

Trophodynamics of estuarine intertidal harpacticoid copepods based on stable isotope composition and fatty acid profiles

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Marine Ecology Progress Series 524: 225–239 (2015)

SUPPLEMENTARY MATERIAL

Fig. S1 Spatio-temporal variation in total fatty acid content of sediments (mean \pm SD, n = 3)

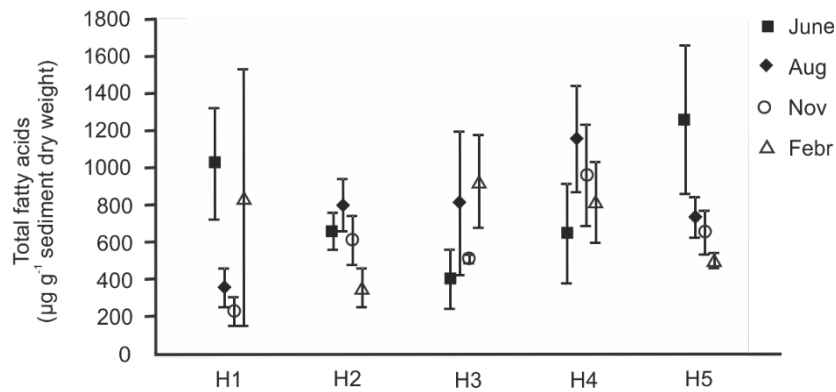


Table S1 Natural isotopic signatures of *Fucus vesiculosus*, *Spartina anglica*, epiphytes (collected at station H4 unless specifically noted), suspended particulate organic matter (SPOM, collected near station H1) and sediment particulate organic matter (sediment OM). Mean \pm SD, n = 3 unless indicated differently (^an = 2, ^bn=5, ^cn=4).

Biological material	$\delta^{13}\text{C}$ (‰)	$\delta^{15}\text{N}$ (‰)
<i>Fucus</i> - fresh tissue (June)	-20.40 \pm 0.39	15.28 \pm 0.25
(Aug)	-18.16 \pm 0.20	13.74 \pm 0.62
(Nov)	-22.10 \pm 0.08	16.73 \pm 0.34
(Febr)	-22.26 \pm 0.45	14.14 \pm 0.19
- litter (Aug)	-22.91 \pm 0.43	16.20 \pm 0.54
<i>Spartina</i> - fresh tissue (June)	-13.45 \pm 0.10	14.73 \pm 0.49
(Aug)	-14.14 \pm 0.11	12.06 \pm 0.25
- decaying tissue (June, H3)	-13.25 \pm 0.28	10.64 \pm 0.36
(June)	-12.90 \pm 0.06	12.57 \pm 0.36
(Nov)	-12.95 \pm 0.08	14.52 \pm 0.13
- litter (Nov)	-13.25 \pm 0.12	14.29 \pm 0.26
- fibrous detritus (Nov)	-15.45 \pm 0.18	13.66 \pm 0.08
Epiphytes <i>Fucus</i> - fresh tissue (June)	-21.15 \pm 0.25	7.49 ^c \pm 2.07
(Aug)	-19.31 \pm 0.10	10.80 \pm 0.77
(Nov)	-17.46 ^c \pm 0.08	14.20 \pm 0.36
(Febr)	-20.31 \pm 0.05	10.51 \pm 0.64
- litter (Febr)	-22.94 \pm 0.13	8.06 \pm 0.36
Epiphytes <i>Spartina</i> - fresh tissue (Nov)	-19.46 ^c \pm 0.41	10.71 \pm 1.13
(Aug)	-21.14 ^c \pm 0.28	7.51 \pm 1.25
- decaying tissue (Febr)	-20.38 \pm 0.10	10.52 \pm 0.48
(Febr, H5)	-18.88 \pm 0.08	10.52 \pm 0.72
SPOM (June)*	-21.73 \pm 0.23	8.97 \pm 0.93
(Aug)	-23.88 ^b \pm 0.40	4.65 \pm 0.54
(Nov)	-22.87 \pm 1.36	7.05 ^a \pm 1.64
(Febr)	-23.70 \pm 0.11	4.25 \pm 0.23
OM H1 (June)	-22.25 ^a \pm 0.07	7.25 ^a \pm 0.42
(Aug)	-23.40 ^a \pm 0.42	6.22 ^a \pm 0.74
(Nov)	-22.53 ^a \pm 0.39	5.63 ^a \pm 0.04
(Febr)	-22.28 ^a \pm 0.46	5.10 ^a \pm 0.14
OM H2 (June)	-19.05 ^a \pm 0.07	5.63 ^a \pm 1.53
(Aug)	-16.98 ^a \pm 0.32	6.93 ^a \pm 0.39
(Nov)	-18.53 ^a \pm 1.38	7.53 ^a \pm 0.46
(Febr)	-18.78 ^a \pm 0.04	6.18 ^a \pm 0.60
OM H3 (June)	-21.70 ^a \pm 0.78	6.15 ^a \pm 0.28
(Aug)	-21.85 ^a \pm 0.49	4.20 ^a \pm 0.14
(Nov)	-22.10 ^a \pm 0.28	7.31 ^a \pm 0.01
(Febr)	-20.78 ^a \pm 0.67	7.88 ^a \pm 0.25
OM H4 (June)	-22.25 ^a \pm 0.71	8.18 ^a \pm 0.18
(Aug)	-21.63 ^a \pm 0.04	8.70 ^a \pm 0.01
(Nov)	-22.65 ^a \pm 0.28	7.73 ^a \pm 1.17
(Febr)	-20.05 ^a \pm 2.83	8.23 ^a \pm 0.04
OM H5 (June)	-22.10 ^a \pm 0.28	8.30 ^a \pm 0.35
(Aug)	-22.78 ^a \pm 0.60	8.83 ^a \pm 0.01
(Nov)	-22.75 ^a \pm 0.57	8.08 ^a \pm 1.17
(Febr)	-22.55 ^a \pm 3.55	7.48 ^a \pm 0.25

