

APPENDIX C

COMMERCIAL TRAWLS

Table C-1. Combined two-year seasonal percent frequency of occurrence for all species collected in commercial trawls at four shoals and four reference sites in the Atlantic Ocean off the coast of Maryland and Delaware from November 2002 to September 2004. Ref – All reference sites combined. Shoal – All shoal sites combined.

Scientific Name	Common Name	Fall		Winter		Spring		Summer	
		Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal
<i>Alosa pseudoharengus</i>	Alewife				0.06		0.13		
<i>Ammodytes americanus</i>	American sand lance	0.06			0.19	0.06	0.13	0.06	0.19
<i>Squatina dumeril</i>	Atlantic angel shark							0.06	
<i>Gadus morhua</i>	Atlantic cod					0.06			
<i>Micropogonias undulatus</i>	Atlantic croaker	0.13						0.25	
<i>Clupea harengus harengus</i>	Atlantic herring			0.25	0.13				
<i>Brevoortia tyrannus</i>	Atlantic menhaden			0.31					
<i>Cancer irroratus</i>	Atlantic rock crab	0.31	0.13		0.06			0.25	
<i>Menidia menidia</i>	Atlantic silverside			0.13	0.06				
<i>Raja laevis</i>	Barndoor skate			0.31	0.19				
<i>Anchoa mitchilli</i>	Bay anchovy	0.19							
<i>Centropristis striata</i>	Black sea bass	0.13				0.19	0.06	0.13	0.06
<i>Callinectes sapidus</i>	Blue crab		0.06						
<i>Caranx crysos</i>	Blue runner							0.13	0.06
<i>Alosa aestivalis</i>	Blueback herring			0.25	0.06	0.06			
<i>Pomatomus saltatrix</i>	Bluefish	0.69	0.50				0.06	0.13	
<i>Myliobatis freminvillei</i>	Bullnose ray							0.38	0.06
<i>Peprilus triacanthus</i>	Butterfish	0.56	0.13			0.88	0.56	0.50	0.19
<i>Busycotypus canaliculatus</i>	Channeled whelk	0.38	0.38			0.25	0.13		
<i>Raja eglanteria</i>	Clearnose skate	0.63	0.94	0.06		0.06	0.56	0.69	0.81
<i>Ovalipes stephensoni</i>	Coarsehand lady crab	0.31	0.19					0.56	0.69
<i>Octopus vulgaris</i>	Common octopus	0.06							
<i>Lophius americanus</i>	Goosefish					0.13			
<i>Peprilus alepidotus</i>	Harvestfish								0.06
<i>Alosa mediocris</i>	Hickory shad			0.13					
<i>Limulus polyphemus</i>	Horseshoe crab	0.56	0.38	0.31	0.25	0.25	0.13	0.13	0.06
<i>Busycon carica</i>	Knobbed whelk	0.19	0.13			0.19		0.06	0.06
<i>Ovalipes ocellatus</i>	Lady crab	0.94	0.94					1.00	0.94
<i>Raja erinacea</i>	Little skate	0.69	0.75	0.81	0.69	0.88	1.00		
<i>Polinices</i>	Moon snails		0.25		0.13	0.06	0.13	0.06	
<i>Menticirrhus saxatilis</i>	Northern kingfish	0.06				0.31	0.38	0.06	0.06
<i>Sphoeroides maculatus</i>	Northern puffer					0.06	0.06		
<i>Prionotus carolinus</i>	Northern searobin	0.38	0.19			0.81	0.56	1.00	0.94
<i>Astroscopus guttatus</i>	Northern stargazer	0.06						0.06	0.06
<i>Libinia emarginata</i>	Portly spider crab	0.13				0.13	0.19		0.13
<i>Urophycis chuss</i>	Red hake	0.06				0.06			
<i>Paguridae</i>	Right-handed hermit crabs	0.19	0.06			0.06		0.06	
<i>Dasyatis centroura</i>	Roughtail stingray							0.06	0.13
<i>Stenotomus chrysops</i>	Scup	1.00	0.25			0.94	0.75	0.50	0.13
<i>Etropus microstomus</i>	Smallmouth flounder	0.06						0.06	
<i>Gymnura micrura</i>	Smooth butterfly ray							0.06	0.06

Table C-1. Continued									
Scientific Name	Common Name	Fall		Winter		Spring		Summer	
		Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal
<i>Mustelus canis</i>	Smooth dogfish	0.44	0.31			1.00	1.00	0.06	
<i>Scomberomorus maculatus</i>	Spanish mackerel		0.06				0.06		
<i>Squalus acanthias</i>	Spiny dogfish	1.00	1.00	0.38	0.31				
<i>Leiostomus xanthurus</i>	Spot							0.13	
<i>Urophycis regia</i>	Spotted hake	0.13		0.13		0.44	0.44	0.44	0.13
<i>Cephalopoda</i>	Squids	0.88	0.63			0.94	0.69	0.94	0.63
<i>Asteroidea</i>	Starfishes	0.56	0.44	0.31	0.38	0.31	0.38	0.25	0.44
<i>Morone saxatilis</i>	Striped bass	0.31	0.56		0.13				
<i>Prionotus evolans</i>	Striped searobin	0.50	0.44			0.63	0.50	0.13	0.06
<i>Paralichthys dentatus</i>	Summer flounder	0.94	1.00	0.25	0.06	0.63	0.31	0.50	0.19
<i>Alopias vulpinus</i>	Thresher shark							0.06	
<i>Cynoscion regalis</i>	Weakfish	0.31						0.13	
<i>Scophthalmus aquosus</i>	Windowpane	1.00	0.75	0.94	0.69	0.81	0.94	0.63	0.25
<i>Pleuronectes americanus</i>	Winter flounder				0.06	0.06			
<i>Raja ocellata</i>	Winter skate	1.00	1.00	0.94	0.38	1.00	1.00	0.38	0.13

Table C-2. Combined two-year seasonal percent composition for all species collected in commercial trawls at four shoal and four reference sites in the Atlantic Ocean off the coast of Maryland and Delaware from November 2002 to September 2004. Ref – All reference sites combined. Shoal – All shoal sites combined. A 0.00 value is < 0.005%.

Scientific Name	Common Name	Fall		Winter		Spring		Summer	
		Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal
<i>Alosa pseudoharengus</i>	Alewife				0.01	0.00			
<i>Ammodytes americanus</i>	American sand lance	0.00			0.11	0.00	0.00	0.00	0.14
<i>Squatina dumeril</i>	Atlantic angel shark							0.00	
<i>Gadus morhua</i>	Atlantic cod					0.00			
<i>Micropogonias undulatus</i>	Atlantic croaker	0.00						0.31	
<i>Clupea harengus harengus</i>	Atlantic herring			0.08	0.13				
<i>Brevoortia tyrannus</i>	Atlantic menhaden			0.02					
<i>Cancer irroratus</i>	Atlantic rock crab	0.00	0.00		0.01			0.00	
<i>Menidia menidia</i>	Atlantic silverside			0.01	0.01				
<i>Raja laevis</i>	Barndoor skate			0.04	0.04				
<i>Anchoa mitchilli</i>	Bay anchovy	0.03							
<i>Centropristis striata</i>	Black sea bass	0.00				0.00	0.00	0.00	0.00
<i>Callinectes sapidus</i>	Blue crab		0.00						
<i>Caranx crysos</i>	Blue runner							0.00	0.00
<i>Alosa aestivalis</i>	Blueback herring			0.02	0.01	0.00			
<i>Pomatomus saltatrix</i>	Bluefish	0.02	0.01				0.00	0.00	
<i>Myliobatis freminvillei</i>	Bullnose ray							0.00	0.00
<i>Peprilus triacanthus</i>	Butterfish	0.01	0.00			0.61	0.14	0.02	0.00
<i>Busycotypus canaliculatus</i>	Channeled whelk	0.00	0.00			0.00	0.00		
<i>Raja eglanteria</i>	Clearnose skate	0.01	0.02	0.00		0.00	0.00	0.02	0.04
<i>Ovalipes stephensoni</i>	Coarsehand lady crab	0.00	0.00					0.01	0.03
<i>Octopus vulgaris</i>	Common octopus	0.00							
<i>Lophius americanus</i>	Goosefish					0.00			
<i>Peprilus alepidotus</i>	Harvestfish								0.00
<i>Alosa mediocris</i>	Hickory shad			0.01					
<i>Limulus polyphemus</i>	Horseshoe crab	0.01	0.00	0.03	0.03	0.00	0.00	0.00	0.00
<i>Busycon carica</i>	Knobbed whelk	0.00	0.00			0.00		0.00	0.00
<i>Ovalipes ocellatus</i>	Lady crab	0.04	0.03					0.04	0.09
<i>Raja erinacea</i>	Little skate	0.03	0.04	0.15	0.19	0.01	0.01		
<i>Polinices</i>	Moon snails		0.00		0.01	0.00	0.00	0.00	
<i>Menticirrhus saxatilis</i>	Northern kingfish	0.00				0.00	0.00	0.00	0.00
<i>Sphoeroides maculatus</i>	Northern puffer					0.00	0.00		
<i>Prionotus carolinus</i>	Northern searobin	0.01	0.00			0.04	0.01	0.36	0.08
<i>Astroscopus guttatus</i>	Northern stargazer	0.00						0.00	0.00
<i>Libinia emarginata</i>	Portly spider crab	0.00				0.00	0.00		0.00
<i>Urophycis chuss</i>	Red hake	0.00				0.00			
<i>Paguridae</i>	Right-handed hermit crabs	0.00	0.00			0.00		0.00	
<i>Dasyatis centroura</i>	Roughtail stingray							0.00	0.00
<i>Stenotomus chrysops</i>	Scup	0.02	0.00			0.17	0.66	0.07	0.56
<i>Etropus microstomus</i>	Smallmouth flounder	0.00						0.00	
<i>Gymnura micrura</i>	Smooth butterfly ray							0.00	0.00

Table C-2. Continued									
Scientific Name	Common Name	Fall		Winter		Spring		Summer	
		Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal
<i>Mustelus canis</i>	Smooth dogfish	0.00	0.00			0.02	0.03	0.00	
<i>Scomberomorus maculatus</i>	Spanish mackerel		0.00				0.00		
<i>Squalus acanthias</i>	Spiny dogfish	0.38	0.21	0.04	0.08				
<i>Leiostomus xanthurus</i>	Spot							0.01	
<i>Urophycis regia</i>	Spotted hake	0.00		0.00		0.00	0.00	0.01	0.00
<i>Cephalopoda</i>	Squids	0.03	0.01			0.09	0.09	0.10	0.04
<i>Astroidea</i>	Starfishes	0.03	0.06	0.02	0.06	0.00	0.01	0.01	0.01
<i>Morone saxatilis</i>	Striped bass	0.00	0.31		0.01				
<i>Prionotus evolans</i>	Striped searobin	0.02	0.00			0.00	0.01	0.00	0.00
<i>Paralichthys dentatus</i>	Summer flounder	0.02	0.03	0.02	0.01	0.00	0.00	0.00	0.00
<i>Alopias vulpinus</i>	Thresher shark							0.00	
<i>Cynoscion regalis</i>	Weakfish	0.01						0.00	
<i>Scophthalmus aquosus</i>	Windowpane	0.13	0.02	0.20	0.16	0.00	0.00	0.00	0.00
<i>Pleuronectes americanus</i>	Winter flounder				0.01	0.00			
<i>Raja ocellata</i>	Winter skate	0.18	0.25	0.37	0.13	0.03	0.03	0.01	0.00

Table C-3. Combined two-year seasonal mean CPUE for all species collected in commercial trawls at four shoal and four reference sites in the Atlantic Ocean off the coast of Maryland and Delaware from November 2002 to September 2004. Ref – All reference sites combined. Shoal – All shoal sites combined.

