

Table S1. Dietary metrics of Carolina (n = 147), Scalloped (n = 77) and hybrid (n = 34) hammerheads caught Bulls Bay, South Carolina. Metrics include frequency of occurrence (%FO), mean percent number (MN%), mean percent weight (%MW) and mean percent index of relative importance (%IRI_M, calculated using %MN and %MW). Out of 261 total stomachs analyzed, 8 were empty. %IRI values were calculated for 3 different groupings of prey items: by broad prey group (highlighted in dark gray), by prey category including 2 prominent teleost families (highlighted by light gray), and by lowest possible taxon (unhighlighted). The presence of 0.00 within a category indicates that the prey item was found in stomachs of that species, however the prey was not common enough to be important as calculated by % IRI_M.

Prey Category	Family	Prey Item	Carolina hammerhead				Scalloped hammerhead				Hybrid hammerhead			
			% MN	% MW	% FO	% IRI _M	% MN	% MW	% FO	% IRI _M	% MN	% MW	% FO	% IRI _M
Teleost														
	Engraulidae		6.22	4.95	18.37	1.94	11.76	9.86	35.06	6.70	2.09	2.10	12.50	0.42
		<i>Anchoa</i> spp.	3.81	2.24	12.24	1.09	9.85	7.33	29.87	7.02	1.46	0.25	9.38	0.26
		Bay anchovy	0.34	0.29	1.36	0.01	1.23	0.51	3.90	0.09				
		Striped anchovy	2.07	2.41	5.44	0.36	0.67	2.02	3.90	0.14	0.63	1.84	3.13	0.12
	Sciaenidae		24.45	32.40	55.10	29.60	27.11	30.35	59.74	31.14	32.96	36.45	71.88	39.86
		Atlantic croaker	0.21	0.13	1.36	0.01	1.90	1.10	9.09	0.37	3.34	4.61	12.50	1.58
		Banded drum	2.32	3.21	7.48	0.61	0.98	0.86	5.19	0.13	1.15	1.50	6.25	0.26
		<i>Cynoscion</i> spp.	0.95	0.79	2.04	0.05	1.73	2.62	9.09	0.54	1.93	2.99	9.38	0.74
		<i>Menticirrhus</i> spp.	1.52	3.25	6.12	0.43	1.18	2.57	5.19	0.27				
		Silver perch	0.23	0.19	0.68	0.00	0.44	0.05	2.60	0.02				
		Silver seatrout	0.17	0.65	0.68	0.01	0.22	1.17	1.30	0.02				
		Spot	1.94	4.08	7.48	0.67	2.59	4.93	11.69	1.20	4.35	11.37	21.88	5.48
		Spotted seatrout					0.14	1.10	1.30	0.02				
		Star drum	16.76	19.42	39.46	21.10	16.09	15.75	50.65	22.05	16.59	13.42	50.00	23.93
		Unid. Sciaenid	0.34	0.68	0.68	0.01	1.47	0.13	10.39	0.23	5.57	1.59	18.75	2.14
		Whiting					0.19	0.07	1.30	0.00	0.78	0.96	3.13	0.09
	Other teleosts		3.40	4.20	11.56	0.83	1.25	4.37	9.09	0.44	2.80	4.15	12.50	0.69
	Atherinopsidae	Atlantic silverside	0.19	0.59	0.68	0.01	0.16	1.17	1.30	0.02				
	Clupeidae	Atlantic menhaden	1.01	1.36	2.72	0.10	0.60	1.66	3.90	0.12				
		<i>Brevoortia</i> spp.	0.71	0.85	2.72	0.06	0.35	1.00	2.60	0.05	0.52	0.49	3.13	0.05
		Unid. clupeid	0.23	0.55	0.68	0.01								

