

**Table S1.** Habitat and functional groups for prey items of sharptail mola.

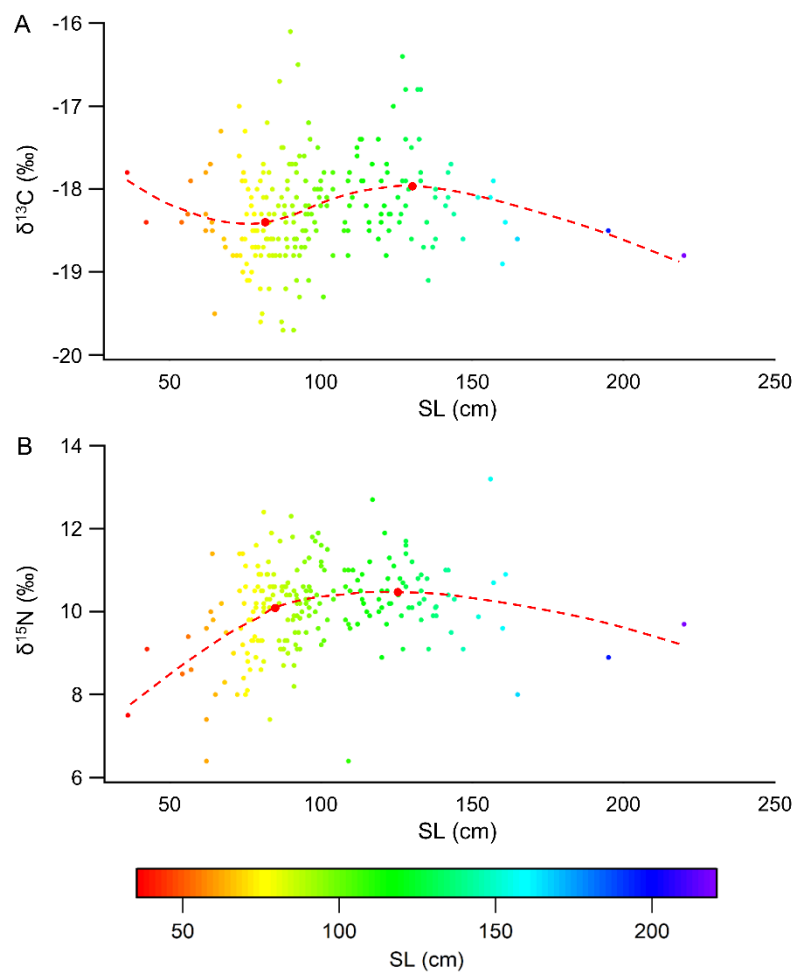
Species	Habitat	Functional group
Atollidae - <i>Atolla</i> spp.	Epi- and mesopelagic	Epi- and mesopelagic scyphozoan
Ommastrephidae (beak)	Epi- and mesopelagic	Epi- and mesopelagic cephalopoda
Gonatidae (beak)	Epi- and mesopelagic	Epi- and mesopelagic cephalopoda
Pen of unidentified cephalopoda	Epi- and mesopelagic	Epi- and mesopelagic cephalopoda
Eye lens of unidentified cephalopoda	Epi- and mesopelagic	Epi- and mesopelagic cephalopoda
Hook of unidentified cephalopoda	Epi- and mesopelagic	Epi- and mesopelagic cephalopoda
Cavoliniidae - <i>Diacavolinia longirostris</i>	Epi- and mesopelagic	Epi- and mesopelagic pteropoda
Cavoliniidae - <i>Cavolinia</i> spp.	Epi- and mesopelagic	Epi- and mesopelagic pteropoda
Cavoliniidae - <i>Diacria costata</i>	Epi- and mesopelagic	Epi- and mesopelagic pteropoda
Creseidae - <i>Creseis conica</i>	Epi- and mesopelagic	Epi- and mesopelagic pteropoda
Cliidae - <i>Clio pyramidata</i>	Epi- and mesopelagic	Epi- and mesopelagic pteropoda
Carinariidae - <i>Carinaria</i> spp.	Epi- and mesopelagic	Epi- and mesopelagic pteropoda
Atlantidae	Epi- and mesopelagic	Epi- and mesopelagic pteropoda
Benthic gastropoda (unidentified)	Benthic	Benthic organism
Heteropods radula	Epi- and mesopelagic	Epi- and mesopelagic pteropoda
