

Dynamics of Stone Habitats in Coastal Waters of the Southwestern Baltic Sea (Hohwacht Bay)

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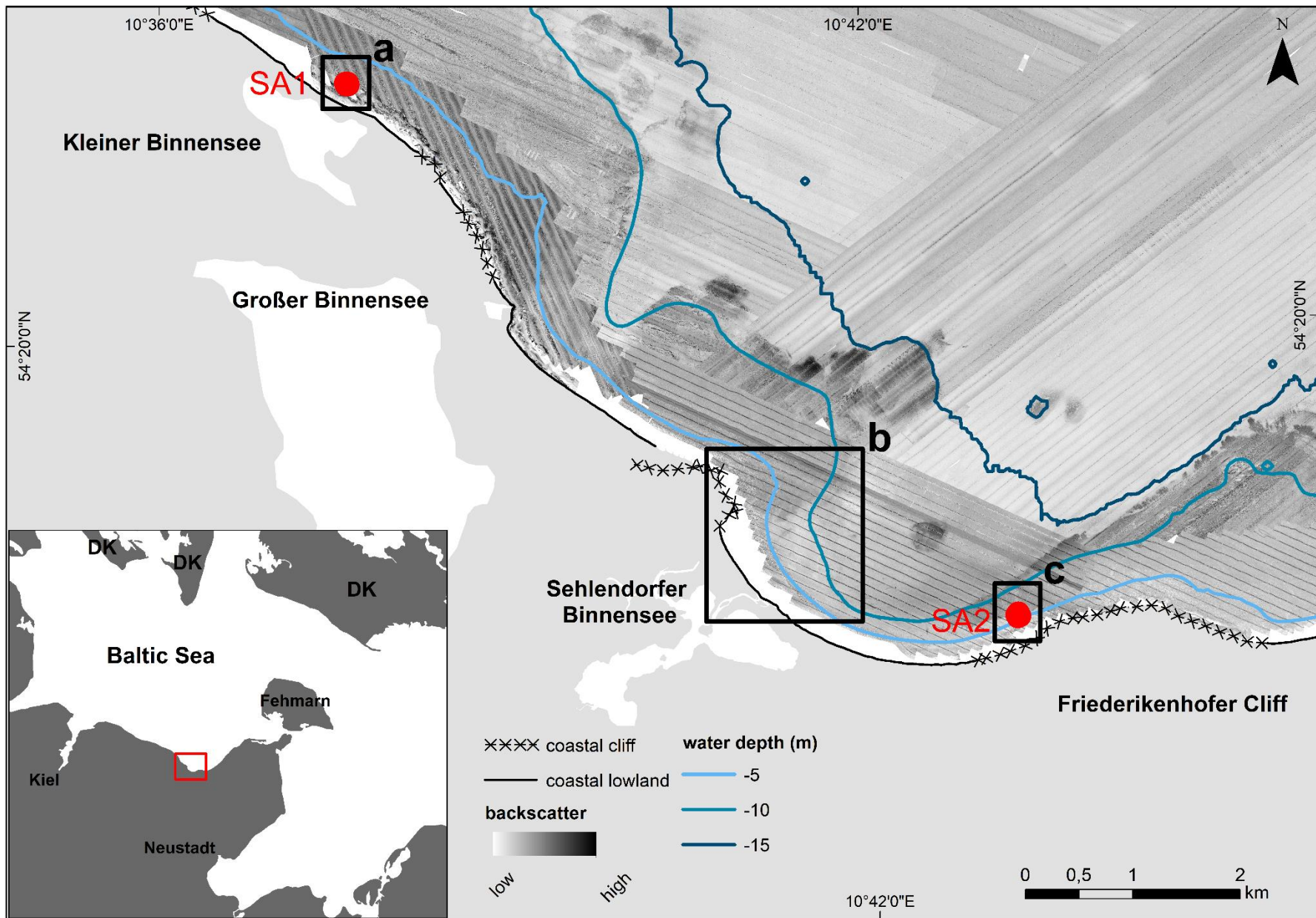


Figure S1. SSS Mosaic of the inner Hohwacht Bay. Areas with high backscatter intensities are displayed in darker grey-levels than light backscatter areas. The locations of SA1 and SA2 are marked with red dots. The black rectangles outline three zoomed in sections, which will be displayed in the following figures S1 a-c.

