



NOAA Technical Memorandum NMFS-AFSC-89

**Appendices to
the 1995 Pacific West Coast
Bottom Trawl Survey of Groundfish
Resources: Estimates of Distribution,
Abundance, and Length and
Age Composition**

by
M. E. Wilkins

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

March 1998

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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 1995 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 Tech. Memo. NMFS-AFSC-89. 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.

Size and age compositions have not been printed in these appendices as they have been for past surveys, since electronic copies of those results are of more use to interested parties. Data files containing the results of any of these analyses are available through the authors. To avoid excess printing, abundance estimates have not been included for many of the less commercially important fish and invertebrates, though their abundance can be easily calculated upon request.

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APPENDIX A

HAUL AND CATCH DATA SUMMARY

Appendix A contains information from the 1995 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. 12346.39 corresponds to 123°46.39'W longitude.

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>
-2	Unsatisfactory performance, unspecified problems
-2	Unsatisfactory performance, gear damage
-1	Unsatisfactory performance, hung up
0	Good performance
6	Satisfactory performance, unspecified problems

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

Haul	1	2	3	4	5	6	7	8	9	10	11
Start date & time	6/8/95 6:58	6/8/95 11:38	6/8/95 14:51	6/8/95 17:30	6/9/95 7:08	6/9/95 8:17	6/10/95 10:08	6/10/95 11:42	6/10/95 13:32	6/10/95 16:13	6/10/95 18:35
Station	0001a	0001b	0001c	0001d	0001f	0001e	0003a	0003b	0003c	0003d	0003e
Start latitude	3433.33	3434.81	3434.01	3434.38	3434.12	3436.05	3443.19	3443.33	3442.51	3443.83	3442.82
Start longitude	12041.72	12045.73	12048.31	12050.66	12052.87	12051.13	12044.67	12047.43	12050.09	12056.77	12058.07
End latitude	3434.61	3436.17	3435.52	3432.98	3435.77	3434.50	3444.60	3444.79	3443.83	3445.30	3444.46
End longitude	12042.74	12046.38	12048.46	12051.28	12053.19	12051.20	12044.44	12047.29	12050.13	12056.97	12058.45
Bottom depth (m)	71	111	198	390	409	292	75	84	130	322	384
Duration (hr)	0.53	0.58	0.57	0.52	0.57	0.53	0.5	0.51	0.52	0.5	0.57
Distance fished (km)	2.889	3.071	2.969	2.809	3.21	2.922	2.752	2.735	2.488	2.787	3.173
Net width (m)	13.655	10.946	11.871	13.085	14.908	14.676	13.348	13.518	12.648	14.782	14.808
Net measured?	Y	Y	Y	Y	N	N	N	Y	Y	N	N
Performance	0	0	0	6	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	2.0	8.5				0.7	4.5	32.8	4.7	0.7	3.7
Skates				0.4	7.8		1.1	0.1			
Spotted ratfish		0.2	0.8	3.1	1.4	1.8		0.3		2.1	1.8
Other elasmobranchs	1.5	0.3	1.8	17.3	3.6					0.1	0.5
Pacific sanddab	1.1	1.2					11.1	41.2			
Arrowtooth flounder											
Pacific halibut											
Petrale sole	1.4	0.3				2.1	2.0	1.1	0.4	1.2	
English sole		4.6					0.6	11.4			
Dover sole			2.4	84.6	208.1	100.4	0.3	0.4		98.0	256.9
Rex sole		0.4	3.7	21.3	28.6	73.7	0.3	1.5		61.9	130.8
Other flatfish	0.5		0.3			3.0	0.1	0.6	0.1	5.4	0.1
Sablefish		0.4	2.1	7.8	12.4	3.5				23.6	11.8
Pacific cod											
Lingcod								0.3	0.1	2.3	
Pacific whiting	0.5	0.1		19.1	84.5	32.4				327.8	188.8
Other roundfish	64.3	3.1	0.4	0.4	0.3	5.5	8.8	5.0	0.8	23.4	7.3
Shortspine thornyhead				1.1	5.4	1.8				1.8	4.0
Longspine thornyhead											
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish											1.4
Splitnose rockfish			0.3	20.0	11.0	118.1				160.3	71.6
Yellowtail rockfish											
Chillipepper		19.2	251.3			1.3			3.7	3.6	
Bocaccio			5.2			1.5		0.2			
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish			16.6			3.1					
Other rockfish			0.8	5.0	3.6	8.7	0.1		100.0	0.8	2.4
Jellyfish	4.4	11.2						1.4			
Shrimps								0.1			
Crabs				1.1							
Octopuses							0.1				
Squids				0.2			0.4	0.1	0.1	6.4	2.2
Sea stars		0.2	0.1	0.1							
Sea urchins				6.5		3.3				0.1	0.2
Total catch weight	75.7	49.7	285.7	187.8	387.1	360.9	31.0	94.8	110.0	719.6	664.1

Table A-I .-Continued.

Haul	12	13	14	15	16	17	18	19	20	21	22
Start date & time	6/11/95 7:18	6/11/95 12:09	6/12/95 7:23	6/12/95 9:35	6/12/95 11:58	6/12/95 14:10	6/13/95 7:27	6/13/95 9:35	6/13/95 11:39	6/13/95 15:49	6/13/95 17:56
Station	0003f	0003g	0005a	0005b	0005c	0005d	0005h	0005g	0005f	0007g	0007f
Start latitude	3444.50	3446.76	3454.60	3453.77	3453.88	3454.28	3453.33	3452.90	3453.98	3502.30	3503.00
Start longitude	12101.20	12113.68	12045.21	12051.37	12054.18	12057.32	12124.88	12119.99	12117.74	12127.76	12124.32
End latitude	3442.96	3445.24	3453.07	3455.37	3455.42	3456.10	3455.01	3454.22	3454.58	3503.86	3504.43
End longitude	12100.23	12112.89	12044.82	12051.54	12054.43	12057.05	12125.08	12121.19	12119.42	12128.23	12125.70
Bottom depth (m)	482	445	75	176	238	333	454	444	465	442	452
Duration (hr)	0.82	0.52	0.55	0.52	0.53	0.62	0.57	0.56	0.53	0.58	0.61
Distance fished (km)	3.254	3.112	2.962	3.005	2.989	3.495	3.22	3.171	2.848	3.192	3.441
Net width (m)	15.004	14.974	13.348	14.146	13.917	14.782	15.004	14.974	15.803	15.825	15.247
Net measured?	N	N	N	N	Y	N	N	N	Y	Y	Y
Performance	0	-2	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	1.7	6.0	12.8								
Skates	6.7					5.2			2.7		
Spotted ratfish	2.2		1.8			2.8					
Other elasmobranchs	5.2		2.0		9.6		0.8				
Pacific sanddab			31.3	552.0							
Arrowtooth flounder											
Pacific halibut											
Petrale sole			1.3								
English sole			1.2								
Dover sole	201.7	61.1	0.1		2.6	30.5	77.7	119.2	120.3	83.2	49.2
Rex sole	54.9	38.1	0.7	2.8	4.7	189.4	38.1	43.8	22.5	13.4	42.1
Other flatfish			0.7	0.1	0.2	1.4	0.1	0.1			
Sablefish	35.4	19.5		7.3	23.3	58.1	16.3	13.6	21.6	9.1	17.4
Pacific cod											
Lingcod			0.2	1.2							
Pacific whiting	100.2	93.1	0.4	29.6	62.0	1,353.2	36.1	56.4	29.1	20.4	23.7
Other roundfish	34.7	33.8	41.7	45.4	0.3	15.3	2.1	1.7	3.5	5.4	11.0
Shortspine thornyhead	16.9	2.2				2.4	3.2	1.1	1.8	11.1	1.9
Longspine thornyhead	3.0	12.5					4.1	5.6	1.9	42.2	15.7
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish					0.2						
Splitnose rockfish	0.3	0.3			3.9	2,001.8		0.8		0.8	
Yellowtail rockfish											
Chillipepper					18.3						
Bocaccio											
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish				7.1	366.3						
Other rockfish	15.8	77.5	0.7	0.1	0.4		43.7	9.0	20.4	38.9	7.5
Jellyfish			0.2								
Shrimps			0.1	0.1	1.3						
Crabs						1.7					
Octopuses											0.3
Squids			0.1	0.1	0.6			0.1			
Sea stars							0.1				
Sea urchins	1.0										0.1
Total catch weight	481.8	348.9	94.9	845.8	493.6	3,662.0	222.3	251.3	223.6	234.7	188.8

Table A-I -Continued.

Haul	23	24	25	26	27	28	29	30	31	32	33
Start date & time	6/14/95 7:10	6/14/95 10:07	6/14/95 12:02	6/14/95 13:46	6/14/95 15:09	6/14/95 17:01	6/15/95 7:13	6/15/95 8:14	6/15/95 10:56	6/15/95 12:39	6/15/95 14:54
Station	0005e	0007e	0007d	0007c	0007c	0007b	0009d	0009c	0009b	0009a	0007a
Start latitude	3456.16	3503.85	3504.47	3504.02	3505.47	3502.78	3515.20	3515.85	3512.62	3513.58	3505.81
Start longitude	12102.17	12103.02	12059.98	12057.72	12058.21	12049.69	12108.74	12105.18	12100.20	12057.78	12048.64
End latitude	3454.53	3505.34	3506.14	3505.46	3503.99	3504.40	3514.26	3514.47	3514.08	3515.05	3504.11
End longitude	12101.95	12103.07	12100.32	12058.15	12057.72	12050.03	12108.37	12104.15	12100.85	12058.55	12045.84
Bottom depth (m)	468	467	382	312	313	112	494	377	262	135	70
Duration (hr)	0.54	0.58	0.55	0.5	0.51	0.56	0.51	0.54	0.51	0.53	0.55
Distance fished (km)	3.08	3.226	3.168	2.797	2.856	3.1	2.738	3.016	2.93	2.999	3.098
Net width (m)	15.784	16.576	15.913	14.746	14.757	13.758	16.475	15.091	14.494	13.817	13.626
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	-6	0	0	0	0	0	0	6
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			1.4		0.7	601.0	0.2	4.3	8.6	5.6	22.6
Skates	0.7	6.9	12.7		7.5	0.6	2.2	7.9		3.2	
Spotted ratfish	1.7	6.7	3.2		1.3	11.7		3.1	0.3	1.0	1.7
Other elasmobranchs	20.7	44.3	2.3		1.1	0.3	15.2	24.6	1.4	5.5	12.5
Pacific sanddab						71.1				12.6	3.1
Arrowtooth flounder											
Pacific halibut											
Petrale sole						5.5				0.6	1.8
English sole						17.3					0.5
Dover sole	165.6	141.3	39.7		49.9	0.1	113.0	108.3		0.1	
Rex sole	41.2	23.7	23.7		4.3		6.2	35.6		1.0	
Other flatfish			2.2		10.4			5.9		4.1	0.7
Sablefish	19.9	35.3	20.5		30.4	2.0	25.1	8.2	30.3	3.1	
Pacific cod											
Lingcod						0.2				0.2	0.1
Pacific whiting	50.5	57.4	186.8		92.2	0.4	9.3	13.5	58.0		0.3
Other roundfish	19.5	18.6	10.6		3.4	84.8	14.7	11.7	0.2	14.8	1,153.6
Shortspine thornyhead	28.9	34.8	1.7		0.5		27.1	3.1			
Longspine thornyhead	20.6	21.3					12.0				
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish					0.2						
Splitnose rockfish	0.2		42.2		65.0			45.6	87.2		
Yellowtail rockfish											0.3
Chillipepper			0.9		1.9	0.2			20.3		
Bocaccio										0.1	
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish					8.9	0.1			763.8	9.1	
Other rockfish	54.1	40.4	2.8			0.1	24.7	8.6		0.5	0.1
Jellyfish	0.2										
Shrimps						0.1	0.1		0.5		
Crabs								0.1			
Octopuses	0.2		0.2		0.3			0.8	0.1		
Squids	0.5		0.5			8.8	0.2		0.1	0.3	0.9
Sea stars	0.1	0.3	0.3			1.0	0.1				
Sea urchins	0.1	2.4	2.9		0.9		1.7	3.6			
Total catch weight	424.7	436.8	355.5		278.9	605.3	253.3	284.8	970.7	61.6	1,198.2

Table A-I.-Continued.

Haul	34	35	36	37	38	39	40	41	42	43	44
Start date & time	6/16/95 7:04	6/16/95 9:37	6/16/95 11:42	6/16/95 14:19	6/16/95 16:21	6/16/95 19:03	6/17/95 7:25	6/17/95 10:10	6/17/95 11:38	6/17/95 14:03	6/17/95 17:38
Station	0011a	0011b	0011c	0011d	0011e	0013a	0013d	0013c	0013b	0015a	0015b
Start latitude	3523.30	3523.87	3523.46	3525.82	3525.79	3535.91	3533.60	3538.01	3538.16	3545.30	3548.95
Start longitude	12058.45	12101.38	12108.71	12111.78	12113.60	12114.78	12122.32	12119.24	12117.93	12124.61	12128.41
End latitude	3524.60	3524.95	3525.02	3524.35	3524.27	3534.78	3534.81	3534.78	3534.84	3543.90	3545.86
End longitude	12059.61	12102.62	12109.26	12110.78	12112.93	12113.31	12123.55	12118.05	12116.71	12123.64	12127.72
Bottom depth (m)	87	123	312	351	387	95	492	218	131	84	203
Duration (hr)	0.57	0.54	0.52	0.57	0.53	0.55	0.63	0.52	0.55	0.55	0.44
Distance fished (km)	3.052	3.051	3.052	3.253	3.048	3.117	2.954	2.954	3.128	3.029	2.611
Net width (m)	13.963	13.794	14.824	14.782	14.924	13.765	15.526	14.681	13.776	13.547	13.981
Net measured?	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
Performance	6	0	0	0	0	0	0	0	0	0	6
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	21.3	6.9	6.4	13.4	11.0	17.0			14.3	3.8	
Skates	1.7			5.8	2.2		2.3	0.1			
Spotted ratfish	34.2	611.5		17.0	13.9	103.8	3.2	1.0	0.1	0.1	1.1
Other elasmobranchs		1.9		9.9	17.4	1.5	33.0		0.4		
Pacific sanddab	17.7	16.3				7.8			34.7	44.8	
Arrowtooth flounder											
Pacific halibut											
Petrale sole	0.8	4.8				0.2			2.0	3.2	3.5
English sole	4.6	1.1				6.8			4.3	7.4	0.5
Dover sole	0.8	0.1	1.1	145.1	275.1	0.1	42.4	0.3			2.5
Rex sole		0.1		5.7	8.3		1.0	0.3	0.2		8.9
Other flatfish	1.1	0.2	0.6	1.6	1.9			0.2	0.2	0.8	0.3
Sablefish			81.0	19.9	63.0		16.2	6.8	5.7		3.0
Pacific cod											
Lingcod	3.4	3.3				0.1		0.3	2.3	0.1	
Pacific whiting			119.4	86.8	149.7		22.8	0.8			0.6
Other roundfish	30.9	10.8	1.5	4.6	13.8	5.3	11.2	0.2	8.4	4.6	6.8
Shortspine thornyhead				1.1	2.4		38.4				
Longspine thornyhead							1.3				
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish											
Splitnose rockfish			1,052.2	60.2	47.1			23.3			2.0
Yellowtail rockfish	11.9										0.6
Chillipepper	0.1	34.7	1.7	1.5	0.3	7.1		1.6	21.5	64.5	266.3
Bocaccio		12.4	1.7					0.4			1.7
Canary rockfish	0.2										
Redstripe rockfish											
Stripetail rockfish	0.2	0.9	9.5			0.1		69.7			187.6
Other rockfish	12.5	21.7	0.9	2.1	15.6		112.1	579.1	7.9	4.4	33.3
Jellyfish	1.1			0.6							
Shrimps	0.2							0.1			0.7
Crabs	0.5			0.2				2.5			
Octopuses				2.0	0.2		0.3	0.5			
Squids		0.5			0.1	0.3	0.5		0.4	1.7	
Sea stars	0.3	0.1					0.1	0.1	0.1		0.1
Sea urchins				31.3			0.1				
Total catch weight	315.0	744.8	1,276.0	409.0	622.6	150.1	288.5	687.7	103.0	135.3	519.5

Table A-I .-Continued.

Haul	45	46	47	48	49	50	51	52	53	54	55
Start date & time	6/17/95 19:38	6/18/95 7:12	6/18/95 9:22	6/18/95 11:31	6/18/95 15:10	6/19/95 9:00	6/19/95 11:22	6/19/95 14:24	6/19/95 17:17	6/20/95 6:30	6/20/95 9:31
Station	0015c	0016c	0016b	0018a	0017a	0019a	0019b	0019c	0020b	0020b	0020c
Start latitude	3541.14	3552.72	3552.94	3558.08	3603.94	3620.22	3622.93	3622.95	3627.97	3628.01	3627.77
Start longitude	12126.68	12133.03	12131.12	12131.24	12137.52	12159.62	12159.64	12200.40	12200.03	12200.13	12200.76
End latitude	3542.33	3554.27	3554.48	3557.83	3605.27	3621.59	3624.43	3624.42	3629.51	3629.50	3629.27
End longitude	12127.45	12133.51	12131.58	12130.76	12138.45	12158.73	12159.08	12159.63	12200.48	12200.57	12201.31
Bottom depth (m)	407	398	251	121	109	118	204	383	224	217	391
Duration (hr)	0.48	0.54	0.52	0.52	0.52	0.53	0.53	0.53	0.53	0.53	0.53
Distance fished (km)	2.561	3.013	2.958	3.013	2.875	2.92	2.942	3.002	3.024	2.894	2.975
Net width (m)	14.87	14.979	13.827	13.61	14.645	13.562	14.77	14.87	14.603	14.372	14.87
Net measured?	N	Y	Y	N	Y	Y	Y	N	Y	N	N
Performance	6	0	0	0	0	0	0	0	-6	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish		1.3		9.2			6.8	4.4			2.8
Skates	0.4									5.1	
Spotted ratfish	1.2	28.8	1.8	698.2	60.6		12.7	7.2		74.6	10.0
Other elasmobranchs	10.1	32.2	0.8	0.1			1.9	2.2			29.8
Pacific sanddab				25.0	29.8	24.7	62.0				
Arrowtooth flounder											
Pacific halibut											
Petrale sole				11.2	41.6	1.9	3.6			28.8	
English sole				4.8	4.2	7.9	4.8			106.8	5.9
Dover sole	55.2	149.3	0.4				7.4	345.7		3.8	707.8
Rex sole	8.8	4.0					2.5	152.6		23.8	170.2
Other flatfish	0.4				0.3	0.1	10.8	1.8		9.6	1.8
Sablefish	7.4	12.4	14.8				16.0	14.2		94.1	29.9
Pacific cod											
Lingcod				0.2		2.6	0.7			7.7	
Pacific whiting	24.9	85.4	13.2	0.3			0.6	174.6		16.0	20.9
Other roundfish	8.0	13.3	0.5	13.3	826.8	0.7	0.8	6.6		3.7	15.3
Shortspine thornyhead	1.1	1.6						4.5			3.0
Longspine thornyhead											
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish											
Spitnose rockfish	24.4	69.3	47.5	0.1			6.2	14.5		14.6	28.8
Yellowtail rockfish						2.3					
Chillipepper			33.0	10.2	6.6	12.6	65.0			18.5	0.4
Bocaccio			1.0			0.7	1.4			0.3	
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish			462.0	3.2	0.3		238.5			398.9	
Other rockfish	54.4	35.7	3.9	0.1	3.8	219.7	62.9	23.9		6.3	7.4
Jellyfish										10.0	0.2
Shrimps			3.2								
Crabs			0.3	0.5							
Octopuses		0.4	0.2								
Squids				0.8	0.3	2.3	0.1	0.1			0.2
Sea stars			0.1	1.0	0.3	1.1					
Sea urchins	0.8	2.3						0.1			0.1
Total catch weight	197.1	440.5	582.7	778.8	975.0	298.2	504.7	762.4		821.5	1,035.8

Table A-I .-Continued.

Haul	56	57	58	59	60	61	62	63	64	65	66
Start date & time	6/20/95 12:16	6/20/95 16:18	6/21/95 6:27	6/21/95 12:46	6/21/95 16:02	6/21/95 17:59	6/22/95 6:24	6/22/95 7:53	6/22/95 10:36	6/22/95 12:16	6/22/95 14:04
Station	0020a	0021a	0021b	0022f	0022d	0022c	0022a	0022b	0024a	0024b	0024c
Start latitude	3625.41	3646.53	3643.43	3654.83	3656.01	3653.80	3655.60	3654.97	3703.44	3703.89	3703.90
Start longitude	12157.86	12151.66	12156.49	12221.41	12220.05	12212.29	12207.67	12211.69	12221.07	12226.58	12232.40
End latitude	3626.95	3645.18	3644.77	3654.88	3655.39	3654.48	3654.81	3654.16	3704.52	3704.94	3704.71
End longitude	12157.98	12152.63	12155.55	12219.53	12218.16	12214.15	12205.93	12209.90	12222.48	12228.08	12234.05
Bottom depth (m)	116	77	101	372	207	109	62	94	71	98	117
Duration (hr)	0.52	0.53	0.53	0.53	0.53	0.54	0.55	0.54	0.53	0.53	0.52
Distance fished (km)	2.897	2.898	2.911	2.944	3.079	3.046	3.009	3.078	2.942	3.008	2.929
Net width (m)	13.61	13.004	13.758	14.386	13.501	13.685	13.161	13.594	13.286	14.294	14.022
Net measured?	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	6	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	10.1	19.8	2.1	13.8	30.2	11.0	4.2	14.7		3.0	26.6
Skates	4.6	1.1		2.0				0.7		3.0	3.8
Spotted ratfish	1.4	0.3	0.4	0.5				0.3			1.9
Other elasmobranchs		4.3		11.4		0.4	0.1	0.9	3.1		
Pacific sanddab	287.4	43.1	78.3			129.8	18.8	55.2	94.4	31.0	258.1
Arrowtooth flounder											
Pacific halibut											
Petrale sole	3.4	28.1	8.7		10.7	0.1	0.6	2.6	0.2	3.5	3.9
English sole	7.8	45.8	36.7	11.5	20.7	45.8	10.5	50.7	7.2	41.5	65.0
Dover sole	1.3	1.0	2.5	282.3	30.6	0.8		1.8		1.0	5.3
Rex sole	0.2	0.1	0.8	85.5	14.9	1.9	1.2	3.1	3.9	4.1	3.8
Other flatfish	1.1	0.6	0.4	0.6		0.6	5.0	1.1	3.5	1.8	1.9
Sablefish		1.3	0.5	9.0	9.5	0.3				3.2	33.3
Pacific cod											
Lingcod	1.4		2.7			7.6	0.2	8.1	1.0		
Pacific whiting		2.9		12.7	227.3					13.7	7.9
Other roundfish	2.3	80.0	36.9	14.1		21.6	175.4	261.7	49.4	107.4	110.8
Shortspine thornyhead				8.9							
Longspine thornyhead											
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish											
Spitnose rockfish				190.1	2,414.1						
Yellowtail rockfish											
Chillipepper	50.7		0.1		115.3					0.1	2.5
Bocaccio	0.1		0.6		9.1	2.6		0.1			
Canary rockfish								22.9			
Redstripe rockfish											
Stripetail rockfish			9.4		256.6			0.1		0.8	20.9
Other rockfish	127.5	1.0	0.8	15.0	51.4	27.3	0.8	20.1		0.2	4.0
Jellyfish	9.1						2.3			2.5	
Shrimps					0.2						
Crabs											7.1
Octopuses											
Squids	0.3	0.2	2.2				1.9	1.3	11.6	11.5	1.3
Sea stars		3.1				0.3	0.2	0.2	0.4		
Sea urchins				0.1							
Total catch weight	608.7	232.7	187.0	657.5	3,190.6	258.2	222.2	471.6	176.4	236.9	559.1

Table A-1 .-Continued.

Haul	67	68	69	70	71	72	73	74	75	76	77
Start date & time	6/22/95 16:15	6/24/95 15:53	6/25/95 8:44	6/25/95 12:15	6/25/95 18:37	6/25/95 18:59	6/26/95 6:26	6/26/95 9:15	6/26/95 13:53	6/26/95 15:20	6/26/95 18:14
Station	0024d	0024e	0024f	0028f	0028d	0028c	0028b	0028a	0032b	0032b	0032a
Start latitude	3704.15	3702.31	3703.14	3725.53	3723.81	3723.38	3725.87	3728.05	3745.00	3744.97	3748.09
Start longitude	12238.61	12237.37	12241.25	12255.88	12247.93	12242.97	12241.85	12238.84	12259.53	12300.08	12255.73
End latitude	3705.37	3703.41	3704.59	3724.54	3725.06	3724.64	3724.49	3724.63	3745.04	3745.00	3744.78
End longitude	12239.80	12238.82	12242.49	12257.35	12249.01	12244.38	12240.80	12237.72	12301.81	12301.96	12256.92
Bottom depth (m)	149	208	402	417	100	88	78	71	66	72	61
Duration (hr)	0.53	0.53	0.61	0.6	0.51	0.56	0.53	0.57	0.62	0.5	0.54
Distance fished (km)	2.898	3.04	3.317	2.834	2.797	3.157	2.931	3.172	3.382	2.734	3.008
Net width (m)	13.905	14.124	14.052	14.87	13.221	13.604	13.107	12.612	14.588	13.1	11.864
Net measured?	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	-6	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	1.9	434.9	0.8	1.0	29.9	39.8	1.3				
Skates			0.7	14.3		1.0	4.5		1.8	1.9	1.9
Spotted ratfish	0.7	7.3	1.8	0.3		1.2	0.5		1.1	0.8	
Other elasmobranchs			7.0	1.1	0.2			0.1			
Pacific sanddab					6.3	327.0	231.0	82.7	261.6	97.5	217.0
Arrowtooth flounder											
Pacific halibut									11.7		
Petrale sole					1.5	10.2	10.2	1.7	2.0	3.0	3.3
English sole		15.6			5.4	61.2	22.8	8.2	7.6	2.5	5.6
Dover sole	34.2	117.6	502.6	225.0	15.4	9.6	9.6	1.3	0.7	0.1	0.1
Rex sole	69.4	37.6	92.1	20.2	6.5	4.2	4.7	1.1	7.9	4.1	4.0
Other flatfish	6.8	3.9	3.2		0.7	0.9	2.1	1.2	25.2	11.1	7.8
Sablefish	18.9	98.4	23.0	20.5	0.7	2.2	1.6	2.7			
Pacific cod											
Lingcod						0.3	7.4	0.9	2.6	2.5	0.1
Pacific whiting	392.6	393.4	2.5	2.8	669.3	460.2	221.0	348.6	0.0	5.8	131.5
Other roundfish	138.1	3.0	10.6	7.2	138.3	105.9	53.1	13.8	29.2	20.7	8.4
Shortspine thornyhead			16.8	11.4							
Longspine thornyhead											
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish											
Spitnose rockfish		73.1	1.9	5.5							
Yellowtail rockfish											
Chillipepper	314.5	382.1			10.5		0.9				
Bocaccio	11.6				0.5						
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish	517.4	800.0			7.8	0.1					
Other rockfish	32.4	68.3	17.8	86.8	4.4	0.3			1.7	1.2	0.1
Jellyfish	1.6				1.3	0.9	9.4	578.1	1.3		119.2
Shrimps		0.9									
Crabs									5.5	9.0	
Octopuses									0.1		
Squids			0.3		1.2	0.1	1.5	0.3			
Sea stars			0.1				0.1		0.3	0.6	0.5
Sea urchins				0.1							
Total catch weight	1,540.0	2,534.0	681.1	386.0	899.8	1,025.6	581.7	1,041.9	360.2	161.7	488.5

Table A-I -Continued.

Haul	78	79	80	81	82	83	84	85	86	87	88
Start date & time	6/27/95 6:13	6/27/95 8:10	6/27/95 13:25	6/27/95 15:05	6/27/95 18:42	6/28/95 7:01	6/28/95 9:34	6/28/95 12:38	6/28/95 15:38	6/28/95 6:51	6/28/95 11:11
Station	0032d	0032c	0036d	0036c	0036b	0036a	0036a	0036f	0036g	0036h	0036i
Start latitude	3745.40	3744.91	3804.62	3806.11	3806.32	3804.63	3806.33	3806.57	3804.38	3806.00	3806.75
Start longitude	12311.01	12305.13	12317.71	12314.30	12311.04	12307.61	12320.70	12322.51	12324.90	12330.16	12330.64
End latitude	3744.54	3744.76	3803.12	3804.42	3804.71	3806.30	3804.78	3805.07	3804.56	3804.70	3805.47
End longitude	12309.45	12306.82	12318.36	12314.55	12311.04	12307.43	12320.75	12322.25	12326.91	12331.31	12331.72
Bottom depth (m)	115	69	130	114	99	77	163	201	133	216	396
Duration (hr)	0.61	0.42	0.54	0.56	0.56	0.55	0.53	0.51	0.53	0.53	0.52
Distance fished (km)	2.794	2.278	3.01	3.21	3.075	3.142	2.958	2.87	2.974	2.994	2.875
Net width (m)	13.61	13.004	13.091	11.83	12.008	12.846	12.692	13.43	13.139	13.209	13.884
Net measured?	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	6	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish					4.9	91.4	2.0				1.2
Skates			3.2	3.4	7.8	3.9	2.7	4.2			
Spotted ratfish		0.9	3.0	3.1	5.4	13.4	0.5	0.9	0.3	2.4	7.2
Other elasmobranchs											
Pacific sanddab	87.7	47.8	18.8	8.5	22.8	14.8	0.4		6.3		
Arrowtooth flounder											
Pacific halibut		8.3									
Petrale sole	5.3	0.6	11.2	1.6	6.1	3.9	0.7		5.0		
English sole	34.9	9.8	28.7	20.6	50.4	26.2	4.5	6.8	8.5		5.0
Dover sole	18.0	0.3	17.5	12.5	2.8	1.9	66.0	66.8	24.3	28.8	439.8
Rex sole	28.5	2.2	25.7	8.7	12.8	18.6	57.0	76.0	5.1		84.2
Other flatfish	2.1	17.2	3.2	2.7	1.1	1.4	2.5	12.5	3.9	0.1	6.6
Sablefish	3.2		0.5	1.3	7.1	3.9				1.7	34.3
Pacific cod											
Lingcod			2.4		0.6	2.5		17.4	10.9	108.0	
Pacific whiting	415.2	3.4	176.3	289.6	473.3	242.2	283.5	172.3	27.2	345.8	42.9
Other roundfish	23.8	9.8	6.6	16.5	63.2	246.0	2.1	3.5	14.0	4.3	6.4
Shortspine thornyhead											25.7
Longspine thornyhead											
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish											
Splitnose rockfish								0.5		5.6	21.4
Yellowtail rockfish			1.6					29.3			
Chillipepper	31.2	0.2	1.0	0.1			16.7	108.4	102.2	29.8	
Bocaccio			0.6				1.8	3.9	2.7	118.9	5.3
Canary rockfish	4.2								308.1		
Redstripe rockfish									3.4		
Stripetail rockfish	3.2		16.1	0.1			103.3	126.5	0.1	642.8	0.1
Other rockfish	2,214.4	0.8	33.6	2.0			80.1	23.8	276.5	375.6	8.4
Jellyfish	0.5		1.0	2.6	1.8						
Shrimps								0.1		13.9	0.1
Crabs			8.3					0.3			
Octopuses						39.8					
Squids		0.5								0.1	0.2
Sea stars		0.3	4.9	9.4	3.4	1.8	0.9	0.4			
Sea urchins				0.1	0.1						
Total catch weight	2,672.0	102.1	364.2	482.7	663.5	761.7	624.7	624.2	827.8	1,678.0	700.7

Table A-I .-Continued.

Haul	89	90	91	92	93	94	95	96	97	98	99
Start date & time	6/29/95 16:13	6/30/95 8:50	6/30/95 8:38	6/30/95 10:19	6/30/95 14:07	6/30/95 15:39	6/30/95 18:41	7/1/95 6:41	7/1/95 9:05	7/1/95 10:57	7/1/95 12:46
Station	0038b	0038a	0038c	0038d	0038g	0038f	0038e	0040a	0040b	0040c	0040d
Start latitude	3824.08	3824.98	3824.79	3824.82	3823.34	3825.38	3824.08	3845.28	3845.30	3845.47	3845.77
Start longitude	12315.73	12312.38	12319.97	12326.31	12336.07	12334.82	12329.70	12335.89	12342.79	12346.30	12349.36
End latitude	3825.44	3823.86	3823.40	3823.58	3824.87	3824.23	3825.39	3844.32	3844.07	3844.31	3844.64
End longitude	12317.21	12310.85	12319.04	12325.19	12336.58	12333.55	12330.70	12334.38	12341.52	12344.94	12348.25
Bottom depth (m)	82	74	110	138	425	224	177	81	123	134	208
Duration (hr)	0.61	0.58	0.51	0.5	0.5	0.5	0.5	0.48	0.54	0.52	0.5
Distance fished (km)	3.42	3.319	2.937	2.815	2.852	2.852	2.834	2.815	2.991	2.916	2.861
Net width (m)	11.979	13.004	13.081	13.825	14.87	14.372	14.146	13.004	12.667	11.88	13.516
Net measured?	Y	N	Y	N	N	N	N	N	Y	Y	Y
Performance	6	0	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	14.0	23.1	6.5	5.8		0.0		11.4	2.9		
Skates	0.7	4.6	7.9	5.0				2.1			
Spotted ratfish	4.3	10.0	7.2	2.6	0.1	0.2		1.5			
Other elasmobranchs					1.9						
Pacific sanddab	44.3	5.2	18.1	11.6			1.7	4.2	16.8	7.4	
Arrowtooth flounder											
Pacific halibut											
Petrale sole	3.2	1.3						0.4	0.3		
English sole	146.7	6.2	43.9	15.0		4.0		5.3	5.2	6.1	1.8
Dover sole	8.8		10.9	23.3	79.8	7.2	2.7		2.1		2.8
Rex sole	8.6	0.6	12.1	41.7	6.7	4.0	7.6	1.3	2.4	0.7	1.7
Other flatfish	2.5	1.4	2.1	8.1	1.6		0.2	1.7	0.2		0.2
Sablefish	12.9	2.4	9.4	2.1	9.0	2.4	6.6		0.9		0.9
Pacific cod											
Lingcod				0.4		3.8	9.0	0.4			
Pacific whiting	1,249.2	696.6	305.3	731.7	52.6	236.9	1,419.7	1,841.9	670.1	3,307.1	652.2
Other roundfish	27.8	208.3	5.0	1.4	2.3	0.1	0.3	7.2	2.8	1.3	0.1
Shortspine thornyhead					6.1						0.1
Longspine thornyhead											
Rougheye rockfish											
Pacific ocean perch							3.3				
Silvergray rockfish											
Darkblotched rockfish				0.1							
Spitnose rockfish							0.2				0.1
Yellowtail rockfish											
Chillipepper	1.6		0.1	10.8		189.7	79.1			4.7	22.7
Bocaccio				3.6		5.8	1.7				
Canary rockfish									0.8		
Redstripe rockfish											
Stripetail rockfish	0.1		0.1	4.3		111.6	725.3		0.2	0.7	20.7
Other rockfish	0.1		0.2	106.9	12.0	493.3	708.0		0.1	2.0	0.3
Jellyfish		2.3	0.3					2.5	1.2		
Shrimps				0.4		0.1					
Crabs	2.3										
Octopuses											
Squids			0.1		0.6	0.1	0.7		0.1		0.4
Sea stars		0.4	0.2	0.3	0.1						
Sea urchins	0.9		0.1		0.1						
Total catch weight	1,528.0	982.5	429.8	974.8	172.8	1,059.1	2,966.0	1,880.0	708.2	3,330.0	604.0

Table A-I .-Continued.

Haul	100	101	102	103	104	105	106	107	108	109	110
Start date & time	7/1/85 17:14	7/2/85 6:43	7/2/85 8:43	7/2/85 11:12	7/2/85 13:28	7/2/85 16:42	7/3/85 8:02	7/3/85 11:56	7/3/85 14:10	7/3/85 18:25	7/4/85 6:51
Station	0042c	0042b	0042a	0042d	0042e	0044b	0044a	0044c	0044d	0048b	0048d
Start latitude	3902.37	3902.60	3908.51	3908.41	3908.11	3925.97	3924.84	3922.92	3926.55	3948.72	3943.63
Start longitude	12355.22	12350.70	12347.14	12357.41	12358.01	12357.17	12354.89	12358.33	12400.45	12401.98	12403.37
End latitude	3904.29	3904.13	3904.94	3904.90	3904.65	3924.30	3928.35	3924.50	3925.14	3945.24	3945.27
End longitude	12355.34	12350.63	12347.27	12357.18	12358.38	12356.97	12355.11	12358.49	12400.45	12401.26	12404.35
Bottom depth (m)	137	103	88	232	387	152	130	284	472	167	397
Duration (hr)	0.63	0.53	0.53	0.5	0.51	0.58	0.5	0.54	0.49	0.53	0.62
Distance fished (km)	3.582	2.878	2.931	2.838	2.898	3.128	2.778	2.984	2.64	2.981	3.413
Net width (m)	14.048	14.162	13.545	14.372	14.87	13.825	15.461	14.544	14.974	14	14.87
Net measured?	Y	Y	Y	N	N	N	Y	N	N	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
Sply dogfish			16.9				4.3			5.7	
Skates	0.3	5.1	4.5	1.5			23.1	5.4			1.5
Spotted ratfish	3.5	1.7	1.9				5.6	3.9		1.4	1.3
Other elasmobranchs					1.6	0.1		3.3	4.1	0.2	8.0
Pacific sanddab	49.4	111.2	22.1				6.9	0.6			
Arrowtooth flounder								0.7			
Pacific halibut		21.0									
Petrale sole	2.0	9.6	12.2		0.2	1.3	3.5	0.6			
English sole	32.6	52.7	59.7	2.2	0.2		71.1	3.1		0.4	
Dover sole	25.1	2.6	6.3	5.2	11.2	39.4	13.2	31.0	24.3	38.8	37.3
Rex sole	17.2	2.1	0.9	1.9	10.6	2.2	11.4	35.8	29.9	7.3	37.8
Other flatfish	3.2	1.4	3.4			1.0	1.4	6.3		0.9	0.1
Sablefish	5.7			2.4	5.7	7.7	1.6	84.9	30.7	0.5	27.4
Pacific cod											
Lingcod	1.2	1.5					8.5				
Pacific whiting	371.8	660.4	1,374.8	678.7	35.1	348.5	462.7	31.8	19.3	434.8	16.8
Other roundfish	3.5	5.5	2.0	0.1	5.3	1.7	1.8	6.3	12.5	5.2	13.0
Shortspine thornyhead					6.2			11.4	15.1		11.1
Longspine thornyhead									5.4		
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish				2.0	0.8			3.8			1.8
Splitnose rockfish				70.5	2.0	0.2		29.7			4.3
Yellowtail rockfish	0.7						96.5				
Chillipepper	1.5	0.1		32.6		0.1	115.1			312.9	
Bocaccio	2.2		2.9							0.9	
Canary rockfish							19.6				
Redstripe rockfish											
Stripetail rockfish	7.9		0.1	32.2	0.1	24.7	0.1	0.2		311.8	
Other rockfish	4.6	0.1		1.3	2.6		29.7	0.7	4.2	38.4	4.7
Jellyfish	0.9	2.6			1.3		1.3	0.1		1.1	3.6
Shrimps	0.1							0.1		3.2	
Crabs							0.9				
Octopuses											
Squids			0.5		0.3	0.2					0.1
Sea stars	0.1		1.8	0.1			3.1	0.2	0.2	0.1	
Sea urchins	0.1	0.1					1.4	0.2	0.1		0.1
Total catch weight	533.5	881.7	1,510.1	830.6	83.2	425.2	884.0	260.1	147.5	1,164.1	168.8

Table A-I .-Continued.

Haul	111	112	113	114	115	116	117	118	119	120	121
Start date & time	7/4/95 9:04	7/4/95 11:55	7/5/95 8:48	7/5/95 8:44	7/5/95 11:51	7/5/95 14:38	7/5/95 18:32	7/6/95 8:19	7/6/95 14:28	7/6/95 18:09	7/7/95 6:39
Station	0046c	0048a	0048f	0048e	0048d	0048c	0048a	0050b	0052c	0052b	0052a
Start latitude	3944.08	3943.79	4002.70	4003.59	4004.11	4006.51	4002.14	4027.33	4043.44	4046.11	4046.82
Start longitude	12402.93	12352.74	12416.95	12415.91	12413.05	12413.46	12408.10	12434.09	12430.40	12426.14	12423.76
End latitude	3945.57	3945.33	4004.31	4004.93	4006.05	4004.83	4004.06	4025.88	4045.04	4044.67	4044.55
End longitude	12403.82	12353.62	12417.99	12416.94	12414.79	12411.78	12408.32	12433.07	12429.75	12427.29	12426.18
Bottom depth (m)	323	98	393	252	139	127	63	104	214	104	70
Duration (hr)	0.55	0.56	0.63	0.53	0.52	0.53	0.61	0.56	0.55	0.56	0.59
Distance fished (km)	3.112	3.138	3.401	2.985	3.026	2.962	3.626	3.084	3.16	3.18	3.289
Net width (m)	14.871	13.578	14.87	12.81	13.81	13.785	12.137	13.63	14.372	13.2	13.274
Net measured?	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y
Performance	0	0	0	0	0	0	0	6	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish		4.2			6.9	8.4	7.6	3.4	0.4	2.1	1.1
Skates		1.1	0.2	2.6		3.5	0.5		14.9	4.0	
Spotted ratfish	5.3	1.1	2.2	5.9			2.0	0.7	3.5		
Other elasmobranchs	7.4	0.4	3.6	0.5							
Pacific sanddab		4.2					19.8	44.2	0.7	71.9	56.7
Arrowtooth flounder	0.4			2.1						0.1	
Pacific halibut				2.9	4.2				10.2	18.5	
Petrale sole		0.9			0.7	3.0	12.5	26.1	2.4	5.9	5.0
English sole		0.1	0.1				9.9	18.8	0.9	1.2	5.4
Dover sole	28.1	0.1	123.1	132.7	2.0		0.3	20.1	166.9	1.8	
Rex sole	14.1	0.6	15.7	30.2	0.8	1.0	1.3	12.2	57.1	5.0	5.8
Other flatfish	0.3	0.9	1.1	0.1	0.2	0.5	5.2	0.4	3.2	0.4	0.1
Sablefish	45.0		29.5	48.8	9.2				5.1	6.1	0.4
Pacific cod											
Lingcod		2.4			1.2		4.0	3.3			
Pacific whiting	13.8	1,226.9	46.0	804.3	313.6	1,839.8	12.4	0.4	194.3	627.8	8.2
Other roundfish	3.7	35.2	4.4	4.1	3.6	28.2	77.6	54.7	19.1	68.1	40.6
Shortspine thornyhead	16.7		4.3	11.9					12.4		
Longspine thornyhead											
Rougheye rockfish				0.6							
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish	3.3		1.4	5.6	0.5				1.4		
Splitnose rockfish	11.7			77.4			0.1		7.6		
Yellowtail rockfish							1.0				
Chillipepper						584.0	151.8				
Bocaccio											
Canary rockfish					2.1	1.2					
Redstripe rockfish											
Stripetail rockfish	0.1	0.3		1.7	13.4	9.2	0.1		54.2	0.1	
Other rockfish	1.4		33.4	5.2	63.8	0.2		1.7	17.0	1.9	
Jellyfish	2.0	2.0		0.4			135.2	1.9	0.8		4.0
Shrimps			0.1		0.5	13.6			1.6		
Crabs		7.2					1.1		1.1	0.5	
Octopuses			1.6	0.1							
Squids	0.1	0.4	0.2	0.1	8.8	8.7	7.6	4.4	0.2	1.0	0.5
Sea stars	0.2			0.1	0.4		0.1	0.2	0.3	0.2	0.1
Sea urchins	0.5		0.2	0.1	0.1				2.3		
Total catch weight	154.1	1,288.0	267.1	1,137.2	1,017.0	2,174.0	297.0	197.5	597.4	816.8	128.4

Table A-I .-Continued.

Haul	122	123	124	125	126	127	128	129	130	131	132
Start date & time	7/7/95 10:12	7/7/95 13:19	7/7/95 15:39	7/7/95 17:22	7/8/95 7:04	7/8/95 9:19	7/8/95 10:48	7/8/95 12:28	7/8/95 14:22	7/9/95 8:43	7/9/95 8:14
Station	0054d	0054c	0054b	0054a	0056a	0056b	0056c	0056d	0056e	0058a	0058b
Start latitude	4102.59	4103.10	4106.69	4104.63	4124.66	4125.08	4124.63	4123.88	4122.79	4144.89	4144.91
Start longitude	12425.08	12422.09	12420.43	12417.95	12414.10	12418.03	12421.29	12424.32	12428.79	12420.57	12424.09
End latitude	4104.18	4104.62	4105.06	4103.07	4123.14	4123.55	4123.12	4125.45	4124.37	4143.21	4143.36
End longitude	12424.45	12421.67	12420.59	12418.27	12413.71	12417.35	12420.70	12425.08	12429.19	12420.46	12424.02
Bottom depth (m)	381	198	161	108	70	82	96	121	229	86	111
Duration (hr)	0.54	0.53	0.55	0.53	0.53	0.55	0.52	0.5	0.55	0.52	0.53
Distance fished (km)	3.112	2.928	3.061	2.958	2.922	3.03	2.952	2.716	3.013	2.766	2.947
Net width (m)	14.828	13.687	13.197	13.668	12.85	13.261	13.211	13.876	14.513	13.164	13.531
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	1.5	0.4		10.3	290.7	5.5	9.6			4.6	14.1
Skates				4.3		13.5		0.1	0.1	37.4	
Spotted ratfish	0.8			0.8							
Other elasmobranchs	13.0	0.2					1.2				
Pacific sanddab				17.4	305.8	51.2	7.8	0.2		18.7	0.3
Arrowtooth flounder	10.1	6.8	4.8	0.5			0.1	0.1	0.7		0.1
Pacific halibut					17.1						4.8
Petrale sole		0.4			2.6					3.0	
English sole					2.1					1.5	0.3
Dover sole	145.8	19.2	7.4	0.9	0.1	0.2			2.6		0.1
Rex sole	159.1	7.8	0.7	5.2	2.5	4.9	0.2			3.6	2.1
Other flatfish	1.2	1.5	1.5	1.3	0.1	0.3	0.1	0.2		0.1	0.4
Sablefish	17.8	47.3	7.0	8.4		1.6	13.8	0.5	78.4	4.9	1.2
Pacific cod											
Lingcod			2.5		0.5		0.1				3.7
Pacific whiting	45.9	4.7	19.9	19.5	84.3	33.4	24.2	0.1	38.5	6.1	5.2
Other roundfish	55.9	4.4	140.1	18.2	20.8	1.6	114.6	102.2	2.1	9.7	15.1
Shortspine thornyhead	15.9	1.3							5.7		
Longspine thornyhead											
Rougheye rockfish									4.6		
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish	5.6	28.5	2.0					0.1	0.5		
Splitnose rockfish	1.0	11.6	0.2						74.8		
Yellowtail rockfish											
Chillpepper		1.8						0.2			
Bocaccio											
Canary rockfish		1.0									
Redstripe rockfish											
Stripetail rockfish		96.2	5.6	1.7	0.1		0.1	5.9	2.0		0.1
Other rockfish	14.0	0.3	0.7	0.8	0.1	0.1	0.1	3.1	1.1		0.4
Jellyfish	0.1	0.4	2.3	1.0	4.5	1.4				0.3	0.1
Shrimps		7.5	0.0					0.4	2.0		
Crabs	0.1	3.4	4.8				1.4	0.5		2.1	
Octopuses			0.1								
Squids	1.2		1.1	7.9	0.9	1.1	2.8	11.9	0.1	3.2	44.7
Sea stars				0.2		0.1	0.1	0.2	0.1	0.9	0.1
Sea urchins	4.4	0.2	0.2					0.1			
Total catch weight	502.8	245.4	200.7	100.8	732.0	115.3	176.0	125.8	213.2	96.6	93.7

Table A-1 .-Continued.

Haul	133	134	135	136	137	138	139	140	141	142	143
Start date & time	7/9/95 8:53	7/9/95 12:38	7/9/95 16:13	7/10/95 8:40	7/10/95 8:28	7/10/95 10:00	7/10/95 11:30	7/13/95 11:38	7/13/95 14:38	7/13/95 17:32	7/14/95 6:36
Station	0058c	0058d	0059a	0059a	0059b	0059c	0059d	0060a	0060d	0060c	0080b
Start latitude	4144.89	4143.26	4157.12	4155.93	4156.30	4156.24	4157.22	4202.67	4202.33	4203.02	4203.31
Start longitude	12428.27	12430.56	12435.80	12422.82	12425.36	12429.82	12434.20	12438.48	12436.26	12430.64	12427.71
End latitude	4143.30	4144.94	4155.82	4154.38	4154.73	4154.66	4155.82	4204.58	4203.97	4204.55	4204.97
End longitude	12428.19	12430.62	12435.11	12422.80	12425.83	12429.05	12433.27	12438.54	12436.24	12430.48	12427.40
Bottom depth (m)	204	392	372	64	79	114	194	460	305	115	98
Duration (hr)	0.54	0.56	0.52	0.5	0.5	0.53	0.53	0.85	0.54	0.53	0.57
Distance fished (km)	2.969	3.134	2.999	2.611	2.889	3.073	2.96	3.631	3.045	2.957	3.123
Net width (m)	14.372	14.87	14.828	13.26	12.12	12.634	14.266	15.004	14.676	14.606	13.91
Net measured?	N	N	N	Y	Y	Y	N	N	N	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	0.7		3.6				16.7		0.2	3.6	67.9
Skates	1.6						2.4		1.1	0.1	0.1
Spotted ratfish	0.6							0.5			
Other elasmobranchs		3.2	5.7		0.1			15.0	1.5		
Pacific sanddab				50.3	0.4					0.1	
Arrowtooth flounder	34.5	7.4	14.0	0.1		0.9	16.0	2.0	66.2	3.2	
Pacific halibut				22.7							
Petrale sole				5.1	0.6						0.6
English sole				7.2							
Dover sole	26.8	23.8	169.0	0.9		1.4	14.7	30.1	41.7	0.6	
Rex sole	3.2	17.5	35.1	8.2	0.7	0.1	0.1	20.2	39.8	0.5	0.1
Other flatfish	2.4			0.1					0.1	0.1	
Sablefish	64.4	349.1	20.3			0.5	14.9	40.2	126.9	1.4	
Pacific cod							2.8				
Lingcod											
Pacific whiting	1.4	58.0	57.3	4.4	2.8	1.7	11.6	4.9	96.2	349.0	88.4
Other roundfish	6.4	20.3	29.3	15.3	213.8	52.6	27.6	30.2	9.8	12.6	70.9
Shortspine thornyhead	3.3	82.5	11.2					60.6	3.4		
Longspine thornyhead								0.4			
Rougheye rockfish							1.0		2.4		
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish			0.7						5.6		
Spitnose rockfish	1.9		22.7				0.1		39.5		
Yellowtail rockfish										0.6	
Chillipepper	5.4					0.1	12.1				
Bocaccio											
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish	221.0					1.4	50.9			0.3	
Other rockfish	10.6	9.2	1.1			0.3	1.9	21.2	3.6	0.8	
Jellyfish	0.6	0.7	1.1	1.8		1.0		0.1		0.1	
Shrimps	1.8						0.5	0.1	0.1		
Crabs		0.1		1.0		1.0	0.4	0.1	0.5		0.5
Octopuses				0.1				0.1			
Squids	0.7	0.3	0.2	2.2	8.9	25.0	0.2	0.4	0.2	8.1	2.0
Sea stars		0.1	0.1	0.1	0.2	0.1	0.2	3.4	1.7	1.3	0.3
Sea urchins	1.4	0.2	0.6					20.0	34.9		
Total catch weight	392.4	572.3	371.9	119.3	227.5	105.1	155.7	250.4	475.8	382.4	230.8

Table A-I .-Continued.

Haul	144	145	146	147	148	149	150	151	152	153	154
Start date & time	7/14/95 8:18	7/14/95 12:52	7/14/95 16:42	7/16/95 7:11	7/16/95 8:22	7/16/95 13:02	7/16/95 18:09	7/16/95 6:53	7/16/95 8:53	7/16/95 13:48	7/16/95 14:28
Station	0080a	0082e	0082c	0082a	0082b	0084c	0084d	0084a	0084b	0086a	0086a
Start latitude	4202.72	4223.50	4223.64	4225.18	4223.79	4242.08	4242.38	4243.34	4241.55	4303.00	4303.09
Start longitude	12424.58	12445.14	12444.43	12432.32	12433.69	12442.53	12445.62	12435.10	12438.33	12430.98	12431.00
End latitude	4204.32	4224.97	4225.08	4226.48	4225.06	4243.67	4243.93	4244.19	4242.93	4303.65	4304.73
End longitude	12424.79	12446.11	12445.58	12433.31	12434.82	12442.85	12445.63	12436.88	12439.29	12430.90	12430.65
Bottom depth (m)	80	398	267	67	80	198	500	82	127	69	68
Duration (hr)	0.53	0.59	0.57	0.55	0.53	0.56	0.54	0.54	0.54	0.19	0.55
Distance fished (km)	3.019	3.123	3.176	2.885	2.951	3.074	2.945	3.071	3	1.037	3.144
Net width (m)	13.744	15.055	15.045	13.303	13.761	14.414	15.004	14.001	13.852	13.247	12.964
Net measured?	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Performance	0	0	0	0	6	0	0	0	0	-6	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	4.1	22.2				2.1		3.6	8.2	0.8	2.4
Skates		21.1	15.7	0.1	0.2			3.6		0.2	17.0
Spotted ratfish		19.6	29.3			0.1		0.9			0.9
Other elasmobranchs		4.1	0.1				2.7				
Pacific sanddab	0.1			13.5	12.1			5.9	0.4	2.6	2.3
Arrowtooth flounder		6.2	15.0			7.0	2.5		1.8		
Pacific halibut											88.0
Petrale sole					0.7			7.4		0.1	0.4
English sole				1.9	4.0	23.8		16.9	0.4	3.7	3.6
Dover sole		325.4	102.4			21.7	71.6	0.8	1.6	0.1	
Rex sole	2.0	54.5	32.7	0.2	1.2	13.7	22.9	4.6	0.3	2.4	2.3
Other flatfish		0.7	0.7			0.3		0.6	0.1	4.1	8.4
Sablefish		69.2	66.3			2.0	104.8				
Pacific cod											
Lingcod					2.4			0.7		1.6	4.8
Pacific whiting	1.9	212.3	60.1		2.0	1,063.5	3.3	0.8	1,082.4	4.0	
Other roundfish	13.0	31.4	6.3	38.1	76.4	219.4	5.3	74.8	0.6	1.4	25.1
Shortspine thornyhead		14.3	8.4				12.4				
Longspine thornyhead							0.5				
Rougheye rockfish							1.8				
Pacific ocean perch		0.4	8.9			0.4					
Silvergray rockfish											
Darkblotched rockfish		3.2	3.4			0.3			0.1		
Splitnose rockfish		1.1	34.6			0.1					
Yellowtail rockfish									3.6		
Chillipepper						1.7					
Bocaccio											
Canary rockfish									1.6		
Redstripe rockfish											
Stripetail rockfish			0.1			20.1					
Other rockfish		10.3	1.8				2.7		0.4		
Jellyfish	0.7	0.1		3.0	2.5	5.1	0.1	105.8	1.1	26.9	39.2
Shrimps							0.1		0.2		
Crabs	1.0		1.1		2.5	1.3	0.8	3.9	3.0		
Octopuses							0.2				
Squids	4.2	0.4		2.8	3.6	0.3	0.7	0.9	1.9	10.4	27.5
Sea stars	0.1	1.3	5.5	0.9	1.4	1.0	0.5	0.8	2.2	0.5	0.8
Sea urchins		4.4	11.9				1.6		0.1		
Total catch weight	27.2	808.3	401.0	60.8	109.0	1,384.1	234.7	231.9	1,111.8	59.1	223.9

Table A-I .-Continued.

Haul	165	166	167	168	169	160	161	162	163	164	165
Start date & time	7/16/95 16:19	7/16/95 18:18	7/17/95 6:49	7/17/95 8:50	7/17/95 12:32	7/17/95 16:57	7/17/95 18:54	7/18/95 6:41	7/18/95 9:05	7/18/95 9:59	7/18/95 11:32
Station	0068b	0068c	0068d	0068e	0068f	0068g	0068h	0068c	0068b	0068b	0068a
Start latitude	4302.37	4302.88	4304.88	4305.39	4304.52	4322.39	4322.78	4323.09	4326.31	4326.40	4328.51
Start longitude	12434.85	12437.64	12447.75	12451.50	12453.27	12443.73	12439.17	12433.07	12427.65	12427.57	12423.93
End latitude	4303.67	4304.37	4304.06	4306.69	4306.21	4324.13	4324.38	4324.71	4325.98	4324.85	4325.00
End longitude	12434.56	12437.07	12445.95	12450.28	12452.93	12443.59	12438.39	12432.52	12427.80	12428.28	12424.73
Bottom depth (m)	105	127	215	260	388	494	197	121	107	106	91
Duration (hr)	0.48	0.53	0.53	0.53	0.57	0.57	0.57	0.55	0.13	0.55	0.55
Distance fished (km)	2.481	2.931	2.894	2.97	3.234	3.273	3.183	3.131	0.858	3.055	3.088
Net width (m)	13.79	14.279	14.598	14.464	16.47	15.405	14.636	13.954	13.708	13.654	13.353
Net measured?	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	-6	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	4.7	4.7						3.8	4.0	5.6	1.3
Skates	2.0		1.0	6.1	1.1		1.6	5.5	4.8	12.0	2.7
Spotted ratfish	0.5			0.8			1.8	0.1			0.1
Other elasmobranchs						1.8					
Pacific sanddab	7.4	0.5						31.9	19.1	49.3	21.0
Arrowtooth flounder	0.3	11.7	5.8	2.5		21.0	14.2	1.2		0.7	0.3
Pacific halibut								4.4		24.3	3.7
Petrale sole	3.6							6.9	1.6	13.0	13.5
English sole	1.4		22.4	6.3				75.3	9.5	24.5	15.5
Dover sole	1.9	1.7	30.7	47.2	121.7	55.8	54.8	3.2	0.2	1.7	1.7
Rex sole	1.7	5.6	10.9	40.1	29.4	22.9	13.9	4.5	1.3	7.1	5.8
Other flatfish	0.3	0.7	10.9	1.4	0.3		2.7	4.1	0.2	0.5	0.1
Sablefish			38.1	11.1	25.2	157.5	17.9	4.4		0.8	
Pacific cod											
Lingcod	8.1	1.6						2.7		1.8	0.1
Pacific whiting	226.6	361.9	354.4	153.4	29.0	7.4	110.5	84.9	52.7	350.4	491.1
Other roundfish	7.2	226.4	0.8	3.9	2.4	14.2	3.6	30.6	2.5	48.9	9.2
Shortspine thornyhead			2.5	17.7	16.1	111.1	9.9				
Longspine thornyhead						0.8					
Rougheye rockfish											
Pacific ocean perch			70.4	4.1	1.6						
Silvergray rockfish											
Darkblotched rockfish		0.4	3.0	9.6	0.6			0.3		0.1	
Splitnose rockfish			0.3	289.0	1.3		0.3				
Yellowtail rockfish											
Chillpepper			0.2								
Bocaccio											
Canary rockfish	60.4										
Redstripe rockfish	0.3							0.1			
Stripetail rockfish		0.2	23.4	0.2			0.2				
Other rockfish	1.5	0.1	3.6	374.4	3.7	0.9	1,202.7	0.3	0.1		
Jellyfish	1.7		0.3		0.1	0.5		0.1	0.9	0.8	3.8
Shrimps	0.6	0.9	0.3	6.3	0.1	0.2	0.6				0.1
Crabs	2.6	8.0		1.3	0.1		2.3	0.4	0.4		7.8
Octopuses					1.3						
Squids	3.8	3.3			0.2	0.3		2.0	0.4	1.6	20.7
Sea stars	0.1	0.2		0.1	2.2	2.0	1.1	1.0	1.2	2.1	2.5
Sea urchins				0.1	0.2	11.5	6.7	1.2	0.1		
Total catch weight	340.1	626.1	678.0	875.7	236.7	410.0	1,444.8	276.7	101.1	547.6	611.4

Table A-I .-Continued.

Haul	166	167	168	169	170	171	172	173	174	175	176
Start date & time	7/18/95 18:41	7/19/95 8:46	7/19/95 9:01	7/19/95 11:55	7/19/95 13:59	7/19/95 16:49	7/19/95 18:31	7/20/95 8:41	7/20/95 8:46	7/20/95 10:42	7/20/95 17:09
Station	0070d	0070e	0070f	0071h	0071i	0071g	0072j	0072i	0072h	0072g	0072f
Start latitude	4344.46	4342.84	4343.61	4352.73	4354.46	4353.61	4405.32	4404.48	4404.61	4402.96	4404.63
Start longitude	12432.17	12437.96	12443.02	12452.85	12443.15	12449.73	12457.55	12455.86	12448.84	12445.45	12438.00
End latitude	4342.84	4344.55	4345.12	4354.04	4354.46	4354.31	4403.73	4406.02	4403.60	4404.43	4404.84
End longitude	12431.95	12437.78	12443.27	12453.86	12445.25	12451.62	12457.00	12456.16	12448.15	12445.92	12435.82
Bottom depth (m)	176	323	500	399	206	236	382	215	84	116	127
Duration (hr)	0.55	0.54	0.6	0.56	0.53	0.53	0.57	0.54	0.57	0.51	0.56
Distance fished (km)	3.068	3.049	2.948	2.889	2.942	2.858	3.091	2.888	3.122	2.878	2.685
Net width (m)	13.684	15.195	15.182	14.622	14.482	14.88	14.54	14.387	13.348	13.61	13.812
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	N	N	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		5.1		0.4							0.9
Skates		0.2					7.7	3.2		3.8	
Spotted ratfish	0.2	0.7		5.0	1.0	0.8	2.5		0.4		0.4
Other elasmobranchs			23.7	1.1			0.8				0.3
Pacific sanddab						0.1			0.7		11.0
Arrowtooth flounder	5.1	27.9	0.7	2.3	5.7	9.3		3.2			
Pacific halibut	18.1				3.1	4.6			7.6	14.7	
Petrale sole						0.8		0.5			
English sole				2.4		0.3		12.3		2.6	
Dover sole	11.4	50.5	30.1	43.7	25.5	67.9	37.0	15.9	1.3	0.4	16.3
Rex sole	6.9	46.8	37.1	14.2	2.8	8.1	10.7	40.2	0.1	1.5	46.5
Other flatfish	0.4	1.9		0.4	0.3	0.7	0.3	12.8	6.5	2.2	8.1
Sablefish	3.8	19.1	79.5	14.1	14.0	50.4	15.8	177.3		174.7	2.2
Pacific cod											
Lingcod					4.0				3.6		
Pacific whiting	150.5	108.7	7.3	10.8	81.4	23.5	19.9	38.6		280.3	1,652.0
Other roundfish	68.0	3.8	4.7	0.2	3.6	0.5	1.2	4.9	8.7	64.7	1.9
Shortspine thornyhead		39.7	39.6	12.6	8.1	6.8	12.4				
Longspine thornyhead			4.5	0.4							
Rougheye rockfish		5.0		2.0							
Pacific ocean perch		2.9		0.8	1.3	1.0					
Silvergray rockfish											
Darkblotched rockfish	0.6	0.9			21.2		0.5				0.1
Splitnose rockfish		19.6			2.3	13.0		0.1			
Yellowtail rockfish											
Chillipepper											
Bocaccio										6.5	
Canary rockfish					1.3					226.5	
Redstripe rockfish									1.8	240.5	
Stripetail rockfish	0.8				34.6	36.5		24.5			
Other rockfish	0.6	5.1		1.3	6.8		0.4	2.0	0.5	2,181.3	0.2
Jellyfish	0.1			0.5	0.1	0.1	3.3				
Shrimps	0.1	0.1	0.1		0.1		0.1				
Crabs		0.6			3.7	1.4		0.2			
Octopuses											
Squids	0.4			0.1		0.2	16.3			0.4	0.9
Sea stars	1.2	0.3	0.4	0.2	0.1		1.3	0.2			0.2
Sea urchins	0.4	6.0	0.9	0.1	3.2	3.5	4.2	11.3			
Total catch weight	268.9	345.4	229.3	113.3	227.7	230.5	136.8	347.4	31.3	3,200.0	1,741.2

Table A-I .-Continued.

Haul	177	178	179	180	181	182	183	184	185	186	187
Start date & time	7/20/95 18:57	7/21/95 8:39	7/21/95 8:18	7/21/95 10:02	7/21/95 11:44	7/21/95 14:45	7/21/95 18:05	7/22/95 8:35	7/22/95 8:05	7/22/95 9:42	7/22/95 11:15
Station	0072e	0072d	0072c	0072b	0072a	0074a	0074d	0074h	0074g	0074f	0074e
Start latitude	4403.56	4403.83	4406.21	4405.00	4405.02	4424.78	4424.39	4423.94	4423.74	4422.95	4425.55
Start longitude	12430.59	12425.98	12424.84	12418.13	12412.83	12416.78	12433.43	12447.76	12445.38	12443.79	12436.75
End latitude	4404.33	4404.80	4404.65	4403.38	4403.48	4423.20	4425.89	4425.37	4425.17	4424.19	4424.30
End longitude	12432.46	12427.78	12424.24	12417.76	12412.90	12416.63	12432.67	12446.87	12444.47	12442.68	12437.95
Bottom depth (m)	129	120	111	84	60	70	107	242	158	132	116
Duration (hr)	0.54	0.55	0.54	0.54	0.55	0.54	0.54	0.54	0.53	0.54	0.53
Distance fished (km)	2.897	3.052	3.049	3.068	2.925	3.002	3.012	2.909	2.975	2.871	2.893
Net width (m)	14.42	13.862	13.523	12.983	12.883	13.039	13.61	14.518	15.213	14.171	13.763
Net measured?	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Performance	0	6	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	1.1	0.8	7.7	1.1	5.0				0.5	0.1
Skates	4.0		2.9			15.0		0.1	4.3	4.4	
Spotted ratfish	42.3	4.8	0.4			3.0				4.8	0.6
Other elasmobranchs											
Pacific sanddab	6.3	36.0	85.1	421.8	73.1	667.2	36.9		0.2	2.8	9.7
Arrowtooth flounder	2.4	2.3						1.0	2.1		4.5
Pacific halibut						7.9	57.7		7.2	20.5	83.9
Petrale sole	1.2	2.6	4.5	3.7	0.1	0.2	8.6		3.4	4.5	6.5
English sole			0.3	8.2	11.7	11.1	0.5	14.6	28.9	28.6	3.6
Dover sole	140.0	23.1	19.6	0.3	0.2	0.4	8.5	23.9	6.3	7.5	
Rex sole	41.9	21.6	29.5	3.8	42.8	21.3	2.6	58.3	9.9	17.7	1.9
Other flatfish	8.0	2.0	0.3	0.4	10.3	9.7	9.9	6.7	21.2	15.2	0.4
Sablefish	115.4	15.5	28.0	0.3			3.0	42.2	399.6	1.9	
Pacific cod											
Lingcod				0.2		1.1	6.8		1.3	5.0	2.0
Pacific whiting	539.0	40.2	356.9	1,218.9	5.0	1,199.2		17.1	78.4	1.1	
Other roundfish	3.7	0.4	0.2	1.4	4.8	0.4	0.6	3.1	1.3	5.1	2,943.7
Shortspine thornyhead								4.1			
Longspine thornyhead											
Rougheye rockfish								6.5			
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish	0.5	0.2						1.3			
Splitnose rockfish								25.6			
Yellowtail rockfish									3.6		
Chillipepper											
Bocaccio										1.8	
Canary rockfish									2.3	151.2	
Redstripe rockfish											
Stripetail rockfish								1.3			
Other rockfish	0.8	4.3	5.3				6.6	11.4	20.9	0.8	
Jellyfish	0.9	1.9	0.7		20.5						
Shrimps	0.2										
Crabs	26.8	4.9	2.4	1.4	2.8	1.9			1.5	0.5	
Octopuses											
Squids	0.5	1.4	0.1	0.1	10.9		4.2				5.1
Sea stars	5.8	1.7	3.8	1.5	0.8	0.3	0.3		0.3		
Sea urchins							1.0	21.0	0.3		
Total catch weight	841.6	164.6	541.6	1,074.6	184.1	1,943.6	148.2	236.2	593.0	273.9	3,062.0

Table A-I .-Continued.

Haul	188	189	190	191	192	193	194	195	196	197	198
Start date & time	7/23/95 7:05	7/23/95 8:38	7/23/95 10:12	7/23/95 11:52	7/23/95 13:54	7/23/95 15:35	7/23/95 17:48	7/24/95 6:41	7/24/95 10:51	7/24/95 13:32	7/24/95 16:45
Station	0076a	0076b	0076c	0076d	0076e	0076f	0076g	0076h	0080i	0080h	0080g
Start latitude	4444.74	4446.02	4445.99	4446.18	4446.85	4442.99	4444.19	4445.53	4505.25	4504.74	4503.55
Start longitude	12415.07	12416.88	12421.29	12426.30	12430.84	12435.07	12442.18	12445.24	12445.88	12440.80	12435.12
End latitude	4443.28	4444.98	4444.82	4444.86	4445.55	4444.50	4445.81	4443.99	4504.08	4503.17	4505.00
End longitude	12415.98	12418.62	12422.82	12427.73	12432.05	12434.62	12443.36	12445.16	12444.48	12441.54	12436.05
Bottom depth (m)	80	105	119	137	175	204	325	393	485	324	413
Duration (hr)	0.55	0.54	0.56	0.55	0.52	0.54	0.56	0.53	0.54	0.58	0.55
Distance fished (km)	3.07	3.033	2.988	3.099	2.981	2.924	3.106	2.882	2.939	3.214	3.029
Net width (m)	13.27	13.613	13.897	13.828	14.006	15.54	15.321	14.953	14.974	14.733	15.179
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y
Performance	0	0	0	0	0	0	0	0	0	0	6
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	11.1	6.2	2.2	0.8			2.6				
Skates	1.2	0.2					1.2	0.8	7.6	19.6	9.4
Spotted ratfish									2.3	2.1	
Other elasmobranchs									1.2	4.8	
Pacific sanddab	417.9	53.8	15.3								
Arrowtooth flounder		0.1		8.6	14.0	16.8	1.5	3.8			
Pacific halibut	8.3	12.1	16.3	7.4							
Petrale sole	2.9		1.9	2.4							
English sole	14.9	3.5	4.8	0.9	1.0						
Dover sole	0.8	0.6	1.4	2.8	10.1	23.2	30.3	27.8	23.4	4.4	23.9
Rex sole	1.7	2.3	2.1	4.8	18.5	16.2	3.3	7.4	6.4	12.0	2.9
Other flatfish	1.4	0.1	0.5	2.4	10.1	2.0	0.6	0.9	0.1		0.2
Sablefish			2.6	0.9	17.0	488.7	28.3	87.3	32.9	1.3	102.0
Pacific cod											
Lingcod			2.3	1.4	11.5	3.6					
Pacific whiting	113.4	241.3	1,562.6	2,403.1	14.6	20.2	12.1	24.5	18.7	85.7	23.2
Other roundfish	3.8	446.9	489.6	2.3	0.5	3.1	9.1	7.7	0.8	0.3	3.0
Shortspine thornyhead						1.7	83.3	72.9	10.7	22.2	32.9
Longspine thornyhead								10.4			
Rougheye rockfish					0.1			0.4			5.2
Pacific ocean perch					0.1		1.7	0.6			41.2
Silvergray rockfish											
Darkblotched rockfish							1.0				
Splitnose rockfish						0.2	20.4	1.8		7.6	0.4
Yellowtail rockfish						11.2					
Chillipepper											
Bocaccio											
Canary rockfish					1.7						
Redstripe rockfish											
Stripetail rockfish					0.1	0.6					
Other rockfish					1.6	0.9	3.2	1.1		21.8	15.5
Jeftfish	1.0						0.2	0.2	0.2	2.7	0.3
Shrimps					0.1	0.1		0.2	0.1		
Crabs	1.0		0.3	0.7	1.1	4.9	0.7				
Octopuses						0.1			0.1	0.8	
Squids	1.1	2.6	4.1					0.5	0.3		1.1
Sea stars	0.4					0.3	0.7	0.8	0.8	0.2	0.3
Sea urchins				0.1	5.0	3.7	3.0	0.3	1.7		0.1
Total catch weight	581.9	769.7	2,106.0	2,438.6	107.1	601.3	201.0	250.6	136.1	160.2	292.8

Table A-I .-Continued.

Haul	199	200	201	202	203	204	205	206	207	208	209
Start date & time	7/24/95 17:51	7/25/95 6:45	7/25/95 9:04	7/25/95 11:10	7/25/95 12:55	7/25/95 15:38	7/25/95 16:11	7/26/95 6:59	7/26/95 10:11	7/26/95 13:13	7/26/95 14:58
Station	0080f	0080e	0080d	0080c	0080b	0080a	0080a	0084a	0084b	0084c	0084d
Start latitude	4506.39	4503.28	4505.80	4508.33	4505.97	4508.67	4508.59	4525.32	4524.86	4524.93	4525.39
Start longitude	12434.16	12427.59	12421.28	12414.30	12410.74	12408.78	12408.58	12408.16	12410.71	12413.83	12416.87
End latitude	4504.91	4504.62	4504.13	4504.82	4504.37	4508.39	4504.99	4523.68	4523.23	4523.32	4523.75
End longitude	12433.44	12426.44	12422.08	12414.77	12410.89	12408.83	12408.89	12405.78	12410.85	12413.50	12416.33
Bottom depth (m)	351	338	245	180	123	91	90	91	127	156	171
Duration (hr)	0.52	0.53	0.52	0.53	0.54	0.1	0.54	0.55	0.58	0.54	0.54
Distance fished (km)	2.906	2.878	2.923	2.924	2.993	0.54	3.087	3.1	3.191	3.111	3.1
Net width (m)	14.351	15.022	13.757	13.598	13.907	13.198	13.549	13.34	13.644	13.228	13.378
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	-6	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish					15.3	4.8	16.3	5.2	7.3		0.9
Skates	13.3	6.6	4.7		3.6		2.7				
Spotted ratfish							0.9		4.6		
Other elasmobranchs		0.8	0.3	3.9							
Pacific sanddab				0.2	10.7	2.8	11.4	14.5	14.6	0.1	
Arrowtooth flounder	1.7	7.9	45.2	1.1	0.6	0.1	1.2			1.7	6.1
Pacific halibut		65.5	77.2	7.2	5.8						
Petrale sole				1.2		0.4	0.2				0.6
English sole					13.1	6.0	12.1	4.1	2.7		
Dover sole	20.6	26.2	40.9	2.4	3.0		0.7		0.9	4.6	7.5
Rex sole	9.8	4.2	54.6	7.3	3.6	2.9	15.4	2.9	5.5	6.9	11.9
Other flatfish	0.3	1.1	1.2	1.2	0.8	0.3	0.3		0.9	1.2	0.6
Sablefish	21.9	50.6	11.7	18.5	2.0				11.9	2.3	
Pacific cod											
Lingcod			11.6	2.3			0.9				
Pacific whiting	67.2	25.8	21.9	3,732.1	5,465.0	1.0	10.8	2,872.2	4,644.8	569.2	1,982.9
Other roundfish	1.1	1.5	3.3	15.4	167.3	10.2	1,045.2	29.0	116.1	0.4	4.1
Shortspine thornyhead	26.0	42.3	5.8								0.4
Longspine thornyhead											
Rougheye rockfish										0.1	2.8
Pacific ocean perch	5.3	0.9	0.8								
Silvergray rockfish											
Darkblotched rockfish	7.8	1,247.8	20.0	0.7						0.1	0.8
Splitnose rockfish	105.4	47.4	10.2								
Yellowtail rockfish				2.2							
Chillipepper											
Bocaccio											
Canary rockfish			1.6								
Redstripe rockfish											
Stripetail rockfish			0.3							0.1	
Other rockfish	3.4	9.7	5.1	1.1							4.3
Jellyfish	0.1		0.1				0.1				
Shrimps	0.1	0.1	0.8	0.4						1.0	0.1
Crabs	0.1	0.1	1.0	0.4	4.1	0.9	5.7			0.4	1.6
Octopuses											
Squids	0.3	0.5					0.1				
Sea stars		0.1	0.1	0.2	1.0	0.9	3.0		4.6	0.6	0.4
Sea urchins			8.4							0.1	0.4
Total catch weight	290.6	1,570.0	327.0	3,798.0	5,698.0	30.9	1,130.9	2,927.9	4,817.6	589.0	2,026.0

Table A-I .-Continued.

Haul	210	211	212	213	214	215	216	217	218	219	220
Start date & time	7/28/95 17:14	7/27/95 6:41	7/27/95 8:57	7/27/95 12:27	7/27/95 15:30	7/27/95 17:52	7/28/95 6:35	7/28/95 9:59	7/28/95 12:12	7/28/95 13:56	7/28/95 16:14
Station	0084e	0084f	0084g	0086h	0088j	0088i	0088h	0088g	0088f	0088e	0088d
Start latitude	4526.30	4524.22	4526.44	4535.41	4545.88	4546.12	4543.83	4543.88	4544.94	4543.22	4543.59
Start longitude	12424.33	12431.05	12436.38	12441.32	12445.11	12439.68	12436.39	12433.98	12433.20	12428.17	12423.32
End latitude	4524.80	4524.78	4524.38	4534.47	4544.38	4544.72	4545.06	4545.38	4543.98	4544.63	4545.13
End longitude	12423.34	12433.26	12437.90	12439.32	12445.96	12440.77	12437.12	12435.05	12431.43	12428.15	12423.79
Bottom depth (m)	214	419	438	425	382	248	211	198	190	179	152
Duration (hr)	0.58	0.55	0.53	0.56	0.54	0.55	0.54	0.56	0.53	0.55	0.53
Distance fished (km)	3.102	3.104	2.981	3.18	3.074	3.165	2.983	3.124	2.978	2.939	3.009
Net width (m)	13.965	14.87	14.987	15.259	14.854	13.959	14.51	14.602	14.024	13.953	13.971
Net measured?	Y	N	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			1.0						
Skates				3.9	0.9				8.8		0.1
Spotted ratfish							1.8	1.0			
Other elasmobranchs							0.1				
Pacific sanddab											
Arrowtooth flounder	20.6	4.2			1.1	2.0	1.4	6.0	3.2	7.0	1.6
Pacific halibut										29.8	
Petrale sole							1.2	0.3			0.5
English sole	7.8					1.2	2.4		0.3	0.3	0.9
Dover sole	14.5	4.3	0.6	11.5	22.8	20.8	47.6	25.2	19.6	19.7	9.8
Rex sole	18.3	0.2		0.4	1.1	28.1	13.9	23.9	15.1	12.5	4.9
Other flatfish	1.7	0.1				1.2	0.7	1.6	1.2	1.4	1.3
Sablefish	8.2	22.7	26.9	165.4	31.1	29.5	25.7	17.8	11.9	6.9	
Pacific cod											
Lingcod							1.8	1.5	2.8	32.4	5.5
Pacific whiting	151.6	32.7	58.2	11.5	30.5	20.1	23.7	60.6	84.1	433.8	4.7
Other roundfish	1.0	1.0	1.6	1.7	0.6	0.3	0.6	1.8	4.7	2.1	2.3
Shortspine thornyhead	1.2	38.1	32.7	19.8	24.2	3.2	1.0	2.0	6.9	6.2	
Longspine thornyhead		0.4	7.1	7.9							
Rougheye rockfish		2.7	3.7	5.0	16.9				0.1	2.8	
Pacific ocean perch		8.4	11.8	16.5	1.4	0.6	13.7		0.1		
Silvergray rockfish											
Darkblotched rockfish	3.2					1.7	4.3				
Splitnose rockfish		0.2	0.4		11.2	45.7	0.4	1.6	0.1		
Yellowtail rockfish								6.1	1.5		7.6
Chillipepper											
Bocaccio											
Canary rockfish								2.1		2.1	
Redstripe rockfish						0.4	63.5			0.6	
Stripetail rockfish	26.5						53.2	26.1			
Other rockfish	7.0	12.2	6.7	3.4	0.2	117.1	56.9	94.9	8.6	5.4	45.4
Jellyfish		2.7	5.6	0.1	0.3	0.2				0.6	0.6
Shrimps		0.8	0.3	0.2	1.2	1.1	1.0	0.1	0.8	0.1	1.7
Crabs	1.0		0.4							1.1	
Octopuses								0.1			
Squids	0.1	3.6	1.0	0.2							
Sea stars		0.3	1.7	1.2	1.1	0.4	0.4	0.1		0.7	0.1
Sea urchins	8.5	1.6	4.1	0.2	0.1	12.1	26.0	8.9	20.2	11.0	0.8
Total catch weight	271.6	138.5	165.0	261.8	148.1	286.0	341.4	282.9	191.9	576.5	87.8

Table A-I .-Continued.

Haul	221	222	223	224	225	226	227	228	229	230	231
Start date & time	7/29/95 18:02	7/29/95 6:39	7/29/95 8:53	7/29/95 12:47	7/29/95 14:22	7/29/95 16:59	7/30/95 6:37	7/30/95 10:30	7/30/95 12:29	7/30/95 17:24	7/31/95 6:50
Station	0088c	0088b	0088a	0092c	0092e	0092g	0092h	0092f	0092d	0098d	0098a
Start latitude	4543.02	4543.94	4543.86	4604.93	4604.72	4604.09	4603.67	4603.38	4604.14	4623.21	4635.80
Start longitude	12415.62	12410.80	12404.11	12423.51	12429.07	12437.82	12440.97	12430.89	12428.83	12432.93	12417.05
End latitude	4544.64	4545.55	4545.47	4606.38	4606.22	4605.89	4605.25	4604.85	4605.87	4624.67	4634.25
End longitude	12415.32	12410.87	12404.15	12424.45	12428.89	12437.98	12440.80	12432.20	12427.45	12432.06	12417.51
Bottom depth (m)	138	108	74	126	140	174	207	142	134	147	83
Duration (hr)	0.55	0.54	0.56	0.54	0.54	0.55	0.53	0.54	0.54	0.55	0.56
Distance fished (km)	3.076	3.042	2.704	2.949	2.93	3.002	2.998	3.097	2.94	3.009	2.975
Net width (m)	14.628	13.926	13.059	13.975	14.341	13.861	14.432	14.072	14.222	13.825	12.545
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			15.7		1.1						5.6
Skates	0.1		1.0	14.1			0.4	0.1		0.1	12.5
Spotted ratfish	0.8			0.8		1.3	0.9	1.2			
Other elasmobranchs											
Pacific sanddab	6.4	16.9	268.6	1.6	3.0			1.4	2.6		378.5
Arrowtooth flounder	4.9			4.7	9.7		4.6	8.4	12.2		
Pacific halibut	6.7	5.3	4.6	5.6			7.5	31.3			
Petrale sole			1.9	1.2	0.9	0.8	0.4	1.7	0.4		3.2
English sole		8.1	8.3	0.8		0.7	1.2	0.7		1.7	8.3
Dover sole	14.1	0.7	0.6	45.8	32.6	87.3	68.0	31.2	44.9	7.7	15.9
Rex sole	5.9	2.9	6.7	16.7	10.0	35.0	27.6	19.0	11.7	8.8	42.4
Other flatfish	3.5		0.3	4.3	2.6	7.5	1.2	1.9	1.8	1.8	0.3
Sablefish		3.3		3.1	2.7	7.0	22.1	5.1	6.3	95.5	
Pacific cod											
Lingcod	9.1	6.8			2.6			5.4		3.6	0.3
Pacific whiting	1,992.6	7,254.6	765.8	282.1	1,414.0	57.6	36.7	134.8	112.2	108.5	402.4
Other roundfish	0.9	118.7	37.3	8.9	4.7	4.5	6.8	3.0	8.8	18.5	70.7
Shortspine thornyhead						0.9	1.7		0.4		
Longspine thornyhead											
Rougheye rockfish						0.4			0.8		
Pacific ocean perch							1.0				
Silvergray rockfish											
Darkblotched rockfish	0.6			0.1	59.9	0.9	11.3	0.4	0.7		
Splitnose rockfish							0.3				
Yellowtail rockfish					1.4	1.3			4.1		
Chillipepper											
Bocaccio											
Canary rockfish				2.4							
Redstripe rockfish											
Stripetail rockfish	0.4				5.3	1.7	0.4	1.9	0.2		
Other rockfish	13.9				9.9	11.0	31.9	7.3	0.1		
Jellyfish	0.1		0.1				0.1	0.2	0.7		
Shrimps				0.6	0.1		0.1	0.8	2.8		
Crabs	0.8	2.5		2.4	1.6	0.4			1.4	4.1	10.4
Octopuses											
Squids											0.3
Sea stars	1.2	0.7	0.3	0.4	0.5	0.5	1.7	0.6	1.4	1.5	3.7
Sea urchins				0.3	0.5	3.7	5.5	3.9	2.7		
Total catch weight	2,062.0	7,430.8	1,114.5	396.1	1,563.2	222.9	232.7	261.0	216.6	252.3	955.8

Table A-I .-Continued.