Scientific Name	Common Name	Fall		Winter		Spring		Summer	
		Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal
<i>Alosa pseudoharengus</i>	Alewife				0.08	0.55			
<i>Ammodytes americanus</i>	American sand lance	0.07			1.29	0.08	0.74	0.89	42.46
<i>Squatina dumeril</i>	Atlantic angel shark							0.08	
<i>Gadus morhua</i>	Atlantic cod					0.07			
<i>Micropogonias undulatus</i>	Atlantic croaker	0.54						79.62	
<i>Clupea harengus harengus</i>	Atlantic herring			2.17	1.53				
<i>Brevoortia tyrannus</i>	Atlantic menhaden			0.45					
<i>Cancer irroratus</i>	Atlantic rock crab	0.38	0.29		0.06			0.27	
<i>Menidia menidia</i>	Atlantic silverside			0.14	0.07				
<i>Raja laevis</i>	Barndoor skate			1.04	0.49				
<i>Anchoa mitchilli</i>	Bay anchovy	8.37							
<i>Centropristis striata</i>	Black sea bass	0.49				0.22	0.07	0.27	0.07
<i>Callinectes sapidus</i>	Blue crab		0.05						
<i>Caranx crysos</i>	Blue runner							0.27	0.07
<i>Alosa aestivalis</i>	Blueback herring			0.41	0.15	0.07			
<i>Pomatomus saltatrix</i>	Bluefish	4.23	1.37				0.07	0.16	
<i>Myliobatis freminvillei</i>	Bullnose ray							0.99	0.15
<i>Peprilus triacanthus</i>	Butterfish	2.58	0.21			373.11	101.66	5.43	0.40
<i>Busycotypus canaliculatus</i>	Channeled whelk	0.62	0.63			0.81	0.20		
<i>Raja eglanteria</i>	Clearnose skate	3.35	4.68	0.06		0.15	3.66	5.23	11.16
<i>Ovalipes stephensoni</i>	Coarsehand lady crab	0.72	0.48					2.00	9.01
<i>Octopus vulgaris</i>	Common octopus	0.06							
<i>Lophius americanus</i>	Goosefish					0.16			
<i>Peprilus alepidotus</i>	Harvestfish								0.15
<i>Alosa mediocris</i>	Hickory shad			0.16					
<i>Limulus polyphemus</i>	Horseshoe crab	2.53	0.54	0.71	0.36	0.42	0.21	0.22	0.07
<i>Busycon carica</i>	Knobbed whelk	0.20	0.13			0.58		0.07	0.09
<i>Ovalipes ocellatus</i>	Lady crab	8.79	6.64					10.79	28.30
<i>Raja erinacea</i>	Little skate	7.69	11.41	4.02	2.27	5.65	10.93		
<i>Polinices</i>	Moon snails		0.42		0.14	0.08	1.23	0.06	
<i>Menticirrhus saxatilis</i>	Northern kingfish	0.07				0.59	0.72	0.22	0.14
<i>Sphoeroides maculatus</i>	Northern puffer					0.07	0.09		
<i>Prionotus carolinus</i>	Northern searobin	1.85	0.19			26.94	10.95	90.94	25.95
<i>Astroscopus guttatus</i>	Northern stargazer	0.06						0.08	0.27
<i>Libinia emarginata</i>	Portly spider crab	0.20				0.15	0.20		0.14
<i>Urophycis chuss</i>	Red hake	0.14				0.08			
<i>Paguridae</i>	Right-handed hermit crabs	0.20	0.07			0.07		0.19	
<i>Dasyatis centroura</i>	Roughtail stingray							0.06	0.14
<i>Stenotomus chrysops</i>	Scup	5.20	0.26			103.56	483.61	18.93	171.46
<i>Etropus microstomus</i>	Smallmouth flounder	0.07						0.07	
<i>Gymnura micrura</i>	Smooth butterfly ray							0.09	0.08

Table C-3. Continued									
Scientific Name	Common Name	Fall		Winter		Spring		Summer	
		Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal
<i>Mustelus canis</i>	Smooth dogfish	0.79	0.50			12.29	19.51	0.07	
<i>Scomberomorus maculatus</i>	Spanish mackerel		0.07				0.06		
<i>Squalus acanthias</i>	Spiny dogfish	94.38	55.49	1.04	0.93				
<i>Leiostomus xanthurus</i>	Spot							2.27	
<i>Urophycis regia</i>	Spotted hake	0.42		0.13		1.99	0.48	2.33	0.13
<i>Cephalopoda</i>	Squids	7.14	2.28			55.92	66.06	24.43	12.93
<i>Asteroidea</i>	Starfishes	7.67	14.56	0.49	0.65	2.58	4.65	1.86	2.09
<i>Morone saxatilis</i>	Striped bass	0.60	80.57		0.15				
<i>Prionotus evolans</i>	Striped searobin	5.49	0.65			2.14	4.29	0.37	0.07
<i>Paralichthys dentatus</i>	Summer flounder	4.59	7.89	0.42	0.07	1.50	0.76	0.80	0.21
<i>Alopias vulpinus</i>	Thresher shark							0.07	
<i>Cynoscion regalis</i>	Weakfish	2.40						1.07	
<i>Scophthalmus aquosus</i>	Windowpane	31.48	4.03	5.26	1.86	2.44	3.15	1.03	0.39
<i>Pleuronectes americanus</i>	Winter flounder				0.09	0.08			
<i>Raja ocellata</i>	Winter skate	44.94	64.86	9.48	1.54	19.74	22.40	2.64	0.28

Table C-4. Seasonal percent frequency of occurrence for all species collected in commercial trawls at four shoal and four reference sites in the Atlantic Ocean off the coast of Maryland and Delaware from November 2002 to September 2004. Ref – All reference sites combined. Shoal – All shoal sites combined.

Scientific Name	Common Name	Fall 02		Winter 03		Spring 03		Summer 03		Fall 03		Winter 04		Spring 04		Summer 04	
		Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal
<i>Alosa pseudoharengus</i>	Alewife												0.13	0.25			
<i>Ammodytes americanus</i>	American sand lance			0.38		0.25		0.13		0.13				0.13			0.38
<i>Squatina dumeril</i>	Atlantic angel shark							0.13									
<i>Gadus morhua</i>	Atlantic cod					0.13											
<i>Micropogonias undulatus</i>	Atlantic croaker	0.25															0.50
<i>Clupea harengus harengus</i>	Atlantic herring			0.25	0.13							0.25	0.13				
<i>Brevoortia tyrannus</i>	Atlantic menhaden											0.63					
<i>Cancer irroratus</i>	Atlantic rock crab	0.38	0.25					0.38		0.25			0.13				0.13
<i>Menidia menidia</i>	Atlantic silverside											0.25	0.13				
<i>Raja laevis</i>	Barndoor skate			0.63	0.38												
<i>Anchoa mitchilli</i>	Bay anchovy	0.25								0.13							
<i>Centropristis striata</i>	Black sea bass					0.13				0.25				0.25	0.13	0.25	0.13
<i>Callinectes sapidus</i>	Blue crab		0.13														
<i>Caranx crysos</i>	Blue runner								0.13								0.25
<i>Alosa aestivalis</i>	Blueback herring			0.50	0.13	0.13											
<i>Pomatomus saltatrix</i>	Bluefish	0.75	0.50				0.13			0.63	0.50						0.25
<i>Myliobatis freminvillei</i>	Bullnose ray							0.13									0.63 0.13
<i>Peprilus triacanthus</i>	Butterfish	0.50	0.13			1.00	0.25	0.63	0.13	0.63	0.13			0.75	0.88	0.38	0.25
<i>Busycotypus canaliculatus</i>	Channeled whelk	0.50	0.38			0.38	0.25			0.25	0.38			0.13			
<i>Raja eglanteria</i>	Clearnose skate	0.38	0.88	0.13		0.13	0.63	0.75	0.75	0.88	1.00				0.50	0.63	0.88
<i>Ovalipes stephensoni</i>	Coarsehand lady crab							0.63	0.38	0.63	0.38						0.50 1.00
<i>Octopus vulgaris</i>	Common octopus	0.13															
<i>Lophius americanus</i>	Goosefish					0.13								0.13			
<i>Peprilus alepidotus</i>	Harvestfish																0.13
<i>Alosa mediocris</i>	Hickory shad											0.25					
<i>Limulus polyphemus</i>	Horseshoe crab	0.63	0.50	0.63	0.50	0.38	0.25	0.25		0.50	0.25			0.13			0.13
<i>Busycon carica</i>	Knobbed whelk	0.13	0.25			0.38		0.13		0.25							0.13
<i>Ovalipes ocellatus</i>	Lady crab	0.88	0.88					1.00	1.00	1.00	1.00						1.00 0.88
<i>Raja erinacea</i>	Little skate	0.75	0.50	1.00	1.00	0.88	1.00			0.63	1.00	0.63	0.38	0.88	1.00		
<i>Polinices</i>	Moon snails		0.38		0.25		0.25	0.13			0.13			0.13			
<i>Menticirrhus saxatilis</i>	Northern kingfish					0.50	0.50			0.13				0.13	0.25	0.13	0.13
<i>Sphoeroides maculatus</i>	Northern puffer					0.13									0.13		

Table C-4. Continued

Scientific Name	Common Name	Fall 02		Winter 03		Spring 03		Summer 03		Fall 03		Winter 04		Spring 04		Summer 04	
		Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal
<i>Prionotus carolinus</i>	Northern searobin	0.25	0.13			0.75	0.75	1.00	0.88	0.50	0.25			0.88	0.38	1.00	1.00
<i>Astroscopeus guttatus</i>	Northern stargazer	0.13						0.13									0.13
<i>Libinia emarginata</i>	Portly spider crab	0.13				0.13	0.25		0.25	0.13				0.13	0.13		
<i>Urophycis chuss</i>	Red hake					0.13				0.13							
<i>Paguridae</i>	Right-handed hermit crabs	0.25				0.13		0.13		0.13	0.13						
<i>Dasyatis centroura</i>	Roughtail stingray								0.25								0.13
<i>Stenotomus chrysops</i>	Scup	1.00	0.13			1.00	0.63	0.63		1.00	0.38			0.88	0.88	0.38	0.25
<i>Etopus microstomus</i>	Smallmouth flounder							0.13		0.13							
<i>Gymnura micrura</i>	Smooth butterfly ray								0.13								0.13
<i>Mustelus canis</i>	Smooth dogfish	0.75	0.50			1.00	1.00			0.13	0.13			1.00	1.00	0.13	
<i>Scomberomorus maculatus</i>	Spanish mackerel								0.13								
<i>Squalus acanthias</i>	Spiny dogfish	1.00	1.00	0.75	0.63					1.00	1.00						
<i>Leiostomus xanthurus</i>	Spot																0.25
<i>Urophycis regia</i>	Spotted hake			0.25		0.63	0.63	0.88		0.25				0.25	0.25		0.25
<i>Cephalopoda</i>	Squids	0.88	0.75			0.88	0.50	1.00	0.50	0.88	0.50			1.00	0.88	0.88	0.75
<i>Asteroidea</i>	Starfishes	0.38	0.13	0.38	0.38	0.25	0.63	0.50	0.38	0.75	0.75	0.25	0.38	0.38	0.13		0.50
<i>Morone saxatilis</i>	Striped bass	0.50	0.63							0.13	0.50		0.25				
<i>Prionotus evolans</i>	Striped searobin	0.50	0.25			0.88	0.75			0.50	0.63			0.38	0.25	0.25	0.13
<i>Paralichthys dentatus</i>	Summer flounder	0.88	1.00	0.38	0.13	0.63	0.50	0.25	0.13	1.00	1.00	0.13			0.13	0.75	0.25
<i>Alopias vulpinus</i>	Thresher shark							0.13									
<i>Cynoscion regalis</i>	Weakfish	0.63															0.25
<i>Scophthalmus aquosus</i>	Windowpane	1.00	0.75	0.88	0.75	0.75	1.00	0.50	0.25	1.00	0.75	1.00	0.63	0.88	0.88	0.75	0.25
<i>Pleuronectes americanus</i>	Winter flounder												0.13	0.13			
<i>Raja ocellata</i>	Winter skate	1.00	1.00	0.88	0.13	1.00	1.00	0.75		1.00	1.00	1.00	0.63	1.00	1.00		0.25

Table C-5. Seasonal percent composition for all species collected in commercial trawls at four shoal and four reference sites in the Atlantic Ocean off the coast of Maryland and Delaware from November 2002 to September 2004. Ref – All reference sites combined. Shoal – All shoal sites combined. A 0.00 value is < 0.005%.

Scientific Name	Common Name	Fall 02		Winter 03		Spring 03		Summer 03		Fall 03		Winter 04		Spring 04		Summer 04	
		Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal
<i>Alosa pseudoharengus</i>	Alewife												0.03		0.00		
<i>Ammodytes americanus</i>	American sand lance			0.15		0.01		0.01	0.15	0.00					0.00		
<i>Squatina dumeril</i>	Atlantic angel shark							0.00									
<i>Gadus morhua</i>	Atlantic cod					0.00											
<i>Micropogonias undulatus</i>	Atlantic croaker	0.01															0.47
<i>Clupea harengus harengus</i>	Atlantic herring			0.13	0.16							0.01	0.06				
<i>Brevoortia tyrannus</i>	Atlantic menhaden											0.04					
<i>Cancer irroratus</i>	Atlantic rock crab	0.00	0.00					0.00		0.00			0.02				0.00
<i>Menidia menidia</i>	Atlantic silverside											0.01	0.02				
<i>Raja laevis</i>	Barndoor skate			0.07	0.06												
<i>Anchoa mitchilli</i>	Bay anchovy	0.01								0.05							
<i>Centropristis striata</i>	Black sea bass					0.00			0.00	0.00				0.00	0.00	0.00	
<i>Callinectes sapidus</i>	Blue crab		0.00														
<i>Caranx crysos</i>	Blue runner															0.00	0.00
<i>Alosa aestivalis</i>	Blueback herring			0.03	0.02	0.00											
<i>Pomatomus saltatrix</i>	Bluefish	0.04	0.01				0.00			0.01	0.00						0.00
<i>Myliobatis freminvillei</i>	Bullnose ray							0.00	0.00								0.01
<i>Peprilus triacanthus</i>	Butterfish	0.01	0.00			0.02	0.01	0.04	0.00	0.01	0.00			0.77	0.15	0.01	0.00
<i>Busycotypus canaliculatus</i>	Channeled whelk	0.00	0.00					0.01	0.00					0.00			
<i>Raja eglanteria</i>	Cleannose skate	0.00	0.02	0.00		0.00	0.05	0.02	0.03	0.02	0.02				0.00	0.02	0.17
<i>Ovalipes stephensoni</i>	Coarsehand lady crab							0.02	0.03	0.00	0.00						0.00
<i>Octopus vulgaris</i>	Common octopus	0.00															
<i>Lophius americanus</i>	Goosefish					0.00									0.00		
<i>Peprilus alepidotus</i>	Harvestfish								0.00								
<i>Alosa mediocris</i>	Hickory shad											0.01					
<i>Limulus polyphemus</i>	Horseshoe crab	0.03	0.00	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00				0.00		
<i>Busycon carica</i>	Knobbed whelk	0.00	0.00			0.00		0.00	0.00	0.00							
<i>Ovalipes ocellatus</i>	Lady crab	0.05	0.04					0.05	0.07	0.03	0.02					0.04	0.37
<i>Raja erinacea</i>	Little skate	0.09	0.14	0.21	0.22	0.03	0.11			0.00	0.01	0.07	0.10	0.00	0.01		
<i>Polinices</i>	Moon snails		0.01		0.02			0.00				0.00					
<i>Menticirrhus saxatilis</i>	Northern kingfish					0.00	0.01		0.00	0.00				0.00	0.00	0.00	
<i>Sphoeroides maculatus</i>	Northern puffer					0.00								0.00	0.00		

