SUPPLEMENTARY MATERIAL

related to :

On giant shoulders: How a seamount affects the microbial community composition of seawater and sponges

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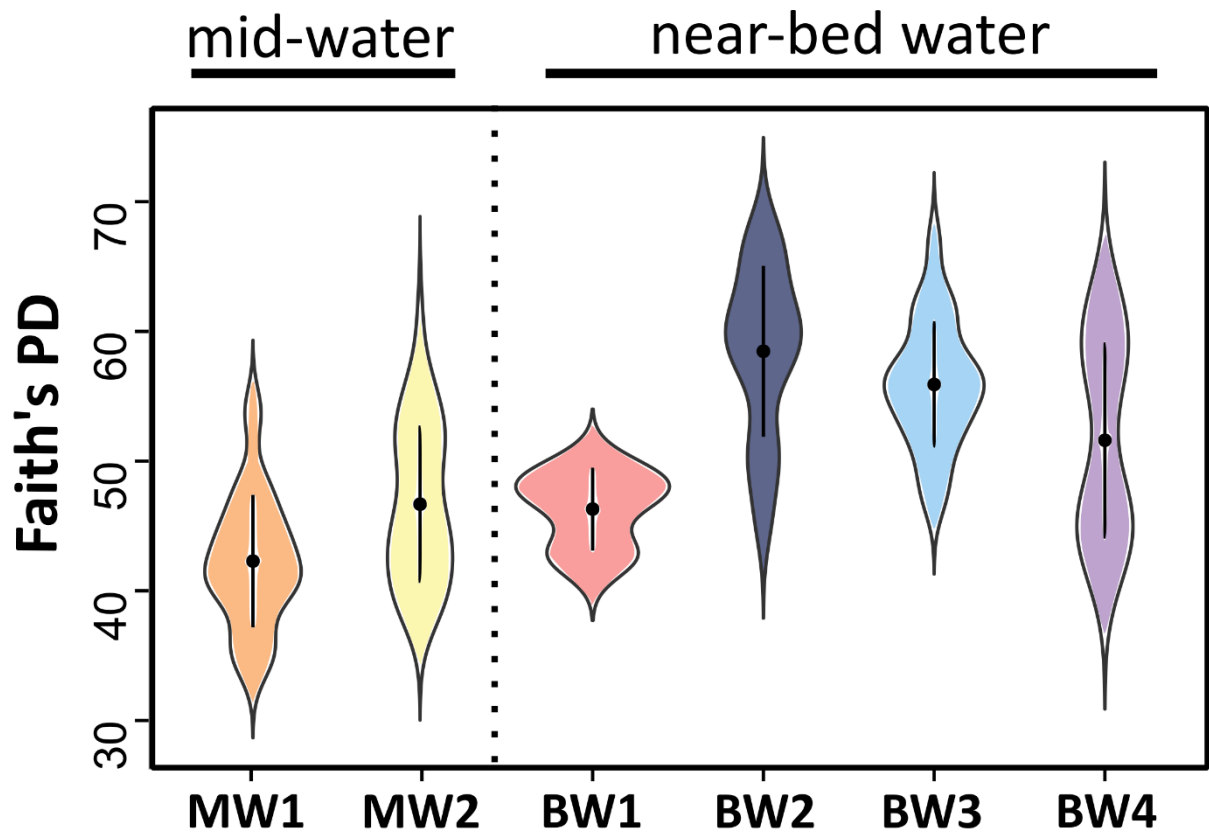
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Supplementary Figure S1 Richness of seawater microbial communities for the mid-water and near-bed water samples, across the determined clusters. Faith Phylogenetic Diversity (Faith's PD) is plotted as alpha-diversity measure. Mid-water clusters are coloured in orange (MW1) and yellow (MW2), while near-bed water clusters are marked in red (BW1), dark blue (BW2), light blue (BW3), and purple (BW4).

Supplementary Table S1 Overview of pairwise-comparisons (PERMANOVAs) across pelagic microbial micro-habitats based on weighted UniFrac matrices of microbial communities for both, seawater and the three sponge species. All possible pairwise combinations were tested. *L. complicata* and *S. rosea* were not present in all near-bed water clusters. Four biological replicates per near-bed water cluster were tested for every sponge species.

Group 1	Group 2	pseudo-F	p-value	
MW1	MW2	22.49	0.001	*
BW1	BW2	27.7	0.004	*
BW1	BW3	11.79	0.002	*
BW1	BW4	15.07	0.003	*
BW2	BW3	8.52	0.001	*
BW2	BW4	15.56	0.001	*
BW3	BW4	10.98	0.001	*
G. hentscheli BW1	*G. hentscheli* BW2	5.77	0.032	*
G. hentscheli BW1	*G. hentscheli* BW3	8.07	0.028	*
G. hentscheli BW1	*G. hentscheli* BW4	16.71	0.030	*
G. hentscheli BW2	*G. hentscheli* BW3	4.57	0.039	*
G. hentscheli BW2	*G. hentscheli* BW4	14.41	0.035	*
G. hentscheli BW3	*G. hentscheli* BW4	5.57	0.028	*
L. complicata BW1	*L. complicata* BW2	35.93	0.034	*
S. rosea BW1	*S. rosea* BW2	1.88	0.035	*
S. rosea BW1	*S. rosea* BW3	1.71	0.174	
S. rosea BW2	*S. rosea* BW3	1.18	0.36	
all MW	all BW	46.72	0.001	*

Supplementary Table S2 Averages and standard errors of biogeochemical parameters for each mid-water and near-bed water cluster.

	SPM [mg L^{-1}]	DIC [μmol L^{-1}]	SiO_4^- [μmol L^{-1}]	PO_4^{3-} [μmol L^{-1}]	NH_4^+ [μmol L^{-1}]	NO_3^- [μmol L^{-1}]	NO_2^- [μmol L^{-1}]	O_2 [mL L^{-1}]	Depth [m]
MW1	NA	2246.00 ± 6.99	5.72 ± 0.10	0.88 ± 0.02	NA	12.84 ± 0.08	0.02 ± 0.02	6.90 ± 0.04	400 ± 0
MW2	2.22 ± 1.39	2292.14 ± 53.64	5.63 ± 0.08	0.84 ± 0.01	0.11 ± 0.03	13.08 ± 0.11	0.02 ± 0.01	6.75 ± 0.03	400 ± 0
significance mid-water								∗	
BW1	0.49 ± NA	NA	6.00	0.90	0.10	13.00	0.00	6.99 ± NA	575
BW2	NA	2265.67 ± 7.69	8.40 ± 0.31	0.97 ± 0.03	NA	14.20 ± 0.06	0.00 ± 0.00	6.71 ± 0.02	919 ± 106
BW3	1.87 ± 1.08	2260.40 ± 12.35	7.87 ± 0.42	0.95 ± 0.02	0.17 ± 0.03	14.03 ± 0.15	0.03 ± 0.02	6.84 ± 0.07	922 ± 142
BW4	0.95 ± 0.33	2248.00	10.65 ± 1.42	0.95 ± 0.03	0.10 ± 0.00	14.78 ± 0.52	0.05 ± 0.03	6.48 ± 0.10	1836 ± 376
significance near-bed water			∗			∗		∗	∗