Salpidae	Epi- and mesopelagic	Epi- and mesopelagic tunicate
Pyrosomatidae - <i>Pyrosoma</i> spp.	Epi- and mesopelagic	Epi- and mesopelagic tunicate
Pyrosomatidae - <i>Pyrosomella</i> spp.	Epi- and mesopelagic	Epi- and mesopelagic tunicate
Phronimidae - <i>Phronima</i> spp.	Epi- and mesopelagic	Epi- and mesopelagic crustacean
Hyperiididae - <i>Hyperia</i> spp.	Epi- and mesopelagic	Epi- and mesopelagic crustacean
Euphausiidae - Euphausiids	Epi- and mesopelagic	Epi- and mesopelagic crustacean
<i>Gnathophausia</i> sp.	Epi- and mesopelagic	Epi- and mesopelagic crustacean
Shrimp (unidentified)		Unidentified shrimp
Crab megalopa (unidentified)	Coastal	Crustacean juvenile
Scyllaridae phyllosoma	Coastal and offshore	Crustacean juvenile
Crab zoea (unidentified)	Coastal	Crustacean juvenile
Scombridae	Epi- and mesopelagic	Fish
Lutjanidae	Coastal	Fish
Lutjanidae (teeth)	Coastal	Fish
Exocoetidae (egg)	Epipelagic	Fish
Fish (unidentified)		Fish
Otolith of unidentified fish		Fish
Bone of unidentified fish		Fish

**Table S2** Prey tables for stomach contents of sharptail mola across three size classes.

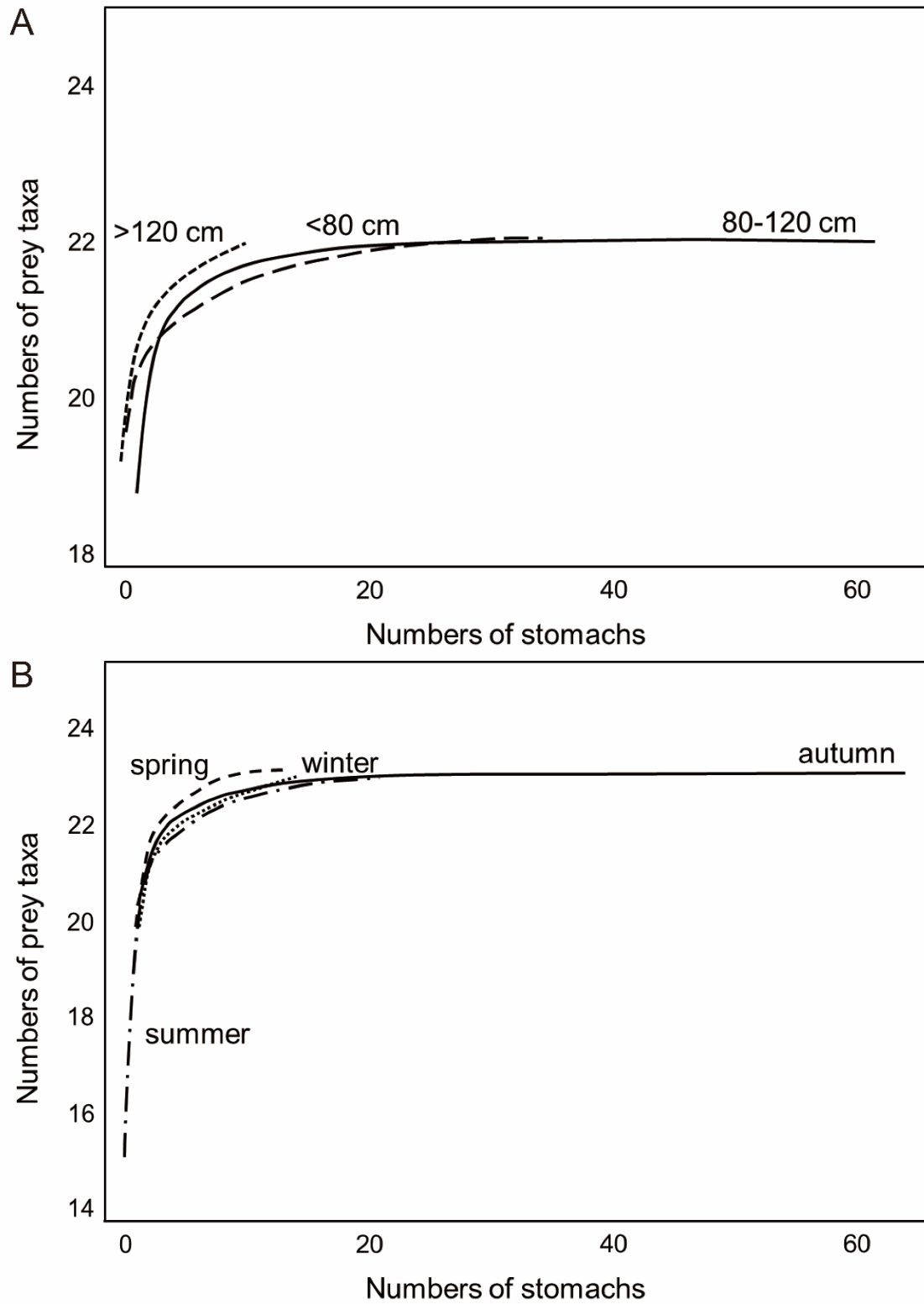
Size class	<80 cm					80-120 cm					>120 cm				
Prey item	%FO	%N	%W	IRI	%IRI	%FO	%N	%W	IRI	%IRI	%FO	%N	%W	IRI	%IRI
<b>SCYPHOZOA</b>															
Atollidae - <i>Atolla</i> spp.	5.88	0.25	0.24	2.89	0.03	13.11	1.68	6.56	108.04	1.26	10.00	0.54	0.03	5.70	0.07
<b>MOLLUSCS</b>															