Table C-5. Continued

Scientific Name	Common Name	Fall 02		Winter 03		Spring 03		Summer 03		Fall 03		Winter 04		Spring 04		Summer 04	
		Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal
<i>Prionotus carolinus</i>	Northern searobin	0.00	0.00			0.01	0.02	0.44	0.07	0.01	0.00			0.05	0.01	0.32	0.33
<i>Astroscopus guttatus</i>	Northern stargazer	0.00						0.00	0.00								
<i>Libinia emarginata</i>	Portly spider crab																
<i>Urophycis chuss</i>	Red hake					0.00				0.00							
<i>Paguridae</i>	Right-handed hermit crabs	0.00				0.00		0.00		0.00	0.00						
<i>Dasyatis centroura</i>	Roughtail stingray															0.00	0.01
<i>Stenotomus chrysops</i>	Scup	0.03	0.00			0.74	0.16	0.21	0.60	0.02	0.00			0.01	0.70	0.00	
<i>Etropus microstomus</i>	Smallmouth flounder							0.00		0.00							
<i>Gymnura micrura</i>	Smooth butterfly ray															0.00	0.00
<i>Mustelus canis</i>	Smooth dogfish	0.01	0.01			0.04	0.14			0.00	0.00			0.01	0.02	0.00	
<i>Scomberomorus maculatus</i>	Spanish mackerel						0.00				0.00						
<i>Squalus acanthias</i>	Spiny dogfish	0.14	0.17	0.07	0.11					0.50	0.23						
<i>Leiostomus xanthurus</i>	Spot															0.01	
<i>Urophycis regia</i>	Spotted hake			0.01		0.01	0.01	0.03	0.00	0.00				0.00	0.00		
<i>Cephalopoda</i>	Squids	0.02	0.03			0.04	0.03	0.11	0.04	0.03	0.00			0.11	0.09	0.09	0.06
<i>Asteroidea</i>	Starfishes	0.01	0.00	0.02	0.05	0.01	0.06	0.02	0.01	0.04	0.08	0.01	0.08	0.00	0.00		0.01
<i>Morone saxatilis</i>	Striped bass	0.01	0.08							0.00	0.39		0.05				
<i>Prionotus evolans</i>	Striped searobin	0.01	0.00			0.01	0.06		0.00	0.03	0.00			0.00	0.00	0.00	
<i>Paralichthys dentatus</i>	Summer flounder	0.02	0.03	0.02	0.01	0.00	0.01	0.00	0.00	0.02	0.03	0.01		0.00		0.00	0.00
<i>Alopias vulpinus</i>	Thresher shark							0.00									
<i>Cynoscion regalis</i>	Weakfish	0.03											0.00			0.01	
<i>Scophthalmus aquosus</i>	Windowpane	0.30	0.03	0.13	0.14	0.01	0.03	0.01	0.00	0.04	0.01	0.30	0.21	0.00	0.00	0.00	0.01
<i>Pleuronectes americanus</i>	Winter flounder												0.03	0.00			
<i>Raja ocellata</i>	Winter skate	0.18	0.42	0.25	0.04	0.04	0.24	0.03	0.00	0.18	0.19	0.52	0.40	0.03	0.01		

Table C-6. Seasonal mean CPUE for all species collected in commercial trawls at four shoal and four reference sites in the Atlantic Ocean off the coast of Maryland and Delaware from November 2002 to September 2004. Ref – All reference sites combined. Shoal – All shoal sites combined.

Scientific Name	Common Name	Fall 02		Winter 03		Spring 03		Summer 03		Fall 03		Winter 04		Spring 04		Summer 04	
		Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal
<i>Alosa pseudoharengus</i>	Alewife												0.16	1.09			
<i>Ammodytes americanus</i>	American sand lance			2.57		1.47		1.77	84.92	0.14				0.16			
<i>Squatina dumeril</i>	Atlantic angel shark							0.17									
<i>Gadus morhua</i>	Atlantic cod					0.14											
<i>Micropogonias undulatus</i>	Atlantic croaker	1.09															159.24
<i>Clupea harengus harengus</i>	Atlantic herring			4.04	2.74							0.29	0.33				
<i>Brevoortia tyrannus</i>	Atlantic menhaden											0.90					
<i>Cancer irroratus</i>	Atlantic rock crab	0.49	0.58					0.41		0.27			0.13				0.14
<i>Menidia menidia</i>	Atlantic silverside											0.27	0.14				
<i>Raja laevis</i>	Barndoor skate			2.07	0.99												
<i>Anchoa mitchilli</i>	Bay anchovy	0.89								15.85							
<i>Centropristis striata</i>	Black sea bass					0.14			0.14	0.98				0.29	0.14	0.54	
<i>Callinectes sapidus</i>	Blue crab		0.10														
<i>Caranx crysos</i>	Blue runner															0.55	0.14
<i>Alosa aestivalis</i>	Blueback herring			0.83	0.30	0.14											
<i>Pomatomus saltatrix</i>	Bluefish	6.50	0.87				0.14			1.97	1.88						0.32
<i>Myliobatis freminvillei</i>	Bullnose ray							0.17	0.30								1.82
<i>Peprilus triacanthus</i>	Butterfish	1.80	0.28			5.21	1.53	6.21	0.68	3.37	0.15			201.78	4.65	0.13	
<i>Busycotypus canaliculatus</i>	Channeled whelk	0.83	0.42			1.47	0.40			0.40	0.84		741.01	0.14			
<i>Raja eglanteria</i>	Clearnose skate	0.73	2.04	0.13		0.31	5.90	3.15	15.28	5.97	7.33			1.42	7.31	7.05	
<i>Ovalipes stephensoni</i>	Coarsehand lady crab							3.19	17.34	1.45	0.97					0.81	0.68
<i>Octopus vulgaris</i>	Common octopus	0.12															
<i>Lophius americanus</i>	Goosefish					0.16								0.16			
<i>Peprilus alepidotus</i>	Harvestfish								0.30								
<i>Alosa mediocris</i>	Hickory shad											0.32					
<i>Limulus polyphemus</i>	Horseshoe crab	4.35	0.64	1.42	0.71	0.68	0.42	0.44	0.14	0.70	0.43			0.17			
<i>Busycon carica</i>	Knobbed whelk	0.13	0.26			1.17		0.14	0.18	0.27							
<i>Ovalipes ocellatus</i>	Lady crab	8.78	5.49					8.59	41.53	8.80	7.79					12.98	15.07
<i>Raja erinacea</i>	Little skate	14.30	18.54	6.45	3.91	7.92	12.25			1.09	4.29	1.59	0.62	3.38	9.62		
<i>Polinices</i>	Moon snails		0.70		0.28		2.45	0.13			0.14			0.16			
<i>Menticirrhus saxatilis</i>	Northern kingfish					0.90	0.84		0.27	0.14				0.29	0.61	0.44	
<i>Sphoeroides maculatus</i>	Northern puffer					0.14									0.17		

Table C-6. Continued

Scientific Name	Common Name	Fall 02		Winter 03		Spring 03		Summer 03		Fall 03		Winter 04		Spring 04		Summer 04	
		Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal	Ref	Shoal
<i>Prionotus carolinus</i>	Northern searobin	0.26	0.10			3.48	2.58	75.65	38.38	3.44	0.28			50.40	19.32	106.23	13.52
<i>Astroscopeus guttatus</i>	Northern stargazer	0.12						0.17	0.53								
<i>Libinia emarginata</i>	Portly spider crab	0.28				0.15	0.27			0.13				0.14	0.14		0.29
<i>Urophycis chuss</i>	Red hake					0.15				0.29							
<i>Paguridae</i>	Right-handed hermit crabs	0.25				0.14		0.39		0.14	0.14						
<i>Dasyatis centroura</i>	Roughtail stingray															0.13	0.29
<i>Stenotomus chrysops</i>	Scup	4.26	0.10			195.64	18.16	36.63	342.92	6.14	0.42			11.47	949.06	1.24	
<i>Etopus microstomus</i>	Smallmouth flounder							0.14		0.14							
<i>Gymnura micrura</i>	Smooth butterfly ray															0.17	0.15
<i>Mustelus canis</i>	Smooth dogfish	1.44	0.87			11.64	15.51			0.14	0.13			12.93	23.51	0.13	
<i>Scomberomorus maculatus</i>	Spanish mackerel																
<i>Squalus acanthias</i>	Spiny dogfish	23.36	23.43	2.07	1.85					165.40	87.56						
<i>Leiostomus xanthurus</i>	Spot																4.54
<i>Urophycis regia</i>	Spotted hake			0.25		3.35	0.68	4.66	0.26	0.85				0.63	0.29		
<i>Cephalopoda</i>	Squids	3.45	3.59			9.57	3.80	19.43	23.42	10.82	0.98			102.28	128.32	29.44	2.44
<i>Asteroidea</i>	Starfishes	1.73	0.30	0.69	0.85	3.15	6.64	3.71	3.63	13.61	28.83	0.28	0.45	2.00	2.66		0.55
<i>Morone saxatilis</i>	Striped bass	1.07	10.59							0.13	150.56		0.31				
<i>Prionotus evolans</i>	Striped searobin	1.47	0.32			3.38	6.51		0.14	9.51	0.97			0.91	2.07	0.73	
<i>Paralichthys dentatus</i>	Summer flounder	4.12	4.66	0.70	0.14	1.08	0.95	0.31	0.28	5.05	11.12	0.14		1.92	0.56	1.29	0.14
<i>Alopias vulpinus</i>	Thresher shark							0.15									
<i>Cynoscion regalis</i>	Weakfish	4.79															2.15
<i>Scophthalmus aquosus</i>	Windowpane	49.05	4.54	3.97	2.48	1.81	3.11	0.96	0.36	13.91	3.51	6.54	1.25	3.06	3.19	1.10	0.41
<i>Pleuronectes americanus</i>	Winter flounder												0.17	0.16			
<i>Raja ocellata</i>	Winter skate	30.37	56.87	7.69	0.70	11.34	26.74	5.28	0.56	59.51	72.85	11.28	2.38	28.14	18.06		

Table C-7. Combined two-year seasonal percent frequency of occurrence for all species collected in commercial trawls at eight sites in the Atlantic Ocean off the coast of Maryland and Delaware from November 2002 to September 2004. FS – Fenwick Island Shoal; FR – Fenwick Island Reference; BS – Shoal B; BR – Shoal B Reference; DS – Shoal D; DR – Shoal D Reference; WS – Weaver Shoal; WR – Weaver Shoal Reference.