Prey Category	Family	Prey Item	Carolina hammerhead				Scalloped hammerhead				Hybrid hammerhead			
			% MN	% MW	% FO	% IRI _M	% MN	% MW	% FO	% IRI _M	% MN	% MW	% FO	% IRI _M
	Gerreidae	Unid. mojarra	0.47	0.02	2.04	0.01					0.78	1.10	3.13	0.09
	Mugilidae	Unid. mullet	0.11	0.22	0.68	0.00								
	Ophichthidae	Unid. snake eel	0.14	0.01	0.68	0.00								
	Paralichthyidae	Bay whiff	0.14	0.00	0.68	0.00	0.14	0.55	1.30	0.01	0.78	0.01	3.13	0.04
		Unid. flatfish	0.18	0.10	1.36	0.01								
	Sparidae	Pinfish	0.11	0.39	0.68	0.01					0.63	2.55	3.13	0.16
	Trichiuridae	Atlantic cutlassfish	0.11	0.12	0.68	0.00								
		Unid. teleost	34.15	27.43	63.95	37.21	35.62	14.80	70.13	32.35	25.48	9.42	56.25	15.69
		Unid. teleost	34.04	27.43	63.95	58.07	35.43	14.79	75.32	51.70	24.69	9.42	56.25	30.59
Crustacean														
	Shrimp		22.88	27.62	59.86	28.56	14.04	33.88	59.74	25.97	26.92	40.86	75.00	40.62
	Penaeidae	Brown shrimp	3.82	5.85	9.52	1.36	1.70	6.19	7.79	0.84	1.82	4.80	9.38	0.99
		White shrimp	5.23	6.58	14.29	2.49	2.26	8.24	11.69	1.68	5.74	5.59	15.63	2.82
		Seabob	0.34	0.08	0.68	0.00	0.19	0.13	1.30	0.01				
		Penaeid shrimp	10.25	12.61	29.25	9.88	6.14	13.36	25.97	6.92	12.14	20.89	40.63	21.40
	Other shrimp	Unid. shrimp	3.17	2.50	12.24	1.03	3.73	5.95	20.78	2.75	6.38	9.58	18.75	4.77
	Other crustaceans		3.16	1.32	9.52	0.40	4.31	4.89	18.18	1.53	4.71	2.99	18.75	1.15
	Paguridae	Flat-clawed hermit crab	0.17	0.01	0.68	0.00	0.26	0.01	1.30	0.00	1.30	1.17	6.25	0.25
		Unid. hermit crab	0.06	0.01	0.68	0.00	0.33	0.56	2.60	0.03				
	Squillidae	Unid. mantis shrimp					0.26	0.13	1.30	0.01				
	Upogebiidae	Flat-browed mud shrimp					0.76	2.15	2.60	0.10				
		Unid. mud shrimp	0.54	0.25	2.04	0.02	0.19	0.18	1.30	0.01	1.85	1.77	9.38	0.54
	Unidentified	Unid. crab	0.22	0.01	1.36	0.00								
		Unid. crustacean	2.17	1.05	6.80	0.32	2.52	1.86	10.39	0.62	1.41	0.06	6.25	0.15
Mollusc														
	Mollusc		5.75	2.08	19.73	1.46	5.90	1.84	28.57	1.88	4.98	4.04	21.88	1.58
		Loliginid squid	5.66	2.03	19.73	2.24	5.83	1.84	28.57	3.00	6.16	4.04	21.88	3.56
	Other molluscs	Unid. clam	0.09	0.05	0.68	0.00								

Table S2. Dietary metrics of Carolina (n = 192) and Scalloped (n = 184) hammerheads caught in Florida, Georgia, and South Carolina. Metrics calculated for the species include frequency of occurrence (%FO), mean percent number (MN%), mean percent weight (%MW) and mean percent index of relative importance (%IRI_M, calculated using %MN and %MW). %IRI_M only is included for hybrid HHs (n = 44) for comparison. Out of 427 total stomachs analyzed, 16 were empty. %IRI values were calculated for 2 different groupings of prey items: by prey category including 2 prominent teleost families (highlighted by light gray), and by lowest possible taxon (unhighlighted). The presence of 0.00 within a category indicates that the prey item was found in stomachs of that species, however the prey was not common enough to be important as calculated by % IRI_M.

Family	Prey Item	Carolina hammerhead				Scalloped hammerhead			
		%FO	%MN	%MW	% IRI _M	%FO	%MN	%MW	% IRI _M
Teleost									
	Engraulidae	19.27	6.19	4.56	2.03	24.46	6.33	4.87	2.42
	<i>Anchoa</i> sp.	14.06	4.09	2.36	1.34	18.48	4.96	3.21	2.09
	Bay anchovy	1.56	0.52	0.35	0.02	3.80	0.87	0.30	0.06
	Striped anchovy	4.17	1.58	1.85	0.21	3.26	0.50	1.36	0.08
	Sciaenidae	50.52	22.81	30.30	26.26	63.59	30.69	38.48	38.87
	Atlantic croaker	1.56	0.27	0.16	0.01	9.24	2.32	4.17	0.83
	Banded drum	6.25	2.00	2.67	0.43	2.72	0.47	0.39	0.03
	<i>Cynoscion</i> sp.	2.60	1.34	1.21	0.10	8.70	3.21	3.83	0.85
	<i>Menticirrhus</i> sp.	5.21	1.27	2.91	0.32	6.52	1.54	3.42	0.45
	Silver perch	0.52	0.17	0.14	0.00	1.09	0.19	0.02	0.00
	Silver seatrout	0.52	0.13	0.50	0.00	0.54	0.09	0.49	0.00
	Spot	7.81	2.33	4.99	0.85	7.61	1.92	3.49	0.57
	Spotted seatrout					0.54	0.06	0.46	0.00
	Star drum	34.90	14.85	17.15	16.53	47.28	19.59	21.10	26.68
	Unidentified Sciaenid	1.56	0.45	0.57	0.02	7.61	1.22	1.07	0.24
	Whiting					0.54	0.08	0.03	0.00
	Other teleosts	10.42	3.43	4.71	0.83	11.41	3.41	5.47	0.90
	Achiridae								
	Hogchoker					0.54	0.14	0.19	0.00
	Arridae								
	Gafftopsail catfish					0.54	0.18	0.08	0.00
	Atherinopsidae								
	Atlantic silverside	0.52	0.15	0.45	0.00	0.54	0.07	0.49	0.00
	Clupeidae								
	Atlantic menhaden	2.60	1.30	1.56	0.11	2.17	0.31	1.16	0.04