* possibly contaminated with pelagic copepods

Table S2 Relative FA composition of sediments (averaged, n = 3)

		Sediment relative fatty acid composition (%)													EPA		DHA
		14:0	15:0	15:1 ω 5	16:0	16:1 ω 7	17:0	18:0	18:1 ω 9c	18:1 ω 7c	18:2 ω 6	20:0	18:3 ω 3	20:4 ω 6	20:5 ω 3	24:0	22:6 ω 3
H1	June	10.06	5.44	1.84	17.68	21.62	2.99	2.98	2.98	4.61	0.92	0.31	0.27	2.50	23.10	0.09	2.61
	Aug	5.74	7.81	0.97	24.09	27.16	1.07	3.66	1.19	4.59	0.59	1.16	0.15	3.41	14.93	1.24	2.26
	Nov	6.06	8.75	3.02	23.62	24.62	1.19	3.83	2.14	5.21	0.56	0.26		2.74	16.50	0.18	1.34
	Febr	3.19	3.50	1.04	16.46	41.50	0.84	1.33	1.07	2.89	0.52	0.15	0.04	1.54	19.37		6.56
H2	June	7.00	3.65	0.37	22.96	44.45	0.64	1.22	1.34	2.44	0.73	0.02	0.13	1.83	12.19		1.05
	Aug	5.08	5.59	1.00	23.00	35.62	1.24	1.40	0.97	3.60	1.15	0.04	0.69	3.16	15.73	0.15	1.59
	Nov	4.48	4.09	1.29	19.76	35.20	0.69	1.14	1.15	3.41	0.73	0.04	0.39	2.28	23.63		1.72
	Febr	4.02	4.03	0.40	20.45	35.39	0.55	1.85	1.17	3.53	0.52		0.04	1.66	23.95		2.45
H3	June	5.93	10.23	0.72	24.76	32.95	1.06	3.43	1.83	4.84	1.09	0.88	0.71	3.03	7.44		1.11
	Aug	5.40	8.85	1.86	26.61	25.33	1.24	2.64	2.08	6.63	2.02	0.85	2.71	2.49	10.34	0.22	0.72
	Nov	5.35	8.00	1.95	22.61	28.11	0.97	3.16	2.18	5.52	1.41	0.88	1.71	2.84	13.91		1.40
	Febr	3.83	4.34	1.06	19.81	38.56	0.62	1.56	1.39	4.66	0.75	0.34	1.08	1.43	18.84	0.18	1.54
H4	June	6.93	10.13	4.60	21.24	23.86	1.53	3.23	2.13	6.54	0.96	0.80	0.97	3.52	11.53	1.19	0.83
	Aug	5.70	10.91	6.38	22.58	24.93	1.41	1.99	2.40	5.23	1.37	0.38	1.10	1.82	12.34	0.55	0.92
	Nov	5.41	13.41	8.19	15.84	24.70	1.74	1.87	2.49	4.79	0.86	0.52	0.82	2.08	14.89	0.74	1.65
	Febr	4.83	11.64	6.40	16.97	21.80	1.36	2.27	4.95	4.82	0.95	0.59	0.57	2.50	14.64	0.66	5.06
H5	June	7.03	10.50	1.98	25.59	27.68	1.56	3.07	1.35	4.23	1.97	1.84	1.56	1.83	7.45	1.23	1.13
	Aug	5.99	13.82	2.94	22.39	20.31	1.70	3.90	2.75	6.92	1.56	1.62	1.14	2.44	9.23	1.31	1.97
	Nov	5.54	9.58	4.35	19.70	22.50	1.26	2.99	3.23	6.51	2.36	1.41	1.12	2.28	14.31	0.93	1.93
	Febr	6.51	8.96	3.60	19.73	21.46	1.12	3.42	2.35	6.03	1.54	1.47	1.13	1.59	17.51	1.18	2.41

Table S3 Spatiotemporal variability in $\delta^{13}\text{C}$ values for all harpacticoid taxa (mean values \pm SD, n = 3)

