

## Supplementary Materials

### 1. Supplementary Tables S1-S7

### 2. Supplementary Appendices S1-S5

**Supplementary Table S1.** Sampling sectors of hull-fouling macroinvertebrates on the research vessels.

Hull sectors	Sampling parts of the ship's surface
Upper	Just around waterline (ship's central and prow parts)
Middle	Mid depth (between the waterline and flat bottom)
Bottom	Flat bottom (ship's bottom including the seawater inlet part)
Niche areas	Propeller and shaft, thruster

**Supplementary Table S2.** Information on the research vessels such as the navigation area, tonnage, dimension, and sampling date based on KIOT operating guidelines.

Navigation area	Name of R/Vs	Tonnage (ton)	Length (m)	Speed (kn)	Cleaning date	Sampling date	Sampling dock
Ocean	ISABU	5,894	99.8	12–15	12 <sup>th</sup> –13 <sup>th</sup> Jan. 2017	12 <sup>th</sup> –13 <sup>th</sup> Jan. 2018	ORIENT shipyard
	ONNURI	1,370	63.8	12.5	28 <sup>th</sup> –29 <sup>th</sup> Mar. 2016	28 <sup>th</sup> –29 <sup>th</sup> Mar. 2017	ORIENT shipyard
Coastal	EARDO	357	49.0	12.0	15 <sup>th</sup> Mar. 2016	15 <sup>th</sup> Mar. 2017	SUNJIN shipbuilding
Coastal & Local	JANGMOK 2	35	24.0	16.0	15 <sup>th</sup> Mar. 2016	15 <sup>th</sup> Mar. 2017	SUNJIN shipbuilding
Local	JANGMOK 1	41	24.2	13.0	19 <sup>th</sup> Sep. 2016	19 <sup>th</sup> Sep. 2017	SUNJIN shipbuilding

<http://www.kiost.ac.kr>

**Supplementary Table S3.** Operational records of the research vessels for one year from 2016 to 2017 (Abbreviations: Sail, sailing days; Anchor, anchoring days).

Research vessel	Operating region	Sail/Anchor by region	Month (Sail, Anchor)		Operating route	Anchorage harbor
ISABU	Ocean	186/22	Jan (5, 26)	Sep (26, 4)	Indian Ocean, Northwest Pacific Ocean	Guam and Palau port, Colombo, Port Louis
	South Sea	25/124	Feb (27, 1)	Oct (16, 15)	South coast of Korea	Jangmok, Gwangyang and Busan port
	East Sea	8/0	Mar (13, 18)	Nov (28, 2)	Dokdo Is.	-
	West Sea	0/0	Apr (0, 30)	Dec (11, 20)	-	-
ONNURI	Ocean	101/9	May (13, 18)	-	-	-
	South Sea	44/189	Jun (20, 10)	-	-	-
	East Sea	14/1	Jul (30, 1)	-	-	-
	West Sea	6/1	Aug (30, 1)	-	-	-
EARDO	Ocean	77/151	Jan (0, 31)	Sep (19, 11)	Indian Ocean, Northwest Pacific Ocean	Colombo, Port Louis and Guam port
	South Sea	91/33	Feb (7, 21)	Oct (21, 10)	South coast of Korea, Korea strait, East China Sea	Siljeon, Seogwipo, Jeju, Mokpo, Jangmok, Busan and Jangcheon port
	East Sea	12/1	Mar (11, 20)	Nov (5, 25)	Ulleung Is., Dokdo Is.	Sadong and Pohang port
	West Sea	12/1	Apr (18, 12)	Dec (1, 30)	Yellow sea	-
JANGMOK 1	South Sea	102/186	May (17, 14)	-	South coast of Korea, East China Sea, Heuksan Is. Jeju Is.	Jangmok, Seogwipo, Jangcheon, Busan, Gangeong, Wando, Jeju, Gamcheon, Jinhae, Gwangyang, Yeosu and Jangseungpo port
	East Sea	39/38	Jun (8, 22)	-	Ulleung Is., Dokdo Is., Yeongil Bay	Sadong, Pohang, Mukho, Sokcho, Ulsan and Imwon port
	West Sea	0/0	Jul (29, 2)	-	Yellow Sea	Gunsan port
	South Sea	54/78	Aug (29, 2)	-	-	-
JANGMOK 2	South Sea	43/115	Jan (0, 31)	Sep (27, 3)	South coast of Korea, Korea strait, Jeju Is.	Jangmok, Jangseungpo, Wando, Gangeong, Swimi, Yeosu, Busan, Mokpo, Bigeumdo, Gukdong and Yokjido port
	East Sea	41/34	Feb (8, 20)	Oct (11, 20)	Jumunjin and Ulsan coast	Pohang, Mukho, Ulsan, Onsan, Imwon, Jukbyeon port
	West Sea	0/0	Mar (7, 24)	Nov (8, 22)	-	-
	South Sea	54/78	Apr (27, 3)	Dec (1, 30)	-	-
	South Sea	43/115	May (15, 16)	-	-	-
	East Sea	41/34	Jun (26, 4)	-	-	-
	West Sea	0/0	Jul (15, 16)	-	-	-
	South Sea	54/78	Aug (17, 14)	-	-	-

**Supplementary Table S4.** List of native and NIS found among 47 species of hull-fouling macroinvertebrates in this study. The numbers are the sum of the number of individuals of macroinvertebrate species attached to the hull of each vessel. Asterisks indicate six native and eight NIS. Others are species of unknown origin.