Haul	232	233
Start date & time	7/31/95 8:50	7/31/95 10:41
Station	0098b	0098c
Start latitude	4633.59	4632.83
Start longitude	12424.09	12427.89
End latitude	4635.28	4634.51
End longitude	12424.08	12428.05
Bottom depth (m)	86	129
Duration (hr)	0.58	0.57
Distance fished (km)	3.17	3.18
Net width (m)	13.348	13.825
Net measured?	N	N
Performance	0	0
Gear	172	172
Spiny dogfish		
Skates	0.1	0.1
Spotted ratfish		
Other elasmobranchs		
Pacific sanddab	28.7	
Arrowtooth flounder	7.2	22.7
Pacific halibut	6.9	
Petrale sole	3.1	
English sole	1.7	0.3
Dover sole	8.4	25.5
Rex sole	14.4	21.8
Other flatfish	1.0	3.4
Sablefish	0.9	17.2
Pacific cod		
Lingcod	5.6	0.7
Pacific whiting	318.6	159.5
Other roundfish	102.2	21.7
Shortspine thornyhead		3.6
Longspine thornyhead		
Rougheye rockfish		18.6
Pacific ocean perch		
Silvergray rockfish		
Darkblotched rockfish	0.1	14.7
Splitnose rockfish		1.1
Yellowtail rockfish		29.0
Chilipepper		
Bocaccio		
Canary rockfish		
Redstripe rockfish		
Stripetail rockfish		0.1
Other rockfish		0.4
Jellyfish		0.1
Shrimps		0.5
Crabs	0.8	2.7
Octopuses		
Squids	0.2	
Sea stars	1.3	1.8
Sea urchins		8.4
Total catch weight	501.8	354.4

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

Haul	1	2	3	4	5	6	7	8	9	10	11
Start date & time	6/25/95 7:02	6/25/95 9:55	6/25/95 12:14	6/26/95 7:48	6/26/95 9:25	6/26/95 11:11	6/26/95 13:07	6/26/95 15:57	6/27/95 7:23	6/27/95 9:58	6/27/95 13:04
Station	0026g	0026f	0026e	0026a	0026b	0026c	0026d	0030a	0030f	0030e	0030d
Start latitude	3714.70	3715.11	3714.97	3715.32	3714.36	3715.52	3714.59	3733.85	3734.86	3735.85	3734.12
Start longitude	12257.95	12253.93	12250.70	12231.85	12236.55	12243.80	12246.22	12244.72	12303.10	12301.74	12254.51
End latitude	3713.43	3713.48	3713.78	3713.74	3716.01	3714.37	3716.28	3735.29	3736.40	3734.53	3735.63
End longitude	12257.17	12252.58	12249.56	12231.36	12236.92	12242.49	12246.74	12245.13	12302.06	12300.50	12255.36
Bottom depth (m)	484	324	255	80	96	114	150	62	500	282	101
Duration (hr)	0.54	0.85	0.56	0.58	0.59	0.57	0.65	0.57	0.58	0.7	0.59
Distance fished (km)	2.655	3.812	2.816	3.045	3.152	2.973	3.476	2.759	3.278	3.537	3.161
Net width (m)	12.208	11.318	11.848	11.879	12.492	11.91	12.978	10.76	11.419	11.415	12.226
Net measured?	Y	Y	Y	Y	Y	Y	Y	N	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		0.7	2.5		7.0	8.7	3.4	0.6		1.7	72.6
Skates	0.7	1.2	1.1	0.7	0.4				8.0	2.4	
Spotted ratfish			0.7						16.6	1.8	1.3
Other elasmobranchs	1.9	0.9	0.7					0.7	4.4	11.2	
Pacific sanddab				31.2	30.0	2.6	2.2	55.7			21.9
Arrowtooth flounder											
Pacific halibut											
Petrale sole				0.7	1.6		1.4	2.5			0.3
English sole		0.8	1.1	14.4	6.8	2.6	1.8	33.0		0.3	7.2
Dover sole	84.0	38.4	80.2	0.3	1.4	1.3	16.3	1.8	191.7	114.9	24.0
Rex sole	0.8	12.9	20.0	0.4	5.9	0.6	3.5	3.5	26.6	36.8	14.0
Other flatfish		0.1	1.3	0.3	0.9		5.0	0.7	0.4	3.1	4.0
Sablefish	12.0	4.2	10.2	1.7	16.5	5.8	8.4		35.7	7.8	0.4
Pacific cod											
Lingcod					3.2			0.9			
Pacific whiting	0.6	1.0	92.4	115.9	58.6	75.2	0.6	38.3	7.8	11.6	485.6
Other roundfish	7.8	1.8	4.3	93.1	145.0	2,664.6	96.2	35.3	21.4	5.4	37.0
Shortspine thornyhead	1.1	0.6							25.0	8.8	
Longspine thornyhead									25.5		
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish			0.7				0.1		1.3	50.2	1.0
Splitnose rockfish		5.4	467.5		0.4				23.8	14.4	
Yellowtail rockfish											
Chillipepper			6.1			23.2	526.5		0.8	2.1	2.0
Bocaccio							21.0			5.0	1.8
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish			11.7		0.2	30.3	289.9		52.9	64.8	0.3
Other rockfish	22.7		8.8		0.2	1.6	116.2		43.6	100.9	3.9
Jellyfish					1.9			269.0			
Shrimps	0.1		0.4				0.6		0.3	0.1	
Crabs					0.2				0.3	0.8	0.1
Octopuses	3.0									3.3	0.1
Squids		0.5		0.2	1.5	36.1	0.4	0.8			8.4
Sea stars		0.1			1.3		1.5	2.9	10.0		
Sea urchins		0.1			1.6		0.2		5.6		
Total catch weight	135.0	68.9	709.7	259.5	286.1	2,852.6	1,096.0	447.0	501.7	459.2	691.8

Table A-2.-Continued.

Haul	12	13	14	15	16	17	18	19	20	21	22
Start date & time	6/27/95 14:48	6/27/95 16:09	6/28/95 6:47	6/28/95 8:58	6/28/95 11:13	6/28/95 13:39	6/28/95 15:44	6/28/95 17:01	6/29/95 6:38	6/29/95 8:53	6/29/95 9:57
Station	0030b	0030c	0034d	0034g	0034h	0034i	0034f	0034e	0034a	0034b	0034c
Start latitude	3735.12	3733.84	3754.09	3754.41	3754.78	3755.69	3754.42	3754.33	3755.15	3754.37	3754.39
Start longitude	12248.55	12251.23	12304.53	12321.26	12326.78	12327.47	12316.08	12312.12	12254.62	12256.81	12300.21
End latitude	3733.79	3735.12	3755.27	3755.63	3756.17	3755.83	3755.91	3755.67	3754.23	3755.37	3755.45
End longitude	12247.56	12252.40	12305.74	12322.10	12327.62	12327.53	12315.83	12310.94	12254.03	12258.26	12301.73
Bottom depth (m)	74	89	87	116	277	448	103	99	59	65	72
Duration (hr)	0.55	0.57	0.58	0.59	0.57	0.63	0.54	0.55	0.37	0.55	0.56
Distance fished (km)	2.922	3.005	2.778	2.602	3.043	1.61	2.835	3.059	1.963	2.899	3.028
Net width (m)	10.829	11.948	12.05	11.475	12.432	16.69	10.628	10.69	10.552	10.412	11.292
Net measured?	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	-1	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	354.0	31.8	0.8	3.8	0.5				0.6	1.1	1.0
Skates		6.8	8.6		2.4			0.8	2.5		1.5
Spotted ratfish	0.3	0.7	0.7	0.5	4.9			1.4	0.4		1.9
Other elasmobranchs	1.5										0.9
Pacific sanddab	75.0	236.8	17.7	96.1			36.2	165.8	12.3	11.6	6.9
Arrowtooth flounder											
Pacific halibut											
Petrale sole		0.5	2.0	4.4				9.0	0.7		1.3
English sole	21.4	44.6	8.0	13.2	1.5		5.5	20.4	0.8	1.1	5.1
Dover sole	1.3	6.5	0.2	37.0	111.1		1.9	5.3	0.2		0.1
Rex sole	4.3	6.3	5.6	35.3	29.5		1.4	6.4	0.7	1.5	1.6
Other flatfish	0.3	1.5	0.5	1.9	3.0			0.4	0.3	1.6	1.6
Sablefish	7.1	2.8	6.9	1.2	1.2			2.5			
Pacific cod											
Lingcod	0.5	2.1		0.2							
Pacific whiting	223.4	576.0	119.4	412.7	100.3		179.0	594.6	212.8	211.9	432.8
Other roundfish	49.6	56.8	125.8	6.3	2.9		2.3	7.3	7.5	17.4	10.7
Shortspine thornyhead					12.1						
Longspine thornyhead							0.1				0.3
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish					15.4						
Splitnose rockfish					285.0						
Yellowtail rockfish		0.3		1.0			5.7				
Chillipepper		0.5		94.5							
Bocaccio				3.6			1.3				
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish		0.1		0.2	2.7						
Other rockfish		0.4	0.1	3.4	8.9		0.5	0.1			
Jellyfish	8.0							0.8	73.2	178.4	46.2
Shrimps					1.0					0.1	
Crabs				0.1						0.2	0.3
Octopuses				0.1							
Squids	0.3	0.5					0.1			0.1	0.1
Sea stars	0.5	1.1	0.1	0.2				1.5	0.6	0.2	1.3
Sea urchins		0.1			14.8						
Total catch weight	747.5	978.7	297.2	715.8	597.2		234.0	816.4	312.8	426.2	523.1

Table A-2.-Continued.

Haul	23	24	25	26	27	28	29	30	31	32	33
Start date & time	6/29/95 13:52	6/29/95 15:51	6/30/95 6:17	6/30/95 7:34	6/30/95 9:03	6/30/95 13:05	6/30/95 14:37	7/1/95 6:23	7/1/95 7:45	7/1/95 9:04	7/1/95 10:32
Station	0037g	0037f	0037a	0037b	0037c	0037d	0037e	0039a	0039b	0039c	0039d
Start latitude	3814.64	3815.77	3814.64	3813.76	3815.57	3814.70	3813.51	3834.59	3833.63	3834.59	3833.70
Start longitude	12330.84	12329.33	12303.58	12306.88	12312.60	12314.17	12319.15	12324.32	12329.23	12333.74	12337.05
End latitude	3816.26	3814.65	3813.23	3815.40	3814.02	3813.15	3815.12	3833.17	3834.76	3833.34	3834.72
End longitude	12332.42	12327.74	12302.57	12307.61	12311.92	12314.22	12319.44	12323.54	12330.90	12332.37	12338.84
Bottom depth (m)	426	317	67	84	98	105	130	88	121	140	161
Duration (hr)	0.78	0.64	0.55	0.57	0.56	0.54	0.61	0.57	0.63	0.61	0.58
Distance fished (km)	3.93	3.156	3.041	3.267	3.091	2.943	3.013	2.96	3.391	3.133	3.254
Net width (m)	12.532	12.045	10.618	11.509	10.526	12	11.476	11.407	12.831	11.276	11.313
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	15.5	15.9	10.3	13.4		18.8	3.5	0.5	6.9
Skates		0.9		1.7	1.3	0.4		1.3	8.0	10.9	
Spotted ratfish		0.9		5.8	4.1	1.5	7.6	3.8	5.9	3.3	
Other elasmobranchs	0.8	0.3	0.5	14.8					1.1		
Pacific sanddab			3.3	0.9	12.5	11.2	2.3	8.6	12.7	15.1	1.5
Arrowtooth flounder		0.8									
Pacific halibut											
Petrale sole			0.4		3.7	1.7			3.9		
English sole			1.1	1.2	40.9	36.3	2.7	9.2	29.1	2.2	5.4
Dover sole	198.0	264.8			0.6	2.3	2.7	0.9	7.6	4.2	1.9
Rex sole	10.1	38.6		2.4	6.0	4.3	4.6	0.8	12.1	3.9	4.3
Other flatfish	0.4	4.6	0.5	0.4	0.3	0.4		1.5	0.9	0.6	0.9
Sablefish	15.5	7.5			1.1	9.4			3.4	0.9	0.7
Pacific cod											
Lingcod						0.3	4.8			0.5	5.3
Pacific whiting	21.6	174.0	245.8	284.6	225.9	885.0	1,488.9	512.7	713.5	257.3	0.7
Other roundfish	11.4	12.3	7.1	74.6	45.9	4.7	2.3	62.0	3.0	0.3	0.2
Shortspine thornyhead	8.2	11.3									
Longspine thornyhead											
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish							0.3				
Splitnose rockfish	1.1	35.3									
Yellowtail rockfish					1.6						
Chillipepper		1.6					13.4				392.9
Bocaccio							2.6				2.1
Canary rockfish											6.5
Redstripe rockfish											
Stripetail rockfish		0.3					4.6		0.1	0.1	0.8
Other rockfish	11.1	3.6			2.5	2.6	44.8			0.5	15.9
Jellyfish			20.1	1.0				4.1			
Shrimps							0.8				
Crabs			3.3	1.9							
Octopuses											
Squids	0.1	1.1									
Sea stars	0.2		0.4	0.3	2.1	4.5		7.9	12.2	1.8	4.1
Sea urchins	0.3	6.0			0.2			2.2	13.5	6.9	
Total catch weight	281.3	580.6	299.2	406.0	360.7	979.1	1,583.0	637.3	838.6	312.7	452.4

Table A-2.-Continued.

Haul	34	35	36	37	38	39	40	41	42	43	44
Start date & time	7/1/95 13:19	7/1/95 15:30	7/2/95 6:39	7/2/95 8:07	7/2/95 9:32	7/2/95 11:04	7/2/95 13:41	7/2/95 16:54	7/3/95 6:44	7/3/95 8:22	7/3/95 10:16
Station	0039e	0039f	0041a	0041b	0041c	0041d	0041e	0043d	0043a	0043b	0043c
Start latitude	3833.81	3834.99	3854.44	3855.46	3853.17	3853.84	3853.92	3913.73	3915.38	3914.72	3915.67
Start longitude	12341.45	12342.90	12347.13	12350.29	12352.28	12356.24	12358.33	12400.09	12349.54	12351.80	12358.44
End latitude	3835.31	3833.64	3856.04	3854.06	3854.69	3855.07	3855.91	3915.62	3913.80	3916.44	3913.97
End longitude	12342.13	12342.22	12347.60	12349.38	12353.16	12356.77	12358.65	12400.20	12348.94	12352.37	12358.31
Bottom depth (m)	318	476	94	110	137	272	398	435	84	118	305
Duration (hr)	0.72	0.72	0.55	0.57	0.61	0.66	0.81	0.66	0.58	0.58	0.6
Distance fished (km)	2.945	2.759	3.138	2.953	2.685	2.759	4.007	3.534	3.089	3.373	3.211
Net width (m)	12.7	12.7	11.758	11.38	11.828	12.7	12.578	12	11.915	12.7	12
Net measured?	N	N	Y	Y	Y	N	Y	Y	Y	Y	Y
Performance	6	-2	0	0	0	6	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			4.5								6.8
Skates	1.6					4.5	1.0	11.5			
Spotted ratfish	3.0	0.5	2.6			0.7	1.0				5.3
Other elasmobranchs		1.2	1.2			5.6		8.6			4.1
Pacific sanddab			18.6	62.0	47.1						6.3
Arrowtooth flounder											
Pacific halibut			9.7								12.5
Petrale sole			11.3	2.2	0.8						2.0
English sole	7.0		27.1	4.9	25.0	13.5			10.6	22.5	2.7
Dover sole	78.0	63.8	9.4	1.5	25.5	143.1	55.2	41.3		4.7	11.9
Rex sole	47.3	12.0	0.7	0.7	4.1	50.7	11.4	39.5		4.3	7.9
Other flatfish	1.6	0.7	0.9				0.4	0.1			0.8
Sablefish	19.6	21.5			4.0	11.3	11.2	30.1		8.0	9.2
Pacific cod											
Lingcod	54.6				1.2	5.6					
Pacific whiting	228.1	13.3	1,245.5	783.4	788.1	229.5	54.1	17.1	8,974.0	1,519.7	92.3
Other roundfish	3.0	1.5	0.7	2.8	3.6	7.7	24.6	9.4	19.0	0.2	1.8
Shortspine thornyhead	41.5	4.3				4.5	7.0	9.6			5.8
Longspine thornyhead		27.9									
Rougheye rockfish											
Pacific ocean perch											0.7
Silvergray rockfish											
Darkblotched rockfish	65.5				0.8	4.1	1.7				19.9
Spiltnose rockfish	399.1					36.7	24.9				18.7
Yellowtail rockfish											
Chillipepper					4.5	14.9					1.5
Bocaccio											
Canary rockfish			3.5								
Redstripe rockfish											
Stripetail rockfish	0.9				0.4	5.9				0.4	
Other rockfish	32.2	49.2	0.2		13.0	38.2	8.0	25.5			0.1
Jellyfish			0.2				7.7	1.1		3.1	4.8
Shrimps	8.5					0.5					0.1
Crabs								0.1			
Octopuses								0.9			
Squids		3.9	4.2	0.6	0.2			0.3	5.3		
Sea stars		1.0	0.2		3.0	3.0	0.9	1.3	1.1		1.5
Sea urchins			4.0		0.2	9.2	5.0	1.4			0.1
Total catch weight	995.0	201.7	1,345.0	858.1	927.4	589.3	214.1	200.3	9,009.9	1,600.0	180.8

Table A-2.-Continued.

Haul	45	46	47	48	49	50	51	52	53	54	55
Start date & time	7/3/95 15:10	7/3/95 17:19	7/4/95 6:29	7/4/95 8:12	7/4/95 11:50	7/5/95 7:43	7/5/95 9:45	7/5/95 14:02	7/6/95 7:13	7/6/95 8:35	7/6/95 10:01
Station	0045d	0045c	0045a	0045b	0047a	0047c	0047b	0049d	0051a	0051b	0051c
Start latitude	3936.34	3936.21	3935.02	3935.76	3953.26	3955.87	3952.31	4013.29	4033.77	4033.07	4034.76
Start longitude	12400.20	12358.22	12352.87	12356.53	12405.13	12409.21	12407.85	12434.22	12429.87	12434.79	12437.23
End latitude	3934.68	3934.64	3933.48	3934.23	3954.41	3954.88	3953.84	4011.72	4032.67	4034.47	4033.14
End longitude	12359.93	12357.41	12352.60	12355.89	12405.67	12408.19	12407.97	12433.37	12431.73	12434.17	12438.13
Bottom depth (m)	458	244	117	161	117	402	221	500	90	130	171
Duration (hr)	0.75	0.71	0.58	0.58	0.42	0.67	0.53	0.63	0.56	0.59	0.57
Distance fished (km)	3.135	3.184	2.941	3.01	2.32	2.308	2.991	3.296	3.365	2.85	3.301
Net width (m)	12.7	11.275	12.852	12.539	12.631	12.7	12.7	12.7	11.359	13.2	11.235
Net measured?	N	Y	Y	Y	Y	N	N	N	Y	Y	Y
Performance	0	0	0	0	-2	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			17.9				1.4		2.3		
Skates			3.8	2.0		12.5		0.6	17.1	2.2	3.2
Spotted ratfish	0.6	8.1	0.1	0.5		0.4	0.4	0.4			
Other elasmobranchs	38.7	1.6				2.4		8.6			
Pacific sanddab			2.9						27.4	12.5	
Arrowtooth flounder		4.0									0.4
Pacific halibut			21.2						5.5	5.1	
Petrale sole			0.8						24.0	5.1	
English sole			10.5	0.9				0.3	21.9	2.2	0.3
Dover sole	110.4	45.9	6.4	7.2		221.1	47.3	4.6	1.1	34.7	8.3
Rex sole	27.2	0.5	3.9	2.7		19.8	3.2	0.5	3.7	8.0	11.5
Other flatfish	0.1	0.4				0.3			0.3	2.0	
Sablefish	48.7	29.6		8.4		67.0		1.1		7.8	6.3
Pacific cod											
Lingcod							2.0		3.7	0.3	2.2
Pacific whiting	27.6	190.3	991.0	732.4		29.4	720.2	8.3	51.9	19.5	293.7
Other roundfish	9.6	5.4	1.6	0.7		5.6	1.1	0.8	122.0	170.0	171.8
Shortspine thornyhead	30.7	10.3				14.1	1.1				
Longspine thornyhead	0.9							0.2			
Rougheye rockfish										1.6	
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish	0.8	1.7				1.7	21.8				
Spiltnose rockfish		11.5		0.2		6.0	51.3				
Yellowtail rockfish									1.5		
Chillpepper		22.0	0.2	379.6			7.6			0.1	19.6
Bocaccio							1.3		0.2		
Canary rockfish											
Redstripe rockfish									1.4		
Stripetail rockfish		36.9	0.3	191.7			14.8		0.1	1.1	135.6
Other rockfish	42.4	0.6	0.1	112.7		8.2	1.5		1.4	15.4	12.1
Jellyfish		0.3				9.4		3.7	0.9	0.7	
Shrimps		0.2									
Crabs								1.1		0.5	
Octopuses		0.2									
Squids	0.8					0.4		0.5	4.6	1.0	0.3
Sea stars	0.2	1.2				30.8	12.9	6.5	1.5	0.7	1.1
Sea urchins	0.1	1.8				40.9	0.4			0.7	
Total catch weight	343.5	372.5	1,060.7	1,439.1		481.7	889.0	37.3	293.2	292.1	666.4

Table A-2.-Continued.

Haul	56	57	58	59	60	61	62	63	64	65	66
Start date & time	7/6/95 11:42	7/6/95 13:30	7/8/95 7:36	7/8/95 9:30	7/8/95 12:34	7/8/95 13:53	7/9/95 7:52	7/9/95 9:49	7/9/95 12:43	7/9/95 14:19	7/9/95 15:36
Station	0051d	0051e	0053d	0053c	0053b	0053a	0055e	0055d	0055c	0055b	0055a
Start latitude	4033.22	4034.73	4053.62	4055.04	4053.90	4053.94	4113.89	4114.88	4114.21	4115.86	4113.53
Start longitude	12441.26	12441.34	12429.00	12425.01	12420.94	12415.70	12425.15	12424.47	12422.32	12417.27	12412.71
End latitude	4034.58	4032.75	4055.51	4053.37	4055.33	4055.45	4115.82	4113.37	4115.92	4114.29	4115.13
End longitude	12440.44	12441.98	12428.96	12424.90	12419.88	12415.05	12426.32	12423.74	12422.86	12417.35	12412.93
Bottom depth (m)	324	449	429	222	106	65	390	262	168	98	67
Duration (hr)	0.53	0.84	0.71	0.6	0.56	0.54	0.82	0.55	0.58	0.55	0.53
Distance fished (km)	3.002	3.953	3.577	3.164	3.055	2.964	4.074	2.993	3.331	2.965	3.009
Net width (m)	12.94	12	12	11.765	12.185	11.658	10.093	11.585	12.297	10.919	10.558
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	6.7	0.7		1.0	5.0	116.1
Skates	3.2			5.0	4.6	10.1	2.4	0.3	1.2	4.9	7.6
Spotted ratfish		1.1	1.0				0.3				
Other elasmobranchs		36.9	20.5				2.6				0.1
Pacific sanddab					26.9	65.8				54.5	86.9
Arrowtooth flounder	23.0	1.5	3.5	2.1			3.9	2.5	13.4	0.5	
Pacific halibut				58.0	88.9	6.5		3.1	20.5	17.9	28.0
Petrale sole					5.8	6.7			0.7	2.0	1.6
English sole	11.0			2.7	3.3	2.1		0.6		0.4	3.9
Dover sole	142.9	112.0	58.3	33.4	1.3	0.1	12.6	50.3	13.6	0.8	0.5
Rex sole	53.7	22.2	125.6	19.3	1.7	2.9	21.7	9.0		4.4	3.2
Other flatfish			0.5	0.7	0.6				0.6	0.1	
Sablefish	64.2	31.9	47.5	1.1	2.1		19.3	24.7	1.6	22.5	
Pacific cod											
Lingcod				8.6					8.2		
Pacific whiting	378.5	38.6	43.0	117.9	123.9	8.0	145.7	52.8	14.5	9.6	6.0
Other roundfish	26.4	11.6	55.6	9.3	51.2	44.8	8.5	1.3	44.1	96.8	7.8
Shortspine thornyhead	50.1	33.0	8.8	2.6			28.9	8.8			
Longspine thornyhead		0.1									
Rougheye rockfish		1.3									
Pacific ocean perch	8.5		0.5	49.4			2.6	2.2			
Silvergray rockfish							0.6	3.9			
Darkblotched rockfish	32.0		2.8	2.3			1.1	22.9	0.4		
Splitnose rockfish	80.8	5.2		0.1				16.1			
Yellowtail rockfish									0.6		
Chillipepper					0.2				0.1		
Bocaccio				2.2					2.5		
Canary rockfish									10.1	0.8	
Redstripe rockfish											
Stripetail rockfish	0.7			86.9				24.7	52.6		
Other rockfish	8.3	20.7	23.3	13.7	0.1		25.3	4.7	48.5	0.1	
Jellyfish			1.8	0.7	6.5	11.2	0.5				0.1
Shrimps	0.2	0.1	0.2	0.8			0.1	1.7	1.3		
Crabs		0.1	0.3	0.2	0.2		0.2				
Octopuses		2.2	0.1				0.7				
Squids		0.2	0.6		6.9	8.5	0.8	0.6	0.7	3.8	3.2
Sea stars	10.3	4.1	0.3	0.2	0.3	2.0	4.8	2.8	0.4	0.2	0.2
Sea urchins	3.4	34.0	38.9	0.1			8.0	1.4	5.2		
Total catch weight	898.0	358.3	433.4	417.3	325.3	175.5	291.9	234.4	241.8	224.7	267.1

Table A-2.-Continued.

Haul	67	68	69	70	71	72	73	74	75	76	77
Start date & time	7/10/95 6:48	7/10/95 8:11	7/10/95 9:27	7/10/95 10:53	7/10/95 12:28	7/13/95 11:44	7/13/95 13:59	7/13/95 16:13	7/13/95 17:33	7/14/95 9:00	7/14/95 11:13
Station	0057a	0057b	0057c	0057d	0057e	0061d	0061c	0061b	0061a	0063e	0063d
Start latitude	4135.70	4134.99	4135.82	4133.90	4134.91	4213.47	4214.81	4214.45	4213.44	4234.99	4234.19
Start longitude	12419.35	12423.44	12426.01	12429.50	12431.38	12439.03	12435.95	12431.19	12428.77	12445.56	12444.17
End latitude	4134.14	4136.64	4134.20	4135.46	4132.85	4215.46	4213.25	4212.79	4214.99	4233.09	4232.47
End longitude	12419.03	12423.01	12425.97	12429.84	12431.68	12439.83	12435.55	12430.79	12428.53	12446.62	12444.31
Bottom depth (m)	74	105	132	237	423	413	214	132	108	388	276
Duration (hr)	0.55	0.55	0.57	0.55	0.75	0.76	0.57	0.57	0.59	0.79	0.65
Distance fished (km)	2.947	3.184	3.042	2.971	3.846	3.934	2.991	3.155	3	3.914	3.238
Net width (m)	10.233	12.478	11.099	12.58	12	12.7	11.116	12.01	13.248	12.7	12.488
Net measured?	Y	Y	Y	Y	Y	N	Y	Y	Y	N	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	198.6	34.0	0.7	0.3		24.4		2.7	22.1		1.6
Skates	1.2	4.5		0.9		16.2			10.3	1.5	
Spotted ratfish									0.9		0.8
Other elasmobranchs					12.8	4.2	0.2			41.0	0.1
Pacific sanddab	31.3	0.8							5.1		
Arrowtooth flounder				5.4	5.7	13.1	4.8	1.0		4.2	11.5
Pacific halibut				4.7			54.1				
Petrale sole	0.5							3.8	4.0		
English sole	0.3										0.4
Dover sole				5.8	27.4	107.8	9.3	0.3		53.5	134.8
Rex sole	0.8	4.3	0.1		22.0	3.2	0.3		1.6	14.0	16.3
Other flatfish		0.3		0.1		0.1	0.1	0.1	0.1		
Sablefish		1.8	0.4	114.5	82.7	337.9	2.9	1.4	0.2	76.7	44.2
Pacific cod											
Lingcod	2.4	0.6					12.9		1.2		
Pacific whiting	2.7	2.6		129.7	58.0	188.7	416.8	1,523.1	20.9	27.3	171.0
Other roundfish	160.8	23.4	34.5	10.5	18.1	16.1	72.6	7.6	197.0	13.0	8.4
Shortspine thornyhead				8.3	21.8	77.3	1.2			18.0	18.4
Longspine thornyhead											
Rougheye rockfish						7.1				2.2	
Pacific ocean perch				1.4							46.9
Silvergray rockfish											
Darkblotched rockfish			1.0	10.7			0.5			0.5	0.7
Splitnose rockfish				73.2	4.2	0.1	3.6			14.9	10.2
Yellowtail rockfish											
Chillipepper											
Bocaccio											
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish			0.3	0.6			9.6	0.2			0.2
Other rockfish		0.4	0.3	2.9	35.2	4.3	3.4	0.1		0.7	5.7
Jellyfish	2.4	0.7					0.6				
Shrimps			0.1	2.1	0.1		0.9	0.1		2.5	0.1
Crabs		0.5		0.6		0.2		0.5	2.0	0.1	
Octopuses						1.8					
Squids	0.4	5.2	0.5		0.3		0.2	0.2	1.4	0.7	18.7
Sea stars		0.5	0.3	0.3	0.7	0.8	1.1		1.3	1.0	0.5
Sea urchins				8.9	3.6	31.4	0.1	0.2		7.5	0.4
Total catch weight	401.7	80.4	39.3	381.8	293.1	835.0	595.3	1,542.0	269.2	279.2	490.9

Table A-2.-Continued.

Haul	78	79	80	81	82	83	84	85	86	87	88
Start date & time	7/14/95 13:39	7/14/95 15:23	7/14/95 17:29	7/15/95 8:54	7/15/95 12:20	7/15/95 14:21	7/16/95 8:20	7/16/95 10:43	7/16/95 14:55	7/16/95 17:21	7/17/95 6:41
Station	0063c	0063b	0063a	0065e	0065b	0065a	0065c	0065d	0067g	0067e	0067d
Start latitude	4234.93	4234.69	4236.55	4255.23	4254.93	4254.22	4254.48	4254.87	4315.20	4315.73	4314.14
Start longitude	12440.83	12436.48	12430.25	12455.25	12443.56	12440.50	12449.60	12451.88	12452.31	12451.11	12443.32
End latitude	4233.35	4233.11	4235.00	4253.40	4253.27	4254.13	4252.95	4254.20	4313.10	4313.65	4312.66
End longitude	12441.30	12436.76	12430.00	12455.57	12443.68	12440.59	12449.78	12452.83	12452.83	12450.03	12443.03
Bottom depth (m)	146	110	70	486	145	113	245	213	396	366	219
Duration (hr)	0.55	0.56	0.58	0.66	0.59	0.26	0.5	0.31	0.86	0.76	0.55
Distance fished (km)	3.065	2.988	2.935	3.5	3.111	0.619	2.088	1.817	3.96	4.112	2.817
Net width (m)	12.254	12.589	12.318	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.297
Net measured?	Y	Y	Y	N	N	N	N	N	N	N	Y
Performance	0	0	0	6	0	-1	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	50.3	3.9	1.0	0.9	4.8		2.1			0.8	
Skates				1.1			3.9		0.6		3.0
Spotted ratfish			0.3					1.2		2.2	
Other elasmobranchs			0.8	5.9	1.0				7.5	2.2	
Pacific sanddab		0.1	10.1								
Arrowtooth flounder	3.4	1.0			6.1		2.2	0.4			6.5
Pacific halibut					10.1						
Petrale sole	1.3		2.1							0.6	
English sole			4.1								
Dover sole	0.8	1.6	0.3	76.4	11.4		33.5	2.0	207.0	170.8	47.9
Rex sole	0.7	0.5	1.1	10.9	6.7		16.4	2.4	50.0	66.0	3.5
Other flatfish	0.3	0.1		0.1	0.4			0.1	1.1	1.0	0.9
Sablefish	4.9	2.3		49.0			30.9	28.4	35.5	12.2	17.6
Pacific cod											
Lingcod	4.8	5.6	1.0		4.6			1.6			
Pacific whiting	44.6	4.2		6.7	59.8		131.9	221.1	60.2	115.3	83.8
Other roundfish	16.3	878.4	18.3	4.1	57.3		0.2		6.3	3.2	4.3
Shortspine thornyhead	0.2			4.0	0.4		2.8	2.1	12.8	8.6	5.3
Longspine thornyhead											
Rougheye rockfish											0.9
Pacific ocean perch							21.9		5.8		
Silvergray rockfish											
Darkblotched rockfish	0.1				0.4		0.5		0.8	3.4	0.2
Splittnose rockfish	0.1				0.2		0.9		0.9	13.4	2.6
Yellowtail rockfish			4.5								
Chillipepper											
Bocaccio											
Canary rockfish		2.7	6.4								
Redstripe rockfish											
Stripetail rockfish	1.9	0.1			0.1		0.7	0.9			0.4
Other rockfish	0.2	0.1	1.1	0.1				36.4			
Jellyfish		2.0	0.2						2.1		
Shrimps	0.2				0.5		0.1				3.9
Crabs	1.3	0.5			4.7		0.3				3.1
Octopuses											0.3
Squids	0.3	3.7	8.8	0.1	1.0				0.6		0.7
Sea stars			0.1	1.0	0.5			0.1	3.0		
Sea urchins		0.8		1.0					1.3	1.0	1.0
Total catch weight	131.6	907.7	68.2	163.8	170.8		248.3	296.7	396.1	401.0	185.9

Table A-2.-Continued.

Haul	89	90	91	92	93	94	95	96	97	98	99
Start date & time	7/17/95 12:18	7/17/95 16:08	7/17/95 17:57	7/18/95 6:30	7/18/95 7:50	7/18/95 9:42	7/18/95 11:00	7/18/95 14:13	7/18/95 15:33	7/18/95 17:34	7/19/95 6:21
Station	0069f	0069e	0069f	0069a	0069b	0069c	0069d	0070a	0070b	0070c	0071a
Start latitude	4332.91	4334.76	4333.95	4334.20	4333.19	4334.47	4335.29	4343.89	4345.14	4342.69	4354.15
Start longitude	12439.63	12438.47	12441.12	12416.73	12420.40	12429.46	12432.18	12419.59	12423.14	12431.44	12415.40
End latitude	4334.62	4333.14	4335.46	4332.74	4334.61	4336.14	4333.72	4345.35	4343.70	4344.34	4355.75
End longitude	12439.49	12438.50	12440.32	12417.01	12419.27	12429.29	12432.52	12418.70	12423.75	12431.03	12415.68
Bottom depth (m)	385	344	451	76	102	144	175	106	116	167	88
Duration (hr)	0.72	0.55	0.59	0.55	0.55	0.57	0.56	0.57	0.56	0.54	0.57
Distance fished (km)	3.322	3.061	3.024	2.754	3.085	3.189	3.018	2.999	2.815	3.152	3.101
Net width (m)	12.7	11.296	12.7	11.783	11.438	11.81	11.513	12.822	12.7	11.247	11.903
Net measured?	N	Y	N	Y	Y	Y	Y	Y	N	Y	Y
Performance	-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				22.3	3.4	1.1	0.8	1.9		0.9	7.0
Skates	1.1		13.0	2.0				0.3		0.2	3.2
Spotted ratfish					0.3	0.1		1.3	2.0	0.1	0.4
Other elasmobranchs	10.7		12.2	0.7							
Pacific sanddab				15.2	41.9	11.0	0.7	72.5	28.6	0.2	90.7
Arrowtooth flounder	55.6	5.5	6.0			8.7	13.0		0.7	6.6	
Pacific halibut				4.8			123.5		5.2	6.2	
Petrale sole				2.2	1.0			1.3	1.4	0.3	3.0
English sole				21.4	5.7			14.8	28.8		12.7
Dover sole	8.5	14.6	18.5	0.5	3.8	9.5	8.3	7.6	9.4	8.2	10.6
Rex sole	19.3	11.6	65.4	9.9	16.0	0.7	2.2	15.1	5.9	2.0	19.8
Other flatfish			0.3	0.1	0.3	0.5	0.1	2.0	0.5	0.5	0.5
Sablefish	504.1	16.7	55.3			2.5	0.5	1.0	2.4	11.4	0.5
Pacific cod					4.2	0.5		0.3	0.4		
Lingcod											
Pacific whiting	17.9	46.9	20.8	31.3	250.1	12.0	2.1	398.8	210.0	52.6	395.9
Other roundfish	1.4	0.5	11.3	52.2	11.0	6.9	8.1	4.0	0.7	20.0	0.3
Shortspine thornyhead	34.2	5.6	27.6	0.4			0.5				
Longspine thornyhead											
Rougheye rockfish							0.2				
Pacific ocean perch		0.7									
Silvergray rockfish											
Darkblotched rockfish	500.1	0.9				1.9			0.5	0.2	
Splitnose rockfish	0.5	7.3	1.3				0.1				
Yellowtail rockfish					179.1					4.9	
Chillipepper											
Bocaccio											
Canary rockfish					6.0			0.4		1.2	
Redstripe rockfish											
Stripetail rockfish							0.2			0.5	
Other rockfish		0.9	5.8			1.0	0.2		3.8	0.5	
Jellyfish			1.3	15.2	1.8	1.4		17.3	6.7		1.3
Shrimps						1.1	3.2			0.1	
Crabs	0.2		0.1	2.1	1.2	1.0		1.8		1.2	1.9
Octopuses											
Squids	0.1	0.3	0.3	35.3	17.5			5.5	4.1	0.1	0.1
Sea stars			1.2	1.0		1.8	3.0	3.4	5.4	4.5	1.8
Sea urchins	0.7	0.7	22.8			0.1		1.1	0.1		
Total catch weight	1,154.9	112.2	264.2	216.5	543.4	62.2	166.8	553.2	317.0	122.3	549.7

Table A-2.-Continued.

Haul	100	101	102	103	104	105	106	107	108	109	110
Start date & time	7/19/95 7:36	7/19/95 9:36	7/19/95 11:11	7/19/95 13:17	7/19/95 16:25	7/19/95 17:48	7/20/95 6:38	7/20/95 7:55	7/20/95 9:18	7/20/95 12:02	7/20/95 13:36
Station	0071b	0071c	0071d	0071e	0073b	0073a	0073c	0073d	0073e	0073g	0073i
Start latitude	4355.46	4353.78	4355.37	4353.50	4413.75	4414.35	4414.13	4415.73	4415.01	4415.38	4415.72
Start longitude	12417.08	12429.56	12432.14	12434.98	12420.17	12416.78	12425.05	12429.89	12432.26	12449.17	12454.78
End latitude	4353.95	4355.50	4353.73	4355.16	4414.82	4412.62	4415.71	4414.05	4413.92	4415.41	4414.43
End longitude	12417.16	12429.61	12432.57	12435.13	12421.89	12416.66	12425.72	12429.87	12433.90	12450.03	12456.03
Bottom depth (m)	101	131	147	199	87	76	95	104	103	132	201
Duration (hr)	0.54	0.57	0.56	0.59	0.57	0.58	0.56	0.57	0.57	0.32	0.58
Distance fished (km)	2.778	3.222	3.166	3.104	3.06	3.252	3.095	3.179	3.139	1.297	3.035
Net width (m)	12.338	11.778	11.345	12.575	12.575	11.914	12.7	12.573	12.188	12.721	11.84
Net measured?	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	6	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	1.1		2.7		6.5	3.4	7.0	2.3			
Skates				14.7	6.0					5.9	
Spotted ratfish									1.1		
Other elasmobranchs					0.3				0.2		
Pacific sanddab	132.6	35.5	3.7		226.7	232.1	106.6	76.7	45.8	6.3	
Arrowtooth flounder		3.5	2.4	18.9	2.6						
Pacific halibut										20.2	
Petrale sole	2.1	4.3			0.5	2.0	1.3	0.8		5.4	2.7
English sole	0.3	1.3	5.2		11.2	5.3	28.3	2.4	2.3	7.5	7.0
Dover sole	15.8	9.3	0.6	27.0	2.3		6.2	7.9	11.8	3.2	11.6
Rex sole	10.6	4.8	8.9	47.5	30.0	21.8	21.1	43.9	32.8	7.2	19.8
Other flatfish	0.3	1.6	3.6	3.2	0.2	0.3	0.1	0.8	0.3	1.3	5.2
Sablefish	1.3	3.5	0.7	16.1							1,258.1
Pacific cod											
Lingcod	0.3	1.4			0.2	1.6		1.8	17.4	16.5	8.4
Pacific whiting	46.2	958.0	367.4	84.8	371.0	211.6	195.1	127.7	100.3		34.3
Other roundfish	1.2	2.9	7.3	2.2	1.4	11.1	6.6	0.7	2.8	1.4	2.1
Shortspine thornyhead				6.6							
Longspine thornyhead											
Rougheye rockfish				9.2							
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish				2.4							
Splitnose rockfish											
Yellowtail rockfish				2.5							
Chillipepper											
Bocaccio											
Canary rockfish		1.4						1.2			4.5
Redstripe rockfish											
Stripetail rockfish			0.1	0.8							12.7
Other rockfish		64.6	64.0	6.9					6.5	7.1	22.0
Jellyfish	0.3	3.7	1.2	1.0	0.7		0.4		0.7		
Shrimps				6.6							0.5
Crabs	1.8			1.5	3.3	1.8	7.5	4.5	2.9		1.8
Octopuses											
Squids	0.1		0.2		2.7	4.9	1.1	0.4			
Sea stars	1.7	1.7	1.8	1.1	0.5			0.1	1.0	0.9	0.1
Sea urchins				1.0						2.6	1.4
Total catch weight	218.1	1,097.5	469.8	254.0	666.4	495.9	381.5	272.2	228.3	86.9	1,395.0

Table A-2.-Continued.

Haul	111	112	113	114	115	116	117	118	119	120	121
Start date & time	7/20/95 15:31	7/20/95 18:21	7/21/95 6:37	7/21/95 8:22	7/21/95 9:58	7/21/95 11:35	7/21/95 13:17	7/21/95 14:50	7/21/95 17:40	7/22/95 7:03	7/22/95 9:12
Station	0073j	0074i	0075j	0075i	0075h	0075g	0075f	0075e	0075b	0075a	0074b
Start latitude	4416.04	4423.97	4433.06	4434.88	4433.45	4435.56	4435.21	4432.61	4433.60	4435.23	4423.27
Start longitude	12457.06	12450.05	12449.35	12449.01	12446.61	12445.33	12439.57	12436.24	12420.95	12417.58	12423.93
End latitude	4414.18	4425.92	4434.50	4434.01	4434.56	4434.32	4433.69	4434.10	4432.20	4433.65	4424.54
End longitude	12457.00	12450.79	12449.61	12448.47	12448.25	12444.00	12439.11	12435.96	12419.97	12417.06	12425.41
Bottom depth (m)	465	444	419	366	361	330	295	174	81	79	80
Duration (hr)	0.91	0.91	0.51	0.3	0.61	0.57	0.55	0.63	0.54	0.56	0.59
Distance fished (km)	3.551	3.971	2.716	1.821	3.059	2.936	2.944	2.759	2.935	3.094	3.12
Net width (m)	12.7	12.7	12.7	12.7	12.7	12.7	11.721	13.414	12.05	11.796	12.07
Net measured?	N	N	N	N	N	N	Y	Y	N	Y	Y
Performance	6	0	0	6	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish						0.9			2.8		0.9
Skates	32.4	0.8					1.4	1.0			
Spotted ratfish	0.9	4.5	1.3			0.7	0.5		0.2	0.7	3.3
Other elasmobranchs	1.4	4.6	2.8	1.0	0.1						
Pacific sanddab									74.0	751.3	812.1
Arrowtooth flounder		4.6	5.2	3.2	3.8	29.0	19.0	16.2		2.1	
Pacific halibut								4.1			
Petrale sole									0.6	0.2	6.1
English sole									6.6	32.5	15.0
Dover sole	227.7	43.6	35.4	3.8	76.9	48.6	44.1	61.2	1.0	1.3	10.4
Rex sole	40.0	16.4	5.3	0.3	12.1	13.1	14.4	46.1	10.0	11.2	36.3
Other flatfish	2.4				0.2	0.1	1.0	3.0	5.0	2.4	1.5
Sablefish	53.9	15.8	124.2	5.0	69.9	42.3	65.6	120.4			
Pacific cod											
Lingcod											
Pacific whiting	9.7	23.6	16.0	14.5	34.8	55.7	33.7	76.5	75.9	191.3	319.9
Other roundfish	6.2	1.5	2.5	0.5	4.0	2.5	1.2	3.2	0.6	0.4	1.3
Shortspine thornyhead	9.7	4.5	69.4	3.8	38.0	39.4	27.1	7.2			
Longspine thornyhead	14.1	0.2									
Rougheye rockfish		0.8				0.4	3.5				
Pacific ocean perch							1.6				
Silvergray rockfish											
Darkblotched rockfish		0.7			1.5	0.3	0.6	0.1			
Splitnose rockfish				0.6	15.0	6.1	0.7				
Yellowtail rockfish								1.4			
Chillipepper											
Bocaccio											
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish								0.1			
Other rockfish	6.7	3.3	9.2	0.5		2.3	0.3	0.6			
Jellyfish				2.2	0.8	0.1		0.6			
Shrimps						0.3		0.1			
Crabs	5.0				0.1	0.1				0.6	0.6
Octopuses											
Squids			0.1						0.7	0.1	
Sea stars	18.3	2.6	1.6	0.7	0.5	0.1					
Sea urchins	18.2	4.5	2.5		0.7	1.3	5.5				
Total catch weight	451.6	132.4	276.9	36.1	258.6	243.3	220.3	341.7	180.5	994.1	1,207.4

Table A-2.-Continued.

Haul	122	123	124	125	126	127	128	129	130	131	132
Start date & time	7/23/95 8:11	7/23/95 10:16	7/23/95 12:20	7/23/95 13:50	7/23/95 15:07	7/23/95 16:35	7/24/95 7:40	7/24/95 9:20	7/24/95 11:17	7/24/95 13:37	7/24/95 16:10
Station	0078e	0078f	0078d	0078c	0078b	0078a	0078f	0078g	0078h	0078i	0078k
Start latitude	4454.01	4455.12	4454.57	4455.06	4453.14	4455.26	4454.78	4454.05	4452.98	4453.61	4454.69
Start longitude	12427.46	12432.58	12423.80	12417.44	12414.82	12411.06	12432.90	12438.25	12439.87	12443.95	12451.06
End latitude	4455.36	4454.06	4455.79	4453.51	4454.81	4453.85	4453.75	4455.85	4454.33	4455.01	4454.41
End longitude	12426.08	12434.53	12422.21	12418.16	12414.23	12409.87	12434.74	12439.20	12440.52	12444.44	12452.90
Bottom depth (m)	220	396	175	145	125	99	392	397	331	479	448
Duration (hr)	0.59	0.75	0.56	0.56	0.56	0.58	0.6	0.72	0.5	0.5	0.62
Distance fished (km)	3.136	3.284	3.098	3.074	3.22	3.097	3.135	3.546	2.667	2.685	2.703
Net width (m)	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
Net measured?	N	N	N	N	N	N	N	N	N	N	N
Performance	0	-6	0	0	0	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish					0.8	5.0					
Skates											
Spotted ratfish		1.8				0.9	1.6		0.6		
Other elasmobranchs										0.6	13.5
Pacific sanddab				11.3	10.6	49.9					
Arrowtooth flounder	24.2	4.2	31.3	7.0		0.3	5.4	2.1			
Pacific halibut			49.7								
Petrale sole	1.2			2.8		2.0					
English sole	0.3		1.6	0.2	22.9	47.9			3.5		
Dover sole	14.1	30.3	11.5	11.8	2.5	1.2	29.9	54.0	31.4	64.6	32.0
Rex sole	34.5	4.6	13.7	5.1	4.8	11.2	6.8	27.7	19.1	11.2	7.0
Other flatfish	2.1	0.4	3.1	0.6	0.8	0.7	0.5	0.1	0.2	0.2	0.1
Sablefish	131.7	18.7	8.7	6.5	9.6		34.6	24.7	14.8	20.5	11.3
Pacific cod											
Lingcod	4.1		0.9			0.2					
Pacific whiting		45.1	1,195.1	1,159.3	1,225.8	16.2	38.6	57.6	66.7	25.8	9.5
Other roundfish	2.0	2.6	0.6	141.1	5.1	1.2	1.3	1.3	0.2	1.7	0.7
Shortspine thornyhead	2.0	17.9	1.9				25.1	22.3	12.7	32.0	19.9
Longspine thornyhead										0.1	4.6
Rougheye rockfish	0.2	4.2					5.7	6.3			
Pacific ocean perch		1.4					1.3	3.3	5.8		0.5
Silvergray rockfish											
Darkblotched rockfish	47.8	0.7						1.3	4.2		
Splitnose rockfish	29.8	1.3					3.3	2.1	11.6		
Yellowtail rockfish											
Chillipepper											
Bocaccio											
Canary rockfish											
Redstripe rockfish											
Stripetail rockfish	102.9	0.1	3.4								
Other rockfish	90.2	0.4	74.2	1.3				1.8	6.7	3.4	19.7
Jellyfish						0.1	0.1		0.8		
Shrimps											0.1
Crabs	1.2		1.6	0.4		3.4				0.1	
Octopuses											
Squids						0.1			0.5	0.9	0.3
Sea stars		0.6	0.6			0.7	0.1		0.3		0.6
Sea urchins	62.5	0.4	1.2				0.3				
Total catch weight	550.9	135.0	1,399.0	1,347.4	1,283.0	140.9	154.6	207.1	193.5	161.8	123.0

Table A-2.-Continued.

Haul	133	134	135	136	137	138	139	140	141	142	143
Start date & time	7/25/95 6:58	7/25/95 8:52	7/25/95 10:37	7/25/95 12:32	7/25/95 14:01	7/25/95 15:24	7/25/95 16:56	7/26/95 13:17	7/26/95 14:47	7/26/95 16:35	7/27/95 6:57
Station	0082g	0082f	0082e	0082d	0082c	0082b	0082a	0086a	0086b	0086c	0086d
Start latitude	4513.76	4515.54	4513.59	4514.80	4513.49	4514.50	4513.30	4534.20	4535.03	4533.92	4533.55
Start longitude	12434.62	12428.57	12425.46	12419.23	12413.88	12410.49	12406.44	12409.10	12411.81	12420.08	12422.82
End latitude	4515.03	4513.55	4515.18	4513.18	4515.01	4512.79	4514.84	4535.29	4534.20	4535.48	4535.24
End longitude	12432.58	12428.52	12424.33	12418.76	12413.22	12410.06	12406.41	12408.87	12413.61	12420.54	12423.91
Bottom depth (m)	447	410	396	211	163	129	92	106	129	164	183
Duration (hr)	0.74	0.8	0.78	0.56	0.54	0.57	0.56	0.43	0.57	0.58	0.59
Distance fished (km)	3.67	3.805	3.656	3.102	3.008	3.255	2.895	2.106	2.89	3.097	3.527
Net width (m)	12.7	12.7	12.7	12.435	12.959	12.742	12.692	12.928	12.682	12.93	12.675
Net measured?	N	N	N	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					4.8	9.2	12.6	5.1	2.1		
Skates			0.7							1.9	
Spotted ratfish										1.0	1.3
Other elasmobranchs				7.6							
Pacific sanddab						8.5	10.8	8.8	6.6		
Arrowtooth flounder		3.5	5.4	29.7	8.1					1.1	18.5
Pacific halibut				31.4		3.6					
Petrale sole						0.7	0.4	3.4	4.5		1.7
English sole						2.4	90.7	13.3	24.6	0.5	
Dover sole	1.7	7.5	2.7	10.0	10.9	0.7	2.0	1.4	7.6	34.1	68.9
Rex sole		0.9	1.8	20.9	16.5	2.4	15.1	3.4	3.1	16.1	22.6
Other flatfish		0.1	0.6	2.2	2.4	0.3	0.4	0.3	0.7	2.0	1.0
Sablefish	31.8	25.4	29.1	158.8	4.0	4.1	0.2		2.4	0.6	6.1
Pacific cod											
Lingcod						6.1	3.8				
Pacific whiting	23.2	22.4	26.5	43.3	2,734.3	2,183.6	242.6	2,342.2	2,671.0	20.4	14.8
Other roundfish	1.2	1.9	3.9	2.8	5.2	679.7	18.6	3.7	16.3	0.3	2.2
Shortspine thornyhead	35.9	53.7	75.5	4.7	2.0					0.7	3.5
Longspine thornyhead	48.9	2.7									
Rougheye rockfish	8.6		1.1							0.1	
Pacific ocean perch		4.2									
Silvergray rockfish											
Darkblotched rockfish	0.9			13.6		1.7					1.2
Splitnose rockfish	0.4	0.4	0.7	0.2							
Yellowtail rockfish											
Chilipepper											
Bocaccio											
Canary rockfish					6.5						3.1
Redstripe rockfish										0.4	
Stripetail rockfish				0.5							0.2
Other rockfish	20.5	4.1	6.6	12.6	1.6	1.4				1.0	30.0
Jellyfish	5.7	0.2	4.3								
Shrimps		0.1	0.1								
Crabs	0.1		0.4					1.0		0.5	
Octopuses										0.1	
Squids		0.1	1.1	0.4							
Sea stars	0.1	0.3	1.2	0.8				0.3	5.2	1.9	2.2
Sea urchins	2.3	0.3	10.6		1.6					10.0	16.4
Total catch weight	182.6	130.7	184.4	339.5	2,800.5	2,904.8	397.3	2,383.0	2,744.0	92.7	195.9

Table A-2.-Continued.

Haul	144	145	146	147	148	149	150	151	152	153	154
Start date & time	7/27/95 8:30	7/27/95 9:52	7/27/95 11:24	7/27/95 14:54	7/27/95 16:33	7/27/95 18:35	7/28/95 6:53	7/28/95 8:03	7/28/95 9:29	7/28/95 10:58	7/28/95 12:19
Station	0086e	0086f	0086g	0090i	0090h	0090g	0090a	0090b	0090c	0090d	0090e
Start latitude	4533.64	4534.22	4533.97	4553.68	4554.30	4553.00	4554.32	4555.34	4554.32	4554.84	4553.79
Start longitude	12424.58	12428.46	12432.10	12445.34	12442.61	12429.76	12405.15	12407.28	12411.61	12416.50	12421.15
End latitude	4534.96	4532.72	4535.79	4555.46	4552.79	4554.44	4555.80	4553.82	4555.81	4553.24	4554.80
End longitude	12425.64	12428.07	12433.12	12444.36	12442.57	12429.78	12404.82	12407.74	12412.08	12416.85	12422.93
Bottom depth (m)	192	234	383	385	249	155	76	83	102	128	146
Duration (hr)	0.5	0.57	0.82	0.79	0.52	0.57	0.56	0.56	0.55	0.57	0.54
Distance fished (km)	2.815	2.908	3.813	3.9	2.831	2.753	2.839	2.966	2.874	3.055	3.115
Net width (m)	12.7	12.792	12.7	12.7	12.7	13.981	12.516	12.463	12.659	12.788	12.817
Net measured?	N	Y	N	N	N	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	1.9						4.9	1.5	1.6	0.9	
Skates			18.1	8.4	0.5		15.8	4.3		6.7	
Spotted ratfish		0.5		1.5		1.0	1.1	1.6	1.8	0.1	4.1
Other elasmobranchs											
Pacific sanddab							242.3	91.5	13.6	3.4	
Arrowtooth flounder	11.9	9.4	19.1		2.2	2.5	0.9			12.4	4.9
Pacific halibut		49.2				22.3	3.3		4.8		
Petrale sole	1.2	2.0					5.1	0.5	1.4	0.7	1.9
English sole	0.4				0.5		17.1	14.6	45.7		
Dover sole	34.5	18.6	78.3	34.9	4.2	20.0	0.2	0.4	0.8	28.8	16.1
Rex sole	14.1	40.0	24.2	11.2	3.4	15.6	15.2	11.6	15.2	7.5	18.5
Other flatfish	0.6	0.8	0.3	0.4		4.5	0.3	0.1	0.2	3.4	4.4
Sablefish	2.9	70.4	34.5	59.6	8.9	9.5		0.1	0.8	4.4	4.4
Pacific cod											
Lingcod							1.6	1.2		11.5	17.1
Pacific whiting	41.8	3.5	43.2	26.9	95.9	61.4	332.2	352.6	1,419.8	91.7	82.4
Other roundfish	0.6	0.3	5.9	0.8	0.1	2.9	9.3	10.6	115.3	5.9	1.2
Shortspine thornyhead	3.3	4.6	87.7	32.0	1.2						0.5
Longspine thornyhead											
Rougheye rockfish			23.9	16.1		4.9					0.4
Pacific ocean perch		0.3	1.4	11.9		0.5					
Silvergray rockfish											
Darkblotched rockfish		8.0				0.8				5.3	0.3
Splitnose rockfish	0.1	27.4	7.4	1.7	5.8						
Yellowtail rockfish										6.5	
Chillipepper											
Bocaccio											
Canary rockfish		1.3									
Redstripe rockfish	0.6										
Stripetail rockfish	0.1				0.2					0.4	
Other rockfish	4.5	8.6	3.0	0.7		3.3				0.9	0.3
Jellyfish				0.3	7.2	2.2					
Shrimps	0.1	1.5	0.1	0.1	0.1						0.3
Crabs							0.4		0.8	3.2	2.1
Octopuses			0.1	0.1							
Squids			0.2	2.5	0.1						
Sea stars	0.6	1.0	1.0	2.0	0.8	0.2	1.0			0.1	0.4
Sea urchins	24.3	3.0	1.1	4.0	0.1	5.2					11.7
Total catch weight	143.7	250.4	354.4	222.9	131.6	160.2	651.5	489.6	1,633.3	197.3	171.0

Table A-2.-Continued.

Haul	155	156	157	158	159	160	161	162	163	164	165
Start date & time	7/28/95 13:37	7/28/95 16:24	7/28/95 18:01	7/29/95 8:43	7/29/95 13:10	7/29/95 15:45	7/29/95 17:15	7/29/95 18:46	7/30/95 7:41	7/30/95 9:20	7/30/95 10:49
Station	0090f	0092b	0092a	0094e	0094d	0094c	0094b	0094a	0096a	0096b	0096c
Start latitude	4554.62	4604.40	4605.17	4615.51	4615.46	4615.56	4614.27	4614.76	4624.92	4624.77	4624.59
Start longitude	12425.55	12413.04	12407.69	12425.90	12424.72	12423.03	12420.44	12416.12	12417.51	12424.97	12427.85
End latitude	4553.15	4602.89	4604.00	4614.05	4613.97	4613.95	4612.62	4613.12	4623.34	4623.18	4622.99
End longitude	12426.75	12412.19	12406.16	12427.12	12425.17	12423.34	12420.03	12415.68	12417.24	12424.20	12427.43
Bottom depth (m)	152	92	71	451	316	152	116	80	68	104	122
Duration (hr)	0.56	0.57	0.57	0.62	0.65	0.59	0.57	0.55	0.55	0.57	0.57
Distance fished (km)	3.296	3.084	2.973	3.136	2.947	3.096	3.121	3.173	2.981	3.143	3.078
Net width (m)	12.622	12.489	12.436	12.7	12.7	13.312	13.631	12.797	12.492	13.683	13.429
Net measured?	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y
Performance	0	0	0	6	6	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish		1.3				3.3		10.0	1.9	1.3	
Skates		2.4			3.0	1.5	0.9		5.3		2.4
Spotted ratfish	2.9	0.6	0.7		0.4	0.9	0.2	38.1	2.0		0.1
Other elasmobranchs			200.0	2.5	1.4						
Pacific sanddab	0.1	29.1	386.2				0.4	53.3	196.3	4.0	3.4
Arrowtooth flounder	6.7			12.2	336.7	70.3	18.2			0.3	0.3
Pacific halibut			18.5	22.8	16.5						
Petrale sole		6.5	5.9				0.9	4.7	10.4		0.2
English sole		18.8	13.4			0.8	1.5	2.9	2.4	0.6	9.7
Dover sole	11.9	3.1	0.8	59.5	122.1	68.1	76.4	5.5	29.1	17.4	23.8
Rex sole	24.8	45.3	16.3	53.6	59.2	72.2	71.2	59.6	97.0	16.4	16.2
Other flatfish	2.8	0.1	0.2		0.7	0.3	1.9	0.8	0.4	1.9	4.8
Sablefish			0.2	225.6	159.6	23.9	4.3				2.8
Pacific cod						0.8					
Lingcod		4.2	0.5			0.4	0.7			0.9	1.2
Pacific whiting	196.2	67.9	81.8	21.5	13.8	8.0	783.5	2,398.1	492.4	804.4	773.6
Other roundfish	0.8	8.5	29.3	2.7	0.9	8.2	49.3	83.2	180.2	109.4	74.2
Shortspine thornyhead				190.0	107.4	2.3					
Longspine thornyhead											
Rougheye rockfish	2.5			52.9	1.6						
Pacific ocean perch				31.1							
Silvergray rockfish											
Darkblotched rockfish	1.8			2.4	0.2	5.3	1.9			0.1	0.2
Splitnose rockfish					1.7						
Yellowtail rockfish						2.6					
Chillipepper											
Bocaccio											
Canary rockfish			0.5								
Redstripe rockfish											
Stripetail rockfish						0.4					
Other rockfish				36.0	15.5	7.0	1.2				2.1
Jellyfish											
Shrimps	0.3			0.2	0.1						
Crabs	1.0	103.7	4.2	1.2	0.9	2.0	2.9	0.8	5.4	2.1	1.9
Octopuses	0.1				0.1						
Squids							0.1				
Sea stars	0.2	0.6	0.6	0.5	3.0	1.4	4.1	1.1	0.4	1.5	1.7
Sea urchins	27.9			3.0	34.0	0.2					
Total catch weight	279.9	293.1	759.2	718.9	879.1	279.9	1,019.8	2,658.0	1,023.7	963.1	915.5

Table A-2.-Continued.

Haul	166	167	168	169	170	171	172	173	174	175	176
Start date & time	8/1/95 10:47	8/1/95 13:13	8/1/95 16:40	8/1/95 19:11	8/2/95 6:49	8/2/95 8:54	8/2/95 10:48	8/2/95 12:08	8/2/95 13:38	8/2/95 18:21	8/3/95 10:09
Station	0098d	0098d	0098e	0099a	0099b	0099c	0099d	0099e	0099f	0099f	0099g
Start latitude	4634.42	4633.90	4634.15	4644.23	4644.36	4643.28	4644.94	4643.61	4645.80	4644.80	4646.20
Start longitude	12432.80	12431.57	12435.19	12420.36	12424.52	12429.39	12438.89	12443.45	12449.94	12450.03	12452.70
End latitude	4633.41	4634.42	4634.22	4645.84	4642.77	4644.59	4643.37	4644.49	4644.41	4643.50	4644.86
End longitude	12430.53	12432.37	12433.19	12420.24	12425.00	12429.95	12438.35	12445.21	12449.04	12448.90	12451.85
Bottom depth (m)	214	231	277	66	83	98	136	161	194	226	419
Duration (hr)	0.61	0.5	0.52	0.57	0.55	0.57	0.55	0.52	0.56	0.54	0.52
Distance fished (km)	3.56	3.012	2.763	3.049	3.072	2.63	3.001	2.818	2.852	2.821	2.758
Net width (m)	13.096	12.924	13.299	12.589	13.58	13.364	12.934	13.247	12.7	12.767	12.7
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N
Performance	-6	0	0	0	0	0	0	0	-2	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish											
Skates	2.1	24.4	3.3	11.7	9.5	1.0		3.1	3.4		3.0
Spotted ratfish					0.2						
Other elasmobranchs					0.1		1.7		0.5	0.2	
Pacific sanddab				356.5	60.0	17.4					0.3
Arrowtooth flounder	30.0	147.9	11.4			1.2	15.1	11.5	4.9	11.3	7.7
Pacific halibut							6.4		35.2	27.4	
Petrale sole				4.1	8.7	2.6			1.0		
English sole	0.3	0.2		15.9	15.0	4.4			5.6	11.2	
Dover sole	42.6	48.0	49.1	0.8	10.6	21.7	10.5	27.1	12.8	10.3	82.4
Rex sole	12.6	28.2	22.8	20.7	25.2	11.5	11.8	8.3	20.3	15.6	10.7
Other flatfish	0.7	2.2	1.1	0.1	0.4	1.6	3.9	1.5	0.1	0.2	
Sablefish	6.7	4.8	12.8	0.1		1.2	0.7	1.7	38.0	3.0	35.6
Pacific cod								3.4	2.1	2.4	
Lingcod	1.7	6.7	2.3			0.3			4.8	9.4	
Pacific whiting	14.6		25.0	502.3	1,099.3	1,174.7	1.3	3.3	96.2	21.1	25.6
Other roundfish	0.1	0.3	0.8	31.3	39.3	67.8	2.3	3.6	0.1	1.1	1.8
Shortspine thornyhead	11.1	17.4	8.7							0.5	21.1
Longspine thornyhead											
Rougheye rockfish	0.6	8.7	1.3								2.1
Pacific ocean perch		3.6	1.8					0.2	0.5	1.3	3.7
Silvergray rockfish										4.1	
Darkblotched rockfish	11.9	4.4					0.6	0.9		2.7	
Splitnose rockfish	29.8	9.8	3.7					0.1		0.5	0.1
Yellowtail rockfish					0.7	0.7			12.5	43.9	
Chillipepper											
Bocaccio											
Canary rockfish											
Redstripe rockfish									100.4		
Stripetail rockfish	0.2						0.1	0.6	25.9	11.0	
Other rockfish	0.4	0.1	0.7					39.5	127.4	232.0	49.7
Jellyfish		0.2	0.9		0.5						0.1
Shrimps	0.1	0.3	0.3				0.2	0.1	3.9	1.9	0.8
Crabs	1.2	9.7	1.3	0.7	2.3	0.3	0.4	0.5	0.3		
Octopuses											
Squids											1.4
Sea stars	1.7	14.8	5.8	10.0	0.7	0.2					0.7
Sea urchins	0.3	24.1	18.6	1.1	0.4	2.3	0.2	0.1	0.2	0.2	0.8
Total catch weight	169.7	359.2	171.8	959.8	1,273.3	1,309.0	55.8	117.9	527.9	369.0	249.8

Table A-2.-Continued.

Haul	177	178	179	180	181	182	183	184	185	186	187
Start date & time	8/3/95 14:44	8/3/95 15:55	8/3/95 17:27	8/5/95 7:32	8/5/95 9:46	8/5/95 14:08	8/5/95 16:12	8/5/95 18:09	8/6/95 6:52	8/6/95 8:57	8/8/95 12:49
Station	0100e	0100d	0100c	0100a	0100b	0101f	0101e	0101d	0101b	0101a	0101c
Start latitude	4653.89	4654.69	4653.15	4654.78	4654.15	4702.67	4705.47	4703.77	4704.27	4703.90	4705.03
Start longitude	12447.03	12443.75	12437.83	12428.54	12434.10	12453.89	12452.40	12448.84	12438.16	12434.01	12444.88
End latitude	4655.36	4653.14	4654.54	4653.29	4655.48	4704.20	4704.01	4705.19	4702.69	4702.40	4706.45
End longitude	12446.85	12443.20	12438.64	12427.41	12434.85	12453.90	12451.62	12447.91	12438.28	12434.69	12445.94
Bottom depth (m)	151	135	115	79	99	160	151	140	94	80	122
Duration (hr)	0.5	0.53	0.56	0.57	0.58	0.62	0.54	0.53	0.54	0.55	0.55
Distance fished (km)	2.753	2.98	2.923	3.198	2.704	2.872	2.942	2.931	2.981	2.942	2.986
Net width (m)	13.793	13.308	13.96	13.207	13.127	13.198	13.391	12.865	12.553	12.227	12.006
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	-2	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			1.1	0.7					0.6		
Skates	0.5	14.8	15.0				6.3	1.2			
Spotted ratfish		1.3	0.6				0.8		1.1	0.5	
Other elasmobranchs	0.5										
Pacific sanddab			0.5	49.2	2.6				19.1	34.8	0.4
Arrowtooth flounder	4.9	4.5	3.1			3.9	14.0	12.9		0.5	0.7
Pacific halibut									4.6		
Petrale sole		0.4	0.8	0.9	4.4	1.3	0.3	0.3	2.7		
English sole			1.1	27.5	4.3			0.3	10.5	5.2	
Dover sole	13.0	17.4	13.4	3.5	12.0	23.5	28.5	4.0	24.1	10.4	0.3
Rex sole	0.8	6.0	7.9	28.9	11.4	6.3	20.0	17.4	32.2	7.1	0.4
Other flatfish	1.0	5.3	1.6	1.6	1.5	0.8	3.4	1.0	0.2	0.1	1.5
Sablefish			5.6		1.2	9.6	1.5	1.7	0.8		1.9
Pacific cod						7.5					
Lingcod	8.6	14.3				13.1	3.2	0.2	4.8	3.8	
Pacific whiting	43.9	8.6	562.1	3,782.2	1,254.3	104.7	55.0	333.5	1,159.2	72.1	860.9
Other roundfish	4.8	1.9	4.6	579.2	17.2	1.4	1.2	3.6	0.2	0.2	
Shortspine thornyhead						0.5					
Longspine thornyhead							0.7	0.3			1.0
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish											
Darkblotched rockfish		0.3	0.5			0.5	91.0	0.6			0.5
Splitnose rockfish											
Yellowtail rockfish				1.0	1.4	10.4	3.4	1.8	1.5		46.8
Chillipepper											
Bocaccio											
Canary rockfish									15.7	1.4	
Redstripe rockfish						0.3					
Stripetail rockfish		0.1					0.1				
Other rockfish	1.6					269.1	5.1				
Jellyfish				1.3	0.7			0.7	12.9	171.5	2.6
Shrimps	0.3	0.4	0.1			2.6	0.8	0.3			0.2
Crabs		1.2	2.0	0.2	0.2				0.4		
Octopuses			0.1								
Squids	0.3				0.1						
Sea stars		0.4	1.3	0.7	0.7	2.4	0.1	0.6			0.1
Sea urchins	0.1	3.4	1.5		1.9	0.2	1.0	1.0			
Total catch weight	81.2	80.5	622.9	4,477.0	1,314.0	461.1	240.2	382.0	1,291.0	313.5	917.4

Table A-2.-Continued.

Haul	188	189	190	191	192	193	194	195	196	197	198
Start date & time	8/8/95 15:29	8/8/95 18:02	8/9/95 7:04	8/9/95 8:35	8/9/95 10:12	8/9/95 13:10	8/9/95 14:48	8/9/95 16:15	8/9/95 17:53	8/10/95 7:21	8/10/95 8:36
Station	0102g	0102d	0102a	0102b	0102c	0103c	0103b	0103a	0104a	0104b	0104c
Start latitude	4714.41	4715.04	4714.63	4714.77	4715.48	4724.87	4722.79	4724.40	4733.51	4734.87	4733.26
Start longitude	12500.01	12447.16	12433.45	12439.06	12444.06	12445.21	12441.81	12437.77	12439.36	12450.21	12452.48
End latitude	4712.74	4713.47	4713.02	4716.06	4713.98	4723.52	4724.27	4725.77	4735.00	4733.20	4734.77
End longitude	12459.83	12446.99	12433.05	12438.92	12443.80	12444.12	12442.00	12438.70	12439.84	12449.71	12453.34
Bottom depth (m)	443	141	70	94	124	125	108	80	68	115	133
Duration (hr)	0.66	0.52	0.55	0.44	0.54	0.52	0.56	0.54	0.57	0.54	0.55
Distance fished (km)	3.188	2.961	3.083	2.455	2.835	2.88	2.785	2.859	2.865	3.209	3.088
Net width (m)	13.24	12.148	12.299	12.824	12.442	11.966	13.611	12.754	12.36	12.427	13.509
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		1.0				2.9	1.6				
Skates							2.3	4.7	3.8		0.1
Spotted ratfish											
Other elasmobranchs										0.1	
Pacific sanddab			82.7	12.4			4.0	35.9	86.7		
Arrowtooth flounder		22.0	1.1		17.2	14.4	11.2			1.7	17.9
Pacific halibut		9.1			11.1	18.3					
Petrale sole			0.4	6.2	1.1	0.5	5.1	0.6	0.6	2.1	
English sole			25.6	4.2				32.2	49.5	0.9	
Dover sole	43.8	2.8	3.5	6.9	14.3	2.8	17.6	9.0	0.5	60.5	6.3
Rex sole	7.5	4.8	37.6	4.5	1.7	1.4	7.3	11.9	23.2	5.9	5.7
Other flatfish		4.1	0.3	0.3	3.8	3.0	3.8		0.5	3.2	2.5
Sablefish	6.7	4.1		0.5	1.8	5.1	23.2	0.6	0.2	13.9	10.7
Pacific cod						3.9					
Lingcod			2.9	37.9							1.3
Pacific whiting	22.3	24.2	197.5	1,506.4	1,975.9	1,373.4	1,380.8	344.3	96.4	40.9	88.6
Other roundfish	1.4	1.1	0.3	3.2	3.1	124.8	1.3	12.8	1.7	1.3	0.2
Shortspine thornyhead	25.0										
Longspine thornyhead	4.6										
Rougheye rockfish	4.9	2.2								0.1	0.4
Pacific ocean perch	27.6										0.3
Silvergray rockfish											
Darkblotched rockfish		3.2	0.2		0.1	1.5	0.4			0.1	2.9
Splitnose rockfish											
Yellowtail rockfish				1.4	0.6	2.6		4.0			
Chillipepper											
Bocaccio											
Canary rockfish			1.8	8.0							
Redstripe rockfish											
Stripetail rockfish					0.2						
Other rockfish	0.3	0.5		0.5							0.3
Jellyfish	1.4		171.9	67.7				67.2	61.9	0.2	
Shrimps	2.9	0.7								0.2	0.3
Crabs					0.6		1.1				
Octopuses	0.1										
Squids	0.2							0.1	0.2		
Sea stars	0.5	0.1	0.1		0.3			0.6	0.1	0.1	0.2
Sea urchins		0.1								0.1	0.4
Total catch weight	149.3	79.9	526.0	1,660.0	2,032.0	1,554.6	1,460.0	524.6	325.3	131.0	139.3

Table A-2.-Continued.

Haul	199	200	201	202	203	204	205	206	207	208	209
Start date & time	8/10/95 9:53	8/10/95 11:42	8/10/95 13:43	8/10/95 16:47	8/10/95 18:11	8/11/95 6:44	8/11/95 8:17	8/11/95 9:55	8/11/95 12:43	8/11/95 15:12	8/11/95 17:15
Station	0104d	0104e	0104f	0105e	0105d	0105a	0105b	0105c	0106g	0106h	0106i
Start latitude	4733.91	4735.04	4735.36	4745.38	4743.54	4743.86	4744.75	4743.62	4752.77	4756.17	4754.97
Start longitude	12456.22	12502.51	12506.35	12503.46	12501.21	12442.30	12446.56	12456.98	12517.10	12529.79	12535.63
End latitude	4732.32	4733.67	4734.04	4744.24	4745.01	4745.17	4743.10	4744.81	4754.58	4754.63	4754.09
End longitude	12455.95	12501.45	12504.05	12505.07	12500.64	12443.45	12446.73	12458.62	12517.13	12531.01	12534.38
Bottom depth (m)	169	204	435	197	151	61	77	124	411	381	312
Duration (hr)	0.51	0.51	0.84	0.6	0.54	0.54	0.55	0.55	0.67	0.75	0.48
Distance fished (km)	3.015	2.902	3.829	3.443	2.873	2.879	3.092	3.096	3.554	3.529	2.333
Net width (m)	12.89	12.412	13.037	12.915	12.757	12.424	12.861	13.279	13.017	14.325	13.172
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	-6	-6
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish					1.3	4.2	10.9	9.3			
Skates		9.6					10.2	7.5		4.2	
Spotted ratfish							0.4				0.6
Other elasmobranchs											
Pacific sanddab						115.8	81.5	1.0			
Arrowtooth flounder	4.7	4.3	2.4	13.1	5.3	0.1	0.6	12.8	6.9	3.4	3.8
Pacific halibut		47.9					16.8	8.7			
Petrale sole		0.4				0.3	0.1				
English sole				1.8		24.4	10.2	7.7			
Dover sole	3.7	2.5	43.5	4.7	2.1	0.1	1.9	17.7	14.4	96.5	18.1
Rex sole	0.7	1.4	14.1	0.4	4.1	4.9	5.7	1.1	5.2	41.0	2.9
Other flatfish	3.0	0.2	0.1	0.1	3.2		6.5	4.1		0.3	0.1
Sablefish	5.7	17.9		6.6		0.6		23.7	10.4	0.4	0.2
Pacific cod		3.5		6.4	0.9		7.5				
Lingcod	2.1	7.6			4.0		0.5	3.6			
Pacific whiting	18.5	50.6	17.2	46.7	663.0	114.0	138.5	930.9	5.6	12.6	2.6
Other roundfish	4.0	1.1	2.9		2.2	24.4	5.3	22.2	0.2	2.2	1.2
Shortspine thornyhead			21.3	1.4					5.3	51.5	9.8
Longspine thornyhead											
Rougheye rockfish	9.3		11.1	0.3	0.4				1.2	10.6	
Pacific ocean perch			4.8	16.5	0.3				26.4	4.0	39.7
Silvergray rockfish											
Darkblotched rockfish	2.3			0.8				1.3	0.6	0.7	6.6
Splitnose rockfish				0.3							
Yellowtail rockfish	1.4			7.3	14.4	0.7		26.5	3.7		
Chillipepper											
Bocaccio											
Canary rockfish	1.6										
Redstripe rockfish											
Stripetail rockfish				0.2	0.1						
Other rockfish	0.2	47.3	3.6	1.7					0.7	4.8	35.5
Jellyfish	0.1				0.1	5.5	0.4	0.1			
Shrimps	2.2	0.1	0.3	27.0	0.2			1.2	0.9		1.0
Crabs				0.1			0.5			0.1	
Octopuses											
Squids									1.0	1.5	0.2
Sea stars	0.2	0.1	0.1	0.8	0.5	0.6		0.2	0.5	0.3	
Sea urchins				0.3				0.1			
Total catch weight	59.8	194.5	121.6	136.5	702.0	295.5	298.6	1,079.8	84.0	235.8	122.5

Table A-2.-Continued.

Haul	210	211	212	213	214	215	216	217	218	219	220
Start date & time	8/11/95 19:08	8/12/95 7:01	8/12/95 9:04	8/12/95 11:15	8/12/95 13:07	8/12/95 14:44	8/12/95 16:22	8/12/95 18:16	8/13/95 7:11	8/13/95 8:42	8/13/95 10:52
Station	0106j	0106f	0106e	0106d	0106c	0106b	0106a	0108a	0108b	0108c	0108d
Start latitude	4755.64	4754.60	4753.03	4755.26	4753.05	4755.03	4752.49	4803.73	4803.07	4804.72	4804.59
Start longitude	12537.31	12514.74	12508.10	12506.69	12502.42	12455.91	12448.93	12457.06	12501.82	12507.02	12512.19
End latitude	4754.01	4753.34	4754.51	4753.80	4754.57	4753.52	4753.93	4804.77	4803.98	4803.08	4804.72
End longitude	12537.30	12513.28	12508.00	12506.36	12503.17	12455.79	12450.00	12458.53	12502.42	12506.45	12510.04
Bottom depth (m)	447	273	166	150	129	103	75	100	132	130	142
Duration (hr)	0.58	0.69	0.56	0.51	0.61	0.52	0.55	0.53	0.36	0.56	0.53
Distance fished (km)	3.106	3.175	2.837	2.781	3.05	2.848	3.047	2.731	1.871	3.165	2.739
Net width (m)	12.7	13.234	13.121	12.274	14.031	12.256	12.864	13.222	13.004	13.189	13.715
Net measured?	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	0	0	0	0	0	0	0	-2	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			1.1		46.2	53.6	23.8	517.8	160.4		
Skates		6.5			4.2						
Spotted ratfish		2.1	0.1		1.5						
Other elasmobranchs	3.8										
Pacific sanddab						4.6	18.7	141.0	0.9		
Arrowtooth flounder		31.7	2.1	8.0	21.3	0.8			35.5	2.2	51.5
Pacific halibut					8.1	7.5		10.5			82.6
Petrale sole					0.4		0.7	0.3	2.6		18.6
English sole		3.8	0.6		0.3	0.9	10.7	9.9	1.9	0.3	3.9
Dover sole	16.9	80.8	16.0	2.7	3.9	1.0	1.9	1.5	3.5		19.2
Rex sole	3.6	22.5	1.0	3.9	0.5	1.2	17.8	4.4	0.3		
Other flatfish		0.6	2.5	1.6	5.5	0.2	0.1		1.8		0.6
Sablefish	7.2	8.1	23.6	15.5	19.6	5.8		0.8	7.4		4.3
Pacific cod			1.4				7.1	1.1			
Lingcod			3.0	4.3	10.9					1.2	0.4
Pacific whiting	11.2	11.0	4.4	658.1	357.6	3,244.2	188.7	5,082.5	2,772.4		
Other roundfish	0.7	9.1	10.8	53.8	230.7	30.2	6.2	18.2	27.7	12.5	6.4
Shortspine thornyhead	7.3	21.7									
Longspine thornyhead											
Rougheye rockfish	2.9	1.0	1.4	1.9	0.0						
Pacific ocean perch	3.7	43.9	2.4	0.3	1.2						0.1
Silvergray rockfish											
Darkblotched rockfish		6.4	1.6	0.2	0.8						
Splitnose rockfish		9.6									
Yellowtail rockfish			4.4	180.2	65.0					3.8	
Chillipepper											
Bocaccio											
Canary rockfish											
Redstripe rockfish										19.0	
Stripetail rockfish			0.6		0.0						
Other rockfish	1.4	6.0	22.6	3.1	1.8					6.0	
Jellyfish	0.3						0.2				
Shrimps	0.3	3.6	2.1		0.0						
Crabs							0.5				1.4
Octopuses											
Squids	0.1		0.8								
Sea stars	0.1	0.2	0.2		0.3		1.3			0.4	0.4
Sea urchins		0.4	0.1							0.0	1.6
Total catch weight	60.0	269.3	102.8	933.6	779.8	3,350.0	277.7	5,788.0	3,014.3	45.3	191.0

Table A-2.-Continued.

