

Supporting Information. Alfaro-Lucas, J.M., F. Pradillon, D. Zeppilli, L.N. Michel, P. Martínez-Arbizu, H. Tanaka, M. Foviaux, and J. Sarrazin. 2020. High environmental stress and productivity increase functional diversity along a deep-sea hydrothermal vent gradient. *Ecology*.

Appendix S5

Figure S1. Venn diagrams of species (A) and functional entities (B) of the study sites. Numbers in brackets are the total species/functional entity richness at each site. The number of species/functional entities in each ellipse and the number of species/functional entities in the intersections represents the number of species exclusively found on one site and the shared species, respectively.

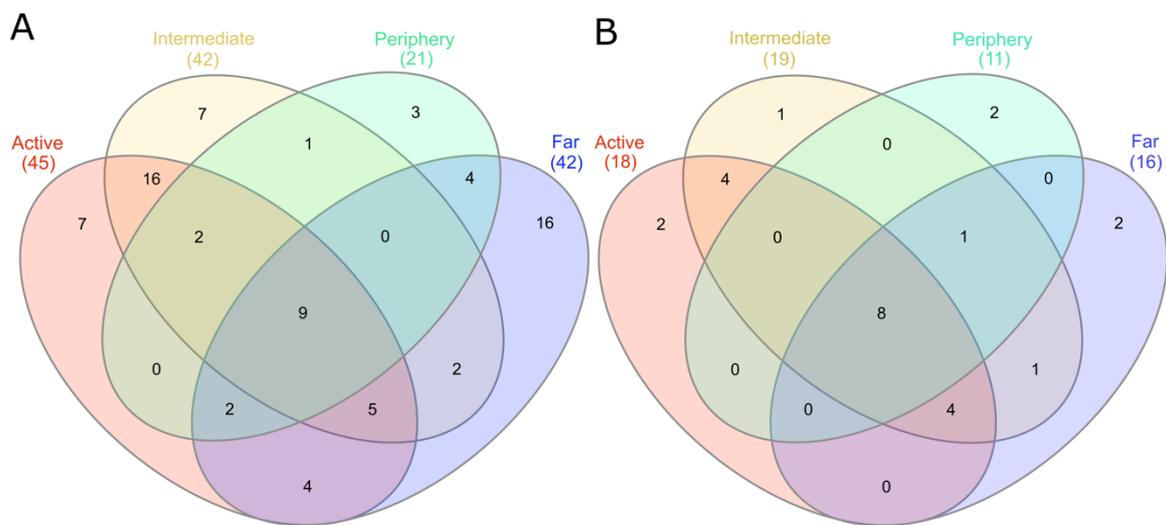


Table S1. Species (sD) and functional (fD) pairwise dissimilarity between sites using the Jaccard dissimilarity coefficient and its decomposition into the nestedness and turnover.

Species β-diversity			
sD			
	Active	Intermediate	Periphery
Intermediate	0.42		
Periphery	0.75	0.76	
Far	0.70	0.76	0.69
Nestedness			
	Active	Intermediate	Periphery
Intermediate	0.03		
Periphery	0.2	0.16	
Far	0.013	0	0.24
Turnover			
	Active	Intermediate	Periphery
Intermediate	0.38		
Periphery	0.55	0.6	
Far	0.69	0.76	0.44
Functional β-diversity			
fD			
	Active	Intermediate	Periphery
Intermediate	0.24		
Periphery	0.62	0.57	
Far	0.45	0.33	0.5
Nestedness			
	Active	Intermediate	Periphery
Intermediate	0.04		
Periphery	0.19	0.26	
Far	0.05	0.11	0.19
Turnover			
	Active	Intermediate	Periphery
Intermediate	0.2		
Periphery	0.43	0.31	
Far	0.4	0.22	0.31

