

Mollusk diversity of coralligenous build-ups in the southwestern Ionian Sea

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Supplementary 2: Results of the SIMPER routine for species that occur in biocoenosis and thanatocoenosis.

SIMPER BIOCOENOSIS						
Similarity Percentages - species contributions						
One-Way Analysis						
Data worksheet						
Name: Data1						
Data type: Abundance						
Sample selection: All						
Variable selection: All						
Parameters						
Resemblance: S17 Bray Curtis similarity						
Cut off for low contributions: 50,00%						
Cluster B1						
Average similarity = 51.45%						
Species	Av.Abund	Av.Sim		Contrib%	Cum.%	
<i>Gregariella semigranata</i> (Reeve, 1858)	11.40	16.24		31.56	31.56	
<i>Bittium latreillii</i> (Payraudeau, 1826)	5.99	5.65		10.97	42.54	
<i>Striarca lactea</i> (Linnaeus, 1758)	3.16	5.38		10.46	53.00	
Cluster B2						
Average similarity = 56.56%						
Species	Av.Abud	Av.Sim	Sim/SD	Contrib%	Cum.%	
<i>Gregariella semigranata</i> (Reeve, 1858)	6.75	9.38	2.48	16.59	16.59	
<i>Bittium latreillii</i> (Payraudeau, 1826)	4.73	8.58	5.60	15.16	31.75	
<i>Striarca lactea</i> (Linnaeus, 1758)	3.45	6.07	3.00	10.72	42.48	
<i>Asperarca magdalenae</i> La Perna, 1998	2.64	5.74	6.94	10.15	52.63	
B1 versus B2						
Average dissimilarity = 54.29%						
	B1	B2				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
<i>Gregariella semigranata</i> (Reeve, 1858)	11.40	6.75	5.21	1.53	9.59	9.59
<i>Neolepton sulcatulum</i> (Jeffreys, 1859)	0.00	2.93	2.84	4.39	5.23	14.82
<i>Bittium latreillii</i> (Payraudeau, 1826)	5.99	4.73	2.61	1.55	4.81	19.64
<i>Asperarca magdalenae</i> La Perna, 1998	0.00	2.64	2.61	6.20	4.80	24.44
<i>Caecum auriculatum</i> de Folin, 1868	0.71	2.67	1.89	1.50	3.48	27.92
<i>Pusillina inconspicua</i> (Alder, 1844)	2.09	0.25	1.82	3.03	3.35	31.27

Continued

Supplementary 2 continued

<i>Dacrydium hyalinum</i> (Monterosato, 1875)	0.00	1.60	1.54	1.28	2.84	34.11
<i>Williamia gussoni</i> (O. G. Costa, 1829)	1.62	0.25	1.27	1.87	2.35	36.45
<i>Haminoea hydatis</i> (Linnaeus, 1758)	1.22	0.50	1.27	1.23	2.34	38.80
<i>Pusillina philippi</i> (Aradas & Maggiore, 1844)	1.83	0.81	1.24	1.35	2.29	41.08
<i>Striarca lactea</i> (Linnaeus, 1758)	3.16	3.45	1.01	1.88	1.86	42.94
<i>Coripia corbis</i> (Philippi, 1836)	1.00	0.00	0.99	7.68	1.82	44.76
<i>Musculus costulatus</i> (Risso, 1826)	2.22	1.30	0.98	1.00	1.81	46.57
<i>Lima lima</i> (Linnaeus, 1758)	1.21	0.25	0.94	1.78	1.73	48.29
<i>Rissoella inflata</i> (Monterosato, 1880)	0.87	0.75	0.91	1.15	1.67	49.97
<i>Limaria</i> sp.	1.00	0.00	0.90	0.93	1.66	51.63

SIMPER THANATOCOENOSIS

Similarity Percentages - species contributions

One-Way Analysis

Data worksheet

Name: Data1

Data type: Abundance

Sample selection: All

Variable selection: All

Parameters

Resemblance: S17 Bray Curtis similarity Cut

off for low contributions: 30,00%

Cluster T2

Average similarity = 63.48%

Species	Av.Abund	Av.Sim	Contrib%	Cum.%
<i>Bittium latreillii</i> (Payraudeau, 1826)	7.93	5.37	8.45	8.45
<i>Gregariella semigranata</i> (Reeve, 1858)	6.35	4.18	6.59	15.05
<i>Goodallia micalii</i> Giribet & Peñas, 1999	4.98	3.10	4.88	19.93
<i>Pusillina philippi</i> (Aradas & Maggiore, 1844)	4.13	2.38	3.74	23.67
<i>Jujubinus striatus</i> (Linnaeus, 1758)	2.91	2.13	3.35	27.02
<i>Papillicardium papillosum</i> (Poli, 1791)	2.65	1.99	3.13	30.15