Scientific Name	Common Name	Fall								Winter								Spring								Summer							
		FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR
<i>Alosa pseudoharengus</i>	Alewife													0.25					0.5														
<i>Ammodytes americanus</i>	American sand lance		0.25							0.25		0.25		0.25					0.25	0.25		0.25						0.5		0.25	0.25		
<i>Squatina dumeril</i>	Atlantic angel shark																											0.25					
<i>Gadus morhua</i>	Atlantic cod																		0.25														
<i>Micropogonias undulatus</i>	Atlantic croaker				0.5																						0.5		0.25				0.25
<i>Clupea harengus harengus</i>	Atlantic herring										0.5	0.25	0.25	0.25	0.25																		
<i>Brevoortia tyrannus</i>	Atlantic menhaden										0.25		0.5		0.5																		
<i>Cancer irroratus</i>	Atlantic rock crab	0.25	0.5		0.25		0.25	0.25	0.25							0.25											0.25		0.5				0.25
<i>Menidia menidia</i>	Atlantic silverside									0.25	0.25		0.25																				
<i>Raja laevis</i>	Barndoor skate									0.25	0.25	0.25	0.5			0.25	0.5																
<i>Anchoa mitchilli</i>	Bay anchovy				0.25												0.5																
<i>Centropristis striata</i>	Black sea bass				0.25				0.25										0.5		0.25	0.25					0.5					0.25	
<i>Callinectes sapidus</i>	Blue crab								0.25																								
<i>Caranx crysos</i>	Blue runner																											0.25					0.5
<i>Alosa aestivalis</i>	Blueback herring										0.25	0.25	0.25		0.25		0.25								0.25								
<i>Pomatomus saltatrix</i>	Bluefish	0.5	1.00	0.25	0.5	0.25	0.5	1.00	0.75											0.25							0.25		0.25				
<i>Myliobatis freminvillei</i>	Bullnose ray																									0.25	0.5		0.75				0.25
<i>Peprilus triacanthus</i>	Butterfish	0.25	0.75	0.25	0.75		0.25		0.5									0.5	1.00	0.5	0.5	0.5	1.00	0.75	1.00	0.25	0.25		0.75	0.25	0.25	0.25	0.75
<i>Busycotypus canaliculatus</i>	Channeled whelk	0.5	0.25	0.5	0.5				0.5	0.75											0.25	0.25	0.25	0.25	0.5								
<i>Raja eglanteria</i>	Clearnose skate	1.00	0.75	0.75	0.75	1.00	0.5	1.00	0.5							0.25		0.75				0.75		0.75	0.25	1.00	0.75	0.5	0.5	0.75	0.5	1.00	1.00
<i>Ovalipes stephensoni</i>	Coarsehand lady crab		0.5		0.25	0.5		0.25	0.5																	0.75	0.75	0.5	0.5	1.00	0.5	0.5	0.5
<i>Octopus vulgaris</i>	Common octopus				0.25																												
<i>Lophius americanus</i>	Goosefish																		0.5														
<i>Peprilus alepidotus</i>	Harvestfish																									0.25							
<i>Alosa mediocris</i>	Hickory shad										0.25						0.25																
<i>Limulus polyphemus</i>	Horseshoe crab	0.25	0.75	0.5	0.5	0.25	0.25	0.5	0.75	0.25	0.5	0.5	0.5	0.25		0.25			0.25		0.25	0.5	0.5									0.25	0.5
<i>Busycon carica</i>	Knobbed whelk				0.25	0.5			0.5												0.25				0.5	0.25							0.25
<i>Ovalipes ocellatus</i>	Lady crab	1.00	1.00	0.75	1.00	1.00	0.75	1.00	1.00																	1.00	1.00	1.00	1.00	1.00	1.00	0.75	1.00
<i>Raja erinacea</i>	Little skate	1.00	0.75	0.5	1.00	0.5		1.00	1.00	0.75	0.5	0.5	1.00	1.00	1.00	0.5	0.75	1.00	1.00	1.00	0.75	1.00	1.00	1.00	0.75								
<i>Polinices</i>	Moon snails	0.5		0.25					0.25	0.25				0.25					0.25			0.5						0.25					
<i>Menticirrhus saxatilis</i>	Northern kingfish																	0.75	0.5					0.75	0.75							0.25	0.25
<i>Sphoeroides maculatus</i>	Northern puffer																	0.25	0.25														
<i>Prionotus carolinus</i>	Northern searobin		0.5		0.25	0.25		0.5	0.75										1.00	0.5	0.75	1.00	0.75	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<i>Astroscopus guttatus</i>	Northern stargazer				0.25																					0.25			0.25				
<i>Libinia emarginata</i>	Portly spider crab		0.25																	0.25	0.25	0.25		0.25	0.25	0.25						0.25	
<i>Urophycis chuss</i>	Red hake																															0.25	
<i>Paguridae</i>	Right-handed hermit crabs		0.25					0.25	0.25	0.25									0.25									0.25					
<i>Dasyatis centroura</i>	Roughtail stingray																									0.25					0.25	0.25	
<i>Stenotomus chrysops</i>	Scup		1.00	0.5	1.00		1.00	0.5	1.00									0.75	1.00	0.5	1.00	0.75	1.00	1.00	0.75		1.00		0.5			0.5	0.5
<i>Etropus microstomus</i>	Smallmouth flounder							0.25																			0.25						
<i>Gymnura micrura</i>	Smooth butterfly ray																												0.25	0.25			
<i>Mustelus canis</i>	Smooth dogfish		0.5	0.5	0.75	0.25	0.5	0.5										1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		0.25						
<i>Scomberomorus maculatus</i>	Spanish mackerel					0.25														0.25													

Table C-7. Continued

Scientific Name	Common Name	Fall								Winter								Spring								Summer										
		FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR			
<i>Squalus acanthias</i>	Spiny dogfish	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.25	0.5	0.5	0.25	0.5	0.5	0.25																				
<i>Leiostomus xanthurus</i>	Spot																												0.25			0.25				
<i>Urophycis regia</i>	Spotted hake								0.5	0.25						0.25	0.25	0.75	0.5	0.5	0.5			0.5	0.5	0.5	0.5	0.25		0.5			0.5			
<i>Cephalopoda</i>	Squids	0.75	0.75	0.25	1.00	1.00	0.75	0.5	1.00								0.75	1.00	0.5	0.75	1.00	1.00	0.5	1.00	0.75	1.00	0.5	0.75	0.5	1.00	0.75	1.00				
<i>Asteroidea</i>	Starfishes	0.5	1.00	0.5	0.75		0.5	0.75		0.5	0.5		0.25	0.25	0.25	0.75	0.25	0.25	0.5		0.25	0.5		0.75	0.5	0.5	0.5	0.25	0.5	0.25		0.75				
<i>Morone saxatilis</i>	Striped bass	1.00	0.5		0.25	0.25		1.00	0.5	0.25				0.25																						
<i>Prionotus evolans</i>	Striped searobin	0.5		0.25	1.00	0.5		0.5	1.00								0.25	0.5	1.00	0.75	0.5	0.75	0.25	0.5	0.25						0.25	0.25				
<i>Paralichthys dentatus</i>	Summer flounder	1.00	1.00	1.00	1.00	1.00	0.75	1.00	1.00	0.75		0.25			0.25		0.75	0.5	0.75	0.75	0.25		0.75	0.5		0.75	0.25	0.25	0.5	0.5						
<i>Alopias vulpinus</i>	Thresher shark																												0.25							
<i>Cynoscion regalis</i>	Weakfish		0.25		0.5				0.5																				0.25			0.25				
<i>Scophthalmus aquosus</i>	Windowpane	0.75	1.00	0.25	1.00	1.00	1.00	1.00	1.00	0.75	1.00	0.5	1.00	1.00	1.00	0.5	0.75	1.00	0.75	1.00	1.00	1.00	0.75	0.75	0.75	0.25	0.75	0.5	0.5		0.75	0.25	0.5			
<i>Pleuronectes americanus</i>	Winter flounder									0.25							0.25																			
<i>Raja ocellata</i>	Winter skate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.5	0.75	0.25	1.00	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.5			0.5	0.5	0.5						

Table C-8. Continued

Scientific Name	Common Name	Fall								Winter								Spring								Summer									
		FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR		
<i>Scomberomorus maculatus</i>	Spanish mackerel	0.00																0.00																	
<i>Squalus acanthias</i>	Spiny dogfish	0.03	0.38	0.58	0.43	0.52	0.61	0.12	0.07	0.02	0.07	0.02	0.05	0.11	0.24	0.01																			
<i>Leiostomus xanthurus</i>	Spot																									0.02	0.01								
<i>Urophycis regia</i>	Spotted hake									0.01	0.01							0.01	0.01							0.00	0.00	0.00	0.01	0.00	0.00			0.00	
<i>Cephalopoda</i>	Squids	0.00	0.01	0.00	0.01	0.01	0.05	0.01	0.05									0.00	0.13	0.57	0.30	0.23	0.12	0.10	0.05	0.02	0.01	0.03	0.08	0.02	0.15	0.05	0.29		
<i>Asteroidea</i>	Starfishes	0.03	0.11	0.03	0.01	0.01		0.16									0.00	0.01	0.00		0.01	0.03			0.00	0.01	0.01	0.00	0.01	0.00	0.01				
<i>Morone saxatilis</i>	Striped bass	0.71	0.01	0.00		0.00	0.04		0.00	0.03	0.03																								
<i>Prionotus evolans</i>	Striped searobin	0.00	0.00		0.06	0.00	0.00		0.02									0.00	0.00	0.07	0.04	0.01	0.00	0.00	0.00	0.00	0.00							0.00	0.01
<i>Paralichthys dentatus</i>	Summer flounder	0.01	0.01	0.05	0.02	0.05	0.00	0.04	0.03	0.04	0.02		0.03				0.00	0.00	0.02	0.00	0.00	0.00			0.00	0.00									
<i>Alopias vulpinus</i>	Thresher shark																									0.00									
<i>Cynoscion regalis</i>	Weakfish	0.01		0.02		0.01																				0.01	0.01								
<i>Scophthalmus aquosus</i>	Windowpane	0.01	0.20	0.00	0.09	0.02	0.03	0.02	0.20	0.21	0.23	0.04	0.11	0.20	0.25	0.27	0.27	0.00	0.00	0.03	0.02	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01			0.00	0.00	
<i>Pleuronectes americanus</i>	Winter flounder									0.03								0.00																	
<i>Raja ocellata</i>	Winter skate	0.13	0.12	0.21	0.16	0.30	0.20	0.42	0.25	0.15	0.41	0.06	0.31	0.30	0.42	0.32	0.02	0.06	0.12	0.11	0.04	0.03	0.05	0.01	0.00	0.00							0.01	0.07	

Table C-9. Continued

Scientific Name	Common Name	Fall								Winter								Spring								Summer							
		FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR
<i>Leiostomus xanthurus</i>	Spot																									7.44		1.64					
<i>Urophycis regia</i>	Spotted hake								1.70	0.25						0.26		0.29	1.57	0.55	0.82	0.54		0.55	5.56	0.87	0.52	3.61		1.84		2.99	
<i>Cephalopoda</i>	Squids	2.11	2.35	0.28	3.94	2.97	11.75	3.78	10.51									4.73	73.48	78.43	33.50	138.86	51.70	42.22	65.01	3.74	5.37	3.30	23.17	3.69	19.73	40.99	49.46
<i>Asteroidea</i>	Starfishes	12.16	25.40	3.77	3.63		1.65	42.32		0.89	0.53		0.61	0.31	0.29	1.41	0.53	0.78	3.48		0.53	5.61		12.22	6.30	1.19	5.22	0.30	2.21	0.26		6.61	
<i>Morone saxatilis</i>	Striped bass	310.88	1.62		0.25	0.25		11.16	0.53	0.29				0.33																			
<i>Prionotus evolans</i>	Striped searobin	0.65		0.29	17.50	0.84		0.82	4.45									0.29	1.75	9.52	4.15	6.24	1.78	1.12	0.89	0.29						0.29	1.18
<i>Paralichthys dentatus</i>	Summer flounder	4.49	3.22	5.58	7.45	10.95	0.82	10.52	6.85	1.07		0.61			0.28			2.11	0.53	1.98	2.50	0.71		1.20		1.10		1.23	0.28	0.28	0.56	0.57	
<i>Alopias vulpinus</i>	Thresher shark																									0.29							
<i>Cynoscion regalis</i>	Weakfish		2.43		5.85				1.31																	2.66		1.64					
<i>Scophthalmus aquosus</i>	Windowpane	4.33	48.32	0.28	27.25	4.85	6.52	6.64	43.84	2.23	6.83	0.57	3.51	2.41	6.00	2.24	4.69	2.93	2.13	3.60	2.74	3.46	1.69	2.61	3.20	0.54	1.68	0.73	1.05		0.79	0.28	0.60
<i>Pleuronectes americanus</i>	Winter flounder									0.34								0.32															
<i>Raja ocellata</i>	Winter skate	57.64	28.72	25.49	50.79	61.33	45.25	114.97	55.00	1.56	12.31	0.99	9.79	3.61	10.21		5.63	29.67	36.25	17.00	12.78	22.89	12.93	20.05	17.01	0.58		1.11	1.13	8.87			

Table C-10 (1b). Continued																																								
Scientific Name	Common Name	Fall 02								Winter 03								Spring 03								Summer 03														
		FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR							
<i>Squalus acanthias</i>	Spiny dogfish	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	1.0	1.0	0.5	1.0	1.0	0.5																								
<i>Leiostomus xanthurus</i>	Spot																																							
<i>Urophycis regia</i>	Spotted hake									0.5						0.5	0.5	0.5	0.5	1.0	1.0		0.5	1.0	1.0	1.0	0.5		1.0		1.0									
<i>Cephalopoda</i>	Squids	1.0	1.0		1.0	1.0	0.5	1.0	1.0								1.0	1.0		0.5	1.0	1.0		1.0	1.0	1.0	1.0	1.0	0.5	1.0	0.5	1.0								
<i>Asteroidea</i>	Starfishes		1.0		0.5			0.5		0.5	0.5		0.5		1.0	0.5	0.5				1.0		1.0	1.0	0.5	1.0	0.5	1.0		1.0										
<i>Morone saxatilis</i>	Striped bass	1.0	1.0		0.5	0.5		1.0	0.5																															
<i>Prionotus evolans</i>	Striped searobin	1.0			1.0				1.0								0.5	1.0	1.0	1.0	1.0	0.5	0.5	1.0								0.5								
<i>Paralichthys dentatus</i>	Summer flounder	1.0	1.0	1.0	1.0	1.0	0.5	1.0	1.0	1.0			0.5		0.5		0.5	1.0	0.5	1.0	0.5		1.0				0.5	0.5		0.5	0.5									
<i>Alopias vulpinus</i>	Thresher shark																								0.5															
<i>Cynoscion regalis</i>	Weakfish		0.5		1.0				1.0																															
<i>Scophthalmus aquosus</i>	Windowpane	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	1.0	1.0	1.0	0.5	0.5	1.0	0.5	1.0	1.0	1.0	0.5	1.0	1.0	0.5	1.0	0.5		0.5		0.5								
<i>Pleuronectes americanus</i>	Winter flounder																																							
<i>Raja ocellata</i>	Winter skate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5			1.0	0.5	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0		1.0								