	H1				H2				H3				H4				H5				
	June	Aug	Nov	Febr	June	Aug	Nov	Febr	June	Aug	Nov	Febr	June	Aug	Nov	Febr	June	Aug	Nov	Febr	
<i>Amphiascus</i> sp.	-16.0 \pm 0.6		-16.5								-18.6 \pm 2.3	-15.5 \pm 1.5	-16.0 \pm 0.6	-17.0 \pm 2.2	-16.9 \pm 0.4	-16.2 \pm 0.2				-20.3 \pm 0.7	
<i>Asellopsis intermedia</i>		-14.7 \pm 1.3	-16.0 \pm 0.4	-14.0 \pm 0.7	-15.1 \pm 0.4	-14.3 \pm 1.1	-13.9 \pm 0.4	-12.6 \pm 0.1	-14.7			-13.1									
Cletodidae									-40.3 \pm 1.1	-34.3			-37.9 \pm 0.4	-34.8 \pm 2.8			-35.8 \pm 0.2	-34.6 \pm 1.2			
<i>Delavalia palustis</i>	-14.8 \pm 0.3			-15.7					-16.1	-16.7	-16.0	-16.1 \pm 0.4	-15.7 \pm 0.3	-15.6 \pm 2.8	-16.3 \pm 0.2	-15.9 \pm 0.1	-16.3 \pm 0.3	-18.2 \pm 0.6	-18.5 \pm 0.2	-17.9 \pm 0.4	
Ectinosomatidae	-17.4 \pm 0.5	-19.5									-17.7	-16.3 \pm 0.4	-15.7 \pm 0.6	-22.0	-17.0 \pm 0.2	-16.5 \pm 0.0					
Harpacticidae			-15.9 \pm 0.8	-16.4					-17.0			-16.9 \pm 0.2	-16.4 \pm 0.6								
<i>Microarthridion littorale</i>	-17.0 \pm 0.9	-19.5 \pm 1.8	-18.0						-17.5		-17.0 \pm 0.6	-16.4 \pm 0.7	-16.0 \pm 0.4	-20.5 \pm 1.7	-16.6 \pm 1.0	-15.7 \pm 0.1	-17.2 \pm 0.7	-17.4 \pm 0.8	-18.3 \pm 0.1	-16.4 \pm 1.0	
<i>Nannopus palustris</i>									-15.3	-15.6				-17.0			-16.3 \pm 0.4	-16.2 \pm 0.2	-18.1 \pm 0.7	-17.0 \pm 0.1	
<i>Paraleptastacus spinicauda</i>					-15.1 \pm 0.9	-14.3 \pm 1.4	-14.0 \pm 0.6	-12.7 \pm 0.6	-14.4 \pm 1.2												
<i>Paronychocamptus nanus</i>	-21.0	-15.8 \pm 0.8	-15.7 \pm 0.2			-14.8 \pm 0.6						-15.9 \pm 0.7	-14.8 \pm 1.1			-15.8 \pm 0.9	-15.4 \pm 0.3		-23.5 \pm 1.2	-15.7 \pm 0.5	
