

Effects of local acidification on benthic communities at shallow hydrothermal vents of the Aeolian Islands (Southern Tyrrhenian, Mediterranean Sea)

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Table S1. Results of the SIMPER analysis with the taxa contributing to similarity (a-c) and dissimilarity (b-d) considering active *vs.* inactive vents and shallow *vs.* deep sites for meiofauna, for all taxa (a-b) and only for rare taxa (c-d). Cut-off for low contribution at 60%. Avg. Ab=average abundance; Avg. Sim=average similarity; Contrib %= percentage of variance explained by the explanatory variables; Cum %= cumulative percentage of variance explained by the explanatory variables; Avg. Diss=average dissimilarity.

a)

Group active shallow		Av.Sim: 68.86		
Taxon	Av.Abund	Av.Sim	Contrib%	Cum.%
Nematoda	8.12	18.72	27.19	27.19
Copepoda	6.37	17.33	25.16	52.36
Ostracoda	4.23	11.37	16.52	68.87
Group inactive shallow		Av.Sim: 73.55		
Nematoda	19.78	36.77	49.99	49.99
Copepoda	7.65	11.58	15.74	65.74
Group active deep		Av.Sim: 58.04		
Nematoda	9.11	41.57	71.63	71.63
Group inactive deep		Av.Sim: 72.45		
Nematoda	18.96	55.54	76.66	76.66

b)

Shallow sites: active <i>vs.</i> inactive vents			Av.Diss = 39.07		
Taxon	Active	Inactive	Av.Diss	Contrib%	Cum.%
	Av.Abund	Av.Abund			
Nematoda	8.12	19.78	15.31	39.18	39.18
Copepoda	6.37	7.65	4.09	10.46	49.63
Ostracoda	4.23	3.55	2.37	6.07	55.7
Polychaeta	2.11	3.08	2.2	5.63	61.33
Deep sites: active <i>vs.</i> inactive vents			Av.Diss = 44.85		
Taxon	Active	Inactive	Av.Diss	Contrib%	Cum.%
	Av.Abund	Av.Abund			
Nematoda	9.11	18.96	21.64	48.25	48.25
Copepoda	3.12	2.83	4.6	10.25	58.5
Ostracoda	1.8	0.81	2.88	6.42	64.92

c)

Group active shallow		Av.Sim: 63.09		
taxon	Av.Abund	Av.Sim	Contrib%	Cum.%
Ostracoda	4.23	25.98	41.18	41.18
Acarina	3.45	21.89	34.69	75.87
Group inactive shallow		Av.Sim: 57.29		
Ostracoda	3.55	14.18	24.75	24.75
Acarina	2.93	12.18	21.26	46.01
Tardigrada	1.85	9.44	16.47	62.48
Group active deep		Av.Sim: 29.68		
Ostracoda	1.8	21.59	72.73	72.73
Group inactive deep		Av.Sim: 34.53		
Larva Priapulida	1.07	17.23	49.89	49.89
Tardigrada	1.19	7.74	22.42	72.32

d)

Shallow sites: active vs. inactive vents			Av.Diss = 44.42		
	Active	Inactive			
Taxon	Av.Abund	Av.Abund	Av.Diss	Contrib%	Cum.%
Ostracoda	4.23	3.55	6.18	13.91	13.91
Acarina	3.45	2.93	4.75	10.7	24.61
Tardigrada	0.82	1.85	4.49	10.1	34.71
Larva					
Gasteropoda	0.37	1.39	4.12	9.28	43.99
Cladocera	2.34	1.66	3.87	8.72	52.71
Amphipoda	0.9	1.02	3.31	7.46	60.17
Deep sites: active vs. inactive vents			Av.Diss = 77.01		
	Active	Inactive			
Species	Av.Abund	Av.Abund	Av.Diss	Contrib%	Cum.%
Ostracoda	1.8	0.81	14.88	19.32	19.32
Larva Priapulida	0.17	1.07	13	16.88	36.2
Tardigrada	0	1.19	10.99	14.27	50.48
Acarina	0.64	0.66	8.27	10.74	61.22

Table S2. Results of the SIMPER analysis with the taxa contributing to similarity (a) and dissimilarity (b) considering active *vs.* inactive vents and shallow *vs.* deep sites for macrofauna. Cut-off for low contribution at 60%. Av. Ab=average abundance; Av. Sim=average similarity; Contrib %= percentage of variance explained by the explanatory variables; Cum %= cumulative percentage of variance explained by the explanatory variables; Avg. Diss=average dissimilarity.

a)

