

**Comparison of *R/V Albatross IV* and *F/V Sea Breeze* Catch
During the NMFS/Industry Survey Trawl Study
Presence vs. Absence by Species**

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Catch data from paired tows from the *R/V Albatross IV* and *F/V Sea Breeze* were examined to determine the frequency of tows where one vessel had a positive catch of a species while the other recorded a null tow for the same species. The data were compiled by area and gear configuration and presented in tabular form for comparisons (Tables 1-6). The percentage of times one vessel had a positive catch while the other had a null catch was calculated as the number of positive catches divided by the total number of cells in an area/gear configuration combination. The number of cells in an area was calculated as the number of tows completed times the total number of species caught. For example, in Area 1 with the *R/V Albatross IV* using the Optimal gear configuration, there were 656 cells; 16 tows (8 pairs) and a total of 41 species (16*41).

OPT Configuration					WCS Configuration					No. of Species
Area	ALB Catch, SB None	SB Catch, ALB none	Cells	Pairs	Area	ALB Catch, SB None	SB Catch, ALB none	Cells	Pairs	
1	47	36	656	8	1	35	54	738	9	41
2	57	40	1100	11	2	45	70	1300	13	50
3	38	57	946	11	3	21	58	774	9	43

Area	ALB Catch, SB None	SB Catch, ALB none	Area	ALB Catch, SB None	SB Catch, ALB none
1	7.16%	5.49%	1	4.74%	7.32%
2	5.18%	3.64%	2	3.46%	5.38%
3	4.02%	6.03%	3	2.71%	7.49%

Overall, the results of the analysis indicated that the proportion of tows where one vessel or gear configuration recorded a positive catch while the other did not was relatively low, less than 7.5% for any combination. The optimal (OPT) gear configuration of the Yankee #36 trawl used by the *R/V Albatross IV* had more positive catches of species than the *F/V Sea Breeze* in Areas 1 and 2, while the *F/V Sea Breeze* had more positive catches while the *R/V Albatross IV* recorded no catch of species in Area 1 with the OPT gear and in all areas while the *R/V Albatross IV* used the worst case scenario (WCS) configuration.

In general, species for which the *R/V Albatross IV* recorded positive catches while the *F/V Sea Breeze* had null catches included primarily small-bodied species (e.g. hagfish, pearlsheds, fourbeard rockling, shrimp, etc.); species that generally passed through the larger mesh of the *F/V Sea Breeze* gear.

In Area 1, the *F/V Sea Breeze* consistently recorded small catches of spiny dogfish while the *R/V Albatross IV* caught none while using the OPT gear. The *F/V Sea Breeze* recorded consistent catches of monkfish while the *R/V Albatross IV* caught few with either gear (Tables 1 and 2).

In the deeper Area 2, the *F/V Sea Breeze* caught smooth skate in every paired tow while the *R/V Albatross IV* caught none while using the WCS gear and very few while using the OPT gear. In this area, the *R/V Albatross IV* again recorded small-bodied species that the *F/V Sea Breeze* did not retain such as hagfish, rockling, and octopus (Tables 3 and 4).

In Area 3, the shallowest area, the *F/V Sea Breeze* recorded positive catches of spiny dogfish 7 of the 10 pairs of tows with the WCS gear while the *R/V Albatross IV* caught none.

Thorny and smooth skates were also caught with consistency in this area while none were caught by the *R/V Albatross IV* WCS gear and few with the OPT configuration. As in the other areas, the only species that the *R/V Albatross IV* caught with consistency while the *F/V Sea Breeze* recorded null catches were small species such as hagfish, Gulfstream flounder, and pearlides (Tables 5 and 6).