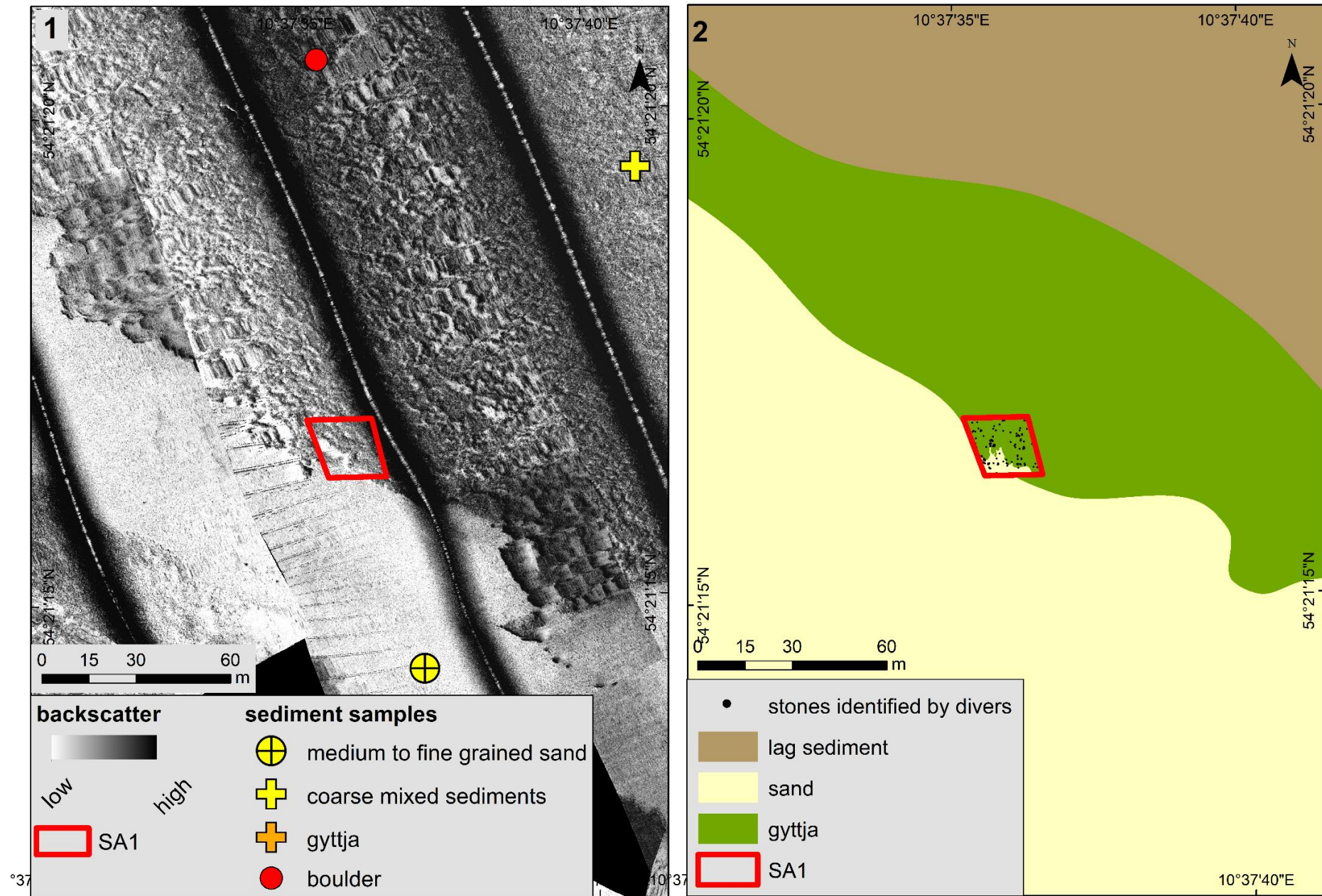


Figure S1a: Left images (1) displays zoomed in section of the SSS mosaic including sediment samples in this section. Right image (2): Identical area displaying sediment distribution. SA1 (red rectangle) is included in both images.