Table C-10 (2b). Continued																																	
Scientific Name	Common Name	Fall 03								Winter 04								Spring 04								Summer 04							
		FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR
<i>Squalus acanthias</i>	Spiny dogfish	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0																								
<i>Leiostomus xanthurus</i>	Spot																									0.5		0.5					
<i>Urophycis regia</i>	Spotted hake								1.0									1.0	0.5					0.5									
<i>Cephalopoda</i>	Squids	0.5	0.5	0.5	1.0	1.0	1.0		1.0									0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	1.0		0.5	0.5	1.0	1.0	1.0
<i>Asteroidea</i>	Starfishes	1.0	1.0	1.0	1.0		1.0	1.0		0.5	0.5			0.5	0.5	0.5		1.0		0.5				0.5		0.5			0.5		0.5		
<i>Morone saxatilis</i>	Striped bass	1.0						1.0	0.5	0.5				0.5																			
<i>Prionotus evolans</i>	Striped searobin			0.5	1.0	1.0		1.0	1.0										1.0	0.5		1.0				0.5							0.5
<i>Paralichthys dentatus</i>	Summer flounder	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5								1.0		1.0	0.5			0.5		1.0	1.0		0.5	0.5	0.5	0.5	0.5
<i>Alopias vulpinus</i>	Thresher shark																																
<i>Cynoscion regalis</i>	Weakfish																									0.5		0.5					
<i>Scophthalmus aquosus</i>	Windowpane	0.5	1.0	0.5	1.0	1.0	1.0	1.0	1.0	0.5	1.0	0.5	1.0	1.0	1.0	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5	1.0		0.5	1.0	0.5	0.5	
<i>Pleuronectes americanus</i>	Winter flounder									0.5								0.5															
<i>Raja ocellata</i>	Winter skate	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0								

Table C-11 (1b). Continued

Scientific Name	Common Name	Fall 02								Winter 03								Spring 03								Summer 03												
		FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR					
<i>Squalus acanthias</i>	Spiny dogfish	0.02	0.12	0.52	0.07	0.32	0.41	0.05	0.12		0.04	0.07	0.03	0.10	0.24	0.27	0.02																					
<i>Leiostomus xanthurus</i>	Spot																																					
<i>Urophycis regia</i>	Spotted hake										0.02						0.02	0.01	0.00	0.01	0.03	0.01			0.00	0.08			0.01	0.02		0.03		0.04				
<i>Cephalopoda</i>	Squids	0.02	0.02		0.02	0.02	0.01	0.05	0.03									0.07	0.01		0.04	0.08	0.01		0.21	0.02	0.09	0.04	0.12	0.02	0.04	0.05	0.16					
<i>Asteroidea</i>	Starfishes		0.03		0.00			0.01		0.08	0.02		0.03			0.15	0.05	0.02				0.10		0.09	0.09	0.01	0.13	0.00	0.01				0.01					
<i>Morone saxatilis</i>	Striped bass	0.23	0.02		0.00	0.00		0.02	0.00																													
<i>Prionotus evolans</i>	Striped searobin	0.01			0.02				0.01									0.01	0.01	0.13	0.13	0.11	0.00	0.01	0.01								0.00					
<i>Paralichthys dentatus</i>	Summer flounder	0.03	0.02	0.04	0.04	0.06	0.01	0.02	0.02		0.05		0.03			0.04		0.00	0.01	0.01	0.02	0.00		0.01						0.00		0.00	0.00					
<i>Alopias vulpinus</i>	Thresher shark																														0.01		0.00					
<i>Cynoscion regalis</i>	Weakfish		0.03		0.05				0.02																													
<i>Scophthalmus aquosus</i>	Windowpane	0.04	0.50		0.23	0.02	0.04	0.05	0.28	0.27	0.15	0.02	0.07	0.15	0.24	0.26	0.12	0.02	0.00	0.05	0.03	0.02	0.00	0.02	0.03			0.01	0.00		0.00		0.00					
<i>Pleuronectes americanus</i>	Winter flounder																																					
<i>Raja ocellata</i>	Winter skate	0.38	0.06	0.37	0.16	0.50	0.38	0.41	0.25					0.25	0.27			0.27	0.06	0.31	0.12	0.31	0.01	0.15	0.09	0.01					0.01	0.16						

0.26

0.21

0.31

0.01

Table C-11 (2b). Continued

Scientific Name	Common Name	Fall 03								Winter 04								Spring 04								Summer 04							
		FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR
<i>Squalus acanthias</i>	Spiny dogfish	0.03	0.55	0.61	0.63	0.64	0.66	0.15	0.03																								
<i>Leiostomus xanthurus</i>	Spot																									0.02			0.01				
<i>Urophycis regia</i>	Spotted hake								0.01									0.00	0.00					0.00									
<i>Cephalopoda</i>	Squids	0.00	0.00	0.00	0.01	0.01	0.06		0.06									0.00	0.17	0.79	0.39	0.25	0.30	0.13	0.04	0.03	0.01		0.01	0.04	0.24	0.16	0.39
<i>Asteroidea</i>	Starfishes	0.03	0.15	0.04	0.02		0.01	0.22		0.10	0.02			0.05	0.02	0.33		0.01		0.01				0.02		0.02				0.01		0.03	
<i>Morone saxatilis</i>	Striped bass	0.83						0.05	0.00	0.08				0.05																			
<i>Prionotus evolans</i>	Striped searobin			0.00	0.08	0.01		0.00	0.03										0.04	0.00		0.01											
<i>Paralichthys dentatus</i>	Summer flounder	0.01	0.01	0.05	0.01	0.05	0.00	0.05	0.04	0.02								0.00		0.02	0.00					0.00	0.00		0.01		0.00	0.01	0.00
<i>Alopias vulpinus</i>	Thresher shark																							0.00									
<i>Cynoscion regalis</i>	Weakfish																									0.01			0.01				
<i>Scophthalmus aquosus</i>	Windowpane	0.00	0.01	0.00	0.01	0.03	0.03	0.01	0.15	0.10	0.31	0.24	0.22	0.25	0.25	0.33	0.50	0.00	0.00	0.02	0.02	0.00	0.01	0.00	0.00	0.03	0.00		0.00		0.01	0.01	0.00
<i>Pleuronectes americanus</i>	Winter flounder									0.10								0.00															
<i>Raja ocellata</i>	Winter skate	0.07	0.15	0.16	0.17	0.18	0.16	0.43	0.25	0.45	0.57	0.76	0.55	0.35	0.55			0.01	0.06	0.05	0.11	0.01	0.06	0.03	0.01								

0.33

Table C-12 (1b). Continued

Scientific Name	Common Name	Fall 02								Winter 03								Spring 03								Summer 03							
		FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR
<i>Squalus acanthias</i>	Spiny dogfish	3.70	21.99	32.34	16.57	49.70	34.63	7.96	20.27	1.09	2.24	1.24	1.12	5.44	4.06	0.53																	
<i>Leiostomus xanthurus</i>	Spot																																
<i>Urophycis regia</i>	Spotted hake									0.51						0.51	0.58	0.63	0.52	1.64	1.08		0.52	11.12	1.74	1.03	7.22		3.69		5.98		
<i>Cephalopoda</i>	Squids	3.70	3.55		3.96	3.12	0.53	7.55	5.78								5.95	2.45		2.23	9.24	5.00		28.61	6.41	6.95	6.60	44.70	4.78	4.49	75.90	21.58	
<i>Asteroidea</i>	Starfishes		5.92		1.00			1.18		1.09	0.51		1.22		2.31	1.05	1.56				11.21		13.79	12.60	1.78	10.44	0.61	4.41			12.12		
<i>Morone saxatilis</i>	Striped bass	38.27	3.23		0.50	0.51		3.58	0.55																								
<i>Prionotus evolans</i>	Striped searobin	1.30			4.86				1.03								0.58	3.51	10.74	7.77	12.49	0.47	2.24	1.79							0.58		
<i>Paralichthys dentatus</i>	Summer flounder	4.26	3.67	2.53	9.26	8.66	0.53	3.20	3.01	1.59		1.22			0.57		0.56	1.06	0.54	2.74	1.42		1.79				0.68	0.55		0.58	0.55		
<i>Alopias vulpinus</i>	Thresher shark																								0.58								
<i>Cynoscion regalis</i>	Weakfish		4.86		11.69				2.61																								
<i>Scophthalmus aquosus</i>	Windowpane	7.25	93.87		51.13	2.55	3.07	8.38	48.14	3.78	4.71	0.54	3.09	1.62	5.48	3.97	2.63	1.68	0.56	4.21	1.64	2.74	0.94	3.81	4.10	1.16	1.45	1.55		0.51		0.61	
<i>Pleuronectes americanus</i>	Winter flounder																																
<i>Raja ocellata</i>	Winter skate	63.86	11.98	23.31	35.55	76.26	32.00	64.04	41.96	8.11		9.87	2.80	6.04		6.73	23.18	18.93	24.39	7.12	36.47	6.89	22.91	12.43	1.16		2.22	2.26	17.74				

Table C-12 (2a). Continued

Scientific Name	Common Name	Fall 03								Winter 04								Spring 04								Summer 04															
		FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR								
<i>Alosa pseudoharengus</i>	Alewife													0.62																											
<i>Ammodytes americanus</i>	American sand lance		0.57																																						
<i>Squatina dumeril</i>	Atlantic angel shark																																								
<i>Gadus morhua</i>	Atlantic cod																																								
<i>Micropogonias undulatus</i>	Atlantic croaker																																	549.30			87.07				0.59
<i>Clupea harengus harengus</i>	Atlantic herring																																								
<i>Brevoortia tyrannus</i>	Atlantic menhaden																																								
<i>Cancer irroratus</i>	Atlantic rock crab																																								
<i>Menidia menidia</i>	Atlantic silverside																																								
<i>Raja laevis</i>	Barndoor skate																																								
<i>Anchoa mitchilli</i>	Bay anchovy																																								
<i>Centropristis striata</i>	Black sea bass																																								
<i>Callinectes sapidus</i>	Blue crab																																								
<i>Caranx crysos</i>	Blue runner																																								
<i>Alosa aestivialis</i>	Blueback herring																																								
<i>Pomatomus saltatrix</i>	Bluefish																																								
<i>Myliobatis freminvillei</i>	Bullnose ray																																								
<i>Peprilus triacanthus</i>	Butterfish																																								
<i>Busycotypus canaliculatus</i>	Channeled whelk																																								
<i>Raja eglanteria</i>	Clearnose skate																																								
<i>Ovalipes stephensoni</i>	Coarsehand lady crab																																								
<i>Octopus vulgaris</i>	Common octopus																																								
<i>Lophius americanus</i>	Goosefish																																								
<i>Peprilus alepidotus</i>	Harvestfish																																								
<i>Alosa mediocris</i>	Hickory shad																																								
<i>Limulus polyphemus</i>	Horseshoe crab																																								
<i>Busycon carica</i>	Knobbed whelk																																								
<i>Ovalipes ocellatus</i>	Lady crab																																								
<i>Raja erinacea</i>	Little skate																																								
<i>Polinices</i>	Moon snails																																								
<i>Menticirrhus saxatilis</i>	Northern kingfish																																								
<i>Sphoeroides maculatus</i>	Northern puffer																																								
<i>Prionotus carolinus</i>	Northern searobin																																								
<i>Astroscopus guttatus</i>	Northern stargazer																																								
<i>Libinia emarginata</i>	Portly spider crab																																								
<i>Urophycis chuss</i>	Red hake																																								
<i>Paguridae</i>	Right-handed hermit crabs																																								
<i>Dasyatis centroura</i>	Roughtail stingray																																								
<i>Stenotomus chrysops</i>	Scup																																								
<i>Etropus microstomus</i>	Smallmouth flounder																																								
<i>Gymnura micrura</i>	Smooth butterfly ray																																								
<i>Mustelus canis</i>	Smooth dogfish																																								
<i>Scomberomorus maculatus</i>	Spanish mackerel																																								

C-31

Table C-12 (2b). Continued

Scientific Name	Common Name	Fall 03								Winter 04								Spring 04								Summer 04							
		FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR	FS	FR	BS	BR	DS	DR	WS	WR
<i>Squalus acanthias</i>	Spiny dogfish	20.24	162.06	106.90	251.31	164.94	239.17	58.14	9.05																								
<i>Leiostomus xanthurus</i>	Spot																									14.88			3.29				
<i>Urophycis regia</i>	Spotted hake								3.40									2.50	0.59					0.58									
<i>Cephalopoda</i>	Squids	0.51	1.15	0.56	3.92	2.83	22.97		15.25									3.51	144.52	156.86	64.77	268.48	98.40	84.44	101.41	1.08	3.80		1.64	2.60	34.97	6.09	77.35
<i>Asteroidea</i>	Starfishes	24.33	44.88	7.53	6.25		3.30	83.45		0.69	0.55			0.62	0.58	0.50		6.96			1.06			10.64		0.60				0.52		1.10	
<i>Morone saxatilis</i>	Striped bass	583.49						18.74	0.51	0.58				0.65																			
<i>Prionotus evolans</i>	Striped searobin			0.58	30.14	1.68		1.63	7.88										8.29	0.53		3.10				0.57							2.36
<i>Paralichthys dentatus</i>	Summer flounder	4.73	2.77	8.64	5.65	13.25	1.10	17.85	10.70	0.55								3.65			3.41	2.26			0.62	2.21		1.79		0.56	0.55	0.59	
<i>Alopias vulpinus</i>	Thresher shark																																
<i>Cynoscion regalis</i>	Weakfish																									5.31			3.29				
<i>Scophthalmus aquosus</i>	Windowpane	1.41	2.77	0.56	3.37	7.15	9.97	4.91	39.54	0.69	8.95	0.61	3.94	3.20	6.51	0.50	6.76	4.18	3.69	2.99	3.84	4.17	2.43	1.42	2.29	1.08	2.21		0.55		1.07	0.56	0.59
<i>Pleuronectes americanus</i>	Winter flounder									0.69								0.64															
<i>Raja ocellata</i>	Winter skate	51.41	45.46	27.67	66.04	46.41	58.50	165.89	68.03	3.12	16.51	1.97	9.71	4.42	14.38	4.53		36.16	53.57	9.60	18.44	9.30	18.98	17.18	21.59								