Group active shallow		Av. Sim: 47.41		
Taxon	Av.Abund	Av.Sim	Contrib%	Cum.%
<i>Caprella</i> spp.	3.83	12.55	26.48	26.48
Oligochaeta unid.	3.6	11.03	23.26	49.74
<i>Phascolion (Phascolion) strombus</i>	2.55	3.62	7.64	57.38
Lumbrineridae unid.	2.12	3.13	6.61	63.98
Group inactive shallow		Av. Sim: 45.86		
Syllidae unid.	4.16	6.24	13.61	13.61
<i>Goodallia</i> spp.	3.05	3.62	7.89	21.5
<i>Lysidice unicornis</i>	2.92	3.59	7.84	29.34
Lucinidae spp.	2.27	2.75	5.99	35.33
<i>Phascolion (Phascolion) strombus</i>	3.11	2.73	5.95	41.28
<i>Bittium reticulatum</i>	2.41	2.31	5.04	46.32
<i>Branchiostoma lanceolatum</i>	1.83	2.29	4.98	51.3
Gammaridea unid.	2.26	2.06	4.49	55.79
Nereididae unid.	2.22	2.06	4.48	60.27
Group active deep		Av. Sim: 23.84		
Gammaridea unid.	2.07	10.23	42.91	42.91
Eurycopidae unid.	1.19	3.52	14.76	57.67
Oligochaeta unid.	1.94	3.51	14.72	72.39
Group inactive deep		Av. Sim: 39.89		
<i>Phascolion (Phascolion) strombus</i>	2.95	4.26	10.67	10.67
<i>Aponuphis bilineata</i>	2.55	3.86	9.69	20.36
Gammaridea unid.	2.68	3.79	9.5	29.86
Oeononidae unid.	2.28	3.52	8.84	38.7
<i>Glycera</i> spp.	2.29	3.37	8.46	47.16
<i>Lysidice unicornis</i>	2.07	3.18	7.98	55.13
Echinoidea unid.	1.65	1.96	4.92	60.06

b)

Shallow sites: active vs. inactive Av. Diss = 77.11					
Taxon	Active	Inactive	Av.Diss	Contrib%	Cum.%
	Av.Abund	Av.Abund			
<i>Caprella</i> sp.	3.83	0	4.48	5.81	5.81
Syllidae unid.	0.72	4.16	3.97	5.15	10.96
Oligochaeta unid.	3.6	0.78	3.46	4.49	15.45
<i>Goodallia</i> sp.	0	3.05	3.33	4.31	19.77
<i>Lysidice unicornis</i>	0	2.92	3.27	4.24	24
<i>Phascolion (Phascolion) strombus</i>	2.55	3.11	2.74	3.56	27.56
<i>Bittium reticulatum</i>	0	2.41	2.73	3.54	31.1
Lucinidae unid.	0	2.27	2.54	3.3	34.4
Lumbrineridae unid.	2.12	1.7	2.17	2.82	37.21
Polychaeta unid.	0	1.88	2.17	2.82	40.03
Anomura unid.	0	2.09	2.11	2.73	42.76
Nereididae unid.	0.73	2.22	1.98	2.57	45.33
Capitellidae unid.	0.93	2.06	1.97	2.55	47.89
Pisone sp.	1.99	1.5	1.96	2.54	50.43
<i>Leptocheirus</i> sp.	1.78	0.27	1.91	2.47	52.9
<i>Branchiostoma lanceolatum</i>	0.72	1.83	1.88	2.44	55.35
<i>Leucothoe</i> sp.	1.66	0.7	1.87	2.42	57.77
Hesionidae unid.	1.44	1.88	1.82	2.36	60.13
Deep sites: active vs. inactive Av. Diss = 86.41					
Taxon	Active	Inactive	Av.Diss	Contrib%	Cum.%
	Av.Abund	Av.Abund			
<i>Phascolion (Phascolion) strombus</i>	0.36	2.95	4.45	5.15	5.15
<i>Aponuphis bilineata</i>	0	2.55	4.43	5.12	10.27
Oeonidae unid.	0	2.28	3.79	4.39	14.66
<i>Lysidice unicornis</i>	0	2.07	3.52	4.07	18.73
<i>Glycera</i> sp.	0.89	2.29	3.12	3.61	22.34
Oligochaeta unid.	1.94	0	3.08	3.57	25.91
<i>Pereionotus testudo</i>	0	1.74	2.85	3.3	29.21
Echinoidea unid.	0	1.65	2.84	3.29	32.5
<i>Hyalinoecia tubicola</i>	0.47	1.62	2.76	3.19	35.7
Gammaridea unid.	2.07	2.68	2.49	2.89	38.58
Bivalvia unid.	0	1.42	2.42	2.8	41.39
Scolecida unid.	0	1.46	2.42	2.8	44.19
<i>Onuphis eremita</i>	0	1.44	2.37	2.74	46.92
Syllidae unid.	0.36	1.36	2.27	2.63	49.55
Tanaidacea unid.	1.18	0.47	2.13	2.46	52.01
Eurycopidae unid.	1.19	0	2	2.32	54.33
Polyplacophora unid.	0	1.18	1.98	2.29	56.62
Anomura unid.	0	1.24	1.92	2.22	58.84
Cirratulidae unid.	0	1.08	1.86	2.16	60.99