

Effects of the bioturbating lugworm *Arenicola marina* on the structure of benthic protistan communities

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Supplement 1. Distribution of Ciliophora, stramenopiles, fungi and Rhizaria among the 5 analyzed samples (oxic surface-0, -8 worms; anoxic subsurface-0, -8 worms and lugworm burrow) as obtained by 454 sequencing. Numbers within each class refer to phylotypes obtained after clustering sequences at 97% similarity threshold, without taking single singletons into account. Numbers in brackets display the number of sequences for each taxon, as obtained after application of the quality procedure (for details see ‘Materials and methods’ section)

Ciliophora	All samples	Oxic surface 0 worms	Oxic surface 8 worms	Anoxic subsurface 0 worms	Anoxic subsurface 8 worms	Lugworm burrow
Colpodea						
Bryometopus	1 (4)				1 (4)	
Litostomatea						
Paraspathidiidae	9 (156)	6 (22)		7 (134)		
Trachelotractus	4 (142)	4 (131)		1 (11)		
Epiphyllum	3 (34)		3 (33)	1 (1)		
Litonotus	1 (4)	1 (3)		1 (1)		
Nassophorea						
Zosterodasys	2 (16)	1 (13)	1 (2)	1 (1)		
Oligohymenophorea						
Cardiostomatella	3 (14)			1 (2)		2 (12)
Cyclidium	2 (331)					2 (331)
Pleuronema	38 (1157)	25 (909)	15 (162)	9 (86)		
Pseudovorticella	2 (6)	2 (6)				
Ancistrum	9 (357)			1 (1)		9 (356)
Schizocaryum	1 (4)	1 (4)				
Unclassified Scuticociliata	1 (2)	1 (2)				

Phyllopharyngea						
Chlamydodon	26 (1152)	25(1090)	4 (23)	6 (39)		
Dysteria	29 (899)	28 (894)	1 (2)	2 (3)		
Trichopodiella	1 (2)		1 (1)	1 (1)		
Prostomatea						
Apocoleps	1 (2)	1 (2)				
Coleps	50 (6664)	35 (1368)		39 (5294)		2 (2)
Tiarina	4 (107)	2 (61)	4 (46)			
Prorodon	7 (53)	7 (46)	1 (1)	3 (6)		
Spirotrichea						
Trachelostyla	1 (2)		1 (2)			
Bergeriella	1 (7)	1 (7)				
Heterotrichea						
Condylostoma	2 (10)	2 (10)				
Karyorelictea						
Loxodes	1 (11)	1 (11)				
Remanella	2 (5)		1 (2)	1 (3)		
Geleia	10 (241)	8 (202)	3 (38)	1 (1)		
Kentrophoros	7 (70)	7 (70)				
Trachelocerca	28 (595)	27 (550)	6 (30)	3 (15)		
Tracheloraphis	11 (154)	11 (146)	1 (4)	4 (4)		
Unclassified Ciliophora						
Cryptocaryon	6 (36)	5 (30)		3 (6)		
Total	263 (12172)					
Stramenopiles	All samples	Oxic surface 0 worms	Oxic surface 8 worms	Anoxic subsurface 0 worms	Anoxic subsurface 8 worms	Lugworm burrow
Bacillariophyta						
Achnanthes	3 (6)			2 (4)	1 (2)	
Cocconeis	2 (5)			1 (2)	1 (3)	
Bacillaria	5 (54)	5 (40)		4 (14)		
Cylindrotheca	1 (2)			1 (2)		
Unclassified Nitzschia	24 (111)	12 (41)	4 (9)	8 (31)	8 (29)	1 (1)
Pseudo-nitzschia	1 (2)			1 (2)		
Cymbella	44 (351)	25 (221)	7 (15)	30 (103)	3 (12)	
Entomoneis	3 (11)	2 (9)	1 (2)			
Amphiprora	3 (6)	3 (6)				
Frustulia	3 (39)		2 (5)		2 (34)	
Eolimna	5 (34)	4 (16)		5 (18)		
Haslea	27 (185)	14 (75)	4 (18)	18 (79)	2 (13)	
Hippodonta	2 (15)	1 (12)	1 (3)			
Unclassified Navicula	102 (1753)	30 (97)	23 (56)	21 (51)	60 (718)	14 (831)
Pseudogomphonema	2 (4)				2 (4)	