Family	Prey Item	Carolina hammerhead				Scalloped hammerhead			
		%FO	%MN	%MW	% IRI _M	%FO	%MN	%MW	% IRI _M
	<i>Brevoortia</i> sp.	2.60	0.67	1.10	0.07	3.80	1.77	1.79	0.19
	Unidentified clupeid	0.52	0.17	0.42	0.00	0.54	0.03	0.28	0.00
Gerreidae	Unidentified mojarra	1.56	0.36	0.02	0.01				
Mugilidae	Unidentified mullet	1.04	0.26	0.69	0.01	0.54	0.36	0.48	0.01
Ophichthidae	Unidentified snake eel	0.52	0.10	0.01	0.00				
Paralichthyidae	Bay whiff	0.52	0.10	0.00	0.00	1.63	0.28	0.51	0.02
	Fringed flounder					1.09	0.27	0.47	0.01
	Unidentified flatfish	1.04	0.13	0.08	0.00				
Sparidae	Pinfish	0.52	0.09	0.30	0.00				
Trichiuridae	Atlantic cutlassfish	0.52	0.09	0.09	0.00				
Unidentified teleost		66.15	36.83	30.10	43.32	70.65	37.29	18.15	34.61
	Unidentified teleost	66.15	36.83	30.10	65.49	71.20	37.29	18.15	54.73
Crustacean									
	Shrimp	55.21	21.14	25.81	25.37	56.52	13.61	28.52	21.04
Penaeidae	Brown shrimp	8.33	3.29	5.16	1.04	4.35	1.12	3.20	0.26
	White shrimp	13.54	5.21	6.72	2.39	10.33	2.34	6.51	1.27
	Seabob	1.04	0.43	0.54	0.02	1.09	0.26	0.24	0.01
	Penaeid shrimp	24.48	8.41	10.85	6.97	24.46	5.68	11.85	5.94
Other shrimp	Unidentified shrimp	13.02	3.79	2.54	1.22	20.11	4.21	6.72	3.05
Other crustaceans		10.94	3.67	1.57	0.56	14.13	3.66	2.68	0.79
Paguridae	Flat-clawed hermit crab	0.52	0.13	0.01	0.00	0.54	0.11	0.01	0.00
	Unidentified hermit crab	1.04	0.22	0.38	0.01	1.63	0.27	0.24	0.01
Squillidae	Unidentified mantis shrimp					0.54	0.11	0.05	0.00
Upogebiidae	Flat-browed mud shrimp					1.09	0.32	0.90	0.02
	Unidentified mud shrimp	2.08	0.54	0.20	0.02	1.09	0.21	0.52	0.01
Unidentified	Unidentified crab	1.04	0.17	0.01	0.00				
	Unidentified crustacean	7.81	2.61	0.98	0.42	9.24	2.64	0.96	0.46
Mollusc									
	Mollusc	19.27	5.73	2.95	1.64	23.37	4.81	1.82	1.37

Family	Prey Item	Carolina hammerhead				Scalloped hammerhead			
		%FO	%MN	%MW	% IRI _M	%FO	%MN	%MW	% IRI _M
Other molluscs	Loliginid squid	18.75	5.56	2.91	2.35	23.37	4.77	1.55	2.05
	Unidentified clam	0.52	0.07	0.04	0.00				
	Unidentified conch	0.52	0.10	0.00	0.00				
	Unidentified mollusc					0.54	0.05	0.27	0.00
Unknown taxon		1.04	0.20	0.01	0.00	1.63	0.21	0.01	0.00

Table S3. Number of Carolina or scalloped hammerhead samples for stomach content and stable isotope analysis with unhealed umbilical scars (USS1), well healed scars (USS2) or no scar (fully healed; USS3) by month of capture in Bulls Bay, SC. For stable isotopes, parentheses refer to the sample size for plasma if different than that of muscle which is listed first.

May	Stomach content			Stable isotope		
	USS1	USS2	USS3	USS1	USS2	USS3
Combined	18	10	3	16	8	1
Carolina	6	3	2	7	3	1
Scalloped	12	7	1	9	5	0
June						
Combined	4	33	12	3	30	5 (4)
Carolina	3	10	7	2	9	2 (1)
Scalloped	1	23	5	1	21	3
July						
Combined	0	6	44	0	6	8
Carolina	0	4	36	0	4	4
Scalloped	0	2	8	0	2	4
August						
Combined	0	0	90	0	0	47 (41)
Carolina	0	0	76	0	0	36 (30)
Scalloped	0	0	14	0	0	11

Table S4. Length ranges (fork length, mm), capture date ranges (month/day) and mean \pm standard deviation isotopic values (muscle and plasma) of Carolina, Scalloped and hybrid hammerheads by age class and state of capture. Larger juveniles (subadults) were included in the “mature” age group as they were caught in the same location as the mature individuals and contribute to the ‘offshore’ isotopic signal reference. Sample size of hybrids was insufficient in all states, except South Carolina.