<b>Cephalopoda</b>															
Ommastrephidae (beak)	8.82	0.37	0.17	4.80	0.05	6.56	0.35	0.98	8.72	0.10	10.00	0.54	0.06	6.00	0.07
Gonatidae (beak)	0.00	0.00	0.00	0.00	0.00	1.64	0.09	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00
Pen of unidentified cephalopoda	0.00	0.00	0.00	0.00	0.00	1.64	0.09	0.00	0.15	0.00	10.00	0.54	0.00	5.40	0.06
Eye lens of unidentified cephalopoda	8.82	0.50	0.19	6.09	0.07	11.48	1.94	0.12	23.65	0.28	30.00	4.30	0.06	130.80	1.56
Hook of unidentified cephalopoda	0.00	0.00	0.00	0.00	0.00	1.64	2.73	0.19	4.79	0.06	0.00	0.00	0.00	0.00	0.00
<b>Pteropoda</b>															
Cavoliniidae - <i>Diacavolinia longirostris</i>	35.29	14.60	1.76	577.34	6.56	32.79	13.49	1.21	482.01	5.61	60.00	13.44	0.19	817.80	9.74
Cavoliniidae - <i>Cavolinia</i> spp.	11.76	4.95	0.39	62.80	0.71	11.48	0.79	0.15	10.79	0.13	0.00	0.00	0.00	0.00	0.00
Cavoliniidae - <i>Diacria costata</i>	17.65	0.99	0.03	18.00	0.20	1.64	0.09	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Creseidae - <i>Creseis conica</i>	23.53	14.48	1.85	384.24	4.36	29.51	8.11	0.76	261.84	3.05	30.00	13.44	0.12	406.83	4.84
Cliidae - <i>Clio pyramidata</i>	2.94	0.12	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	20.00	1.08	0.00	21.60	0.26
Carinariidae - <i>Carinaria</i> spp.	26.47	6.19	1.63	207.00	2.35	21.31	5.2	0.45	120.40	1.40	30.00	4.30	0.10	132.00	1.57