<i>Platychelipus littoralis</i>			-15.0								-15.2 \pm 0.2	-14.9	-14.5 \pm 0.2	-15.1 \pm 0.3	-15.0 \pm 0.4	-14.8 \pm 0.4	-14.7 \pm 0.1	-16.3 \pm 0.4	-16.2 \pm 0.2	-16.9 \pm 0.3	-16.4 \pm 0.4
<i>Robertsonia diademata</i>											-15.9 \pm 0.6	-18.3 \pm 0.5	-15.7								
<i>Tachidius discipes</i>	-15.7 \pm 0.1	-15.6 \pm 0.5	-15.8 \pm 0.5	-16.1 \pm 0.2	-15.8 \pm 0.2	-14.7	-14.7 \pm 0.4	-14.9 \pm 0.1	-15.6 \pm 0.4	-15.6 \pm 0.5	-14.7 \pm 0.5	-15.1			-15.6 \pm 0.1	-15.2 \pm 0.0					

Table S4 Copepod $\delta^{15}\text{N}$ and $\delta^{13}\text{C}$ values. Mean \pm SD, n = number of replicates.

Harpacticoid taxon	n	$\delta^{13}\text{C}$ (‰)	$\delta^{15}\text{N}$ (‰)
<i>Amphiascus</i> sp. (June, H1)	2	-15.9 \pm 0.1	13.8 \pm 0.6
<i>Asellopsis intermedia</i> (Aug, H1)	1	-16.0	15.4
<i>Asellopsis intermedia</i> (Nov, H1)	3	-15.5 \pm 0.2	13.2 \pm 0.8
Cletodidae (Aug, H4)	1	-36.9	13.4
<i>Delavalia palustris</i> (June, H1)	2	-15.2 \pm 0.2	13.6 \pm 0.4
<i>Delavalia palustris</i> (Aug, H4)	1	-17.3	13.3
Ectinosomatidae (June, H1)	1	-16.4	15.3
<i>Microarthridion littorale</i> (Aug, H4)	1	-15.7	15.0
<i>Microarthridion littorale</i> (Nov, H4)	3	-16.2 \pm 0.1	15.0 \pm 0.1
<i>Microarthridion littorale</i> (Febr, H4)	2	-16.1 \pm 0.0	15.9 \pm 0.3
<i>Microarthridion littorale</i> (Nov, H5)	2	-18.2 \pm 0.0	16.3 \pm 0.2
<i>Paraleptastacus spinicauda</i> (Aug, H2)	1	-14.5	16.9
<i>Paronychocamptus nanus</i> (Aug, H1)	1	-15.2	13.4
<i>Paronychocamptus nanus</i> (Nov, H3)	2	-15.4 \pm 0.3	13.7 \pm 0.4
<i>Platychelipus littoralis</i> (Febr, H4)	1	-14.7	14.9
<i>Robertsonia diademata</i> (Aug, H3)	2	-15.7 \pm 0.1	12.8 \pm 0.4
<i>Tachidius discipes</i> (Nov, H1)	1	-15.4	11.0
<i>Tachidius discipes</i> (Febr, H1)	2	-16.4 \pm 0.1	13.5 \pm 0.3

