

Article

The Importance of Food Pulses in Benthic-Pelagic Coupling Processes of Passive Suspension Feeders

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Supplementary Materials

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Table S1. Zooplankton density (ind. m⁻³) of the main groups of epibenthic plankton during the sampling times. L.Misis-Zoe= Larva Misis-Zoe.

	D1T1	D1T2	D2T1	D2T2	D3T1	D3T2	D4T1	D4T2	D5T1	D5T2
Nauplii	85 ± 17	177 ± 32	113 ± 21	262 ± 111	273 ± 59	203 ± 50	117 ± 6	684 ± 137	830 ± 210	743 ± 149
Harpacticoida	173 ± 69	122 ± 38	80 ± 11	98 ± 12	144 ± 12	123 ± 5	86 ± 14	53 ± 5	146 ± 41	93 ± 47
Cyclopoida	255 ± 40	316 ± 40	203 ± 57	616 ± 302	823 ± 105	394 ± 47	470 ± 9	4645 ± 1344	3097 ± 570	2987 ± 340
Calanoida	65 ± 30	94 ± 17	99 ± 15	230 ± 81	425 ± 79	253 ± 24	205 ± 0	594 ± 142	1232 ± 461	1346 ± 173
Apendicularia	31 ± 10	30 ± 11	36 ± 12	78 ± 19	110 ± 14	77 ± 21	114 ± 2	222 ± 39	261 ± 59	294 ± 13
Invertebrate Eggs	9 ± 3	34 ± 9	20 ± 2	20 ± 6	11 ± 1	31 ± 9	22 ± 5	21 ± 6	38 ± 15	47 ± 3
Lamellibranchia	2 ± 1	5 ± 2	6 ± 2	8 ± 6	3 ± 1	15 ± 4	10 ± 1	11 ± 6	53 ± 14	37 ± 15
Gastropoda	2 ± 2	6 ± 0	4 ± 2	7 ± 4	3 ± 1	10 ± 1	13 ± 3	22 ± 6	12 ± 12	10 ± 5
Ostracoda	4 ± 3	3 ± 1	4 ± 1	5 ± 3	0 ± 0	5 ± 0	5 ± 0	6 ± 1	29 ± 11	13 ± 13
Polichaeta	3 ± 0	8 ± 1	11 ± 5	21 ± 7	19 ± 3	13 ± 0	17 ± 2	31 ± 1	36 ± 4	37 ± 1
Syphonophora	3 ± 1	2 ± 2	2 ± 2	8 ± 5	7 ± 1	9 ± 2	12 ± 4	24 ± 8	47 ± 20	42 ± 13
Amphipoda	1 ± 1	1 ± 1	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0
Echinodermata	3 ± 1	5 ± 2	4 ± 1	5 ± 3	11 ± 1	5 ± 0	2 ± 2	15 ± 6	1 ± 1	3 ± 2
Salpae	6 ± 2	3 ± 1	3 ± 1	24 ± 13	32 ± 4	61 ± 29	129 ± 4	125 ± 46	144 ± 56	225 ± 13
Medusae	1 ± 1	1 ± 1	1 ± 1	5 ± 3	9 ± 1	9 ± 9	28 ± 1	12 ± 4	72 ± 35	47 ± 30
Cladocera	6 ± 1	8 ± 4	10 ± 3	19 ± 7	39 ± 5	31 ± 10	65 ± 7	55 ± 20	290 ± 137	225 ± 101
Tintinida	14 ± 10	8 ± 1	5 ± 3	28 ± 23	10 ± 2	52 ± 1	116 ± 33	112 ± 32	96 ± 24	95 ± 13
Protozoa	5 ± 5	0 ± 0	0 ± 0	0 ± 0	0 ± 0	15 ± 2	10 ± 5	24 ± 3	24 ± 3	30 ± 2
Misidiacea	2 ± 2	0 ± 0	0 ± 0	0 ± 0	0 ± 0	0 ± 0	41 ± 20	1 ± 1	1 ± 1	5 ± 2
L.Misis-Zoe	0 ± 0	1 ± 1	2 ± 2	2 ± 2	3 ± 1	7 ± 4	13 ± 0	3 ± 2	9 ± 4	11 ± 1
Invertebrate larvae	2 ± 1	4 ± 2	7 ± 1	8 ± 0	13 ± 3	6 ± 1	5 ± 1	4 ± 1	71 ± 34	52 ± 28
Other Crustacea	5 ± 5	4 ± 2	4 ± 1	4 ± 3	8 ± 4	4 ± 2	77 ± 38	2 ± 1	1 ± 1	0 ± 0
Other	1 ± 1	1 ± 1	1 ± 1	2 ± 1	1 ± 1	3 ± 0	12 ± 4	0 ± 0	0 ± 0	0 ± 0
Total	678 ± 50	832 ± 87	615 ± 44	1449 ± 555	1943 ± 289	1326 ± 25	1568 ± 96	6667 ± 1770	6491 ± 1682	6342 ± 916

