This supplement accompanies the article

Food web characterization based on $\delta^{15}N$ and $\delta^{13}C$ reveals isotopic niche partitioning between fish and jellyfish in a relatively pristine ecosystem

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Marine Ecology Progress Series 519: 13–27

Table S1. Average isotopic values of ^{15}N and ^{13}C (standard deviation in brackets), and Carbon:Nitrogen ratios of primary producers, mesozooplankton, gelatinous zooplankton and nekton species collected along the 4 seasons, from April 2012 to January 2013, at Cananéia Lagoon Estuarine System. (-): no measurement; (*) values estimated from Barcellos et al. (2009)

	SEASON															
	AUTUMN				WINTER				SPRING				SUMMER			
Primary producers	**n**	**$\delta^{15}N$**	**$\delta^{13}C$**	**C:N**	**n**	**$\delta^{15}N$**	**$\delta^{13}C$**	**C:N**	**n**	**$\delta^{15}N$**	**$\delta^{13}C$**	**C:N**	**n**	**$\delta^{15}N$**	**$\delta^{13}C$**	**C:N**
Phytoplankton*						3.81	-20.18	-	-	-	-	-	-	-	-	-
Microphytobenthos*						3.81	-14.18									
Rhizophora mangle	-	-	-	-	3	4.61(0.09)	-27.86(0.46)	27.52								-
Spartina alterniflora	-	-	-	-	3	4.01(0.49)	-13.23(0.20)	17.60	-	-	-	-	-	-	-	-
Enteromorpha sp.	-	-	-	-	1	8.33	-13.06	9.34	-	-	-	-	-	-	-	-
Zooplankton																
Mollusca: Bivalve veliger	1	5.97	-19.88	3.64	-	-	-	-	-	-	-	-	-	-	-	-
Gastropod veliger	-	-	-	-	-	-	-	-	1	7.00	-15.08	4.45	-	-	-	-
Decapoda: Brachyura Zoeae	3	5.77(2.94)	-22.41(4.90)	4.75	2	7,63(0,19)	-19.08(0.29)	3.65	3	4.43(1.07)	-20.1(1.02)	3.74	3	6.95(1.25)	-18.52(6.79)	4.29
Lucifer faxoni	2	8.26(1.14)	-16.79(0.28)	4.43	1	9.40	-19.49	4.43		-	-	-	1	6.67	-18.36	4.74
Dendrobranchiata: *Peisos petrunkevitchi*	3	10.19(0.39)	-17.38(0.21)	3.46	-	-	-	-	6	9.99(1.03)	-17.94(0.49)	3.12	-	-	-	-
Mysidacea sp.	-	-	-	-	2	6.87(0.68)	-17.86(0.43)	3.29	-	-	-	-	1	6,74	-17,89	3.88
Cladocera: *Penilia avirostris*	-	-	-	-	-	-	-	-	3	8.50(0.48)	-21.60(1.68)	3.27	1	7.97	-19.00	3.53
Polichaeta: Polichaete larvae	-	-	-	-	1	10.47	-17.50	2.73	-	-	-	-	-	-	-	-
Chaetognatha: *Sagitta friderici*	1	9.81	-19.16	3,74	2	10.23(0.17)	-19.88(0.06)	3.26	-	-	-	-	-	-	-	-
Copepoda: *Acartia lilljeborgi*	4	8.64(0.29)	-18.32(0.46)	3,52	3	9.14(0.43)	-18.56(0.22)	3.14	5	8.50(0.60)	-19.86(0.86)	3.11	5	8.50(0.60)	-19.86(0.86)	3.60
Corycaeus sp.	1	11.16	-19.42	4.36	-	-	-	-	2	9.88(0.88)	-20.87(0.77)	3.02	-	-	-	-
Parvocalanus crassirostris	-	-	-	-	-	-	-	-	-	-	-	-	3	7.21(0.48)	-19.18(0.60)	3.81
Euterpina acutifrons	-	-	-	-	-	-	-	-	1	7.21	-17.11	3.17	-	-	-	-
Temora turbinata	1	7.33	-18.78	4.15	2	8.90(0.11)	-18.71(0.51)	4.15	9	8.76(0.74)	-18.90(0.48)	3.45	5	8.25(0.30)	-19.03(0.41)	3.88
Vertebrata: Fish eggs	-	-	-	-	1	9.90	-19.07	3.90	3	13.02(2.02)	-19.46(0.69)	4.20	1	10.70	-16.58	3.94
Thaliacaea: *Thalia democratica*	-	-	-	-	-	-	-	-	2	11.90(1.89)	-29.58(1.49)	3.16	-	-	-	-
Total mesozooplankton	7	8.63(0.90)	-17.73(0.13)	3.72	5	7.33(1.52)	-17.39(0.33)	4.49	6	8.30(1.98)	-20,43(1.02)	4.43	6	8.23(0.74)	-19.60(0.75)	4.05
Gelatinous zooplankton																
Cnidaria: *Chiropsalmus quadrumanus*	-	-	-	-	2	10.72(0.37)	-15.98(0.70)	3.10	-	-	-	-	-	-	-	-