Haul	221	222	223	224	225	226	227	228	229	230	231
Start date & time	8/13/95 12:40	8/13/95 15:05	8/13/95 16:56	8/13/95 18:44	8/14/95 8:39	8/15/95 7:47	8/15/95 9:22	8/15/95 13:04	8/15/95 15:26	8/16/95 6:42	8/16/95 8:11
Station	0108e	0108f	0108h	0108i	0108k	0110m	0110l	0110h	0110f	0110a	0110b
Start latitude	4804.95	4805.42	4804.83	4806.62	4808.13	4815.81	4814.03	4816.79	4813.75	4815.16	4813.92
Start longitude	12516.04	12525.37	12533.39	12539.82	12540.99	12536.42	12525.97	12513.14	12510.15	12453.56	12457.82
End latitude	4803.92	4805.39	4803.24	4805.30	4806.74	4816.33	4814.05	4815.28	4813.22	4813.50	4815.60
End longitude	12517.08	12525.31	12533.70	12538.66	12541.55	12534.41	12528.19	12512.81	12511.71	12453.79	12456.92
Bottom depth (m)	230	113	168	213	236	140	127	208	204	77	206
Duration (hr)	0.55	0.07	0.53	0.54	0.53	0.48	0.54	0.55	0.5	0.56	0.55
Distance fished (km)	2.592	0.225	2.996	2.891	2.698	2.752	2.807	2.861	2.559	3.147	3.315
Net width (m)	13.085	13.219	13.083	12.684	13.733	13.269	13.581	13.939	13.551	13.013	13.387
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	6	-1	0	0	-2	0	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish			1.1			52.5	71.7	2.9	6.9	18.3	55.0
Skates	10.3	0.1	0.2	0.2		0.1	0.7	7.3	2.7	15.4	1.3
Spotted ratfish	6.2		2.9					0.4	0.2		2.6
Other elasmobranchs											
Pacific sanddab						0.6	37.4			43.1	
Arrowtooth flounder	9.1		19.6	27.3	42.3	74.3	7.0	58.3	79.3	0.2	68.8
Pacific halibut	4.4				9.5	48.2	395.8				
Petrale sole			0.5			6.0	4.9	1.5		5.2	
English sole						32.3	24.3			42.8	
Dover sole	17.8		17.6	75.7	30.7	1.1	2.1	47.6	130.4	0.6	76.4
Rex sole	3.8		1.2	12.2	14.2	1.0	0.7	54.5	11.6	10.7	41.5
Other flatfish	0.4		0.8	6.7	3.9	0.2		12.8	5.1		24.8
Sablefish	2.6		2.7	1.1	13.9		5.3	1.7	10.7		17.0
Pacific cod	1.6		1.0			1.7	31.5	1.7			6.4
Lingcod	5.4		6.0		17.8	27.9		4.9			
Pacific whiting	2.2			37.8	3.7			44.6	0.1		27.6
Other roundfish	2.1	0.0	0.4	0.9	0.6	4.9	20.3	3.5	11.9	2.7	4.1
Shortspine thornyhead	47.8				3.3			16.9	20.7		30.5
Longspine thornyhead											
Rougheye rockfish								11.6			1.5
Pacific ocean perch	0.3			100.1	687.3			5.6	53.9		
Silvergray rockfish											
Darkblotched rockfish				26.5	2.1			8.7			29.2
Splitnose rockfish				1.1							0.1
Yellowtail rockfish				8.3					17.3		
Chillpepper											
Bocaccio											
Canary rockfish											1.5
Redstripe rockfish				0.3							
Stripetail rockfish				0.7					4.0		
Other rockfish	48.3		100.3	1.6	213.8				3.9		1.1
Jellyfish			0.5					0.2			
Shrimps	1.1				2.0			3.3	0.1		6.1
Crabs	3.0	0.0	2.2	0.5				1.2	3.6	0.4	
Octopuses								0.1		0.1	
Squids									0.0	0.2	
Sea stars	5.1	2.3	1.2	0.1		0.4	0.4	0.9	0.7	0.4	5.5
Sea urchins	1.7	0.0		0.5		0.2		56.9	9.5		1.0
Total catch weight	173.4	3.2	159.3	301.4	1,045.2	251.4	602.1	347.3	372.7	140.1	403.4

Table A-2.-Continued.

Haul	232	233	234	235	236	237	238	239	240	241	242
Start date & time	8/16/95 11:54	8/16/95 14:37	8/16/95 16:20	8/16/95 17:41	8/17/95 7:38	8/17/95 10:22	8/17/95 11:52	8/22/95 11:14	8/22/95 14:40	8/22/95 17:04	8/23/95 7:03
Station	0110d	0112f	0112e	0112d	0112a	0112b	0112c	0110o	0110p	0110q	0112q
Start latitude	4812.88	4822.60	4823.98	4823.80	4823.02	4824.30	4822.68	4813.23	4815.48	4815.66	4825.11
Start longitude	12501.41	12514.48	12507.62	12503.35	12448.49	12449.73	12452.97	12551.06	12549.18	12550.46	12604.02
End latitude	4813.29	4824.18	4824.90	4825.44	4824.06	4823.34	4824.15	4813.44	4814.46	4813.60	4823.88
End longitude	12458.95	12513.94	12505.28	12503.28	12446.30	12450.64	12453.38	12548.50	12547.31	12551.32	12602.49
Bottom depth (m)	280	190	114	115	145	263	336	477	261	352	196
Duration (hr)	0.59	0.53	0.55	0.53	0.56	0.41	0.5	0.69	0.6	0.73	0.57
Distance fished (km)	3.175	3.014	3.385	3.07	3.337	2.096	2.879	3.268	3.194	4.295	3.02
Net width (m)	13.768	13.081	13.19	12.839	13.103	14.485	14.037	12.7	13.678	12.802	13.801
Net measured?	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
Performance	0	0	0	0	0	6	0	0	0	0	0
Gear	172	172	172	172	172	172	172	172	172	172	172
Spliny dogfish	23.9	2.5	12.7	28.2	242.6	4.3	43.9	0.9			
Skates	3.9	6.8	0.0	1.4		1.1	17.4	13.9	1.8	0.7	0.4
Spotted ratfish	3.7	11.9	3.0	1.4	1.0	1.6	40.3		0.3	1.1	2.5
Other elasmobranchs		0.4									
Pacific sanddab			1.7		0.3						
Arrowtooth flounder	41.1	13.3	13.7	12.6	8.1	1.0	46.1		74.5	46.1	57.2
Pacific halibut			4.3	9.3					44.7	30.9	42.1
Petrale sole			6.3	4.6	2.0						0.9
English sole	1.1		68.0		15.0	0.3			1.3	0.6	
Dover sole	116.3	5.0	21.3	7.9	15.3	16.5	45.1	56.6	5.0	32.7	1.6
Rex sole	19.1	5.1	14.4	14.4	22.3	2.1	5.6	3.5	11.9	5.9	1.1
Other flatfish	0.6	3.3	1.0	0.7	0.6			2.0	1.3	0.7	0.1
Sablefish	3.6	3.1	3.2	14.4	4.8	10.3	8.4	5.7	41.3	4.4	13.0
Pacific cod			1.2	9.3	8.0				5.6		6.3
Lingcod			1.2	2.6	1.2						32.8
Pacific whiting	96.5	52.8	2.6	0.1	937.2	3.2	28.9	24.3	1.7	5.3	
Other roundfish	0.6	4.9	1.4	1.8	18.1	0.4	2.0	10.3	0.2	4.8	7.9
Shortspine thornyhead	15.1	4.2				1.7	12.4	22.9	5.0	32.3	
Longspine thornyhead								5.3			
Rougheye rockfish	3.2	0.0						16.8			
Pacific ocean perch								23.5	1,152.3	175.4	0.2
Silvergray rockfish											21.4
Darkblotched rockfish		0.5							2.5	38.8	
Splitnose rockfish									71.3	110.8	
Yellowtail rockfish											
Chillipepper											
Bocaccio											
Canary rockfish											33.3
Redstripe rockfish											99.3
Stripetail rockfish											
Other rockfish	0.5	2.7						12.6	41.1	14.3	37.5
Jellyfish								0.3			
Shrimps	0.8	3.4	0.2		0.0	0.1	1.0	0.1	3.4	0.1	3.7
Crabs		2.3					0.6				0.4
Octopuses											
Squids			0.0					0.7			
Sea stars	0.9	0.9	1.5	1.5	1.1	0.3	0.5	0.5	1.0	0.4	0.8
Sea urchins	1.3	17.2	1.8	25.3	0.3	0.6	14.9	3.3	2.0		0.3
Total catch weight	332.5	140.6	159.8	135.6	1,280.0	43.8	267.1	215.5	1,470.0	507.5	365.0

Table A-2.-Continued.

Haul	243	244	245	246	247	248	249	250	251	252	253
Start date & time	8/23/95 12:04	8/23/95 14:26	8/23/95 16:35	8/24/95 6:54	8/24/95 9:27	8/24/95 11:36	8/24/95 15:29	8/25/95 7:00	8/25/95 9:04	8/25/95 10:33	8/25/95 12:11
Station	0112r	0112p	0112i	0112i	0112j	0112i	0112h	0113a	0113d	0113e	0113f
Start latitude	4824.56	4824.18	4824.77	4824.16	4824.25	4825.67	4824.66	4834.63	4837.39	4836.26	4835.21
Start longitude	12610.03	12600.41	12547.83	12546.74	12529.60	12524.15	12517.80	12446.82	12504.08	12507.65	12515.60
End latitude	4823.12	4824.04	4824.75	4824.04	4824.29	4824.11	4825.85	4834.62	4836.03	4835.23	4833.77
End longitude	12609.02	12558.74	12547.66	12546.84	12531.94	12524.06	12517.09	12445.30	12503.38	12506.75	12516.58
Bottom depth (m)	391	210	136	148	136	165	173	73	90	109	118
Duration (hr)	0.64	0.38	0.21	0.21	0.53	0.52	0.45	0.36	0.54	0.47	0.57
Distance fished (km)	3.029	2.174	0.883	0.601	2.908	2.927	2.558	1.928	3.405	2.267	3.043
Net width (m)	13.606	13.719	12.834	11.623	12.972	12.859	12.871	12.271	12.842	13.55	13.874
Net measured?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Performance	0	0	-1	-1	0	0	0	0	0	0	-2
Gear	172	172	172	172	172	172	172	172	172	172	172
Spiny dogfish	0.7		96.3		437.2	28.1	11.6	50.2	145.2	588.8	524.8
Skates	3.4	12.0			0.9	4.3	1.3	7.6	4.9	14.9	4.6
Spotted ratfish	1.4	26.0	5.3			3.5		11.4	1.0		0.5
Other elasmobranchs											
Pacific sanddab								3.4	140.6	1.3	
Arrowtooth flounder	25.2	78.9	2.4		9.9	24.8	30.6	0.4	7.5	2.1	13.1
Pacific halibut	11.5	21.0				13.8				25.1	10.1
Petrale sole								9.2	22.2		2.6
English sole		0.3			0.3			35.2	39.0	1.6	0.9
Dover sole	59.3	3.5	2.4		86.5	96.3	18.9	7.6	6.2	4.0	27.1
Rex sole	22.2	2.4	2.4		38.7	29.3	32.6	2.1	10.2	1.3	7.3
Other flatfish	0.1	0.8			4.6	58.6	29.1	3.9		0.1	32.4
Sablefish		5.8	2.5		1,234.4	58.9	5.9		0.2	1.6	3.6
Pacific cod		2.1	3.2					0.6			5.1
Lingcod		8.9	3.0					5.5	1.9		5.5
Pacific whiting	18.3		3.2		45.6	41.2	5.3	0.7		0.9	286.6
Other roundfish	2.7	0.9	0.1		8.9	6.6	5.7	0.1	22.6	52.6	19.2
Shortspine thornyhead	17.0	0.6					1.1				
Longspine thornyhead											
Rougheye rockfish	36.6					4.8					
Pacific ocean perch	100.3	0.1			0.4						
Silvergray rockfish			0.5								
Darkblotched rockfish						14.9	0.7				
Splitnose rockfish						0.1	0.1				
Yellowtail rockfish			0.5								336.9
Chillipepper											
Bocaccio											1.3
Canary rockfish											83.3
Redstripe rockfish			166.2								3.2
Stripetail rockfish						0.1					
Other rockfish	0.4	11.3	171.2		19.3	0.2					8.0
Jellyfish											
Shrimps	0.2	0.3	0.1		0.1	8.9	16.9			3.4	0.5
Crabs		0.7	0.2		1.0	1.1					2.0
Octopuses											
Squids	1.0	1.3						0.1	0.1	0.1	
Sea stars	0.3	0.4	0.2		3.3	3.7	1.4	0.7	0.9	1.5	6.4
Sea urchins		2.2			8.8	115.7	22.4			0.3	3.7
Total catch weight	305.6	180.7	459.7		1,900.0	514.9	183.5	138.8	402.6	703.2	1,390.7

Table A-2.-Continued.

Haul	254	255	256	257	258	259	260	261	262	263	264
Start date & time	8/25/95 16:23	8/26/95 7:31	8/26/95 9:20	8/26/95 11:42	8/26/95 15:15	8/27/95 9:55	8/27/95 11:28	8/27/95 15:04	8/28/95 7:14	8/28/95 8:59	8/28/95 11:14
Station	0113f	0113g	0113h	0113i	0113o	0114q	0114p	0114n	0114m	0114k	0114j
Start latitude	4836.13	4838.03	4835.76	4833.78	4835.17	4845.41	4845.48	4845.12	4846.76	4844.86	4844.25
Start longitude	12516.15	12519.98	12526.77	12530.86	12606.38	12630.41	12623.88	12616.97	12616.31	12613.90	12608.50
End latitude	4834.46	4834.63	4835.96	4835.04	4836.71	4845.04	4845.76	4844.05	4845.25	4843.32	4845.68
End longitude	12516.12	12520.42	12524.57	12531.83	12606.25	12628.60	12621.65	12615.99	12615.52	12613.32	12609.30
Bottom depth (m)	120	131	138	133	155	391	390	189	170	163	134
Duration (hr)	0.6	0.53	0.55	0.52	0.55	0.47	0.55	0.49	0.56	0.54	0.55
Distance fished (km)	3.196	2.716	2.769	2.701	2.888	2.407	2.826	2.417	2.992	2.96	2.862
Net width (m)	12.704	12.862	12.517	12.405	12.42	12.7	12.7	13.215	12.289	12.599	13.29
Net measured?	Y	Y	Y	Y	Y	N	N	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	395.4	277.2	143.0	260.9	21.9		2.1			5.9	61.9
Skates	12.3	5.7	5.3	19.5			6.9				
Spotted ratfish	3.7	4.2	1.5	0.3			2.1		0.2		1.0
Other elasmobranchs											
Pacific sanddab	0.1			0.1							
Arrowtooth flounder	9.2	33.7	27.3	12.8	239.7	9.0	133.0	179.0	207.6	522.2	26.3
Pacific halibut	32.7		23.5		2.8	4.0	25.4	22.3	3.2		3.6
Petrale sole					3.8					0.8	
English sole	1.1	0.4	0.3	1.7	4.5			1.3	3.2	8.6	0.5
Dover sole	15.7	177.8	88.2	18.0	27.2	6.3	86.2	35.3	77.9	35.8	15.0
Rex sole	8.1	37.9	33.8	17.7	10.6	2.4	29.2	18.8	26.0	11.4	11.4
Other flatfish	31.5	74.3	53.0	46.3	2.4		0.2	2.1	7.7	5.9	4.3
Sablefish	1.2	4.9	19.7	3.2		1.5	95.1	10.2	24.2	9.1	2.4
Pacific cod								4.9	5.1	5.0	3.8
Lingcod		2.2	2.2		51.6			2.9			0.3
Pacific whiting	1,466.6	698.7	514.3	972.5	6.7	32.5	35.9		1.4		1,681.5
Other roundfish	25.2	19.9	30.8	53.4	13.7	0.0	1.7	17.0	5.4	0.4	8.7
Shortspine thornyhead						0.6	37.3	2.4	0.8		
Longspine thornyhead											
Rougheye rockfish		1.2	6.1			15.9	636.9	0.2		0.1	
Pacific ocean perch						7.5	101.4	12.1	11.2	0.6	0.3
Silvergray rockfish								4.1	0.9		
Darkblotched rockfish		0.7	4.5	8.4		1.0	1.6	51.0	47.5	4.1	0.1
Splitnose rockfish							2.4				
Yellowtail rockfish		0.4		7.6				105.0	40.7		1.0
Chillipepper											
Bocaccio										2.2	
Canary rockfish								3.4			
Redstripe rockfish								206.9	47.0	1.8	
Stripetail rockfish											
Other rockfish					4.8		15.3	78.7	14.8	18.0	8.0
Jellyfish											
Shrimps	0.2	0.3	1.2	0.9		0.1	0.0	0.5	0.1		
Crabs			2.4	0.5	0.0		0.1				
Octopuses											
Squids					0.0	0.0	26.0				
Sea stars	1.8	3.9	6.0	5.7	2.5	0.8	0.4	0.3	0.1	0.0	
Sea urchins	0.2	15.8	32.0	0.3				1.5		0.2	
Total catch weight	2,005.0	1,360.0	1,003.3	1,430.0	392.2	82.2	1,243.0	760.6	525.7	632.0	1,830.0

Table A-2.-Continued.

Haul	265	266	267	268	269	270	271	272	273	274	275
Start date & time	8/28/95 13:13	8/28/95 14:33	8/28/95 16:12	8/29/95 6:57	8/29/95 8:35	8/29/95 10:58	8/29/95 13:08	8/29/95 14:57	8/29/95 16:09	8/30/95 11:32	8/30/95 13:01
Station	0114i	0114h	0114g	0114a	0114b	0114c	0114d	0114e	0114f	0115a	0115b
Start latitude	4845.52	4844.70	4844.87	4845.29	4844.20	4844.36	4844.18	4844.56	4844.75	4854.62	4854.88
Start longitude	12605.99	12558.47	12549.13	12519.18	12530.51	12533.48	12539.17	12542.85	12548.74	12535.32	12543.11
End latitude	4844.22	4844.79	4844.36	4843.68	4845.45	4845.54	4845.28	4844.44	4844.60	4854.84	4854.39
End longitude	12604.71	12557.26	12551.25	12519.69	12532.27	12535.03	12537.84	12544.54	12546.44	12537.76	12545.31
Bottom depth (m)	115	84	96	103	136	152	165	128	103	98	109
Duration (hr)	0.54	0.31	0.57	0.58	0.56	0.54	0.51	0.41	0.55	0.55	0.56
Distance fished (km)	2.891	1.556	2.802	3.114	3.188	2.921	2.714	1.833	2.915	3.101	2.856
Net width (m)	12.615	12.859	12.868	13.068	12.942	12.095	12.432	13.649	12.704	12.467	12.471
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	53.6	52.3	21.2	8.7	36.2	33.1	61.6	8.6	10.6		4.8
Skates	0.0		2.0		34.7	15.3	26.5	28.7	28.0	13.1	3.4
Spotted ratfish	1.0	0.1		1.5	15.4	9.7	24.3	65.5	4.6	3.0	33.7
Other elasmobranchs											
Pacific sanddab	4.8	64.9	191.5	8.3	0.2			0.5	68.8	0.3	0.5
Arrowtooth flounder	7.5		2.3	8.0	17.0	8.7		0.3	2.1	0.6	0.8
Pacific halibut			10.9		36.7			11.7	17.3		
Petrale sole	2.4		4.4	1.8	1.5			8.6	22.6		2.6
English sole	30.6	4.5	19.7	2.5	0.3	0.2		0.7	26.6	3.6	12.3
Dover sole	23.5	1.5	4.0	22.2	142.8	216.8	50.5	30.0	2.4	44.5	148.0
Rex sole	12.0	10.9	7.5	14.9	83.4	69.2	28.0	8.4	1.9	22.3	117.2
Other flatfish	3.9	9.0	12.6	6.1	130.3	96.5	57.7	4.6	18.3	6.8	4.1
Sablefish	1.6		0.3	6.8		1.3	1.5			1.9	8.9
Pacific cod	16.3	0.9	4.6	2.5	0.5			10.6	229.6		1.9
Lingcod	4.5	5.5			17.1			4.6	15.3	16.6	
Pacific whiting	116.9	1.8		0.7	194.6	75.3	425.7	6.7		9.9	10.2
Other roundfish	3.3	0.2	1.6	45.4	26.6	21.3	10.2	7.9	9.4	47.7	44.3
Shortspine thornyhead											
Longspine thornyhead						2.1	8.9			0.0	
Rougheye rockfish											
Pacific ocean perch											
Silvergray rockfish				1.5				0.5			
Darkblotched rockfish					0.4						
Splitnose rockfish						0.1		0.0			
Yellowtail rockfish				0.6							
Chillipepper											
Bocaccio											
Canary rockfish											
Redstripe rockfish								2.6			
Stripetail rockfish								0.1			
Other rockfish		0.5		13.1				80.0			
Jellyfish											
Shrimps	0.4			9.8	20.8	18.0	17.2	3.3		15.0	27.8
Crabs				0.0						0.3	1.2
Octopuses											
Squids	0.0	0.2	0.1	2.1	1.0				0.0	0.2	
Sea stars	0.3	0.7	1.5	3.0	1.9	0.7	8.0	5.3	2.3	2.7	4.1
Sea urchins		0.2		0.5	3.3	0.8	0.2	0.3	0.2	0.5	
Total catch weight	282.6	153.9	284.2	166.4	767.7	576.1	711.3	289.9	460.4	190.5	432.6

Table A-2.-Continued.

Haul	276	277	278	279	280	281	282	283	284	285	286
Start date & time	8/30/95 15:29	8/30/95 16:57	8/31/95 7:54	8/31/95 9:05	8/31/95 10:23	8/31/95 12:03	8/31/95 13:45	8/31/95 15:41	9/1/95 6:59	9/1/95 8:23	9/1/95 9:57
Station	0115c	0115d	0115e	0115f	0115g	0115h	0115i	0115j	0116g	0116h	0116i
Start latitude	4853.64	4853.92	4854.07	4854.88	4853.61	4854.79	4852.00	4849.73	4903.42	4904.69	4903.96
Start longitude	12603.13	12606.06	12610.51	12615.60	12619.33	12628.61	12631.43	12635.74	12639.96	12646.25	12651.01
End latitude	4855.23	4855.11	4855.38	4853.46	4854.94	4853.40	4853.02	4851.30	4904.62	4903.59	4905.30
End longitude	12602.75	12607.45	12611.81	12614.53	12620.43	12627.44	12631.52	12635.53	12641.40	12644.35	12652.35
Bottom depth (m)	78	89	109	126	148	169	226	390	154	178	255
Duration (hr)	0.58	0.54	0.54	0.57	0.52	0.53	0.4	0.62	0.51	0.55	0.55
Distance fished (km)	3.032	2.829	2.943	2.973	2.841	2.997	1.929	3.062	2.928	3.11	2.996
Net width (m)	12.677	12.187	12.194	13.428	12.342	13.206	13.101	13.524	12.914	12.381	13.278
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	97.2	21.7	12.9	25.8	11.8	0.7					
Skates		29.3			9.5	5.9	5.2	0.5	7.6	6.1	9.6
Spotted ratfish	0.9	0.7		6.0	0.9	0.2	2.0	2.1	0.4		3.4
Other elasmobranchs											
Pacific sanddab	27.3	57.6	23.4	0.4							
Arrowtooth flounder		0.1	2.0	26.3	156.6	96.9	149.1	134.7	44.3	74.5	171.4
Pacific halibut	12.2	22.3	11.1			37.5	11.9			12.3	24.4
Petrale sole	0.1	1.8	6.8	1.1					1.9	1.1	
English sole	0.8	5.3	20.9	1.1	0.6		0.5		11.8	2.1	15.6
Dover sole	0.8	1.6	4.6	10.1	51.9	8.7	27.7	22.9	13.8	17.1	32.2
Rex sole	1.0	14.1	13.5	19.3	22.9	1.7	15.8	14.0	4.4	11.6	29.5
Other flatfish	21.4	0.4	1.0	11.9	46.7	4.4	1.3	0.1	0.8	0.6	0.4
Sablefish				2.4	3.8		32.4			9.3	32.1
Pacific cod			7.7	1.9	2.8	0.9	4.4			1.6	
Lingcod	7.8	30.3	15.0	3.6		81.5			2.2		
Pacific whiting			4.5	3.4			0.1	13.3			
Other roundfish	3.2	0.7	1.5	35.4	18.9		0.4	6.0		0.2	1.2
Shortspine thornyhead							3.8	25.5	0.6		1.3
Longspine thornyhead											
Rougheye rockfish				0.0			0.2	52.3			
Pacific ocean perch					0.8		111.7	35.2		2.2	240.4
Silvergray rockfish										9.9	1.8
Darkblotched rockfish			0.1	1.8	2.2		0.9	0.8			
Splitnose rockfish											5.3
Yellowtail rockfish				0.9	1.4						
Chilipepper										1.7	
Bocaccio											9.7
Canary rockfish									7.3	9.4	
Redstripe rockfish						0.1	0.5			6.6	1.2
Stripetail rockfish				0.0						0.8	0.6
Other rockfish					4.1	37.4	8.1	2.3	20.8	82.7	396.7
Jellyfish							0.7	0.7	0.1		
Shrimps				0.3	0.9	0.1	0.3	0.8		0.6	1.0
Crabs								0.0			
Octopuses											
Squids	0.2		0.1	0.0				1.7			
Sea stars	1.5	2.8	0.6	1.3		0.6	0.9	0.6		0.1	
Sea urchins				1.0	0.3		2.3	0.3		0.0	0.1
Total catch weight	175.9	188.5	121.2	156.2	339.5	278.7	381.5	316.9	116.4	250.7	977.9

Table A-2.-Continued.

Haul	287	288	289	290	291	292	293	294	295	296	297
Start date & time	9/1/95 16:13	9/2/95 7:09	9/2/95 8:21	9/2/95 10:14	9/2/95 11:46	9/2/95 13:20	9/2/95 14:39	9/3/95 10:03	9/3/95 11:09	9/3/95 12:39	9/3/95 13:47
Station	0116j	0116f	0116e	0116d	0116c	0116b	0116a	0117a	0117b	0117c	0117d
Start latitude	4904.77	4904.83	4903.78	4905.53	4905.38	4904.84	4905.47	4915.43	4914.30	4913.97	4914.32
Start longitude	12655.63	12634.14	12630.02	12626.41	12614.04	12609.08	12608.35	12626.93	12628.21	12633.07	12636.75
End latitude	4903.75	4903.44	4905.01	4904.62	4904.28	4906.27	4904.81	4914.37	4914.87	4915.02	4915.61
End longitude	12654.19	12632.83	12631.54	12624.43	12612.57	12610.42	12606.28	12625.30	12630.62	12635.01	12638.21
Bottom depth (m)	414	140	141	128	76	64	61	71	86	107	115
Duration (hr)	0.53	0.55	0.56	0.51	0.52	0.55	0.56	0.52	0.54	0.55	0.56
Distance fished (km)	2.601	3.097	2.949	2.967	2.769	3.109	2.88	2.833	3.128	3.115	3.02
Net width (m)	12.7	12.125	13.034	12.317	12.049	12.776	12.237	11.824	12.263	13.025	13.056
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				4.8	22.6	88.7	55.3	3.2	19.2	10.1	50.8
Skates	1.1			1.1		17.8	16.8	4.2		6.7	13.1
Spotted ratfish		0.1		1.0		0.6			1.3	0.7	2.2
Other elasmobranchs											
Pacific sanddab					27.5	72.7	62.8	27.9	15.4	24.3	4.9
Arrowtooth flounder	66.1	80.0	22.9	67.9	0.2	0.1			1.3	112.2	418.2
Pacific halibut	39.0		16.3		12.2	22.6	12.7	4.7	3.8		
Petrale sole		0.5				1.7	0.5	3.2	2.9	1.9	0.3
English sole					8.4	74.3	27.9	26.8	13.0	24.8	31.3
Dover sole	69.3	27.3	20.2	27.1	1.2	0.2	0.3	0.8	1.9	7.9	8.4
Rex sole	28.0	20.4	8.3	6.2	24.1	5.6	7.6	10.2	40.7	29.7	19.2
Other flatfish		13.3	2.4	3.1	13.9	33.1	42.2	18.2	1.2	2.9	9.4
Sablefish	4.5	5.3	5.0	7.3			0.2	0.2		0.2	14.9
Pacific cod					2.0					19.0	
Lingcod			4.6	2.7	8.6	2.4	0.5	32.3	44.6	5.4	23.1
Pacific whiting	55.0	0.6	44.7	101.2		0.0				0.1	7.8
Other roundfish	6.1	10.5	1.0	12.2	11.5	8.7	14.6	14.8	2.5	8.4	6.0
Shortspine thornyhead	20.2										
Longspine thornyhead											
Rougheye rockfish	213.3										
Pacific ocean perch	27.2	0.1									
Silvergray rockfish											
Darkblotched rockfish			0.3	0.1							
Splitnose rockfish	1.3										
Yellowtail rockfish						0.2				2.5	
Chilipepper											
Bocaccio											
Canary rockfish		1.5									
Redstripe rockfish										0.1	
Stripetail rockfish											
Other rockfish	2.2				4.2						
Jellyfish											0.3
Shrimps	0.1			0.6							1.8
Crabs			0.4								
Octopuses											
Squids					0.2	4.1	8.1	0.3	0.4	0.1	
Sea stars	0.3		0.1	0.1			2.0	0.1		0.3	
Sea urchins		1.2	0.1	0.0							0.0
Total catch weight	534.6	160.9	126.2	235.5	143.5	332.6	251.2	148.2	148.6	257.6	612.6

Table A-2.-Continued.

Haul	298	299	300	301	302	303	304	305	306	307	308
Start date & time	9/3/95 15:35	9/3/95 17:37	9/4/95 7:25	9/4/95 8:38	9/4/95 10:16	9/4/95 14:28	9/4/95 16:23	9/5/95 7:18	9/5/95 11:36	9/5/95 13:28	9/5/95 15:14
Station	0117e	0117e	0117f	0117g	0117h	0118f	0118g	0118e	0118d	0118c	0118b
Start latitude	4915.77	4911.73	4913.90	4912.45	4913.30	4923.97	4921.99	4924.47	4927.66	4925.33	4926.20
Start longitude	12647.28	12644.70	12651.14	12652.93	12700.71	12715.71	12715.33	12710.62	12709.39	12700.09	12650.82
End latitude	4914.39	4912.75	4912.86	4914.10	4914.32	4922.47	4923.69	4923.13	4926.82	4925.83	4926.16
End longitude	12645.98	12646.44	12650.01	12653.52	12702.60	12714.82	12716.43	12709.82	12707.77	12702.53	12653.25
Bottom depth (m)	128	132	149	160	216	345	458	167	157	139	104
Duration (hr)	0.55	0.56	0.47	0.57	0.59	0.71	0.7	0.53	0.51	0.56	0.56
Distance fished (km)	3.033	2.919	2.433	3.17	3.012	3.116	3.45	2.721	2.595	3.137	3.004
Net width (m)	12.661	12.445	12.396	12.995	13.925	12.828	12.7	12.744	12.274	13.29	13.096
Net measured?	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Performance	-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				1.0				2.4			6.8
Skates	6.0					7.2	13.3	17.9		2.0	6.2
Spotted ratfish	0.2				0.9	0.0			0.0	1.1	0.2
Other elasmobranchs											
Pacific sanddab		0.3									35.7
Arrowtooth flounder	47.2	153.6	134.0	96.3	177.9	503.6	92.6	246.3	108.0	81.7	24.8
Pacific halibut	4.2				10.8	18.0	61.5	6.6	11.7		
Petrale sole		3.0	2.0		0.8			0.5			19.4
English sole	4.0	3.9	6.0	1.9	3.2				0.3		18.0
Dover sole	4.7	2.1	8.3	1.1	37.1	54.0	35.3	31.6	8.2	1.4	6.5
Rex sole	9.9	9.4	7.9	13.3	73.3	5.9	13.4	9.2	17.6	4.1	18.7
Other flatfish	1.1	6.7	1.5	1.2	2.0	0.3		1.8	2.5	6.1	1.1
Sablefish					41.6	21.2	16.9	13.3	2.2		
Pacific cod			4.4	3.3	36.1			20.9	1.9		10.9
Lingcod	20.4	2.9						6.3			102.2
Pacific whiting			1.2	0.1		16.7	30.7			22.4	0.5
Other roundfish	1.3	1.2	2.9	15.1	28.0	0.9	4.3	2.1	0.4	54.5	113.9
Shortspine thornyhead						18.4	10.6				
Longspine thornyhead											
Rougheye rockfish						129.0	148.7		0.0		
Pacific ocean perch			0.0	1.8	18.3	74.3	3.1		0.0	0.2	0.1
Silvergray rockfish		15.5			83.5			40.4	7.3	3.0	
Darkblotched rockfish		0.0		0.4	43.7	3.4			0.3		
Spiltnose rockfish						2.2					
Yellowtail rockfish					7.2			1.5			
Chillipepper											
Bocaccio					5.3			2.0			
Canary rockfish					2.2			9.8	2.3		
Redstripe rockfish					1.5			53.8	0.4		
Stripetail rockfish				0.1	3.6						
Other rockfish	11.7	1.0	3.9	11.6	43.9	9.4	2.9	130.5	1.6	0.1	
Jellyfish				0.1		0.2					
Shrimps				0.4	0.3	1.0	0.0	2.6	0.5	0.7	1.7
Crabs					0.1		0.0	0.6			
Octopuses						2.9	2.2		0.7		
Squids						0.3					
Sea stars	0.3			0.1	0.1		1.6	0.2	0.3	0.1	2.2
Sea urchins			0.3	0.6	52.8		0.3	0.1		0.1	
Total catch weight	112.1	199.6	172.5	148.5	677.4	873.3	530.2	603.0	166.1	338.6	369.4

Table A-2.-Continued.

Haul	309	310	311	312	313
Start date & time	9/5/95 16:23	9/5/95 18:23	9/6/95 7:36	9/6/95 8:58	9/6/95 10:43
Station	0118a	0119a	0119c	0119d	0119b
Start latitude	4925.51	4933.67	4934.37	4935.38	4934.06
Start longitude	12649.06	12657.80	12709.84	12714.66	12703.95
End latitude	4924.53	4935.16	4935.61	4934.11	4932.98
End longitude	12647.40	12659.07	12711.20	12712.96	12702.46
Bottom depth (m)	92	98	137	150	121
Duration (hr)	0.55	0.58	0.53	0.52	0.54
Distance fished (km)	2.704	3.236	2.854	3.166	2.738
Net width (m)	13.016	12.912	12.869	12.817	13.232
Net measured?	Y	Y	Y	Y	Y
Performance	0	0	0	0	0
Gear	172	172	172	172	172
Spiny dogfish	18.2	20.8			
Skates	1.9				
Spotted ratfish					1.3
Other elasmobranchs					
Pacific sanddab	13.3	27.8			0.5
Arrowtooth flounder	0.9	57.0	319.2	1,914.4	103.3
Pacific halibut	2.6	4.5	15.3	30.7	7.4
Petrale sole	12.7	9.3	0.8	10.5	1.4
English sole	4.4	24.7	2.4	8.3	1.6
Dover sole	0.8	18.3	25.3	15.7	38.2
Rex sole	18.3	29.6	8.8	4.8	15.9
Other flatfish		2.7	1.0	0.1	1.9
Sablefish		0.4	1.7	5.7	
Pacific cod		18.5			
Lingcod	218.8	57.7		27.9	6.3
Pacific whiting		0.6	2.9		171.8
Other roundfish	21.0	4.5	1.3	90.6	0.9
Shortspine thornyhead					
Longspine thornyhead					
Rougheye rockfish					0.0
Pacific ocean perch					
Silvergray rockfish				22.6	
Darkblotched rockfish					
Splitnose rockfish					1.7
Yellowtail rockfish					
Chillipepper					
Bocaccio			3.4		
Canary rockfish				12.9	
Redstripe rockfish					
Stripetail rockfish					
Other rockfish				0.7	
Jellyfish					
Shrimps	0.9	4.1			
Crabs					0.3
Octopuses		14.6			
Squids					
Sea stars	0.0	2.6	1.2	0.1	0.2
Sea urchins			0.9		0.0
Total catch weight	314.6	297.8	384.2	2,145.0	352.7

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 1995 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.

Tables B-1 through B-4, the INPFC Conception Area	B-2
Tables B-5 through B-8, the INPFC Monterey Area	B-11
Tables B-9 through B-12, the INPFC Eureka Area	B-22
Tables B-13 through B-16, the INPFC Columbia Area	B-31
Tables B-17 through B-20, the U.S. Portion of the INPFC Vancouver Area	B-46
Tables B-21 through B-24, the Canadian Portion of the INPFC Vancouver Area . . .	B-56
Tables B-25 through B-28, the INPFC Vancouver Area	B-67
Tables B-29 through B-32, the U.S. Portion of the Survey Area	B-82
Tables B-33 through B-36, the Entire Survey Area	B-102

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	Hydrolagus colliei	21.9860	0.2708	0.2708
2	Citharichthys sordidus	12.9960	0.1601	0.4309
3	Squalus acanthias	11.4040	0.1405	0.5713
4	Sardinops sagax	10.5820	0.1303	0.7017
5	Engraulis mordax	4.6890	0.0578	0.7594
6	Porichthys notatus	2.9640	0.0365	0.7959
7	Actinaria (order)	2.7770	0.0342	0.8301
8	Sebastes goodei	2.5030	0.0308	0.8610
9	Sebastes semicinctus	2.3200	0.0286	0.8896
10	Genyonemus lineatus	1.2170	0.0150	0.9045
11	Parophrys vetulus	1.0090	0.0124	0.9170
12	Scomber japonicus	0.9510	0.0117	0.9287
13	Eopsetta jordani	0.5510	0.0068	0.9355
14	Zalembeus rosaceus	0.5080	0.0063	0.9417
15	Oncorhynchus tshawytscha	0.4920	0.0061	0.9478
16	Merluccius productus	0.4670	0.0058	0.9535
17	Scyphozoa (class)	0.3210	0.0040	0.9575
18	Sebastes saxicola	0.3080	0.0038	0.9613
19	Anoplopoma fimbria	0.2740	0.0034	0.9646
20	Peprilus simillimus	0.2510	0.0031	0.9677
21	Loligo opalescens	0.2110	0.0026	0.9703
22	Argentina sialis	0.2080	0.0026	0.9729
23	Sebastes paucispinis	0.1950	0.0024	0.9753
24	Squatina californica	0.1810	0.0022	0.9775
25	Sebastes flavidus	0.1790	0.0022	0.9797
26	Ophiodon elongatus	0.1740	0.0021	0.9819
27	Alosa sapidissima	0.1590	0.0020	0.9838
28	Torpedo californica	0.1540	0.0019	0.9857
29	Clupea pallasii	0.1240	0.0015	0.9872
30	Sebastes jordani	0.1190	0.0015	0.9887
31	Glyptocephalus zachirus	0.1080	0.0013	0.9900
32	Lycodes cortezianus	0.0970	0.0012	0.9912
33	Sebastes mystinus	0.0700	0.0009	0.9921
34	Lyopsetta exilis	0.0670	0.0008	0.9929
35	Pleuronichthys decurrens	0.0650	0.0008	0.9937
36	Sebastes entomelas	0.0590	0.0007	0.9944
37	Raja rhina	0.0480	0.0006	0.9950
38	starfish (unidentified)	0.0390	0.0005	0.9955
39	Raja inornata	0.0350	0.0004	0.9960
40	Sebastes miniatus	0.0320	0.0004	0.9964
41	Mustelus californicus	0.0320	0.0004	0.9967

Table B-I --Continued.

42	<i>Sebastes hopkinsi</i>	0.0320	0.0004	0.9971
43	<i>Sebastes caurinus</i>	0.0310	0.0004	0.9975
44	<i>Microstomus pacificus</i>	0.0300	0.0004	0.9979
45	<i>Zaniolepis latipinnis</i>	0.0190	0.0002	0.9981
46	<i>Sebastes elongatus</i>	0.0190	0.0002	0.9984
47	<i>Raja binoculata</i>	0.0190	0.0002	0.9986
48	<i>Apristurus brunneus</i>	0.0180	0.0002	0.9988
49	<i>Sebastes chlorostictus</i>	0.0110	0.0001	0.9990
50	Porifera	0.0090	0.0001	0.9991
51	Cancer sp.	0.0080	0.0001	0.9992
52	Crab (unidentified)	0.0070	0.0001	0.9992
53	Holothuroidea (unidentified)	0.0060	0.0001	0.9993
54	<i>Parmaturus xaniurus</i>	0.0060	0.0001	0.9994
55	Shrimp (unidentified)	0.0050	0.0001	0.9995
56	Thaliacea (unidentified)	0.0050	0.0001	0.9995
57	<i>Synodus lucioceps</i>	0.0040	0.0001	0.9996
58	Squid (unidentified)	0.0040	0.0001	0.9996
59	<i>Hippoglossina stomata</i>	0.0040	0.0000	0.9997
60	<i>Lepidopsetta</i> sp.	0.0030	0.0000	0.9997
61	<i>Sebastes pinniger</i>	0.0030	0.0000	0.9998
62	<i>Trachurus symmetricus</i>	0.0030	0.0000	0.9998
63	<i>Chilara taylori</i>	0.0020	0.0000	0.9998
64	<i>Vampyroteuthis infernalis</i>	0.0020	0.0000	0.9998
65	<i>Bathylagus milleri</i>	0.0020	0.0000	0.9998
66	<i>Xystreurys liolepis</i>	0.0020	0.0000	0.9999
67	<i>Cymatogaster aggregata</i>	0.0010	0.0000	0.9999
68	<i>Pandalus platyceros</i>	0.0010	0.0000	0.9999
69	<i>Chauliodus macouni</i>	0.0010	0.0000	0.9999
70	Fish (unidentified)	0.0010	0.0000	0.9999
71	<i>Sebastes diploproa</i>	0.0010	0.0000	0.9999
72	<i>Sebastes rufus</i>	0.0010	0.0000	1.0000
73	<i>Sebastes helvomaculatus</i>	0.0010	0.0000	1.0000
74	<i>Radulinus asprellus</i>	0.0010	0.0000	1.0000
75	Nudibranch (unidentified)	0.0010	0.0000	1.0000
76	<i>Icelinus filamentosus</i>	0.0010	0.0000	1.0000
77	<i>Sebastes</i> sp.	0.0010	0.0000	1.0000
78	<i>Idiacanthus antrostomus</i>	0.0010	0.0000	1.0000

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>Sebastes diploproa</i>	62.7940	0.3315	0.3315
2	<i>Sebastes saxicola</i>	38.2140	0.2017	0.5332
3	<i>Merluccius productus</i>	37.3010	0.1969	0.7301
4	<i>Sebastes goodei</i>	13.6840	0.0722	0.8023
5	<i>Sebastes jordani</i>	11.8350	0.0625	0.8648
6	<i>Microstomus pacificus</i>	8.1270	0.0429	0.9077
7	<i>Glyptocephalus zachirus</i>	6.3150	0.0333	0.9410
8	<i>Anoplopoma fimbria</i>	5.5030	0.0290	0.9701
9	<i>Lycodes cortezianus</i>	0.9050	0.0048	0.9748
10	<i>Squalus acanthias</i>	0.5610	0.0030	0.9778
11	Heart urchin (unidentified)	0.5530	0.0029	0.9807
12	<i>Hydrolagus colliei</i>	0.5480	0.0029	0.9836
13	<i>Lyopsetta exilis</i>	0.4540	0.0024	0.9860
14	<i>Raja rhina</i>	0.2890	0.0015	0.9875
15	<i>Sebastes paucispinis</i>	0.2430	0.0013	0.9888
16	<i>Torpedo californica</i>	0.2360	0.0012	0.9901
17	<i>Sebastes rufus</i>	0.1850	0.0010	0.9910
18	<i>Parmaturus xaniurus</i>	0.1790	0.0009	0.9920
19	<i>Eopsetta jordani</i>	0.1450	0.0008	0.9928
20	<i>Sebastolobus alascanus</i>	0.1410	0.0007	0.9935
21	<i>Moroteuthis robusta</i>	0.1290	0.0007	0.9942
22	<i>Sebastes elongatus</i>	0.1010	0.0005	0.9947
23	<i>Lycodes diapterus</i>	0.0790	0.0004	0.9951
24	Sea urchin (unidentified)	0.0720	0.0004	0.9955
25	<i>Icelinus filamentosus</i>	0.0670	0.0004	0.9959
26	<i>Pandalus platyceros</i>	0.0620	0.0003	0.9962
27	<i>Apristurus brunneus</i>	0.0600	0.0003	0.9965
28	<i>Pandalus jordani</i>	0.0560	0.0003	0.9968
29	<i>Porichthys notatus</i>	0.0540	0.0003	0.9971
30	<i>Ophiodon elongatus</i>	0.0520	0.0003	0.9974
31	Octopus (unidentified)	0.0500	0.0003	0.9976
32	<i>Chilara taylori</i>	0.0490	0.0003	0.9979
33	<i>Cancer magister</i>	0.0480	0.0003	0.9982
34	<i>Bathyraja interrupta</i>	0.0440	0.0002	0.9984
35	<i>Sebastes aurora</i>	0.0370	0.0002	0.9986
36	<i>Sebastes chlorostictus</i>	0.0340	0.0002	0.9988
37	Actiniaria (order)	0.0340	0.0002	0.9989
38	<i>Paralithodes californiensis</i>	0.0300	0.0002	0.9991
39	<i>Sebastes entomelas</i>	0.0240	0.0001	0.9992
40	Holothuroidea (unidentified)	0.0210	0.0001	0.9993
41	<i>Nezumia stelgidolepis</i>	0.0140	0.0001	0.9994

Table B-2.--Continued.

42	Sebastes flavidus	0.0140	0.0001	0.9995
43	Sebastes melanostomus	0.0120	0.0001	0.9995
44	Loligo opalescens	0.0120	0.0001	0.9996
45	Parophrys vetulus	0.0110	0.0001	0.9997
46	Scyphozoa (class)	0.0100	0.0001	0.9997
47	Sebastes crameri	0.0080	0.0000	0.9998
48	Starfish (unidentified)	0.0060	0.0000	0.9998
49	Cancer sp.	0.0060	0.0000	0.9998
50	Careproctus melanurus	0.0060	0.0000	0.9999
51	Sebastes babcocki	0.0050	0.0000	0.9999
52	Octopus dofleini	0.0040	0.0000	0.9999
53	Coelorinchus scaphopsis	0.0040	0.0000	0.9999
54	Argentina sialis	0.0030	0.0000	0.9999
55	Cyclopteridae (Liparidinae)	0.0020	0.0000	1.0000
56	Scomber japonicus	0.0020	0.0000	1.0000
57	Myctophidae	0.0010	0.0000	1.0000
58	Squid (unidentified)	0.0010	0.0000	1.0000
59	Opisthoteuthis californiana	0.0010	0.0000	1.0000
60	Citharichthys sp.	0.0010	0.0000	1.0000
61	Lopholithodes foraminatus	0.0010	0.0000	1.0000
62	Aphroditidae	0.0010	0.0000	1.0000
63	Pelecypoda (unidentified)	0.0010	0.0000	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>	27.3560	0.3785	0.3784
2	<i>Merluccius productus</i>	13.3330	0.1844	0.5629
3	<i>Glyptocephalus zachirus</i>	6.4170	0.0888	0.6517
4	<i>Sebastes aurora</i>	4.6330	0.0641	0.7158
5	<i>Anoplopoma fimbria</i>	4.1530	0.0575	0.7732
6	<i>Sebastes diploproa</i>	4.1010	0.0567	0.8300
7	<i>Sebastolobus alascanus</i>	2.1430	0.0296	0.8596
8	<i>Sebastolobus altivelis</i>	1.4210	0.0197	0.8793
9	<i>Apristurus brunneus</i>	1.4180	0.0196	0.8989
10	<i>Parmaturus xaniurus</i>	1.3170	0.0182	0.9171
11	<i>Sebastes melanostomus</i>	1.2080	0.0167	0.9338
12	<i>Lycodes diapterus</i>	1.0450	0.0145	0.9483
13	<i>Lycodes cortezianus</i>	1.0380	0.0144	0.9626
14	<i>Hydrolagus colliei</i>	0.8520	0.0118	0.9744
15	<i>Raja rhina</i>	0.5010	0.0069	0.9813
16	<i>Squalus acanthias</i>	0.2840	0.0039	0.9853
17	Actiniaria (order)	0.1740	0.0024	0.9877
18	Sea urchin (unidentified)	0.1570	0.0022	0.9898
19	<i>Lyopsetta exilis</i>	0.1280	0.0018	0.9916
20	Heart urchin (unidentified)	0.1180	0.0016	0.9932
21	<i>Bathyraja interrupta</i>	0.1060	0.0015	0.9947
22	<i>Sebastes rufus</i>	0.1030	0.0014	0.9961
23	<i>Trachipterus altivelis</i>	0.0510	0.0007	0.9968
24	Squid (unidentified)	0.0320	0.0004	0.9973
25	Cyclopteridae (Liparidinae)	0.0200	0.0003	0.9976
26	<i>Opisthoteuthis californiana</i>	0.0190	0.0003	0.9978
27	<i>Paralithodes californiensis</i>	0.0170	0.0002	0.9981
28	<i>Sebastes crameri</i>	0.0160	0.0002	0.9983
29	<i>Sebastes goodei</i>	0.0140	0.0002	0.9985
30	<i>Moroteuthis robusta</i>	0.0130	0.0002	0.9987
31	Holothuroidea (unidentified)	0.0110	0.0002	0.9988
32	Starfish (unidentified)	0.0100	0.0001	0.9990
33	<i>Sebastes babcocki</i>	0.0090	0.0001	0.9992
34	Scyliorhinidae	0.0090	0.0001	0.9992
35	Octopus (unidentified)	0.0080	0.0001	0.9993
36	<i>Nezumia stelgidolepis</i>	0.0070	0.0001	0.9994
37	Melanostomiidae	0.0060	0.0001	0.9995
38	<i>Careproctus melanurus</i>	0.0060	0.0001	0.9996
39	<i>Berryteuthis magister</i>	0.0060	0.0001	0.9996
40	<i>Icelinus filamentosus</i>	0.0040	0.0001	0.9997
41	Myctophidae	0.0040	0.0001	0.9998

Table B-3.--Continued.

42	Porichthys notatus	0.0030	0.0000	0.9998
43	Scyphozoa (class)	0.0020	0.0000	0.9998
44	Idiacanthus antrostomus	0.0020	0.0000	0.9999
45	Chilara taylori	0.0010	0.0000	0.9999
46	Vampyroteuthis infemalis	0.0010	0.0000	0.9999
47	Pennatulacea (order)	0.0010	0.0000	0.9999
48	Chauliodus macouni	0.0010	0.0000	0.9999
49	Pasiphaeidae (family)	0.0010	0.0000	1.0000
50	Shrimp (unidentified)	0.0010	0.0000	1.0000
51	Aphroditidae	0.0010	0.0000	1.0000
52	Bathylagidae (unidentified)	0.0010	0.0000	1.0000
53	Sipuncula (phylum)	0.0010	0.0000	1.0000
54	Lycodapus mandibularis	0.0010	0.0000	1.0000
55	Tactostoma macropus	0.0010	0.0000	1.0000
56	Argyropelecus sp.	0.0010	0.0000	1.0000
57	Aristostomias scintillans	0.0010	0.0000	1.0000
58	Neptunea sp.	0.0010	0.0000	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>Sebastes diploproa</i>	17.9860	0.1698	0.1698
2	<i>Merluccius productus</i>	15.1100	0.1426	0.3124
3	<i>Microstomus pacificus</i>	12.8350	0.1212	0.4335
4	<i>Sebastes saxicola</i>	10.0760	0.0951	0.5286
5	<i>Hydrolagus colliei</i>	8.1240	0.0767	0.6053
6	<i>Citharichthys sordidus</i>	4.5200	0.0427	0.6480
7	<i>Sebastes goodei</i>	4.4460	0.0420	0.6900
8	<i>Squalus acanthias</i>	4.2240	0.0399	0.7298
9	<i>Glyptocephalus zachirus</i>	4.1960	0.0396	0.7694
10	<i>Sardinops sagax</i>	3.6810	0.0347	0.8042
11	<i>Anoplopoma fimbria</i>	3.1560	0.0298	0.8340
12	<i>Sebastes jordani</i>	3.1290	0.0295	0.8635
13	<i>Sebastes aurora</i>	1.8220	0.0172	0.8807
14	<i>Engraulis mordax</i>	1.6310	0.0154	0.8961
15	<i>Porichthys notatus</i>	1.0460	0.0099	0.9060
16	Actiniaria (order)	1.0430	0.0098	0.9158
17	<i>Sebastolobus alascanus</i>	0.8750	0.0083	0.9241
18	<i>Sebastes semicinctus</i>	0.8070	0.0076	0.9317
19	<i>Lycodes cortezianus</i>	0.6760	0.0064	0.9381
20	<i>Apristums brunneus</i>	0.5760	0.0054	0.9435
21	<i>Parmaturus xaniurus</i>	0.5640	0.0053	0.9488
22	<i>Sebastolobus altivelis</i>	0.5560	0.0052	0.9541
23	<i>Sebastes melanostomus</i>	0.4760	0.0045	0.9586
24	<i>Lycodes diapterus</i>	0.4300	0.0041	0.9626
25	<i>Genyonemus lineatus</i>	0.4230	0.0040	0.9666
26	<i>Parophrys vetulus</i>	0.3540	0.0033	0.9700
27	<i>Scomber japonicus</i>	0.3310	0.0031	0.9731
28	<i>Raja rhina</i>	0.2880	0.0027	0.9758
29	<i>Eopsetta jordani</i>	0.2290	0.0022	0.9780
30	<i>Lyopsetta exilis</i>	0.1920	0.0018	0.9798
31	Heart urchin (unidentified)	0.1900	0.0018	0.9816
32	<i>Zalambius rosaceus</i>	0.1770	0.0017	0.9832
33	<i>Oncorhynchus tshawytscha</i>	0.1710	0.0016	0.9849
34	<i>Sebastes paucispinis</i>	0.1310	0.0012	0.9861
35	Scyphozoa (class)	0.1150	0.0011	0.9872
36	<i>Torpedo californica</i>	0.1150	0.0011	0.9883
37	<i>Sebastes rufus</i>	0.0890	0.0008	0.9891
38	<i>Peprilus simillimus</i>	0.0870	0.0008	0.9899
39	Sea urchin (unidentified)	0.0800	0.0008	0.9907
40	<i>Loligo opalescens</i>	0.0770	0.0007	0.9914
41	<i>Ophiodon elongatus</i>	0.0740	0.0007	0.9921

Table B-4.--Continued.

42	<i>Argentina sialis</i>	0.0730	0.0007	0.9928
43	<i>Sebastes flavidus</i>	0.0660	0.0006	0.9934
44	<i>Squatina californica</i>	0.0630	0.0006	0.9940
45	<i>Alosa sapidissima</i>	0.0550	0.0005	0.9945
46	<i>Bathyraja interrupta</i>	0.0530	0.0005	0.9950
47	<i>Clupea pallasii</i>	0.0430	0.0004	0.9954
48	<i>Moroteuthis robusta</i>	0.0390	0.0004	0.9958
49	<i>Sebastes elongatus</i>	0.0330	0.0003	0.9961
50	<i>Sebastes entomelas</i>	0.0270	0.0003	0.9964
51	<i>Sebastes mystinus</i>	0.0240	0.0002	0.9966
52	<i>Pleuronichthys decurrens</i>	0.0230	0.0002	0.9968
53	<i>Trachipterus altivelis</i>	0.0200	0.0002	0.9970
54	<i>Icelinus filamentosus</i>	0.0200	0.0002	0.9972
55	Starfish (unidentified)	0.0190	0.0002	0.9974
56	<i>Pandalus platyceros</i>	0.0170	0.0002	0.9975
57	Octopus (unidentified)	0.0160	0.0002	0.9977
58	<i>Pandalus jordani</i>	0.0150	0.0001	0.9978
59	<i>Paralithodes californiensis</i>	0.0140	0.0001	0.9980
60	Squid (unidentified)	0.0140	0.0001	0.9981
61	<i>Chilara taylori</i>	0.0140	0.0001	0.9982
62	<i>Sebastes chlorostictus</i>	0.0130	0.0001	0.9984
63	<i>Cancer magister</i>	0.0130	0.0001	0.9985
64	<i>Raja inornata</i>	0.0120	0.0001	0.9986
65	Holothuroidea (unidentified)	0.0120	0.0001	0.9987
66	<i>Sebastes miniatus</i>	0.0110	0.0001	0.9988
67	<i>Mustelus californicus</i>	0.0110	0.0001	0.9989
68	<i>Sebastes hopkinsi</i>	0.0110	0.0001	0.9990
69	<i>Sebastes caurinus</i>	0.0110	0.0001	0.9991
70	<i>Sebastes crameri</i>	0.0090	0.0001	0.9992
71	Cyclopteridae (Liparidinae)	0.0080	0.0001	0.9993
72	<i>Opisthoteuthis californiana</i>	0.0080	0.0001	0.9994
73	<i>Zaniolepis latipinnis</i>	0.0070	0.0001	0.9994
74	<i>Raja binocolata</i>	0.0070	0.0001	0.9995
75	<i>Nezumia stelgidolepis</i>	0.0060	0.0001	0.9995
76	<i>Sebastes babcocki</i>	0.0050	0.0000	0.9996
77	<i>Cancer</i> sp.	0.0040	0.0000	0.9996
78	<i>Careproctus melanurus</i>	0.0040	0.0000	0.9997
79	Scyliorhinidae	0.0030	0.0000	0.9997
80	Porifera	0.0030	0.0000	0.9997
81	Crab (unidentified)	0.0030	0.0000	0.9997
82	Melanostomiidae	0.0020	0.0000	0.9998
83	<i>Berryteuthis magister</i>	0.0020	0.0000	0.9998
84	Shrimp (unidentified)	0.0020	0.0000	0.9998
85	Myctophidae	0.0020	0.0000	0.9998

Table B-4.-Continued.

86	Thaliacea (unidentified)	0.0020	0.0000	0.9998
87	Synodus lucioceps	0.0020	0.0000	0.9999
88	Hippoglossina stomata	0.0010	0.0000	0.9999
89	Octopus dofleini	0.0010	0.0000	0.9999
90	Vampyroteuthis infemalis	0.0010	0.0000	0.9999
91	Lepidopsetta sp.	0.0010	0.0000	0.9999
92	Sebastes pinniger	0.0010	0.0000	0.9999
93	Trachurus symmetricus	0.0010	0.0000	0.9999
94	Coelorinchus scaphopsis	0.0010	0.0000	0.9999
95	Ildiacanthus antrostomus	0.0010	0.0000	0.9999
96	Bathylagus milleri	0.0010	0.0000	0.9999
97	Xystreurys liolepis	0.0010	0.0000	1.0000
98	Chauliodus macouni	0.0010	0.0000	1.0000
99	Cymatogaster aggregata	0.0010	0.0000	1.0000
100	Aphroditidae	0.0000	0.0000	1.0000
101	Pennatulacea (order)	0.0000	0.0000	1.0000
102	Fish (unidentified)	0.0000	0.0000	1.0000
103	Sebastes helvomaculatus	0.0000	0.0000	1.0000
104	Radulinus asprellus	0.0000	0.0000	1.0000
105	Nudibranch (unidentified)	0.0000	0.0000	1.0000
106	Sebastes sp.	0.0000	0.0000	1.0000
107	Citharichthys sp.	0.0000	0.0000	1.0000
108	Pasiphaeidae (family)	0.0000	0.0000	1.0000
109	Bathylagidae (unidentified)	0.0000	0.0000	1.0000
110	Sipuncula (phylum)	0.0000	0.0000	1.0000
111	Lycodapus mandibularis	0.0000	0.0000	1.0000
112	Tactostoma macropus	0.0000	0.0000	1.0000
113	Argyropelecus sp.	0.0000	0.0000	1.0000
114	Lopholithodes foraminatus	0.0000	0.0000	1.0000
115	Aristostomias scintillans	0.0000	0.0000	1.0000
116	Neptunea sp.	0.0000	0.0000	1.0000
117	Pelecypoda (unidentified)	0.0000	0.0000	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	Merluccius productus	158.2980	0.6253	0.6253
2	Citharichthys sordidus	12.5860	0.0497	0.6750
3	Trachurus symmetricus	11.9950	0.0474	0.7224
4	Sebastes jordani	11.8690	0.0469	0.7692
5	Sebastes goodei	10.6580	0.0421	0.8114
6	Sebastes saxicola	7.4520	0.0294	0.8408
7	Scyphozoa (class)	5.6750	0.0224	0.8632
8	Parophrys vetulus	5.1130	0.0202	0.8834
9	Genyonemus lineatus	5.1130	0.0202	0.9036
10	Squalus acanthias	3.6060	0.0142	0.9178
11	Porichthys notatus	2.3080	0.0091	0.9270
12	Microstomus pacificus	2.0300	0.0080	0.9350
13	Glyptocephalus zachirus	1.9040	0.0075	0.9425
14	Scomber japonicus	1.2500	0.0049	0.9474
15	Sebastes pinniger	1.2430	0.0049	0.9523
16	Sebastes elongatus	1.2350	0.0049	0.9572
17	Eopsetta jordani	0.9610	0.0038	0.9610
18	Anoplopoma fimbria	0.7710	0.0030	0.9641
19	Sebastes semicinctus	0.6600	0.0026	0.9667
20	Sebastes entomelas	0.6270	0.0025	0.9692
21	Hydrolagus colliei	0.6150	0.0024	0.9716
22	Clupea pallasii	0.6010	0.0024	0.9740
23	Pennatulacea (order)	0.5160	0.0020	0.9760
24	Oncorhynchus tshawytscha	0.4710	0.0019	0.9778
25	Sebastes flavidus	0.4650	0.0018	0.9797
26	Loligo opalescens	0.4130	0.0016	0.9813
27	Actiniaria (order)	0.3980	0.0016	0.9829
28	Ophiodon elongatus	0.3400	0.0013	0.9842
29	Raja rhina	0.3100	0.0012	0.9854
30	Alosa sapidissima	0.2810	0.0011	0.9866
31	Hippoglossus stenolepis	0.2810	0.0011	0.9877
32	Sardinops sagax	0.2530	0.0010	0.9887
33	Zalembeus rosaceus	0.2490	0.0010	0.9897
34	Lyopsetta exilis	0.2210	0.0009	0.9905
35	Sebastes paucispinis	0.2090	0.0008	0.9914
36	Starfish (unidentified)	0.1970	0.0008	0.9921
37	Raja binoculata	0.1890	0.0007	0.9929
38	Pleuronichthys decurrens	0.1710	0.0007	0.9936
39	Chilara taylori	0.1640	0.0006	0.9942
40	Argentina sialis	0.1460	0.0006	0.9948
41	Cancer magister	0.1380	0.0005	0.9953

Table B-5.--Continued.

42	<i>Sebastes chlorostictus</i>	0.1300	0.0005	0.9958
43	Octopus (unidentified)	0.1300	0.0005	0.9964
44	Heart urchin (unidentified)	0.1050	0.0004	0.9968
45	Basketstarfish (unidentified)	0.0870	0.0003	0.9971
46	<i>Lepidopsetta</i> sp.	0.0700	0.0003	0.9974
47	<i>Torpedo californica</i>	0.0600	0.0002	0.9976
48	<i>Hexanchus griseus</i>	0.0520	0.0002	0.9978
49	<i>Peprilus simillimus</i>	0.0510	0.0002	0.9980
50	Shrimp (unidentified)	0.0440	0.0002	0.9982
51	<i>Sebastes miniatus</i>	0.0300	0.0001	0.9983
52	<i>Sebastes levis</i>	0.0280	0.0001	0.9984
53	<i>Synodus lucioceps</i>	0.0280	0.0001	0.9986
54	<i>Icelinus filamentosus</i>	0.0220	0.0001	0.9986
55	<i>Sebastes ruberrimus</i>	0.0200	0.0001	0.9987
56	Nudibranch (unidentified)	0.0200	0.0001	0.9988
57	<i>Pleuronichthys verticalis</i>	0.0200	0.0001	0.9989
58	<i>Lycodes cortezianus</i>	0.0190	0.0001	0.9990
59	Squid (unidentified)	0.0190	0.0001	0.9990
60	<i>Pandalus platyceros</i>	0.0180	0.0001	0.9991
61	<i>Sebastes auriculatus</i>	0.0180	0.0001	0.9992
62	<i>Paralichthys californicus</i>	0.0140	0.0001	0.9992
63	<i>Bathyraja interrupta</i>	0.0130	0.0001	0.9993
64	<i>Sebastes proriger</i>	0.0110	0.0000	0.9993
65	<i>Anarrhichthys ocellatus</i>	0.0110	0.0000	0.9994
66	<i>Sebastes alutus</i>	0.0110	0.0000	0.9994
67	<i>Sebastes caurinus</i>	0.0110	0.0000	0.9994
68	Synodontidae	0.0110	0.0000	0.9995
69	<i>Pycnopodia helianthoides</i>	0.0100	0.0000	0.9995
70	<i>Engraulis mordax</i>	0.0100	0.0000	0.9996
71	<i>Sebastes cameri</i>	0.0100	0.0000	0.9996
72	<i>Sebastes rufus</i>	0.0100	0.0000	0.9996
73	Cottidae	0.0090	0.0000	0.9997
74	<i>Zaniolepis latipinnis</i>	0.0080	0.0000	0.9997
75	<i>Sebastes rubrivinctis</i>	0.0070	0.0000	0.9998
76	<i>Raja stellulata</i>	0.0070	0.0000	0.9998
77	<i>Apristurus brunneus</i>	0.0070	0.0000	0.9998
78	<i>Sebastes zacentrus</i>	0.0050	0.0000	0.9998
79	Rajidae (unidentified)	0.0050	0.0000	0.9998
80	Brachiopod (unidentified)	0.0050	0.0000	0.9999
81	<i>Sebastes aurora</i>	0.0040	0.0000	0.9999
82	<i>Sebastes diploproa</i>	0.0040	0.0000	0.9999
83	<i>Raja inornata</i>	0.0030	0.0000	0.9999
84	<i>Sebastes helvomaculatus</i>	0.0030	0.0000	0.9999
85	Crab (unidentified)	0.0030	0.0000	0.9999

Table B-5.--Continued.

86	<i>Scorpaenichthys man-noratus</i>	0.0020	0.0000	0.9999
87	<i>Sebastolobus altivelis</i>	0.0020	0.0000	0.9999
88	<i>Mursia gaudichaudii</i>	0.0010	0.0000	1.0000
89	Porifera	0.0010	0.0000	1.0000
90	<i>Polinices lewisi</i>	0.0010	0.0000	1.0000
91	<i>Enophrys taurina</i>	0.0010	0.0000	1.0000
92	Pelecypoda (unidentified)	0.0010	0.0000	1.0000
93	Skate egg case (unidentified)	0.0010	0.0000	1.0000
94	Sea urchin (unidentified)	0.0010	0.0000	1.0000
95	<i>Citharichthys</i> sp.	0.0010	0.0000	1.0000
96	Thaliacea (unidentified)	0.0010	0.0000	1.0000
97	Aphroditidae	0.0010	0.0000	1.0000
98	Myctophidae	0.0010	0.0000	1.0000
99	Holothuroidea (unidentified)	0.0000	0.0000	1.0000
100	Pelagic octopus (unidentified)	0.0000	0.0000	1.0000
101	<i>Pandalus hypsinotus</i>	0.0000	0.0000	1.0000
102	<i>Sebastes</i> sp.	0.0000	0.0000	1.0000
103	<i>Symphurus atricauda</i>	0.0000	0.0000	1.0000
104	<i>Polinices</i> sp.	0.0000	0.0000	1.0000
105	<i>Microgadus proximus</i>	0.0000	0.0000	1.0000
106	Scyliorhinidae	0.0000	0.0000	1.0000
107	<i>Sebastes wilsoni</i>	0.0000	0.0000	1.0000
108	<i>Sebastes babcocki</i>	0.0000	0.0000	1.0000
109	<i>Xeneretmus leiops</i>	0.0000	0.0000	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>Merluccius productus</i>	64.0310	0.2933	0.2933
2	<i>Sebastes diploproa</i>	46.7450	0.2141	0.5074
3	<i>Sebastes saxicola</i>	31.6250	0.1448	0.6522
4	<i>Microstomus pacificus</i>	16.8170	0.0770	0.7292
5	<i>Sebastes goodei</i>	11.2760	0.0516	0.7809
6	<i>Sebastes zacentrus</i>	7.8410	0.0359	0.8168
7	<i>Glyptocephalus zachirus</i>	5.7890	0.0265	0.8433
8	<i>Anoplopoma fimbria</i>	5.5890	0.0256	0.8689
9	<i>Squalus acanthias</i>	5.0960	0.0233	0.8922
10	<i>Sebastes jordani</i>	3.2830	0.0150	0.9073
11	<i>Sebastes crameri</i>	2.5750	0.0118	0.9191
12	<i>Ophiodon elongatus</i>	2.3840	0.0109	0.9300
13	<i>Parophrys vetulus</i>	2.1620	0.0099	0.9399
14	<i>Sebastes rufus</i>	1.9800	0.0091	0.9490
15	<i>Sebastes paucispinis</i>	1.6690	0.0076	0.9566
16	<i>Sebastolobus alascanus</i>	1.6210	0.0074	0.9640
17	<i>Hydrolagus colliei</i>	1.4860	0.0068	0.9708
18	<i>Lycodes cortezianus</i>	0.6840	0.0031	0.9740
19	<i>Citharichthys sordidus</i>	0.6550	0.0030	0.9770
20	<i>Eopsetta jordani</i>	0.4760	0.0022	0.9792
21	<i>Lyopsetta exilis</i>	0.4710	0.0022	0.9813
22	<i>Sebastes elongatus</i>	0.4620	0.0021	0.9834
23	Sea urchin (unidentified)	0.3910	0.0018	0.9852
24	<i>Sebastes helvomaculatus</i>	0.3590	0.0016	0.9869
25	<i>Pandalus platyceros</i>	0.3110	0.0014	0.9883
26	Starfish (unidentified)	0.2620	0.0012	0.9895
27	<i>Torpedo californica</i>	0.2460	0.0011	0.9906
28	Scyphozoa (class)	0.1950	0.0009	0.9915
29	<i>Sebastes entomelas</i>	0.1930	0.0009	0.9924
30	<i>Pleuronichthys decurrens</i>	0.1900	0.0009	0.9933
31	<i>Raja rhina</i>	0.1880	0.0009	0.9941
32	<i>Sebastes babcocki</i>	0.1830	0.0008	0.9950
33	<i>Apristurus brunneus</i>	0.1330	0.0006	0.9956
34	<i>Bathyraja interrupta</i>	0.1310	0.0006	0.9962
35	<i>Sebastes levis</i>	0.1060	0.0005	0.9967
36	<i>Atheresthes stomias</i>	0.0970	0.0004	0.9971
37	<i>Chilara taylori</i>	0.0850	0.0004	0.9975
38	<i>Sebastes chlorostictus</i>	0.0790	0.0004	0.9978
39	<i>Raja binoculata</i>	0.0660	0.0003	0.9982
40	<i>Icelinus filamentosus</i>	0.0650	0.0003	0.9984
41	Porifera	0.0450	0.0002	0.9986

Table B-6.--Continued.

42	Octopus (unidentified)	0.0400	0.0002	0.9988
43	Hippoglossus stenolepis	0.0350	0.0002	0.9990
44	Sebastes aurora	0.0340	0.0002	0.9992
45	Strongylocentrotus franciscanus	0.0230	0.0001	0.9992
46	Careproctus melanurus	0.0190	0.0001	0.9993
47	Sebastes alutus	0.0150	0.0001	0.9994
48	Sebastes melanostomus	0.0140	0.0001	0.9995
49	Squid (unidentified)	0.0130	0.0001	0.9995
50	Abraliopsis felis	0.0120	0.0001	0.9996
51	Lopholithodes foraminatus	0.0090	0.0000	0.9996
52	Icelinus oculatus	0.0090	0.0000	0.9997
53	Lycodes diapterus	0.0080	0.0000	0.9997
54	Cyclopteridae (Liparidinae)	0.0070	0.0000	0.9997
55	Actiniaria (order)	0.0070	0.0000	0.9998
56	Holothuroidea (unidentified)	0.0060	0.0000	0.9998
57	Sebastes eos	0.0060	0.0000	0.9998
58	Gastropod (unidentified)	0.0060	0.0000	0.9999
59	Basketstarfish (unidentified)	0.0050	0.0000	0.9999
60	Cottidae	0.0050	0.0000	0.9999
61	Paralithodes californiensis	0.0040	0.0000	0.9999
62	Argentina sialis	0.0030	0.0000	0.9999
63	Alosa sapidissima	0.0020	0.0000	0.9999
64	Aphroditidae	0.0020	0.0000	1.0000
65	Malacostiedae	0.0010	0.0000	1.0000
66	Coelorinchus scaphopsis	0.0010	0.0000	1.0000
67	Bathyagonus nigripinnis	0.0010	0.0000	1.0000
68	Berryteuthis magister	0.0010	0.0000	1.0000
69	Xeneretmus leiops	0.0010	0.0000	1.0000
70	Polinices lewisi	0.0010	0.0000	1.0000
71	Lampanyctus sp.	0.0010	0.0000	1.0000
72	Loligo opalescens	0.0010	0.0000	1.0000
73	Bathophilus flemingi	0.0010	0.0000	1.0000
74	Argyropelecus sp.	0.0010	0.0000	1.0000
75	Shrimp (unidentified)	0.0010	0.0000	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>	44.7620	0.4983	0.4983
2	<i>Glyptocephalus zachirus</i>	10.0630	0.1120	0.6103
3	<i>Merluccius productus</i>	7.0370	0.0783	0.6887
4	<i>Anoplopoma fimbria</i>	6.0050	0.0668	0.7555
5	<i>Sebastes aurora</i>	3.8970	0.0434	0.7989
6	<i>Sebastes diploproa</i>	3.8410	0.0428	0.8416
7	<i>Sebastolobus alascanus</i>	2.6160	0.0291	0.8708
8	<i>Lycodes cortezianus</i>	1.8980	0.0211	0.8919
9	<i>Sebastes melanostomus</i>	1.1070	0.0123	0.9042
10	<i>Apristurus brunneus</i>	1.0000	0.0111	0.9154
11	Sea urchin (unidentified)	0.8310	0.0092	0.9246
12	<i>Sebastolobus altivelis</i>	0.8210	0.0091	0.9337
13	Starfish (unidentified)	0.7830	0.0087	0.9424
14	<i>Sebastes saxicola</i>	0.7090	0.0079	0.9504
15	<i>Hydrolagus colliei</i>	0.6060	0.0067	0.9571
16	<i>Raja rhina</i>	0.4530	0.0050	0.9621
17	<i>Somniosus</i>	0.3780	0.0042	0.9663
18	Scyphozoa (class)	0.3470	0.0039	0.9702
19	<i>Squalus acanthias</i>	0.2790	0.0031	0.9733
20	<i>Parophrys vetulus</i>	0.2720	0.0030	0.9763
21	<i>Lyopsetta exilis</i>	0.2410	0.0027	0.9790
22	<i>Bathyraja interrupta</i>	0.2240	0.0025	0.9815
23	<i>Parnaturus xaniurus</i>	0.2170	0.0024	0.9839
24	Actinaria (order)	0.1790	0.0020	0.9859
25	<i>Lycodes diapterus</i>	0.1660	0.0018	0.9878
26	<i>Neptunea</i> sp.	0.1210	0.0013	0.9891
27	<i>Sebastes crameri</i>	0.1140	0.0013	0.9904
28	<i>Sebastes rufus</i>	0.0970	0.0011	0.9915
29	<i>Sebastes babcocki</i>	0.0900	0.0010	0.9925
30	Squid (unidentified)	0.0790	0.0009	0.9934
31	<i>Sebastes paucispinis</i>	0.0660	0.0007	0.9941
32	<i>Nezumia stelgidolepis</i>	0.0560	0.0006	0.9947
33	Octopus (unidentified)	0.0540	0.0006	0.9953
34	<i>Sebastes levis</i>	0.0410	0.0005	0.9958
35	Scyliorhinidae	0.0410	0.0005	0.9962
36	<i>Careproctus melanurus</i>	0.0370	0.0004	0.9966
37	Gastropod (unidentified)	0.0250	0.0003	0.9969
38	Thaliacea (unidentified)	0.0190	0.0002	0.9971
39	Rajidae (unidentified)	0.0170	0.0002	0.9973
40	<i>Opisthoteuthis californiana</i>	0.0160	0.0002	0.9975
41	<i>Berryteuthis magister</i>	0.0150	0.0002	0.9977

Table B-7.--Continued.

42	<i>Sebastes goodei</i>	0.0150	0.0002	0.9978
43	Cyclopteridae (Liparidinae)	0.0140	0.0002	0.9980
44	<i>Chionoecetes tanneri</i>	0.0130	0.0001	0.9981
45	Hexactinellida	0.0130	0.0001	0.9983
46	Myctophidae	0.0120	0.0001	0.9984
47	<i>Sebastes elongatus</i>	0.0110	0.0001	0.9987
48	<i>Bothrocara brunneum</i>	0.0110	0.0001	0.9987
49	Heart urchin (unidentified)	0.0110	0.0001	0.9988
50	<i>Loligo opalescens</i>	0.0100	0.0001	0.9989
51	<i>Embassichthys bathybius</i>	0.0100	0.0001	0.9990
52	<i>Chilara taylori</i>	0.0090	0.0001	0.9991
53	<i>Coryphaenoides acrolepis</i>	0.0090	0.0001	0.9992
54	<i>Strongylocentrotus franciscanus</i>	0.0080	0.0001	0.9993
55	<i>Albatrossia pectoralis</i>	0.0080	0.0001	0.9994
56	<i>Sebastes rosenblatti</i>	0.0070	0.0001	0.9994
57	<i>Raja binoculata</i>	0.0060	0.0001	0.9995
58	<i>Lampanyctus ritteri</i>	0.0050	0.0001	0.9996
59	<i>Pandalus platyceros</i>	0.0050	0.0001	0.9996
60	<i>Lopholithodes foraminatus</i>	0.0040	0.0000	0.9997
61	<i>Sebastes jordani</i>	0.0040	0.0000	0.9997
62	Pelagic octopus (unidentified)	0.0030	0.0000	0.9998
63	Holothuroidea (unidentified)	0.0030	0.0000	0.9998
64	<i>Sebastes</i> sp.	0.0030	0.0000	0.9998
65	<i>Eopsetta jordani</i>	0.0020	0.0000	0.9998
66	Nudibranch (unidentified)	0.0020	0.0000	0.9999
67	<i>Pandalus jordani</i>	0.0020	0.0000	0.9999
68	Bathylagidae (unidentified)	0.0010	0.0000	0.9999
69	<i>Careproctus</i> sp.	0.0010	0.0000	0.9999
70	<i>Leuroglossus stilbius</i>	0.0010	0.0000	0.9999
71	<i>Bathylagus milleri</i>	0.0010	0.0000	0.9999
72	Skate egg case (unidentified)	0.0010	0.0000	0.9999
73	Paguridae	0.0010	0.0000	1.0000
74	Malacostiedae	0.0010	0.0000	1.0000
75	<i>Idiacanthus antrostomus</i>	0.0010	0.0000	1.0000
76	Basketstarfish (unidentified)	0.0010	0.0000	1.0000
77	Porifera	0.0010	0.0000	1.0000
78	Shrimp (unidentified)	0.0000	0.0000	1.0000
79	<i>Bathophilus flemingi</i>	0.0000	0.0000	1.0000
80	<i>Scomber japonicus</i>	0.0000	0.0000	1.0000

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	Mertuccius productus	115.0850	0.5255	0.5255
2	Microstomus pacificus	12.0300	0.0549	0.5805
3	Sebastes saxicola	10.8160	0.0494	0.6299
4	Sebastes diploproa	9.3690	0.0428	0.6726
5	Sebastes goodei	8.9690	0.0410	0.7136
6	Sebastes jordani	8.2570	0.0377	0.7513
7	Citharichthys sordidus	8.2290	0.0376	0.7889
8	Trachurus symmetricus	7.7260	0.0353	0.8242
9	Glyptocephalus zachirus	4.0110	0.0183	0.8425
10	Scyphozoa (class)	3.7500	0.0171	0.8596
11	Parophrys vetulus	3.7420	0.0171	0.8767
12	Squalus acanthias	3.3200	0.0152	0.8918
13	Genyonemus lineatus	3.2930	0.0150	0.9069
14	Anoplopoma fimbria	2.5560	0.0117	0.9186
15	Porichthys notatus	1.4870	0.0068	0.9253
16	Sebastes zacentrus	1.4650	0.0067	0.9320
17	Sebastes elongatus	0.8840	0.0040	0.9361
18	Scomber japonicus	0.8050	0.0037	0.9398
19	Sebastes pinniger	0.8010	0.0037	0.9434
20	Hydrolagus colliei	0.7760	0.0035	0.9470
21	Sebastolobus alascanus	0.7460	0.0034	0.9504
22	Eopsetta jordani	0.7080	0.0032	0.9536
23	Sebastes aurora	0.6690	0.0031	0.9566
24	Ophiodon elongatus	0.6630	0.0030	0.9597
25	Sebastes crameri	0.5060	0.0023	0.9620
26	Lycodes cortezianus	0.4620	0.0021	0.9641
27	Sebastes paucispinis	0.4570	0.0021	0.9662
28	Sebastes entomelas	0.4400	0.0020	0.9682
29	Sebastes semicinctus	0.4250	0.0019	0.9701
30	Sebastes rufus	0.3920	0.0018	0.9719
31	Clupea pallasii	0.3870	0.0018	0.9737
32	Pennatulacea (order)	0.3320	0.0015	0.9752
33	Raja rhina	0.3120	0.0014	0.9766
34	Starfish (unidentified)	0.3080	0.0014	0.9780
35	Oncorhynchus tshawytscha	0.3030	0.0014	0.9794
36	Sebastes flavidus	0.3000	0.0014	0.9808
37	Actiniaria (order)	0.2880	0.0013	0.9821
38	Lyopsetta exilis	0.2710	0.0012	0.9833
39	Loligo opalescens	0.2680	0.0012	0.9846
40	Sea urchin (unidentified)	0.2140	0.0010	0.9855
41	Apristurus brunneus	0.1990	0.0009	0.9864

Table B-8.-Continued.

42	<i>Sebastes melanostomus</i>	0.1900	0.0009	0.9873
43	<i>Hippoglossus stenolepis</i>	0.1870	0.0009	0.9882
44	<i>Alosa sapidissima</i>	0.1810	0.0008	0.9890
45	<i>Sardinops sagax</i>	0.1630	0.0007	0.9897
46	<i>Zalembeius rosaceus</i>	0.1600	0.0007	0.9905
47	<i>Pleuronichthys decurrens</i>	0.1450	0.0007	0.9911
48	<i>Sebastolobus altivelis</i>	0.1400	0.0006	0.9918
49	<i>Raja binoculata</i>	0.1350	0.0006	0.9924
50	<i>Chilara taylori</i>	0.1230	0.0006	0.9930
51	Octopus (unidentified)	0.1000	0.0005	0.9934
52	<i>Sebastes chlorostictus</i>	0.0980	0.0004	0.9939
53	<i>Argentina sialis</i>	0.0950	0.0004	0.9943
54	<i>Cancer magister</i>	0.0890	0.0004	0.9947
55	<i>Torpedo californica</i>	0.0850	0.0004	0.9951
56	<i>Bathyraja interrupta</i>	0.0710	0.0003	0.9954
57	<i>Pandalus platyceros</i>	0.0700	0.0003	0.9957
58	Heart urchin (unidentified)	0.0690	0.0003	0.9960
59	<i>Sebastes helvomaculatus</i>	0.0690	0.0003	0.9964
60	<i>Somniosus</i>	0.0640	0.0003	0.9967
61	Basketstarfish (unidentified)	0.0570	0.0003	0.9969
62	<i>Sebastes babcocki</i>	0.0500	0.0002	0.9972
63	<i>Lepidopsetta</i> sp.	0.0450	0.0002	0.9974
64	<i>Sebastes levis</i>	0.0450	0.0002	0.9976
65	<i>Parmaturus xaniurus</i>	0.0370	0.0002	0.9977
66	<i>Hexanchus griseus</i>	0.0330	0.0002	0.9979
67	<i>Peprilus simillimus</i>	0.0330	0.0001	0.9980
68	<i>Lycodes diapterus</i>	0.0300	0.0001	0.9982
69	Shrimp (unidentified)	0.0290	0.0001	0.9983
70	Squid (unidentified)	0.0280	0.0001	0.9984
71	<i>Icelinus filamentosus</i>	0.0260	0.0001	0.9985
72	<i>Neptunea</i> sp.	0.0210	0.0001	0.9986
73	<i>Sebastes miniatus</i>	0.0190	0.0001	0.9987
74	<i>Synodus lucioceps</i>	0.0180	0.0001	0.9988
75	<i>Atheresthes stomias</i>	0.0180	0.0001	0.9989
76	Nudibranch (unidentified)	0.0130	0.0001	0.9990
77	<i>Sebastes ruberrimus</i>	0.0130	0.0001	0.9990
78	<i>Pleuronichthys verticalis</i>	0.0130	0.0001	0.9991
79	<i>Sebastes auriculatus</i>	0.0120	0.0001	0.9991
80	<i>Sebastes alutus</i>	0.0100	0.0000	0.9992
81	<i>Careproctus melanurus</i>	0.0100	0.0000	0.9992
82	<i>Nezumia stelgidolepis</i>	0.0090	0.0000	0.9993
83	Porifera	0.0090	0.0000	0.9993
84	<i>Paralichthys californicus</i>	0.0090	0.0000	0.9993
85	<i>Sebastes proriger</i>	0.0070	0.0000	0.9994

Table B-8.--Continued.