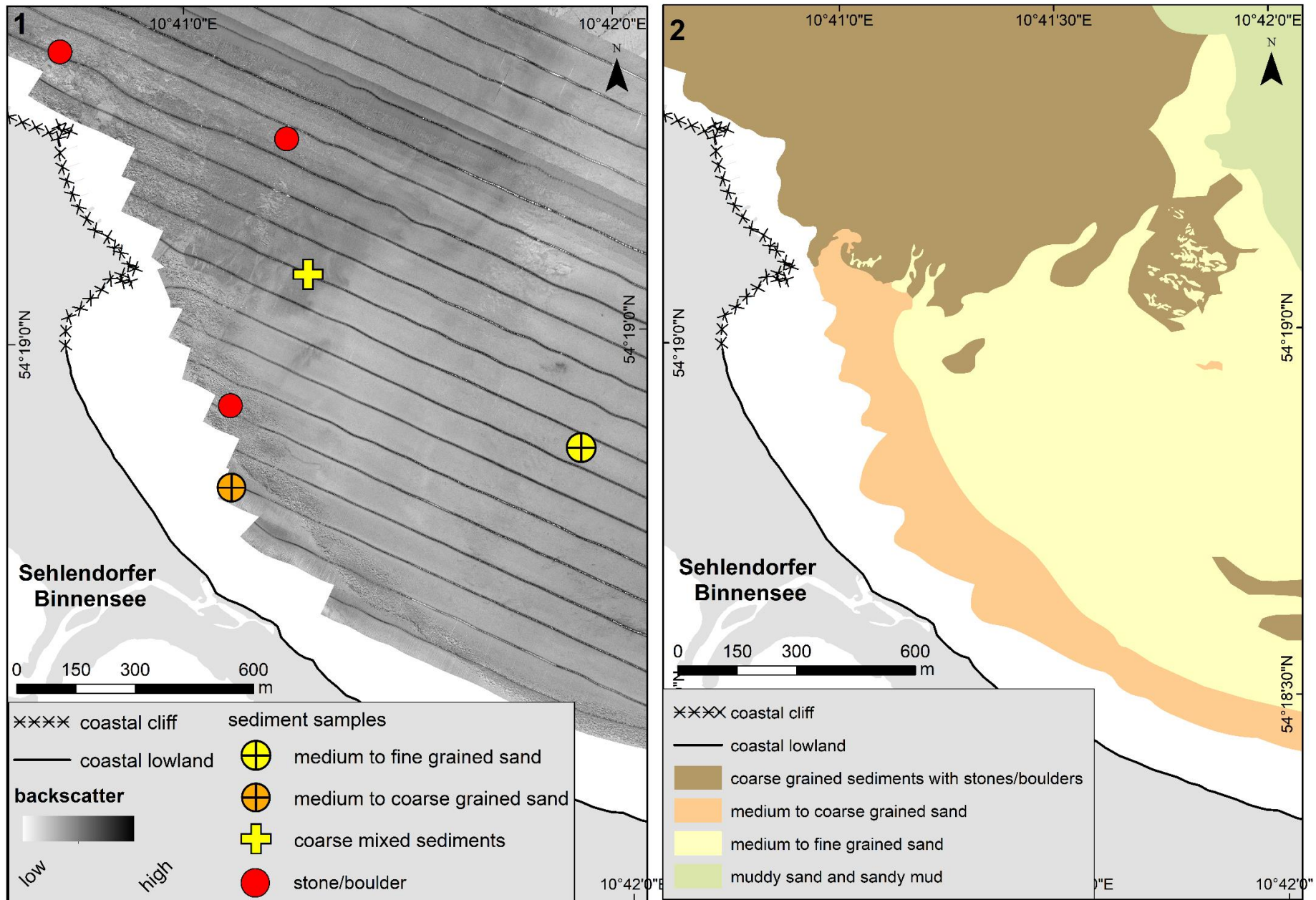


Figure S1b: Left image (1): displays zoomed in section of the SSS mosaic including sediment samples in this section. Right image (2): Identical area displaying sediment distribution.