TABLES

- Table 1. Comparison of *R/V Albatross IV* OPT configuration vs. *F/V Sea Breeze* catches in Area 1, NW CAI, during the Survey Trawl Study. Hash marks indicate paired tows where a species was present in the catch of one vessel but not the other (////= SB positive catch, ALB none; \\\=\=ALB positive catch, SB none.
- Table 2. Comparison of *R/V Albatross IV* WCS configuration vs. *F/V Sea Breeze* catches in Area 1, NW CAI, during the Survey Trawl Study. Hash marks indicate paired tows where a species was present in the catch of one vessel but not the other (////= SB positive catch, ALB none; \\\=\=ALB positive catch, SB none.
- Table 3. Comparison of *R/V Albatross IV* OPT configuration vs. *F/V Sea Breeze* catches in Area 2, East of Cape Cod, during the Survey Trawl Study. Hash marks indicate paired tows where a species was present in the catch of one vessel but not the other (////= SB positive catch, ALB none; \\\=\=ALB positive catch, SB none.
- Table 4. Comparison of *R/V Albatross IV* WCS configuration vs. *F/V Sea Breeze* catches in Area 2, East of Cape Cod, during the Survey Trawl Study. Hash marks indicate paired tows where a species was present in the catch of one vessel but not the other (////= SB positive catch, ALB none; \\\=\=ALB positive catch, SB none.
- Table 5. Comparison of *R/V Albatross IV* OPT configuration vs. *F/V Sea Breeze* catches in Area 3, NE CAI, during the Survey Trawl Study. Hash marks indicate paired tows where a species was present in the catch of one vessel but not the other (////= SB positive catch, ALB none; \\\=\=ALB positive catch, SB none.
- Table 6. Comparison of *R/V Albatross IV* WCS configuration vs. *F/V Sea Breeze* catches in Area 3, NE CAI, during the Survey Trawl Study. Hash marks indicate paired tows where a species was present in the catch of one vessel but not the other (////= SB positive catch, ALB none; \\\=\=ALB positive catch, SB none.

TABLE 1.

	Vessel	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB
Consec No		15	10	16	11	17	12	18	13	19	14	20	15	21	16	22	17
Area		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Block		14	14	10	10	24	24	17	17	11	11	16	16	7	7	19	19
Sub-Block		3	3	2	2	3	3	1	1	1	1	3	3	1	1	3	3
Gear Config		0		0		0		0		0		0		0		0	
Species Name	TOTALS	1660.134	4157.1	1560.766	5614.6	120.687	456	286.323	952.1	159.925	666.3	149.496	1030.4	261.162	628.3	188.512	767
Hagfish	2.469	0.042				0.1				0.1		0.207		0.28		1.74	
Spiny Dogfish	21.100		2.4		7.2		1.8		2.7		7						