21c

Less than 2 samples in group

Cluster T1

Average similarity = 60.19%

Species	Av.Abund	Av.Sim	Contrib%	Cum.%
<i>Bittium latreillii</i> (Payraudeau, 1826)	5.74	5.19	8.62	8.62
<i>Gregariella semigranata</i> (Reeve, 1858)	5.53	4.00	6.64	15.27
<i>Goodallia micalii</i> Giribet & Peñas, 1999	4.72	3.89	6.47	21.73
<i>Pusillina philippi</i> (Aradas & Maggiore, 1844)	3.15	2.60	4.31	26.04
<i>Striarca lactea</i> (Linnaeus, 1758)	2.65	2.43	4.03	30.08

F

Less than 2 samples in group

Continued

Supplementary 2 continued

T2 versus 21c						
Average dissimilarity = 41.59%						
	T2	21c				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
<i>Vermetus granulatus</i> (Gravenhorst, 1831)	0.00	3.61	1.51	63.58	3.64	3.64
<i>Goodallia micalii</i> Giribet & Peñas, 1999	4.98	2.24	1.15	2.35	2.76	6.40
<i>Bittium latreillii</i> (Payraudeau, 1826)	7.93	5.20	1.14	2.54	2.75	9.15
<i>Obtusella intersecta</i> (S. V. Wood, 1857)	2.64	0.00	1.10	1.55	2.66	11.81
<i>Cerithidium submammillatum</i> (de Rayneval & Ponzi, 1854)	4.35	2.65	0.98	0.98	2.36	14.17
<i>Bolma rugosa</i> (Linnaeus, 1767)	2.32	0.00	0.97	5.52	2.34	16.51
<i>Caecum auriculatum</i> de Folin, 1868	3.13	1.00	0.89	3.29	2.14	18.65
<i>Bittium reti culatum</i> (da Costa, 1778)	2.79	1.73	0.76	1.18	1.82	20.47
<i>Petalopoma elisabettae</i> Schiaparelli, 2002	1.73	0.00	0.74	0.71	1.77	22.24
<i>Granulina boucheti</i> Gofas, 1992	1.50	0.00	0.63	2.06	1.52	23.76
<i>Gibbula guttadauri</i> (Philippi, 1836)	1.50	0.00	0.63	2.19	1.51	25.27
<i>Glans trapezia</i> (Linnaeus, 1767)	2.44	1.00	0.61	4.62	1.46	26.73
<i>Flexopecten flexuosus</i> (Poli, 1795)	0.00	1.41	0.59	63.58	1.43	28.16
<i>Talochlamys multistriata</i> (Poli, 1795)	0.00	1.41	0.59	63.58	1.43	29.58
<i>Pusia savignyi</i> (Payraudeau, 1826)	0.00	1.41	0.59	63.58	1.43	31.01
 T1 versus T2						
Average dissimilarity = 41.41%						
	T1	T2				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
<i>Cerithidium submammillatum</i> (de Rayneval & Ponzi, 1854)	4.35	2.64	0.97	1.17	2.34	2.34
<i>Bittium latreillii</i> (Payraudeau, 1826)	7.93	5.74	0.90	2.46	2.17	4.51
<i>Obtusella intersecta</i> (S. V. Wood, 1857)	2.64	0.50	0.89	1.38	2.16	6.67
<i>Pusillina inconspicua</i> (Alder, 1844)	3.03	1.12	0.81	1.27	1.97	8.64
<i>Retusa mammillata</i> (Philippi, 1836)	1.83	0.00	0.75	3.90	1.82	10.46
<i>Bittium reticulatum</i> (da Costa, 1778)	2.79	2.03	0.75	1.48	1.80	12.26
<i>Petalopoma elisabettae</i> Schiaparelli, 2002	1.73	0.87	0.72	1.29	1.74	14.01
<i>Caecum auriculatum</i> de Folin, 1868	3.13	1.37	0.72	2.81	1.74	15.74
<i>Skenea serpuloides</i> (Montagu, 1808)	1.73	0.00	0.72	15.06	1.73	17.48
<i>Haminoea hydatis</i> (Linnaeus, 1758)	1.71	0.00	0.71	4.53	1.71	19.19
<i>Eulimella acicula</i> (Philippi, 1836)	0.00	1.57	0.66	5.52	1.58	20.77
<i>Natica</i> sp.	0.00	1.57	0.65	18.76	1.57	22.34
<i>Folinella excavata</i> (Phillippi, 1836)	1.98	0.50	0.60	2.55	1.46	23.80
<i>Thracia distorta</i> (Montagu, 1803)	1.41	0.00	0.59	15.06	1.42	25.21
<i>Rissoella inflata</i> (Monterosato, 1880)	1.82	0.50	0.56	1.16	1.36	26.57
<i>Gregariella semigranata</i> (Reeve, 1858)	6.35	5.53	0.56	1.47	1.36	27.93
<i>Hiatella arctica</i> (Linnaeus, 1767)	2.32	1.32	0.53	1.13	1.27	29.20
<i>Limatula gwyni</i> (Sykes, 1903)	0.00	1.21	0.51	3.83	1.22	30.42

