445	0.5616
3	<i>Microstomus pacificus</i>	12.223	0.0739	0.6355
4	<i>Citharichthys sordidus</i>	10.935	0.0661	0.7016
5	<i>Glyptocephalus zachirus</i>	7.470	0.0452	0.7468
6	<i>Atheresthes stomias</i>	3.825	0.0231	0.7699
7	<i>Parophrys vetulus</i>	3.246	0.0196	0.7896
8	<i>Clupea pallasii</i>	3.037	0.0184	0.8079
9	<i>Ophiodon elongatus</i>	2.749	0.0166	0.8245
10	<i>Sebastes alascanus</i>	2.427	0.0147	0.8392
11	<i>Sebastes zacentrus</i>	2.366	0.0143	0.8535
12	<i>Sebastes diploproa</i>	2.269	0.0137	0.8672
13	<i>Brisaster latifrons</i>	1.965	0.0119	0.8791
14	<i>Sebastes elongatus</i>	1.809	0.0109	0.8901
15	<i>Lyopsetta exilis</i>	1.345	0.0081	0.8982
16	<i>Trachurus symmetricus</i>	1.112	0.0067	0.9049
17	<i>Sebastes pinniger</i>	1.074	0.0065	0.9114
18	<i>Scomber japonicus</i>	0.881	0.0053	0.9167
19	<i>Raja rhina</i>	0.835	0.0050	0.9218
20	<i>Allocentrotus fragilis</i>	0.822	0.0050	0.9268
21	<i>Hippoglossus stenolepis</i>	0.819	0.0050	0.9317
22	<i>Eopsetta jordani</i>	0.776	0.0047	0.9364
23	<i>Hydrolagus colliei</i>	0.624	0.0038	0.9402
24	<i>Sebastes crameri</i>	0.554	0.0034	0.9435
25	<i>Lycodes cortezianus</i>	0.550	0.0033	0.9468
26	<i>Sebastes alutus</i>	0.467	0.0028	0.9497
27	Scyphozoa (class)	0.447	0.0027	0.9524
28	<i>Pandalus jordani</i>	0.441	0.0027	0.9550
29	<i>Sebastes flavidus</i>	0.435	0.0026	0.9577
30	<i>Cancer magister</i>	0.428	0.0026	0.9603
31	<i>Sebastes saxicola</i>	0.383	0.0023	0.9626
32	<i>Raja binoculata</i>	0.342	0.0021	0.9646
33	<i>Microgadus proximus</i>	0.329	0.0020	0.9666
34	<i>Sebastes aleutianus</i>	0.325	0.0020	0.9686
35	<i>Hippoglossoides elassodon</i>	0.286	0.0017	0.9703
36	<i>Thaleichthys pacificus</i>	0.253	0.0015	0.9719
37	<i>Luidia foliolata</i>	0.201	0.0012	0.9731
38	<i>Theragra chalcogramma</i>	0.199	0.0012	0.9743
39	<i>Sebastes aurora</i>	0.154	0.0009	0.9752

Table B-16.--Continued.

40	<i>Moroteuthis robusta</i>	0.151	0.0009	0.9761
41	<i>Cyanea capillata</i>	0.150	0.0009	0.9770
42	<i>Alosa sapidissima</i>	0.150	0.0009	0.9779
43	<i>Bathyraja interrupta</i>	0.150	0.0009	0.9788
44	<i>Parastichopus leucothele</i>	0.147	0.0009	0.9797
45	<i>Sebastes wilsoni</i>	0.132	0.0008	0.9805
46	<i>Sebastes helvomaculatus</i>	0.127	0.0008	0.9813
47	<i>Pseudostichopus mollis</i>	0.124	0.0007	0.9820
48	<i>Lycodes pacificus</i>	0.121	0.0007	0.9828
49	<i>Aphrocallistes vastus</i>	0.121	0.0007	0.9835
50	<i>Sebastes proriger</i>	0.115	0.0007	0.9842
51	<i>Stylatula</i> sp.	0.112	0.0007	0.9849
52	<i>Metridium farcimen</i>	0.111	0.0007	0.9856
53	<i>Lycodes diapterus</i>	0.107	0.0006	0.9862
54	<i>Sebastolobus altivelis</i>	0.105	0.0006	0.9868
55	<i>Squalus acanthias</i>	0.098	0.0006	0.9874
56	<i>Apristurus brunneus</i>	0.097	0.0006	0.9880
57	Porifera	0.095	0.0006	0.9886
58	<i>Sebastes ruberrimus</i>	0.091	0.0006	0.9891
59	<i>Somniosus pacificus</i>	0.086	0.0005	0.9897
60	<i>Metridium</i> sp.	0.084	0.0005	0.9902
61	<i>Icelinus filamentosus</i>	0.084	0.0005	0.9907
62	<i>Lepidopsetta bilineata</i>	0.072	0.0004	0.9911
63	<i>Gorgonocephalus eucnemis</i>	0.064	0.0004	0.9915
64	<i>Gadus macrocephalus</i>	0.058	0.0004	0.9918
65	<i>Loligo opalescens</i>	0.056	0.0003	0.9922
66	<i>Sebastes maliger</i>	0.054	0.0003	0.9925
67	Holothuroidea unident.	0.054	0.0003	0.9928
68	<i>Octopus dofleini</i>	0.052	0.0003	0.9932
69	<i>Liponema brevicornis</i>	0.050	0.0003	0.9935
70	<i>Parastichopus californicus</i>	0.046	0.0003	0.9937
71	<i>Paractinostola faeculenta</i>	0.046	0.0003	0.9940
72	<i>Sebastes entomelas</i>	0.043	0.0003	0.9943
73	<i>Myxoderma platyacanthum</i>	0.039	0.0002	0.9945
74	<i>Sebastes babcocki</i>	0.038	0.0002	0.9948
75	Thaliacea unident.	0.034	0.0002	0.9950
76	<i>Prionace glauca</i>	0.034	0.0002	0.9952
77	Ophiuroid unident.	0.034	0.0002	0.9954
78	<i>Sardinops sagax</i>	0.031	0.0002	0.9956
79	Virgularidae	0.030	0.0002	0.9957
80	<i>Pleuronichthys decurrens</i>	0.030	0.0002	0.9959
81	<i>Pycnopodia helianthoides</i>	0.030	0.0002	0.9961

Table B-16.--Continued.

82	<i>Sebastes paucispinis</i>	0.030	0.0002	0.9963
83	<i>Neptunea amianta</i>	0.029	0.0002	0.9964
84	<i>Ctenodiscus crispatus</i>	0.029	0.0002	0.9966
85	<i>Stylasterias forreri</i>	0.024	0.0001	0.9968
86	<i>Sebastes brevispinis</i>	0.022	0.0001	0.9969
87	<i>Lopholithodes foraminatus</i>	0.021	0.0001	0.9970
88	<i>Sebastes borealis</i>	0.021	0.0001	0.9972
89	<i>Neptunea sp.</i>	0.019	0.0001	0.9973
90	<i>Sebastes chlorostictus</i>	0.018	0.0001	0.9974
91	<i>Hexagrammos decagrammus</i>	0.017	0.0001	0.9975
92	<i>Cryptacanthodes giganteus</i>	0.017	0.0001	0.9976
93	<i>Oncorhynchus tshawytscha</i>	0.017	0.0001	0.9977
94	<i>Rathbunaster californicus</i>	0.016	0.0001	0.9978
95	<i>Chrysaora sp.</i>	0.016	0.0001	0.9979
96	<i>Chionoecetes tanneri</i>	0.015	0.0001	0.9980
97	<i>Hippasteria spinosa</i>	0.015	0.0001	0.9981
98	<i>Asteroidea unident.</i>	0.015	0.0001	0.9982
99	<i>Pasiphaea pacifica</i>	0.014	0.0001	0.9982
100	<i>Psettichthys melanostictus</i>	0.013	0.0001	0.9983
101	<i>Pandalus platyceros</i>	0.012	0.0001	0.9984
102	Myctophidae	0.011	0.0001	0.9984
103	Paguridae	0.010	0.0001	0.9985
104	<i>Oncorhynchus kisutch</i>	0.010	0.0001	0.9986
105	Pasiphaeidae	0.009	0.0001	0.9986
106	<i>Isopsetta isolepis</i>	0.009	0.0001	0.9987
107	<i>Berryteuthis magister</i>	0.009	0.0001	0.9987
108	<i>Parmaturus xaniurus</i>	0.008	Trace	0.9988
109	<i>Leptychaster sp.</i>	0.007	Trace	0.9988
110	<i>Sebastes reedi</i>	0.007	Trace	0.9989
111	vase sponge	0.007	Trace	0.9989
112	Actiniaria (order)	0.007	Trace	0.9990
113	<i>Gonatus sp.</i>	0.007	Trace	0.9990
114	<i>Sebastes melanostomus</i>	0.006	Trace	0.9990
115	<i>Chilara taylori</i>	0.006	Trace	0.9991
116	<i>Bathyraja sp.</i>	0.005	Trace	0.9991
117	<i>Fusitriton oregonensis</i>	0.005	Trace	0.9991
118	<i>Diaphus theta</i>	0.005	Trace	0.9992
119	<i>Ptilosarcus gurneyi</i>	0.005	Trace	0.9992
120	<i>Torpedo californica</i>	0.005	Trace	0.9992
121	<i>Platichthys stellatus</i>	0.005	Trace	0.9993
122	<i>Sebastes melanops</i>	0.004	Trace	0.9993
123	<i>Aurelia sp.</i>	0.004	Trace	0.9993

Table B-16.--Continued.

124 Bathyagonus pentacanthus	0.004	Trace	0.9993
125 Myxinidae	0.004	Trace	0.9994
126 Porichthys notatus	0.004	Trace	0.9994
127 Gonatopsis borealis	0.004	Trace	0.9994
128 Gastropod unident.	0.004	Trace	0.9994
129 Careproctus melanurus	0.004	Trace	0.9994
130 Careproctus sp.	0.004	Trace	0.9995
131 Mediaster aequalis	0.003	Trace	0.9995
132 Petromyzontidae	0.003	Trace	0.9995
133 Albatrossia pectoralis	0.003	Trace	0.9995
134 Antimora microlepis	0.003	Trace	0.9996
135 Diplopteraster multipes	0.003	Trace	0.9996
136 Actinauge verrillii	0.003	Trace	0.9996
137 Sebastes levis	0.003	Trace	0.9996
138 Buccinum sp.	0.003	Trace	0.9996
139 Ophiura sarsi	0.003	Trace	0.9996
140 Aphroditidae	0.003	Trace	0.9996
141 Anthoptilum grandiflorum	0.003	Trace	0.9997
142 Pteraster tessellatus	0.002	Trace	0.9997
143 Rossia pacifica	0.002	Trace	0.9997
144 Bathyraja aleutica	0.002	Trace	0.9997
145 Bothrocarra brunneum	0.002	Trace	0.9997
146 Pseudarchaster parelii	0.002	Trace	0.9997
147 squid unident.	0.002	Trace	0.9998
148 Gephyreaster swifti	0.002	Trace	0.9998
149 skate egg case unident.	0.002	Trace	0.9998
150 Pandalopsis dispar	0.001	Trace	0.9998
151 Pisaster brevispinus	0.001	Trace	0.9998
152 brachiopod unident.	0.001	Trace	0.9998
153 Pagurus confragosus	0.001	Trace	0.9998
154 Bathyagonus nigripinnis	0.001	Trace	0.9998
155 Sebastes sp.	0.001	Trace	0.9998
156 Nudibranchia unident.	0.001	Trace	0.9998
157 Hemilepidotus spinosus	0.001	Trace	0.9998
158 Chauliodus macouni	0.001	Trace	0.9998
159 Asterias amurensis	0.001	Trace	0.9998
160 Engraulis mordax	0.001	Trace	0.9998
161 Stomphia sp.	0.001	Trace	0.9999
162 Patinopecten caurinus	0.001	Trace	0.9999
163 Poraniopsis inflata	0.001	Trace	0.9999
164 Polinices sp.	0.001	Trace	0.9999
165 Tactostoma macropus	0.001	Trace	0.9999

Table B-16.--Continued.

166	<i>Lampetra tridentata</i>	0.001	Trace	0.9999
167	<i>Cheiraster</i> (=Luidiaster)	0.001	Trace	0.9999
168	<i>Molpadia</i> sp.	0.001	Trace	0.9999
169	<i>Sebastes hopkinsi</i>	0.001	Trace	0.9999
170	<i>Tritonia</i> sp.	0.001	Trace	0.9999
171	<i>Histioteuthis</i> sp.	0.001	Trace	0.9999
172	<i>Solaster paxillatus</i>	0.001	Trace	0.9999
173	<i>Solaster</i> sp.	0.001	Trace	0.9999
174	<i>Sebastes jordani</i>	0.001	Trace	0.9999
175	<i>Ocella verrucosa</i>	0.001	Trace	0.9999
176	<i>Cancer productus</i>	0.001	Trace	0.9999
177	<i>Neptunea pribiloffensis</i>	Trace	Trace	0.9999
178	Octopodidae	Trace	Trace	0.9999
179	<i>Sebastes goodei</i>	Trace	Trace	0.9999
180	gastropod eggs	Trace	Trace	0.9999
181	<i>Pagurus capillatus</i>	Trace	Trace	0.9999
182	Chauliodontidae	Trace	Trace	0.9999
183	<i>Molpadia intermedia</i>	Trace	Trace	0.9999
184	<i>Acantholithodes hispidus</i>	Trace	Trace	0.9999
185	<i>Orthasterias koehleri</i>	Trace	Trace	1.0000
186	<i>Agonopsis vulsa</i>	Trace	Trace	1.0000
187	<i>Pleurobranchaea californica</i>	Trace	Trace	1.0000
188	<i>Chorilia longipes</i>	Trace	Trace	1.0000
189	<i>Ophiomusium jolliensis</i>	Trace	Trace	1.0000
190	<i>Styela rustica</i>	Trace	Trace	1.0000
191	<i>Sebastes semicinctus</i>	Trace	Trace	1.0000
192	Liparidinae	Trace	Trace	1.0000
193	<i>Lampanyctus ritteri</i>	Trace	Trace	1.0000
194	<i>Leptocottus armatus</i>	Trace	Trace	1.0000
195	red striated sea anemone	Trace	Trace	1.0000
196	<i>Mursia gaudichaudii</i>	Trace	Trace	1.0000
197	<i>Astropecten californicus</i>	Trace	Trace	1.0000
198	<i>Tethya</i> sp.	Trace	Trace	1.0000
199	<i>Tritonia diomedea</i>	Trace	Trace	1.0000
200	<i>Hippasteria</i> sp.	Trace	Trace	1.0000
201	Mollusca (phylum)	Trace	Trace	1.0000
202	<i>Solaster endeca</i>	Trace	Trace	1.0000
203	<i>Apristurus brunneus</i>	Trace	Trace	1.0000
204	<i>Bathophilus flemingi</i>	Trace	Trace	1.0000
205	<i>Icelinus oculatus</i>	Trace	Trace	1.0000
206	<i>Sebastes emphaeus</i>	Trace	Trace	1.0000
207	<i>Ophiopholis longispina</i>	Trace	Trace	1.0000



Table B-16.--Continued.

208 Melanostomiidae	Trace	Trace	1.0000
209 Malacocottus kincaidi	Trace	Trace	1.0000
210 Bathymasteridae	Trace	Trace	1.0000
211 Mytilidae	Trace	Trace	1.0000
212 Chiroteuthis sp.	Trace	Trace	1.0000
213 Chionoecetes bairdi	Trace	Trace	1.0000
214 Trichodon trichodon	Trace	Trace	1.0000
215 Calinaticina oldroyi	Trace	Trace	1.0000
216 Crossaster papposus	Trace	Trace	1.0000
217 Platyhelminthes (phylum)	Trace	Trace	1.0000
218 Asteronyx loveni	Trace	Trace	1.0000
219 Pteraster militaris	Trace	Trace	1.0000
220 Psolus sp.	Trace	Trace	1.0000
221 Allosmerus elongatus	Trace	Trace	1.0000
222 Pennatulacea (order)	Trace	Trace	1.0000
223 Chiroteuthis calyx	Trace	Trace	1.0000
224 Echinacea unident.	Trace	Trace	1.0000
225 Ceramaster patagonicus	Trace	Trace	1.0000
226 Polinices pallidus	Trace	Trace	1.0000
227 Icelinus burchami	Trace	Trace	1.0000
228 crinoid unident.	Trace	Trace	1.0000
229 crab unident.	Trace	Trace	1.0000
230 Lophaster furcilliger	Trace	Trace	1.0000
231 Mediaster sp.	Trace	Trace	1.0000
232 Pandalus borealis	Trace	Trace	1.0000
233 Henricia sp.	Trace	Trace	1.0000
234 Lycodapus mandibularis	Trace	Trace	1.0000
235 Pandalus tridens	Trace	Trace	1.0000
236 Pagurus brandti	Trace	Trace	1.0000
237 Ascidian unident.	Trace	Trace	1.0000
238 Pandalus hypsinotus	Trace	Trace	1.0000
239 Ctenophora (phylum)	Trace	Trace	1.0000
240 Munida quadrispina	Trace	Trace	1.0000
241 Malacocottus zonurus	Trace	Trace	1.0000
242 Ammodytes hexapterus	Trace	Trace	1.0000
243 Cottidae	Trace	Trace	1.0000
244 Agonidae	Trace	Trace	1.0000
245 Polychaeta (class)	Trace	Trace	1.0000
246 Chitonotus pugetensis	Trace	Trace	1.0000
247 Rhabdocalyptus sp.	Trace	Trace	1.0000
248 Lyconectes aleutensis	Trace	Trace	1.0000
249 Pleuronectiformes larvae	Trace	Trace	1.0000

Table B-16.--Continued.

250	<i>Tarletonbeania crenularis</i>	Trace	Trace	1.0000
251	<i>Xeneretmus latifrons</i>	Trace	Trace	1.0000
252	<i>Paricelinus hopliticus</i>	Trace	Trace	1.0000
253	pink hormathiid anemone	Trace	Trace	1.0000
254	<i>Crangon communis</i>	Trace	Trace	1.0000
255	<i>Cololabis saira</i>	Trace	Trace	1.0000
256	<i>Gersemia</i> sp.	Trace	Trace	1.0000
257	Melamphaidae	Trace	Trace	1.0000
258	<i>Pagurus aleuticus</i>	Trace	Trace	1.0000
259	<i>Liparis pulchellus</i>	Trace	Trace	1.0000
260	<i>Ronquilus jordani</i>	Trace	Trace	1.0000
261	<i>Bivalvia</i> unident.	Trace	Trace	1.0000
262	<i>Hydrolagus colliei</i>	Trace	Trace	1.0000
263	<i>Alyconaria</i> unident.	Trace	Trace	1.0000
264	Nemichthyidae	Trace	Trace	1.0000
265	<i>Triglops macellus</i>	Trace	Trace	1.0000
266	Isopoda (order)	Trace	Trace	1.0000
267	Sternoptychidae unident.	Trace	Trace	1.0000
268	<i>Diaphus</i> sp.	Trace	Trace	1.0000
269	shrimp unident.	Trace	Trace	1.0000
270	<i>Florometra serratissima</i>	Trace	Trace	1.0000
271	Benthopectinidae	Trace	Trace	1.0000
272	<i>Anotopterus pharao</i>	Trace	Trace	1.0000
273	<i>Idiacanthus antrostomus</i>	Trace	Trace	1.0000
274	<i>Armina californica</i>	Trace	Trace	1.0000
275	<i>Ophiopholis</i> sp.	Trace	Trace	1.0000
276	<i>Antiplanes</i> sp.	Trace	Trace	1.0000
277	Polynoidae	Trace	Trace	1.0000
278	<i>Leuroglossus stilbius</i>	Trace	Trace	1.0000
279	Pectinid unident.	Trace	Trace	1.0000

Table B-17.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the U.S. portion of the INPFC Vancouver shallow stratum (55-183 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Theragra chalcogramma</i>	54.258	0.2501	0.2501
2	<i>Anoplopoma fimbria</i>	44.333	0.2043	0.4544
3	<i>Squalus acanthias</i>	23.900	0.1102	0.5646
4	<i>Merluccius productus</i>	20.995	0.0968	0.6614
5	<i>Atheresthes stomias</i>	15.818	0.0729	0.7342
6	<i>Sebastes flavidus</i>	10.017	0.0462	0.7804
7	<i>Microstomus pacificus</i>	9.588	0.0442	0.8246
8	<i>Citharichthys sordidus</i>	4.985	0.0230	0.8476
9	<i>Clupea pallasii</i>	4.134	0.0191	0.8666
10	<i>Glyptocephalus zachirus</i>	4.073	0.0188	0.8854
11	<i>Parophrys vetulus</i>	3.319	0.0153	0.9007
12	<i>Sebastes elongatus</i>	2.958	0.0136	0.9144
13	<i>Hippoglossus stenolepis</i>	2.559	0.0118	0.9262
14	<i>Alosa sapidissima</i>	2.057	0.0095	0.9356
15	<i>Gadus macrocephalus</i>	1.768	0.0081	0.9438
16	<i>Lyopsetta exilis</i>	1.592	0.0073	0.9511
17	<i>Eopsetta jordani</i>	1.278	0.0059	0.9570
18	<i>Ophiodon elongatus</i>	1.210	0.0056	0.9626
19	<i>Raja rhina</i>	0.929	0.0043	0.9669
20	<i>Sebastes proriger</i>	0.879	0.0040	0.9709
21	<i>Hippoglossoides elassodon</i>	0.838	0.0039	0.9748
22	<i>Microgadus proximus</i>	0.746	0.0034	0.9782
23	<i>Raja binoculata</i>	0.745	0.0034	0.9816
24	<i>Sebastes pinniger</i>	0.668	0.0031	0.9847
25	<i>Hydrolagus colliei</i>	0.470	0.0022	0.9869
26	<i>Galeorhinus galeus</i>	0.220	0.0010	0.9879
27	<i>Cancer magister</i>	0.184	0.0008	0.9888
28	<i>Sebastes helvomaculatus</i>	0.183	0.0008	0.9896
29	<i>Sebastes zacentrus</i>	0.179	0.0008	0.9904
30	<i>Pandalus jordani</i>	0.165	0.0008	0.9912
31	<i>Thaleichthys pacificus</i>	0.138	0.0006	0.9918
32	<i>Lepidopsetta bilineata</i>	0.130	0.0006	0.9924
33	<i>Sebastes ruberrimus</i>	0.124	0.0006	0.9930
34	<i>Oncorhynchus tshawytscha</i>	0.124	0.0006	0.9936
35	<i>Sebastes aleutianus</i>	0.112	0.0005	0.9941
36	<i>Sebastes brevispinis</i>	0.112	0.0005	0.9946
37	<i>Strongylocentrotus droebachiensis</i>	0.107	0.0005	0.9951
38	<i>Bathyraja interrupta</i>	0.084	0.0004	0.9955
39	<i>Metridium farcimen</i>	0.073	0.0003	0.9958
40	<i>Sardinops sagax</i>	0.068	0.0003	0.9961
41	<i>Sebastes entomelas</i>	0.062	0.0003	0.9964

Table B-17.--Continued.

42	<i>Sebastes crameri</i>	0.060	0.0003	0.9967
43	<i>Luidia foliolata</i>	0.060	0.0003	0.9970
44	<i>Brisaster latifrons</i>	0.056	0.0003	0.9972
45	<i>Pycnopodia helianthoides</i>	0.044	0.0002	0.9974
46	<i>Sebastes alutus</i>	0.040	0.0002	0.9976
47	<i>Cyanea capillata</i>	0.037	0.0002	0.9978
48	<i>Chrysaora</i> sp.	0.037	0.0002	0.9979
49	<i>Icelinus filamentosus</i>	0.034	0.0002	0.9981
50	<i>Hexagrammos decagrammus</i>	0.034	0.0002	0.9982
51	<i>Parastichopus leucothele</i>	0.027	0.0001	0.9984
52	<i>Scomber japonicus</i>	0.026	0.0001	0.9985
53	<i>Trachurus symmetricus</i>	0.026	0.0001	0.9986
54	<i>Stylasterias forreri</i>	0.023	0.0001	0.9987
55	<i>Lopholithodes foraminatus</i>	0.021	0.0001	0.9988
56	<i>Sebastes wilsoni</i>	0.019	0.0001	0.9989
57	vase sponge	0.017	0.0001	0.9990
58	skate egg case unident.	0.016	0.0001	0.9991
59	<i>Crossaster papposus</i>	0.016	0.0001	0.9991
60	<i>Allocentrotus fragilis</i>	0.016	0.0001	0.9992
61	<i>Sebastolobus alascanus</i>	0.015	0.0001	0.9993
62	<i>Echinacea</i> unident.	0.013	0.0001	0.9993
63	<i>Sebastes maliger</i>	0.012	0.0001	0.9994
64	<i>Sebastes diploproa</i>	0.011	0.0001	0.9994
65	<i>Berryteuthis magister</i>	0.010	Trace	0.9995
66	<i>Lycodes pacificus</i>	0.009	Trace	0.9995
67	<i>Loligo opalescens</i>	0.009	Trace	0.9996
68	<i>Gorgonocephalus eucnemis</i>	0.008	Trace	0.9996
69	<i>Thaliacea</i> unident.	0.007	Trace	0.9996
70	<i>Pseudostichopus mollis</i>	0.007	Trace	0.9997
71	<i>Pandalopsis dispar</i>	0.007	Trace	0.9997
72	<i>Stylatula</i> sp.	0.006	Trace	0.9997
73	<i>Hippasteria spinosa</i>	0.006	Trace	0.9998
74	<i>Solaster</i> sp.	0.006	Trace	0.9998
75	Actiniaria (order)	0.005	Trace	0.9998
76	<i>Pandalus platyceros</i>	0.004	Trace	0.9998
77	<i>Liponema brevicornis</i>	0.003	Trace	0.9998
78	<i>Pleuronichthys decurrens</i>	0.003	Trace	0.9998
79	<i>Octopus rubescens</i>	0.003	Trace	0.9999
80	Aphroditidae	0.003	Trace	0.9999
81	Myxinidae	0.002	Trace	0.9999
82	Porifera	0.002	Trace	0.9999
83	<i>Pagurus capillatus</i>	0.002	Trace	0.9999
84	Scyphozoa (class)	0.002	Trace	0.9999
85	<i>Polinices</i> sp.	0.002	Trace	0.9999

Table B-17.--Continued.

86 Asteroidea unident.	0.002	Trace	0.9999
87 Fusitriton oregonensis	0.002	Trace	0.9999
88 Crossaster borealis	0.002	Trace	0.9999
89 Lethasterias nanimensis	0.002	Trace	1.0000
90 Asterias amurensis	0.001	Trace	1.0000
91 Sebastes saxicola	0.001	Trace	1.0000
92 Poraniopsis inflata	0.001	Trace	1.0000
93 Molpadia intermedia	0.001	Trace	1.0000
94 Lycodes diapterus	0.001	Trace	1.0000
95 Gonatus onyx	0.001	Trace	1.0000
96 Sebastes babcocki	0.001	Trace	1.0000
97 Porichthys notatus	0.001	Trace	1.0000
98 Henricia sp.	0.001	Trace	1.0000
99 Rossia pacifica	0.001	Trace	1.0000
100 Diaphus theta	Trace	Trace	1.0000
101 Octopus dofleini	Trace	Trace	1.0000
102 Cheiraster (=Luidiaster)	Trace	Trace	1.0000
103 Gephyreaster swifti	Trace	Trace	1.0000
104 Podothecus acipenserinus	Trace	Trace	1.0000
105 Gastropod unident.	Trace	Trace	1.0000
106 Ceramaster japonicus	Trace	Trace	1.0000
107 Florometra serratissima	Trace	Trace	1.0000
108 Myxoderma platyacanthum	Trace	Trace	1.0000
109 Munida quadrispina	Trace	Trace	1.0000
110 Solaster stimpsoni	Trace	Trace	1.0000
111 shrimp unident.	Trace	Trace	1.0000
113 Euphausiacea (order)	Trace	Trace	1.0000
112 Sergestes sp.	Trace	Trace	1.0000
114 Ctenodiscus crispatus	Trace	Trace	1.0000
115 Stenobrachius leucopsarus	Trace	Trace	1.0000
116 Ophiura sarsi	Trace	Trace	1.0000

Table B-18.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the U.S. portion of the INPFC Vancouver middle stratum (184-366 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Atheresthes stomias</i>	50.583	0.3250	0.3250
2	<i>Microstomus pacificus</i>	21.953	0.1410	0.4660
3	<i>Anoplopoma fimbria</i>	18.795	0.1207	0.5867
4	<i>Sebastes crameri</i>	14.609	0.0939	0.6806
5	<i>Sebastes alutus</i>	12.065	0.0775	0.7581
6	<i>Merluccius productus</i>	7.291	0.0468	0.8049
7	<i>Squalus acanthias</i>	5.048	0.0324	0.8374
8	<i>Glyptocephalus zachirus</i>	3.010	0.0193	0.8567
9	<i>Sebastolobus alascanus</i>	2.666	0.0171	0.8738
10	<i>Hydrolagus colliei</i>	1.784	0.0115	0.8853
11	<i>Raja rhina</i>	1.759	0.0113	0.8966
12	<i>Allocentrotus fragilis</i>	1.756	0.0113	0.9079
13	<i>Hippoglossus stenolepis</i>	1.654	0.0106	0.9185
14	<i>Pandalus jordani</i>	1.588	0.0102	0.9287
15	<i>Lyopsetta exilis</i>	1.421	0.0091	0.9378
16	<i>Sebastes babcocki</i>	1.351	0.0087	0.9465
17	<i>Sebastes aleutianus</i>	1.174	0.0075	0.9540
18	<i>Sebastes elongatus</i>	0.920	0.0059	0.9600
19	<i>Thaleichthys pacificus</i>	0.889	0.0057	0.9657
20	<i>Bathyraja interrupta</i>	0.627	0.0040	0.9697
21	<i>Sebastes diploproa</i>	0.615	0.0039	0.9736
22	<i>Brisaster latifrons</i>	0.603	0.0039	0.9775
23	<i>Hippoglossoides elassodon</i>	0.424	0.0027	0.9802
24	<i>Parophrys vetulus</i>	0.381	0.0024	0.9827
25	<i>Gadus macrocephalus</i>	0.368	0.0024	0.9850
26	<i>Sebastes pinniger</i>	0.287	0.0018	0.9869
27	<i>Pasiphaea pacifica</i>	0.284	0.0018	0.9887
28	<i>Sebastes flavidus</i>	0.183	0.0012	0.9899
29	<i>Lycodes pacificus</i>	0.162	0.0010	0.9909
30	<i>Luidia foliolata</i>	0.155	0.0010	0.9919
31	<i>Ophiodon elongatus</i>	0.096	0.0006	0.9926
32	<i>Parastichopus leucothele</i>	0.088	0.0006	0.9931
33	<i>Theragra chalcogramma</i>	0.088	0.0006	0.9937
34	<i>Lopholithodes foraminatus</i>	0.078	0.0005	0.9942
35	<i>Cryptacanthodes giganteus</i>	0.071	0.0005	0.9946
36	<i>Berryteuthis magister</i>	0.069	0.0004	0.9951
37	Thaliacea unident.	0.062	0.0004	0.9955
38	<i>Pycnopodia helianthoides</i>	0.059	0.0004	0.9959
39	<i>Lycodes diapterus</i>	0.056	0.0004	0.9962
40	<i>Eopsetta jordani</i>	0.048	0.0003	0.9965
41	<i>Pseudostichopus mollis</i>	0.047	0.0003	0.9968

Table B-18.--Continued.

42	Careproctus melanurus	0.046	0.0003	0.9971
43	Sebastes brevispinis	0.040	0.0003	0.9974
44	Pandalopsis dispar	0.035	0.0002	0.9976
45	Molpadia intermedia	0.030	0.0002	0.9978
46	Echinacea unident.	0.027	0.0002	0.9980
47	Lycodes cortezianus	0.021	0.0001	0.9981
48	Alosa sapidissima	0.017	0.0001	0.9982
49	Porifera	0.015	0.0001	0.9983
50	Solaster stimpsoni	0.014	0.0001	0.9984
51	Liponema brevicornis	0.014	0.0001	0.9985
52	Stylasterias forreri	0.014	0.0001	0.9986
53	Hippasteria spinosa	0.014	0.0001	0.9987
54	Pteraster tessellatus	0.014	0.0001	0.9988
55	Pandalus platyceros	0.013	0.0001	0.9988
56	Sebastes helvomaculatus	0.013	0.0001	0.9989
57	Sebastes zacentrus	0.012	0.0001	0.9990
58	Fusitriton oregonensis	0.012	0.0001	0.9991
59	Apristurus brunneus	0.012	0.0001	0.9992
60	Myxinidae	0.009	0.0001	0.9992
61	Diaphus theta	0.008	Trace	0.9993
62	vase sponge	0.007	Trace	0.9993
63	Icelinus filamentosus	0.007	Trace	0.9994
64	Sebastes saxicola	0.007	Trace	0.9994
65	Strongylocentrotus droebachiensis	0.007	Trace	0.9995
66	Citharichthys sordidus	0.007	Trace	0.9995
67	Gorgonocephalus eucnemis	0.007	Trace	0.9996
68	Chionoecetes tanneri	0.006	Trace	0.9996
69	Sardinops sagax	0.005	Trace	0.9996
70	Gephyreaster swifti	0.005	Trace	0.9996
71	Aphroditidae	0.004	Trace	0.9997
72	Aurelia sp.	0.003	Trace	0.9997
73	Pseudarchaster parelii	0.003	Trace	0.9997
74	Cheiraster (=Luidiaster)	0.003	Trace	0.9997
75	Solaster endeca	0.003	Trace	0.9998
76	Bathyagonus pentacanthus	0.003	Trace	0.9998
77	Pentamera sp.	0.003	Trace	0.9998
78	Ceramaster japonicus	0.002	Trace	0.9998
79	Lophaster furcilliger	0.002	Trace	0.9998
80	Stomphia coccinea	0.002	Trace	0.9998
81	Ophiura sarsi	0.002	Trace	0.9998
82	Orthasterias koehleri	0.002	Trace	0.9999
83	Clupea pallasii	0.002	Trace	0.9999
84	Ctenodiscus crispatus	0.002	Trace	0.9999
85	Crossaster papposus	0.002	Trace	0.9999

Table B-18.--Continued.

86 Solaster sp.	0.002	Trace	0.9999
87 Pagurus capillatus	0.002	Trace	0.9999
88 Paractinostola faeculenta	0.001	Trace	0.9999
89 Taningia danae	0.001	Trace	0.9999
91 Anthoptilum grandiflorum	0.001	Trace	1.0000
90 Diplopteraster multipes	0.001	Trace	1.0000
92 Neptunea pribiloffensis	0.001	Trace	1.0000
93 Poraniopsis inflata	0.001	Trace	1.0000
94 Gonatus onyx	0.001	Trace	1.0000
95 Ronquilus jordani	0.001	Trace	1.0000
96 Buccinum sp.	0.001	Trace	1.0000
97 Notolepsis risso	Trace	Trace	1.0000
98 Pagurus brandti	Trace	Trace	1.0000
99 squid unident.	Trace	Trace	1.0000
100 Neomenia sp.	Trace	Trace	1.0000
101 Pagurus confragosus	Trace	Trace	1.0000
102 Polynoidae	Trace	Trace	1.0000
103 brachiopod unident.	Trace	Trace	1.0000
104 Rossia pacifica	Trace	Trace	1.0000
105 Chorilia longipes	Trace	Trace	1.0000
106 Polychaeta (class)	Trace	Trace	1.0000
107 Actinauge verrillii	Trace	Trace	1.0000
108 Henricia sp.	Trace	Trace	1.0000
109 gastropod eggs	Trace	Trace	1.0000
110 Lycodapus mandibularis	Trace	Trace	1.0000



Table B-19.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the U.S. portion of the INPFC Vancouver deep stratum (367-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Microstomus pacificus</i>	8.083	0.2410	0.2410
2	<i>Merluccius productus</i>	7.554	0.2253	0.4663
3	<i>Sebastes alascanus</i>	2.499	0.0745	0.5408
4	<i>Anoplopoma fimbria</i>	2.351	0.0701	0.6109
5	<i>Sebastes borealis</i>	1.461	0.0436	0.6545
6	<i>Raja rhina</i>	1.349	0.0402	0.6947
7	<i>Sebastes aleutianus</i>	1.323	0.0395	0.7342
8	<i>Sebastes alutus</i>	1.183	0.0353	0.7695
9	<i>Sebastes altivelis</i>	0.868	0.0259	0.7953
10	<i>Atheresthes stomias</i>	0.662	0.0197	0.8151
11	<i>Glyptocephalus zachirus</i>	0.623	0.0186	0.8336
12	<i>Pseudostichopus mollis</i>	0.602	0.0179	0.8516
13	<i>Lycodes cortezi</i>	0.502	0.0150	0.8666
14	<i>Allocentrotus fragilis</i>	0.496	0.0148	0.8814
15	<i>Albatrossia pectoralis</i>	0.434	0.0129	0.8943
16	<i>Antimora microlepis</i>	0.422	0.0126	0.9069
17	<i>Actinauge verrillii</i>	0.397	0.0118	0.9187
18	<i>Apristurus brunneus</i>	0.375	0.0112	0.9299
19	<i>Berryteuthis magister</i>	0.331	0.0099	0.9398
20	<i>Pasiphaea pacifica</i>	0.244	0.0073	0.9470
21	<i>Chrysaora</i> sp.	0.228	0.0068	0.9538
22	<i>Brisaster latifrons</i>	0.218	0.0065	0.9603
23	<i>Lycodes diapterus</i>	0.162	0.0048	0.9652
24	<i>Bothrocara brunneum</i>	0.127	0.0038	0.9689
25	<i>Grimpoteuthis albatrossi</i>	0.126	0.0038	0.9727
26	<i>Lampetra tridentata</i>	0.092	0.0027	0.9754
27	<i>Fusitriton oregonensis</i>	0.087	0.0026	0.9780
28	<i>Sebastes diploproa</i>	0.074	0.0022	0.9802
29	<i>Thaliacea</i> unident.	0.073	0.0022	0.9824
30	<i>Paractinostola faeculenta</i>	0.069	0.0020	0.9845
31	<i>Sergestes</i> sp.	0.056	0.0017	0.9862
32	<i>Bathyraja interrupta</i>	0.052	0.0016	0.9877
33	<i>Liponema brevicornis</i>	0.050	0.0015	0.9892
34	<i>Pagurus confragosus</i>	0.044	0.0013	0.9905
35	<i>Cheiraster</i> (=Luidiaster)	0.040	0.0012	0.9917
36	<i>Neptunea amianta</i>	0.039	0.0012	0.9929
37	<i>Chionoecetes angulatus</i>	0.027	0.0008	0.9937
38	<i>Aphrocallistes vastus</i>	0.023	0.0007	0.9944
39	<i>Pseudarchaster parelii</i>	0.023	0.0007	0.9951
40	<i>Pycnopodia helianthoides</i>	0.021	0.0006	0.9957
41	<i>Lyopsetta exilis</i>	0.018	0.0006	0.9962

Table B-19.--Continued.

42 <i>Stenobrachius leucopsarus</i>	0.017	0.0005	0.9968
43 <i>Crossaster borealis</i>	0.015	0.0004	0.9972
44 <i>Gonatus onyx</i>	0.013	0.0004	0.9976
46 <i>Neomenia</i> sp.	0.011	0.0003	0.9982
45 <i>Gorgonocephalus eucnemis</i>	0.011	0.0003	0.9982
47 <i>Ctenodiscus crispatus</i>	0.010	0.0003	0.9985
48 <i>Neptunea pribiloffensis</i>	0.007	0.0002	0.9987
49 <i>Chiroteuthis</i> sp.	0.006	0.0002	0.9989
50 <i>Thaleichthys pacificus</i>	0.005	0.0002	0.9991
51 Aphroditidae	0.005	0.0001	0.9992
52 <i>Tactostoma macropus</i>	0.005	0.0001	0.9994
53 <i>Luidia foliolata</i>	0.005	0.0001	0.9995
54 <i>Stylatula</i> sp.	0.003	0.0001	0.9996
55 <i>Chauliodus macouni</i>	0.003	0.0001	0.9997
57 Gastropod unident.	0.002	0.0001	0.9998
56 <i>Bathyploetes</i> sp.	0.002	0.0001	0.9998
58 compound ascidian unident.	0.002	Trace	0.9998
60 <i>Lampanyctus ritteri</i>	0.001	Trace	0.9999
59 <i>Myxoderma platyacanthum</i>	0.001	Trace	0.9999
62 <i>Diaphus theta</i>	0.001	Trace	1.0000
61 <i>Ophiura sarsi</i>	0.001	Trace	1.0000
63 brachiopod unident.	Trace	Trace	1.0000
64 <i>Pagurus capillatus</i>	Trace	Trace	1.0000
65 Myctophidae	Trace	Trace	1.0000
66 <i>Lycodapus mandibularis</i>	Trace	Trace	1.0000

Table B-20.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the entire U.S. portion of the INPFC Vancouver area (55-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Theragra chalcogramma</i>	34.808	0.1845	0.1845
2	<i>Anoplopoma fimbria</i>	34.323	0.1819	0.3664
3	<i>Atheresthes stomias</i>	25.738	0.1364	0.5028
4	<i>Squalus acanthias</i>	16.874	0.0894	0.5922
5	<i>Merluccius productus</i>	16.089	0.0853	0.6774
6	<i>Microstomus pacificus</i>	13.315	0.0706	0.7480
7	<i>Sebastes flavidus</i>	6.477	0.0343	0.7824
8	<i>Sebastes crameri</i>	4.534	0.0240	0.8064
9	<i>Sebastes alutus</i>	3.799	0.0201	0.8265
10	<i>Glyptocephalus zachirus</i>	3.569	0.0189	0.8454
11	<i>Citharichthys sordidus</i>	3.198	0.0169	0.8624
12	<i>Clupea pallasii</i>	2.651	0.0140	0.8764
13	<i>Parophrys vetulus</i>	2.245	0.0119	0.8883
14	<i>Sebastes elongatus</i>	2.179	0.0115	0.8999
15	<i>Hippoglossus stenolepis</i>	2.149	0.0114	0.9112
16	<i>Lyopsetta exilis</i>	1.458	0.0077	0.9190
17	<i>Alosa sapidissima</i>	1.323	0.0070	0.9260
18	<i>Gadus macrocephalus</i>	1.247	0.0066	0.9326
19	<i>Raja rhina</i>	1.206	0.0064	0.9390
20	<i>Sebastolobus alascanus</i>	0.958	0.0051	0.9441
21	<i>Hydrolagus collicii</i>	0.850	0.0045	0.9486
22	<i>Eopsetta jordani</i>	0.834	0.0044	0.9530
23	<i>Ophiodon elongatus</i>	0.805	0.0043	0.9573
24	<i>Hippoglossoides elassodon</i>	0.668	0.0035	0.9608
25	<i>Pandalus jordani</i>	0.594	0.0031	0.9640
26	<i>Allocentrotus fragilis</i>	0.576	0.0031	0.9670
27	<i>Sebastes proriger</i>	0.563	0.0030	0.9700
28	<i>Sebastes pinniger</i>	0.516	0.0027	0.9727
29	<i>Sebastes aleutianus</i>	0.501	0.0027	0.9754
30	<i>Microgadus proximus</i>	0.478	0.0025	0.9779
31	<i>Raja binoculata</i>	0.478	0.0025	0.9804
32	<i>Sebastes babcocki</i>	0.416	0.0022	0.9826
33	<i>Thaleichthys pacificus</i>	0.362	0.0019	0.9846
34	<i>Bathyraja interrupta</i>	0.250	0.0013	0.9859
35	<i>Brisaster latifrons</i>	0.232	0.0012	0.9871
36	<i>Sebastes diploproa</i>	0.200	0.0011	0.9882
37	<i>Galeorhinus galeus</i>	0.141	0.0007	0.9889
38	<i>Sebastes helvomaculatus</i>	0.121	0.0006	0.9896
39	<i>Sebastes zacentrus</i>	0.118	0.0006	0.9902
40	<i>Cancer magister</i>	0.118	0.0006	0.9908
41	<i>Pasiphaea pacifica</i>	0.100	0.0005	0.9914

Table B-20.--Continued.

42	<i>Luidia foliolata</i>	0.087	0.0005	0.9918
43	<i>Sebastes brevispinis</i>	0.084	0.0004	0.9922
44	<i>Lepidopsetta bilineata</i>	0.083	0.0004	0.9927
45	<i>Sebastes ruberrimus</i>	0.080	0.0004	0.9931
46	<i>Oncorhynchus tshawytscha</i>	0.079	0.0004	0.9935
47	<i>Sebastes borealis</i>	0.075	0.0004	0.9939
48	<i>Strongylocentrotus droebachiensis</i>	0.071	0.0004	0.9943
49	<i>Lycodes pacificus</i>	0.056	0.0003	0.9946
50	<i>Pseudostichopus mollis</i>	0.050	0.0003	0.9949
51	<i>Pycnopodia helianthoides</i>	0.048	0.0003	0.9951
52	<i>Metridium farcimen</i>	0.047	0.0002	0.9954
53	<i>Sardinops sagax</i>	0.045	0.0002	0.9956
54	<i>Sebastolobus altivelis</i>	0.044	0.0002	0.9958
55	<i>Parastichopus leucothele</i>	0.044	0.0002	0.9961
56	<i>Berryteuthis magister</i>	0.044	0.0002	0.9963
57	<i>Sebastes entomelas</i>	0.040	0.0002	0.9965
58	<i>Lopholithodes foraminatus</i>	0.038	0.0002	0.9967
59	<i>Chrysaora</i> sp.	0.035	0.0002	0.9969
60	<i>Lycodes cortezianus</i>	0.032	0.0002	0.9971
61	Thaliacea unident.	0.028	0.0001	0.9972
62	<i>Lycodes diapterus</i>	0.026	0.0001	0.9974
63	<i>Icelinus filamentosus</i>	0.024	0.0001	0.9975
64	<i>Cyanea capillata</i>	0.024	0.0001	0.9976
65	<i>Apristurus brunneus</i>	0.023	0.0001	0.9977
66	<i>Albatrossia pectoralis</i>	0.022	0.0001	0.9979
67	<i>Cryptacanthodes giganteus</i>	0.022	0.0001	0.9980
68	<i>Antimora microlepis</i>	0.022	0.0001	0.9981
69	<i>Hexagrammos decagrammus</i>	0.022	0.0001	0.9982
70	<i>Actinauge verrillii</i>	0.020	0.0001	0.9983
71	<i>Stylasterias forreri</i>	0.019	0.0001	0.9984
72	Echinacea unident.	0.017	0.0001	0.9985
73	<i>Scomber japonicus</i>	0.017	0.0001	0.9986
74	<i>Trachurus symmetricus</i>	0.016	0.0001	0.9987
75	<i>Pandalopsis dispar</i>	0.015	0.0001	0.9988
76	<i>Careproctus melanurus</i>	0.014	0.0001	0.9988
77	vase sponge	0.013	0.0001	0.9989
78	<i>Sebastes wilsoni</i>	0.012	0.0001	0.9990
79	<i>Crossaster papposus</i>	0.011	0.0001	0.9990
80	skate egg case unident.	0.011	0.0001	0.9991
81	<i>Molpadia intermedia</i>	0.010	0.0001	0.9991
82	<i>Fusitriton oregonensis</i>	0.009	Trace	0.9992
83	<i>Liponema brevicornis</i>	0.009	Trace	0.9992
84	<i>Hippasteria spinosa</i>	0.008	Trace	0.9993
85	<i>Sebastes maliger</i>	0.008	Trace	0.9993

Table B-20.--Continued.

86	<i>Gorgonocephalus eucnemis</i>	0.007	Trace	0.9994
87	<i>Bothrocara brunneum</i>	0.007	Trace	0.9994
88	<i>Grimpoteuthis albatrossi</i>	0.006	Trace	0.9994
89	<i>Pandalus platyceros</i>	0.006	Trace	0.9994
90	Porifera	0.006	Trace	0.9995
91	<i>Loligo opalescens</i>	0.006	Trace	0.9995
92	<i>Lampetra tridentata</i>	0.005	Trace	0.9995
93	<i>Solaster stimpsoni</i>	0.004	Trace	0.9996
94	<i>Solaster</i> sp.	0.004	Trace	0.9996
95	<i>Pteraster tesselatus</i>	0.004	Trace	0.9996
96	Myxinidae	0.004	Trace	0.9996
97	<i>Stylatula</i> sp.	0.004	Trace	0.9997
98	<i>Paractinostola faeculenta</i>	0.004	Trace	0.9997
99	<i>Cheiraster</i> (=Luidiaster)	0.003	Trace	0.9997
100	Aphroditidae	0.003	Trace	0.9997
101	Actiniaria (order)	0.003	Trace	0.9997
102	<i>Sergestes</i> sp.	0.003	Trace	0.9997
103	<i>Sebastes saxicola</i>	0.003	Trace	0.9998
104	<i>Diaphus theta</i>	0.003	Trace	0.9998
105	<i>Pagurus confragosus</i>	0.002	Trace	0.9998
106	<i>Pseudarchaster parelii</i>	0.002	Trace	0.9998
107	<i>Neptunea amianta</i>	0.002	Trace	0.9998
108	<i>Pleuronichthys decurrens</i>	0.002	Trace	0.9998
109	<i>Octopus rubescens</i>	0.002	Trace	0.9998
110	<i>Chionoecetes tanneri</i>	0.002	Trace	0.9998
111	<i>Pagurus capillatus</i>	0.002	Trace	0.9998
112	<i>Crossaster borealis</i>	0.002	Trace	0.9998
113	<i>Gephyreaster swifti</i>	0.002	Trace	0.9999
114	<i>Gonatus onyx</i>	0.002	Trace	0.9999
115	<i>Chionoecetes angulatus</i>	0.001	Trace	0.9999
116	<i>Aphrocallistes vastus</i>	0.001	Trace	0.9999
117	Scyphozoa (class)	0.001	Trace	0.9999
118	<i>Ctenodiscus crispatus</i>	0.001	Trace	0.9999
119	<i>Polinices</i> sp.	0.001	Trace	0.9999
120	<i>Aurelia</i> sp.	0.001	Trace	0.9999
121	Asteroidea unident.	0.001	Trace	0.9999
122	<i>Poraniopsis inflata</i>	0.001	Trace	0.9999
123	<i>Lethasterias nanimensis</i>	0.001	Trace	0.9999
124	<i>Solaster endeca</i>	0.001	Trace	0.9999
125	<i>Stenobranchius leucopsarus</i>	0.001	Trace	0.9999
126	<i>Bathyagonus pentacanthus</i>	0.001	Trace	0.9999
127	<i>Ceramaster japonicus</i>	0.001	Trace	0.9999
128	<i>Pentamera</i> sp.	0.001	Trace	1.0000
129	<i>Asterias amurensis</i>	0.001	Trace	1.0000

Table B-20.--Continued.

130 <i>Neptunea pribiloffensis</i>	0.001	Trace	1.0000
131 <i>Neomenia</i> sp.	0.001	Trace	1.0000
132 <i>Lophaster furcilliger</i>	0.001	Trace	1.0000
133 <i>Ophiura sarsi</i>	0.001	Trace	1.0000
134 <i>Stomphia coccinea</i>	0.001	Trace	1.0000
135 <i>Orthasterias koehleri</i>	0.001	Trace	1.0000
136 <i>Rossia pacifica</i>	Trace	Trace	1.0000
137 <i>Taningia danae</i>	Trace	Trace	1.0000
138 <i>Henricia</i> sp.	Trace	Trace	1.0000
140 <i>Anthoptilum grandiflorum</i>	Trace	Trace	1.0000
139 <i>Diplopteraster multipes</i>	Trace	Trace	1.0000
141 <i>Porichthys notatus</i>	Trace	Trace	1.0000
142 <i>Chiroteuthis</i> sp.	Trace	Trace	1.0000
143 Gastropod unident.	Trace	Trace	1.0000
144 <i>Octopus dofleini</i>	Trace	Trace	1.0000
145 <i>Tactostoma macropus</i>	Trace	Trace	1.0000
146 <i>Ronquilus jordani</i>	Trace	Trace	1.0000
147 <i>Buccinum</i> sp.	Trace	Trace	1.0000
148 <i>Myxoderma platyacanthum</i>	Trace	Trace	1.0000
149 <i>Podothecus acipenserinus</i>	Trace	Trace	1.0000
150 <i>Notolepsis risso</i>	Trace	Trace	1.0000
151 <i>Chauliodus macouni</i>	Trace	Trace	1.0000
152 <i>Pagurus brandti</i>	Trace	Trace	1.0000
153 squid unident.	Trace	Trace	1.0000
154 <i>Bathyploetes</i> sp.	Trace	Trace	1.0000
155 brachiopod unident.	Trace	Trace	1.0000
156 Polynoidae	Trace	Trace	1.0000
157 <i>Florometra serratissima</i>	Trace	Trace	1.0000
158 compound ascidian unident.	Trace	Trace	1.0000
159 <i>Munida quadrispina</i>	Trace	Trace	1.0000
160 <i>Lampanyctus ritteri</i>	Trace	Trace	1.0000
161 <i>Chorilia longipes</i>	Trace	Trace	1.0000
162 Polychaeta (class)	Trace	Trace	1.0000
163 gastropod eggs	Trace	Trace	1.0000
164 <i>Lycodapus mandibularis</i>	Trace	Trace	1.0000
165 shrimp unident.	Trace	Trace	1.0000
166 Euphausiacea (order)	Trace	Trace	1.0000
167 Myctophidae	Trace	Trace	1.0000

Table B-21.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the Canadian portion of the INPFC Vancouver shallow stratum (55-183 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Theragra chalcogramma</i>	48.991	0.2121	0.2121
2	<i>Squalus acanthias</i>	37.660	0.1630	0.3751
3	<i>Merluccius productus</i>	31.612	0.1368	0.5120
4	<i>Atheresthes stomias</i>	23.460	0.1016	0.6135
5	<i>Thaleichthys pacificus</i>	16.061	0.0695	0.6831
6	<i>Microstomus pacificus</i>	11.904	0.0515	0.7346
7	<i>Anoplopoma fimbria</i>	7.864	0.0340	0.7686
8	<i>Glyptocephalus zachirus</i>	7.695	0.0333	0.8020
9	<i>Sebastes flavidus</i>	7.382	0.0320	0.8339
10	<i>Citharichthys sordidus</i>	6.725	0.0291	0.8630
11	<i>Hippoglossoides elassodon</i>	5.027	0.0218	0.8848
12	<i>Parophrys vetulus</i>	3.216	0.0139	0.8987
13	<i>Sebastes proriger</i>	2.746	0.0119	0.9106
14	<i>Microgadus proximus</i>	2.400	0.0104	0.9210
15	<i>Lyopsetta exilis</i>	2.060	0.0089	0.9299
16	<i>Hippoglossus stenolepis</i>	1.938	0.0084	0.9383
17	<i>Ophiodon elongatus</i>	1.709	0.0074	0.9457
18	<i>Raja rhina</i>	1.448	0.0063	0.9520
19	<i>Pandalus jordani</i>	1.266	0.0055	0.9574
20	<i>Gadus macrocephalus</i>	1.059	0.0046	0.9620
21	<i>Eopsetta jordani</i>	1.010	0.0044	0.9664
22	<i>Alosa sapidissima</i>	0.951	0.0041	0.9705
23	<i>Hydrolagus colliei</i>	0.944	0.0041	0.9746
24	<i>Lycodes pacificus</i>	0.898	0.0039	0.9785
25	<i>Brisaster latifrons</i>	0.606	0.0026	0.9811
26	<i>Sebastes elongatus</i>	0.451	0.0020	0.9831
27	<i>Sardinops sagax</i>	0.332	0.0014	0.9845
28	<i>Sebastes brevispinis</i>	0.326	0.0014	0.9859
29	<i>Sebastes pinniger</i>	0.284	0.0012	0.9871
30	<i>Clupea pallasii</i>	0.284	0.0012	0.9884
31	<i>Luidia foliolata</i>	0.226	0.0010	0.9893
32	<i>Metridium farcimen</i>	0.213	0.0009	0.9903
33	<i>Sebastes alutus</i>	0.198	0.0009	0.9911
34	<i>Oncorhynchus tshawytscha</i>	0.187	0.0008	0.9919
35	<i>Pandalopsis dispar</i>	0.170	0.0007	0.9927
36	<i>Lepidopsetta bilineata</i>	0.160	0.0007	0.9934
37	<i>Allocentrotus fragilis</i>	0.144	0.0006	0.9940
38	<i>Sebastes ruberrimus</i>	0.137	0.0006	0.9946
39	<i>Octopus dofleini</i>	0.088	0.0004	0.9950
40	<i>Sebastes helvomaculatus</i>	0.085	0.0004	0.9953
41	<i>Molpadia intermedia</i>	0.084	0.0004	0.9957

Table B-21.--Continued.