Barndoor Skate	0.000																
Winter Skate	5.800		5.8														
Smooth Skate	323.081	2.47	37.8	0.86	30.9		34.7	0.531		1.55	42	5.18	67.3	12.03	62.5	4.96	20.3
Thorny Skate	354.615	4.61	58.3	5.31	63.9	5.89	50.4	0.015			12.6	5.4	36.2	11.04	33.1	16.45	51.4
Atl Herring	76.890	0.25	0.3	0.64	5	1.3	4.7	0.7	2.7	5.42	13	3.52	28.9	2.05		1.51	6.9
Silver Hake	365.481	1.03	2.3	2.79	46.6	9.825	35.3	6.623	31.1	12.4	63.3	9.973	55.6	6.43	20.6	16.31	45.3
Cod	943.940	58.38	179	68.67	255.4	2.92	10.2	7.52	57.5		32.2	1.48	46.5	55.65	62.8	19.92	85.8
Haddock	11616.984	1390.99	3295.3	1113.32	3616.3	63.7	170.7	85.54	343.3	101.884	371.3	25.72	341.6	116.24	286.2	39.99	254.9
Pollock	462.097	93.17	162	24.7	131.4		1.9	17.29	7.7	0.99		0.597	1.6	3.18	0.6	1.87	15.1
White Hake	211.520	1.32	57.3	2.99	34.7	2.84	4.4	8.04	24	3.15	4.6	9.91	14	8.64	20.4	1.13	14.1
Red Hake	227.633	0.831	8.4	1.07	18.7	11.18	58.6	5.72	18.3	3.92	24.5	6.07	25	3.27	15.4	4.472	22.2
Fourbeard Rockling	0.054						0.054										
Cusk	1.840	1.14	0.7														
Halibut	8.400				4.9											3.5	
Amer plaice	15.456	0.66	2.3		3.9	0.26	1.3	0.1	0.9			0.81	2.2		0.7	0.026	2.3
Yellowtail	2.700	0.46	0.8	0.73				0.16							0.5		
Winter Fldr	0.000																
Witch Fldr	136.300		2.9		9.7	0.67	4.7		9.6	1.16	6.7	4.5	32.6	4.31	16	0.46	43
Redfish	3535.053	103.564	337.3	336.83	1337.1	10.3	29.9	139.159	421.3	24.32	69.3	66.49	336.1	30.34	78.2	62.55	152.3
Blackbelly Rosefish	1.527	0.556						0.971									
Hookear Sculpin	0.012												0.007			0.005	
Longhorn Sculpin	139.750	0.28	2.3	0.52	14.5	8.81	16.2	12.91		1.1	6.4	9.5	13.4	4.74	9	14.29	25.8
Sea raven	9.353	0.37					1.8	0.02		2.11	1.5	0.013	1.7			1.84	
Alligatorfish	0.016							0.001		0.002		0.004		0.005		0.004	
Wolfish	31.660			1.91	16				2.8					2.85	8.1		
Ocean Pout	19.050		1.6		5	2.01		0.87	0.9	0.9	5.7		1			0.57	0.5
Goosefish	135.067	0.011			11	0.056	29.4		26.7		6.1		25.8		8.9		27.1
Pearlsides	0.129							0.003				0.051		0.017		0.058	
Lobster	3.600								0.9				0.9		1.8		
Shrimp	0.000																
Cancer borealis	0.950					0.082				0.756		0.071				0.04	
Spider crab	0.054												0.054				
N. Stone Crab	0.310															0.31	
Scallop	0.000																
Illex	1.626		0.3	0.143		0.46		0.123	0.5		0.1						
Loligo	4.028			0.198	2.4	0.23			1.2								
Rossia sp.	0.009							0.009									
Spoonarm Octopus	0.252			0.035				0.018		0.163				0.029		0.007	
Octopus UNK	0.000																
Species Count		10	10	9	9	9	9	9	7	9	9	10	8	10	7	10	8