86	Scyliorhinidae	0.0070	0.0000	0.9994
87	Anarrhichthys ocellatus	0.0070	0.0000	0.9994
88	Sebastes caurinus	0.0070	0.0000	0.9995
89	Synodontidae	0.0070	0.0000	0.9995
90	Pycnopodia helianthoides	0.0070	0.0000	0.9995
91	Cottidae	0.0070	0.0000	0.9996
92	Engraulis mordax	0.0060	0.0000	0.9996
93	Rajidae (unidentified)	0.0060	0.0000	0.9996
94	Strongylocentrotus franciscanus	0.0060	0.0000	0.9996
95	Zaniolepis latipinnis	0.0050	0.0000	0.9997
96	Gastropod (unidentified)	0.0050	0.0000	0.9997
97	Sebastes rubrivinctis	0.0050	0.0000	0.9997
98	Raja stellulata	0.0040	0.0000	0.9997
99	Cyclopteridae (Liparidinae)	0.0040	0.0000	0.9998
100	Thaliacea (unidentified)	0.0040	0.0000	0.9998
101	Brachiopod (unidentified)	0.0030	0.0000	0.9998
102	Berryteuthis magister	0.0030	0.0000	0.9998
103	Opisthoteuthis californiana	0.0030	0.0000	0.9998
104	Myctophidae	0.0020	0.0000	0.9998
105	Lopholithodes foraminatus	0.0020	0.0000	0.9998
106	Abraliopsis felis	0.0020	0.0000	0.9998
107	Chionoecetes tanneri	0.0020	0.0000	0.9998
108	Hexactinellida	0.0020	0.0000	0.9999
109	Raja inomata	0.0020	0.0000	0.9999
110	Holothuroidea (unidentified)	0.0020	0.0000	0.9999
111	Bothrocarum brunneum	0.0020	0.0000	0.9999
112	Crab (unidentified)	0.0020	0.0000	0.9999
113	Embassichthys bathybius	0.0020	0.0000	0.9999
114	Icelinus oculatus	0.0020	0.0000	0.9999
115	Coryphaenoides acrolepis	0.0020	0.0000	0.9999
116	Scorpaenichthys marmoratus	0.0010	0.0000	0.9999
117	Albatrossia pectoralis	0.0010	0.0000	0.9999
118	Sebastes rosenblatti	0.0010	0.0000	0.9999
119	Sebastes eos	0.0010	0.0000	0.9999
120	Polinices lewisi	0.0010	0.0000	1.0000
121	Skate egg case (unidentified)	0.0010	0.0000	1.0000
122	Mursia gaudichaudii	0.0010	0.0000	1.0000
123	Enophrys taurina	0.0010	0.0000	1.0000
124	Lampanyctus ritteri	0.0010	0.0000	1.0000
125	Pelagic octopus (unidentified)	0.0010	0.0000	1.0000
126	Pelecypoda (unidentified)	0.0010	0.0000	1.0000
127	Aphroditidae	0.0010	0.0000	1.0000
128	Paralithodes californiensis	0.0010	0.0000	1.0000
129	Sebastes sp.	0.0010	0.0000	1.0000

Table B-8.--Continued.

130	<i>Citharichthys</i> sp.	0.0010	0.0000	1.0000
131	Malacostiedae	0.0000	0.0000	1.0000
132	<i>Xeneretmus leiops</i>	0.0000	0.0000	1.0000
133	<i>Pandalus hypsinotus</i>	0.0000	0.0000	1.0000
134	<i>Pandalus jordani</i>	0.0000	0.0000	1.0000
135	Bathylagidae (unidentified)	0.0000	0.0000	1.0000
136	<i>Coelorinchus scaphopsis</i>	0.0000	0.0000	1.0000
137	<i>Bathyagonus nigripinnis</i>	0.0000	0.0000	1.0000
138	<i>Symphurus atricauda</i>	0.0000	0.0000	1.0000
139	<i>Polinices</i> sp.	0.0000	0.0000	1.0000
140	<i>Careproctus</i> sp.	0.0000	0.0000	1.0000
141	<i>Leuroglossus stilbius</i>	0.0000	0.0000	1.0000
142	<i>Bathylagus milleri</i>	0.0000	0.0000	1.0000
143	Paguridae	0.0000	0.0000	1.0000
144	<i>Lampanyctus</i> sp.	0.0000	0.0000	1.0000
145	<i>Microgadus proximus</i>	0.0000	0.0000	1.0000
146	<i>Bathophilus flemingi</i>	0.0000	0.0000	1.0000
147	<i>Sebastes wilsoni</i>	0.0000	0.0000	1.0000
148	<i>Argyropelecus</i> sp.	0.0000	0.0000	1.0000
149	<i>Idiacanthus antrostomus</i>	0.0000	0.0000	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	Meriuccius productus	31.0270	0.3878	0.3878
2	Clupea pallasii	10.2950	0.1287	0.5165
3	Scomber japonicus	7.5250	0.0941	0.6105
4	Citharichthys sordidus	6.8690	0.0859	0.6964
5	Squalus acanthias	6.8100	0.0851	0.7815
6	Trachurus symmetricus	2.3330	0.0292	0.8107
7	Oncorhynchus tshawytscha	2.3320	0.0292	0.8398
8	Hippoglossus stenolepis	1.8280	0.0229	0.8627
9	Sebastes saxicola	1.4670	0.0183	0.8810
10	Loligo opalescens	1.2070	0.0151	0.8961
11	Scyphozoa (class)	1.0170	0.0127	0.9088
12	Glyptocephalus zachirus	0.7130	0.0089	0.9177
13	Anoplopoma fimbria	0.7060	0.0088	0.9266
14	Raja binoculata	0.6500	0.0081	0.9347
15	Microstomus	0.6460	0.0081	0.9428
16	Eopsetta jordani	0.6290	0.0079	0.9506
17	Parophtys vetulus	0.5580	0.0070	0.9576
18	Ophiodon elongatus	0.3180	0.0040	0.9816
19	Raja rhina	0.3040	0.0038	0.9654
20	Allosmerus elongatus	0.2710	0.0034	0.9688
21	Atheresthes stomias	0.2590	0.0032	0.9720
22	Sebastes elongatus	0.2290	0.0029	0.9748
23	Cancer magister	0.2240	0.0028	0.9776
24	Actiniaria (order)	0.1700	0.0021	0.9798
25	Alosa sapidissima	0.1670	0.0021	0.9819
26	Sebastes pinniger	0.1510	0.0019	0.9838
27	Sebastes goodei	0.1470	0.0018	0.9856
28	Sebastes zacentrus	0.1250	0.0016	0.9872
29	Sebastes entomelas	0.1230	0.0015	0.9887
30	Sebastes jordani	0.1140	0.0014	0.9901
31	Starfish (unidentified)	0.1090	0.0014	0.9915
32	Squid (unidentified)	0.0990	0.0012	0.9927
33	Sebastes flavidus	0.0750	0.0009	0.9937
34	Sardinops sagax	0.0750	0.0009	0.9946
35	Lyopsetta exilis	0.0660	0.0008	0.9954
36	Microgadus proximus	0.0580	0.0007	0.9962
37	Heart urchin (unidentified)	0.0490	0.0006	0.9968
38	Lycodes cortezianus	0.0420	0.0005	0.9973
39	Sebastes crameri	0.0290	0.0004	0.9976
40	Hydrolagus colliei	0.0190	0.0002	0.9979
41	Sebastes paucispinis	0.0180	0.0002	0.9981

Table B-9.--Continued.

42	Basketstarfish (unidentified)	0.0170	0.0002	0.9983
43	Pandalus jordani	0.0170	0.0002	0.9985
44	Sebastes aleutianus	0.0110	0.0001	0.9987
45	Apristurus brunneus	0.0110	0.0001	0.9988
46	Sebastes proriger	0.0100	0.0001	0.9989
47	Torpedo californica	0.0080	0.0001	0.9990
48	Sebastes mystinus	0.0080	0.0001	0.9992
49	Bathyraja interrupta	0.0080	0.0001	0.9992
50	Lycodes diapterus	0.0060	0.0001	0.9993
51	Sebastolobus alascanus	0.0050	0.0001	0.9994
52	Porichthys notatus	0.0040	0.0001	0.9994
53	Nudibranch (unidentified)	0.0040	0.0000	0.9995
54	Shark egg	0.0040	0.0000	0.9995
55	Myctophidae	0.0040	0.0000	0.9996
56	Sebastes diploproa	0.0030	0.0000	0.9996
57	Stylatula sp.	0.0030	0.0000	0.9996
58	Pleuronichthys decurrens	0.0030	0.0000	0.9997
59	Sebastes levis	0.0030	0.0000	0.9997
60	Holothuroidea (unidentified)	0.0020	0.0000	0.9998
61	Pandalus platyceros	0.0020	0.0000	0.9998
62	Engraulis mordax	0.0020	0.0000	0.9998
63	Thaleichthys pacificus	0.0020	0.0000	0.9998
64	Aphroditidae	0.0010	0.0000	0.9998
65	Lycodes	0.0010	0.0000	0.9999
66	Octopus (unidentified)	0.0010	0.0000	0.9999
67	Skate egg case (unidentified)	0.0010	0.0000	0.9999
68	Icelinus filamentosus	0.0010	0.0000	0.9999
69	Chitonotus pugetensis	0.0010	0.0000	0.9999
70	Eptatretus stouti	0.0010	0.0000	0.9999
71	Aristostomias scintillans	0.0010	0.0000	1.0000
72	Argentina sialis	0.0010	0.0000	1.0000
73	Sebastes semicinctus	0.0010	0.0000	1.0000
74	Sipuncula (phylum)	0.0010	0.0000	1.0000
75	Lampanyctus ritteri	0.0010	0.0000	1.0000
76	Sebastes sp.	0.0010	0.0000	1.0000
77	Gastropod (unidentified)	0.0000	0.0000	1.0000
78	Osmeridae	0.0000	0.0000	1.0000
79	Cymatogaster aggregata	0.0000	0.0000	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	Merluccius productus	52.6360	0.4353	0.4353
2	Microstomus pacificus	12.4900	0.1033	0.5386
3	Anoplopoma fimbria	11.4570	0.0947	0.6333
4	Sebastes saxicola	8.7070	0.0720	0.7053
5	Sebastes diploproa	5.4550	0.0451	0.7504
6	Glyptocephalus zachirus	4.2250	0.0349	0.7854
7	Scomber japonicus	4.1640	0.0344	0.8198
8	Atheresthes stomias	2.9540	0.0244	0.8442
9	Sebastes alutus	2.5660	0.0212	0.8654
10	Hippoglossus stenolepis	2.2660	0.0187	0.8842
11	Sebastolobus alascanus	2.0680	0.0171	0.9013
12	Sebastes crameri	1.8300	0.0151	0.9164
13	Sebastes zacentrus	1.0470	0.0087	0.9251
14	Oncorhynchus tshawytscha	0.9000	0.0074	0.9325
15	Lycodes cortezianus	0.8400	0.0069	0.9395
16	Parophrys vetulus	0.5870	0.0049	0.9443
17	Heart urchin (unidentified)	0.5770	0.0048	0.9491
18	Hydrolagus colliei	0.5000	0.0041	0.9532
19	Ophiodon elongatus	0.4790	0.0040	0.9572
20	Sebastes elongatus	0.4730	0.0039	0.9611
21	Raja rhina	0.4190	0.0035	0.9646
22	Starfish (unidentified)	0.3680	0.0030	0.9676
23	Sebastes goodei	0.3100	0.0026	0.9702
24	Sebastes entomelas	0.3060	0.0025	0.9727
25	Lycodes diapterus	0.2900	0.0024	0.9751
26	Moroteuthis robusta	0.2890	0.0024	0.9775
27	Sebastes babcocki	0.2260	0.0019	0.9794
28	Pandalus jordani	0.2240	0.0019	0.9812
29	Raja binoculata	0.2060	0.0017	0.9829
30	Sebastes jordani	0.1910	0.0016	0.9845
31	Allocentrotus fragilis	0.1880	0.0016	0.9860
32	Strongylocentrotus franciscanus	0.1700	0.0014	0.9874
33	Actiniaria (order)	0.1680	0.0014	0.9888
34	Sardinops sagax	0.1540	0.0013	0.9901
35	Squalus acanthias	0.1360	0.0011	0.9912
36	Lyopsetta exilis	0.1330	0.0011	0.9923
37	Scyphozoa (class)	0.1210	0.0010	0.9933
38	Cancer magister	0.0990	0.0008	0.9942
39	Holothuroidea (unidentified)	0.0900	0.0007	0.9949
40	Bathyraja interrupta	0.0760	0.0006	0.9955
41	Pandalus platyceros	0.0620	0.0005	0.9960

Table B-10.--Continued.

42	<i>Sebastes helvomaculatus</i>	0.0480	0.0004	0.9964
43	<i>Sebastes aleutianus</i>	0.0400	0.0003	0.9968
44	<i>Eopsetta jordani</i>	0.0390	0.0003	0.9971
45	<i>Sebastes paucispinis</i>	0.0370	0.0003	0.9974
46	<i>Clupea pallasii</i>	0.0310	0.0003	0.9977
47	Paguridae	0.0260	0.0002	0.9979
48	<i>Apristurus brunneus</i>	0.0230	0.0002	0.9981
49	Lycodes	0.0220	0.0002	0.9982
50	<i>Loligo opalescens</i>	0.0210	0.0002	0.9984
51	<i>Icichthys lockingtoni</i>	0.0200	0.0002	0.9986
52	<i>Pandalopsis dispar</i>	0.0180	0.0002	0.9987
53	<i>Sebastes pinniger</i>	0.0160	0.0001	0.9989
54	<i>Alosa sapidissima</i>	0.0150	0.0001	0.9990
55	<i>Careproctus melanurus</i>	0.0130	0.0001	0.9991
56	<i>Sebastes melanostomus</i>	0.0120	0.0001	0.9992
57	<i>Berryteuthis magister</i>	0.0110	0.0001	0.9993
58	<i>Citharichthys sordidus</i>	0.0100	0.0001	0.9994
59	<i>Sebastes aurora</i>	0.0090	0.0001	0.9994
60	<i>Neptunea</i> sp.	0.0080	0.0001	0.9995
61	<i>Sebastes rufus</i>	0.0070	0.0001	0.9996
62	Squid (unidentified)	0.0070	0.0001	0.9996
63	<i>Sebastes chlorostictus</i>	0.0050	0.0000	0.9997
64	Aphroditidae	0.0040	0.0000	0.9997
65	<i>Munida quadrispina</i>	0.0040	0.0000	0.9997
66	<i>Eptatretus stouti</i>	0.0040	0.0000	0.9998
67	Basketstarfish (unidentified)	0.0040	0.0000	0.9998
68	<i>Lopholithodes foraminatus</i>	0.0030	0.0000	0.9998
69	Myxinidae	0.0030	0.0000	0.9998
70	<i>Careproctus</i> sp.	0.0030	0.0000	0.9999
71	Thaliacea (unidentified)	0.0030	0.0000	0.9999
72	Myctophidae	0.0030	0.0000	0.9999
73	Sea urchin (unidentified)	0.0020	0.0000	0.9999
74	<i>Hyas</i> sp.	0.0020	0.0000	0.9999
75	Skate egg case (unidentified)	0.0010	0.0000	1.0000
76	<i>Tactostoma macropus</i>	0.0010	0.0000	1.0000
78	Shark egg	0.0010	0.0000	1.0000
77	Gastropod (unidentified)	0.0010	0.0000	1.0000
79	Ophiuroid (unidentified)	0.0010	0.0000	1.0000
80	<i>Strongylocentrotus purpuratus</i>	0.0010	0.0000	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	Anoplopoma fimbria	20.2800	0.2278	0.2278
2	Microstomus pacificus	20.1050	0.2258	0.4536
3	Merluccius productus	14.8460	0.1667	0.6203
4	Glyptocephalus zachirus	8.9620	0.1006	0.7210
5	Sebastolobus alascanus	6.2610	0.0703	0.7913
6	Lycodes diapterus	3.3660	0.0378	0.8291
7	Apristurus brunneus	2.7120	0.0305	0.8595
8	Sebastes aurora	2.3910	0.0269	0.8864
9	Sea urchin (unidentified)	1.3570	0.0152	0.9016
10	Lycodes cortezianus	1.2710	0.0143	0.9159
11	Atheresthes stomias	1.2280	0.0138	0.9297
12	Heart urchin (unidentified)	1.1030	0.0124	0.9421
13	Squalus acanthias	0.8550	0.0096	0.9517
14	Sebastes diploproa	0.8140	0.0091	0.9608
15	Raja rhina	0.5590	0.6063	0.9671
16	Hydrolagus colliei	0.3750	0.0042	0.9713
17	Starfish (unidentified)	0.2660	0.0030	0.9743
18	Actiniaria (order)	0.2550	0.0029	0.9772
19	Sebastes aleutianus	0.2440	0.0027	0.9799
20	Sebastes crameri	0.2360	0.0027	0.9826
21	Sebastes babcocki	0.1630	0.0018	0.9844
22	Bathyraja interrupta	0.1220	0.0014	0.9858
23	Careproctus melanurus	0.1160	0.0013	0.9871
24	Scomber japonicus	0.0980	0.0011	0.9882
25	Sebastes melanostomus	0.0890	0.0010	0.9892
26	Sebastes borealis	0.0800	0.0009	0.9901
27	Scyphozoa (class)	0.0790	0.0009	0.9910
28	Neptunea sp.	0.0640	0.0007	0.9917
29	Allocentrotus fragilis	0.0540	0.0006	0.9923
30	Pasiphaea	0.0490	0.0005	0.9928
31	Octopus (unidentified)	0.0460	0.0005	0.9933
32	Sebastes rufus	0.0440	0.0005	0.9938
33	Sebastes miniatus	0.0430	0.0005	0.9943
34	Lyopsetta exilis	0.0430	0.0005	0.9948
35	Berryteuthis magister	0.0410	0.0005	0.9952
36	Opisthoteuthis californiana	0.0370	0.0004	0.9957
37	Squid (unidentified)	0.0340	0.0004	0.9961
38	Basketstarfish (unidentified)	0.0320	0.0004	0.9964
39	Bothrocara brunneum	0.0280	0.0003	0.9967
40	Gastropod (unidentified)	0.0270	0.0003	0.9970
41	Sebastes alutus	0.0270	0.0003	0.9973

Table B-11 .--Continued.

42	<i>Trachurus symmetricus</i>	0.0230	0.0003	0.9976
43	Myctophidae	0.0230	0.0003	0.9979
44	<i>Moroteuthis robusta</i>	0.0200	0.0002	0.9981
45	Paguiidae	0.0180	0.0002	0.9983
46	<i>Strongylocentrotus franciscanus</i>	0.0160	0.0002	0.9985
47	<i>Sebastolobus altivelis</i>	0.0160	0.0002	0.9986
48	<i>Lampanyctus ritteri</i>	0.0160	0.0002	0.9988
49	<i>Strongylocentrotus purpuratus</i>	0.0140	0.0002	0.9990
50	<i>Chionoecetes tanneri</i>	0.0140	0.0002	0.9991
51	Aphroditidae	0.0140	0.0002	0.9993
52	<i>Eptatretus deani</i>	0.0090	0.0001	0.9994
53	Petromyzontidae	0.0070	0.0001	0.9995
54	<i>Nezumia stelgidolepis</i>	0.0050	0.0001	0.9995
55	<i>Gonatopsis borealis</i>	0.0030	0.0000	0.9996
56	Ctenophora (phylum)	0.0030	0.0000	0.9997
57	<i>Careproctus</i> sp.	0.0030	0.0000	0.9997
58	<i>Antimora microlepis</i>	0.0030	0.0000	0.9997
59	Holothuroidea (unidentified)	0.0030	0.0000	0.9997
60	<i>Chauliodus macouni</i>	0.0030	0.0000	0.9998
61	<i>Tarletonbeania crenularis</i>	0.0020	0.0000	0.9998
62	<i>Pandalus jordani</i>	0.0020	0.0000	0.9998
63	<i>Argyropelecus</i> sp.	0.0020	0.0000	0.9998
64	<i>Leuroglossus stilbius</i>	0.0020	0.0000	0.9998
65	<i>Coryphaenoides acrolepis</i>	0.0020	0.0000	0.9998
66	Shark egg	0.0020	0.0000	0.9999
67	Porifera	0.0020	0.0000	0.9999
68	<i>Psolus</i> sp.	0.0020	0.0000	0.9999
69	Nudibranch (unidentified)	0.0020	0.0000	0.9999
70	<i>Lycodapus mandibularis</i>	0.0020	0.0000	0.9999
71	Sipuncula (phylum)	0.0010	0.0000	1.0000
72	<i>Tactostoma macropus</i>	0.0010	0.0000	1.0000
73	Cyclopteridae (Liparidinae)	0.0010	0.0000	1.0000
74	<i>Bathylagus millei</i>	0.0010	0.0000	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>	33.0780	0.3607	0.3607
2	<i>Microstomus pacificus</i>	7.3500	0.0802	0.4408
3	<i>Anoplopoma fimbria</i>	7.1680	0.0782	0.5190
4	<i>Clupea pallasii</i>	5.7790	0.0630	0.5820
5	<i>Scomber japonicus</i>	5.2470	0.0572	0.6392
6	<i>Squalus acanthias</i>	4.0190	0.0438	0.6831
7	<i>Citharichthys sordidus</i>	3.8530	0.0420	0.7251
8	<i>Glyptocephalus zachirus</i>	3.1890	0.0348	0.7599
9	<i>Sebastes saxicola</i>	2.9330	0.0320	0.7919
10	<i>Sebastolobus alascanus</i>	1.7370	0.0189	0.8108
11	<i>Hippoglossus stenolepis</i>	1.5740	0.0172	0.8280
12	<i>Oncorhynchus tshawytscha</i>	1.5260	0.0166	0.8446
13	<i>Sebastes diploproa</i>	1.4840	0.0162	0.8608
14	<i>Trachurus symmetricus</i>	1.3130	0.0143	0.8751
15	<i>Atheresthes stomias</i>	1.1030	0.0120	0.8871
16	<i>Lycodes diapterus</i>	0.7370	0.0080	0.8952
17	<i>Loligo opalescens</i>	0.6820	0.0074	0.9026
18	<i>Sebastes alutus</i>	0.6270	0.0068	0.9094
19	Scyphozoa (class)	0.6150	0.0067	0.9162
20	<i>Apristurus brunneus</i>	0.5460	0.0060	0.9221
21	<i>Sebastes crameri</i>	0.5060	0.0055	0.9276
22	<i>Lycodes cortezianus</i>	0.4780	0.0052	0.9328
23	<i>Sebastes aurora</i>	0.4730	0.0052	0.9380
24	<i>Parophrys vetulus</i>	0.4550	0.0050	0.9430
25	<i>Raja binoculata</i>	0.4140	0.0045	0.9475
26	Heart urchin (unidentified)	0.3840	0.0042	0.9517
27	<i>Raja rhina</i>	0.3820	0.0042	0.9558
28	<i>Eopsetta jordani</i>	0.3620	0.0039	0.9598
29	<i>Sebastes zacentrus</i>	0.3240	0.0035	0.9633
30	<i>Ophiodon elongatus</i>	0.2950	0.0032	0.9665
31	Sea urchin (unidentified)	0.2680	0.0029	0.9694
32	<i>Sebastes elongatus</i>	0.2430	0.0026	0.9721
33	<i>Hydrolagus colliei</i>	0.2060	0.0022	0.9743
34	Starfish (unidentified)	0.2030	0.0022	0.9766
35	Actiniaria (order)	0.1860	0.0020	0.9786
36	<i>Sebastes goodei</i>	0.1580	0.0017	0.9803
37	<i>Allosmerus elongatus</i>	0.1520	0.0017	0.9820
38	<i>Cancer magister</i>	0.1500	0.0016	0.9836
39	<i>Sebastes entomelas</i>	0.1430	0.0016	0.9852
40	<i>Sebastes jordani</i>	0.1100	0.0012	0.9864
41	<i>Alosa sapidissima</i>	0.0970	0.0011	0.9874

Table B-12.--Continued.

42	<i>Sebastes pinniger</i>	0.0880	0.0010	0.9884
43	<i>Sebastes babcocki</i>	0.0870	0.0009	0.9893
44	<i>Sardinops sagax</i>	0.0790	0.0009	0.9902
45	<i>Lyopsetta exilis</i>	0.0780	0.0008	0.9910
46	<i>Moroteuthis robusta</i>	0.0740	0.0008	0.9918
47	<i>Pandalus jordani</i>	0.0640	0.0007	0.9925
48	<i>Sebastes aleutianus</i>	0.0640	0.0007	0.9932
49	Squid (unidentified)	0.0640	0.0007	0.9939
50	<i>Allocentrotus fragilis</i>	0.0560	0.0006	0.9946
51	<i>Bathyraja interrupta</i>	0.0470	0.0005	0.9951
52	<i>Strongylocentrotus franciscanus</i>	0.0450	0.0005	0.9956
53	<i>Sebastes flavidus</i>	0.0420	0.0005	0.9960
54	<i>Microgadus proximus</i>	0.0320	0.0004	0.9964
55	<i>Careproctus melanurus</i>	0.0260	0.0003	0.9966
56	Holothuroidea (unidentified)	0.0240	0.0003	0.9969
57	<i>Sebastes melanostomus</i>	0.0200	0.0002	0.9971
58	<i>Sebastes paucispinis</i>	0.0190	0.0002	0.9973
59	Basketstarfish (unidentified)	0.0170	0.0002	0.9975
60	<i>Pandalus platyceros</i>	0.0160	0.0002	0.9977
61	<i>Sebastes borealis</i>	0.0160	0.0002	0.9979
62	<i>Neptunea</i> sp.	0.0140	0.0002	0.9980
63	<i>Sebastes helvomaculatus</i>	0.0120	0.0001	0.9982
64	<i>Berryteuthis magister</i>	0.0110	0.0001	0.9983
65	<i>Sebastes rufus</i>	0.0100	0.0001	0.9984
66	Paguridae	0.0100	0.0001	0.9985
67	Octopus (unidentified)	0.0100	0.0001	0.9986
68	<i>Pasiphaea</i>	0.0100	0.0001	0.9987
69	<i>Sebastes miniatus</i>	0.0090	0.0001	0.9988
70	<i>Opisthoteuthis californiana</i>	0.0070	0.0001	0.9989
71	Myctophidae	0.0070	0.0001	0.9990
72	Lycodes	0.0060	0.0001	0.9990
73	Gastropod (unidentified)	0.0060	0.0001	0.9991
74	<i>Sebastes proriger</i>	0.0060	0.0001	0.9991
75	<i>Bothrocara brunneum</i>	0.0050	0.0001	0.9992
76	<i>Icichthys lockingtoni</i>	0.0050	0.0001	0.9993
77	<i>Torpedo californica</i>	0.0050	0.0001	0.9993
78	<i>Sebastes mystinus</i>	0.0050	0.0000	0.9994
79	Aphroditidae	0.0050	0.0000	0.9994
80	<i>Pandalopsis dispar</i>	0.0040	0.0000	0.9995
81	<i>Lampanyctus ritteri</i>	0.0030	0.0000	0.9995
82	<i>Sebastolobus altivelis</i>	0.0030	0.0000	0.9995
83	<i>Strongylocentrotus purpuratus</i>	0.0030	0.0000	0.9996
84	<i>Chionoecetes tanneri</i>	0.0030	0.0000	0.9996
85	Shark egg	0.0030	0.0000	0.9996

Table B-12.--Continued.

86	Nudibranch (unidentified)	0.0020	0.0000	0.9996
87	Porichthys notatus	0.0020	0.0000	0.9997
88	Eptatretus deani	0.0020	0.0000	0.9997
89	Stylatula sp.	0.0020	0.0000	0.9997
90	Pleuronichthys decurrens	0.0020	0.0000	0.9997
91	Sebastes levis	0.0020	0.0000	0.9998
92	Eptatretus stouti	0.0010	0.0000	0.9998
93	Careproctus sp.	0.0010	0.0000	0.9998
94	Petromyzontidae	0.0010	0.0000	0.9998
95	Sebastes chlorostictus'	0.0010	0.0000	0.9998
96	Skate egg case (unidentified)	0.0010	0.0000	0.9998
97	Engraulis mordax	0.0010	0.0000	0.9998
98	Thaleichthys pacificus	0.0010	0.0000	0.9998
99	Munida quadrispina	0.0010	0.0000	0.9998
100	Nezumia stelgidolepis	0.0010	0.0000	0.9999
101	Lopholithodes foraminatus	0.0010	0.0000	0.9999
102	Myxinidae	0.0010	0.0000	0.9999
103	Icelinus filamentosus	0.0010	0.0000	0.9999
104	Thaliacea (unidentified)	0.0010	0.0000	0.9999
105	Gonatopsis borealis	0.0010	0.0000	0.9999
106	Sipuncula (phylum)	0.0010	0.0000	0.9999
107	Ctenophora (phylum)	0.0010	0.0000	0.9999
108	Antimora microlepis	0.0010	0.0000	0.9999
109	Tactostoma macropus	0.0010	0.0000	0.9999
110	Chitonotus pugetensis	0.0010	0.0000	0.9999
111	Chauliodus macouni	0.0000	0.0000	0.9999
112	Tarletonbeania crenularis	0.0000	0.0000	1.0000
113	Aristostomias scintillans	0.0000	0.0000	1.0000
114	Argentina sialis	0.0000	0.0000	1.0000
115	Hyas sp.	0.0000	0.0000	1.0000
116	Sebastes semicinctus	0.0000	0.0000	1.0000
117	Argyrolepecus sp.	0.0000	0.0000	1.0000
118	Leuroglossus stilbius	0.0000	0.0000	1.0000
119	Sebastes sp.	0.0000	0.0000	1.0000
120	Coryphaenoides acrolepis	0.0000	0.0000	1.0000
121	Porifera	0.0000	0.0000	1.0000
122	Psolus sp.	0.0000	0.0000	1.0000
123	Lycodapus mandibularis	0.0000	0.0000	1.0000
124	Cyclopteridae (Liparidinae)	0.0000	0.0000	1.0000
125	Ophiuroid (unidentified)	0.0000	0.0000	1.0000
126	Osmeridae	0.0000	0.0000	1.0000
127	Cymatogaster aggregata	0.0000	0.0000	1.0000
128	Bathylagus milleri	0.0000	0.0000	1.0000

Table B-13.--Rank order of relative abundance (kg/ha) for fish and invertebrate species in the INPFC Columbia shallow stratum (55-l 83 m).

Rank	Species Name	Mean CPUE (kg/ha)	Proportion	Cumulative Proportion
1	<i>Merluccius productus</i>	194.9710	0.7429	0.7429
2	<i>Citharichthys sordidus</i>	16.6920	0.0636	0.8065
3	<i>Trachurus symmetricus</i>	8.6930	0.0331	0.8396
4	<i>Scomber japonicus</i>	7.3030	0.0278	0.8674
5	<i>Sebastes wilsoni</i>	4.6500	0.0177	0.8852
6	<i>Glyptocephalus zachirus</i>	4.0840	0.0156	0.9007
7	<i>Microstomus pacificus</i>	3.3600	0.0128	0.9135
8	<i>Anoplopoma fimbria</i>	2.6320	0.0100	0.9235
9	<i>Parophrys vetulus</i>	2.2880	0.0087	0.9323
10	<i>Hippoglossus stenolepis</i>	1.8730	0.0071	0.9394
11	<i>Alosa sapidissima</i>	1.5610	0.0059	0.9454
12	<i>Sebastes elongatus</i>	1.4890	0.0057	0.9510
13	<i>Atheresthes stomias</i>	1.1480	0.0044	0.9554
14	<i>Sebastes pinniger</i>	1.1060	0.0042	0.9596
15	Scyphozoa (class)	1.0780	0.0041	0.9637
16	<i>Clupea pallasii</i>	0.8530	0.0033	0.9670
17	<i>Sebastes flavidus</i>	0.7870	0.0030	0.9700
18	<i>Ophiodon elongatus</i>	0.7840	0.0030	0.9730
19	<i>Squalus acanthias</i>	0.6620	0.0025	0.9755
20	<i>Cancer magister</i>	0.6200	0.0024	0.9778
21	<i>Sebastes proriger</i>	0.5410	0.0021	0.9799
22	<i>Eopsetta jordani</i>	0.5190	0.0020	0.9819
23	<i>Alopias vulpinus</i>	0.4700	0.0018	0.9837
24	<i>Raja rhina</i>	0.4370	0.0017	0.9853
25	<i>Sebastes crameri</i>	0.4350	0.0017	0.9870
26	<i>Loligo opalescens</i>	0.4030	0.0015	0.9885
27	<i>Lyopsetta exilis</i>	0.3320	0.0013	0.9898
28	<i>Oncorhynchus tshawytscha</i>	0.3150	0.0012	0.9910
29	<i>Hydrolagus colliei</i>	0.3070	0.0012	0.9922
30	<i>Sebastes helvomaculatus</i>	0.1830	0.0007	0.9929
31	Heart urchin (unidentified)	0.1670	0.0006	0.9935
32	Starfish (unidentified)	0.1630	0.0006	0.9941
33	Actiniaria (order)	0.1360	0.0005	0.9946
34	<i>Hippoglossoides elassodon</i>	0.0960	0.0004	0.9950
35	<i>Lepidopsetta</i> sp.	0.0880	0.0003	0.9953
36	<i>Sebastes aleutianus</i>	0.0790	0.0003	0.9956
37	<i>Sebastes reedi</i>	0.0740	0.0003	0.9959
38	Sea urchin (unidentified)	0.0730	0.0003	0.9962
39	<i>Sebastolobus alascanus</i>	0.0680	0.0003	0.9965
40	Basketstarfish (unidentified)	0.0630	0.0002	0.9967
41	<i>Sardinops sagax</i>	0.0600	0.0002	0.9969

Table B-13.--Continued.

42	<i>Sebastes jordani</i>	0.0600	0.0002	0.9972
43	<i>Microgadus proximus</i>	0.0560	0.0002	0.9974
44	<i>Raja binoculata</i>	0.0510	0.0002	0.9976
45	Holothuroidea (unidentified)	0.0390	0.0001	0.9977
46	<i>Lycodes</i>	0.0380	0.0001	0.9979
47	<i>Pandalus jordani</i>	0.0380	0.0001	0.9980
48	<i>Sebastes saxicola</i>	0.0380	0.0001	0.9982
49	<i>Sebastes ruberrimus</i>	0.0380	0.0001	0.9983
50	<i>Thaleichthys pacificus</i>	0.0370	0.0001	0.9984
51	<i>Gadus macrocephalus</i>	0.0370	0.0001	0.9986
52	<i>Allocentrotus fragilis</i>	0.0320	0.0001	0.9987
53	<i>Icelinus filamentosus</i>	0.0270	0.0001	0.9988
54	<i>Psettichthys melanostictus</i>	0.0240	0.0001	0.9989
55	<i>Pleuronichthys decurrens</i>	0.0230	0.0001	0.9990
56	<i>Sebastes paucispinis</i>	0.0180	0.0001	0.9990
57	<i>Stylatula</i> sp.	0.0170	0.0001	0.9991
58	<i>Sebastes</i> sp.	0.0170	0.0001	0.9992
59	<i>Anarrhichthys ocellatus</i>	0.0170	0.0001	0.9992
60	<i>Cryptacanthodes giganteus</i>	0.0160	0.0001	0.9993
61	<i>Bathyraja interrupta</i>	0.0140	0.0001	0.9994
62	<i>Luidia foliata</i>	0.0140	0.0001	0.9994
63	<i>Lycodes cortezianus</i>	0.0120	0.0000	0.9994
64	<i>Platichthys stellatus</i>	0.0100	0.0000	0.9995
65	Porifera	0.0090	0.0000	0.9995
66	<i>Torpedo californica</i>	0.0090	0.0000	0.9996
67	<i>Lopholithodes foraminatus</i>	0.0080	0.0000	0.9996
68	<i>Pandalus platyceros</i>	0.0070	0.0000	0.9996
69	<i>Hexagrammos decagrammus</i>	0.0070	0.0000	0.9996
70	Skate egg case (unidentified)	0.0060	0.0000	0.9997
71	Squid (unidentified)	0.0050	0.0000	0.9997
72	<i>Sebastes entomelas</i>	0.0050	0.0000	0.9997
73	<i>Strongylocentrotus franciscanus</i>	0.0050	0.0000	0.9997
74	<i>Icelinus oculatus</i>	0.0050	0.0000	0.9997
75	<i>Sebastes babcocki</i>	0.0050	0.0000	0.9998
76	<i>Sebastes chlorostictus</i>	0.0040	0.0000	0.9998
77	<i>Citharichthys</i> sp.	0.0040	0.0000	0.9998
78	<i>Solaster</i> sp.	0.0040	0.0000	0.9998
79	<i>Rathbunaster californicus</i>	0.0040	0.0000	0.9998
80	Nudibranch (unidentified)	0.0030	0.0000	0.9998
81	<i>Apristurus brunneus</i>	0.0030	0.0000	0.9998
82	<i>Allosmerus elongatus</i>	0.0030	0.0000	0.9998
83	<i>Pycnopodia helianthoides</i>	0.0030	0.0000	0.9999
84	Pectinid (unidentified)	0.0030	0.0000	0.9999
85	<i>Sebastes diploproa</i>	0.0020	0.0000	0.9999

Table B-13.-Continued.

86	<i>Leptocottus armatus</i>	0.0020	0.0000	0.9999
87	Hexactinellida	0.0020	0.0000	0.9999
88	<i>Sebastes alutus</i>	0.0020	0.0000	0.9999
89	<i>Xeneretmus latifrons</i>	0.0020	0.0000	0.9999
90	<i>Sebastes zacentrus</i>	0.0020	0.0000	0.9999
91	Pandalidae	0.0020	0.0000	0.9999
92	<i>Isopsetta isolepis</i>	0.0010	0.0000	0.9999
93	Thaliacea (unidentified)	0.0010	0.0000	0.9999
94	Pennatulacea (order)	0.0010	0.0000	0.9999
95	<i>Eptatretus stouti</i>	0.0010	0.0000	0.9999
96	<i>Hemilepidotus spinosus</i>	0.0010	0.0000	0.9999
97	<i>Stylasterias forreri</i>	0.0010	0.0000	1.0000
98	Brachiopod (unidentified)	0.0010	0.0000	1.0000
99	<i>Bathyagonus nigripinnis</i>	0.0010	0.0000	1.0000
100	<i>Tritonia</i> sp.	0.0010	0.0000	1.0000
101	<i>Fusitriton oregonensis</i>	0.0010	0.0000	1.0000
102	<i>Berryteuthis magister</i>	0.0010	0.0000	1.0000
103	Myxinidae	0.0010	0.0000	1.0000
104	<i>Chilara taylori</i>	0.0010	0.0000	1.0000
105	<i>Cancer productus</i>	0.0010	0.0000	1.0000
106	<i>Sebastes levis</i>	0.0010	0.0000	1.0000
107	<i>Theragra chalcogramma</i>	0.0010	0.0000	1.0000
108	<i>Peprilus simillimus</i>	0.0010	0.0000	1.0000
109	Octopus (unidentified)	0.0010	0.0000	1.0000
110	<i>Lycodes diapterus</i>	0.0010	0.0000	1.0000
111	<i>Patinopecten caurinus</i>	0.0000	0.0000	1.0000
112	<i>Pteraster tessellatus</i>	0.0000	0.0000	1.0000
113	<i>Poraniopsis inflata</i>	0.0000	0.0000	1.0000
114	Aphroditidae	0.0000	0.0000	1.0000
115	<i>Lampetra tridentata</i>	0.0000	0.0000	1.0000
116	<i>Crossaster papposus</i>	0.0000	0.0000	1.0000
117	<i>Ammodytes hexapterus</i>	0.0000	0.0000	1.0000
118	<i>M o l p a d i a</i> sp.	0.0000	0.0000	1.0000
119	<i>Pandalus hypsinotus</i>	0.0000	0.0000	1.0000
120	<i>Neptunea</i> sp.	0.0000	0.0000	1.0000
121	<i>Argentina sialis</i>	0.0000	0.0000	1.0000
122	Isopoda (order)	0.0000	0.0000	1.0000
123	<i>Stenobrachius leucopsarus</i>	0.0000	0.0000	1.0000
124	Agonidae	0.0000	0.0000	1.0000
125	<i>Henricia</i> sp.	0.0000	0.0000	1.0000
126	<i>Ronquilus jordani</i>	0.0000	0.0000	1.0000
127	<i>Agonopsis vulsa</i>	0.0000	0.0000	1.0000
128	<i>Xeneretmus leiops</i>	0.0000	0.0000	1.0000
129	Gastropod (unidentified)	0.0000	0.0000	1.0000

Table B-I 3.--Continued.

130 <i>Hippasteria spinosa</i>	0.0000	0.0000	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	21.0860	0.2131	0.2131
2	Merluccius productus	14.5460	0.1470	0.3601
3	Microstomus pacificus	9.1450	0.0924	0.4525
4	Sebastes crameri	8.3190	0.0841	0.5366
5	Sebastes entomelas	6.6680	0.0674	0.6040
6	Atheresthes stomias	5.8220	0.0588	0.6628
7	Glyptocephalus zachirus	5.6920	0.0575	0.7203
8	Sebastes zacentrus	5.3810	0.0544	0.7747
9	Sebastes diploproa	4.4550	0.0450	0.8197
10	Sebastolobus alascanus	3.7470	0.0379	0.8576
11	Sebastes saxicola	2.3230	0.0235	0.8811
12	Hippoglossus stenolepis	1.8210	0.0184	0.8995
13	Sebastes elongatus	1.2510	0.0126	0.9121
14	Sea urchin (unidentified)	1.0420	0.0105	0.9226
15	Allocentrotus fragilis	0.7820	0.0079	0.9306
16	Sebastes alutus	0.7760	0.0078	0.9384
17	Parophrys vetulus	0.5870	0.0059	0.9443
18	Lyopsetta exilis	0.4470	0.0045	0.9488
19	Raja rhina	0.3900	0.0039	0.9528
20	Heart urchin (unidentified)	0.3870	0.0039	0.9567
21	Sebastes proriger	0.3840	0.0039	0.9606
22	Ophiodon elongatus	0.3730	0.0038	0.9643
23	Sebastes babcocki	0.3680	0.0037	0.9681
24	Sebastes helvomaculatus	0.2900	0.0029	0.9710
25	Bathyraja interrupta	0.2370	0.0024	0.9734
26	Lycodes cortezianus	0.2340	0.0024	0.9758
27	Aphrocallistes vastus	0.2070	0.0021	0.9778
28	Sebastes aleutianus	0.2040	0.0021	0.9799
29	Cancer magister	0.1830	0.0019	0.9818
30	Holothuroidea (unidentified)	0.1540	0.0016	0.9833
31	Scyphozoa (class)	0.1260	0.0013	0.9846
32	Sebastes flavidus	0.1230	0.0012	0.9858
33	Pandalus jordani	0.1010	0.0010	0.9869
34	Rathbunaster californicus	0.0990	0.0010	0.9878
35	Icelinus filamentosus	0.0960	0.0010	0.9888
36	Starfish (unidentified)	0.0920	0.0009	0.9898
37	Hydrolagus colliei	0.0830	0.0008	0.9906
38	Eopsetta jordani	0.0710	0.0007	0.9913
39	Sebastes pinniger	0.0710	0.0007	0.9920
40	Squalus acanthias	0.0690	0.0007	0.9927
41	Pandalus platyceros	0.0690	0.0007	0.9934

Table B-14.-Continued.

42	<i>Lycodes diapterus</i>	0.0510	0.0005	0.9940
43	<i>Torpedo californica</i>	0.0510	0.0005	0.9945
44	<i>Alosa sapidissima</i>	0.0500	0.0005	0.9950
45	<i>Lopholithodes foraminatus</i>	0.0480	0.0005	0.9954
46	<i>Sebastes borealis</i>	0.0400	0.0004	0.9958
47	<i>Luidia foliata</i>	0.0390	0.0004	0.9962
48	<i>Apristurus brunneus</i>	0.0370	0.0004	0.9966
49	Actiniaria (order)	0.0310	0.0003	0.9969
50	<i>Stenobranchius leucopsarus</i>	0.0290	0.0003	0.9972
51	<i>Sebastes brevispinis</i>	0.0290	0.0003	0.9975
52	<i>Lycodes</i>	0.0270	0.0003	0.9978
53	Squid (unidentified)	0.0210	0.0002	0.9980
54	Porifera	0.0210	0.0002	0.9982
55	<i>Thaleichthys pacificus</i>	0.0190	0.0002	0.9984
56	<i>Gadus macrocephalus</i>	0.0170	0.0002	0.9986
57	<i>Sebastes reedi</i>	0.0120	0.0001	0.9987
58	<i>Sebastes levis</i>	0.0120	0.0001	0.9988
59	Myctophidae	0.0110	0.0001	0.9989
60	Hexactinellida	0.0080	0.0001	0.9990
61	<i>Sebastes jordani</i>	0.0080	0.0001	0.9991
62	Basketstarfish (unidentified)	0.0080	0.0001	0.9992
63	<i>Xeneretmus latifrons</i>	0.0070	0.0001	0.9992
64	<i>Pandalopsis dispar</i>	0.0060	0.0001	0.9993
65	Gastropod (unidentified)	0.0060	0.0001	0.9994
66	<i>Sebastes rufus</i>	0.0050	0.0001	0.9994
67	<i>Careproctus melanurus</i>	0.0050	0.0000	0.9994
68	<i>Molpadia</i> sp.	0.0050	0.0000	0.9995
69	<i>Hippoglossoides elassodon</i>	0.0040	0.0000	0.9995
70	<i>Sebastes aurora</i>	0.0040	0.0000	0.9996
71	<i>Physiculus rastrelliger</i>	0.0040	0.0000	0.9996
72	<i>Neptunea</i> sp.	0.0030	0.0000	0.9996
73	Pennatulacea (order)	0.0030	0.0000	0.9997
74	Octopus (unidentified)	0.0030	0.0000	0.9997
75	Paguridae	0.0020	0.0000	0.9997
76	<i>Chilara taylori</i>	0.0020	0.0000	0.9998
77	<i>Eptatretus stouti</i>	0.0020	0.0000	0.9998
78	Nudibranch (unidentified)	0.0020	0.0000	0.9998
79	<i>Clupea pallasi</i>	0.0020	0.0000	0.9998
80	<i>Chauliodus macouni</i>	0.0010	0.0000	0.9998
81	Agonidae	0.0010	0.0000	0.9998
82	<i>Sebastes wilsoni</i>	0.0010	0.0000	0.9999
83	<i>Sebastes goodei</i>	0.0010	0.0000	0.9999
84	<i>Stylatula</i> sp.	0.0010	0.0000	0.9999
85	Pelagic octopus (unidentified)	0.0010	0.0000	0.9999

Table B-14.--Continued.

88	Ascidian (unidentified)	0.0010	0.0000	0.9999
87	Thaliacea (unidentified)	0.0010	0.0000	0.9999
88	Stylasterias forreri	0.0010	0.0000	0.9999
89	Pasiphaea	0.0010	0.0000	0.9999
90	Scyliorhinidae	0.0010	0.0000	0.9999
91	Xeneretmus leiops	0.0010	0.0000	0.9999
92	Polinices sp.	0.0010	0.0000	1.0000
93	Chionoecetes tanneri	0.0010	0.0000	1.0000
94	BathYGONUS pentacanthus	0.0010	0.0000	1.0000
95	Citharichthys sordidus	0.0010	0.0000	1.0000
96	Shark egg	0.0010	0.0000	1.0000
97	Brachiopod (unidentified)	0.0010	0.0000	1.0000
98	Hyas lyratus	0.0010	0.0000	1.0000
99	Ophiuroid (unidentified)	0.0010	0.0000	1.0000
100	Strongylocentrotus franciscanus	0.0000	0.0000	1.0000
101	Sipuncula (phylum)	0.0000	0.0000	1.0000
102	Sebastes sp.	0.0000	0.0000	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	Anoplopoma fimbria	12.5610	0.2316	0.2316
2	Microstomus pacificus	11.1130	0.2049	0.4366
3	Sebastobus alascanus	9.3010	0.1715	0.6081
4	Menuccius productus	5.8280	0.1075	0.7156
5	Glyptocephalus zachirus	3.7310	0.0688	0.7844
6	Sebastes alutus	1.3460	0.0248	0.8092
7	Sebastes aleutianus	1.2460	0.0230	0.8322
8	Raja rhina	0.8700	0.0160	0.8482
9	Atheresthes stomias	0.8210	0.0151	0.8634
10	Sebastobus altivelis	0.8120	0.0150	0.8783
11	Sebastes aurora	0.7820	0.0144	0.8928
12	Sebastes borealis	0.7790	0.0144	0.9071
13	Apristurus brunneus	0.6460	0.0119	0.9190
14	Sea urchin (unidentified)	0.5430	0.0700	0.9291
15	Lycodes cortezianus	0.3440	0.0063	0.9354
16	Starfish (unidentified)	0.3330	0.0061	0.9415
17	Lycodes diapterus	0.2720	0.0050	0.9465
18	Sebastes diploproa	0.2540	0.0047	0.9512
19	Porifera	0.2330	0.0043	0.9555
20	Scyphozoa (class)	0.2210	0.0041	0.9596
21	Aphrocallistes vastus	0.2200	0.0041	0.9637
22	Hippoglossus stenolepis	0.1970	0.0036	0.9673
23	Sebastes melanostomus	0.1900	0.0035	0.9708
24	Hydrolagus colliei	0.1700	0.0031	0.9740
25	Heart urchin (unidentified)	0.1410	0.0026	0.9765
26	Actiniaria (order)	0.1390	0.0026	0.9791
27	Moroteuthis robusta	0.1180	0.0022	0.9813
28	Bathyraja interrupta	0.1120	0.0021	0.9833
29	Squid (unidentified)	0.0930	0.0017	0.9851
30	Holothuroidea (unidentified)	0.0850	0.0016	0.9866
31	Allocentrotus fragilis	0.0670	0.0012	0.9878
32	Sebastes crameri	0.0550	0.0010	0.9889
33	Chionoecetes tanneri	0.0480	0.0009	0.9898
34	Pasiphaea	0.0480	0.0009	0.9906
35	Lyopsetta exilis	0.0480	0.0009	0.9915
36	Sebastes babcocki	0.0390	0.0007	0.9922
37	Neptunea sp.	0.0390	0.0007	0.9930
38	Gastropod (unidentified)	0.0330	0.0006	0.9936
39	Sebastes helvomaculatus	0.0270	0.0005	0.9941
40	Sebastes entomelas	0.0270	0.0005	0.9946
41	Berryteuthis magister	0.0240	0.0005	0.9950

Table B-15.--Continued.

42	Parophrys vetulus	0.0200	0.0004	0.9954
43	Myctophidae	0.0180	0.0003	0.9957
44	Squalus acanthias	0.0180	0.0003	0.9961
45	Sebastes zacentrus	0.0160	0.0003	0.9964
46	Chauliodus macouni	0.0160	0.0003	0.9966
47	Careproctus melanurus	0.0150	0.0003	0.9969
48	Embassichthys bathybius	0.0150	0.0003	0.9972
49	Stenobranchius leucopsarus	0.0140	0.0003	0.9975
50	Opisthoteuthis californiana	0.0140	0.0003	0.9977
51	Hexactinellida	0.0140	0.0003	0.9980
52	Sergestidae (family)	0.0100	0.0002	0.9982
53	Octopus (unidentified)	0.0090	0.0002	0.9983
54	Octopus dofleini	0.0080	0.0002	0.9985
55	Pennatulacea (order)	0.0070	0.0001	0.9986
56	Cancer magister	0.0070	0.0001	0.9987
57	Eptatretus deani	0.0060	0.0001	0.9988
58	Ophiuroid (unidentified)	0.0050	0.0001	0.9989
59	Careproctus sp.	0.0040	0.0001	0.9990
60	Rathbunaster californicus	0.0040	0.0001	0.9991
61	Lampanyctus ritteri	0.0040	0.0001	0.9992
62	Tactostoma macropus	0.0030	0.0001	0.9992
63	Strongylocentrotus franciscanus	0.0030	0.0000	0.9993
64	Icosteus aenigmaticus	0.0030	0.0000	0.9993
65	Nezumia stelgidolepis	0.0020	0.0000	0.9994
66	Coryphaenoides acrolepis	0.0020	0.0000	0.9994
67	Anstostomias scintillans	0.0020	0.0000	0.9994
68	Paguridae	0.0020	0.0000	0.9995
69	Hippasteria sp.	0.0020	0.0000	0.9996
70	Malacocottus kincaidi	0.0020	0.0000	0.9996
71	Ctenodiscus crispatus	0.0020	0.0000	0.9996
72	Pandalus platyceros	0.0020	0.0000	0.9996
73	Thaliacea (unidentified)	0.0020	0.0000	0.9996
74	Bathyagonus nigripinnis	0.0010	0.0000	0.9997
75	Bathylagus milleri	0.0010	0.0000	0.9997
76	Ctenophora (phylum)	0.0010	0.0000	0.9997
77	Nudibranch (unidentified)	0.0010	0.0000	0.9997
78	Stylasterias forreri	0.0010	0.0000	0.9998
79	Pandalopsis dispar	0.0010	0.0000	0.9998
80	Diplopteraster multipes	0.0010	0.0000	0.9998
81	Luidia foliata	0.0010	0.0000	0.9998
82	Basketstarfish (unidentified)	0.0010	0.0000	0.9998
83	Shark egg	0.0010	0.0000	0.9998
84	Sagamichthys abei	0.0010	0.0000	0.9998
85	Lestidiops ringens	0.0010	0.0000	0.9999

Table B-15.--Continued.

86	Leuroglossus stilbius	0.0010	0.0000	0.9999
87	Sipuncula (phylum)	0.0010	0.0000	0.9999
88	Shrimp (unidentified)	0.0010	0.0000	0.9999
89	Ascidian (unidentified)	0.0010	0.0000	0.9999
90	Brachiopod (unidentified)	0.0010	0.0000	0.9999
91	Lycodapus mandibularis	0.0010	0.0000	0.9999
92	Chauliodontidae	0.0010	0.0000	1.0000
93	Skate egg case (unidentified)	0.0010	0.0000	1.0000
94	Heterozonias alternatus	0.0000	0.0000	1.0000
95	Henricia sp.	0.0000	0.0000	1.0000
96	Anoplagonus inermis	0.0000	0.0000	1.0000
97	Aphroditidae	0.0000	0.0000	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>	126.5460	0.6503	0.6503
2	<i>Citharichthys sordidus</i>	10.4900	0.0539	0.7042
3	<i>Anoplopoma fimbria</i>	8.1390	0.0418	0.7460
4	<i>Microstomus pacificus</i>	5.8220	0.0299	0.7759
5	<i>Trachurus symmetricus</i>	5.4630	0.0281	0.8040
6	<i>Scomber japonicus</i>	4.5890	0.0236	0.8276
7	<i>Glyptocephalus zachirus</i>	4.3710	0.0225	0.8500
8	<i>Sebastes wilsoni</i>	2.9230	0.0150	0.8650
9	<i>Sebastolobus alascanus</i>	2.3150	0.0119	0.8769
10	<i>Atheresthes stomias</i>	2.0920	0.0107	0.8877
11	<i>Sebastes crameri</i>	2.0550	0.0106	0.8982
12	<i>Hippoglossus stenolepis</i>	1.5960	0.0082	0.9064
13	<i>Parophtys vetulus</i>	1.5660	0.0080	0.9145
14	<i>Sebastes entomelas</i>	1.4280	0.0073	0.9218
15	<i>Sebastes elongatus</i>	1.2030	0.0062	0.9280
16	<i>Sebastes zacentrus</i>	1.1500	0.0059	0.9339
17	<i>Alosa sapidissima</i>	0.9910	0.0051	0.9390
18	<i>Sebastes diploproa</i>	0.9910	0.0051	0.9441
19	Scyphozoa (class)	0.7390	0.0038	0.9479
20	<i>Sebastes pinniger</i>	0.7106	0.0036	0.9516
21	<i>Ophiodon elongatus</i>	0.5720	0.0029	0.9545
22	<i>Clupea pallasii</i>	0.5370	0.0028	0.9572
23	<i>Sebastes flavidus</i>	0.5210	0.0027	0.9599
24	<i>Sebastes saxicola</i>	0.5190	0.0027	0.9626
25	<i>Raja rhina</i>	0.4960	0.0025	0.9651
26	<i>Squalus acanthias</i>	0.4340	0.0022	0.9674
27	<i>Cancer magister</i>	0.4300	0.0022	0.9696
28	<i>Sebastes proriger</i>	0.4220	0.0022	0.9717
29	<i>Sebastes alutus</i>	0.3800	0.0020	0.9737
30	Sea urchin (unidentified)	0.3540	0.0018	0.9755
31	<i>Eopsetta jordani</i>	0.3410	0.0018	0.9773
32	<i>Lyopsetta exilis</i>	0.3120	0.0016	0.9789
33	<i>Alopias vulpinus</i>	0.2960	0.0015	0.9804
34	<i>Sebastes aleutianus</i>	0.2910	0.0015	0.9819
35	<i>Loligo opalescens</i>	0.2530	0.0013	0.9832
36	<i>Hydrolagus colliei</i>	0.2370	0.0012	0.9844
37	Heart urchin (unidentified)	0.2100	0.0011	0.9855
38	<i>Oncorhynchus tshawytscha</i>	0.1980	0.0010	0.9865
39	<i>Allocentrotus fragilis</i>	0.1970	0.0010	0.9875
40	<i>Sebastes helvomaculatus</i>	0.1810	0.0009	0.9884
41	Starfish (unidentified)	0.1750	0.0009	0.9893

Table B-16.-Continued.

42	<i>Sebastes borealis</i>	0.1320	0.0007	0.9900
43	<i>Sebastolobus altivelis</i>	0.1290	0.0007	0.9907
44	<i>Sebastes aurora</i>	0.1250	0.0006	0.9913
45	Actiniaria (order)	0.1140	0.0006	0.9919
46	<i>Lycodes cortezianus</i>	0.1120	0.0006	0.9925
47	<i>Apristurus brunneus</i>	0.1120	0.0006	0.9930
48	<i>Sebastes babcocki</i>	0.0880	0.0004	0.9935
49	<i>Aphrocallistes vastus</i>	0.0790	0.0004	0.9939
50	<i>Bathyraja interrupta</i>	0.0770	0.0004	0.9943
51	Holothuroidea (unidentified)	0.0710	0.0004	0.9947
52	<i>Hippoglossoides elassodon</i>	0.0610	0.0003	0.9950
53	<i>Lepidopsetta</i> sp.	0.0550	0.0003	0.9953
54	<i>Lycodes diapterus</i>	0.0540	0.0003	0.9956
55	<i>Sebastes reedi</i>	0.0490	0.0003	0.9958
56	Porifera	0.0470	0.0002	0.9960
57	<i>Pandalus jordani</i>	0.0450	0.0002	0.9963
58	Basketstarfish (unidentified)	0.0410	0.0002	0.9965
59	<i>Sebastes jordani</i>	0.0390	0.0002	0.9967
60	<i>Sardinops sagax</i>	0.0380	0.0002	0.9969
61	<i>Icelinus filamentosus</i>	0.0370	0.0002	0.9971
62	<i>Microgadus proximus</i>	0.0350	0.0002	0.9973
63	<i>Raja binoculata</i>	0.0320	0.0002	0.9974
64	<i>Sebastes melanostomus</i>	0.0300	0.0002	0.9976
65	<i>Lycodes</i>	0.0300	0.0002	0.9977
66	<i>Thaleichthys pacificus</i>	0.0270	0.0001	0.9979
67	<i>Gadus macrocephalus</i>	0.0270	0.0001	0.9980
68	<i>Rathbunaster californicus</i>	0.0240	0.0001	0.9981
69	<i>Sebastes ruberrimus</i>	0.0240	0.0001	0.9982
70	Squid (unidentified)	0.0230	0.0001	0.9984
71	<i>Pandalus platyceros</i>	0.0190	0.0001	0.9985
72	<i>Moroteuthis robusta</i>	0.0190	0.0001	0.9986
73	<i>Luidia foliata</i>	0.0170	0.0001	0.9986
74	<i>Torpedo californica</i>	0.0160	0.0001	0.9987
75	<i>Lopholithodes foraminatus</i>	0.0150	0.0001	0.9988
76	<i>Psettichthys melanostictus</i>	0.0150	0.0001	0.9989
77	<i>Pleuronichthys decurrens</i>	0.0140	0.0001	0.9990
78	<i>Sebastes paucispinis</i>	0.0110	0.0001	0.9990
79	<i>Stylatula</i> sp.	0.0110	0.0001	0.9991
80	<i>Sebastes</i> sp.	0.0100	0.0001	0.9991
81	<i>Anarrhichthys ocellatus</i>	0.0100	0.0001	0.9992
82	<i>Cryptacanthodes giganteus</i>	0.0100	0.0001	0.9992
83	<i>Stenobranchius leucopsarus</i>	0.0090	0.0000	0.9993
84	<i>Chionoecetes tanneri</i>	0.0080	0.0000	0.9993
85	<i>Pasiphaea</i>	0.0080	0.0000	0.9994

Table B-16.--Continued.

86	Neptunea sp.	0.0070	0.0000	0.9994
87	Gastropod (unidentified)	0.0070	0.0000	0.9994
88	Platichthys stellatus	0.0060	0.0000	0.9995
89	Sebastes brevispinis	0.0060	0.0000	0.9995
90	Hexactinellida	0.0050	0.0000	0.9995
91	Myctophidae	0.0050	0.0000	0.9996
92	Berryteuthis magister	0.0040	0.0000	0.9996
93	Hexagrammos decagrammus	0.0040	0.0000	0.9996
94	Skate egg case (unidentified)	0.0040	0.0000	0.9996
95	Strongylocentrotus franciscanus	0.0030	0.0000	0.9996
96	Careproctus melanurus	0.0030	0.0000	0.9996
97	Icelinus oculatus	0.0030	0.0000	0.9997
98	Sebastes levis	0.0030	0.0000	0.9997
99	Chauliodus macouni	0.0030	0.0000	0.9997
100	Sebastes chlorostictus	0.0030	0.0000	0.9997
101	Nudibranch (unidentified)	0.0030	0.0000	0.9997
102	Citharichthys sp.	0.0030	0.0000	0.9997
103	Pennatulacea (order)	0.0030	0.0000	0.9998
104	Solaster sp.	0.0030	0.0000	0.9998
105	Xeneretmus latifrons	0.0020	0.0000	0.9998
106	Octopus (unidentified)	0.0020	0.0000	0.9998
107	Embassichthys bathybius	0.0020	0.0000	0.9998
108	Opisthoteuthis californiana	0.0020	0.0000	0.9998
109	Allosmerus elongatus	0.0020	0.0000	0.9998
110	Pycnopodia helianthoides	0.0020	0.0000	0.9998
111	Pectinid (unidentified)	0.0020	0.0000	0.9998
112	Sergestidae (family)	0.0020	0.0000	0.9998
113	Pandalopsis dispar	0.0010	0.0000	0.9998
114	Leptocottus armatus	0.0010	0.0000	0.9998
115	Octopus dofleini	0.0010	0.0000	0.9999
116	Thaliacea (unidentified)	0.0010	0.0000	0.9999
117	Sebastes rufus	0.0010	0.0000	0.9999
118	Eptatretus stouti	0.0010	0.0000	0.9999
119	Molpadia sp.	0.0010	0.0000	0.9999
120	Pandalidae	0.0010	0.0000	0.9999
121	Eptatretus deani	0.0010	0.0000	0.9999
122	Chilara taylori	0.0010	0.0000	0.9999
123	Ophiuroid (unidentified)	0.0010	0.0000	0.9999
124	Stylasterias forreri	0.0010	0.0000	0.9999
125	Isopsetta isolepis	0.0010	0.0000	0.9999
126	Paguridae	0.0010	0.0000	0.9999
127	Brachiopod (unidentified)	0.0010	0.0000	0.9999
128	Physiculus rastrelliger	0.0010	0.0000	0.9999
129	Bathyagonus nigripinnis	0.0010	0.0000	0.9999

Table B-16.--Continued.

130	Careproctus sp.	0.0010	0.0000	0.9999
131	Hemilepidotus spinosus	0.0010	0.0000	0.9999
132	Lampanyctus ritteri	0.0010	0.0000	0.9999
133	Tactostoma macropus	1.0000	0.0000	0.9999
134	Tritonia sp.	0.0000	0.0000	0.9999
135	Fusitnton oregonensis	0.0000	0.0000	1.0000
136	Myxinidae	0.0000	0.0000	1.0000
137	Icosteus aenigmaticus	0.0000	0.0000	1.0000
138	Cancer productus	0.0000	0.0000	1.0000
139	Theragra chalcogramma	0.0000	0.0000	1.0000
140	Agonidae	0.0000	0.0000	1.0000
141	Nezumia stelgidolepis	0.0000	0.0000	1.0000
142	Ascidian (unidentified)	0.0000	0.0000	1.0000
143	Peprilus simillimus	0.0000	0.0000	1.0000
144	Coryphaenoides acrolepis	0.0000	0.0000	1.0000
145	Aphroditidae	0.0000	0.0000	1.0000
146	Aristostomias scintillans	0.0000	0.0000	1.0000
147	Hippasteria sp.	0.0000	0.0000	1.0000
148	Malacocottus kincaidi	0.0000	0.0000	1.0000
149	Ctenodiscus crispatus	0.0000	0.0000	1.0000
150	Patinopecten caurinus	0.0000	0.0000	1.0000
151	Pteraster tesselatus	0.0000	0.0000	1.0000
152	Poraniopsis inflata	0.0000	0.0000	1.0000
153	Lampetra tridentata	0.0000	0.0000	1.0000
154	Sebastes goodei	0.0000	0.0000	1.0000
155	Shark egg	0.0000	0.0000	1.0000
156	Pelagic octopus (unidentified)	0.0000	0.0000	1.0000
157	Bathylagus milleri	0.0000	0.0000	1.0000
158	Crossaster papposus	0.0000	0.0000	1.0000
159	Xeneretmus leiops	0.0000	0.0000	1.0000
160	Sipuncula (phylum)	0.0000	0.0000	1.0000
161	Ctenophora (phylum)	0.0000	0.0000	1.0000
162	Henricia sp.	0.0000	0.0000	1.0000
163	Scyliorhinidae	0.0000	0.0000	1.0000
164	Ammodytes hexapterus	0.0000	0.0000	1.0000
165	Pandalus hypsinotus	0.0000	0.0000	1.0000
166	Polinices sp.	0.0000	0.0000	1.0000
167	Argentina sialis	0.0000	0.0000	1.0000
168	Diplopteraster multipes	0.0000	0.0000	1.0000
169	BathYGONUS pentacanthus	0.0000	0.0000	1.0000
170	Sagamichthys abei	0.0000	0.0000	1.0000
171	Lestidiops ringens	0.0000	0.0000	1.0000
172	Isopoda (order)	0.0000	0.0000	1.0000
173	Hyas lyratus	0.0000	0.0000	1.0000

Table B-16.--Continued.

174	<i>Leuroglossus stilbius</i>	0.0000	0.0000	1.0000
175	Shrimp (unidentified)	0.0000	0.0000	1.0000
176	<i>Lycodapus mandibularis</i>	0.0000	0.0000	1.0000
177	Chauliodontidae	0.0000	0.0000	1.0000
178	<i>Heterozonias alternatus</i>	0.0000	0.0000	1.0000
179	<i>Ronquilus jordani</i>	0.0000	0.0000	1.0000
180	<i>Agonopsis vulsa</i>	0.0000	0.0000	1.0000
181	<i>Hippasteria spinosa</i>	0.0000	0.0000	1.0000
182	<i>Anoplagonus inermis</i>	0.0000	0.0000	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>Merluccius productus</i>	198.0250	0.7777	0.7777
2	<i>Squalus acanthias</i>	15.2950	0.0601	0.8378
3	<i>Hippoglossus stenolepis</i>	6.7660	0.0266	0.8643
4	<i>Citharichthys sordidus</i>	6.2630	0.0246	0.8889
5	<i>Clupea pallasii</i>	3.9460	0.0155	0.9044
6	<i>Atheresthes stomias</i>	3.5830	0.0141	0.9185
7	<i>Sebastes flavidus</i>	3.4820	0.0137	0.9322
8	<i>Parophrys vetulus</i>	3.3720	0.0132	0.9454
9	<i>Microstomus pacificus</i>	2.2890	0.0090	0.9544
10	<i>Anoplopoma fimbria</i>	1.8510	0.0073	0.9617
11	<i>Glyptocephalus zachirus</i>	1.6030	0.0063	0.9680
12	<i>Sebastes elongatus</i>	1.3740	0.0054	0.9734
13	<i>Alosa sapidissima</i>	0.9380	0.0037	0.9770
14	Scyphozoa (class)	0.8440	0.0033	0.9804
15	<i>Gadus macrocephalus</i>	0.7850	0.0031	0.9834
16	<i>Ophiodon elongatus</i>	0.7840	0.0031	0.9865
17	<i>Eopsetta jordani</i>	0.6320	0.0025	0.9890
18	<i>Scomber japonicus</i>	0.5220	0.0021	0.9911
19	<i>Raja rhina</i>	0.4530	0.0018	0.9928
20	<i>Strongylocentrotus droebachiensis</i>	0.3210	0.0013	0.9941
21	<i>Lyopsetta exilis</i>	0.1920	0.0008	0.9948
22	<i>Hippoglossoides elassodon</i>	0.1660	0.0007	0.9955
23	<i>Sebastes aleutianus</i>	0.1540	0.0006	0.9961
24	<i>Hydrolagus colliei</i>	0.1080	0.0004	0.9965
25	<i>Sebastes crameri</i>	0.0990	0.0004	0.9969
26	<i>Lepidopsetta</i> sp.	0.0760	0.0003	0.9972
27	<i>Pandalus jordani</i>	0.0680	0.0003	0.9975
28	<i>Sardinops sagax</i>	0.0540	0.0002	0.9977
29	<i>Sebastes alutus</i>	0.0510	0.0002	0.9979
30	<i>Microgadus proximus</i>	0.0500	0.0002	0.9981
31	<i>Sebastes entomelas</i>	0.0480	0.0002	0.9983
32	<i>Oncorhynchus tshawytscha</i>	0.0480	0.0002	0.9985
33	<i>Lopholithodes foraminatus</i>	0.0450	0.0002	0.9986
34	<i>Luidia foliata</i>	0.0320	0.0001	0.9988
35	<i>Thaleichthys pacificus</i>	0.0260	0.0001	0.9989
36	Actinaria (order)	0.0250	0.0001	0.9990
37	<i>Stylasterias forreri</i>	0.0220	0.0001	0.9990
38	<i>Polinices</i> sp.	0.0200	0.0001	0.9991
39	<i>Sebastes pinniger</i>	0.0180	0.0001	0.9992
40	<i>Theragra chalcogramma</i>	0.0170	0.0001	0.9993
41	<i>Crossaster papposus</i>	0.0160	0.0001	0.9993

Table B-17.--Continued.

42	<i>Rathbunaster californicus</i>	0.0130	0.0001	0.9994
43	<i>Pycnopodia helianthoides</i>	0.0130	0.0001	0.9994
44	Hexactinellida	0.0120	0.0000	0.9995
45	<i>Cancer magister</i>	0.0110	0.0000	0.9995
46	<i>Sebastes helvomaculatus</i>	0.0110	0.0000	0.9996
47	<i>Lycodes pacificus</i>	0.0100	0.0000	0.9996
48	<i>Bathyraja interrupta</i>	0.0100	0.0000	0.9996
49	<i>Benyteuthis magister</i>	0.0090	0.0000	0.9997
50	<i>Sebastes saxicola</i>	0.0080	0.0000	0.9997
51	Skate egg case (unidentified)	0.0080	0.0000	0.9997
52	<i>Trachurus symmetricus</i>	0.0070	0.0000	0.9998
53	Basketstarfish (unidentified)	0.0060	0.0000	0.9998
54	Heart urchin (unidentified)	0.0060	0.0000	0.9998
55	Aphroditidae	0.0050	0.0000	0.9998
56	<i>Sebastes zacentrus</i>	0.0050	0.0000	0.9999
57	<i>Pandalus platyceros</i>	0.0050	0.0000	0.9999
58	<i>Loligo opalescens</i>	0.0050	0.0000	0.9999
59	<i>Stylatula</i> sp.	0.0040	0.0000	0.9999
60	<i>Solaster stimpsoni</i>	0.0030	0.0000	0.9999
61	<i>Solaster endeca</i>	0.0020	0.0000	0.9999
62	Thaliacea (unidentified)	0.0020	0.0000	0.9999
63	<i>Sebastes babcocki</i>	0.0020	0.0000	1.0000
64	<i>Hexagrammos decagrammus</i>	0.0020	0.0000	1.0000
65	<i>Mediaster aequalis</i>	0.0020	0.0000	1.0000
66	<i>Patinopecten caurinus</i>	0.0010	0.0000	1.0000
67	<i>Icelinus filamentosus</i>	0.0010	0.0000	1.0000
68	<i>Henricia</i> sp.	0.0010	0.0000	1.0000
69	<i>Orthasterias koehleri</i>	0.0010	0.0000	1.0000
70	Octopus (unidentified)	0.0010	0.0000	1.0000
71	<i>Solaster</i> sp.	0.0010	0.0000	1.0000
72	<i>Raja binoculata</i>	0.0000	0.0000	1.0000
73	<i>Pseudarchaster parelii</i>	0.0000	0.0000	1.0000
74	<i>Chorilia longipes</i>	0.0000	0.0000	1.0000
75	<i>Pandalopsis dispar</i>	0.0000	0.0000	1.0000
76	<i>Xeneretmus leiops</i>	0.0000	0.0000	1.0000
77	<i>Rossia pacifica</i>	0.0000	0.0000	1.0000
78	Ophiuroid (unidentified)	0.0000	0.0000	1.0000
79	Galatheidae (family)	0.0000	0.0000	1.0000
80	<i>Liparis</i> sp.	0.0000	0.0000	1.0000
81	<i>Allosmerus elongatus</i>	0.0000	0.0000	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>Microstomus pacificus</i>	13.1750	0.2081	0.2081
2	<i>Atheresthes stomias</i>	8.2760	0.1307	0.3388
3	<i>Merluccius productus</i>	8.2690	0.1306	0.4694
4	<i>Sebastes alutus</i>	4.8730	0.0770	0.5463
5	<i>Sebastolobus alascanus</i>	3.7330	0.0590	0.6053
6	<i>Glyptocephalus zachirus</i>	3.6980	0.0584	0.6637
7	<i>Squalus acanthias</i>	2.7910	0.0441	0.7078
8	<i>Anoplopoma fimbria</i>	1.9890	0.0314	0.7392
9	<i>Sebastes elongatus</i>	1.6640	0.0263	0.7654
10	<i>Sebastes crameri</i>	1.4840	0.0234	0.7889
11	<i>Hydrolagus colliei</i>	1.4530	0.0229	0.8118
12	Heart urchin (unidentified)	1.3980	0.0221	0.8339
13	<i>Hippoglossus stenolepis</i>	1.2160	0.0192	0.8531
14	<i>Raja rhina</i>	1.0100	0.0160	0.8691
15	<i>Pandalus jordani</i>	0.7950	0.0126	0.8816
16	<i>Sebastes flavidus</i>	0.7410	0.0117	0.8933
17	<i>Hippoglossoides elassodon</i>	0.5780	0.0091	0.9025
18	<i>Lyopsetta exilis</i>	0.5340	0.0084	0.9109
19	<i>Strongylocentrotus franciscanus</i>	0.4910	0.0078	0.9186
20	<i>Sebastes helvomaculatus</i>	0.4800	0.0076	0.9262
21	<i>Bathyraja interrupta</i>	0.4460	0.0070	0.9333
22	<i>Ophiodon elongatus</i>	0.4110	0.0065	0.9398
23	<i>Gadus macrocephalus</i>	0.3960	0.0063	0.9460
24	<i>Sebastes zacentrus</i>	0.3640	0.0057	0.9518
25	<i>Sebastes aleutianus</i>	0.3580	0.0057	0.9574
26	<i>Alosa sapidissima</i>	0.2650	0.0042	0.9816
27	<i>Lopholithodes foraminatus</i>	0.2570	0.0041	0.9656
28	<i>Thaleichthys pacificus</i>	0.2480	0.0039	0.9696
29	<i>Allocentrotus fragilis</i>	0.2230	0.0035	0.9731
30	<i>Sebastes diploproa</i>	0.2220	0.0035	0.9766
31	<i>Lycodes cortezianus</i>	0.1550	0.0024	0.9790
32	<i>Parophrys vetulus</i>	0.1380	0.0022	0.9812
33	<i>Sebastes babcocki</i>	0.1350	0.0021	0.9834
34	<i>Luidia foliata</i>	0.1260	0.0020	0.9854
35	<i>Sebastes saxicola</i>	0.1150	0.0018	0.9872
36	<i>Strongylocentrotus droebachiensis</i>	0.1010	0.0016	0.9888
37	<i>Pandalus platyceros</i>	0.0570	0.0009	0.9897
38	<i>Diaphus theta</i>	0.0520	0.0008	0.9905
39	<i>Pandalopsis dispar</i>	0.0460	0.0007	0.9912
40	<i>Lophaster furcilliger</i>	0.0440	0.0007	0.9919
41	<i>Cryptacanthodes giganteus</i>	0.0420	0.0007	0.9926

Table B-18.--Continued.

42	Poraniopsis inflata	0.0410	0.0006	0.9932
43	Eopsetta jordani	0.0410	0.0006	0.9939
44	Stylasterias forreri	0.0380	0.0006	0.9945
45	Lycodes pacificus	0.0340	0.0005	0.9950
46	Aphroditidae	0.0310	0.0005	0.9955
47	Sebastes pinniger	0.0280	0.0004	0.9959
48	Theragra chalcogramma	0.0240	0.0004	0.9963
49	Actiniaria (order)	0.0220	0.0004	0.9967
50	Rathbunaster californicus	0.0210	0.0003	0.9970
51	Hippasteria spinosa	0.0210	0.0003	0.9973
52	Lycodes diapterus	0.0180	0.0003	0.9976
53	Careproctus melanurus	0.0140	0.0002	0.9978
54	Clupea pallasii	0.0140	0.0002	0.9980
55	Holothuroidea (unidentified)	0.0120	0.0002	0.9982
56	Hippasteria californica	0.0090	0.0001	0.9984
57	Eptatretus stouti	0.0080	0.0001	0.9985
58	Mediaster aequalis	0.0080	0.0001	0.9986
59	Ceramaster patagonicus	0.0070	0.0001	0.9988
60	Pasiphaea pacifica	0.0060	0.0001	0.9988
61	Sebastes proriger	0.0060	0.0001	0.9989
62	Thaliacea (unidentified)	0.0050	0.0001	0.9990
63	Solaster sp.	0.0050	0.0001	0.9991
64	Sebastes variegatus	0.0050	0.0001	0.9992
65	Ascidian (unidentified)	0.0050	0.0001	0.9994
66	Crossaster papposus	0.0050	0.0001	0.9994
67	Malacocottus kincaidi	0.0050	0.0001	0.9994
68	Scyphozoa (class)	0.0050	0.0001	0.9995
69	Solaster endeca	0.0040	0.0001	0.9995
70	Solaster stimpsoni	0.0030	0.0000	0.9996
71	Ctenodiscus crispatus	0.0030	0.0000	0.9996
72	Porifera	0.0020	0.0000	0.9997
73	Xeneretmus leiops	0.0020	0.0000	0.9997
74	Molpadia sp.	0.0020	0.0000	0.9998
75	Sagamichthys abei	0.0020	0.0000	0.9998
76	Paguridae	0.0020	0.0000	0.9998
77	Myctophidae	0.0020	0.0000	0.9998
78	Henricia sp.	0.0020	0.0000	0.9999
79	Octopus (unidentified)	0.0010	0.0000	0.9999
80	Aphrocallistes vastus	0.0010	0.0000	0.9999
81	Fusitriton oregonensis	0.0010	0.0000	0.9999
82	Diplopteraster multipes	0.0010	0.0000	0.9999
83	Gastropod (unidentified)	0.0010	0.0000	1.0000
84	Crinoid (unidentified)	0.0010	0.0000	1.0000
85	Oregonia gracilis	0.0000	0.0000	1.0000

Table B-18.--Continued.

86	Squid (unidentified)	0.0000	0.0000	1.0000
87	Stenobrachius leucopsarus	0.0000	0.0000	1.0000
88	Lycodes brevipes	0.0000	0.0000	1.0000
89	Galatheidae (family)	0.0000	0.0000	1.0000
90	Ophiuroid (unidentified)	0.0000	0.0000	1.0000
91	Polychaeta (class)	0.0000	0.0000	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>	5.3700	0.2792	0.2792
2	<i>Sebastes alutus</i>	2.5350	0.1318	0.4110
3	<i>Merluccius productus</i>	2.4980	0.1299	0.5408
4	<i>Sebastolobus alascanus</i>	2.4210	0.1259	0.6667
5	<i>Glyptocephalus zachirus</i>	1.6200	0.0842	0.7509
6	<i>Anoplopoma fimbria</i>	1.3580	0.0706	0.8215
7	<i>Sebastes aleutianus</i>	1.0730	0.0558	0.8773
8	<i>Atheresthes stomias</i>	0.6570	0.0342	0.9114
9	<i>Apristurus brunneus</i>	0.3210	0.0167	0.9281
10	<i>Sebastes flavidus</i>	0.2670	0.0139	0.9420
11	<i>Sebastes borealis</i>	0.2000	0.0104	0.9524
12	<i>Sebastes aurora</i>	0.1680	0.0087	0.9611
13	<i>Lycodes diapterus</i>	0.1110	0.0058	0.9669
14	<i>Pasiphaea pacifica</i>	0.1000	0.0052	0.9721
15	<i>Berryteuthis magister</i>	0.0650	0.0034	0.9755
16	<i>Lycodes cortezianus</i>	0.0630	0.0033	0.9788
17	Actiniaria (order)	0.0600	0.0031	0.9819
18	<i>Sebastes crameri</i>	0.0430	0.0022	0.9841
19	<i>Hippasteria</i> sp.	0.0360	0.0019	0.9860
20	Holothuroidea (unidentified)	0.0350	0.0018	0.9878
21	<i>Careproctus melanurus</i>	0.0330	0.0017	0.9896
22	<i>Sebastes elongatus</i>	0.0270	0.0014	0.9910
23	Scyphozoa (class)	0.0250	0.0013	0.9923
24	<i>Fusitriton oregonensis</i>	0.0210	0.0011	0.9934
25	<i>Stenobrachius leucopsarus</i>	0.0170	0.0009	0.9943
26	Squid (unidentified)	0.0110	0.0006	0.9949
27	<i>Rathbunaster californicus</i>	0.0110	0.0006	0.9954
28	<i>Malacocottus kincaidi</i>	0.0090	0.0005	0.9959
29	Thaliacea (unidentified)	0.0070	0.0004	0.9967
30	<i>Sebastes helvomaculatus</i>	0.0070	0.0004	0.9967
31	Basketstarfish (unidentified)	0.0070	0.0003	0.9984
32	<i>Pandalopsis dispar</i>	0.0070	0.0003	0.9984
33	<i>Stylatula</i> sp.	0.0070	0.0003	0.9984
34	<i>Chauliodus macouni</i>	0.0070	0.0003	0.9984
35	<i>Lyopsetta exilis</i>	0.0070	0.0003	0.9984
36	Myctophidae	0.0060	0.0003	0.9987
37	<i>Icelinus burchami</i>	0.0040	0.0002	0.9989
38	<i>Diaphus theta</i>	0.0040	0.0002	0.9991
39	<i>Neptunea</i> sp.	0.0030	0.0002	0.9993
40	Aphroditidae	0.0030	0.0002	1.0000
41	<i>Symbolophorus californiensis</i>	0.0030	0.0002	1.0000

Table B-19.--Continued.