42	<i>Pleuronichthys decurrens</i>	0.083	0.0004	0.9960
43	<i>Cyanea capillata</i>	0.078	0.0003	0.9964
44	<i>Stylasterias forreri</i>	0.074	0.0003	0.9967
45	<i>Oncorhynchus gorboscha</i>	0.057	0.0002	0.9970
46	<i>Sebastes aleutianus</i>	0.056	0.0002	0.9972
47	<i>Pycnopodia helianthoides</i>	0.049	0.0002	0.9974
48	<i>Parastichopus leucothele</i>	0.044	0.0002	0.9976
49	<i>Sebastes paucispinis</i>	0.038	0.0002	0.9978
50	<i>Bathyraja interrupta</i>	0.037	0.0002	0.9979
51	<i>Sebastes maliger</i>	0.032	0.0001	0.9981
52	<i>Cryptacanthodes giganteus</i>	0.031	0.0001	0.9982
53	Aphroditidae	0.027	0.0001	0.9983
54	<i>Scomber japonicus</i>	0.026	0.0001	0.9984
55	<i>Icelinus filamentosus</i>	0.024	0.0001	0.9985
56	<i>Sebastes crameri</i>	0.023	0.0001	0.9986
57	<i>Chrysaora</i> sp.	0.022	0.0001	0.9987
58	<i>Sebastes jordani</i>	0.020	0.0001	0.9988
59	<i>Sebastes wilsoni</i>	0.020	0.0001	0.9989
60	<i>Trachurus symmetricus</i>	0.020	0.0001	0.9990
61	Porifera	0.019	0.0001	0.9991
62	<i>Sebastolobus alascanus</i>	0.019	0.0001	0.9991
63	<i>Cancer magister</i>	0.018	0.0001	0.9992
64	<i>Pandalus platyceros</i>	0.015	0.0001	0.9993
65	<i>Sebastes zacentrus</i>	0.014	0.0001	0.9994
66	vase sponge	0.014	0.0001	0.9994
67	Actiniaria (order)	0.012	0.0001	0.9995
68	<i>Sebastes diploproa</i>	0.012	0.0001	0.9995
69	Thaliacea unident.	0.011	Trace	0.9996
70	<i>Sebastes saxicola</i>	0.010	Trace	0.9996
71	<i>Psettichthys melanostictus</i>	0.009	Trace	0.9996
72	<i>Loligo opalescens</i>	0.009	Trace	0.9997
73	<i>Sebastes babcocki</i>	0.009	Trace	0.9997
74	<i>Aurelia</i> sp.	0.008	Trace	0.9998
75	<i>Lopholithodes foraminatus</i>	0.006	Trace	0.9998
76	<i>Hippasteria spinosa</i>	0.005	Trace	0.9998
77	<i>Gorgonocephalus eucnemis</i>	0.005	Trace	0.9998
78	<i>Isopsetta isolepis</i>	0.005	Trace	0.9998
79	<i>Platichthys stellatus</i>	0.004	Trace	0.9999
80	<i>Allosmerus elongatus</i>	0.003	Trace	0.9999
81	<i>Stylatula</i> sp.	0.003	Trace	0.9999
82	red striated sea anemone	0.003	Trace	0.9999
83	<i>Molpadia</i> sp.	0.002	Trace	0.9999
84	<i>Porichthys notatus</i>	0.002	Trace	0.9999
85	<i>Podothecus acipenserinus</i>	0.002	Trace	0.9999



Table B-21.--Continued.

86 Pseudarchaster parelii	0.002	Trace	0.9999
87 Stomphia sp.	0.002	Trace	0.9999
88 Rossia pacifica	0.001	Trace	1.0000
89 Dermasterias imbricata	0.001	Trace	1.0000
90 Sebastes sp.	0.001	Trace	1.0000
91 Parastichopus californicus	0.001	Trace	1.0000
92 Aphrocallistes vastus	0.001	Trace	1.0000
93 Cheiraster (=Luidiaster)	0.001	Trace	1.0000
94 Tritonia diomedea	0.001	Trace	1.0000
95 Polinices sp.	0.001	Trace	1.0000
96 Lycodes diapterus	0.001	Trace	1.0000
97 Stomphia coccinea	Trace	Trace	1.0000
98 crab unident.	Trace	Trace	1.0000
99 Dasycottus setiger	Trace	Trace	1.0000
100 Fusitriton oregonensis	Trace	Trace	1.0000
101 Bathyagonus pentacanthus	Trace	Trace	1.0000
102 Crossaster papposus	Trace	Trace	1.0000
103 Pteraster militaris	Trace	Trace	1.0000
104 Pagurus capillatus	Trace	Trace	1.0000
105 Pseudarchaster parelii	Trace	Trace	1.0000
106 Polychaeta (class)	Trace	Trace	1.0000
107 Nudibranchia unident.	Trace	Trace	1.0000
108 Pennatulacea (order)	Trace	Trace	1.0000
109 Liparis pulchellus	Trace	Trace	1.0000
110 Pteraster tessellatus	Trace	Trace	1.0000
111 Pandalus hypsinotus	Trace	Trace	1.0000
112 Chionoecetes bairdi	Trace	Trace	1.0000
113 Crangon communis	Trace	Trace	1.0000
114 Stenobrachius leucopsarus	Trace	Trace	1.0000
115 Pentamera sp.	Trace	Trace	1.0000

Table B-22.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the Canadian portion of the INPFC Vancouver middle stratum (184-366 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Sebastes flavidus</i>	131.824	0.5107	0.5107
2	<i>Sebastes alutus</i>	49.380	0.1913	0.7021
3	<i>Atheresthes stomias</i>	26.182	0.1014	0.8035
4	<i>Anoplopoma fimbria</i>	9.635	0.0373	0.8408
5	<i>Microstomus pacificus</i>	8.639	0.0335	0.8743
6	<i>Sebastes proriger</i>	5.066	0.0196	0.8939
7	<i>Sebastes elongatus</i>	4.989	0.0193	0.9132
8	<i>Hippoglossus stenolepis</i>	3.715	0.0144	0.9276
9	<i>Merluccius productus</i>	3.087	0.0120	0.9396
10	<i>Sebastes entomelas</i>	2.120	0.0082	0.9478
11	<i>Sebastes paucispinis</i>	1.939	0.0075	0.9553
12	<i>Hydrolagus colliei</i>	1.390	0.0054	0.9607
13	<i>Sebastes pinniger</i>	1.350	0.0052	0.9660
14	<i>Sebastes brevispinis</i>	1.178	0.0046	0.9705
15	<i>Sebastolobus alascanus</i>	1.095	0.0042	0.9748
16	<i>Sebastes diploproa</i>	1.064	0.0041	0.9789
17	<i>Sebastes borealis</i>	0.669	0.0026	0.9815
18	<i>Lyopsetta exilis</i>	0.643	0.0025	0.9840
19	<i>Glyptocephalus zachirus</i>	0.605	0.0023	0.9863
20	<i>Gadus macrocephalus</i>	0.528	0.0020	0.9884
22	<i>Sebastes aleutianus</i>	0.427	0.0017	0.9917
21	<i>Berryteuthis magister</i>	0.427	0.0017	0.9917
23	<i>Chrysaora</i> sp.	0.333	0.0013	0.9930
24	<i>Icelinus filamentosus</i>	0.287	0.0011	0.9941
25	<i>Theragra chalcogramma</i>	0.254	0.0010	0.9950
26	<i>Eopsetta jordani</i>	0.217	0.0008	0.9959
27	<i>Squalus acanthias</i>	0.187	0.0007	0.9966
28	<i>Sebastes babcocki</i>	0.160	0.0006	0.9972
29	<i>Sebastes helvomaculatus</i>	0.137	0.0005	0.9978
30	<i>Sebastes crameri</i>	0.137	0.0005	0.9983
31	<i>Raja rhina</i>	0.131	0.0005	0.9988
32	<i>Ophiodon elongatus</i>	0.112	0.0004	0.9992
33	<i>Sebastes goodei</i>	0.053	0.0002	0.9994
34	<i>Pandalus platyceros</i>	0.043	0.0002	0.9996
35	<i>Leptychaster</i> sp.	0.034	0.0001	0.9997
36	<i>Allocentrotus fragilis</i>	0.031	0.0001	0.9999
37	Thaliacea unident.	0.008	Trace	0.9999
38	<i>Pandalopsis dispar</i>	0.005	Trace	0.9999
39	<i>Strongylocentrotus droebachiensis</i>	0.005	Trace	0.9999
40	<i>Onychoteuthis borealijaponicus</i>	0.005	Trace	1.0000
41	<i>Solaster endeca</i>	0.004	Trace	1.0000

Table B-22.--Continued.

42	<i>Tactostoma macropus</i>	0.003	Trace	1.0000
43	<i>Stylasterias forreri</i>	0.002	Trace	1.0000
44	<i>Nudibranchia unident.</i>	0.002	Trace	1.0000
45	<i>Ctenodiscus crispatus</i>	0.001	Trace	1.0000
46	<i>Tarletonbeania crenularis</i>	Trace	Trace	1.0000
47	Gastropod unident.	Trace	Trace	1.0000
48	<i>Ophiura sarsi</i>	Trace	Trace	1.0000

Table B-23.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the Canadian portion of the INPFC Vancouver deep stratum (367-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Microstomus pacificus</i>	20.163	0.2536	0.2536
2	<i>Sebastes aleutianus</i>	11.902	0.1497	0.4033
3	<i>Sebastes alascanus</i>	10.315	0.1298	0.5331
4	<i>Merluccius productus</i>	7.756	0.0976	0.6307
5	<i>Sebastes alutus</i>	7.693	0.0968	0.7274
6	<i>Anoplopoma fimbria</i>	6.633	0.0834	0.8109
7	<i>Sebastes borealis</i>	4.519	0.0569	0.8677
8	<i>Glyptocephalus zachirus</i>	3.487	0.0439	0.9116
9	<i>Sebastes aurora</i>	0.977	0.0123	0.9239
10	<i>Pseudostichopus mollis</i>	0.639	0.0080	0.9319
11	<i>Atheresthes stomias</i>	0.623	0.0078	0.9398
12	<i>Raja rhina</i>	0.490	0.0062	0.9459
13	<i>Berryteuthis magister</i>	0.401	0.0050	0.9510
14	<i>Paractinostola faeculenta</i>	0.400	0.0050	0.9560
15	<i>Sebastes altivelis</i>	0.391	0.0049	0.9609
16	<i>Actinauge verrillii</i>	0.354	0.0044	0.9654
17	<i>Antimora microlepis</i>	0.316	0.0040	0.9694
18	<i>Bathyraja interrupta</i>	0.234	0.0029	0.9723
19	<i>Lycodes diapterus</i>	0.215	0.0027	0.9750
20	<i>Apristurus brunneus</i>	0.207	0.0026	0.9776
21	<i>Sebastes brevispinis</i>	0.187	0.0024	0.9800
22	<i>Lycodes cortezianus</i>	0.170	0.0021	0.9821
23	<i>Sebastes babcocki</i>	0.152	0.0019	0.9840
24	<i>Opisthoteuthis californiana</i>	0.136	0.0017	0.9857
25	<i>Lyopsetta exilis</i>	0.123	0.0015	0.9872
26	<i>Eopsetta jordani</i>	0.119	0.0015	0.9888
27	<i>Octopus dofleini</i>	0.092	0.0012	0.9899
28	<i>Albatrossia pectoralis</i>	0.064	0.0008	0.9907
29	<i>Aphrocallistes vastus</i>	0.058	0.0007	0.9914
30	<i>Fusitriton oregonensis</i>	0.057	0.0007	0.9922
31	<i>Sebastes rufus</i>	0.055	0.0007	0.9928
32	<i>Thaliacea unident.</i>	0.050	0.0006	0.9935
33	<i>Neptunea sp.</i>	0.041	0.0005	0.9940
34	<i>Liponema brevicornis</i>	0.040	0.0005	0.9945
35	<i>Sebastes helvomaculatus</i>	0.040	0.0005	0.9950
36	<i>Octopoteuthis deletron</i>	0.036	0.0005	0.9954
37	<i>Lampetra tridentata</i>	0.031	0.0004	0.9958
38	<i>Diplopteraster multipes</i>	0.025	0.0003	0.9962
39	<i>Pycnopodia helianthoides</i>	0.025	0.0003	0.9965
40	<i>Gonatopsis borealis</i>	0.022	0.0003	0.9967
41	<i>brachiopod unident.</i>	0.021	0.0003	0.9970

Table B-23.--Continued.

42	<i>Ctenodiscus crispatus</i>	0.018	0.0002	0.9972
43	<i>Careproctus melanurus</i>	0.018	0.0002	0.9974
44	<i>Brisaster latifrons</i>	0.016	0.0002	0.9976
45	<i>Neptunea pribiloffensis</i>	0.015	0.0002	0.9978
46	<i>Leptychaster</i> sp.	0.015	0.0002	0.9980
47	Porifera	0.014	0.0002	0.9982
48	<i>Pasiphaea pacifica</i>	0.013	0.0002	0.9984
49	<i>Neptunea amianta</i>	0.012	0.0002	0.9985
50	Myxinidae	0.012	0.0001	0.9987
51	<i>Hippasteria spinosa</i>	0.010	0.0001	0.9988
52	<i>Allocentrotus fragilis</i>	0.009	0.0001	0.9989
53	<i>Chiroteuthis</i> sp.	0.008	0.0001	0.9990
54	<i>Gonatus onyx</i>	0.007	0.0001	0.9991
55	<i>Stegophiura</i> (=Amphiophiura)	0.007	0.0001	0.9992
56	<i>Anthoptilum grandiflorum</i>	0.006	0.0001	0.9993
57	vase sponge	0.006	0.0001	0.9994
58	<i>Chauliodus macouni</i>	0.006	0.0001	0.9994
59	<i>Neomenia</i> sp.	0.005	0.0001	0.9995
60	<i>Tactostoma macropus</i>	0.004	0.0001	0.9996
61	<i>Pandalopsis dispar</i>	0.003	Trace	0.9996
62	<i>Pseudarchaster parelii</i>	0.003	Trace	0.9996
63	squid unident.	0.003	Trace	0.9997
64	Aphroditidae	0.003	Trace	0.9997
65	<i>Henricia</i> sp.	0.003	Trace	0.9997
66	<i>Pagurus confragosus</i>	0.002	Trace	0.9998
67	<i>Aristostomias scintillans</i>	0.002	Trace	0.9998
68	Actiniaria (order)	0.002	Trace	0.9998
69	<i>Stenobrachius leucopsarus</i>	0.002	Trace	0.9998
70	<i>Bathyagonus pentacanthus</i>	0.002	Trace	0.9999
71	<i>Buccinum</i> sp.	0.002	Trace	0.9999
72	<i>Bathyagonus nigripinnis</i>	0.002	Trace	0.9999
73	<i>Stomphia</i> sp.	0.002	Trace	0.9999
74	<i>Crossaster papposus</i>	0.001	Trace	1.0000
75	<i>Chionoecetes tanneri</i>	0.001	Trace	1.0000
76	<i>Crossaster borealis</i>	0.001	Trace	1.0000
77	Gastropod unident.	0.001	Trace	1.0000
78	<i>Luidia foliolata</i>	0.001	Trace	1.0000
79	<i>Psolus</i> sp.	Trace	Trace	1.0000
80	<i>Diaphus theta</i>	Trace	Trace	1.0000
82	<i>Eualus macrophthalmus</i>	Trace	Trace	1.0000
81	<i>Ophiopholis longispina</i>	Trace	Trace	1.0000

Table B-24.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the entire Canadian portion of the INPFC Vancouver area (55-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Theragra chalcogramma</i>	40.437	0.1856	0.1856
2	<i>Squalus acanthias</i>	31.084	0.1427	0.3283
3	<i>Merluccius productus</i>	27.087	0.1243	0.4526
4	<i>Atheresthes stomias</i>	21.381	0.0981	0.5507
5	<i>Sebastes flavidus</i>	15.977	0.0733	0.6240
6	<i>Thaleichthys pacificus</i>	13.251	0.0608	0.6848
7	<i>Microstomus pacificus</i>	12.485	0.0573	0.7422
8	<i>Anoplopoma fimbria</i>	7.873	0.0361	0.7783
9	<i>Glyptocephalus zachirus</i>	6.743	0.0309	0.8092
10	<i>Citharichthys sordidus</i>	5.548	0.0255	0.8347
11	<i>Sebastes alutus</i>	4.637	0.0213	0.8560
12	<i>Hippoglossoides elassodon</i>	4.148	0.0190	0.8750
13	<i>Parophrys vetulus</i>	2.653	0.0122	0.8872
14	<i>Sebastes proriger</i>	2.645	0.0121	0.8993
15	<i>Microgadus proximus</i>	1.980	0.0091	0.9084
16	<i>Hippoglossus stenolepis</i>	1.877	0.0086	0.9170
17	<i>Lyopsetta exilis</i>	1.760	0.0081	0.9251
18	<i>Ophiodon elongatus</i>	1.418	0.0065	0.9316
19	<i>Sebastes aleutianus</i>	1.269	0.0058	0.9374
20	<i>Raja rhina</i>	1.254	0.0058	0.9432
21	<i>Sebastolobus alascanus</i>	1.129	0.0052	0.9484
22	<i>Pandalus jordani</i>	1.044	0.0048	0.9532
23	<i>Gadus macrocephalus</i>	0.913	0.0042	0.9574
24	<i>Hydrolagus colliei</i>	0.883	0.0041	0.9614
25	<i>Eopsetta jordani</i>	0.861	0.0040	0.9654
26	<i>Alosa sapidissima</i>	0.784	0.0036	0.9690
27	<i>Sebastes elongatus</i>	0.746	0.0034	0.9724
28	<i>Lycodes pacificus</i>	0.741	0.0034	0.9758
29	<i>Sebastes borealis</i>	0.502	0.0023	0.9781
30	<i>Brisaster latifrons</i>	0.502	0.0023	0.9804
31	<i>Sebastes brevispinis</i>	0.376	0.0017	0.9821
32	<i>Sebastes pinniger</i>	0.335	0.0015	0.9837
33	<i>Sardinops sagax</i>	0.274	0.0013	0.9849
34	<i>Clupea pallasii</i>	0.234	0.0011	0.9860
35	<i>Luidia foliolata</i>	0.187	0.0009	0.9869
36	<i>Sebastes paucispinis</i>	0.177	0.0008	0.9877
37	<i>Metridium farcimen</i>	0.176	0.0008	0.9885
38	<i>Sebastes entomelas</i>	0.159	0.0007	0.9892
39	<i>Oncorhynchus tshawytscha</i>	0.154	0.0007	0.9899
40	<i>Pandalopsis dispar</i>	0.141	0.0006	0.9906
41	<i>Lepidopsetta bilineata</i>	0.132	0.0006	0.9912

Table B-24.--Continued.

42	<i>Allocentrotus fragilis</i>	0.122	0.0006	0.9917
43	<i>Sebastes ruberrimus</i>	0.113	0.0005	0.9922
44	<i>Sebastes aurora</i>	0.098	0.0004	0.9927
45	<i>Sebastes diploproa</i>	0.090	0.0004	0.9931
46	<i>Sebastes helvomaculatus</i>	0.084	0.0004	0.9935
47	<i>Octopus dofleini</i>	0.082	0.0004	0.9939
48	<i>Berryteuthis magister</i>	0.072	0.0003	0.9942
49	<i>Molpadia intermedia</i>	0.069	0.0003	0.9945
50	<i>Pleuronichthys decurrens</i>	0.068	0.0003	0.9948
51	<i>Cyanea capillata</i>	0.065	0.0003	0.9951
52	<i>Pseudostichopus mollis</i>	0.064	0.0003	0.9954
53	<i>Stylasterias forreri</i>	0.061	0.0003	0.9957
54	<i>Bathyraja interrupta</i>	0.054	0.0002	0.9960
55	<i>Oncorhynchus gorbuscha</i>	0.047	0.0002	0.9962
56	<i>Chrysaora</i> sp.	0.043	0.0002	0.9964
57	<i>Pycnopodia helianthoides</i>	0.043	0.0002	0.9966
58	<i>Icelinus filamentosus</i>	0.041	0.0002	0.9968
59	<i>Paractinostola faeculenta</i>	0.040	0.0002	0.9969
60	<i>Sebastolobus altivelis</i>	0.039	0.0002	0.9971
61	<i>Parastichopus leucothele</i>	0.036	0.0002	0.9973
62	<i>Actinauge verrillii</i>	0.035	0.0002	0.9974
63	<i>Sebastes babcocki</i>	0.034	0.0002	0.9976
64	<i>Antimora microlepis</i>	0.032	0.0001	0.9977
65	<i>Sebastes crameri</i>	0.029	0.0001	0.9979
66	<i>Sebastes maliger</i>	0.026	0.0001	0.9980
67	<i>Cryptacanthodes giganteus</i>	0.025	0.0001	0.9981
68	Aphroditidae	0.023	0.0001	0.9982
69	<i>Lycodes diapterus</i>	0.022	0.0001	0.9983
70	<i>Scomber japonicus</i>	0.022	0.0001	0.9984
71	<i>Apristurus brunneus</i>	0.021	0.0001	0.9985
72	Porifera	0.017	0.0001	0.9986
73	<i>Lycodes cortezianus</i>	0.017	0.0001	0.9987
74	<i>Sebastes jordani</i>	0.017	0.0001	0.9988
75	<i>Sebastes wilsoni</i>	0.016	0.0001	0.9988
76	<i>Trachurus symmetricus</i>	0.016	0.0001	0.9989
77	<i>Pandalus platyceros</i>	0.016	0.0001	0.9990
78	Thaliacea unident.	0.015	0.0001	0.9990
79	<i>Cancer magister</i>	0.015	0.0001	0.9991
80	<i>Opisthoteuthis californiana</i>	0.014	0.0001	0.9992
81	vase sponge	0.012	0.0001	0.9992
82	<i>Sebastes zacentrus</i>	0.011	0.0001	0.9993
83	Actiniaria (order)	0.010	Trace	0.9993
84	<i>Sebastes saxicola</i>	0.008	Trace	0.9994
85	<i>Psettichthys melanostictus</i>	0.007	Trace	0.9994

Table B-24.--Continued.

86	<i>Loligo opalescens</i>	0.007	Trace	0.9994
87	<i>Aphrocallistes vastus</i>	0.007	Trace	0.9995
88	<i>Albatrossia pectoralis</i>	0.006	Trace	0.9995
89	<i>Aurelia</i> sp.	0.006	Trace	0.9995
90	<i>Fusitriton oregonensis</i>	0.006	Trace	0.9995
91	<i>Sebastes rufus</i>	0.005	Trace	0.9996
92	<i>Hippasteria spinosa</i>	0.005	Trace	0.9996
93	<i>Lopholithodes foraminatus</i>	0.005	Trace	0.9996
94	<i>Neptunea</i> sp.	0.004	Trace	0.9996
95	<i>Gorgonocephalus eucnemis</i>	0.004	Trace	0.9997
96	<i>Liponema brevicornis</i>	0.004	Trace	0.9997
97	<i>Isopsetta isolepis</i>	0.004	Trace	0.9997
98	<i>Sebastes goodei</i>	0.004	Trace	0.9997
99	<i>Leptychaster</i> sp.	0.004	Trace	0.9997
100	<i>Octopoteuthis deletron</i>	0.004	Trace	0.9997
101	<i>Platichthys stellatus</i>	0.003	Trace	0.9998
102	<i>Lampetra tridentata</i>	0.003	Trace	0.9998
103	<i>Allosmerus elongatus</i>	0.003	Trace	0.9998
104	<i>Diplopteraster multipes</i>	0.003	Trace	0.9998
105	<i>Stylatula</i> sp.	0.002	Trace	0.9998
106	red striated sea anemone	0.002	Trace	0.9998
107	<i>Gonatopsis borealis</i>	0.002	Trace	0.9998
108	brachiopod unident.	0.002	Trace	0.9998
109	<i>Ctenodiscus crispatus</i>	0.002	Trace	0.9998
110	<i>Molpadia</i> sp.	0.002	Trace	0.9999
111	<i>Careproctus melanurus</i>	0.002	Trace	0.9999
112	<i>Porichthys notatus</i>	0.002	Trace	0.9999
113	<i>Pseudarchaster parelii</i>	0.002	Trace	0.9999
114	<i>Podothecus acipenserinus</i>	0.002	Trace	0.9999
115	<i>Neptunea pribiloffensis</i>	0.002	Trace	0.9999
116	<i>Stomphia</i> sp.	0.001	Trace	0.9999
117	<i>Pasiphaea pacifica</i>	0.001	Trace	0.9999
118	<i>Neptunea amianta</i>	0.001	Trace	0.9999
119	<i>Rossia pacifica</i>	0.001	Trace	0.9999
120	Myxinidae	0.001	Trace	0.9999
121	<i>Dermasterias imbricata</i>	0.001	Trace	0.9999
122	<i>Sebastes</i> sp.	0.001	Trace	0.9999
123	<i>Chiroteuthis</i> sp.	0.001	Trace	0.9999
124	<i>Parastichopus californicus</i>	0.001	Trace	0.9999
125	<i>Gonatus onyx</i>	0.001	Trace	1.0000
126	<i>Cheiraster</i> (=Luidiaster)	0.001	Trace	1.0000
127	<i>Tactostoma macropus</i>	0.001	Trace	1.0000
128	<i>Tritonia diomedea</i>	0.001	Trace	1.0000
129	<i>Stegophiura</i> (=Amphiophiura)	0.001	Trace	1.0000



Table B-24.--Continued.

130 Anthoptilum grandiflorum	0.001	Trace	1.0000
131 Polinices sp.	0.001	Trace	1.0000
132 Chauliodus macouni	0.001	Trace	1.0000
133 Neomenia sp.	0.001	Trace	1.0000
134 Bathyagonus pentacanthus	0.001	Trace	1.0000
135 Crossaster papposus	Trace	Trace	1.0000
136 Stomphia coccinea	Trace	Trace	1.0000
137 crab unident.	Trace	Trace	1.0000
138 Strongylocentrotus droebachiensis	Trace	Trace	1.0000
139 Onychoteuthis borealijaponicus	Trace	Trace	1.0000
140 Dasycottus setiger	Trace	Trace	1.0000
141 squid unident.	Trace	Trace	1.0000
142 Solaster endeca	Trace	Trace	1.0000
143 Stenobranchius leucopsarus	Trace	Trace	1.0000
144 Henricia sp.	Trace	Trace	1.0000
145 Pteraster militaris	Trace	Trace	1.0000
146 Nudibranchia unident.	Trace	Trace	1.0000
147 Pagurus confragosus	Trace	Trace	1.0000
148 Aristostomias scintillans	Trace	Trace	1.0000
149 Pagurus capillatus	Trace	Trace	1.0000
150 Pseudarchaster parelii	Trace	Trace	1.0000
151 Buccinum sp.	Trace	Trace	1.0000
152 Polychaeta (class)	Trace	Trace	1.0000
153 Bathyagonus nigripinnis	Trace	Trace	1.0000
154 Pennatulacea (order)	Trace	Trace	1.0000
155 Liparis pulchellus	Trace	Trace	1.0000
156 Pteraster tessellatus	Trace	Trace	1.0000
157 Gastropod unident.	Trace	Trace	1.0000
158 Chionoecetes tanneri	Trace	Trace	1.0000
159 Crossaster borealis	Trace	Trace	1.0000
160 Pandalus hypsinotus	Trace	Trace	1.0000
161 Chionoecetes bairdi	Trace	Trace	1.0000
162 Crangon communis	Trace	Trace	1.0000
163 Psolus sp.	Trace	Trace	1.0000
164 Pentamera sp.	Trace	Trace	1.0000
165 Tarletonbeania crenularis	Trace	Trace	1.0000
166 Diaphus theta	Trace	Trace	1.0000
167 Ophiura sarsi	Trace	Trace	1.0000
169 Eualus macrophthalmus	Trace	Trace	1.0000
168 Ophiopholis longispina	Trace	Trace	1.0000

Table B-25.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the INPFC Vancouver shallow stratum (55-183 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Theragra chalcogramma</i>	51.261	0.2279	0.2279
2	<i>Squalus acanthias</i>	31.729	0.1411	0.3689
3	<i>Merluccius productus</i>	27.036	0.1202	0.4891
4	<i>Anoplopoma fimbria</i>	23.583	0.1048	0.5940
5	<i>Atheresthes stomias</i>	20.166	0.0896	0.6836
6	<i>Microstomus pacificus</i>	10.906	0.0485	0.7321
7	<i>Thaleichthys pacificus</i>	9.198	0.0409	0.7730
8	<i>Sebastes flavidus</i>	8.518	0.0379	0.8108
9	<i>Glyptocephalus zachirus</i>	6.134	0.0273	0.8381
10	<i>Citharichthys sordidus</i>	5.975	0.0266	0.8647
11	<i>Parophrys vetulus</i>	3.261	0.0145	0.8792
12	<i>Hippoglossoides elassodon</i>	3.222	0.0143	0.8935
13	<i>Hippoglossus stenolepis</i>	2.206	0.0098	0.9033
14	<i>Clupea pallasii</i>	1.943	0.0086	0.9119
15	<i>Sebastes proriger</i>	1.941	0.0086	0.9206
16	<i>Lyopsetta exilis</i>	1.858	0.0083	0.9288
17	<i>Microgadus proximus</i>	1.687	0.0075	0.9363
18	<i>Sebastes elongatus</i>	1.532	0.0068	0.9431
19	<i>Ophiodon elongatus</i>	1.494	0.0066	0.9498
20	<i>Alosa sapidissima</i>	1.427	0.0063	0.9561
21	<i>Gadus macrocephalus</i>	1.365	0.0061	0.9622
22	<i>Raja rhina</i>	1.225	0.0054	0.9676
23	<i>Eopsetta jordani</i>	1.125	0.0050	0.9726
24	<i>Pandalus jordani</i>	0.791	0.0035	0.9762
25	<i>Hydrolagus colliei</i>	0.740	0.0033	0.9794
26	<i>Lycodes pacificus</i>	0.515	0.0023	0.9817
27	<i>Sebastes pinniger</i>	0.449	0.0020	0.9837
28	<i>Brisaster latifrons</i>	0.369	0.0016	0.9854
29	<i>Raja binoculata</i>	0.321	0.0014	0.9868
30	<i>Sebastes brevispinis</i>	0.233	0.0010	0.9878
31	<i>Sardinops sagax</i>	0.218	0.0010	0.9888
32	<i>Oncorhynchus tshawytscha</i>	0.160	0.0007	0.9895
33	<i>Luidia foliolata</i>	0.155	0.0007	0.9902
34	<i>Metridium farcimen</i>	0.153	0.0007	0.9909
35	<i>Lepidopsetta bilineata</i>	0.147	0.0007	0.9915
36	<i>Sebastes ruberrimus</i>	0.132	0.0006	0.9921
37	<i>Sebastes alutus</i>	0.130	0.0006	0.9927
38	<i>Sebastes helvomaculatus</i>	0.127	0.0006	0.9933
39	<i>Pandalopsis dispar</i>	0.099	0.0004	0.9937
40	<i>Galeorhinus galeus</i>	0.095	0.0004	0.9941
41	<i>Cancer magister</i>	0.089	0.0004	0.9945

Table B-25.--Continued.

42	<i>Allocentrotus fragilis</i>	0.089	0.0004	0.9949
43	<i>Sebastes zacentrus</i>	0.085	0.0004	0.9953
44	<i>Sebastes aleutianus</i>	0.080	0.0004	0.9956
45	<i>Cyanea capillata</i>	0.061	0.0003	0.9959
46	<i>Bathyraja interrupta</i>	0.058	0.0003	0.9962
47	<i>Stylasterias forreri</i>	0.052	0.0002	0.9964
48	<i>Octopus dofleini</i>	0.050	0.0002	0.9966
49	<i>Pleuronichthys decurrens</i>	0.048	0.0002	0.9968
50	<i>Molpadia intermedia</i>	0.048	0.0002	0.9970
51	<i>Pycnopodia helianthoides</i>	0.047	0.0002	0.9973
52	<i>Strongylocentrotus droebachiensis</i>	0.046	0.0002	0.9975
53	<i>Sebastes crameri</i>	0.039	0.0002	0.9976
54	<i>Parastichopus leucothele</i>	0.037	0.0002	0.9978
55	<i>Oncorhynchus gorbuscha</i>	0.032	0.0001	0.9980
56	<i>Chrysaora</i> sp.	0.028	0.0001	0.9981
57	<i>Icelinus filamentosus</i>	0.028	0.0001	0.9982
58	<i>Sebastes entomelas</i>	0.027	0.0001	0.9983
59	<i>Scomber japonicus</i>	0.026	0.0001	0.9984
60	<i>Sebastes maliger</i>	0.023	0.0001	0.9985
61	<i>Trachurus symmetricus</i>	0.022	0.0001	0.9986
62	<i>Sebastes paucispinis</i>	0.022	0.0001	0.9987
63	<i>Sebastes wilsoni</i>	0.019	0.0001	0.9988
64	<i>Cryptacanthodes giganteus</i>	0.018	0.0001	0.9989
65	<i>Sebastolobus alascanus</i>	0.017	0.0001	0.9990
66	Aphroditidae	0.017	0.0001	0.9990
67	vase sponge	0.015	0.0001	0.9991
68	<i>Hexagrammos decagrammus</i>	0.014	0.0001	0.9992
69	<i>Lopholithodes foraminatus</i>	0.013	0.0001	0.9992
70	Porifera	0.012	0.0001	0.9993
71	<i>Sebastes diploproa</i>	0.012	0.0001	0.9993
72	<i>Sebastes jordani</i>	0.011	0.0001	0.9994
73	<i>Pandalus platyceros</i>	0.010	Trace	0.9994
74	Thaliacea unident.	0.010	Trace	0.9995
75	Actiniaria (order)	0.009	Trace	0.9995
76	<i>Loligo opalescens</i>	0.009	Trace	0.9996
77	skate egg case unident.	0.007	Trace	0.9996
78	<i>Crossaster papposus</i>	0.007	Trace	0.9996
79	<i>Sebastes saxicola</i>	0.006	Trace	0.9996
80	<i>Gorgonocephalus eucnemis</i>	0.006	Trace	0.9997
81	Echinacea unident.	0.006	Trace	0.9997
82	<i>Hippasteria spinosa</i>	0.006	Trace	0.9997
83	<i>Sebastes babcocki</i>	0.005	Trace	0.9998
84	<i>Psettichthys melanostictus</i>	0.005	Trace	0.9998
85	<i>Stylatula</i> sp.	0.004	Trace	0.9998

Table B-25.--Continued.

86 Aurelia sp.	0.004	Trace	0.9998
87 Berryteuthis magister	0.004	Trace	0.9998
88 Pseudostichopus mollis	0.003	Trace	0.9998
89 Isopsetta isolepis	0.003	Trace	0.9998
90 Solaster sp.	0.003	Trace	0.9999
91 Platichthys stellatus	0.002	Trace	0.9999
92 Allosmerus elongatus	0.002	Trace	0.9999
93 red striated sea anemone	0.002	Trace	0.9999
94 Porichthys notatus	0.001	Trace	0.9999
95 Liponema brevicornis	0.001	Trace	0.9999
96 Podothecus acipenserinus	0.001	Trace	0.9999
97 Molpadia sp.	0.001	Trace	0.9999
98 Octopus rubescens	0.001	Trace	0.9999
99 Polinices sp.	0.001	Trace	0.9999
100 Myxinidae	0.001	Trace	0.9999
101 Rossia pacifica	0.001	Trace	0.9999
102 Pagurus capillatus	0.001	Trace	0.9999
103 Pseudarchaster parelii	0.001	Trace	0.9999
104 Stomphia sp.	0.001	Trace	1.0000
105 Fusitriton oregonensis	0.001	Trace	1.0000
106 Dermasterias imbricata	0.001	Trace	1.0000
107 Scyphozoa (class)	0.001	Trace	1.0000
108 Lycodes diapterus	0.001	Trace	1.0000
109 Asteroidea unident.	0.001	Trace	1.0000
110 Cheiraster (=Luidiaster)	0.001	Trace	1.0000
111 Crossaster borealis	0.001	Trace	1.0000
112 Lethasterias nanimensis	0.001	Trace	1.0000
113 Sebastes sp.	0.001	Trace	1.0000
114 Parastichopus californicus	0.001	Trace	1.0000
115 Aphrocallistes vastus	0.001	Trace	1.0000
116 Asterias amurensis	0.001	Trace	1.0000
117 Tritonia diomedea	Trace	Trace	1.0000
118 Poraniopsis inflata	Trace	Trace	1.0000
119 Gonatus onyx	Trace	Trace	1.0000
120 Stomphia coccinea	Trace	Trace	1.0000
121 crab unident.	Trace	Trace	1.0000
122 Henricia sp.	Trace	Trace	1.0000
123 Dasycottus setiger	Trace	Trace	1.0000
124 Bathygonus pentacanthus	Trace	Trace	1.0000
125 Diaphus theta	Trace	Trace	1.0000
126 Pteraster militaris	Trace	Trace	1.0000
127 Pseudarchaster parelii	Trace	Trace	1.0000
128 Gephyreaster swifti	Trace	Trace	1.0000
129 Polychaeta (class)	Trace	Trace	1.0000

Table B-25.--Continued.

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130 Gastropod unident.	Trace	Trace	1.0000
131 Ceramaster japonicus	Trace	Trace	1.0000
132 Nudibranchia unident.	Trace	Trace	1.0000
133 Pennatulacea (order)	Trace	Trace	1.0000
134 Liparis pulchellus	Trace	Trace	1.0000
135 Florometra serratissima	Trace	Trace	1.0000
136 Myxoderma platyacanthum	Trace	Trace	1.0000
137 Pteraster tessellatus	Trace	Trace	1.0000
138 Munida quadrispina	Trace	Trace	1.0000
139 Pandalus hypsinotus	Trace	Trace	1.0000
140 Stenobranchius leucopsarus	Trace	Trace	1.0000
141 Chionoecetes bairdi	Trace	Trace	1.0000
142 Crangon communis	Trace	Trace	1.0000
143 Pentamera sp.	Trace	Trace	1.0000
144 Solaster stimpsoni	Trace	Trace	1.0000
145 shrimp unident.	Trace	Trace	1.0000
147 Euphausiacea (order)	Trace	Trace	1.0000
146 Sergestes sp.	Trace	Trace	1.0000
148 Ctenodiscus crispatus	Trace	Trace	1.0000
149 Ophiura sarsi	Trace	Trace	1.0000

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Table B-26.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the INPFC Vancouver middle stratum (184-366 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Atheresthes stomias</i>	45.703	0.2595	0.2594
2	<i>Sebastes flavidus</i>	26.511	0.1505	0.4100
3	<i>Sebastes alutus</i>	19.528	0.1109	0.5208
4	<i>Microstomus pacificus</i>	19.290	0.1095	0.6303
5	<i>Anoplopoma fimbria</i>	16.963	0.0963	0.7266
6	<i>Sebastes crameri</i>	11.715	0.0665	0.7931
7	<i>Merluccius productus</i>	6.451	0.0366	0.8298
8	<i>Squalus acanthias</i>	4.075	0.0231	0.8529
9	<i>Glyptocephalus zachirus</i>	2.529	0.0144	0.8672
10	<i>Sebastolobus alascanus</i>	2.352	0.0134	0.8806
11	<i>Hippoglossus stenolepis</i>	2.067	0.0117	0.8923
12	<i>Sebastes elongatus</i>	1.734	0.0098	0.9022
13	<i>Hydrolagus colliei</i>	1.705	0.0097	0.9118
14	<i>Raja rhina</i>	1.433	0.0081	0.9200
15	<i>Allocentrotus fragilis</i>	1.411	0.0080	0.9280
16	<i>Pandalus jordani</i>	1.270	0.0072	0.9352
17	<i>Lyopsetta exilis</i>	1.266	0.0072	0.9424
18	<i>Sebastes babcocki</i>	1.113	0.0063	0.9487
19	<i>Sebastes aleutianus</i>	1.025	0.0058	0.9545
20	<i>Sebastes proriger</i>	1.013	0.0058	0.9603
21	<i>Thaleichthys pacificus</i>	0.711	0.0040	0.9643
22	<i>Sebastes diploproa</i>	0.705	0.0040	0.9683
23	<i>Bathyraja interrupta</i>	0.502	0.0028	0.9712
24	<i>Sebastes pinniger</i>	0.500	0.0028	0.9740
25	<i>Brisaster latifrons</i>	0.482	0.0027	0.9767
26	<i>Sebastes entomelas</i>	0.424	0.0024	0.9792
27	<i>Gadus macrocephalus</i>	0.400	0.0023	0.9814
28	<i>Sebastes paucispinis</i>	0.388	0.0022	0.9836
29	<i>Hippoglossoides elassodon</i>	0.339	0.0019	0.9855
30	<i>Parophrys vetulus</i>	0.305	0.0017	0.9873
31	<i>Sebastes brevispinis</i>	0.267	0.0015	0.9888
32	<i>Pasiphaea pacifica</i>	0.227	0.0013	0.9901
33	<i>Berryteuthis magister</i>	0.141	0.0008	0.9909
34	<i>Sebastes borealis</i>	0.134	0.0008	0.9916
35	<i>Lycodes pacificus</i>	0.129	0.0007	0.9924
36	<i>Luidia foliolata</i>	0.124	0.0007	0.9931
37	<i>Theragra chalcogramma</i>	0.121	0.0007	0.9938
38	<i>Ophiodon elongatus</i>	0.099	0.0006	0.9943
39	<i>Eopsetta jordani</i>	0.082	0.0005	0.9948
40	<i>Parastichopus leucothele</i>	0.071	0.0004	0.9952
41	<i>Chrysaora</i> sp.	0.067	0.0004	0.9956

Table B-26.--Continued.

42	<i>Icelinus filamentosus</i>	0.063	0.0004	0.9959
43	<i>Lopholithodes foraminatus</i>	0.062	0.0004	0.9963
44	<i>Cryptacanthodes giganteus</i>	0.057	0.0003	0.9966
45	<i>Thaliacea unident.</i>	0.051	0.0003	0.9969
46	<i>Pycnopodia helianthoides</i>	0.048	0.0003	0.9972
47	<i>Lycodes diapterus</i>	0.044	0.0003	0.9974
48	<i>Sebastes helvomaculatus</i>	0.038	0.0002	0.9976
49	<i>Pseudostichopus mollis</i>	0.038	0.0002	0.9978
50	<i>Careproctus melanurus</i>	0.037	0.0002	0.9981
51	<i>Pandalopsis dispar</i>	0.029	0.0002	0.9982
52	<i>Molpadia intermedia</i>	0.024	0.0001	0.9984
53	<i>Echinacea unident.</i>	0.021	0.0001	0.9985
54	<i>Pandalus platyceros</i>	0.019	0.0001	0.9986
55	<i>Lycodes cortezianus</i>	0.017	0.0001	0.9987
56	<i>Alosa sapidissima</i>	0.013	0.0001	0.9988
57	<i>Stylasterias forreri</i>	0.012	0.0001	0.9988
58	<i>Porifera</i>	0.012	0.0001	0.9989
59	<i>Solaster stimpsoni</i>	0.012	0.0001	0.9990
60	<i>Liponema brevicornis</i>	0.012	0.0001	0.9990
61	<i>Hippasteria spinosa</i>	0.011	0.0001	0.9991
62	<i>Pteraster tessellatus</i>	0.011	0.0001	0.9992
63	<i>Sebastes goodei</i>	0.011	0.0001	0.9992
64	<i>Sebastes zacentrus</i>	0.010	0.0001	0.9993
65	<i>Fusitriton oregonensis</i>	0.010	0.0001	0.9993
66	<i>Apristurus brunneus</i>	0.009	0.0001	0.9994
67	<i>Myxinidae</i>	0.007	Trace	0.9994
68	<i>Leptychaster sp.</i>	0.007	Trace	0.9995
69	<i>Strongylocentrotus droebachiensis</i>	0.007	Trace	0.9995
70	<i>Diaphus theta</i>	0.006	Trace	0.9995
71	vase sponge	0.006	Trace	0.9996
72	<i>Sebastes saxicola</i>	0.006	Trace	0.9996
73	<i>Citharichthys sordidus</i>	0.005	Trace	0.9996
74	<i>Gorgonocephalus eucnemis</i>	0.005	Trace	0.9997
75	<i>Chionoectes tanneri</i>	0.005	Trace	0.9997
76	<i>Sardinops sagax</i>	0.004	Trace	0.9997
77	<i>Gephyreaster swifti</i>	0.004	Trace	0.9997
78	<i>Aphroditidae</i>	0.003	Trace	0.9998
79	<i>Solaster endeca</i>	0.003	Trace	0.9998
80	<i>Aurelia sp.</i>	0.003	Trace	0.9998
81	<i>Pseudarchaster parelii</i>	0.002	Trace	0.9998
82	<i>Cheiraster (=Luidiaster)</i>	0.002	Trace	0.9998
83	<i>Bathyagonus pentacanthus</i>	0.002	Trace	0.9998
84	<i>Pentamera sp.</i>	0.002	Trace	0.9998
85	<i>Ceramaster japonicus</i>	0.002	Trace	0.9998

Table B-26.--Continued.

86	<i>Ctenodiscus crispatus</i>	0.002	Trace	0.9999
87	<i>Lophaster furcilliger</i>	0.002	Trace	0.9999
88	<i>Ophiura sarsi</i>	0.002	Trace	0.9999
89	<i>Stomphia coccinea</i>	0.002	Trace	0.9999
90	<i>Orthasterias koehleri</i>	0.002	Trace	0.9999
91	<i>Clupea pallasii</i>	0.001	Trace	0.9999
92	<i>Crossaster papposus</i>	0.001	Trace	0.9999
93	<i>Solaster</i> sp.	0.001	Trace	0.9999
94	<i>Pagurus capillatus</i>	0.001	Trace	0.9999
95	<i>Paractinostola faeculenta</i>	0.001	Trace	0.9999
96	<i>Taningia danae</i>	0.001	Trace	0.9999
98	<i>Anthoptilum grandiflorum</i>	0.001	Trace	1.0000
97	<i>Diplopteraster multipes</i>	0.001	Trace	1.0000
99	<i>Neptunea pribiloffensis</i>	0.001	Trace	1.0000
100	<i>Onychoteuthis borealijaponicus</i>	0.001	Trace	1.0000
101	<i>Poraniopsis inflata</i>	0.001	Trace	1.0000
102	<i>Tactostoma macropus</i>	0.001	Trace	1.0000
103	<i>Gonatus onyx</i>	0.001	Trace	1.0000
104	<i>Ronquilus jordani</i>	0.001	Trace	1.0000
105	<i>Buccinum</i> sp.	Trace	Trace	1.0000
106	<i>Notolepsis risso</i>	Trace	Trace	1.0000
107	<i>Pagurus brandti</i>	Trace	Trace	1.0000
108	<i>Nudibranchia</i> unident.	Trace	Trace	1.0000
109	squid unident.	Trace	Trace	1.0000
110	<i>Neomenia</i> sp.	Trace	Trace	1.0000
111	<i>Pagurus confragosus</i>	Trace	Trace	1.0000
112	Polynoidae	Trace	Trace	1.0000
113	brachiopod unident.	Trace	Trace	1.0000
114	<i>Rossia pacifica</i>	Trace	Trace	1.0000
115	<i>Chorilia longipes</i>	Trace	Trace	1.0000
116	Polychaeta (class)	Trace	Trace	1.0000
117	<i>Actinauge verrillii</i>	Trace	Trace	1.0000
118	<i>Henricia</i> sp.	Trace	Trace	1.0000
119	gastropod eggs	Trace	Trace	1.0000
120	<i>Tarletonbeania crenularis</i>	Trace	Trace	1.0000
121	Gastropod unident.	Trace	Trace	1.0000
122	<i>Lycodapus mandibularis</i>	Trace	Trace	1.0000



Table B-27.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the INPFC Vancouver deep stratum (367-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Microstomus pacificus</i>	16.136	0.2514	0.2514
2	<i>Sebastes aleutianus</i>	8.376	0.1305	0.3819
3	<i>Sebastolobus alascanus</i>	7.710	0.1201	0.5021
4	<i>Merluccius productus</i>	7.689	0.1198	0.6219
5	<i>Sebastes alutus</i>	5.523	0.0861	0.7080
6	<i>Anoplopoma fimbria</i>	5.206	0.0811	0.7891
7	<i>Sebastes borealis</i>	3.500	0.0545	0.8436
8	<i>Glyptocephalus zachirus</i>	2.532	0.0395	0.8831
9	<i>Raja rhina</i>	0.776	0.0121	0.8952
10	<i>Sebastes aurora</i>	0.651	0.0102	0.9053
11	<i>Atheresthes stomias</i>	0.636	0.0099	0.9152
12	<i>Pseudostichopus mollis</i>	0.626	0.0098	0.9250
13	<i>Sebastolobus altivelis</i>	0.550	0.0086	0.9336
14	<i>Berryteuthis magister</i>	0.378	0.0059	0.9394
15	<i>Actinauge verrillii</i>	0.368	0.0057	0.9452
16	<i>Antimora microlepis</i>	0.352	0.0055	0.9506
17	<i>Paractinostola faeculenta</i>	0.290	0.0045	0.9552
18	<i>Lycodes cortezianus</i>	0.280	0.0044	0.9595
19	<i>Apristurus brunneus</i>	0.263	0.0041	0.9636
20	<i>Lycodes diapterus</i>	0.197	0.0031	0.9667
21	<i>Albatrossia pectoralis</i>	0.187	0.0029	0.9696
22	<i>Bathyraja interrupta</i>	0.173	0.0027	0.9723
23	<i>Alloctrotus fragilis</i>	0.171	0.0027	0.9750
24	<i>Sebastes brevispinis</i>	0.125	0.0019	0.9769
25	<i>Sebastes babcocki</i>	0.101	0.0016	0.9785
26	<i>Opisthoteuthis californiana</i>	0.091	0.0014	0.9799
27	<i>Pasiphaea pacifica</i>	0.090	0.0014	0.9813
28	<i>Lyopsetta exilis</i>	0.088	0.0014	0.9827
29	<i>Brisaster latifrons</i>	0.083	0.0013	0.9840
30	<i>Eopsetta jordani</i>	0.079	0.0012	0.9852
31	<i>Chrysaora</i> sp.	0.076	0.0012	0.9864
32	<i>Fusitriton oregonensis</i>	0.067	0.0010	0.9875
33	<i>Octopus dofleini</i>	0.061	0.0010	0.9884
34	<i>Thaliacea</i> unident.	0.058	0.0009	0.9893
35	<i>Lampetra tridentata</i>	0.051	0.0008	0.9901
36	<i>Aphrocallistes vastus</i>	0.046	0.0007	0.9908
37	<i>Liponema brevicornis</i>	0.044	0.0007	0.9915
38	<i>Bothrocara brunneum</i>	0.042	0.0007	0.9922
39	<i>Grimpoteuthis albatrossi</i>	0.042	0.0007	0.9928
40	<i>Sebastes rufus</i>	0.037	0.0006	0.9934
41	<i>Neptunea</i> sp.	0.027	0.0004	0.9938

Table B-27.--Continued.

42	<i>Sebastes helvomaculatus</i>	0.027	0.0004	0.9942
43	<i>Sebastes diploproa</i>	0.025	0.0004	0.9946
44	<i>Octopoteuthis deletron</i>	0.024	0.0004	0.9950
45	<i>Pycnopodia helianthoides</i>	0.024	0.0004	0.9954
46	<i>Neptunea amianta</i>	0.021	0.0003	0.9957
47	<i>Sergestes</i> sp.	0.019	0.0003	0.9960
48	<i>Diplopteraster multipes</i>	0.017	0.0003	0.9962
49	<i>Pagurus confragosus</i>	0.016	0.0003	0.9965
50	<i>Ctenodiscus crispatus</i>	0.015	0.0002	0.9967
51	<i>Gonatopsis borealis</i>	0.015	0.0002	0.9970
52	brachiopod unident.	0.014	0.0002	0.9972
53	<i>Cheiraster</i> (=Luidiaster)	0.013	0.0002	0.9974
54	<i>Neptunea pribiloffensis</i>	0.012	0.0002	0.9976
55	<i>Careproctus melanurus</i>	0.012	0.0002	0.9978
56	<i>Pseudarchaster parelii</i>	0.010	0.0002	0.9979
57	<i>Leptychaster</i> sp.	0.010	0.0002	0.9981
58	Porifera	0.009	0.0001	0.9982
59	<i>Gonatus onyx</i>	0.009	0.0001	0.9984
60	<i>Chionoecetes angulatus</i>	0.009	0.0001	0.9985
61	Myxinidae	0.008	0.0001	0.9986
62	<i>Chiroteuthis</i> sp.	0.008	0.0001	0.9987
63	<i>Neomenia</i> sp.	0.007	0.0001	0.9989
64	<i>Stenobrachius leucopsarus</i>	0.007	0.0001	0.9990
65	<i>Hippasteria spinosa</i>	0.007	0.0001	0.9991
66	<i>Crossaster borealis</i>	0.005	0.0001	0.9992
67	<i>Chauliodus macouni</i>	0.005	0.0001	0.9992
68	<i>Tactostoma macropus</i>	0.005	0.0001	0.9993
69	<i>Stegophiura</i> (=Amphiophiura)	0.004	0.0001	0.9994
70	<i>Anthoptilum grandiflorum</i>	0.004	0.0001	0.9994
71	vase sponge	0.004	0.0001	0.9995
72	<i>Gorgonocephalus eucnemis</i>	0.004	0.0001	0.9996
73	Aphroditidae	0.004	0.0001	0.9996
74	<i>Pandalopsis dispar</i>	0.002	Trace	0.9997
75	squid unident.	0.002	Trace	0.9997
76	<i>Luidia foliolata</i>	0.002	Trace	0.9997
77	<i>Thaleichthys pacificus</i>	0.002	Trace	0.9997
78	<i>Henricia</i> sp.	0.002	Trace	0.9998
79	<i>Aristostomias scintillans</i>	0.002	Trace	0.9998
80	Actiniaria (order)	0.002	Trace	0.9998
81	<i>Bathyagonus pentacanthus</i>	0.001	Trace	0.9998
82	Gastropod unident.	0.001	Trace	0.9999
83	<i>Buccinum</i> sp.	0.001	Trace	0.9999
84	<i>Bathyagonus nigripinnis</i>	0.001	Trace	0.9999
85	<i>Stomphia</i> sp.	0.001	Trace	0.9999

Table B-27.--Continued.