TABLE 2.

Vessel	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB
Consec No	2	1	3	2	4	3	5	4	6	5	7	6	9	7	10	8	11	9		
Area	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Block	13	13	23	23	14	14	10	10	24	24	17	17	11	11	16	16	7	7		
Sub-Block	1	1	2	2	1	1	4	4	4	4	3	3	4	4	2	2	2	2		
Gear Config	1		1		1		1		1		1		1		1		1			
Species Name	TOTALS	318.035	1077.7	138.612	670.2	632.068	3148.2	1543.633	4819.7	546.736	1914	1338.549	2863.4	300.717	1183.7	417.553	1177.5	169.16	661.5	
Hagfish	0.649	0.065		0.06		0.15						0.1		0.087		0.108		0.079		
Spiny Dogfish	27.910	3.98	13.9				1.2			1.43	2.5		1.2		3.7					
Barndoor Skate	3.200								3.2											
Winter Skate	26.500		19.5								3.1				0.8		3.1			
Smooth Skate	382.020	6.67	83.2		33.1	0.46	44.7	1.88	20.6	0.77	21.7		31.1	2.24	50.3	1.13	41	3.57	39.6	
Thorny Skate	316.483	6.65	22.7	20.98	101.1	1.44	37.9		20.3	3.73	26.5	1.17			10.2	18.913	14.9	0.4	29.6	
Atl Herring	70.460	3.45	13.1	2.34	10.4	1.94	3.5	0.53		1.12	1.5	1.99	0.1	5.14	5.9	3.73	6.1	2.52	7.1	
Silver Hake	285.812	11.22	36.6	7.88	22.3	1.58	11.6	2.14	20.2	9.194	20.5	8.46	18.3	25.669	28.6	11.839	26.8	9.13	13.8	
Cod	1134.150	11.4	53.3	2.48	44.1	18.18	262.7	42.9	301.8	4.91	22.5	6.66	94.2	2.03	15.3	35.28	103.5	22.01	90.9	
Haddock	16065.121	172.72	609.2	66.98	185.4	542.026	2466.5	1175.693	3221.7	487.88	1606.5	1094.13	2186.7	142.631	727	271.711	724.9	80.05	303.4	
Pollock	556.074	2.86	3.4			28.024	151.2	26.17	169.8	2.11	56.2	12.72	5.1	1.73		6.96	80.7		9.1	
White Hake	278.540	5.87			22.6	5.19	33.6	8.02	27.1	1.36	18.8	16.22	38.6	11.07	23.4	10.81	24.7		31.2	
Red Hake	170.635	4.01	14.2	10.842	24.7	1.903	2.3		6.2	10.89	24.5	3.82	9.8	9.28	17.1	5.39	13.4	2.7	9.6	
Fourbeard Rockling	0.039											0.039								
Cusk	2.200								2.2											
Halibut	32.050							16.05												16
Amer plaice	17.690	1.47	0.4	0.31	4.8		2.6			1.78	2.1	0.54	2.2	0.46				0.83	0.2	
Yellowtail	2.800		0.9				0.9						0.8							0.2
Winter Fldr	1.600								1.6											
Witch Fldr	252.740	0.7	54.3	5.8	56.7		12.8		11.7		9.1		13.6	4.84	34.2	2.21	22.5	0.59	23.7	
Redfish	2794.110	82.74	110.6	0.98	3.9	29.85	107.4	264.73	983.2	10.51	45	179.23	403.9	91.19	245	39.35	79.1	45.83	71.6	
Blackbelly Rosefish	2.090					1.02						1.07								
Hookear Sculpin	0.005					0.005														
Longhorn Sculpin	174.040	1.64	13.8	10.55	34.2	0.3	3.4	1.67	0.7	6.71	27.3	11.76	25.9	2.48	2.6	7.84	16.9	0.79	5.5	
Sea raven	8.670	2.36	3.6								1.6			0.41	0.7					
Alligatorfish	0.014	0.006										0.004		0.004						
Wolffish	24.950		3.2				4.8	2.75	4.8		5.1		4.3							
Ocean Pout	11.580				2.8					4	0.5			1.38	1.3			1.6		
Goosefish	258.949		21.8	9.34	123.8				21.9		17.2		23.6	0.009	14.5			16.8		10
Pearlsides	0.071	0.014		0.045					0.003			0.002		0.004		0.002		0.001		
Lobster	10.430								1.7				1.9		2.4	2.27	1.5	0.66		
Shrimp	0.025			0.025																
Cancer borealis	0.510	0.189											0.021	0.3						
Spider crab	1.000							1												
N. Stone Crab	1.000										1									
Scallop	0.200						0.1								0.1					
Illex	4.430			0.3			0.4	0.1	0.2	0.33	0.5	0.5	1.8		0.3					
Loligo	2.036						0.6		0.7	0.006	0.3	0.13	0.3							
Rossia sp.	0.000																			
Spoonarm Octopus	0.080	0.021								0.003		0.004		0.042		0.01				
Octopus UNK	0.100								0.1											
Species Count		11	10	9	8	10	9	8	8	10	10	9	8	9	10	10	9	10	8	

TABLE 3.