Age	Tissue	Species	State	n	M: F	FL (mm) range	Month/Day of capture	$\delta^{13}\text{C}$ mean	$\delta^{15}\text{N}$ mean	$\delta^{13}\text{C}$ range	$\delta^{15}\text{N}$ range
Mature											
Muscle		Carolina	SC	1	1:0	1925	4/30	-16.81	15.82		
		Scalloped	SC	8	7:1	1450-2428	4/9-5/9	-16.17 \pm 0.13	15.53 \pm 0.59	0.39	1.59
Plasma		Carolina	SC	1	1:0	1925	4/30	-17.09	14.67		
		Scalloped	SC	8	7:1	1450-2428	4/9-5/9	-16.69 \pm 0.23	13.12 \pm 1.14	0.71	3.13
YOY											
Muscle		Carolina	SC	77	36:41	276-518	5/6-10/17	-16.43 \pm 0.35	16.44 \pm 1.09	1.95	5.19
		Scalloped	SC	64	43:21	316-630	5/6-11/3	-15.86 \pm 0.42	15.63 \pm 1.32	2.23	5.84
		Hybrid	SC	18	9:9	308-493	5/11-8/27	-16.20 \pm 0.26	16.26 \pm 1.11	1.16	3.51
		Carolina	GA	5	4:1	286-392	5/10-7/13	-16.42 \pm 0.12	17.84 \pm 0.62	0.31	1.65
		Scalloped	GA	23	10:13	340-515	5/17-9/11	-15.86 \pm 0.39	15.87 \pm 1.01	1.53	3.51
		Carolina	FL	15	5:10	292-502	5/11-10/14	-16.16 \pm 0.45	16.42 \pm 1.54	1.74	4.34
Plasma		Scalloped	FL	31	23:8	303-533	4/21-10/14	-15.78 \pm 0.59	15.45 \pm 1.33	3.41	5.83
		Carolina	SC	69	31:38	276-518	5/6-10/17	-17.11 \pm 0.36	13.64 \pm 1.80	2.23	5.80
		Scalloped	SC	64	43:21	316-550	5/6-9/7	-17.28 \pm 0.53	13.41 \pm 1.54	2.76	5.86
		Hybrid	SC	18		308-493	5/11-8/27	-17.17 \pm 0.31	13.20 \pm 1.61	1.11	5.83
		Scalloped	GA	2	1:1	434-515	7/9-9/11	-16.88 \pm 0.03	13.54 \pm 0.54	0.04	0.77
		Carolina	FL	2	1:1	430-502	10/14	-16.40 \pm 0.12	12.75 \pm 0.54	0.17	0.76
Scalloped	FL	10	7:3	339-533	4/21-10/14	-16.69 \pm 0.65	14.02 \pm 1.35	2.28	3.64		

Table S5. Diet diversity and composition of young-of-year (YOY) Carolina or scalloped hammerhead, as well as with species combined which included hybrids. Chao’s diversity estimator can be used to identify if rare species may be missing in the diet description: the closer the estimated value is to the number of unique prey items in the stomach contents, the more adequately described the diet. N prey items refers to the total number of prey items within each group for comparison to the Chao’s estimator. Shannon index estimates the relative diversity of the diet composition. The last five columns refer to the proportion of stomachs with multiple prey categories (prey cats) or prey items (prey) (i.e. two or more, four or more or eight or more).

Location	Species	n	Chao ± SE	# prey items	Shannon ± SD	Richness ± SD	% empty	% 2+ prey cat	% 4+ prey cat	% 2+ prey	% 4+ prey	% 8+ prey
Bulls Bay	Carolina	147	60.33 ± 18.48	36	0.78 ± 0.52	2.61 ± 1.39	3.3	39.5	3.9	64.5	42.1	3.9
	Scalloped	77	41.99 ± 8.91	32	1.04 ± 0.42	3.49 ± 1.39	1.3	65.4	6.4	88.5	78.2	26.9
South Carolina	Combined	282	42.24 ± 2.49	40	0.85 ± 0.51	2.83 ± 1.47	3.1	81.1	16.8	88.0	54.6	10.3
Georgia	Combined	62	30.85 ± 10.02	22	0.83 ± 0.50	2.95 ± 1.51	3.2	83.9	32.3	87.1	69.4	24.2
Florida	Combined	82	29.05 ± 6.01	23	0.55 ± 0.50	2.04 ± 1.26	6.1	57.3	6.1	69.5	26.8	8.5

Table S6. SIMPER results for dissimilarity of prey categories across month within samples from Bulls Bay only. Though the unidentified teleosts overall contributed most to the dissimilarity between groups for most pairs, it is not useful in describing how the diet is different as they could belong to 1 of 3 other prey categories. Therefore, if unidentified teleosts were the highest contribution, then bolded values are the 2nd and 3rd most contributing prey category to dietary differences for each pairing. Sample size is listed for each month respectively.