86	<i>Crossaster papposus</i>	0.001	Trace	0.9999
87	<i>Stylatula</i> sp.	0.001	Trace	0.9999
88	<i>Bathyploetes</i> sp.	0.001	Trace	1.0000
89	<i>Chionoecetes tanneri</i>	0.001	Trace	1.0000
90	compound ascidian unident.	0.001	Trace	1.0000
92	<i>Lampanyctus ritteri</i>	Trace	Trace	1.0000
91	<i>Myxoderma platyacanthum</i>	Trace	Trace	1.0000
93	<i>Diaphus theta</i>	Trace	Trace	1.0000
94	<i>Psolus</i> sp.	Trace	Trace	1.0000
95	<i>Ophiura sarsi</i>	Trace	Trace	1.0000
96	<i>Pagurus capillatus</i>	Trace	Trace	1.0000
97	Myctophidae	Trace	Trace	1.0000
98	<i>Lycodapus mandibularis</i>	Trace	Trace	1.0000
100	<i>Eualus macrophthalmus</i>	Trace	Trace	1.0000
99	<i>Ophiopholis longispina</i>	Trace	Trace	1.0000

Table B-28.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the entire INPFC Vancouver area (55-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Theragra chalcogramma</i>	37.658	0.1851	0.1851
2	<i>Squalus acanthias</i>	24.069	0.1183	0.3034
3	<i>Atheresthes stomias</i>	23.532	0.1156	0.4190
4	<i>Merluccius productus</i>	21.658	0.1064	0.5255
5	<i>Anoplopoma fimbria</i>	20.931	0.1029	0.6283
6	<i>Microstomus pacificus</i>	12.895	0.0634	0.6917
7	<i>Sebastes flavidus</i>	11.287	0.0555	0.7472
8	<i>Thaleichthys pacificus</i>	6.888	0.0339	0.7810
9	<i>Glyptocephalus zachirus</i>	5.176	0.0254	0.8065
10	<i>Citharichthys sordidus</i>	4.388	0.0216	0.8280
11	<i>Sebastes alutus</i>	4.223	0.0208	0.8488
12	<i>Parophrys vetulus</i>	2.452	0.0120	0.8608
13	<i>Hippoglossoides elassodon</i>	2.430	0.0119	0.8728
14	<i>Sebastes crameri</i>	2.253	0.0111	0.8838
15	<i>Hippoglossus stenolepis</i>	2.012	0.0099	0.8937
16	<i>Sebastes proriger</i>	1.618	0.0080	0.9017
17	<i>Lyopsetta exilis</i>	1.611	0.0079	0.9096
18	<i>Sebastes elongatus</i>	1.454	0.0071	0.9168
19	<i>Clupea pallasii</i>	1.427	0.0070	0.9238
20	<i>Microgadus proximus</i>	1.239	0.0061	0.9298
21	<i>Raja rhina</i>	1.230	0.0060	0.9359
22	<i>Ophiodon elongatus</i>	1.115	0.0055	0.9414
23	<i>Gadus macrocephalus</i>	1.078	0.0053	0.9467
24	<i>Alosa sapidissima</i>	1.050	0.0052	0.9518
25	<i>Sebastolobus alascanus</i>	1.044	0.0051	0.9570
26	<i>Sebastes aleutianus</i>	0.890	0.0044	0.9613
27	<i>Hydrolagus colliei</i>	0.867	0.0043	0.9656
28	<i>Eopsetta jordani</i>	0.848	0.0042	0.9698
29	<i>Pandalus jordani</i>	0.822	0.0040	0.9738
30	<i>Sebastes pinniger</i>	0.425	0.0021	0.9759
31	<i>Lycodes pacificus</i>	0.403	0.0020	0.9779
32	<i>Brisaster latifrons</i>	0.369	0.0018	0.9797
33	<i>Allocentrotus fragilis</i>	0.346	0.0017	0.9814
34	<i>Sebastes borealis</i>	0.291	0.0014	0.9828
35	<i>Raja binoculata</i>	0.236	0.0012	0.9840
36	<i>Sebastes brevispinis</i>	0.232	0.0011	0.9851
37	<i>Sebastes babcocki</i>	0.223	0.0011	0.9862
38	<i>Sardinops sagax</i>	0.161	0.0008	0.9870
39	<i>Bathyraja interrupta</i>	0.151	0.0007	0.9877
40	<i>Sebastes diploproa</i>	0.144	0.0007	0.9884
41	<i>Luidia foliolata</i>	0.137	0.0007	0.9891

Table B-28.--Continued.

42	<i>Oncorhynchus tshawytscha</i>	0.117	0.0006	0.9897
43	<i>Metridium farcimen</i>	0.112	0.0006	0.9902
44	<i>Lepidopsetta bilineata</i>	0.108	0.0005	0.9908
45	<i>Sebastes helvomaculatus</i>	0.102	0.0005	0.9913
46	<i>Sebastes entomelas</i>	0.100	0.0005	0.9918
47	<i>Sebastes ruberrimus</i>	0.097	0.0005	0.9922
48	<i>Sebastes paucispinis</i>	0.089	0.0004	0.9927
49	<i>Pandalopsis dispar</i>	0.079	0.0004	0.9931
50	<i>Galeorhinus galeus</i>	0.070	0.0003	0.9934
51	<i>Cancer magister</i>	0.066	0.0003	0.9937
52	<i>Sebastes zacentrus</i>	0.064	0.0003	0.9941
53	<i>Berryteuthis magister</i>	0.058	0.0003	0.9944
54	<i>Pseudostichopus mollis</i>	0.057	0.0003	0.9946
55	<i>Pasiphaea pacifica</i>	0.050	0.0002	0.9949
56	<i>Sebastes aurora</i>	0.049	0.0002	0.9951
57	<i>Pycnopodia helianthoides</i>	0.045	0.0002	0.9953
58	<i>Cyanea capillata</i>	0.045	0.0002	0.9956
59	<i>Sebastolobus altivelis</i>	0.042	0.0002	0.9958
60	<i>Octopus dofleini</i>	0.042	0.0002	0.9960
61	<i>Parastichopus leucothele</i>	0.040	0.0002	0.9962
62	<i>Stylasterias forreri</i>	0.040	0.0002	0.9964
63	<i>Molpadia intermedia</i>	0.040	0.0002	0.9966
64	<i>Chrysaora</i> sp.	0.039	0.0002	0.9968
65	<i>Pleuronichthys decurrens</i>	0.035	0.0002	0.9969
66	<i>Strongylocentrotus droebachiensis</i>	0.035	0.0002	0.9971
67	<i>Icelinus filamentosus</i>	0.033	0.0002	0.9973
68	<i>Actinauge verrillii</i>	0.028	0.0001	0.9974
69	<i>Antimora microlepis</i>	0.027	0.0001	0.9975
70	<i>Lycodes cortezianus</i>	0.024	0.0001	0.9976
71	<i>Lycodes diapterus</i>	0.024	0.0001	0.9978
72	<i>Cryptacanthodes giganteus</i>	0.024	0.0001	0.9979
73	<i>Oncorhynchus gorbuscha</i>	0.024	0.0001	0.9980
74	<i>Paractinostola faeculenta</i>	0.022	0.0001	0.9981
75	<i>Apristurus brunneus</i>	0.022	0.0001	0.9982
76	<i>Lopholithodes foraminatus</i>	0.021	0.0001	0.9983
77	Thaliacea unident.	0.021	0.0001	0.9984
78	<i>Scomber japonicus</i>	0.019	0.0001	0.9985
79	<i>Sebastes maliger</i>	0.017	0.0001	0.9986
80	<i>Trachurus symmetricus</i>	0.016	0.0001	0.9987
81	<i>Albatrossia pectoralis</i>	0.014	0.0001	0.9988
82	<i>Sebastes wilsoni</i>	0.014	0.0001	0.9988
83	Aphroditidae	0.013	0.0001	0.9989
84	vase sponge	0.012	0.0001	0.9990
85	Porifera	0.012	0.0001	0.9990

Table B-28.--Continued.

86	<i>Pandalus platyceros</i>	0.011	0.0001	0.9991
87	<i>Hexagrammos decagrammus</i>	0.011	0.0001	0.9991
88	<i>Sebastes jordani</i>	0.008	Trace	0.9992
89	<i>Echinacea unident.</i>	0.008	Trace	0.9992
90	<i>Careproctus melanurus</i>	0.008	Trace	0.9992
91	<i>Fusitriton oregonensis</i>	0.008	Trace	0.9993
92	<i>Opisthoteuthis californiana</i>	0.007	Trace	0.9993
93	<i>Hippasteria spinosa</i>	0.007	Trace	0.9993
94	Actiniaria (order)	0.007	Trace	0.9994
95	<i>Loligo opalescens</i>	0.007	Trace	0.9994
96	<i>Liponema brevicornis</i>	0.006	Trace	0.9994
97	<i>Gorgonocephalus eucnemis</i>	0.006	Trace	0.9995
98	<i>Sebastes saxicola</i>	0.006	Trace	0.9995
99	<i>Crossaster papposus</i>	0.005	Trace	0.9995
100	skate egg case unident.	0.005	Trace	0.9995
101	<i>Aphrocallistes vastus</i>	0.004	Trace	0.9996
102	<i>Lampetra tridentata</i>	0.004	Trace	0.9996
103	<i>Psettichthys melanostictus</i>	0.004	Trace	0.9996
104	<i>Aurelia</i> sp.	0.004	Trace	0.9996
105	<i>Stylatula</i> sp.	0.003	Trace	0.9996
106	<i>Bothrocara brunneum</i>	0.003	Trace	0.9996
107	<i>Grimpoteuthis albatrossi</i>	0.003	Trace	0.9997
108	<i>Sebastes rufus</i>	0.003	Trace	0.9997
109	Myxinidae	0.003	Trace	0.9997
110	<i>Pteraster tessellatus</i>	0.002	Trace	0.9997
111	<i>Solaster stimpsoni</i>	0.002	Trace	0.9997
112	<i>Solaster</i> sp.	0.002	Trace	0.9997
113	<i>Neptunea</i> sp.	0.002	Trace	0.9997
114	<i>Isopsetta isolepis</i>	0.002	Trace	0.9997
115	<i>Sebastes goodei</i>	0.002	Trace	0.9998
116	<i>Leptychaster</i> sp.	0.002	Trace	0.9998
117	<i>Cheiraster</i> (=Luidiaster)	0.002	Trace	0.9998
118	<i>Pseudarchaster parelii</i>	0.002	Trace	0.9998
119	<i>Octopoteuthis deletron</i>	0.002	Trace	0.9998
120	<i>Platichthys stellatus</i>	0.002	Trace	0.9998
121	<i>Neptunea amianta</i>	0.002	Trace	0.9998
122	<i>Ctenodiscus crispatus</i>	0.001	Trace	0.9998
123	<i>Diplopteraster multipes</i>	0.001	Trace	0.9998
124	<i>Allosmerus elongatus</i>	0.001	Trace	0.9998
125	<i>Sergestes</i> sp.	0.001	Trace	0.9998
126	<i>Diaphus theta</i>	0.001	Trace	0.9998
127	<i>Pagurus confragosus</i>	0.001	Trace	0.9998
128	red striated sea anemone	0.001	Trace	0.9999
129	<i>Gonatus onyx</i>	0.001	Trace	0.9999

Table B-28.--Continued.

130	<i>Neptunea pribiloffensis</i>	0.001	Trace	0.9999
131	<i>Gonatopsis borealis</i>	0.001	Trace	0.9999
132	brachiopod unident.	0.001	Trace	0.9999
133	<i>Porichthys notatus</i>	0.001	Trace	0.9999
134	<i>Pagurus capillatus</i>	0.001	Trace	0.9999
135	<i>Podothecus acipenserinus</i>	0.001	Trace	0.9999
136	<i>Chionoecetes tanneri</i>	0.001	Trace	0.9999
137	<i>Molpadia</i> sp.	0.001	Trace	0.9999
138	<i>Octopus rubescens</i>	0.001	Trace	0.9999
139	<i>Crossaster borealis</i>	0.001	Trace	0.9999
140	<i>Gephyreaster swifti</i>	0.001	Trace	0.9999
141	<i>Rossia pacifica</i>	0.001	Trace	0.9999
142	<i>Polinices</i> sp.	0.001	Trace	0.9999
143	<i>Stomphia</i> sp.	0.001	Trace	0.9999
144	<i>Chionoecetes angulatus</i>	0.001	Trace	0.9999
145	<i>BathYGONUS pentacanthus</i>	0.001	Trace	0.9999
146	<i>Neomenia</i> sp.	0.001	Trace	0.9999
147	<i>Solaster endeca</i>	0.001	Trace	0.9999
148	<i>Dermasterias imbricata</i>	0.001	Trace	0.9999
149	<i>Stenobrachius leucopsarus</i>	0.001	Trace	0.9999
150	<i>Chiroteuthis</i> sp.	0.001	Trace	1.0000
151	Scyphozoa (class)	0.001	Trace	1.0000
152	<i>Stomphia coccinea</i>	0.001	Trace	1.0000
153	<i>Anthoptilum grandiflorum</i>	0.001	Trace	1.0000
154	Asteroidea unident.	Trace	Trace	1.0000
155	<i>Poraniopsis inflata</i>	Trace	Trace	1.0000
156	<i>Lethasterias nanimensis</i>	Trace	Trace	1.0000
157	<i>Tactostoma macropus</i>	Trace	Trace	1.0000
158	<i>Sebastes</i> sp.	Trace	Trace	1.0000
159	<i>Parastichopus californicus</i>	Trace	Trace	1.0000
160	<i>Pentamera</i> sp.	Trace	Trace	1.0000
161	<i>Ceramaster japonicus</i>	Trace	Trace	1.0000
162	<i>Asterias amurensis</i>	Trace	Trace	1.0000
163	<i>Chauliodus macouni</i>	Trace	Trace	1.0000
164	<i>Tritonia diomedea</i>	Trace	Trace	1.0000
165	<i>Stegophiura</i> (=Amphiophiura)	Trace	Trace	1.0000
166	<i>Henricia</i> sp.	Trace	Trace	1.0000
167	<i>Ophiura sarsi</i>	Trace	Trace	1.0000
168	<i>Lophaster furcilliger</i>	Trace	Trace	1.0000
169	<i>Orthasterias koehleri</i>	Trace	Trace	1.0000
170	squid unident.	Trace	Trace	1.0000
171	<i>Taningia danae</i>	Trace	Trace	1.0000
172	crab unident.	Trace	Trace	1.0000
173	<i>Onychoteuthis borealijaponicus</i>	Trace	Trace	1.0000

Table B-28.--Continued.

174	<i>Buccinum</i> sp.	Trace	Trace	1.0000
175	Gastropod unident.	Trace	Trace	1.0000
176	<i>Dasycottus setiger</i>	Trace	Trace	1.0000
177	<i>Pteraster militaris</i>	Trace	Trace	1.0000
178	<i>Nudibranchia</i> unident.	Trace	Trace	1.0000
179	<i>Aristostomias scintillans</i>	Trace	Trace	1.0000
180	Polychaeta (class)	Trace	Trace	1.0000
181	<i>Pseudarchaster parelii</i>	Trace	Trace	1.0000
182	<i>Ronquilus jordani</i>	Trace	Trace	1.0000
183	<i>Myxoderma platyacanthum</i>	Trace	Trace	1.0000
184	<i>Bathyagonus nigripinnis</i>	Trace	Trace	1.0000
185	<i>Notolepsis risso</i>	Trace	Trace	1.0000
186	<i>Pagurus brandti</i>	Trace	Trace	1.0000
187	Pennatulacea (order)	Trace	Trace	1.0000
188	<i>Bathyplores</i> sp.	Trace	Trace	1.0000
189	<i>Liparis pulchellus</i>	Trace	Trace	1.0000
190	Polynoidae	Trace	Trace	1.0000
191	<i>Florometra serratissima</i>	Trace	Trace	1.0000
192	compound ascidian unident.	Trace	Trace	1.0000
193	<i>Munida quadrispina</i>	Trace	Trace	1.0000
194	<i>Lampanyctus ritteri</i>	Trace	Trace	1.0000
195	<i>Pandalus hypsinotus</i>	Trace	Trace	1.0000
196	<i>Chorilia longipes</i>	Trace	Trace	1.0000
197	<i>Chionoecetes bairdi</i>	Trace	Trace	1.0000
198	<i>Crangon communis</i>	Trace	Trace	1.0000
199	gastropod eggs	Trace	Trace	1.0000
200	<i>Psolus</i> sp.	Trace	Trace	1.0000
201	<i>Tarletonbeania crenularis</i>	Trace	Trace	1.0000
202	<i>Lycodapus mandibularis</i>	Trace	Trace	1.0000
203	shrimp unident.	Trace	Trace	1.0000
204	Euphausiacea (order)	Trace	Trace	1.0000
205	Myctophidae	Trace	Trace	1.0000
207	<i>Eualus macrophthalmus</i>	Trace	Trace	1.0000
206	<i>Ophiopholis longispina</i>	Trace	Trace	1.0000



Table B-29.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the U.S. portion of the survey area, shallow stratum (55-183 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Merluccius productus</i>	92.215	0.4479	0.4479
2	<i>Anoplopoma fimbria</i>	25.773	0.1252	0.5731
3	<i>Citharichthys sordidus</i>	14.399	0.0699	0.6430
4	<i>Sebastes goodei</i>	8.202	0.0398	0.6828
5	<i>Microstomus pacificus</i>	6.870	0.0334	0.7162
6	<i>Squalus acanthias</i>	5.746	0.0279	0.7441
7	<i>Glyptocephalus zachirus</i>	5.350	0.0260	0.7701
8	<i>Theragra chalcogramma</i>	5.032	0.0244	0.7945
9	Scyphozoa (class)	4.792	0.0233	0.8178
10	<i>Parophrys vetulus</i>	4.777	0.0232	0.8410
11	<i>Clupea pallasii</i>	4.401	0.0214	0.8624
12	<i>Genyonemus lineatus</i>	3.888	0.0189	0.8813
13	<i>Atheresthes stomias</i>	3.176	0.0154	0.8967
14	<i>Sebastes elongatus</i>	1.743	0.0085	0.9052
15	<i>Sebastes saxicola</i>	1.300	0.0063	0.9115
16	<i>Brisaster latifrons</i>	1.252	0.0061	0.9176
17	<i>Sebastes flavidus</i>	1.235	0.0060	0.9236
18	<i>Eopsetta jordani</i>	1.108	0.0054	0.9289
19	<i>Trachurus symmetricus</i>	1.094	0.0053	0.9342
20	<i>Lyopsetta exilis</i>	1.025	0.0050	0.9392
21	<i>Ophiodon elongatus</i>	0.955	0.0046	0.9439
22	<i>Sebastes pinniger</i>	0.866	0.0042	0.9481
23	<i>Raja rhina</i>	0.704	0.0034	0.9515
24	<i>Raja binoculata</i>	0.670	0.0033	0.9548
25	<i>Scomber japonicus</i>	0.616	0.0030	0.9577
26	<i>Hippoglossus stenolepis</i>	0.612	0.0030	0.9607
27	<i>Hydrolagus colliei</i>	0.600	0.0029	0.9636
28	<i>Microgadus proximus</i>	0.526	0.0026	0.9662
29	<i>Loligo opalescens</i>	0.406	0.0020	0.9682
30	<i>Cancer magister</i>	0.395	0.0019	0.9701
31	<i>Metridium</i> sp.	0.369	0.0018	0.9719
32	<i>Sebastes jordani</i>	0.369	0.0018	0.9737
33	<i>Alosa sapidissima</i>	0.334	0.0016	0.9753
34	<i>Oncorhynchus tshawytscha</i>	0.292	0.0014	0.9767
35	<i>Porichthys notatus</i>	0.279	0.0014	0.9781
36	<i>Hippoglossoides elassodon</i>	0.269	0.0013	0.9794
37	<i>Pandalus jordani</i>	0.246	0.0012	0.9806
38	<i>Luidia foliolata</i>	0.223	0.0011	0.9816
39	<i>Argentina sialis</i>	0.216	0.0010	0.9827
40	<i>Sebastes crameri</i>	0.199	0.0010	0.9837
41	<i>Thaleichthys pacificus</i>	0.169	0.0008	0.9845

Table B-29.--Continued.

42	<i>Gadus macrocephalus</i>	0.163	0.0008	0.9853
43	<i>Zalembeius rosaceus</i>	0.162	0.0008	0.9861
44	<i>Metridium farcimen</i>	0.157	0.0008	0.9868
45	<i>Sebastes miniatus</i>	0.157	0.0008	0.9876
46	<i>Sebastes proriger</i>	0.155	0.0008	0.9883
47	<i>Sebastes semicinctus</i>	0.126	0.0006	0.9890
48	<i>Octopus dofleini</i>	0.100	0.0005	0.9894
49	<i>Pleuronichthys decurrens</i>	0.092	0.0004	0.9899
50	<i>Lepidopsetta bilineata</i>	0.090	0.0004	0.9903
51	<i>Cyanea capillata</i>	0.088	0.0004	0.9908
52	<i>Lycodes pacificus</i>	0.086	0.0004	0.9912
53	<i>Sebastes diploproa</i>	0.086	0.0004	0.9916
54	<i>Sebastes wilsoni</i>	0.085	0.0004	0.9920
55	<i>Stylatula</i> sp.	0.080	0.0004	0.9924
56	<i>Lycodes cortezianus</i>	0.070	0.0003	0.9927
57	<i>Sebastes ruberrimus</i>	0.070	0.0003	0.9931
58	<i>Rathbunaster californicus</i>	0.060	0.0003	0.9934
59	<i>Sebastes paucispinis</i>	0.057	0.0003	0.9936
60	<i>Sebastes helvomaculatus</i>	0.053	0.0003	0.9939
61	<i>Allocentrotus fragilis</i>	0.048	0.0002	0.9941
62	<i>Peprilus simillimus</i>	0.047	0.0002	0.9944
63	<i>Gorgonocephalus eucnemis</i>	0.047	0.0002	0.9946
64	<i>Platichthys stellatus</i>	0.044	0.0002	0.9948
65	<i>Acipenser medirostris</i>	0.042	0.0002	0.9950
66	<i>Pycnopodia helianthoides</i>	0.041	0.0002	0.9952
67	<i>Sebastes chlorostictus</i>	0.040	0.0002	0.9954
68	<i>Sebastes maliger</i>	0.039	0.0002	0.9956
69	<i>Sebastolobus alascanus</i>	0.038	0.0002	0.9958
70	<i>Sebastes caurinus</i>	0.038	0.0002	0.9960
71	skate egg case unident.	0.038	0.0002	0.9961
72	<i>Bathyraja interrupta</i>	0.036	0.0002	0.9963
73	<i>Sebastes entomelas</i>	0.035	0.0002	0.9965
74	<i>Parastichopus californicus</i>	0.034	0.0002	0.9966
75	<i>Torpedo californica</i>	0.033	0.0002	0.9968
76	<i>Engraulis mordax</i>	0.033	0.0002	0.9970
77	Argentinidae	0.032	0.0002	0.9971
78	<i>Sardinops sagax</i>	0.032	0.0002	0.9973
79	<i>Icelinus filamentosus</i>	0.032	0.0002	0.9974
80	<i>Parastichopus leucothele</i>	0.031	0.0002	0.9976
81	<i>Lopholithodes foraminatus</i>	0.031	0.0002	0.9977
82	Thaliacea unident.	0.031	0.0001	0.9979
83	<i>Sebastes aleutianus</i>	0.027	0.0001	0.9980
84	<i>Paralichthys californicus</i>	0.026	0.0001	0.9981
85	Virgularidae	0.023	0.0001	0.9982

Table B-29.--Continued.

86	<i>Sebastes zacentrus</i>	0.020	0.0001	0.9984
87	<i>Galeorhinus galeus</i>	0.020	0.0001	0.9984
88	<i>Aurelia</i> sp.	0.016	0.0001	0.9985
89	<i>Hippasteria spinosa</i>	0.016	0.0001	0.9986
90	<i>Hexagrammos decagrammus</i>	0.016	0.0001	0.9987
91	<i>Psettichthys melanostictus</i>	0.014	0.0001	0.9988
92	<i>Raja inornata</i>	0.012	0.0001	0.9988
93	<i>Sebastes brevispinis</i>	0.011	0.0001	0.9989
94	<i>Allosmerus elongatus</i>	0.011	0.0001	0.9989
95	<i>Stylasterias forreri</i>	0.011	0.0001	0.9990
96	<i>Strongylocentrotus droebachiensis</i>	0.010	Trace	0.9990
97	<i>Oncorhynchus kisutch</i>	0.009	Trace	0.9991
98	<i>Chrysaora</i> sp.	0.009	Trace	0.9991
99	<i>Sebastes hopkinsi</i>	0.009	Trace	0.9991
100	Zoarcidae	0.009	Trace	0.9992
101	<i>Isopsetta isolepis</i>	0.009	Trace	0.9992
102	<i>Chilara taylori</i>	0.008	Trace	0.9993
103	Holothuroidea unident.	0.007	Trace	0.9993
104	<i>Pleurobranchaea californica</i>	0.006	Trace	0.9993
105	<i>Laqueus californianus</i>	0.006	Trace	0.9994
106	<i>Cryptacanthodes giganteus</i>	0.006	Trace	0.9994
107	<i>Paralithodes californiensis</i>	0.005	Trace	0.9994
108	<i>Parastichopus</i> sp.	0.005	Trace	0.9994
109	<i>Apristurus brunneus</i>	0.005	Trace	0.9995
110	<i>Stomphia</i> sp.	0.005	Trace	0.9995
111	<i>Sebastes alutus</i>	0.005	Trace	0.9995
112	<i>Nudibranchia</i> unident.	0.005	Trace	0.9995
113	<i>Cancer productus</i>	0.004	Trace	0.9996
114	<i>Pandalus platyceros</i>	0.004	Trace	0.9996
115	<i>Bathyraja</i> sp.	0.004	Trace	0.9996
116	<i>Pisaster brevispinus</i>	0.004	Trace	0.9996
117	brachiopod unident.	0.004	Trace	0.9996
118	<i>Lycodes brevipes</i>	0.003	Trace	0.9996
119	<i>Sebastes melanops</i>	0.003	Trace	0.9996
120	<i>Brisaster</i> sp.	0.003	Trace	0.9997
121	<i>Zaniolepis latipinnis</i>	0.003	Trace	0.9997
122	<i>Dermasterias imbricata</i>	0.003	Trace	0.9997
123	<i>Mediaster aequalis</i>	0.003	Trace	0.9997
124	Actiniaria (order)	0.002	Trace	0.9997
125	<i>Fusitriton oregonensis</i>	0.002	Trace	0.9997
126	Myxinidae	0.002	Trace	0.9997
127	<i>Rossia pacifica</i>	0.002	Trace	0.9998
128	<i>Pleuronichthys ritteri</i>	0.002	Trace	0.9998
129	Aphroditidae	0.002	Trace	0.9998

Table B-29.--Continued.

130 Asterina miniata	0.002	Trace	0.9998
131 Porifera	0.002	Trace	0.9998
132 Penaeidae	0.002	Trace	0.9998
133 vase sponge	0.002	Trace	0.9998
134 Crossaster papposus	0.001	Trace	0.9998
135 Mursia gaudichaudii	0.001	Trace	0.9998
136 Bathyagonus pentacanthus	0.001	Trace	0.9998
137 Echinacea unident.	0.001	Trace	0.9998
138 Sicyonia ingentis	0.001	Trace	0.9998
139 Hexanchus griseus	0.001	Trace	0.9998
140 Hyperprosopon anale	0.001	Trace	0.9998
141 Tritonia sp.	0.001	Trace	0.9998
142 Anarrhichthys ocellatus	0.001	Trace	0.9999
143 Sebastes melanostomus	0.001	Trace	0.9999
144 Molpadia sp.	0.001	Trace	0.9999
145 Octopodidae	0.001	Trace	0.9999
146 Asterias amurensis	0.001	Trace	0.9999
147 Berryteuthis magister	0.001	Trace	0.9999
148 Hemilepidotus spinosus	0.001	Trace	0.9999
149 Sebastes babcocki	0.001	Trace	0.9999
150 Sebastes sp.	0.001	Trace	0.9999
151 Parmaturus xaniurus	0.001	Trace	0.9999
152 Gephyreaster swifti	0.001	Trace	0.9999
153 Polinices sp.	0.001	Trace	0.9999
154 Pandalopsis dispar	0.001	Trace	0.9999
155 Pseudostichopus mollis	0.001	Trace	0.9999
156 Urticina sp.	0.001	Trace	0.9999
157 Asteroidea unident.	0.001	Trace	0.9999
158 Chionoecetes tanneri	0.001	Trace	0.9999
159 Solaster sp.	0.001	Trace	0.9999
160 Histiotteuthis sp.	0.001	Trace	0.9999
161 Patinopecten caurinus	0.001	Trace	0.9999
162 Sebastes rosaceus	0.001	Trace	0.9999
163 Sebastes carnatus	0.001	Trace	0.9999
164 Molpadia intermedia	0.001	Trace	0.9999
165 Pseudarchaster parelii	0.001	Trace	0.9999
166 Ptilosarcus gurneyi	Trace	Trace	0.9999
167 Scyliorhinidae	Trace	Trace	0.9999
168 Sebastes levis	Trace	Trace	0.9999
169 Pennatulacea (order)	Trace	Trace	1.0000
170 Liponema brevicornis	Trace	Trace	1.0000
171 Opisthoteuthis californiana	Trace	Trace	1.0000
172 Myxoderma platyacanthum	Trace	Trace	1.0000

Table B-29.--Continued.

173 Paguridae	Trace	Trace	1.0000
174 <i>Ocella verrucosa</i>	Trace	Trace	1.0000
175 <i>Careproctus melanurus</i>	Trace	Trace	1.0000
176 <i>Cancer gracilis</i>	Trace	Trace	1.0000
177 <i>Astropecten californicus</i>	Trace	Trace	1.0000
178 <i>Hippasteria</i> sp.	Trace	Trace	1.0000
179 <i>Orthasterias koehleri</i>	Trace	Trace	1.0000
180 <i>Octopus rubescens</i>	Trace	Trace	1.0000
181 <i>Stomphia coccinea</i>	Trace	Trace	1.0000
182 <i>Pagurus capillatus</i>	Trace	Trace	1.0000
183 <i>Agonopsis vulsa</i>	Trace	Trace	1.0000
184 Onychoteuthidae	Trace	Trace	1.0000
185 <i>Pteraster tessellatus</i>	Trace	Trace	1.0000
186 <i>Calinaticina oldroyi</i>	Trace	Trace	1.0000
187 <i>Gonatus</i> sp.	Trace	Trace	1.0000
188 <i>Styela rustica</i>	Trace	Trace	1.0000
189 <i>Pleuronichthys verticalis</i>	Trace	Trace	1.0000
190 <i>Mediaster</i> sp.	Trace	Trace	1.0000
191 <i>Leptocottus armatus</i>	Trace	Trace	1.0000
192 red striated sea anemone	Trace	Trace	1.0000
193 <i>Bathyagonus nigripinnis</i>	Trace	Trace	1.0000
194 <i>Apristurus brunneus</i>	Trace	Trace	1.0000
195 <i>Hippasteria californica</i>	Trace	Trace	1.0000
196 <i>Raja binocolata</i>	Trace	Trace	1.0000
197 <i>Tethya</i> sp.	Trace	Trace	1.0000
198 <i>Crossaster borealis</i>	Trace	Trace	1.0000
199 <i>Lethasterias nanimensis</i>	Trace	Trace	1.0000
200 Ophiuroid unident.	Trace	Trace	1.0000
201 <i>Pseudarchaster dissonus</i>	Trace	Trace	1.0000
202 <i>Lycodes diapterus</i>	Trace	Trace	1.0000
203 <i>Tritonia diomedea</i>	Trace	Trace	1.0000
204 Ascidian unident.	Trace	Trace	1.0000
205 <i>Chitonotus pugetensis</i>	Trace	Trace	1.0000
206 <i>Sebastes rosenblatti</i>	Trace	Trace	1.0000
207 <i>Sebastes dalli</i>	Trace	Trace	1.0000
208 <i>Scorpaena guttata</i>	Trace	Trace	1.0000
209 <i>Icelinus oculatus</i>	Trace	Trace	1.0000
210 <i>Sebastes emphaeus</i>	Trace	Trace	1.0000
211 <i>Enophrys taurina</i>	Trace	Trace	1.0000
212 <i>Acantholithodes hispidus</i>	Trace	Trace	1.0000
213 <i>Icosteus aenigmaticus</i>	Trace	Trace	1.0000
214 <i>Poraniopsis inflata</i>	Trace	Trace	1.0000

Table B-29.--Continued.

215 Mytilidae	Trace	Trace	1.0000
216 Gonatus onyx	Trace	Trace	1.0000
217 Icelinus tenuis	Trace	Trace	1.0000
218 Trichodon trichodon	Trace	Trace	1.0000
219 Mya sp.	Trace	Trace	1.0000
220 Paractinostola faeculenta	Trace	Trace	1.0000
221 Platyhelminthes (phylum)	Trace	Trace	1.0000
222 Ctenodiscus crispatus	Trace	Trace	1.0000
223 Henricia sp.	Trace	Trace	1.0000
224 Pasiphaea pacifica	Trace	Trace	1.0000
225 Cheiraster (=Luidiaster)	Trace	Trace	1.0000
226 Pandalus hypsinotus	Trace	Trace	1.0000
227 Mollusca (phylum)	Trace	Trace	1.0000
228 Symphurus atricauda	Trace	Trace	1.0000
229 Polinices pallidus	Trace	Trace	1.0000
230 Diaphus theta	Trace	Trace	1.0000
231 Isopoda (order)	Trace	Trace	1.0000
232 Pandalus borealis	Trace	Trace	1.0000
233 Ctenophora (phylum)	Trace	Trace	1.0000
234 Pseudarchaster sp.	Trace	Trace	1.0000
235 Polinices lewisi	Trace	Trace	1.0000
236 Munida quadrispina	Trace	Trace	1.0000
237 Ammodytes hexapterus	Trace	Trace	1.0000
238 Cottidae	Trace	Trace	1.0000
239 Chionoecetes bairdi	Trace	Trace	1.0000
240 Aphrodita sp.	Trace	Trace	1.0000
241 gastropod eggs	Trace	Trace	1.0000
242 Podothecus acipenserinus	Trace	Trace	1.0000
243 Lyconectes aleutensis	Trace	Trace	1.0000
244 Eptatretus stouti	Trace	Trace	1.0000
245 Gastropod unident.	Trace	Trace	1.0000
246 Polychaeta (class)	Trace	Trace	1.0000
247 Xeneretmus latifrons	Trace	Trace	1.0000
248 Paricelinus hopliticus	Trace	Trace	1.0000
249 squid unident.	Trace	Trace	1.0000
250 Petromyzontidae	Trace	Trace	1.0000
251 Ceramaster japonicus	Trace	Trace	1.0000
252 Pagurus sp.	Trace	Trace	1.0000
253 Chiroteuthis sp.	Trace	Trace	1.0000
254 Pteraster militaris	Trace	Trace	1.0000
255 fish unident.	Trace	Trace	1.0000
256 Crangon communis	Trace	Trace	1.0000

Table B-29.--Continued.

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257 Cololabis saira	Trace	Trace	1.0000
258 Buccinum sp.	Trace	Trace	1.0000
259 Florometra serratissima	Trace	Trace	1.0000
260 Liparis pulchellus	Trace	Trace	1.0000
261 Ronquilus jordani	Trace	Trace	1.0000
262 Hydrolagus colliei	Trace	Trace	1.0000
263 Zaprora silenus	Trace	Trace	1.0000
264 Alyconaria unident.	Trace	Trace	1.0000
265 Pandalus stenolepis	Trace	Trace	1.0000
266 Sipuncula (phylum)	Trace	Trace	1.0000
267 Nemichthyidae	Trace	Trace	1.0000
268 Triglops macellus	Trace	Trace	1.0000
269 Armina californica	Trace	Trace	1.0000
270 Myctophidae	Trace	Trace	1.0000
271 Florometra sp.	Trace	Trace	1.0000
272 pink hormathiid anemone	Trace	Trace	1.0000
273 Agonidae	Trace	Trace	1.0000
274 Solaster stimpsoni	Trace	Trace	1.0000
275 Chorilia longipes	Trace	Trace	1.0000
276 shrimp unident.	Trace	Trace	1.0000
278 Euphausiacea (order)	Trace	Trace	1.0000
277 Sergestes sp.	Trace	Trace	1.0000
279 Trachipterus altivelis	Trace	Trace	1.0000
280 Stenobranchius leucopsarus	Trace	Trace	1.0000
281 Crangon sp.	Trace	Trace	1.0000
282 Ophiura sarsi	Trace	Trace	1.0000

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Table B-30.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the U.S. portion of the survey area, middle stratum (184-366 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Merluccius productus</i>	45.316	0.2389	0.2389
2	<i>Sebastes jordani</i>	23.604	0.1244	0.3633
3	<i>Microstomus pacificus</i>	22.970	0.1211	0.4844
4	<i>Sebastes diploproa</i>	17.363	0.0915	0.5759
5	<i>Anoplopoma fimbria</i>	14.301	0.0754	0.6513
6	<i>Glyptocephalus zachirus</i>	10.495	0.0553	0.7066
7	<i>Atheresthes stomias</i>	8.496	0.0448	0.7514
8	<i>Sebastes saxicola</i>	6.853	0.0361	0.7876
9	<i>Sebastes goodei</i>	5.882	0.0310	0.8186
10	<i>Sebastes zacentrus</i>	4.500	0.0237	0.8423
11	<i>Ophiodon elongatus</i>	4.178	0.0220	0.8643
12	<i>Sebastes crameri</i>	2.674	0.0141	0.8784
13	<i>Sebastolobus alascanus</i>	2.617	0.0138	0.8922
14	<i>Brisaster latifrons</i>	2.294	0.0121	0.9043
15	<i>Sebastes alutus</i>	2.088	0.0110	0.9153
16	<i>Allocentrotus fragilis</i>	1.823	0.0096	0.9249
17	<i>Raja rhina</i>	1.271	0.0067	0.9316
18	<i>Lycodes corteziianus</i>	1.245	0.0066	0.9382
19	<i>Hydrolagus colliei</i>	1.055	0.0056	0.9437
20	<i>Hippoglossus stenolepis</i>	1.008	0.0053	0.9490
21	<i>Parophrys vetulus</i>	0.995	0.0052	0.9543
22	<i>Lyopsetta exilis</i>	0.875	0.0046	0.9589
23	<i>Sebastes elongatus</i>	0.777	0.0041	0.9630
24	<i>Squalus acanthias</i>	0.739	0.0039	0.9669
25	<i>Pandalus jordani</i>	0.505	0.0027	0.9696
26	Scyphozoa (class)	0.328	0.0017	0.9713
27	Scyliorhinidae	0.317	0.0017	0.9730
28	<i>Parastichopus leucothele</i>	0.311	0.0016	0.9746
29	<i>Bathyraja interrupta</i>	0.310	0.0016	0.9762
30	<i>Apristurus brunneus</i>	0.298	0.0016	0.9778
31	<i>Moroteuthis robusta</i>	0.283	0.0015	0.9793
32	<i>Sebastes aleutianus</i>	0.282	0.0015	0.9808
33	<i>Sebastes babcocki</i>	0.263	0.0014	0.9822
34	<i>Luidia foliolata</i>	0.193	0.0010	0.9832
35	<i>Sebastes aurora</i>	0.180	0.0009	0.9841
36	<i>Somniosus pacificus</i>	0.158	0.0008	0.9850
37	<i>Thaleichthys pacificus</i>	0.155	0.0008	0.9858
38	<i>Sebastes helvomaculatus</i>	0.152	0.0008	0.9866
39	<i>Lycodes diapterus</i>	0.141	0.0007	0.9873
40	<i>Gadus macrocephalus</i>	0.140	0.0007	0.9881
41	<i>Rathbunaster californicus</i>	0.096	0.0005	0.9886



Table B-30.--Continued.

42	<i>Sebastes pinniger</i>	0.092	0.0005	0.9891
43	<i>Sebastes paucispinis</i>	0.091	0.0005	0.9895
44	Porifera	0.089	0.0005	0.9900
45	<i>Icelinus filamentosus</i>	0.087	0.0005	0.9905
46	<i>Strongylocentrotus franciscanus</i>	0.087	0.0005	0.9909
47	<i>Sebastes entomelas</i>	0.081	0.0004	0.9914
48	<i>Brisaster</i> sp.	0.071	0.0004	0.9917
49	<i>Cancer magister</i>	0.071	0.0004	0.9921
50	<i>Hippoglossoides elassodon</i>	0.069	0.0004	0.9925
51	<i>Liponema brevicornis</i>	0.059	0.0003	0.9928
52	<i>Aphrocallistes vastus</i>	0.056	0.0003	0.9931
53	<i>Eopsetta jordani</i>	0.053	0.0003	0.9934
54	<i>Pandalus platyceros</i>	0.049	0.0003	0.9936
55	<i>Sebastes flavidus</i>	0.047	0.0002	0.9939
56	<i>Sebastes melanostomus</i>	0.045	0.0002	0.9941
57	<i>Sebastes rufus</i>	0.044	0.0002	0.9943
58	<i>Sebastes brevispinis</i>	0.042	0.0002	0.9946
59	<i>Pycnopodia helianthoides</i>	0.041	0.0002	0.9948
60	Thaliacea unident.	0.040	0.0002	0.9950
61	<i>Ctenodiscus crispatus</i>	0.039	0.0002	0.9952
62	<i>Pasiphaea pacifica</i>	0.034	0.0002	0.9954
63	<i>Parmaturus xaniurus</i>	0.031	0.0002	0.9955
64	Paguridae	0.031	0.0002	0.9957
65	<i>Metridium</i> sp.	0.031	0.0002	0.9959
66	<i>Pseudostichopus mollis</i>	0.030	0.0002	0.9960
67	<i>Oncorhynchus tshawytscha</i>	0.030	0.0002	0.9962
68	<i>Lycodes pacificus</i>	0.028	0.0001	0.9963
69	<i>Myxoderma platyacanthum</i>	0.025	0.0001	0.9965
70	<i>Chionoecetes tanneri</i>	0.025	0.0001	0.9966
71	<i>Cryptacanthodes giganteus</i>	0.025	0.0001	0.9967
72	<i>Torpedo californica</i>	0.024	0.0001	0.9969
73	<i>Stylasterias forreri</i>	0.024	0.0001	0.9970
74	<i>Sebastes borealis</i>	0.022	0.0001	0.9971
75	<i>Lopholithodes foraminatus</i>	0.019	0.0001	0.9972
76	<i>Sebastes wilsoni</i>	0.018	0.0001	0.9973
77	<i>Careproctus melanurus</i>	0.017	0.0001	0.9974
78	<i>Lycodes brevipes</i>	0.017	0.0001	0.9975
79	<i>Chilara taylori</i>	0.017	0.0001	0.9976
80	<i>Octopus dofleini</i>	0.015	0.0001	0.9976
81	<i>Paractinostola faeculenta</i>	0.015	0.0001	0.9977
82	<i>Parastichopus</i> sp.	0.014	0.0001	0.9978
83	<i>Sebastes reedi</i>	0.013	0.0001	0.9979
84	<i>Metridium farcimen</i>	0.013	0.0001	0.9979
85	Ophiuroid unident.	0.013	0.0001	0.9980

Table B-30.--Continued.

86	<i>Sebastes levis</i>	0.013	0.0001	0.9981
87	<i>Theragra chalcogramma</i>	0.013	0.0001	0.9981
88	<i>Hippasteria spinosa</i>	0.013	0.0001	0.9982
89	vase sponge	0.012	0.0001	0.9983
90	Holothuroidea unident.	0.012	0.0001	0.9983
91	<i>Berryteuthis magister</i>	0.012	0.0001	0.9984
92	Octopodidae	0.012	0.0001	0.9985
93	<i>Opisthoteuthis californiana</i>	0.012	0.0001	0.9985
94	<i>Sebastes proriger</i>	0.012	0.0001	0.9986
95	<i>Gonatopsis borealis</i>	0.012	0.0001	0.9986
96	Argentinidae	0.010	0.0001	0.9987
97	<i>Pleurobranchaea californica</i>	0.010	0.0001	0.9988
98	<i>Sebastes ruberrimus</i>	0.010	0.0000	0.9988
99	<i>Pseudarchaster parelii</i>	0.009	Trace	0.9988
100	Asteroidea unident.	0.009	Trace	0.9989
101	Myctophidae	0.008	Trace	0.9989
102	<i>Chrysaora</i> sp.	0.007	Trace	0.9990
103	<i>Diaphus theta</i>	0.007	Trace	0.9990
104	<i>Pandalopsis dispar</i>	0.007	Trace	0.9990
105	<i>Sebastes chlorostictus</i>	0.006	Trace	0.9991
106	<i>Parastichopus californicus</i>	0.005	Trace	0.9991
107	<i>Ophiura sarsi</i>	0.005	Trace	0.9991
108	<i>Cyanea capillata</i>	0.005	Trace	0.9992
109	Petromyzontidae	0.005	Trace	0.9992
110	<i>Bathyagonus pentacanthus</i>	0.005	Trace	0.9992
111	<i>Fusitriton oregonensis</i>	0.005	Trace	0.9992
112	Actiniaria (order)	0.005	Trace	0.9993
113	Zoarcidae	0.004	Trace	0.9993
114	<i>Gonatus</i> sp.	0.004	Trace	0.9993
115	<i>Careproctus</i> sp.	0.004	Trace	0.9993
116	<i>Paralithodes californiensis</i>	0.004	Trace	0.9994
117	<i>Citharichthys sordidus</i>	0.004	Trace	0.9994
118	<i>Sebastes rosenblatti</i>	0.004	Trace	0.9994
119	<i>Molpadia intermedia</i>	0.004	Trace	0.9994
120	<i>Gorgonocephalus eucnemis</i>	0.004	Trace	0.9994
121	<i>Buccinum</i> sp.	0.003	Trace	0.9994
122	<i>Aurelia</i> sp.	0.003	Trace	0.9995
123	<i>Mediaster aequalis</i>	0.003	Trace	0.9995
124	Echinacea unident.	0.003	Trace	0.9995
125	<i>Trachurus symmetricus</i>	0.003	Trace	0.9995
126	<i>Porichthys notatus</i>	0.003	Trace	0.9995
127	<i>Histioteuthis</i> sp.	0.003	Trace	0.9995
128	<i>Cancer productus</i>	0.003	Trace	0.9996
129	Myxinidae	0.003	Trace	0.9996

Table B-30.--Continued.

130 Scomber japonicus	0.003	Trace	0.9996
131 Hexactinellida	0.003	Trace	0.9996
132 Pleuronichthys decurrens	0.003	Trace	0.9996
133 Pteraster tessellatus	0.002	Trace	0.9996
134 Loligo opalescens	0.002	Trace	0.9996
135 Leptychaster sp.	0.002	Trace	0.9996
136 Aphroditidae	0.002	Trace	0.9997
137 Sebastes sp.	0.002	Trace	0.9997
138 Pseudostichopus sp.	0.002	Trace	0.9997
139 Paralithodes rathbuni	0.002	Trace	0.9997
140 Actinauge verrillii	0.002	Trace	0.9997
141 Alosa sapidissima	0.002	Trace	0.9997
142 Rossia pacifica	0.002	Trace	0.9997
143 Sebastes hopkinsi	0.002	Trace	0.9997
144 Ptilosarcus gurneyi	0.002	Trace	0.9997
145 Bathyagonus nigripinnis	0.002	Trace	0.9998
146 Calinaticina oldroyi	0.002	Trace	0.9998
147 Molpadia sp.	0.002	Trace	0.9998
148 Anthoptilum grandiflorum	0.002	Trace	0.9998
149 Solaster stimpsoni	0.002	Trace	0.9998
150 Poraniopsis inflata	0.002	Trace	0.9998
151 Neptunea sp.	0.002	Trace	0.9998
152 Nudibranchia unident.	0.002	Trace	0.9998
153 Gephyreaster swifti	0.002	Trace	0.9998
154 Stomphia sp.	0.002	Trace	0.9998
155 Argentina sialis	0.001	Trace	0.9998
156 Gastropod unident.	0.001	Trace	0.9998
157 Stylatula sp.	0.001	Trace	0.9998
158 Cheiraster (=Luidiaster)	0.001	Trace	0.9999
159 Pagurus confragosus	0.001	Trace	0.9999
160 Liparidinae	0.001	Trace	0.9999
161 Spatangus californicus	0.001	Trace	0.9999
162 Stomphia coccinea	0.001	Trace	0.9999
163 Virgularidae	0.001	Trace	0.9999
164 Diplopteraster multipes	0.001	Trace	0.9999
165 Hippasteria californica	0.001	Trace	0.9999
166 Neptunea amianta	0.001	Trace	0.9999
167 Solaster sp.	0.001	Trace	0.9999
168 skate egg case unident.	0.001	Trace	0.9999
169 Sebastolobus altivelis	0.001	Trace	0.9999
170 Strongylocentrotus droebachiensis	0.001	Trace	0.9999
171 Solaster paxillatus	0.001	Trace	0.9999
172 Sardinops sagax	0.001	Trace	0.9999

Table B-30.--Continued.

173 <i>Apristurus brunneus</i>	0.001	Trace	0.9999
174 <i>Ophiomusium jolliensis</i>	0.001	Trace	0.9999
175 <i>Pagurus capillatus</i>	0.001	Trace	0.9999
176 <i>Tritonia</i> sp.	0.001	Trace	0.9999
177 <i>Sagamichthys abei</i>	0.001	Trace	0.9999
178 <i>Sipuncula</i> (phylum)	Trace	Trace	0.9999
179 <i>Acantholithodes hispidus</i>	Trace	Trace	0.9999
180 <i>Crossaster borealis</i>	Trace	Trace	1.0000
181 <i>Antimora microlepis</i>	Trace	Trace	1.0000
182 <i>Solaster endeca</i>	Trace	Trace	1.0000
183 <i>Chorilia longipes</i>	Trace	Trace	1.0000
184 <i>Pentamera</i> sp.	Trace	Trace	1.0000
185 <i>Lophaster furcilliger</i>	Trace	Trace	1.0000
186 gastropod eggs	Trace	Trace	1.0000
187 <i>Chauliodus macouni</i>	Trace	Trace	1.0000
188 <i>Tactostoma macropus</i>	Trace	Trace	1.0000
189 <i>Malacocottus kincaidi</i>	Trace	Trace	1.0000
190 Bathymasteridae	Trace	Trace	1.0000
191 <i>Ceramaster japonicus</i>	Trace	Trace	1.0000
192 <i>Ophidion scrippsae</i>	Trace	Trace	1.0000
193 <i>Orthasterias koehleri</i>	Trace	Trace	1.0000
194 <i>Mediaster</i> sp.	Trace	Trace	1.0000
195 <i>Clupea pallasii</i>	Trace	Trace	1.0000
196 Chauliodontidae	Trace	Trace	1.0000
197 pink hormathiid anemone	Trace	Trace	1.0000
198 <i>Crossaster papposus</i>	Trace	Trace	1.0000
199 squid unident.	Trace	Trace	1.0000
200 Shark egg	Trace	Trace	1.0000
201 <i>Asteronyx loveni</i>	Trace	Trace	1.0000
202 Melanostomiidae	Trace	Trace	1.0000
203 <i>Asterina miniata</i>	Trace	Trace	1.0000
204 <i>Ophiopholis longispina</i>	Trace	Trace	1.0000
205 <i>Pteraster militaris</i>	Trace	Trace	1.0000
206 <i>Chionoecetes bairdi</i>	Trace	Trace	1.0000
207 <i>Pagurus brandti</i>	Trace	Trace	1.0000
208 <i>Taningia danae</i>	Trace	Trace	1.0000
209 <i>Neptunea pribiloffensis</i>	Trace	Trace	1.0000
210 <i>Ceramaster patagonicus</i>	Trace	Trace	1.0000
211 <i>Icelinus burchami</i>	Trace	Trace	1.0000
212 <i>Raja binoculata</i>	Trace	Trace	1.0000
213 crinoid unident.	Trace	Trace	1.0000
214 <i>Pisaster brevispinus</i>	Trace	Trace	1.0000

Table B-30.--Continued.

215	<i>Physiculus rastrelliger</i>	Trace	Trace	1.0000
216	<i>Thrissacanthias penicillatus</i>	Trace	Trace	1.0000
217	<i>Pagurus</i> sp.	Trace	Trace	1.0000
218	<i>Chiroteuthis</i> sp.	Trace	Trace	1.0000
219	crab unident.	Trace	Trace	1.0000
220	<i>Pandalus tridens</i>	Trace	Trace	1.0000
221	<i>Sebastes semicinctus</i>	Trace	Trace	1.0000
222	<i>Gonatus onyx</i>	Trace	Trace	1.0000
223	<i>Pagurus tanneri</i>	Trace	Trace	1.0000
224	<i>Chiroteuthis calyx</i>	Trace	Trace	1.0000
225	<i>Malacocottus zonurus</i>	Trace	Trace	1.0000
226	<i>Munida quadrispina</i>	Trace	Trace	1.0000
227	<i>Henricia</i> sp.	Trace	Trace	1.0000
228	<i>Astropecten californicus</i>	Trace	Trace	1.0000
229	<i>Ronquilus jordani</i>	Trace	Trace	1.0000
230	<i>Psolus</i> sp.	Trace	Trace	1.0000
231	<i>Rhabdocalypus</i> sp.	Trace	Trace	1.0000
232	Agonidae	Trace	Trace	1.0000
233	<i>Antiplanes</i> sp.	Trace	Trace	1.0000
234	<i>Mursia gaudichaudii</i>	Trace	Trace	1.0000
235	<i>Xeneretmus latifrons</i>	Trace	Trace	1.0000
236	<i>Notolepsis risso</i>	Trace	Trace	1.0000
237	<i>Tritonia diomedea</i>	Trace	Trace	1.0000
238	<i>Pannychia moseleyi</i>	Trace	Trace	1.0000
239	brachiopod unident.	Trace	Trace	1.0000
240	<i>Pseudarchaster</i> sp.	Trace	Trace	1.0000
241	<i>Neomenia</i> sp.	Trace	Trace	1.0000
242	Polynoidae	Trace	Trace	1.0000
243	<i>Pagurus aleuticus</i>	Trace	Trace	1.0000
244	<i>Tarletonbeania crenularis</i>	Trace	Trace	1.0000
245	Polychaeta (class)	Trace	Trace	1.0000
246	<i>Henricia aspera</i>	Trace	Trace	1.0000
247	<i>Gersemia</i> sp.	Trace	Trace	1.0000
248	<i>Bivalvia</i> unident.	Trace	Trace	1.0000
249	<i>Bathophilus flemingi</i>	Trace	Trace	1.0000
250	pineapple cucumber	Trace	Trace	1.0000
251	Nemichthyidae	Trace	Trace	1.0000
252	<i>Crangon</i> sp.	Trace	Trace	1.0000
253	<i>Aphrodita</i> sp.	Trace	Trace	1.0000
254	<i>Idiacanthus antrostomus</i>	Trace	Trace	1.0000
255	<i>Polinices pallidus</i>	Trace	Trace	1.0000
256	<i>Lycodapus mandibularis</i>	Trace	Trace	1.0000

Table B-30.--Continued.