Vessel	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB
Consec No	23	18	24	19	25	20	26	21	27	22	28	23	29	24	30	25	31	26	32	27	33	28		
Area	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Block	2	2	19	19	17	17	18	18	11	11	8	8	14	14	6	6	13	13	24	24	22	22		
Sub-Block	1	1	4	4	2	2	1	1	3	3	4	4	1	1	4	4	1	1	2	2	4	4		
Gear Config	0		0		0		0		0		0		0		0		0		0		0		0	
Species Name	TOTALS	201.755	1960.8	181.909	1181.3	146.498	570.9	216.27	1135.1	302.864	1232.7	134.706	639.3	231.055	1006.6	253.239	1566	196.408	837	145.08	872.5	238.717	971.3	
Hagfish	1.900				0.17				0.12				0.11				0.25		0.1		0.12		0.77	0.05
Spiny Dogfish	2588.930	30.46	1448.6	34.05	750	21.74	132.5	5.56	8.6		9.7	1.98	35.2	1.68	5.6		4	7	37.5	1.86	22.4			30.5
Atl Torpedo Ray	79.930				8						71.93													
Barndoor Skate	11.320										9.9			1.42										
Winter Skate	0.000																							
Smooth Skate	62.560		13.6		3.7		5	0.27	6.3		5.3		3.4	1.55	6	0.66	6				1.72	4.4	0.26	4.4
Thorny Skate	20.501		2.2						7.5					0.021	2.5				1.58					6.7
Atl Herring	3048.188	0.12	0.5		0.57	0.9	70.19	546.2	136.06	695	43.1	82.9	63.72	241.3	97.9	399.8	32.93	121.6	26.718	79.4	93.08			316.2
Alewife	0.440	0.44																						
Hickory Shad	0.800						0.8																	
Silver Hake	5125.861	84.842	226	18.74	86.5	45.612	166.8	62.292	352.4	49.21	317.9	40.73	340.4	82.31	515.6	87.493	917.7	94.88	483.6	58.122	576.3	75.23	443.2	
Cod	5.400														5.4									
Haddock	9.180	2.98	0.7								1.4				4.1									
Pollock	30.120				2.17	8			2.9	1.55	3.4			1.58	1.8		2.6		0.5		0.2	0.92	4.5	
White Hake	1036.358	28.661	106.8	69.54	95.9	25.65	110.1	31.218	54.9	11.56	53.2	21.42	39.3	33.58	65.3	16.67	41.9	36.88	29.8	29.27	55.8	36.809	42.1	
Red Hake	846.471	35.617	82.3	19.077	47.9	17.157	38.1	32.51	90	23.23	54.2	13.18	54.6	22.7	72.9	29.51	61.8	14.37	28	9.44	24.7	23.38	51.8	
Longfin Hake	0.000																							
Fourbeard Rockling	0.300				0.022						0.04				0.093		0.069		0.02		0.034		0.022	
Cusk	2.200																		2.2					
Marlin Spike	0.200																		0.2					
Amer plaice	397.834	8.78	7.3	14.21	37	16.05	39.2	8.16	12.4	5.92	37.1	6.7	29	6.947	22.7	9.067	34.2	2.4	29.8	11.32	42.7	2.58	14.3	
Fourspot Fldr	0.000																							
Witch Fldr	184.914	0.43	8.9	0.37	12.6	1.581	22.2	0.46	15		6.6	0.97	15.1	1.193	21.7	2.04	21.8	0.32	17.9	1.62	18.3	1.43	14.4	
Redfish	233.730	4.41	23.6	20.41	122	0.49	4.8	0.82	0.7	0.4	0.2	2.59	3.7	1.16	0.4	0.35		2.44	39.5	1.26	4.5			
Blackbelly Rosefish	0.000																							
Longhorn Sculpin	0.680	0.18	0.5																					
Sea raven	2.600				2.6																			
Lumpfish	0.100		0.1																					
Daubed Shanny	0.009	0.001		0.001		0.007																		
Wolf Eelpout	0.000																							
Wrymouth	1.920								1.5					0.32					0.1					
Ocean Pout	51.220		3.1					0.74	7.6	1.06	8.6		1	0.87	5.2	1.03	8.2	0.96	3.5		1.1	1.56	6.7	
Goosefish	397.610	2.27	35.4	0.45	14.6	9.11	38.9	0.43	27.5		30		30.8	8.67	30.5	4.61	57.3	0.49	39.6	0.01	34.7	0.57	31.7	
Pearlsides	0.004	0.001																					0.003	
Hatcheffish	0.000																							
Atl Soft Pout	0.037	0.01		0.024										0.003										
Lobster	6.300				0.9										1.6					0.9		2.3	0.6	
Shrimp	11.090	2.21	0.1	3.24		1.94	0.1	0.47			0.3		0.45		0.4		0.39		0.5		0.45		0.54	
Red Deepsea Crab	15.101	0.11	0.30	0.11				0.59	0.10		0.01	0.20		1.29	4.00	1.91	5.40	0.18	0.90					
Cancer borealis	46.429	0.23	0.60	1.66	2.20	1.58	3.50	2.30	1.50	1.41			3.34	3.90	1.14		1.23	2.40	1.20	3.90	2.37	5.60	2.17	4.20
N. Stone Crab	0.000																							
Snow Crab	0.130													0.13										
Illex	0.000																							
Loligo	0.200		0.2																					
Rossia sp.	0.008	0.003			0.005																			
Shield Bobtail Squid	0.002							0.002																
Common Octopus	0.000																							
Spoonarm Octopus	0.924			0.027		0.044		0.138		0.073		0.036		0.028		0.21		0.138		0.117		0.113		
Crab UNK	0.400															0.4								
Octopus UNK	0.100																				0.1			
Species Count		18	18	14	14	19	16	16	16	16	17	15	14	20	18	16	16	17	14	17	15	16	15	

