Deposit feeders are secondary consumers of detritus in an abyssal food web

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Supplementary Information

Table S1. Stable isotopic composition: $\delta^{15}N$, $\delta^{13}C$, and $\delta^{15}N_{Src\text{-}AA}$ values; elemental composition: total nitrogen (TN), contribution of total nitrogen from amino acids (N in AA); trophic position (TP); and degree of degradation: Σ*V*, DI, Mol% of Gly of individual samples used in the study. Mean ± SD and values in parenthesis represent the propagated error for $\delta^{15}N_{Src\text{-}AA}$ values and trophic position (TP) calculation.

Sample ID	Type	Species	Month	Weight (g)	$\delta^{15}N$ (‰)	$\delta^{13}C$ (‰)	TN (wt. %)	N in AA (wt. %)	$\delta^{15}N_{Src\text{-}AA}$ (‰)	TP	Σ*V*	DI	Mol Gly (%)
AT4210_4_0-0.5	Sediment		May		9.7	-22.1	0.23	$8.26\times10^{-4} \pm 8.71\times10^{-4}$	13			-0.048	8.8
AT4210_2_0-0.5	Sediment		May		9.7	-22.1	0.22	$5.34\times10^{-4} \pm 5.98\times10^{-4}$	12.2	0.9	2.7	-0.011	23.1
Pulse72_57_0-0.5	Sediment		Oc		8.8	-22.1	0.24	$3.82\times10^{-4} \pm 3.69\times10^{-4}$	11.2	0.8	3.0	-1.068	36.1
Pulse72_54_0-0.5	Sediment		Oc		8.5	-22.2	0.24	$9.62\times10^{-4} \pm 8.49\times10^{-4}$	10.1	1.4	3.4	-0.81	29.7
AT4210_71	Hindgut	*E. rostrata*	May		11.3	-21.1	0.46	8.10×10^{-3}	18.5 (0.8)	2 (0.3)		-0.55	46.6
AT4210_75	Hindgut	*E. rostrata*	May		9.7	-22.0	0.32	$7.35\times10^{-3} \pm 4.72\times10^{-3}$	17.7	1.2		-1.085	53
Pulse72_8	Foregut	*E. rostrata*	Oc		8.2	-21.2	0.54	3.70×10^{-2}				-0.72	38.5
Pulse72_12	Foregut	*E. rostrata*	Oc		7.50	-21.5	0.35	$4.14\times10^{-2} \pm 6.68\times10^{-3}$	10.1	1.8	3.2	-1.05	38.2
Pulse72_10	Hindgut	*E. rostrata*	Oc		7.10	-21.8	0.37	$1.80\times10^{-2} \pm 3.06\times10^{-3}$	11.7	1.9	2.9	-0.99	40.4
Pulse72_14	Hindgut	*E. rostrata*	Oc		8.00	-21.6	0.34	$5.89\times10^{-2} \pm 3.26\times10^{-3}$	10.3 (2.2)	2.1 (0.3)	3.0	-1.43	53.5
AT4210_109	Hindgut	*S. globosa*	May		9.6	-23.0	0.29	4.18×10^{-3}	13.9 (1.2)	1 (0.2)		0.72	10.7
AT4210_105	Hindgut	*S. globosa*	May		10.6	-22.1	0.34	2.15×10^{-2}	11 (0.8)	2.3 (0.4)	3.2	0.13	15.8
AT4210_14	Hindgut	*O. mutabilis*	May		9.1	-23.6	0.28	$3.75\times10^{-2} \pm 2.34\times10^{-2}$	11.3 (1.4)	1.9 (0.3)	3.1	0.28	20
AT4210_18	Hindgut	*O. mutabilis*	May		12.5	-21.9	0.66	$5.57\times10^{-2} \pm 4.00\times10^{-3}$	9.3 (0.9)	3.0 (0.5)	4.9	0.38	20.9
Pulse72_5	Hindgut	*O. mutabilis*	Oc		7.9	-21.8	0.36	$2.13\times10^{-2} \pm 2.65\times10^{-3}$	11.6 (0.6)	2.1 (0.3)	2.9	0.46	17.4
Pulse72_46	Hindgut	*O. mutabilis*	Oc		8.2	-21.3	0.55	2.82×10^{-2}	10.3 (0.7)	2.3 (0.4)	2.7	0.39	16.3
Pulse72_3	Foregut	*O. mutabilis*	Oc		11.8	-21.7	0.91	$6.55\times10^{-2} \pm 1.17\times10^{-3}$	11.5 (0.7)	2.5 (0.4)	2.7	0.28	18.8

