The following supplement accompanies the article

Distribution and functional traits of polychaetes in a CO_2 vent system: winners and losers among closely related species

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Supplement 1

Presence/absence list of the polychaete taxa collected in the areas experiencing 3 different pH levels at Castello Aragonese (Ischia island, Italy)

Taxa/pH zones	EXTREME LOW pH	LOW pH	AMBIENT pH
Capitellidae			
Capitellidae gen sp.	-	**X**	-
Opheliidae			
Polyophthalmus pictus (Dujardin, 1839)	**X**	**X**	**X**
Paraonidae			
Levinsenia gracilis (Tauber, 1869)	-	**X**	**X**
Cirratulidae			
Dodecaceria concharum Oersted, 1843	-	**X**	**X**
Cirratulidae gen. spp.	-	**X**	**X**
Ctenodrilidae			
Ctenodrilidae gen. sp.	**X**	**X**	**X**
Pholoidae			
Pholoe sp.	-	**X**	-
Polynoidae			
Subadyte pellucida (Ehlers, 1864)	-	-	**X**
Harmothoe sp.	-	**X**	-
Lepidonotus clava (Montagu, 1808)	**X**	**X**	**X**
Hesionidae			
Hesionidae gen. sp.	-	**X**	**X**
Nereididae			
Perinereis cultrifera (Grube, 1840)	-	**X**	**X**
Ceratonereis hircinicola (Eisig, 1870)	-	-	**X**
Ceratonereis costae (Grube, 1840)	-	-	**X**
Nereis zonata Malmgren, 1867	-	**X**	**X**
Nereididae gen. sp.	-	**X**	**X**
Nereis funchalensis (Langerhans, 1880)	-	**X**	-
Platynereis cf. *dumerilii* (Audouin & Milne Edwards, 1834)	**X**	**X**	**X**

Syllidae			
Amblyosyllis madeirensis Langerhans, 1879	-	-	**X**
Branchiosyllis exilis (Gravier, 1900)	-	**X**	**X**
Brania arminii (Langerhans, 1881)	-	**X**	-
Brania pusilla (Dujardin, 1851)	**X**	**X**	**X**
Erinaceusyllis belizensis (Russel, 1989)	-	-	**X**
Eusyllis lamelligera Marion & Bobretzky, 1875	-	**X**	**X**
Exogone (Exogone) dispar (Webster, 1879)	**X**	**X**	**X**
Exogone (Exogone) naidina Örsted, 1845	**X**	**X**	**X**
Exogone (Exogone) rostrata Naville, 1933	-	-	**X**
Haplosyllis granulosa (Lattig, Martin & San Martín, 2007)	**X**	**X**	**X**
Myrianida cfr *edwarsi* Saint-Joseph, 1887	**X**	**X**	**X**
Odontosyllis fulgurans (Audouin & Milne Edwards, 1834)	-	-	**X**
Paraehlersia ferrugina (Langerhans, 1881)	-	**X**	**X**
Parapionosyllis brevicirra Day, 1954	-	-	**X**
Proceraea cfr *paraurantiaca* Nygren, 2004	-	-	**X**
Prosphaerosyllis xarifae (Hartmann-Schröder, 1960)	-	**X**	**X**
Salvatoria clavata (Claparède, 1863)	**X**	**X**	**X**
Salvatoria limbata (Claparède, 1868)	-	**X**	**X**
Sphaerosyllis austriaca Banse, 1959	**X**	**X**	**X**
Sphaerosyllis hystrix Claparède, 1863	**X**	**X**	**X**
Sphaerosyllis pirifera Claparède, 1868	**X**	**X**	**X**
Syllides fulvus (Marion & Bobretzy, 1875)	**X**	-	
Syllis armillaris (O.F. Müller, 1771)	-	-	**X**
Syllis beneliahuae (Campoy & Alquézar, 1982)	-	-	**X**
Syllis compacta Gravier, 1900	-	-	**X**
Syllis corallicola Verrill, 1900	-	-	**X**
Syllis ferrani Alós & Martín, 1987	-	-	**X**
Syllis garciai (Campoy, 1982)	-	-	**X**
Syllis gerlachi (Hartmann-Schröder, 1960)	**X**	**X**	**X**
Syllis gracilis Grube, 1840	-	**X**	**X**
Syllis krohnii Ehlers, 1864	-	**X**	**X**
Syllis prolifera Krohn, 1852	**X**	**X**	**X**
Syllis rosea Langerhans, 1879	-	**X**	-
Syllis variegata Grube, 1860	-	-	**X**
Synmerosyllis lamelligera Saint-Joseph, 1887	-	**X**	**X**
Trypanosyllis coeliaca Claparède, 1868	-	-	**X**
Autolytinae stolon	-	-	**X**
Phyllodocidae			
Phyllodocidae gen. sp.	-	-	**X**
Dorvilleidae			
Dorvillea (Schistomeringos) rudolphii (Delle Chiaje, 1828)	-	**X**	**X**