Seminavis	2 (8)	2 (6)		2 (2)		
Gyrosigma	27 (542)	24 (376)	5 (16)	17 (150)		
Fallacia	6 (86)	1 (8)	2 (3)	3 (8)	3 (67)	
Sellaphora	4 (21)	1 (4)	1 (1)		3 (16)	
Stauroneis	3 (11)	2 (9)	1 (2)			
Unclassified Naviculales	2 (5)		2 (5)			
Epithemia	1 (2)		1 (1)	1 (1)		
Amphora	45 (579)	28 (338)	3 (3)	34 (204)	3 (34)	
Eunotia	1 (2)		1 (2)			
Biddulphia	1 (2)				1 (2)	
Biddulphiopsis	4 (20)	1 (3)	2 (6)	1 (1)	2 (10)	
Odontella	22 (396)	22 (62)	9 (45)	10 (43)	12 (245)	1 (1)
Bellerochea	6 (16)	1 (2)	1 (3)		2 (5)	2 (6)
Planktionella	2 (7)	1 (1)	1 (2)	1 (4)		
Arcocellulus	5 (34)	2 (15)	2 (7)	1 (9)	2 (3)	
Papiliocellulus	3 (17)		1 (1)		3 (16)	
Bacteriosira	13 (133)	5 (11)	1 (2)	3 (6)	5 (19)	5 (95)
Cyclostephanus	2 (5)	1 (1)	2 (3)	1 (1)		
Dicostella	1 (2)					1 (2)
Minidiscus	2 (12)		1 (1)	1 (10)	1 (1)	
Porosira	4 (24)	2 (18)		1 (2)	2 (4)	
Shinodiscus	2 (3)		1 (2)	1 (1)		
Stephanodiscus	1 (37)					1 (37)
Thalassiosira	38 (526)	16 (93)	10 (37)	16 (50)	16 (115)	7 (231)
Diatoma	5 (27)	2 (13)			3 (14)	
Fragilaria	2 (3)	1 (1)		1 (2)		
Neofragilaria	19 (180)	9 (41)	2 (6)	2 (2)	14 (131)	
Opephora	2 (6)	1 (1)		1 (3)	1 (2)	
Stausosira	13 (131)	4 (12)	1 (3)	6 (18)	8 (98)	
Tabularia	2 (7)	1 (6)		1 (1)		
Licmophora	6 (21)		2 (4)	1 (2)	3 (15)	
Rhabdonema	4 (28)	4 (10)		3 (18)		
Delphineis	1 (2)		1 (1)			
Hyalosira	16 (129)	11 (46)	3 (6)	9 (18)	9 (59)	
Mediopyxis	8 (417)	1 (1)		2 (2)		8 (414)
Prestauroneis	28 (160)	7 (44)	5 (17)	6 (18)	9 (78)	1 (3)
Bicosoecida						
Bicosoeca	1 (11)	1 (11)				
Labyrinthulida						
Oblongichytrium	1 (5)	1 (5)				
Total	532 (6195)					

Fungi	All samples	Oxic surface 0 worms	Oxic surface 8 worms	Anoxic subsurface 0 worms	Anoxic subsurface 8 worms	Lugworm burrow
Chytridiomycota						
Polychytrium	1 (46)	1 (46)				
Powellomyces	1 (27)				1 (27)	
Rhizophlyctis	3 (8)				1 (2)	2 (6)
Hyaloraphidium	3 (8)				1 (2)	2 (6)
Dikarya						
Debaryomyces	1 (6)	1 (6)				
Scheffersomyces	1 (2)	1 (2)				
Candida	3 (10)	1 (2)	1 (2)		1 (6)	
Boletus	1 (8)					1 (8)
Uthatabasidium	1 (9)					1 (9)
Hyphodontia	1 (9)					1 (9)
Lindtneria	2 (13)					2 (13)
Inonotus	1 (6)					1 (6)
Diplomitoporus	1 (7)					1 (7)
Gelatoporia	3 (24)					3 (24)
Lachnocladium	2 (9)	1 (1)				1 (8)
Panus	1 (2)					1 (2)
Meripilus	2 (296)	1 (1)				2 (295)
Neolentiporus	1 (4)					1 (4)
Trametes	1 (8)					1 (8)
Laxitextum	2 (17)					2 (17)
Dossansia	1 (3)				1 (3)	
Malassezia	4 (34)				4 (34)	
Neocallimastigomycota						
Cyllumyces	1 (2)		1 (2)			
Total	38 (558)					

Rhizaria	All samples	Oxic surface 0 worms	Oxic surface 8 worms	Anoxic subsurface 0 worms	Anoxic subsurface 8 worms	Lugworm burrow
Cercozoa						
Cavernomonas	1 (10)				1 (10)	
Cercomonas	1 (2)				1 (2)	
Eocercomonas	1 (2)	1 (2)				
Massisteria	5 (32)	4 (30)			1 (2)	
Euglypha	1 (2)	1 (2)				
Thaumatomastix	7 (83)	2 (19)		1 (1)	4 (63)	
Total	16 (131)					