42	<i>Lampanyctus ritteri</i>	0.0030	0.0002	1.0000
43	<i>Bathyagonus pentacanthus</i>	0.0030	0.0002	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>Merluccius productus</i>	122.6660	0.6984	0.6984
2	<i>Squalus acanthias</i>	10.1390	0.0577	0.7561
3	<i>Microstomus pacificus</i>	5.9700	0.0340	0.7901
4	<i>Atheresthes stomias</i>	4.8340	0.0275	0.8177
5	<i>Hippoglossus stenolepis</i>	4.4800	0.0255	0.8432
6	<i>Citharichthys sordidus</i>	3.7900	0.0216	0.8647
7	<i>Clupea pallasii</i>	2.3930	0.0136	0.8784
8	<i>Sebastes flavidus</i>	2.3630	0.0135	0.8918
9	<i>Glyptocephalus zachirus</i>	2.2660	0.0129	0.9047
10	<i>Parophrys vetulus</i>	2.0850	0.0119	0.9166
11	<i>Anoplopoma fimbria</i>	1.8560	0.0106	0.9272
12	<i>Sebastes alutus</i>	1.7700	0.0101	0.9372
13	<i>Sebastolobus alascanus</i>	1.3700	0.0078	0.9450
14	<i>Sebastes elongatus</i>	1.3590	0.0077	0.9528
15	<i>Alosa sapidissima</i>	0.6510	0.0037	0.9565
16	<i>Ophiodon elongatus</i>	0.6040	0.0034	0.9599
17	<i>Gadus macrocephalus</i>	0.6000	0.0034	0.9633
18	<i>Raja rhina</i>	0.5930	0.0034	0.9667
19	<i>Sebastes crameri</i>	0.5320	0.0030	0.9698
20	<i>Hydrolagus colliei</i>	0.5240	0.0030	0.9727
21	Scyphozoa (class)	0.5140	0.0029	0.9757
22	Heart urchin (unidentified)	0.4450	0.0025	0.9782
23	<i>Eopsetta jordani</i>	0.3950	0.0022	0.9804
24	<i>Scomber japonicus</i>	0.3160	0.0018	0.9822
25	<i>Pandalus jordani</i>	0.2920	0.0017	0.9839
26	<i>Sebastes aleutianus</i>	0.2910	0.0017	0.9856
27	<i>Lyopsetta exilis</i>	0.2850	0.0016	0.9872
28	<i>Hippoglossoides elassodon</i>	0.2830	0.0016	0.9888
29	<i>Strongylocentrotus droebachiensis</i>	0.2260	0.0013	0.9901
30	<i>Sebastes helvomaculatus</i>	0.1580	0.0009	0.9910
31	<i>Strongylocentrotus franciscanus</i>	0.1550	0.0009	0.9919
32	<i>Bathyraja interrupta</i>	0.1470	0.0008	0.9927
33	<i>Sebastes zacentrus</i>	0.1180	0.0007	0.9934
34	<i>Lopholithodes foraminatus</i>	0.1080	0.0006	0.9940
35	<i>Thaleichthys pacificus</i>	0.0940	0.0005	0.9945
36	<i>Allocentrotus fragilis</i>	0.0700	0.0004	0.9949
37	<i>Sebastes diploproa</i>	0.0700	0.0004	0.9953
38	<i>Luidia foliata</i>	0.0590	0.0003	0.9957
39	<i>Lycodes cortezianus</i>	0.0540	0.0003	0.9960
40	<i>Lepidopsetta</i> sp.	0.0460	0.0003	0.9962
41	<i>Sebastes babcocki</i>	0.0440	0.0003	0.9965

Table B-20.-Continued.

42	<i>Sebastes saxicola</i>	0.0410	0.0002	0.9967
43	<i>Sardinops sagax</i>	0.0320	0.0002	0.9969
44	<i>Microgadus proximus</i>	0.0300	0.0002	0.9971
45	<i>Sebastes entomelas</i>	0.0290	0.0002	0.9972
46	<i>Oncorhynchus tshawytscha</i>	0.0290	0.0002	0.9974
47	Actiniaria (order)	0.0270	0.0002	0.9976
48	<i>Apristurus brunneus</i>	0.0250	0.0001	0.9977
49	<i>Stylasterias forreri</i>	0.0250	0.0001	0.9978
50	<i>Pandalus platyceros</i>	0.0210	0.0001	0.9980
51	<i>Sebastes pinniger</i>	0.0200	0.0001	0.9981
52	<i>Theragra chalcogramma</i>	0.0180	0.0001	0.9982
53	<i>Lycodes pacificus</i>	0.0170	0.0001	0.9983
54	<i>Diaphus theta</i>	0.0170	0.0001	0.9984
55	<i>Sebastes borealis</i>	0.0180	0.0001	0.9985
56	<i>Rathbunaster californicus</i>	0.0150	0.0001	0.9986
57	<i>Pandalopsis dispar</i>	0.0150	0.0001	0.9986
58	<i>Lycodes diapterus</i>	0.0140	0.0001	0.9987
59	<i>Lophaster furcilliger</i>	0.0140	0.0001	0.9988
60	<i>Cryptacanthodes giganteus</i>	0.0130	0.0001	0.9989
61	<i>Sebastes aurora</i>	0.0130	0.0001	0.9990
62	<i>Poraniopsis inflata</i>	0.0130	0.0001	0.9990
63	Aphroditidae	0.0130	0.0001	0.9991
64	<i>Polinices</i> sp.	0.0120	0.0001	0.9992
65	<i>Crossaster papposus</i>	0.0110	0.0001	0.9992
66	<i>Berryteuthis magister</i>	0.0110	0.0001	0.9993
67	<i>Pasiphaea pacifica</i>	0.0100	0.0001	0.9994
68	<i>Pycnopodia helianthoides</i>	0.0080	0.0000	0.9994
69	Hexactinellida	0.0070	0.0000	0.9994
70	<i>Careproctus melanurus</i>	0.0070	0.0000	0.9995
71	Holothuroidea (unidentified)	0.0070	0.0000	0.9995
72	<i>Cancer magister</i>	0.0070	0.0000	0.9996
73	<i>Hippasteria spinosa</i>	0.0060	0.0000	0.9996
74	Skate egg case (unidentified)	0.0050	0.0000	0.9996
75	Basketstarfish (unidentified)	0.0040	0.0000	0.9996
76	<i>Trachurus symmetricus</i>	0.0040	0.0000	0.9997
77	Thaliacea (unidentified)	0.0040	0.0000	0.9997
78	<i>Mediaster aequalis</i>	0.0040	0.0000	0.9997
79	<i>Stylatula</i> sp.	0.0030	0.0000	0.9997
80	<i>Hippasteria californica</i>	0.0030	0.0000	0.9997
81	<i>Hippasteria</i> sp.	0.0030	0.0000	0.9998
82	<i>Loligo opalescens</i>	0.0030	0.0000	0.9998
83	<i>Eptatretus stouti</i>	0.0030	0.0000	0.9998
84	<i>Solaster stimpsoni</i>	0.0030	0.0000	0.9998
85	<i>Solaster endeca</i>	0.0030	0.0000	0.9998

Table B-20.--Continued.

86	<i>Ceramaster patagonicus</i>	0.0020	0.0000	0.9998
87	<i>Malacocottus kincaidi</i>	0.0020	0.0000	0.9998
88	<i>Fusitriton oregonensis</i>	0.0020	0.0000	0.9999
89	<i>Solaster</i> sp.	0.0020	0.0000	0.9999
90	<i>Sebastes proriger</i>	0.0020	0.0000	0.9999
91	<i>Sebastes variegatus</i>	0.0020	0.0000	0.9999
92	Ascidian (unidentified)	0.0020	0.0000	0.9999
93	<i>Stenobranchius leucopsarus</i>	0.0020	0.0000	0.9999
94	<i>Hexagrammos decagrammus</i>	0.0010	0.0000	0.9999
95	<i>Henricia</i> sp.	0.0010	0.0000	0.9999
96	Squid.(unidentified)	0.0010	0.0000	0.9999
97	Myctophidae	0.0010	0.0000	0.9999
98	Octopus (unidentified)	0.0010	0.0000	0.9999
99	<i>Xeneretmus leiops</i>	0.0010	0.0000	0.9999
100	<i>Ctenodiscus crispatus</i>	0.0010	0.0000	1.0000
101	<i>Patinopecten caurinus</i>	0.0010	0.0000	1.0000
102	Porifera	0.0010	0.0000	1.0000
103	<i>Molpadia</i> sp.	0.0010	0.0000	1.0000
104	<i>Icelinus filamentosus</i>	0.0010	0.0000	1.0000
105	<i>Sagamichthys abei</i>	0.0010	0.0000	1.0000
106	Paguridae	0.0010	0.0000	1.0000
107	<i>Orthasterias koehleri</i>	0.0010	0.0000	1.0000
108	<i>Chauliodus macouni</i>	0.0010	0.0000	1.0000
109	<i>Aphrocallistes vastus</i>	0.0000	0.0000	1.0000
110	<i>Icelinus burchami</i>	0.0000	0.0000	1.0000
111	<i>Diplopteraster multipes</i>	0.0000	0.0000	1.0000
112	<i>Neptunea</i> sp.	0.0000	0.0000	1.0000
113	<i>Symbolophorus californiensis</i>	0.0000	0.0000	1.0000
114	<i>Lampanyctus ritteri</i>	0.0000	0.0000	1.0000
115	<i>BathYGONUS pentacanthus</i>	0.0000	0.0000	1.0000
116	Gastropod (unidentified)	0.0000	0.0000	1.0000
117	<i>Raja binoculata</i>	0.0000	0.0000	1.0000
118	<i>Pseudarchaster parelii</i>	0.0000	0.0000	1.0000
119	<i>Chorilia longipes</i>	0.0000	0.0000	1.0000
120	Crinoid (unidentified)	0.0000	0.0000	1.0000
121	<i>Oregonia gracilis</i>	0.0000	0.0000	1.0000
122	Galatheidae (family)	0.0000	0.0000	1.0000
123	Ophiuroid (unidentified)	0.0000	0.0000	1.0000
124	<i>Lycodes brevipes</i>	0.0000	0.0000	1.0000
125	<i>Rossia pacifica</i>	0.0000	0.0000	1.0000
126	<i>Lipatis</i> sp.	0.0000	0.0000	1.0000
127	Polychaeta (class)	0.0000	0.0000	1.0000
128	<i>Allosmerus elongatus</i>	0.0000	0.0000	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-l 83 m).

Rank	Species Name	Mean CPUE (kg/ha)	Proportion	Cumulative Proportion
1	<i>Merluccius productus</i>	33.3880	0.2502	0.2502
2	<i>Atheresthes stomias</i>	26.4830	0.1984	0.4486
3	<i>Squalus acanthias</i>	16.5660	0.1241	0.5727
4	<i>Microstomus pacificus</i>	8.6610	0.0649	0.6376
5	<i>Anoplopoma fimbria</i>	7.0630	0.0529	0.6906
6	<i>Glyptocephalus zachirus</i>	5.3320	0.0400	0.7305
7	<i>Citharichthys sordidus</i>	4.6570	0.0349	0.7654
8	<i>Ophiodon elongatus</i>	4.1130	0.0308	0.7962
9	<i>Hippoglossoides elassodon</i>	3.0900	0.0232	0.8194
10	<i>Parophrys vetulus</i>	2.6070	0.0195	0.8389
11	<i>Hippoglossus stenolepis</i>	2.1220	0.0159	0.8548
12	<i>Gadus macrocephalus</i>	1.8740	0.0140	0.8688
13	<i>Clupea pallasii</i>	1.7580	0.0132	0.8820
14	<i>Sebastes elongatus</i>	1.6510	0.0124	0.8944
15	<i>Raja rhina</i>	1.4670	0.0110	0.9054
16	<i>Thaleichthys pacificus</i>	1.4440	0.0108	0.9162
17	<i>Hydrolagus colliei</i>	1.2030	0.0090	0.9252
18	Heart urchin (unidentified)	0.9010	0.0067	0.9320
19	<i>Lepidopsetta</i> sp.	0.8250	0.0062	0.9382
20	<i>Eopsetta jordani</i>	0.8220	0.0062	0.9443
21	<i>Pandalus jordani</i>	0.7460	0.0056	0.9499
22	<i>Lyopsetta exilis</i>	0.6510	0.0049	0.9548
23	<i>Sebastes proriger</i>	0.5760	0.0043	0.9591
24	<i>Sebastes brevispinis</i>	0.5070	0.0038	0.9629
25	<i>Microgadus proximus</i>	0.4900	0.0037	0.9666
26	<i>Raja binoculata</i>	0.4530	0.0034	0.9700
27	<i>Sebastes crameri</i>	0.4300	0.0032	0.9732
28	<i>Sebastes zacentrus</i>	0.3270	0.0025	0.9756
29	<i>Sebastes flavidus</i>	0.2920	0.0022	0.9778
30	<i>Lycodes pacificus</i>	0.2460	0.0018	0.9797
31	<i>Sebastes pinniger</i>	0.2090	0.0016	0.9812
32	<i>Luidia foliata</i>	0.1960	0.0015	0.9827
33	<i>Alosa sapidissima</i>	0.1810	0.0014	0.9840
34	<i>Sebastes helvomaculatus</i>	0.1470	0.0011	0.9852
35	<i>Oncorhynchus tshawytscha</i>	0.1360	0.0010	0.9862
36	<i>Anarrhichthys ocellatus</i>	0.1310	0.0010	0.9872
37	<i>Sebastes aleutianus</i>	0.1170	0.0009	0.9880
38	<i>Sebastes ruberrimus</i>	0.1100	0.0008	0.9889
39	<i>Allocentrotus fragilis</i>	0.0970	0.0007	0.9896
40	<i>Metridium senile</i>	0.0940	0.0007	0.9903
41	<i>Sebastes alutus</i>	0.0860	0.0006	0.9909

Table B-21 .-Continued.

42	<i>Loligo opalescens</i>	0.0810	0.0006	0.9915
43	<i>Sebastes maliger</i>	0.0750	0.0006	0.9921
44	<i>Sebastes wilsoni</i>	0.0730	0.0005	0.9926
45	<i>Stylasterias forreri</i>	0.0700	0.0005	0.9932
46	<i>Pleuronichthys verticalis</i>	0.0700	0.0005	0.9937
47	<i>Pycnopodia helianthoides</i>	0.0650	0.0005	0.9942
48	<i>Octopus dofleini</i>	0.0640	0.0005	0.9946
49	<i>Theragra chalcogramma</i>	0.0570	0.0004	0.9951
50	<i>Sebastes babcocki</i>	0.0560	0.0004	0.9955
51	<i>Sebastes paucispinis</i>	0.0380	0.0003	0.9958
52	<i>Sardinops sagax</i>	0.0360	0.0003	0.9960
53	<i>Pandalus platyceros</i>	0.0360	0.0003	0.9963
54	<i>Parastichopus californicus</i>	0.0330	0.0002	0.9966
55	<i>Bathyraja interrupta</i>	0.0300	0.0002	0.9968
56	<i>Lopholithodes foraminatus</i>	0.0300	0.0002	0.9970
57	Holothuroidea (unidentified)	0.0300	0.0002	0.9972
58	Aphroditidae	0.0280	0.0002	0.9975
59	<i>Icelinus filamentosus</i>	0.0280	0.0002	0.9977
60	Basketstarfish (unidentified)	0.0270	0.0002	0.9979
61	<i>Pleuronichthys decurrens</i>	0.0250	0.0002	0.9980
62	<i>Pandalopsis dispar</i>	0.0200	0.0002	0.9982
63	Sea urchin (unidentified)	0.0190	0.0001	0.9984
64	Actiniaria (order)	0.0190	0.0001	0.9985
65	<i>Hippasteria spinosa</i>	0.0180	0.0001	0.9986
66	<i>Strongylocentrotus droebachiensis</i>	0.0140	0.0001	0.9987
67	Polychaeta (class)	0.0130	0.0001	0.9988
68	<i>Sebastolobus alascanus</i>	0.0130	0.0001	0.9989
69	<i>Allosmerus elongatus</i>	0.0110	0.0001	0.9990
70	<i>Sebastes goodei</i>	0.0080	0.0001	0.9991
71	<i>Cancer magister</i>	0.0080	0.0001	0.9991
72	<i>Molpadia</i> sp.	0.0080	0.0001	0.9992
73	Thaliacea (unidentified)	0.0070	0.0001	0.9992
74	<i>Rathbunaster californicus</i>	0.0070	0.0001	0.9993
75	<i>Pisaster brevispinus</i>	0.0070	0.0001	0.9993
76	<i>Mediaster aequalis</i>	0.0070	0.0001	0.9994
77	Porifera	0.0070	0.0000	0.9994
78	<i>Scomber japonicus</i>	0.0060	0.0000	0.9995
79	<i>Sebastes saxicola</i>	0.0060	0.0000	0.9995
80	Scyphozoa (class)	0.0050	0.0000	0.9996
81	<i>Porichthys notatus</i>	0.0050	0.0000	0.9996
82	<i>Sebastes entomelas</i>	0.0050	0.0000	0.9996
83	<i>Berryteuthis magister</i>	0.0040	0.0000	0.9997
84	<i>Crossaster papposus</i>	0.0040	0.0000	0.9997
85	<i>Octopus</i> (unidentified)	0.0040	0.0000	0.9997

Table B-21 --Continued.

86	Tochuina tetraquetra	0.0030	0.0000	0.9998
87	Polinices sp.	0.0030	0.0000	0.9998
88	Solaster borealis	0.0030	0.0000	0.9998
89	Fusitriton oregonensis	0.0020	0.0000	0.9998
90	Aphrocallistes vastus	0.0020	0.0000	0.9998
91	Stylatula sp.	0.0020	0.0000	0.9998
92	Hexagrammos decagrammus	0.0020	0.0000	0.9999
93	Pteraster tessellatus	0.0020	0.0000	0.9999
94	Skate egg case (unidentified)	0.0020	0.0000	0.9999
95	Sebastes diploproa	0.0020	0.0000	0.9999
96	Solaster sp.	0.0010	0.0000	0.9999
97	Chlamys rubida	0.0010	0.0000	0.9999
98	Sebastes jordani	0.0010	0.0000	0.9999
99	Tealia sp.	0.0010	0.0000	0.9999
100	Ronquilus jordani	0.0010	0.0000	1.0000
101	Chorilia longipes	0.0010	0.0000	1.0000
102	Orthasterias koehleri	0.0010	0.0000	1.0000
103	Solaster dawsoni	0.0010	0.0000	1.0000
104	Hemilepidotus spinosus	0.0010	0.0000	1.0000
105	Isopsetta isolepis	0.0010	0.0000	1.0000
106	Tritonia sp.	0.0010	0.0000	1.0000
107	Chilara taylori	0.0000	0.0000	1.0000
108	Sebastes sp.	0.0000	0.0000	1.0000
109	Luidiaster dawsoni	0.0000	0.0000	1.0000
110	Podothecus acipenserinus	0.0000	0.0000	1.0000
111	Paguridae	0.0000	0.0000	1.0000
112	Lophaster furcilliger	0.0000	0.0000	1.0000
113	Myctophidae	0.0000	0.0000	1.0000
114	Rossia pacifica	0.0000	0.0000	1.0000
115	Pseudarchaster parelii	0.0000	0.0000	1.0000
116	Ophiuroid (unidentified)	0.0000	0.0000	1.0000
117	Pandalus sp.	0.0000	0.0000	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 alutus</i>	47.4550	0.2683	0.2683
2	<i>Atheresthes stomias</i>	43.5720	0.2463	0.5147
3	<i>Sebastes zacentrus</i>	12.7040	0.0718	0.5865
4	<i>Sebastes proriger</i>	9.9370	0.0562	0.6427
5	<i>Microstomus pacificus</i>	6.7900	0.0384	0.6810
6	<i>Hippoglossus stenolepis</i>	6.4330	0.0364	0.7174
7	<i>Anoplopoma fimbria</i>	6.0690	0.0343	0.7517
8	<i>Glyptocephalus zachirus</i>	4.8200	0.0272	0.7790
9	<i>Sebastes diploproa</i>	4.2610	0.0241	0.8031
10	<i>Sebastes crameri</i>	3.9130	0.0221	0.8252
11	<i>Sebastes flavidus</i>	3.8430	0.0217	0.8469
12	<i>Sebastes aleutianus</i>	3.6020	0.0204	0.8673
13	<i>Sebastes brevispinis</i>	2.9750	0.0168	0.8841
14	<i>Sebastes elongatus</i>	2.0220	0.0114	0.8956
15	<i>Gadus macrocephalus</i>	1.7090	0.0097	0.9052
16	<i>Allocentrotus fragilis</i>	1.6890	0.0095	0.9148
17	<i>Sebastes helvomaculatus</i>	1.6100	0.0091	0.9239
18	<i>Sebastolobus alascanus</i>	1.5990	0.0090	0.9329
19	<i>Sebastes babcocki</i>	1.3370	0.0076	0.9405
20	<i>Ophiodon elongatus</i>	1.3070	0.0074	0.9478
21	<i>Hydrolagus colliei</i>	1.2700	0.0072	0.955.0
22	<i>Sebastes pinniger</i>	1.0640	0.0060	0.9610
23	<i>Raja rhina</i>	0.9290	0.0053	0.9663
24	<i>Theragra chalcogramma</i>	0.7620	0.0043	0.9706
25	<i>Sebastes reedi</i>	0.6640	0.0038	0.9744
26	<i>Parophtys vetulus</i>	0.6440	0.0036	0.9780
27	<i>Merluccius productus</i>	0.6180	0.0035	0.9815
28	<i>Alosa sapidissima</i>	0.5710	0.0032	0.9847
29	<i>Sebastes paucispinis</i>	0.4110	0.0023	0.9870
30	<i>Bathyraja interrupta</i>	0.2870	0.0016	0.9887
31	<i>Lyopsetta exilis</i>	0.2810	0.0016	0.9903
32	<i>Pandalus platyceros</i>	0.2600	0.0015	0.9917
33	Holothuroidea (unidentified)	0.2330	0.0013	0.9930
34	<i>Icelinus filamentosus</i>	0.2080	0.0012	0.9942
35	<i>Sebastes saxicola</i>	0.1110	0.0006	0.9948
36	<i>Opisthoteuthis californiana</i>	0.0740	0.0004	0.9953
37	<i>Lycodes cortezianus</i>	0.0720	0.0004	0.9957
38	Porifera	0.0640	0.0004	0.9960
39	<i>Malacocottus zonurus</i>	0.0610	0.0003	0.9964
40	<i>Berryteuthis magister</i>	0.0550	0.0003	0.9967
41	<i>Scomber japonicus</i>	0.0520	0.0003	0.9970

Table B-22.--Continued.

42	Actiniaria (order)	0.0490	0.0003	0.9973
43	Hippasteria spinosa	0.0450	0.0003	0.9975
44	Eopsetta jordani	0.0440	0.0003	0.9978
45	Fusitriton oregonensis	0.0430	0.0002	0.9980
46	Lopholithodes foraminatus	0.0370	0.0002	0.9982
47	Scyphozoa (class)	0.0360	0.0002	0.9984
48	Thaliacea (unidentified)	0.0350	0.0002	0.9986
49	Pandalopsis dispar	0.0290	0.0002	0.9988
50	Neptunea sp.	0.0250	0.0001	0.9989
51	Pycnopodia helianthoides	0.0250	0.0001	0.9991
52	Diplopteraster multipes	0.0220	0.0001	0.9992
53	Heterozonias altematus	0.0200	0.0001	0.9993
54	Sebastes wilsoni	0.0180	0.0001	0.9994
55	Gorgonacea (order)	0.0150	0.0001	0.9995
56	Xeneretmus leiops	0.0110	0.0001	0.9996
57	Luidiaster dawsoni	0.0100	0.0001	0.9996
58	Clupea pallasii	0.0080	0.0000	0.9997
59	Ascidian (unidentified)	0.0070	0.0000	0.9997
60	Octopus (unidentified)	0.0060	0.0000	0.9997
61	Strongylocentrotus droebachiensis	0.0050	0.0000	0.9998
62	Ceramaster patagonicus	0.0040	0.0000	0.9998
63	Rathbunaster californicus	0.0040	0.0000	0.9998
64	Pennatulacea (order)	0.0030	0.0000	0.9998
65	Pteraster tessellatus	0.0030	0.0000	0.9998
66	Mediaster aequalis	0.0030	0.0000	0.9999
67	Lopholithodes sp.	0.0030	0.0000	0.9999
68	Henricia sp.	0.0030	0.0000	0.9999
69	Ronquilus jordani	0.0030	0.0000	0.9999
70	Bathyagonus pentacanthus	0.0030	0.0000	0.9999
71	Pteraster sp.	0.0020	0.0000	0.9999
72	Aphrocallistes vastus	0.0020	0.0000	1.0000
73	Squid (unidentified)	0.0020	0.0000	1.0000
74	Luidia foliata	0.0020	0.0000	1.0000
75	Paguridae	0.0020	0.0000	1.0000
76	Malacocottus kincaidi	0.0010	0.0000	1.0000
77	Stylasterias forreri	0.0010	0.0000	1.0000
78	Ophiuroid (unidentified)	0.0010	0.0000	1.0000
79	Diaphus theta	0.0000	0.0000	1.0000
80	Myctophidae	0.0000	0.0000	1.0000
81	Ctenodiscus crispatus	0.0000	0.0000	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>Sebastes aleutianus</i>	43.8190	0.3572	0.3572
2	<i>Atheresthes stomias</i>	17.1130	0.1395	0.4967
3	<i>Microstomus pacificus</i>	12.6660	0.1032	0.6000
4	<i>Sebastes alutus</i>	11.1640	0.0910	0.6909
5	<i>Merluccius productus</i>	8.2570	0.0673	0.7583
6	<i>Hippoglossus stenolepis</i>	5.2880	0.0431	0.8014
7	<i>Sebastolobus alascanus</i>	4.9870	0.0407	0.8420
8	<i>Anoplopoma fimbria</i>	4.7970	0.0391	0.8811
9	<i>Glyptocephalus zachirus</i>	4.2940	0.0350	0.9161
10	Actiniaria (order)	3.1650	0.0258	0.9419
11	<i>Moroteuthis robusta</i>	1.0350	0.0084	0.9504
12	<i>Raja rhina</i>	1.0210	0.0083	0.9587
13	<i>Sebastes borealis</i>	0.6760	0.0055	0.9642
14	<i>Lycodes cortezianus</i>	0.6720	0.0055	0.9697
15	<i>Sebastes babcocki</i>	0.5930	0.0048	0.9745
16	<i>Bathyraja interrupta</i>	0.3470	0.0028	0.9773
17	Holothuroidea (unidentified)	0.2840	0.0023	0.9796
18	<i>Trachipterus altivelis</i>	0.2480	0.0020	0.9817
19	<i>Hydrolagus colliei</i>	0.2050	0.0017	0.9833
20	<i>Sebastolobus altivelis</i>	0.1820	0.0015	0.9848
21	<i>Fusitriton oregonensis</i>	0.1760	0.0014	0.9862
22	<i>Sebastes diploproa</i>	0.1520	0.0012	0.9875
23	<i>Aphrocallistes vastus</i>	0.1510	0.0012	0.9887
24	<i>Sebastes crameri</i>	0.1390	0.0011	0.9898
25	<i>Squalus acanthias</i>	0.1390	0.0011	0.9910
26	<i>Allocentrotus fragilis</i>	0.1320	0.0011	0.9921
27	<i>Berryteuthis magister</i>	0.0920	0.0007	0.9928
28	<i>Neptunea</i> sp.	0.0850	0.0007	0.9935
29	<i>Lycodes diapterus</i>	0.0780	0.0006	0.9941
30	Thaliacea (unidentified)	0.0700	0.0006	0.9947
31	<i>Embassichthys bathybius</i>	0.0690	0.0006	0.9953
32	<i>Diplopteraster multipes</i>	0.0670	0.0005	0.9958
33	<i>Careproctus melanurus</i>	0.0660	0.0005	0.9964
34	<i>Opisthoteuthis californiana</i>	0.0650	0.0005	0.9969
35	Porifera	0.0460	0.0004	0.9973
36	<i>Pandalopsis dispar</i>	0.0450	0.0004	0.9976
37	<i>Sebastes aurora</i>	0.0400	0.0003	0.9980
38	<i>Clupea pallasii</i>	0.0380	0.0003	0.9983
39	<i>Luidia foliata</i>	0.0360	0.0003	0.9986
40	Squid (unidentified)	0.0240	0.0002	0.9988
41	<i>Luidiaster dawsoni</i>	0.0160	0.0001	0.9989

Table B-23.--Continued.

42	<i>Lyopsetta exilis</i>	0.0140	0.0001	0.9990
43	<i>Hippasteria spinosa</i>	0.0130	0.0001	0.9991
44	Scyphozoa (class)	0.0130	0.0001	0.9992
45	<i>Sebastes helvomaculatus</i>	0.0100	0.0001	0.9993
46	Brachiopod (unidentified)	0.0100	0.0001	0.9994
47	<i>Pycnopodia helianthoides</i>	0.0090	0.0001	0.9995
48	Basketstarfish (unidentified)	0.0060	0.0001	0.9995
49	<i>Chauliodus macouni</i>	0.0060	0.0001	0.9996
50	Myctophidae	0.0060	0.0000	0.9996
51	Octopus (unidentified)	0.0060	0.0000	0.9997
52	<i>Stylasterias forreri</i>	0.0050	0.0000	0.9997
53	<i>Dermasterias imbricata</i>	0.0030	0.0000	0.9998
54	<i>Sebastes wilsoni</i>	0.0030	0.0000	0.9998
55	<i>Solaster borealis</i>	0.0030	0.0000	0.9998
56	<i>Pasiphaea pacifica</i>	0.0030	0.0000	0.9998
57	<i>Mediaster aequalis</i>	0.0030	0.0000	0.9998
58	<i>Sagamichthys abei</i>	0.0030	0.0000	0.9999
59	Paguridae	0.0030	0.0000	0.9999
60	Pennatulacea (order)	0.0020	0.0000	0.9999
61	<i>Ctenodiscus crispatus</i>	0.0020	0.0000	0.9999
62	Skate egg case (unidentified)	0.0020	0.0000	0.9999
63	<i>Tactostoma macropus</i>	0.0020	0.0000	0.9999
64	<i>Rathbunaster californicus</i>	0.0010	0.0000	1.0000
65	<i>Loligo opalescens</i>	0.0010	0.0000	1.0000
66	<i>Solaster</i> sp.	0.0010	0.0000	1.0000
67	<i>Bathyagonus pentacanthus</i>	0.0010	0.0000	1.0000
68	<i>Bathybembix bairdii</i>	0.0010	0.0000	1.0000
69	<i>Aristostomias scintillans</i>	0.0010	0.0000	1.0000
70	<i>Chionoecetes tanneri</i>	0.0010	0.0000	1.0000
71	<i>Pseudarchaster parelii</i>	0.0000	0.0000	1.0000
72	<i>Bathyagonus nigripinnis</i>	0.0000	0.0000	1.0000
73	Sipuncula (phylum)	0.0000	0.0000	1.0000
74	Bathylagidae (unidentified)	0.0000	0.0000	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>Atheresthes stomias</i>	27.7250	0.2011	0.2011
2	<i>Merluccius productus</i>	26.7560	0.1940	0.3951
3	<i>Squalus acanthias</i>	12.8470	0.0932	0.4882
4	<i>Microstomus pacificus</i>	8.8190	0.0640	0.5522
5	<i>Sebastes alutus</i>	7.1820	0.0521	0.6043
6	<i>Anoplopoma fimbria</i>	6.7140	0.0487	0.6530
7	<i>Glyptocephalus zachirus</i>	5.1650	0.0375	0.6904
8	<i>Sebastes aleutianus</i>	4.8670	0.0353	0.7257
9	<i>Citharichthys sordidus</i>	3.6070	0.0262	0.7519
10	<i>Ophiodon elongatus</i>	3.3520	0.0243	0.7762
11	<i>Hippoglossus stenolepis</i>	2.9800	0.0216	0.7978
12	<i>Hippoglossoides elassodon</i>	2.3940	0.0174	0.8152
13	<i>Parophtys vetulus</i>	2.1010	0.0152	0.8304
14	<i>Sebastes zacentrus</i>	1.8640	0.0135	0.8439
15	<i>Sebastes proriger</i>	1.7060	0.0124	0.8563
16	<i>Gadus macrocephalus</i>	1.6680	0.0121	0.8684
17	<i>Sebastes elongatus</i>	1.5350	0.0111	0.8795
18	<i>Clupea pallasii</i>	1.3660	0.0099	0.8894
19	<i>Raja rhina</i>	1.3550	0.0098	0.8992
20	<i>Thaleichthys pacificus</i>	1.1180	0.0081	0.9074
21	<i>Hydrolagus colliei</i>	1.1130	0.0081	0.9154
22	<i>Sebastes crameri</i>	0.8430	0.0061	0.9215
23	<i>Sebastes brevispinis</i>	0.7700	0.0056	0.9271
24	<i>Sebastes flavidus</i>	0.7140	0.0052	0.9323
25	<i>Sebastolobus alascanus</i>	0.7040	0.0051	0.9374
26	Heart urchin (unidentified)	0.6980	0.0051	0.9425
27	<i>Eopsetta jordani</i>	0.6430	0.0047	0.9471
28	<i>Lepidopsetta</i> sp.	0.6390	0.0046	0.9518
29	<i>Pandalus jordani</i>	0.5780	0.0042	0.9560
30	<i>Sebastes diploproa</i>	0.5560	0.0040	0.9600
31	<i>Lyopsetta exilis</i>	0.5410	0.0039	0.9639
32	<i>Microgadus proximus</i>	0.3800	0.0028	0.9667
33	<i>Raja binoculata</i>	0.3510	0.0025	0.9692
34	Actiniaria (order)	0.3330	0.0024	0.9716
35	<i>Sebastes helvomaculatus</i>	0.3190	0.0023	0.9739
36	<i>Allocentrotus fragilis</i>	0.3030	0.0022	0.9761
37	<i>Sebastes pinniger</i>	0.2960	0.0021	0.9783
38	<i>Sebastes babcocki</i>	0.2710	0.0020	0.9802
39	<i>Alosa sapidissima</i>	0.2130	0.0015	0.9818
40	<i>Lycodes pacificus</i>	0.1910	0.0014	0.9832
41	<i>Luidia foliata</i>	0.1550	0.0011	0.9843

Table B-24.-Continued.

42	<i>Theragra chalcogramma</i>	0.1410	0.0010	0.9853
43	<i>Oncorhynchus tshawytscha</i>	0.1050	0.0008	0.9861
44	<i>Moroteuthis robusta</i>	0.1020	0.0007	0.9868
45	<i>Anarrhichthys ocellatus</i>	0.1020	0.0007	0.9876
46	<i>Bathyraja interrupta</i>	0.0940	0.0007	0.9882
47	<i>Sebastes rubenimus</i>	0.0850	0.0006	0.9888
48	<i>Sebastes reedi</i>	0.0840	0.0006	0.9895
49	<i>Sebastes paucispinis</i>	0.0820	0.0006	0.9900
50	Holothuroidea (unidentified)	0.0810	0.0006	0.9906
51	<i>Lycodes cortezianus</i>	0.0750	0.0005	0.9912
52	<i>Metridium senile</i>	0.0730	0.0005	0.9917
53	<i>Sebastes borealis</i>	0.0670	0.0005	0.9922
54	<i>Loligo opalescens</i>	0.0630	0.0005	0.9926
55	<i>Pandalus platyceros</i>	0.0610	0.0004	0.9931
56	<i>Sebastes wilsoni</i>	0.0590	0.0004	0.9935
57	<i>Sebastes maliger</i>	0.0580	0.0004	0.9939
58	<i>Pycnopodia helianthoides</i>	0.0550	0.0004	0.9943
59	<i>Stylasterias forreri</i>	0.0550	0.0004	0.9947
60	<i>Pleuronichthys verticalis</i>	0.0540	0.0004	0.9951
61	<i>Octopus dofleini</i>	0.0490	0.0004	0.9955
62	<i>Icelinus filamentosus</i>	0.0480	0.0003	0.9958
63	<i>Sardinops sagax</i>	0.0280	0.0002	0.9960
64	<i>Lopholithodes foraminatus</i>	0.0280	0.0002	0.9962
65	<i>Parastichopus californicus</i>	0.0250	0.0002	0.9964
66	<i>Fusittiton oregonensis</i>	0.0250	0.0002	0.9966
67	<i>Trachipterus altivelis</i>	0.0240	0.0002	0.9968
68	<i>Pandalopsis dispar</i>	0.0240	0.0002	0.9970
69	Aphroditidae	0.0220	0.0002	0.9971
70	Basketstarfish (unidentified)	0.0220	0.0002	0.9973
71	<i>Hippasteria spinosa</i>	0.0210	0.0002	0.9974
72	<i>Berryteuthis magister</i>	0.0190	0.0001	0.9976
73	<i>Pleuronichthys decurrens</i>	0.0190	0.0001	0.9977
74	<i>Sebastes saxicola</i>	0.0180	0.0001	0.9978
75	<i>Sebastolobus altivelis</i>	0.0180	0.0001	0.9980
76	Porifera	0.0180	0.0001	0.9981
77	Thaliacea (unidentified)	0.0170	0.0001	0.9982
78	<i>Aphrocallistes vastus</i>	0.0170	0.0001	0.9983
79	<i>Opisthoteuthis californiana</i>	0.0160	0.0001	0.9984
80	Sea urchin (unidentified)	0.0150	0.0001	0.9986
81	<i>Neptunea</i> sp.	0.0120	0.0001	0.9986
82	<i>Strongylocentrotus droebachiensis</i>	0.0110	0.0001	0.9987
83	<i>Scomber japonicus</i>	0.0110	0.0001	0.9988
84	Polychaeta (class)	0.0100	0.0001	0.9989
85	Scyphozoa (class)	0.0100	0.0001	0.9990

Table B-24.--Continued.

86	Diplopteraster multipes	0.0090	0.0001	0.9990
87	Allosmerus elongatus	0.0080	0.0001	0.9991
88	Lycodes diapterus	0.0080	0.0001	0.9991
89	Malacocottus zonurus	0.0080	0.0001	0.9992
90	Embassichthys bathybius	0.0070	0.0000	0.9992
91	Careproctus melanurus	0.0070	0.0000	0.9993
92	Sebastes goodei	0.0060	0.0000	0.9993
93	Rathbunaster californicus	0.0060	0.0000	0.9994
94	Mediaster aequalis	0.0060	0.0000	0.9994
95	Cancer magister	0.0080	0.0000	0.9995
96	Molpadia sp.	0.0060	0.0000	0.9995
97	Pisaster brevispinus	0.0050	0.0000	0.9996
98	Octopus (unidentified)	0.0040	0.0000	0.9996
99	Porichthys notatus	0.0040	0.0000	0.9996
100	Sebastes aurora	0.0040	0.0000	0.9996
101	Sebastes entomelas	0.0040	0.0000	0.9997
102	Luidiaster dawsoni	0.0030	0.0000	0.9997
103	Crossaster papposus	0.0030	0.0000	0.9997
104	Squid (unidentified)	0.0030	0.0000	0.9997
105	Heterozonias alternatus	0.0030	0.0000	0.9998
106	Tochuina tetraquetra	0.0020	0.0000	0.9998
107	Solaster borealis	0.0020	0.0000	0.9998
108	Polinices sp.	0.0020	0.0000	0.9998
109	Gorgonacea (order)	0.0020	0.0000	0.9998
110	Pteraster tessellatus	0.0020	0.0000	0.9998
111	Skate egg case (unidentified)	0.0010	0.0000	0.9998
112	Stylatula sp.	0.0010	0.0000	0.9998
113	Xeneretmus leiops	0.0010	0.0000	0.9998
114	Hexagrammos decagrammus	0.0010	0.0000	0.9999
115	Ronquilus jordani	0.0010	0.0000	0.9999
116	Solaster sp.	0.0010	0.0000	0.9999
117	Chlamys rubida	0.0010	0.0000	0.9999
118	Brachiopod (unidentified)	0.0010	0.0000	0.9999
119	Sebastes jordani	0.0010	0.0000	0.9999
120	Tealia sp.	0.0010	0.0000	0.9999
121	Ascidian (unidentified)	0.0010	0.0000	0.9999
122	Chorilia longipes	0.0010	0.0000	0.9999
123	Myctophidae	0.0010	0.0000	0.9999
124	Paguridae	0.0010	0.0000	0.9999
125	Pennatulacea (order)	0.0010	0.0000	0.9999
126	Chauliodus macouni	0.0010	0.0000	0.9999
127	Orthasterias koehleri	0.0010	0.0000	1.0000
128	Solaster dawsoni	0.0010	0.0000	1.0000
129	Hemilepidotus spinosus	0.0010	0.0000	1.0000

Table B-24.-Continued.

130	<i>Isopsetta isolepis</i>	0.0010	0.0000	1.0000
131	<i>Tritonia</i> sp.	0.0010	0.0000	1.0000
132	<i>Ceramaster patagonicus</i>	0.0010	0.0000	1.0000
133	<i>BathYGONUS pentacanthus</i>	0.0000	0.0000	1.0000
134	<i>Lopholithodes</i> sp.	0.0000	0.0000	1.0000
135	<i>Henricia</i> sp.	0.0000	0.0000	1.0000
136	<i>Dermasterias imbricata</i>	0.0000	0.0000	1.0000
137	<i>Pasiphaea pacifica</i>	0.0000	0.0000	1.0000
138	<i>Pteraster</i> sp.	0.0000	0.0000	1.0000
139	<i>Sagamichthys abei</i>	0.0000	0.0000	1.0000
140	<i>Chilara taylori</i>	0.0000	0.0000	1.0000
141	<i>Sebastes</i> sp.	0.0000	0.0000	1.0000
142	<i>Podothecus acipenserinus</i>	0.0000	0.0000	1.0000
143	<i>Ctenodiscus crispatus</i>	0.0000	0.0000	1.0000
144	<i>Lophaster furcilliger</i>	0.0000	0.0000	1.0000
145	<i>Tactostoma macropus</i>	0.0000	0.0000	1.0000
146	<i>Malacocottus kincaidi</i>	0.0000	0.0000	1.0000
147	Ophiuroid (unidentified)	0.0000	0.0000	1.0000
148	<i>Rossia pacifica</i>	0.0000	0.0000	1.0000
149	<i>Pseudarchaster parelii</i>	0.0000	0.0000	1.0000
150	<i>Bathybembix bairdii</i>	0.0000	0.0000	1.0000
151	<i>Aristostomias scintillans</i>	0.0000	0.0000	1.0000
152	<i>Chionoecetes tanneri</i>	0.0000	0.0000	1.0000
153	<i>Diaphus theta</i>	0.0000	0.0000	1.0000
154	<i>Pandalus</i> sp.	0.0000	0.0000	1.0000
155	<i>Pseudarchaster parelii</i>	0.0000	0.0000	1.0000
156	<i>BathYGONUS nigripinnis</i>	0.0000	0.0000	1.0000
157	<i>Sipuncula</i> (phylum)	0.0000	0.0000	1.0000
158	Bathylagidae (unidentified)	0.0000	0.0000	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>Merluccius productus</i>	80.9110	0.4838	0.4838
2	<i>Atheresthes stomias</i>	19.4850	0.1165	0.6003
3	<i>Squalus acanthias</i>	16.0040	0.0957	0.6960
4	<i>Microstomus pacificus</i>	6.7660	0.0405	0.7365
5	<i>Anoplopoma fimbria</i>	5.4990	0.0329	0.7694
6	<i>Citharichthys sordidus</i>	5.0650	0.0303	0.7997
7	<i>Glyptocephalus zachirus</i>	4.1880	0.0250	0.8247
8	<i>Hippoglossus stenolepis</i>	3.4470	0.0206	0.8453
9	<i>Ophiodon elongatus</i>	3.0910	0.0185	0.8638
10	<i>Parophrys vetulus</i>	2.7980	0.0167	0.8806
11	<i>Clupea pallasii</i>	2.3740	0.0142	0.8947
12	<i>Hippoglossoides elassodon</i>	2.2000	0.0132	0.9079
13	<i>Sebastes elongatus</i>	1.5490	0.0093	0.9172
14	<i>Gadus macrocephalus</i>	1.5330	0.0092	0.9263
15	<i>Sebastes flavidus</i>	1.2170	0.0073	0.9336
16	<i>Raja rhina</i>	1.1530	0.0069	0.9405
17	<i>Thaleichthys pacificus</i>	1.0130	0.0061	0.9466
18	<i>Hydrolagus colliei</i>	0.8760	0.0052	0.9518
19	<i>Eopsetta jordani</i>	0.7560	0.0045	0.9563
20	Heart urchin (unidentified)	0.6290	0.0038	0.9601
21	<i>Lepidopsetta</i> sp.	0.5960	0.0036	0.9636
22	<i>Pandalus jordani</i>	0.5390	0.0032	0.9669
23	<i>Lyopsetta exilis</i>	0.5090	0.0030	0.9699
24	<i>Sebastes proriger</i>	0.4010	0.0024	0.9723
25	<i>Alosa sapidissima</i>	0.3990	0.0024	0.9747
26	<i>Microgadus proximus</i>	0.3560	0.0021	0.9768
27	<i>Sebastes brevispinis</i>	0.3530	0.0021	0.9789
28	<i>Sebastes crameri</i>	0.3280	0.0020	0.9809
29	<i>Raja binoculata</i>	0.3150	0.0019	0.9828
30	Scyphozoa (class)	0.2490	0.0015	0.9843
31	<i>Sebastes zacentrus</i>	0.2290	0.0014	0.9856
32	<i>Lycodes</i>	0.1750	0.0010	0.9867
33	<i>Scomber japonicus</i>	0.1560	0.0009	0.9876
34	<i>Sebastes pinniger</i>	0.1500	0.0009	0.9885
35	<i>Luidia foliata</i>	0.1470	0.0009	0.9894
36	<i>Sebastes aleutianus</i>	0.1260	0.0008	0.9902
37	<i>Oncorhynchus tshawytscha</i>	0.1080	0.0006	0.9908
38	<i>Strongylocentrotus droebachiensis</i>	0.1050	0.0006	0.9914
39	<i>Sebastes helvomaculatus</i>	0.1050	0.0006	0.9921
40	<i>Anarrhichthys ocellatus</i>	0.0920	0.0005	0.9926
41	<i>Sebastes ruberrimus</i>	0.0770	0.0005	0.9931

Table B-25.--Continued.

42	<i>Sebastes alutus</i>	0.0750	0.0004	0.9935
43	<i>Allocentrotus fragilis</i>	0.0680	0.0004	0.9939
44	<i>Metridium senile</i>	0.0650	0.0004	0.9943
45	<i>Loligo opalescens</i>	0.0570	0.0003	0.9947
46	<i>Stylasterias forreri</i>	0.0550	0.0003	0.9950
47	<i>Sebastes maliger</i>	0.0520	0.0003	0.9953
48	<i>Sebastes wilsoni</i>	0.0510	0.0003	0.9956
49	<i>Pycnopodia helianthoides</i>	0.0490	0.0003	0.9959
50	<i>Pleuronichthys verticalis</i>	0.0480	0.0003	0.9962
51	<i>Theragra chalcogramma</i>	0.0440	0.0003	0.9964
52	<i>Octopus dofleini</i>	0.0440	0.0003	0.9967
53	<i>Sardinops sagax</i>	0.0410	0.0002	0.9970
54	<i>Sebastes babcocki</i>	0.0390	0.0002	0.9972
55	<i>Lopholithodes foraminatus</i>	0.0340	0.0002	0.9974
56	<i>Bathyraja interrupta</i>	0.0290	0.0002	0.9976
57	<i>Sebastes paucispinis</i>	0.0260	0.0002	0.9977
58	<i>Pandalus platyceros</i>	0.0260	0.0002	0.9979
59	<i>Parastichopus californicus</i>	0.0230	0.0001	0.9980
60	Aphroditidae	0.0210	0.0001	0.9982
61	Actiniaria (order)	0.0210	0.0001	0.9983
62	Basketstarfish (unidentified)	0.0210	0.0001	0.9984
63	Holothuroidea (unidentified)	0.0210	0.0001	0.9985
64	<i>Icelinus filamentosus</i>	0.0200	0.0001	0.9986
65	<i>Sebastes entomelas</i>	0.0170	0.0001	0.9988
66	<i>Pleuronichthys decurrens</i>	0.0170	0.0001	0.9988
67	<i>Sebastolobus alascanus</i>	0.0160	0.0001	0.9990
68	<i>Pandalopsis dispar</i>	0.0150	0.0001	0.9990
69	Sea urchin (unidentified)	0.0130	0.0001	0.9991
70	<i>Hippasteria spinosa</i>	0.0130	0.0001	0.9992
71	Polychaeta (class)	0.0090	0.0001	0.9992
72	<i>Rathbunaster californicus</i>	0.0090	0.0001	0.9993
73	<i>Cancer magister</i>	0.0090	0.0001	0.9994
74	<i>Polinices</i> sp.	0.0080	0.0000	0.9994
75	<i>Crossaster papposus</i>	0.0080	0.0000	0.9994
76	<i>Allosmerus elongatus</i>	0.0070	0.0000	0.9995
77	<i>Sebastes saxicola</i>	0.0060	0.0000	0.9995
78	Thaliacea (unidentified)	0.0060	0.0000	0.9996
79	<i>Berryteuthis magister</i>	0.0060	0.0000	0.9996
80	<i>Sebastes goodei</i>	0.0060	0.0000	0.9996
81	<i>Mediaster aequalis</i>	0.0050	0.0000	0.9997
82	<i>Molpadia</i> sp.	0.0050	0.0000	0.9997
83	<i>Pisaster brevispinus</i>	0.0050	0.0000	0.9997
84	Porifera	0.0050	0.0000	0.9997
85	Skate egg case (unidentified)	0.0040	0.0000	0.9998

Table B-25.--Continued.

86	<i>Porichthys notatus</i>	0.0040	0.0000	0.9998
87	Hexactinellida	0.0040	0.0000	0.9998
88	Octopus (unidentified)	0.0030	0.0000	0.9998
89	<i>Stylatula</i> sp.	0.0030	0.0000	0.9998
90	<i>Tochuina tetraquetra</i>	0.0020	0.0000	0.9999
91	<i>Trachurus symmetricus</i>	0.0020	0.0000	0.9999
92	<i>Hexagrammos decagrammus</i>	0.0020	0.0000	0.9999
93	<i>Solaster borealis</i>	0.0020	0.0000	0.9999
94	<i>Fusitriton oregonensis</i>	0.0020	0.0000	0.9999
95	<i>Aphrocallistes vastus</i>	0.0020	0.0000	0.9999
96	<i>Pteraster tessellatus</i>	0.0010	0.0000	0.9999
97	<i>Solaster</i> sp.	0.0010	0.0000	0.9999
98	<i>Sebastes diploproa</i>	0.0010	0.0000	0.9999
99	<i>Chlamys rubida</i>	0.0010	0.0000	0.9999
100	<i>Sebastes jordani</i>	0.0010	0.0000	0.9999
101	<i>Chorilia longipes</i>	0.0010	0.0000	1.0000
102	<i>Tealia</i> sp.	0.0010	0.0000	1.0000
103	<i>Solaster stimpsoni</i>	0.0010	0.0000	1.0000
104	<i>Ronquilus jordani</i>	0.0010	0.0000	1.0000
105	<i>Orthasterias koehleri</i>	0.0010	0.0000	1.0000
106	<i>Solaster endeca</i>	0.0010	0.0000	1.0000
107	<i>Solaster dawsoni</i>	0.0010	0.0000	1.0000
108	<i>Hemilepidotus spinosus</i>	0.0000	0.0000	1.0000
109	<i>Isopsetta isolepis</i>	0.0000	0.0000	1.0000
110	<i>Tritonia</i> sp.	0.0000	0.0000	1.0000
111	<i>Patinopecten caurinus</i>	0.0000	0.0000	1.0000
112	<i>Henricia</i> sp.	0.0000	0.0000	1.0000
113	<i>Chilara taylori</i>	0.0000	0.0000	1.0000
114	<i>Sebastes</i> sp.	0.0000	0.0000	1.0000
115	<i>Luidiaster dawsoni</i>	0.0000	0.0000	1.0000
116	<i>Podothecus acipenserinus</i>	0.0000	0.0000	1.0000
117	Paguridae	0.0000	0.0000	1.0000
118	Rossia	0.0000	0.0000	1.0000
119	<i>Lophaster furcilliger</i>	0.0000	0.0000	1.0000
120	Myctophidae	0.0000	0.0000	1.0000
121	<i>Pseudarchaster parelii</i>	0.0000	0.0000	1.0000
122	Ophiuroid (unidentified)	0.0000	0.0000	1.0000
123	Pasiphaea	0.0000	0.0000	1.0000
124	<i>Pseudarchaster parelii</i>	0.0000	0.0000	1.0000
125	<i>Xeneretmus leiops</i>	0.0000	0.0000	1.0000
126	Crinoid (unidentified)	0.0000	0.0000	1.0000
127	<i>Diaphus theta</i>	0.0000	0.0000	1.0000
128	<i>Pandalus</i> sp.	0.0000	0.0000	1.0000
129	Galatheididae (family)	0.0000	0.0000	1.0000

Table B-25.--Continued.

130 Liparis sp.	0.0000	0.0000	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>	24.5570	0.2101	0.2101
2	<i>Sebastes alutus</i>	24.2790	0.2078	0.4179
3	<i>Microstomus pacificus</i>	10.6890	0.0915	0.5094
4	<i>Sebastes zacentrus</i>	5.9350	0.0508	0.5601
5	<i>Merluccius productus</i>	5.1870	0.0444	0.6045
6	<i>Sebastes proriger</i>	4.4750	0.0383	0.6428
7	<i>Glyptocephalus zachirus</i>	4.3530	0.0372	0.6801
8	<i>Anoplopoma fimbria</i>	3.7550	0.0321	0.7122
9	<i>Hippoglossus stenolepis</i>	3.6250	0.0310	0.7432
10	<i>Sebastolobus alascanus</i>	2.9320	0.0251	0.7683
11	<i>Sebastes crameri</i>	2.6510	0.0227	0.7910
12	<i>Sebastes flavidus</i>	2.1740	0.0186	0.8096
13	<i>Sebastes diploproa</i>	2.0510	0.0175	0.8271
14	<i>Sebastes elongatus</i>	1.9080	0.0163	0.8435
15	<i>Sebastes aleutianus</i>	1.8350	0.0157	0.8592
16	<i>Squalus acanthias</i>	1.6040	0.0137	0.8729
17	<i>Hydrolagus colliei</i>	1.4170	0.0121	0.8850
18	<i>Sebastes brevispinis</i>	1.3390	0.0115	0.8965
19	<i>Raja rhina</i>	1.0240	0.0088	0.9052
20	<i>Sebastes helvomaculatus</i>	1.0120	0.0087	0.9139
21	<i>Gadus macrocephalus</i>	1.0070	0.0086	0.9225
22	<i>Allocentrotus fragilis</i>	0.8940	0.0076	0.9302
23	Heart urchin (unidentified)	0.8390	0.0072	0.9373
24	<i>Ophiodon elongatus</i>	0.8350	0.0071	0.9445
25	<i>Sebastes babcocki</i>	0.6830	0.0058	0.9503
26	<i>Sebastes pinniger</i>	0.4960	0.0042	0.9546
27	<i>Pandalus jordani</i>	0.4760	0.0041	0.9586
28	<i>Lyopsetta exilis</i>	0.4470	0.0038	0.9625
29	<i>Alosa sapidissima</i>	0.4160	0.0036	0.9660
30	<i>Bathyraja interrupta</i>	0.3790	0.0032	0.9693
31	<i>Parophrys vetulus</i>	0.3680	0.0031	0.9724
32	<i>Theragra chalcogramma</i>	0.3580	0.0031	0.9755
33	<i>Hippoglossoides elassodon</i>	0.3470	0.0030	0.9784
34	<i>Sebastes reedi</i>	0.2990	0.0026	0.9810
35	<i>Strongylocentrotus franciscanus</i>	0.2950	0.0025	0.9835
36	<i>Sebastes paucispinis</i>	0.1850	0.0016	0.9851
37	<i>Lopholithodes foraminatus</i>	0.1700	0.0015	0.9866
38	<i>Pandalus platyceros</i>	0.1510	0.0013	0.9879
39	<i>Thaleichthys pacificus</i>	0.1490	0.0013	0.9891
40	<i>Lycodes cortezianus</i>	0.1250	0.0011	0.9902
41	<i>Sebastes saxicola</i>	0.1190	0.0010	0.9912

Table B-26.--Continued.

42	Holothuroidea (unidentified)	0.1120	0.0010	0.9922
43	Icelinus filamentosus	0.0940	0.0008	0.9930
44	Luidia foliata	0.0720	0.0006	0.9936
45	Strongylocentrotus droebachiensis	0.0530	0.0005	0.9940
46	Eopsetta jordani	0.0440	0.0004	0.9944
47	Pandalopsis dispar	0.0400	0.0003	0.9948
48	Opisthoteuthis californiana	0.0330	0.0003	0.9950
49	Hippasteria spinosa	0.0330	0.0003	0.9953
50	Actinaria (order)	0.0320	0.0003	0.9956
51	Diaphus theta	0.0310	0.0003	0.9959
52	Porifera	0.0300	0.0003	0.9961
53	Malacocottus zonurus	0.0270	0.0002	0.9964
54	Lophaster furcilliger	0.0270	0.0002	0.9966
55	Cryptacanthodes giganteus	0.0250	0.0002	0.9968
56	Poraniopsis inflata	0.0250	0.0002	0.9970
57	Berryteuthis magister	0.0250	0.0002	0.9972
58	Scomber japonicus	0.0230	0.0002	0.9974
59	Stylasterias forreri	0.0230	0.0002	0.9976
60	Lycodes	0.0210	0.0002	0.9978
61	Fusitriton oregonensis	0.0200	0.0002	0.9980
62	Scyphozoa (class)	0.0190	0.0002	0.9981
63	Aphroditidae	0.0180	0.0002	0.9983
64	Thaliacea (unidentified)	0.0180	0.0002	0.9984
65	Rathbunaster californicus	0.0140	0.0001	0.9986
66	Neptunea sp.	0.0110	0.0001	0.9987
67	Pycnopodia helianthoides	0.0110	0.0001	0.9988
68	Lycodes diapterus	0.0110	0.0001	0.9989
69	Diplopteraster multipes	0.0110	0.0001	0.9990
70	Heterozonias alternatus	0.0090	0.0001	0.9990
71	Careproctus melanurus	0.0080	0.0001	0.9991
72	Sebastes wilsoni	0.0080	0.0001	0.9992
73	Gorgonacea (order)	0.0070	0.0001	0.9992
74	Xeneretmus leiops	0.0060	0.0001	0.9993
75	Ceramaster patagonicus	0.0060	0.0001	0.9993
76	Ascidian (unidentified)	0.0060	0.0001	0.9994
77	Clupea pallasii	0.0060	0.0001	0.9994
78	Mediaster aequalis	0.0060	0.0001	0.9995
79	Hippasteria californica	0.0060	0.0000	0.9995
80	Eptatretus stouti	0.0050	0.0000	0.9996
81	Luidiaster dawsoni	0.0050	0.0000	0.9996
82	Malacocottus kincaidi	0.0040	0.0000	0.9996
83	Octopus (unidentified)	0.0030	0.0000	0.9997
84	Pasiphaea	0.0030	0.0000	0.9997
85	Solaster sp.	0.0030	0.0000	0.9997

Table B-26.-Continued.

86	<i>Sebastes variegatus</i>	0.0030	0.0000	0.9998
87	<i>Crossaster papposus</i>	0.0030	0.0000	0.9998
88	<i>Henricia</i> sp.	0.0020	0.0000	0.9998
89	<i>Solaster endeca</i>	0.0020	0.0000	0.9998
90	<i>Solaster stimpsoni</i>	0.0020	0.0000	0.9998
91	Paguridae	0.0020	0.0000	0.9998
92	<i>Ctenodiscus crispatus</i>	0.0020	0.0000	0.9999
93	Pennatulacea (order)	0.0010	0.0000	0.9999
94	<i>Molpadia</i> sp.	0.0010	0.0000	0.9999
95	<i>Pteraster tessellatus</i>	0.0010	0.0000	0.9999
96	<i>Lopholithodes</i> sp.	0.0010	0.0000	0.9999
97	Squid (unidentified)	0.0010	0.0000	0.9999
98	<i>Ronquilus jordani</i>	0.0010	0.0000	0.9999
99	<i>Bathyagonus pentacanthus</i>	0.0010	0.0000	0.9999
100	<i>Sagamichthys abei</i>	0.0010	0.0000	1.0000
101	<i>Pteraster</i> sp.	0.0010	0.0000	1.0000
102	Myctophidae	0.0010	0.0000	1.0000
103	<i>Aphrocallistes vastus</i>	0.0010	0.0000	1.0000
104	Gastropod (unidentified)	0.0000	0.0000	1.0000
105	Ophiuroid (unidentified)	0.0000	0.0000	1.0000
106	<i>Oregonia gracilis</i>	0.0000	0.0000	1.0000
107	<i>Stenobranchius leucopsarus</i>	0.0000	0.0000	1.0000
108	<i>Lycodes brevipes</i>	0.0000	0.0000	1.0000
109	Crinoid (unidentified)	0.0000	0.0000	1.0000
110	Galatheidae (family)	0.0000	0.0000	1.0000
111	Polychaeta (class)	0.0000	0.0000	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>Sebastes aleutianus</i>	30.9950	0.3382	0.3382
2	<i>Atheresthes stomias</i>	12.1760	0.1329	0.4711
3	<i>Microstomus pacificus</i>	10.4770	0.1143	0.5854
4	<i>Sebastes alutus</i>	8.5750	0.0936	0.6790
5	<i>Merluccius productus</i>	6.5290	0.0712	0.7502
6	<i>Sebastolobus alascanus</i>	4.2170	0.0460	0.7962
7	<i>Anoplopoma fimbria</i>	3.7650	0.0411	0.8373
8	<i>Hippoglossus stenolepis</i>	3.7020	0.0404	0.8777
9	<i>Glyptocephalus zachirus</i>	3.4920	0.0381	0.9158
10	Actiniaria (order)	2.2330	0.0244	0.9402
11	<i>Moroteuthis robusta</i>	0.7240	0.0079	0.9481
12	<i>Raja rhina</i>	0.7150	0.0078	0.9559
13	<i>Sebastes borealis</i>	0.5330	0.0058	0.9617
14	<i>Lycodes cortezianus</i>	0.4890	0.0053	0.9671
15	<i>Sebastes babcocki</i>	0.4150	0.0045	0.9716
16	<i>Bathyraja interrupta</i>	0.2430	0.0026	0.9742
17	Holothuroidea (unidentified)	0.2090	0.0023	0.9765
18	<i>Trachipterus altivelis</i>	0.1730	0.0019	0.9784
19	<i>Hydrolagus colliei</i>	0.1430	0.0016	0.9800
20	<i>Fusitriton oregonensis</i>	0.1290	0.0014	0.9814
21	<i>Sebastolobus altivelis</i>	0.1280	0.0014	0.9828
22	<i>Sebastes crameri</i>	0.1100	0.0012	0.9840
23	<i>Sebastes diploproa</i>	0.1060	0.0012	0.9851
24	<i>Aphrocallistes vastus</i>	0.1060	0.0012	0.9863
25	<i>Squalus acanthias</i>	0.0970	0.0011	0.9874
26	<i>Apristurus brunneus</i>	0.0960	0.0011	0.9884
27	<i>Alloctrotus fragilis</i>	0.0920	0.0010	0.9894
28	<i>Lycodes diapterus</i>	0.0880	0.0010	0.9904
29	<i>Berryteuthis magister</i>	0.0840	0.0009	0.9913
30	<i>Sebastes flavidus</i>	0.0800	0.0009	0.9922
31	<i>Sebastes aurora</i>	0.0790	0.0009	0.9930
32	<i>Neptunea</i> sp.	0.0600	0.0007	0.9937
33	<i>Careproctus melanurus</i>	0.0560	0.0006	0.9943
34	Thaliacea (unidentified)	0.0510	0.0006	0.9948
35	<i>Embassichthys bathybius</i>	0.0480	0.0005	0.9954
36	<i>Diplopteraster multipes</i>	0.0470	0.0005	0.9959
37	<i>Opisthoteuthis californiana</i>	0.0460	0.0005	0.9964
38	<i>Pandalopsis dispar</i>	0.0340	0.0004	0.9968
39	Porifera	0.0320	0.0004	0.9971
40	<i>Pasiphaea</i>	0.0320	0.0004	0.9975
41	<i>Clupea pallasii</i>	0.0270	0.0003	0.9978

Table B-27.--Continued.

42	<i>Luidia foliata</i>	0.0250	0.0003	0.9980
43	Squid (unidentified)	0.0200	0.0002	0.9982
44	Scyphozoa (class)	0.0170	0.0002	0.9984
45	<i>Lyopsetta exilis</i>	0.0120	0.0001	0.9986
46	<i>Luidiaster dawsoni</i>	0.0110	0.0001	0.9987
47	<i>Hippasteria</i> sp.	0.0110	0.0001	0.9988
48	<i>Sebastes helvomaculatus</i>	0.0090	0.0001	0.9989
49	<i>Hippasteria spinosa</i>	0.0090	0.0001	0.9990
50	<i>Sebastes elongatus</i>	0.0080	0.0001	0.9991
51	Brachiopod (unidentified)	0.0070	0.0001	0.9992
52	Basketstarfish (unidentified)	0.0070	0.0001	0.9992
53	<i>Chauliodus macouni</i>	0.0060	0.0001	0.9993
54	Myctophidae	0.0060	0.0001	0.9994
55	<i>Pycnopodia helianthoides</i>	0.0060	0.0001	0.9994
56	<i>Stenobranchius leucopsarus</i>	0.0050	0.0001	0.9995
57	Octopus (unidentified)	0.0040	0.0000	0.9996
58	<i>Rathbunaster californicus</i>	0.0040	0.0000	0.9996
59	<i>Stylasterias forreri</i>	0.0030	0.0000	0.9996
60	<i>Malacocottus kincaidi</i>	0.0030	0.0000	0.9997
61	<i>Dermasterias imbricata</i>	0.0020	0.0000	0.9997
62	<i>Sebastes wilsoni</i>	0.0020	0.0000	0.9997
63	<i>Solaster borealis</i>	0.0020	0.0000	0.9997
64	<i>Mediaster aequalis</i>	0.0020	0.0000	0.9998
65	<i>Sagamichthys abei</i>	0.0020	0.0000	0.9998
66	<i>Stylatula</i> sp.	0.0020	0.0000	0.9998
67	Paguridae	0.0020	0.0000	0.9998
68	<i>BathYGONUS pentacanthus</i>	0.0010	0.0000	0.9998
69	Pennatulacea (order)	0.0010	0.0000	0.9999
70	<i>Ctenodiscus crispatus</i>	0.0010	0.0000	0.9999
71	<i>Icelinus burchami</i>	0.0010	0.0000	0.9999
72	Skate egg case (unidentified)	0.0010	0.0000	0.9999
73	<i>Tactostoma macropus</i>	0.0010	0.0000	0.9999
74	<i>Diaphus theta</i>	0.0010	0.0000	0.9999
75	Aphroditidae	0.0010	0.0000	1.0000
76	<i>Symbolophorus californiensis</i>	0.0010	0.0000	1.0000
77	<i>Lampanyctus ritteri</i>	0.0010	0.0000	1.0000
78	<i>Loligo opalescens</i>	0.0010	0.0000	1.0000
79	<i>Solaster</i> sp.	0.0010	0.0000	1.0000
80	<i>Bathybembix bairdii</i>	0.0000	0.0000	1.0000
81	<i>Aristostomias scintillans</i>	0.0000	0.0000	1.0000
82	<i>Chionoecetes tanneri</i>	0.0000	0.0000	1.0000
83	<i>Pseudarchaster parelii</i>	0.0000	0.0000	1.0000
84	<i>BathYGONUS nigripinnis</i>	0.0000	0.0000	1.0000
85	Sipuncula (phylum)	0.0000	0.0000	1.0000

Table B-27.--Continued.

86	Bathylagidae (unidentified)	0.0000	0.0000	1.0000
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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>Merluccius productus</i>	60.1930	0.3985	0.3985
2	<i>Atheresthes stomias</i>	19.7450	0.1307	0.5292
3	<i>Squalus acanthias</i>	11.9030	0.0788	0.6080
4	<i>Microstomus pacificus</i>	7.8260	0.0518	0.6598
5	<i>Sebastes alutus</i>	5.2960	0.0351	0.6949
6	<i>Anoplopoma fimbria</i>	5.0200	0.0332	0.7281
7	<i>Glyptocephalus zachirus</i>	4.1540	0.0275	0.7556
8	<i>Citharichthys sordidus</i>	3.6710	0.0243	0.7799
9	<i>Hippoglossus stenolepis</i>	3.5030	0.0232	0.8031
10	<i>Sebastes aleutianus</i>	3.2720	0.0217	0.8248
11	<i>Ophiodon elongatus</i>	2.3940	0.0158	0.8406
12	<i>Parophrys vetulus</i>	2.0960	0.0139	0.8545
13	<i>Clupea pallasii</i>	1.7240	0.0114	0.8659
14	<i>Hippoglossoides elassodon</i>	1.6580	0.0110	0.8769
15	<i>Sebastes elongatus</i>	1.4740	0.0098	0.8866
16	<i>Gadus macrocephalus</i>	1.2960	0.0086	0.8952
17	<i>Sebastes flavidus</i>	1.2890	0.0085	0.9037
18	<i>Sebastes zacentrus</i>	1.2550	0.0083	0.9120
19	<i>Sebastes proriger</i>	1.1120	0.0074	0.9194
20	<i>Raja rhina</i>	1.0890	0.0072	0.9266
21	<i>Sebastolobus alascanus</i>	0.9360	0.0062	0.9328
22	<i>Hydrolagus colliei</i>	0.9080	0.0060	0.9388
23	<i>Thaleichthys pacificus</i>	0.7610	0.0050	0.9439
24	<i>Sebastes crameri</i>	0.7340	0.0049	0.9487
25	Heart urchin (unidentified)	0.6100	0.0040	0.9528
26	<i>Eopsetta jordani</i>	0.5560	0.0037	0.9564
27	<i>Sebastes brevispinis</i>	0.5010	0.0033	0.9598
28	<i>Pandalus jordani</i>	0.4780	0.0032	0.9629
29	<i>Lyopsetta exilis</i>	0.4520	0.0030	0.9659
30	<i>Lepidopsetta</i> sp.	0.4320	0.0029	0.9688
31	<i>Sebastes diploproa</i>	0.3870	0.0026	0.9713
32	<i>Alosa sapidissima</i>	0.3660	0.0024	0.9738
33	<i>Sebastes helvomaculatus</i>	0.2630	0.0017	0.9755
34	<i>Microgadus proximus</i>	0.2580	0.0017	0.9772
35	<i>Raja binoculata</i>	0.2280	0.0015	0.9787
36	Actiniaria (order)	0.2260	0.0015	0.9802
37	<i>Allocentrotus fragilis</i>	0.2220	0.0015	0.9817
38	<i>Sebastes pinniger</i>	0.2000	0.0013	0.9830
39	<i>Sebastes babcocki</i>	0.1920	0.0013	0.9843
40	Scyphozoa (class)	0.1860	0.0012	0.9855
41	Lycodes	0.1300	0.0009	0.9864

Table B-28.--Continued.

42	<i>Luidia foliata</i>	0.1220	0.0008	0.9872
43	<i>Scomber japonicus</i>	0.1170	0.0008	0.9880
44	<i>Bathyraja interrupta</i>	0.1130	0.0007	0.9887
45	<i>Theragra chalcogramma</i>	0.0980	0.0006	0.9894
46	<i>Strongylocentrotus droebachiensis</i>	0.0860	0.0006	0.9899
47	<i>Oncorhynchus tshawytscha</i>	0.0790	0.0005	0.9904
48	<i>Lycodes cortezianus</i>	0.0680	0.0004	0.9909
49	<i>Moroteuthis robusta</i>	0.0660	0.0004	0.9913
50	<i>Anarrhichthys ocellatus</i>	0.0660	0.0004	0.9918
51	<i>Lopholithodes foraminatus</i>	0.0560	0.0004	0.9921
52	<i>Sebastes ruberrimus</i>	0.0560	0.0004	0.9925
53	Holothuroidea (unidentified)	0.0550	0.0004	0.9929
54	<i>Sebastes reedi</i>	0.0550	0.0004	0.9932
55	<i>Strongylocentrotus franciscanus</i>	0.0540	0.0004	0.9936
56	<i>Sebastes paucispinis</i>	0.0530	0.0004	0.9939
57	<i>Sebastes borealis</i>	0.0490	0.0003	0.9943
58	<i>Metridium senile</i>	0.0470	0.0003	0.9946
59	<i>Pandalus platyceros</i>	0.0470	0.0003	0.9949
60	<i>Stylasterias forreri</i>	0.0440	0.0003	0.9952
61	<i>Loligo opalescens</i>	0.0420	0.0003	0.9955
62	<i>Sebastes wilsoni</i>	0.0380	0.0003	0.9957
63	<i>Pycnopodia helianthoides</i>	0.0380	0.0003	0.9960
64	<i>Sebastes maliger</i>	0.0380	0.0002	0.9962
65	<i>Pleuronichthys verticalis</i>	0.0350	0.0002	0.9964
66	<i>Octopus dofleini</i>	0.0320	0.0002	0.9967
67	<i>Icelinus filamentosus</i>	0.0320	0.0002	0.9969
68	<i>Sardinops sagax</i>	0.0300	0.0002	0.9971
69	<i>Sebastes saxicola</i>	0.0260	0.0002	0.9972
70	<i>Pandalopsis dispar</i>	0.0210	0.0001	0.9974
71	Aphroditidae	0.0190	0.0001	0.9975
72	<i>Fusitriton oregonensis</i>	0.0170	0.0001	0.9976
73	<i>Parastichopus californicus</i>	0.0160	0.0001	0.9977
74	<i>Berryteuthis magister</i>	0.0160	0.0001	0.9978
75	<i>Hippasteria spinosa</i>	0.0160	0.0001	0.9979
76	<i>Trachipterus altivelis</i>	0.0160	0.0001	0.9980
77	Basketstarfish (unidentified)	0.0160	0.0001	0.9982
78	<i>Sebastes entomelas</i>	0.0130	0.0001	0.9982
79	<i>Pleuronichthys decurrens</i>	0.0120	0.0001	0.9983
80	Thaliacea (unidentified)	0.0120	0.0001	0.9984
81	Porifera	0.0120	0.0001	0.9985
82	<i>Sebastolobus altivelis</i>	0.0120	0.0001	0.9986
83	<i>Aphrocallistes vastus</i>	0.0110	0.0001	0.9986
84	<i>Opisthoteuthis californiana</i>	0.0100	0.0001	0.9987
85	<i>Lycodes diapterus</i>	0.0100	0.0001	0.9988

Table B-28.--Continued.

86	Sea urchin (unidentified)	0.0100	0.0001	0.9988
87	Rathbunaster californicus	0.0090	0.0001	0.9989
88	Apristurus brunneus	0.0090	0.0001	0.9989
89	Neptunea sp.	0.0080	0.0000	0.9990
90	Sebastes aurora	0.0070	0.0000	0.9990
91	Polychaeta (class)	0.0070	0.0000	0.9991
92	Careproctus melanurus	0.0070	0.0000	0.9991
93	Diplopteraster multipes	0.0060	0.0000	0.9992
94	Cancer magister	0.0060	0.0000	0.9992
95	Crossaster papposus	0.0060	0.0000	0.9992
96	Diaphus theta	0.0060	0.0000	0.9993
97	Polinices sp.	0.0060	0.0000	0.9993
98	Allosmerus elongatus	0.0050	0.0000	0.9994
99	Mediaster aequalis	0.0050	0.0000	0.9994
100	Malacocottus zonurus	0.0050	0.0000	0.9994
101	Lophaster furcilliger	0.0050	0.0000	0.9995
102	Cryptacanthodes giganteus	0.0050	0.0000	0.9995
103	Poraniopsis inflata	0.0050	0.0000	0.9995
104	Embassichthys bathybius	0.0040	0.0000	0.9996
105	Molpadia sp.	0.0040	0.0000	0.9996
106	Sebastes goodei	0.0040	0.0000	0.9996
107	Pasiphaea	0.0040	0.0000	0.9996
108	Pisaster brevispinus	0.0030	0.0000	0.9997
109	Octopus (unidentified)	0.0030	0.0000	0.9997
110	Skate egg case (unidentified)	0.0030	0.0000	0.9997
111	Porichthys notatus	0.0030	0.0000	0.9997
112	Hexactinellida	0.0030	0.0000	0.9997
113	Squid (unidentified)	0.0020	0.0000	0.9997
114	Luidiaster dawsoni	0.0020	0.0000	0.9998
115	Stylatula sp.	0.0020	0.0000	0.9998
116	Heterozonias alternatus	0.0020	0.0000	0.9998
117	Tochuina tetraquetra	0.0020	0.0000	0.9998
118	Solaster borealis	0.0020	0.0000	0.9998
119	Trachurus symmetricus	0.0020	0.0000	0.9998
120	Solaster sp.	0.0010	0.0000	0.9998
121	Hexagrammos decagrammus	0.0010	0.0000	0.9998
122	Gorgonacea (order)	0.0010	0.0000	0.9998
123	Xeneretmus leiops	0.0010	0.0000	0.9998
124	Ceramaster patagonicus	0.0010	0.0000	0.9998
125	Pteraster tessellatus	0.0010	0.0000	0.9999
126	Ascidian (unidentified)	0.0010	0.0000	0.9999
127	Hippasteria californica	0.0010	0.0000	0.9999
128	Hippasteria sp.	0.0010	0.0000	0.9999
129	Eptatretus stouti	0.0010	0.0000	0.9999

Table B-28.--Continued.

130	<i>Solaster stimpsoni</i>	0.0010	0.0000	0.9999
131	<i>Solaster endeca</i>	0.0010	0.0000	0.9999
132	<i>Malacocottus kincaidi</i>	0.0010	0.0000	0.9999
133	Myctophidae	0.0010	0.0000	0.9999
134	<i>Ronquilus jordani</i>	0.0010	0.0000	0.9999
135	<i>Chlamys rubida</i>	0.0010	0.0000	0.9999
136	<i>Henricia</i> sp.	0.0010	0.0000	0.9999
137	Brachiopod (unidentified)	0.0010	0.0000	0.9999
138	Paguridae	0.0010	0.0000	0.9999
139	<i>Sebastes jordani</i>	0.0010	0.0000	0.9999
140	<i>Chorilia longipes</i>	0.0010	0.0000	0.9999
141	<i>Tealia</i> sp.	0.0010	0.0000	1.0000
142	<i>Chauliodus macouni</i>	0.0010	0.0000	1.0000
143	<i>Orthasterias koehleri</i>	0.0010	0.0000	1.0000
144	<i>Sebastes variegatus</i>	0.0010	0.0000	1.0000
145	<i>Stenobranchius leucopsarus</i>	0.0010	0.0000	1.0000
146	<i>Ctenodiscus crispatus</i>	0.0000	0.0000	1.0000
147	<i>Sagamichthys abei</i>	0.0000	0.0000	1.0000
148	Pennatulacea (order)	0.0000	0.0000	1.0000
149	<i>Solaster dawsoni</i>	0.0000	0.0000	1.0000
150	<i>Hemilepidotus spinosus</i>	0.0000	0.0000	1.0000
151	<i>Isopsetta isolepis</i>	0.0000	0.0000	1.0000
152	<i>Bathyagonus pentacanthus</i>	0.0000	0.0000	1.0000
153	<i>Tritonia</i> sp.	0.0000	0.0000	1.0000
154	<i>Patinopecten caurinus</i>	0.0000	0.0000	1.0000
155	<i>Lopholithodes</i> sp.	0.0000	0.0000	1.0000
156	<i>Dermasterias imbricata</i>	0.0000	0.0000	1.0000
157	<i>Pteraster</i> sp.	0.0000	0.0000	1.0000
158	<i>Chilara taylori</i>	0.0000	0.0000	1.0000
159	<i>Sebastes</i> sp.	0.0000	0.0000	1.0000
160	<i>Podothecus acipenserinus</i>	0.0000	0.0000	1.0000
161	Ophiuroid (unidentified)	0.0000	0.0000	1.0000
162	Rossia	0.0000	0.0000	1.0000
163	<i>Icelinus burchami</i>	0.0000	0.0000	1.0000
164	<i>Tactostoma macropus</i>	0.0000	0.0000	1.0000
165	<i>Pseudarchaster parelii</i>	0.0000	0.0000	1.0000
166	<i>Symbolophorus californiensis</i>	0.0000	0.0000	1.0000
167	<i>Lampanyctus ritteri</i>	0.0000	0.0000	1.0000
168	Gastropod (unidentified)	0.0000	0.0000	1.0000
169	<i>Pseudarchaster parelii</i>	0.0000	0.0000	1.0000
170	Crinoid (unidentified)	0.0000	0.0000	1.0000
171	<i>Oregonia gracilis</i>	0.0000	0.0000	1.0000
172	Galatheidae (family)	0.0000	0.0000	1.0000
173	<i>Bathybembix bairdii</i>	0.0000	0.0000	1.0000

Table B-28.--Continued.

174	<i>Aristostomias scintillans</i>	0.0000	0.0000	1.0000
175	<i>Chionoecetes tanneri</i>	0.0000	0.0000	1.0000
176	<i>Lycodes brevipes</i>	0.0000	0.0000	1.0000
177	<i>Pandalus</i> sp.	0.0000	0.0000	1.0000
178	<i>Bathyagonus nigripinnis</i>	0.0000	0.0000	1.0000
179	<i>Liparis</i> sp.	0.0000	0.0000	1.0000
180	Sipuncula (phylum)	0.0000	0.0000	1.0000
181	Bathylagidae (unidentified)	0.0000	0.0000	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>	149.8630	0.6744	0.6744
2	<i>Citharichthys sordidus</i>	12.9940	0.0585	0.7329
3	<i>Trachurus symmetricus</i>	7.4550	0.0335	0.7664
4	<i>Scomber japonicus</i>	4.6290	0.0208	0.7873
5	<i>Squalus acanthias</i>	4.2460	0.0191	0.8064
6	<i>Sebastes jordani</i>	3.4140	0.0154	0.8217
7	<i>Sebastes goodei</i>	3.1920	0.0144	0.8361
8	<i>Parophrys vetulus</i>	2.8590	0.0129	0.8490
9	<i>Glyptocephalus zachirus</i>	2.5380	0.0114	0.8604
10	<i>Sebastes saxicola</i>	2.3510	0.0106	0.8710
11	<i>Microstomus pacificus</i>	2.3260	0.0105	0.8814
12	<i>Clupea pallasii</i>	2.3040	0.0104	0.8918
13	Scyphozoa (class)	2.3040	0.0104	0.9022
14	<i>Sebastes wilsoni</i>	1.9960	0.0090	0.9112
15	<i>Hippoglossus stenolepis</i>	1.7170	0.0077	0.9189
16	<i>Anoplopoma fimbria</i>	1.6330	0.0074	0.9262
17	<i>Hydrolagus colliei</i>	1.6330	0.0073	0.9336
18	<i>Genyonemus lineatus</i>	1.5230	0.0069	0.9404
19	<i>Sebastes elongatus</i>	1.1400	0.0051	0.9456
20	<i>Alosa sapidissima</i>	0.8620	0.0039	0.9494
21	<i>Sebastes pinniger</i>	0.8500	0.0038	0.9533
22	<i>Atheresthes stomias</i>	0.8370	0.0038	0.9570
23	<i>Porichthys notatus</i>	0.8320	0.0037	0.9608
24	<i>Sebastes flavidus</i>	0.7900	0.0036	0.9643
25	<i>Sardinops sagax</i>	0.7440	0.0034	0.9677
26	<i>Eopsetta jordani</i>	0.6690	0.0030	0.9707
27	<i>Oncorhynchus tshawytscha</i>	0.6240	0.0028	0.9735
28	<i>Ophiodon elongatus</i>	0.5540	0.0025	0.9760
29	<i>Loligo opalescens</i>	0.4700	0.0021	0.9781
30	Actiniaria (order)	0.3630	0.0016	0.9797
31	<i>Raja rhina</i>	0.3590	0.0016	0.9814
32	<i>Cancer magister</i>	0.3370	0.0015	0.9829
33	<i>Sebastes semicinctus</i>	0.3260	0.0015	0.9843
34	<i>Engraulis mordax</i>	0.2830	0.0013	0.9856
35	<i>Sebastes proriger</i>	0.2370	0.0011	0.9867
36	<i>Lyopsetta exilis</i>	0.2350	0.0011	0.9877
37	<i>Sebastes entomelas</i>	0.2050	0.0009	0.9887
38	<i>Sebastes crameri</i>	0.2020	0.0009	0.9896
39	<i>Alopias vulpinus</i>	0.2020	0.0009	0.9905
40	<i>Raja binoculata</i>	0.1670	0.0007	0.9912
41	Pennatulacea (order)	0.1470	0.0007	0.9919

Table B-29.--Continued.