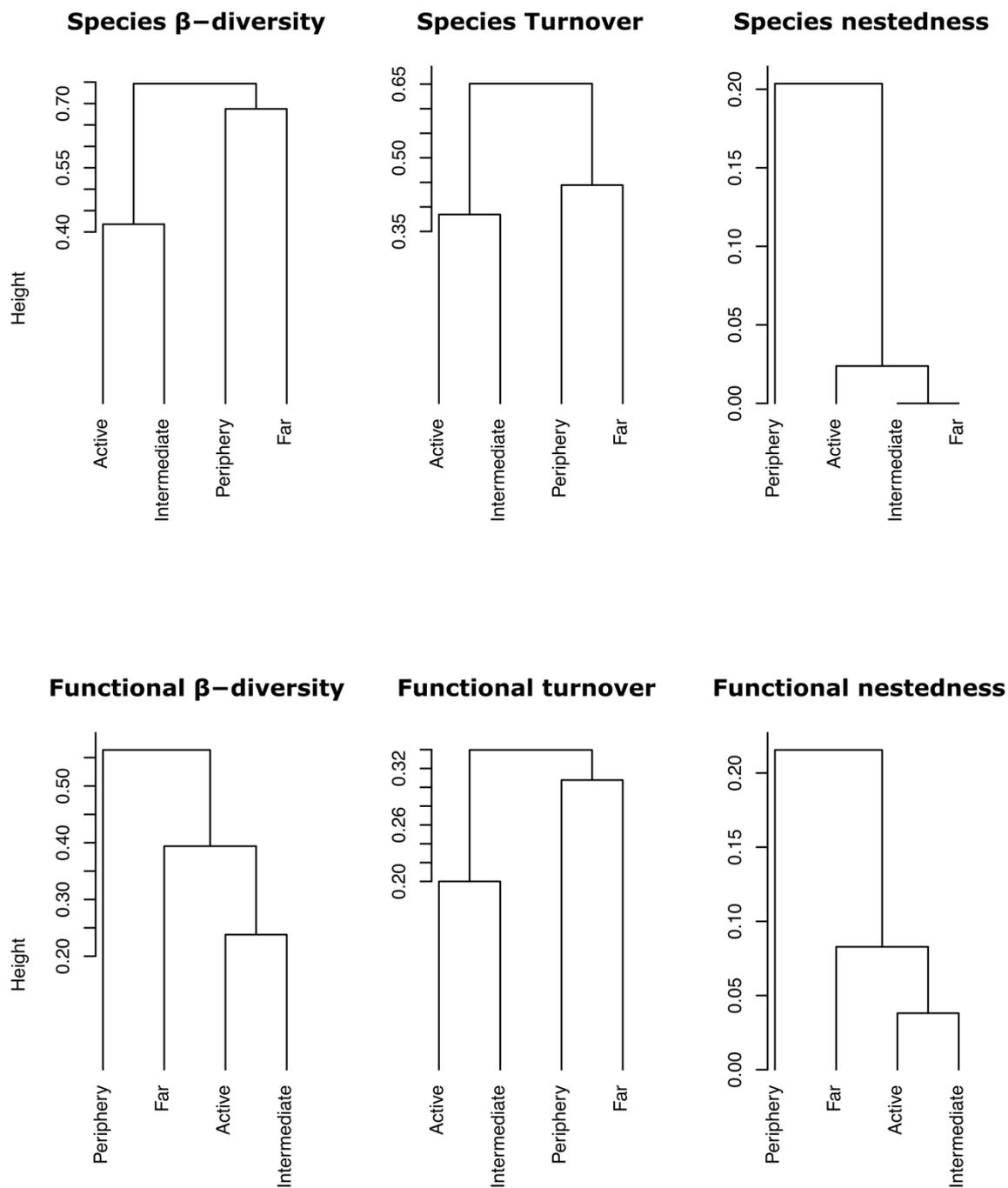


Figure S2. Clustering using average linkage of the pairwise dissimilarity (β -diversity), and its decomposition into the turnover and nestedness components of species and functional entity assemblages found at each site.