Table S5 Relative fatty acid profiles (% composition) of harpacticoid taxa.

		14:0	15:0	15:1ω5	16:0	16:1ω7	17:0	17:1ω7	18:0	18:1ω9c	18:1ω7c	18:2ω6	18:3ω3	20:1ω9	20:4ω6	20:5ω3 EPA	22:6ω3 DHA	
<i>Amphiascus</i> sp.	H1 June	2.14	0.44		28.87	11.39	1.52		11.16	0.84	5.73			0.64	0.59	24.35	12.35	n = 2
	H3 Febr	1.13	0.63		16.86	12.34	1.10		4.14	1.62	9.99	1.49	0.68	0.64	0.52	32.50	16.33	
	H4 Nov	1.08	1.83	0.27	9.99	7.06	1.49	4.52	2.19	2.00	5.79	1.18	0.53	0.30	0.54	35.66	25.58	
	Febr	0.93	0.69		15.30	8.06	1.28	1.63	4.07	1.40	7.29	1.45	0.40	0.41	0.40	34.95	21.73	
	H5 Nov	1.00	0.58		14.64	7.30	0.83		4.94	2.44	5.88	1.72	0.62	0.47	0.65	33.01	25.93	
<i>Asellopsis intermedia</i>	H1 Febr	1.36	0.86		23.10	19.84	0.85	0.50	4.11	1.24	2.45	0.56		0.36	1.87	24.83	18.09	n = 2
	H2 June	2.49	0.76		35.71	19.00	0.88		10.34	0.78	2.33			1.09	13.21	13.41		
	H5 Nov	2.03	0.39		21.97	9.32	0.39		6.31	1.24	1.11	0.50			0.86	30.89	24.98	
<i>Cletodidae</i>		H4 Aug	1.81	0.49	54.72	0.53	0.58		40.21		1.67							
<i>Delavalia palustris</i>	H1 June	1.89	1.01		28.83	9.57	1.51		11.95	1.21	4.77	0.61		1.69	1.96	23.80	11.19	n = 2
	H4 Aug	2.74	4.94	0.71	35.93	8.65	4.89	4.22	16.61	0.87	4.09	0.84	1.30	1.02	3.36	25.04	11.04	
	Nov	4.58	9.82	0.39	33.59	17.07	5.08	10.44	7.87	0.77	0.84	1.04	0.82	0.74	0.33	5.84	0.77	
	Febr	1.23	1.95	0.48	15.74	9.24	2.42	3.07	4.47	1.12	7.60	1.09	0.39	2.30	1.37	32.13	15.42	
	H5 June	3.44	9.67	0.96	32.98	15.4	5.37	6.14	10.31	0.36	3.61				0.78	0.70	7.74	
<i>Ectinosomatidae</i>	Aug	1.24	4.21	0.82	21.45	7.00	5.33	3.95	10.46	0.72	4.76	0.63	0.93	1.34	4.20	21.68	12.36	n = 2
	Nov	1.29	1.25	0.33	11.15	9.41	1.07	3.20	2.58	0.60	5.13	1.20	0.39	1.57	1.55	40.96	18.32	
	Febr	2.41	1.40	0.29	19.20	12.08	0.75	1.32	5.00	0.90	7.13	1.84	0.38	2.15	1.30	33.19	11.30	
<i>Ectinosomatidae</i>	H1 June	2.33	1.02		51.72	2.46	2.14		24.16							10.52	5.65	n = 2
	H4 June	2.65	1.37		55.96	1.76	7.00		32.31		2.86					2.22		
<i>Microarthridon littorale</i>	H1 Aug	4.16	1.31		57.81	4.35	1.63		29.82	0.92						4.24		n = 2
	June	5.46			58.60	15.49			16.21									
	H3 Febr	1.41	0.39		18.98	14.5	0.43		3.60	0.74	3.07	0.37	0.20		0.86	25.46	29.98	
	H4 June	0.58	0.38		54.65	8.09	0.56		26.23		1.34					4.68	3.49	
	Aug	3.51	1.10		58.28	11.10	0.81		21.81	0.56	1.36					3.30	1.54	
	Nov	3.33	1.07		43.13	16.00	0.72		15.87	1.01	2.30	0.49			0.36	9.21	6.68	