	May/ June	May/ July	May/ Aug	June/ July	June/ Aug	July/ Aug
Sample size	33/61	33/58	33/104	61/58	6/104	58/104
Average dissimilarity	53.1	63.4	59.9	61.0	57.2	56.1
Prey category						
Unidentified teleost	23.5	25.5	24.5	23.1	23.6	23.6
Sciaenidae	16.0	26.2	21.8	25.6	22.3	24.0
Shrimp	20.4	16.2	18.5	18.9	19.7	20.6
Engraulidae	19.3	14.1	14.6	13.3	13.3	8.8
Mollusc	7.2	4.8	10.0	6.8	11.4	10.8
Other crustacean	9.6	7.6	7.4	6.1	5.9	5.4
Other teleost	4.0	5.6	3.2	6.2	3.8	6.8

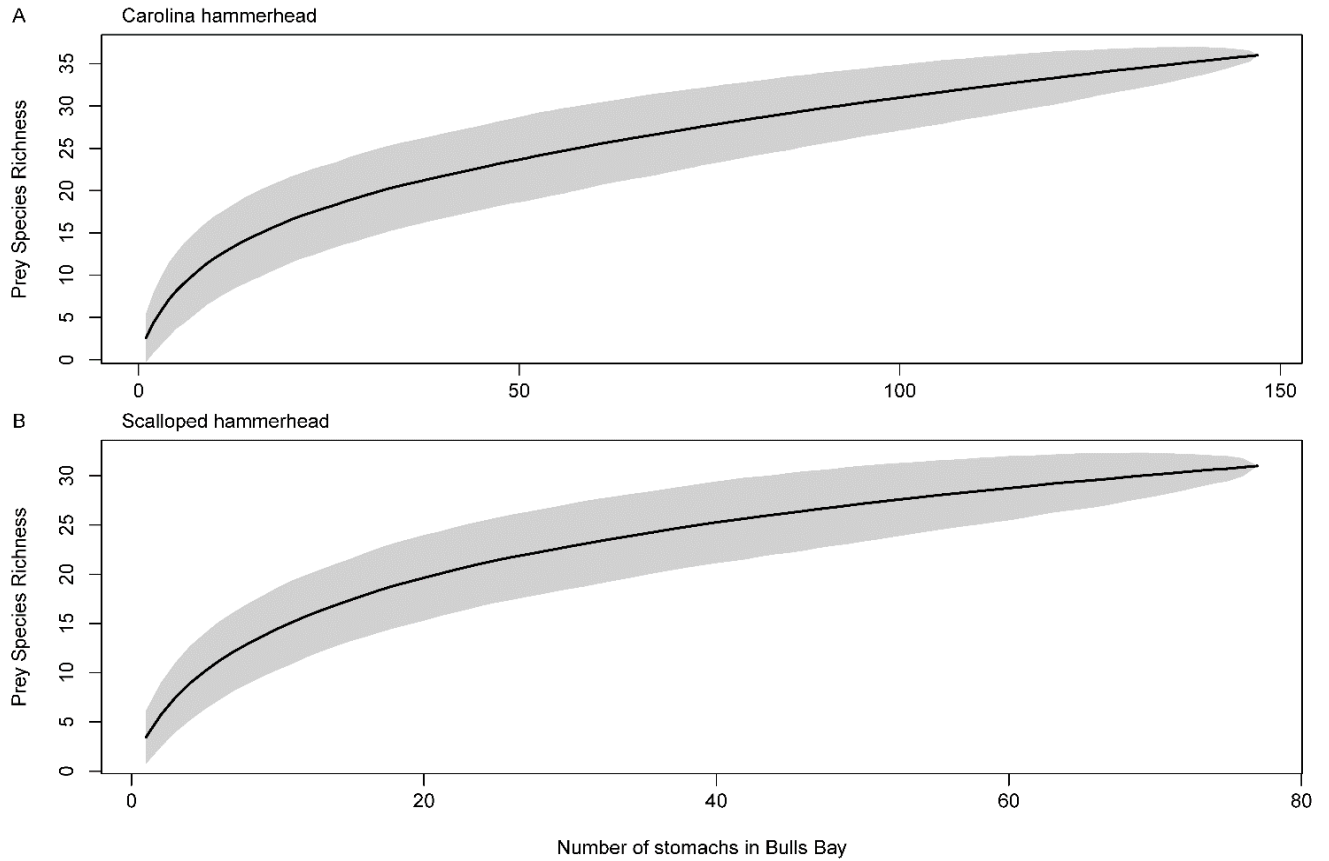


Figure S1. Cumulative prey curves from Carolina hammerhead (*Sphryna gilberti*) and scalloped hammerhead (*S. lewini*) stomach content analysis. The light gray shading represents the estimates of confidence around each curve.