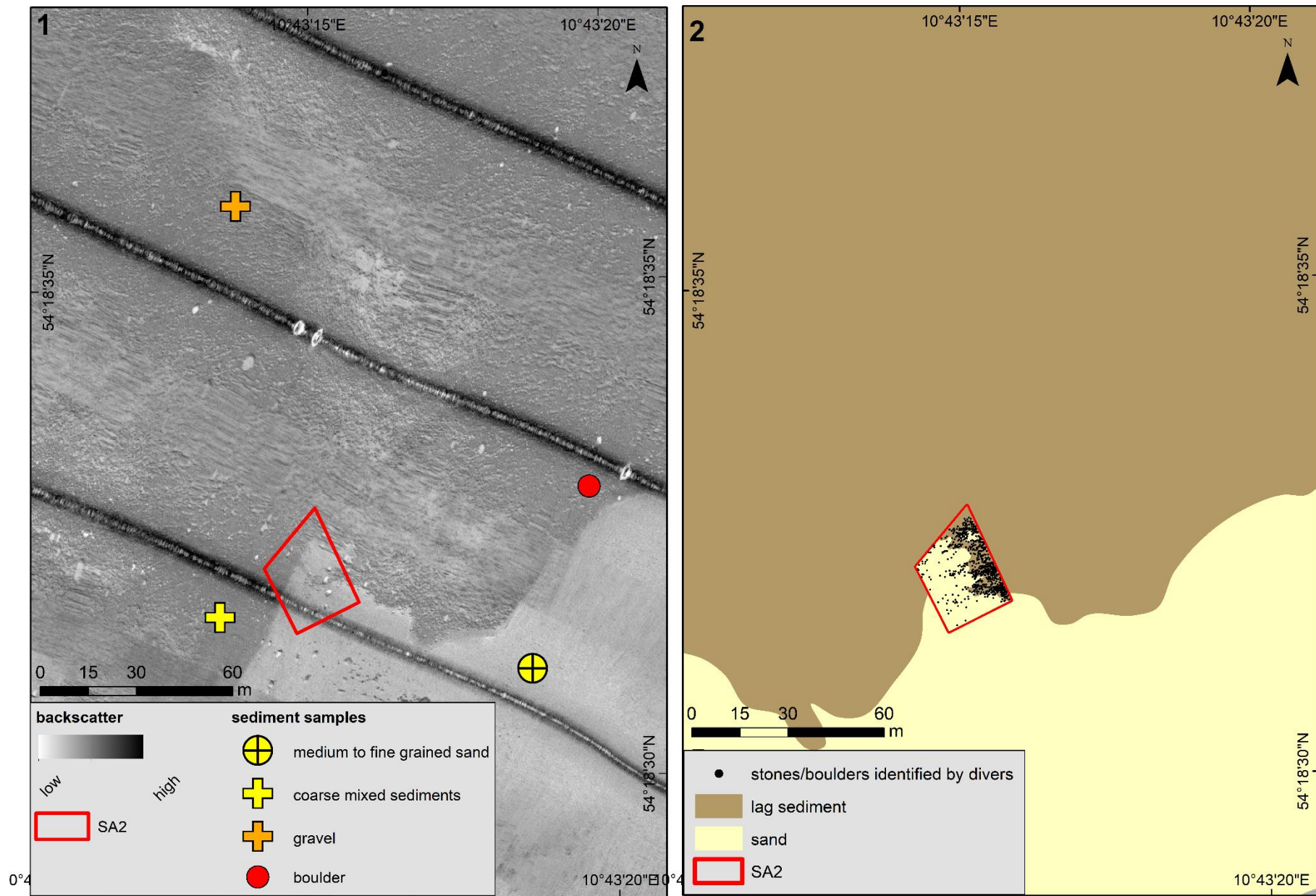


Figure S1c: Left image (1): displays zoomed in section of the SSS mosaic including sediment samples in this section. Right image (2): Identical area displaying sediment distribution. SA2 (red rectangle) is included in both images.