Chrysaora lactea	2	10.79(1.38)	-17.86(1.03)	3.24	1	11.23	-17.73	2.91	7	10.60(0.91)	-19.55(1.18)	2.87	7	10.55(0.42)	-17.38(0.57)	2.62
Lychnorhiza lucerna	14	10.34(0.90)	-17.11(0.72)	3.34	5	11.01(0.26)	-17.55(1.48)	2.54	12	10.43(0.70)	-18.70(0.88)	2.61	6	9.91(0.40)	-17.62(0.81)	2.54
Olindias sambaquiensis	-	-	-	-	-	-	-	-	6	12.28(1.07)	-17.72(1.45)	2.97	1	11.95	-16.24	1.62
Rhacostoma atlanticum	-	-	-	-	2	12.71(0.08)	-15.88(1.01)	1.55	-	-	-	-	-	-	-	-
Ctenophora: *Mnemiopsis leidyi*	6	10.01(0.97)	-18.64(0.46)	4.00	3	11.06(0.26)	-18.93(0.41)	3.95	6	11.38(0.63)	-19.62(0.63)	3.70	6	10.01(0.97)	-18.64(0.46)	2.86
Benthos																
Brachyura: *Arenaeus cribrarius*	2	9.77(0.24)	-16.69(0.80)	3.24	3	8.54(0.33)	-15.75(0.56)	3.81	-	-	-	-	-	-	-	-
Callinectes danae	3	9.87(1.28)	-17.86(1.14)	3,10	3	8.68(0.66)	-17.74(1.92)	2.97	5	9.55(2.38)	-14.97(6.65)	2.96	10	8.11(0.71)	-16.46(1.73)	2.91
Caridea: Caridea sp.	-	-	-	-	3	11.94(0.40)	-15.72(0.46)	2.96	3	9.32(1.09)	-18.20(0.27)	3.17	-	-	-	-
Dendrobranchiata: *Xiphopenaeus kroyeri*	4	8.83(0.66)	-17.29(0.92)	3.08	3	9.32(0.24)	-15.98(1.27)	2.78	5	9.08(2.67)	-12.70(0.37)	2.87	10	8.11(0.71)	-16.46(1.73)	2.93
Octocorallia: *Renilla reniformis*	-	-	-	-	3	8.50(0.60)	-11.28(2.73)	6.89	2	8.50(0.19)	-12.23(0.35)	6.49	2	9.89(0.48)	-9.36(1.22)	7.88
Alcyonacea sp.	-	-	-	-	1	9.60	-14.91	5.43	-	-	-	-	-	-	-	-
Bryozoa: Bryozoa sp.	-	-	-	-	2	7.51(0,24)	-8.60(0.55)	4,52	5	7.83(1.05)	-15.95(1.09)	4.47	-	-	-	-
Asteroidea: *Luidia senegalensis*	-	-	-	-	3	10.67(0.72)	-9.53(0.24)	4.15	-	-	-	-	1	10.06	-9.60	6.45
Holothuroidea: *Holothuria grisea*	-	-	-	-	-	-	-	-	2	6.72(0.25)	-12.62(0.19)	3.05	-	-	-	-
Nekton																
Mollusca: *Lolliguncula brevis*	3	11.94(0.38)	-18.12(2.51)	3.98	3	12.33(1.52)	-17.74(1.31)	3.45	4	11.57(0.64)	-17.65(0.52)	3.25	-	-	-	-
Elasmobranchii: *Rhinobatos* sp.	1	11.45	-15.57	2.97	-	-	-	-	-	-	-	-	-	-	-	-
Teleostei: *Achirus lineatus*	-	-	-	-	5	9.39(1.64)	-16.88(2.14)	2.97	2	10.62(0.24)	-15.27(0.92)	2.85	3	9.93(0.29)	-17.87(1.02)	2.91
Anchoa sp.	-	-	-	-	3	12.85(0.18)	-15.72(0.11)	3.65	-	-	-	-	-	-	-	-
Cathorops spixii	-	-	-	-	3	12.02(1.46)	-17.12(1.53)	3.05	-	-	-	-	-	-	-	-
Cyclichthys spinosus	-	-	-	-	-	-	-	-	-	-	-	-	2	9.61(0.19)	-15.04(1.43)	2.67
Chaetodipterus faber	-	-	-	-	-	-	-	-	-	-	-	-	3	11.53(0.54)	-17.24(0.05)	2.97
Chloroscombrus chrysurus	3	11.94(0.69)	-16.59(0.36)	3.27	4	9.98(0.47)	-18.04(0.06)	2.60	5	11.25(0.38)	-18.20(0.45)	2.77	3	9.95(0.24)	-17.84(0.74)	2.99
Dactylopterus volitans	3	-	-	-	1	10.01	-16.93	3.03	3	10.27(0.22)	-16.54(0.92)	2.90	-	-	-	-
Genidens genidens	-	-	-	-	-	-	-	-	5	12.11(1.78)	-17.24(0.83)	2.88	5	10.46(0.35)	-18.64(0.80)	2.99
Menticirrhus sp.	-	-	-	-	1	11.05	-18.47	3.48	3	11.44(0.48)	-16.50(0.65)	2.88	-	-	-	-
Isopistus parvipinnis	-	-	-	-	2	10.98(0.77)	-18.43(1.41)	2.99	-	-	-	-	-	-	-	-
Mola mola	-	-	-	-	1	10.50	-16.89	2.68	-	-	-	-	-	-	-	-
Nebris micros	1	11.30	-16.87	3.22	-	-	-	-	-	-	-	-	-	-	-	-
Oligoplites saurus	-	-	-	-	-	-	-	-	-	-	-	-	1	10.15	-17.14	3.06
Orthopristis ruber	1	11.01	-17.26	3.08	-	-	-	-	-	-	-	-	-	-	-	-
Paralonchurus brasiliensis	-	-	-	-	1	11.55	-18.57	3.48	2	11.88(0.41)	-16.58(0.25)	2.85	-	-	-	-
Pellona harroweri	-	-	-	-	2	11.79(0.09)	-16.84(0.17)	2.90	2	11.65(00.2)	-18.03(0.06)	2.93	-	-	-	-
Polydactylus virginicus	2	11.70(0.14)	-17.51(0.39)	3.12	-	-	-	-	-	-	-	-	1	11.80	-16.95	3.02
Prionotus punctatus	2	11.60(0.40)	-17.07(0.21)	3.10	-	-	-	-	-	-	-	-	-	-	-	-
Rypticus saponaceus	-	-	-	-	1	8.64	-23.52	2.67	-	-	-	-	-	-	-	-
Selene setapinis	1	9.79	-18.13	3.03	-	-	-	-	-	-	-	-	-	-	-	-
Selene vomer	-	-	-	-	-	-	-	-	-	-	-	-	2	10.02(0.45)	-15.81(0.63)	2.73
Sphoeroides greeleyi	-	-	-	-	3	10.08(1.06)	-16.69(0.83)	2.88	-	-	-	-	-	-	-	-
Sphoeroides testudineus	-	-	-	-	-	-	-		3	10.76(0.20)	-16.19()	2.89	3	9.96(1.62)	-16.38(0.59)	2.88
Stellifer rastrifer	4	12.02(0.04)	-16.45(0.76)	3.18	5	10.91(0.28)	-16.82(0.65)	2.90	6	12.53(0.60)	-17.55(0.50)	2.96	9	11.22(0.41)	-17.11(0.66)	2.88
Cetacea: *Sotalia guianensis*	-	-	-	-	-	-	-	-	-	-	-	-	1	15.06	-16.67	3.73