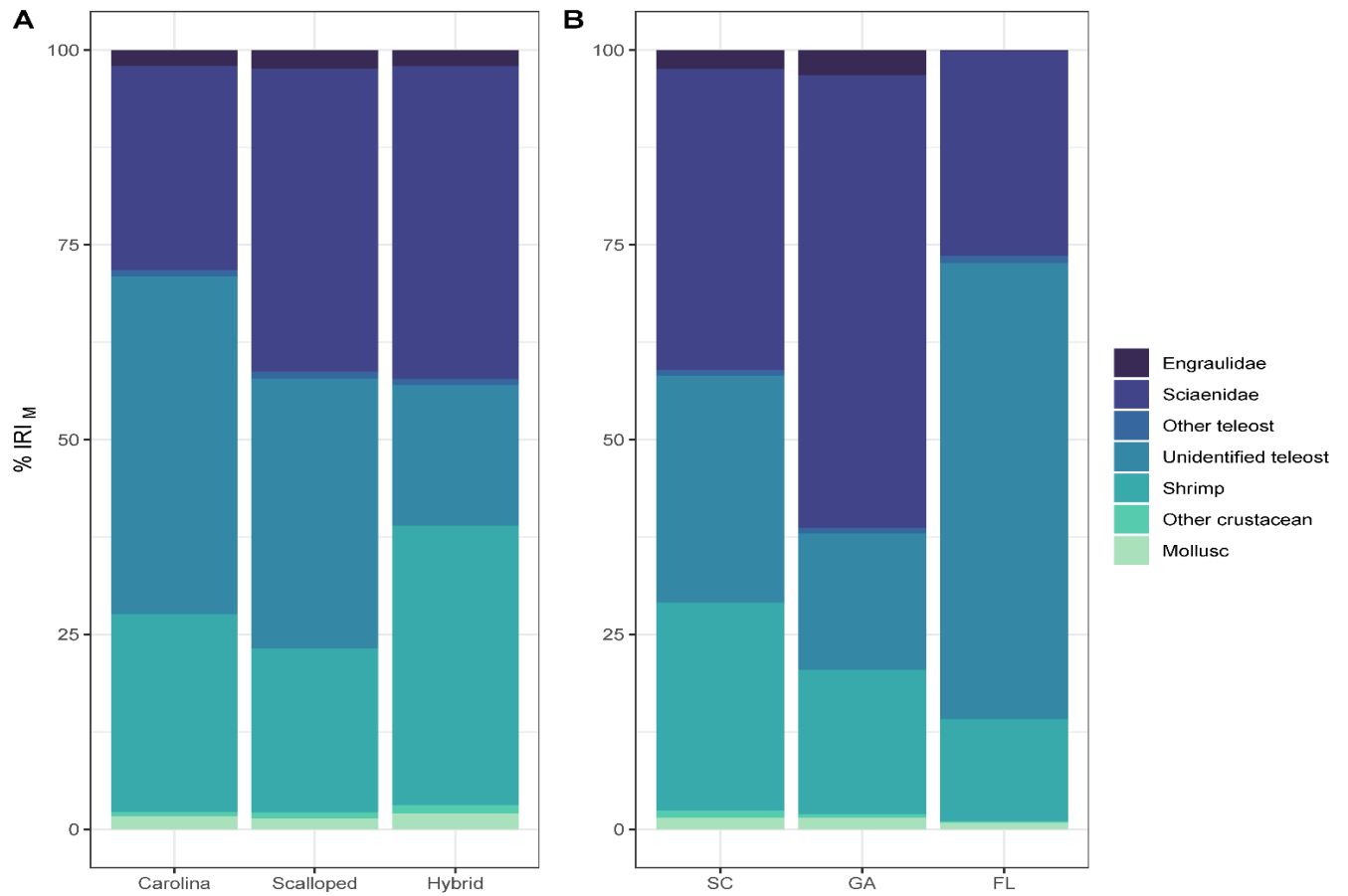


Figure S2. Percent mean index of relative importance (%IRI_M) of prey categories from hammerheads across the sampling region by (A) HH group (Carolina, Scalloped and hybrid hammerhead) with all states combined and (B) state (with all hammerheads combined; SC = South Carolina, GA = Georgia and FL = Florida).