257 Benthoplectinidae	Trace	Trace	1.0000
258 Sternoptychidae unident.	Trace	Trace	1.0000
259 Pleuronectiformes larvae	Trace	Trace	1.0000

Table B-31.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the U.S. portion of the survey area, deep stratum (367-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Microstomus pacificus</i>	32.081	0.3404	0.3404
2	<i>Merluccius productus</i>	14.489	0.1537	0.4941
3	<i>Anoplopoma fimbria</i>	11.178	0.1186	0.6127
4	<i>Glyptocephalus zachirus</i>	7.788	0.0826	0.6953
5	<i>Sebastolobus alascanus</i>	5.079	0.0539	0.7492
6	<i>Sebastes aurora</i>	3.299	0.0350	0.7842
7	<i>Brisaster latifrons</i>	2.906	0.0308	0.8151
8	<i>Lycodes cortezianus</i>	1.785	0.0189	0.8340
9	<i>Somniosus pacificus</i>	1.616	0.0171	0.8512
10	<i>Raja rhina</i>	1.108	0.0118	0.8629
11	<i>Sebastes melanostomus</i>	1.036	0.0110	0.8739
12	<i>Lycodes diapterus</i>	0.948	0.0101	0.8840
13	<i>Sebastes diploproa</i>	0.895	0.0095	0.8935
14	<i>Sebastolobus altivelis</i>	0.822	0.0087	0.9022
15	<i>Apristurus brunneus</i>	0.792	0.0084	0.9106
16	Scyliorhinidae	0.787	0.0084	0.9189
17	<i>Sebastes aleutianus</i>	0.531	0.0056	0.9246
18	<i>Atheresthes stomias</i>	0.512	0.0054	0.9300
19	<i>Strongylocentrotus franciscanus</i>	0.374	0.0040	0.9340
20	<i>Hydrolagus colliei</i>	0.352	0.0037	0.9377
21	<i>Brisaster</i> sp.	0.348	0.0037	0.9414
22	<i>Paractinostola faeculenta</i>	0.331	0.0035	0.9449
23	<i>Bathyraja interrupta</i>	0.304	0.0032	0.9481
24	<i>Sebastes alutus</i>	0.290	0.0031	0.9512
25	<i>Allocentrotus fragilis</i>	0.282	0.0030	0.9542
26	<i>Parmaturus xaniurus</i>	0.278	0.0030	0.9572
27	<i>Pseudostichopus mollis</i>	0.256	0.0027	0.9599
28	Scyphozoa (class)	0.232	0.0025	0.9623
29	<i>Icosteus aenigmaticus</i>	0.217	0.0023	0.9646
30	<i>Moroteuthis robusta</i>	0.212	0.0022	0.9669
31	<i>Aphrocallistes vastus</i>	0.211	0.0022	0.9691
32	<i>Henricia</i> sp.	0.173	0.0018	0.9710
33	<i>Sebastes crameri</i>	0.166	0.0018	0.9727
34	<i>Myxoderma platyacanthum</i>	0.159	0.0017	0.9744
35	<i>Liponema brevicornis</i>	0.126	0.0013	0.9758
36	<i>Parastichopus leucothele</i>	0.121	0.0013	0.9770
37	<i>Neptunea</i> sp.	0.120	0.0013	0.9783
38	<i>Luidia foliolata</i>	0.116	0.0012	0.9795
39	Porifera	0.101	0.0011	0.9806
40	<i>Neptunea amianta</i>	0.101	0.0011	0.9817
41	<i>Lyopsetta exilis</i>	0.095	0.0010	0.9827

Table B-31.--Continued.

42	Holothuroidea unident.	0.086	0.0009	0.9836
43	Sebastes borealis	0.079	0.0008	0.9844
44	Prionace glauca	0.075	0.0008	0.9852
45	Pannychia moseleyi	0.073	0.0008	0.9860
46	Ophiuroid unident.	0.069	0.0007	0.9868
47	Rathbunaster californicus	0.065	0.0007	0.9874
48	Hippoglossus stenolepis	0.059	0.0006	0.9881
49	Squalus acanthias	0.059	0.0006	0.9887
50	Cyanea capillata	0.056	0.0006	0.9893
51	Antimora microlepis	0.055	0.0006	0.9899
52	Careproctus melanurus	0.047	0.0005	0.9904
53	Octopus dofleini	0.042	0.0004	0.9908
54	Chionoecetes tanneri	0.039	0.0004	0.9912
55	Pasiphaea pacifica	0.039	0.0004	0.9916
56	Berryteuthis magister	0.036	0.0004	0.9920
57	Thaliacea unident.	0.033	0.0004	0.9924
58	Octopodidae	0.030	0.0003	0.9927
59	Histioteuthis sp.	0.029	0.0003	0.9930
60	Albatrossia pectoralis	0.028	0.0003	0.9933
61	Gonatopsis borealis	0.027	0.0003	0.9936
62	Raja binoculata	0.025	0.0003	0.9938
63	Paguridae	0.025	0.0003	0.9941
64	Stomphia sp.	0.024	0.0003	0.9944
65	Sebastes babcocki	0.024	0.0003	0.9946
66	Opisthoteuthis californiana	0.024	0.0003	0.9949
67	Asteroidea unident.	0.021	0.0002	0.9951
68	Myctophidae	0.021	0.0002	0.9953
69	Chrysaora sp.	0.021	0.0002	0.9956
70	Pasiphaeidae	0.021	0.0002	0.9958
71	Lycodes pacificus	0.020	0.0002	0.9960
72	Ctenodiscus crispatus	0.017	0.0002	0.9962
73	Trachipterus altivelis	0.016	0.0002	0.9964
74	Sebastes rufus	0.015	0.0002	0.9965
75	Leptychaster sp.	0.014	0.0001	0.9967
76	Gonatus sp.	0.014	0.0001	0.9968
77	Actinauge verrillii	0.013	0.0001	0.9969
78	Careproctus sp.	0.013	0.0001	0.9971
79	Ophiura sarsi	0.013	0.0001	0.9972
80	Metridium sp.	0.013	0.0001	0.9973
81	Sebastes saxicola	0.013	0.0001	0.9975
82	Actiniaria (order)	0.010	0.0001	0.9976
83	Ophiodon elongatus	0.009	0.0001	0.9977
84	Bothrocara brunneum	0.009	0.0001	0.9978
85	Ptilosarcus gurneyi	0.009	0.0001	0.9979



Table B-31.--Continued.

86	Gastropod unident.	0.008	0.0001	0.9980
87	Pycnopodia helianthoides	0.006	0.0001	0.9980
88	squid unident.	0.006	0.0001	0.9981
89	Mediaster aequalis	0.006	0.0001	0.9982
90	Loligo opalescens	0.006	0.0001	0.9982
91	Diplopteraster multipes	0.005	0.0001	0.9983
92	Alepisaurus ferox	0.005	0.0001	0.9983
93	Bathyraja aleutica	0.005	0.0001	0.9984
94	Thrissacanthias penicillatus	0.005	0.0000	0.9984
95	Myxinidae	0.005	0.0000	0.9985
96	Lampetra tridentata	0.005	0.0000	0.9985
97	Buccinum sp.	0.004	Trace	0.9986
98	Sebastes goodei	0.004	Trace	0.9986
99	Diaphus theta	0.004	Trace	0.9987
100	Sebastes miniatus	0.004	Trace	0.9987
101	Pagurus confragosus	0.004	Trace	0.9988
102	Apristurus brunneus	0.004	Trace	0.9988
103	Anthoptilum grandiflorum	0.004	Trace	0.9988
104	Pteraster tessellatus	0.004	Trace	0.9989
105	Careproctus cypselurus	0.004	Trace	0.9989
106	Aphroditidae	0.004	Trace	0.9990
107	Molpadia intermedia	0.003	Trace	0.9990
108	Chauliodus macouni	0.003	Trace	0.9990
109	vase sponge	0.003	Trace	0.9990
110	gastropod eggs	0.003	Trace	0.9991
111	Metridium farcimen	0.003	Trace	0.9991
112	Grimpoteuthis albatrossi	0.003	Trace	0.9992
113	Cancer magister	0.003	Trace	0.9992
114	Pseudostichopus sp.	0.003	Trace	0.9992
115	Hippasteria spinosa	0.003	Trace	0.9992
116	Petromyzontidae	0.003	Trace	0.9993
117	Coryphaenoides acrolepis	0.003	Trace	0.9993
118	Aurelia sp.	0.003	Trace	0.9993
119	Pseudarchaster parelii	0.002	Trace	0.9994
120	Fusitriton oregonensis	0.002	Trace	0.9994
121	Nezumia stelgidolepis	0.002	Trace	0.9994
122	pink hormathiid anemone	0.002	Trace	0.9994
123	Sebastes elongatus	0.002	Trace	0.9994
124	Argentina sialis	0.002	Trace	0.9995
125	Histioteuthis hoylei	0.002	Trace	0.9995
126	Psolus sp.	0.002	Trace	0.9995
127	Parastichopus sp.	0.002	Trace	0.9995
128	Molpadia sp.	0.002	Trace	0.9995
129	Tactostoma macropus	0.002	Trace	0.9996

Table B-31.--Continued.

130	<i>Scomber japonicus</i>	0.002	Trace	0.9996
131	<i>Paralithodes californiensis</i>	0.002	Trace	0.9996
132	<i>Gorgonocephalus eucnemis</i>	0.002	Trace	0.9996
133	<i>Cheiraster</i> (=Luidiaster)	0.001	Trace	0.9996
134	<i>Sebastes zacentrus</i>	0.001	Trace	0.9996
135	<i>Sergestes</i> sp.	0.001	Trace	0.9996
136	<i>Lepidopus xantusi</i>	0.001	Trace	0.9997
137	<i>Neptunea pribiloffensis</i>	0.001	Trace	0.9997
138	Liparidinae	0.001	Trace	0.9997
139	<i>Stylasterias forreri</i>	0.001	Trace	0.9997
140	<i>Hippasteria californica</i>	0.001	Trace	0.9997
141	<i>Tritonia</i> sp.	0.001	Trace	0.9997
142	<i>Nudibranchia</i> unident.	0.001	Trace	0.9997
143	<i>Neomenia</i> sp.	0.001	Trace	0.9998
144	<i>Thetys vagina</i>	0.001	Trace	0.9998
145	<i>Idiacanthus antrostomus</i>	0.001	Trace	0.9998
146	<i>Pandalus jordani</i>	0.001	Trace	0.9998
147	<i>Lampanyctus ritteri</i>	0.001	Trace	0.9998
148	<i>Pseudarchaster</i> sp.	0.001	Trace	0.9998
149	Melanostomiidae	0.001	Trace	0.9998
150	Chauliodontidae	0.001	Trace	0.9998
151	<i>Paralithodes rathbuni</i>	0.001	Trace	0.9998
152	Virgularidae	0.001	Trace	0.9998
153	<i>Antiplanes</i> sp.	0.001	Trace	0.9998
154	<i>Spatangus californicus</i>	0.001	Trace	0.9998
155	<i>Chionoecetes angulatus</i>	0.001	Trace	0.9998
156	<i>Embassichthys bathybius</i>	0.001	Trace	0.9998
157	<i>Sebastes helvomaculatus</i>	0.001	Trace	0.9998
158	<i>Solaster paxillatus</i>	0.001	Trace	0.9999
159	<i>Chorilia longipes</i>	0.001	Trace	0.9999
160	pineapple cucumber	Trace	Trace	0.9999
161	<i>Mediaster</i> sp.	Trace	Trace	0.9999
162	<i>Buccinum strigillatum</i>	Trace	Trace	0.9999
163	<i>Icelinus filamentosus</i>	Trace	Trace	0.9999
164	<i>Vampyroteuthis infernalis</i>	Trace	Trace	0.9999
165	<i>Stenobranchius leucopsarus</i>	Trace	Trace	0.9999
166	<i>Solaster</i> sp.	Trace	Trace	0.9999
167	<i>Bathylagus</i> sp.	Trace	Trace	0.9999
168	<i>Citharichthys sordidus</i>	Trace	Trace	0.9999
169	<i>Pagurus capillatus</i>	Trace	Trace	0.9999
170	<i>Bathyagonus nigripinnis</i>	Trace	Trace	0.9999
171	<i>Crossaster borealis</i>	Trace	Trace	0.9999
172	<i>Chiroteuthis</i> sp.	Trace	Trace	0.9999

Table B-31.--Continued.

173 Bathophilus flemingi	Trace	Trace	0.9999
174 Asteronyx longifissa	Trace	Trace	0.9999
175 Sebastes jordani	Trace	Trace	0.9999
176 Solaster endeca	Trace	Trace	0.9999
177 Gonatus onyx	Trace	Trace	0.9999
178 Sardinops sagax	Trace	Trace	0.9999
179 Cephalopoda unident.	Trace	Trace	0.9999
180 Thaleichthys pacificus	Trace	Trace	0.9999
181 Stomphia coccinea	Trace	Trace	1.0000
182 Hippasteria sp.	Trace	Trace	1.0000
183 Mollusca (phylum)	Trace	Trace	1.0000
184 Anthomastus sp.	Trace	Trace	1.0000
185 Lycodes brevipes	Trace	Trace	1.0000
186 Pennatulacea (order)	Trace	Trace	1.0000
187 Pisaster brevispinus	Trace	Trace	1.0000
188 purple striated sea anemone	Trace	Trace	1.0000
189 Pagurus tanneri	Trace	Trace	1.0000
190 Lampanyctus sp.	Trace	Trace	1.0000
191 Bathylagus milleri	Trace	Trace	1.0000
192 Asteronyx loveni	Trace	Trace	1.0000
193 Lycodapus mandibularis	Trace	Trace	1.0000
194 Parastichopus californicus	Trace	Trace	1.0000
195 Ophiopholis longispina	Trace	Trace	1.0000
196 Lycodapus sp.	Trace	Trace	1.0000
197 Platyroctidae	Trace	Trace	1.0000
198 Benthalbella dentata	Trace	Trace	1.0000
199 Sagamichthys abei	Trace	Trace	1.0000
200 Ascidian unident.	Trace	Trace	1.0000
201 Bathyagonus pentacanthus	Trace	Trace	1.0000
202 Aphrodita sp.	Trace	Trace	1.0000
203 Stylatula sp.	Trace	Trace	1.0000
204 Anoplogaster cornuta	Trace	Trace	1.0000
205 Sipuncula (phylum)	Trace	Trace	1.0000
206 Neptunea lyrata	Trace	Trace	1.0000
207 Pagurus sp.	Trace	Trace	1.0000
208 Chiroteuthis calyx	Trace	Trace	1.0000
209 Tarletonbeania crenularis	Trace	Trace	1.0000
210 Pleuronectiformes larvae	Trace	Trace	1.0000
211 Leuroglossus stilbius	Trace	Trace	1.0000
212 Serrivomer sector	Trace	Trace	1.0000
213 Aristostomias scintillans	Trace	Trace	1.0000
214 Bathyplotes sp.	Trace	Trace	1.0000

Table B-31.--Continued.

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215 Bathylagidae unident.	Trace	Trace	1.0000
216 Melamphaidae	Trace	Trace	1.0000
217 Oregonia bifurca	Trace	Trace	1.0000
218 Sternoptychidae unident.	Trace	Trace	1.0000
219 compound ascidian unident.	Trace	Trace	1.0000
220 brachiopod unident.	Trace	Trace	1.0000
221 Gnathophausia ingens	Trace	Trace	1.0000
222 Crossaster papposus	Trace	Trace	1.0000
223 Gephyreaster swifti	Trace	Trace	1.0000
224 Calliostoma platinum	Trace	Trace	1.0000
225 Zoarcidae	Trace	Trace	1.0000
226 Callianassa sp.	Trace	Trace	1.0000
227 Gorgonacea (order)	Trace	Trace	1.0000
228 Periphylla periphylla	Trace	Trace	1.0000
229 Ophiura sp.	Trace	Trace	1.0000
230 Diaphus sp.	Trace	Trace	1.0000
231 shrimp unident.	Trace	Trace	1.0000
232 crab unident.	Trace	Trace	1.0000
233 Florometra serratissima	Trace	Trace	1.0000
234 Gersemia sp.	Trace	Trace	1.0000
235 Anotopterus pharao	Trace	Trace	1.0000
236 Ophiopholis sp.	Trace	Trace	1.0000
237 Polynoidae	Trace	Trace	1.0000
238 Isopoda (order)	Trace	Trace	1.0000
239 Pectinid unident.	Trace	Trace	1.0000
240 Agonidae	Trace	Trace	1.0000

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Table B-32.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the entire U.S. portion of the survey area (55-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Merluccius productus</i>	67.505	0.3715	0.3715
2	<i>Anoplopoma fimbria</i>	20.544	0.1131	0.4846
3	<i>Microstomus pacificus</i>	15.082	0.0830	0.5676
4	<i>Citharichthys sordidus</i>	8.560	0.0471	0.6147
5	<i>Glyptocephalus zachirus</i>	6.937	0.0382	0.6528
6	<i>Sebastes goodei</i>	6.177	0.0340	0.6868
7	<i>Sebastes jordani</i>	5.437	0.0299	0.7168
8	<i>Sebastes diploproa</i>	4.054	0.0223	0.7391
9	<i>Atheresthes stomias</i>	3.860	0.0212	0.7603
10	<i>Squalus acanthias</i>	3.590	0.0198	0.7801
11	<i>Parophrys vetulus</i>	3.059	0.0168	0.7969
12	<i>Theragra chalcogramma</i>	2.994	0.0165	0.8134
13	Scyphozoa (class)	2.964	0.0163	0.8297
14	<i>Clupea pallasii</i>	2.616	0.0144	0.8441
15	<i>Genyonemus lineatus</i>	2.311	0.0127	0.8568
16	<i>Sebastes saxicola</i>	2.290	0.0126	0.8694
17	<i>Brisaster latifrons</i>	1.788	0.0098	0.8792
18	<i>Sebastolobus alascanus</i>	1.539	0.0085	0.8877
19	<i>Ophiodon elongatus</i>	1.493	0.0082	0.8959
20	<i>Sebastes elongatus</i>	1.208	0.0066	0.9026
21	<i>Sebastes zacentrus</i>	1.007	0.0055	0.9081
22	<i>Raja rhina</i>	0.904	0.0050	0.9131
23	<i>Lyopsetta exilis</i>	0.820	0.0045	0.9176
24	<i>Sebastes flavidus</i>	0.744	0.0041	0.9217
25	<i>Sebastes crameri</i>	0.740	0.0041	0.9258
26	<i>Eopsetta jordani</i>	0.670	0.0037	0.9295
27	<i>Hydrolagus colliei</i>	0.655	0.0036	0.9331
28	<i>Trachurus symmetricus</i>	0.651	0.0036	0.9366
29	<i>Sebastes aurora</i>	0.649	0.0036	0.9402
30	<i>Lycodes cortezianus</i>	0.646	0.0036	0.9438
31	<i>Hippoglossus stenolepis</i>	0.598	0.0033	0.9471
32	<i>Sebastes pinniger</i>	0.535	0.0029	0.9500
33	<i>Sebastes alutus</i>	0.518	0.0028	0.9529
34	<i>Allocentrotus fragilis</i>	0.484	0.0027	0.9555
35	<i>Raja binoculata</i>	0.403	0.0022	0.9577
36	<i>Scomber japonicus</i>	0.367	0.0020	0.9598
37	<i>Somniosus pacificus</i>	0.333	0.0018	0.9616
38	<i>Microgadus proximus</i>	0.313	0.0017	0.9633
39	<i>Pandalus jordani</i>	0.258	0.0014	0.9647
40	<i>Cancer magister</i>	0.251	0.0014	0.9661
41	<i>Loligo opalescens</i>	0.243	0.0013	0.9674

Table B-32.--Continued.

42	<i>Metridium</i> sp.	0.229	0.0013	0.9687
43	Scyliorhinidae	0.216	0.0012	0.9699
44	<i>Apristurus</i> brunneus	0.215	0.0012	0.9711
45	<i>Lycodes</i> diapterus	0.206	0.0011	0.9722
46	<i>Sebastes</i> melanostomus	0.202	0.0011	0.9733
47	<i>Alosa</i> sapidissima	0.199	0.0011	0.9744
48	<i>Luidia</i> foliolata	0.197	0.0011	0.9755
49	<i>Oncorhynchus</i> tshawytscha	0.180	0.0010	0.9765
50	<i>Sebastes</i> aleutianus	0.176	0.0010	0.9775
51	<i>Hippoglossoides</i> elassodon	0.175	0.0010	0.9784
52	<i>Porichthys</i> notatus	0.167	0.0009	0.9793
53	<i>Sebastolobus</i> altivelis	0.152	0.0008	0.9802
54	<i>Bathyraja</i> interrupta	0.146	0.0008	0.9810
55	<i>Thaleichthys</i> pacificus	0.135	0.0007	0.9817
56	<i>Argentina</i> sialis	0.129	0.0007	0.9824
57	<i>Gadus</i> macrocephalus	0.128	0.0007	0.9831
58	<i>Parastichopus</i> leucothele	0.110	0.0006	0.9838
59	<i>Moroteuthis</i> robusta	0.102	0.0006	0.9843
60	<i>Metridium</i> farcimen	0.097	0.0005	0.9848
61	<i>Zalembeus</i> rosaceus	0.096	0.0005	0.9854
62	<i>Sebastes</i> proriger	0.095	0.0005	0.9859
63	<i>Sebastes</i> miniatus	0.094	0.0005	0.9864
64	<i>Strongylocentrotus</i> franciscanus	0.088	0.0005	0.9869
65	<i>Brisaster</i> sp.	0.082	0.0004	0.9873
66	<i>Sebastes</i> semicinctus	0.075	0.0004	0.9878
67	<i>Octopus</i> dofleini	0.071	0.0004	0.9881
68	<i>Rathbunaster</i> californicus	0.069	0.0004	0.9885
69	<i>Sebastes</i> helvomaculatus	0.065	0.0004	0.9889
70	<i>Paractinostola</i> faeculenta	0.065	0.0004	0.9892
71	<i>Cyanea</i> capillata	0.064	0.0004	0.9896
72	<i>Sebastes</i> babcocki	0.063	0.0003	0.9899
73	<i>Lycodes</i> pacificus	0.061	0.0003	0.9903
74	<i>Parmaturus</i> xaniurus	0.059	0.0003	0.9906
75	<i>Pleuronichthys</i> decurrens	0.055	0.0003	0.9909
76	<i>Sebastes</i> wilsoni	0.055	0.0003	0.9912
77	<i>Pseudostichopus</i> mollis	0.054	0.0003	0.9915
78	<i>Sebastes</i> paucispinis	0.054	0.0003	0.9918
79	<i>Lepidopsetta</i> bilineata	0.053	0.0003	0.9921
80	<i>Aphrocallistes</i> vastus	0.051	0.0003	0.9924
81	<i>Stylatula</i> sp.	0.048	0.0003	0.9926
82	<i>Sebastes</i> ruberrimus	0.044	0.0002	0.9929
83	<i>Icosteus</i> aenigmaticus	0.040	0.0002	0.9931
84	Porifera	0.039	0.0002	0.9933
85	<i>Sebastes</i> entomelas	0.039	0.0002	0.9935

Table B-32.--Continued.

86	<i>Icelinus filamentosus</i>	0.038	0.0002	0.9937
87	<i>Liponema brevicornis</i>	0.036	0.0002	0.9939
88	<i>Myxoderma platyacanthum</i>	0.035	0.0002	0.9941
89	<i>Pycnopodia helianthoides</i>	0.034	0.0002	0.9943
90	Thaliacea unident.	0.033	0.0002	0.9945
91	<i>Henricia</i> sp.	0.032	0.0002	0.9947
92	<i>Gorgonocephalus eucnemis</i>	0.029	0.0002	0.9948
93	<i>Peprilus simillimus</i>	0.028	0.0002	0.9950
94	<i>Platichthys stellatus</i>	0.026	0.0001	0.9951
95	<i>Sebastes chlorostictus</i>	0.025	0.0001	0.9953
96	<i>Torpedo californica</i>	0.025	0.0001	0.9954
97	<i>Acipenser medirostris</i>	0.025	0.0001	0.9956
98	<i>Sebastes maliger</i>	0.023	0.0001	0.9957
99	<i>Lopholithodes foraminatus</i>	0.023	0.0001	0.9958
100	skate egg case unident.	0.023	0.0001	0.9959
101	Holothuroidea unident.	0.023	0.0001	0.9961
102	<i>Neptunea</i> sp.	0.023	0.0001	0.9962
103	<i>Sebastes caurinus</i>	0.022	0.0001	0.9963
104	<i>Parastichopus californicus</i>	0.022	0.0001	0.9964
105	Argentinidae	0.022	0.0001	0.9965
106	<i>Sebastes borealis</i>	0.020	0.0001	0.9966
107	<i>Engraulis mordax</i>	0.019	0.0001	0.9968
108	<i>Sardinops sagax</i>	0.019	0.0001	0.9969
109	<i>Neptunea amianta</i>	0.019	0.0001	0.9970
110	<i>Sebastes brevispinis</i>	0.016	0.0001	0.9970
111	Ophiuroid unident.	0.016	0.0001	0.9971
112	<i>Paralichthys californicus</i>	0.015	0.0001	0.9972
113	<i>Pasiphaea pacifica</i>	0.015	0.0001	0.9973
114	Virgularidae	0.014	0.0001	0.9974
115	<i>Prionace glauca</i>	0.014	0.0001	0.9975
116	<i>Pannychia moseleyi</i>	0.013	0.0001	0.9975
117	<i>Chionoecetes tanneri</i>	0.013	0.0001	0.9976
118	<i>Pandalus platyceros</i>	0.013	0.0001	0.9977
119	<i>Careproctus melanurus</i>	0.013	0.0001	0.9978
120	<i>Sebastes rufus</i>	0.013	0.0001	0.9978
121	<i>Hippasteria spinosa</i>	0.013	0.0001	0.9979
122	<i>Ctenodiscus crispatus</i>	0.012	0.0001	0.9980
123	<i>Galeorhinus galeus</i>	0.012	0.0001	0.9980
124	<i>Stylasterias forreri</i>	0.012	0.0001	0.9981
125	Paguridae	0.012	0.0001	0.9981
126	<i>Aurelia</i> sp.	0.011	0.0001	0.9982
127	<i>Chrysaora</i> sp.	0.011	0.0001	0.9983
128	<i>Antimora microlepis</i>	0.010	0.0001	0.9983
129	<i>Berryteuthis magister</i>	0.010	0.0001	0.9984

Table B-32.--Continued.

130 Hexagrammos decagrammus	0.009	0.0001	0.9984
131 Octopodidae	0.009	Trace	0.9985
132 Cryptacanthodes giganteus	0.009	Trace	0.9985
133 Chilara taylori	0.008	Trace	0.9986
134 Psettichthys melanostictus	0.008	Trace	0.9986
135 Stomphia sp.	0.008	Trace	0.9986
136 Gonatopsis borealis	0.007	Trace	0.9987
137 Opisthoteuthis californiana	0.007	Trace	0.9987
138 Raja inornata	0.007	Trace	0.9988
139 Parastichopus sp.	0.006	Trace	0.9988
140 Allosmerus elongatus	0.006	Trace	0.9988
141 Histioteuthis sp.	0.006	Trace	0.9989
142 Zoarcidae	0.006	Trace	0.9989
143 Asteroidea unident.	0.006	Trace	0.9990
144 Pleurobranchaea californica	0.006	Trace	0.9990
145 Strongylocentrotus droebachiensis	0.006	Trace	0.9990
146 Sebastes hopkinsi	0.006	Trace	0.9990
147 Lycodes brevipes	0.006	Trace	0.9991
148 Myctophidae	0.006	Trace	0.9991
149 Oncorhynchus kisutch	0.005	Trace	0.9991
150 Albatrossia pectoralis	0.005	Trace	0.9992
151 Isopsetta isolepis	0.005	Trace	0.9992
152 Paralithodes californiensis	0.004	Trace	0.9992
153 Actiniaria (order)	0.004	Trace	0.9992
154 vase sponge	0.004	Trace	0.9993
155 Pasiphaeidae	0.004	Trace	0.9993
156 Gonatus sp.	0.004	Trace	0.9993
157 Ophiura sarsi	0.004	Trace	0.9993
158 Laqueus californianus	0.003	Trace	0.9994
159 Mediaster aequalis	0.003	Trace	0.9994
160 Careproctus sp.	0.003	Trace	0.9994
161 Nudibranchia unident.	0.003	Trace	0.9994
162 Sebastes levis	0.003	Trace	0.9994
163 Cancer productus	0.003	Trace	0.9994
164 Leptychaster sp.	0.003	Trace	0.9994
165 Trachipterus altivelis	0.003	Trace	0.9995
166 Sebastes reedi	0.003	Trace	0.9995
167 Actinauge verrillii	0.003	Trace	0.9995
168 Fusitriton oregonensis	0.003	Trace	0.9995
169 Myxinidae	0.003	Trace	0.9995
170 Pseudarchaster parelii	0.003	Trace	0.9996
171 Diaphus theta	0.002	Trace	0.9996
172 Aphroditidae	0.002	Trace	0.9996



Table B-32.--Continued.

173	<i>Ptilosarcus gurneyi</i>	0.002	Trace	0.9996
174	<i>Pisaster brevispinus</i>	0.002	Trace	0.9996
175	<i>Bathyraja</i> sp.	0.002	Trace	0.9996
176	brachiopod unident.	0.002	Trace	0.9996
177	<i>Pandalopsis dispar</i>	0.002	Trace	0.9996
178	<i>Bathyagonus pentacanthus</i>	0.002	Trace	0.9996
179	<i>Sebastes melanops</i>	0.002	Trace	0.9996
180	Gastropod unident.	0.002	Trace	0.9997
181	<i>Rossia pacifica</i>	0.002	Trace	0.9997
182	<i>Molpadia intermedia</i>	0.002	Trace	0.9997
183	<i>Zaniolepis latipinnis</i>	0.002	Trace	0.9997
184	<i>Bothrocarum brunneum</i>	0.002	Trace	0.9997
185	Petromyzontidae	0.002	Trace	0.9997
186	<i>Dermasterias imbricata</i>	0.002	Trace	0.9997
187	<i>Buccinum</i> sp.	0.002	Trace	0.9997
188	Echinacea unident.	0.001	Trace	0.9997
189	<i>Pteraster tesselatus</i>	0.001	Trace	0.9997
190	<i>Molpadia</i> sp.	0.001	Trace	0.9998
191	<i>Pleuronichthys ritteri</i>	0.001	Trace	0.9998
192	<i>Diplopteraster multipes</i>	0.001	Trace	0.9998
193	squid unident.	0.001	Trace	0.9998
194	<i>Anthoptilum grandiflorum</i>	0.001	Trace	0.9998
195	<i>Asterina miniata</i>	0.001	Trace	0.9998
196	<i>Pagurus confragosus</i>	0.001	Trace	0.9998
197	<i>Tritonia</i> sp.	0.001	Trace	0.9998
198	<i>Apristurus brunneus</i>	0.001	Trace	0.9998
199	Penaecidae	0.001	Trace	0.9998
200	<i>Pseudostichopus</i> sp.	0.001	Trace	0.9998
201	<i>Alepisaurus ferox</i>	0.001	Trace	0.9998
202	<i>Sebastes</i> sp.	0.001	Trace	0.9998
203	<i>Crossaster papposus</i>	0.001	Trace	0.9998
204	<i>Bathyraja aleutica</i>	0.001	Trace	0.9998
205	<i>Thrissacanthias penicillatus</i>	0.001	Trace	0.9998
206	<i>Mursia gaudichaudii</i>	0.001	Trace	0.9998
207	<i>Lampetra tridentata</i>	0.001	Trace	0.9998
208	<i>Sebastes rosenblatti</i>	0.001	Trace	0.9998
209	<i>Gephyreaster swifti</i>	0.001	Trace	0.9998
210	<i>Sicyonia ingentis</i>	0.001	Trace	0.9998
211	<i>Hexanchus griseus</i>	0.001	Trace	0.9999
212	<i>Careproctus cypselurus</i>	0.001	Trace	0.9999
213	<i>Hyperprosopon anale</i>	0.001	Trace	0.9999
214	<i>Anarrhichthys ocellatus</i>	0.001	Trace	0.9999

Table B-32.--Continued.

215 gastropod eggs	0.001	Trace	0.9999
216 Chauliodus macouni	0.001	Trace	0.9999
217 Solaster sp.	0.001	Trace	0.9999
218 Hexactinellida	0.001	Trace	0.9999
219 Paralithodes rathbuni	0.001	Trace	0.9999
220 Cheiraster (=Luidiaster)	0.001	Trace	0.9999
221 Bathygonus nigripinnis	0.001	Trace	0.9999
222 Grimpoteuthis albatrossi	0.001	Trace	0.9999
223 Calinaticina oldroyi	0.001	Trace	0.9999
224 Asterias amurensis	0.001	Trace	0.9999
225 Hemilepidotus spinosus	Trace	Trace	0.9999
226 Hippasteria californica	Trace	Trace	0.9999
227 Coryphaenoides acrolepis	Trace	Trace	0.9999
228 Liparidinae	Trace	Trace	0.9999
229 Polinices sp.	Trace	Trace	0.9999
230 pink hormathiid anemone	Trace	Trace	0.9999
231 Poraniopsis inflata	Trace	Trace	0.9999
232 Stomphia coccinea	Trace	Trace	0.9999
233 Nezumia stelgidolepis	Trace	Trace	0.9999
234 Psolus sp.	Trace	Trace	0.9999
235 Histioteuthis hoylei	Trace	Trace	0.9999
236 Urticina sp.	Trace	Trace	0.9999
237 Solaster stimpsoni	Trace	Trace	0.9999
238 Tactostoma macropus	Trace	Trace	0.9999
239 Spatangus californicus	Trace	Trace	0.9999
240 Patinopecten caurinus	Trace	Trace	0.9999
241 Sebastes rosaceus	Trace	Trace	0.9999
242 Sebastes carnatus	Trace	Trace	0.9999
243 Pagurus capillatus	Trace	Trace	0.9999
244 Pennatulacea (order)	Trace	Trace	1.0000
245 Solaster paxillatus	Trace	Trace	1.0000
246 Neptunea pribiloffensis	Trace	Trace	1.0000
247 Sergestes sp.	Trace	Trace	1.0000
248 Mediaster sp.	Trace	Trace	1.0000
249 Orthasterias koehleri	Trace	Trace	1.0000
250 Hippasteria sp.	Trace	Trace	1.0000
251 Crossaster borealis	Trace	Trace	1.0000
252 Lepidopus xantusi	Trace	Trace	1.0000
253 Astropecten californicus	Trace	Trace	1.0000
254 Ocella verrucosa	Trace	Trace	1.0000
255 Cancer gracilis	Trace	Trace	1.0000
256 Chorilia longipes	Trace	Trace	1.0000

Table B-32.--Continued.

257 Melanostomiidae	Trace	Trace	1.0000
258 Chauliodontidae	Trace	Trace	1.0000
259 Pseudarchaster sp.	Trace	Trace	1.0000
260 Neomenia sp.	Trace	Trace	1.0000
261 Acantholithodes hispidus	Trace	Trace	1.0000
262 Thetys vagina	Trace	Trace	1.0000
263 Idiacanthus antrostomus	Trace	Trace	1.0000
264 Octopus rubescens	Trace	Trace	1.0000
265 Solaster endeca	Trace	Trace	1.0000
266 Lampanyctus ritteri	Trace	Trace	1.0000
267 Agonopsis vulsa	Trace	Trace	1.0000
268 Antiplanes sp.	Trace	Trace	1.0000
269 Onychoteuthidae	Trace	Trace	1.0000
270 Sagamichthys abei	Trace	Trace	1.0000
271 Ophiomusium jolliensis	Trace	Trace	1.0000
272 Gonatus onyx	Trace	Trace	1.0000
273 Sipuncula (phylum)	Trace	Trace	1.0000
274 Chionoecetes angulatus	Trace	Trace	1.0000
275 Styela rustica	Trace	Trace	1.0000
276 Embassichthys bathybius	Trace	Trace	1.0000
277 Pleuronichthys verticalis	Trace	Trace	1.0000
278 Leptocottus armatus	Trace	Trace	1.0000
279 red striated sea anemone	Trace	Trace	1.0000
280 Chiroteuthis sp.	Trace	Trace	1.0000
281 Ascidian unident.	Trace	Trace	1.0000
282 pineapple cucumber	Trace	Trace	1.0000
283 Raja binoculata	Trace	Trace	1.0000
284 Tethya sp.	Trace	Trace	1.0000
285 Tritonia diomedea	Trace	Trace	1.0000
286 Buccinum strigillatum	Trace	Trace	1.0000
287 Pentamera sp.	Trace	Trace	1.0000
288 Lophaster furcilliger	Trace	Trace	1.0000
289 Lethasterias nanimensis	Trace	Trace	1.0000
290 Pseudarchaster dissonus	Trace	Trace	1.0000
291 Vampyroteuthis infernalis	Trace	Trace	1.0000
292 Mollusca (phylum)	Trace	Trace	1.0000
293 Stenobrachius leucopsarus	Trace	Trace	1.0000
294 Chitonotus pugetensis	Trace	Trace	1.0000
295 Bathylagus sp.	Trace	Trace	1.0000
296 Ceramaster japonicus	Trace	Trace	1.0000
297 Asteronyx loveni	Trace	Trace	1.0000
298 Sebastes dalli	Trace	Trace	1.0000

Table B-32.--Continued.

299 <i>Bathophilus flemingi</i>	Trace	Trace	1.0000
300 <i>Scorpaena guttata</i>	Trace	Trace	1.0000
301 <i>Icelinus oculatus</i>	Trace	Trace	1.0000
302 <i>Sebastes emphaeus</i>	Trace	Trace	1.0000
303 <i>Enophrys taurina</i>	Trace	Trace	1.0000
304 <i>Ophiopholis longispina</i>	Trace	Trace	1.0000
305 <i>Malacocottus kincaidi</i>	Trace	Trace	1.0000
306 Bathymasteridae	Trace	Trace	1.0000
307 <i>Asteronyx longifissa</i>	Trace	Trace	1.0000
308 Mytilidae	Trace	Trace	1.0000
309 <i>Ophidion scrippsae</i>	Trace	Trace	1.0000
310 <i>Pagurus</i> sp.	Trace	Trace	1.0000
311 <i>Pagurus tanneri</i>	Trace	Trace	1.0000
312 <i>Icelinus tenuis</i>	Trace	Trace	1.0000
313 <i>Chionoecetes bairdi</i>	Trace	Trace	1.0000
314 <i>Trichodon trichodon</i>	Trace	Trace	1.0000
315 Cephalopoda unident.	Trace	Trace	1.0000
316 <i>Mya</i> sp.	Trace	Trace	1.0000
317 Platyhelminthes (phylum)	Trace	Trace	1.0000
318 <i>Pteraster militaris</i>	Trace	Trace	1.0000
319 <i>Anthomastus</i> sp.	Trace	Trace	1.0000
320 Shark egg	Trace	Trace	1.0000
321 <i>Aphrodita</i> sp.	Trace	Trace	1.0000
322 <i>Munida quadrispina</i>	Trace	Trace	1.0000
323 <i>Chiroteuthis calyx</i>	Trace	Trace	1.0000
324 <i>Pagurus brandti</i>	Trace	Trace	1.0000
325 <i>Taningia danae</i>	Trace	Trace	1.0000
326 <i>Pandalus hypsinotus</i>	Trace	Trace	1.0000
327 purple striated sea anemone	Trace	Trace	1.0000
328 <i>Lycodapus mandibularis</i>	Trace	Trace	1.0000
329 <i>Ceramaster patagonicus</i>	Trace	Trace	1.0000
330 <i>Polinices pallidus</i>	Trace	Trace	1.0000
331 <i>Icelinus burchami</i>	Trace	Trace	1.0000
332 <i>Lampanyctus</i> sp.	Trace	Trace	1.0000
333 <i>Bathylagus milleri</i>	Trace	Trace	1.0000
334 crinoid unident.	Trace	Trace	1.0000
335 <i>Symphurus atricauda</i>	Trace	Trace	1.0000
336 crab unident.	Trace	Trace	1.0000
337 <i>Physiculus rastrelliger</i>	Trace	Trace	1.0000
338 Isopoda (order)	Trace	Trace	1.0000
339 <i>Xeneretmus latifrons</i>	Trace	Trace	1.0000
340 <i>Pandalus borealis</i>	Trace	Trace	1.0000

Table B-32.--Continued.

341	<i>Ronquilus jordani</i>	Trace	Trace	1.0000
342	<i>Lycodapus</i> sp.	Trace	Trace	1.0000
343	Platyroctidae	Trace	Trace	1.0000
344	<i>Benthalbella dentata</i>	Trace	Trace	1.0000
345	<i>Pandalus tridens</i>	Trace	Trace	1.0000
346	<i>Tarletonbeania crenularis</i>	Trace	Trace	1.0000
347	Ctenophora (phylum)	Trace	Trace	1.0000
348	Polychaeta (class)	Trace	Trace	1.0000
349	<i>Polinices lewisi</i>	Trace	Trace	1.0000
350	<i>Malacocottus zonurus</i>	Trace	Trace	1.0000
351	<i>Anoplogaster cornuta</i>	Trace	Trace	1.0000
352	<i>Ammodytes hexapterus</i>	Trace	Trace	1.0000
353	Cottidae	Trace	Trace	1.0000
354	<i>Neptunea lyrata</i>	Trace	Trace	1.0000
355	Agonidae	Trace	Trace	1.0000
356	<i>Rhabdocalyptus</i> sp.	Trace	Trace	1.0000
357	Pleuronectiformes larvae	Trace	Trace	1.0000
358	<i>Podothecus acipenserinus</i>	Trace	Trace	1.0000
359	<i>Lyconectes aleutensis</i>	Trace	Trace	1.0000
360	<i>Eptatretus stouti</i>	Trace	Trace	1.0000
361	<i>Leuroglossus stilbius</i>	Trace	Trace	1.0000
362	<i>Notolepsis risso</i>	Trace	Trace	1.0000
363	<i>Paricelinus hopliticus</i>	Trace	Trace	1.0000
364	<i>Serrivomer sector</i>	Trace	Trace	1.0000
365	<i>Aristostomias scintillans</i>	Trace	Trace	1.0000
366	<i>Florometra serratissima</i>	Trace	Trace	1.0000
367	fish unident.	Trace	Trace	1.0000
368	<i>Crangon communis</i>	Trace	Trace	1.0000
369	<i>Cololabis saira</i>	Trace	Trace	1.0000
370	<i>Gersemia</i> sp.	Trace	Trace	1.0000
371	<i>Bathylotes</i> sp.	Trace	Trace	1.0000
372	Nemichthyidae	Trace	Trace	1.0000
373	Polynoidae	Trace	Trace	1.0000
374	Bathylagidae unident.	Trace	Trace	1.0000
375	Sternoptychidae unident.	Trace	Trace	1.0000
376	Melamphaidae	Trace	Trace	1.0000
377	<i>Pagurus aleuticus</i>	Trace	Trace	1.0000
378	<i>Liparis pulchellus</i>	Trace	Trace	1.0000
379	<i>Henricia aspera</i>	Trace	Trace	1.0000
380	<i>Oregonia bifurca</i>	Trace	Trace	1.0000
381	compound ascidian unident.	Trace	Trace	1.0000
382	<i>Bivalvia</i> unident.	Trace	Trace	1.0000

Table B-32.--Continued.

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383 Hydrolagus collicii	Trace	Trace	1.0000
384 Zaprora silenus	Trace	Trace	1.0000
385 Crangon sp.	Trace	Trace	1.0000
386 Alyconaria unident.	Trace	Trace	1.0000
387 Pandalus stenolepis	Trace	Trace	1.0000
388 Gnathophausia ingens	Trace	Trace	1.0000
389 Calliostoma platinum	Trace	Trace	1.0000
390 shrimp unident.	Trace	Trace	1.0000
391 Callianassa sp.	Trace	Trace	1.0000
392 Triglops macellus	Trace	Trace	1.0000
393 Armina californica	Trace	Trace	1.0000
394 Gorgonacea (order)	Trace	Trace	1.0000
395 Periphylla periphylla	Trace	Trace	1.0000
396 Florometra sp.	Trace	Trace	1.0000
397 Ophiura sp.	Trace	Trace	1.0000
398 Diaphus sp.	Trace	Trace	1.0000
399 Benthoplectinidae	Trace	Trace	1.0000
400 Anotopterus pharao	Trace	Trace	1.0000
401 Euphausiacea (order)	Trace	Trace	1.0000
402 Ophiopholis sp.	Trace	Trace	1.0000
403 Pectinid unident.	Trace	Trace	1.0000

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Table B-33.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the entire survey area, shallow stratum (55-183 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Merluccius productus</i>	85.763	0.4112	0.4112
2	<i>Anoplopoma fimbria</i>	23.867	0.1144	0.5256
3	<i>Citharichthys sordidus</i>	13.582	0.0651	0.5908
4	<i>Theragra chalcogramma</i>	9.711	0.0466	0.6373
5	<i>Squalus acanthias</i>	9.144	0.0438	0.6812
6	<i>Microstomus pacificus</i>	7.406	0.0355	0.7167
7	<i>Sebastes goodei</i>	7.329	0.0351	0.7518
8	<i>Glyptocephalus zachirus</i>	5.600	0.0268	0.7787
9	<i>Atheresthes stomias</i>	5.336	0.0256	0.8042
10	<i>Parophrys vetulus</i>	4.611	0.0221	0.8264
11	Scyphozoa (class)	4.282	0.0205	0.8469
12	<i>Clupea pallasii</i>	3.963	0.0190	0.8659
13	<i>Genyonemus lineatus</i>	3.474	0.0167	0.8825
14	<i>Sebastes flavidus</i>	1.889	0.0091	0.8916
15	<i>Thaleichthys pacificus</i>	1.861	0.0089	0.9005
16	<i>Sebastes elongatus</i>	1.606	0.0077	0.9082
17	<i>Brisaster latifrons</i>	1.183	0.0057	0.9139
18	<i>Sebastes saxicola</i>	1.163	0.0056	0.9195
19	<i>Lyopsetta exilis</i>	1.135	0.0054	0.9249
20	<i>Eopsetta jordani</i>	1.098	0.0053	0.9302
21	<i>Ophiodon elongatus</i>	1.036	0.0050	0.9351
22	<i>Trachurus symmetricus</i>	0.980	0.0047	0.9398
23	<i>Sebastes pinniger</i>	0.804	0.0039	0.9437
24	<i>Raja rhina</i>	0.783	0.0038	0.9474
25	<i>Hippoglossoides elassodon</i>	0.776	0.0037	0.9512
26	<i>Hippoglossus stenolepis</i>	0.753	0.0036	0.9548
27	<i>Microgadus proximus</i>	0.726	0.0035	0.9583
28	<i>Hydrolagus colliei</i>	0.637	0.0031	0.9613
29	<i>Raja binoculata</i>	0.599	0.0029	0.9642
30	<i>Scomber japonicus</i>	0.553	0.0026	0.9668
31	<i>Sebastes proriger</i>	0.431	0.0021	0.9689
32	<i>Alosa sapidissima</i>	0.400	0.0019	0.9708
33	<i>Loligo opalescens</i>	0.363	0.0017	0.9726
34	<i>Cancer magister</i>	0.355	0.0017	0.9743
35	<i>Pandalus jordani</i>	0.354	0.0017	0.9760
36	<i>Sebastes jordani</i>	0.332	0.0016	0.9776
37	<i>Metridium</i> sp.	0.330	0.0016	0.9791
38	<i>Oncorhynchus tshawytscha</i>	0.281	0.0013	0.9805
39	<i>Gadus macrocephalus</i>	0.259	0.0012	0.9817
40	<i>Porichthys notatus</i>	0.250	0.0012	0.9829
41	<i>Luidia foliolata</i>	0.223	0.0011	0.9840

Table B-33.--Continued.

42	<i>Argentina sialis</i>	0.193	0.0009	0.9849
43	<i>Sebastes crameri</i>	0.180	0.0009	0.9858
44	<i>Lycodes pacificus</i>	0.173	0.0008	0.9866
45	<i>Metridium farcimen</i>	0.163	0.0008	0.9874
46	<i>Zalembeus rosaceus</i>	0.145	0.0007	0.9881
47	<i>Sebastes miniatus</i>	0.140	0.0007	0.9888
48	<i>Sebastes semicinctus</i>	0.113	0.0005	0.9893
49	<i>Octopus dofleini</i>	0.099	0.0005	0.9898
50	<i>Lepidopsetta bilineata</i>	0.097	0.0005	0.9902
51	<i>Pleuronichthys decurrens</i>	0.091	0.0004	0.9907
52	<i>Cyanea capillata</i>	0.087	0.0004	0.9911
53	<i>Sebastes wilsoni</i>	0.078	0.0004	0.9915
54	<i>Sebastes diploproa</i>	0.078	0.0004	0.9918
55	<i>Sebastes ruberrimus</i>	0.077	0.0004	0.9922
56	<i>Stylatula</i> sp.	0.072	0.0003	0.9926
57	<i>Sardinops sagax</i>	0.064	0.0003	0.9929
58	<i>Lycodes cortezianus</i>	0.063	0.0003	0.9932
59	<i>Allocentrotus fragilis</i>	0.059	0.0003	0.9934
60	<i>Sebastes helvomaculatus</i>	0.056	0.0003	0.9937
61	<i>Sebastes paucispinis</i>	0.055	0.0003	0.9940
62	<i>Rathbunaster californicus</i>	0.054	0.0003	0.9942
63	<i>Sebastes brevispinis</i>	0.045	0.0002	0.9944
64	<i>Gorgonocephalus eucnemis</i>	0.043	0.0002	0.9946
65	<i>Peprilus simillimus</i>	0.042	0.0002	0.9948
66	<i>Pycnopodia helianthoides</i>	0.042	0.0002	0.9950
67	<i>Platichthys stellatus</i>	0.040	0.0002	0.9952
68	<i>Sebastes maliger</i>	0.038	0.0002	0.9954
69	<i>Acipenser medirostris</i>	0.037	0.0002	0.9956
70	<i>Bathyraja interrupta</i>	0.036	0.0002	0.9958
71	<i>Sebastolobus alascanus</i>	0.036	0.0002	0.9960
72	<i>Sebastes chlorostictus</i>	0.036	0.0002	0.9961
73	<i>Sebastes caurinus</i>	0.034	0.0002	0.9963
74	skate egg case unident.	0.034	0.0002	0.9964
75	<i>Parastichopus leucothele</i>	0.033	0.0002	0.9966
76	<i>Sebastes entomelas</i>	0.031	0.0001	0.9968
77	<i>Icelinus filamentosus</i>	0.031	0.0001	0.9969
78	<i>Parastichopus californicus</i>	0.031	0.0001	0.9970
79	<i>Sebastes aleutianus</i>	0.030	0.0001	0.9972
80	<i>Torpedo californica</i>	0.029	0.0001	0.9973
81	<i>Engraulis mordax</i>	0.029	0.0001	0.9975
82	Argentinidae	0.029	0.0001	0.9976
83	<i>Lopholithodes foraminatus</i>	0.029	0.0001	0.9978
84	Thaliacea unident.	0.029	0.0001	0.9979
85	<i>Sebastes alutus</i>	0.025	0.0001	0.9980



Table B-33.--Continued.

86	<i>Paralichthys californicus</i>	0.023	0.0001	0.9981
87	Virgularidae	0.021	0.0001	0.9982
88	<i>Sebastes zacentrus</i>	0.020	0.0001	0.9983
89	<i>Pandalopsis dispar</i>	0.019	0.0001	0.9984
90	<i>Galeorhinus galeus</i>	0.018	0.0001	0.9985
91	<i>Stylasterias forreri</i>	0.017	0.0001	0.9986
92	<i>Aurelia</i> sp.	0.015	0.0001	0.9986
93	<i>Hippasteria spinosa</i>	0.015	0.0001	0.9987
94	<i>Hexagrammos decagrammus</i>	0.014	0.0001	0.9988
95	<i>Psettichthys melanostictus</i>	0.013	0.0001	0.9988
96	<i>Raja inornata</i>	0.011	0.0001	0.9989
97	<i>Chrysaora</i> sp.	0.010	0.0000	0.9990
98	<i>Allosmerus elongatus</i>	0.010	Trace	0.9990
99	<i>Molpadia intermedia</i>	0.009	Trace	0.9990
100	<i>Strongylocentrotus droebachiensis</i>	0.009	Trace	0.9991
101	<i>Cryptacanthodes giganteus</i>	0.008	Trace	0.9991
102	<i>Isopsetta isolepis</i>	0.008	Trace	0.9992
103	<i>Oncorhynchus kisutch</i>	0.008	Trace	0.9992
104	<i>Sebastes hopkinsi</i>	0.008	Trace	0.9992
105	Zoarcidae	0.008	Trace	0.9993
106	<i>Chilara taylori</i>	0.007	Trace	0.9993
107	<i>Oncorhynchus gorboscha</i>	0.006	Trace	0.9993
108	Holothuroidea unident.	0.006	Trace	0.9994
109	<i>Pleurobranchaea californica</i>	0.006	Trace	0.9994
110	<i>Pandalus platyceros</i>	0.005	Trace	0.9994
111	<i>Laqueus californianus</i>	0.005	Trace	0.9994
112	Aphroditidae	0.005	Trace	0.9995
113	<i>Paralithodes californiensis</i>	0.005	Trace	0.9995
114	<i>Parastichopus</i> sp.	0.005	Trace	0.9995
115	<i>Stomphia</i> sp.	0.004	Trace	0.9995
116	<i>Apristurus brunneus</i>	0.004	Trace	0.9996
117	<i>Nudibranchia</i> unident.	0.004	Trace	0.9996
118	<i>Cancer productus</i>	0.004	Trace	0.9996
119	Porifera	0.004	Trace	0.9996
120	Actiniaria (order)	0.004	Trace	0.9996
121	<i>Bathyraja</i> sp.	0.003	Trace	0.9996
122	<i>Pisaster brevispinus</i>	0.003	Trace	0.9997
123	brachiopod unident.	0.003	Trace	0.9997
124	<i>Lycodes brevipes</i>	0.003	Trace	0.9997
125	vase sponge	0.003	Trace	0.9997
126	<i>Sebastes melanops</i>	0.003	Trace	0.9997
127	<i>Brisaster</i> sp.	0.003	Trace	0.9997
128	<i>Zaniolepis latipinnis</i>	0.003	Trace	0.9997
129	<i>Dermasterias imbricata</i>	0.003	Trace	0.9998

Table B-33.--Continued.