TABLE 5.

Vessel	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB
Consec No	49	42	50	43	51	44	52	45	53	46	54	47	55	48	56	49	57	50	60	51	61	52		
Area	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Block	3	3	18	18	8	8	22	22	12	12	24	24	11	11	7	7	23	23	13	13	4	4		
Sub-Block	3	3	2	2	2	2	2	2	2	2	2	2	1	1	1	1	2	2	3	3	2	2		
Gear Config	0		0		0		0		0		0		0		0		0		0		0		0	
Species Name	TOTALS	55.344	712.7	76.434	634	57.779	693.7	90.939	501.9	123.588	645.3	149.594	704.4	76.158	761.6	68.956	500	77.26	755.4	49.622	698.7	236.336	1059.1	
Hagfish	1.041	0.29		0.052				0.077		0.24						0.072				0.13		0.18		
Spiny Dogfish	24.860							2.86					2.3		2.6		3.9		6.9		1		5.3	
Atl Torpedo Ray	7.500						7.5																	
Barndoor Skate	764.493	2.65	113.2	4.24	93.5	6.92	110.9	24.49	53	7.29	22.5	0.053	34.1	8.95	70.3		40.2		76.3	4.84	70.7	3.66	16.7	
Winter Skate	277.920			2.08	21.4	3.8	33.4		20.7		30.4		27.1	1.46	33.1		15.8		28.8	3.48	18.6		37.8	
Little Skate	2595.715	10.86	243.3	10.34	272.7	5.47	269.9	6.43	178	31.185	309	9.54	208.8	15.3	257	7.3	138.6	0.56	186.9	3.78	238	9.45	183.3	
Smooth Skate	9.400				3.3		6.1																	
Thorny Skate	43.780			2.08	21.4		20.3																	
Atl Herring	5.868		1.5	0.15	0.6		0.3		0.2					0.12	0.3	0.028					0.1	0.27	2.3	
Silver Hake	262.982	4.12	76.3	1.18	21.7	1.121	16	2.82	18.4	2.02	19.1	1.67	12.4	0.947	11.2	2.96	21.6	1.017	7.4	0.002	1.5	3.725	35.8	
Cod	10.720																					10.72		
Haddock	0.005											0.005												
Pollock	1.100												0.2		0.9									
White Hake	22.210		4.9		2.4	2.56	3.3	0.82	0.8						5.4							2.03		
Red Hake	948.046	6.92	68.8	6.11	50.2	8.309	37	8.7	65.7	16.125	77.8	17.702	110.6	6.31	64.7	9.89	87.7	5.27	79.5	1.8	70.5	15.11	133.3	
Amer plaice	0.550					0.29								0.26										
Fourspot Fldr	285.687	6.92	16.1	16.217	22.4	13.52	25.3	6.58	12.7	5.64	8.2	9.94	24.6	8.75	33.7	7.12	11	1.35	21.9	1.84	12.3	5.81	13.8	
Yellowtail	3.983	0.001				0.001			1.3				0.9		0.001	0.5	0.38	0.9						