42	Starfish (unidentified)	0.1430	0.0006	0.9925
43	Heart urchin (unidentified)	0.1090	0.0005	0.9930
44	Zalemnius rosaceus	0.1010	0.0005	0.9935
45	Gadus macrocephalus	0.0830	0.0004	0.9938
46	Sebastes paucispinis	0.0810	0.0004	0.9942
47	Sebastes helvomaculatus	0.0800	0.0004	0.9946
48	Lepidopsetta sp.	0.0640	0.0003	0.9949
49	Pleuronichthys decurrens	0.0620	0.0003	0.9952
50	Hippoglossoides elassodon	0.0560	0.0002	0.9954
51	Basketstarfish (unidentified)	0.0550	0.0002	0.9956
52	Argentina sialis	0.0540	0.0002	0.9959
53	Sebastes aleutianus	0.0490	0.0002	0.9961
54	Chilara taylori	0.0470	0.0002	0.9963
55	Sebastes chlorostictus	0.0400	0.0002	0.9965
56	Allosmerus elongatus	0.0390	0.0002	0.9967
57	Octopus (unidentified)	0.0370	0.0002	0.9968
58	Microgadus proximus	0.0360	0.0002	0.9970
59	Sebastolobus alascanus	0.0320	0.0001	0.9971
60	Sebastes reedi	0.0320	0.0001	0.9973
61	Sea urchin (unidentified)	0.0320	0.0001	0.9974
62	Torpedo californica	0.0310	0.0001	0.9976
63	Peprilus simillimus	0.0300	0.0001	0.9977
64	Strongylocentrotus droebachiensis	0.0280	0.0001	0.9978
65	Pandalus jordani	0.0240	0.0001	0.9979
66	Lycodes cortezianus	0.0220	0.0001	0.9980
67	Sebastes ruberrimus	0.0220	0.0001	0.9981
68	Squid (unidentified)	0.0220	0.0001	0.9982
69	Sebastes zacentrus	0.0200	0.0001	0.9983
70	Thaleichthys pacificus	0.0180	0.0001	0.9984
71	Icelinus filamentosus	0.0180	0.0001	0.9985
72	Holothuroidea (unidentified)	0.0180	0.0001	0.9986
73	Lycodes pacificus	0.0170	0.0001	0.9986
74	Hexanchus griseus	0.0150	0.0001	0.9987
75	Allocentrotus fragilis	0.0140	0.0001	0.9988
76	Bathyraja interrupta	0.0130	0.0001	0.9988
77	Shrimp (unidentified)	0.0130	0.0001	0.9989
78	Squatina californica	0.0110	0.0000	0.9989
79	Psettichthys melanostictus	0.0100	0.0000	0.9990
80	Sebastes miniatus	0.0100	0.0000	0.9990
81	Anarrhichthys ocellatus	0.0100	0.0000	0.9991
82	Luidia foliata	0.0090	0.0000	0.9991
83	Pandalus platyceros	0.0090	0.0000	0.9992
84	Sebastes levis	0.0090	0.0000	0.9992
85	Sebastes alutus	0.0080	0.0000	0.9992

Table B-29.--Continued.

86	<i>Synodus lucioceps</i>	0.0080	0.0000	0.9993
87	<i>Stylatula</i> sp.	0.0080	0.0000	0.9993
88	Nudibranch (unidentified)	0.0080	0.0000	0.9993
89	<i>Sebastes</i> sp.	0.0070	0.0000	0.9994
90	<i>Lopholithodes foraminatus</i>	0.0070	0.0000	0.9994
91	<i>Cryptacanthodes giganteus</i>	0.0070	0.0000	0.9994
92	<i>Apristurus brunneus</i>	0.0060	0.0000	0.9995
93	<i>Pleuronichthys verticalis</i>	0.0060	0.0000	0.9995
94	<i>Sebastes mystinus</i>	0.0050	0.0000	0.9995
95	<i>Pycnopodia helianthoides</i>	0.0050	0.0000	0.9995
96	<i>Sebastes auriculatus</i>	0.0050	0.0000	0.9996
97	<i>Sebastes caurinus</i>	0.0050	0.0000	0.9996
98	Porifera	0.0050	0.0000	0.9996
99	<i>Platichthys stellatus</i>	0.0040	0.0000	0.9996
100	<i>Paralichthys californicus</i>	0.0040	0.0000	0.9996
101	Skate egg case (unidentified)	0.0040	0.0000	0.9997
102	<i>Zaniolepis latipinnis</i>	0.0040	0.0000	0.9997
103	Synodontidae	0.0030	0.0000	0.9997
104	<i>Hexagrammos decagrammus</i>	0.0030	0.0000	0.9997
105	<i>Raja inornata</i>	0.0030	0.0000	0.9997
106	<i>Sebastes rufus</i>	0.0030	0.0000	0.9997
107	<i>Rathbunaster californicus</i>	0.0030	0.0000	0.9997
108	<i>Sebastes diploproa</i>	0.0030	0.0000	0.9998
109	Cottidae	0.0030	0.0000	0.9998
110	<i>Sebastes babcocki</i>	0.0020	0.0000	0.9998
111	<i>Stylasterias forreri</i>	0.0020	0.0000	0.9998
112	<i>Strongylocentrotus franciscanus</i>	0.0020	0.0000	0.9998
113	<i>Icelinus oculatus</i>	0.0020	0.0000	0.9998
114	<i>Citharichthys</i> sp.	0.0020	0.0000	0.9998
115	<i>Sebastes rubrivinctis</i>	0.0020	0.0000	0.9998
116	<i>Raja stellulata</i>	0.0020	0.0000	0.9998
117	Hexactinellida	0.0020	0.0000	0.9998
118	<i>Mustelus californicus</i>	0.0020	0.0000	0.9998
119	<i>Sebastes hopkinsi</i>	0.0020	0.0000	0.9998
120	<i>Polinices</i> sp.	0.0020	0.0000	0.9999
121	<i>Solaster</i> sp.	0.0020	0.0000	0.9999
122	Brachiopod (unidentified)	0.0020	0.0000	0.9999
123	<i>Theragra chalcogramma</i>	0.0020	0.0000	0.9999
124	<i>Crossaster papposus</i>	0.0020	0.0000	0.9999
125	Rajidae (unidentified)	0.0010	0.0000	0.9999
126	Thaliacea (unidentified)	0.0010	0.0000	0.9999
127	Crab (unidentified)	0.0010	0.0000	0.9999
128	<i>Sebastes aurora</i>	0.0010	0.0000	0.9999
129	Pectinid (unidentified)	0.0010	0.0000	0.9999

Table B-29.--Continued.

130	Berryteuthis magister	0.0010	0.0000	0.9999
131	Lycodes diapterus	0.0010	0.0000	0.9999
132	Aphroditidae	0.0010	0.0000	0.9999
133	Leptocottus armatus	0.0010	0.0000	0.9999
134	Xeneretmus latifrons	0.0010	0.0000	0.9999
135	Scorpaenichthys marmoratus	0.0010	0.0000	0.9999
136	Pandalidae	0.0010	0.0000	1.0000
137	Myctophidae	0.0010	0.0000	1.0000
138	Eptatretus stouti	0.0010	0.0000	1.0000
139	Isopsetta isolepis	0.0010	0.0000	1.0000
140	Shark egg	0.0010	0.0000	1.0000
141	Cancer sp.	0.0000	0.0000	1.0000
142	Sebastolobus altivelis	0.0000	0.0000	1.0000
143	Mursia gaudichaudii	0.0000	0.0000	1.0000
144	Hemilepidotus spinosus	0.0000	0.0000	1.0000
145	BathYGONUS nigripinnis	0.0000	0.0000	1.0000
146	Polinices lewisi	0.0000	0.0000	1.0000
147	Enophrys taurina	0.0000	0.0000	1.0000
148	Parmaturus xaniurus	0.0000	0.0000	1.0000
149	Pelecypoda (unidentified)	0.0000	0.0000	1.0000
150	Patinopecten caurinus	0.0000	0.0000	1.0000
151	Tritonia sp.	0.0000	0.0000	1.0000
152	Fusitriton oregonensis	0.0000	0.0000	1.0000
153	Myxinidae	0.0000	0.0000	1.0000
154	Cancer productus	0.0000	0.0000	1.0000
155	Solaster stimpsoni	0.0000	0.0000	1.0000
156	Hippoglossina stomata	0.0000	0.0000	1.0000
157	Solaster endeca	0.0000	0.0000	1.0000
158	Pandalus hypsinotus	0.0000	0.0000	1.0000
159	Pteraster tessellatus	0.0000	0.0000	1.0000
160	Poraniopsis inflata	0.0000	0.0000	1.0000
161	Lampetra tridentata	0.0000	0.0000	1.0000
162	Mediaster aequalis	0.0000	0.0000	1.0000
163	Henricia sp.	0.0000	0.0000	1.0000
164	Chitonotus pugetensis	0.0000	0.0000	1.0000
165	Cymatogaster aggregata	0.0000	0.0000	1.0000
166	Pelagic octopus (unidentified)	0.0000	0.0000	1.0000
167	Pandalopsis dispar	0.0000	0.0000	1.0000
168	Xeneretmus leiops	0.0000	0.0000	1.0000
169	Vampyroteuthis infernalis	0.0000	0.0000	1.0000
170	Bathylagus milleri	0.0000	0.0000	1.0000
171	Aristostomias scintillans	0.0000	0.0000	1.0000
172	Gastropod (unidentified)	0.0000	0.0000	1.0000
173	Xystreurus liolepis	0.0000	0.0000	1.0000

Table B-29.-Continued.

174	<i>Ammodytes hexapterus</i>	0.0000	0.0000	1.0000
175	<i>Symphurus atricauda</i>	0.0000	0.0000	1.0000
176	<i>Molpadia</i> sp.	0.0000	0.0000	1.0000
177	<i>Neptunea</i> sp.	0.0000	0.0000	1.0000
178	<i>Sipuncula</i> (phylum)	0.0000	0.0000	1.0000
179	<i>Lampanyctus ritteri</i>	0.0000	0.0000	1.0000
180	Scyliorhinidae	0.0000	0.0000	1.0000
181	Isopoda (order)	0.0000	0.0000	1.0000
182	<i>Stenobranchius leucopsarus</i>	0.0000	0.0000	1.0000
183	<i>Orthasterias koehleri</i>	0.0000	0.0000	1.0000
184	<i>Aphrocallistes vastus</i>	0.0000	0.0000	1.0000
185	Agonidae	0.0000	0.0000	1.0000
186	<i>Chauliodus macouni</i>	0.0000	0.0000	1.0000
187	Fish (unidentified)	0.0000	0.0000	1.0000
188	<i>Ronquilus jordani</i>	0.0000	0.0000	1.0000
189	<i>Agonopsis vulsa</i>	0.0000	0.0000	1.0000
190	<i>Hippasteria spinosa</i>	0.0000	0.0000	1.0000
191	<i>Radulinus asprellus</i>	0.0000	0.0000	1.0000
192	<i>Idiacanthus antrostomus</i>	0.0000	0.0000	1.0000
193	Osmeridae	0.0000	0.0000	1.0000
194	<i>Pseudarchaster parellii</i>	0.0000	0.0000	1.0000
195	<i>Chorilia longipes</i>	0.0000	0.0000	1.0000
196	<i>Pasiphaea pacifica</i>	0.0000	0.0000	1.0000
197	<i>Rossia pacifica</i>	0.0000	0.0000	1.0000
198	Crinoid (unidentified)	0.0000	0.0000	1.0000
199	<i>Diaphus theta</i>	0.0000	0.0000	1.0000
200	Ophiuroid (unidentified)	0.0000	0.0000	1.0000
201	Galatheidae (family)	0.0000	0.0000	1.0000
202	<i>Liparis</i> sp.	0.0000	0.0000	1.0000

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	Merluccius productus	33.6390	0.2471	0.2471
2	Sebastes diploproa	20.4560	0.1502	0.3973
3	Sebastes saxicola	13.8560	0.1018	0.4991
4	Anoplopoma fimbria	12.1510	0.0892	0.5883
5	Microstomus pacificus	11.7670	0.0864	0.6747
6	Glyptocephalus zachirus	5.3640	0.0394	0.7141
7	Sebastes crameri	4.2830	0.0315	0.7456
8	Sebastes goodei	4.1730	0.0306	0.7762
9	Sebastes zacentrus	4.0350	0.0296	0.8058
10	Atheresthes stomias	3.7540	0.0276	0.8334
11	Sebastes entomelas	2.6940	0.0198	0.8532
12	Sebastolobus alascanus	2.6080	0.0192	0.8724
13	Sebastes jordani	2.1760	0.0160	0.8883
14	Squalus acanthias	1.5580	0.0114	0.8998
15	Sebastes alutus	1.3010	0.0096	0.9093
16	Hippoglossus stenolepis	1.2260	0.0090	0.9184
17	Sebastes elongatus	0.8770	0.0064	0.9248
18	Parophrys vetulus	0.8160	0.0060	0.9308
19	Ophiodon elongatus	0.8020	0.0059	0.9367
20	Hydrolagus colliei	0.6740	0.0050	0.9416
21	Scomber japonicus	0.6660	0.0049	0.9465
22	Lycodes cortezianus	0.5030	0.0037	0.9502
23	Sea urchin (unidentified)	0.5010	0.0037	0.9539
24	Heart urchin (unidentified)	0.4770	0.0035	0.9574
25	Sebastes rufus	0.4610	0.0034	0.9608
26	Lyopsetta exilis	0.4180	0.0031	0.9639
27	Raja rhina	0.4160	0.0031	0.9669
28	Sebastes paucispinis	0.4020	0.0030	0.9699
29	Allocentrotus fragilis	0.3620	0.0027	0.9725
30	Sebastes helvomaculatus	0.2580	0.0019	0.9744
31	Sebastes babcocki	0.2370	0.0017	0.9762
32	Bathyraja interrupta	0.1890	0.0014	0.9775
33	Pandalus jordani	0.1770	0.0013	0.9788
34	Eopsetta jordani	0.1610	0.0012	0.9800
35	Starfish (unidentified)	0.1530	0.0011	0.9812
36	Sebastes proriger	0.1500	0.0011	0.9823
37	Citharichthys sordidus	0.1460	0.0011	0.9833
38	Oncorhynchus tshawytscha	0.1440	0.0011	0.9844
39	Sebastes flavidus	0.1390	0.0010	0.9854
40	Sebastes aleutianus	0.1290	0.0009	0.9864
41	Pandalus platyceros	0.1200	0.0009	0.9872

Table B-30.-Continued.

42	Scyphozoa (class)	0.1130	0.0008	0.9881
43	Torpedo californica	0.1020	0.0008	0.9888
44	Cancer magister	0.0930	0.0007	0.9895
45	Strongylocentrotus franciscanus	0.0910	0.0007	0.9902
46	Aphrocallistes vastus	0.0810	0.0006	0.9908
47	Holothuroidea (unidentified)	0.0800	0.0006	0.9913
48	Lycodes diapterus	0.0800	0.0006	0.9919
49	Hippoglossoides elassodon	0.0710	0.0005	0.9924
50	Moroteuthis robusta	0.0620	0.0005	0.9929
51	Icelinus filamentosus	0.0600	0.0004	0.9933
52	Apristurus brunneus	0.0540	0.0004	0.9937
53	Gadus macrocephalus	0.0540	0.0004	0.9941
54	Alosa sapidissima	0.0540	0.0004	0.9945
55	Lopholithodes foraminatus	0.0520	0.0004	0.9949
56	Raja binoculata	0.0480	0.0003	0.9953
57	Actiniaria (order)	0.0460	0.0003	0.9956
58	Pleuronichthys decurrens	0.0420	0.0003	0.9959
59	Rathbunaster californicus	0.0410	0.0003	0.9962
60	Thaleichthys pacificus	0.0370	0.0003	0.9965
61	Sebastes pinniger	0.0330	0.0002	0.9967
62	Luidia foliata	0.0300	0.0002	0.9970
63	Sebastes levis	0.0280	0.0002	0.9972
64	Chilara taylori	0.0250	0.0002	0.9973
65	Sardinops sagax	0.0250	0.0002	0.9975
66	Sebastes chlorostictus	0.0220	0.0002	0.9977
67	Parmaturus xaniurus	0.0220	0.0002	0.9978
68	Porifera	0.0180	0.0001	0.9980
69	Lycodes pacificus	0.0180	0.0001	0.9981
70	Octopus (unidentified)	0.0160	0.0001	0.9982
71	Sebastes borealis	0.0150	0.0001	0.9984
72	Sebastes aurora	0.0150	0.0001	0.9985
73	Squid (unidentified)	0.0120	0.0001	0.9986
74	Stenobranchius leucopsarus	0.0120	0.0001	0.9986
75	Sebastes brevispinis	0.0110	0.0001	0.9987
76	Pandalopsis dispar	0.0110	0.0001	0.9988
77	Careproctus melanurus	0.0110	0.0001	0.9989
78	Strongylocentrotus droebachiensis	0.0100	0.0001	0.9989
79	Sebastes melanostomus	0.0070	0.0000	0.9990
80	Porichthys notatus	0.0070	0.0000	0.9990
81	Diaphus theta	0.0060	0.0000	0.9991
82	Clupea pallasii	0.0060	0.0000	0.9991
83	Paguridae	0.0050	0.0000	0.9992
84	Lophaster furcilliger	0.0050	0.0000	0.9992
85	Cryptacanthodes giganteus	0.0050	0.0000	0.9992

Table B-30.--Continued.

86	<i>Loligo opalescens</i>	0.0050	0.0000	0.9993
87	<i>Poraniopsis inflata</i>	0.0050	0.0000	0.9993
88	Myctophidae	0.0050	0.0000	0.9994
89	Aphroditidae	0.0050	0.0000	0.9994
90	<i>Stylasterias forreri</i>	0.0050	0.0000	0.9994
91	<i>Sebastes reedi</i>	0.0050	0.0000	0.9995
92	Basketstarfish (unidentified)	0.0050	0.0000	0.9995
93	<i>Paralithodes californiensis</i>	0.0040	0.0000	0.9995
94	Gastropod (unidentified)	0.0040	0.0000	0.9996
95	Hexactinellida	0.0030	0.0000	0.9996
96	<i>Icichthys lockingtoni</i>	0.0030	0.0000	0.9996
97	<i>Theragra chalcogramma</i>	0.0030	0.0000	0.9996
98	<i>Xeneretmus latifrons</i>	0.0030	0.0000	0.9996
99	<i>Abraliopsis felis</i>	0.0030	0.0000	0.9997
100	<i>Neptunea</i> sp.	0.0030	0.0000	0.9997
101	<i>Hippasteria spinosa</i>	0.0020	0.0000	0.9997
102	<i>Eptatretus stouti</i>	0.0020	0.0000	0.9997
103	<i>Molpadia</i> sp.	0.0020	0.0000	0.9997
104	<i>Berryteuthis magister</i>	0.0020	0.0000	0.9998
105	<i>Icelinus oculatus</i>	0.0020	0.0000	0.9998
106	Cyclopteridae (Liparidinae)	0.0020	0.0000	0.9998
107	<i>Nezumia stelgidolepis</i>	0.0020	0.0000	0.9998
108	<i>Physiculus rastrelliger</i>	0.0010	0.0000	0.9998
109	<i>Sebastes eos</i>	0.0010	0.0000	0.9998
110	Thaliacea (unidentified)	0.0010	0.0000	0.9998
111	Pennatulacea (order)	0.0010	0.0000	0.9998
112	<i>Hippasteria californica</i>	0.0010	0.0000	0.9998
113	Cottidae	0.0010	0.0000	0.9998
114	Ascidian (unidentified)	0.0010	0.0000	0.9998
115	<i>Mediaster aequalis</i>	0.0010	0.0000	0.9999
116	<i>Argentina sialis</i>	0.0010	0.0000	0.9999
117	<i>Pasiphaea pacifica</i>	0.0010	0.0000	0.9999
118	<i>Ceramaster patagonicus</i>	0.0010	0.0000	0.9999
119	<i>Xeneretmus leiops</i>	0.0010	0.0000	0.9999
120	<i>Cancer</i> sp.	0.0010	0.0000	0.9999
121	<i>Coelorinchus scaphopsis</i>	0.0010	0.0000	0.9999
122	Nudibranch (unidentified)	0.0010	0.0000	0.9999
123	<i>Munida quadrispina</i>	0.0010	0.0000	0.9999
124	<i>Solaster</i> sp.	0.0010	0.0000	0.9999
125	<i>Sebastes variegatus</i>	0.0010	0.0000	0.9999
126	<i>Crossaster papposus</i>	0.0010	0.0000	0.9999
127	<i>Malacocottus kincaidi</i>	0.0010	0.0000	0.9999
128	<i>Chauliodus macouni</i>	0.0010	0.0000	0.9999
129	Agonidae	0.0010	0.0000	0.9999

Table B-30.--Continued.

130	Myxinidae	0.0000	0.0000	0.9999
131	Sebastes wilsoni	0.0000	0.0000	0.9999
132	Careproctus sp.	0.0000	0.0000	0.9999
133	Octopus dofleini	0.0000	0.0000	0.9999
134	Stylatula sp.	0.0000	0.0000	0.9999
135	Shark egg	0.0000	0.0000	1.0000
136	Pelagic octopus (unidentified)	0.0000	0.0000	1.0000
137	Solaster endeca	0.0000	0.0000	1.0000
138	Ophiuroid (unidentified)	0.0000	0.0000	1.0000
139	Solaster stimpsoni	0.0000	0.0000	1.0000
140	Ctenodiscus crispatus	0.0000	0.0000	1.0000
141	Malacostiedae	0.0000	0.0000	1.0000
142	Hyas sp.	0.0000	0.0000	1.0000
143	BathYGONUS nigripinnis	0.0000	0.0000	1.0000
144	Scyllorhinidae	0.0000	0.0000	1.0000
145	Polinices sp.	0.0000	0.0000	1.0000
146	Chionoecetes tanneri	0.0000	0.0000	1.0000
147	Sagamichthys abei	0.0000	0.0000	1.0000
148	BathYGONUS pentacanthus	0.0000	0.0000	1.0000
149	Polinices lewisi	0.0000	0.0000	1.0000
150	Lampanyctus sp.	0.0000	0.0000	1.0000
151	Skate egg case (unidentified)	0.0000	0.0000	1.0000
152	Tactostoma macropus	0.0000	0.0000	1.0000
153	Brachiopod (unidentified)	0.0000	0.0000	1.0000
154	Hyas lyratus	0.0000	0.0000	1.0000
155	Henricia sp.	0.0000	0.0000	1.0000
156	Fusitriton oregonensis	0.0000	0.0000	1.0000
157	Bathophilus flemingi	0.0000	0.0000	1.0000
158	Argyropelecus sp.	0.0000	0.0000	1.0000
159	Shrimp (unidentified)	0.0000	0.0000	1.0000
160	Sipuncula (phylum)	0.0000	0.0000	1.0000
161	Diplopteraster multipes	0.0000	0.0000	1.0000
162	Opisthoteuthis californiana	0.0000	0.0000	1.0000
163	Sebastes sp.	0.0000	0.0000	1.0000
164	Citharichthys sp.	0.0000	0.0000	1.0000
165	Strongylocentrotus purpuratus	0.0000	0.0000	1.0000
166	Pelecypoda (unidentified)	0.0000	0.0000	1.0000
167	Oregonia gracilis	0.0000	0.0000	1.0000
168	Lycodes brevipes	0.0000	0.0000	1.0000
169	Crinoid (unidentified)	0.0000	0.0000	1.0000
170	Galatheididae (family)	0.0000	0.0000	1.0000
171	Polychaeta (class)	0.0000	0.0000	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>	23.9450	0.3377	0.3377
2	<i>Anoplopoma fimbria</i>	9.9620	0.1405	0.4782
3	<i>Merluccius productus</i>	9.0390	0.1275	0.6056
4	<i>Glyptocephalus zachirus</i>	6.5820	0.0928	0.6985
5	<i>Sebastolobus alascanus</i>	5.4130	0.0763	0.7748
6	<i>Sebastes aurora</i>	2.5970	0.0366	0.8114
7	<i>Sebastes diploproa</i>	2.0310	0.0286	0.8401
8	<i>Apristurus brunneus</i>	1.2110	0.0171	0.8571
9	<i>Lycodes cortezianus</i>	1.0040	0.0142	0.8713
10	<i>Lycodes diapterus</i>	0.8930	0.0126	0.8839
11	<i>Sebastolobus altivelis</i>	0.7920	0.0112	0.8951
12	Sea urchin (unidentified)	0.6360	0.0090	0.9040
13	<i>Raja rhina</i>	0.6090	0.0086	0.9126
14	<i>Sebastes melanostomus</i>	0.6090	0.0086	0.9212
15	<i>Sebastes alutus</i>	0.5660	0.0080	0.9292
16	<i>Sebastes aleutianus</i>	0.5130	0.0072	0.9364
17	<i>Atheresthes stomias</i>	0.5030	0.0071	0.9435
18	<i>Hydrolagus colliei</i>	0.4490	0.0063	0.9498
19	Starfish (unidentified)	0.3490	0.0049	0.9548
20	<i>Parmaturus xaniurus</i>	0.3380	0.0048	0.9595
21	<i>Sebastes borealis</i>	0.2920	0.0041	0.9637
22	<i>Squalus acanthias</i>	0.2690	0.0038	0.9674
23	Heart urchin (unidentified)	0.2500	0.0035	0.9710
24	Scyphozoa (class)	0.1750	0.0025	0.9734
25	Actiniaria (order)	0.1720	0.0024	0.9758
26	<i>Sebastes saxicola</i>	0.1710	0.0024	0.9783
27	<i>Bathyraja interrupta</i>	0.1350	0.0019	0.9802
28	<i>Lyopsetta exilis</i>	0.1090	0.0015	0.9817
29	<i>Somniosus pacificus</i>	0.0910	0.0013	0.9830
30	<i>Sebastes crameri</i>	0.0890	0.0013	0.9842
31	Porifera	0.0820	0.0012	0.9854
32	<i>Aphrocallistes vastus</i>	0.0770	0.0011	0.9865
33	<i>Parophrys vetulus</i>	0.0720	0.0010	0.9875
34	<i>Hippoglossus stenolepis</i>	0.0690	0.0010	0.9885
35	Squid (unidentified)	0.0640	0.0009	0.9894
36	<i>Sebastes babcocki</i>	0.0630	0.0009	0.9903
37	<i>Neptunea</i> sp.	0.0530	0.0007	0.9910
38	<i>Sebastes rufus</i>	0.0530	0.0007	0.9918
39	<i>Moroteuthis robusta</i>	0.0470	0.0007	0.9924
40	<i>Careproctus melanurus</i>	0.0350	0.0005	0.9929
41	Holothuroidea (unidentified)	0.0350	0.0005	0.9934

Table B-31 --Continued.

42	<i>Allocentrotus fragilis</i>	0.0320	0.0004	0.9939
43	<i>Pasiphaea pacifica</i>	0.0280	0.0004	0.9943
44	Octopus (unidentified)	0.0250	0.0004	0.9946
45	<i>Chionoecetes tanneri</i>	0.0220	0.0003	0.9949
46	<i>Berryteuthis magister</i>	0.0220	0.0003	0.9952
47	Gastropod (unidentified)	0.0220	0.0003	0.9956
48	<i>Opisthoteuthis californiana</i>	0.0190	0.0003	0.9958
49	<i>Nezumia stelgidolepis</i>	0.0170	0.0002	0.9960
50	<i>Sebastes paucispinis</i>	0.0160	0.0002	0.9963
51	<i>Scomber japonicus</i>	0.0150	0.0002	0.9965
52	Myctophidae	0.0140	0.0002	0.9967
53	Scyliorhinidae	0.0120	0.0002	0.9968
54	<i>Trachipterus altivelis</i>	0.0110	0.0002	0.9970
55	<i>Sebastes levis</i>	0.0100	0.0001	0.9972
56	<i>Sebastes helvomaculatus</i>	0.0100	0.0001	0.9973
57	<i>Sebastes flavidus</i>	0.0100	0.0001	0.9974
58	<i>Sebastes entomelas</i>	0.0090	0.0001	0.9976
59	Cyclopteridae (Liparidinae)	0.0080	0.0001	0.9977
60	Hexactinellida	0.0080	0.0001	0.9978
61	<i>Embassichthys bathybius</i>	0.0070	0.0001	0.9979
62	<i>Bothrocara brunneum</i>	0.0070	0.0001	0.9980
63	<i>Sebastes miniatus</i>	0.0070	0.0001	0.9981
64	<i>Sebastes goodei</i>	0.0070	0.0001	0.9982
65	<i>Chauliodus macouni</i>	0.0060	0.0001	0.9983
66	<i>Sebastes zacentrus</i>	0.0060	0.0001	0.9983
67	Basketstarfish (unidentified)	0.0060	0.0001	0.9984
68	<i>Stenobranchius leucopsarus</i>	0.0060	0.0001	0.9985
69	<i>Strongylocentrotus franciscanus</i>	0.0050	0.0001	0.9986
70	Thaliacea (unidentified)	0.0050	0.0001	0.9986
71	<i>Lampanyctus ritteri</i>	0.0050	0.0001	0.9987
72	Rajidae (unidentified)	0.0040	0.0001	0.9988
73	Paguridae	0.0040	0.0001	0.9988
74	<i>Paralithodes californiensis</i>	0.0040	0.0001	0.9989
75	<i>Trachurus symmetricus</i>	0.0040	0.0001	0.9989
76	<i>Sebastes elongatus</i>	0.0040	0.0000	0.9990
77	<i>Eptatretus deani</i>	0.0040	0.0000	0.9990
78	Sergestidae (family)	0.0030	0.0000	0.9991
79	<i>Coryphaenoides acrolepis</i>	0.0030	0.0000	0.9991
80	<i>Octopus dofleini</i>	0.0030	0.0000	0.9992
81	Pennatulacea (order)	0.0030	0.0000	0.9992
82	<i>Chilara taylori</i>	0.0030	0.0000	0.9992
83	Aphroditidae	0.0030	0.0000	0.9993
84	<i>Loligo opalescens</i>	0.0020	0.0000	0.9993
85	<i>Cancer magister</i>	0.0020	0.0000	0.9994

Table B-31 --Continued.

86	Careproctus sp.	0.0020	0.0000	0.9994
87	Strongylocentrotus purpuratus	0.0020	0.0000	0.9994
88	Hippasteria sp.	0.0020	0.0000	0.9994
89	Albatrossia pectoralis	0.0020	0.0000	0.9995
90	Rathbunaster californicus	0.0020	0.0000	0.9995
91	Ophiuroid (unidentified)	0.0020	0.0000	0.9995
92	Pandalus platyceros	0.0020	0.0000	0.9996
93	Sebastes rosenblatti	0.0020	0.0000	0.9996
94	Tactostoma macropus	0.0010	0.0000	0.9996
95	Raja binoculata	0.0010	0.0000	0.9996
96	Melanostomiidae	0.0010	0.0000	0.9996
97	Nudibranch (unidentified)	0.0010	0.0000	0.9996
98	Malacocottus kincaidi	0.0010	0.0000	0.9997
99	Petromyzontidae	0.0010	0.0000	0.9997
100	Lopholithodes foraminatus	0.0010	0.0000	0.9997
101	Sebastes jordani	0.0010	0.0000	0.9997
102	Icelinus filamentosus	0.0010	0.0000	0.9997
103	Icosteus aenigmaticus	0.0010	0.0000	0.9997
104	Bathylagus milleri	0.0010	0.0000	0.9997
105	Ctenophora (phylum)	0.0010	0.0000	0.9998
106	Aristostomias scintillans	0.0010	0.0000	0.9998
107	Leuroglossus stilbius	0.0010	0.0000	0.9998
108	Fusitriton oregonensis	0.0010	0.0000	0.9998
109	Pelagic octopus (unidentified)	0.0010	0.0000	0.9998
110	Ctenodiscus crispatus	0.0010	0.0000	0.9998
111	Porichthys notatus	0.0010	0.0000	0.9998
112	Pandalus jordani	0.0010	0.0000	0.9998
113	Lycodapus mandibularis	0.0010	0.0000	0.9998
114	Sipuncula (phylum)	0.0010	0.0000	0.9998
115	Sebastes sp.	0.0010	0.0000	0.9998
116	Pandalopsis dispar	0.0010	0.0000	0.9999
117	Eopsetta jordani	0.0010	0.0000	0.9999
118	Gonatopsis borealis	0.0010	0.0000	0.9999
119	Shark egg	0.0010	0.0000	0.9999
120	Shrimp (unidentified)	0.0010	0.0000	0.9999
121	Skate egg case (unidentified)	0.0010	0.0000	0.9999
122	Antimora microlepis	0.0010	0.0000	0.9999
123	Idiacanthus antrostomus	0.0010	0.0000	0.9999
124	Bathyagonus nigripinnis	0.0000	0.0000	0.9999
125	Bathylagidae (unidentified)	0.0000	0.0000	0.9999
126	Argyropelecus sp.	0.0000	0.0000	0.9999
127	Tarletonbeania crenularis	0.0000	0.0000	0.9999
128	Stylasterias forreri	0.0000	0.0000	0.9999
129	Diplopteraster multipes	0.0000	0.0000	1.0000

Table B-31 --Continued.

130	<i>Luidia foliata</i>	0.0000	0.0000	1.0000
131	<i>Sagamichthys abei</i>	0.0000	0.0000	1.0000
132	<i>Lestidiops ringens</i>	0.0000	0.0000	1.0000
133	Ascidian (unidentified)	0.0000	0.0000	1.0000
134	Brachiopod (unidentified)	0.0000	0.0000	1.0000
135	<i>Psolus</i> sp.	0.0000	0.0000	1.0000
136	<i>Vampyroteuthis infernalis</i>	0.0000	0.0000	1.0000
137	<i>Stylatula</i> sp.	0.0000	0.0000	1.0000
138	Chauliodontidae	0.0000	0.0000	1.0000
139	<i>Heterozonias alternatus</i>	0.0000	0.0000	1.0000
140	<i>Henricia</i> sp.	0.0000	0.0000	1.0000
141	<i>Icelinus burchami</i>	0.0000	0.0000	1.0000
142	Malacostiedae	0.0000	0.0000	1.0000
143	<i>Anoplagonus inermis</i>	0.0000	0.0000	1.0000
144	Pasiphaeidae (family)	0.0000	0.0000	1.0000
145	<i>Diaphus theta</i>	0.0000	0.0000	1.0000
146	<i>Symbolophorus californiensis</i>	0.0000	0.0000	1.0000
147	<i>Bathyagonus pentacanthus</i>	0.0000	0.0000	1.0000
148	<i>Bathophilus flemingi</i>	0.0000	0.0000	1.0000

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>	98.1760	0.5601	0.5601
2	<i>Microstomus pacificus</i>	8.3980	0.0479	0.6080
3	<i>Citharichthys sordidus</i>	7.7540	0.0442	0.6522
4	<i>Anoplopoma fimbria</i>	5.4980	0.0314	0.6836
5	<i>Sebastes diploproa</i>	4.9110	0.0280	0.7116
6	<i>Sebastes saxicola</i>	4.5010	0.0257	0.7373
7	<i>Trachurus symmetricus</i>	4.4310	0.0253	0.7626
8	<i>Glyptocephalus zachirus</i>	3.9090	0.0223	0.7849
9	<i>Squalus acanthias</i>	2.9180	0.0166	0.8015
10	<i>Scomber japonicus</i>	2.9010	0.0166	0.8181
11	<i>Sebastes goodei</i>	2.8230	0.0161	0.8342
12	<i>Sebastes jordani</i>	2.5120	0.0143	0.8485
13	<i>Parophrys vetulus</i>	1.8930	0.0108	0.8593
14	<i>Sebastolobus alascanus</i>	1.5930	0.0091	0.8684
15	Scyphozoa (class)	1.4260	0.0081	0.8765
16	<i>Atheresthes stomias</i>	1.4220	0.0081	0.8846
17	<i>Clupea pallasii</i>	1.3710	0.0078	0.8925
18	<i>Hippoglossus stenolepis</i>	1.3050	0.0074	0.8999
19	<i>Hydrolagus colliei</i>	1.2020	0.0069	0.9068
20	<i>Sebastes wilsoni</i>	1.1860	0.0068	0.9135
21	<i>Sebastes crameri</i>	1.0860	0.0062	0.9197
22	<i>Sebastes zacentrus</i>	0.9080	0.0052	0.9249
23	<i>Genyonemus lineatus</i>	0.9050	0.0052	0.9301
24	<i>Sebastes elongatus</i>	0.8730	0.0050	0.9350
25	<i>Sebastes entomelas</i>	0.7210	0.0041	0.9392
26	<i>Alosa sapidissima</i>	0.5240	0.0030	0.9422
27	<i>Sebastes pinniger</i>	0.5120	0.0029	0.9451
28	<i>Ophiodon elongatus</i>	0.5070	0.0029	0.9480
29	<i>Sebastes flavidus</i>	0.5020	0.0029	0.9508
30	<i>Porichthys notatus</i>	0.4960	0.0028	0.9536
31	<i>Sebastes aurora</i>	0.4820	0.0028	0.9564
32	<i>Sardinops sagax</i>	0.4480	0.0026	0.9590
33	<i>Eopsetta jordani</i>	0.4330	0.0025	0.9614
34	<i>Raja rhina</i>	0.4180	0.0024	0.9638
35	<i>Oncorhynchus tshawytscha</i>	0.4030	0.0023	0.9661
36	<i>Sebastes alutus</i>	0.3980	0.0023	0.9684
37	<i>Lycodes cortezianus</i>	0.3100	0.0018	0.9702
38	<i>Loligo opalescens</i>	0.2810	0.0016	0.9718
39	Actiniaria (order)	0.2570	0.0015	0.9732
40	<i>Lyopsetta exilis</i>	0.2520	0.0014	0.9747
41	Sea urchin (unidentified)	0.2470	0.0014	0.9761

Table B-32.-Continued.

42	<i>Apristurus brunneus</i>	0.2380	0.0014	0.9774
43	<i>Cancer magister</i>	0.2210	0.0013	0.9787
44	Heart urchin (unidentified)	0.2160	0.0012	0.9799
45	<i>Sebastes semicinctus</i>	0.1940	0.0011	0.9810
46	Starfish (unidentified)	0.1830	0.0010	0.9821
47	<i>Lycodes diapterus</i>	0.1830	0.0010	0.9831
48	<i>Sebastes proriger</i>	0.1740	0.0010	0.9841
49	<i>Engraulis mordax</i>	0.1680	0.0010	0.9851
50	<i>Sebastes aleutianus</i>	0.1520	0.0009	0.9859
51	<i>Sebastolobus altivelis</i>	0.1460	0.0008	0.9868
52	<i>Sebastes paucispinis</i>	0.1400	0.0008	0.9876
53	<i>Alopias vulpinus</i>	0.1200	0.0007	0.9883
54	<i>Sebastes rufus</i>	0.1140	0.0006	0.9889
55	<i>Sebastes melanostomus</i>	0.1130	0.0006	0.9896
56	<i>Raja binoculata</i>	0.1100	0.0006	0.9902
57	<i>Sebastes helvomaculatus</i>	0.1070	0.0006	0.9908
58	<i>Alloctrotus fragilis</i>	0.0940	0.0005	0.9913
59	Pennatulacea (order)	0.0880	0.0005	0.9918
60	<i>Bathyraja interrupta</i>	0.0740	0.0004	0.9922
61	<i>Parmaturus xaniurus</i>	0.0670	0.0004	0.9926
62	<i>Sebastes babcocki</i>	0.0650	0.0004	0.9930
63	<i>Gadus macrocephalus</i>	0.0610	0.0004	0.9934
64	<i>Zalembeius rosaceus</i>	0.0600	0.0003	0.9937
65	<i>Sebastes borealis</i>	0.0570	0.0003	0.9940
66	<i>Pandalus jordani</i>	0.0540	0.0003	0.9943
67	<i>Hippoglossoides elassodon</i>	0.0490	0.0003	0.9946
68	<i>Pleuronichthys decurrens</i>	0.0460	0.0003	0.9949
69	<i>Torpedo californica</i>	0.0410	0.0002	0.9951
70	<i>Lepidopsetta</i> sp.	0.0380	0.0002	0.9953
71	Holothuroidea (unidentified)	0.0350	0.0002	0.9955
72	Basketstarfish (unidentified)	0.0340	0.0002	0.9957
73	<i>Chilara taylori</i>	0.0340	0.0002	0.9959
74	<i>Argentina sialis</i>	0.0320	0.0002	0.9961
75	<i>Aphrocallistes vastus</i>	0.0320	0.0002	0.9963
76	<i>Pandalus platyceros</i>	0.0320	0.0002	0.9965
77	Octopus (unidentified)	0.0300	0.0002	0.9966
78	<i>Sebastes chlorostictus</i>	0.0280	0.0002	0.9968
79	Squid (unidentified)	0.0270	0.0002	0.9970
80	<i>Icelinus filamentosus</i>	0.0240	0.0001	0.9971
81	<i>Allosmerus elongatus</i>	0.0230	0.0001	0.9972
82	<i>Strongylocentrotus franciscanus</i>	0.0220	0.0001	0.9974
83	<i>Moroteuthis robusta</i>	0.0220	0.0001	0.9975
84	Porifera	0.0220	0.0001	0.9976
85	<i>Microgadus proximus</i>	0.0220	0.0001	0.9977

Table B-32.Continued.

86	<i>Sebastes reedi</i>	0.0200	0.0001	0.9978
87	<i>Thaleichthys pacificus</i>	0.0190	0.0001	0.9980
88	<i>Strongylocentrotus droebachiensis</i>	0.0190	0.0001	0.9981
89	<i>Peprilus simillimus</i>	0.0180	0.0001	0.9982
90	<i>Somniosus pacificus</i>	0.0170	0.0001	0.9983
91	<i>Lopholithodes foraminatus</i>	0.0160	0.0001	0.9984
92	<i>Lycodes pacificus</i>	0.0140	0.0001	0.9984
93	<i>Sebastes levis</i>	0.0130	0.0001	0.9985
94	<i>Sebastes ruberrimus</i>	0.0130	0.0001	0.9986
95	<i>Luidia foliata</i>	0.0120	0.0001	0.9986
96	<i>Rathbunaster californicus</i>	0.0110	0.0001	0.9987
97	<i>Neptunea</i> sp.	0.0100	0.0001	0.9988
98	<i>Careproctus melanurus</i>	0.0090	0.0000	0.9988
99	<i>Hexanchus griseus</i>	0.0090	0.0000	0.9989
100	Shrimp (unidentified)	0.0080	0.0000	0.9989
101	<i>Sebastes miniatus</i>	0.0070	0.0000	0.9990
102	<i>Squatina californica</i>	0.0060	0.0000	0.9990
103	<i>Psettichthys melanostictus</i>	0.0060	0.0000	0.9990
104	<i>Anarrhichthys ocellatus</i>	0.0060	0.0000	0.9991
105	<i>Pasiphaea pacifica</i>	0.0050	0.0000	0.9991
106	<i>Berryteuthis magister</i>	0.0050	0.0000	0.9991
107	<i>Cryptacanthodes giganteus</i>	0.0050	0.0000	0.9992
108	Nudibranch (unidentified)	0.0050	0.0000	0.9992
109	Gastropod (unidentified)	0.0050	0.0000	0.9992
110	<i>Synodus lucioceps</i>	0.0050	0.0000	0.9992
111	<i>Stylatula</i> sp.	0.0050	0.0000	0.9993
112	<i>Sebastes</i> sp.	0.0050	0.0000	0.9993
113	<i>Chionoecetes tanneri</i>	0.0040	0.0000	0.9993
114	Myctophidae	0.0040	0.0000	0.9993
115	<i>Stenobrachius leucopsarus</i>	0.0040	0.0000	0.9994
116	<i>Opisthoteuthis californiana</i>	0.0030	0.0000	0.9994
117	<i>Nezumia stelgidolepis</i>	0.0030	0.0000	0.9994
118	<i>Pleuronichthys verticalis</i>	0.0030	0.0000	0.9994
119	Hexactinellida	0.0030	0.0000	0.9994
120	<i>Sebastes mystinus</i>	0.0030	0.0000	0.9995
121	<i>Pycnopodia helianthoides</i>	0.0030	0.0000	0.9995
122	<i>Sebastes auriculatus</i>	0.0030	0.0000	0.9995
123	<i>Sebastes caurinus</i>	0.0030	0.0000	0.9995
124	<i>Platichthys stellatus</i>	0.0030	0.0000	0.9995
125	<i>Pandalopsis dispar</i>	0.0030	0.0000	0.9995
126	<i>Sebastes brevispinis</i>	0.0030	0.0000	0.9996
127	<i>Stylasterias forreri</i>	0.0020	0.0000	0.9996
128	Skate egg case (unidentified)	0.0020	0.0000	0.9996
129	<i>Paralichthys californicus</i>	0.0020	0.0000	0.9996

Table B-32.-Continued.

130	Scyliorhinidae	0.0020	0.0000	0.9996
131	Aphroditidae	0.0020	0.0000	0.9996
132	Zaniolepis latipinnis	0.0020	0.0000	0.9996
133	Thaliacea (unidentified)	0.0020	0.0000	0.9996
134	Trachipterus altivelis	0.0020	0.0000	0.9996
135	Paguridae	0.0020	0.0000	0.9997
136	Cyclopteridae (Liparidinae)	0.0020	0.0000	0.9997
137	Synodontidae	0.0020	0.0000	0.9997
138	Hexagrammos decagrammus	0.0020	0.0000	0.9997
139	Raja inornata	0.0020	0.0000	0.9997
140	Cottidae	0.0020	0.0000	0.9997
141	Theragra chalcogramma	0.0020	0.0000	0.9997
142	Paralithodes californiensis	0.0020	0.0000	0.9997
143	Icelinus oculatus	0.0020	0.0000	0.9997
144	Rajidae (unidentified)	0.0020	0.0000	0.9998
145	Diaphus theta	0.0010	0.0000	0.9998
146	Embassichthys bathybius	0.0010	0.0000	0.9998
147	Chauliodus macouni	0.0010	0.0000	0.9998
148	Bothrocara brunneum	0.0010	0.0000	0.9998
149	Citharichthys sp.	0.0010	0.0000	0.9998
150	Poraniopsis inflata	0.0010	0.0000	0.9998
151	Solaster sp.	0.0010	0.0000	0.9998
152	Sebastes rubrivinctis	0.0010	0.0000	0.9998
153	Lophaster furcilliger	0.0010	0.0000	0.9998
154	Raja stellulata	0.0010	0.0000	0.9998
155	Brachiopod (unidentified)	0.0010	0.0000	0.9998
156	Polinices sp.	0.0010	0.0000	0.9998
157	Mustelus californicus	0.0010	0.0000	0.9998
158	Sebastes hopkinsi	0.0010	0.0000	0.9998
159	Crossaster papposus	0.0010	0.0000	0.9998
160	Xeneretmus latifrons	0.0010	0.0000	0.9999
161	Lampanyctus ritteri	0.0010	0.0000	0.9999
162	Eptatretus stouti	0.0010	0.0000	0.9999
163	Crab (unidentified)	0.0010	0.0000	0.9999
164	Icichthys lockingtoni	0.0010	0.0000	0.9999
165	Pectinid (unidentified)	0.0010	0.0000	0.9999
166	Eptatretus deani	0.0010	0.0000	0.9999
167	Octopus dofleini	0.0010	0.0000	0.9999
168	Sergestidae (family)	0.0010	0.0000	0.9999
169	Coryphaenoides acrolepis	0.0010	0.0000	0.9999
170	Abraliopsis felis	0.0010	0.0000	0.9999
171	Hippasteria spinosa	0.0010	0.0000	0.9999
172	Leptocottus armatus	0.0010	0.0000	0.9999
173	Careproctus sp.	0.0010	0.0000	0.9999

Table B-32.--Continued.

174	Molpadia sp.	0.0010	0.0000	0.9999
175	Shark egg	0.0010	0.0000	0.9999
176	Strongylocentrotus purpuratus	0.0000	0.0000	0.9999
177	Cancer sp.	0.0000	0.0000	0.9999
178	Ophiuroid (unidentified)	0.0000	0.0000	0.9999
179	Scorpaenichthys marmoratus	0.0000	0.0000	0.9999
180	Pandalidae	0.0000	0.0000	0.9999
181	Bathyagonus nigripinnis	0.0000	0.0000	0.9999
182	Hippasteria sp.	0.0000	0.0000	0.9999
183	Fusitriton oregonensis	0.0000	0.0000	0.9999
184	Isopsetta isolepis	0.0000	0.0000	0.9999
185	Albatrossia pectoralis	0.0000	0.0000	0.9999
186	Physiculus rastrelliger	0.0000	0.0000	0.9999
187	Malacocottus kincaidi	0.0000	0.0000	0.9999
188	Tactostoma macropus	0.0000	0.0000	0.9999
189	Pelagic octopus (unidentified)	0.0000	0.0000	1.0000
190	Mediaster aequalis	0.0000	0.0000	1.0000
191	Sebastes rosenblatti	0.0000	0.0000	1.0000
192	Sebastes eos	0.0000	0.0000	1.0000
193	Myxinidae	0.0000	0.0000	1.0000
194	Ascidian (unidentified)	0.0000	0.0000	1.0000
195	Polinices lewisi	0.0000	0.0000	1.0000
196	Melanostomiidae	0.0000	0.0000	1.0000
197	Xeneretmus leiops	0.0000	0.0000	1.0000
198	Hippasteria californica	0.0000	0.0000	1.0000
199	Mursia gaudichaudii	0.0000	0.0000	1.0000
200	Hemilepidotus spinosus	0.0000	0.0000	1.0000
201	Bathylagus milleri	0.0000	0.0000	1.0000
202	Solaster stimpsoni	0.0000	0.0000	1.0000
203	Solaster endeca	0.0000	0.0000	1.0000
204	Pelecypoda (unidentified)	0.0000	0.0000	1.0000
205	Enophrys taurina	0.0000	0.0000	1.0000
206	Aristostomias scintillans	0.0000	0.0000	1.0000
207	Ctenodiscus crispatus	0.0000	0.0000	1.0000
208	Ceramaster patagonicus	0.0000	0.0000	1.0000
209	Sipuncula (phylum)	0.0000	0.0000	1.0000
210	Patinopecten caurinus	0.0000	0.0000	1.0000
211	Petromyzontidae	0.0000	0.0000	1.0000
212	Tritonia sp.	0.0000	0.0000	1.0000
213	Icosteus aenigmaticus	0.0000	0.0000	1.0000
214	Coelorinchus scaphopsis	0.0000	0.0000	1.0000
215	Cancer productus	0.0000	0.0000	1.0000
216	Henricia sp.	0.0000	0.0000	1.0000
217	Ctenophora (phylum)	0.0000	0.0000	1.0000

Table B-32.--Continued.

218	<i>Leuroglossus stilbius</i>	0.0000	0.0000	1.0000
219	Agonidae	0.0000	0.0000	1.0000
220	<i>Munida quadrispina</i>	0.0000	0.0000	1.0000
221	<i>Sebastes variegatus</i>	0.0000	0.0000	1.0000
222	<i>Hippoglossina stomata</i>	0.0000	0.0000	1.0000
223	<i>Pandalus hypsinotus</i>	0.0000	0.0000	1.0000
224	<i>Lycodapus mandibularis</i>	0.0000	0.0000	1.0000
225	<i>Idiacanthus antrostomus</i>	0.0000	0.0000	1.0000
226	<i>Pteraster tessellatus</i>	0.0000	0.0000	1.0000
227	<i>Lampetra tridentata</i>	0.0000	0.0000	1.0000
228	<i>Vampyroteuthis infernalis</i>	0.0000	0.0000	1.0000
229	<i>Sagamichthys abei</i>	0.0000	0.0000	1.0000
230	<i>Argyropelecus</i> sp.	0.0000	0.0000	1.0000
231	<i>Gonatopsis borealis</i>	0.0000	0.0000	1.0000
232	Malacostiedae	0.0000	0.0000	1.0000
233	<i>Antimora microlepis</i>	0.0000	0.0000	1.0000
234	Bathylagidae (unidentified)	0.0000	0.0000	1.0000
235	<i>Chitonotus pugetensis</i>	0.0000	0.0000	1.0000
236	<i>Diplopteraster multipes</i>	0.0000	0.0000	1.0000
237	<i>Cymatogaster aggregata</i>	0.0000	0.0000	1.0000
238	<i>BathYGONUS pentacanthus</i>	0.0000	0.0000	1.0000
239	<i>Tarletonbeania crenularis</i>	0.0000	0.0000	1.0000
240	<i>Hyas</i> sp.	0.0000	0.0000	1.0000
241	<i>Xystreuryx liolepis</i>	0.0000	0.0000	1.0000
242	<i>Ammodytes hexapterus</i>	0.0000	0.0000	1.0000
243	<i>Symphurus atricauda</i>	0.0000	0.0000	1.0000
244	<i>Lampanyctus</i> sp.	0.0000	0.0000	1.0000
245	<i>Bathophilus flemingi</i>	0.0000	0.0000	1.0000
246	<i>Lestidiops ringens</i>	0.0000	0.0000	1.0000
247	Isopoda (order)	0.0000	0.0000	1.0000
248	<i>Hyas lyratus</i>	0.0000	0.0000	1.0000
249	<i>Psolus</i> sp.	0.0000	0.0000	1.0000
250	<i>Orthasterias koehleri</i>	0.0000	0.0000	1.0000
251	Chauliodontidae	0.0000	0.0000	1.0000
252	<i>Heterozonias alternatus</i>	0.0000	0.0000	1.0000
253	Fish (unidentified)	0.0000	0.0000	1.0000
254	<i>Ronquilus jordani</i>	0.0000	0.0000	1.0000
255	<i>Agonopsis vulsa</i>	0.0000	0.0000	1.0000
256	<i>Icelinus burchami</i>	0.0000	0.0000	1.0000
257	<i>Radulinus asprellus</i>	0.0000	0.0000	1.0000
258	Osmeridae	0.0000	0.0000	1.0000
259	<i>Anoplagonus inermis</i>	0.0000	0.0000	1.0000
260	Pasiphaeidae (family)	0.0000	0.0000	1.0000
261	<i>Symbolophorus californiensis</i>	0.0000	0.0000	1.0000

Table B-32.--Continued.

262	<i>Pseudarchaster parelii</i>	0.0000	0.0000	1.0000
263	<i>Chorilia longipes</i>	0.0000	0.0000	1.0000
264	Crinoid (unidentified)	0.0000	0.0000	1.0000
265	<i>Oregonia gracilis</i>	0.0000	0.0000	1.0000
266	Galatheidae (family)	0.0000	0.0000	1.0000
267	<i>Lycodes brevipes</i>	0.0000	0.0000	1.0000
268	<i>Rossia pacifica</i>	0.0000	0.0000	1.0000
269	<i>Liparis</i> sp.	0.0000	0.0000	1.0000
270	Polychaeta (class)	0.0000	0.0000	1.0000

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>	130.4310	0.6280	0.6280
2	<i>Citharichthys sordidus</i>	11.6100	0.0559	0.6839
3	<i>Squalus acanthias</i>	6.3590	0.0306	0.7145
4	<i>Trachurus symmetricus</i>	6.2050	0.0299	0.7444
5	<i>Atheresthes stomias</i>	5.2190	0.0251	0.7695
6	<i>Scomber japonicus</i>	3.8530	0.0186	0.7880
7	<i>Microstomus pacificus</i>	3.3980	0.0164	0.8044
8	<i>Glyptocephalus zachirus</i>	3.0210	0.0145	0.8190
9	<i>Sebastes jordani</i>	2.8420	0.0137	0.8326
10	<i>Parophrys vetulus</i>	2.8240	0.0136	0.8462
11	<i>Sebastes goodei</i>	2.6580	0.0128	0.8590
12	<i>Anoplopoma fimbria</i>	2.5550	0.0123	0.8713
13	<i>Clupea pallasii</i>	2.2180	0.0107	0.8820
14	<i>Sebastes saxicola</i>	1.9580	0.0094	0.8914
15	Scyphozoa (class)	1.9180	0.0092	0.9007
16	<i>Hippoglossus stenolepis</i>	1.7910	0.0086	0.9093
17	<i>Sebastes wilsoni</i>	1.6730	0.0081	0.9174
18	<i>Hydrolagus colliei</i>	1.5630	0.0075	0.9249
19	<i>Genyonemus lineatus</i>	1.2670	0.0061	0.9310
20	<i>Sebastes elongatus</i>	1.2310	0.0059	0.9369
21	<i>Ophiodon elongatus</i>	1.1640	0.0056	0.9425
22	<i>Alosa sapidissima</i>	0.7490	0.0036	0.9461
23	<i>Sebastes pinniger</i>	0.7430	0.0036	0.9497
24	<i>Sebastes flavidus</i>	0.7070	0.0034	0.9531
25	<i>Eopsetta jordani</i>	0.6970	0.0034	0.9565
26	<i>Porichthys notatus</i>	0.6930	0.0033	0.9598
27	<i>Sardinops sagax</i>	0.6260	0.0030	0.9628
28	<i>Hippoglossoides elassodon</i>	0.5740	0.0028	0.9656
29	<i>Raja rhina</i>	0.5500	0.0026	0.9682
30	<i>Oncorhynchus tshawytscha</i>	0.5430	0.0026	0.9708
31	<i>Loligo opalescens</i>	0.4050	0.0019	0.9728
32	<i>Gadus macrocephalus</i>	0.3890	0.0019	0.9747
33	<i>Lyopsetta exilis</i>	0.3070	0.0015	0.9761
34	Actiniaria (order)	0.3050	0.0015	0.9776
35	<i>Sebastes proriger</i>	0.2960	0.0014	0.9790
36	<i>Cancer magister</i>	0.2820	0.0014	0.9804
37	<i>Sebastes semicinctus</i>	0.2710	0.0013	0.9817
38	<i>Thaleichthys pacificus</i>	0.2620	0.0013	0.9830
39	Heart urchin (unidentified)	0.2440	0.0012	0.9841
40	<i>Sebastes crameri</i>	0.2420	0.0012	0.9853
41	<i>Engraulis mordax</i>	0.2360	0.0011	0.9864

Table B-33.--Continued.

42	<i>Raja binoculata</i>	0.2160	0.0010	0.9875
43	<i>Lepidopsetta</i> sp.	0.1940	0.0009	0.9884
44	<i>Sebastes entomelas</i>	0.1710	0.0008	0.9892
45	<i>Alopias vulpinus</i>	0.1680	0.0008	0.9900
46	<i>Pandalus jordani</i>	0.1480	0.0007	0.9907
47	Pennatulacea (order)	0.1220	0.0006	0.9913
48	Starfish (unidentified)	0.1190	0.0006	0.9919
49	<i>Microgadus proximus</i>	0.1140	0.0005	0.9924
50	<i>Sebastes helvomaculatus</i>	0.0920	0.0004	0.9929
51	<i>Sebastes brevispinis</i>	0.0870	0.0004	0.9933
52	<i>Zalemnius rosaceus</i>	0.0840	0.0004	0.9937
53	<i>Sebastes paucispinis</i>	0.0740	0.0004	0.9941
54	<i>Sebastes zacentrus</i>	0.0720	0.0003	0.9944
55	<i>Sebastes aleutianus</i>	0.0610	0.0003	0.9947
56	<i>Lycodes pacificus</i>	0.0570	0.0003	0.9950
57	<i>Pleuronichthys decurrens</i>	0.0560	0.0003	0.9953
58	Basketstarfish (unidentified)	0.0500	0.0002	0.9955
59	<i>Argentina sialis</i>	0.0450	0.0002	0.9957
60	<i>Luidia foliata</i>	0.0410	0.0002	0.9959
61	<i>Chilara taylori</i>	0.0390	0.0002	0.9961
62	<i>Sebastes ruberrimus</i>	0.0370	0.0002	0.9963
63	<i>Allosmerus elongatus</i>	0.0340	0.0002	0.9964
64	<i>Sebastes chlorostictus</i>	0.0330	0.0002	0.9966
65	Octopus (unidentified)	0.0320	0.0002	0.9968
66	<i>Anarrhichthys ocellatus</i>	0.0310	0.0001	0.9969
67	Sea urchin (unidentified)	0.0300	0.0001	0.9970
68	<i>Allocentrotus fragilis</i>	0.0280	0.0001	0.9972
69	<i>Sebastolobus alascanus</i>	0.0270	0.0001	0.9973
70	<i>Sebastes reedi</i>	0.0260	0.0001	0.9974
71	<i>Torpedo californica</i>	0.0260	0.0001	0.9976
72	<i>Strongylocentrotus droebachiensis</i>	0.0250	0.0001	0.9977
73	<i>Peprilus simillimus</i>	0.0250	0.0001	0.9978
74	<i>Sebastes alutus</i>	0.0220	0.0001	0.9979
75	<i>Icelinus filamentosus</i>	0.0200	0.0001	0.9980
76	Holothuroidea (unidentified)	0.0200	0.0001	0.9981
77	<i>Lycodes cortezianus</i>	0.0190	0.0001	0.9982
78	Squid (unidentified)	0.0180	0.0001	0.9983
79	<i>Pleuronichthys verticalis</i>	0.0170	0.0001	0.9984
80	<i>Metridium senile</i>	0.0160	0.0001	0.9984
81	<i>Pycnopodia helianthoides</i>	0.0160	0.0001	0.9985
82	<i>Bathyraja interrupta</i>	0.0150	0.0001	0.9986
83	<i>Stylasterias forreri</i>	0.0140	0.0001	0.9986
84	<i>Pandalus platyceros</i>	0.0130	0.0001	0.9987
85	<i>Sebastes maliger</i>	0.0130	0.0001	0.9988

Table B-33.--Continued.

86	<i>Hexanchus griseus</i>	0.0120	0.0001	0.9988
87	<i>Sebastes babcocki</i>	0.0110	0.0001	0.9989
88	<i>Lopholithodes foraminatus</i>	0.0110	0.0001	0.9989
89	<i>Theragra chalcogramma</i>	0.0110	0.0001	0.9990
90	<i>Octopus dofleini</i>	0.0110	0.0001	0.9990
91	Shrimp (unidentified)	0.0110	0.0001	0.9991
92	<i>Squatina californica</i>	0.0090	0.0000	0.9991
93	<i>Psettichthys melanostictus</i>	0.0090	0.0000	0.9992
94	<i>Sebastes miniatus</i>	0.0090	0.0000	0.9992
95	<i>Sebastes levis</i>	0.0070	0.0000	0.9992
96	<i>Stylatula</i> sp.	0.0070	0.0000	0.9993
97	<i>Synodus lucioceps</i>	0.0070	0.0000	0.9993
98	Nudibranch (unidentified)	0.0060	0.0000	0.9994
99	<i>Sebastes</i> sp.	0.0060	0.0000	0.9994
100	Aphroditidae	0.0060	0.0000	0.9994
101	<i>Cryptacanthodes giganteus</i>	0.0060	0.0000	0.9994
102	<i>Parastichopus californicus</i>	0.0060	0.0000	0.9995
103	Porifera	0.0050	0.0000	0.9995
104	<i>Apristurus brunneus</i>	0.0050	0.0000	0.9995
105	<i>Sebastes mystinus</i>	0.0040	0.0000	0.9995
106	<i>Sebastes auriculatus</i>	0.0040	0.0000	0.9996
107	<i>Sebastes caurinus</i>	0.0040	0.0000	0.9996
108	<i>Platichthys stellatus</i>	0.0040	0.0000	0.9996
109	<i>Pandalopsis dispar</i>	0.0030	0.0000	0.9996
110	Skate egg case (unidentified)	0.0030	0.0000	0.9996
111	<i>Rathbunaster californicus</i>	0.0030	0.0000	0.9996
112	<i>Paralichthys californicus</i>	0.0030	0.0000	0.9997
113	<i>Hippasteria spinosa</i>	0.0030	0.0000	0.9997
114	<i>Zaniolepis latipinnis</i>	0.0030	0.0000	0.9997
115	<i>Hexagrammos decagrammus</i>	0.0030	0.0000	0.9997
116	Synodontidae	0.0030	0.0000	0.9997
117	<i>Raja inornata</i>	0.0020	0.0000	0.9997
118	<i>Sebastes diploproa</i>	0.0020	0.0000	0.9997
119	Polychaeta (class)	0.0020	0.0000	0.9997
120	<i>Sebastes rufus</i>	0.0020	0.0000	0.9998
121	Thaliacea (unidentified)	0.0020	0.0000	0.9998
122	Cottidae	0.0020	0.0000	0.9998
123	<i>Polinices</i> sp.	0.0020	0.0000	0.9998
124	<i>Crossaster papposus</i>	0.0020	0.0000	0.9998
125	<i>Solaster</i> sp.	0.0020	0.0000	0.9998
126	<i>Strongylocentrotus franciscanus</i>	0.0020	0.0000	0.9998
127	<i>Icelinus oculatus</i>	0.0020	0.0000	0.9998
128	<i>Citharichthys</i> sp.	0.0020	0.0000	0.9998
129	<i>Sebastes rubrivinctis</i>	0.0020	0.0000	0.9998

Table B-33.--Continued.

130	Berryteuthis magister	0.0020	0.0000	0.9998
131	Raja stellulata	0.0020	0.0000	0.9998
132	Hexactinellida	0.0020	0.0000	0.9999
133	Mustelus californicus	0.0020	0.0000	0.9999
134	Sebastes hopkinsi	0.0020	0.0000	0.9999
135	Brachiopod (unidentified)	0.0010	0.0000	0.9999
136	Molpadia sp.	0.0010	0.0000	0.9999
137	Mediaster aequalis	0.0010	0.0000	0.9999
138	Pisaster brevispinus	0.0010	0.0000	0.9999
139	Rajidae (unidentified)	0.0010	0.0000	0.9999
140	Crab (unidentified)	0.0010	0.0000	0.9999
141	Sebastes aurora	0.0010	0.0000	0.9999
142	Pectinid (unidentified)	0.0010	0.0000	0.9999
143	Lycodes diapterus	0.0010	0.0000	0.9999
144	Leptocottus armatus	0.0010	0.0000	0.9999
145	Fusitriton oregonensis	0.0010	0.0000	0.9999
146	Isopsetta isolepis	0.0010	0.0000	0.9999
147	Xeneretmus latifrons	0.0010	0.0000	0.9999
148	Myctophidae	0.0010	0.0000	0.9999
149	Scorpaenichthys marmoratus	0.0010	0.0000	0.9999
150	Pandalidae	0.0010	0.0000	1.0000
151	Tochuina tetraquetra	0.0010	0.0000	1.0000
152	Eptatretus stouti	0.0010	0.0000	1.0000
153	Hemilepidotus spinosus	0.0000	0.0000	1.0000
154	Pteraster tessellatus	0.0000	0.0000	1.0000
155	Solaster borealis	0.0000	0.0000	1.0000
156	Shark egg	0.0000	0.0000	1.0000
157	Tritonia sp.	0.0000	0.0000	1.0000
158	Cancer sp.	0.0000	0.0000	1.0000
159	Sebastolobus altivelis	0.0000	0.0000	1.0000
160	Aphrocallistes vastus	0.0000	0.0000	1.0000
161	Mursia gaudichaudii	0.0000	0.0000	1.0000
162	Bathyagonus nigripinnis	0.0000	0.0000	1.0000
163	Polinices lewisi	0.0000	0.0000	1.0000
164	Enophrys taurina	0.0000	0.0000	1.0000
165	Parmaturus xaniurus	0.0000	0.0000	1.0000
166	Pelecypoda (unidentified)	0.0000	0.0000	1.0000
167	Patinopecten caurinus	0.0000	0.0000	1.0000
168	Myxinidae	0.0000	0.0000	1.0000
169	Ronquilus jordani	0.0000	0.0000	1.0000
170	Chlamys rubida	0.0000	0.0000	1.0000
171	Cancer productus	0.0000	0.0000	1.0000
172	Chorilia longipes	0.0000	0.0000	1.0000
173	Tealia sp.	0.0000	0.0000	1.0000

Table B-33.--Continued.

174	<i>Solaster stimpsoni</i>	0.0000	0.0000	1.0000
175	<i>Orthasterias koehleri</i>	0.0000	0.0000	1.0000
176	<i>Hippoglossina stomata</i>	0.0000	0.0000	1.0000
177	<i>Solaster endeca</i>	0.0000	0.0000	1.0000
178	<i>Pandalus hypsinotus</i>	0.0000	0.0000	1.0000
179	<i>Poraniopsis inflata</i>	0.0000	0.0000	1.0000
180	<i>Lampetra tridentata</i>	0.0000	0.0000	1.0000
181	<i>Solaster dawsoni</i>	0.0000	0.0000	1.0000
182	<i>Henricia</i> sp.	0.0000	0.0000	1.0000
183	<i>Chitonotus pugetensis</i>	0.0000	0.0000	1.0000
184	<i>Cymatogaster aggregata</i>	0.0000	0.0000	1.0000
185	Pelagic octopus (unidentified)	0.0000	0.0000	1.0000
186	<i>Xeneretmus leiops</i>	0.0000	0.0000	1.0000
187	<i>Vampyroteuthis infernalis</i>	0.0000	0.0000	1.0000
188	<i>Bathylagus milleri</i>	0.0000	0.0000	1.0000
189	<i>Aristostomias scintillans</i>	0.0000	0.0000	1.0000
190	Gastropod (unidentified)	0.0000	0.0000	1.0000
191	<i>Xystreureys liolepis</i>	0.0000	0.0000	1.0000
192	<i>Ammodytes hexapterus</i>	0.0000	0.0000	1.0000
193	<i>Symphurus atricauda</i>	0.0000	0.0000	1.0000
194	<i>Neptunea</i> sp.	0.0000	0.0000	1.0000
195	<i>Sipuncula</i> (phylum)	0.0000	0.0000	1.0000
196	<i>Lampanyctus ritteri</i>	0.0000	0.0000	1.0000
197	Scyliorhinidae	0.0000	0.0000	1.0000
198	Isopoda (order)	0.0000	0.0000	1.0000
199	<i>Stenobranchius leucopsarus</i>	0.0000	0.0000	1.0000
200	<i>Luidiaster dawsoni</i>	0.0000	0.0000	1.0000
201	<i>Podothecus acipenserinus</i>	0.0000	0.0000	1.0000
202	Paguridae	0.0000	0.0000	1.0000
203	Agonidae	0.0000	0.0000	1.0000
204	<i>Chauliodus macouni</i>	0.0000	0.0000	1.0000
205	Fish (unidentified)	0.0000	0.0000	1.0000
206	<i>Agonopsis vulsa</i>	0.0000	0.0000	1.0000
207	<i>Rossia pacifica</i>	0.0000	0.0000	1.0000
208	<i>Lophaster furcilliger</i>	0.0000	0.0000	1.0000
209	<i>Radulinus asprellus</i>	0.0000	0.0000	1.0000
210	<i>Idiacanthus antrostomus</i>	0.0000	0.0000	1.0000
211	Osmeridae	0.0000	0.0000	1.0000
212	<i>Pseudarchaster parelii</i>	0.0000	0.0000	1.0000
213	Ophiuroid (unidentified)	0.0000	0.0000	1.0000
214	<i>Pseudarchaster parelii</i>	0.0000	0.0000	1.0000
215	<i>Pandalus</i> sp.	0.0000	0.0000	1.0000
216	Galatheididae (family)	0.0000	0.0000	1.0000
217	<i>Liparis</i> sp.	0.0000	0.0000	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	Merluccius productus	30.6410	0.2214	0.2214
2	Sebastes diploproa	18.9450	0.1369	0.3583
3	Sebastes saxicola	12.6050	0.0911	0.4494
4	Anoplopoma fimbria	11.5740	0.0836	0.5330
5	Microstomus pacificus	11.3020	0.0817	0.6147
6	Atheresthes stomias	6.9810	0.0504	0.6652
7	Glyptocephalus zachirus	5.2770	0.0381	0.7033
8	Sebastes alutus	5.0660	0.0366	0.7399
9	Sebastes zacentrus	4.7070	0.0340	0.7739
10	Sebastes crameri	4.2140	0.0304	0.8044
11	Sebastes goodei	3.7940	0.0274	0.8318
12	Sebastolobus alascanus	2.5070	0.0181	0.8499
13	Sebastes entomelas	2.4490	0.0177	0.8676
14	Sebastes jordani	1.9780	0.0143	0.8819
15	Hippoglossus stenolepis	1.6410	0.0119	0.8938
16	Squalus acanthias	1.4290	0.0103	0.9041
17	Sebastes elongatus	0.9630	0.0070	0.9110
18	Sebastes proriger	0.9500	0.0069	0.9179
19	Ophiodon elongatus	0.8360	0.0060	0.9240
20	Parophrys vetulus	0.7950	0.0057	0.9297
21	Hydrolagus colliei	0.7220	0.0052	0.9349
22	Scomber japonicus	0.6100	0.0044	0.9393
23	Allocentrotus fragilis	0.4670	0.0034	0.9427
24	Lycodes cortezianus	0.4640	0.0034	0.9460
25	Sea urchin (unidentified)	0.4560	0.0033	0.9493
26	Raja rhina	0.4550	0.0033	0.9526
27	Sebastes flavidus	0.4400	0.0032	0.9558
28	Heart urchin (unidentified)	0.4340	0.0031	0.9589
29	Sebastes rufus	0.4190	0.0030	0.9620
30	Sebastes aleutianus	0.4120	0.0030	0.9649
31	Lyopsetta exilis	0.4030	0.0029	0.9678
32	Sebastes paucispinis	0.3990	0.0029	0.9707
33	Sebastes helvomaculatus	0.3660	0.0026	0.9734
34	Sebastes babcocki	0.3250	0.0023	0.9757
35	Sebastes brevispinis	0.2540	0.0018	0.9776
36	Bathyraja interrupta	0.1980	0.0014	0.9790
37	Gadus macrocephalus	0.1890	0.0014	0.9804
38	Pandalus jordani	0.1610	0.0012	0.9815
39	Eopsetta jordani	0.1500	0.0011	0.9826
40	Starfish (unidentified)	0.1390	0.0010	0.9836
41	Citharichthys sordidus	0.1330	0.0010	0.9846

Table B-34.-Continued.

42	<i>Oncorhynchus tshawytscha</i>	0.1310	0.0009	0.9855
43	<i>Pandalus platyceros</i>	0.1300	0.0009	0.9865
44	<i>Sebastes pinniger</i>	0.1170	0.0008	0.9873
45	Scyphozoa (class)	0.1060	0.0008	0.9881
46	<i>Alosa sapidissima</i>	0.0960	0.0007	0.9888
47	<i>Torpedo californica</i>	0.0930	0.0007	0.9894
48	Holothuroidea (unidentified)	0.0920	0.0007	0.9901
49	<i>Cancer magister</i>	0.0850	0.0006	0.9907
50	<i>Strongylocentrotus franciscanus</i>	0.0830	0.0006	0.9913
51	<i>Aphrocallistes vastus</i>	0.0740	0.0005	0.9918
52	<i>Lycodes diapterus</i>	0.0730	0.0005	0.9924
53	<i>Icelinus filamentosus</i>	0.0710	0.0005	0.9929
54	<i>Theragra chalcogramma</i>	0.0650	0.0005	0.9934
55	<i>Hippoglossoides elassodon</i>	0.0640	0.0005	0.9938
56	<i>Sebastes reedi</i>	0.0590	0.0004	0.9942
57	<i>Moroteuthis robusta</i>	0.0560	0.0004	0.9946
58	<i>Lopholithodes foraminatus</i>	0.0510	0.0004	0.9950
59	<i>Apristurus brunneus</i>	0.0490	0.0004	0.9954
60	Actiniaria (order)	0.0470	0.0003	0.9957
61	<i>Raja binoculata</i>	0.0430	0.0003	0.9960
62	<i>Pleuronichthys decurrens</i>	0.0380	0.0003	0.9963
63	<i>Rathbunaster californicus</i>	0.0380	0.0003	0.9966
64	<i>Thaleichthys pacificus</i>	0.0340	0.0002	0.9968
65	<i>Luidia foliata</i>	0.0280	0.0002	0.9970
66	<i>Sebastes levis</i>	0.0250	0.0002	0.9972
67	<i>Chilara taylori</i>	0.0230	0.0002	0.9974
68	<i>Sardinops sagax</i>	0.0220	0.0002	0.9975
69	Porifera	0.0220	0.0002	0.9977
70	<i>Sebastes chlorostictus</i>	0.0200	0.0001	0.9978
71	<i>Parmaturus xaniurus</i>	0.0200	0.0001	0.9980
72	<i>Lycodes pacificus</i>	0.0170	0.0001	0.9981
73	Octopus (unidentified)	0.0150	0.0001	0.9982
74	<i>Sebastes borealis</i>	0.0140	0.0001	0.9983
75	<i>Sebastes aurora</i>	0.0140	0.0001	0.9984
76	<i>Pandalopsis dispar</i>	0.0120	0.0001	0.9985
77	<i>Strongylocentrotus droebachiensis</i>	0.0110	0.0001	0.9986
78	Squid (unidentified)	0.0110	0.0001	0.9986
79	<i>Stenobrachius leucopsarus</i>	0.0100	0.0001	0.9987
80	<i>Careproctus melanurus</i>	0.0100	0.0001	0.9988
81	<i>Clupea pallasii</i>	0.0070	0.0001	0.9988
82	<i>Beryteuthis magister</i>	0.0060	0.0000	0.9989
83	<i>Opisthoteuthis californiana</i>	0.0060	0.0000	0.9989
84	<i>Sebastes melanostomus</i>	0.0060	0.0000	0.9990
85	<i>Hippasteria spinosa</i>	0.0060	0.0000	0.9990

Table B-34. --Continued.

86	<i>Porichthys notatus</i>	0.0060	0.0000	0.9991
87	<i>Diaphus theta</i>	0.0060	0.0000	0.9991
88	Paguridae	0.0050	0.0000	0.9992
89	<i>Malacocottus zonurus</i>	0.0050	0.0000	0.9992
90	<i>Lophaster furcilliger</i>	0.0050	0.0000	0.9992
91	<i>Cryptacanthodes giganteus</i>	0.0050	0.0000	0.9992
92	<i>Loligo opalescens</i>	0.0050	0.0000	0.9993
93	<i>Poraniopsis inflata</i>	0.0040	0.0000	0.9993
94	<i>Stylasterias forreri</i>	0.0040	0.0000	0.9994
95	Myctophidae	0.0040	0.0000	0.9994
96	<i>Neptunea</i> sp.	0.0040	0.0000	0.9994
97	Aphroditidae	0.0040	0.0000	0.9994
98	Thaliacea (unidentified)	0.0040	0.0000	0.9995
99	Basketstarfish (unidentified)	0.0040	0.0000	0.9995
100	<i>Paralithodes californiensis</i>	0.0040	0.0000	0.9995
101	<i>Fusitriton oregonensis</i>	0.0040	0.0000	0.9996
102	Gastropod (unidentified)	0.0030	0.0000	0.9996
103	Hexactinellida	0.0030	0.0000	0.9996
104	<i>Icichthys lockingtoni</i>	0.0030	0.0000	0.9996
105	<i>Xeneretmus latifrons</i>	0.0020	0.0000	0.9996
106	<i>Abraliopsis felis</i>	0.0020	0.0000	0.9997
107	<i>Eptatretus stouti</i>	0.0020	0.0000	0.9997
108	<i>Pycnopodia helianthoides</i>	0.0020	0.0000	0.9997
109	<i>Diplopteraster multipes</i>	0.0020	0.0000	0.9997
110	<i>Sebastes wilsoni</i>	0.0020	0.0000	0.9997
111	<i>Molpadia</i> sp.	0.0020	0.0000	0.9997
112	<i>Icelinus oculatus</i>	0.0020	0.0000	0.9997
113	Cyclopteridae (Liparidinae)	0.0020	0.0000	0.9998
114	<i>Heterozonias alternatus</i>	0.0020	0.0000	0.9998
115	<i>Xeneretmus leiops</i>	0.0020	0.0000	0.9998
116	<i>Nezumia stelgidolepis</i>	0.0020	0.0000	0.9998
117	Ascidian (unidentified)	0.0020	0.0000	0.9998
118	Pennatulacea (order)	0.0010	0.0000	0.9998
119	<i>Physiculus rastrelliger</i>	0.0010	0.0000	0.9998
120	Gorgonacea (order)	0.0010	0.0000	0.9998
121	<i>Sebastes eos</i>	0.0010	0.0000	0.9998
122	<i>Ceramaster patagonicus</i>	0.0010	0.0000	0.9998
123	<i>Mediaster aequalis</i>	0.0010	0.0000	0.9999
124	<i>Hippasteria californica</i>	0.0010	0.0000	0.9999
125	Cottidae	0.0010	0.0000	0.9999
126	<i>Pasiphaea pacifica</i>	0.0010	0.0000	0.9999
127	<i>Luidiaster dawsoni</i>	0.0010	0.0000	0.9999
128	<i>Argentina sialis</i>	0.0010	0.0000	0.9999
129	<i>Cancer</i> sp.	0.0010	0.0000	0.9999

Table B-34.-Continued.

130	Coelorinchus scaphopsis	0.0010	0.0000	0.9999
131	Malacocottus kincaidi	0.0010	0.0000	0.9999
132	Nudibranch (unidentified)	0.0010	0.0000	0.9999
133	Munida quadrispina	0.0010	0.0000	0.9999
134	Solaster sp.	0.0010	0.0000	0.9999
135	Sebastes variegatus	0.0010	0.0000	0.9999
136	Crossaster papposus	0.0010	0.0000	0.9999
137	Chauliodus macouni	0.0010	0.0000	0.9999
138	Agonidae	0.0000	0.0000	0.9999
139	Myxinidae	0.0000	0.0000	0.9999
140	Careproctus sp.	0.0000	0.0000	0.9999
141	Octopus dofleini	0.0000	0.0000	0.9999
142	Bathyagonus pentacanthus	0.0000	0.0000	0.9999
143	Henricia sp.	0.0000	0.0000	1.0000
144	Stylatula sp.	0.0000	0.0000	1.0000
145	Shark egg	0.0000	0.0000	1.0000
146	Pelagic octopus (unidentified)	0.0000	0.0000	1.0000
147	Ophiuroid (unidentified)	0.0000	0.0000	1.0000
148	Solaster endeca	0.0000	0.0000	1.0000
149	Solaster stimpsoni	0.0000	0.0000	1.0000
150	Ctenodiscus crispatus	0.0000	0.0000	1.0000
151	Malacostiedae	0.0000	0.0000	1.0000
152	Pteraster tessellatus	0.0000	0.0000	1.0000
153	Lopholithodes sp.	0.0000	0.0000	1.0000
154	Hyas sp.	0.0000	0.0000	1.0000
155	Bathyagonus nigripinnis	0.0000	0.0000	1.0000
156	Scyliorhinidae	0.0000	0.0000	1.0000
157	Polinices sp.	0.0000	0.0000	1.0000
158	Ronquilus jordani	0.0000	0.0000	1.0000
159	Chionoecetes tanneri	0.0000	0.0000	1.0000
160	Sagamichthys abei	0.0000	0.0000	1.0000
161	Polinices lewisi	0.0000	0.0000	1.0000
162	Lampanyctus sp.	0.0000	0.0000	1.0000
163	Skate egg case (unidentified)	0.0000	0.0000	1.0000
164	Tactostoma macropus	0.0000	0.0000	1.0000
165	Brachiopod (unidentified)	0.0000	0.0000	1.0000
166	Hyas lyratus	0.0000	0.0000	1.0000
167	Pteraster sp.	0.0000	0.0000	1.0000
168	Bathophilus flemingi	0.0000	0.0000	1.0000
169	Argyropelecus sp.	0.0000	0.0000	1.0000
170	Shrimp (unidentified)	0.0000	0.0000	1.0000
171	Sipuncula (phylum)	0.0000	0.0000	1.0000
172	Sebastes sp.	0.0000	0.0000	1.0000
173	Citharichthys sp.	0.0000	0.0000	1.0000

Table B-34.--Continued.