	Febr	1.51	0.58		19.18	14.87	0.80	1.38	3.34	1.07	4.79	1.11	0.22	0.49	0.51	28.81	22.59	
	H5 June	3.10	0.75		44.21	18.86	0.53	0.15	10.8	0.66	2.02	0.17			0.35	9.69	8.98	
	Aug	3.07	0.96		39.13	14.37	0.83		9.11	1.35	1.67	0.71			0.90	13.85	14.58	
	Nov	1.55	0.39		30.59	6.79	0.37		15.25	0.81	1.19	0.57	0.20		0.59	18.26	23.37	
<i>Nannopus palustris</i>	Febr	3.48	0.75		39.70	16.04	0.76		9.71	1.68	3.03					14.37	10.49	
	H5 Nov	1.31	0.50	0.07	16.75	8.80	0.43		4.51	1.37	4.17	1.25	0.17	0.58	0.65	30.89	28.53	n = 2
<i>Paraleptastacus spinicauda</i>	Febr	1.76	0.46		17.11	12.92	0.45		3.24	1.60	5.96	1.86	0.23	0.84	0.47	33.37	19.71	n = 2
	H2 June	6.90	6.30		58.59		8.72		19.49									
	Aug	0.93	0.42		57.76	0.28	1.09		37.93	0.18	0.12					0.37	0.44	
<i>Paronychocamptus nanus</i>	Nov	4.49	4.41		58.40		10.05		22.64									
	H3 June	2.77	1.68		55.67	2.84	2.99		31.05	0.60	2.40							
	H3 Aug	3.13	1.03		37.53	20.11	1.31		11.46	0.88	2.52	0.39	0.63		0.93	11.13	8.94	n = 3
<i>Platycheilopus littoralis</i>	Nov	5.89	2.00		63.00	15.68	1.63		11.60	0.60								n = 2
	Febr	1.75	0.42		19.62	14.81	0.47		3.52	1.34	2.51	0.36	0.22	0.52	0.76	34.12	19.83	
	H5 Febr	4.00	0.61		45.62	11.80	0.54		15.77	2.60	1.96					13.51	3.59	
	H4 June	2.34	0.68		41.83	15.85	0.54		15.28	1.25	4.47	0.41		0.53	0.89	11.16	4.98	n = 2
<i>Tachidius discipes</i>	Aug	1.33	0.86		23.69	16.68	0.88	0.37	5.47	1.15	5.90	0.48	0.22	0.58	1.24	28.35	12.80	n = 2
	Nov	1.33	0.70	0.12	13.38	9.39	0.62		2.86	1.06	3.60	0.50	0.13	0.71	1.26	38.97	25.43	
	Febr	1.48	0.42		16.02	12.04	0.59		2.70	0.99	6.21	0.92	0.22	0.81	0.73	40.37	16.50	
	H5 June	4.96	1.41		43.06	6.68	0.96		29.78		13.14							
	Febr	1.63	0.36		18.12	14.13	0.39		3.28	0.91	6.16	1.03	0.21	0.80	0.65	38.68	13.65	
<i>Tachidius discipes</i>	H1 June	5.23	1.54		58.33	9.07	1.20		24.63									n = 2
	Febr	2.30	0.47		14.92	13.75	0.23		2.62	1.21	3.98	0.65	0.23	0.25	0.56	27.52	31.33	
	H2 June	2.11	1.42		38.74	8.05	1.70		17.33	0.68	1.36				0.95	9.40	19.09	
	H3 June	1.71	1.18		45.49	18.33	1.70		12.08	0.35	2.83				0.90	7.62	7.81	
	Aug	3.63	1.37		43.57	14.73	1.33		14.54	1.46	1.61					10.00	7.76	
	Nov	5.32	1.63		31.99	28.63	0.69		5.34	2.99	3.74				0.42	10.86	8.39	
	Febr	1.74	0.05		16.64	12.51	0.29		4.32	2.09	3.94	0.44	0.14	0.20	0.41	27.23	30.00	
	H4 Febr	2.43	0.51		21.65	12.40	0.45	0.47	5.62	1.85	4.27	0.35	0.21	0.28	0.23	23.63	25.90	