Continued

Supplementary 2 continued

T1 versus 21c						
Average dissimilarity = 43.34%						
	T1	21c				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
<i>Vermetus granulatus</i> (Gravenhorst. 1831)	3.61	0.00	1.69	11.09	3.90	3.90
<i>Pusillina inconspicua</i> (Alder. 1844)	4.00	1.12	1.39	1.60	3.20	7.10
<i>Goodallia micalii</i> Giribet & Peñas. 1999	2.24	4.72	1.15	5.45	2.65	9.75
<i>Haminoea hydatis</i> (Linnaeus. 1758)	2.24	0.00	1.05	11.09	2.42	12.17
<i>Retusa mammillata</i> (Philippi. 1836)	1.73	0.00	0.81	11.09	1.87	14.05
<i>Glycymeris</i> sp.	2.24	0.50	0.80	3.10	1.84	15.89
<i>Natica</i> sp.	0.00	1.57	0.73	18.87	1.69	17.58
<i>Bolma rugosa</i> (Linnaeus. 1767)	0.00	1.50	0.72	1.82	1.66	19.24
<i>Neolepton sulcatulum</i> (Jeffreys. 1859)	0.00	1.50	0.69	2.57	1.59	20.83
<i>Flexopecten flexuosus</i> (Poli. 1795)	1.41	0.00	0.66	11.09	1.53	22.36
<i>Musculus costulatus</i> (Risso. 1826)	1.41	0.00	0.66	11.09	1.53	23.89
<i>Caecum trachea</i> (Montagu. 1803)	1.41	0.00	0.66	11.09	1.53	25.42
<i>Rissoa violacea</i> Desmarest. 1814	0.00	1.41	0.66	11.09	1.53	26.95
<i>Skenea serpuloides</i> (Montagu. 1808)	1.41	0.00	0.66	11.09	1.53	28.48
<i>Hiatella arctica</i> (Linnaeus. 1767)	1.41	1.32	0.62	133.93	1.43	29.91
<i>Moerella pulchella</i> (Lamarck. 1818)	0.00	1.21	0.57	3.04	1.32	31.23

T2 versus F						
Average dissimilarity = 47.46 %						
	T2	F				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
<i>Pusillina philippi</i> (Aradas & Maggiore, 1844)	4.13	1.41	1.21	2.04	2.55	2.55
<i>Bittium latreillii</i> (Payraudeau. 1826)	7.93	5.57	1.05	2.19	2.22	4.77
<i>Cerithidium submammillatum</i> (de Rayneval & Ponzi, 1854)	4.35	2.83	1.05	1.10	2.20	6.97
<i>Goodallia micalii</i> Giribet & Peñas. 1999	4.98	2.83	0.96	1.83	2.02	8.99
<i>Parthenina interstincta</i> (J. Adams. 1797)	2.12	0.00	0.95	2.19	1.99	10.98
<i>Williamia gussoni</i> (O. G. Costa. 1829)	2.03	0.00	0.91	2.25	1.92	12.91
<i>Rissoella inflata</i> (Monterosato. 1880)	1.82	0.00	0.82	1.53	1.73	14.63
<i>Retusa mammillata</i> (Philippi. 1836)	1.83	0.00	0.81	3.31	1.72	16.35
<i>Bittium reticulatum</i> (da Costa. 1778)	2.79	1.73	0.81	1.18	1.70	18.05
<i>Petalopoma elisabettae</i> Schiaparelli. 2002	1.73	0.00	0.78	0.71	1.65	19.71
<i>Murexsul aradasii</i> (Monterosato. 1883)	0.50	2.24	0.78	2.37	1.64	21.35
<i>Calyptraea chinensis</i> (Linnaeus. 1758)	0.00	1.73	0.78	59.65	1.63	22.98
<i>Skenea serpuloides</i> (Montagu. 1808)	1.73	0.00	0.78	59.65	1.63	24.62
<i>Haminoea hydatis</i> (Linnaeus. 1758)	1.71	0.00	0.77	3.86	1.61	26.23
<i>Papillicardium papillosum</i> (Poli. 1791)	2.65	1.00	0.74	59.65	1.55	27.78
<i>Obtusella intersecta</i> (S. V. Wood. 1857)	2.64	1.00	0.73	0.95	1.54	29.32
<i>Coripia corbis</i> (Philippi. 1836)	1.57	0.00	0.70	7.92	1.48	30.80