Winter Fldr	502.670	1.37	13.9	8.94		1.18	39	5.24	26	3.57	31.9	7	52.3	10.54	37.4	1.79	29.8	8.23	55.6	10.09	113.1	1.72	44	
Witch Fldr	72.690		8.9		3.1	0.43	2.4		9.2		5.2		4.1		4	0.96	5.2		15.2		11.3		2.7	
Gulfstream Fldr	0.419			0.013		0.014				0.039			0.2	0.043		0.01								0.1
Northern Pipefish	0.001											0.001												
Atl mackerel	0.300																					0.3		
Butterfish	91.605	0.1		0.42	1.4	0.57	2.6	1.14	4.7	0.74	3.1	0.4	8.9	0.005	2.3	0.95	4	2.23	6.8	0.26	6.1	7.59	37.3	
Redfish	0.000																							
Longhorn Sculpin	40.940	0.82	1.9	0.58	1.9	2.09	17	0.31	0.5	0.29	1.8	0.36	0.9	2.46	2.8	0.44	0.4		1.4		0.8	0.89	3.3	
Sea raven	0.770											0.27												0.5
Northern Searobin	0.008																						0.008	
Cunner	0.001											0.001												
Wrymouth	1.100										0.2				0.9									
Ocean Pout	7.000														4.4							0.6	2	
Goosefish	1064.120	7.12	128.5	2.64	94.5		78	5.44	65.4	5.41	43.2	7.04	121	3.39	130.7	5.05	76.6	2.08	138.7		60.9	9.65	78.8	
Pearlsides	0.096											0.02		0.043		0.025				0.008				
Lobster	515.100	10.31	26.5	6.63	12.4	1.36	4.7	4.85	21.8	23.55	56.4	8.74	27.5	5.96	54.9	11.63	24.2	1.82	16.5	6.29	40.3	39.06	109.7	
Shrimp	0.009	0.009																						
Cancer borealis	2.684		0.5		0.3			0.002					0.4	0.68	0.5		0.3				0.002			
Cancer irroratus	0.123									0.11													0.013	
Scallop	538.980	2.22	1.2	0.96	1.4	0.2	1.8	9.74	10.6	16.83	14.1	73.48	32.6	2.45	6.5	1.48	3.7	3.22	12.7	0.71	8.9	77.59	256.6	
Illex	15.031		7.1	0.164	0.1	0.21	0.2	0.3	0.9	0.075	0.5	0.232	1	0.14	1.1	0.12	0.4	0.53	0.7	0.2	0.7	0.36		
Loligo	609.195	1.63		13.638	9.3	9.73	18	11.14	12	10.474	21.9	13.14	34.5	8.35	36.9	19.13	36.1	50.573	99.2	16.19	43	48.5	95.8	
Rossia sp.	0.004	0.004																						
Silver Anchovy	0.004				0.004																			
Crab UNK	0.100		0.1																					
Species Count		14	13	16	15	16	17	15	15	13	12	13	15	15	16	14	14	12	14	14	14	14	16	14