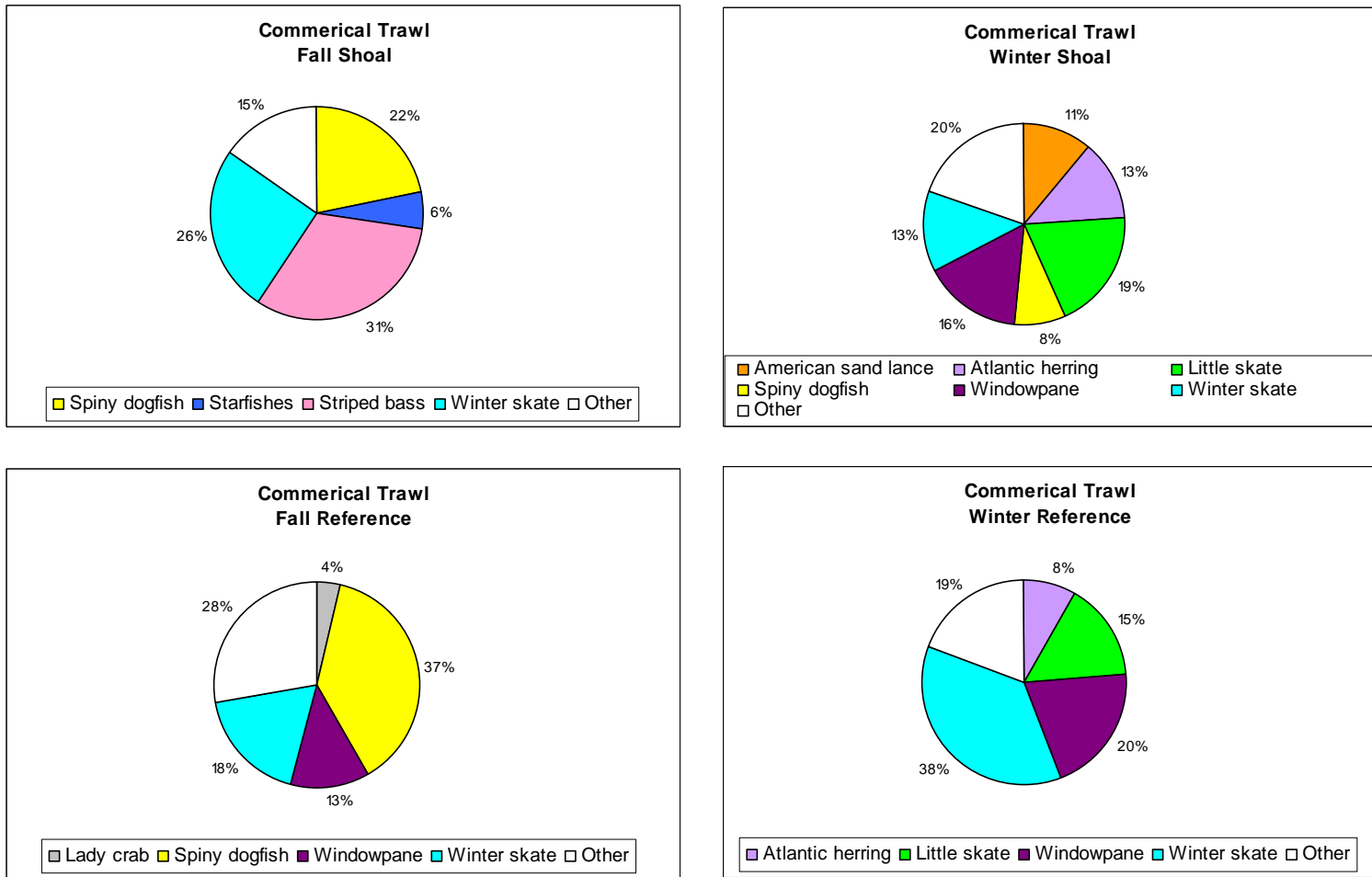


Figure C-1. Combined two-year fall and winter percent species composition for all species collected in commercial trawls at four shoal and four reference sites in the Atlantic Ocean off the coast of Maryland and Delaware from November 2002 to September 2004. Ref – All reference sites combined. Shoal – All shoal sites combined.

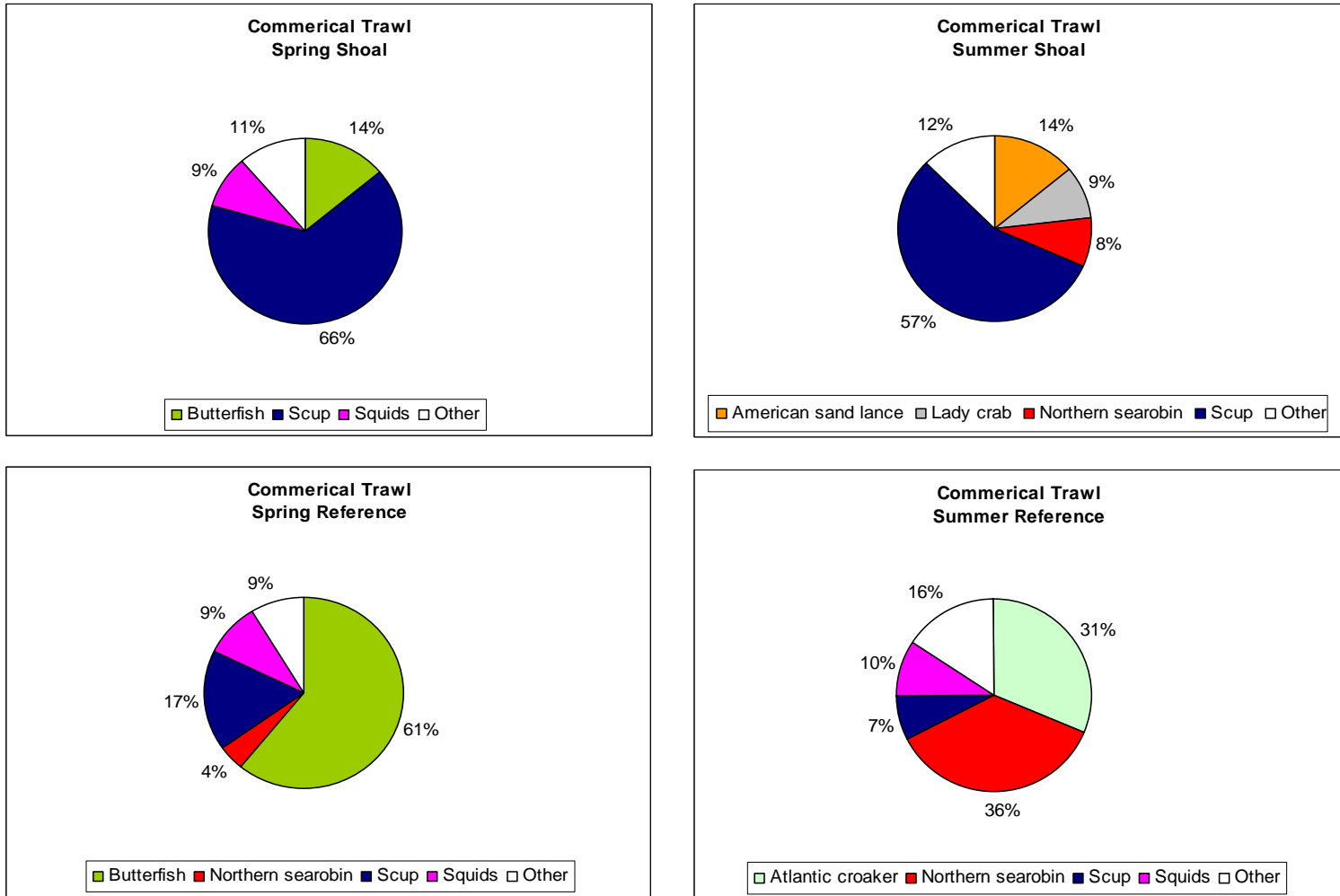


Figure C-2. Combined two-year spring and summer percent species composition for all species collected in commercial trawls at four shoal and four reference sites in the Atlantic Ocean off the coast of Maryland and Delaware from November 2002 to September 2004. Ref – All reference sites combined. Shoal – All shoal sites combined.

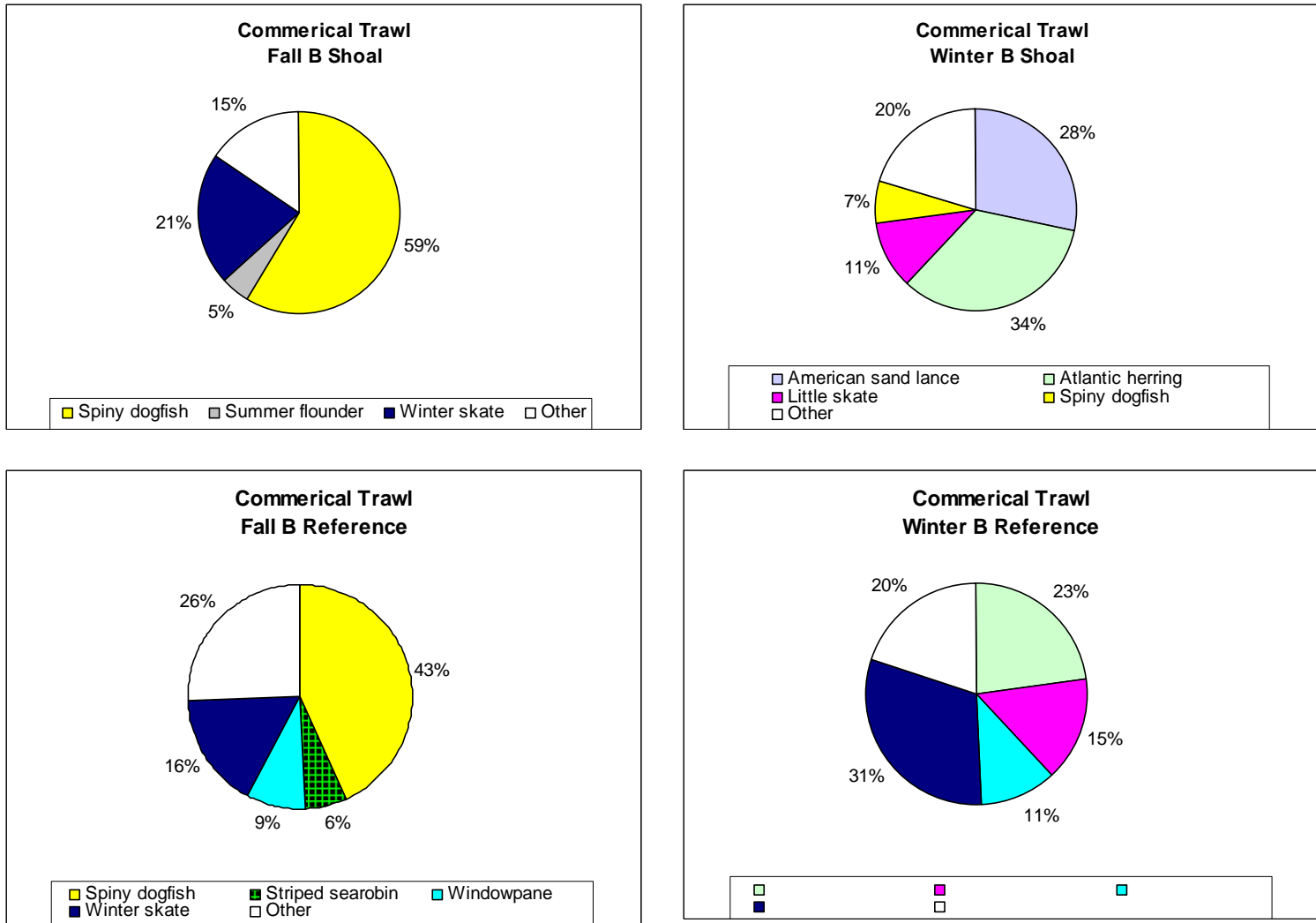


Figure C- 3. Combined two-year fall and winter percent composition for all species collected in commercial trawls at Shoal B and Shoal B Reference site in the Atlantic Ocean off the coast of Maryland and Delaware from November 2002 to September 2004.