130 Mediaster aequalis	0.002	Trace	0.9998
131 Rossia pacifica	0.002	Trace	0.9998
132 Fusitriton oregonensis	0.002	Trace	0.9998
133 Myxinidae	0.002	Trace	0.9998
134 Pleuronichthys ritteri	0.002	Trace	0.9998
135 Sebastes babcocki	0.002	Trace	0.9998
136 Asterina miniata	0.002	Trace	0.9998
137 Penaeidae	0.001	Trace	0.9998
138 Crossaster papposus	0.001	Trace	0.9998
139 Mursia gaudichaudii	0.001	Trace	0.9998
140 Bathyagonus pentacanthus	0.001	Trace	0.9998
141 Molpadia sp.	0.001	Trace	0.9998
142 Echinacea unident.	0.001	Trace	0.9998
143 Sicyonia ingentis	0.001	Trace	0.9999
144 Hexanchus griseus	0.001	Trace	0.9999
145 Hyperprosopon anale	0.001	Trace	0.9999
146 Tritonia sp.	0.001	Trace	0.9999
147 Anarrhichthys ocellatus	0.001	Trace	0.9999
148 Sebastes melanostomus	0.001	Trace	0.9999
149 Octopodidae	0.001	Trace	0.9999
150 Sebastes sp.	0.001	Trace	0.9999
151 Asterias amurensis	0.001	Trace	0.9999
152 Berryteuthis magister	0.001	Trace	0.9999
153 Polinices sp.	0.001	Trace	0.9999
154 Hemilepidotus spinosus	0.001	Trace	0.9999
155 Parmaturus xaniurus	0.001	Trace	0.9999
156 Gephyreaster swifti	0.001	Trace	0.9999
157 Pseudarchaster parelii	0.001	Trace	0.9999
158 Pseudostichopus mollis	0.001	Trace	0.9999
159 Urticina sp.	0.001	Trace	0.9999
160 Asteroidea unident.	0.001	Trace	0.9999
161 Chionoecetes tanneri	0.001	Trace	0.9999
162 Solaster sp.	0.001	Trace	0.9999
163 Histioteuthis sp.	0.001	Trace	0.9999
164 Patinopecten caurinus	0.001	Trace	0.9999
165 Sebastes rosaceus	0.001	Trace	0.9999
166 Sebastes carnatus	0.001	Trace	0.9999
167 red striated sea anemone	Trace	Trace	0.9999
168 Ptilosarcus gurneyi	Trace	Trace	0.9999
169 Scyliorhinidae	Trace	Trace	1.0000
170 Pennatulacea (order)	Trace	Trace	1.0000
171 Sebastes levis	Trace	Trace	1.0000
172 Liponema brevicornis	Trace	Trace	1.0000

Table B-33.--Continued.

173	<i>Opisthoteuthis californiana</i>	Trace	Trace	1.0000
174	<i>Myxoderma platyacanthum</i>	Trace	Trace	1.0000
175	Paguridae	Trace	Trace	1.0000
176	<i>Ocella verrucosa</i>	Trace	Trace	1.0000
177	<i>Careproctus melanurus</i>	Trace	Trace	1.0000
178	<i>Cancer gracilis</i>	Trace	Trace	1.0000
179	<i>Astropecten californicus</i>	Trace	Trace	1.0000
180	<i>Hippasteria</i> sp.	Trace	Trace	1.0000
181	<i>Orthasterias koehleri</i>	Trace	Trace	1.0000
182	<i>Stomphia coccinea</i>	Trace	Trace	1.0000
183	<i>Pagurus capillatus</i>	Trace	Trace	1.0000
184	<i>Podothecus acipenserinus</i>	Trace	Trace	1.0000
185	<i>Octopus rubescens</i>	Trace	Trace	1.0000
186	<i>Agonopsis vulsa</i>	Trace	Trace	1.0000
187	<i>Pteraster tessellatus</i>	Trace	Trace	1.0000
188	Onychoteuthidae	Trace	Trace	1.0000
189	<i>Tritonia diomedea</i>	Trace	Trace	1.0000
190	<i>Calinaticina oldroyi</i>	Trace	Trace	1.0000
191	<i>Gonatus</i> sp.	Trace	Trace	1.0000
192	<i>Styela rustica</i>	Trace	Trace	1.0000
193	<i>Lycodes diapterus</i>	Trace	Trace	1.0000
194	<i>Pleuronichthys verticalis</i>	Trace	Trace	1.0000
195	<i>Mediaster</i> sp.	Trace	Trace	1.0000
196	<i>Leptocottus armatus</i>	Trace	Trace	1.0000
197	<i>Bathyagonus nigripinnis</i>	Trace	Trace	1.0000
198	<i>Cheiraster</i> (=Luidiaster)	Trace	Trace	1.0000
199	<i>Apristurus brunneus</i>	Trace	Trace	1.0000
200	<i>Hippasteria californica</i>	Trace	Trace	1.0000
201	<i>Raja binoculata</i>	Trace	Trace	1.0000
202	<i>Tethya</i> sp.	Trace	Trace	1.0000
203	<i>Crossaster borealis</i>	Trace	Trace	1.0000
204	<i>Lethasterias nanimensis</i>	Trace	Trace	1.0000
205	Ophiuroid unident.	Trace	Trace	1.0000
206	<i>Pseudarchaster dissonus</i>	Trace	Trace	1.0000
207	Ascidian unident.	Trace	Trace	1.0000
208	<i>Chitonotus pugetensis</i>	Trace	Trace	1.0000
209	<i>Sebastes rosenblatti</i>	Trace	Trace	1.0000
210	<i>Sebastes dalli</i>	Trace	Trace	1.0000
211	<i>Scorpaena guttata</i>	Trace	Trace	1.0000
212	<i>Icelinus oculatus</i>	Trace	Trace	1.0000
213	<i>Aphrocallistes vastus</i>	Trace	Trace	1.0000
214	<i>Sebastes emphaeus</i>	Trace	Trace	1.0000

Table B-33.--Continued.

215	<i>Enophrys taurina</i>	Trace	Trace	1.0000
216	<i>Acantholithodes hispidus</i>	Trace	Trace	1.0000
217	<i>Icosteus aenigmaticus</i>	Trace	Trace	1.0000
218	<i>Poraniopsis inflata</i>	Trace	Trace	1.0000
219	Mytilidae	Trace	Trace	1.0000
220	<i>Gonatus onyx</i>	Trace	Trace	1.0000
221	<i>Icelinus tenuis</i>	Trace	Trace	1.0000
222	<i>Trichodon trichodon</i>	Trace	Trace	1.0000
223	<i>Mya</i> sp.	Trace	Trace	1.0000
224	<i>Paractinostola faeculenta</i>	Trace	Trace	1.0000
225	Platyhelminthes (phylum)	Trace	Trace	1.0000
226	<i>Ctenodiscus crispatus</i>	Trace	Trace	1.0000
227	<i>Pandalus hypsinotus</i>	Trace	Trace	1.0000
228	<i>Henricia</i> sp.	Trace	Trace	1.0000
229	<i>Pasiphaea pacifica</i>	Trace	Trace	1.0000
230	<i>Pteraster militaris</i>	Trace	Trace	1.0000
231	crab unident.	Trace	Trace	1.0000
232	Mollusca (phylum)	Trace	Trace	1.0000
233	<i>Symphurus atricauda</i>	Trace	Trace	1.0000
234	<i>Dasycottus setiger</i>	Trace	Trace	1.0000
235	Polychaeta (class)	Trace	Trace	1.0000
236	<i>Polinices pallidus</i>	Trace	Trace	1.0000
237	<i>Diaphus theta</i>	Trace	Trace	1.0000
238	Isopoda (order)	Trace	Trace	1.0000
239	<i>Pandalus borealis</i>	Trace	Trace	1.0000
240	Ctenophora (phylum)	Trace	Trace	1.0000
241	<i>Chionoecetes bairdi</i>	Trace	Trace	1.0000
242	<i>Pseudarchaster</i> sp.	Trace	Trace	1.0000
243	<i>Polinices lewisi</i>	Trace	Trace	1.0000
244	<i>Pseudarchaster parelii</i>	Trace	Trace	1.0000
245	<i>Munida quadrispina</i>	Trace	Trace	1.0000
246	<i>Ammodytes hexapterus</i>	Trace	Trace	1.0000
247	<i>Liparis pulchellus</i>	Trace	Trace	1.0000
248	Cottidae	Trace	Trace	1.0000
249	<i>Aphrodita</i> sp.	Trace	Trace	1.0000
250	gastropod eggs	Trace	Trace	1.0000
251	<i>Crangon communis</i>	Trace	Trace	1.0000
252	<i>Lyconectes aleutensis</i>	Trace	Trace	1.0000
253	<i>Eptatretus stouti</i>	Trace	Trace	1.0000
254	Gastropod unident.	Trace	Trace	1.0000
255	<i>Xeneretmus latifrons</i>	Trace	Trace	1.0000
256	<i>Paricelinus hopliticus</i>	Trace	Trace	1.0000

Table B-33.--Continued.

257 squid unident.	Trace	Trace	1.0000
258 Petromyzontidae	Trace	Trace	1.0000
259 Ceramaster japonicus	Trace	Trace	1.0000
260 Pagurus sp.	Trace	Trace	1.0000
261 Chiroteuthis sp.	Trace	Trace	1.0000
262 fish unident.	Trace	Trace	1.0000
263 Cololabis saira	Trace	Trace	1.0000
264 Buccinum sp.	Trace	Trace	1.0000
265 Florometra serratissima	Trace	Trace	1.0000
266 Ronquilus jordani	Trace	Trace	1.0000
267 Hydrolagus colliei	Trace	Trace	1.0000
268 Zaprora silenus	Trace	Trace	1.0000
269 Alyconaria unident.	Trace	Trace	1.0000
270 Pandalus stenolepis	Trace	Trace	1.0000
271 Stenobranchius leucopsarus	Trace	Trace	1.0000
272 Sipuncula (phylum)	Trace	Trace	1.0000
273 Nemichthyidae	Trace	Trace	1.0000
274 Triglops macellus	Trace	Trace	1.0000
275 Armina californica	Trace	Trace	1.0000
276 Myctophidae	Trace	Trace	1.0000
277 Florometra sp.	Trace	Trace	1.0000
278 Pentamera sp.	Trace	Trace	1.0000
279 pink hormathiid anemone	Trace	Trace	1.0000
280 Agonidae	Trace	Trace	1.0000
281 Solaster stimpsoni	Trace	Trace	1.0000
282 Chorilia longipes	Trace	Trace	1.0000
283 shrimp unident.	Trace	Trace	1.0000
285 Euphausiacea (order)	Trace	Trace	1.0000
284 Sergestes sp.	Trace	Trace	1.0000
286 Trachipterus altivelis	Trace	Trace	1.0000
287 Crangon sp.	Trace	Trace	1.0000
288 Ophiura sarsi	Trace	Trace	1.0000

Table B-34.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the entire survey area, middle stratum (184-366 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Merluccius productus</i>	44.121	0.2302	0.2302
2	<i>Sebastes jordani</i>	22.936	0.1197	0.3499
3	<i>Microstomus pacificus</i>	22.565	0.1177	0.4677
4	<i>Sebastes diploproa</i>	16.902	0.0882	0.5559
5	<i>Anoplopoma fimbria</i>	14.169	0.0739	0.6298
6	<i>Glyptocephalus zachirus</i>	10.215	0.0533	0.6831
7	<i>Atheresthes stomias</i>	8.996	0.0469	0.7300
8	<i>Sebastes saxicola</i>	6.659	0.0347	0.7648
9	<i>Sebastes goodiei</i>	5.717	0.0298	0.7946
10	<i>Sebastes zacentrus</i>	4.373	0.0228	0.8175
11	<i>Ophiodon elongatus</i>	4.063	0.0212	0.8387
12	<i>Sebastes flavidus</i>	3.776	0.0197	0.8584
13	<i>Sebastes alutus</i>	3.426	0.0179	0.8762
14	<i>Sebastes crameri</i>	2.602	0.0136	0.8898
15	<i>Sebastolobus alascanus</i>	2.574	0.0134	0.9032
16	<i>Brisaster latifrons</i>	2.229	0.0116	0.9149
17	<i>Allocentrotus fragilis</i>	1.773	0.0092	0.9241
18	<i>Raja rhina</i>	1.239	0.0065	0.9306
19	<i>Lycodes cortezianus</i>	1.209	0.0063	0.9369
20	<i>Hippoglossus stenolepis</i>	1.085	0.0057	0.9426
21	<i>Hydrolagus colliciei</i>	1.064	0.0056	0.9481
22	<i>Parophrys vetulus</i>	0.967	0.0050	0.9532
23	<i>Sebastes elongatus</i>	0.896	0.0047	0.9578
24	<i>Lyopsetta exilis</i>	0.869	0.0045	0.9624
25	<i>Squalus acanthias</i>	0.724	0.0038	0.9662
26	<i>Pandalus jordani</i>	0.491	0.0026	0.9687
27	Scyphozoa (class)	0.319	0.0017	0.9704
28	Scyliorhinidae	0.308	0.0016	0.9720
29	<i>Parastichopus leucothele</i>	0.302	0.0016	0.9736
30	<i>Bathyraja interrupta</i>	0.302	0.0016	0.9751
31	<i>Apristurus brunneus</i>	0.290	0.0015	0.9766
32	<i>Sebastes aleutianus</i>	0.286	0.0015	0.9781
33	<i>Moroteuthis robusta</i>	0.275	0.0014	0.9796
34	<i>Sebastes babcocki</i>	0.260	0.0014	0.9809
35	<i>Luidia foliolata</i>	0.187	0.0010	0.9819
36	<i>Sebastes aurora</i>	0.175	0.0009	0.9828
37	<i>Sebastes proriger</i>	0.155	0.0008	0.9836
38	<i>Somniosus pacificus</i>	0.154	0.0008	0.9844
39	<i>Sebastes helvomaculatus</i>	0.151	0.0008	0.9852
40	<i>Gadus macrocephalus</i>	0.151	0.0008	0.9860
41	<i>Thaleichthys pacificus</i>	0.150	0.0008	0.9868

Table B-34.--Continued.

42	<i>Sebastes paucispinis</i>	0.144	0.0007	0.9875
43	<i>Sebastes entomelas</i>	0.139	0.0007	0.9883
44	<i>Lycodes diapterus</i>	0.137	0.0007	0.9890
45	<i>Sebastes pinniger</i>	0.128	0.0007	0.9896
46	<i>Rathbunaster californicus</i>	0.094	0.0005	0.9901
47	<i>Icelinus filamentosus</i>	0.093	0.0005	0.9906
48	Porifera	0.087	0.0005	0.9911
49	<i>Strongylocentrotus franciscanus</i>	0.085	0.0004	0.9915
50	<i>Sebastes brevispinis</i>	0.074	0.0004	0.9919
51	<i>Brisaster</i> sp.	0.069	0.0004	0.9923
52	<i>Cancer magister</i>	0.069	0.0004	0.9926
53	<i>Hippoglossoides elassodon</i>	0.067	0.0004	0.9930
54	<i>Eopsetta jordani</i>	0.058	0.0003	0.9933
55	<i>Liponema brevicornis</i>	0.057	0.0003	0.9936
56	<i>Aphrocallistes vastus</i>	0.054	0.0003	0.9939
57	<i>Pandalus platyceros</i>	0.048	0.0003	0.9941
58	<i>Sebastes melanostomus</i>	0.044	0.0002	0.9943
59	<i>Sebastes rufus</i>	0.043	0.0002	0.9946
60	<i>Sebastes borealis</i>	0.041	0.0002	0.9948
61	<i>Pycnopodia helianthoides</i>	0.039	0.0002	0.9950
62	Thaliacea unident.	0.039	0.0002	0.9952
63	<i>Ctenodiscus crispatus</i>	0.038	0.0002	0.9954
64	<i>Pasiphaea pacifica</i>	0.033	0.0002	0.9956
65	<i>Parmaturus xaniurus</i>	0.031	0.0002	0.9957
66	Paguridae	0.030	0.0002	0.9959
67	<i>Metridium</i> sp.	0.030	0.0002	0.9960
68	<i>Pseudostichopus mollis</i>	0.029	0.0002	0.9962
69	<i>Oncorhynchus tshawytscha</i>	0.029	0.0002	0.9963
70	<i>Lycodes pacificus</i>	0.028	0.0001	0.9965
71	<i>Myxoderma platyacanthum</i>	0.025	0.0001	0.9966
72	<i>Chionoecetes tanneri</i>	0.025	0.0001	0.9967
73	<i>Cryptacanthodes giganteus</i>	0.024	0.0001	0.9969
74	<i>Berryteuthis magister</i>	0.024	0.0001	0.9970
75	<i>Torpedo californica</i>	0.024	0.0001	0.9971
76	<i>Stylasterias forreri</i>	0.023	0.0001	0.9972
77	<i>Theragra chalcogramma</i>	0.019	0.0001	0.9973
78	<i>Lopholithodes foraminatus</i>	0.019	0.0001	0.9974
79	<i>Sebastes wilsoni</i>	0.018	0.0001	0.9975
80	<i>Careproctus melanurus</i>	0.017	0.0001	0.9976
81	<i>Lycodes brevipipes</i>	0.016	0.0001	0.9977
82	<i>Chilara taylori</i>	0.016	0.0001	0.9978
83	<i>Chrysaora</i> sp.	0.016	0.0001	0.9979
84	<i>Octopus dofleini</i>	0.015	0.0001	0.9979
85	<i>Paractinostola faeculenta</i>	0.015	0.0001	0.9980

Table B-34.--Continued.

86 Parastichopus sp.	0.014	0.0001	0.9981
87 Sebastes reedi	0.013	0.0001	0.9982
88 Metridium farcimen	0.013	0.0001	0.9982
89 Ophiuroid unident.	0.013	0.0001	0.9983
90 Sebastes levis	0.012	0.0001	0.9984
91 Hippasteria spinosa	0.012	0.0001	0.9984
92 vase sponge	0.012	0.0001	0.9985
93 Holothuroidea unident.	0.012	0.0001	0.9986
94 Octopodidae	0.012	0.0001	0.9986
95 Opisthoteuthis californiana	0.012	0.0001	0.9987
96 Gonatopsis borealis	0.011	0.0001	0.9987
97 Argentinidae	0.010	0.0001	0.9988
98 Pleurobranchaea californica	0.009	Trace	0.9988
99 Sebastes ruberrimus	0.009	Trace	0.9989
100 Pseudarchaster parelii	0.009	Trace	0.9989
101 Asteroidea unident.	0.008	Trace	0.9990
102 Myctophidae	0.008	Trace	0.9990
103 Pandalopsis dispar	0.007	Trace	0.9990
104 Diaphus theta	0.007	Trace	0.9991
105 Sebastes chlorostictus	0.006	Trace	0.9991
106 Parastichopus californicus	0.005	Trace	0.9991
107 Ophiura sarsi	0.005	Trace	0.9992
108 Cyanea capillata	0.005	Trace	0.9992
109 Petromyzontidae	0.005	Trace	0.9992
110 Bathyagonus pentacanthus	0.005	Trace	0.9992
111 Fusitriton oregonensis	0.005	Trace	0.9993
112 Actiniaria (order)	0.004	Trace	0.9993
113 Zoarcidae	0.004	Trace	0.9993
114 Gonatus sp.	0.004	Trace	0.9993
115 Careproctus sp.	0.004	Trace	0.9994
116 Paralithodes californiensis	0.004	Trace	0.9994
117 Citharichthys sordidus	0.004	Trace	0.9994
118 Sebastes rosenblatti	0.003	Trace	0.9994
119 Molpadia intermedia	0.003	Trace	0.9994
120 Gorgonocephalus eucnemis	0.003	Trace	0.9994
121 Buccinum sp.	0.003	Trace	0.9995
122 Aurelia sp.	0.003	Trace	0.9995
123 Mediaster aequalis	0.003	Trace	0.9995
124 Echinacea unident.	0.003	Trace	0.9995
125 Leptychaster sp.	0.003	Trace	0.9995
126 Trachurus symmetricus	0.003	Trace	0.9995
127 Porichthys notatus	0.003	Trace	0.9996
128 Histioteuthis sp.	0.003	Trace	0.9996
129 Cancer productus	0.003	Trace	0.9996



Table B-34.--Continued.

130 Myxinidae	0.003	Trace	0.9996
131 Scomber japonicus	0.003	Trace	0.9996
132 Hexactinellida	0.003	Trace	0.9996
133 Pleuronichthys decurrens	0.002	Trace	0.9996
134 Pteraster tesselatus	0.002	Trace	0.9996
135 Loligo opalescens	0.002	Trace	0.9997
136 Aphroditidae	0.002	Trace	0.9997
137 Sebastes sp.	0.002	Trace	0.9997
138 Pseudostichopus sp.	0.002	Trace	0.9997
139 Paralithodes rathbuni	0.002	Trace	0.9997
140 Actinauge verrillii	0.002	Trace	0.9997
141 Alosa sapidissima	0.002	Trace	0.9997
142 Rossia pacifica	0.002	Trace	0.9997
143 Sebastes hopkinsi	0.002	Trace	0.9997
144 Ptilosarcus gurneyi	0.002	Trace	0.9998
145 Bathyagonus nigripinnis	0.002	Trace	0.9998
146 Calinaticina oldroyi	0.002	Trace	0.9998
147 Molpadia sp.	0.002	Trace	0.9998
148 Anthoptilum grandiflorum	0.002	Trace	0.9998
149 Solaster stimpsoni	0.002	Trace	0.9998
150 Nudibranchia unident.	0.002	Trace	0.9998
151 Poraniopsis inflata	0.002	Trace	0.9998
152 Neptunea sp.	0.002	Trace	0.9998
153 Gephyreaster swifti	0.001	Trace	0.9998
154 Stomphia sp.	0.001	Trace	0.9998
155 Argentina sialis	0.001	Trace	0.9998
156 Gastropod unident.	0.001	Trace	0.9998
157 Stylatula sp.	0.001	Trace	0.9998
158 Cheiraster (=Luidiaster)	0.001	Trace	0.9999
159 Pagurus confragosus	0.001	Trace	0.9999
160 Liparidinae	0.001	Trace	0.9999
161 Spatangus californicus	0.001	Trace	0.9999
162 Stomphia coccinea	0.001	Trace	0.9999
163 Virgularidae	0.001	Trace	0.9999
164 Diplopteraster multipes	0.001	Trace	0.9999
165 Strongylocentrotus droebachiensis	0.001	Trace	0.9999
166 Hippasteria californica	0.001	Trace	0.9999
167 Neptunea amianta	0.001	Trace	0.9999
168 Solaster sp.	0.001	Trace	0.9999
169 skate egg case unident.	0.001	Trace	0.9999
170 Sebastolobus altivelis	0.001	Trace	0.9999
171 Solaster paxillatus	0.001	Trace	0.9999
172 Sardinops sagax	0.001	Trace	0.9999

Table B-34.--Continued.

173 <i>Apristurus brunneus</i>	0.001	Trace	0.9999
174 <i>Ophiomusium jolliensis</i>	0.001	Trace	0.9999
175 <i>Pagurus capillatus</i>	0.001	Trace	0.9999
176 <i>Solaster endeca</i>	0.001	Trace	0.9999
177 <i>Tritonia</i> sp.	0.001	Trace	0.9999
178 <i>Sagamichthys abei</i>	0.001	Trace	0.9999
179 <i>Sipuncula</i> (phylum)	Trace	Trace	0.9999
180 <i>Acantholithodes hispidus</i>	Trace	Trace	1.0000
181 <i>Crossaster borealis</i>	Trace	Trace	1.0000
182 <i>Antimora microlepis</i>	Trace	Trace	1.0000
183 <i>Chorilia longipes</i>	Trace	Trace	1.0000
184 <i>Tactostoma macropus</i>	Trace	Trace	1.0000
185 <i>Pentamera</i> sp.	Trace	Trace	1.0000
186 <i>Lophaster furcilliger</i>	Trace	Trace	1.0000
187 gastropod eggs	Trace	Trace	1.0000
188 <i>Chauliodus macouni</i>	Trace	Trace	1.0000
189 <i>Malacocottus kincaidi</i>	Trace	Trace	1.0000
190 <i>Bathymasteridae</i>	Trace	Trace	1.0000
191 <i>Ceramaster japonicus</i>	Trace	Trace	1.0000
192 <i>Ophidion scrippsae</i>	Trace	Trace	1.0000
193 <i>Orthasterias koehleri</i>	Trace	Trace	1.0000
194 <i>Mediaster</i> sp.	Trace	Trace	1.0000
195 <i>Clupea pallasii</i>	Trace	Trace	1.0000
196 <i>Chauliodontidae</i>	Trace	Trace	1.0000
197 pink hormathiid anemone	Trace	Trace	1.0000
198 <i>Crossaster papposus</i>	Trace	Trace	1.0000
199 squid unident.	Trace	Trace	1.0000
200 Shark egg	Trace	Trace	1.0000
201 <i>Asteronyx loveni</i>	Trace	Trace	1.0000
202 <i>Melanostomiidae</i>	Trace	Trace	1.0000
203 <i>Asterina miniata</i>	Trace	Trace	1.0000
204 <i>Ophiopholis longispina</i>	Trace	Trace	1.0000
205 <i>Pteraster militaris</i>	Trace	Trace	1.0000
206 <i>Chionoecetes bairdi</i>	Trace	Trace	1.0000
207 <i>Pagurus brandti</i>	Trace	Trace	1.0000
208 <i>Taningia danae</i>	Trace	Trace	1.0000
209 <i>Neptunea pribiloffensis</i>	Trace	Trace	1.0000
210 <i>Onychoteuthis borealijaponicus</i>	Trace	Trace	1.0000
211 <i>Ceramaster patagonicus</i>	Trace	Trace	1.0000
212 <i>Icelinus burchami</i>	Trace	Trace	1.0000
213 <i>Raja binoculata</i>	Trace	Trace	1.0000
214 crinoid unident.	Trace	Trace	1.0000

Table B-34.--Continued.

215 <i>Pisaster brevispinus</i>	Trace	Trace	1.0000
216 <i>Physiculus rastrelliger</i>	Trace	Trace	1.0000
217 <i>Thrissacanthias penicillatus</i>	Trace	Trace	1.0000
218 <i>Pagurus</i> sp.	Trace	Trace	1.0000
219 <i>Chiroteuthis</i> sp.	Trace	Trace	1.0000
220 crab unident.	Trace	Trace	1.0000
221 <i>Pandalus tridens</i>	Trace	Trace	1.0000
222 <i>Sebastes semicinctus</i>	Trace	Trace	1.0000
223 <i>Gonatus onyx</i>	Trace	Trace	1.0000
224 <i>Pagurus tanneri</i>	Trace	Trace	1.0000
225 <i>Chiroteuthis calyx</i>	Trace	Trace	1.0000
226 <i>Malacocottus zonurus</i>	Trace	Trace	1.0000
227 <i>Munida quadrispina</i>	Trace	Trace	1.0000
228 <i>Henricia</i> sp.	Trace	Trace	1.0000
229 <i>Astropecten californicus</i>	Trace	Trace	1.0000
230 <i>Ronquilus jordani</i>	Trace	Trace	1.0000
231 <i>Psolus</i> sp.	Trace	Trace	1.0000
232 <i>Rhabdocalyptus</i> sp.	Trace	Trace	1.0000
233 Agonidae	Trace	Trace	1.0000
234 <i>Antiplanes</i> sp.	Trace	Trace	1.0000
235 <i>Mursia gaudichaudii</i>	Trace	Trace	1.0000
236 <i>Xeneretmus latifrons</i>	Trace	Trace	1.0000
237 <i>Notolepsis risso</i>	Trace	Trace	1.0000
238 <i>Tritonia diomedea</i>	Trace	Trace	1.0000
239 <i>Tarletonbeania crenularis</i>	Trace	Trace	1.0000
240 <i>Pannychia moseleyi</i>	Trace	Trace	1.0000
241 brachiopod unident.	Trace	Trace	1.0000
242 <i>Pseudarchaster</i> sp.	Trace	Trace	1.0000
243 <i>Neomenia</i> sp.	Trace	Trace	1.0000
244 Polynoidae	Trace	Trace	1.0000
245 <i>Pagurus aleuticus</i>	Trace	Trace	1.0000
246 Polychaeta (class)	Trace	Trace	1.0000
247 <i>Henricia aspera</i>	Trace	Trace	1.0000
248 <i>Gersemia</i> sp.	Trace	Trace	1.0000
249 <i>Bivalvia</i> unident.	Trace	Trace	1.0000
250 <i>Bathophilus flemingi</i>	Trace	Trace	1.0000
251 pineapple cucumber	Trace	Trace	1.0000
252 Nemichthyidae	Trace	Trace	1.0000
253 <i>Crangon</i> sp.	Trace	Trace	1.0000
254 <i>Aphrodita</i> sp.	Trace	Trace	1.0000
255 <i>Idiacanthus antrostomus</i>	Trace	Trace	1.0000
256 <i>Polinices pallidus</i>	Trace	Trace	1.0000

Table B-34.--Continued.

257 <i>Lycodapus mandibularis</i>	Trace	Trace	1.0000
258 Benthoplectinidae	Trace	Trace	1.0000
259 Sternoptychidae unident.	Trace	Trace	1.0000
260 Pleuronectiformes larvae	Trace	Trace	1.0000

Table B-35.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the entire survey area, deep stratum (367-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Microstomus pacificus</i>	31.551	0.3371	0.3371
2	<i>Merluccius productus</i>	14.190	0.1516	0.4887
3	<i>Anoplopoma fimbria</i>	10.976	0.1173	0.6060
4	<i>Glyptocephalus zachirus</i>	7.597	0.0812	0.6872
5	<i>Sebastolobus alascanus</i>	5.312	0.0568	0.7439
6	<i>Sebastes aurora</i>	3.196	0.0341	0.7781
7	<i>Brisaster latifrons</i>	2.777	0.0297	0.8077
8	<i>Lycodes cortezianus</i>	1.713	0.0183	0.8260
9	<i>Somniosus pacificus</i>	1.544	0.0165	0.8425
10	<i>Raja rhina</i>	1.081	0.0115	0.8541
11	<i>Sebastes aleutianus</i>	1.036	0.0111	0.8652
12	<i>Sebastes melanostomus</i>	0.990	0.0106	0.8757
13	<i>Lycodes diapterus</i>	0.915	0.0098	0.8855
14	<i>Sebastes diploproa</i>	0.856	0.0091	0.8946
15	<i>Sebastolobus altivelis</i>	0.803	0.0086	0.9032
16	<i>Apristurus brunneus</i>	0.766	0.0082	0.9114
17	Scyliorhinidae	0.752	0.0080	0.9194
18	<i>Sebastes alutus</i>	0.619	0.0066	0.9261
19	<i>Atheresthes stomias</i>	0.517	0.0055	0.9316
20	<i>Strongylocentrotus franciscanus</i>	0.357	0.0038	0.9354
21	<i>Hydrolagus colliciei</i>	0.336	0.0036	0.9390
22	<i>Paractinostola faeculenta</i>	0.335	0.0036	0.9426
23	<i>Brisaster</i> sp.	0.333	0.0036	0.9461
24	<i>Bathyraja interrupta</i>	0.301	0.0032	0.9493
25	<i>Sebastes borealis</i>	0.276	0.0030	0.9523
26	<i>Pseudostichopus mollis</i>	0.273	0.0029	0.9552
27	<i>Allocentrotus fragilis</i>	0.270	0.0029	0.9581
28	<i>Parmaturus xaniurus</i>	0.266	0.0028	0.9609
29	Scyphozoa (class)	0.221	0.0024	0.9633
30	<i>Icosteus aenigmaticus</i>	0.207	0.0022	0.9655
31	<i>Aphrocallistes vastus</i>	0.204	0.0022	0.9677
32	<i>Moroteuthis robusta</i>	0.202	0.0022	0.9699
33	<i>Henricia</i> sp.	0.166	0.0018	0.9716
34	<i>Sebastes crameri</i>	0.159	0.0017	0.9733
35	<i>Myxoderma platyacanthum</i>	0.152	0.0016	0.9750
36	<i>Liponema brevicornis</i>	0.122	0.0013	0.9763
37	<i>Neptunea</i> sp.	0.117	0.0012	0.9775
38	<i>Parastichopus leucothele</i>	0.116	0.0012	0.9787
39	<i>Luidia foliolata</i>	0.111	0.0012	0.9799
40	Porifera	0.097	0.0010	0.9810
41	<i>Neptunea amianta</i>	0.097	0.0010	0.9820

Table B-35.--Continued.

42	<i>Lyopsetta exilis</i>	0.097	0.0010	0.9830
43	Holothuroidea unident.	0.082	0.0009	0.9839
44	<i>Prionace glauca</i>	0.071	0.0008	0.9847
45	<i>Pannychia moseleyi</i>	0.070	0.0007	0.9854
46	<i>Antimora microlepis</i>	0.066	0.0007	0.9861
47	Ophiuroid unident.	0.066	0.0007	0.9868
48	<i>Rathbunaster californicus</i>	0.062	0.0007	0.9875
49	<i>Hippoglossus stenolepis</i>	0.056	0.0006	0.9881
50	<i>Squalus acanthias</i>	0.056	0.0006	0.9887
51	<i>Cyanea capillata</i>	0.054	0.0006	0.9893
52	<i>Berryteuthis magister</i>	0.052	0.0006	0.9898
53	<i>Careproctus melanurus</i>	0.046	0.0005	0.9903
54	<i>Octopus dofleini</i>	0.044	0.0005	0.9908
55	<i>Pasiphaea pacifica</i>	0.038	0.0004	0.9912
56	<i>Chionoecetes tanneri</i>	0.038	0.0004	0.9916
57	Thaliacea unident.	0.034	0.0004	0.9920
58	<i>Sebastes babcocki</i>	0.030	0.0003	0.9923
59	<i>Albatrossia pectoralis</i>	0.030	0.0003	0.9926
60	Octopodidae	0.029	0.0003	0.9929
61	<i>Opisthoteuthis californiana</i>	0.029	0.0003	0.9932
62	<i>Actinauge verrillii</i>	0.028	0.0003	0.9935
63	<i>Histioteuthis</i> sp.	0.028	0.0003	0.9938
64	<i>Gonatopsis borealis</i>	0.026	0.0003	0.9941
65	<i>Raja binoculata</i>	0.024	0.0003	0.9944
66	Paguridae	0.024	0.0003	0.9946
67	<i>Stomphia</i> sp.	0.023	0.0002	0.9949
68	Asteroidea unident.	0.020	0.0002	0.9951
69	Myctophidae	0.020	0.0002	0.9953
70	<i>Chrysaora</i> sp.	0.020	0.0002	0.9955
71	Pasiphaeidae	0.020	0.0002	0.9957
72	<i>Lycodes pacificus</i>	0.019	0.0002	0.9959
73	<i>Sebastes rufus</i>	0.017	0.0002	0.9961
74	<i>Ctenodiscus crispatus</i>	0.017	0.0002	0.9963
75	<i>Trachipterus altivelis</i>	0.016	0.0002	0.9965
76	<i>Leptychaster</i> sp.	0.014	0.0001	0.9966
77	<i>Gonatus</i> sp.	0.013	0.0001	0.9968
78	<i>Careproctus</i> sp.	0.012	0.0001	0.9969
79	<i>Ophiura sarsi</i>	0.012	0.0001	0.9970
80	<i>Metridium</i> sp.	0.012	0.0001	0.9971
81	<i>Sebastes saxicola</i>	0.012	0.0001	0.9973
82	Actiniaria (order)	0.009	0.0001	0.9974
83	<i>Ophiodon elongatus</i>	0.009	0.0001	0.9974
84	<i>Bothrocara brunneum</i>	0.009	0.0001	0.9976
85	<i>Ptilosarcus gurneyi</i>	0.008	0.0001	0.9976

Table B-35.--Continued.

86	<i>Sebastes brevispinis</i>	0.008	0.0001	0.9977
87	Gastropod unident.	0.008	0.0001	0.9978
88	<i>Pycnopodia helianthoides</i>	0.007	0.0001	0.9979
89	<i>Diplopteraster multipes</i>	0.006	0.0001	0.9980
90	squid unident.	0.006	0.0001	0.9980
91	<i>Lampetra tridentata</i>	0.006	0.0001	0.9981
92	<i>Mediaster aequalis</i>	0.006	0.0001	0.9981
93	<i>Loligo opalescens</i>	0.005	0.0001	0.9982
94	<i>Eopsetta jordani</i>	0.005	0.0001	0.9982
95	Myxinidae	0.005	0.0001	0.9983
96	<i>Alepisaurus ferox</i>	0.005	0.0001	0.9984
97	<i>Fusitriton oregonensis</i>	0.005	0.0001	0.9984
98	<i>Bathyraja aleutica</i>	0.005	0.0001	0.9985
99	<i>Thrissacanthias penicillatus</i>	0.005	Trace	0.9985
100	<i>Buccinum</i> sp.	0.004	Trace	0.9986
101	<i>Anthoptilum grandiflorum</i>	0.004	Trace	0.9986
102	<i>Sebastes goodei</i>	0.004	Trace	0.9986
103	<i>Diaphus theta</i>	0.004	Trace	0.9987
104	<i>Pagurus confragosus</i>	0.004	Trace	0.9987
105	<i>Sebastes miniatus</i>	0.004	Trace	0.9988
106	<i>Apristurus brunneus</i>	0.004	Trace	0.9988
107	<i>Pteraster tesselatus</i>	0.004	Trace	0.9989
108	<i>Careproctus cypselurus</i>	0.004	Trace	0.9989
109	Aphroditidae	0.004	Trace	0.9989
110	<i>Chauliodus macouni</i>	0.003	Trace	0.9990
111	vase sponge	0.003	Trace	0.9990
112	<i>Hippasteria spinosa</i>	0.003	Trace	0.9990
113	<i>Molpadia intermedia</i>	0.003	Trace	0.9991
114	gastropod eggs	0.003	Trace	0.9991
115	<i>Metridium farcimen</i>	0.003	Trace	0.9991
116	<i>Grimpoteuthis albatrossi</i>	0.003	Trace	0.9992
117	<i>Cancer magister</i>	0.003	Trace	0.9992
118	<i>Pseudostichopus</i> sp.	0.003	Trace	0.9992
119	Petromyzontidae	0.003	Trace	0.9992
120	<i>Coryphaenoides acrolepis</i>	0.003	Trace	0.9993
121	<i>Pseudarchaster parelii</i>	0.002	Trace	0.9993
122	<i>Aurelia</i> sp.	0.002	Trace	0.9993
123	<i>Sebastes helvomaculatus</i>	0.002	Trace	0.9994
124	<i>Nezumia stelgidolepis</i>	0.002	Trace	0.9994
125	pink hormathiid anemone	0.002	Trace	0.9994
126	<i>Sebastes elongatus</i>	0.002	Trace	0.9994
127	<i>Argentina sialis</i>	0.002	Trace	0.9994
128	<i>Histioteuthis hoylei</i>	0.002	Trace	0.9994
129	<i>Psolus</i> sp.	0.002	Trace	0.9995

Table B-35.--Continued.

130 Parastichopus sp.	0.002	Trace	0.9995
131 Neptunea pribiloffensis	0.002	Trace	0.9995
132 Tactostoma macropus	0.002	Trace	0.9995
133 Molpadia sp.	0.002	Trace	0.9996
134 Octopoteuthis deletron	0.002	Trace	0.9996
135 Scomber japonicus	0.001	Trace	0.9996
136 Paralithodes californiensis	0.001	Trace	0.9996
137 Gorgonocephalus eucnemis	0.001	Trace	0.9996
138 Cheiraster (=Luidiaster)	0.001	Trace	0.9996
139 Sebastes zacentrus	0.001	Trace	0.9996
140 Sergestes sp.	0.001	Trace	0.9997
141 Lepidopus xantusi	0.001	Trace	0.9997
142 Liparidinae	0.001	Trace	0.9997
143 Stylasterias forreri	0.001	Trace	0.9997
144 Neomenia sp.	0.001	Trace	0.9997
145 Hippasteria californica	0.001	Trace	0.9997
146 Tritonia sp.	0.001	Trace	0.9997
147 Nudibranchia unident.	0.001	Trace	0.9997
148 brachiopod unident.	0.001	Trace	0.9998
149 Thetys vagina	0.001	Trace	0.9998
150 Idiacanthus antrostomus	0.001	Trace	0.9998
151 Pandalus jordani	0.001	Trace	0.9998
152 Lampanyctus ritteri	0.001	Trace	0.9998
153 Pseudarchaster sp.	0.001	Trace	0.9998
154 Melanostomiidae	0.001	Trace	0.9998
155 Chiroteuthis sp.	0.001	Trace	0.9998
156 Chauliodontidae	0.001	Trace	0.9998
157 Paralithodes rathbuni	0.001	Trace	0.9998
158 Virgularidae	0.001	Trace	0.9998
159 Antiplanes sp.	0.001	Trace	0.9998
160 Spatangus californicus	0.001	Trace	0.9998
161 Gonatus onyx	0.001	Trace	0.9998
162 Chionoecetes angulatus	0.001	Trace	0.9998
163 Embassichthys bathybius	0.001	Trace	0.9999
164 Solaster paxillatus	0.001	Trace	0.9999
165 Chorilia longipes	0.001	Trace	0.9999
166 Stenobrachius leucopsarus	Trace	Trace	0.9999
167 pineapple cucumber	Trace	Trace	0.9999
168 Mediaster sp.	Trace	Trace	0.9999
169 Buccinum strigillatum	Trace	Trace	0.9999
170 Icelinus filamentosus	Trace	Trace	0.9999
171 Vampyroteuthis infernalis	Trace	Trace	0.9999
172 Bathygonus nigripinnis	Trace	Trace	0.9999



Table B-35.--Continued.

173 Solaster sp.	Trace	Trace	0.9999
174 Bathylagus sp.	Trace	Trace	0.9999
175 Crossaster borealis	Trace	Trace	0.9999
176 Citharichthys sordidus	Trace	Trace	0.9999
177 Pagurus capillatus	Trace	Trace	0.9999
178 Bathophilus flemingi	Trace	Trace	0.9999
179 Stegophiura (=Amphiophiura)	Trace	Trace	0.9999
180 Asteronyx longifissa	Trace	Trace	0.9999
181 Sebastes jordani	Trace	Trace	0.9999
182 Solaster endeca	Trace	Trace	0.9999
183 Sardinops sagax	Trace	Trace	0.9999
184 Cephalopoda unident.	Trace	Trace	0.9999
185 Thaleichthys pacificus	Trace	Trace	0.9999
186 Stomphia coccinea	Trace	Trace	1.0000
187 Hippasteria sp.	Trace	Trace	1.0000
188 Mollusca (phylum)	Trace	Trace	1.0000
189 Anthomastus sp.	Trace	Trace	1.0000
190 Lycodes brevipes	Trace	Trace	1.0000
191 Pennatulacea (order)	Trace	Trace	1.0000
192 Pisaster brevispinus	Trace	Trace	1.0000
193 Bathyagonus pentacanthus	Trace	Trace	1.0000
194 purple striated sea anemone	Trace	Trace	1.0000
195 Aristostomias scintillans	Trace	Trace	1.0000
196 Pagurus tanneri	Trace	Trace	1.0000
197 Lampanyctus sp.	Trace	Trace	1.0000
198 Bathylagus milleri	Trace	Trace	1.0000
199 Asteronyx loveni	Trace	Trace	1.0000
200 Lycodapus mandibularis	Trace	Trace	1.0000
201 Parastichopus californicus	Trace	Trace	1.0000
202 Ophiopholis longispina	Trace	Trace	1.0000
203 Pandalopsis dispar	Trace	Trace	1.0000
204 Lycodapus sp.	Trace	Trace	1.0000
205 Platytroctidae	Trace	Trace	1.0000
206 Benthabella dentata	Trace	Trace	1.0000
207 Sagamichthys abei	Trace	Trace	1.0000
208 Ascidian unident.	Trace	Trace	1.0000
209 Aphrodita sp.	Trace	Trace	1.0000
210 Stylatula sp.	Trace	Trace	1.0000
211 Crossaster papposus	Trace	Trace	1.0000
212 Anoplogaster cornuta	Trace	Trace	1.0000
213 Sipuncula (phylum)	Trace	Trace	1.0000
214 Neptunea lyrata	Trace	Trace	1.0000

Table B-35.--Continued.

215 Pagurus sp.	Trace	Trace	1.0000
216 Chiroteuthis calyx	Trace	Trace	1.0000
217 Tarletonbeania crenularis	Trace	Trace	1.0000
218 Pleuronectiformes larvae	Trace	Trace	1.0000
219 Leuroglossus stilbius	Trace	Trace	1.0000
220 Serrivomer sector	Trace	Trace	1.0000
221 Bathyplores sp.	Trace	Trace	1.0000
222 Bathylagidae unident.	Trace	Trace	1.0000
223 Melamphaidae	Trace	Trace	1.0000
224 Oregonia bifurca	Trace	Trace	1.0000
225 Sternoptychidae unident.	Trace	Trace	1.0000
226 compound ascidian unident.	Trace	Trace	1.0000
227 Gnathophausia ingens	Trace	Trace	1.0000
228 Gephyreaster swifti	Trace	Trace	1.0000
229 Calliostoma platinum	Trace	Trace	1.0000
230 Zoarcidae	Trace	Trace	1.0000
231 Callianassa sp.	Trace	Trace	1.0000
232 Gorgonacea (order)	Trace	Trace	1.0000
233 Periphylla periphylla	Trace	Trace	1.0000
234 Ophiura sp.	Trace	Trace	1.0000
235 Diaphus sp.	Trace	Trace	1.0000
236 shrimp unident.	Trace	Trace	1.0000
237 crab unident.	Trace	Trace	1.0000
238 Florometra serratissima	Trace	Trace	1.0000
239 Gersemia sp.	Trace	Trace	1.0000
240 Anotopterus pharao	Trace	Trace	1.0000
241 Ophiopholis sp.	Trace	Trace	1.0000
242 Polynoidae	Trace	Trace	1.0000
243 Isopoda (order)	Trace	Trace	1.0000
244 Pectinid unident.	Trace	Trace	1.0000
245 Agonidae	Trace	Trace	1.0000
246 Eualus macrophthalmus	Trace	Trace	1.0000

Table B-36.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the entire survey area (55-500 m).

Rank	Species name	Mean CPUE (kg/ha)	Proportion	Cumulative proportion
1	<i>Merluccius productus</i>	64.309	0.3484	0.3484
2	<i>Anoplopoma fimbria</i>	19.542	0.1059	0.4543
3	<i>Microstomus pacificus</i>	14.876	0.0806	0.5349
4	<i>Citharichthys sordidus</i>	8.322	0.0451	0.5800
5	<i>Glyptocephalus zachirus</i>	6.922	0.0375	0.6175
6	<i>Theragra chalcogramma</i>	5.954	0.0323	0.6498
7	<i>Squalus acanthias</i>	5.763	0.0312	0.6810
8	<i>Sebastes goodei</i>	5.689	0.0308	0.7118
9	<i>Atheresthes stomias</i>	5.245	0.0284	0.7402
10	<i>Sebastes jordani</i>	5.008	0.0271	0.7674
11	<i>Sebastes diploproa</i>	3.740	0.0203	0.7876
12	<i>Parophrys vetulus</i>	3.027	0.0164	0.8040
13	Scyphozoa (class)	2.729	0.0148	0.8188
14	<i>Clupea pallasii</i>	2.428	0.0132	0.8320
15	<i>Genyonemus lineatus</i>	2.128	0.0115	0.8435
16	<i>Sebastes saxicola</i>	2.109	0.0114	0.8549
17	<i>Sebastes flavidus</i>	1.949	0.0106	0.8655
18	<i>Brisaster latifrons</i>	1.686	0.0091	0.8746
19	<i>Sebastolobus alascanus</i>	1.506	0.0082	0.8828
20	<i>Ophiodon elongatus</i>	1.487	0.0081	0.8908
21	<i>Sebastes elongatus</i>	1.172	0.0063	0.8972
22	<i>Thaleichthys pacificus</i>	1.172	0.0063	0.9035
23	<i>Raja rhina</i>	0.931	0.0050	0.9086
24	<i>Sebastes zacentrus</i>	0.928	0.0050	0.9136
25	<i>Lyopsetta exilis</i>	0.895	0.0048	0.9185
26	<i>Sebastes alutus</i>	0.843	0.0046	0.9230
27	<i>Hippoglossus stenolepis</i>	0.699	0.0038	0.9268
28	<i>Eopsetta jordani</i>	0.686	0.0037	0.9305
29	<i>Sebastes crameri</i>	0.684	0.0037	0.9342
30	<i>Hydrolagus colliei</i>	0.673	0.0036	0.9379
31	<i>Sebastes aurora</i>	0.605	0.0033	0.9412
32	<i>Trachurus symmetricus</i>	0.601	0.0033	0.9444
33	<i>Lycodes cortezianus</i>	0.596	0.0032	0.9476
34	<i>Sebastes pinniger</i>	0.519	0.0028	0.9505
35	<i>Hippoglossoides elassodon</i>	0.489	0.0027	0.9531
36	<i>Allocentrotus fragilis</i>	0.455	0.0025	0.9556
37	<i>Microgadus proximus</i>	0.445	0.0024	0.9580
38	<i>Raja binoculata</i>	0.371	0.0020	0.9600
39	<i>Scomber japonicus</i>	0.339	0.0018	0.9618
40	<i>Pandalus jordani</i>	0.320	0.0017	0.9636
41	<i>Somniosus pacificus</i>	0.307	0.0017	0.9652

Table B-36.--Continued.

42	<i>Sebastes proriger</i>	0.296	0.0016	0.9668
43	<i>Sebastes aleutianus</i>	0.263	0.0014	0.9683
44	<i>Alosa sapidissima</i>	0.245	0.0013	0.9696
45	<i>Cancer magister</i>	0.232	0.0013	0.9708
46	<i>Loligo opalescens</i>	0.224	0.0012	0.9721
47	<i>Metridium</i> sp.	0.211	0.0011	0.9732
48	<i>Apristurus brunneus</i>	0.200	0.0011	0.9743
49	Scyliorhinidae	0.199	0.0011	0.9754
50	<i>Luidia foliolata</i>	0.196	0.0011	0.9764
51	<i>Lycodes diapterus</i>	0.192	0.0010	0.9775
52	<i>Gadus macrocephalus</i>	0.190	0.0010	0.9785
53	<i>Sebastes melanostomus</i>	0.186	0.0010	0.9795
54	<i>Oncorhynchus tshawytscha</i>	0.178	0.0010	0.9805
55	<i>Porichthys notatus</i>	0.154	0.0008	0.9813
56	<i>Sebastolobus altivelis</i>	0.143	0.0008	0.9821
57	<i>Bathyraja interrupta</i>	0.139	0.0008	0.9828
58	<i>Argentina sialis</i>	0.119	0.0006	0.9835
59	<i>Lycodes pacificus</i>	0.115	0.0006	0.9841
60	<i>Parastichopus leucothele</i>	0.104	0.0006	0.9847
61	<i>Metridium farcimen</i>	0.103	0.0006	0.9852
62	<i>Moroteuthis robusta</i>	0.093	0.0005	0.9857
63	<i>Zalembeus rosaceus</i>	0.089	0.0005	0.9862
64	<i>Sebastes miniatus</i>	0.087	0.0005	0.9867
65	<i>Strongylocentrotus franciscanus</i>	0.081	0.0004	0.9871
66	<i>Brisaster</i> sp.	0.075	0.0004	0.9875
67	<i>Octopus dofleini</i>	0.072	0.0004	0.9879
68	<i>Sebastes semicinctus</i>	0.069	0.0004	0.9883
69	<i>Sebastes helvomaculatus</i>	0.066	0.0004	0.9886
70	<i>Cyanea capillata</i>	0.064	0.0003	0.9890
71	<i>Rathbunaster californicus</i>	0.064	0.0003	0.9893
72	<i>Sebastes paucispinis</i>	0.064	0.0003	0.9897
73	<i>Paractinostola faeculenta</i>	0.063	0.0003	0.9900
74	<i>Sebastes babcocki</i>	0.061	0.0003	0.9904
75	<i>Lepidopsetta bilineata</i>	0.060	0.0003	0.9907
76	<i>Sebastes borealis</i>	0.058	0.0003	0.9910
77	<i>Pleuronichthys decurrens</i>	0.056	0.0003	0.9913
78	<i>Pseudostichopus mollis</i>	0.055	0.0003	0.9916
79	<i>Parmaturus xaniurus</i>	0.054	0.0003	0.9919
80	<i>Sebastes wilsoni</i>	0.052	0.0003	0.9922
81	<i>Sebastes ruberrimus</i>	0.049	0.0003	0.9924
82	<i>Sebastes entomelas</i>	0.048	0.0003	0.9927
83	<i>Aphrocallistes vastus</i>	0.048	0.0003	0.9929
84	<i>Stylatula</i> sp.	0.044	0.0002	0.9932
85	<i>Sebastes brevispinis</i>	0.044	0.0002	0.9934

Table B-36.--Continued.

86	<i>Sardinops sagax</i>	0.039	0.0002	0.9936
87	<i>Icelinus filamentosus</i>	0.038	0.0002	0.9938
88	Porifera	0.038	0.0002	0.9940
89	<i>Icosteus aenigmaticus</i>	0.037	0.0002	0.9942
90	<i>Pycnopodia helianthoides</i>	0.035	0.0002	0.9944
91	<i>Liponema brevicornis</i>	0.034	0.0002	0.9946
92	<i>Myxoderma platyacanthum</i>	0.032	0.0002	0.9948
93	Thaliacea unident.	0.032	0.0002	0.9950
94	<i>Henricia</i> sp.	0.030	0.0002	0.9951
95	<i>Gorgonocephalus eucnemis</i>	0.027	0.0001	0.9953
96	<i>Peprilus simillimus</i>	0.026	0.0001	0.9954
97	<i>Platichthys stellatus</i>	0.024	0.0001	0.9956
98	<i>Sebastes maliger</i>	0.024	0.0001	0.9957
99	<i>Sebastes chlorostictus</i>	0.023	0.0001	0.9958
100	<i>Torpedo californica</i>	0.023	0.0001	0.9959
101	<i>Acipenser medirostris</i>	0.023	0.0001	0.9960
102	<i>Lopholithodes foraminatus</i>	0.021	0.0001	0.9962
103	<i>Neptunea</i> sp.	0.021	0.0001	0.9963
104	skate egg case unident.	0.021	0.0001	0.9964
105	Holothuroidea unident.	0.021	0.0001	0.9965
106	<i>Sebastes caurinus</i>	0.021	0.0001	0.9966
107	<i>Parastichopus californicus</i>	0.020	0.0001	0.9967
108	Argentinidae	0.020	0.0001	0.9968
109	<i>Engraulis mordax</i>	0.018	0.0001	0.9969
110	<i>Neptunea amianta</i>	0.017	0.0001	0.9970
111	<i>Stylasterias forreri</i>	0.016	0.0001	0.9971
112	<i>Berryteuthis magister</i>	0.015	0.0001	0.9972
113	Ophiuroid unident.	0.014	0.0001	0.9973
114	<i>Paralichthys californicus</i>	0.014	0.0001	0.9974
115	<i>Pasiphaea pacifica</i>	0.014	0.0001	0.9974
116	<i>Pandalus platyceros</i>	0.013	0.0001	0.9975
117	<i>Chrysaora</i> sp.	0.013	0.0001	0.9976
118	Virgularidae	0.013	0.0001	0.9976
119	<i>Pandalopsis dispar</i>	0.013	0.0001	0.9977
120	<i>Prionace glauca</i>	0.013	0.0001	0.9978
121	<i>Pannychia moseleyi</i>	0.012	0.0001	0.9978
122	<i>Chionoecetes tanneri</i>	0.012	0.0001	0.9979
123	<i>Sebastes rufus</i>	0.012	0.0001	0.9980
124	<i>Hippasteria spinosa</i>	0.012	0.0001	0.9980
125	<i>Careproctus melanurus</i>	0.012	0.0001	0.9981
126	<i>Antimora microlepis</i>	0.012	0.0001	0.9982
127	<i>Ctenodiscus crispatus</i>	0.011	0.0001	0.9982
128	<i>Galeorhinus galeus</i>	0.011	0.0001	0.9983
129	Paguridae	0.011	0.0001	0.9984

Table B-36.--Continued.