TABLE 6.

Vessel	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB	ALB	SB
Consec No	62	53	65	54	66	55	67	56	68	57	71	58	72	59	73	60	74	61		
Area	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Block	3	3	22	22	12	12	24	24	11	11	10	10	14	14	13	13	4	4		
Sub-Block	2	2	1	1	1	1	1	1	3	3	3	3	3	3	1	1	1	1		
Gear Config	1		1		1		1		1		1		1		1		1			
Species Name	TOTALS	89.652	612.3	56.689	703.5	125.342	857.7	72.131	677.4	46.666	651	89.928	1368.8	29.918	420.7	60.571	568.2	102.192	587.5	
Hagfish	0.000																			
Spiny Dogfish	15.600			2.3		1.8		1.1		1.2				6.5		1.2		1.5		
Atl Torpedo Ray	0.000																			
Barndoor Skate	867.300	1.83	102	11.79	142.4	0.78	69.2	2.95	105.4		116.3		22.4		56.9	20.75	103.4	17.2	94	
Winter Skate	1090.521	7.29	24.7	4.8	13.9	57.281	58.3	2.64	27.3	1.49	43.9	20.29	734.7	1.29	22.6		40.1	8.84	21.1	
Little Skate	2237.910	14.75	230.2	1.92	230.4	8.89	310.1	6.09	229	6.62	242.6	28.87	342.7	4.22	147.9	7.67	216.7	12.78	196.5	
Smooth Skate	14.200		2.5		1.1						0.6						0.1			
Thorny Skate	27.300		0.8		21.4		1.5		1		1.7				0.9					
Atl Herring	9.791	0.33	4.7	0.13	1.1		0.6		1		1.53			0.32				0.081		
Silver Hake	108.887	2.75	12.2	1.26	8.2	2.203	6	0.344	6.1	1.75	7.4	6.45	26	2.52	3.2	2.85	4.3	6.56	8.8	
Cod	6.700								2.7											4
Haddock	0.010					0.01														
Pollock	0.570	0.17							0.2		0.2									
White Hake	17.700		2.5		1.8						6.2							3.5	3.7	
Red Hake	772.889	16.65	78.5	11.096	82.5	22.257	148.8	20.875	94.9	7.79	37	12.34	49	3.551	41.9	8.58	33.2	26.75	77.2	
Amer plaice	1.227				0.4					0.827										
Fourspot Fldr	227.673	16.01	22.4	11.97	32.3	8.71	15.2	10.59	18.8	6.053	21.4	1.85	4	3.84	13.5	3.78	8.1	7.77	21.4	
Yellowtail	5.294		0.5	0.69	0.7	0.001			0.8								2.6	0.003		
Winter Fldr	361.740	7.74	26.6	2.74	25.5	10.22	49.6	4.26	39.7	9.55	52.4	3.87	13.2	3.6	25.6	4.47	38	2.49	42.2	
Witch Fldr	50.690		3.2	0.25	0.9		1.4		5.2		4.4			0.43	5.5	2.31	17.9	0.2	9	
Gulfstream Fldr	0.782			0.055	0.1	0.06	0.2		0.1			0.04					0.1	0.027	0.1	
Northern Pipefish	0.000																			
Atl mackerel	0.200																0.2			
Butterfish	16.417	1.66	2.8	0.034	1.2	0.489	2.2	0.052	1.3	0.052	0.6	1.18	0.8	0.33	3.4	0.12	0.2			
Redfish	0.450	0.45																		
Longhorn Sculpin	22.910	0.26	3.7		3.1	0.43	0.1	0.38	0.9	0.45	3.8	0.26	0.5	0.3	3.2	0.56	1.8	1.37	1.8	
Sea raven	4.572		1.3	0.032		0.86	0.8				0.38	1.1							0.1	
Northern Searobin	0.000																			
Cunner	0.000																			
Wrymouth	0.000																			
Ocean Pout	5.100				1.1						4									
Goosefish	650.960		62.6	5.36	89.8		71.8	8.49	85.5		75.8		50.7		47.8		72.3	0.91	79.9	
Pearlsides	0.047			0.002		0.001		0.018		0.003				0.014		0.009				
Lobster	351.030	4.51	14.8	1.24	15.6	4.03	83.8	10	13.3	7.69	23.5	5.99	102.1	2.83	25.1	3.56	8.7	10.38	13.9	
Shrimp	0.250									0.25										
Cancer borealis	2.300		0.3		0.3					0.5		0.4					0.4		0.4	
Cancer irroratus	0.004	0.002														0.002				
Scallop	124.928	2.88	2.7	2.16	2.8	7.77	31.3	4.46	39.4	0.44	0.8	1.55	12.4	0.288	1	0.09	0.3	3.29	11.3	
Illex	2.089	0.22	0.2		0.3		0.5	0.092	0.2	0.134		0.058		0.385						
Loligo	122.148	12.15	13.1	1.16	14.4	1.35	4.5	0.89	3	3.567	6.8	5.27	9.2	6	15.7	5.82	18.6	0.041	0.6	
Rossia sp.	0.000																			
Silver Anchovy	0.000																			
Crab UNK	0.000																			
Species Count		15	17	15	19	15	15	13	18	13	17	13	12	13	14	12	15	16	15	