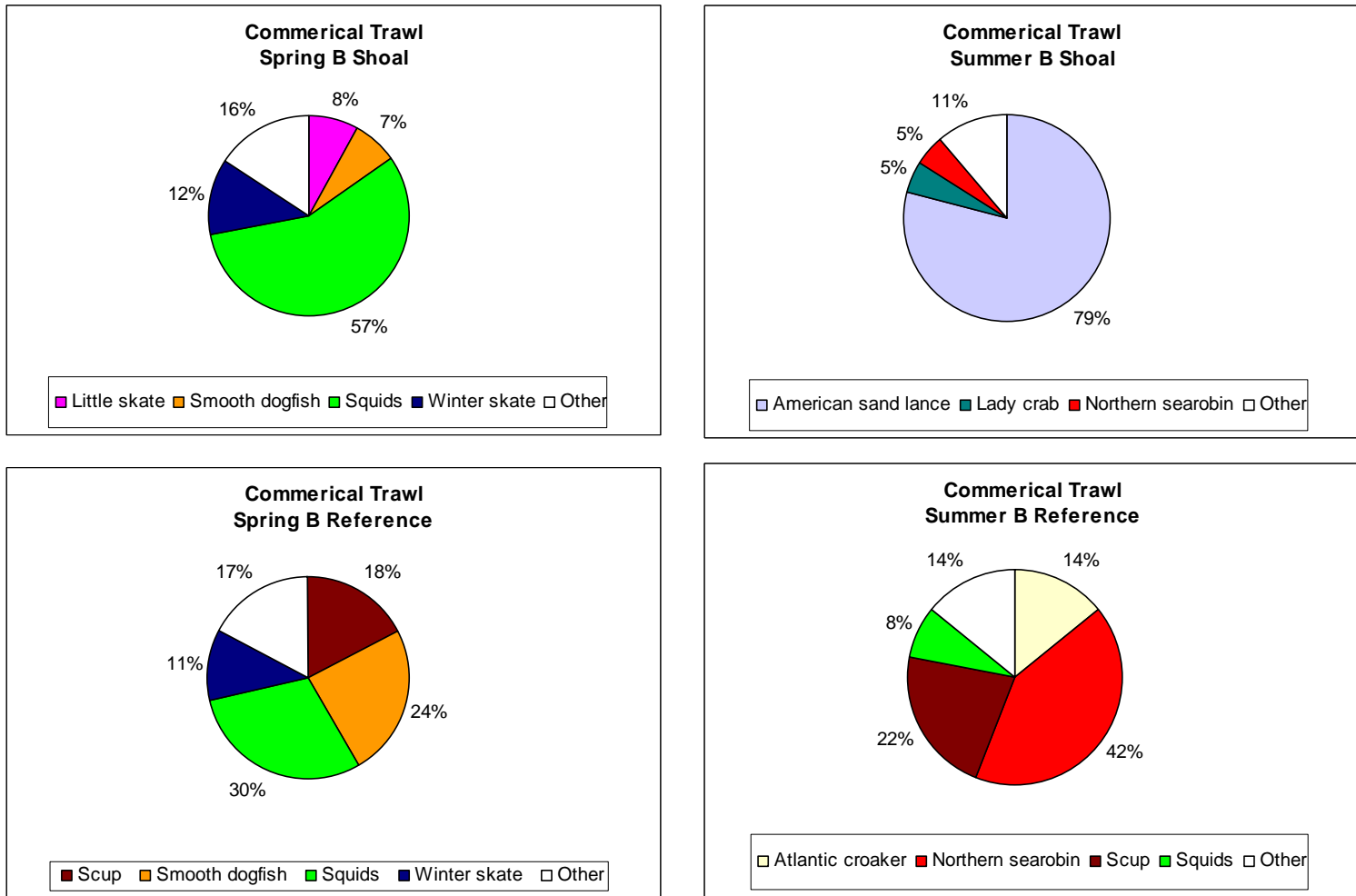


Figure C-4. Combined two-year spring and summer percent composition for all species collected in commercial trawls at Shoal B and Shoal B Reference site in the Atlantic Ocean off the coast off Maryland and Delaware from November 2002 to September 2004.

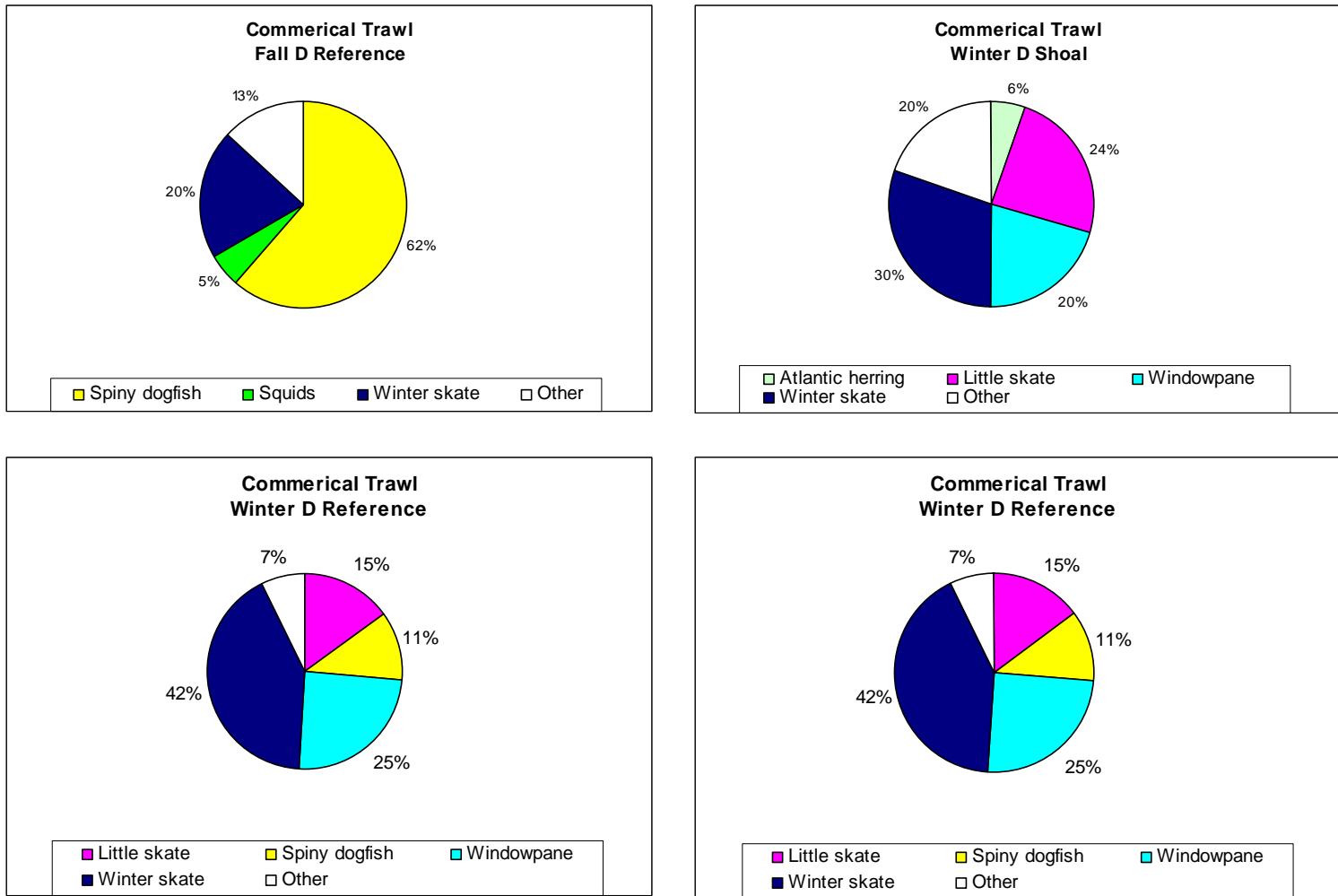


Figure C- 5. Combined two-year fall and winter percent composition for all species collected in commercial trawls at Shoal D and Shoal D Reference site in the Atlantic Ocean off the coast of Maryland and Delaware from November 2002 to September 2004.

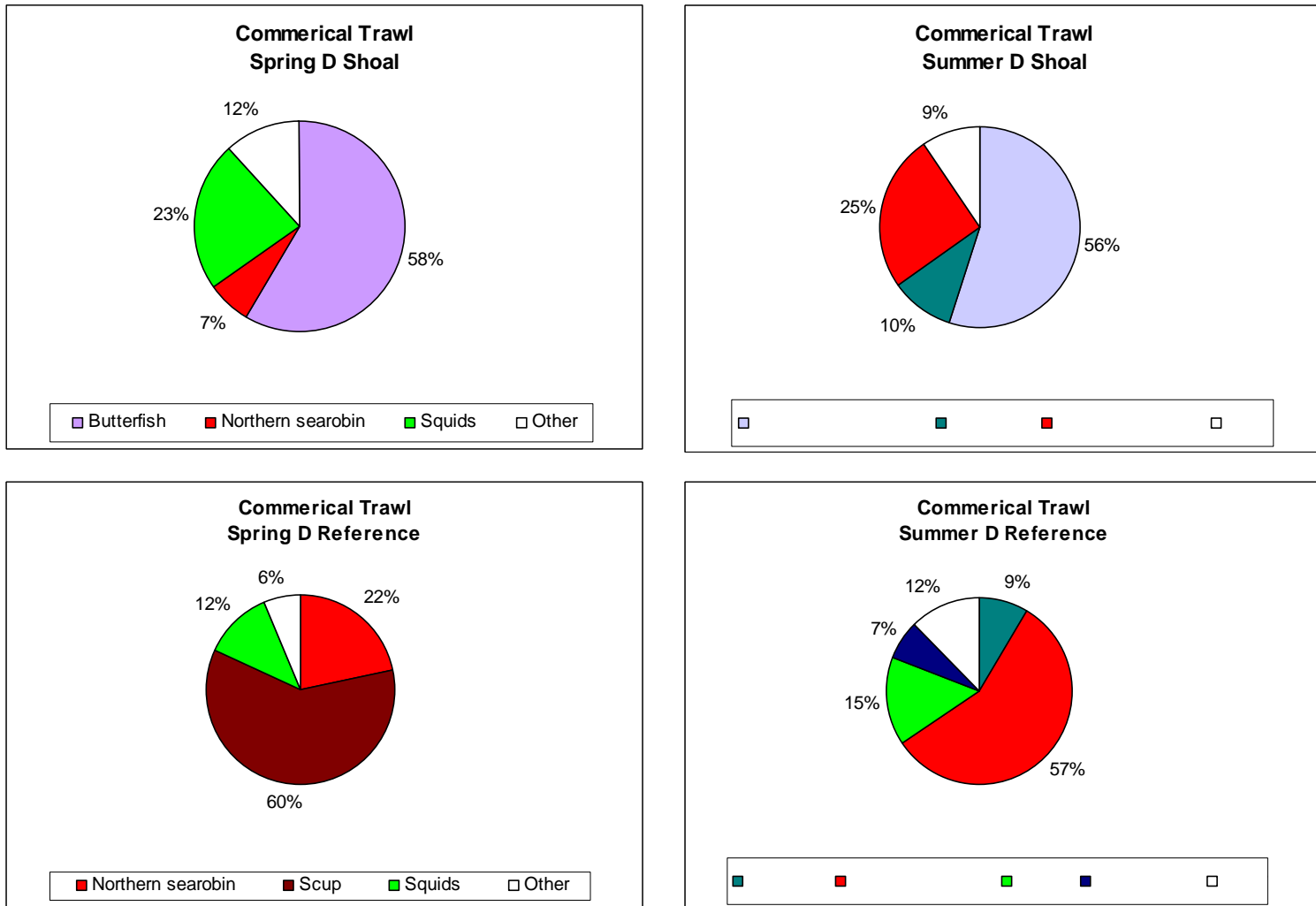


Figure C-6. Combined two-year spring and summer percent composition for all species collected in commercial trawls at Shoal D and Shoal D Reference site in the Atlantic Ocean off the coast of Maryland and Delaware from November 2002 to September 2004.

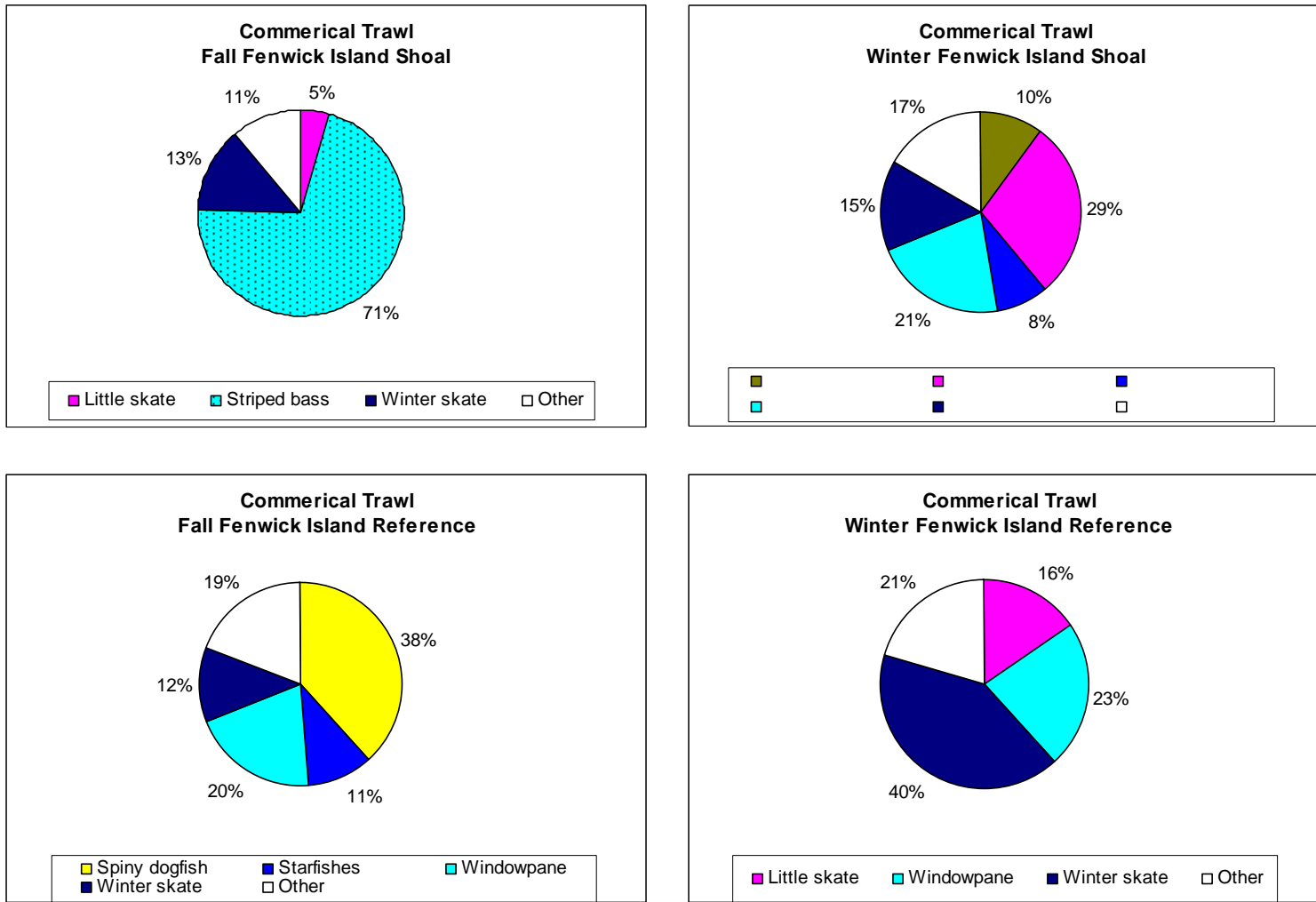


Figure C-7. Combined two-year fall and winter percent composition for all species collected in commercial trawls at Fenwick Island Shoal and Fenwick Island Reference site in the Atlantic Ocean off the coast of Maryland and Delaware from November 2002 to September 2004.