Table S2. Results of the pairwise tests contrasting the percentage of polyp expansion of the three species across several temporal scales.

	Fed Polyps Percentage				Semi-Open Polyps Percentage				Closed Polyps Percentage			
	T	P(MC)	T	P(MC)	T	P(MC)	T	P(MC)	T	P(MC)	T	P(MC)
D1		T1		T2		T1		T2		T1		T2
S1 vs S2	1.00	ns	5.72	***	0.89	ns	1.94	ns	0.43	ns	8.61	***
S1 vs S3	8.50	***	1.43	ns	5.69	***	3.28	*	8.89	***	3.51	**
S2 vs S3	7.16	***	3.21	*	7.56	***	1.58	ns	9.98	***	1.41	ns
D2		T1		T2		T1		T2		T1		T2
S1 vs S2	2.25	ns	0.46	ns	1.63	ns	1.31	ns	2.8	*	1.41	ns
S1 vs S3	2.71	*	3.47	**	5.05	**	3.10	*	6.4	***	1.00	ns
S2 vs S3	1.10	ns	3.89	**	2.81	*	4.43	**	0.59	ns	2.14	ns
D3		T1		T2		T1		T2		T1		T2
S1 vs S2	3.00	*	0.18	ns	2.43	*	1.34	ns	0.13	ns	2.56	*
S1 vs S3	0.49	ns	4.00	**	1.91	ns	4.80	**	2.23	ns	1.26	ns
S2 vs S3	3.04	*	2.6	ns	0.94	ns	2.36	*	1.83	ns	1.77	ns
D4		T1		T2		T1		T2		T1		T2
S1 vs S2	7.59	***	0.14	ns	2.68	*	0.49	ns	5.72	***	0.15	ns
S1 vs S3	1.56	ns	5.15	**	0.57	ns	4.85	**	1.97	ns	0.60	ns
S2 vs S3	2.54	*	3.61	**	2.60	*	3.77	**	1.91	ns	0.70	ns
D5		T1		T2		T1		T2		T1		T2
S1 vs S2	4.20	**	0.58	ns	3.47	**	0.63	ns	1.01	ns	6.59E-09	ns
S1 vs S3	2.03	ns	1.63	ns	0.53	ns	1.00	ns	1.54	ns	1.00	ns
S2 vs S3	6.54	***	2.45	*	2.39	*	1.63	ns	2.56	*	1.00	ns

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; ns- not significant

Table S3. Results of the pairwise tests contrasting the gut contents of polyps of colonies of the three species across several temporal scales.

	T	P(MC)	T	P(MC)
D1		T1		T2
S1 vs S2	1.06	ns	0.67	ns
S1 vs S3	1.75	*	1.24	ns
S2 vs S3	1.80	*	1.22	ns
D2		T1		T2
S1 vs S2	1.75	ns	2.52	**
S1 vs S3	1.50	ns	2.12	*
S2 vs S3	1.37	ns	1.60	ns
D3		T1		T2
S1 vs S2	1.20	ns	1.86	ns
S1 vs S3	1.37	ns	1.86	*
S2 vs S3	1.34	ns	2.04	*
D4		T1		T2
S1 vs S2	1.30	ns	2.49	**
S1 vs S3	1.17	ns	0.76	ns
S2 vs S3	1.30	ns	1.86	*
D5		T1		T2
S1 vs S2	2.02	*	1.50	ns
S1 vs S3	1.88	*	2.60	***
S2 vs S3	2.57	**	2.12	**

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; ns- not significant