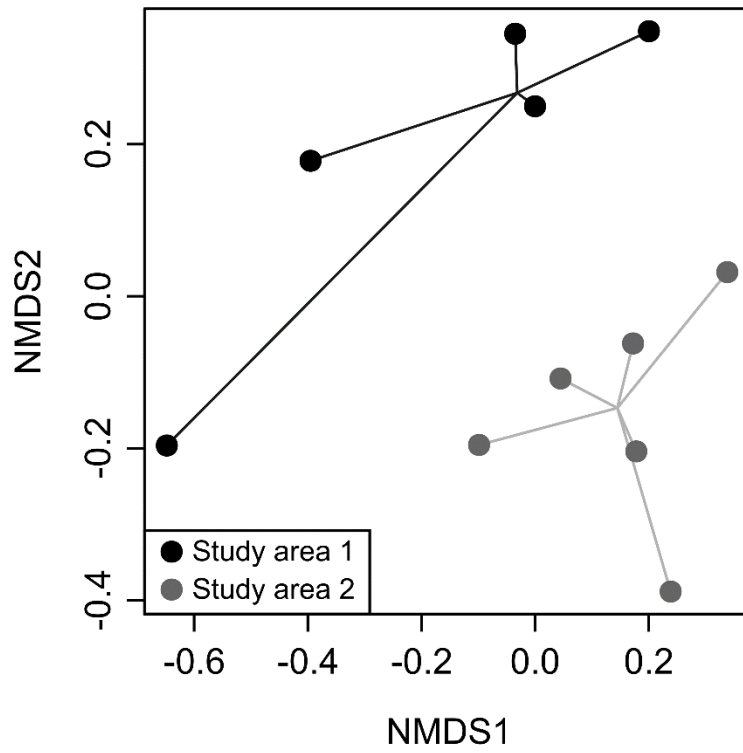


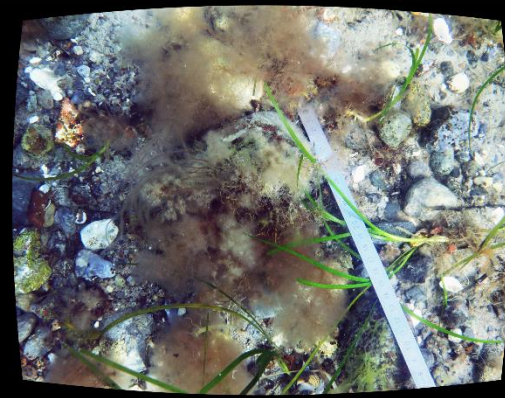
Figure S2. nMDS plot based on Bray-Curtis dissimilarities comparing the taxonomic community composition for the two study areas. The stress value, as an indication of how well dissimilarities were preserved, was 0.10.

2018-04-04

2018-04-20

2018-05-07

stone 01



stone 02



stone 03



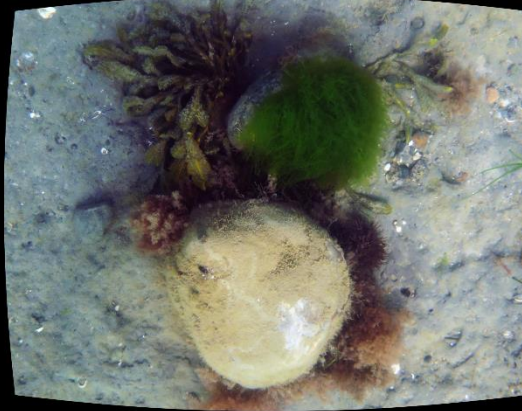
Figure S3a Stones observed during field campaign

2018-04-04

2018-04-20

2018-05-07

stone 03



stone 04



stone 05



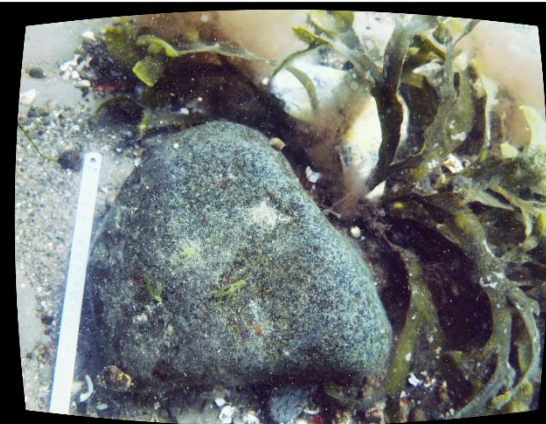
Figure S3b Stones observed during field campaign