Table S2. Population metrics (Layman et al. 2007) of the main jellyfish (in bold) and their potential competitors from the Cananéia Lagoon Estuarine System, grouped by clusters (see Fig 3). NR = δ^{15}N range; CR = δ^{13}C range; TA = convex hull total area (δ^2 units); CD = mean distance to centroid; MNND = Mean Nearest Neighbor Distance; SDNND = standard deviation of mean nearest neighbor distance.

	SEA_c (δ units^2)	Cluster	NR	CR	TA	CD	MNND	SDNND
***Olindias sambaquiensis* (N=7)**	5.07	B1	2.77	3.56	5.93	1.59	0.92	0.52
Stellifer rastrifer (N=24)	1.61	B1	2.50	2.86	3.93	0.90	0.28	0.16
Lolliguncula brevis (N=10)	2.20	B1	3.24	2.48	4.30	0.97	0.69	0.39
Other consumers of B1 (*Paralonchurus* + *Cathorops*) (N=8)	3.39	B1	2.65	2.75	4.28	1.35	0.64	0.49
Pellona harroweri (N=4)	0.23	B1	0.24	1.35	0.14	0.60	0.19	0.09
***Lychnorhiza lucerna* (N=30)**	2.46	B2	3.69	3.25	8.84	1.16	0.31	0.37
***Chrysaora lactea* (N=17)**	3.08	B2	2.46	4.09	6.41	1.36	0.46	0.30
Chlroscombrus chrysurus (N=16)	2.16	B2	3.23	2.45	4.43	1.07	0.44	0.31
Genidens genidens (N=10)	2.68	B2	2.69	2.91	4.14	1.32	0.55	0.23
Achirus lineatus (N=12)	3.45	B2	2.31	4.80	6.13	1.41	0.63	0.34
Peisos petrunkevitchi (N=6)	1.68	B2	2.74	1.22	1.74	0.87	0.67	0.75
***Mnemiopsis leidyi* (N=22)**	2.07	D	3.80	3.11	6.42	0.99	0.45	0.32