Pulse72_44	Foregut	*O. mutabilis*	Oc		9.9	-21.9	0.75	$3.22\times10^{-2} \pm 7.01\times10^{-3}$	9.7 (0.7)	1.9 (0.3)	2.7	0.011	19.6
AT4210_68	Body	*E. rostrata*	May	145.6	16.1	-20.8	1.67	0.38 ± 0.11	15.4 (1.9)	2.6 (0.5)	3.1	-1.27	54
AT4210_72	Body	*E. rostrata*	May	138.1	15.1	-18.7	2.13	0.32 ± 0.1	15 (1)	3.0 (0.5)	3.3	-1.33	45.5
Pulse72_7	Body	*E. rostrata*	Oc	229.5	14.6	-18.7	0.90	0.15 ± 0.03	14.9 (0.9)	3.1 (0.5)	2.8	-1.66	63.3
Pulse72_11	Body	*E. rostrata*	Oc	127.5	14.9	-18.9	0.95	0.15 ± 0.05	14.6 (1.1)	3.0 (0.5)	3.0	-1.42	57.5
AT4210_102	Body	*S. globosa*	May	39.0	13.5	-18.7	3.43	1.36 ± 0.24	9.9 (0.6)	2.5 (0.4)	2.3	-0.40	27.3
AT4210_106	Body	*S. globosa*	May	37.5	13.5	-18.2	3.47	0.92 ± 0.29	9.7 (0.5)	2.6 (0.4)	2.3	-0.45	28.3
AT4210_11	Body	*O. mutabilis*	May	119.3	16.9	-20.2	3.73	0.96 ± 0.20	11.7 (0.8)	3.3 (0.5)	2.0	-0.73	36.6
AT4210_15	Body	*O. mutabilis*	May	67.7	16.8	-20.3	3.14	0.65 ± 0.21	13.7 (0.4)	3.3 (0.5)	2.5	-0.62	33.8
Pulse72_2	Body	*O. mutabilis*	Oc	46.1	14.6	-19.2	3.42	1.28 ± 0.42	12.8 (1.1)	2.5 (0.4)	1.3	-0.79	35.5
Pulse72_43	Body	*O. mutabilis*	Oc	31.1	15.2	-19.8	3.23	1.33 ± 0.53	11.4 (1.3)	3.1 (0.5)	2.5	-0.82	35.7

Table S2. Stable isotopic composition and elemental composition of sediment samples downcore.

Month	Depth (mm)	$\delta^{15}N$ (‰)	$\delta^{13}C$ (‰)	TOC (wt. %)	TN (wt. %)
May	0-5	9.7 ± 0.0	-22.1 ± 0.1	1.37 ± 0.05	0.22 ± 0.01
	5-10	9.6 ± 0.1	-22.1 ± 0.1	1.42 ± 0.05	0.23 ± 0.01
	10-20	9.6 ± 0.1	-22.1 ± 0.0	1.46 ± 0.07	0.24 ± 0.01
	20-30	9.5 ± 0.0	-22.1 ± 0.0	1.51 ± 0.08	0.24 ± 0.01
	30-40	9.4 ± 0.1	-22.1 ± 0.0	1.57 ± 0.02	0.25 ± 0.00
	40-50	9.4 ± 0.1	-22.2 ± 0.1	1.55 ± 0.06	0.25 ± 0.01
	50-100	9.5 ± 0.1	-22.2 ± 0.2	1.53 ± 0.03	0.24 ± 0.00
October	0-5	8.8 ± 0.3	-22.2 ± 0.1	1.55 ± 0.10	0.23 ± 0.01
	5-10	8.6 ± 0.3	-22.2 ± 0.1	1.48 ± 0.05	0.19 ± 0.00