<i>Atlantidae</i>	17.65	0.99	0.18	20.65	0.23	18.03	1.94	0.06	36.06	0.42	10.00	2.15	0.04	21.90	0.26
<b>Gastropoda</b>															
Benthic gastropods (unidentified)	8.82	0.37	0.05	3.70	0.04	1.64	0.18	0.01	0.31	0.00	0.00	0.00	0.00	0.00	0.00

Size class	<80 cm					80-120 cm					>120 cm				
Prey item	%FO	%N	%W	IRI	%IRI	%FO	%N	%W	IRI	%IRI	%FO	%N	%W	IRI	%IRI
<b>Heteropoda</b>															
Heteropods radula	17.65	5.57	0.56	108.19	1.23	9.84	2.73	0.11	27.95	0.33	10.00	8.06	0.01	80.70	0.96
<b>TUNICATE</b>															
Salpidae	67.65	16.34	56.62	4935.74	56.05	60.66	16.23	39.59	3386.04	39.44	40.00	8.06	4.90	518.40	6.17
Pyrosomatidae - <i>Pyrosoma</i> spp.	41.18	7.05	27.02	1403.00	15.93	59.02	15.26	37.88	3136.32	36.53	50.00	32.80	78.89	5584.50	66.50
Pyrosomatidae - <i>Pyrosomella</i> spp.	0.00	0.00	0.00	0.00	0.00	1.64	0.09	0.07	0.26	0.00	0.00	0.00	0.00	0.00	0.00
<b>CRUSTACEANS</b>															
<b>Amphipoda</b>															
Phronimidae - <i>Phronima</i> spp.	50.00	10.52	6.88	870.00	9.88	45.90	13.40	3.68	783.97	9.13	50.00	4.84	0.89	286.50	3.41
Hyperiididae - <i>Hyperia</i> spp.	2.94	0.12	0.00	0.35	0.00	4.92	0.26	0.00	1.28	0.01	10.00	0.54	0.00	5.40	0.06
<b>Euphausiacea</b>															
Euphausiidae - Euphausiids	0.00	0.00	0.00	0.00	0.00	3.28	0.71	0.04	2.46	0.03	0.00	0.00	0.00	0.00	0.00
<b>Decapoda</b>															
<i>Gnathophausia</i> sp.	0.00	0.00	0.00	0.00	0.00	1.64	0.09	0.36	0.74	0.01	0.00	0.00	0.00	0.00	0.00