174	Strongylocentrotus purpuratus	0.0000	0.0000	1.0000
175	Pelecypoda (unidentified)	0.0000	0.0000	1.0000
176	Crinoid (unidentified)	0.0000	0.0000	1.0000
177	Oregonia gracilis	0.0000	0.0000	1.0000
178	Lycodes brevipes	0.0000	0.0000	1.0000
179	Galatheidae (family)	0.0000	0.0000	1.0000
180	Polychaeta (class)	0.0000	0.0000	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>	23.0670	0.3078	0.3078
2	<i>Anoplopoma fimbria</i>	9.5600	0.1276	0.4354
3	<i>Merluccius productus</i>	8.9780	0.1198	0.5552
4	<i>Glyptocephalus zachirus</i>	6.4040	0.0855	0.6407
5	<i>Sebastolobus alascanus</i>	5.3800	0.0718	0.7125
6	<i>Sebastes aleutianus</i>	3.8810	0.0518	0.7643
7	<i>Sebastes aurora</i>	2.3980	0.0320	0.7963
8	<i>Sebastes diploproa</i>	1.8850	0.0252	0.8214
9	<i>Atheresthes stomias</i>	1.7950	0.0239	0.8454
10	<i>Sebastes alutus</i>	1.3900	0.0186	0.8639
11	<i>Apristurus brunneus</i>	1.1160	0.0149	0.8788
12	<i>Lycodes cortezianus</i>	0.9780	0.0131	0.8919
13	<i>Lycodes diapterus</i>	0.8300	0.0111	0.9030
14	<i>Sebastolobus altivelis</i>	0.7450	0.0099	0.9129
15	<i>Raja rhina</i>	0.6410	0.0086	0.9214
16	Sea urchin (unidentified)	0.5870	0.0078	0.9293
17	<i>Sebastes melanostomus</i>	0.5610	0.0075	0.9368
18	<i>Hippoglossus stenolepis</i>	0.4750	0.0063	0.9431
19	<i>Hydrolagus coliei</i>	0.4300	0.0057	0.9488
20	Actiniaria (order)	0.4040	0.0054	0.9542
21	<i>Sebastes borealis</i>	0.3220	0.0043	0.9585
22	Starfish (unidentified)	0.3220	0.0043	0.9628
23	<i>Parmaturus xaniurus</i>	0.3120	0.0042	0.9670
24	<i>Squalus acanthias</i>	0.2590	0.0035	0.9704
25	Heart urchin (unidentified)	0.2300	0.0031	0.9735
26	Scyphozoa (class)	0.1620	0.0022	0.9757
27	<i>Sebastes saxicola</i>	0.1580	0.0021	0.9778
28	<i>Bathyraja interrupta</i>	0.1520	0.0020	0.9798
29	<i>Moroteuthis robusta</i>	0.1240	0.0017	0.9815
30	<i>Sebastes babcocki</i>	0.1040	0.0014	0.9828
31	<i>Lyopsetta exilis</i>	0.1020	0.0014	0.9842
32	<i>Sebastes crameri</i>	0.0930	0.0012	0.9854
33	<i>Somniosus pacificus</i>	0.0840	0.0011	0.9866
34	<i>Aphrocallistes vastus</i>	0.0830	0.0011	0.9877
35	Porifera	0.0790	0.0011	0.9887
36	<i>Parophrys vetulus</i>	0.0670	0.0009	0.9896
37	Squid (unidentified)	0.0610	0.0008	0.9904
38	<i>Neptunea</i> sp.	0.0550	0.0007	0.9912
39	Holothuroidea (unidentified)	0.0540	0.0007	0.9919
40	<i>Sebastes rufus</i>	0.0490	0.0006	0.9926
41	<i>Allocentrotus fragilis</i>	0.0390	0.0005	0.9931

Table B-35.--Continued.

42	Careproctus melanurus	0.0370	0.0005	0.9936
43	Trachipterus altivelis	0.0290	0.0004	0.9940
44	Berryteuthis magister	0.0280	0.0004	0.9943
45	Pasiphaea pacifica	0.0260	0.0003	0.9947
46	Octopus (unidentified)	0.0230	0.0003	0.9950
47	Opisthoteuthis californiana	0.0220	0.0003	0.9953
48	Chionoecetes tanneri	0.0210	0.0003	0.9956
49	Gastropod (unidentified)	0.0200	0.0003	0.9958
50	Nezumia stelgidolepis	0.0150	0.0002	0.9960
51	Sebastes paucispinis	0.0150	0.0002	0.9962
52	Fusitriton oregonensis	0.0140	0.0002	0.9964
53	Scomber japonicus	0.0140	0.0002	0.9966
54	Myctophidae	0.0130	0.0002	0.9968
55	Embassichthys bathybius	0.0120	0.0002	0.9970
56	Scylliorhinidae	0.0110	0.0001	0.9971
57	Thaliacea (unidentified)	0.0100	0.0001	0.9972
58	Sebastes helvomaculatus	0.0100	0.0001	0.9974
59	Sebastes levis	0.0090	0.0001	0.9975
60	Sebastes flavidus	0.0090	0.0001	0.9976
61	Sebastes entomelas	0.0090	0.0001	0.9977
62	Cyclopteridae (Liparidinae)	0.0070	0.0001	0.9978
63	Hexactinellida	0.0070	0.0001	0.9979
64	Bothrocara brunneum	0.0060	0.0001	0.9980
65	Chauliodus macouni	0.0060	0.0001	0.9981
66	Sebastes miniatus	0.0060	0.0001	0.9982
67	Sebastes goodei	0.0060	0.0001	0.9983
68	Basketstarfish (unidentified)	0.0060	0.0001	0.9983
69	Diplopteraster multipes	0.0050	0.0001	0.9984
70	Sebastes zacentrus	0.0050	0.0001	0.9985
71	Stenobranchius leucopsarus	0.0050	0.0001	0.9986
72	Strongylocentrotus franciscanus	0.0050	0.0001	0.9986
73	Lampanyctus ritteri	0.0050	0.0001	0.9987
74	Pandalopsis dispar	0.0040	0.0001	0.9987
75	Paguridae	0.0040	0.0001	0.9988
76	Rajidae (unidentified)	0.0040	0.0000	0.9988
77	Paralithodes californiensis	0.0030	0.0000	0.9989
78	Trachurus symmetricus	0.0030	0.0000	0.9989
79	Sebastes elongatus	0.0030	0.0000	0.9990
80	Eptatretus deani	0.0030	0.0000	0.9990
81	Sergestidae (family)	0.0030	0.0000	0.9991
82	Luidia foliata	0.0030	0.0000	0.9991
83	Clupea pallasii	0.0030	0.0000	0.9991
84	Coryphaenoides acrolepis	0.0030	0.0000	0.9992
85	Pennatulacea (order)	0.0030	0.0000	0.9992

Table B-35.--Continued.

86	<i>Octopus dofleini</i>	0.0030	0.0000	0.9992
87	<i>Chilara taylora</i>	0.0020	0.0000	0.9993
88	Aphroditidae	0.0020	0.0000	0.9993
89	<i>Loligo opalescens</i>	0.0020	0.0000	0.9994
90	<i>Cancer magister</i>	0.0020	0.0000	0.9994
91	<i>Careproctus</i> sp.	0.0020	0.0000	0.9994
92	<i>Strongylocentrotus purpuratus</i>	0.0020	0.0000	0.9994
93	<i>Hippasteria</i> sp.	0.0020	0.0000	0.9995
94	<i>Rathbunaster californicus</i>	0.0020	0.0000	0.9995
95	<i>Albatrossia pectoralis</i>	0.0020	0.0000	0.9995
96	Ophiuroid (unidentified)	0.0020	0.0000	0.9995
97	<i>Pandalus platyceros</i>	0.0020	0.0000	0.9996
98	<i>Sebastes rosenblatti</i>	0.0010	0.0000	0.9996
99	<i>Tactostoma macropus</i>	0.0010	0.0000	0.9996
100	<i>Raja binoculata</i>	0.0010	0.0000	0.9996
101	Melanostomiidae	0.0010	0.0000	0.9996
102	<i>Luidiaster dawsoni</i>	0.0010	0.0000	0.9996
103	Nudibranch (unidentified)	0.0010	0.0000	0.9996
104	<i>Hippasteria spinosa</i>	0.0010	0.0000	0.9997
105	Brachiopod (unidentified)	0.0010	0.0000	0.9997
106	<i>Malacocottus kincaidi</i>	0.0010	0.0000	0.9997
107	Petromyzontidae	0.0010	0.0000	0.9997
108	<i>Lopholithodes foraminatus</i>	0.0010	0.0000	0.9997
109	<i>Sebastes jordani</i>	0.0010	0.0000	0.9997
110	<i>Icelinus filamentosus</i>	0.0010	0.0000	0.9997
111	<i>Icosteus aenigmaticus</i>	0.0010	0.0000	0.9998
112	<i>Bathylagus milleri</i>	0.0010	0.0000	0.9998
113	<i>Aristostomias scintillans</i>	0.0010	0.0000	0.9998
114	Ctenophora (phylum)	0.0010	0.0000	0.9998
115	<i>Ctenodiscus crispatus</i>	0.0010	0.0000	0.9998
116	<i>Leuroglossus stilbius</i>	0.0010	0.0000	0.9998
117	Pelagic octopus (unidentified)	0.0010	0.0000	0.9998
118	<i>Stylasterias forreri</i>	0.0010	0.0000	0.9998
119	<i>Pycnopodia helianthoides</i>	0.0010	0.0000	0.9998
120	Skate egg case (unidentified)	0.0010	0.0000	0.9998
121	<i>Porichthys notatus</i>	0.0010	0.0000	0.9998
122	<i>Pandalus jordani</i>	0.0010	0.0000	0.9999
123	Sipuncula (phylum)	0.0010	0.0000	0.9999
124	<i>Lycodapus mandibularis</i>	0.0010	0.0000	0.9999
125	<i>Sebastes</i> sp.	0.0010	0.0000	0.9999
126	<i>Eopsetta jordani</i>	0.0010	0.0000	0.9999
127	<i>Sagamichthys abei</i>	0.0010	0.0000	0.9999
128	<i>Gonatopsis borealis</i>	0.0000	0.0000	0.9999
129	Shark egg	0.0000	0.0000	0.9999

Table B-35.--Continued.

130	<i>BathYGONUS nigripinnis</i>	0.0000	0.0000	0.9999
131	Shrimp (unidentified)	0.0000	0.0000	0.9999
132	<i>Antimora microlepis</i>	0.0000	0.0000	0.9999
133	Bathylagidae (unidentified)	0.0000	0.0000	0.9999
134	<i>Idiacanthus antrostomus</i>	0.0000	0.0000	0.9999
135	<i>Argyropelecus</i> sp.	0.0000	0.0000	0.9999
136	<i>Tarletonbeania crenularis</i>	0.0000	0.0000	1.0000
137	<i>Dermasterias imbricata</i>	0.0000	0.0000	1.0000
138	<i>Sebastes wilsoni</i>	0.0000	0.0000	1.0000
139	<i>Solaster borealis</i>	0.0000	0.0000	1.0000
140	<i>Mediaster aequalis</i>	0.0000	0.0000	1.0000
141	<i>Lestidiops ringens</i>	0.0000	0.0000	1.0000
142	Ascidian (unidentified)	0.0000	0.0000	1.0000
143	<i>Psolus</i> sp.	0.0000	0.0000	1.0000
144	<i>Vampyroteuthis infernalis</i>	0.0000	0.0000	1.0000
145	<i>Stylatula</i> sp.	0.0000	0.0000	1.0000
146	Chauliodontidae	0.0000	0.0000	1.0000
147	<i>BathYGONUS pentacanthus</i>	0.0000	0.0000	1.0000
148	<i>Heterozonias alternatus</i>	0.0000	0.0000	1.0000
149	<i>Henricia</i> sp.	0.0000	0.0000	1.0000
150	<i>Icelinus burchami</i>	0.0000	0.0000	1.0000
151	Malacostiedae	0.0000	0.0000	1.0000
152	<i>Anoplagonus inermis</i>	0.0000	0.0000	1.0000
153	Pasiphaeidae (family)	0.0000	0.0000	1.0000
154	<i>Diaphus theta</i>	0.0000	0.0000	1.0000
155	<i>Symbolophorus californiensis</i>	0.0000	0.0000	1.0000
156	<i>Bathophilus flemingi</i>	0.0000	0.0000	1.0000
157	<i>Solaster</i> sp.	0.0000	0.0000	1.0000
158	<i>Bathybembix bairdii</i>	0.0000	0.0000	1.0000
159	<i>Pseudarchaster parelii</i>	0.0000	0.0000	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>	88.4620	0.5198	0.5198
2	<i>Microstomus pacificus</i>	8.4550	0.0497	0.5694
3	<i>Citharichthys sordidus</i>	7.1900	0.0422	0.6117
4	<i>Anoplopoma fimbria</i>	5.6640	0.0333	0.6449
5	<i>Atheresthes stomias</i>	5.0000	0.0294	0.6743
6	<i>Sebastes diploproa</i>	4.3190	0.0254	0.6997
7	<i>Squalus acanthias</i>	4.2680	0.0251	0.7248
8	<i>Glyptocephalus zachirus</i>	4.0790	0.0240	0.7487
9	<i>Sebastes saxicola</i>	3.8910	0.0229	0.7716
10	<i>Trachurus symmetricus</i>	3.8280	0.0225	0.7941
11	<i>Scomber japonicus</i>	2.5080	0.0147	0.8088
12	<i>Sebastes goodei</i>	2.4400	0.0143	0.8232
13	<i>Sebastes jordani</i>	2.1700	0.0127	0.8359
14	<i>Parophrys vetulus</i>	1.9210	0.0113	0.8472
15	<i>Hippoglossus stenolepis</i>	1.5330	0.0090	0.8562
16	<i>Sebastolobus alascanus</i>	1.4720	0.0087	0.8649
17	<i>Clupea pallasii</i>	1.3700	0.0080	0.8729
18	<i>Sebastes alutus</i>	1.3200	0.0078	0.8807
19	Scyphozoa (class)	1.2340	0.0072	0.8879
20	<i>Hydrolagus colliei</i>	1.1900	0.0070	0.8949
21	<i>Sebastes cramerii</i>	1.0530	0.0062	0.9011
22	<i>Sebastes zacentrus</i>	1.0380	0.0061	0.9072
23	<i>Sebastes wilsoni</i>	1.0330	0.0061	0.9133
24	<i>Sebastes elongatus</i>	0.9630	0.0057	0.9189
25	<i>Ophiodon elongatus</i>	0.8940	0.0053	0.9242
26	<i>Sebastes aleutianus</i>	0.7930	0.0047	0.9288
27	<i>Genyonemus lineatus</i>	0.7820	0.0046	0.9334
28	<i>Sebastes entomelas</i>	0.6230	0.0037	0.9371
29	<i>Raja rhina</i>	0.5450	0.0032	0.9403
30	<i>Sebastes flavidus</i>	0.5310	0.0031	0.9434
31	<i>Sebastes pinniger</i>	0.4830	0.0028	0.9462
32	<i>Alosa sapidissima</i>	0.4820	0.0028	0.9491
33	<i>Eopsetta jordani</i>	0.4620	0.0027	0.9518
34	<i>Porichthys notatus</i>	0.4290	0.0025	0.9543
35	<i>Sebastes aurora</i>	0.4170	0.0024	0.9568
36	<i>Sardinops sagax</i>	0.3910	0.0023	0.9591
37	<i>Sebastes proriger</i>	0.3820	0.0022	0.9613
38	<i>Hippoglossoides elassodon</i>	0.3680	0.0022	0.9635
39	<i>Oncorhynchus tshawytscha</i>	0.3620	0.0021	0.9656
40	<i>Lyopsetta exilis</i>	0.2920	0.0017	0.9673
41	Heart urchin (unidentified)	0.2820	0.0017	0.9690

Table B-36.--Continued.

42	<i>Gadus macrocephalus</i>	0.2800	0.0016	0.9706
43	<i>Lycodes cortezianus</i>	0.2780	0.0016	0.9722
44	Actiniaria (order)	0.2680	0.0016	0.9738
45	<i>Loligo opalescens</i>	0.2510	0.0015	0.9753
46	Sea urchin (unidentified)	0.2160	0.0013	0.9766
47	<i>Apristurus brunneus</i>	0.2060	0.0012	0.9778
48	<i>Cancer magister</i>	0.1920	0.0011	0.9789
49	<i>Thaleichthys pacificus</i>	0.1690	0.0010	0.9799
50	<i>Sebastes semicinctus</i>	0.1670	0.0010	0.9809
51	<i>Lycodes diapterus</i>	0.1590	0.0009	0.9818
52	Starfish (unidentified)	0.1580	0.0009	0.9827
53	<i>Engraulis mordax</i>	0.1450	0.0009	0.9836
54	<i>Raja binoculata</i>	0.1430	0.0008	0.9844
55	<i>Sebastes helvomaculatus</i>	0.1350	0.0008	0.9852
56	<i>Sebastes paucispinis</i>	0.1320	0.0008	0.9860
57	<i>Sebastolobus altivelis</i>	0.1290	0.0008	0.9868
58	<i>Pandalus jordani</i>	0.1250	0.0007	0.9875
59	<i>Allocentrotus fragilis</i>	0.1230	0.0007	0.9882
60	<i>Lepidopsetta</i> sp.	0.1200	0.0007	0.9889
61	<i>Sebastes brevispinis</i>	0.1070	0.0006	0.9895
62	<i>Alopias vulpinus</i>	0.1040	0.0006	0.9902
63	<i>Sebastes rufus</i>	0.0980	0.0006	0.9907
64	<i>Sebastes melanostomus</i>	0.0980	0.0006	0.9913
65	<i>Sebastes babcocki</i>	0.0930	0.0005	0.9918
66	<i>Bathyraja interrupta</i>	0.0770	0.0005	0.9923
67	Pennatulacea (order)	0.0760	0.0004	0.9928
68	<i>Microgadus proximus</i>	0.0700	0.0004	0.9932
69	<i>Sebastes borealis</i>	0.0580	0.0003	0.9935
70	<i>Parmaturus xaniurus</i>	0.0580	0.0003	0.9938
71	<i>Zalembeus rosaceus</i>	0.0520	0.0003	0.9942
72	<i>Pleuronichthys decurrens</i>	0.0430	0.0002	0.9944
73	Holothuroidea (unidentified)	0.0410	0.0002	0.9946
74	<i>Lycodes pacificus</i>	0.0380	0.0002	0.9949
75	<i>Pandalus platyceros</i>	0.0360	0.0002	0.9951
76	<i>Torpedo californica</i>	0.0360	0.0002	0.9953
77	<i>Moroteuthis robusta</i>	0.0330	0.0002	0.9955
78	Basketstarfish (unidentified)	0.0330	0.0002	0.9957
79	<i>Luidia foliata</i>	0.0310	0.0002	0.9959
80	<i>Aphrocallistes vastus</i>	0.0300	0.0002	0.9960
81	<i>Chilara taylora</i>	0.0290	0.0002	0.9962
82	<i>Sebastes reedi</i>	0.0290	0.0002	0.9964
83	<i>Argentina sialis</i>	0.0280	0.0002	0.9965
84	<i>Icelinus filamentosus</i>	0.0270	0.0002	0.9967
85	Octopus (unidentified)	0.0270	0.0002	0.9969

Table B-36.--Continued.

86	<i>Sebastes chlorostictus</i>	0.0250	0.0001	0.9970
87	Squid (unidentified)	0.0240	0.0001	0.9972
88	<i>Sebastes ruberrimus</i>	0.0230	0.0001	0.9973
89	Porifera	0.0210	0.0001	0.9974
90	<i>Allosmerus elongatus</i>	0.0210	0.0001	0.9975
91	<i>Theragra chalcogramma</i>	0.0210	0.0001	0.9976
92	<i>Strongylocentrotus franciscanus</i>	0.0190	0.0001	0.9978
93	<i>Anarrhichthys ocellatus</i>	0.0190	0.0001	0.9979
94	<i>Strongylocentrotus droebachiensis</i>	0.0180	0.0001	0.9980
95	<i>Lopholithodes foraminatus</i>	0.0180	0.0001	0.9981
96	<i>Peprilus simillimus</i>	0.0150	0.0001	0.9982
97	<i>Somniosus pacificus</i>	0.0140	0.0001	0.9983
98	<i>Sebastes levis</i>	0.0110	0.0001	0.9983
99	<i>Neptunea</i> sp.	0.0110	0.0001	0.9984
100	<i>Rathbunaster californicus</i>	0.0100	0.0001	0.9984
101	<i>Pleuronichthys verticalis</i>	0.0100	0.0001	0.9985
102	<i>Pycnopodia helianthoides</i>	0.0100	0.0001	0.9986
103	<i>Metridium senile</i>	0.0100	0.0001	0.9986
104	<i>Stylasterias forreri</i>	0.0100	0.0001	0.9987
105	<i>Careproctus melanurus</i>	0.0080	0.0000	0.9987
106	<i>Sebastes maliger</i>	0.0080	0.0000	0.9988
107	<i>Hexanchus griseus</i>	0.0080	0.0000	0.9988
108	<i>Octopus dofleini</i>	0.0070	0.0000	0.9989
109	<i>Beryteuthis magister</i>	0.0070	0.0000	0.9989
110	Shrimp (unidentified)	0.0070	0.0000	0.9990
111	<i>Sebastes miniatus</i>	0.0060	0.0000	0.9990
112	<i>Squatina californica</i>	0.0060	0.0000	0.9990
113	<i>Pandalopsis dispar</i>	0.0050	0.0000	0.9990
114	<i>Psettichthys melanostictus</i>	0.0050	0.0000	0.9991
115	<i>Opisthoteuthis californiana</i>	0.0050	0.0000	0.9991
116	<i>Trachipterus altivelis</i>	0.0050	0.0000	0.9991
117	Aphroditidae	0.0050	0.0000	0.9992
118	<i>Pasiphaea pacifica</i>	0.0050	0.0000	0.9992
119	<i>Cryptacanthodes giganteus</i>	0.0040	0.0000	0.9992
120	<i>Stylatula</i> sp.	0.0040	0.0000	0.9992
121	Nudibranch (unidentified)	0.0040	0.0000	0.9993
122	Gastropod (unidentified)	0.0040	0.0000	0.9993
123	<i>Synodus lucioceps</i>	0.0040	0.0000	0.9993
124	Thaliacea (unidentified)	0.0040	0.0000	0.9994
125	<i>Sebastes</i> sp.	0.0040	0.0000	0.9994
126	<i>Fusitriton oregonensis</i>	0.0040	0.0000	0.9994
127	Myctophidae	0.0040	0.0000	0.9994
128	<i>Chionoecetes tanneri</i>	0.0040	0.0000	0.9994
129	<i>Parastichopus californicus</i>	0.0030	0.0000	0.9995

Table B-36.--Continued.

130	Hippasteria spinosa	0.0030	0.0000	0.9995
131	Stenobranchius leucopsarus	0.0030	0.0000	0.9995
132	Nezumia stelgidolepis	0.0030	0.0000	0.9995
133	Hexactinellida	0.0030	0.0000	0.9995
134	Sebastes mystinus	0.0030	0.0000	0.9995
135	Sebastes auriculatus	0.0030	0.0000	0.9996
136	Sebastes caurinus	0.0030	0.0000	0.9996
137	Skate egg case (unidentified)	0.0020	0.0000	0.9996
138	Platichthys stellatus	0.0020	0.0000	0.9996
139	Embassichthys bathybius	0.0020	0.0000	0.9996
140	Paralichthys californicus	0.0020	0.0000	0.9996
141	Scyliorhinidae	0.0020	0.0000	0.9996
142	Zaniolepis latipinnis	0.0020	0.0000	0.9996
143	Paguridae	0.0020	0.0000	0.9997
144	Hexagrammos decagrammus	0.0020	0.0000	0.9997
145	Cyclopteridae (Liparidinae)	0.0020	0.0000	0.9997
146	Synodontidae	0.0020	0.0000	0.9997
147	Raja inornata	0.0020	0.0000	0.9997
148	Cottidae	0.0010	0.0000	0.9997
149	Paralithodes californiensis	0.0010	0.0000	0.9997
150	Polychaeta (class)	0.0010	0.0000	0.9997
151	Icelinus oculatus	0.0010	0.0000	0.9997
152	Diplopteraster multipes	0.0010	0.0000	0.9997
153	Rajidae (unidentified)	0.0010	0.0000	0.9998
154	Crossaster papposus	0.0010	0.0000	0.9998
155	Polinices sp.	0.0010	0.0000	0.9998
156	Molpadia sp.	0.0010	0.0000	0.9998
157	Chauliodus macouni	0.0010	0.0000	0.9998
158	Diaphus theta	0.0010	0.0000	0.9998
159	Solaster sp.	0.0010	0.0000	0.9998
160	Brachiopod (unidentified)	0.0010	0.0000	0.9998
161	Bothrocara brunneum	0.0010	0.0000	0.9998
162	Mediaster aequalis	0.0010	0.0000	0.9998
163	Citharichthys sp.	0.0010	0.0000	0.9998
164	Poraniopsis inflata	0.0010	0.0000	0.9998
165	Malacocottus zonurus	0.0010	0.0000	0.9998
166	Lophaster furcilliger	0.0010	0.0000	0.9998
167	Sebastes rubrivinctis	0.0010	0.0000	0.9998
168	Raja stellulata	0.0010	0.0000	0.9998
169	Mustelus californicus	0.0010	0.0000	0.9998
170	Sebastes hopkinsi	0.0010	0.0000	0.9999
171	Xeneretmus latifrons	0.0010	0.0000	0.9999
172	Lampanyctus ritteri	0.0010	0.0000	0.9999
173	Eptatretus stouti	0.0010	0.0000	0.9999

Table B-36.--Continued.

174	<i>Pisaster brevispinus</i>	0.0010	0.0000	0.9999
175	Crab (unidentified)	0.0010	0.0000	0.9999
176	<i>Icichthys lockingtoni</i>	0.0010	0.0000	0.9999
177	Pectinid (unidentified)	0.0010	0.0000	0.9999
178	<i>Eptatretus deani</i>	0.0010	0.0000	0.9999
179	Sergestidae (family)	0.0010	0.0000	0.9999
180	<i>Coryphaenoides acrolepis</i>	0.0010	0.0000	0.9999
181	<i>Abraliopsis felis</i>	0.0010	0.0000	0.9999
182	<i>Leptocottus armatus</i>	0.0000	0.0000	0.9999
183	<i>Careproctus</i> sp.	0.0000	0.0000	0.9999
184	Shark egg	0.0000	0.0000	0.9999
185	<i>Luidiaster dawsoni</i>	0.0000	0.0000	0.9999
186	<i>Xeneretmus leiops</i>	0.0000	0.0000	0.9999
187	Ophiuroid (unidentified)	0.0000	0.0000	0.9999
188	<i>Strongylocentrotus purpuratus</i>	0.0000	0.0000	0.9999
189	<i>Isopsetta isolepis</i>	0.0000	0.0000	0.9999
190	Cancer sp.	0.0000	0.0000	0.9999
191	<i>Heterozonias alternatus</i>	0.0000	0.0000	0.9999
192	Ascidian (unidentified)	0.0000	0.0000	0.9999
193	<i>Scorpaenichthys marmoratus</i>	0.0000	0.0000	0.9999
194	<i>Pteraster tessellatus</i>	0.0000	0.0000	0.9999
195	Pandalidae	0.0000	0.0000	0.9999
196	<i>BathYGONUS nigripinnis</i>	0.0000	0.0000	0.9999
197	<i>Tochuina tetraquetra</i>	0.0000	0.0000	0.9999
198	<i>Hippasteria</i> sp.	0.0000	0.0000	0.9999
199	<i>Solaster borealis</i>	0.0000	0.0000	0.9999
200	<i>Malacocottus kincaidi</i>	0.0000	0.0000	0.9999
201	<i>Tactostoma macropus</i>	0.0000	0.0000	0.9999
202	<i>Albatrossia pectoralis</i>	0.0000	0.0000	0.9999
203	<i>Hemilepidotus spinosus</i>	0.0000	0.0000	1.0000
204	<i>Physiculus rastrelliger</i>	0.0000	0.0000	1.0000
205	Pelagic octopus (unidentified)	0.0000	0.0000	1.0000
206	<i>Sebastes rosenblatti</i>	0.0000	0.0000	1.0000
207	Gorgonacea (order)	0.0000	0.0000	1.0000
208	<i>Sebastes eos</i>	0.0000	0.0000	1.0000
209	Myxinidae	0.0000	0.0000	1.0000
210	<i>Ceramaster patagonicus</i>	0.0000	0.0000	1.0000
211	<i>Polinices lewisi</i>	0.0000	0.0000	1.0000
212	<i>Tritonia</i> sp.	0.0000	0.0000	1.0000
213	Melanostomiidae	0.0000	0.0000	1.0000
214	<i>Hippasteria californica</i>	0.0000	0.0000	1.0000
215	<i>Mursia gaudichaudii</i>	0.0000	0.0000	1.0000
216	<i>Ctenodiscus crispatus</i>	0.0000	0.0000	1.0000
217	<i>Bathylagus milleri</i>	0.0000	0.0000	1.0000

Table B-36.-Continued.

218	<i>Aristostomias scintillans</i>	0.0000	0.0000	1.0000
219	<i>Solaster stimpsoni</i>	0.0000	0.0000	1.0000
220	<i>Ronquilus jordani</i>	0.0000	0.0000	1.0000
221	<i>Solaster endeca</i>	0.0000	0.0000	1.0000
222	Pelecypoda (unidentified)	0.0000	0.0000	1.0000
223	<i>Henricia</i> sp.	0.0000	0.0000	1.0000
224	<i>Enophrys taurina</i>	0.0000	0.0000	1.0000
225	Sipuncula (phylum)	0.0000	0.0000	1.0000
226	<i>Patinopecten caurinus</i>	0.0000	0.0000	1.0000
227	Petromyzontidae	0.0000	0.0000	1.0000
228	<i>Icosteus aenigmaticus</i>	0.0000	0.0000	1.0000
229	<i>Chlamys rubida</i>	0.0000	0.0000	1.0000
230	<i>Coelorinchus scaphopsis</i>	0.0000	0.0000	1.0000
231	<i>Cancer productus</i>	0.0000	0.0000	1.0000
232	Ctenophora (phylum)	0.0000	0.0000	1.0000
233	<i>Leuroglossus stilbius</i>	0.0000	0.0000	1.0000
234	<i>Sagamichthys abei</i>	0.0000	0.0000	1.0000
235	Agonidae	0.0000	0.0000	1.0000
236	<i>Chorilia longipes</i>	0.0000	0.0000	1.0000
237	<i>Tealia</i> sp.	0.0000	0.0000	1.0000
238	<i>Munida quadrispina</i>	0.0000	0.0000	1.0000
239	<i>Orthasterias koehleri</i>	0.0000	0.0000	1.0000
240	<i>Bathyagonus pentacanthus</i>	0.0000	0.0000	1.0000
241	<i>Sebastes variegatus</i>	0.0000	0.0000	1.0000
242	<i>Hippoglossina stomata</i>	0.0000	0.0000	1.0000
243	<i>Pandalus hypsinotus</i>	0.0000	0.0000	1.0000
244	<i>Lycodapus mandibularis</i>	0.0000	0.0000	1.0000
245	<i>Idiacanthus antrostomus</i>	0.0000	0.0000	1.0000
246	<i>Lampetra tridentata</i>	0.0000	0.0000	1.0000
247	<i>Vampyroteuthis infernalis</i>	0.0000	0.0000	1.0000
248	<i>Argyropelecus</i> sp.	0.0000	0.0000	1.0000
249	<i>Gonatopsis borealis</i>	0.0000	0.0000	1.0000
250	Malacostiedae	0.0000	0.0000	1.0000
251	<i>Solaster dawsoni</i>	0.0000	0.0000	1.0000
252	<i>Antimora microlepis</i>	0.0000	0.0000	1.0000
253	Bathylagidae (unidentified)	0.0000	0.0000	1.0000
254	<i>Chitonotus pugetensis</i>	0.0000	0.0000	1.0000
255	<i>Cymatogaster aggregata</i>	0.0000	0.0000	1.0000
256	<i>Tarletonbeania crenularis</i>	0.0000	0.0000	1.0000
257	<i>Lopholithodes</i> sp.	0.0000	0.0000	1.0000
258	<i>Hyas</i> sp.	0.0000	0.0000	1.0000
259	<i>Xystreurys liolepis</i>	0.0000	0.0000	1.0000
260	<i>Ammodytes hexapterus</i>	0.0000	0.0000	1.0000
261	<i>Symphurus atricauda</i>	0.0000	0.0000	1.0000

Table B-36.--Continued.

262	<i>Dermasterias imbricata</i>	0.0000	0.0000	1.0000
263	<i>Lampanyctus</i> sp.	0.0000	0.0000	1.0000
264	<i>Bathophilus flemingi</i>	0.0000	0.0000	1.0000
265	<i>Lestidiops ringens</i>	0.0000	0.0000	1.0000
266	Isopoda (order)	0.0000	0.0000	1.0000
267	<i>Hyas lyratus</i>	0.0000	0.0000	1.0000
268	<i>Pteraster</i> sp.	0.0000	0.0000	1.0000
269	<i>Psolus</i> sp.	0.0000	0.0000	1.0000
270	Chauliodontidae	0.0000	0.0000	1.0000
271	<i>Podothecus acipenserinus</i>	0.0000	0.0000	1.0000
272	Fish (unidentified)	0.0000	0.0000	1.0000
273	<i>Agonopsis vulsa</i>	0.0000	0.0000	1.0000
274	<i>Rossia pacifica</i>	0.0000	0.0000	1.0000
275	<i>Icelinus burchami</i>	0.0000	0.0000	1.0000
276	<i>Radulinus asprellus</i>	0.0000	0.0000	1.0000
277	Osmeridae	0.0000	0.0000	1.0000
278	<i>Anoplagonus inermis</i>	0.0000	0.0000	1.0000
279	Pasiphaeidae (family)	0.0000	0.0000	1.0000
280	<i>Pseudarchaster parellii</i>	0.0000	0.0000	1.0000
281	<i>Symbolophorus californiensis</i>	0.0000	0.0000	1.0000
282	<i>Pseudarchaster parellii</i>	0.0000	0.0000	1.0000
283	Crinoid (unidentified)	0.0000	0.0000	1.0000
284	<i>Oregonia gracilis</i>	0.0000	0.0000	1.0000
285	Galatheidae (family)	0.0000	0.0000	1.0000
286	<i>Bathybembix bairdii</i>	0.0000	0.0000	1.0000
287	<i>Lycodes brevipes</i>	0.0000	0.0000	1.0000
288	<i>Pandalus</i> sp.	0.0000	0.0000	1.0000
289	<i>Liparis</i> sp.	0.0000	0.0000	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 1995 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. Estimates are presented for the most commercially or ecologically important species in alphabetical order. 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	Petrale 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

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for American Shad**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	209	4.126334371E+03	0.31	294,598	9.121037411E+09	0.32
	184-366 m	51	2.341763010E+03	0.95	53,570	2.518295624E+09	0.94
	367-500 m	0	-	-	0	-	-
	55-366 m	260	6.468097380E+03	0.31	348,168	1.163933304E+10	0.31
	55-500 m	260	6.468097380E+03	0.31	348,168	1.163933304E+10	0.31
US Vancouver							
	55-183 m	413	1.222926488E+04	0.27	731,525	4.221739453E+10	0.28
	184-366 m	40	5.081740206E+02	0.57	46,027	7.113135442E+08	0.58
	367-500 m	0	-	-	0	-	-
	55-366 m	453	1.273743890E+04	0.25	777,552	4.292870808E+10	0.27
	55-500 m	453	1.273743890E+04	0.25	777,552	4.292870808E+10	0.27
Total Vancouver							
	55-183 m	622	1.740490351E+04	0.21	1,026,124	5.343458858E+10	0.23
	184-366 m	91	4.258527909E+03	0.72	99,597	4.779980064E+09	0.69
	367-500 m	0	-	-	0	-	-
	55-366 m	713	2.166343142E+04	0.21	1,125,720	5.821456864E+10	0.21
	55-500 m	713	2.166343142E+04	0.21	1,125,720	5.821456864E+10	0.21
Columbia							
	55-183 m	2,197	3.592724647E+05	0.27	4,604,241	1.728725691E+12	0.29
	184-366 m	23	8.056262932E+01	0.39	33,801	1.827167118E+08	0.40
	367-500 m	0	-	-	0	-	-
	55-366 m	2,219	3.593530274E+05	0.27	4,638,042	1.728908407E+12	0.28
	55-500 m	2,219	3.593530274E+05	0.27	4,638,042	1.728908407E+12	0.28
Eureka							
	55-183 m	65	6.326221073E+02	0.39	125,675	1.572542651E+09	0.32
	184-366 m	2	2.484796777E+00	1.00	1,576	2.484796777E+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	67	6.351069041E+02	0.38	127,251	1.575027448E+09	0.31
	55-500 m	67	6.351069041E+02	0.38	127,251	1.575027448E+09	0.31
Monterey							
	55-183 m	251	5.368737802E+03	0.29	758,366	3.319788353E+10	0.24
	184-366 m	0	4.735434930E-02	1.00	1,088	1.183858733E+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	251	5.368785156E+03	0.29	759,454	3.319906738E+10	0.24
	55-500 m	251	5.368785156E+03	0.29	759,454	3.319906738E+10	0.24
Conception							
	55-183 m	27	2.220665683E+02	0.56	89,269	1.840663357E+09	0.48
	184-366 m	0	1.457200045E-02	1.00	604	3.643000112E+05	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	27	2.220811403E+02	0.56	89,873	1.841027657E+09	0.48
	55-500 m	27	2.220811403E+02	0.56	89,873	1.841027657E+09	0.48
US Total							
	55-183 m	2,953	4.277517843E+05	0.22	6,309,076	2.029542816E+12	0.23
	184-366 m	64	5.951683179E+02	0.38	83,096	9.025439301E+08	0.36
	367-500 m	0	-	-	0	-	-
	55-366 m	3,017	4.283469526E+05	0.22	6,392,172	2.030445360E+12	0.22
	55-500 m	3,017	4.283469526E+05	0.22	6,392,172	2.030445360E+12	0.22
Total							
	55-183 m	3,162	4.329274229E+05	0.21	6,603,675	2.040760010E+12	0.22
	184-366 m	116	4.345522206E+03	0.57	136,666	4.971210449E+09	0.52
	367-500 m	0	-	-	0	-	-
	55-366 m	3,277	4.372729451E+05	0.20	6,740,340	2.045731221E+12	0.21
	55-500 m	3,277	4.372729451E+05	0.20	6,740,340	2.045731221E+12	0.21

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Arrowtooth Flounder**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver	55-183 m	20,853	5.089388848E+07	0.34	16,803,057	1.512692215E+13	0.23
	184-366 m	3,698	1.241943843E+06	0.30	1,693,193	2.035371366E+11	0.27
	367-500 m	886	6.080882873E+04	0.28	391,936	1.872400903E+10	0.35
	55-366 m	24,552	5.213583232E+07	0.29	18,496,250	1.533045929E+13	0.21
	55-500 m	25,438	5.219664115E+07	0.28	18,888,186	1.534918329E+13	0.21
US Vancouver	55-183 m	2,212	2.831862929E+05	0.24	2,196,032	2.302329903E+11	0.22
	184-366 m	2,072	1.361254564E+05	0.18	1,472,341	8.470271694E+10	0.20
	367-500 m	18	1.217714362E+02	0.62	8,345	2.717372053E+07	0.62
	55-366 m	4,285	4.193117493E+05	0.15	3,668,373	3.149357072E+11	0.15
	55-500 m	4,302	4.194335207E+05	0.15	3,676,718	3.149628810E+11	0.15
Total Vancouver	55-183 m	23,066	5.569252558E+07	0.32	18,999,089	1.672103166E+13	0.22
	184-366 m	5,770	2.094712350E+06	0.25	3,165,533	4.187218779E+11	0.20
	367-500 m	904	6.098796201E+04	0.27	400,281	1.876202620E+10	0.34
	55-366 m	28,836	5.778723793E+07	0.26	22,164,623	1.713975354E+13	0.19
	55-500 m	29,740	5.784822589E+07	0.26	22,564,903	1.715851556E+13	0.18
Columbia	55-183 m	1,683	7.918072527E+04	0.17	2,001,820	8.790144078E+10	0.15
	184-366 m	2,269	1.063465599E+06	0.45	1,550,339	1.592738807E+11	0.26
	367-500 m	246	4.642886444E+03	0.28	144,306	2.741036355E+09	0.36
	55-366 m	3,952	1.142646325E+06	0.27	3,552,159	2.471753215E+11	0.14
	55-500 m	4,198	1.147289211E+06	0.26	3,696,466	2.499163578E+11	0.14
Eureka	55-183 m	103	1.753511887E+03	0.41	217,555	6.196118310E+09	0.36
	184-366 m	317	1.080802421E+04	0.33	482,546	2.808924539E+10	0.35
	367-500 m	90	3.688840079E+02	0.21	97,492	4.781234826E+08	0.22
	55-366 m	420	1.256153609E+04	0.27	700,101	3.428536370E+10	0.26
	55-500 m	511	1.293042010E+04	0.22	797,593	3.476348718E+10	0.23
Monterey	55-183 m	0	-	-	0	-	-
	184-366 m	17	8.851949309E+01	0.56	20,898	1.286362187E+08	0.54
	367-500 m	0	-	-	0	-	-
	55-366 m	17	8.851949309E+01	0.56	20,898	1.286362187E+08	0.54
	55-500 m	17	8.851949309E+01	0.56	20,898	1.286362187E+08	0.54
Conception	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	-	-
US Total	55-183 m	3,998	3.715203879E+05	0.15	4,415,407	3.304981022E+11	0.13
	184-366 m	4,675	1.262116391E+06	0.24	3,526,123	2.937462619E+11	0.15
	367-500 m	354	5.331765973E+03	0.21	250,143	3.301518298E+09	0.23
	55-366 m	8,674	1.633636779E+06	0.15	7,941,531	6.242443641E+11	0.10
	55-500 m	9,028	1.638968545E+06	0.14	8,191,674	6.275458824E+11	0.10
Total	55-183 m	24,852	5.578085967E+07	0.30	21,218,465	1.682129677E+13	0.19
	184-366 m	8,374	3.220703284E+06	0.21	5,219,316	6.277654229E+11	0.15
	367-500 m	1,240	6.619795655E+04	0.21	642,079	2.203637078E+10	0.23
	55-366 m	33,225	5.900156296E+07	0.23	26,437,781	1.744906219E+13	0.16
	55-500 m	34,465	5.906776092E+07	0.22	27,079,860	1.747109856E+13	0.15

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Bocaccio**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	30	3.002405657E+02	0.58	11,752	4.447052750E+07	0.57
	184-366 m	35	6.081246133E+02	0.71	4,612	9.463506464E+06	0.67
	367-500 m	0	-	-	0	-	-
	55-366 m	65	9.083651790E+02	0.47	16,365	5.393403397E+07	0.45
	55-500 m	65	9.083651790E+02	0.47	16,365	5.393403397E+07	0.45
US Vancouver							
	55-183 m	1	5.837028747E-01	0.58	518	8.645592137E+04	0.57
	184-366 m	10	4.981453516E+01	0.71	1,320	7.752032481E+05	0.67
	367-500 m	0	-	-	0	-	-
	55-366 m	11	5.039823803E+01	0.63	1,838	8.616591694E+05	0.50
	55-500 m	11	5.039823803E+01	0.63	1,838	8.616591694E+05	0.50
Total Vancouver							
	55-183 m	31	3.273007700E+02	0.58	12,271	4.847858536E+07	0.57
	184-366 m	45	1.006039392E+03	0.71	5,933	1.565577200E+07	0.67
	367-500 m	0	-	-	0	-	-
	55-366 m	76	1.333340162E+03	0.48	18,203	6.413435735E+07	0.44
	55-500 m	76	1.333340162E+03	0.48	18,203	6.413435735E+07	0.44
Columbia							
	55-183 m	32	6.768615877E+02	0.81	15,422	1.481628274E+08	0.79
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	32	6.768615877E+02	0.81	15,422	1.481628274E+08	0.79
	55-500 m	32	6.768615877E+02	0.81	15,422	1.481628274E+08	0.79
Eureka							
	55-183 m	7	4.564934847E+01	0.92	5,592	1.521755981E+07	0.70
	184-366 m	4	1.580280701E+01	1.00	1,807	3.265042770E+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	11	6.145215548E+01	0.69	7,398	1.848260258E+07	0.58
	55-500 m	11	6.145215548E+01	0.69	7,398	1.848260258E+07	0.58
Monterey							
	55-183 m	192	4.963902390E+03	0.37	192,940	7.431468532E+09	0.45
	184-366 m	294	5.681320053E+04	0.81	146,647	1.189746378E+10	0.74
	367-500 m	7	4.778381569E+01	1.00	2,609	6.804388137E+06	1.00
	55-366 m	486	6.177710292E+04	0.51	339,587	1.932893231E+10	0.41
	55-500 m	493	6.182488673E+04	0.50	342,195	1.933573670E+10	0.41
Conception							
	55-183 m	31	7.934137994E+02	0.92	166,688	2.039733425E+10	0.86
	184-366 m	27	2.588443712E+02	0.60	22,361	1.028577796E+08	0.45
	367-500 m	0	-	-	0	-	-
	55-366 m	58	1.052258171E+03	0.56	189,049	2.050019203E+10	0.76
	55-500 m	58	1.052258171E+03	0.56	189,049	2.050019203E+10	0.76
US Total							
	55-183 m	263	6.482019334E+03	0.31	381,160	2.817625645E+10	0.44
	184-366 m	335	5.714032989E+04	0.71	172,134	1.202254520E+10	0.64
	367-500 m	7	4.778381569E+01	1.00	2,609	6.804388137E+06	1.00
	55-366 m	598	6.362234923E+04	0.42	553,294	4.019880165E+10	0.36
	55-500 m	605	6.367013304E+04	0.42	555,903	4.020560604E+10	0.36
Total							
	55-183 m	293	6.808736401E+03	0.28	392,912	2.822464858E+10	0.43
	184-366 m	370	5.809655475E+04	0.65	176,747	1.203742577E+10	0.62
	367-500 m	7	4.778381569E+01	1.00	2,609	6.804388137E+06	1.00
	55-366 m	663	6.490529115E+04	0.38	569,659	4.026207435E+10	0.35
	55-500 m	670	6.495307497E+04	0.38	572,268	4.026887874E+10	0.35

1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Canary Rockfish

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	163	5.352327544E+03	0.45	75,283	1.104561420E+09	0.44
	184-366 m	90	5.524902625E+03	0.82	41,563	1.277424632E+09	0.86
	367-500 m	0	-	-	0	-	-
	55-366 m	253	1.087723017E+04	0.41	116,846	2.381986052E+09	0.42
	55-500 m	253	1.087723017E+04	0.41	116,846	2.381986052E+09	0.42
US Vancouver							
	55-183 m	31	2.395302914E+02	0.50	35,906	3.988505441E+08	0.56
	184-366 m	29	4.612988204E+02	0.75	13,803	1.085186340E+08	0.75
	367-500 m	0	-	-	0	-	-
	55-366 m	60	7.008291118E+02	0.44	49,710	5.073691781E+08	0.45
	55-500 m	60	7.008291118E+02	0.44	49,710	5.073691781E+08	0.45
Total Vancouver							
	55-183 m	194	6.063849045E+03	0.40	111,189	1.600816930E+09	0.36
	184-366 m	119	9.150626717E+03	0.80	55,366	2.117998309E+09	0.83
	367-500 m	0	-	-	0	-	-
	55-366 m	313	1.521447576E+04	0.39	166,555	3.718815238E+09	0.37
	55-500 m	313	1.521447576E+04	0.39	166,555	3.718815238E+09	0.37
Columbia							
	55-183 m	1,895	1.125364621E+06	0.56	1,370,704	4.762730674E+11	0.50
	184-366 m	27	1.798018080E+02	0.49	15,234	4.758525632E+07	0.45
	367-500 m	0	-	-	0	-	-
	55-366 m	1,922	1.125544423E+06	0.55	1,385,938	4.763206526E+11	0.50
	55-500 m	1,922	1.125544423E+06	0.55	1,385,938	4.763206526E+11	0.50
Eureka							
	55-183 m	62	1.142547372E+03	0.55	63,887	1.482375646E+09	0.60
	184-366 m	2	2.820853353E+00	1.00	1,680	2.820853353E+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	63	1.145368226E+03	0.53	65,566	1.485196500E+09	0.59
	55-500 m	63	1.145368226E+03	0.53	65,566	1.485196500E+09	0.59
Monterey							
	55-183 m	1,095	8.289506942E+05	0.83	691,563	1.992587189E+11	0.65
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	1,095	8.289506942E+05	0.83	691,563	1.992587189E+11	0.65
	55-500 m	1,095	8.289506942E+05	0.83	691,563	1.992587189E+11	0.65
Conception							
	55-183 m	0	2.028025127E-01	1.00	2,252	5.070062818E+06	1.00
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	2.028025127E-01	1.00	2,252	5.070062818E+06	1.00
	55-500 m	0	2.028025127E-01	1.00	2,252	5.070062818E+06	1.00
US Total							
	55-183 m	3,083	1.957196732E+06	0.45	2,164,311	6.800136649E+11	0.38
	184-366 m	58	6.439214817E+02	0.44	30,717	1.589247436E+08	0.41
	367-500 m	0	-	-	0	-	-
	55-366 m	3,140	1.957840654E+06	0.45	2,195,028	6.801725897E+11	0.38
	55-500 m	3,140	1.957840654E+06	0.45	2,195,028	6.801725897E+11	0.38
Total							
	55-183 m	3,245	1.963021051E+06	0.43	2,239,594	6.812156313E+11	0.37
	184-366 m	148	9.333249378E+03	0.65	72,280	2.168404418E+09	0.64
	367-500 m	0	-	-	0	-	-
	55-366 m	3,393	1.972354300E+06	0.41	2,311,874	6.833840357E+11	0.36
	55-500 m	3,393	1.972354300E+06	0.41	2,311,874	6.833840357E+11	0.36

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Chilipepper**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	6	3.919376850E+01	1.00	25,778	6.645310230E+08	1.00
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	6	3.919376850E+01	1.00	25,778	6.645310230E+08	1.00
	55-500 m	6	3.919376850E+01	1.00	25,778	6.645310230E+08	1.00
US Vancouver							
	55-183 m	0	7.619728296E-02	1.00	1,137	1.291926251E+06	1.00
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	7.619728296E-02	1.00	1,137	1.291926251E+06	1.00
	55-500 m	0	7.619728296E-02	1.00	1,137	1.291926251E+06	1.00
Total Vancouver							
	55-183 m	7	4.272624046E+01	1.00	26,915	7.244241462E+08	1.00
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	7	4.272624046E+01	1.00	26,915	7.244241462E+08	1.00
	55-500 m	7	4.272624046E+01	1.00	26,915	7.244241462E+08	1.00
Columbia							
	55-183 m	0	-	-	0	-	-
	184-366 m	0	1.763555693E-01	1.00	2,100	4.408889233E+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	0	1.763555693E-01	1.00	2,100	4.408889233E+06	1.00
	55-500 m	0	1.763555693E-01	1.00	2,100	4.408889233E+06	1.00
Eureka							
	55-183 m	60	3.408610574E+03	0.97	97,811	6.461788181E+09	0.82
	184-366 m	33	4.160543076E+02	0.61	59,179	1.532944705E+09	0.66
	367-500 m	0	-	-	0	-	-
	55-366 m	94	3.824664882E+03	0.66	156,990	7.994732886E+09	0.57
	55-500 m	94	3.824664882E+03	0.66	156,990	7.994732886E+09	0.57
Monterey							
	55-183 m	9,640	8.831314709E+06	0.31	23,985,175	3.753449600E+13	0.26
	184-366 m	2,321	7.636054433E+05	0.38	3,857,566	2.119976309E+12	0.38
	367-500 m	2	2.477164782E+00	0.81	2,963	4.728168586E+06	0.73
	55-366 m	11,961	9.594920152E+06	0.26	27,842,741	3.965447231E+13	0.23
	55-500 m	11,963	9.594922630E+06	0.26	27,845,704	3.965447704E+13	0.23
Conception							
	55-183 m	295	1.112148948E+04	0.36	3,160,034	1.308233023E+12	0.36
	184-366 m	1,170	6.137810735E+05	0.67	2,275,248	2.190065740E+12	0.65
	367-500 m	2	1.270672559E+00	0.66	4,276	7.159798891E+06	0.63
	55-366 m	1,465	6.249025629E+05	0.54	5,435,281	3.498298764E+12	0.34
	55-500 m	1,467	6.249038336E+05	0.54	5,439,557	3.498305923E+12	0.34
US Total							
	55-183 m	9,996	8.856715395E+06	0.30	27,244,157	4.345678173E+13	0.24
	184-366 m	3,525	1.480610374E+06	0.35	6,194,093	4.895630289E+12	0.36
	367-500 m	4	3.966708476E+00	0.55	7,238	1.325591207E+07	0.50
	55-366 m	13,521	1.033732577E+07	0.24	33,438,250	4.835241202E+13	0.21
	55-500 m	13,524	1.033732974E+07	0.24	33,445,488	4.835242528E+13	0.21
Total							
	55-183 m	10,002	8.856758045E+06	0.30	27,269,936	4.345750486E+13	0.24
	184-366 m	3,525	1.480610374E+06	0.35	6,194,093	4.895630289E+12	0.36
	367-500 m	4	3.966708476E+00	0.55	7,238	1.325591207E+07	0.50
	55-366 m	13,527	1.033736842E+07	0.24	33,464,028	4.835313515E+13	0.21
	55-500 m	13,530	1.033737239E+07	0.24	33,471,267	4.835314841E+13	0.21

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Chub Mackerel**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	20	2.464513021E+02	0.77	34,274	5.814040792E+08	0.70
	184-366 m	4	7.033584917E+00	0.60	11,299	4.112416312E+07	0.57
	367-500 m	0	-	-	0	-	-
	55-366 m	25	2.534848871E+02	0.64	45,573	6.225282423E+08	0.55
	55-500 m	25	2.534848871E+02	0.64	45,573	6.225282423E+08	0.55
US Vancouver							
	55-183 m	562	1.078940830E+05	0.58	865,335	2.431521024E+11	0.57
	184-366 m	1	5.761561947E-01	0.60	3,234	3.368686326E+06	0.57
	367-500 m	0	-	-	0	-	-
	55-366 m	563	1.078946592E+05	0.58	868,569	2.431554711E+11	0.57
	55-500 m	563	1.078946592E+05	0.58	868,569	2.431554711E+11	0.57
Total Vancouver							
	55-183 m	582	1.144346891E+05	0.58	899,609	2.576834000E+11	0.56
	184-366 m	6	1.163587748E+01	0.60	14,533	6.803297740E+07	0.57
	367-500 m	0	-	-	0	-	-
	55-366 m	588	1.144463250E+05	0.58	914,142	2.577514330E+11	0.56
	55-500 m	588	1.144463250E+05	0.58	914,142	2.577514330E+11	0.56
Columbia							
	55-183 m	10,612	1.410237237E+07	0.35	28,613,093	1.299680353E+14	0.40
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	10,612	1.410237237E+07	0.35	28,613,093	1.299680353E+14	0.40
	55-500 m	10,612	1.410237237E+07	0.35	28,613,093	1.299680353E+14	0.40
Eureka							
	55-183 m	3,068	8.136361183E+05	0.29	6,749,042	3.792586676E+12	0.29
	184-366 m	448	1.117667833E+05	0.75	943,989	5.562665688E+11	0.79
	367-500 m	7	2.994361055E+01	0.76	9,798	5.719216677E+07	0.77
	55-366 m	3,516	9.254029016E+05	0.27	7,693,031	4.348853245E+12	0.27
	55-500 m	3,523	9.254328452E+05	0.27	7,702,829	4.348910437E+12	0.27
Monterey							
	55-183 m	783	4.631785770E+05	0.87	308,082	6.930118955E+10	0.85
	184-366 m	0	-	-	0	-	-
	367-500 m	0	2.630749464E-03	1.00	1,026	1.052299785E+06	1.00
	55-366 m	783	4.631785770E+05	0.87	308,082	6.930118955E+10	0.85
	55-500 m	783	4.631785796E+05	0.87	309,108	6.930224185E+10	0.85
Conception							
	55-183 m	350	4.705977034E+04	0.62	1,027,848	3.001171470E+11	0.53
	184-366 m	0	6.955593851E-02	1.00	2,637	6.955593851E+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	351	4.705983990E+04	0.62	1,030,485	3.001241026E+11	0.53
	55-500 m	351	4.705983990E+04	0.62	1,030,485	3.001241026E+11	0.53
US Total							
	55-183 m	15,376	1.624115197E+07	0.26	37,563,400	1.353565954E+14	0.31
	184-366 m	450	1.117674290E+05	0.74	949,860	5.562768931E+11	0.79
	367-500 m	7	2.994624130E+01	0.75	10,824	5.824446655E+07	0.71
	55-366 m	15,825	1.635291940E+07	0.26	38,513,260	1.359128723E+14	0.30
	55-500 m	15,832	1.635294934E+07	0.26	38,524,084	1.359129306E+14	0.30
Total							
	55-183 m	15,396	1.624769257E+07	0.26	37,597,674	1.353711267E+14	0.31
	184-366 m	454	1.117784887E+05	0.74	961,159	5.563415574E+11	0.78
	367-500 m	7	2.994624130E+01	0.75	10,824	5.824446655E+07	0.71
	55-366 m	15,850	1.635947106E+07	0.26	38,558,833	1.359274683E+14	0.30
	55-500 m	15,857	1.635950101E+07	0.26	38,569,657	1.359275265E+14	0.30

1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Darkblotched Rockfish

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	336	3.740318510E+04	0.58	1,123,504	2.611868095E+11	0.45
	184-366 m	285	2.842660540E+04	0.59	567,720	1.135874038E+11	0.59
	367-500 m	7	1.233625033E+01	0.47	6,723	8.266822794E+06	0.43
	55-366 m	622	6.582979050E+04	0.41	1,691,224	3.747742133E+11	0.36
	55-500 m	629	6.584212675E+04	0.41	1,697,947	3.747824801E+11	0.36
US Vancouver							
	55-183 m	122	5.369533200E+03	0.60	563,604	6.007107921E+10	0.43
	184-366 m	300	9.425300572E+03	0.32	601,936	4.175090456E+10	0.34
	367-500 m	1	5.692182452E-01	1.00	1,257	1.581161792E+06	1.00
	55-366 m	422	1.479483377E+04	0.29	1,165,540	1.018219838E+11	0.27
	55-500 m	423	1.479540299E+04	0.29	1,166,797	1.018235649E+11	0.27
Total Vancouver							
	55-183 m	459	4.608055255E+04	0.47	1,687,108	3.447700893E+11	0.35
	184-366 m	585	5.565318163E+04	0.40	1,169,656	2.273436548E+11	0.41
	367-500 m	8	1.333920651E+01	0.44	7,980	1.105281217E+07	0.42
	55-366 m	1,044	1.017397342E+05	0.31	2,856,764	5.721137441E+11	0.26
	55-500 m	1,052	1.017470734E+05	0.30	2,864,744	5.721247969E+11	0.26
Columbia							
	55-183 m	576	8.676884392E+04	0.51	3,018,164	1.342016307E+12	0.38
	184-366 m	3,564	9.575416932E+06	0.87	4,402,770	9.608591074E+12	0.70
	367-500 m	17	7.012679108E+01	0.48	20,605	7.412346988E+07	0.42
	55-366 m	4,140	9.662185776E+06	0.75	7,420,933	1.095060738E+13	0.45
	55-500 m	4,157	9.662255903E+06	0.75	7,441,539	1.095068151E+13	0.44
Eureka							
	55-183 m	12	4.071060877E+01	0.55	163,742	7.438912017E+09	0.53
	184-366 m	197	5.798109321E+03	0.39	473,891	2.825546599E+10	0.35
	367-500 m	17	6.059106991E+01	0.45	22,639	8.287090549E+07	0.40
	55-366 m	209	5.838819930E+03	0.37	637,633	3.569437801E+10	0.30
	55-500 m	226	5.899410999E+03	0.34	660,271	3.577724891E+10	0.29
Monterey							
	55-183 m	9	2.128705537E+01	0.52	41,150	3.815681635E+08	0.47
	184-366 m	439	2.964621821E+04	0.39	649,589	4.614309992E+10	0.33
	367-500 m	13	1.895699211E+01	0.35	20,727	6.706371525E+07	0.40
	55-366 m	448	2.966750526E+04	0.38	690,739	4.652466808E+10	0.31
	55-500 m	460	2.968646226E+04	0.37	711,466	4.659173179E+10	0.30
Conception							
	55-183 m	0	-	-	0	-	-
	184-366 m	1	4.850282338E-01	0.67	5,223	1.212570584E+07	0.67
	367-500 m	2	3.046602679E+00	1.00	1,247	1.554389122E+06	1.00
	55-366 m	1	4.850282338E-01	0.67	5,223	1.212570584E+07	0.67
	55-500 m	3	3.531630913E+00	0.67	6,470	1.368009497E+07	0.57
US Total							
	55-183 m	718	1.264432890E+05	0.49	3,786,659	1.778658823E+12	0.35
	184-366 m	4,501	9.620339611E+06	0.69	6,133,409	9.725191778E+12	0.51
	367-500 m	50	1.532906740E+02	0.25	66,475	2.271936415E+08	0.23
	55-366 m	5,219	9.746782900E+06	0.60	9,920,068	1.150385060E+13	0.34
	55-500 m	5,269	9.746936191E+06	0.59	9,986,543	1.150407779E+13	0.34
Total							
	55-183 m	1,055	1.671543084E+05	0.39	4,910,163	2.063357833E+12	0.29
	184-366 m	4,786	9.666567492E+06	0.65	6,701,129	9.910784528E+12	0.47
	367-500 m	57	1.660606623E+02	0.22	73,198	2.366652919E+08	0.21
	55-366 m	5,841	9.833721800E+06	0.54	11,611,292	1.197414236E+13	0.30
	55-500 m	5,898	9.833887861E+06	0.53	11,684,490	1.197437903E+13	0.30

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Dover Sole**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver	55-183 m	6,926	1.850805117E+06	0.20	19,710,934	1.967717992E+13	0.23
	184-366 m	819	2.173500548E+04	0.18	2,001,618	1.364525894E+11	0.18
	367-500 m	599	2.561534541E+04	0.27	1,519,181	1.914646817E+11	0.29
	55-366 m	7,745	1.872540122E+06	0.18	21,712,552	1.981363251E+13	0.21
	55-500 m	8,344	1.898155468E+06	0.17	23,231,733	2.000509719E+13	0.19
US Vancouver	55-183 m	977	1.981933404E+04	0.14	3,223,437	2.093425492E+11	0.14
	184-366 m	1,542	9.462153334E+04	0.20	3,874,189	4.712614367E+11	0.18
	367-500 m	268	5.669209786E+03	0.28	718,061	3.027170466E+10	0.24
	55-366 m	2,519	1.144408674E+05	0.13	7,097,626	6.806039859E+11	0.12
	55-500 m	2,787	1.201100772E+05	0.12	7,815,687	7.108756906E+11	0.11
Total Vancouver	55-183 m	7,903	2.035797979E+06	0.18	22,934,371	2.164248767E+13	0.20
	184-366 m	2,361	1.485660404E+05	0.16	5,875,807	7.837120060E+11	0.15
	367-500 m	867	3.385826142E+04	0.21	2,237,242	2.302606871E+11	0.21
	55-366 m	10,264	2.184364019E+06	0.14	28,810,178	2.242619968E+13	0.16
	55-500 m	11,131	2.218222280E+06	0.13	31,047,420	2.265646037E+13	0.15
Columbia	55-183 m	5,117	5.316954945E+05	0.14	20,135,397	6.663132660E+12	0.13
	184-366 m	3,437	2.090838680E+05	0.13	12,597,542	2.078406446E+12	0.11
	367-500 m	3,069	2.506616731E+05	0.16	8,522,995	2.103410242E+12	0.17
	55-366 m	8,554	7.407793626E+05	0.10	32,732,939	8.741539106E+12	0.09
	55-500 m	11,623	9.914410356E+05	0.09	41,255,934	1.084494935E+13	0.08
Eureka	55-183 m	259	1.245623531E+04	0.43	986,816	1.663687763E+11	0.41
	184-366 m	1,339	1.180469097E+05	0.26	4,970,025	2.205586416E+12	0.30
	367-500 m	1,481	1.377473337E+05	0.25	4,848,729	2.906739780E+12	0.35
	55-366 m	1,597	1.305031450E+05	0.23	5,956,841	2.371955192E+12	0.26
	55-500 m	3,078	2.682504787E+05	0.17	10,805,570	5.278694972E+12	0.21
Monterey	55-183 m	1,823	1.070027052E+05	0.18	12,165,324	5.185114931E+12	0.19
	184-366 m	2,926	3.787801952E+05	0.21	11,279,477	4.707947034E+12	0.19
	367-500 m	5,347	9.615334334E+05	0.18	19,009,217	1.655998339E+13	0.21
	55-366 m	4,749	4.857829004E+05	0.15	23,444,801	9.893061965E+12	0.13
	55-500 m	10,095	1.447316334E+06	0.12	42,454,018	2.645304535E+13	0.12
Conception	55-183 m	8	6.249592283E+00	0.33	108,929	1.147872873E+09	0.31
	184-366 m	1,063	1.668617509E+05	0.38	4,243,181	2.266155612E+12	0.35
	367-500 m	3,430	2.679977167E+05	0.15	9,745,453	3.367864215E+12	0.19
	55-366 m	1,071	1.668680005E+05	0.38	4,352,110	2.267303485E+12	0.35
	55-500 m	4,501	4.348657173E+05	0.15	14,097,564	5.635167700E+12	0.17
US Total	55-183 m	8,183	6.913864472E+05	0.10	36,619,902	1.244030371E+13	0.10
	184-366 m	10,307	9.754876244E+05	0.10	36,964,414	1.177886469E+13	0.09
	367-500 m	13,594	2.082862159E+06	0.11	42,844,455	3.300428972E+13	0.13
	55-366 m	18,490	1.666874072E+06	0.07	73,584,317	2.421916840E+13	0.07
	55-500 m	32,084	3.749736230E+06	0.06	116,428,772	5.722345812E+13	0.06
Total	55-183 m	15,109	2.707365092E+06	0.11	56,330,836	3.387344884E+13	0.10
	184-366 m	11,125	1.029432131E+06	0.09	38,966,032	1.209131526E+13	0.09
	367-500 m	14,194	2.111051210E+06	0.10	44,363,636	3.320427870E+13	0.13
	55-366 m	26,235	3.736797223E+06	0.07	95,296,869	4.596476409E+13	0.07
	55-500 m	40,428	5.847848434E+06	0.06	139,660,505	7.916904280E+13	0.06

**7995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for English Sole**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	2,342	2.006196817E+05	0.19	9,275,357	5.509926871E+12	0.25
	184-366 m	53	1.299877250E+03	0.68	112,104	5.409582505E+09	0.66
	367-500 m	0	-	-	0	-	-
	55-366 m	2,396	2.019195590E+05	0.19	9,387,461	5.515336453E+12	0.25
	55-500 m	2,396	2.019195590E+05	0.19	9,387,461	5.515336453E+12	0.25
US Vancouver							
	55-183 m	896	5.558325137E+04	0.26	4,078,052	1.129272444E+12	0.26
	184-366 m	37	2.242104083E+02	0.40	97,218	1.574556384E+09	0.41
	367-500 m	0	-	-	0	-	-
	55-366 m	933	5.580746178E+04	0.25	4,175,270	1.130847000E+12	0.25
	55-500 m	933	5.580746178E+04	0.25	4,175,270	1.130847000E+12	0.25
Total Vancouver							
	55-183 m	3,238	2.816450023E+05	0.16	13,353,409	7.274839398E+12	0.20
	184-366 m	91	2.281327298E+03	0.53	209,322	1.017484870E+10	0.48
	367-500 m	0	-	-	0	-	-
	55-366 m	3,329	2.839263296E+05	0.16	13,562,731	7.285014246E+12	0.20
	55-500 m	3,329	2.839263296E+05	0.16	13,562,731	7.285014246E+12	0.20
Columbia							
	55-183 m	3,656	2.928677863E+05	0.15	22,816,743	1.325884355E+13	0.16
	184-366 m	214	4.545927866E+03	0.32	781,765	6.848076353E+10	0.33
	367-500 m	4	1.938739627E+01	1.00	12,842	1.649275030E+08	1.00
	55-366 m	3,870	2.974137142E+05	0.14	23,598,508	1.332732431E+13	0.15
	55-500 m	3,874	2.974331016E+05	0.14	23,611,350	1.332748924E+13	0.15
Eureka							
	55-183 m	228	6.123648175E+03	0.34	1,060,352	1.485925496E+11	0.36
	184-366 m	63	1.541540200E+03	0.62	176,655	1.569829960E+10	0.71
	367-500 m	0	-	-	0	-	-
	55-366 m	291	7.665188374E+03	0.30	1,237,007	1.642908492E+11	0.33
	55-500 m	291	7.665188374E+03	0.30	1,237,007	1.642908492E+11	0.33
Monterey							
	55-183 m	4,540	3.644253701E+05	0.13	26,226,512	1.265357194E+13	0.14
	184-366 m	293	1.719685794E+04	0.45	1,130,968	3.779370563E+11	0.54
	367-500 m	33	4.520454691E+02	0.65	83,465	2.848503775E+09	0.64
	55-366 m	4,833	3.816222280E+05	0.13	27,357,480	1.303150899E+13	0.13
	55-500 m	4,866	3.820742735E+05	0.13	27,440,945	1.303435750E+13	0.13
Conception							
	55-183 m	195	2.793847439E+03	0.27	1,387,372	1.435056558E+11	0.27
	184-366 m	71	4.397036885E+03	0.94	355,044	1.068473035E+11	0.92
	367-500 m	4	1.424158216E+01	1.00	10,234	1.047355655E+08	1.00
	55-366 m	266	7.190884324E+03	0.32	1,742,417	2.503529593E+11	0.29
	55-500 m	270	7.205125906E+03	0.31	1,752,651	2.504576948E+11	0.29
US Total							
	55-183 m	9,516	7.492543934E+05	0.09	55,569,031	2.842427116E+13	0.10
	184-366 m	677	4.413321755E+04	0.31	2,541,650	9.603554586E+11	0.39
	367-500 m	41	5.332925988E+02	0.56	106,542	3.468360660E+09	0.55
	55-366 m	10,193	7.933876110E+05	0.09	58,110,681	2.938462662E+13	0.09
	55-500 m	10,234	7.939209036E+05	0.09	58,217,223	2.938809498E+13	0.09
Total							
	55-183 m	11,858	9.753161443E+05	0.08	64,844,388	3.456983811E+13	0.09
	184-366 m	730	4.619033444E+04	0.29	2,653,754	9.689557509E+11	0.37
	367-500 m	41	5.332925988E+02	0.56	106,542	3.468360660E+09	0.55
	55-366 m	12,589	1.021506479E+06	0.08	67,498,143	3.553879386E+13	0.09
	55-500 m	12,630	1.022039771E+06	0.08	67,604,684	3.554226222E+13	0.09

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Eulachon**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	1,128	8.791198902E+04	0.26	39,912,489	2.444718708E+14	0.39
	184-366 m	9	2.441080207E+01	0.57	191,214	1.223370893E+10	0.58
	367-500 m	0	-	-	0	-	-
	55-366 m	1,137	8.793639983E+04	0.26	40,103,702	2.444841045E+14	0.39
	55-500 m	1,137	8.793639983E+04	0.26	40,103,702	2.444841045E+14	0.39
US Vancouver							
	55-183 m	63	1.876061741E+02	0.22	2,002,776	4.816529314E+11	0.35
	184-366 m	22	1.666544717E+02	0.59	472,903	8.146683568E+10	0.60
	367-500 m	0	-	-	0	-	-
	55-366 m	85	3.542606458E+02	0.22	2,475,680	5.631197671E+11	0.30
	55-500 m	85	3.542606458E+02	0.22	2,475,680	5.631197671E+11	0.30
Total Vancouver							
	55-183 m	1,191	9.585393865E+04	0.26	41,915,265	2.665127579E+14	0.39
	184-366 m	31	2.405633477E+02	0.51	664,117	1.180638964E+11	0.52
	367-500 m	0	-	-	0	-	-
	55-366 m	1,221	9.609450199E+04	0.25	42,579,382	2.666308218E+14	0.38
	55-500 m	1,221	9.609450199E+04	0.25	42,579,382	2.666308218E+14	0.38
Columbia							
	55-183 m	51	1.369791366E+02	0.23	1,405,882	1.836539865E+11	0.30
	184-366 m	8	3.372324038E+01	0.72	146,836	1.299713613E+10	0.78
	367-500 m	0	-	-	0	-	-
	55-366 m	59	1.707023770E+02	0.22	1,552,718	1.966511226E+11	0.29
	55-500 m	59	1.707023770E+02	0.22	1,552,718	1.966511226E+11	0.29
Eureka							
	55-183 m	1	1.620127493E-01	0.58	16,787	1.370548497E+08	0.70
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	1	1.620127493E-01	0.58	16,787	1.370548497E+08	0.70
	55-500 m	1	1.620127493E-01	0.58	16,787	1.370548497E+08	0.70
Monterey							
	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	-	-
Conception							
	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	-	-
US Total							
	55-183 m	115	3.514970210E+02	0.16	3,425,445	6.784712323E+11	0.24
	184-366 m	30	2.003777121E+02	0.47	619,740	9.446397181E+10	0.50
	367-500 m	0	-	-	0	-	-
	55-366 m	145	5.518747331E+02	0.16	4,045,185	7.729352041E+11	0.22
	55-500 m	145	5.518747331E+02	0.16	4,045,185	7.729352041E+11	0.22
Total							
	55-183 m	1,243	9.601782949E+04	0.25	43,337,934	2.667095762E+14	0.38
	184-366 m	39	2.742865881E+02	0.43	810,953	1.310610326E+11	0.45
	367-500 m	0	-	-	0	-	-
	55-366 m	1,281	9.629211608E+04	0.24	44,148,887	2.668406372E+14	0.37
	55-500 m	1,281	9.629211608E+04	0.24	44,148,887	2.668406372E+14	0.37

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Greenstriped Rockfish**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	1,329	2.890937023E+05	0.40	4,150,250	2.955917258E+12	0.41
	184-366 m	177	4.195874276E+03	0.37	659,012	6.024861289E+10	0.37
	367-500 m	0	-	-	0	-	-
	55-366 m	1,506	2.932895766E+05	0.36	4,809,263	3.016165871E+12	0.36
	55-500 m	1,506	2.932895766E+05	0.36	4,809,263	3.016165871E+12	0.36
US Vancouver							
	55-183 m	811	2.361570247E+05	0.60	3,117,450	3.539973301E+12	0.60
	184-366 m	152	4.215743198E+03	0.43	603,064	7.511232270E+10	0.45
	367-500 m	0	7.450204739E-02	1.00	1,365	1.862551185E+06	1.00
	55-366 m	963	2.403727679E+05	0.51	3,720,514	3.615085624E+12	0.51
	55-500 m	963	2.403728424E+05	0.51	3,721,879	3.615087487E+12	0.51
Total Vancouver							
	55-183 m	2,140	5.816245179E+05	0.36	7,267,701	7.182544046E+12	0.37
	184-366 m	328	1.146230456E+04	0.33	1,262,076	1.829223216E+11	0.34
	367-500 m	0	7.450204739E-02	1.00	1,365	1.862551185E+06	1.00
	55-366 m	2,468	5.930868224E+05	0.31	8,529,777	7.365466367E+12	0.32
	55-500 m	2,469	5.930868969E+05	0.31	8,531,142	7.365468230E+12	0.32
Columbia							
	55-183 m	2,086	5.274618448E+05	0.35	8,393,596	1.012160230E+13	0.38
	184-366 m	605	2.811417945E+04	0.28	2,395,036	4.362700273E+11	0.28
	367-500 m	1	3.385778663E-01	1.00	2,909	8.464446658E+06	1.00
	55-366 m	2,690	5.555760242E+05	0.28	10,788,632	1.055787232E+13	0.30
	55-500 m	2,691	5.555763628E+05	0.28	10,791,541	1.055788079E+13	0.30
Eureka							
	55-183 m	94	2.041873869E+03	0.48	1,381,137	2.775734942E+11	0.38
	184-366 m	50	3.995566100E+02	0.40	169,603	3.957041815E+09	0.37
	367-500 m	0	-	-	0	-	-
	55-366 m	143	2.441430479E+03	0.34	1,550,741	2.815305360E+11	0.34
	55-500 m	143	2.441430479E+03	0.34	1,550,741	2.815305360E+11	0.34
Monterey							
	55-183 m	1,091	1.394058936E+05	0.34	5,951,381	3.334048695E+12	0.31
	184-366 m	86	2.385960822E+03	0.57	663,403	2.081223219E+11	0.69
	367-500 m	2	2.294210412E+00	1.00	11,360	1.290493357E+08	1.00
	55-366 m	1,177	1.417918544E+05	0.32	6,614,784	3.542171017E+12	0.28
	55-500 m	1,178	1.417941486E+05	0.32	6,626,144	3.542300066E+12	0.28
Conception							
	55-183 m	3	8.785403664E+00	1.00	25,080	6.290141085E+08	1.00
	184-366 m	5	1.280821128E+01	0.71	24,146	3.608623726E+08	0.79
	367-500 m	0	-	-	0	-	-
	55-366 m	8	2.159361494E+01	0.58	49,226	9.898764811E+08	0.64
	55-500 m	8	2.159361494E+01	0.58	49,226	9.898764811E+08	0.64
US Total							
	55-183 m	4,084	1.096751829E+06	0.26	18,868,645	2.177767970E+13	0.25
	184-366 m	897	4.086501485E+04	0.23	3,855,252	7.882933735E+11	0.23
	367-500 m	2	3.024936318E+00	0.73	15,634	1.473174833E+08	0.78
	55-366 m	4,981	1.137616844E+06	0.21	22,723,897	2.256597307E+13	0.21
	55-500 m	4,984	1.137619869E+06	0.21	22,739,531	2.256612039E+13	0.21
Total							
	55-183 m	5,414	1.442219322E+06	0.22	23,018,895	2.542025044E+13	0.22
	184-366 m	1,073	4.811157622E+04	0.20	4,514,264	8.961033724E+11	0.21
	367-500 m	2	3.024936318E+00	0.73	15,634	1.473174833E+08	0.78
	55-366 m	6,487	1.490330899E+06	0.19	27,533,160	2.631635381E+13	0.19
	55-500 m	6,489	1.490333923E+06	0.19	27,548,794	2.631650113E+13	0.19

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Jack Mackerel**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	0	4.720992322E-02	1.00	310	9.634678208E+04	1.00
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	4.720992322E-02	1.00	310	9.634678208E+04	1.00
	55-500 m	0	4.720992322E-02	1.00	310	9.634678208E+04	1.00
US Vancouver							
	55-183 m	203	3.619460366E+04	0.94	180,151	2.749325808E+10	0.92
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	203	3.619460366E+04	0.94	180,151	2.749325808E+10	0.92
	55-500 m	203	3.619460366E+04	0.94	180,151	2.749325808E+10	0.92
Total Vancouver							
	55-183 m	204	3.619590828E+04	0.93	180,462	2.749592056E+10	0.92
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	204	3.619590828E+04	0.93	180,462	2.749592056E+10	0.92
	55-500 m	204	3.619590828E+04	0.93	180,462	2.749592056E+10	0.92
Columbia							
	55-183 m	13,991	9.458870613E+07	0.70	14,747,390	1.055814389E+14	0.70
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	13,991	9.458870613E+07	0.70	14,747,390	1.055814389E+14	0.70
	55-500 m	13,991	9.458870613E+07	0.70	14,747,390	1.055814389E+14	0.70
Eureka							
	55-183 m	939	1.437509350E+05	0.40	1,304,604	3.898461193E+11	0.48
	184-366 m	0	-	-	0	-	-
	367-500 m	2	2.955323130E+00	1.00	1,228	1.507817924E+06	1.00
	55-366 m	939	1.437509350E+05	0.40	1,304,604	3.898461193E+11	0.48
	55-500 m	941	1.437538903E+05	0.40	1,305,832	3.898476271E+11	0.48
Monterey							
	55-183 m	10,926	8.560667815E+07	0.85	21,428,946	2.413778477E+14	0.73
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	10,926	8.560667815E+07	0.85	21,428,946	2.413778477E+14	0.73
	55-500 m	10,926	8.560667815E+07	0.85	21,428,946	2.413778477E+14	0.73
Conception							
	55-183 m	217	4.662601730E+04	1.00	4,223,721	1.779072856E+13	1.00
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	217	4.662601730E+04	1.00	4,223,721	1.779072856E+13	1.00
	55-500 m	217	4.662601730E+04	1.00	4,223,721	1.779072856E+13	1.00
US Total							
	55-183 m	26,276	1.809665005E+08	0.51	41,884,812	4.827857382E+14	0.52
	184-366 m	0	-	-	0	-	-
	367-500 m	2	2.955323130E+00	1.00	1,228	1.507817924E+06	1.00
	55-366 m	26,276	1.809665005E+08	0.51	41,884,812	4.827857382E+14	0.52
	55-500 m	26,278	1.809665034E+08	0.51	41,886,040	4.827857397E+14	0.52
Total							
	55-183 m	26,276	1.809665018E+08	0.51	41,885,122	4.827857409E+14	0.52
	184-366 m	0	-	-	0	-	-
	367-500 m	2	2.955323130E+00	1.00	1,228	1.507817924E+06	1.00
	55-366 m	26,276	1.809665018E+08	0.51	41,885,122	4.827857409E+14	0.52
	55-500 m	26,278	1.809665047E+08	0.51	41,886,350	4.827857424E+14	0.52

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Lingcod**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver	55-183 m	3,243	1.022726389E+06	0.31	1,500,718	1.558226808E+11	0.26
	184-366 m	114	5.701123356E+03	0.67	20,193	1.820974383E+08	0.67
	367-500 m	0	-	-	0	-	-
	55-366 m	3,356	1.028427512E+06	0.30	1,520,911	1.560047782E+11	0.26
	55-500 m	3,356	1.028427512E+06	0.30	1,520,911	1.560047782E+11	0.26
US Vancouver	55-183 m	478	2.179092968E+04	0.31	219,589	3.671366806E+09	0.28
	184-366 m	74	7.745700831E+02	0.38	17,897	3.269109103E+07	0.32
	367-500 m	0	-	-	0	-	-
	55-366 m	552	2.256549977E+04	0.27	237,486	3.704057897E+09	0.26
	55-500 m	552	2.256549977E+04	0.27	237,486	3.704057897E+09	0.26
Total Vancouver	55-183 m	3,721	1.137433130E+06	0.29	1,720,308	1.736495374E+11	0.24
	184-366 m	187	9.797701730E+03	0.53	38,090	3.211882174E+08	0.47
	367-500 m	0	-	-	0	-	-
	55-366 m	3,909	1.147230832E+06	0.27	1,758,397	1.739707256E+11	0.24
	55-500 m	3,909	1.147230832E+06	0.27	1,758,397	1.739707256E+11	0.24
Columbia	55-183 m	1,164	6.067635819E+04	0.21	742,255	2.106359292E+10	0.20
	184-366 m	156	2.021095522E+03	0.29	60,373	2.628160248E+08	0.27
	367-500 m	0	-	-	0	-	-
	55-366 m	1,320	6.269745371E+04	0.19	802,628	2.132640895E+10	0.18
	55-500 m	1,320	6.269745371E+04	0.19	802,628	2.132640895E+10	0.18
Eureka	55-183 m	128	1.175749286E+03	0.27	96,520	6.362550628E+08	0.26
	184-366 m	51	8.567023747E+02	0.58	18,021	9.131331988E+07	0.53
	367-500 m	0	-	-	0	-	-
	55-366 m	179	2.032451661E+03	0.25	114,541	7.275683826E+08	0.24
	55-500 m	179	2.032451661E+03	0.25	114,541	7.275683826E+08	0.24
Monterey	55-183 m	300	4.082718241E+03	0.21	546,072	1.964483083E+10	0.26
	184-366 m	402	5.496026655E+04	0.58	104,326	4.577698115E+09	0.65
	367-500 m	0	-	-	0	-	-
	55-366 m	703	5.904298479E+04	0.35	650,398	2.422252895E+10	0.24
	55-500 m	703	5.904298479E+04	0.35	650,398	2.422252895E+10	0.24
Conception	55-183 m	30	1.138589693E+02	0.35	110,178	1.429636806E+09	0.34
	184-366 m	12	5.894878931E+01	0.63	8,914	2.087024565E+07	0.51
	367-500 m	0	-	-	0	-	-
	55-366 m	42	1.728077586E+02	0.31	119,093	1.450507051E+09	0.32
	55-500 m	42	1.728077586E+02	0.31	119,093	1.450507051E+09	0.32
US Total	55-183 m	2,101	9.821438928E+04	0.15	1,714,614	5.091105897E+10	0.13
	184-366 m	695	5.899009232E+04	0.35	209,531	5.069142179E+09	0.34
	367-500 m	0	-	-	0	-	-
	55-366 m	2,796	1.572044816E+05	0.14	1,924,146	5.598020115E+10	0.12
	55-500 m	2,796	1.572044816E+05	0.14	1,924,146	5.598020115E+10	0.12
Total	55-183 m	5,344	1.213856590E+06	0.21	3,215,333	2.208892295E+11	0.15
	184-366 m	808	6.801322396E+04	0.32	229,724	5.357639306E+09	0.32
	367-500 m	0	-	-	0	-	-
	55-366 m	6,152	1.281869814E+06	0.18	3,445,057	2.262468689E+11	0.14
	55-500 m	6,152	1.281869814E+06	0.18	3,445,057	2.262468689E+11	0.14