Table S6 Marker fatty acids (in %) or fatty acid ratios in harpacticoids, indicative for copepod's diet.

		EPA+DHA ΣPUFA		Diatoms		Dinoflagellate/diatom	Non-diatom	Bacteria	Camivory				
		16:1ω7	16:1ω7/16:0	DHA/EPA	C18-PUFA	Σ C15, C17	C18:1ω7c	20:1ω9	PUFA/SFA				
<i>Amphiascus sp.</i>	H1 June	36.70	37.29	11.39	0.40	0.51		1.96	5.73	0.64	0.85	n = 2	
	H3 Febr	48.84	51.53	12.34	0.73	0.50	2.17	1.73	9.99	0.64	2.16		
	H4 Nov	61.24	63.49	7.06	0.71	0.72	1.71	8.10	5.79	0.30	3.83		
	Febr	56.68	58.92	8.06	0.53	0.62	1.85	3.61	7.29	0.41	2.65		
	H5 Nov	58.94	61.92	7.30	0.50	0.79	2.33	1.41	5.87	0.47	2.82		
<i>Asellopsis intermedia</i>	H1 Febr	42.91	45.34	19.84	0.86	0.73	0.56	2.21	2.45	0.36	1.50	n = 2	
	H2 June	26.62	27.71	19.00	0.54	1.02		1.64	2.33		0.57		
	H5 Nov	55.87	57.23	9.32	0.42	0.81	0.50	0.79	1.11		1.84		
Cletodidae	H4 Aug			0.53	0.01			1.06	1.67				
<i>Delavalia palustris</i>	H1 June	34.99	37.56	9.57	0.33	0.47	0.61	2.52	4.77	1.69	0.83	n = 2	
	H4 Aug	36.08	41.57	8.65	0.33	0.44	2.14	12.29	4.09	1.02	1.13		
	Nov	6.61	8.80	17.07	0.51	0.13	1.86	25.73	0.84	0.74	0.14		
	Febr	47.55	50.39	9.24	0.59	0.48	1.48	7.92	7.60	2.30	1.95		
	H5 June	10.26	10.97	15.40	0.47	0.33		22.14	3.61	0.78	0.18		
	Aug	34.05	39.81	7.00	0.34	0.57	1.24	13.90	4.76	1.34	0.94		n = 2
	Nov	59.28	62.41	9.41	0.84	0.45	1.59	5.84	5.13	1.57	3.60		
	Febr	44.49	48.02	12.08	0.63	0.34	2.23	3.10	7.13	2.15	1.68		n = 2
Ectinosomatidae	H1 June	16.17	16.17	2.46	0.05	0.54		3.16			0.20		
	H4 June	2.22	2.22	1.76	0.03	0.00		2.24	2.86		0.02		
<i>Microarthridion littorale</i>	H1 Aug			4.35	0.08			2.94					
	June	4.24	4.24	15.49	0.26	0.00					0.05		
	H3 Febr	55.44	56.88	14.50	0.76	1.18	0.58	0.82	3.07		2.29		
	H4 June	8.18	8.18	8.09	0.15	0.75		0.94	1.34		0.10		
	Aug	4.84	4.84	11.10	0.20	0.47		1.92	0.68		0.06	n = 2	
	Nov	15.88	16.74	16.00	0.41	0.74	0.49	1.79	2.30		0.32	n = 3	