130 Aurelia sp.	0.011	0.0001	0.9984
131 Cryptacanthodes giganteus	0.010	0.0001	0.9985
132 Hexagrammos decagrammus	0.009	Trace	0.9985
133 Octopodidae	0.008	Trace	0.9986
134 Psettichthys melanostictus	0.008	Trace	0.9986
135 Opisthoteuthis californiana	0.008	Trace	0.9986
136 Chilara taylori	0.008	Trace	0.9987
137 Stomphia sp.	0.007	Trace	0.9987
138 Gonatopsis borealis	0.007	Trace	0.9988
139 Molpadia intermedia	0.007	Trace	0.9988
140 Raja inornata	0.007	Trace	0.9988
141 Allosmerus elongatus	0.006	Trace	0.9989
142 Parastichopus sp.	0.006	Trace	0.9989
143 Histiotteuthis sp.	0.006	Trace	0.9989
144 Zoarcidae	0.006	Trace	0.9990
145 Asteroidea unident.	0.006	Trace	0.9990
146 Pleurobranchaea californica	0.006	Trace	0.9990
147 Strongylocentrotus droebachiensis	0.005	Trace	0.9990
148 Actinauge verrillii	0.005	Trace	0.9991
149 Sebastes hopkinsi	0.005	Trace	0.9991
150 Lycodes brevipes	0.005	Trace	0.9991
151 Albatrossia pectoralis	0.005	Trace	0.9992
152 Myctophidae	0.005	Trace	0.9992
153 Isopsetta isolepis	0.005	Trace	0.9992
154 Oncorhynchus kisutch	0.005	Trace	0.9992
155 vase sponge	0.005	Trace	0.9993
156 Actiniaria (order)	0.005	Trace	0.9993
157 Aphroditidae	0.004	Trace	0.9993
158 Paralithodes californiensis	0.004	Trace	0.9993
159 Oncorhynchus gorbuscha	0.004	Trace	0.9994
160 Pasiphaeidae	0.004	Trace	0.9994
161 Gonatus sp.	0.003	Trace	0.9994
162 Ophiura sarsi	0.003	Trace	0.9994
163 Laqueus californianus	0.003	Trace	0.9994
164 Fusitriton oregonensis	0.003	Trace	0.9994
165 Leptychaster sp.	0.003	Trace	0.9995
166 Nudibranchia unident.	0.003	Trace	0.9995
167 Mediaster aequalis	0.003	Trace	0.9995
168 Careproctus sp.	0.003	Trace	0.9995
169 Sebastes levis	0.003	Trace	0.9995
170 Cancer productus	0.003	Trace	0.9995
171 Trachipterus altivelis	0.003	Trace	0.9996
172 Sebastes reedi	0.003	Trace	0.9996

Table B-36.--Continued.

173 Pseudarchaster parelii	0.003	Trace	0.9996
174 Myxinidae	0.003	Trace	0.9996
175 brachiopod unident.	0.002	Trace	0.9996
176 Diaphus theta	0.002	Trace	0.9996
177 Ptilosarcus gurneyi	0.002	Trace	0.9996
178 Pisaster brevispinus	0.002	Trace	0.9996
179 Bathyraja sp.	0.002	Trace	0.9997
180 Bathyagonus pentacanthus	0.002	Trace	0.9997
181 Rossia pacifica	0.002	Trace	0.9997
182 Gastropod unident.	0.002	Trace	0.9997
183 Sebastes melanops	0.002	Trace	0.9997
184 Zaniolepis latipinnis	0.002	Trace	0.9997
185 Bothrocarra brunneum	0.002	Trace	0.9997
186 Dermasterias imbricata	0.002	Trace	0.9997
187 Petromyzontidae	0.001	Trace	0.9997
188 Buccinum sp.	0.001	Trace	0.9997
189 Molpadia sp.	0.001	Trace	0.9997
190 Echinacea unident.	0.001	Trace	0.9998
191 Diplopteraster multipes	0.001	Trace	0.9998
192 Pteraster tessellatus	0.001	Trace	0.9998
193 Pleuronichthys ritteri	0.001	Trace	0.9998
194 squid unident.	0.001	Trace	0.9998
195 Anthoptilum grandiflorum	0.001	Trace	0.9998
196 Lampetra tridentata	0.001	Trace	0.9998
197 Asterina miniata	0.001	Trace	0.9998
198 Pagurus confragosus	0.001	Trace	0.9998
199 Sebastes sp.	0.001	Trace	0.9998
200 Tritonia sp.	0.001	Trace	0.9998
201 Apristurus brunneus	0.001	Trace	0.9998
202 Crossaster papposus	0.001	Trace	0.9998
203 Penaeidae	0.001	Trace	0.9998
204 Pseudostichopus sp.	0.001	Trace	0.9998
205 Alepisaurus ferox	0.001	Trace	0.9998
206 Bathyraja aleutica	0.001	Trace	0.9998
207 Thrissacanthias penicillatus	0.001	Trace	0.9998
208 Mursia gaudichaudii	0.001	Trace	0.9998
209 Sebastes rosenblatti	0.001	Trace	0.9998
210 Gephyreaster swifti	0.001	Trace	0.9999
211 Sicyonia ingentis	0.001	Trace	0.9999
212 Hexanchus griseus	0.001	Trace	0.9999
213 Careproctus cypselurus	0.001	Trace	0.9999
214 Hyperprosopon anale	0.001	Trace	0.9999

Table B-36.--Continued.

215 Chauliodus macouni	0.001	Trace	0.9999
216 Anarrhichthys ocellatus	0.001	Trace	0.9999
217 gastropod eggs	0.001	Trace	0.9999
218 Cheiraster (=Luidiaster)	0.001	Trace	0.9999
219 Solaster sp.	0.001	Trace	0.9999
220 Bathyagonus nigripinnis	0.001	Trace	0.9999
221 Hexactinellida	0.001	Trace	0.9999
222 Paralithodes rathbuni	0.001	Trace	0.9999
223 Grimpoteuthis albatrossi	Trace	Trace	0.9999
224 Calinaticina oldroyi	Trace	Trace	0.9999
225 Asterias amurensis	Trace	Trace	0.9999
226 Polinices sp.	Trace	Trace	0.9999
227 Hemilepidotus spinosus	Trace	Trace	0.9999
228 Hippasteria californica	Trace	Trace	0.9999
229 Coryphaenoides acrolepis	Trace	Trace	0.9999
230 Liparidinae	Trace	Trace	0.9999
231 pink hormathiid anemone	Trace	Trace	0.9999
232 Stomphia coccinea	Trace	Trace	0.9999
233 Poraniopsis inflata	Trace	Trace	0.9999
234 Tactostoma macropus	Trace	Trace	0.9999
235 Nezumia stelgidolepis	Trace	Trace	0.9999
236 Psolus sp.	Trace	Trace	0.9999
237 Neptunea pribiloffensis	Trace	Trace	0.9999
238 Histioteuthis hoylei	Trace	Trace	0.9999
239 Urticina sp.	Trace	Trace	0.9999
240 Solaster stimpsoni	Trace	Trace	0.9999
241 Spatangus californicus	Trace	Trace	0.9999
242 Patinopecten caurinus	Trace	Trace	0.9999
243 Pagurus capillatus	Trace	Trace	0.9999
244 Sebastes rosaceus	Trace	Trace	0.9999
245 Sebastes carnatus	Trace	Trace	0.9999
246 Pennatulacea (order)	Trace	Trace	1.0000
247 Octopoteuthis deletron	Trace	Trace	1.0000
248 red striated sea anemone	Trace	Trace	1.0000
249 Solaster paxillatus	Trace	Trace	1.0000
250 Crossaster borealis	Trace	Trace	1.0000
251 Sergestes sp.	Trace	Trace	1.0000
252 Mediaster sp.	Trace	Trace	1.0000
253 Orthasterias koehleri	Trace	Trace	1.0000
254 Hippasteria sp.	Trace	Trace	1.0000
255 Lepidopus xantusi	Trace	Trace	1.0000
256 Neomenia sp.	Trace	Trace	1.0000



Table B-36.--Continued.

257	<i>Astropecten californicus</i>	Trace	Trace	1.0000
258	<i>Ocella verrucosa</i>	Trace	Trace	1.0000
259	<i>Cancer gracilis</i>	Trace	Trace	1.0000
260	<i>Chorilia longipes</i>	Trace	Trace	1.0000
261	<i>Gonatus onyx</i>	Trace	Trace	1.0000
262	Melanostomiidae	Trace	Trace	1.0000
263	Chauliodontidae	Trace	Trace	1.0000
264	<i>Solaster endeca</i>	Trace	Trace	1.0000
265	<i>Chiroteuthis</i> sp.	Trace	Trace	1.0000
266	<i>Pseudarchaster</i> sp.	Trace	Trace	1.0000
267	<i>Acantholithodes hispidus</i>	Trace	Trace	1.0000
268	<i>Podothecus acipenserinus</i>	Trace	Trace	1.0000
269	<i>Thetys vagina</i>	Trace	Trace	1.0000
270	<i>Idiacanthus antrostomus</i>	Trace	Trace	1.0000
271	<i>Octopus rubescens</i>	Trace	Trace	1.0000
272	<i>Tritonia diomedea</i>	Trace	Trace	1.0000
273	<i>Lampanyctus ritteri</i>	Trace	Trace	1.0000
274	<i>Agonopsis vulsa</i>	Trace	Trace	1.0000
275	<i>Antiplanes</i> sp.	Trace	Trace	1.0000
276	Onychoteuthidae	Trace	Trace	1.0000
277	<i>Sagamichthys abei</i>	Trace	Trace	1.0000
278	<i>Ophiomusium jolliensis</i>	Trace	Trace	1.0000
279	<i>Sipuncula</i> (phylum)	Trace	Trace	1.0000
280	<i>Chionoecetes angulatus</i>	Trace	Trace	1.0000
281	<i>Styela rustica</i>	Trace	Trace	1.0000
282	<i>Embassichthys bathybius</i>	Trace	Trace	1.0000
283	<i>Pleuronichthys verticalis</i>	Trace	Trace	1.0000
284	<i>Leptocottus armatus</i>	Trace	Trace	1.0000
285	<i>Stenobrachius leucopsarus</i>	Trace	Trace	1.0000
286	Ascidian unident.	Trace	Trace	1.0000
287	pineapple cucumber	Trace	Trace	1.0000
288	<i>Raja binoculata</i>	Trace	Trace	1.0000
289	<i>Tethya</i> sp.	Trace	Trace	1.0000
290	<i>Pentamera</i> sp.	Trace	Trace	1.0000
291	<i>Buccinum strigillatum</i>	Trace	Trace	1.0000
292	<i>Lophaster furcilliger</i>	Trace	Trace	1.0000
293	<i>Lethasterias nanimensis</i>	Trace	Trace	1.0000
294	<i>Pseudarchaster dissonus</i>	Trace	Trace	1.0000
295	<i>Vampyroteuthis infernalis</i>	Trace	Trace	1.0000
296	Mollusca (phylum)	Trace	Trace	1.0000
297	<i>Chitonotus pugetensis</i>	Trace	Trace	1.0000
298	<i>Bathylagus</i> sp.	Trace	Trace	1.0000

Table B-36.--Continued.

299	<i>Pteraster militaris</i>	Trace	Trace	1.0000
300	<i>Ceramaster japonicus</i>	Trace	Trace	1.0000
301	<i>Asteronyx loveni</i>	Trace	Trace	1.0000
302	<i>Sebastes dalli</i>	Trace	Trace	1.0000
303	<i>Bathophilus flemingi</i>	Trace	Trace	1.0000
304	<i>Scorpaena guttata</i>	Trace	Trace	1.0000
305	<i>Icelinus oculatus</i>	Trace	Trace	1.0000
306	<i>Sebastes emphaeus</i>	Trace	Trace	1.0000
307	<i>Enophrys taurina</i>	Trace	Trace	1.0000
308	<i>Ophiopholis longispina</i>	Trace	Trace	1.0000
309	<i>Malacocottus kincaidi</i>	Trace	Trace	1.0000
310	crab unident.	Trace	Trace	1.0000
311	Bathymasteridae	Trace	Trace	1.0000
312	<i>Stegophiura</i> (=Amphiophiura)	Trace	Trace	1.0000
313	<i>Asteronyx longifissa</i>	Trace	Trace	1.0000
314	Mytilidae	Trace	Trace	1.0000
315	<i>Chionoecetes bairdi</i>	Trace	Trace	1.0000
316	<i>Ophidion scrippsae</i>	Trace	Trace	1.0000
317	<i>Pagurus</i> sp.	Trace	Trace	1.0000
318	<i>Pagurus tanneri</i>	Trace	Trace	1.0000
319	<i>Icelinus tenuis</i>	Trace	Trace	1.0000
320	<i>Trichodon trichodon</i>	Trace	Trace	1.0000
321	Cephalopoda unident.	Trace	Trace	1.0000
322	<i>Mya</i> sp.	Trace	Trace	1.0000
323	Platyhelminthes (phylum)	Trace	Trace	1.0000
324	<i>Anthomastus</i> sp.	Trace	Trace	1.0000
325	Shark egg	Trace	Trace	1.0000
326	<i>Pandalus hypsinotus</i>	Trace	Trace	1.0000
327	<i>Aphrodita</i> sp.	Trace	Trace	1.0000
328	<i>Munida quadrispina</i>	Trace	Trace	1.0000
329	<i>Chiroteuthis calyx</i>	Trace	Trace	1.0000
330	Polychaeta (class)	Trace	Trace	1.0000
331	<i>Pagurus brandti</i>	Trace	Trace	1.0000
332	<i>Taningia danae</i>	Trace	Trace	1.0000
333	purple striated sea anemone	Trace	Trace	1.0000
334	<i>Onychoteuthis borealijaponicus</i>	Trace	Trace	1.0000
335	<i>Aristostomias scintillans</i>	Trace	Trace	1.0000
336	<i>Lycodapus mandibularis</i>	Trace	Trace	1.0000
337	<i>Ceramaster patagonicus</i>	Trace	Trace	1.0000
338	<i>Polinices pallidus</i>	Trace	Trace	1.0000
339	<i>Icelinus burchami</i>	Trace	Trace	1.0000
340	<i>Lampanyctus</i> sp.	Trace	Trace	1.0000

Table B-36.--Continued.

341 Bathylagus milleri	Trace	Trace	1.0000
342 crinoid unident.	Trace	Trace	1.0000
343 Symphurus atricauda	Trace	Trace	1.0000
344 Dasycottus setiger	Trace	Trace	1.0000
345 Physiculus rastrelliger	Trace	Trace	1.0000
346 Isopoda (order)	Trace	Trace	1.0000
347 Xeneretmus latifrons	Trace	Trace	1.0000
348 Pandalus borealis	Trace	Trace	1.0000
349 Tarletonbeania crenularis	Trace	Trace	1.0000
350 Ronquilus jordani	Trace	Trace	1.0000
351 Lycodapus sp.	Trace	Trace	1.0000
352 Platyroctidae	Trace	Trace	1.0000
353 Benthabella dentata	Trace	Trace	1.0000
354 Pandalus tridens	Trace	Trace	1.0000
355 Ctenophora (phylum)	Trace	Trace	1.0000
356 Polinices lewisi	Trace	Trace	1.0000
357 Malacocottus zonurus	Trace	Trace	1.0000
358 Pseudarchaster parelii	Trace	Trace	1.0000
359 Anoplogaster cornuta	Trace	Trace	1.0000
360 Ammodytes hexapterus	Trace	Trace	1.0000
361 Liparis pulchellus	Trace	Trace	1.0000
362 Cottidae	Trace	Trace	1.0000
363 Neptunea lyrata	Trace	Trace	1.0000
364 Agonidae	Trace	Trace	1.0000
365 Crangon communis	Trace	Trace	1.0000
366 Rhabdocalypus sp.	Trace	Trace	1.0000
367 Pleuronectiformes larvae	Trace	Trace	1.0000
368 Lyconectes aleutensis	Trace	Trace	1.0000
369 Eptatretus stouti	Trace	Trace	1.0000
370 Leuroglossus stilbius	Trace	Trace	1.0000
371 Notolepsis risso	Trace	Trace	1.0000
372 Paricelinus hopliticus	Trace	Trace	1.0000
373 Serrivomer sector	Trace	Trace	1.0000
374 Florometra serratissima	Trace	Trace	1.0000
375 fish unident.	Trace	Trace	1.0000
376 Cololabis saira	Trace	Trace	1.0000
377 Gersemia sp.	Trace	Trace	1.0000
378 Bathyplotes sp.	Trace	Trace	1.0000
379 Nemichthyidae	Trace	Trace	1.0000
380 Polynoidae	Trace	Trace	1.0000
381 Bathylagidae unident.	Trace	Trace	1.0000
382 Sternoptychidae unident.	Trace	Trace	1.0000

Table B-36.--Continued.

383 Melamphaidae	Trace	Trace	1.0000
384 Pagurus aleuticus	Trace	Trace	1.0000
385 Henricia aspera	Trace	Trace	1.0000
386 Oregonia bifurca	Trace	Trace	1.0000
387 compound ascidian unident.	Trace	Trace	1.0000
388 Bivalvia unident.	Trace	Trace	1.0000
389 Hydrolagus colliei	Trace	Trace	1.0000
390 Zaprora silenus	Trace	Trace	1.0000
391 Crangon sp.	Trace	Trace	1.0000
392 Alyconaria unident.	Trace	Trace	1.0000
393 Pandalus stenolepis	Trace	Trace	1.0000
394 Gnathophausia ingens	Trace	Trace	1.0000
395 Calliostoma platinum	Trace	Trace	1.0000
396 shrimp unident.	Trace	Trace	1.0000
397 Callinassa sp.	Trace	Trace	1.0000
398 Triglops macellus	Trace	Trace	1.0000
399 Armina californica	Trace	Trace	1.0000
400 Gorgonacea (order)	Trace	Trace	1.0000
401 Periphylla periphylla	Trace	Trace	1.0000
402 Florometra sp.	Trace	Trace	1.0000
403 Ophiura sp.	Trace	Trace	1.0000
404 Diaphus sp.	Trace	Trace	1.0000
405 Benthoplectinidae	Trace	Trace	1.0000
406 Anotopterus pharao	Trace	Trace	1.0000
407 Euphausiacea (order)	Trace	Trace	1.0000
408 Ophiopholis sp.	Trace	Trace	1.0000
409 Pectinid unident.	Trace	Trace	1.0000
410 Eualus macrophthalmus	Trace	Trace	1.0000

## APPENDIX C

### ESTIMATES OF BIOMASS AND POPULATION NUMBERS

The tables in Appendix C present the estimates of biomass and population numbers, along with their associated variances and coefficients of variation (CV), derived from the results of the 2001 West Coast triennial bottom trawl survey. Abundance estimates are provided for each depth stratum of each International North Pacific Fisheries Commission (INPFC) area, as well as for the entire survey area and the U.S. portion of the survey area. Estimates are presented for the most commercially or ecologically important species in alphabetical order, though users are cautioned to regard estimates of pelagic and semi-pelagic species as conservative minimum estimates. The following species are included in this appendix:

American shad	Pacific herring
Arrowtooth flounder	Pacific ocean perch
Bocaccio	Pacific sanddab
Canary rockfish	Pacific sardine
Chilipepper	Petrable sole
Chub mackerel	Redstripe rockfish
Darkblotched rockfish	Rex sole
Dover sole	Sablefish
English sole	Sharpchin rockfish
Eulachon	Shortbelly rockfish
Greenstriped rockfish	Shortspine thornyhead
Jack mackerel	Silvergray rockfish
Lingcod	Spiny dogfish
Longspine thornyhead	Splitnose rockfish
Northern anchovy	Stripetail rockfish
Pacific hake (whiting)	Widow rockfish
Pacific halibut	Yellowtail rockfish

## American shad

### Biomass and population estimates for 2001 NMFS triennial bottom trawl survey

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	774	5.4553159e+04	0.30	1,124,681	9.2873110e+10	0.27
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	774	5.4553159e+04	0.30	1,124,681	9.2873110e+10	0.27
	55-500 m	774	5.4553159e+04	0.30	1,124,681	9.2873110e+10	0.27
<b>US</b>							
<b>Vancouver</b>	55-183 m	768	6.5414682e+04	0.33	1,705,046	2.6341205e+11	0.30
	184-366 m	0	1.2634686e-01	1.00	1,300	1.6911388e+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	769	6.5414808e+04	0.33	1,706,346	2.6341374e+11	0.30
	55-500 m	769	6.5414808e+04	0.33	1,706,346	2.6341374e+11	0.30
<b>Total</b>							
<b>Vancouver</b>	55-183 m	1,542	1.3421749e+05	0.24	2,829,726	4.0252151e+11	0.22
	184-366 m	0	1.2634686e-01	1.00	1,300	1.6911388e+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	1,542	1.3421761e+05	0.24	2,831,027	4.0252320e+11	0.22
	55-500 m	1,542	1.3421761e+05	0.24	2,831,027	4.0252320e+11	0.22
<b>Columbia</b>	55-183 m	395	2.4420070e+04	0.40	829,468	9.8019540e+10	0.38
	184-366 m	1	1.3794668e+00	1.00	4,297	1.8464011e+07	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	397	2.4421449e+04	0.39	833,765	9.8038004e+10	0.38
	55-500 m	397	2.4421449e+04	0.39	833,765	9.8038004e+10	0.38
<b>Eureka</b>	55-183 m	25	1.8644759e+02	0.55	75,009	1.8230607e+09	0.57
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	25	1.8644759e+02	0.55	75,009	1.8230607e+09	0.57
	55-500 m	25	1.8644759e+02	0.55	75,009	1.8230607e+09	0.57
<b>Monterey</b>	55-183 m	122	1.3311509e+03	0.30	469,565	3.9327430e+10	0.42
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	122	1.3311509e+03	0.30	469,565	3.9327430e+10	0.42
	55-500 m	122	1.3311509e+03	0.30	469,565	3.9327430e+10	0.42
<b>Conception</b>	55-183 m	5	1.8810647e+01	0.96	10,019	8.9967191e+07	0.95
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	5	1.8810647e+01	0.96	10,019	8.9967191e+07	0.95
	55-500 m	5	1.8810647e+01	0.96	10,019	8.9967191e+07	0.95
<b>US Total</b>	55-183 m	1,315	1.0609785e+05	0.25	3,089,106	4.6193719e+11	0.22
	184-366 m	2	2.3407778e+00	1.00	5,597	3.1331053e+07	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	1,316	1.0610019e+05	0.25	3,094,703	4.6196852e+11	0.22
	55-500 m	1,316	1.0610019e+05	0.25	3,094,703	4.6196852e+11	0.22
<b>Total</b>	55-183 m	2,088	1.7490066e+05	0.20	4,213,786	6.0104665e+11	0.18
	184-366 m	2	2.3407778e+00	1.00	5,597	3.1331053e+07	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	2,090	1.7490300e+05	0.20	4,219,384	6.0107798e+11	0.18
	55-500 m	2,090	1.7490300e+05	0.20	4,219,384	6.0107798e+11	0.18

**Arrowtooth flounder**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	18,818	1.5050103e+07	0.21	38,156,178	2.7203661e+13	0.14
<b>Vancouver</b>	184-366 m	5,047	3.4416068e+06	0.37	2,591,342	6.1211305e+11	0.30
	367-500 m	36	7.1441186e+01	0.23	27,169	2.2777001e+08	0.56
	55-366 m	23,866	1.8491710e+07	0.18	40,747,520	2.7815774e+13	0.13
	55-500 m	23,902	1.8491781e+07	0.18	40,774,689	2.7816002e+13	0.13
<b>US</b>	55-183 m	6,330	2.8377132e+06	0.27	11,935,205	5.2553966e+12	0.19
<b>Vancouver</b>	184-366 m	5,681	7.6693444e+06	0.49	3,162,553	1.2924901e+12	0.36
	367-500 m	37	5.8328491e+02	0.65	18,121	1.6722350e+08	0.71
	55-366 m	12,011	1.0507058e+07	0.27	15,097,758	6.5478868e+12	0.17
	55-500 m	12,048	1.0507641e+07	0.27	15,115,879	6.5480540e+12	0.17
<b>Total</b>	55-183 m	25,148	1.9629864e+07	0.18	50,091,383	3.5620046e+13	0.12
<b>Vancouver</b>	184-366 m	10,728	1.4673671e+07	0.36	5,753,896	2.5226463e+12	0.28
	367-500 m	74	6.9325248e+02	0.36	45,290	4.0084086e+08	0.44
	55-366 m	35,876	3.4303535e+07	0.16	55,845,278	3.8142692e+13	0.11
	55-500 m	35,950	3.4304229e+07	0.16	55,890,569	3.8143093e+13	0.11
<b>Columbia</b>	55-183 m	5,625	5.2185942e+05	0.13	18,719,167	3.7593183e+12	0.10
	184-366 m	2,201	1.0296073e+05	0.15	2,746,623	2.5142642e+11	0.18
	367-500 m	381	5.1594433e+03	0.19	179,308	1.2881027e+09	0.20
	55-366 m	7,826	6.2482015e+05	0.10	21,465,790	4.0107447e+12	0.09
	55-500 m	8,207	6.2997959e+05	0.10	21,645,098	4.0120328e+12	0.09
<b>Eureka</b>	55-183 m	412	3.8206586e+03	0.15	2,276,300	1.0327316e+11	0.14
	184-366 m	150	5.4952311e+03	0.49	630,256	1.3338243e+11	0.58
	367-500 m	18	6.6835948e+01	0.46	11,800	2.5327850e+07	0.43
	55-366 m	562	9.3158898e+03	0.17	2,906,556	2.3665560e+11	0.17
	55-500 m	580	9.3827257e+03	0.17	2,918,356	2.3668092e+11	0.17
<b>Monterey</b>	55-183 m	81	1.8192159e+03	0.52	454,959	5.5477748e+10	0.52
	184-366 m	9	2.3825326e+01	0.54	40,712	5.2298846e+08	0.56
	367-500 m	1	9.2194608e-01	1.00	1,265	1.6003758e+06	1.00
	55-366 m	90	1.8430412e+03	0.48	495,672	5.6000736e+10	0.48
	55-500 m	91	1.8439632e+03	0.47	496,937	5.6002337e+10	0.48
<b>Conception</b>	55-183 m	0	1.2938817e-02	1.00	542	2.9339721e+05	1.00
	184-366 m	0	8.3220403e-03	1.00	563	3.1710259e+05	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	0	2.1260857e-02	0.71	1,105	6.1049980e+05	0.71
	55-500 m	0	2.1260857e-02	0.71	1,105	6.1049980e+05	0.71
<b>US Total</b>	55-183 m	12,448	3.6066058e+06	0.15	33,386,173	9.9031277e+12	0.09
	184-366 m	8,041	7.8138709e+06	0.35	6,580,708	1.6895210e+12	0.20
	367-500 m	437	8.0818041e+03	0.21	210,494	2.1625086e+09	0.22
	55-366 m	20,489	1.1420477e+07	0.16	39,966,881	1.1592649e+13	0.09
	55-500 m	20,926	1.1428559e+07	0.16	40,177,375	1.1594811e+13	0.08
<b>Total</b>	55-183 m	31,266	2.0398757e+07	0.14	71,542,351	4.0267777e+13	0.09
	184-366 m	13,088	1.4818198e+07	0.29	9,172,050	2.9196771e+12	0.19
	367-500 m	473	8.1917716e+03	0.19	237,664	2.3961260e+09	0.21
	55-366 m	44,355	3.5216954e+07	0.13	80,714,401	4.3187454e+13	0.08
	55-500 m	44,828	3.5225146e+07	0.13	80,952,065	4.3189850e+13	0.08

**Aurora rockfish**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	0	-	-	0	-	-
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	9	2.9945369e+01	0.63	17,303	1.0024778e+08	0.58
	55-366 m	0	-	-	0	-	-
	55-500 m	9	2.9945369e+01	0.63	17,303	1.0024778e+08	0.58
<b>US</b>	55-183 m	0	-	-	0	-	-
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	23	2.0629680e+02	0.63	45,416	6.9061749e+08	0.58
	55-366 m	0	-	-	0	-	-
	55-500 m	23	2.0629680e+02	0.63	45,416	6.9061749e+08	0.58
<b>Total</b>	55-183 m	0	-	-	0	-	-
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	31	3.9343801e+02	0.63	62,719	1.3171081e+09	0.58
	55-366 m	0	-	-	0	-	-
	55-500 m	31	3.9343801e+02	0.63	62,719	1.3171081e+09	0.58
<b>Columbia</b>	55-183 m	0	-	-	0	-	-
	184-366 m	6	3.2203144e+01	1.00	12,816	1.6424155e+08	1.00
	367-500 m	307	9.4508783e+03	0.32	812,200	4.0596745e+10	0.25
	55-366 m	6	3.2203144e+01	1.00	12,816	1.6424155e+08	1.00
	55-500 m	313	9.4830815e+03	0.31	825,016	4.0760987e+10	0.24
<b>Eureka</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	217	3.3739018e+03	0.27	689,765	3.0232583e+10	0.25
	55-366 m	0	-	-	0	-	-
	55-500 m	217	3.3739018e+03	0.27	689,765	3.0232583e+10	0.25
<b>Monterey</b>	55-183 m	0	-	-	0	-	-
	184-366 m	73	4.1254034e+03	0.88	257,551	4.5543242e+10	0.83
	367-500 m	760	9.5397476e+04	0.41	2,760,769	9.0986444e+11	0.35
	55-366 m	73	4.1254034e+03	0.88	257,551	4.5543242e+10	0.83
	55-500 m	833	9.9522880e+04	0.38	3,018,320	9.5540768e+11	0.32
<b>Conception</b>	55-183 m	0	-	-	0	-	-
	184-366 m	36	1.2420555e+03	0.99	120,660	1.3349281e+10	0.96
	367-500 m	556	1.0768697e+04	0.19	1,900,623	1.1671138e+11	0.18
	55-366 m	36	1.2420555e+03	0.99	120,660	1.3349281e+10	0.96
	55-500 m	592	1.2010752e+04	0.19	2,021,284	1.3006066e+11	0.18
<b>US Total</b>	55-183 m	0	-	-	0	-	-
	184-366 m	115	9.8767537e+03	0.87	391,026	1.0708700e+11	0.84
	367-500 m	1,864	1.2133696e+05	0.19	6,208,775	1.1147747e+12	0.17
	55-366 m	115	9.8767537e+03	0.87	391,026	1.0708700e+11	0.84
	55-500 m	1,978	1.3121372e+05	0.18	6,599,801	1.2218617e+12	0.17
<b>Total</b>	55-183 m	0	-	-	0	-	-
	184-366 m	115	9.8767537e+03	0.87	391,026	1.0708700e+11	0.84
	367-500 m	1,872	1.2152410e+05	0.19	6,226,078	1.1154012e+12	0.17
	55-366 m	115	9.8767537e+03	0.87	391,026	1.0708700e+11	0.84
	55-500 m	1,987	1.3140086e+05	0.18	6,617,104	1.2224882e+12	0.17



## Bocaccio

### Biomass and population estimates for 2001 NMFS triennial bottom trawl survey

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	29	8.1667904e+02	1.00	10,991	1.2081051e+08	1.00
<b>Vancouver</b>	184-366 m	91	8.3315216e+03	1.00	12,170	1.4811594e+08	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	120	9.1482006e+03	0.80	23,162	2.6892645e+08	0.71
	55-500 m	120	9.1482006e+03	0.80	23,162	2.6892645e+08	0.71
<b>US</b>	55-183 m	1	1.5877198e+00	1.00	485	2.3486980e+05	1.00
<b>Vancouver</b>	184-366 m	26	6.8247669e+02	1.00	3,483	1.2132919e+07	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	27	6.8406441e+02	0.96	3,968	1.2367789e+07	0.89
	55-500 m	27	6.8406441e+02	0.96	3,968	1.2367789e+07	0.89
<b>Total</b>	55-183 m	30	8.9028503e+02	1.00	11,476	1.3169897e+08	1.00
<b>Vancouver</b>	184-366 m	117	1.3783094e+04	1.00	15,654	2.4503279e+08	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	147	1.4673379e+04	0.82	27,130	3.7673176e+08	0.72
	55-500 m	147	1.4673379e+04	0.82	27,130	3.7673176e+08	0.72
<b>Columbia</b>	55-183 m	51	9.6385704e+02	0.61	10,246	3.4588874e+07	0.57
	184-366 m	16	1.2287660e+02	0.69	5,036	1.1835382e+07	0.68
	367-500 m	0	-	-	0	-	-
	55-366 m	67	1.0867336e+03	0.49	15,282	4.6424255e+07	0.45
	55-500 m	67	1.0867336e+03	0.49	15,282	4.6424255e+07	0.45
<b>Eureka</b>	55-183 m	12	1.3367847e+02	1.00	2,569	6.6014059e+06	1.00
	184-366 m	16	1.1975544e+02	0.69	3,536	5.8433012e+06	0.68
	367-500 m	0	-	-	0	-	-
	55-366 m	27	2.5343391e+02	0.58	6,106	1.2444707e+07	0.58
	55-500 m	27	2.5343391e+02	0.58	6,106	1.2444707e+07	0.58
<b>Monterey</b>	55-183 m	77	1.1024168e+03	0.43	108,653	3.2726378e+09	0.53
	184-366 m	33	5.3279557e+02	0.70	22,775	1.5644156e+08	0.55
	367-500 m	0	-	-	0	-	-
	55-366 m	110	1.6352124e+03	0.37	131,428	3.4290794e+09	0.45
	55-500 m	110	1.6352124e+03	0.37	131,428	3.4290794e+09	0.45
<b>Conception</b>	55-183 m	38	3.7446279e+02	0.51	66,287	1.0970019e+09	0.50
	184-366 m	14	1.7451162e+02	0.94	20,327	3.4947270e+08	0.92
	367-500 m	0	-	-	0	-	-
	55-366 m	52	5.4897442e+02	0.45	86,614	1.4464746e+09	0.44
	55-500 m	52	5.4897442e+02	0.45	86,614	1.4464746e+09	0.44
<b>US Total</b>	55-183 m	179	2.5859315e+03	0.28	188,240	4.4172558e+09	0.35
	184-366 m	105	1.6347150e+03	0.38	55,157	5.4628267e+08	0.42
	367-500 m	0	-	-	0	-	-
	55-366 m	284	4.2206464e+03	0.23	243,398	4.9635384e+09	0.29
	55-500 m	284	4.2206464e+03	0.23	243,398	4.9635384e+09	0.29
<b>Total</b>	55-183 m	207	3.4746288e+03	0.28	199,232	4.5487199e+09	0.34
	184-366 m	197	1.4735333e+04	0.62	67,327	7.7918253e+08	0.41
	367-500 m	0	-	-	0	-	-
	55-366 m	404	1.8209961e+04	0.33	266,559	5.3279024e+09	0.27
	55-500 m	404	1.8209961e+04	0.33	266,559	5.3279024e+09	0.27

**Canary rockfish**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	301	3.6977007e+04	0.64	224,039	1.9447255e+10	0.62
<b>Vancouver</b>	184-366 m	67	2.2835837e+03	0.71	32,400	5.7455395e+08	0.74
	367-500 m	0	-	-	0	-	-
	55-366 m	368	3.9260591e+04	0.54	256,439	2.0021809e+10	0.55
	55-500 m	368	3.9260591e+04	0.54	256,439	2.0021809e+10	0.55
<b>US</b>	55-183 m	655	1.9129134e+05	0.67	661,331	2.7039911e+11	0.79
<b>Vancouver</b>	184-366 m	55	1.3788748e+03	0.68	29,543	4.3309880e+08	0.70
	367-500 m	0	-	-	0	-	-
	55-366 m	710	1.9267022e+05	0.62	690,874	2.7083220e+11	0.75
	55-500 m	710	1.9267022e+05	0.62	690,874	2.7083220e+11	0.75
<b>Total</b>	55-183 m	956	2.3299572e+05	0.51	885,370	2.9226182e+11	0.61
<b>Vancouver</b>	184-366 m	122	5.2262721e+03	0.59	61,943	1.4196620e+09	0.61
	367-500 m	0	-	-	0	-	-
	55-366 m	1,078	2.3822200e+05	0.45	947,313	2.9368148e+11	0.57
	55-500 m	1,078	2.3822200e+05	0.45	947,313	2.9368148e+11	0.57
<b>Columbia</b>	55-183 m	2,261	2.0374212e+06	0.63	2,301,470	2.8779723e+12	0.74
	184-366 m	33	1.5712766e+02	0.38	20,461	6.0318357e+07	0.38
	367-500 m	0	-	-	0	-	-
	55-366 m	2,294	2.0375783e+06	0.62	2,321,931	2.8780326e+12	0.73
	55-500 m	2,294	2.0375783e+06	0.62	2,321,931	2.8780326e+12	0.73
<b>Eureka</b>	55-183 m	149	4.3026296e+03	0.44	112,069	2.4614164e+09	0.44
	184-366 m	16	1.1664372e+02	0.69	9,142	3.9015784e+07	0.68
	367-500 m	0	-	-	0	-	-
	55-366 m	164	4.4192733e+03	0.40	121,211	2.5004321e+09	0.41
	55-500 m	164	4.4192733e+03	0.40	121,211	2.5004321e+09	0.41
<b>Monterey</b>	55-183 m	95	2.8907236e+03	0.56	101,980	3.2311877e+09	0.56
	184-366 m	2	5.0719485e+00	1.00	2,047	4.1916930e+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	98	2.8957955e+03	0.55	104,027	3.2353793e+09	0.55
	55-500 m	98	2.8957955e+03	0.55	104,027	3.2353793e+09	0.55
<b>Conception</b>	55-183 m	8	3.0890325e+01	0.74	5,007	1.2571405e+07	0.71
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	8	3.0890325e+01	0.74	5,007	1.2571405e+07	0.71
	55-500 m	8	3.0890325e+01	0.74	5,007	1.2571405e+07	0.71
<b>US Total</b>	55-183 m	3,168	3.4230024e+06	0.58	3,181,857	4.8924451e+12	0.70
	184-366 m	105	1.6725748e+03	0.39	61,194	5.4161891e+08	0.38
	367-500 m	0	-	-	0	-	-
	55-366 m	3,274	3.4246750e+06	0.57	3,243,050	4.8929868e+12	0.68
	55-500 m	3,274	3.4246750e+06	0.57	3,243,050	4.8929868e+12	0.68
<b>Total</b>	55-183 m	3,469	3.4647068e+06	0.54	3,405,896	4.9143079e+12	0.65
	184-366 m	173	5.5199720e+03	0.43	93,593	1.5281821e+09	0.42
	367-500 m	0	-	-	0	-	-
	55-366 m	3,642	3.4702268e+06	0.51	3,499,489	4.9158360e+12	0.63
	55-500 m	3,642	3.4702268e+06	0.51	3,499,489	4.9158360e+12	0.63

## Chilipepper

### Biomass and population estimates for 2001 NMFS triennial bottom trawl survey

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	0	-	-	0	-	-
<b>Vancouver</b>	184-366 m	2	6.2448313e+00	1.00	4,057	1.6457327e+07	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	2	6.2448313e+00	1.00	4,057	1.6457327e+07	1.00
	55-500 m	2	6.2448313e+00	1.00	4,057	1.6457327e+07	1.00
<b>US</b>	55-183 m	0	-	-	0	-	-
<b>Vancouver</b>	184-366 m	1	5.1154543e-01	1.00	1,161	1.3481021e+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	1	5.1154543e-01	1.00	1,161	1.3481021e+06	1.00
	55-500 m	1	5.1154543e-01	1.00	1,161	1.3481021e+06	1.00
<b>Total</b>	55-183 m	0	-	-	0	-	-
<b>Vancouver</b>	184-366 m	3	1.0331018e+01	1.00	5,218	2.7225865e+07	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	3	1.0331018e+01	1.00	5,218	2.7225865e+07	1.00
	55-500 m	3	1.0331018e+01	1.00	5,218	2.7225865e+07	1.00
<b>Columbia</b>	55-183 m	0	-	-	0	-	-
	184-366 m	1	6.2102607e-01	1.00	4,988	2.4876866e+07	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	1	6.2102607e-01	1.00	4,988	2.4876866e+07	1.00
	55-500 m	1	6.2102607e-01	1.00	4,988	2.4876866e+07	1.00
<b>Eureka</b>	55-183 m	15	1.2067574e+02	0.72	60,299	9.9488864e+08	0.52
	184-366 m	60	3.5586900e+03	0.99	99,039	9.4876238e+09	0.98
	367-500 m	0	-	-	0	-	-
	55-366 m	76	3.6793657e+03	0.80	159,338	1.0482512e+10	0.64
	55-500 m	76	3.6793657e+03	0.80	159,338	1.0482512e+10	0.64
<b>Monterey</b>	55-183 m	9,270	1.2666179e+07	0.38	40,982,326	3.4394956e+14	0.45
	184-366 m	4,838	1.8941104e+07	0.90	10,266,381	9.0600403e+13	0.93
	367-500 m	1	1.3311084e+00	1.00	2,587	6.6918118e+06	1.00
	55-366 m	14,108	3.1607283e+07	0.40	51,248,708	4.3454996e+14	0.41
	55-500 m	14,109	3.1607284e+07	0.40	51,251,295	4.3454997e+14	0.41
<b>Conception</b>	55-183 m	13,550	1.5977009e+08	0.93	96,056,994	7.9360795e+15	0.93
	184-366 m	107	2.9014249e+03	0.50	390,809	4.3860404e+10	0.54
	367-500 m	1	1.8297074e+00	1.00	6,228	3.8784841e+07	1.00
	55-366 m	13,657	1.5977299e+08	0.93	96,447,803	7.9361234e+15	0.92
	55-500 m	13,658	1.5977300e+08	0.93	96,454,031	7.9361234e+15	0.92
<b>US Total</b>	55-183 m	22,835	1.7243704e+08	0.58	137,099,620	8.2801468e+15	0.66
	184-366 m	5,006	1.8947611e+07	0.87	10,762,377	9.0653857e+13	0.88
	367-500 m	3	3.1608159e+00	0.71	8,815	4.5476652e+07	0.77
	55-366 m	27,842	1.9138465e+08	0.50	147,861,997	8.3708006e+15	0.62
	55-500 m	27,844	1.9138465e+08	0.50	147,870,812	8.3708007e+15	0.62
<b>Total</b>	55-183 m	22,835	1.7243704e+08	0.58	137,099,620	8.2801468e+15	0.66
	184-366 m	5,009	1.8947621e+07	0.87	10,766,434	9.0653883e+13	0.88
	367-500 m	3	3.1608159e+00	0.71	8,815	4.5476652e+07	0.77
	55-366 m	27,844	1.9138466e+08	0.50	147,866,054	8.3708007e+15	0.62
	55-500 m	27,847	1.9138466e+08	0.50	147,874,869	8.3708007e+15	0.62

**Chub mackerel**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	20	2.3833456e+02	0.76	37,166	7.9686275e+08	0.76
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	20	2.3833456e+02	0.76	37,166	7.9686275e+08	0.76
	55-500 m	20	2.3833456e+02	0.76	37,166	7.9686275e+08	0.76
<b>US</b>	55-183 m	403	8.1871111e+04	0.71	707,027	2.5306848e+11	0.71
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	403	8.1871111e+04	0.71	707,027	2.5306848e+11	0.71
	55-500 m	403	8.1871111e+04	0.71	707,027	2.5306848e+11	0.71
<b>Total</b>	55-183 m	423	8.2135726e+04	0.68	744,193	2.5394562e+11	0.68
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	423	8.2135726e+04	0.68	744,193	2.5394562e+11	0.68
	55-500 m	423	8.2135726e+04	0.68	744,193	2.5394562e+11	0.68
<b>Columbia</b>	55-183 m	1,783	9.3077467e+05	0.54	3,189,575	2.8979933e+12	0.53
	184-366 m	3	3.7036367e+00	0.71	4,876	1.2002102e+07	0.71
	367-500 m	1	7.5692406e-01	1.00	1,588	2.5205261e+06	1.00
	55-366 m	1,786	9.3077837e+05	0.54	3,194,451	2.8980053e+12	0.53
	55-500 m	1,787	9.3077913e+05	0.54	3,196,038	2.8980079e+12	0.53
<b>Eureka</b>	55-183 m	10	4.5976425e+01	0.67	21,609	1.8335097e+08	0.63
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	10	4.5976425e+01	0.67	21,609	1.8335097e+08	0.63
	55-500 m	10	4.5976425e+01	0.67	21,609	1.8335097e+08	0.63
<b>Monterey</b>	55-183 m	31	3.5922373e+02	0.62	155,961	8.4169714e+09	0.59
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	31	3.5922373e+02	0.62	155,961	8.4169714e+09	0.59
	55-500 m	31	3.5922373e+02	0.62	155,961	8.4169714e+09	0.59
<b>Conception</b>	55-183 m	0	1.4051547e-01	1.00	2,533	6.4150598e+06	1.00
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	1.4051547e-01	1.00	2,533	6.4150598e+06	1.00
	55-500 m	0	1.4051547e-01	1.00	2,533	6.4150598e+06	1.00
<b>US Total</b>	55-183 m	2,228	1.5484912e+06	0.56	4,076,704	4.8150186e+12	0.54
	184-366 m	3	3.7036367e+00	0.71	4,876	1.2002102e+07	0.71
	367-500 m	1	7.5692406e-01	1.00	1,588	2.5205261e+06	1.00
	55-366 m	2,230	1.5484949e+06	0.56	4,081,580	4.8150306e+12	0.54
	55-500 m	2,231	1.5484956e+06	0.56	4,083,168	4.8150331e+12	0.54
<b>Total</b>	55-183 m	2,248	1.5487558e+06	0.55	4,113,871	4.8158957e+12	0.53
	184-366 m	3	3.7036367e+00	0.71	4,876	1.2002102e+07	0.71
	367-500 m	1	7.5692406e-01	1.00	1,588	2.5205261e+06	1.00
	55-366 m	2,251	1.5487595e+06	0.55	4,118,746	4.8159077e+12	0.53
	55-500 m	2,251	1.5487602e+06	0.55	4,120,334	4.8159102e+12	0.53

**Darkblotched rockfish**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	17	8.7050063e+01	0.53	69,914	1.2100224e+09	0.50
<b>Vancouver</b>	184-366 m	13	4.6492239e+01	0.52	26,415	1.1098606e+08	0.40
	367-500 m	0	-	-	0	-	-
	55-366 m	31	1.3354230e+02	0.38	96,328	1.3210084e+09	0.38
	55-500 m	31	1.3354230e+02	0.38	96,328	1.3210084e+09	0.38
<b>US</b>	55-183 m	28	2.1020380e+02	0.51	275,207	1.2123173e+10	0.40
<b>Vancouver</b>	184-366 m	371	9.2529782e+04	0.82	629,381	2.3313684e+11	0.77
	367-500 m	2	2.4820977e+00	1.00	1,148	1.3185926e+06	1.00
	55-366 m	399	9.2739985e+04	0.76	904,588	2.4526001e+11	0.55
	55-500 m	401	9.2742468e+04	0.76	905,736	2.4526133e+11	0.55
<b>Total</b>	55-183 m	46	3.0668858e+02	0.38	345,120	1.3670951e+10	0.34
<b>Vancouver</b>	184-366 m	384	9.2893456e+04	0.79	655,796	2.3405833e+11	0.74
	367-500 m	2	2.4820977e+00	1.00	1,148	1.3185926e+06	1.00
	55-366 m	430	9.3200145e+04	0.71	1,000,916	2.4772928e+11	0.50
	55-500 m	432	9.3202627e+04	0.71	1,002,064	2.4773060e+11	0.50
<b>Columbia</b>	55-183 m	346	6.5022703e+03	0.23	3,448,868	5.0423849e+11	0.21
	184-366 m	1,603	1.0429597e+06	0.64	3,076,650	2.6381978e+12	0.53
	367-500 m	100	1.8641713e+03	0.43	123,063	2.2087987e+09	0.38
	55-366 m	1,949	1.0494620e+06	0.53	6,525,518	3.1424363e+12	0.27
	55-500 m	2,049	1.0513262e+06	0.50	6,648,581	3.1446451e+12	0.27
<b>Eureka</b>	55-183 m	94	2.1878900e+03	0.50	754,590	1.0683628e+11	0.43
	184-366 m	156	2.4217757e+03	0.32	688,266	7.8219423e+10	0.41
	367-500 m	5	3.0970020e+00	0.36	7,193	6.5933116e+06	0.36
	55-366 m	250	4.6096656e+03	0.27	1,442,856	1.8505571e+11	0.30
	55-500 m	254	4.6127626e+03	0.27	1,450,049	1.8506230e+11	0.30
<b>Monterey</b>	55-183 m	183	1.4339709e+04	0.65	1,431,324	8.6705399e+11	0.65
	184-366 m	104	1.2990589e+03	0.35	292,805	8.0518001e+09	0.31
	367-500 m	5	7.8124802e+00	0.60	6,205	1.5793539e+07	0.64
	55-366 m	287	1.5638768e+04	0.44	1,724,128	8.7510579e+11	0.54
	55-500 m	292	1.5646581e+04	0.43	1,730,333	8.7512159e+11	0.54
<b>Conception</b>	55-183 m	0	-	-	0	-	-
	184-366 m	3	1.5877175e+00	0.49	17,885	7.0656750e+07	0.47
	367-500 m	0	-	-	0	-	-
	55-366 m	3	1.5877175e+00	0.49	17,885	7.0656750e+07	0.47
	55-500 m	3	1.5877175e+00	0.49	17,885	7.0656750e+07	0.47
<b>US Total</b>	55-183 m	651	2.4537450e+04	0.24	5,909,988	1.5594577e+12	0.21
	184-366 m	2,237	1.7417706e+06	0.59	4,704,988	4.4754425e+12	0.45
	367-500 m	111	1.8881455e+03	0.39	137,609	2.2381260e+09	0.34
	55-366 m	2,888	1.7663080e+06	0.46	10,614,976	6.0349002e+12	0.23
	55-500 m	2,999	1.7681962e+06	0.44	10,752,585	6.0371383e+12	0.23
<b>Total</b>	55-183 m	668	2.4633935e+04	0.23	5,979,902	1.5610055e+12	0.21
	184-366 m	2,250	1.7421343e+06	0.59	4,731,403	4.4763640e+12	0.45
	367-500 m	111	1.8881455e+03	0.39	137,609	2.2381260e+09	0.34
	55-366 m	2,919	1.7667682e+06	0.46	10,711,305	6.0373694e+12	0.23
	55-500 m	3,029	1.7686563e+06	0.44	10,848,914	6.0396076e+12	0.23

**Dover sole**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	10,121	3.4866780e+06	0.18	30,107,973	1.0142883e+14	0.33
<b>Vancouver</b>	184-366 m	2,562	1.3853576e+06	0.46	3,990,636	2.4869594e+12	0.40
	367-500 m	867	4.9634641e+03	0.08	1,674,320	2.3739531e+10	0.09
	55-366 m	12,683	4.8720356e+06	0.17	34,098,610	1.0391579e+14	0.30
	55-500 m	13,550	4.8769991e+06	0.16	35,772,930	1.0393953e+14	0.28
<b>US</b>	55-183 m	3,937	3.8580282e+05	0.16	11,464,054	2.8267063e+12	0.15
<b>Vancouver</b>	184-366 m	2,112	2.2167040e+05	0.22	4,083,041	6.3127502e+11	0.19
	367-500 m	543	3.2133182e+04	0.33	1,323,088	2.2472223e+11	0.36
	55-366 m	6,050	6.0747322e+05	0.13	15,547,095	3.4579813e+12	0.12
	55-500 m	6,592	6.3960640e+05	0.12	16,870,183	3.6827036e+12	0.11
<b>Total</b>	55-183 m	14,058	4.2296734e+06	0.15	41,572,027	1.1345480e+14	0.26
<b>Vancouver</b>	184-366 m	4,674	2.4232609e+06	0.33	8,073,678	4.6335152e+12	0.27
	367-500 m	1,410	4.9896493e+04	0.16	2,997,409	3.1570076e+11	0.19
	55-366 m	18,733	6.6529343e+06	0.14	49,645,705	1.1808831e+14	0.22
	55-500 m	20,142	6.7028308e+06	0.13	52,643,113	1.1840401e+14	0.21
<b>Columbia</b>	55-183 m	16,838	3.2422589e+06	0.11	62,237,517	4.4323697e+13	0.11
	184-366 m	6,002	9.0097370e+05	0.16	16,959,135	4.2617832e+12	0.12
	367-500 m	3,602	3.6189395e+05	0.17	9,319,964	2.8665987e+12	0.18
	55-366 m	22,840	4.1432326e+06	0.09	79,196,652	4.8585481e+13	0.09
	55-500 m	26,442	4.5051265e+06	0.08	88,516,616	5.1452079e+13	0.08
<b>Eureka</b>	55-183 m	1,736	3.5997792e+05	0.35	8,239,082	6.2524125e+12	0.30
	184-366 m	3,001	3.3323618e+05	0.19	8,849,057	2.1583717e+12	0.17
	367-500 m	1,015	7.1895648e+04	0.26	2,622,696	5.7926273e+11	0.29
	55-366 m	4,737	6.9321410e+05	0.18	17,088,139	8.4107842e+12	0.17
	55-500 m	5,752	7.6510975e+05	0.15	19,710,835	8.9900469e+12	0.15
<b>Monterey</b>	55-183 m	1,780	1.7962492e+05	0.24	11,655,615	7.3543317e+12	0.23
	184-366 m	6,071	7.0618244e+05	0.14	24,300,697	1.0316056e+13	0.13
	367-500 m	7,914	1.3043952e+06	0.14	21,671,695	1.5316689e+13	0.18
	55-366 m	7,851	8.8580737e+05	0.12	35,956,313	1.7670387e+13	0.12
	55-500 m	15,766	2.1902026e+06	0.09	57,628,007	3.2987076e+13	0.10
<b>Conception</b>	55-183 m	129	8.1346208e+03	0.70	1,234,586	6.7261461e+11	0.66
	184-366 m	2,686	3.5670926e+05	0.22	12,938,862	7.0919071e+12	0.21
	367-500 m	4,348	4.7319252e+05	0.16	12,731,718	5.8600381e+12	0.19
	55-366 m	2,814	3.6484388e+05	0.21	14,173,447	7.7645217e+12	0.20
	55-500 m	7,162	8.3803640e+05	0.13	26,905,165	1.3624560e+13	0.14
<b>US Total</b>	55-183 m	24,421	4.4823377e+06	0.09	94,830,853	6.7498076e+13	0.09
	184-366 m	19,872	2.6309166e+06	0.08	67,130,795	2.8639614e+13	0.08
	367-500 m	17,422	3.1984441e+06	0.10	47,669,161	3.9778139e+13	0.13
	55-366 m	44,293	7.1132543e+06	0.06	161,961,648	9.6137690e+13	0.06
	55-500 m	61,714	1.0311698e+07	0.05	209,630,809	1.3591583e+14	0.06
<b>Total</b>	55-183 m	34,542	8.3262083e+06	0.08	124,938,826	1.7812617e+14	0.11
	184-366 m	22,434	4.8325071e+06	0.10	71,121,431	3.2641854e+13	0.08
	367-500 m	18,289	3.2162075e+06	0.10	49,343,481	3.9869118e+13	0.13
	55-366 m	56,976	1.3158715e+07	0.06	196,060,258	2.1076802e+14	0.07
	55-500 m	75,265	1.6374923e+07	0.05	245,403,739	2.5063714e+14	0.06