Shrimp (unidentified)	11.76	1.36	0.49	21.76	0.25	14.75	2.20	0.26	36.29	0.42	20.00	1.08	0.09	23.40	0.28
Crab megalopa (unidentified)	2.94	0.25	0.05	0.88	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Scyllaridae phyllosoma	20.59	2.60	1.47	83.80	0.95	6.56	0.88	0.33	7.94	0.09	0.00	0.00	0.00	0.00	0.00
Crab zoea (unidentified)	2.94	0.12	0.00	0.35	0.00	1.64	0.09	0.01	0.16	0.00	20.00	1.61	0.03	32.80	0.39
<b>FISH</b>															
Scombridae	0.00	0.00	0.00	0.00	0.00	1.64	0.09	2.56	4.35	0.05	0.00	0.00	0.00	0.00	0.00

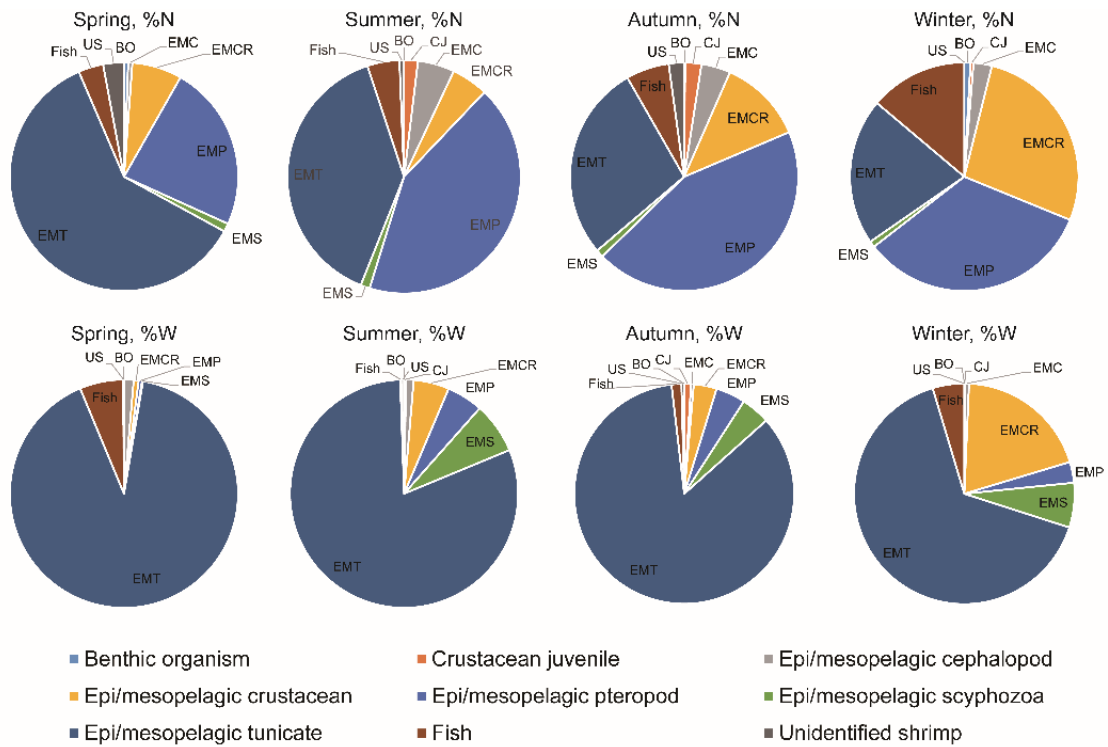
Size class	<80 cm					80-120 cm					>120 cm				
Prey item	%FO	%N	%W	IRI	%IRI	%FO	%N	%W	IRI	%IRI	%FO	%N	%W	IRI	%IRI
Lutjanidae	0.00	0.00	0.00	0.00	0.00	1.64	0.09	1.47	2.56	0.03	0.00	0.00	0.00	0.00	0.00
Lutjanidae (teeth)	0.00	0.00	0.00	0.00	0.00	3.28	0.18	0.02	0.66	0.01	0.00	0.00	0.00	0.00	0.00
Exocoetidae (egg)	11.76	3.34	0.01	39.40	0.45	13.11	6.53	0.85	96.75	1.13	10.00	0.54	0.00	5.40	0.06
Fish (unidentified)	0.00	0.00	0.00	0.00	0.00	3.28	0.18	1.58	5.77	0.07	0.00	0.00	0.00	0.00	0.00
Otolith of unidentified fish	2.94	0.25	0.01	0.76	0.01	1.64	0.18	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00
Bone of unidentified fish	0.00	0.00	0.00	0.00	0.00	6.56	1.68	0.06	11.41	0.13	10.00	2.15	0.00	21.50	0.26
<b>OTHERS</b>															
Sand	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	–	14.57	291.40	3.47