Eunicidae			
Palola siciliensis (Grube, 1840)	**X**	**X**	**X**
Lysidice unicornis (Grube, 1840)	-	**X**	**X**
Lysidice ninetta Audouin & Milne Edwards, 1833	-	**X**	**X**
Lysidice collaris Grube 1840	-	**X**	**X**
Lumbrineridae			
Lumbrineris sp.	-	**X**	**X**
Scoletoma impatiens (Claparède, 1868)	-	**X**	-
Fabriciidae			
Fabricia stellaris (O.F. Muller, 1774)	**X**	**X**	**X**
Brifacia aragonensis Giangrande et al., 2014	**X**	**X**	**X**
Novafabricia posidoniae Licciano & Giangrande, 2006	**X**	**X**	**X**
Novafabricia infratorquata (Fitzhugh, 1983)	-	**X**	
Parafabricia mazzellae Giangrande et al., 2014	**X**	**X**	**X**
Rubifabriciola tonerella (Banse, 1959)	**X**	**X**	-
Sabellidae			
Amphiglena mediterranea (Leydig, 1851)	**X**	**X**	**X**
Amphicorina armandi (Claparède, 1864)	-	**X**	-
Amphicorina persinosa (Ben-Eliahu, 1975)	-	-	**X**
Branchiomma bombyx (Dalyell, 1853)	-	-	**X**
Branchiomma lucullanum (Delle Chiaje, 1838)	-	**X**	**X**
Parasabella saxicola (Grube, 1861)	-	-	**X**
Serpulidae			
Hydroides pseudouncinatus Zibrowius, 1968	-	**X**	**X**
Serpula vermicularis Linnaeus, 1767	-	**X**	**X**
Serpulidae ind.	-	-	**X**
Spirobranchus polytrema (Philippi, 1844)	-	-	**X**
Spirobranchus triqueter (Linnaeus, 1758)	-	-	**X**
Vermiliopsis straticeps (Grube, 1862)	-	-	**X**
Terebellidae			
Terebellidae gen. spp.	-	-	**X**
Spionidae			
Spionidae gen. sp.	-	**X**	**X**
Polydora sp.	**X**	**X**	**X**
number of taxa	**23**	**56**	**73**
Total number of taxa	**83**		
species in common low and ambient	**44**		
species in common low and extreme low	**23**		
species in common along the whole transect	**22**		
X = present; - = absent			

Supplement 2. Benthic functional groups (BFG) identified in the sampling sites and their average (n = 4) percent cover values (visual estimate from the photos. Sampling plots = 20x20 cm quadrats) as table (a) and plots (b)

(a) Mean percent covers of the BFG in the 3 pH zones (Ambient pH, Low pH, Extreme Low pH) of the two sampling sides (North, South) at Castello Aragonese (Ischia Island, Italy). Groups presented according to the alphabetical order of the BFG's acronyms. BFA= biofilm filamentous algae; CFF= calcareous filter feeders (e.g, . *Balanus* spp.); CTA= calcareous turf algae; ECA= erect calcareous algae (e.g. *Corallina* sp.); EFA= erect fleshy algae (e.g. *Dictyota* spp., *Codium bursa, Sargassum vulgare, Flabellia petiolata, Valonia* sp.); EnCA= encrusting calcareous algae (including coralline algae); EnFA= encrusting fleshy algae (red algae e.g. *Hildebrandia crouaniorum* – as *H. rubra* in Porzio et al. 2011); FTA= fleshy turf algae; Spo= Sponges

	Side	***South***			***North***		
	pH condition	***Ambient***	***Low***	***Extreme low***	***Extreme low***	***Low***	***Ambient***
benthic functional groups	***BFA***	5	20.5	0.75	8.5	36.5	3.75
	CFF	0	0.25	0	0	0	0
	CTA	0	1.25	0	0	0	0
	ECA	1	4	0	0.5	1	36.75
	EFA	6	14.5	95	19	25.5	24
	EnCA	1.5	1.75	0	13.5	3.75	3
	EnFA	1.5	12.5	4.25	6.5	13.75	7
	FTA	75.5	44.225	0	42	17.75	18
	Spo	10	1.025	0	10	2.5	7.75

(b) Mean percent covers (± Standard Deviation) of the BFG in the 3 pH zones (Ambient pH, Low pH, Extreme Low pH) of the two sampling sides (north = N, south = S) at Castello Aragonese (Ischia Island, Italy).