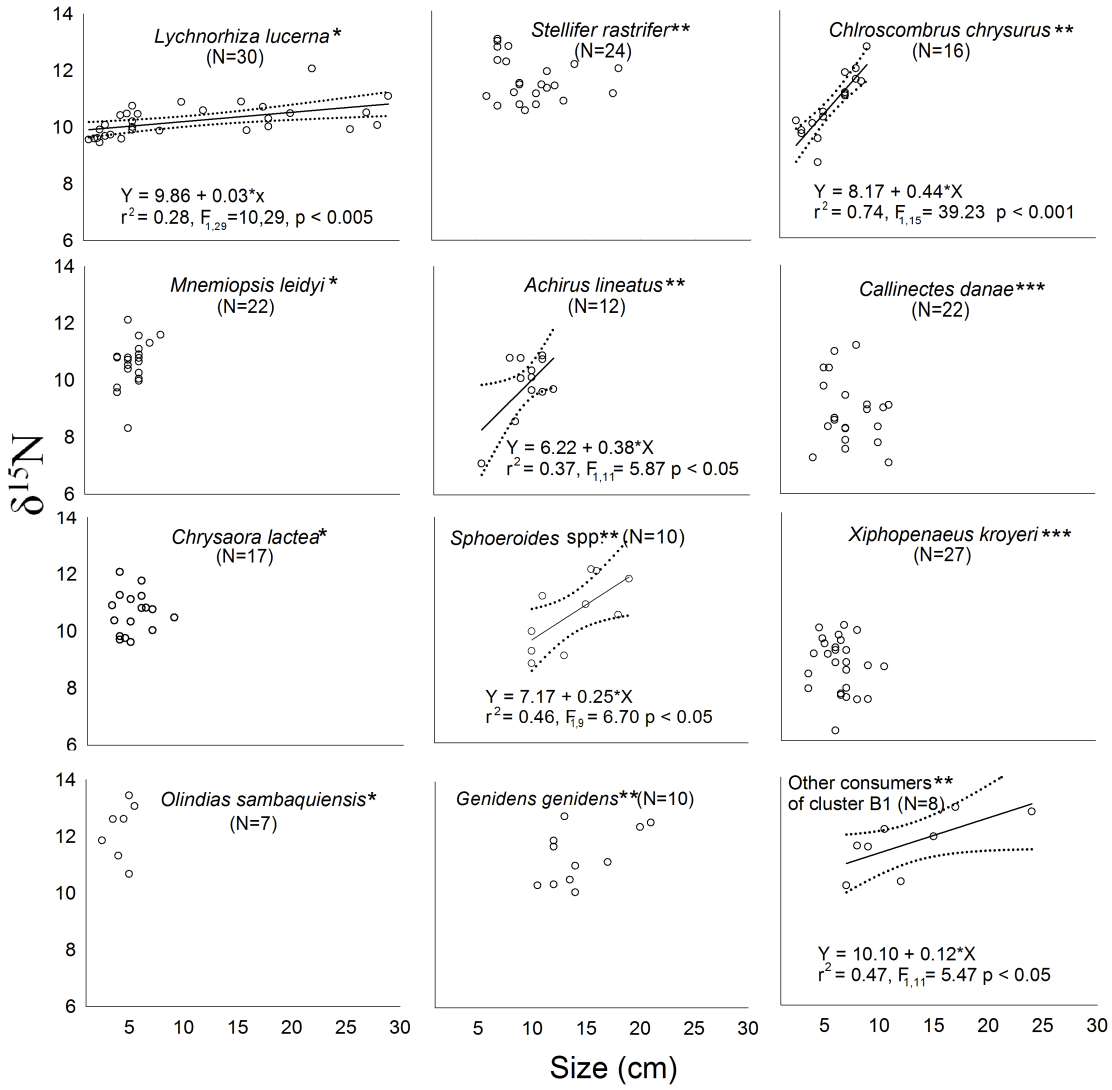

Fig. S1. Relationships between body size (cm) (as bell diameter, for medusae, oral-aboral length for the ctenophore *Mnemiopsis leidyi,* total body length for fish and the shrimp *Xiphopenaeus kroyeri,* and carapace length for the crab *Callinectes danae*) and trophic level (as δ^{15}N), of gelatinous zooplankton*, fish ** and crustaceans **

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