Continued

Supplementary 2 continued

21c versus F						
Average dissimilarity = 46.81%						
	21c	F				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
<i>Vermetus granulatus</i> (Gravenhorst. 1831)	3.61	0.00	1.85	Undefined	3.94	3.94
<i>Pusillina inconspicua</i> (Alder. 1844)	4.00	1.73	1.16	Undefined	2.48	6.42
<i>Haminoea hydatis</i> (Linnaeus. 1758)	2.24	0.00	1.14	Undefined	2.44	8.87
<i>Murexsul aradasii</i> (Monterosato. 1883)	0.00	2.24	1.14	Undefined	2.44	11.31
<i>Coripia corbis</i> (Philippi. 1836)	2.00	0.00	1.02	Undefined	2.19	13.50
<i>Calyptrea chinensis</i> (Linnaeus. 1758)	0.00	1.73	0.89	Undefined	1.89	15.39
<i>Retusa mammillata</i> (Philippi. 1836)	1.73	0.00	0.89	Undefined	1.89	17.29
<i>Pusillina philippi</i> (Aradas & Maggiore. 1844)	3.00	1.41	0.81	Undefined	1.73	19.02
<i>Digitaria digitaria</i> (Linnaeus. 1758)	2.45	1.00	0.74	Undefined	1.58	20.60
<i>Flexopecten flexuosus</i> (Poli. 1795)	1.41	0.00	0.72	Undefined	1.55	22.15
<i>Limatula subauriculata</i> (Montagu. 1808)	0.00	1.41	0.72	Undefined	1.55	23.70
<i>Musculus costulatus</i> (Risso. 1826)	1.41	0.00	0.72	Undefined	1.55	25.24
<i>Neolepton sulcatulum</i> (Jeffreys. 1859)	0.00	1.41	0.72	Undefined	1.55	26.79
<i>Talochlamys multistriata</i> (Poli. 1795)	1.41	0.00	0.72	Undefined	1.55	28.33
<i>Caecum trachea</i> (Montagu. 1803)	1.41	0.00	0.72	Undefined	1.55	29.88
<i>Cerithiopsis barleei</i> Jeffreys. 1867	0.00	1.41	0.72	Undefined	1.55	31.43

T1 versus F						
Average dissimilarity = 43.86%						
	T1	F				
Species	Av.Abund	Av.Abund	Av.Diss	Diss/SD	Contrib%	Cum.%
<i>Goodallia micalii</i> Giribet & Peñas. 1999	4.72	2.83	0.94	3.78	2.14	2.14
<i>Pusillina philippi</i> (Aradas & Maggiore. 1844)	3.15	1.41	0.88	2.84	2.02	4.15
<i>Calyptrea chinensis</i> (Linnaeus. 1758)	0.00	1.73	0.87	10.32	1.99	6.14
<i>Coripia corbis</i> (Philippi. 1836)	1.57	0.00	0.80	4.20	1.82	7.96
<i>Eulimella acicula</i> (Philippi. 1836)	1.57	0.00	0.80	4.20	1.82	9.78
<i>Williamia gussoni</i> (O. G. Costa. 1829)	1.57	0.00	0.80	4.20	1.82	11.60
<i>Natica</i> sp.	1.57	0.00	0.79	21.59	1.79	13.40
<i>Mangelia taeniata</i> (Deshayes. 1835)	0.00	1.41	0.71	10.32	1.62	15.02
<i>Metaxia metaxa</i> (Delle Chiaje. 1828)	0.00	1.41	0.71	10.32	1.62	16.65
<i>Rissoa violacea</i> Desmarest. 1814	1.41	0.00	0.71	10.32	1.62	18.27
<i>Hiatella arctica</i> (Linnaeus. 1767)	1.32	2.00	0.64	1.54	1.47	19.74
<i>Moerella pulchella</i> (Lamarck. 1818)	1.21	0.00	0.62	2.98	1.40	21.14
<i>Alvania geryonia</i> (Nardo. 1847)	1.21	0.00	0.62	2.98	1.40	22.54
<i>Homalopoma sanguineum</i> (Linnaeus. 1758)	1.21	0.00	0.62	2.98	1.40	23.95
<i>Venus casina</i> Linnaeus. 1758	1.21	0.00	0.60	6.78	1.37	25.32
<i>Odostomia plicata</i> (Montagu. 1803)	1.21	0.00	0.60	6.78	1.37	26.69
<i>Parthenina interstincta</i> (J. Adams. 1797)	1.21	0.00	0.60	6.78	1.37	28.06
<i>Pusillina inconspicua</i> (Alder. 1844)	1.12	1.73	0.58	1.19	1.33	29.39
<i>Gregariella semigranata</i> (Reeve. 1858)	5.53	6.08	0.57	1.72	1.31	30.70