**English sole**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	2,790	5.1237436e+05	0.26	9,000,563	5.5456944e+12	0.26
<b>Vancouver</b>	184-366 m	4	7.0134980e+00	0.59	7,883	2.2135794e+07	0.60
	367-500 m	0	-	-	0	-	-
	55-366 m	2,794	5.1238137e+05	0.26	9,008,446	5.5457165e+12	0.26
	55-500 m	2,794	5.1238137e+05	0.26	9,008,446	5.5457165e+12	0.26
<b>US</b>	55-183 m	1,052	4.0076010e+04	0.19	3,979,023	7.7401334e+11	0.22
<b>Vancouver</b>	184-366 m	35	2.3523839e+02	0.44	74,188	1.1125781e+09	0.45
	367-500 m	0	-	-	0	-	-
	55-366 m	1,086	4.0311248e+04	0.18	4,053,212	7.7512592e+11	0.22
	55-500 m	1,086	4.0311248e+04	0.18	4,053,212	7.7512592e+11	0.22
<b>Total</b>	55-183 m	3,841	6.0256492e+05	0.20	12,979,586	6.8990418e+12	0.20
<b>Vancouver</b>	184-366 m	39	2.8511033e+02	0.43	82,072	1.3104170e+09	0.44
	367-500 m	0	-	-	0	-	-
	55-366 m	3,880	6.0285003e+05	0.20	13,061,657	6.9003523e+12	0.20
	55-500 m	3,880	6.0285003e+05	0.20	13,061,657	6.9003523e+12	0.20
<b>Columbia</b>	55-183 m	7,990	1.2257536e+06	0.14	47,356,671	5.8023693e+13	0.16
	184-366 m	269	8.9971975e+03	0.35	803,314	7.9727820e+10	0.35
	367-500 m	0	-	-	0	-	-
	55-366 m	8,258	1.2347508e+06	0.13	48,159,984	5.8103420e+13	0.16
	55-500 m	8,258	1.2347508e+06	0.13	48,159,984	5.8103420e+13	0.16
<b>Eureka</b>	55-183 m	2,323	1.7588820e+05	0.18	12,103,234	5.1072802e+12	0.19
	184-366 m	99	3.7286266e+03	0.61	253,704	2.8164152e+10	0.66
	367-500 m	0	-	-	0	-	-
	55-366 m	2,423	1.7961683e+05	0.17	12,356,937	5.1354444e+12	0.18
	55-500 m	2,423	1.7961683e+05	0.17	12,356,937	5.1354444e+12	0.18
<b>Monterey</b>	55-183 m	4,619	4.0108854e+05	0.14	31,753,468	1.7736114e+13	0.13
	184-366 m	389	2.2465784e+04	0.39	1,388,739	2.6580402e+11	0.37
	367-500 m	0	-	-	0	-	-
	55-366 m	5,008	4.2355432e+05	0.13	33,142,206	1.8001918e+13	0.13
	55-500 m	5,008	4.2355432e+05	0.13	33,142,206	1.8001918e+13	0.13
<b>Conception</b>	55-183 m	327	9.5385129e+03	0.30	2,208,473	5.1051685e+11	0.32
	184-366 m	47	4.7916559e+02	0.47	181,181	1.0689067e+10	0.57
	367-500 m	0	-	-	0	-	-
	55-366 m	373	1.0017679e+04	0.27	2,389,654	5.2120591e+11	0.30
	55-500 m	373	1.0017679e+04	0.27	2,389,654	5.2120591e+11	0.30
<b>US Total</b>	55-183 m	16,310	1.9010877e+06	0.08	97,400,868	8.3749157e+13	0.09
	184-366 m	838	3.7465371e+04	0.23	2,701,126	4.2139040e+11	0.24
	367-500 m	0	-	-	0	-	-
	55-366 m	17,148	1.9385531e+06	0.08	100,101,994	8.4170548e+13	0.09
	55-500 m	17,148	1.9385531e+06	0.08	100,101,994	8.4170548e+13	0.09
<b>Total</b>	55-183 m	19,100	2.4635767e+06	0.08	106,401,431	8.9874186e+13	0.09
	184-366 m	843	3.7515243e+04	0.23	2,709,009	4.2158824e+11	0.24
	367-500 m	0	-	-	0	-	-
	55-366 m	19,942	2.5010919e+06	0.08	109,110,440	9.0295774e+13	0.09
	55-500 m	19,942	2.5010919e+06	0.08	109,110,440	9.0295774e+13	0.09

## Eulachon

### Biomass and population estimates for 2001 NMFS triennial bottom trawl survey

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	12,115	4.0173524e+07	0.52	338,318,594	3.3930386e+16	0.54
<b>Vancouver</b>	184-366 m	71	1.0664244e+03	0.46	2,475,792	1.4668915e+12	0.49
	367-500 m	0	-	-	0	-	-
	55-366 m	12,186	4.0174590e+07	0.52	340,794,386	3.3931853e+16	0.54
	55-500 m	12,186	4.0174590e+07	0.52	340,794,386	3.3931853e+16	0.54
<b>US</b>	55-183 m	623	7.8864464e+04	0.45	19,637,582	7.0310155e+13	0.43
<b>Vancouver</b>	184-366 m	94	1.7458774e+03	0.45	2,842,942	1.5815866e+12	0.44
	367-500 m	0	3.1349290e-03	1.00	1,166	1.3606462e+06	1.00
	55-366 m	716	8.0610341e+04	0.40	22,480,524	7.1891742e+13	0.38
	55-500 m	717	8.0610345e+04	0.40	22,481,691	7.1891743e+13	0.38
<b>Total</b>	55-183 m	12,738	4.3795067e+07	0.52	357,956,176	3.6992825e+16	0.54
<b>Vancouver</b>	184-366 m	165	3.7805022e+03	0.37	5,318,734	4.2034305e+12	0.39
	367-500 m	0	3.1349290e-03	1.00	1,166	1.3606462e+06	1.00
	55-366 m	12,903	4.3798848e+07	0.51	363,274,910	3.6997029e+16	0.53
	55-500 m	12,903	4.3798848e+07	0.51	363,276,077	3.6997029e+16	0.53
<b>Columbia</b>	55-183 m	504	1.1586804e+04	0.21	20,904,461	4.8653982e+13	0.33
	184-366 m	53	1.6459953e+03	0.76	1,238,259	9.6032529e+11	0.79
	367-500 m	0	1.9354965e-02	0.73	4,111	8.8220197e+06	0.72
	55-366 m	558	1.3232799e+04	0.21	22,142,721	4.9614307e+13	0.32
	55-500 m	558	1.3232819e+04	0.21	22,146,832	4.9614316e+13	0.32
<b>Eureka</b>	55-183 m	9	7.3830574e+01	0.94	808,073	6.2031287e+11	0.97
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	9	7.3830574e+01	0.94	808,073	6.2031287e+11	0.97
	55-500 m	9	7.3830574e+01	0.94	808,073	6.2031287e+11	0.97
<b>Monterey</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>Conception</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>US Total</b>	55-183 m	1,136	9.5280057e+04	0.27	41,350,116	1.4792247e+14	0.29
	184-366 m	147	3.3940310e+03	0.40	4,081,202	2.5427759e+12	0.39
	367-500 m	0	3.5855937e-02	0.77	5,277	1.5983900e+07	0.76
	55-366 m	1,283	9.8674088e+04	0.24	45,431,317	1.5046525e+14	0.27
	55-500 m	1,284	9.8674123e+04	0.24	45,436,595	1.5046526e+14	0.27
<b>Total</b>	55-183 m	13,251	4.3811483e+07	0.50	379,668,710	3.7070437e+16	0.51
	184-366 m	218	5.4286558e+03	0.34	6,556,993	5.1646198e+12	0.35
	367-500 m	0	3.5855937e-02	0.77	5,277	1.5983900e+07	0.76
	55-366 m	13,470	4.3816911e+07	0.49	386,225,704	3.7075602e+16	0.50
	55-500 m	13,470	4.3816911e+07	0.49	386,230,981	3.7075602e+16	0.50



## Greenstriped rockfish

### Biomass and population estimates for 2001 NMFS triennial bottom trawl survey

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	424	3.7385307e+04	0.46	1,207,741	3.4543855e+11	0.49
<b>Vancouver</b>	184-366 m	235	2.6981847e+04	0.70	668,109	2.1877218e+11	0.70
	367-500 m	0	-	-	0	-	-
	55-366 m	660	6.4367154e+04	0.38	1,875,850	5.6421073e+11	0.40
	55-500 m	660	6.4367154e+04	0.38	1,875,850	5.6421073e+11	0.40
<b>US</b>	55-183 m	1,159	6.1201499e+05	0.67	3,200,069	4.6416691e+12	0.67
<b>Vancouver</b>	184-366 m	108	2.5339339e+03	0.47	321,926	2.0903413e+10	0.45
	367-500 m	1	3.6482294e-01	1.00	2,297	5.2743706e+06	1.00
	55-366 m	1,267	6.1454893e+05	0.62	3,521,996	4.6625725e+12	0.61
	55-500 m	1,267	6.1454929e+05	0.62	3,524,292	4.6625778e+12	0.61
<b>Total</b>	55-183 m	1,583	7.4422082e+05	0.54	4,407,811	5.7110609e+12	0.54
<b>Vancouver</b>	184-366 m	343	4.4962932e+04	0.62	990,035	3.6491648e+11	0.61
	367-500 m	1	3.6482294e-01	1.00	2,297	5.2743706e+06	1.00
	55-366 m	1,926	7.8918375e+05	0.46	5,397,846	6.0759774e+12	0.46
	55-500 m	1,927	7.8918412e+05	0.46	5,400,143	6.0759827e+12	0.46
<b>Columbia</b>	55-183 m	4,022	3.7823253e+06	0.48	15,057,410	3.3097646e+13	0.38
	184-366 m	539	1.6638451e+04	0.24	2,355,772	3.2736583e+11	0.24
	367-500 m	2	2.1888856e+00	0.73	7,907	3.3035446e+07	0.73
	55-366 m	4,561	3.7989638e+06	0.43	17,413,182	3.3425012e+13	0.33
	55-500 m	4,563	3.7989659e+06	0.43	17,421,089	3.3425045e+13	0.33
<b>Eureka</b>	55-183 m	642	1.8168069e+05	0.66	4,472,814	9.1473708e+12	0.68
	184-366 m	94	1.2775293e+03	0.38	556,064	4.5188027e+10	0.38
	367-500 m	0	-	-	0	-	-
	55-366 m	736	1.8295822e+05	0.58	5,028,878	9.1925589e+12	0.60
	55-500 m	736	1.8295822e+05	0.58	5,028,878	9.1925589e+12	0.60
<b>Monterey</b>	55-183 m	646	5.4479392e+04	0.36	3,930,939	1.7539229e+12	0.34
	184-366 m	34	3.8150757e+02	0.57	173,490	8.9638912e+09	0.55
	367-500 m	0	-	-	0	-	-
	55-366 m	681	5.4860900e+04	0.34	4,104,428	1.7628868e+12	0.32
	55-500 m	681	5.4860900e+04	0.34	4,104,428	1.7628868e+12	0.32
<b>Conception</b>	55-183 m	1	8.5776508e-01	0.76	25,246	3.7203758e+08	0.76
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	1	8.5776508e-01	0.76	25,246	3.7203758e+08	0.76
	55-500 m	1	8.5776508e-01	0.76	25,246	3.7203758e+08	0.76
<b>US Total</b>	55-183 m	6,471	4.6338144e+06	0.33	26,686,478	4.8693693e+13	0.26
	184-366 m	775	2.2899899e+04	0.20	3,407,252	4.2175878e+11	0.19
	367-500 m	3	4.1091630e+00	0.77	10,203	6.0797557e+07	0.76
	55-366 m	7,247	4.6567143e+06	0.30	30,093,730	4.9115451e+13	0.23
	55-500 m	7,249	4.6567184e+06	0.30	30,103,933	4.9115512e+13	0.23
<b>Total</b>	55-183 m	6,895	4.7660202e+06	0.32	27,894,219	4.9763084e+13	0.25
	184-366 m	1,011	6.5328897e+04	0.25	4,075,361	7.6577184e+11	0.21
	367-500 m	3	4.1091630e+00	0.77	10,203	6.0797557e+07	0.76
	55-366 m	7,906	4.8313491e+06	0.28	31,969,580	5.0528856e+13	0.22
	55-500 m	7,909	4.8313532e+06	0.28	31,979,784	5.0528917e+13	0.22

**Jack mackerel**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	15	1.1583951e+02	0.72	11,587	5.9452812e+07	0.67
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	15	1.1583951e+02	0.72	11,587	5.9452812e+07	0.67
	55-500 m	15	1.1583951e+02	0.72	11,587	5.9452812e+07	0.67
<b>US</b>	55-183 m	197	3.5319121e+04	0.95	198,753	3.4760014e+10	0.94
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	197	3.5319121e+04	0.95	198,753	3.4760014e+10	0.94
	55-500 m	197	3.5319121e+04	0.95	198,753	3.4760014e+10	0.94
<b>Total</b>	55-183 m	212	3.5445756e+04	0.89	210,340	3.4828264e+10	0.89
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	212	3.5445756e+04	0.89	210,340	3.4828264e+10	0.89
	55-500 m	212	3.5445756e+04	0.89	210,340	3.4828264e+10	0.89
<b>Columbia</b>	55-183 m	2,460	2.6201577e+06	0.66	1,805,776	1.2744232e+12	0.63
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	2,460	2.6201577e+06	0.66	1,805,776	1.2744232e+12	0.63
	55-500 m	2,460	2.6201577e+06	0.66	1,805,776	1.2744232e+12	0.63
<b>Eureka</b>	55-183 m	982	9.5859208e+05	1.00	634,845	3.9292601e+11	0.99
	184-366 m	2	4.5713943e+00	1.00	1,598	2.5535035e+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	984	9.5859665e+05	1.00	636,443	3.9292856e+11	0.98
	55-500 m	984	9.5859665e+05	1.00	636,443	3.9292856e+11	0.98
<b>Monterey</b>	55-183 m	13	1.0322091e+02	0.76	20,280	1.0077579e+08	0.50
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	13	1.0322091e+02	0.76	20,280	1.0077579e+08	0.50
	55-500 m	13	1.0322091e+02	0.76	20,280	1.0077579e+08	0.50
<b>Conception</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>US Total</b>	55-183 m	3,652	3.8452342e+06	0.54	2,659,654	1.9294846e+12	0.52
	184-366 m	2	4.5713943e+00	1.00	1,598	2.5535035e+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	3,654	3.8452388e+06	0.54	2,661,252	1.9294871e+12	0.52
	55-500 m	3,654	3.8452388e+06	0.54	2,661,252	1.9294871e+12	0.52
<b>Total</b>	55-183 m	3,667	3.8453608e+06	0.53	2,671,241	1.9295528e+12	0.52
	184-366 m	2	4.5713943e+00	1.00	1,598	2.5535035e+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	3,669	3.8453654e+06	0.53	2,672,839	1.9295554e+12	0.52
	55-500 m	3,669	3.8453654e+06	0.53	2,672,839	1.9295554e+12	0.52

## Lingcod

### Biomass and population estimates for 2001 NMFS triennial bottom trawl survey

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	1,349	1.3826861e+05	0.28	512,711	2.2321851e+10	0.29
<b>Vancouver</b>	184-366 m	7	2.9876520e+01	0.81	4,369	1.6554852e+07	0.93
	367-500 m	0	-	-	0	-	-
	55-366 m	1,356	1.3829849e+05	0.27	517,081	2.2338406e+10	0.29
	55-500 m	1,356	1.3829849e+05	0.27	517,081	2.2338406e+10	0.29
<b>US</b>	55-183 m	640	2.1786269e+04	0.23	557,295	1.7713228e+10	0.24
<b>Vancouver</b>	184-366 m	684	1.5768725e+05	0.58	113,296	3.7277247e+09	0.54
	367-500 m	0	-	-	0	-	-
	55-366 m	1,324	1.7947352e+05	0.32	670,591	2.1440952e+10	0.22
	55-500 m	1,324	1.7947352e+05	0.32	670,591	2.1440952e+10	0.22
<b>Total</b>	55-183 m	1,989	1.7485821e+05	0.21	1,070,007	4.3351053e+10	0.19
<b>Vancouver</b>	184-366 m	691	1.5777012e+05	0.58	117,665	3.7554522e+09	0.52
	367-500 m	0	-	-	0	-	-
	55-366 m	2,680	3.3262833e+05	0.22	1,187,672	4.7106505e+10	0.18
	55-500 m	2,680	3.3262833e+05	0.22	1,187,672	4.7106505e+10	0.18
<b>Columbia</b>	55-183 m	1,526	5.9105849e+04	0.16	2,162,633	1.4074622e+11	0.17
	184-366 m	2,377	1.7230087e+06	0.55	441,396	4.1403262e+10	0.46
	367-500 m	5	2.6166300e+01	1.00	1,550	2.4027824e+06	1.00
	55-366 m	3,903	1.7821145e+06	0.34	2,604,030	1.8214948e+11	0.16
	55-500 m	3,908	1.7821407e+06	0.34	2,605,580	1.8215189e+11	0.16
<b>Eureka</b>	55-183 m	473	6.7562465e+03	0.17	507,372	5.0506509e+09	0.14
	184-366 m	182	3.6091016e+03	0.33	49,415	3.0199823e+08	0.35
	367-500 m	0	-	-	0	-	-
	55-366 m	654	1.0365348e+04	0.16	556,786	5.3526491e+09	0.13
	55-500 m	654	1.0365348e+04	0.16	556,786	5.3526491e+09	0.13
<b>Monterey</b>	55-183 m	619	1.4388020e+04	0.19	950,656	2.1114144e+10	0.15
	184-366 m	73	1.0531253e+03	0.44	25,598	1.0421771e+08	0.40
	367-500 m	0	-	-	0	-	-
	55-366 m	693	1.5441145e+04	0.18	976,254	2.1218362e+10	0.15
	55-500 m	693	1.5441145e+04	0.18	976,254	2.1218362e+10	0.15
<b>Conception</b>	55-183 m	74	2.1389370e+03	0.62	143,340	5.1336745e+09	0.50
	184-366 m	10	3.3020692e+01	0.55	15,051	5.6974395e+07	0.50
	367-500 m	0	-	-	0	-	-
	55-366 m	85	2.1719577e+03	0.55	158,391	5.1906489e+09	0.45
	55-500 m	85	2.1719577e+03	0.55	158,391	5.1906489e+09	0.45
<b>US Total</b>	55-183 m	3,332	1.3098366e+05	0.11	4,321,296	2.4656292e+11	0.11
	184-366 m	3,326	2.9264096e+06	0.51	644,756	7.0205846e+10	0.41
	367-500 m	5	2.6166300e+01	1.00	1,550	2.4027824e+06	1.00
	55-366 m	6,659	3.0573933e+06	0.26	4,966,052	3.1676877e+11	0.11
	55-500 m	6,664	3.0574195e+06	0.26	4,967,602	3.1677117e+11	0.11
<b>Total</b>	55-183 m	4,681	2.8405559e+05	0.11	4,834,007	2.7220075e+11	0.11
	184-366 m	3,333	2.9264925e+06	0.51	649,125	7.0233574e+10	0.41
	367-500 m	5	2.6166300e+01	1.00	1,550	2.4027824e+06	1.00
	55-366 m	8,014	3.2105481e+06	0.22	5,483,132	3.4243432e+11	0.11
	55-500 m	8,019	3.2105743e+06	0.22	5,484,683	3.4243673e+11	0.11

**Longspine thornyhead**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	0	-	-	0	-	-
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	3	9.3150076e+00	0.88	61,715	2.9865297e+09	0.89
	55-366 m	0	-	-	0	-	-
	55-500 m	3	9.3150076e+00	0.88	61,715	2.9865297e+09	0.89
<b>US</b>	55-183 m	0	-	-	0	-	-
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	18	1.4276299e+02	0.66	287,964	3.6445095e+10	0.66
	55-366 m	0	-	-	0	-	-
	55-500 m	18	1.4276299e+02	0.66	287,964	3.6445095e+10	0.66
<b>Total</b>	55-183 m	0	-	-	0	-	-
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	21	2.0097640e+02	0.66	349,679	5.5109176e+10	0.67
	55-366 m	0	-	-	0	-	-
	55-500 m	21	2.0097640e+02	0.66	349,679	5.5109176e+10	0.67
<b>Columbia</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	261	1.6333932e+04	0.49	3,467,882	2.7374876e+12	0.48
	55-366 m	0	-	-	0	-	-
	55-500 m	261	1.6333932e+04	0.49	3,467,882	2.7374876e+12	0.48
<b>Eureka</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	5	2.1752980e+01	0.93	34,417	9.9503472e+08	0.92
	55-366 m	0	-	-	0	-	-
	55-500 m	5	2.1752980e+01	0.93	34,417	9.9503472e+08	0.92
<b>Monterey</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	46	5.3795625e+02	0.51	335,248	2.7267516e+10	0.49
	55-366 m	0	-	-	0	-	-
	55-500 m	46	5.3795625e+02	0.51	335,248	2.7267516e+10	0.49
<b>Conception</b>	55-183 m	0	-	-	0	-	-
	184-366 m	1	8.9709233e-01	1.00	5,706	3.2555245e+07	1.00
	367-500 m	213	7.9666358e+03	0.42	1,791,252	5.8918845e+11	0.43
	55-366 m	1	8.9709233e-01	1.00	5,706	3.2555245e+07	1.00
	55-500 m	214	7.9675329e+03	0.42	1,796,958	5.8922101e+11	0.43
<b>US Total</b>	55-183 m	0	-	-	0	-	-
	184-366 m	1	8.9709233e-01	1.00	5,706	3.2555245e+07	1.00
	367-500 m	543	2.5527770e+04	0.29	5,916,762	3.4693291e+12	0.31
	55-366 m	1	8.9709233e-01	1.00	5,706	3.2555245e+07	1.00
	55-500 m	544	2.5528667e+04	0.29	5,922,468	3.4693617e+12	0.31
<b>Total</b>	55-183 m	0	-	-	0	-	-
	184-366 m	1	8.9709233e-01	1.00	5,706	3.2555245e+07	1.00
	367-500 m	546	2.5585984e+04	0.29	5,978,478	3.4879932e+12	0.31
	55-366 m	1	8.9709233e-01	1.00	5,706	3.2555245e+07	1.00
	55-500 m	547	2.5586881e+04	0.29	5,984,183	3.4880257e+12	0.31

**Northern anchovy**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	0	-	-	0	-	-
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>US</b>	55-183 m	0	1.1408800e-03	1.00	844	7.1304999e+05	1.00
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	1.1408800e-03	1.00	844	7.1304999e+05	1.00
	55-500 m	0	1.1408800e-03	1.00	844	7.1304999e+05	1.00
<b>Total</b>	55-183 m	0	1.1408800e-03	1.00	844	7.1304999e+05	1.00
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	1.1408800e-03	1.00	844	7.1304999e+05	1.00
	55-500 m	0	1.1408800e-03	1.00	844	7.1304999e+05	1.00
<b>Columbia</b>	55-183 m	2	2.7015242e+00	0.67	67,456	1.8626353e+09	0.64
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	2	2.7015242e+00	0.67	67,456	1.8626353e+09	0.64
	55-500 m	2	2.7015242e+00	0.67	67,456	1.8626353e+09	0.64
<b>Eureka</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>Monterey</b>	55-183 m	21	1.5757541e+02	0.61	665,726	1.6229432e+11	0.61
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	21	1.5757541e+02	0.61	665,726	1.6229432e+11	0.61
	55-500 m	21	1.5757541e+02	0.61	665,726	1.6229432e+11	0.61
<b>Conception</b>	55-183 m	69	4.5153305e+03	0.97	2,602,577	6.3585657e+12	0.97
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	69	4.5153305e+03	0.97	2,602,577	6.3585657e+12	0.97
	55-500 m	69	4.5153305e+03	0.97	2,602,577	6.3585657e+12	0.97
<b>US Total</b>	55-183 m	92	4.6756160e+03	0.74	3,336,603	6.5227280e+12	0.77
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	92	4.6756160e+03	0.74	3,336,603	6.5227280e+12	0.77
	55-500 m	92	4.6756160e+03	0.74	3,336,603	6.5227280e+12	0.77
<b>Total</b>	55-183 m	92	4.6756160e+03	0.74	3,336,603	6.5227280e+12	0.77
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	92	4.6756160e+03	0.74	3,336,603	6.5227280e+12	0.77
	55-500 m	92	4.6756160e+03	0.74	3,336,603	6.5227280e+12	0.77

**Pacific hake**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	24,418	1.3009871e+08	0.47	23,392,682	1.1173816e+14	0.45
<b>Vancouver</b>	184-366 m	800	8.8544340e+04	0.37	824,921	9.6577088e+10	0.38
	367-500 m	410	2.7495704e+03	0.13	525,230	7.2836907e+09	0.16
	55-366 m	25,218	1.3018726e+08	0.45	24,217,603	1.1183474e+14	0.44
	55-500 m	25,628	1.3019000e+08	0.45	24,742,833	1.1184202e+14	0.43
<b>US</b>	55-183 m	17,592	1.6302929e+07	0.23	20,633,166	2.2582141e+13	0.23
<b>Vancouver</b>	184-366 m	759	4.4373850e+04	0.28	844,722	5.7929859e+10	0.28
	367-500 m	230	4.5160648e+02	0.09	282,377	4.1355364e+08	0.07
	55-366 m	18,351	1.6347303e+07	0.22	21,477,888	2.2640071e+13	0.22
	55-500 m	18,582	1.6347755e+07	0.22	21,760,265	2.2640485e+13	0.22
<b>Total</b>	55-183 m	42,010	1.5876081e+08	0.30	44,025,848	1.4506013e+14	0.27
<b>Vancouver</b>	184-366 m	1,559	1.9161061e+05	0.28	1,669,643	2.2057948e+11	0.28
	367-500 m	641	3.4652377e+03	0.09	807,607	8.0123656e+09	0.11
	55-366 m	43,569	1.5895242e+08	0.29	45,695,491	1.4528071e+14	0.26
	55-500 m	44,210	1.5895589e+08	0.29	46,503,098	1.4528873e+14	0.26
<b>Columbia</b>	55-183 m	151,220	5.3588883e+08	0.15	244,380,250	1.7557671e+15	0.17
	184-366 m	6,084	1.4802368e+06	0.20	12,504,664	5.1714548e+12	0.18
	367-500 m	3,146	1.4616006e+05	0.12	5,208,264	5.5101808e+11	0.14
	55-366 m	157,305	5.3736907e+08	0.15	256,884,914	1.7609386e+15	0.16
	55-500 m	160,450	5.3751523e+08	0.14	262,093,178	1.7614896e+15	0.16
<b>Eureka</b>	55-183 m	53,939	2.2041011e+08	0.28	109,043,131	9.6585571e+14	0.29
	184-366 m	6,357	1.3788295e+06	0.18	18,171,570	1.5616674e+13	0.22
	367-500 m	633	7.2572639e+04	0.43	1,126,914	1.8351083e+11	0.38
	55-366 m	60,296	2.2178894e+08	0.25	127,214,701	9.8147238e+14	0.25
	55-500 m	60,929	2.2186151e+08	0.24	128,341,616	9.8165590e+14	0.24
<b>Monterey</b>	55-183 m	84,797	5.7285437e+08	0.28	280,206,625	8.4303240e+15	0.33
	184-366 m	17,854	7.1537558e+07	0.47	52,745,187	5.5752583e+14	0.45
	367-500 m	2,084	6.0302120e+05	0.37	4,606,839	2.5490657e+12	0.35
	55-366 m	102,651	6.4439193e+08	0.25	332,951,812	8.9878498e+15	0.28
	55-500 m	104,735	6.4499495e+08	0.24	337,558,652	8.9903989e+15	0.28
<b>Conception</b>	55-183 m	1,264	9.1753642e+05	0.76	7,604,331	3.0438422e+13	0.73
	184-366 m	9,498	4.5383514e+06	0.22	38,681,165	1.6050658e+14	0.33
	367-500 m	2,473	2.1742045e+05	0.19	7,008,826	2.2400154e+12	0.21
	55-366 m	10,762	5.4558878e+06	0.22	46,285,496	1.9094500e+14	0.30
	55-500 m	13,236	5.6733083e+06	0.18	53,294,321	1.9318502e+14	0.26
<b>US Total</b>	55-183 m	308,813	1.4126372e+09	0.12	661,867,502	1.1312697e+16	0.16
	184-366 m	40,552	7.9024531e+07	0.22	122,947,309	7.3904097e+14	0.22
	367-500 m	8,566	1.0507350e+06	0.12	18,233,220	5.5390591e+12	0.13
	55-366 m	349,365	1.4916618e+09	0.11	784,814,811	1.2051738e+16	0.14
	55-500 m	357,932	1.4927125e+09	0.11	803,048,031	1.2057277e+16	0.14
<b>Total</b>	55-183 m	333,231	1.5550951e+09	0.12	685,260,184	1.1435175e+16	0.16
	184-366 m	41,352	7.9171768e+07	0.22	123,772,229	7.3920362e+14	0.22
	367-500 m	8,977	1.0537486e+06	0.11	18,758,450	5.5466579e+12	0.13
	55-366 m	374,583	1.6342669e+09	0.11	809,032,413	1.2174378e+16	0.14
	55-500 m	383,560	1.6353206e+09	0.11	827,790,863	1.2179925e+16	0.13

**Pacific halibut**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	1,528	3.7316778e+05	0.40	214,683	7.9199342e+09	0.41
<b>Vancouver</b>	184-366 m	211	1.2054747e+04	0.52	27,578	2.4117911e+08	0.56
	367-500 m	0	-	-	0	-	-
	55-366 m	1,738	3.8522253e+05	0.36	242,262	8.1611133e+09	0.37
	55-500 m	1,738	3.8522253e+05	0.36	242,262	8.1611133e+09	0.37
<b>US</b>	55-183 m	1,032	1.1761399e+05	0.33	124,534	8.5091926e+08	0.23
<b>Vancouver</b>	184-366 m	275	7.1997334e+03	0.31	29,379	8.1492306e+07	0.31
	367-500 m	26	6.7074555e+02	1.00	2,297	5.2743706e+06	1.00
	55-366 m	1,307	1.2481373e+05	0.27	153,913	9.3241157e+08	0.20
	55-500 m	1,333	1.2548447e+05	0.27	156,210	9.3768594e+08	0.20
<b>Total</b>	55-183 m	2,560	5.4097990e+05	0.29	339,217	9.5910830e+09	0.29
<b>Vancouver</b>	184-366 m	485	2.7113347e+04	0.34	56,958	4.6956229e+08	0.38
	367-500 m	26	6.7074555e+02	1.00	2,297	5.2743706e+06	1.00
	55-366 m	3,045	5.6809325e+05	0.25	396,175	1.0060645e+10	0.25
	55-500 m	3,071	5.6876400e+05	0.25	398,471	1.0065920e+10	0.25
<b>Columbia</b>	55-183 m	1,090	1.1298116e+05	0.31	104,016	8.0997542e+08	0.27
	184-366 m	626	6.7355496e+04	0.41	45,265	3.4364344e+08	0.41
	367-500 m	55	3.0482330e+03	1.00	4,896	2.3969611e+07	1.00
	55-366 m	1,716	1.8033666e+05	0.25	149,281	1.1536189e+09	0.23
	55-500 m	1,772	1.8338489e+05	0.24	154,177	1.1775885e+09	0.22
<b>Eureka</b>	55-183 m	267	2.3374935e+04	0.57	16,662	5.8742145e+07	0.46
	184-366 m	90	3.1475428e+03	0.62	9,240	2.9620560e+07	0.59
	367-500 m	0	-	-	0	-	-
	55-366 m	357	2.6522478e+04	0.46	25,902	8.8362705e+07	0.36
	55-500 m	357	2.6522478e+04	0.46	25,902	8.8362705e+07	0.36
<b>Monterey</b>	55-183 m	18	3.4183280e+02	1.00	2,615	6.8387212e+06	1.00
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	18	3.4183280e+02	1.00	2,615	6.8387212e+06	1.00
	55-500 m	18	3.4183280e+02	1.00	2,615	6.8387212e+06	1.00
<b>Conception</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>US Total</b>	55-183 m	2,408	2.6331829e+05	0.21	247,826	1.8685601e+09	0.17
	184-366 m	991	8.9396777e+04	0.30	83,885	5.9209156e+08	0.29
	367-500 m	81	6.5787608e+03	1.00	7,192	5.1731722e+07	1.00
	55-366 m	3,399	3.5271506e+05	0.17	331,711	2.4606516e+09	0.15
	55-500 m	3,480	3.5929383e+05	0.17	338,903	2.5123833e+09	0.15
<b>Total</b>	55-183 m	3,936	6.8668420e+05	0.21	462,510	1.0608724e+10	0.22
	184-366 m	1,201	1.0931039e+05	0.28	111,463	9.8016154e+08	0.28
	367-500 m	81	6.5787608e+03	1.00	7,192	5.1731722e+07	1.00
	55-366 m	5,137	7.9599459e+05	0.17	573,973	1.1588885e+10	0.19
	55-500 m	5,219	8.0257335e+05	0.17	581,165	1.1640617e+10	0.19

**Pacific herring**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	328	2.0515626e+04	0.44	4,698,128	3.2995725e+12	0.39
<b>Vancouver</b>	184-366 m	0	7.8821140e-04	1.00	286	8.2071158e+04	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	328	2.0515626e+04	0.44	4,698,415	3.2995725e+12	0.39
	55-500 m	328	2.0515626e+04	0.44	4,698,415	3.2995725e+12	0.39
<b>US</b>	55-183 m	1,526	1.0029301e+06	0.66	14,981,382	8.8970423e+13	0.63
<b>Vancouver</b>	184-366 m	0	6.3612791e-02	1.00	2,574	6.6235726e+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	1,526	1.0029302e+06	0.66	14,983,956	8.8970430e+13	0.63
	55-500 m	1,526	1.0029302e+06	0.66	14,983,956	8.8970430e+13	0.63
<b>Total</b>	55-183 m	1,854	1.1753636e+06	0.58	19,679,510	1.0587459e+14	0.52
<b>Vancouver</b>	184-366 m	0	7.8562969e-02	1.00	2,860	8.1802342e+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	1,855	1.1753637e+06	0.58	19,682,371	1.0587460e+14	0.52
	55-500 m	1,855	1.1753637e+06	0.58	19,682,371	1.0587460e+14	0.52
<b>Columbia</b>	55-183 m	7,093	2.3161460e+07	0.68	87,557,926	2.8909483e+15	0.61
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	7,093	2.3161460e+07	0.68	87,557,926	2.8909483e+15	0.61
	55-500 m	7,093	2.3161460e+07	0.68	87,557,926	2.8909483e+15	0.61
<b>Eureka</b>	55-183 m	1,360	1.7514979e+06	0.97	12,675,505	1.4826893e+14	0.96
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	1,360	1.7514979e+06	0.97	12,675,505	1.4826893e+14	0.96
	55-500 m	1,360	1.7514979e+06	0.97	12,675,505	1.4826893e+14	0.96
<b>Monterey</b>	55-183 m	4,674	6.5202946e+06	0.55	72,291,634	1.4928630e+15	0.53
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	4,674	6.5202946e+06	0.55	72,291,634	1.4928630e+15	0.53
	55-500 m	4,674	6.5202946e+06	0.55	72,291,634	1.4928630e+15	0.53
<b>Conception</b>	55-183 m	214	3.3722408e+04	0.86	2,203,375	3.3367102e+12	0.83
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	214	3.3722408e+04	0.86	2,203,375	3.3367102e+12	0.83
	55-500 m	214	3.3722408e+04	0.86	2,203,375	3.3367102e+12	0.83
<b>US Total</b>	55-183 m	14,866	3.2472503e+07	0.38	189,709,822	4.6248574e+15	0.36
	184-366 m	0	6.3612791e-02	1.00	2,574	6.6235726e+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	14,867	3.2472503e+07	0.38	189,712,396	4.6248574e+15	0.36
	55-500 m	14,867	3.2472503e+07	0.38	189,712,396	4.6248574e+15	0.36
<b>Total</b>	55-183 m	15,195	3.2644936e+07	0.38	194,407,950	4.6417616e+15	0.35
	184-366 m	0	7.8562969e-02	1.00	2,860	8.1802342e+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	15,195	3.2644936e+07	0.38	194,410,810	4.6417616e+15	0.35
	55-500 m	15,195	3.2644936e+07	0.38	194,410,810	4.6417616e+15	0.35



**Pacific ocean perch**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	153	2.0678517e+04	0.94	1,885,218	2.8916597e+12	0.90
<b>Vancouver</b>	184-366 m	2,345	2.8738553e+06	0.72	3,858,476	5.0569661e+12	0.58
	367-500 m	569	3.0286922e+05	0.97	694,978	4.5189871e+11	0.97
	55-366 m	2,498	2.8945338e+06	0.68	5,743,694	7.9486258e+12	0.49
	55-500 m	3,067	3.1974031e+06	0.58	6,438,672	8.4005245e+12	0.45
<b>US</b>	55-183 m	19	1.3255065e+02	0.60	298,711	2.6875846e+10	0.55
<b>Vancouver</b>	184-366 m	1,033	2.9502867e+05	0.53	1,751,332	5.6855320e+11	0.43
	367-500 m	58	1.7468351e+02	0.23	71,193	1.7594524e+08	0.19
	55-366 m	1,052	2.9516123e+05	0.52	2,050,043	5.9542904e+11	0.38
	55-500 m	1,110	2.9533591e+05	0.49	2,121,235	5.9560499e+11	0.36
<b>Total</b>	55-183 m	172	2.2648399e+04	0.87	2,183,929	3.1767048e+12	0.82
<b>Vancouver</b>	184-366 m	3,378	4.8149244e+06	0.65	5,609,807	8.5244241e+12	0.52
	367-500 m	626	3.0310442e+05	0.88	766,171	4.5210825e+11	0.88
	55-366 m	3,550	4.8375728e+06	0.62	7,793,736	1.1701129e+13	0.44
	55-500 m	4,176	5.1406772e+06	0.54	8,559,907	1.2153237e+13	0.41
<b>Columbia</b>	55-183 m	2	9.9924376e-01	0.42	68,510	8.4424568e+08	0.42
	184-366 m	1,455	9.1498810e+05	0.66	2,457,158	2.2424473e+12	0.61
	367-500 m	253	7.1257760e+03	0.33	314,909	1.1000895e+10	0.33
	55-366 m	1,457	9.1498910e+05	0.66	2,525,668	2.2432916e+12	0.59
	55-500 m	1,710	9.2211488e+05	0.56	2,840,577	2.2542925e+12	0.53
<b>Eureka</b>	55-183 m	0	1.6424400e-01	1.00	8,215	6.7485209e+07	1.00
	184-366 m	24	1.5517566e+02	0.53	26,858	1.5442696e+08	0.46
	367-500 m	2	1.1298417e+00	0.68	2,845	3.6845647e+06	0.67
	55-366 m	24	1.5533990e+02	0.52	35,073	2.2191217e+08	0.42
	55-500 m	26	1.5646974e+02	0.49	37,918	2.2559674e+08	0.40
<b>Monterey</b>	55-183 m	1	2.0627879e+00	1.00	2,592	6.7210178e+06	1.00
	184-366 m	6	1.2041640e+01	0.58	6,681	1.4057996e+07	0.56
	367-500 m	1	6.7134756e-01	1.00	1,223	1.4955392e+06	1.00
	55-366 m	7	1.4104427e+01	0.51	9,274	2.0779014e+07	0.49
	55-500 m	8	1.4775775e+01	0.47	10,497	2.2274553e+07	0.45
<b>Conception</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>US Total</b>	55-183 m	23	1.3633451e+02	0.50	378,029	2.8282829e+10	0.44
	184-366 m	2,518	1.5735401e+06	0.50	4,242,029	3.7017822e+12	0.45
	367-500 m	313	7.7084455e+03	0.28	390,169	1.1744214e+10	0.28
	55-366 m	2,541	1.5736765e+06	0.49	4,620,057	3.7300650e+12	0.42
	55-500 m	2,853	1.5813849e+06	0.44	5,010,226	3.7418092e+12	0.39
<b>Total</b>	55-183 m	176	2.2652183e+04	0.85	2,263,246	3.1781118e+12	0.79
	184-366 m	4,862	6.0934359e+06	0.51	8,100,504	1.1657653e+13	0.42
	367-500 m	881	3.1063818e+05	0.63	1,085,147	4.6367652e+11	0.63
	55-366 m	5,039	6.1160881e+06	0.49	10,363,751	1.4835765e+13	0.37
	55-500 m	5,920	6.4267262e+06	0.43	11,448,898	1.5299441e+13	0.34

**Pacific sanddab**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	5,129	3.6192886e+06	0.37	32,188,321	1.4511620e+14	0.37
<b>Vancouver</b>	184-366 m	1	7.2791298e-01	0.66	7,273	2.1165663e+07	0.63
	367-500 m	0	-	-	0	-	-
	55-366 m	5,130	3.6192893e+06	0.37	32,195,593	1.4511622e+14	0.37
	55-500 m	5,130	3.6192893e+06	0.37	32,195,593	1.4511622e+14	0.37
<b>US</b>	55-183 m	1,875	2.5922933e+05	0.27	13,355,478	1.4741707e+13	0.29
<b>Vancouver</b>	184-366 m	0	5.9627001e-02	0.66	2,081	1.7337855e+06	0.63
	367-500 m	0	-	-	0	-	-
	55-366 m	1,875	2.5922939e+05	0.27	13,357,559	1.4741709e+13	0.29
	55-500 m	1,875	2.5922939e+05	0.27	13,357,559	1.4741709e+13	0.29
<b>Total</b>	55-183 m	7,004	4.2141700e+06	0.29	45,543,799	1.7338507e+14	0.29
<b>Vancouver</b>	184-366 m	2	1.2042090e+00	0.66	9,354	3.5015012e+07	0.63
	367-500 m	0	-	-	0	-	-
	55-366 m	7,006	4.2141712e+06	0.29	45,553,153	1.7338510e+14	0.29
	55-500 m	7,006	4.2141712e+06	0.29	45,553,153	1.7338510e+14	0.29
<b>Columbia</b>	55-183 m	27,493	2.1871138e+07	0.17	238,104,941	1.3478023e+15	0.15
	184-366 m	1	4.0484846e-01	1.00	2,525	6.3751647e+06	1.00
	367-500 m	0	4.2324399e-02	1.00	1,469	2.1594081e+06	1.00
	55-366 m	27,493	2.1871139e+07	0.17	238,107,465	1.3478024e+15	0.15
	55-500 m	27,493	2.1871139e+07	0.17	238,108,935	1.3478024e+15	0.15
<b>Eureka</b>	55-183 m	4,915	1.3877513e+06	0.24	48,806,802	1.0611902e+14	0.21
	184-366 m	1	7.2857796e-01	0.74	15,880	1.5203664e+08	0.78
	367-500 m	0	-	-	0	-	-
	55-366 m	4,916	1.3877520e+06	0.24	48,822,681	1.0611917e+14	0.21
	55-500 m	4,916	1.3877520e+06	0.24	48,822,681	1.0611917e+14	0.21
<b>Monterey</b>	55-183 m	8,006	1.3710714e+06	0.15	88,135,007	1.0024839e+14	0.11
	184-366 m	1	2.5932831e-01	1.00	6,210	3.8567565e+07	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	8,007	1.3710717e+06	0.15	88,141,218	1.0024843e+14	0.11
	55-500 m	8,007	1.3710717e+06	0.15	88,141,218	1.0024843e+14	0.11
<b>Conception</b>	55-183 m	6,219	1.7672208e+07	0.68	51,149,400	6.5968164e+14	0.50
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	6,219	1.7672208e+07	0.68	51,149,400	6.5968164e+14	0.50
	55-500 m	6,219	1.7672208e+07	0.68	51,149,400	6.5968164e+14	0.50
<b>US Total</b>	55-183 m	48,508	4.3577080e+07	0.14	439,551,627	2.3034071e+15	0.11
	184-366 m	3	1.4523817e+00	0.45	26,696	1.9871315e+08	0.53
	367-500 m	0	4.2324399e-02	1.00	1,469	2.1594081e+06	1.00
	55-366 m	48,510	4.3577082e+07	0.14	439,578,324	2.3034073e+15	0.11
	55-500 m	48,511	4.3577082e+07	0.14	439,579,793	2.3034073e+15	0.11
<b>Total</b>	55-183 m	53,637	4.7532021e+07	0.13	471,739,948	2.4620505e+15	0.11
	184-366 m	4	2.5969637e+00	0.41	33,969	2.3199438e+08	0.45
	367-500 m	0	4.2324399e-02	1.00	1,469	2.1594081e+06	1.00
	55-366 m	53,641	4.7532024e+07	0.13	471,773,917	2.4620507e+15	0.11
	55-500 m	53,641	4.7532024e+07	0.13	471,775,386	2.4620507e+15	0.11

**Pacific sardine**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	251	3.8686840e+04	0.78	1,446,419	1.2655466e+12	0.78
<b>Vancouver</b>	184-366 m	0	6.5981203e-03	1.00	336	1.1266512e+05	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	251	3.8686846e+04	0.78	1,446,754	1.2655467e+12	0.78
	55-500 m	251	3.8686846e+04	0.78	1,446,754	1.2655467e+12	0.78
<b>US</b>	55-183 m	34	1.9581993e+02	0.41	204,192	6.7837650e+09	0.40
<b>Vancouver</b>	184-366 m	1	5.3250289e-01	1.00	3,015	9.0926660e+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	35	1.9635243e+02	0.40	207,207	6.7928577e+09	0.40
	55-500 m	35	1.9635243e+02	0.40	207,207	6.7928577e+09	0.40
<b>Total</b>	55-183 m	285	4.2310555e+04	0.72	1,650,611	1.3844923e+12	0.71
<b>Vancouver</b>	184-366 m	1	6.5765089e-01	1.00	3,351	1.1229610e+07	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	286	4.2311213e+04	0.72	1,653,962	1.3845035e+12	0.71
	55-500 m	286	4.2311213e+04	0.72	1,653,962	1.3845035e+12	0.71
<b>Columbia</b>	55-183 m	77	4.2406471e+02	0.27	582,364	2.2050066e+10	0.25
	184-366 m	0	-	-	0	-	-
	367-500 m	0	2.4622181e-02	1.00	1,669	2.7865755e+06	1.00
	55-366 m	77	4.2406471e+02	0.27	582,364	2.2050066e+10	0.25
	55-500 m	77	4.2408933e+02	0.27	584,033	2.2052853e+10	0.25
<b>Eureka</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>Monterey</b>	55-183 m	15	1.8714605e+02	0.90	110,011	9.0688093e+09	0.87
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	15	1.8714605e+02	0.90	110,011	9.0688093e+09	0.87
	55-500 m	15	1.8714605e+02	0.90	110,011	9.0688093e+09	0.87
<b>Conception</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>US Total</b>	55-183 m	126	8.8264355e+02	0.24	896,567	4.1687636e+10	0.23
	184-366 m	1	5.3250289e-01	1.00	3,015	9.0926660e+06	1.00
	367-500 m	0	2.4622181e-02	1.00	1,669	2.7865755e+06	1.00
	55-366 m	127	8.8317606e+02	0.23	899,583	4.1696729e+10	0.23
	55-500 m	127	8.8320068e+02	0.23	901,252	4.1699515e+10	0.23
<b>Total</b>	55-183 m	378	4.2997378e+04	0.55	2,342,986	1.4193961e+12	0.51
	184-366 m	1	6.5765089e-01	1.00	3,351	1.1229610e+07	1.00
	367-500 m	0	2.4622181e-02	1.00	1,669	2.7865755e+06	1.00
	55-366 m	379	4.2998036e+04	0.55	2,346,337	1.4194074e+12	0.51
	55-500 m	379	4.2998061e+04	0.55	2,348,006	1.4194102e+12	0.51

**Petrale sole**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	835	5.5661370e+04	0.28	1,309,849	1.8945546e+11	0.33
<b>Vancouver</b>	184-366 m	12	6.5581710e+01	0.65	25,673	2.4087080e+08	0.60
	367-500 m	11	1.1098491e+02	1.00	10,033	1.0066659e+08	1.00
	55-366 m	848	5.5726952e+04	0.28	1,335,522	1.8969634e+11	0.33
	55-500 m	858	5.5837937e+04	0.28	1,345,555	1.8979700e+11	0.32
<b>US</b>	55-183 m	485	2.0598040e+04	0.30	988,354	9.6423586e+10	0.31
<b>Vancouver</b>	184-366 m	5	6.1261208e+00	0.45	10,879	2.2831138e+07	0.44
	367-500 m	0	-	-	0	-	-
	55-366 m	490	2.0604166e+04	0.29	999,233	9.6446417e+10	0.31
	55-500 m	490	2.0604166e+04	0.29	999,233	9.6446417e+10	0.31
<b>Total</b>	55-183 m	1,320	8.4194035e+04	0.22	2,298,203	3.1682271e+11	0.24
<b>Vancouver</b>	184-366 m	18	1.0924785e+02	0.58	36,552	4.0158023e+08	0.55
	367-500 m	11	1.1098491e+02	1.00	10,033	1.0066659e+08	1.00
	55-366 m	1,338	8.4303282e+04	0.22	2,334,754	3.1722429e+11	0.24
	55-500 m	1,349	8.4414267e+04	0.22	2,344,787	3.1732496e+11	0.24
<b>Columbia</b>	55-183 m	1,923	6.1783331e+04	0.13	5,237,891	5.5749207e+11	0.14
	184-366 m	22	3.2543935e+01	0.26	40,469	1.0214558e+08	0.25
	367-500 m	0	-	-	0	-	-
	55-366 m	1,945	6.1815875e+04	0.13	5,278,360	5.5759422e+11	0.14
	55-500 m	1,945	6.1815875e+04	0.13	5,278,360	5.5759422e+11	0.14
<b>Eureka</b>	55-183 m	299	3.6939306e+03	0.20	928,040	3.6930659e+10	0.21
	184-366 m	1	1.3387325e+00	1.00	1,775	3.1491883e+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	300	3.6952694e+03	0.20	929,815	3.6933809e+10	0.21
	55-500 m	300	3.6952694e+03	0.20	929,815	3.6933809e+10	0.21
<b>Monterey</b>	55-183 m	900	1.2349850e+04	0.12	2,561,381	1.0584055e+11	0.13
	184-366 m	6	1.6659356e+01	0.66	12,397	6.6346842e+07	0.66
	367-500 m	0	-	-	0	-	-
	55-366 m	906	1.2366510e+04	0.12	2,573,778	1.0590690e+11	0.13
	55-500 m	906	1.2366510e+04	0.12	2,573,778	1.0590690e+11	0.13
<b>Conception</b>	55-183 m	191	4.1698092e+03	0.34	392,373	1.0219015e+10	0.26
	184-366 m	18	1.3269132e+02	0.65	18,051	1.4822103e+08	0.67
	367-500 m	0	-	-	0	-	-
	55-366 m	209	4.3025005e+03	0.31	410,425	1.0367236e+10	0.25
	55-500 m	209	4.3025005e+03	0.31	410,425	1.0367236e+10	0.25
<b>US Total</b>	55-183 m	3,798	1.0483163e+05	0.09	10,108,039	8.1534559e+11	0.09
	184-366 m	52	1.9651950e+02	0.27	83,571	3.6432476e+08	0.23
	367-500 m	0	-	-	0	-	-
	55-366 m	3,850	1.0502815e+05	0.08	10,191,610	8.1570992e+11	0.09
	55-500 m	3,850	1.0502815e+05	0.08	10,191,610	8.1570992e+11	0.09
<b>Total</b>	55-183 m	4,633	1.6842762e+05	0.09	11,417,888	1.0357447e+12	0.09
	184-366 m	65	2.9964123e+02	0.27	109,244	7.4307386e+08	0.25
	367-500 m	11	1.1098491e+02	1.00	10,033	1.0066659e+08	1.00
	55-366 m	4,698	1.6872726e+05	0.09	11,527,132	1.0364878e+12	0.09
	55-500 m	4,708	1.6883825e+05	0.09	11,537,165	1.0365885e+12	0.09

**Redstripe rockfish**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	2,095	3.4686915e+06	0.89	4,898,109	1.9047515e+13	0.89
<b>Vancouver</b>	184-366 m	239	5.6900219e+04	1.00	344,825	1.1890418e+11	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	2,334	3.5255917e+06	0.80	5,242,934	1.9166420e+13	0.84
	55-500 m	2,334	3.5255917e+06	0.80	5,242,934	1.9166420e+13	0.84
<b>US</b>	55-183 m	425	3.6655410e+04	0.45	932,358	1.8882612e+11	0.47
<b>Vancouver</b>	184-366 m	68	4.6609821e+03	1.00	98,692	9.7400377e+09	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	493	4.1316392e+04	0.41	1,031,050	1.9856615e+11	0.43
	55-500 m	493	4.1316392e+04	0.41	1,031,050	1.9856615e+11	0.43
<b>Total</b>	55-183 m	2,520	3.8157084e+06	0.78	5,830,468	2.0938755e+13	0.78
<b>Vancouver</b>	184-366 m	307	9.4131796e+04	1.00	443,516	1.9670688e+11	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	2,827	3.9098402e+06	0.70	6,273,984	2.1135461e+13	0.73
	55-500 m	2,827	3.9098402e+06	0.70	6,273,984	2.1135461e+13	0.73
<b>Columbia</b>	55-183 m	296	3.0844604e+04	0.59	1,937,590	1.8479004e+12	0.70
	184-366 m	9	6.9259875e+01	0.94	20,130	3.1389371e+08	0.88
	367-500 m	0	-	-	0	-	-
	55-366 m	305	3.0913864e+04	0.58	1,957,720	1.8482143e+12	0.69
	55-500 m	305	3.0913864e+04	0.58	1,957,720	1.8482143e+12	0.69
<b>Eureka</b>	55-183 m	0	-	-	0	-	-
	184-366 m	1	4.0049876e-01	1.00	1,544	2.3825030e+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	1	4.0049876e-01	1.00	1,544	2.3825030e+06	1.00
	55-500 m	1	4.0049876e-01	1.00	1,544	2.3825030e+06	1.00
<b>Monterey</b>	55-183 m	0	-	-	0	-	-
	184-366 m	2	2.2501941e+00	0.85	3,601	7.7176807e+06	0.77
	367-500 m	0	-	-	0	-	-
	55-366 m	2	2.2501941e+00	0.85	3,601	7.7176807e+06	0.77
	55-500 m	2	2.2501941e+00	0.85	3,601	7.7176807e+06	0.77
<b>Conception</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	2.8539233e-02	1.00	563	3.1710259e+05	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	0	2.8539233e-02	1.00	563	3.1710259e+05	1.00
	55-500 m	0	2.8539233e-02	1.00	563	3.1710259e+05	1.00
<b>US Total</b>	55-183 m	721	6.7501090e+04	0.36	2,869,948	2.0367419e+12	0.50
	184-366 m	80	4.7330241e+03	0.86	124,529	1.0065492e+10	0.81
	367-500 m	0	-	-	0	-	-
	55-366 m	800	7.2234114e+04	0.34	2,994,478	2.0468074e+12	0.48
	55-500 m	800	7.2234114e+04	0.34	2,994,478	2.0468074e+12	0.48
<b>Total</b>	55-183 m	2,816	3.8465541e+06	0.70	7,768,058	2.2786670e+13	0.61
	184-366 m	318	9.4203838e+04	0.96	469,354	1.9703233e+11	0.95
	367-500 m	0	-	-	0	-	-
	55-366 m	3,134	3.9407579e+06	0.63	8,237,412	2.2983703e+13	0.58
	55-500 m	3,134	3.9407579e+06	0.63	8,237,412	2.2983703e+13	0.58