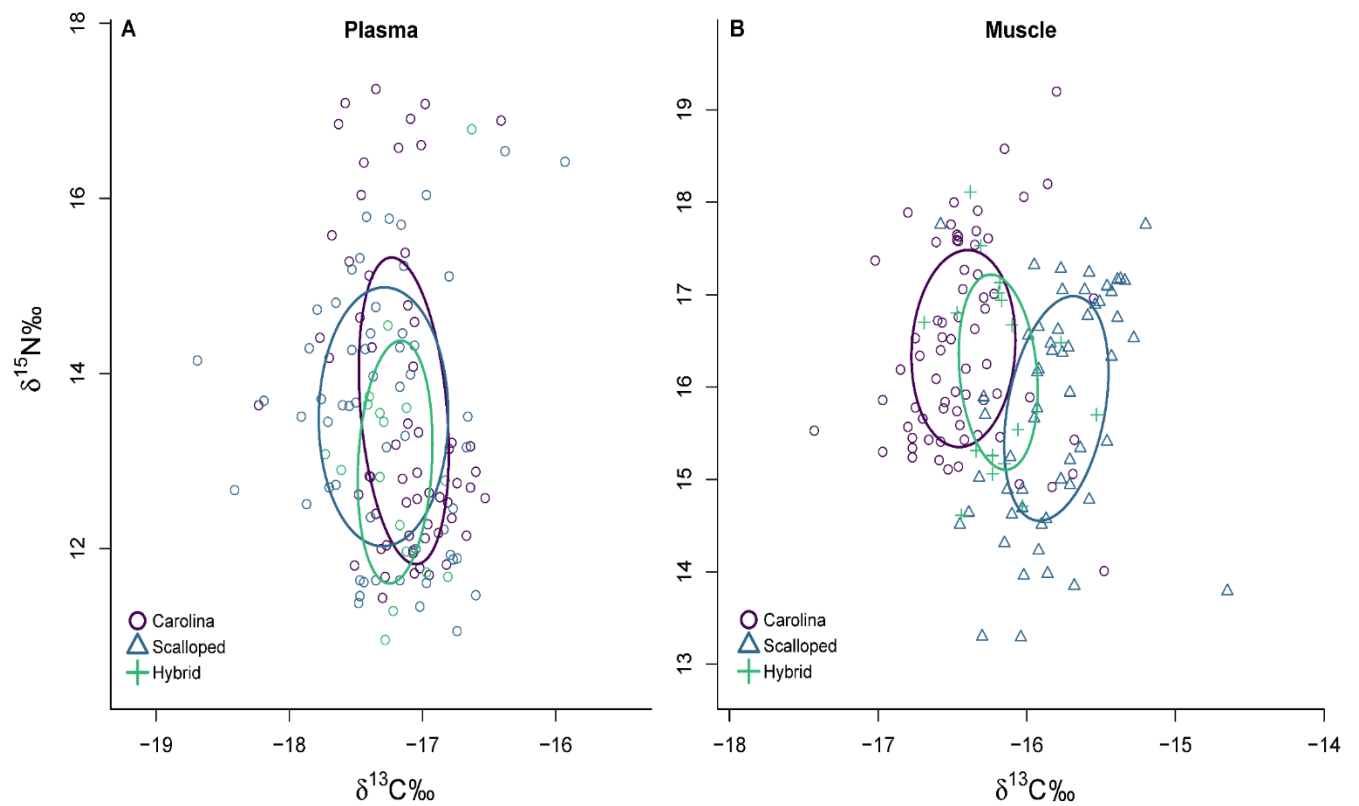


Figure S3. Plasma and muscle isotopic standard ellipses corrected for small sample size (SEAc) of Carolina, Scalloped and hybrid hammerheads in Bulls Bay, South Carolina.