	Febr	51.40	53.24	14.87	0.77	0.78	1.33	1.84	4.79	0.49	2.10	n = 3	
	H5 June	18.68	19.20	18.86	0.44	0.93	0.17	1.33	2.02		0.36	n = 3	
	Aug	28.43	30.04	14.37	0.37	1.05	0.48	1.79	1.67		0.57	n = 3	
	Nov	41.63	42.99	6.79	0.24	1.28	0.77	0.75	1.19		1.00	n = 3	
Febr	24.87	24.87	16.04	0.40	0.73		1.50	3.03		0.46			
<i>Nannopus palustris</i>	H5 Nov	59.42	61.49	8.80	0.53	0.92	1.42	0.97	4.17	0.58	2.66	n = 2	
	Febr	53.09	55.66	12.92	0.76	0.59	2.10	0.91	5.96	0.84	2.42	n = 2	
<i>Paraleptastacus spinicauda</i>	H2 June							15.02					
	Aug	0.81	0.81	0.28		1.18		1.51	0.12		0.01		
	Nov							14.46					
	H3 June			2.84	0.05			4.67	2.40				
<i>Paronychocamptus nanus</i>	H3 Aug	20.08	22.02	20.11	0.54	0.80	1.02	2.34	2.52		0.40		
	Nov			15.68	0.25			3.63				n = 3	
	Febr	53.94	55.29	14.81	0.76	0.58	0.59	0.89	2.51	0.52	2.15	n = 2	
	H5 Febr	17.10	17.10	11.80	0.26	0.27		1.15	1.96		0.26		
<i>Platychelipus littoralis</i>	H4 June	16.14	17.44	15.85	0.41	0.46	0.41	1.22	4.47	0.53	0.32	n = 2	
	Aug	41.15	43.09	16.68	0.70	0.46	0.70	2.11	5.90	0.58	1.34		
	Nov	64.39	66.29	9.39	0.70	0.65	0.63	1.39	3.60	0.71	3.51	n = 2	
	Febr	56.87	58.73	12.04	0.75	0.41	1.14	1.01	6.21	0.81	2.77		
	H5 June			6.68	0.16			2.38	13.14				
	Febr	52.33	54.22	14.13	0.78	0.35	1.24	0.75	6.16	0.80	2.28		
<i>Tachidius discipes</i>	H1 June			9.07	0.16			2.74					
	Febr	58.85	60.28	13.75	0.92	1.14	0.87	0.70	3.98	0.25	2.94	n = 2	
	H2 June	28.48	29.44	8.05	0.21	2.03		3.12	1.36		0.48	n = 2	
	H3 June	15.42	16.33	18.33	0.40	1.03		2.88	2.83		0.26		
	Aug	17.76	17.77	14.73	0.34	0.78		2.71	1.61		0.28		
	Nov	19.24	19.67	28.63	0.89	0.77		2.32	3.74		0.44		
	Febr	57.24	58.23	12.51	0.75	1.10	0.58	0.34	3.94	0.20	2.53		
	H4 Febr	49.52	50.31	12.40	0.58	1.10	0.56	1.20	4.27	0.28	1.65	n = 2	

Σ PUFA comprises 18:2ω6, 18:3ω3, 20:4ω6, 20:5ω3 (EPA) and 22:6ω3 (DHA)