## Rex sole

### Biomass and population estimates for 2001 NMFS triennial bottom trawl survey

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	6,146	2.1421990e+06	0.24	30,821,841	3.4999545e+13	0.19
<b>Vancouver</b>	184-366 m	170	3.6929110e+03	0.36	1,075,272	3.8506681e+11	0.58
	367-500 m	172	1.0948250e+04	0.61	755,391	2.6255693e+11	0.68
	55-366 m	6,316	2.1458919e+06	0.23	31,897,113	3.5384612e+13	0.19
	55-500 m	6,488	2.1568401e+06	0.23	32,652,504	3.5647169e+13	0.18
<b>US</b>	55-183 m	1,850	7.8714038e+04	0.15	11,800,237	2.9718848e+12	0.15
<b>Vancouver</b>	184-366 m	334	5.8239195e+03	0.23	1,748,596	1.6769617e+11	0.23
	367-500 m	86	1.5327544e+03	0.45	387,927	4.4984269e+10	0.55
	55-366 m	2,184	8.4537957e+04	0.13	13,548,834	3.1395809e+12	0.13
	55-500 m	2,270	8.6070712e+04	0.13	13,936,760	3.1845652e+12	0.13
<b>Total</b>	55-183 m	7,996	2.4192359e+06	0.19	42,622,079	4.1368801e+13	0.15
<b>Vancouver</b>	184-366 m	504	1.2736802e+04	0.22	2,823,868	7.9946401e+11	0.32
	367-500 m	258	1.2767190e+04	0.44	1,143,318	3.1080729e+11	0.49
	55-366 m	8,500	2.4319727e+06	0.18	45,445,947	4.2168265e+13	0.14
	55-500 m	8,758	2.4447399e+06	0.18	46,589,264	4.2479073e+13	0.14
<b>Columbia</b>	55-183 m	12,278	1.1425874e+06	0.09	108,621,926	9.2920152e+13	0.09
	184-366 m	3,110	2.4770619e+05	0.16	21,798,159	9.3602126e+12	0.14
	367-500 m	1,219	9.1155559e+04	0.25	7,319,038	2.9455629e+12	0.23
	55-366 m	15,388	1.3902935e+06	0.08	130,420,086	1.0228036e+14	0.08
	55-500 m	16,607	1.4814491e+06	0.07	137,739,124	1.0522593e+14	0.07
<b>Eureka</b>	55-183 m	2,517	2.7062703e+05	0.21	25,389,718	2.2449155e+13	0.19
	184-366 m	1,741	7.6711528e+04	0.16	13,028,438	4.5071849e+12	0.16
	367-500 m	439	5.9938556e+03	0.18	3,397,155	5.5902868e+11	0.22
	55-366 m	4,258	3.4733856e+05	0.14	38,418,156	2.6956340e+13	0.14
	55-500 m	4,697	3.5333242e+05	0.13	41,815,311	2.7515369e+13	0.13
<b>Monterey</b>	55-183 m	2,122	1.4755481e+05	0.18	20,757,478	1.5410926e+13	0.19
	184-366 m	2,240	1.1164087e+05	0.15	16,326,389	4.6776446e+12	0.13
	367-500 m	1,487	2.2404332e+05	0.32	9,807,597	1.1386472e+13	0.34
	55-366 m	4,362	2.5919568e+05	0.12	37,083,867	2.0088570e+13	0.12
	55-500 m	5,849	4.8323901e+05	0.12	46,891,464	3.1475042e+13	0.12
<b>Conception</b>	55-183 m	36	4.4776294e+02	0.59	420,844	5.0219670e+10	0.53
	184-366 m	2,121	8.3989433e+05	0.43	16,329,817	4.2111808e+13	0.40
	367-500 m	1,157	7.0305181e+04	0.23	7,006,302	3.4076088e+12	0.26
	55-366 m	2,157	8.4034210e+05	0.42	16,750,661	4.2162027e+13	0.39
	55-500 m	3,314	9.1064728e+05	0.29	23,756,963	4.5569636e+13	0.28
<b>US Total</b>	55-183 m	18,802	1.7162056e+06	0.07	166,990,203	1.3921496e+14	0.07
	184-366 m	9,547	1.2892842e+06	0.12	69,231,401	6.1320099e+13	0.11
	367-500 m	4,388	4.8121750e+05	0.16	27,918,019	2.4069336e+13	0.18
	55-366 m	28,350	3.0054898e+06	0.06	236,221,604	2.0053505e+14	0.06
	55-500 m	32,737	3.4867073e+06	0.06	264,139,623	2.2460439e+14	0.06
<b>Total</b>	55-183 m	24,948	4.0567275e+06	0.08	197,812,044	1.7761187e+14	0.07
	184-366 m	9,717	1.2961971e+06	0.12	70,306,672	6.1951867e+13	0.11
	367-500 m	4,560	4.9245193e+05	0.15	28,673,410	2.4335159e+13	0.17
	55-366 m	34,665	5.3529245e+06	0.07	268,118,717	2.3956374e+14	0.06
	55-500 m	39,225	5.8453765e+06	0.06	296,792,127	2.6389890e+14	0.05

**Rougheye rockfish**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	42	4.3292337e+02	0.49	106,571	1.4366662e+09	0.36
<b>Vancouver</b>	184-366 m	132	2.3738040e+03	0.37	125,611	1.9253861e+09	0.35
	367-500 m	761	3.2613596e+05	0.75	464,752	1.1644947e+11	0.73
	55-366 m	174	2.8067274e+03	0.30	232,182	3.3620523e+09	0.25
	55-500 m	936	3.2894268e+05	0.61	696,933	1.1981152e+11	0.50
<b>US</b>	55-183 m	22	1.9928626e+02	0.63	85,466	2.8219911e+09	0.62
<b>Vancouver</b>	184-366 m	120	4.3528275e+03	0.55	124,396	2.6822068e+09	0.42
	367-500 m	116	1.0636700e+03	0.28	69,297	3.6411078e+08	0.28
	55-366 m	142	4.5521138e+03	0.47	209,863	5.5041979e+09	0.35
	55-500 m	258	5.6157838e+03	0.29	279,160	5.8683087e+09	0.27
<b>Total</b>	55-183 m	65	6.7038667e+02	0.40	192,037	4.3853487e+09	0.34
<b>Vancouver</b>	184-366 m	252	8.9826213e+03	0.38	250,007	6.2543832e+09	0.32
	367-500 m	877	3.2786785e+05	0.65	534,049	1.1704180e+11	0.64
	55-366 m	317	9.6530079e+03	0.31	442,044	1.0639732e+10	0.23
	55-500 m	1,194	3.3752085e+05	0.49	976,093	1.2768153e+11	0.37
<b>Columbia</b>	55-183 m	80	2.1912651e+03	0.58	323,931	3.1652409e+10	0.55
	184-366 m	158	1.9423882e+04	0.88	67,687	1.8016310e+09	0.63
	367-500 m	465	7.5721804e+03	0.19	223,429	1.5159614e+09	0.17
	55-366 m	238	2.1615147e+04	0.62	391,618	3.3454040e+10	0.47
	55-500 m	702	2.9187327e+04	0.24	615,047	3.4970002e+10	0.30
<b>Eureka</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	7	2.5261228e+01	0.67	5,911	2.0666045e+07	0.77
	55-366 m	0	-	-	0	-	-
	55-500 m	7	2.5261228e+01	0.67	5,911	2.0666045e+07	0.77
<b>Monterey</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	1.0349298e-02	1.00	1,038	1.0776029e+06	1.00
	55-366 m	0	-	-	0	-	-
	55-500 m	0	1.0349298e-02	1.00	1,038	1.0776029e+06	1.00
<b>Conception</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>US Total</b>	55-183 m	102	3.6889512e+03	0.59	409,397	5.2920084e+10	0.56
	184-366 m	278	2.3776709e+04	0.56	192,083	4.4838378e+09	0.35
	367-500 m	588	9.4572442e+03	0.17	299,675	2.1772907e+09	0.16
	55-366 m	380	2.7465660e+04	0.44	601,481	5.7403922e+10	0.40
	55-500 m	968	3.6922905e+04	0.20	901,156	5.9581212e+10	0.27
<b>Total</b>	55-183 m	145	4.1600516e+03	0.45	515,968	5.4483442e+10	0.45
	184-366 m	410	2.8406503e+04	0.41	317,694	8.0560142e+09	0.28
	367-500 m	1,349	3.3626142e+05	0.43	764,427	1.1885498e+11	0.45
	55-366 m	555	3.2566555e+04	0.33	833,662	6.2539456e+10	0.30
	55-500 m	1,904	3.6882798e+05	0.32	1,598,089	1.8139443e+11	0.27

## Sablefish

### Biomass and population estimates for 2001 NMFS triennial bottom trawl survey

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	7,529	4.9773057e+06	0.30	6,850,873	3.5120456e+12	0.27
<b>Vancouver</b>	184-366 m	999	5.8128609e+04	0.24	458,464	1.0757401e+10	0.23
	367-500 m	341	9.8664131e+04	0.92	151,763	1.9725708e+10	0.93
	55-366 m	8,528	5.0354343e+06	0.26	7,309,337	3.5228030e+12	0.26
	55-500 m	8,869	5.1340985e+06	0.26	7,461,099	3.5425287e+12	0.25
<b>US</b>	55-183 m	16,723	1.3545942e+08	0.70	27,782,525	4.0078780e+14	0.72
<b>Vancouver</b>	184-366 m	1,984	3.2983741e+05	0.29	1,257,187	1.3414491e+11	0.29
	367-500 m	141	2.1453130e+03	0.33	91,110	1.3415754e+09	0.40
	55-366 m	18,707	1.3578926e+08	0.62	29,039,712	4.0092194e+14	0.69
	55-500 m	18,848	1.3579141e+08	0.62	29,130,822	4.0092329e+14	0.69
<b>Total</b>	55-183 m	24,252	1.6114013e+08	0.52	34,633,398	4.6457532e+14	0.62
<b>Vancouver</b>	184-366 m	2,983	4.6442641e+05	0.23	1,715,651	1.7219507e+11	0.24
	367-500 m	482	1.0210123e+05	0.66	242,873	2.1255579e+10	0.60
	55-366 m	27,235	1.6160456e+08	0.47	36,349,049	4.6474751e+14	0.59
	55-500 m	27,717	1.6170666e+08	0.46	36,591,922	4.6476877e+14	0.59
<b>Columbia</b>	55-183 m	44,788	4.7935411e+08	0.49	93,352,543	2.5626601e+15	0.54
	184-366 m	5,780	1.8491726e+06	0.24	3,326,652	6.1152378e+11	0.24
	367-500 m	3,088	1.3261080e+05	0.12	1,645,024	3.8074463e+10	0.12
	55-366 m	50,568	4.8120329e+08	0.43	96,679,195	2.5632716e+15	0.52
	55-500 m	53,656	4.8133590e+08	0.41	98,324,218	2.5633097e+15	0.51
<b>Eureka</b>	55-183 m	1,018	5.8266791e+04	0.24	1,291,733	1.0347151e+11	0.25
	184-366 m	683	1.5621030e+04	0.18	525,279	6.3412842e+09	0.15
	367-500 m	1,047	2.2293741e+04	0.14	826,811	1.2226223e+10	0.13
	55-366 m	1,701	7.3887821e+04	0.16	1,817,012	1.0981279e+11	0.18
	55-500 m	2,748	9.6181562e+04	0.11	2,643,823	1.2203902e+11	0.13
<b>Monterey</b>	55-183 m	25,767	2.6867714e+08	0.64	37,957,119	6.1900007e+14	0.66
	184-366 m	2,810	6.5376941e+05	0.29	2,875,471	7.6719741e+11	0.30
	367-500 m	1,424	6.8613353e+04	0.18	1,132,620	6.5245329e+10	0.23
	55-366 m	28,576	2.6933091e+08	0.57	40,832,590	6.1976726e+14	0.61
	55-500 m	30,000	2.6939952e+08	0.55	41,965,210	6.1983251e+14	0.59
<b>Conception</b>	55-183 m	818	2.2432428e+05	0.58	1,549,205	7.7931540e+11	0.57
	184-366 m	2,007	4.7925446e+04	0.11	3,326,638	1.9983881e+11	0.13
	367-500 m	998	5.7703139e+04	0.24	1,094,645	7.1722262e+10	0.24
	55-366 m	2,825	2.7224973e+05	0.18	4,875,842	9.7915422e+11	0.20
	55-500 m	3,824	3.2995286e+05	0.15	5,970,487	1.0508765e+12	0.17
<b>US Total</b>	55-183 m	89,114	8.8423311e+08	0.33	161,933,124	3.5844560e+15	0.37
	184-366 m	13,264	3.7236285e+06	0.15	11,311,227	1.9536206e+12	0.12
	367-500 m	6,699	2.8893709e+05	0.08	4,790,210	1.9377054e+11	0.09
	55-366 m	102,378	8.8795673e+08	0.29	173,244,351	3.5864096e+15	0.35
	55-500 m	109,076	8.8824567e+08	0.27	178,034,561	3.5866033e+15	0.34
<b>Total</b>	55-183 m	96,643	9.0991381e+08	0.31	168,783,997	3.6482435e+15	0.36
	184-366 m	14,263	3.8582174e+06	0.14	11,769,691	1.9916708e+12	0.12
	367-500 m	7,040	3.8889301e+05	0.09	4,941,972	2.1368454e+11	0.09
	55-366 m	110,905	9.1377203e+08	0.27	180,553,688	3.6502351e+15	0.33
	55-500 m	117,945	9.1416092e+08	0.26	185,495,660	3.6504488e+15	0.33



## Sharpchin rockfish

### Biomass and population estimates for 2001 NMFS triennial bottom trawl survey

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	16	1.3488393e+02	0.75	79,114	4.5225035e+09	0.85
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	16	1.3488393e+02	0.75	79,114	4.5225035e+09	0.85
	55-500 m	16	1.3488393e+02	0.75	79,114	4.5225035e+09	0.85
<b>US</b>	55-183 m	68	4.5850620e+03	0.99	179,001	3.0747711e+10	0.98
<b>Vancouver</b>	184-366 m	63	3.2980529e+03	0.91	236,949	4.3983088e+10	0.89
	367-500 m	0	3.6335139e-02	1.00	1,148	1.3185926e+06	1.00
	55-366 m	131	7.8831150e+03	0.68	415,949	7.4730800e+10	0.66
	55-500 m	132	7.8831513e+03	0.67	417,098	7.4732118e+10	0.66
<b>Total</b>	55-183 m	84	5.4181232e+03	0.88	258,114	4.0270142e+10	0.78
<b>Vancouver</b>	184-366 m	63	3.2980529e+03	0.91	236,949	4.3983088e+10	0.89
	367-500 m	0	3.6335139e-02	1.00	1,148	1.3185926e+06	1.00
	55-366 m	147	8.7161761e+03	0.64	495,063	8.4253230e+10	0.59
	55-500 m	147	8.7162125e+03	0.63	496,211	8.4254549e+10	0.58
<b>Columbia</b>	55-183 m	6	1.4406505e+01	0.65	44,640	5.1643168e+08	0.51
	184-366 m	4,550	1.7550433e+07	0.92	17,142,541	2.4576550e+14	0.91
	367-500 m	1	5.3548011e-01	0.61	7,047	1.7578764e+07	0.60
	55-366 m	4,556	1.7550448e+07	0.92	17,187,181	2.4576601e+14	0.91
	55-500 m	4,557	1.7550448e+07	0.92	17,194,228	2.4576603e+14	0.91
<b>Eureka</b>	55-183 m	8	5.6479285e+01	1.00	36,423	1.3266318e+09	1.00
	184-366 m	66	1.5687394e+03	0.60	381,748	4.8612540e+10	0.58
	367-500 m	0	-	-	0	-	-
	55-366 m	74	1.6252187e+03	0.55	418,171	4.9939172e+10	0.53
	55-500 m	74	1.6252187e+03	0.55	418,171	4.9939172e+10	0.53
<b>Monterey</b>	55-183 m	0	-	-	0	-	-
	184-366 m	57	1.5937271e+03	0.70	474,197	1.2909180e+11	0.76
	367-500 m	0	-	-	0	-	-
	55-366 m	57	1.5937271e+03	0.70	474,197	1.2909180e+11	0.76
	55-500 m	57	1.5937271e+03	0.70	474,197	1.2909180e+11	0.76
<b>Conception</b>	55-183 m	0	-	-	0	-	-
	184-366 m	2	4.4022610e+00	1.00	20,342	4.1380666e+08	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	2	4.4022610e+00	1.00	20,342	4.1380666e+08	1.00
	55-500 m	2	4.4022610e+00	1.00	20,342	4.1380666e+08	1.00
<b>US Total</b>	55-183 m	82	4.6559528e+03	0.84	260,064	3.2594636e+10	0.69
	184-366 m	4,739	1.7578693e+07	0.88	18,255,776	2.4627826e+14	0.86
	367-500 m	1	7.2673329e-01	0.61	8,195	2.4519291e+07	0.60
	55-366 m	4,820	1.7583349e+07	0.87	18,515,840	2.4631085e+14	0.85
	55-500 m	4,821	1.7583350e+07	0.87	18,524,035	2.4631088e+14	0.85
<b>Total</b>	55-183 m	97	5.4890140e+03	0.76	339,177	4.2117067e+10	0.61
	184-366 m	4,739	1.7578693e+07	0.88	18,255,776	2.4627826e+14	0.86
	367-500 m	1	7.2673329e-01	0.61	8,195	2.4519291e+07	0.60
	55-366 m	4,836	1.7584182e+07	0.87	18,594,953	2.4632038e+14	0.84
	55-500 m	4,837	1.7584183e+07	0.87	18,603,148	2.4632040e+14	0.84

**Shortbelly rockfish**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	15	2.2001992e+02	0.98	109,459	9.8371051e+09	0.91
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	15	2.2001992e+02	0.98	109,459	9.8371051e+09	0.91
	55-500 m	15	2.2001992e+02	0.98	109,459	9.8371051e+09	0.91
<b>US</b>	55-183 m	1	4.2774453e-01	0.98	4,826	1.9124486e+07	0.91
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	1	4.2774453e-01	0.98	4,826	1.9124486e+07	0.91
	55-500 m	1	4.2774453e-01	0.98	4,826	1.9124486e+07	0.91
<b>Total</b>	55-183 m	16	2.3984997e+02	0.98	114,285	1.0723708e+10	0.91
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	16	2.3984997e+02	0.98	114,285	1.0723708e+10	0.91
	55-500 m	16	2.3984997e+02	0.98	114,285	1.0723708e+10	0.91
<b>Columbia</b>	55-183 m	1	7.1556962e-01	1.00	3,554	1.2632752e+07	1.00
	184-366 m	0	2.2201547e-01	1.00	2,454	6.0225551e+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	1	9.3758509e-01	0.74	6,008	1.8655307e+07	0.72
	55-500 m	1	9.3758509e-01	0.74	6,008	1.8655307e+07	0.72
<b>Eureka</b>	55-183 m	6	3.4921437e+01	1.00	64,233	4.1258787e+09	1.00
	184-366 m	1	1.7149343e+00	1.00	6,163	3.7977784e+07	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	7	3.6636372e+01	0.84	70,396	4.1638565e+09	0.92
	55-500 m	7	3.6636372e+01	0.84	70,396	4.1638565e+09	0.92
<b>Monterey</b>	55-183 m	147	4.5997670e+03	0.46	1,450,426	3.9943643e+11	0.44
	184-366 m	14,384	1.2100945e+08	0.76	90,263,722	4.1832342e+15	0.72
	367-500 m	0	-	-	0	-	-
	55-366 m	14,531	1.2101405e+08	0.76	91,714,149	4.1836336e+15	0.71
	55-500 m	14,531	1.2101405e+08	0.76	91,714,149	4.1836336e+15	0.71
<b>Conception</b>	55-183 m	846	6.7234301e+05	0.97	10,932,135	1.1112987e+14	0.96
	184-366 m	3,258	6.2381302e+06	0.77	29,626,209	5.0567043e+14	0.76
	367-500 m	0	2.0362435e-02	1.00	1,427	2.0362435e+06	1.00
	55-366 m	4,103	6.9104733e+06	0.64	40,558,344	6.1680030e+14	0.61
	55-500 m	4,104	6.9104733e+06	0.64	40,559,771	6.1680030e+14	0.61
<b>US Total</b>	55-183 m	1,001	6.7704744e+05	0.82	12,455,175	1.1158284e+14	0.85
	184-366 m	17,643	1.4664576e+08	0.69	119,898,567	6.2306402e+15	0.66
	367-500 m	0	2.0362435e-02	1.00	1,427	2.0362435e+06	1.00
	55-366 m	18,644	1.4732281e+08	0.65	132,353,743	6.3422230e+15	0.60
	55-500 m	18,644	1.4732281e+08	0.65	132,355,169	6.3422230e+15	0.60
<b>Total</b>	55-183 m	1,016	6.7728686e+05	0.81	12,564,634	1.1159354e+14	0.84
	184-366 m	17,643	1.4664576e+08	0.69	119,898,567	6.2306402e+15	0.66
	367-500 m	0	2.0362435e-02	1.00	1,427	2.0362435e+06	1.00
	55-366 m	18,659	1.4732305e+08	0.65	132,463,201	6.3422337e+15	0.60
	55-500 m	18,659	1.4732305e+08	0.65	132,464,628	6.3422337e+15	0.60

**Shortspine thornyhead**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	14	9.5437466e+01	0.68	58,752	1.5642133e+09	0.67
<b>Vancouver</b>	184-366 m	247	8.4230263e+03	0.37	1,014,237	1.5793246e+11	0.39
	367-500 m	443	7.8624289e+03	0.20	1,866,003	1.0549112e+11	0.17
	55-366 m	262	8.5184638e+03	0.35	1,072,989	1.5949667e+11	0.37
	55-500 m	705	1.6380893e+04	0.18	2,938,991	2.6498779e+11	0.18
<b>US</b>	55-183 m	12	6.3500670e+01	0.64	56,904	1.2937991e+09	0.63
<b>Vancouver</b>	184-366 m	292	5.2233049e+03	0.25	1,248,697	9.4061483e+10	0.25
	367-500 m	216	5.3609250e+03	0.34	1,615,226	2.9730978e+11	0.34
	55-366 m	305	5.2868056e+03	0.24	1,305,600	9.5355282e+10	0.24
	55-500 m	521	1.0647731e+04	0.20	2,920,826	3.9266506e+11	0.21
<b>Total</b>	55-183 m	27	1.7078367e+02	0.49	115,656	3.0834478e+09	0.48
<b>Vancouver</b>	184-366 m	540	1.9369729e+04	0.26	2,262,934	3.5805452e+11	0.26
	367-500 m	659	1.6535741e+04	0.20	3,481,228	4.6808295e+11	0.20
	55-366 m	566	1.9540513e+04	0.25	2,378,589	3.6113797e+11	0.25
	55-500 m	1,225	3.6076254e+04	0.15	5,859,817	8.2922091e+11	0.16
<b>Columbia</b>	55-183 m	96	1.7240140e+03	0.43	355,618	3.4630683e+10	0.52
	184-366 m	1,830	9.4642271e+04	0.17	14,457,619	9.2794969e+12	0.21
	367-500 m	2,981	1.1671532e+05	0.11	23,360,532	6.5639667e+12	0.11
	55-366 m	1,926	9.6366285e+04	0.16	14,813,237	9.3141276e+12	0.21
	55-500 m	4,908	2.1308160e+05	0.09	38,173,769	1.5878094e+13	0.10
<b>Eureka</b>	55-183 m	10	5.1519724e+01	0.70	23,533	3.4884971e+08	0.79
	184-366 m	160	5.6150845e+02	0.15	1,137,150	3.3271451e+10	0.16
	367-500 m	183	7.6736694e+02	0.15	1,646,067	1.0192619e+11	0.19
	55-366 m	170	6.1302817e+02	0.15	1,160,682	3.3620301e+10	0.16
	55-500 m	353	1.3803951e+03	0.11	2,806,749	1.3554649e+11	0.13
<b>Monterey</b>	55-183 m	10	6.2286748e+01	0.76	48,879	1.7230918e+09	0.85
	184-366 m	210	2.7998929e+03	0.25	1,107,418	7.6914192e+10	0.25
	367-500 m	344	7.6392169e+03	0.25	1,302,515	5.0663278e+10	0.17
	55-366 m	220	2.8621796e+03	0.24	1,156,298	7.8637284e+10	0.24
	55-500 m	564	1.0501397e+04	0.18	2,458,813	1.2930056e+11	0.15
<b>Conception</b>	55-183 m	2	2.6845011e+00	1.00	2,482	6.1627664e+06	1.00
	184-366 m	37	4.0113078e+02	0.54	184,850	1.2166727e+10	0.60
	367-500 m	368	7.1285004e+03	0.23	1,314,034	1.3663905e+11	0.28
	55-366 m	39	4.0381528e+02	0.52	187,332	1.2172889e+10	0.59
	55-500 m	407	7.5323156e+03	0.21	1,501,366	1.4881194e+11	0.26
<b>US Total</b>	55-183 m	131	2.1683662e+03	0.36	487,416	4.2623347e+10	0.42
	184-366 m	2,530	1.0693244e+05	0.13	18,135,733	9.5852953e+12	0.17
	367-500 m	4,092	1.4637010e+05	0.09	29,238,374	8.0699460e+12	0.10
	55-366 m	2,661	1.0910080e+05	0.12	18,623,149	9.6279186e+12	0.17
	55-500 m	6,752	2.5547090e+05	0.07	47,861,523	1.7697865e+13	0.09
<b>Total</b>	55-183 m	145	2.2756492e+03	0.33	546,168	4.4412996e+10	0.39
	184-366 m	2,777	1.2107886e+05	0.13	19,149,970	9.8492883e+12	0.16
	367-500 m	4,535	1.5754491e+05	0.09	31,104,376	8.2407192e+12	0.09
	55-366 m	2,922	1.2335451e+05	0.12	19,696,138	9.8937013e+12	0.16
	55-500 m	7,457	2.8089942e+05	0.07	50,800,514	1.8134421e+13	0.08

**Silvergray rockfish**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	249	2.3725572e+04	0.62	138,567	7.9068293e+09	0.64
<b>Vancouver</b>	184-366 m	56	1.7809858e+03	0.75	31,918	5.4157768e+08	0.73
	367-500 m	17	2.7406479e+02	1.00	5,017	2.5166647e+07	1.00
	55-366 m	305	2.5506558e+04	0.52	170,485	8.4484069e+09	0.54
	55-500 m	321	2.5780622e+04	0.50	175,502	8.4735736e+09	0.52
<b>US</b>	55-183 m	54	1.0208639e+03	0.59	23,646	1.7437240e+08	0.56
<b>Vancouver</b>	184-366 m	27	2.1378908e+02	0.53	15,598	6.6263707e+07	0.52
	367-500 m	0	-	-	0	-	-
	55-366 m	81	1.2346530e+03	0.43	39,244	2.4063610e+08	0.40
	55-500 m	81	1.2346530e+03	0.43	39,244	2.4063610e+08	0.40
<b>Total</b>	55-183 m	303	2.6984458e+04	0.54	162,213	8.8021596e+09	0.58
<b>Vancouver</b>	184-366 m	84	3.0203637e+03	0.66	47,516	9.1954554e+08	0.64
	367-500 m	17	2.7406479e+02	1.00	5,017	2.5166647e+07	1.00
	55-366 m	386	3.0004822e+04	0.45	209,729	9.7217052e+09	0.47
	55-500 m	403	3.0278887e+04	0.43	214,746	9.7468718e+09	0.46
<b>Columbia</b>	55-183 m	3	7.5585903e+00	1.00	2,680	7.1803578e+06	1.00
	184-366 m	24	4.4034695e+02	0.88	14,769	1.5897236e+08	0.85
	367-500 m	0	-	-	0	-	-
	55-366 m	27	4.4790555e+02	0.80	17,449	1.6615272e+08	0.74
	55-500 m	27	4.4790555e+02	0.80	17,449	1.6615272e+08	0.74
<b>Eureka</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>Monterey</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>Conception</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>US Total</b>	55-183 m	57	1.0330434e+03	0.57	26,325	1.8594248e+08	0.52
	184-366 m	51	9.1526992e+02	0.59	30,367	3.1800325e+08	0.59
	367-500 m	0	-	-	0	-	-
	55-366 m	108	1.9483134e+03	0.41	56,693	5.0394572e+08	0.40
	55-500 m	108	1.9483134e+03	0.41	56,693	5.0394572e+08	0.40
<b>Total</b>	55-183 m	305	2.6996638e+04	0.54	164,892	8.8137297e+09	0.57
	184-366 m	107	3.7218446e+03	0.57	62,286	1.1712851e+09	0.55
	367-500 m	17	2.7406479e+02	1.00	5,017	2.5166647e+07	1.00
	55-366 m	413	3.0718482e+04	0.42	227,178	9.9850148e+09	0.44
	55-500 m	429	3.0992547e+04	0.41	232,195	1.0010181e+10	0.43

## Spiny dogfish

### Biomass and population estimates for 2001 NMFS triennial bottom trawl survey

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	29,321	5.0898701e+07	0.24	23,063,248	3.8791383e+13	0.27
<b>Vancouver</b>	184-366 m	603	9.7151236e+04	0.52	569,823	9.9183251e+10	0.55
	367-500 m	0	-	-	0	-	-
	55-366 m	29,924	5.0995853e+07	0.24	23,633,071	3.8890566e+13	0.26
	55-500 m	29,924	5.0995853e+07	0.24	23,633,071	3.8890566e+13	0.26
<b>US</b>	55-183 m	9,701	3.3329773e+07	0.60	8,085,925	1.6945675e+13	0.51
<b>Vancouver</b>	184-366 m	439	3.1501168e+04	0.40	357,341	1.8455547e+10	0.38
	367-500 m	0	-	-	0	-	-
	55-366 m	10,141	3.3361274e+07	0.57	8,443,266	1.6964130e+13	0.49
	55-500 m	10,141	3.3361274e+07	0.57	8,443,266	1.6964130e+13	0.49
<b>Total</b>	55-183 m	39,023	9.3690756e+07	0.25	31,149,172	6.1681424e+13	0.25
<b>Vancouver</b>	184-366 m	1,042	1.8934279e+05	0.42	927,165	1.7664178e+11	0.45
	367-500 m	0	-	-	0	-	-
	55-366 m	40,065	9.3880099e+07	0.24	32,076,337	6.1858066e+13	0.25
	55-500 m	40,065	9.3880099e+07	0.24	32,076,337	6.1858066e+13	0.25
<b>Columbia</b>	55-183 m	576	2.9511321e+04	0.30	997,502	1.2271994e+11	0.35
	184-366 m	21	7.8815416e+01	0.42	13,362	2.3008797e+07	0.36
	367-500 m	0	-	-	0	-	-
	55-366 m	597	2.9590136e+04	0.29	1,010,864	1.2274295e+11	0.35
	55-500 m	597	2.9590136e+04	0.29	1,010,864	1.2274295e+11	0.35
<b>Eureka</b>	55-183 m	4,002	1.0534636e+07	0.81	23,022,164	4.0295859e+14	0.87
	184-366 m	17	3.4425369e+01	0.34	41,161	5.4261542e+08	0.57
	367-500 m	0	-	-	0	-	-
	55-366 m	4,019	1.0534671e+07	0.81	23,063,325	4.0295913e+14	0.87
	55-500 m	4,019	1.0534671e+07	0.81	23,063,325	4.0295913e+14	0.87
<b>Monterey</b>	55-183 m	6,203	1.7229733e+07	0.67	6,214,673	1.4802672e+13	0.62
	184-366 m	30	8.2114290e+01	0.30	92,093	8.0917922e+08	0.31
	367-500 m	28	4.5416024e+02	0.76	133,352	1.2695989e+10	0.84
	55-366 m	6,232	1.7229815e+07	0.67	6,306,767	1.4803481e+13	0.61
	55-500 m	6,261	1.7230269e+07	0.66	6,440,119	1.4816177e+13	0.60
<b>Conception</b>	55-183 m	275	5.6524844e+03	0.27	152,523	1.8162511e+09	0.28
	184-366 m	76	2.8090391e+03	0.70	414,216	1.1714375e+11	0.83
	367-500 m	6	6.8953499e+00	0.42	16,608	7.2752098e+07	0.51
	55-366 m	351	8.4615235e+03	0.26	566,739	1.1896001e+11	0.61
	55-500 m	358	8.4684189e+03	0.26	583,347	1.1903276e+11	0.59
<b>US Total</b>	55-183 m	20,757	6.1147467e+07	0.38	38,472,786	4.3490481e+14	0.54
	184-366 m	583	3.4519889e+04	0.32	918,174	1.3700213e+11	0.40
	367-500 m	35	4.6834622e+02	0.63	149,960	1.2950965e+10	0.76
	55-366 m	21,341	6.1181987e+07	0.37	39,390,960	4.3504182e+14	0.53
	55-500 m	21,375	6.1182455e+07	0.37	39,540,921	4.3505477e+14	0.53
<b>Total</b>	55-183 m	50,079	1.2150845e+08	0.22	61,536,034	4.7964056e+14	0.36
	184-366 m	1,186	1.9236151e+05	0.37	1,487,998	2.9518836e+11	0.37
	367-500 m	35	4.6834622e+02	0.63	149,960	1.2950965e+10	0.76
	55-366 m	51,265	1.2170081e+08	0.22	63,024,031	4.7993575e+14	0.35
	55-500 m	51,299	1.2170128e+08	0.22	63,173,992	4.7994870e+14	0.35

## Splitnose rockfish

### Biomass and population estimates for 2001 NMFS triennial bottom trawl survey

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	9	4.1336762e+01	0.71	157,133	1.6648684e+10	0.82
<b>Vancouver</b>	184-366 m	51	2.5110938e+03	0.98	108,065	8.5499099e+09	0.86
	367-500 m	0	-	-	0	-	-
	55-366 m	60	2.5524306e+03	0.84	265,198	2.5198593e+10	0.60
	55-500 m	60	2.5524306e+03	0.84	265,198	2.5198593e+10	0.60
<b>US</b>	55-183 m	2	1.0502067e+00	0.48	99,000	2.5071108e+09	0.51
<b>Vancouver</b>	184-366 m	97	9.6960827e+02	0.32	1,561,900	5.6644774e+11	0.48
	367-500 m	1	1.6737971e-01	0.37	11,501	8.4056471e+07	0.80
	55-366 m	100	9.7065848e+02	0.31	1,660,900	5.6895485e+11	0.45
	55-500 m	101	9.7082586e+02	0.31	1,672,401	5.6903891e+11	0.45
<b>Total</b>	55-183 m	11	4.6032222e+01	0.61	256,133	2.0623947e+10	0.56
<b>Vancouver</b>	184-366 m	149	4.9391994e+03	0.47	1,669,965	5.8428889e+11	0.46
	367-500 m	1	1.6737971e-01	0.37	11,501	8.4056471e+07	0.80
	55-366 m	160	4.9852316e+03	0.44	1,926,098	6.0491284e+11	0.40
	55-500 m	161	4.9853990e+03	0.44	1,937,599	6.0499690e+11	0.40
<b>Columbia</b>	55-183 m	60	1.3391571e+03	0.60	2,579,028	1.7000712e+12	0.51
	184-366 m	4,229	2.0048203e+06	0.33	45,010,180	1.3683003e+14	0.26
	367-500 m	73	6.4679443e+02	0.35	256,931	7.3248113e+09	0.33
	55-366 m	4,289	2.0061595e+06	0.33	47,589,208	1.3853010e+14	0.25
	55-500 m	4,362	2.0068063e+06	0.32	47,846,139	1.3853743e+14	0.25
<b>Eureka</b>	55-183 m	188	1.7814534e+04	0.71	4,538,837	1.0128922e+13	0.70
	184-366 m	694	1.0446924e+05	0.47	6,642,899	5.0765082e+12	0.34
	367-500 m	15	7.6702253e+01	0.58	45,289	6.6675253e+08	0.57
	55-366 m	881	1.2228377e+05	0.40	11,181,736	1.5205430e+13	0.35
	55-500 m	896	1.2236048e+05	0.39	11,227,025	1.5206097e+13	0.35
<b>Monterey</b>	55-183 m	15	1.3068286e+02	0.77	188,328	1.4119532e+10	0.63
	184-366 m	7,807	2.0392162e+07	0.58	50,185,601	7.3400614e+14	0.54
	367-500 m	123	4.3315861e+03	0.53	463,398	6.2073222e+10	0.54
	55-366 m	7,822	2.0392292e+07	0.58	50,373,929	7.3402026e+14	0.54
	55-500 m	7,945	2.0396624e+07	0.57	50,837,327	7.3408234e+14	0.53
<b>Conception</b>	55-183 m	3	3.7638413e+00	0.59	36,514	3.2776956e+08	0.50
	184-366 m	2,415	3.7996565e+05	0.26	20,353,129	2.7611289e+13	0.26
	367-500 m	245	1.0066382e+04	0.41	1,362,202	3.0897439e+11	0.41
	55-366 m	2,418	3.7996941e+05	0.25	20,389,644	2.7611616e+13	0.26
	55-500 m	2,663	3.9003580e+05	0.23	21,751,845	2.7920591e+13	0.24
<b>US Total</b>	55-183 m	268	1.9303220e+04	0.52	7,441,707	1.1863668e+13	0.46
	184-366 m	15,241	2.3525918e+07	0.32	123,753,715	9.3522393e+14	0.25
	367-500 m	458	1.8147655e+04	0.29	2,139,321	4.3245635e+11	0.31
	55-366 m	15,510	2.3545221e+07	0.31	131,195,422	9.4708760e+14	0.23
	55-500 m	15,968	2.3563369e+07	0.30	133,334,743	9.4752006e+14	0.23
<b>Total</b>	55-183 m	278	1.9348202e+04	0.50	7,598,840	1.1881785e+13	0.45
	184-366 m	15,293	2.3529888e+07	0.32	123,861,781	9.3524177e+14	0.25
	367-500 m	458	1.8147655e+04	0.29	2,139,321	4.3245635e+11	0.31
	55-366 m	15,570	2.3549236e+07	0.31	131,460,621	9.4712356e+14	0.23
	55-500 m	16,028	2.3567383e+07	0.30	133,599,942	9.4755601e+14	0.23

**Stripetail rockfish**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	7	5.1009992e+01	0.96	37,815	1.1016084e+09	0.88
<b>Vancouver</b>	184-366 m	0	1.1430199e-01	0.86	4,273	1.4017978e+07	0.88
	367-500 m	0	-	-	0	-	-
	55-366 m	8	5.1124294e+01	0.91	42,088	1.1156263e+09	0.79
	55-500 m	8	5.1124294e+01	0.91	42,088	1.1156263e+09	0.79
<b>US</b>	55-183 m	1	7.8574914e-01	0.69	12,226	3.4777815e+07	0.48
<b>Vancouver</b>	184-366 m	15	1.4531739e+02	0.81	90,949	4.7820862e+09	0.76
	367-500 m	0	2.4380778e-01	1.00	4,593	2.1097482e+07	1.00
	55-366 m	16	1.4610314e+02	0.74	103,176	4.8168640e+09	0.67
	55-500 m	17	1.4634695e+02	0.72	107,769	4.8379615e+09	0.65
<b>Total</b>	55-183 m	9	5.6294021e+01	0.86	50,041	1.2335307e+09	0.70
<b>Vancouver</b>	184-366 m	15	1.4555653e+02	0.79	95,222	4.8098387e+09	0.73
	367-500 m	0	2.4380778e-01	1.00	4,593	2.1097482e+07	1.00
	55-366 m	24	2.0185055e+02	0.59	145,264	6.0433694e+09	0.54
	55-500 m	25	2.0209436e+02	0.58	149,857	6.0644669e+09	0.52
<b>Columbia</b>	55-183 m	6	9.7433730e+00	0.53	64,430	5.9640148e+08	0.38
	184-366 m	693	8.3820228e+04	0.42	4,358,140	2.8928123e+12	0.39
	367-500 m	1	1.1079953e+00	1.00	9,792	9.5878446e+07	1.00
	55-366 m	699	8.3829971e+04	0.41	4,422,570	2.8934087e+12	0.38
	55-500 m	700	8.3831079e+04	0.41	4,432,362	2.8935046e+12	0.38
<b>Eureka</b>	55-183 m	1,402	8.6496362e+05	0.66	9,194,572	3.6088179e+13	0.65
	184-366 m	459	4.4822080e+04	0.46	3,421,837	2.4540421e+12	0.46
	367-500 m	0	-	-	0	-	-
	55-366 m	1,862	9.0978570e+05	0.51	12,616,410	3.8542221e+13	0.49
	55-500 m	1,862	9.0978570e+05	0.51	12,616,410	3.8542221e+13	0.49
<b>Monterey</b>	55-183 m	2,449	1.2640250e+06	0.46	24,470,299	8.9013882e+13	0.39
	184-366 m	3,296	1.6338105e+06	0.39	27,355,884	1.2888244e+14	0.41
	367-500 m	0	-	-	0	-	-
	55-366 m	5,744	2.8978355e+06	0.30	51,826,183	2.1789632e+14	0.28
	55-500 m	5,744	2.8978355e+06	0.30	51,826,183	2.1789632e+14	0.28
<b>Conception</b>	55-183 m	44	9.7828518e+02	0.72	1,154,547	4.5584333e+11	0.58
	184-366 m	1,636	8.7877096e+05	0.57	14,169,076	7.3294590e+13	0.60
	367-500 m	5	2.3288676e+01	0.89	39,000	1.1372316e+09	0.86
	55-366 m	1,680	8.7974924e+05	0.56	15,323,623	7.3750433e+13	0.56
	55-500 m	1,685	8.7977253e+05	0.56	15,362,623	7.3751571e+13	0.56
<b>US Total</b>	55-183 m	3,902	2.1300306e+06	0.37	34,896,074	1.2567737e+14	0.32
	184-366 m	6,099	2.6591825e+06	0.27	49,395,887	2.0849508e+14	0.29
	367-500 m	7	2.5679975e+01	0.73	53,385	1.3441585e+09	0.69
	55-366 m	10,001	4.7892131e+06	0.22	84,291,962	3.3417244e+14	0.22
	55-500 m	10,008	4.7892387e+06	0.22	84,345,347	3.3417379e+14	0.22
<b>Total</b>	55-183 m	3,909	2.1300861e+06	0.37	34,933,890	1.2567857e+14	0.32
	184-366 m	6,099	2.6591827e+06	0.27	49,400,160	2.0849510e+14	0.29
	367-500 m	7	2.5679975e+01	0.73	53,385	1.3441585e+09	0.69
	55-366 m	10,009	4.7892688e+06	0.22	84,334,050	3.3417367e+14	0.22
	55-500 m	10,016	4.7892945e+06	0.22	84,387,435	3.3417501e+14	0.22

**Widow rockfish**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	2	3.1346908e+00	1.00	2,270	5.1523518e+06	1.00
<b>Vancouver</b>	184-366 m	100	9.9593157e+03	1.00	56,795	3.2256360e+09	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	102	9.9624504e+03	0.98	59,065	3.2307884e+09	0.96
	55-500 m	102	9.9624504e+03	0.98	59,065	3.2307884e+09	0.96
<b>US</b>	55-183 m	24	5.5593541e+02	1.00	31,032	9.1439887e+08	0.97
<b>Vancouver</b>	184-366 m	29	8.1581747e+02	1.00	16,255	2.6422801e+08	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	52	1.3717529e+03	0.71	47,287	1.1786269e+09	0.73
	55-500 m	52	1.3717529e+03	0.71	47,287	1.1786269e+09	0.73
<b>Total</b>	55-183 m	25	6.4256048e+02	1.00	33,302	1.0567807e+09	0.98
<b>Vancouver</b>	184-366 m	128	1.6476005e+04	1.00	73,050	5.3362696e+09	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	154	1.7118565e+04	0.85	106,351	6.3930502e+09	0.75
	55-500 m	154	1.7118565e+04	0.85	106,351	6.3930502e+09	0.75
<b>Columbia</b>	55-183 m	71	2.2848568e+03	0.68	57,300	1.3625040e+09	0.64
	184-366 m	31	1.4015933e+02	0.38	27,384	9.7730836e+07	0.36
	367-500 m	0	-	-	0	-	-
	55-366 m	102	2.4250161e+03	0.48	84,684	1.4602348e+09	0.45
	55-500 m	102	2.4250161e+03	0.48	84,684	1.4602348e+09	0.45
<b>Eureka</b>	55-183 m	8	2.9356557e+01	0.70	5,605	1.5392585e+07	0.70
	184-366 m	33	3.4310676e+02	0.56	21,726	1.2571069e+08	0.52
	367-500 m	0	-	-	0	-	-
	55-366 m	41	3.7246332e+02	0.47	27,330	1.4110328e+08	0.43
	55-500 m	41	3.7246332e+02	0.47	27,330	1.4110328e+08	0.43
<b>Monterey</b>	55-183 m	17	2.7533687e+02	0.98	175,712	3.0082842e+10	0.99
	184-366 m	3	6.1312621e+00	0.90	3,216	5.5579723e+06	0.73
	367-500 m	0	-	-	0	-	-
	55-366 m	20	2.8146814e+02	0.85	178,928	3.0088400e+10	0.97
	55-500 m	20	2.8146814e+02	0.85	178,928	3.0088400e+10	0.97
<b>Conception</b>	55-183 m	10	5.4080971e+01	0.74	66,557	2.3591694e+09	0.73
	184-366 m	0	2.9302633e-02	1.00	648	4.2043493e+05	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	10	5.4110274e+01	0.73	67,205	2.3595898e+09	0.72
	55-500 m	10	5.4110274e+01	0.73	67,205	2.3595898e+09	0.72
<b>US Total</b>	55-183 m	129	3.1996778e+03	0.44	336,205	3.4741688e+10	0.55
	184-366 m	95	1.3053498e+03	0.38	69,230	4.9516378e+08	0.32
	367-500 m	0	-	-	0	-	-
	55-366 m	224	4.5050276e+03	0.30	405,435	3.5236851e+10	0.46
	55-500 m	224	4.5050276e+03	0.30	405,435	3.5236851e+10	0.46
<b>Total</b>	55-183 m	131	3.2863029e+03	0.44	338,475	3.4884070e+10	0.55
	184-366 m	195	1.6965537e+04	0.67	126,025	5.5672054e+09	0.59
	367-500 m	0	-	-	0	-	-
	55-366 m	326	2.0251840e+04	0.44	464,500	4.0451275e+10	0.43
	55-500 m	326	2.0251840e+04	0.44	464,500	4.0451275e+10	0.43



## Yelloweye rockfish

### Biomass and population estimates for 2001 NMFS triennial bottom trawl survey

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	107	6.4273383e+03	0.75	41,038	8.8827598e+08	0.73
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	107	6.4273383e+03	0.75	41,038	8.8827598e+08	0.73
	55-500 m	107	6.4273383e+03	0.75	41,038	8.8827598e+08	0.73
<b>US</b>	55-183 m	64	1.5854155e+03	0.62	35,195	6.1063955e+08	0.70
<b>Vancouver</b>	184-366 m	2	1.3227782e+00	0.66	919	3.5173074e+05	0.65
	367-500 m	0	-	-	0	-	-
	55-366 m	66	1.5867383e+03	0.61	36,114	6.1099128e+08	0.68
	55-500 m	66	1.5867383e+03	0.61	36,114	6.1099128e+08	0.68
<b>Total</b>	55-183 m	171	8.7953032e+03	0.55	76,233	1.6647251e+09	0.54
<b>Vancouver</b>	184-366 m	2	1.3227782e+00	0.66	919	3.5173074e+05	0.65
	367-500 m	0	-	-	0	-	-
	55-366 m	173	8.7966260e+03	0.54	77,152	1.6650769e+09	0.53
	55-500 m	173	8.7966260e+03	0.54	77,152	1.6650769e+09	0.53
<b>Columbia</b>	55-183 m	212	9.5062661e+03	0.46	84,029	1.3410220e+09	0.44
	184-366 m	6	1.4442215e+01	0.66	3,036	3.8402291e+06	0.65
	367-500 m	0	-	-	0	-	-
	55-366 m	218	9.5207083e+03	0.45	87,065	1.3448622e+09	0.42
	55-500 m	218	9.5207083e+03	0.45	87,065	1.3448622e+09	0.42
<b>Eureka</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>Monterey</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>Conception</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>US Total</b>	55-183 m	276	1.1952159e+04	0.40	119,224	2.1120090e+09	0.39
	184-366 m	8	2.4506583e+01	0.66	3,955	6.5163751e+06	0.65
	367-500 m	0	-	-	0	-	-
	55-366 m	284	1.1976666e+04	0.39	123,179	2.1185254e+09	0.37
	55-500 m	284	1.1976666e+04	0.39	123,179	2.1185254e+09	0.37
<b>Total</b>	55-183 m	383	1.9162047e+04	0.36	160,262	3.1660946e+09	0.35
	184-366 m	8	2.4506583e+01	0.66	3,955	6.5163751e+06	0.65
	367-500 m	0	-	-	0	-	-
	55-366 m	391	1.9186554e+04	0.35	164,217	3.1726110e+09	0.34
	55-500 m	391	1.9186554e+04	0.35	164,217	3.1726110e+09	0.34

## Yellowmouth rockfish

### Biomass and population estimates for 2001 NMFS triennial bottom trawl survey

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	0	-	-	0	-	-
<b>Vancouver</b>	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>US</b>	55-183 m	0	-	-	0	-	-
<b>Vancouver</b>	184-366 m	1	8.2511680e-01	1.00	416	1.7330294e+05	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	1	8.2511680e-01	1.00	416	1.7330294e+05	1.00
	55-500 m	1	8.2511680e-01	1.00	416	1.7330294e+05	1.00
<b>Total</b>	55-183 m	0	-	-	0	-	-
<b>Vancouver</b>	184-366 m	1	8.2511680e-01	1.00	416	1.7330294e+05	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	1	8.2511680e-01	1.00	416	1.7330294e+05	1.00
	55-500 m	1	8.2511680e-01	1.00	416	1.7330294e+05	1.00
<b>Columbia</b>	55-183 m	0	-	-	0	-	-
	184-366 m	12	9.5828647e+01	0.79	6,426	2.7397222e+07	0.81
	367-500 m	0	-	-	0	-	-
	55-366 m	12	9.5828647e+01	0.79	6,426	2.7397222e+07	0.81
	55-500 m	12	9.5828647e+01	0.79	6,426	2.7397222e+07	0.81
<b>Eureka</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>Monterey</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>Conception</b>	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	-	-	0	-	-
	55-500 m	0	-	-	0	-	-
<b>US Total</b>	55-183 m	0	-	-	0	-	-
	184-366 m	13	1.0210655e+02	0.76	6,842	2.8715799e+07	0.78
	367-500 m	0	-	-	0	-	-
	55-366 m	13	1.0210655e+02	0.76	6,842	2.8715799e+07	0.78
	55-500 m	13	1.0210655e+02	0.76	6,842	2.8715799e+07	0.78
<b>Total</b>	55-183 m	0	-	-	0	-	-
	184-366 m	13	1.0210655e+02	0.76	6,842	2.8715799e+07	0.78
	367-500 m	0	-	-	0	-	-
	55-366 m	13	1.0210655e+02	0.76	6,842	2.8715799e+07	0.78
	55-500 m	13	1.0210655e+02	0.76	6,842	2.8715799e+07	0.78

**Yellowtail rockfish**  
**Biomass and population estimates for 2001 NMFS triennial bottom trawl survey**

INPFC Area	Depth Stratum	Biomass (t)	Var(Biomass)	CV (Biomass)	Population (fish)	Var(Population)	CV (Population)
<b>Canadian</b>	55-183 m	5,877	1.0234850e+07	0.54	4,340,499	5.4991396e+12	0.54
<b>Vancouver</b>	184-366 m	6,207	3.8524956e+07	1.00	4,243,686	1.8006224e+13	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	12,084	4.8759806e+07	0.58	8,584,186	2.3505364e+13	0.56
	55-500 m	12,084	4.8759806e+07	0.58	8,584,186	2.3505364e+13	0.56
<b>US</b>	55-183 m	4,042	1.6523710e+06	0.32	2,729,869	7.4621044e+11	0.32
<b>Vancouver</b>	184-366 m	1,788	3.1558173e+06	0.99	1,220,835	1.4749932e+12	0.99
	367-500 m	0	-	-	0	-	-
	55-366 m	5,830	4.8081882e+06	0.38	3,950,704	2.2212036e+12	0.38
	55-500 m	5,830	4.8081882e+06	0.38	3,950,704	2.2212036e+12	0.38
<b>Total</b>	55-183 m	9,919	1.3034106e+07	0.36	7,070,368	6.8403634e+12	0.37
<b>Vancouver</b>	184-366 m	7,995	6.3733080e+07	1.00	5,464,522	2.9788270e+13	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	17,914	7.6767187e+07	0.49	12,534,890	3.6628633e+13	0.48
	55-500 m	17,914	7.6767187e+07	0.49	12,534,890	3.6628633e+13	0.48
<b>Columbia</b>	55-183 m	1,078	3.8440696e+05	0.58	829,647	2.0388825e+11	0.54
	184-366 m	30	2.1094800e+02	0.49	18,987	8.6318542e+07	0.49
	367-500 m	0	-	-	0	-	-
	55-366 m	1,107	3.8461791e+05	0.56	848,634	2.0397457e+11	0.53
	55-500 m	1,107	3.8461791e+05	0.56	848,634	2.0397457e+11	0.53
<b>Eureka</b>	55-183 m	24	2.9660041e+02	0.71	34,755	6.6461507e+08	0.74
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	24	2.9660041e+02	0.71	34,755	6.6461507e+08	0.74
	55-500 m	24	2.9660041e+02	0.71	34,755	6.6461507e+08	0.74
<b>Monterey</b>	55-183 m	75	3.4714776e+03	0.78	86,858	4.7693199e+09	0.80
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	75	3.4714776e+03	0.78	86,858	4.7693199e+09	0.80
	55-500 m	75	3.4714776e+03	0.78	86,858	4.7693199e+09	0.80
<b>Conception</b>	55-183 m	17	2.8836187e+02	1.00	20,237	4.0952356e+08	1.00
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	17	2.8836187e+02	1.00	20,237	4.0952356e+08	1.00
	55-500 m	17	2.8836187e+02	1.00	20,237	4.0952356e+08	1.00
<b>US Total</b>	55-183 m	5,236	2.0439202e+06	0.27	3,701,365	9.5959365e+11	0.26
	184-366 m	1,817	3.1561177e+06	0.98	1,239,822	1.4751141e+12	0.98
	367-500 m	0	-	-	0	-	-
	55-366 m	7,053	5.2000379e+06	0.32	4,941,188	2.4347078e+12	0.32
	55-500 m	7,053	5.2000379e+06	0.32	4,941,188	2.4347078e+12	0.32
<b>Total</b>	55-183 m	11,112	1.3425656e+07	0.33	8,041,865	7.0537466e+12	0.33
	184-366 m	8,025	6.3733381e+07	0.99	5,483,509	2.9788391e+13	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	19,137	7.7159037e+07	0.46	13,525,374	3.6842137e+13	0.45
	55-500 m	19,137	7.7159037e+07	0.46	13,525,374	3.6842137e+13	0.45

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