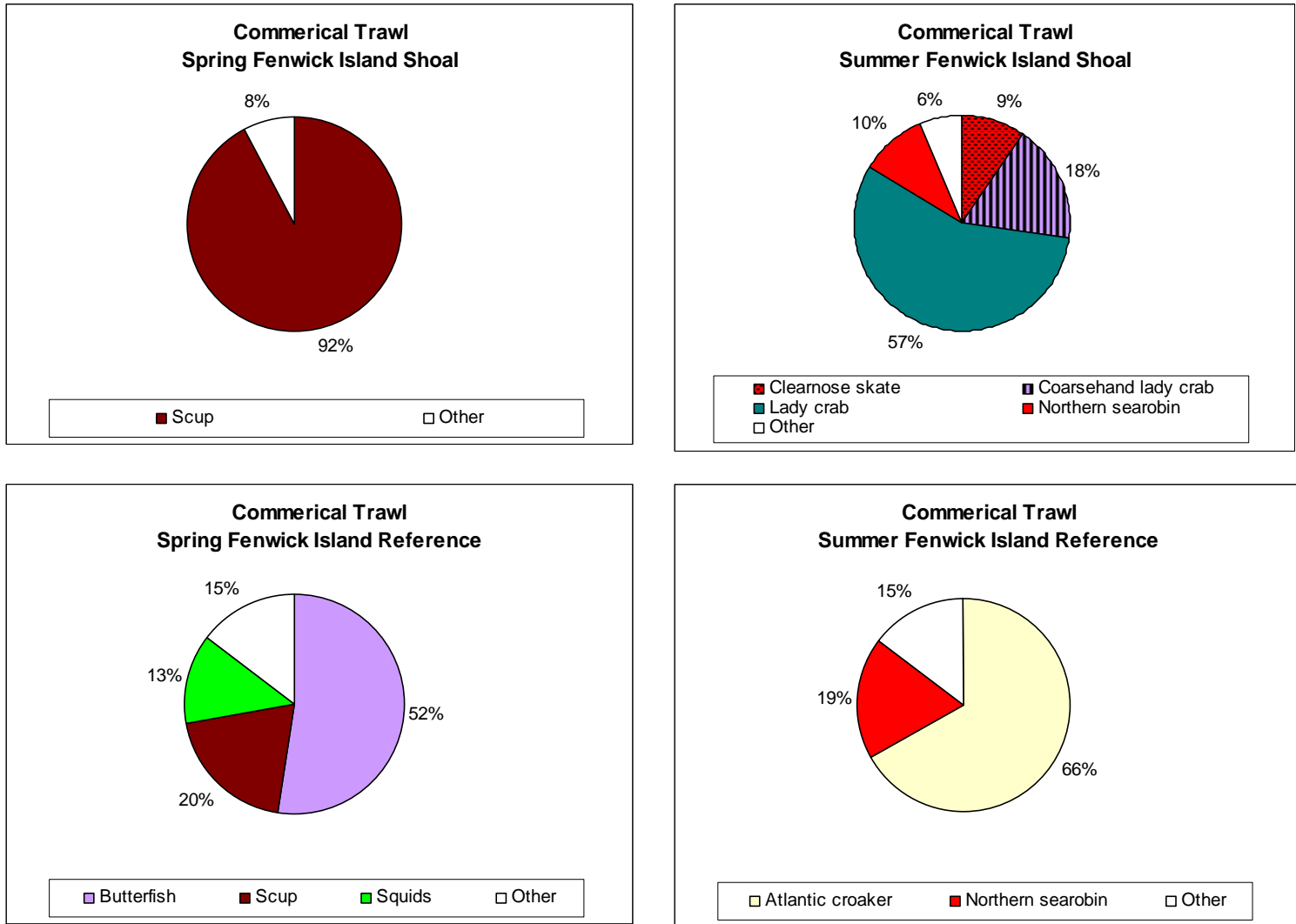


Figure C-8. Combined two-year spring and summer percent composition for all species collected in commercial trawls at Fenwick Island Shoal and Fenwick Island Shoal Reference site in the Atlantic Ocean off the coast of Maryland and Delaware from November 2002 to September 2004.

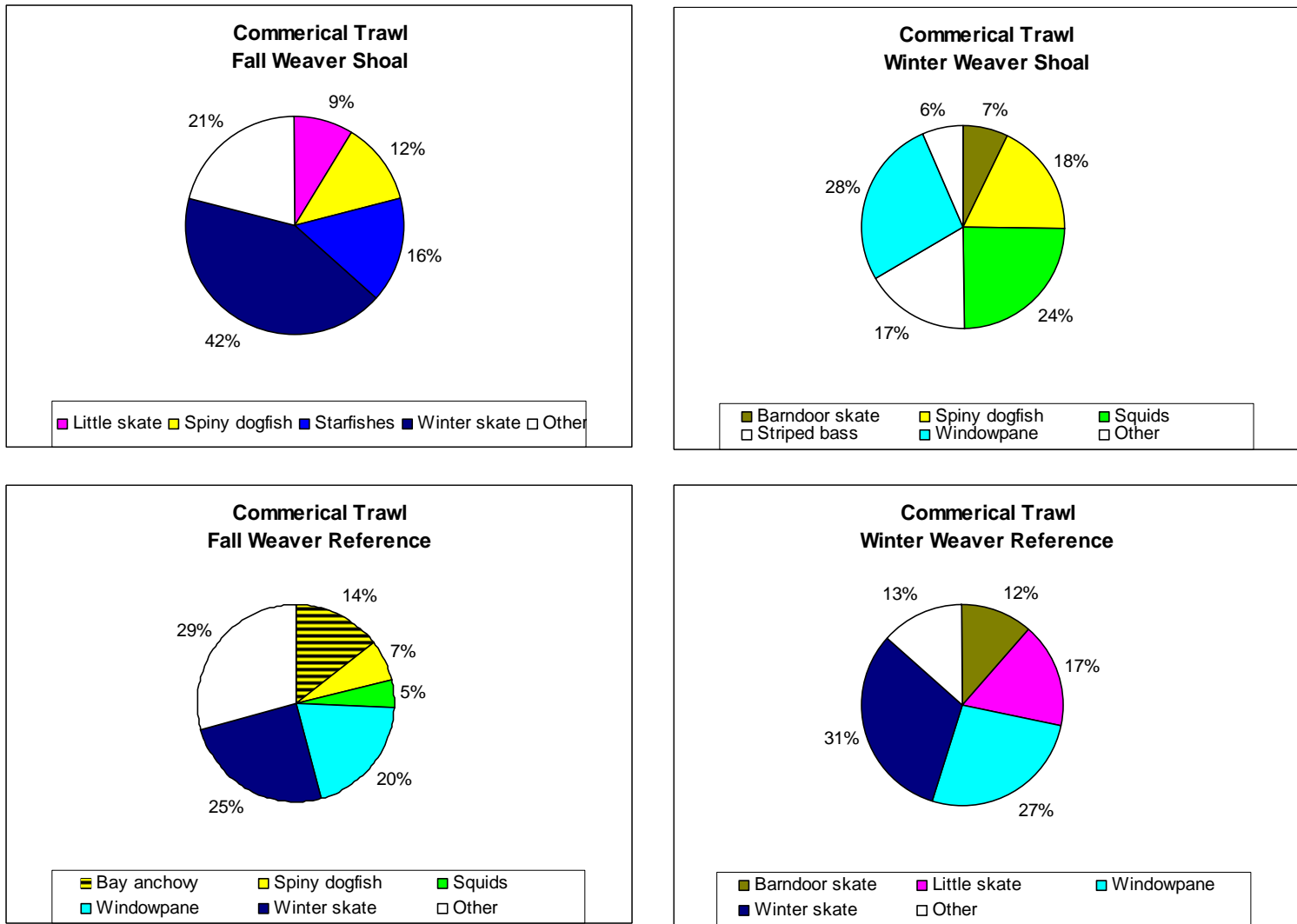


Figure C-9. Combined two-year fall and winter percent composition for all species collected in commercial trawls at Weaver Shoal and Weaver Reference site in the Atlantic Ocean off the coast of Maryland and Delaware from November 2002 to September 2004.

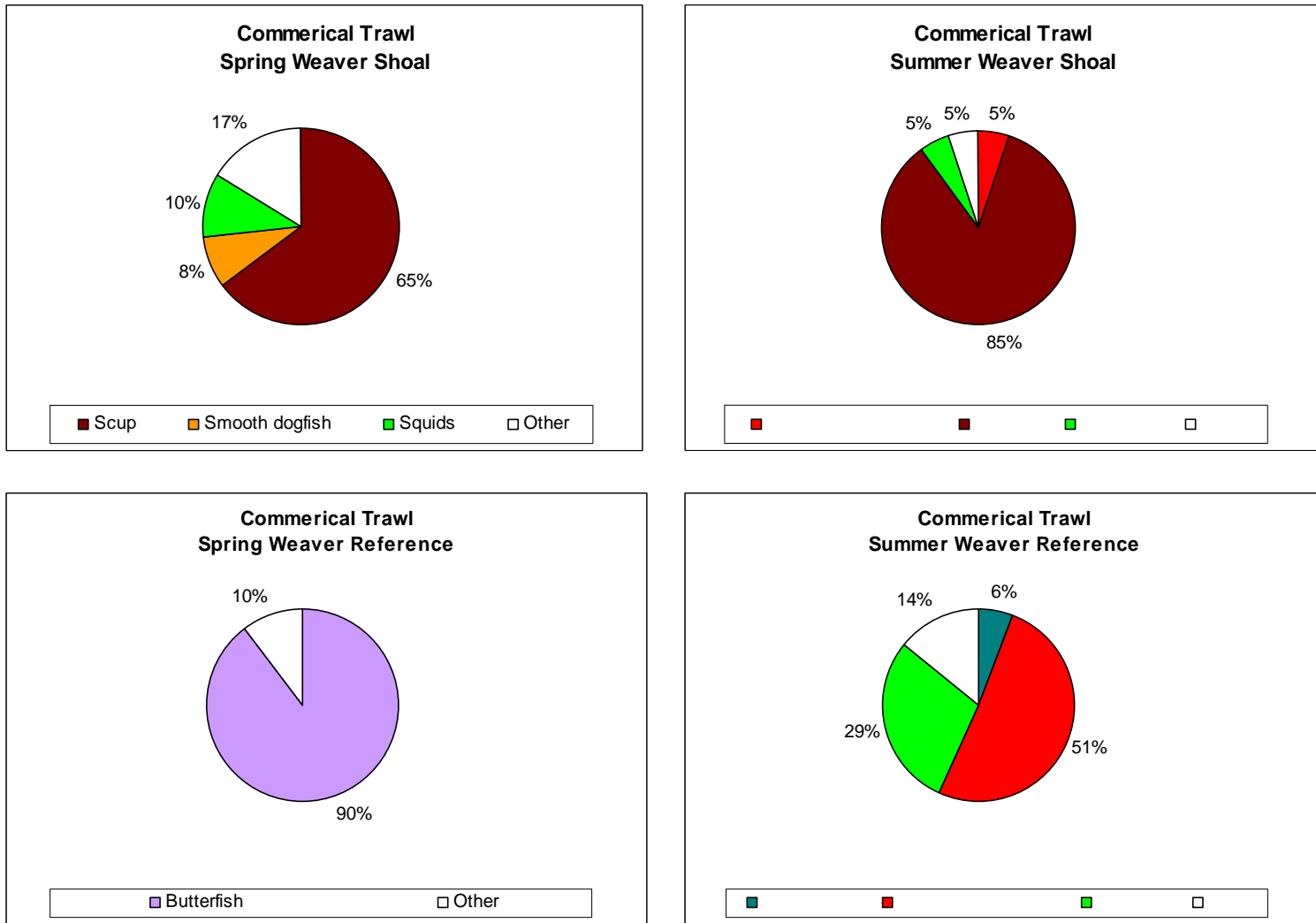


Figure C-10. Combined two-year spring and summer percent composition for all species collected in commercial trawls at Weaver Shoal and Weaver Shoal Reference site in the Atlantic Ocean off the coast of Maryland and Delaware from November 2002 to September 2004.