2018-04-04

2018-04-20

2018-05-07

stone 06



stone 07



stone 08



Figure S3c Stones observed during field campaign

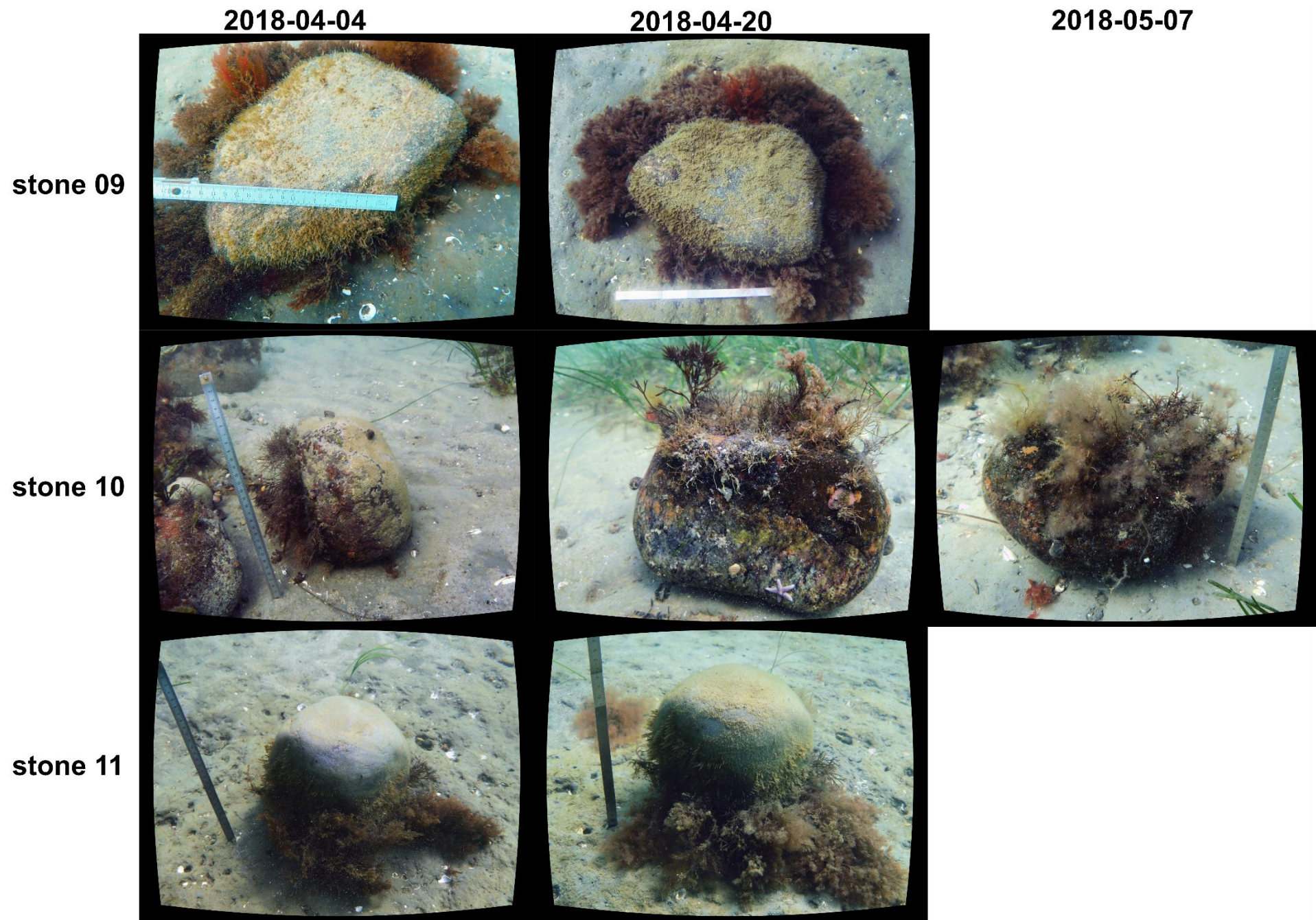


Figure S3d Stones observed during field campaign

Table S1. Species identified from the sampled hard-bottom communities.

Phylum	Species	Phylum	Species
Arthropoda	<i>Amphibalanus improvisus</i>	Bryozoa	<i>Alcyonidium hirsutum</i>
	<i>Ampithoe rubricata</i>		<i>Amathia gracilis</i>
	<i>Apherusa bispinosa</i>		<i>Amphiblestrum auritum</i>
	<i>Calliopius laeviusculus</i>		<i>Electra pilosa</i>
	<i>Carcinus maenas</i>	Mollusca	<i>Bittium reticulatum</i>
	<i>Crassikorophium crassicorne</i>		<i>Hydrobia</i> sp.
	<i>Dexamine spinosa</i>		<i>Littorina littorea</i>
	<i>Gammarus inaequicauda</i>		<i>Musculus subpictus</i>
	<i>Gammarus locusta</i>		<i>Mytilus</i> sp.
	<i>Gammarus salinus</i>	Chlorophyta	<i>Acrosiphonia</i> sp.
	<i>Gammarus</i> sp.		<i>Chaetomorpha</i> sp.
	<i>Hyperia galba</i>		<i>Cladophora</i> sp.
	<i>Idotea balthica</i>		<i>Spongomorpha</i> sp.
	<i>Idotea chelipes</i>	Porifera	<i>Chalinula limbata</i>
	<i>Jaera (Jaera) albifrons</i>		<i>Haliclona</i> sp.
	<i>Metopa pusilla</i>		<i>Halisarca dujardini</i>
	<i>Microdeutopus gryllotalpa</i>		<i>Leucosolenia botryoides</i>
	<i>Monocorophium insidiosum</i>	Chordata	<i>Ciona intestinalis</i>
	<i>Nymphon brevistre</i>		<i>Dendrodoa grossularia</i>
Rhodophyta	<i>Aglaothamnion tenuissimum</i>	Ochrophyta	<i>Pylaiella</i> sp.
	<i>Ahnfeltia plicata</i>		<i>Sphaceloderma</i> sp.
	<i>Callithamnion</i> sp.	Ciliophora	<i>Folliculina</i> sp.
	<i>Ceramium deslongchampsii</i>		Echinodermata
	<i>Ceramium tenuicorne</i>		
	<i>Ceramium virgatum</i>		
	<i>Coccotylus truncatus</i>		
	<i>Delesseria sanguinea</i>		
	<i>Furcellaria lumbricalis</i>		
	<i>Harveyella mirabilis</i>		
	<i>Leptosiphonia fibrillosa</i>		
	<i>Membranoptera alata</i>		
	<i>Phycodrys rubens</i>		
	<i>Phyllophora pseudoceranoïdes</i>		
	<i>Polysiphonia stricta</i>		
	<i>Rhodomela confervoides</i>		
	<i>Scagelothamnion pusillum</i>		
	<i>Spermothamnion</i> sp.		
	<i>Vertebrata fucoïdes</i>		
	Cnidaria	<i>Campanulina pumila</i>	
<i>Clytia hemisphaerica</i>			
<i>Dynamena pumila</i>			
<i>Gonothyrea loveni</i>			
<i>Haliclystus salpinx</i>			
<i>Opercularella lacerata</i>			
Annelida	<i>Rhizocaulus verticillatus</i>		
	<i>Fabriciella baltica</i>		
	<i>Harmothoe imbricata</i>		
	<i>Harmothoe impar</i>		
	<i>Nereis</i> sp.		
	<i>Pholoe inornata</i>		
Bryozoa	<i>Polydora cornuta</i>		
	<i>Spirorbis (Spirorbis) spirorbis</i>		
	<i>Alcyonidium diaphanum</i>		
	<i>Alcyonidium gelatinosum</i>		