1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Longspine Thornyhead

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	3	8.010329078E+00	1.00	87,578	7.669840188E+09	1.00
	55-366 m	0	-	-	0	-	-
	55-500 m	3	8.010329078E+00	1.00	87,578	7.669840188E+09	1.00
US Vancouver							
	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	11	6.896489192E+01	0.75	301,690	5.799705233E+10	0.80
	55-366 m	0	-	-	0	-	-
	55-500 m	11	6.896489192E+01	0.75	301,690	5.799705233E+10	0.80
Total Vancouver							
	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	14	1.190248104E+02	0.78	389,268	1.059291124E+11	0.84
	55-366 m	0	-	-	0	-	-
	55-500 m	14	1.190248104E+02	0.78	389,268	1.059291124E+11	0.84
Columbia							
	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	265	1.748988748E+04	0.50	4,633,560	4.163381400E+12	0.44
	55-366 m	0	-	-	0	-	-
	55-500 m	265	1.748988748E+04	0.50	4,633,560	4.163381400E+12	0.44
Eureka							
	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	1	5.329445045E-01	0.62	16,566	9.990208217E+07	0.60
	55-366 m	0	-	-	0	-	-
	55-500 m	1	5.329445045E-01	0.62	16,566	9.990208217E+07	0.60
Monterey							
	55-183 m	2	1.332815380E+00	0.77	19,187	1.813887794E+08	0.70
	184-366 m	0	-	-	0	-	-
	367-500 m	98	4.040682537E+03	0.65	1,364,988	8.299047113E+11	0.67
	55-366 m	2	1.332815380E+00	0.77	19,187	1.813887794E+08	0.70
	55-500 m	100	4.042015353E+03	0.64	1,384,175	8.300861001E+11	0.66
Conception							
	55-183 m	0	-	-	0	-	-
	184-366 m	0	-	-	0	-	-
	367-500 m	151	3.024034700E+03	0.36	1,461,081	4.226432027E+11	0.44
	55-366 m	0	-	-	0	-	-
	55-500 m	151	3.024034700E+03	0.36	1,461,081	4.226432027E+11	0.44
US Total							
	55-183 m	2	1.332815380E+00	0.77	19,187	1.813887794E+08	0.70
	184-366 m	0	-	-	0	-	-
	367-500 m	527	2.468285860E+04	0.30	7,777,884	5.496020909E+12	0.30
	55-366 m	2	1.332815380E+00	0.77	19,187	1.813887794E+08	0.70
	55-500 m	528	2.468419142E+04	0.30	7,797,072	5.496202298E+12	0.30
Total							
	55-183 m	2	1.332815380E+00	0.77	19,187	1.813887794E+08	0.70
	184-366 m	0	-	-	0	-	-
	367-500 m	530	2.473291852E+04	0.30	7,865,462	5.543952969E+12	0.30
	55-366 m	2	1.332815380E+00	0.77	19,187	1.813887794E+08	0.70
	55-500 m	531	2.473425133E+04	0.30	7,884,649	5.544134358E+12	0.30

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Northern Anchovy**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	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	-	-
US Vancouver							
	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	-	-
Total Vancouver							
	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	-	-
Columbia							
	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	-	-
Eureka							
	55-183 m	1	2.105200577E-01	0.59	9,229	2.699335022E+07	0.56
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	1	2.105200577E-01	0.59	9,229	2.699335022E+07	0.56
	55-500 m	1	2.105200577E-01	0.59	9,229	2.699335022E+07	0.56
Monterey							
	55-183 m	9	3.636552455E+01	0.64	565,349	2.457303201E+11	0.88
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	9	3.636552455E+01	0.64	565,349	2.457303201E+11	0.88
	55-500 m	9	3.636552455E+01	0.64	565,349	2.457303201E+11	0.88
Conception							
	55-183 m	720	5.182465332E+05	1.00	37,888,170	1.435513438E+15	1.00
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	720	5.182465332E+05	1.00	37,888,170	1.435513438E+15	1.00
	55-500 m	720	5.182465332E+05	1.00	37,888,170	1.435513438E+15	1.00
US Total							
	55-183 m	730	5.182831092E+05	0.99	38,462,748	1.435759196E+15	0.99
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	730	5.182831092E+05	0.99	38,462,748	1.435759196E+15	0.99
	55-500 m	730	5.182831092E+05	0.99	38,462,748	1.435759196E+15	0.99
Total							
	55-183 m	730	5.182831092E+05	0.99	38,462,748	1.435759196E+15	0.99
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	730	5.182831092E+05	0.99	38,462,748	1.435759196E+15	0.99
	55-500 m	730	5.182831092E+05	0.99	38,462,748	1.435759196E+15	0.99

1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Pacific Hake (whiting)

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	34,138	1.019338550E+08	0.30	119,011,076	2.230746054E+15	0.40
	184-366 m	296	1.844283008E+04	0.46	839,841	2.264837541E+11	0.57
	367-500 m	405	7.886447979E+03	0.22	568,289	1.582119826E+10	0.22
	55-366 m	34,434	1.019522978E+08	0.29	119,850,918	2.230972538E+15	0.39
	55-500 m	34,839	1.019601842E+08	0.29	120,419,207	2.230988359E+15	0.39
US Vancouver							
	55-183 m	85,817	1.032709464E+09	0.37	159,250,267	2.217631615E+15	0.30
	184-366 m	638	3.988003440E+04	0.31	1,119,423	1.035200065E+11	0.29
	367-500 m	112	6.937117416E+02	0.23	154,708	1.546161756E+09	0.25
	55-366 m	86,456	1.032749344E+09	0.37	160,369,689	2.217735135E+15	0.29
	55-500 m	86,568	1.032750037E+09	0.37	160,524,397	2.217736681E+15	0.29
Total Vancouver							
	55-183 m	119,955	1.296168093E+09	0.30	278,261,343	4.928137518E+15	0.25
	184-366 m	934	7.697151028E+04	0.30	1,959,264	4.774456361E+11	0.35
	367-500 m	517	9.009721726E+03	0.18	722,997	1.851233781E+10	0.19
	55-366 m	120,889	1.296245065E+09	0.30	280,220,607	4.928614963E+15	0.25
	55-500 m	121,406	1.296254074E+09	0.30	280,943,604	4.928633476E+15	0.25
Columbia							
	55-183 m	276,613	1.292073154E+09	0.13	789,796,186	1.355349654E+16	0.15
	184-366 m	5,663	6.818601758E+05	0.15	15,891,593	1.155636127E+13	0.21
	367-500 m	1,845	3.011293409E+04	0.09	3,047,887	8.024598640E+10	0.09
	55-366 m	282,276	1.292755014E+09	0.13	805,687,779	1.356505290E+16	0.14
	55-500 m	284,121	1.292785127E+09	0.13	808,735,667	1.356513315E+16	0.14
Eureka							
	55-183 m	12,662	2.914043956E+07	0.43	19,570,358	7.179710616E+13	0.43
	184-366 m	5,530	2.846753787E+06	0.31	18,419,961	9.383799886E+13	0.53
	367-500 m	1,094	9.160644173E+04	0.28	1,409,100	1.097960921E+11	0.24
	55-366 m	18,192	3.198719335E+07	0.31	37,990,319	1.656351050E+14	0.34
	55-500 m	19,286	3.207879979E+07	0.29	39,399,419	1.657449011E+14	0.33
Monterey							
	55-183 m	140,278	8.608854165E+08	0.21	343,473,560	3.770888255E+15	0.18
	184-366 m	10,927	4.513478330E+06	0.19	26,916,955	2.691603682E+13	0.19
	367-500 m	844	2.696021693E+04	0.19	1,568,457	8.038050048E+10	0.18
	55-366 m	151,205	8.653988948E+08	0.19	370,390,514	3.797804291E+15	0.17
	55-500 m	152,049	8.654258550E+08	0.19	371,958,971	3.797884672E+15	0.17
Conception							
	55-183 m	73	4.427488231E+03	0.91	1,340,211	1.622067990E+12	0.95
	184-366 m	4,860	7.544626197E+06	0.57	19,075,790	4.080402748E+13	0.33
	367-500 m	1,461	8.777835209E+04	0.20	3,796,923	1.028062994E+12	0.27
	55-366 m	4,933	7.549053685E+06	0.56	20,416,001	4.242609548E+13	0.32
	55-500 m	6,394	7.636832037E+06	0.43	24,212,923	4.345415847E+13	0.27
US Total							
	55-183 m	515,442	3.302986459E+09	0.11	1,313,430,575	2.172479011E+16	0.11
	184-366 m	27,619	1.563270107E+07	0.14	81,423,722	1.732498662E+14	0.16
	367-500 m	5,357	2.645623698E+05	0.10	9,977,075	1.376345935E+12	0.12
	55-366 m	543,062	3.318619160E+09	0.11	1,394,854,297	2.189803998E+16	0.11
	55-500 m	548,418	3.318883722E+09	0.11	1,404,831,372	2.189941632E+16	0.11
Total							
	55-183 m	549,580	3.566445088E+09	0.11	1,432,441,651	2.443529602E+16	0.11
	184-366 m	27,915	1.566979255E+07	0.14	82,263,564	1.736237918E+14	0.16
	367-500 m	5,761	2.728783798E+05	0.09	10,545,364	1.393312111E+12	0.11
	55-366 m	577,495	3.582114881E+09	0.10	1,514,705,215	2.460891981E+16	0.10
	55-500 m	583,257	3.582387759E+09	0.10	1,525,250,579	2.461031312E+16	0.10

1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Pacific Halibut

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	1,896	1.049990151E+05	0.17	287,364	3.533769469E+09	0.21
	184-366 m	413	1.097834833E+04	0.25	51,982	2.043772742E+08	0.28
	367-500 m	273	1.092246299E+04	0.38	29,552	1.279111838E+08	0.38
	55-366 m	2,308	1.159773634E+05	0.15	339,345	3.738146743E+09	0.18
	55-500 m	2,581	1.268998264E+05	0.14	368,898	3.866057927E+09	0.17
US Vancouver							
	55-183 m	2,725	3.304747669E+06	0.67	744,571	3.177189963E+11	0.76
	184-366 m	315	1.109062379E+04	0.33	37,065	1.398604013E+08	0.32
	367-500 m	0	-	-	0	-	-
	55-366 m	3,041	3.315838293E+06	0.60	781,636	3.178588567E+11	0.72
	55-500 m	3,041	3.315838293E+06	0.60	781,636	3.178588567E+11	0.72
Total Vancouver							
	55-183 m	4,621	3.913562003E+06	0.43	1,031,935	3.691192501E+11	0.59
	184-366 m	728	3.030493660E+04	0.24	89,046	4.828780467E+08	0.25
	367-500 m	273	1.092246299E+04	0.38	29,552	1.279111838E+08	0.38
	55-366 m	5,349	3.943866940E+06	0.37	1,120,981	3.696021281E+11	0.54
	55-500 m	5,622	3.954789403E+06	0.35	1,150,534	3.697300393E+11	0.53
Columbia							
	55-183 m	3,054	5.700270797E+05	0.25	486,445	1.436997114E+10	0.25
	184-366 m	872	9.773599106E+04	0.36	61,270	4.762533602E+08	0.36
	367-500 m	71	5.006867525E+03	1.00	3,103	9.631554950E+06	1.00
	55-366 m	3,926	6.677630707E+05	0.21	547,715	1.484622450E+10	0.22
	55-500 m	3,997	6.727699382E+05	0.21	550,818	1.485585606E+10	0.22
Eureka							
	55-183 m	743	8.545434319E+04	0.39	78,312	5.284610343E+08	0.29
	184-366 m	244	2.088796234E+04	0.59	20,541	1.072537896E+08	0.50
	367-500 m	0	-	-	0	-	-
	55-366 m	987	1.063423055E+05	0.33	98,853	6.357148239E+08	0.26
	55-500 m	987	1.063423055E+05	0.33	98,853	6.357148239E+08	0.26
Monterey							
	55-183 m	249	1.040945742E+04	0.41	33,300	1.755723567E+08	0.40
	184-366 m	6	3.679401529E+01	1.00	2,092	4.375031544E+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	255	1.044625143E+04	0.40	35,392	1.799473883E+08	0.38
	55-500 m	255	1.044625143E+04	0.40	35,392	1.799473883E+08	0.38
Conception							
	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	-	-
US Total							
	55-183 m	6,770	3.974553694E+06	0.29	1,342,628	3.328962217E+11	0.43
	184-366 m	1,438	1.373181013E+05	0.26	120,967	8.781909071E+08	0.24
	367-500 m	71	5.006867525E+03	1.00	3,103	9.631554950E+06	1.00
	55-366 m	8,208	4.111871796E+06	0.25	1,463,595	3.337744126E+11	0.39
	55-500 m	8,279	4.116878663E+06	0.25	1,466,698	3.337840442E+11	0.39
Total							
	55-183 m	8,666	4.583368028E+06	0.25	1,629,992	3.842964755E+11	0.38
	184-366 m	1,850	1.565324141E+05	0.21	172,949	1.221208553E+09	0.20
	367-500 m	344	1.592933051E+04	0.37	32,656	1.375427388E+08	0.36
	55-366 m	10,516	4.739900442E+06	0.21	1,802,940	3.855176840E+11	0.34
	55-500 m	10,860	4.755829773E+06	0.20	1,835,596	3.856552268E+11	0.34

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Pacific Herring**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver	55-183 m	1,484	2.476585902E+05	0.34	26,749,025	6.284902020E+13	0.30
	184-366 m	2	1.247584616E+00	0.61	49,839	1.585548212E+09	0.80
	367-500 m	2	3.869028571E+00	1.00	26,823	7.194474615E+08	1.00
	55-366 m	1,486	2.476598378E+05	0.33	26,798,864	6.285060574E+13	0.30
	55-500 m	1,488	2.476637068E+05	0.33	26,825,686	6.285132519E+13	0.30
US Vancouver	55-183 m	1,650	7.734366720E+05	0.53	27,060,776	2.665462300E+14	0.60
	184-366 m	1	2.752469343E-01	0.57	18,294	1.471853038E+08	0.66
	367-500 m	0	-	-	0	-	-
	55-366 m	1,651	7.734369473E+05	0.53	27,079,069	2.665463772E+14	0.60
	55-500 m	1,651	7.734369473E+05	0.53	27,079,069	2.665463772E+14	0.60
Total Vancouver	55-183 m	3,134	1.158285864E+06	0.34	53,809,800	3.747516038E+14	0.36
	184-366 m	3	2.274305362E+00	0.55	68,133	2.644060287E+09	0.75
	367-500 m	2	3.869028571E+00	1.00	26,823	7.194474615E+08	1.00
	55-366 m	3,137	1.158288138E+06	0.34	53,877,933	3.747542478E+14	0.36
	55-500 m	3,139	1.158292007E+06	0.34	53,904,756	3.747549673E+14	0.36
Columbia	55-183 m	1,275	1.201130078E+05	0.27	17,456,437	4.216644868E+13	0.37
	184-366 m	1	5.976715463E-01	1.00	5,154	2.656317984E+07	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	1,276	1.201136055E+05	0.27	17,461,591	4.216647525E+13	0.37
	55-500 m	1,276	1.201136055E+05	0.27	17,461,591	4.216647525E+13	0.37
Eureka	55-183 m	4,211	6.569749741E+06	0.61	53,425,352	1.113647905E+15	0.62
	184-366 m	3	1.039216197E+01	0.95	23,053	4.617011842E+08	0.93
	367-500 m	0	-	-	0	-	-
	55-366 m	4,215	6.569760133E+06	0.61	53,448,405	1.113648367E+15	0.62
	55-500 m	4,215	6.569760133E+06	0.61	53,448,405	1.113648367E+15	0.62
Monterey	55-183 m	560	9.150592032E+04	0.54	8,044,694	1.838945793E+13	0.53
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	560	9.150592032E+04	0.54	8,044,694	1.838945793E+13	0.53
	55-500 m	560	9.150592032E+04	0.54	8,044,694	1.838945793E+13	0.53
Conception	55-183 m	22	3.685877077E+02	0.89	197,631	2.829933958E+10	0.85
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	22	3.685877077E+02	0.89	197,631	2.829933958E+10	0.85
	55-500 m	22	3.685877077E+02	0.89	197,631	2.829933958E+10	0.85
US Total	55-183 m	7,718	7.570497715E+06	0.36	106,184,888	1.443669634E+15	0.36
	184-366 m	5	1.126508045E+01	0.66	46,501	6.354496678E+08	0.54
	367-500 m	0	-	-	0	-	-
	55-366 m	7,723	7.570508980E+06	0.36	106,231,389	1.443670270E+15	0.36
	55-500 m	7,723	7.570508980E+06	0.36	106,231,389	1.443670270E+15	0.36
Total	55-183 m	9,202	7.955346907E+06	0.31	132,933,913	1.551875008E+15	0.30
	184-366 m	7	1.326413888E+01	0.53	96,340	3.132324651E+09	0.58
	367-500 m	2	3.869028571E+00	1.00	26,823	7.194474615E+08	1.00
	55-366 m	9,209	7.955360171E+06	0.31	133,030,253	1.551878140E+15	0.30
	55-500 m	9,211	7.955364040E+06	0.31	133,057,076	1.551878860E+15	0.30

1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Pacific Ocean Perch

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	68	1.946240773E+03	0.65	742,536	9.588543589E+10	0.42
	184-366 m	1,579	4.812381562E+05	0.44	2,185,145	7.501508694E+11	0.40
	367-500 m	561	4.321557333E+04	0.37	661,824	5.129345934E+10	0.34
	55-366 m	1,647	4.831843969E+05	0.42	2,927,683	8.460363053E+11	0.31
	55-500 m	2,208	5.263999703E+05	0.33	3,589,507	8.973297646E+11	0.26
US Vancouver							
	55-183 m	22	1.447752737E+02	0.55	237,571	1.736916600E+10	0.55
	184-366 m	3,432	5.026705207E+06	0.65	3,850,998	4.791981241E+12	0.57
	367-500 m	101	1.117307991E+03	0.33	129,522	1.800144271E+09	0.33
	55-366 m	3,454	5.026849982E+06	0.65	4,088,568	4.809350407E+12	0.54
	55-500 m	3,555	5.027967290E+06	0.63	4,218,090	4.811150552E+12	0.52
Total Vancouver							
	55-183 m	90	2.283730976E+03	0.53	980,109	1.242727498E+11	0.36
	184-366 m	5,011	6.859423199E+06	0.52	6,036,143	6.992094079E+12	0.44
	367-500 m	662	4.491382673E+04	0.32	791,346	5.403452770E+10	0.29
	55-366 m	5,101	6.861706930E+06	0.51	7,016,252	7.116366828E+12	0.38
	55-500 m	5,763	6.906620757E+06	0.46	7,807,597	7.170401356E+12	0.34
Columbia							
	55-183 m	4	3.858115061E+00	0.51	47,419	7.208931085E+08	0.57
	184-366 m	314	2.372442114E+04	0.49	901,021	2.651341562E+11	0.57
	367-500 m	443	2.086705884E+04	0.33	538,287	2.810086354E+10	0.31
	55-366 m	318	2.372827926E+04	0.48	948,439	2.658550493E+11	0.54
	55-500 m	761	4.459533810E+04	0.28	1,486,726	2.939559128E+11	0.36
Eureka							
	55-183 m	0	-	-	0	-	-
	184-366 m	273	1.384861938E+04	0.43	405,861	2.719551753E+10	0.41
	367-500 m	2	1.141234488E+00	0.54	3,903	4.248806100E+06	0.53
	55-366 m	273	1.384861938E+04	0.43	405,861	2.719551753E+10	0.41
	55-500 m	275	1.384976062E+04	0.43	409,764	2.719976633E+10	0.40
Monterey							
	55-183 m	10	9.127915520E+01	1.00	8,623	7.435190345E+07	1.00
	184-366 m	3	3.379318985E+00	0.68	4,153	7.962510840E+06	0.68
	367-500 m	0	-	-	0	-	-
	55-366 m	12	9.465847418E+01	0.79	12,776	8.231441429E+07	0.71
	55-500 m	12	9.465847418E+01	0.79	12,776	8.231441429E+07	0.71
Conception							
	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	-	-
US Total							
	55-183 m	35	2.406760612E+02	0.44	293,612	1.857825660E+10	0.46
	184-366 m	4,022	5.064742621E+06	0.56	5,162,033	5.086389346E+12	0.44
	367-500 m	546	2.349866056E+04	0.28	671,712	3.231553764E+10	0.27
	55-366 m	4,057	5.064983297E+06	0.55	5,455,645	5.104967603E+12	0.41
	55-500 m	4,603	5.088481958E+06	0.49	6,127,357	5.137283140E+12	0.37
Total							
	55-183 m	103	2.379631764E+03	0.47	1,036,151	1.254818404E+11	0.34
	184-366 m	5,601	6.897460613E+06	0.47	7,347,177	7.286502183E+12	0.37
	367-500 m	1,108	6.729517930E+04	0.23	1,333,536	8.454992107E+10	0.22
	55-366 m	5,704	6.899840245E+06	0.46	8,383,328	7.411984024E+12	0.32
	55-500 m	6,812	6.967135424E+06	0.39	9,716,864	7.496533945E+12	0.28

1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Pacific Sanddab

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	3,726	1.124213306E+06	0.28	35,190,817	8.484440674E+13	0.26
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	3,726	1.124213306E+06	0.28	35,190,817	8.484440674E+13	0.26
	55-500 m	3,726	1.124213306E+06	0.28	35,190,817	8.484440674E+13	0.26
US Vancouver							
	55-183 m	2,430	6.620978541E+05	0.33	18,309,739	3.296501503E+13	0.31
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	2,430	6.620978541E+05	0.33	18,309,739	3.296501503E+13	0.31
	55-500 m	2,430	6.620978541E+05	0.33	18,309,739	3.296501503E+13	0.31
Total Vancouver							
	55-183 m	6,156	1.956654756E+06	0.23	53,500,556	1.289860705E+14	0.21
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	6,156	1.956654756E+06	0.23	53,500,556	1.289860705E+14	0.21
	55-500 m	6,156	1.956654756E+06	0.23	53,500,556	1.289860705E+14	0.21
Columbia							
	55-183 m	26,950	3.325379593E+07	0.21	192,738,630	1.216363210E+15	0.18
	184-366 m	0	4.351531656E-02	1.00	2,086	4.351531656E+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	26,951	3.325379597E+07	0.21	192,740,716	1.216363214E+15	0.18
	55-500 m	26,951	3.325379597E+07	0.21	192,740,716	1.216363214E+15	0.18
Eureka							
	55-183 m	2,810	9.322462065E+05	0.34	28,685,708	8.815338270E+13	0.33
	184-366 m	1	1.074813679E+00	1.00	5,924	3.509595687E+07	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	2,811	9.322472813E+05	0.34	28,691,632	8.815341780E+13	0.33
	55-500 m	2,811	9.322472813E+05	0.34	28,691,632	8.815341780E+13	0.33
Monterey							
	55-183 m	11,347	2.828309578E+06	0.15	104,291,844	1.809172786E+14	0.13
	184-366 m	69	4.551975632E+03	0.98	633,335	3.941714706E+11	0.99
	367-500 m	0	-	-	0	-	-
	55-366 m	11,416	2.832861554E+06	0.15	104,925,180	1.813114500E+14	0.13
	55-500 m	11,416	2.832861554E+06	0.15	104,925,180	1.813114500E+14	0.13
Conception							
	55-183 m	2,152	1.495121756E+06	0.57	20,833,129	5.335549624E+13	0.35
	184-366 m	37	1.400369243E+03	1.00	348,261	1.212860384E+11	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	2,189	1.496522126E+06	0.56	21,181,391	5.347678228E+13	0.35
	55-500 m	2,189	1.496522126E+06	0.56	21,181,391	5.347678228E+13	0.35
US Total							
	55-183 m	45,689	4.053072247E+07	0.14	364,859,050	1.640116809E+15	0.11
	184-366 m	107	1.100232580E+04	0.98	989,607	9.527791560E+11	0.99
	367-500 m	0	-	-	0	-	-
	55-366 m	45,796	4.054172480E+07	0.14	365,848,657	1.641069588E+15	0.11
	55-500 m	45,796	4.054172480E+07	0.14	365,848,657	1.641069588E+15	0.11
Total							
	55-183 m	49,415	4.182527937E+07	0.13	400,049,867	1.736137864E+15	0.10
	184-366 m	107	1.100232580E+04	0.98	989,607	9.527791560E+11	0.99
	367-500 m	0	-	-	0	-	-
	55-366 m	49,522	4.183628170E+07	0.13	401,039,474	1.737090643E+15	0.10
	55-500 m	49,522	4.183628170E+07	0.13	401,039,474	1.737090643E+15	0.10

1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Pacific Sardine

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	28	2.669191129E+02	0.57	133,257	5.432213010E+09	0.55
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	28	2.669191129E+02	0.57	133,257	5.432213010E+09	0.55
	55-500 m	28	2.669191129E+02	0.57	133,257	5.432213010E+09	0.55
US Vancouver							
	55-183 m	21	2.042266988E+02	0.67	121,577	6.305549299E+09	0.65
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	21	2.042266988E+02	0.67	121,577	6.305549299E+09	0.65
	55-500 m	21	2.042266988E+02	0.67	121,577	6.305549299E+09	0.65
Total Vancouver							
	55-183 m	50	4.947340141E+02	0.45	254,834	1.221935580E+10	0.43
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	50	4.947340141E+02	0.45	254,834	1.221935580E+10	0.43
	55-500 m	50	4.947340141E+02	0.45	254,834	1.221935580E+10	0.43
Columbia							
	55-183 m	89	2.281834439E+03	0.54	626,121	7.939893387E+10	0.45
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	89	2.281834439E+03	0.54	626,121	7.939893387E+10	0.45
	55-500 m	89	2.281834439E+03	0.54	626,121	7.939893387E+10	0.45
Eureka							
	55-183 m	31	1.896664079E+02	0.45	556,105	6.016664643E+10	0.44
	184-366 m	17	1.868773930E+02	0.83	200,238	2.539688080E+10	0.80
	367-500 m	0	-	-	0	-	-
	55-366 m	47	3.765438009E+02	0.41	756,343	8.556352724E+10	0.39
	55-500 m	47	3.765438009E+02	0.41	756,343	8.556352724E+10	0.39
Monterey							
	55-183 m	152	2.299763371E+04	1.00	2,298,499	5.272386653E+12	1.00
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	152	2.299763371E+04	1.00	2,298,499	5.272386653E+12	1.00
	55-500 m	152	2.299763371E+04	1.00	2,298,499	5.272386653E+12	1.00
Conception							
	55-183 m	1,671	2.601072305E+06	0.97	23,594,140	5.159543935E+14	0.96
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	1,671	2.601072305E+06	0.97	23,594,140	5.159543935E+14	0.96
	55-500 m	1,671	2.601072305E+06	0.97	23,594,140	5.159543935E+14	0.96
US Total							
	55-183 m	1,963	2.642011917E+06	0.83	27,196,441	5.246085731E+14	0.84
	184-366 m	17	1.868773930E+02	0.83	200,238	2.539688080E+10	0.80
	367-500 m	0	-	-	0	-	-
	55-366 m	1,980	2.642198795E+06	0.82	27,396,679	5.246339699E+14	0.84
	55-500 m	1,980	2.642198795E+06	0.82	27,396,679	5.246339699E+14	0.84
Total							
	55-183 m	1,992	2.642302425E+06	0.82	27,329,698	5.246144869E+14	0.84
	184-366 m	17	1.868773930E+02	0.83	200,238	2.539688080E+10	0.80
	367-500 m	0	-	-	0	-	-
	55-366 m	2,008	2.642489302E+06	0.81	27,529,936	5.246398837E+14	0.83
	55-500 m	2,008	2.642489302E+06	0.81	27,529,936	5.246398837E+14	0.83

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Petrale Sole**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver	55-183 m	699	2.334338168E+04	0.22	1,204,513	6.024255775E+10	0.20
	184-366 m	4	6.476529354E+00	0.62	4,749	9.078092017E+06	0.63
	367-500 m	0	-	-	0	-	-
	55-366 m	703	2.334985821E+04	0.22	1,209,261	6.025163584E+10	0.20
	55-500 m	703	2.334985821E+04	0.22	1,209,261	6.025163584E+10	0.20
US Vancouver	55-183 m	261	7.709442111E+03	0.34	536,905	3.138643979E+10	0.33
	184-366 m	5	1.141327106E+01	0.73	4,174	6.025599344E+06	0.59
	367-500 m	0	-	-	0	-	-
	55-366 m	266	7.720855382E+03	0.33	541,079	3.139246539E+10	0.33
	55-500 m	266	7.720855382E+03	0.33	541,079	3.139246539E+10	0.33
Total Vancouver	55-183 m	960	3.424283603E+04	0.19	1,741,417	1.015628025E+11	0.18
	184-366 m	9	2.392852021E+01	0.56	8,923	2.133633667E+07	0.52
	367-500 m	0	-	-	0	-	-
	55-366 m	968	3.426676455E+04	0.19	1,750,340	1.015841388E+11	0.18
	55-500 m	968	3.426676455E+04	0.19	1,750,340	1.015841388E+11	0.18
Columbia	55-183 m	795	1.137103981E+04	0.13	1,975,430	8.804911113E+10	0.15
	184-366 m	28	1.045843143E+02	0.36	44,388	2.157479217E+08	0.33
	367-500 m	0	-	-	0	-	-
	55-366 m	823	1.147562412E+04	0.13	2,019,819	8.826485905E+10	0.15
	55-500 m	823	1.147562412E+04	0.13	2,019,819	8.826485905E+10	0.15
Eureka	55-183 m	257	5.733523078E+03	0.29	759,470	5.368833160E+10	0.31
	184-366 m	4	1.276748415E+01	0.85	12,047	1.079805775E+08	0.86
	367-500 m	0	-	-	0	-	-
	55-366 m	261	5.746290562E+03	0.29	771,517	5.379631218E+10	0.30
	55-500 m	261	5.746290562E+03	0.29	771,517	5.379631218E+10	0.30
Monterey	55-183 m	811	1.723000647E+04	0.16	1,857,903	8.572969787E+10	0.16
	184-366 m	64	1.365202470E+03	0.58	151,118	8.376231663E+09	0.61
	367-500 m	0	5.846217043E-02	1.00	1,209	1.461554261E+06	1.00
	55-366 m	875	1.859520894E+04	0.16	2,009,020	9.410592953E+10	0.15
	55-500 m	875	1.859526741E+04	0.16	2,010,229	9.410739109E+10	0.15
Conception	55-183 m	108	7.349591480E+02	0.25	241,459	2.362370875E+09	0.20
	184-366 m	31	3.152459009E+02	0.57	60,888	1.420463014E+09	0.62
	367-500 m	0	-	-	0	-	-
	55-366 m	140	1.050205049E+03	0.23	302,347	3.782833889E+09	0.20
	55-500 m	140	1.050205049E+03	0.23	302,347	3.782833889E+09	0.20
US Total	55-183 m	2,233	4.698374463E+04	0.10	5,371,167	2.721042710E+11	0.10
	184-366 m	132	2.820872874E+03	0.40	272,615	1.467057437E+10	0.44
	367-500 m	0	5.846217043E-02	1.00	1,209	1.461554261E+06	1.00
	55-366 m	2,365	4.980461750E+04	0.09	5,643,782	2.867748454E+11	0.09
	55-500 m	2,365	4.980467596E+04	0.09	5,644,991	2.867763069E+11	0.09
Total	55-183 m	2,931	7.351713855E+04	0.09	6,575,679	3.422806337E+11	0.09
	184-366 m	136	2.833388123E+03	0.39	277,364	1.468588511E+10	0.44
	367-500 m	0	5.846217043E-02	1.00	1,209	1.461554261E+06	1.00
	55-366 m	3,068	7.635052667E+04	0.09	6,853,043	3.569665188E+11	0.09
	55-500 m	3,068	7.635058514E+04	0.09	6,854,252	3.569679803E+11	0.09

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Redstripe Rockfish**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	449	8.000234632E+04	0.63	1,705,888	1.265290565E+12	0.66
	184-366 m	842	3.905738890E+05	0.74	1,966,785	2.120788702E+12	0.74
	367-500 m	0	-	-	0	-	-
	55-366 m	1,292	4.705762354E+05	0.53	3,672,673	3.386079268E+12	0.50
	55-500 m	1,292	4.705762354E+05	0.53	3,672,673	3.386079268E+12	0.50
US Vancouver							
	55-183 m	20	1.555952730E+02	0.62	76,042	2.460554690E+09	0.65
	184-366 m	242	3.199421993E+04	0.74	565,218	1.737301129E+11	0.74
	367-500 m	0	-	-	0	-	-
	55-366 m	262	3.214981521E+04	0.69	641,260	1.761906676E+11	0.65
	55-500 m	262	3.214981521E+04	0.69	641,260	1.761906676E+11	0.65
Total Vancouver							
	55-183 m	469	8.721289177E+04	0.63	1,781,930	1.379329871E+12	0.66
	184-366 m	1,084	6.461389193E+05	0.74	2,532,003	3.508493375E+12	0.74
	367-500 m	0	-	-	0	-	-
	55-366 m	1,553	7.333518111E+05	0.55	4,313,932	4.887823246E+12	0.51
	55-500 m	1,553	7.333518111E+05	0.55	4,313,932	4.887823246E+12	0.51
Columbia							
	55-183 m	948	8.753316304E+05	0.99	3,015,937	8.220682589E+12	0.95
	184-366 m	166	2.670926481E+04	0.98	551,757	2.979134342E+11	0.99
	367-500 m	0	-	-	0	-	-
	55-366 m	1,114	9.020408952E+05	0.85	3,567,694	8.518596024E+12	0.82
	55-500 m	1,114	9.020408952E+05	0.85	3,567,694	8.518596024E+12	0.82
Eureka							
	55-183 m	4	1.639780996E+01	1.00	80,988	6.559123985E+09	1.00
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	4	1.639780996E+01	1.00	80,988	6.559123985E+09	1.00
	55-500 m	4	1.639780996E+01	1.00	80,988	6.559123985E+09	1.00
Monterey							
	55-183 m	10	1.005235602E+02	1.00	23,591	5.565318213E+08	1.00
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	10	1.005235602E+02	1.00	23,591	5.565318213E+08	1.00
	55-500 m	10	1.005235602E+02	1.00	23,591	5.565318213E+08	1.00
Conception							
	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	-	-
US Total							
	55-183 m	982	8.756045483E+05	0.95	3,196,558	8.230263258E+12	0.90
	184-366 m	408	5.870348475E+04	0.59	1,116,975	4.716435471E+11	0.61
	367-500 m	0	-	-	0	-	-
	55-366 m	1,390	9.343080331E+05	0.70	4,313,533	8.701906806E+12	0.68
	55-500 m	1,390	9.343080331E+05	0.70	4,313,533	8.701906806E+12	0.68
Total							
	55-183 m	1,431	9.626618448E+05	0.69	4,902,446	9.607132575E+12	0.63
	184-366 m	1,250	6.728481841E+05	0.66	3,083,759	3.806406809E+12	0.63
	367-500 m	0	-	-	0	-	-
	55-366 m	2,682	1.635510029E+06	0.48	7,986,205	1.341353938E+13	0.46
	55-500 m	2,682	1.635510029E+06	0.48	7,986,205	1.341353938E+13	0.46

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Rex Sole**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver	55-183 m	4,343	3.424513247E+05	0.13	27,615,254	1.457881037E+13	0.14
	184-366 m	448	2.543335275E+04	0.36	2,299,342	6.714209512E+11	0.36
	367-500 m	222	3.009115918E+03	0.25	1,086,856	7.204885115E+10	0.25
	55-366 m	4,791	3.678846774E+05	0.13	29,914,596	1.525023132E+13	0.13
	55-500 m	5,012	3.708937933E+05	0.12	31,001,452	1.532228017E+13	0.13
US Vancouver	55-183 m	719	1.034833489E+04	0.14	5,445,465	5.016685776E+11	0.13
	184-366 m	549	1.408063495E+04	0.22	2,757,735	2.899781113E+11	0.20
	367-500 m	43	1.832175703E+01	0.10	212,835	1.119174848E+09	0.16
	55-366 m	1,268	2.442896983E+04	0.12	8,203,200	7.916466889E+11	0.11
	55-500 m	1,311	2.444729159E+04	0.12	8,416,035	7.927658638E+11	0.11
Total Vancouver	55-183 m	5,062	3.840376067E+05	0.12	33,060,719	1.640115287E+13	0.12
	184-366 m	997	5.658828621E+04	0.24	5,057,077	1.394126679E+12	0.23
	367-500 m	264	3.029091797E+03	0.21	1,299,691	7.325214987E+10	0.21
	55-366 m	6,059	4.406258929E+05	0.11	38,117,796	1.779527955E+13	0.11
	55-500 m	6,323	4.436549847E+05	0.11	39,417,487	1.786853170E+13	0.11
Columbia	55-183 m	6,172	3.455293563E+05	0.10	62,292,409	3.354369454E+13	0.09
	184-366 m	2,166	7.233855521E+04	0.12	18,984,299	6.143479023E+12	0.13
	367-500 m	1,035	4.330326441E+04	0.20	7,049,137	1.835895345E+12	0.19
	55-366 m	8,338	4.178679115E+05	0.08	81,276,708	3.968717356E+13	0.08
	55-500 m	9,373	4.611711759E+05	0.07	88,325,845	4.152306891E+13	0.07
Eureka	55-183 m	288	2.520867355E+03	0.17	3,236,536	2.953232518E+11	0.17
	184-366 m	451	1.435264802E+04	0.27	4,223,875	1.320738034E+12	0.27
	367-500 m	660	4.657679697E+04	0.33	5,577,960	4.404092138E+12	0.38
	55-366 m	740	1.687351538E+04	0.18	7,460,411	1.616061286E+12	0.17
	55-500 m	1,400	6.345031235E+04	0.18	13,038,372	6.020153424E+12	0.19
Monterey	55-183 m	1,723	1.104796489E+05	0.19	17,630,046	1.288503846E+13	0.20
	184-366 m	1,001	3.996887852E+04	0.20	7,364,644	2.321791451E+12	0.21
	367-500 m	1,126	6.978401782E+04	0.23	6,908,999	2.787434916E+12	0.24
	55-366 m	2,724	1.504485274E+05	0.14	24,994,690	1.520682991E+13	0.16
	55-500 m	3,851	2.202325452E+05	0.12	31,903,689	1.799426482E+13	0.13
Conception	55-183 m	17	4.928325086E+01	0.41	163,227	2.826152584E+09	0.33
	184-366 m	822	1.759810238E+05	0.51	5,818,326	8.041325928E+12	0.49
	367-500 m	877	3.509027636E+04	0.21	5,004,834	1.405527748E+12	0.24
	55-366 m	839	1.760303070E+05	0.50	5,981,553	8.044152081E+12	0.47
	55-500 m	1,716	2.111205834E+05	0.27	10,986,388	9.449679829E+12	0.28
US Total	55-183 m	8,921	4.868603036E+05	0.08	88,767,683	4.879361714E+13	0.08
	184-366 m	4,989	3.196053367E+05	0.11	39,148,880	1.828216138E+13	0.11
	367-500 m	3,741	2.382614101E+05	0.13	24,753,765	1.256349365E+13	0.14
	55-366 m	13,910	8.064656403E+05	0.06	127,916,563	6.707577852E+13	0.06
	55-500 m	17,651	1.044727050E+06	0.06	152,670,328	7.963927217E+13	0.06
Total	55-183 m	13,264	8.605495753E+05	0.07	116,382,938	6.469310144E+13	0.07
	184-366 m	5,437	3.621129880E+05	0.11	41,448,221	1.938630995E+13	0.11
	367-500 m	3,963	2.412721801E+05	0.12	25,840,621	1.263562662E+13	0.14
	55-366 m	18,701	1.222662563E+06	0.06	157,831,159	8.407941138E+13	0.06
	55-500 m	22,664	1.463934743E+06	0.05	183,671,780	9.671503800E+13	0.05

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Sablefish**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	5,617	2.144441876E+07	0.82	3,277,503	5.163148625E+12	0.69
	184-366 m	498	1.385125993E+04	0.24	243,374	4.418653477E+09	0.27
	367-500 m	249	3.559962278E+04	0.76	66,411	1.314565710E+09	0.55
	55-366 m	6,115	2.145827002E+07	0.76	3,520,877	5.167567278E+12	0.65
	55-500 m	6,364	2.149386964E+07	0.73	3,587,289	5.168881844E+12	0.63
US Vancouver							
	55-183 m	770	5.999969742E+04	0.32	793,020	2.790245009E+10	0.21
	184-366 m	354	7.117886116E+03	0.24	243,579	3.634847859E+09	0.25
	367-500 m	72	1.060075684E+03	0.45	324,323	5.447546683E+10	0.72
	55-366 m	1,124	6.711758354E+04	0.23	1,036,599	3.153729795E+10	0.17
	55-500 m	1,196	6.817765922E+04	0.22	1,360,922	8.601276478E+10	0.22
Total Vancouver							
	55-183 m	6,388	2.339809144E+07	0.76	4,070,523	5.648692337E+12	0.58
	184-366 m	851	3.016789211E+04	0.20	486,953	1.128320635E+10	0.22
	367-500 m	321	3.667449949E+04	0.60	390,735	6.166807323E+10	0.64
	55-366 m	7,239	2.342825933E+07	0.67	4,557,476	5.659975544E+12	0.52
	55-500 m	7,560	2.346493383E+07	0.64	4,948,211	5.721643617E+12	0.48
Columbia							
	55-183 m	4,432	2.609841839E+06	0.36	5,545,540	2.805970830E+12	0.30
	184-366 m	7,952	1.083940759E+07	0.41	5,127,012	3.320303901E+12	0.36
	367-500 m	3,829	5.872856006E+05	0.20	2,572,986	4.590361009E+11	0.26
	55-366 m	12,385	1.344924943E+07	0.30	10,672,552	6.126274731E+12	0.23
	55-500 m	16,214	1.403653503E+07	0.23	13,245,539	6.585310831E+12	0.19
Eureka							
	55-183 m	289	8.056164400E+03	0.31	630,225	4.889845855E+10	0.35
	184-366 m	1,214	6.189545729E+04	0.20	1,145,689	6.426021650E+10	0.22
	367-500 m	1,494	2.288248502E+05	0.32	857,737	7.250421036E+10	0.31
	55-366 m	1,503	6.995162169E+04	0.18	1,775,914	1.131586750E+11	0.19
	55-500 m	2,996	2.987764719E+05	0.18	2,633,651	1.856628854E+11	0.16
Monterey							
	55-183 m	699	1.945995787E+04	0.20	1,513,050	1.075805015E+11	0.22
	184-366 m	918	6.983848892E+04	0.29	1,057,260	1.311419787E+11	0.34
	367-500 m	690	1.474334095E+04	0.18	476,251	6.091385090E+09	0.16
	55-366 m	1,617	8.929844678E+04	0.18	2,570,310	2.387224802E+11	0.19
	55-500 m	2,307	1.040417877E+05	0.14	3,046,561	2.448138653E+11	0.16
Conception							
	55-183 m	43	4.098056533E+02	0.47	113,049	2.809490802E+09	0.47
	184-366 m	752	3.537974632E+04	0.25	1,207,058	6.909601274E+10	0.22
	367-500 m	455	5.159401985E+03	0.16	383,835	3.179682662E+09	0.15
	55-366 m	795	3.578955198E+04	0.24	1,320,107	7.190550354E+10	0.20
	55-500 m	1,250	4.094895396E+04	0.16	1,703,942	7.508518620E+10	0.16
US Total							
	55-183 m	6,233	2.703389671E+06	0.26	8,594,884	3.008096903E+12	0.20
	184-366 m	11,190	1.102429187E+07	0.30	8,780,598	3.672177309E+12	0.22
	367-500 m	6,539	8.419960694E+05	0.14	4,615,133	7.952046476E+11	0.19
	55-366 m	17,424	1.372768154E+07	0.21	17,375,482	6.680274212E+12	0.15
	55-500 m	23,963	1.456967761E+07	0.16	21,990,615	7.475478859E+12	0.12
Total							
	55-183 m	11,851	2.604148141E+07	0.43	11,872,387	8.628886790E+12	0.25
	184-366 m	11,688	1.104734188E+07	0.28	9,023,973	3.679825667E+12	0.21
	367-500 m	6,788	8.776104932E+05	0.14	4,681,544	8.023972540E+11	0.19
	55-366 m	23,539	3.708882329E+07	0.26	20,896,360	1.230871246E+13	0.17
	55-500 m	30,327	3.796643378E+07	0.20	25,577,904	1.311110971E+13	0.14

1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Sharpchin Rockfish

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	255	4.550595636E+04	0.84	1,764,257	2.223259150E+12	0.85
	184-366 m	1,042	6.889603556E+05	0.80	3,405,529	6.598593744E+12	0.75
	367-500 m	0	-	-	0	-	-
	55-366 m	1,298	7.344663120E+05	0.66	5,169,786	8.821852895E+12	0.57
	55-500 m	1,298	7.344663120E+05	0.66	5,169,786	8.821852895E+12	0.57
US Vancouver							
	55-183 m	14	9.232749920E+01	0.70	88,088	4.413289713E+09	0.75
	184-366 m	520	7.957076831E+04	0.54	1,705,491	7.524316236E+11	0.51
	367-500 m	0	-	-	0	-	-
	55-366 m	534	7.966309581E+04	0.53	1,793,579	7.568449133E+11	0.49
	55-500 m	534	7.966309581E+04	0.53	1,793,579	7.568449133E+11	0.49
Total Vancouver							
	55-183 m	269	4.961173521E+04	0.83	1,852,345	2.423742493E+12	0.84
	184-366 m	1,562	1.163302801E+06	0.69	5,111,020	1.113463958E+13	0.65
	367-500 m	0	-	-	0	-	-
	55-366 m	1,831	1.212914537E+06	0.60	6,963,365	1.355838208E+13	0.53
	55-500 m	1,831	1.212914537E+06	0.60	6,963,365	1.355838208E+13	0.53
Columbia							
	55-183 m	2	2.795080203E+00	0.82	6,819	2.425839991E+07	0.72
	184-366 m	1,938	9.151910496E+05	0.49	7,182,329	1.305541627E+13	0.50
	367-500 m	6	1.701054188E+01	0.70	20,868	2.438300549E+08	0.75
	55-366 m	1,940	9.151938447E+05	0.49	7,189,148	1.305544053E+13	0.50
	55-500 m	1,946	9.152108553E+05	0.49	7,210,016	1.305568436E+13	0.50
Eureka							
	55-183 m	51	2.436223037E+03	0.96	210,683	4.203018064E+10	0.97
	184-366 m	96	8.728935694E+03	0.98	476,694	2.168881817E+11	0.98
	367-500 m	0	-	-	0	-	-
	55-366 m	147	1.116515873E+04	0.72	687,377	2.589183623E+11	0.74
	55-500 m	147	1.116515873E+04	0.72	687,377	2.589183623E+11	0.74
Monterey							
	55-183 m	5	6.696058423E+00	0.56	70,850	2.019801698E+09	0.63
	184-366 m	1,374	7.630599391E+05	0.64	7,279,162	2.092094587E+13	0.63
	367-500 m	0	-	-	0	-	-
	55-366 m	1,379	7.630666352E+05	0.63	7,350,013	2.092296567E+13	0.62
	55-500 m	1,379	7.630666352E+05	0.63	7,350,013	2.092296567E+13	0.62
Conception							
	55-183 m	0	-	-	0	-	-
	184-366 m	0	1.590501316E-02	1.00	1,261	1.590501316E+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	0	1.590501316E-02	1.00	1,261	1.590501316E+06	1.00
	55-500 m	0	1.590501316E-02	1.00	1,261	1.590501316E+06	1.00
US Total							
	55-183 m	72	2.539646731E+03	0.70	376,441	4.849198894E+10	0.58
	184-366 m	3,928	1.907191077E+06	0.35	16,644,937	3.614779363E+13	0.36
	367-500 m	6	1.701054188E+01	0.70	20,868	2.438300549E+08	0.75
	55-366 m	4,000	1.909730724E+06	0.35	17,021,378	3.619628562E+13	0.35
	55-500 m	4,006	1.909747735E+06	0.34	17,042,246	3.619652945E+13	0.35
Total							
	55-183 m	327	5.205905444E+04	0.70	2,140,698	2.467821192E+12	0.73
	184-366 m	4,971	2.990923111E+06	0.35	20,050,466	4.653000159E+13	0.34
	367-500 m	6	1.701054188E+01	0.70	20,868	2.438300549E+08	0.75
	55-366 m	5,298	3.042982165E+06	0.33	22,191,164	4.899782278E+13	0.32
	55-500 m	5,304	3.042999176E+06	0.33	22,212,032	4.899806661E+13	0.32

1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Shortbelly Rockfish

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	1	9.283733197E-01	1.00	5,668	3.212364428E+07	1.00
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	1	9.283733197E-01	1.00	5,668	3.212364428E+07	1.00
	55-500 m	1	9.283733197E-01	1.00	5,668	3.212364428E+07	1.00
US Vancouver							
	55-183 m	0	1.804866622E-03	1.00	250	6.245213224E+04	1.00
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	0	1.804866622E-03	1.00	250	6.245213224E+04	1.00
	55-500 m	0	1.804866622E-03	1.00	250	6.245213224E+04	1.00
Total Vancouver							
	55-183 m	1	1.012046129E+00	1.00	5,918	3.501889720E+07	1.00
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	1	1.012046129E+00	1.00	5,918	3.501889720E+07	1.00
	55-500 m	1	1.012046129E+00	1.00	5,918	3.501889720E+07	1.00
Columbia							
	55-183 m	105	1.097916659E+04	1.00	930,129	8.651392448E+11	1.00
	184-366 m	3	4.300522611E+00	0.63	20,389	1.511574787E+08	0.60
	367-500 m	0	-	-	0	-	-
	55-366 m	108	1.098346712E+04	0.97	950,518	8.652904023E+11	0.98
	55-500 m	108	1.098346712E+04	0.97	950,518	8.652904023E+11	0.98
Eureka							
	55-183 m	47	1.383294906E+03	0.79	2,238,838	3.803091765E+12	0.87
	184-366 m	21	4.238056141E+02	1.00	100,711	1.014273153E+10	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	67	1.807100520E+03	0.63	2,339,549	3.813234497E+12	0.83
	55-500 m	67	1.807100520E+03	0.63	2,339,549	3.813234497E+12	0.83
Monterey							
	55-183 m	10,792	5.626322794E+07	0.70	96,631,468	3.413593595E+15	0.60
	184-366 m	568	7.029188252E+04	0.47	4,316,921	2.925947516E+12	0.40
	367-500 m	1	3.226233391E-01	1.00	3,787	1.433881507E+07	1.00
	55-366 m	11,360	5.633351982E+07	0.66	100,948,389	3.416519543E+15	0.58
	55-500 m	11,360	5.633352014E+07	0.66	100,952,176	3.416519557E+15	0.58
Conception							
	55-183 m	124	5.959654432E+03	0.62	4,624,360	6.021743813E+12	0.53
	184-366 m	1,519	2.118320678E+06	0.96	18,302,381	2.948279720E+14	0.94
	367-500 m	0	-	-	0	-	-
	55-366 m	1,643	2.124280333E+06	0.89	22,926,742	3.008497158E+14	0.76
	55-500 m	1,643	2.124280333E+06	0.89	22,926,742	3.008497158E+14	0.76
US Total							
	55-183 m	11,067	5.632053785E+07	0.68	104,425,045	3.461602254E+15	0.56
	184-366 m	2,111	2.193272608E+06	0.70	22,740,404	2.990647362E+14	0.76
	367-500 m	1	3.226233391E-01	1.00	3,787	1.433881507E+07	1.00
	55-366 m	13,178	5.851381046E+07	0.58	127,165,449	3.760666991E+15	0.48
	55-500 m	13,179	5.851381078E+07	0.58	127,169,236	3.760667005E+15	0.48
Total							
	55-183 m	11,068	5.632053886E+07	0.68	104,430,713	3.461602289E+15	0.56
	184-366 m	2,111	2.193272608E+06	0.70	22,740,404	2.990647362E+14	0.76
	367-500 m	1	3.226233391E-01	1.00	3,787	1.433881507E+07	1.00
	55-366 m	13,179	5.851381147E+07	0.58	127,171,117	3.760667026E+15	0.48
	55-500 m	13,180	5.851381179E+07	0.58	127,174,904	3.760667040E+15	0.48

1995 NMFS Triennial Bottom Trail Survey
Biomass and Population Estimates for Shortspine Thornyhead

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	10	3.589553229E+01	0.59	61,025	1.507808029E+09	0.64
	184-366 m	159	2.152729450E+03	0.29	1,041,111	1.299820381E+11	0.35
	367-500 m	235	4.139002590E+03	0.27	1,551,153	8.599384928E+10	0.19
	55-366 m	169	2.188624982E+03	0.28	1,102,136	1.314898461E+11	0.33
	55-500 m	405	6.327627573E+03	0.20	2,653,290	2.174836954E+11	0.18
US Vancouver							
	55-183 m	3	6.697999890E+00	0.76	21,253	3.173073573E+08	0.84
	184-366 m	460	1.149864405E+04	0.23	2,727,491	3.466142197E+11	0.22
	367-500 m	105	5.932181748E+02	0.23	1,228,553	4.021171082E+10	0.16
	55-366 m	463	1.150534205E+04	0.23	2,748,745	3.469315271E+11	0.21
	55-500 m	568	1.209856022E+04	0.19	3,977,297	3.871432379E+11	0.16
Total Vancouver							
	55-183 m	13	4.575895424E+01	0.50	82,279	1.958080368E+09	0.54
	184-366 m	619	1.730118696E+04	0.21	3,768,603	6.221123479E+11	0.21
	367-500 m	340	5.158431021E+03	0.21	2,779,706	1.326942513E+11	0.13
	55-366 m	633	1.734694592E+04	0.21	3,850,881	6.240704283E+11	0.21
	55-500 m	973	2.250537694E+04	0.15	6,630,587	7.567646796E+11	0.13
Columbia							
	55-183 m	99	1.474004187E+03	0.39	577,724	5.174138809E+10	0.39
	184-366 m	1,454	1.447128222E+05	0.26	11,895,611	7.097771336E+12	0.22
	367-500 m	2,970	3.229208674E+05	0.19	25,483,629	1.771198810E+13	0.17
	55-366 m	1,553	1.461868264E+05	0.25	12,473,336	7.149512724E+12	0.21
	55-500 m	4,523	4.691076937E+05	0.15	37,956,964	2.486150082E+13	0.13
Eureka							
	55-183 m	2	1.562818486E+00	0.73	11,484	6.414993309E+07	0.70
	184-366 m	221	7.080976566E+03	0.38	1,848,313	3.343611339E+11	0.31
	367-500 m	461	1.184363540E+04	0.24	4,531,179	1.403195965E+12	0.26
	55-366 m	223	7.082539385E+03	0.38	1,859,796	3.344252839E+11	0.31
	55-500 m	684	1.892617478E+04	0.20	6,390,975	1.737621249E+12	0.21
Monterey							
	55-183 m	0	-	-	0	-	-
	184-366 m	279	8.420453703E+03	0.33	1,707,197	2.249694893E+11	0.28
	367-500 m	304	3.259975453E+03	0.19	1,953,167	9.647468180E+10	0.16
	55-366 m	279	8.420453703E+03	0.33	1,707,197	2.249694893E+11	0.28
	55-500 m	583	1.168042916E+04	0.19	3,660,363	3.214441711E+11	0.15
Conception							
	55-183 m	0	-	-	0	-	-
	184-366 m	18	5.109996311E+01	0.39	95,739	1.559738666E+09	0.41
	367-500 m	230	4.251174137E+03	0.28	983,121	1.026490420E+11	0.33
	55-366 m	18	5.109996311E+01	0.39	95,739	1.559738666E+09	0.41
	55-500 m	249	4.302274100E+03	0.26	1,078,860	1.042087807E+11	0.30
US Total							
	55-183 m	104	1.525632641E+03	0.37	610,462	5.417977084E+10	0.38
	184-366 m	2,433	1.725381713E+05	0.17	18,274,351	8.047357167E+12	0.16
	367-500 m	4,069	3.430250407E+05	0.14	34,179,648	1.949282252E+13	0.13
	55-366 m	2,537	1.740638039E+05	0.16	18,884,812	8.101536938E+12	0.15
	55-500 m	6,606	5.170888446E+05	0.11	53,064,461	2.759435946E+13	0.10
Total							
	55-183 m	115	1.564693595E+03	0.35	671,487	5.582054385E+10	0.35
	184-366 m	2,592	1.783407142E+05	0.16	19,315,462	8.322855295E+12	0.15
	367-500 m	4,305	3.475902535E+05	0.14	35,730,802	1.958530506E+13	0.12
	55-366 m	2,706	1.799054078E+05	0.16	19,986,949	8.378675839E+12	0.14
	55-500 m	7,011	5.274956613E+05	0.10	55,717,750	2.796398090E+13	0.09

1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Silvergray Rockfish

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	395	3.767700421E+04	0.49	176,088	6.933930052E+09	0.47
	184-366 m	252	3.476652715E+04	0.74	116,190	6.899065445E+09	0.71
	367-500 m	0	-	-	0	-	-
	55-366 m	647	7.244353136E+04	0.42	292,278	1.383299550E+10	0.40
	55-500 m	647	7.244353136E+04	0.42	292,278	1.383299550E+10	0.40
US Vancouver							
	55-183 m	17	7.324851528E+01	0.49	7,764	1.348037330E+07	0.47
	184-366 m	75	2.855958828E+03	0.71	34,639	5.670545393E+08	0.69
	367-500 m	0	-	-	0	-	-
	55-366 m	92	2.929207344E+03	0.59	42,403	5.805349126E+08	0.57
	55-500 m	92	2.929207344E+03	0.59	42,403	5.805349126E+08	0.57
Total Vancouver							
	55-183 m	413	4.107277262E+04	0.49	183,852	7.558874130E+09	0.47
	184-366 m	327	5.752340154E+04	0.73	150,829	1.141525526E+10	0.71
	367-500 m	0	-	-	0	-	-
	55-366 m	740	9.859617416E+04	0.42	334,681	1.897412939E+10	0.41
	55-500 m	740	9.859617416E+04	0.42	334,681	1.897412939E+10	0.41
Columbia							
	55-183 m	0	-	-	0	-	-
	184-366 m	9	8.798160201E+01	1.00	4,576	2.093553885E+07	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	9	8.798160201E+01	1.00	4,576	2.093553885E+07	1.00
	55-500 m	9	8.798160201E+01	1.00	4,576	2.093553885E+07	1.00
Eureka							
	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	-	-
Monterey							
	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	-	-
Conception							
	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	-	-
US Total							
	55-183 m	17	7.324851528E+01	0.49	7,764	1.348037330E+07	0.47
	184-366 m	84	2.997193968E+03	0.65	39,215	6.006619490E+08	0.62
	367-500 m	0	-	-	0	-	-
	55-366 m	102	3.070442483E+03	0.54	46,979	6.141423223E+08	0.53
	55-500 m	102	3.070442483E+03	0.54	46,979	6.141423223E+08	0.53
Total							
	55-183 m	413	4.107277262E+04	0.49	183,852	7.558874130E+09	0.47
	184-366 m	337	5.766463668E+04	0.71	155,405	1.144886267E+10	0.69
	367-500 m	0	-	-	0	-	-
	55-366 m	749	9.873740930E+04	0.42	339,256	1.900773680E+10	0.41
	55-500 m	749	9.873740930E+04	0.42	339,256	1.900773680E+10	0.41

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Spiny Dogfish**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	14,220	1.345628326E+07	0.26	8,534,466	4.936621672E+12	0.26
	184-366 m	142	1.037148593E+04	0.72	170,685	1.173298499E+10	0.63
	367-500 m	6	1.823238002E+01	0.71	8,482	3.702270759E+07	0.72
	55-366 m	14,362	1.346665475E+07	0.26	8,705,152	4.948354657E+12	0.26
	55-500 m	14,368	1.346667298E+07	0.26	8,713,634	4.948391680E+12	0.26
US Vancouver							
	55-183 m	5,609	6.634245755E+06	0.46	7,432,664	1.578672688E+13	0.53
	184-366 m	215	1.295952785E+04	0.53	229,129	1.568720844E+10	0.55
	367-500 m	1	1.591279432E+00	1.00	1,402	1.964542508E+06	1.00
	55-366 m	5,824	6.647205283E+06	0.44	7,661,793	1.580241409E+13	0.52
	55-500 m	5,825	6.647206874E+06	0.44	7,663,195	1.580241606E+13	0.52
Total Vancouver							
	55-183 m	19,829	2.226626608E+07	0.24	15,967,130	2.352019753E+13	0.30
	184-366 m	356	3.188058733E+04	0.50	399,815	3.731355628E+10	0.48
	367-500 m	7	2.103619656E+01	0.63	9,884	4.048420949E+07	0.64
	55-366 m	20,186	2.229814667E+07	0.23	16,366,945	2.355751109E+13	0.30
	55-500 m	20,193	2.229816771E+07	0.23	16,376,829	2.355755157E+13	0.30
Columbia							
	55-183 m	1,058	2.556096636E+04	0.15	1,460,762	5.367935227E+10	0.16
	184-366 m	26	1.687783369E+02	0.51	75,958	4.011918861E+09	0.83
	367-500 m	6	1.285927953E+01	0.61	10,889	4.388545946E+07	0.61
	55-366 m	1,084	2.572974469E+04	0.15	1,536,720	5.769127114E+10	0.16
	55-500 m	1,090	2.574260397E+04	0.15	1,547,609	5.773515659E+10	0.16
Eureka							
	55-183 m	2,783	1.324690521E+06	0.41	5,525,031	4.374206844E+12	0.38
	184-366 m	14	3.742867859E+01	0.43	27,011	8.031423844E+07	0.33
	367-500 m	63	1.303525953E+03	0.57	425,263	6.882246353E+10	0.62
	55-366 m	2,798	1.324727950E+06	0.41	5,552,042	4.374287159E+12	0.38
	55-500 m	2,861	1.326031476E+06	0.40	5,977,305	4.443109622E+12	0.35
Monterey							
	55-183 m	3,319	2.015912493E+06	0.43	5,580,080	4.688351365E+12	0.39
	184-366 m	917	6.744223349E+05	0.90	1,482,062	1.826677467E+12	0.91
	367-500 m	37	5.218212887E+02	0.62	51,588	1.154797531E+09	0.66
	55-366 m	4,236	2.690334828E+06	0.39	7,062,142	6.515028832E+12	0.36
	55-500 m	4,272	2.690856649E+06	0.38	7,113,731	6.516183629E+12	0.36
Conception							
	55-183 m	1,748	1.759573198E+06	0.76	1,063,510	6.955066089E+11	0.78
	184-366 m	77	1.262203146E+03	0.46	412,184	5.299427317E+10	0.56
	367-500 m	34	2.322558503E+02	0.45	125,809	7.121375619E+09	0.67
	55-366 m	1,825	1.760835401E+06	0.73	1,475,695	7.485008821E+11	0.59
	55-500 m	1,859	1.761067657E+06	0.71	1,601,503	7.556222577E+11	0.54
US Total							
	55-183 m	14,517	1.176248610E+07	0.24	21,062,047	2.560337529E+13	0.24
	184-366 m	1,249	6.889110063E+05	0.66	2,226,345	1.899472197E+12	0.62
	367-500 m	140	2.091553367E+03	0.33	614,950	7.715673035E+10	0.45
	55-366 m	15,766	1.245139711E+07	0.22	23,288,392	2.750284749E+13	0.23
	55-500 m	15,907	1.245348866E+07	0.22	23,903,342	2.758000422E+13	0.22
Total							
	55-183 m	28,737	2.739450643E+07	0.18	29,596,513	3.333684594E+13	0.20
	184-366 m	1,390	7.078320658E+05	0.61	2,397,031	1.921098545E+12	0.58
	367-500 m	146	2.110998284E+03	0.31	623,432	7.719525002E+10	0.45
	55-366 m	30,128	2.810233849E+07	0.18	31,993,544	3.525794449E+13	0.19
	55-500 m	30,274	2.810444949E+07	0.18	32,616,976	3.533513974E+13	0.18

**1995 NMFS Triennial Bottom Trawl Survey
Biomass. and Population Estimates for Splitnose Rockfish**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	1	4.593287922E-01	0.52	25,830	1.706429295E+08	0.51
	184-366 m	56	7.098446995E+02	0.48	345,121	5.384197637E+10	0.67
	367-500 m	8	2.697997417E+01	0.66	14,729	1.069908547E+08	0.70
	55-366 m	57	7.103040283E+02	0.47	370,951	5.401261930E+10	0.63
	55-500 m	65	7.372840024E+02	0.42	365,680	5.411961015E+10	0.60
US Vancouver							
	55-183 m	1	6.096895215E-01	0.89	26,809	6.163684273E+08	0.93
	184-366 m	356	4.375481840E+04	0.59	1,113,737	2.141131695E+11	0.42
	367-500 m	0	9.457542972E-03	1.00	972	9.457542972E+05	1.00
	55-366 m	357	4.375542809E+04	0.59	1,140,546	2.147295379E+11	0.41
	55-500 m	357	4.375543754E+04	0.59	1,141,519	2.147304837E+11	0.41
Total Vancouver							
	55-183 m	2	1.109523897E+00	0.48	52,639	8.020593826E+08	0.54
	184-366 m	412	5.429101946E+04	0.57	1,458,858	3.437633705E+11	0.40
	367-500 m	8	2.698943171E+01	0.66	15,701	1.079366090E+08	0.66
	55-366 m	414	5.429212899E+04	0.56	1,511,497	3.445654299E+11	0.39
	55-500 m	422	5.431911842E+04	0.55	1,527,198	3.446733665E+11	0.38
Columbia							
	55-183 m	3	6.563661715E+00	0.88	88,366	6.612277024E+09	0.92
	184-366 m	1,696	4.374624548E+05	0.39	12,570,767	1.422799675E+13	0.30
	367-500 m	87	1.155750598E+03	0.39	272,876	8.941592031E+09	0.35
	55-366 m	1,699	4.374690185E+05	0.39	12,659,133	1.423460902E+13	0.30
	55-500 m	1,787	4.386247691E+05	0.37	12,932,009	1.424355062E+13	0.29
Eureka							
	55-183 m	1	5.338634756E-01	0.58	52,821	1.228873956E+09	0.66
	184-366 m	587	3.882557759E+04	0.34	7,603,699	1.055426590E+13	0.43
	367-500 m	60	9.935694374E+02	0.53	159,798	6.916479615E+09	0.52
	55-366 m	588	3.882611146E+04	0.34	7,656,520	1.055549478E+13	0.42
	55-500 m	648	3.981968089E+04	0.31	7,816,318	1.056241126E+13	0.42
Monterey							
	55-183 m	3	2.642041235E+00	0.48	70,783	2.158721581E+09	0.66
	184-366 m	8,377	2.110343659E+07	0.55	49,582,483	8.696690788E+14	0.59
	367-500 m	598	9.761731800E+04	0.52	2,045,008	1.064917595E+12	0.50
	55-366 m	8,380	2.110343923E+07	0.55	49,653,267	8.696712375E+14	0.59
	55-500 m	8,978	2.120105655E+07	0.51	51,698,275	8.707361551E+14	0.57
Conception							
	55-183 m	0	8.475184378E-04	1.00	582	3.390073751E+05	1.00
	184-366 m	8,124	2.010671840E+07	0.55	57,844,809	7.135988282E+14	0.46
	367-500 m	397	1.467965387E+04	0.31	1,641,244	2.804955601E+11	0.32
	55-366 m	8,124	2.010671840E+07	0.55	57,845,391	7.135988286E+14	0.46
	55-500 m	8,521	2.012139806E+07	0.53	59,486,635	7.138793241E+14	0.45
US Total							
	55-183 m	8	1.433898265E+01	0.45	239,362	1.464947386E+10	0.51
	184-366 m	19,140	4.173296148E+07	0.34	128,715,496	1.609346189E+15	0.31
	367-500 m	1,142	1.173302596E+05	0.30	4,119,898	1.398512005E+12	0.29
	55-366 m	19,148	4.173297582E+07	0.34	128,954,858	1.609360839E+15	0.31
	55-500 m	20,290	4.185030608E+07	0.32	133,074,756	1.610759351E+15	0.30
Total							
	55-183 m	10	1.483881702E+01	0.39	265,192	1.483516482E+10	0.46
	184-366 m	19,195	4.174349768E+07	0.34	129,060,618	1.609475839E+15	0.31
	367-500 m	1,150	1.173572396E+05	0.30	4,134,627	1.398618996E+12	0.29
	55-366 m	19,205	4.174351252E+07	0.34	129,325,809	1.609490675E+15	0.31
	55-500 m	20,355	4.186086976E+07	0.32	133,460,436	1.610889294E+15	0.30

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Stripetail Rockfish**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	5	1.009452791E+01	0.69	59,948	1.489717907E+09	0.64
	184-366 m	11	6.593066423E+01	0.76	39,740	8.640732549E+08	0.74
	367-500 m	0	-	-	0	-	-
	55-366 m	15	7.602519213E+01	0.57	99,688	2.353791162E+09	0.49
	55-500 m	15	7.602519213E+01	0.57	99,688	2.353791162E+09	0.49
US Vancouver							
	55-183 m	4	8.402924909E+00	0.69	31,959	1.799072254E+08	0.42
	184-366 m	22	1.633004585E+02	0.58	111,003	4.054403020E+09	0.57
	367-500 m	0	-	-	0	-	-
	55-366 m	26	1.717033834E+02	0.50	142,963	4.234310246E+09	0.46
	55-500 m	26	1.717033834E+02	0.50	142,963	4.234310246E+09	0.46
Total Vancouver							
	55-183 m	9	2.059916919E+01	0.51	91,907	1.816004705E+09	0.46
	184-366 m	33	2.885912400E+02	0.52	150,744	5.768637241E+09	0.50
	367-500 m	0	-	-	0	-	-
	55-366 m	42	3.091904092E+02	0.42	242,651	7.584641946E+09	0.36
	55-500 m	42	3.091904092E+02	0.42	242,651	7.584641946E+09	0.36
Columbia							
	55-183 m	52	4.006908446E+02	0.38	854,243	9.224495185E+10	0.36
	184-366 m	876	1.127081900E+05	0.38	7,872,109	7.995935533E+12	0.36
	367-500 m	0	-	-	0	-	-
	55-366 m	928	1.131088808E+05	0.36	8,726,352	8.088180485E+12	0.33
	55-500 m	928	1.131088808E+05	0.36	8,726,352	8.088180485E+12	0.33
Eureka							
	55-183 m	600	1.792947094E+05	0.71	5,373,046	7.399567714E+12	0.51
	184-366 m	936	1.428860043E+05	0.40	6,339,850	6.502728444E+12	0.40
	367-500 m	0	-	-	0	-	-
	55-366 m	1,536	3.221807137E+05	0.37	11,712,895	1.390229616E+13	0.32
	55-500 m	1,536	3.221807137E+05	0.37	11,712,895	1.390229616E+13	0.32
Monterey							
	55-183 m	6,717	8.348847600E+06	0.43	64,349,407	6.071163505E+14	0.38
	184-366 m	5,897	4.458882567E+06	0.36	55,851,481	2.673773908E+14	0.29
	367-500 m	100	1.003149987E+04	1.00	753,577	5.621466464E+11	0.99
	55-366 m	12,614	1.280773017E+07	0.28	120,200,888	8.744937412E+14	0.25
	55-500 m	12,714	1.281776167E+07	0.28	120,954,465	8.750558879E+14	0.24
Conception							
	55-183 m	47	6.685547818E+02	0.54	1,694,049	8.831947127E+11	0.55
	184-366 m	4,033	4.226830115E+06	0.51	41,353,164	3.422504796E+14	0.45
	367-500 m	0	-	-	0	-	-
	55-366 m	4,080	4.227498669E+06	0.50	43,047,213	3.431336743E+14	0.43
	55-500 m	4,080	4.227498669E+06	0.50	43,047,213	3.431336743E+14	0.43
US Total							
	55-183 m	7,421	8.529426124E+06	0.39	72,302,704	6.162218512E+14	0.34
	184-366 m	11,763	9.033860067E+06	0.26	111,527,617	6.286443061E+14	0.22
	367-500 m	100	1.003149987E+04	1.00	753,577	5.621466464E+11	0.99
	55-366 m	19,185	1.756328619E+07	0.22	183,830,321	1.244866157E+15	0.19
	55-500 m	19,285	1.757331769E+07	0.22	184,583,898	1.245428304E+15	0.19
Total							
	55-183 m	7,426	8.529438320E+06	0.39	72,362,652	6.162234873E+14	0.34
	184-366 m	11,774	9.033985358E+06	0.26	111,567,358	6.286460204E+14	0.22
	367-500 m	100	1.003149987E+04	1.00	753,577	5.621466464E+11	0.99
	55-366 m	19,200	1.756342368E+07	0.22	183,930,009	1.244869508E+15	0.19
	55-500 m	19,301	1.757345518E+07	0.22	184,683,586	1.245431654E+15	0.19

1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Widow Rockfish

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	5	1.687471024E+01	0.76	6,002	1.726920671E+07	0.69
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	5	1.687471024E+01	0.76	6,002	1.726920671E+07	0.69
	55-500 m	5	1.687471024E+01	0.76	6,002	1.726920671E+07	0.69
US Vancouver							
	55-183 m	20	1.813425255E+02	0.69	28,120	3.604727822E+08	0.68
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	20	1.813425255E+02	0.69	28,120	3.604727822E+08	0.68
	55-500 m	20	1.813425255E+02	0.69	28,120	3.604727822E+08	0.68
Total Vancouver							
	55-183 m	25	2.268449411E+02	0.60	34,122	4.332177527E+08	0.61
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	25	2.268449411E+02	0.60	34,122	4.332177527E+08	0.61
	55-500 m	25	2.268449411E+02	0.60	34,122	4.332177527E+08	0.61
Columbia							
	55-183 m	7	3.587668150E+01	0.82	5,841	1.670203324E+07	0.70
	184-366 m	2,308	5.218117424E+06	0.99	1,607,798	2.533103936E+12	0.99
	367-500 m	10	2.739181541E+01	0.54	9,213	2.521378023E+07	0.55
	55-366 m	2,315	5.218153301E+06	0.99	1,613,638	2.533120638E+12	0.99
	55-500 m	2,325	5.218180693E+06	0.98	1,622,852	2.533145852E+12	0.98
Eureka							
	55-183 m	50	2.059958363E+03	0.90	43,507	1.254317964E+09	0.81
	184-366 m	32	1.392777811E+02	0.37	27,598	1.092461478E+08	0.38
	367-500 m	0	-	-	0	-	-
	55-366 m	83	2.199236144E+03	0.57	71,105	1.363564111E+09	0.52
	55-500 m	83	2.199236144E+03	0.57	71,105	1.363564111E+09	0.52
Monterey							
	55-183 m	549	1.083214697E+05	0.60	916,210	5.041484225E+11	0.77
	184-366 m	34	2.531436820E+02	0.47	33,637	2.260908072E+08	0.45
	367-500 m	0	-	-	0	-	-
	55-366 m	584	1.085746134E+05	0.56	949,846	5.043745133E+11	0.75
	55-500 m	584	1.085746134E+05	0.56	949,846	5.043745133E+11	0.75
Conception							
	55-183 m	9	3.845986126E+01	0.68	56,490	1.797907137E+09	0.75
	184-366 m	1	5.921281922E-01	1.00	1,282	1.644800534E+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	10	3.905198946E+01	0.64	57,773	1.799551938E+09	0.73
	55-500 m	10	3.905198946E+01	0.64	57,773	1.799551938E+09	0.73
US Total							
	55-183 m	636	1.106371071E+05	0.52	1,050,168	5.075778224E+11	0.68
	184-366 m	2,375	5.218512573E+06	0.96	1,670,315	2.533446848E+12	0.95
	367-500 m	10	2.739181541E+01	0.54	9,213	2.521378023E+07	0.55
	55-366 m	3,011	5.329149680E+06	0.77	2,720,483	3.041024670E+12	0.64
	55-500 m	3,021	5.329177072E+06	0.76	2,729,697	3.041049884E+12	0.64
Total							
	55-183 m	641	1.106826095E+05	0.52	1,056,170	5.076505674E+11	0.67
	184-366 m	2,375	5.218512573E+06	0.96	1,670,315	2.533446848E+12	0.95
	367-500 m	10	2.739181541E+01	0.54	9,213	2.521378023E+07	0.55
	55-366 m	3,017	5.329195182E+06	0.77	2,726,485	3.041097415E+12	0.64
	55-500 m	3,026	5.329222574E+06	0.76	2,735,699	3.041122629E+12	0.64

**1995 NMFS Triennial Bottom Trawl Survey
Biomass and Population Estimates for Yellowtail Rockfish**

INPFC Area	Depth Stratum	Biomass (t)	var(Biomass)	CV (Biomass)	Population (fish)	var(Population)	CV (Population)
Canadian Vancouver							
	55-183 m	320	3.048229028E+04	0.55	255,714	2.030762934E+10	0.56
	184-366 m	333	9.500620531E+04	0.93	316,504	9.169715945E+10	0.96
	367-500 m	2	3.142077899E+00	1.00	958	9.180651276E+05	1.00
	55-366 m	653	1.254884956E+05	0.54	572,218	1.120047888E+11	0.58
	55-500 m	654	1.254916377E+05	0.54	573,176	1.120057069E+11	0.58
US Vancouver							
	55-183 m	1,364	8.970206400E+05	0.69	1,023,830	5.040279512E+11	0.69
	184-366 m	161	9.875933241E+03	0.62	126,904	8.108169487E+09	0.71
	367-500 m	5	2.164610494E+01	1.00	2,515	6.324647169E+06	1.00
	55-366 m	1,525	9.068965732E+05	0.62	1,150,734	5.121361207E+11	0.62
	55-500 m	1,530	9.069182193E+05	0.62	1,153,249	5.121424454E+11	0.62
Total Vancouver							
	55-183 m	1,684	1.064091504E+06	0.61	1,279,544	6.013581226E+11	0.61
	184-366 m	494	1.597132731E+05	0.81	443,408	1.524213126E+11	0.88
	367-500 m	6	4.128227243E+01	1.00	3,473	1.206202263E+07	1.00
	55-366 m	2,178	1.223804777E+06	0.51	1,722,952	7.537794352E+11	0.50
	55-500 m	2,184	1.223846060E+06	0.51	1,726,425	7.537914973E+11	0.50
Columbia							
	55-183 m	1,318	6.247505216E+05	0.60	1,952,498	2.445803074E+12	0.80
	184-366 m	66	1.144502389E+03	0.52	43,615	5.490267720E+08	0.54
	367-500 m	0	-	-	0	-	-
	55-366 m	1,384	6.258950240E+05	0.57	1,996,113	2.446352101E+12	0.78
	55-500 m	1,384	6.258950240E+05	0.57	1,996,113	2.446352101E+12	0.78
Eureka							
	55-183 m	31	2.869681103E+02	0.55	40,829	6.465335641E+08	0.62
	184-366 m	0	-	-	0	-	-
	367-500 m	0	-	-	0	-	-
	55-366 m	31	2.869681103E+02	0.55	40,829	6.465335641E+08	0.62
	55-500 m	31	2.869681103E+02	0.55	40,829	6.465335641E+08	0.62
Monterey							
	55-183 m	407	7.370690896E+04	0.67	468,417	1.088726916E+11	0.70
	184-366 m	1	6.038909136E-01	1.00	1,295	1.677474760E+06	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	408	7.370751285E+04	0.67	469,712	1.088743691E+11	0.70
	55-500 m	408	7.370751285E+04	0.67	469,712	1.088743691E+11	0.70
Conception							
	55-183 m	29	7.175484347E+02	0.93	184,819	3.239639052E+10	0.97
	184-366 m	0	1.858308433E-01	1.00	718	5.161967869E+05	1.00
	367-500 m	0	-	-	0	-	-
	55-366 m	29	7.177342655E+02	0.91	185,538	3.239690672E+10	0.97
	55-500 m	29	7.177342655E+02	0.91	185,538	3.239690672E+10	0.97
US Total							
	55-183 m	3,150	1.612340943E+06	0.40	3,670,393	3.100900985E+12	0.48
	184-366 m	228	1.113264630E+04	0.46	172,532	8.713207742E+09	0.54
	367-500 m	5	2.164610494E+01	1.00	2,515	6.324647169E+06	1.00
	55-366 m	3,377	1.623473589E+06	0.38	3,842,925	3.109614193E+12	0.46
	55-500 m	3,382	1.623495235E+06	0.38	3,845,440	3.109620518E+12	0.46
Total							
	55-183 m	3,470	1.779411807E+06	0.38	3,926,107	3.198231157E+12	0.46
	184-366 m	560	1.609699862E+05	0.72	489,036	1.530263509E+11	0.80
	367-500 m	6	4.128227243E+01	1.00	3,473	1.206202263E+07	1.00
	55-366 m	4,030	1.940381793E+06	0.35	4,415,143	3.351257508E+12	0.41
	55-500 m	4,036	1.940423075E+06	0.35	4,418,616	3.351269570E+12	0.41

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- 88 FRITZ, L. W., A. GREIG, and R. F. REUTER. 1998. Catch-per-unit-effort, length, and depth distributions of major groundfish and bycatch species in the Bering Sea, Aleutian Islands, and Gulf of Alaska regions based on groundfish fishery observer data, 179 p. NTIS No. PB98-139298.
- 87 SINCLAIR, E. H. (editor) 1997. Fur seal investigations, 1996, 115 p. NTIS No. PB98-131790.
- 86 SINCLAIR, E.H. (editor). 1997. Fur seal investigations, 1995, 188 p. NTIS No. PB98-131808.
- 85 KINOSHITA, R. K., A. GREIG, and J. M. TERRY. 1998. Economic status of the groundfish fisheries off Alaska, 1996, 91 p. NTIS No. PB98-126170.
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- 83 RUTECKI, T. L., M. F. SIGLER, and H. H. ZENGER JR. 1997. Data report: National Marine Fisheries Service longline surveys, 1991-96, 64 p. NTIS No. PB98-108822.
- 82 MARTIN, M. H. 1997. Data report: 1996 Gulf of Alaska bottom trawl survey, 235 p. NTIS No. PB98-103930.
- 81 LAUTH, R. R. 1997. The 1996 Pacific West Coast upper continental slope trawl survey of groundfish resources off Washington and Oregon: Estimates of distribution, abundance, and length composition, 156 p. NTIS No. PB97-208912.
- 80 LAUTH, R. R. 1997. The 1995 Pacific West Coast upper continental slope trawl survey of groundfish resources off southern Oregon and northern California: Estimates of distribution, abundance, and length composition, 110 p. NTIS No. PB97-208920.
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- 78 HILL, P. S., D. P. DEMASTER, and R. J. SMALL. 1997. Alaska marine mammal stock assessments, 1996, 150 p. NTIS No. PB97-203277.
- 77 CHUMBLEY, K., J. SEASE, M. STRICK, and R. TOWELL. 1997. Field studies of Steller sea lions (Eumetopias jubatus) at Marmot Island, Alaska, 1979 through 1994, 99 p. NTIS No. PB97-203376.
- 76 OSMEK, S., J. CALAMBOKIDIS, J. LAAKE, P. GEARIN, R. DELONG, J. SCORDINO, S. JEFFRIES, and R. BROWN. 1997. Assessment of the status of harbor porpoise (Phocoena phocoena) in Oregon and Washington waters, 46 p. NTIS No. PB97-198436.
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- 73 CELEWYCZ, A. G., and A. C. WERTHEIMER. 1997. Suitability of Dry Bay, southeastern Alaska, as rearing habitat for juvenile salmon, 19 p. NTIS No. PB97-161343.