Plastics	5.88	8.29	0.01	48.80	0.55	8.20	1.50	0.11	13.20	0.15	0.00	0.00	0.00	0.00	0.00
Unidentified organisms	5.88	0.37	0.38	4.41	0.05	6.56	0.97	0.51	9.71	0.11	0.00	0.00	0.00	0.00	0.00
TOTAL	34	808	188.1			61	1134	380.2			10	186	252.8		



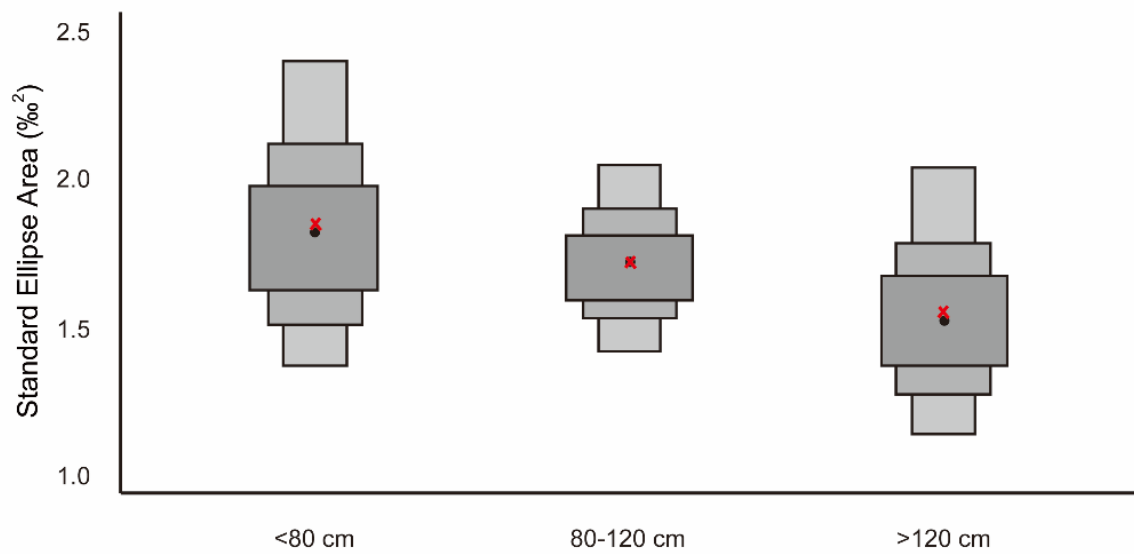
**Fig. S1.** Relationships between standard length (SL) and values of (A)  $\delta^{13}\text{C}$  and (B)  $\delta^{15}\text{N}$  of sharptail mola. Dashed lines show estimates from LOESS smoothing, with red dots showing breakpoints.



**Fig. S2.** Cumulative prey curves of sharptail mola across sizes (A) and seasons (B).



**Fig. S3.** Numerical (%N) and gravimetric (%W) diet compositions of sharptail mola among seasons (sample size: spring,  $n = 13$ ; summer,  $n = 15$ ; autumn,  $n = 63$ ; winter,  $n = 14$ ). Prey items were categorized into different functional groups as in Figure 2. Functional group abbreviations are as follows: BO = benthic organism, EMCR = epi/mesopelagic crustacean, EMS = epi/mesopelagic scyphozoa, CJ = crustacean juvenile, EMC = epi/mesopelagic cephalopod, EMP = epi/mesopelagic pteropods, EMT = epi/mesopelagic tunicate, US = unidentified shrimp.



**Fig. S4.** Bayesian standard ellipse areas ( $SEA_b$ ) of each size class (black dot: mean isotopic areas; red cross: estimated isotopic areas; dark gray box: 50% credible intervals, gray box: 75% credible intervals; light gray box: 95% credible intervals)