Table S2. Similarity percentage (SIMPER) analysis comparing the two study areas. For each species, the contribution to the average group dissimilarity and the p-value of the permutation test are given. P-values ≤ 0.05 are indicated in bold.

Species	Contribution to mean group dissimilarity	Cumulative contribution	Mean occurrence study area 1	Mean occurrence study area 2	p-value
<i>Amphiblestrum auritum</i>	0.02	0.04	0.00	1.00	0.003
<i>Folliculina</i> sp.	0.02	0.07	0.00	1.00	0.003
<i>Amathia gracilis</i>	0.01	0.10	0.00	0.83	0.014
<i>Leucosolenia botryoides</i>	0.01	0.13	0.00	0.83	0.014
<i>Phyllophora pseudoceranoïdes</i>	0.01	0.16	0.20	0.83	0.056
<i>Ciona intestinalis</i>	0.01	0.18	0.00	0.67	0.045
<i>Alcyonidium gelatinosum</i>	0.01	0.20	0.40	1.00	0.032
<i>Harveyella mirabilis</i>	0.01	0.23	0.20	0.67	0.138
<i>Furcellaria lumbricalis</i>	0.01	0.25	0.80	0.33	0.157
<i>Haliclystus salpinx</i>	0.01	0.27	0.60	0.00	0.054
<i>Crassicorophium crassicorne</i>	0.01	0.29	0.60	0.33	0.241
<i>Calliopijs laeviusculus</i>	0.01	0.31	0.80	0.50	0.306
<i>Idotea balthica</i>	0.01	0.33	0.80	0.50	0.359
<i>Ceramium tenuicorne</i>	0.01	0.34	0.80	0.50	0.306
<i>Littorina littorea</i>	0.01	0.36	0.60	0.50	0.614
<i>Nymphon brevirostre</i>	0.01	0.38	0.60	0.50	0.654
<i>Spermothamnion</i> sp.	0.01	0.40	0.60	0.50	0.726
<i>Scagelothamnion pusillum</i>	0.01	0.42	0.40	0.50	0.739
<i>Membranoptera alata</i>	0.01	0.43	0.00	0.50	0.137
<i>Metopa pusilla</i>	0.01	0.45	0.20	0.50	0.486
<i>Apherusa bispinosa</i>	0.01	0.47	0.60	0.67	0.820
<i>Chalinula limbata</i>	0.01	0.49	0.60	0.67	0.652
<i>Rhizocaulus verticillatus</i>	0.01	0.50	0.60	0.67	0.652
<i>Jaera (Jaera) albifrons</i>	0.01	0.52	0.40	0.33	0.648
<i>Opercularella lacerata</i>	0.01	0.54	0.40	0.33	0.755
<i>Callithamnion</i> sp.	0.01	0.55	0.60	0.83	0.323
<i>Leptosiphonia fibrillosa</i>	0.01	0.57	0.40	0.17	0.403
<i>Monocorophium insidiosum</i>	0.01	0.58	0.60	0.83	0.490
<i>Cladophora</i> sp.	0.01	0.60	0.40	0.00	0.084
<i>Polydora cornuta</i>	0.01	0.61	0.20	0.33	0.568
<i>Dynamena pumila</i>	0.01	0.63	0.80	0.67	0.760
<i>Alcyonidium hirsutum</i>	0.01	0.64	0.40	0.00	0.093
<i>Chaetomorpha</i> sp.	0.01	0.66	0.40	0.00	0.093
<i>Harmothoe imbricata</i>	0.01	0.67	0.20	0.33	0.801
<i>Spirorbis (Spirorbis) spirorbis</i>	0.01	0.69	0.20	0.33	0.776
<i>Aglaothamnion tenuissimum</i>	0.01	0.70	0.40	0.00	0.137
<i>Harmothoe impar</i>	0.01	0.71	1.00	0.67	0.219
<i>Hydrobia</i> sp.	0.01	0.73	0.00	0.33	0.320
<i>Bittium reticulatum</i>	0.01	0.74	0.00	0.33	0.352
<i>Gammarus</i> sp.	0.01	0.75	0.20	0.17	0.604
<i>Spongomorpha</i> sp.	0.01	0.76	0.20	0.17	0.760
<i>Halisarca dujardini</i>	0.01	0.77	0.00	0.33	0.399