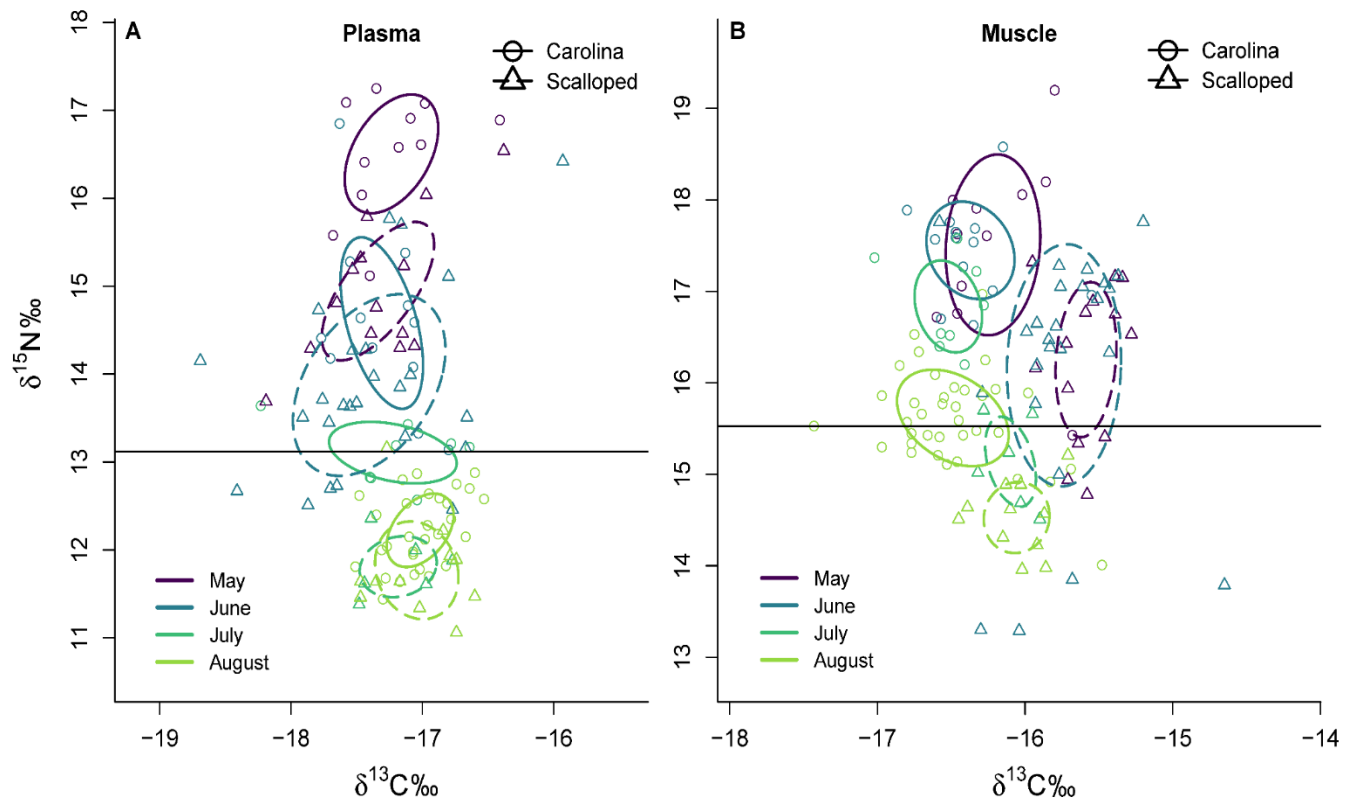


Figure S4. Standard ellipses (SEAc) of isotopic signatures by month of capture in Carolina and Scalloped hammerheads within A) plasma and B) muscle samples from Bulls Bay. The horizontal black lines are a reference for the $\delta^{15}\text{N}$ muscle mean ($n = 8$, 15.53 ± 0.59) and $\delta^{15}\text{N}$ plasma mean ($n = 8$, 13.12 ± 1.14) values for mature male scalloped hammerheads that were collected offshore in SC on their respective plots.

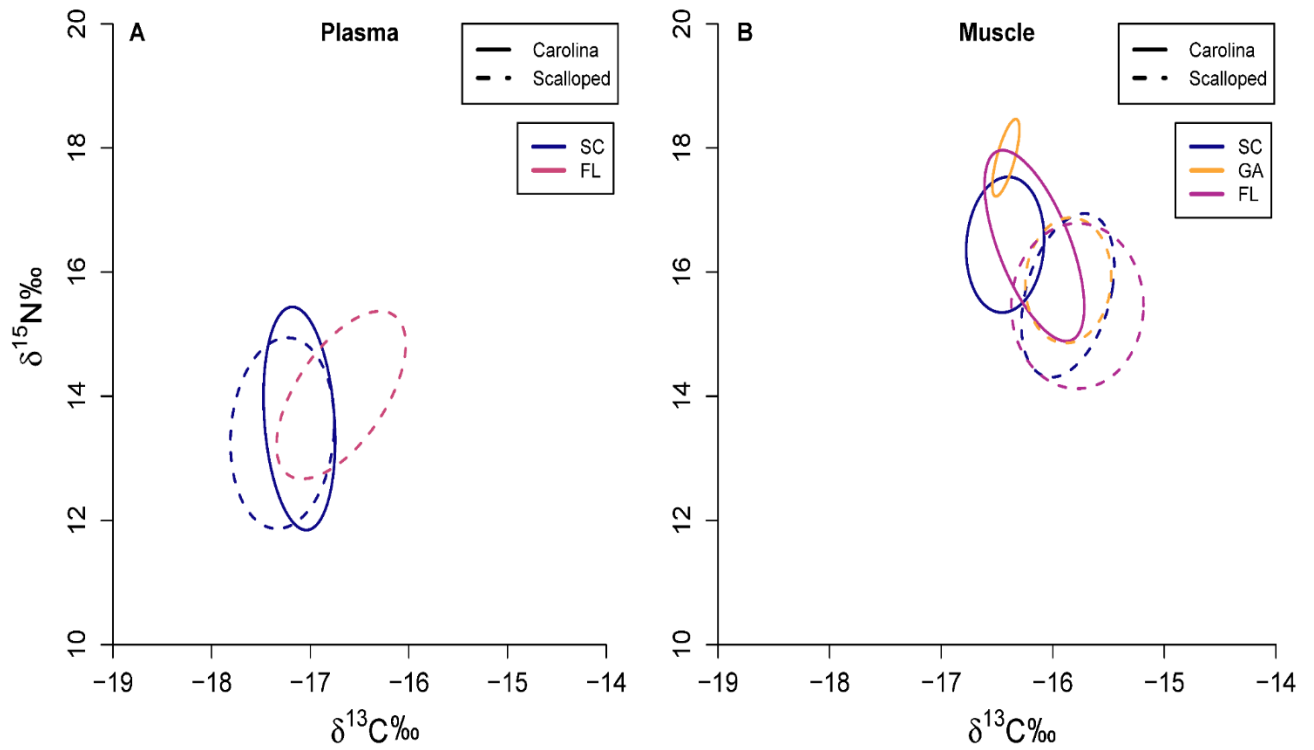


Figure S5. Standard ellipses (SEAc) of Carolina and Scalloped hammerheads by sampling region (i.e. state) and by tissue. Samples were collected from South Carolina (SC), Georgia (GA) and Florida (FL). Combinations of different line patterns and color represent an ellipse for each tissue-species-state pairing.