<i>Sphaceloderma</i> sp.	0.00	0.78	0.20	0.17	0.811
<i>Ahnfeltia plicata</i>	0.00	0.79	0.20	0.00	0.218
<i>Ampithoe rubricata</i>	0.00	0.80	0.20	0.00	0.218
<i>Coccotylus truncatus</i>	0.00	0.81	0.20	0.00	0.218
<i>Electra pilosa</i>	0.00	0.81	0.80	1.00	0.218
<i>Haliclona</i> sp.	0.00	0.82	0.20	0.00	0.218
<i>Delesseria sanguinea</i>	0.00	0.83	0.80	1.00	0.292
<i>Gonothyraea loveni</i>	0.00	0.84	0.20	0.00	0.292
<i>Pylaiella</i> sp.	0.00	0.84	0.20	0.00	0.292
<i>Rhodomela confervoides</i>	0.00	0.85	0.80	1.00	0.292
<i>Ceramium deslongchampsii</i>	0.00	0.86	0.20	0.00	0.313
<i>Gammarus locusta</i>	0.00	0.87	0.20	0.00	0.313
<i>Idotea chelipes</i>	0.00	0.87	0.20	0.00	0.313
<i>Musculus subpictus</i>	0.00	0.88	0.20	0.00	0.313
<i>Polysiphonia stricta</i>	0.00	0.89	0.20	0.00	0.313
<i>Acrosiphonia</i> sp.	0.00	0.89	0.20	0.00	0.330
<i>Clytia hemisphaerica</i>	0.00	0.90	0.20	0.00	0.330
<i>Gammarus inaequicauda</i>	0.00	0.91	0.20	0.00	0.330
<i>Gammarus salinus</i>	0.00	0.91	0.20	0.00	0.330
<i>Hyperia galba</i>	0.00	0.92	0.20	0.00	0.330
<i>Pholoe inornata</i>	0.00	0.93	0.20	0.00	0.330
<i>Phycodryis rubens</i>	0.00	0.94	1.00	0.83	0.520
<i>Vertebrata fucoides</i>	0.00	0.94	1.00	0.83	0.520
<i>Dexamine spinosa</i>	0.00	0.95	0.00	0.17	0.610
<i>Fabriciola baltica</i>	0.00	0.95	0.00	0.17	0.649
<i>Microdeutopus gryllotalpa</i>	0.00	0.96	1.00	0.83	0.652
<i>Nereis</i> sp.	0.00	0.97	1.00	0.83	0.649
<i>Carcinus maenas</i>	0.00	0.97	0.00	0.17	0.698
<i>Dendrodoa grossularia</i>	0.00	0.98	0.00	0.17	0.698
<i>Mytilus</i> sp.	0.00	0.98	1.00	0.83	0.698
<i>Alcyonidium diaphanum</i>	0.00	0.99	0.00	0.17	0.739
<i>Amphibalanus improvisus</i>	0.00	0.99	0.00	0.17	0.739
<i>Campanulina pumila</i>	0.00	1.00	0.00	0.17	0.739
<i>Asterias rubens</i>	0.00	1.00	1.00	1.00	1.000
<i>Ceramium virgatum</i>	0.00	1.00	1.00	1.00	1.000