No.	Phylum	Sub taxa	Abbre.	Species	Isabu	Onnuri	Eardo	Jangmok 1	Jangmok 2	Native	NIS
1	Bryozoa	Bugulidae	Bry	<i>Bugulina californica</i>				1	9		*
2	Bryozoa	Bugulidae	Bry	<i>Bugula neritina</i>					1		*
3	Cnidaria	Actiniaria	CAc	<i>Heteranthus sp.</i>				1			
4	Cnidaria	Hydrozoa	CHy	<i>Sertulariidae unid.</i>					3		
5	Mollusca	Gastropoda	MGa	<i>Cheilea cepacea</i>				1			
6	Mollusca	Bivalvia	MBi	<i>Hiatella arctica</i>		2	1				
7	Mollusca	Bivalvia	MBi	<i>Magallana gigas</i>	3	392	49	251		*	
8	Mollusca	Bivalvia	MBi	<i>Modiolus kurilensis</i>			1				
9	Mollusca	Bivalvia	MBi	<i>Musculus senhousia</i>			3				
10	Mollusca	Bivalvia	MBi	<i>Mytilus galloprovincialis</i>	8	126			88		*
11	Annelida	Polychaeta	APol	<i>Eteone longa</i>			1		1		
12	Annelida	Polychaeta	APol	<i>Hydroides ezoensis</i>	8	70			544	*	
13	Annelida	Polychaeta	APol	<i>Marphysa sanguinea</i>				1			
14	Annelida	Polychaeta	APol	<i>Nereis multigranatha</i>		9	15		7		
15	Annelida	Polychaeta	APol	<i>Nereis pelagica</i>					2		
16	Annelida	Polychaeta	APol	<i>Perinereis nuntia</i>				1			*
17	Annelida	Polychaeta	APol	<i>Platynereis bicanaliculata</i>			1				
18	Annelida	Polychaeta	APol	<i>Polydora sp.</i>				1			
19	Annelida	Polychaeta	APol	<i>Syllis sp.</i>				4			
20	Crustacea	Amphipoda	CAm	<i>Apocorophium acutum</i>			11				
21	Crustacea	Amphipoda	CAm	<i>Caprella californica</i>					5		*
22	Crustacea	Amphipoda	CAm	<i>Caprella equilibra</i>	1						
23	Crustacea	Amphipoda	CAm	<i>Crassicornophium crassicornue</i>	1						
24	Crustacea	Amphipoda	CAm	<i>Erithonius pugnax</i>		1	2	1			
25	Crustacea	Amphipoda	CAm	<i>Jassa slatteryi</i>			99		38		*
26	Crustacea	Amphipoda	CAm	<i>Marea sp.</i>				4			
27	Crustacea	Amphipoda	CAm	<i>Melita hoshinoi</i>				1			
28	Crustacea	Amphipoda	CAm	<i>Melita koreana</i>				1		*	
29	Crustacea	Amphipoda	CAm	<i>Monocorophium acherusicum</i>	1	1	4	1			
30	Crustacea	Amphipoda	CAm	<i>Pareurystheus anamiae</i>	1						
31	Crustacea	Amphipoda	CAm	<i>Photis reinhardi</i>			1				
32	Crustacea	Isopoda	CIs	<i>Cirolana koreana</i>		10	12	1		*	
33	Crustacea	Isopoda	CI	<i>Dynoides dentisinus</i>				1			
34	Crustacea	Isopoda	CI	<i>Paranthuria japonica</i>				1			
35	Crustacea	Cirripedia	CCi	<i>Amphibalanus amphitrite</i>	785	219	2,467	3,536			*
36	Crustacea	Cirripedia	CCi	<i>Amphibalanus improvisus</i>		260	7	548			*
37	Crustacea	Cirripedia	CCi	<i>Balanus trigonus</i>		53	1,938	381	1,389	*	
38	Crustacea	Cirripedia	CCi	<i>Conchoderma auritum</i>	15						
39	Crustacea	Cirripedia	CCi	<i>Fistulobalanus kondakovi</i>	6					*	
40	Crustacea	Cirripedia	CCi	<i>Lepas anatifera</i>				1			
41	Crustacea	Decapoda	CDe	<i>Hemigrapsus sinensis</i>				1			
42	Crustacea	Decapoda	CDe	<i>Philemonus minutus</i>			1				
43	Crustacea	Tanaidacea	CTa	<i>Zeuxo sp1</i>			26		6		
44	Chordata	Tunicata	CTu	<i>Ascidia sp.</i>					2		
45	Chordata	Tunicata	CTu	<i>Pyura sp.</i>			32				
46	Chordata	Tunicata	CTu	<i>Styela clava</i>			9		4		
47	Platyhelminths	Planoceridae	Plat	<i>Planocera reticulata</i>			2	27			
				No. of species	7	9	25	19	18	6	8
				No. of individuals (ind.)	817	564	5,240	4,605	2,371		
				Biomass (gWWt)	70.9	9.4	1,374.9	1,086.5	579.8		
				No. of samples (15x15 cm)	14	13	16	12	14		

**Supplementary Table S5.** Similarity percentage (SIMPER) results showing the average abundance, the average dissimilarity, the percentage contribution of each species to the dissimilarity among the vessel community groups, the percentage cumulative dissimilarity, and the average dissimilarity of the groups (Group A: Isabu, Group B: Onnuri, Group C: Jangmok 1, Group D: Eardo and Jangmok 2).

Species	Av. Abund.	Av. Abund.	Av. Diss.	Contrib. %	Cum. %	Group Av. Diss. %
	Group A	Group B				
<i>Amphibalanus improvisus</i>	0.0	4.0	12.9	18.6	18.6	69.0
<i>Balanus trigonus</i>	0.0	2.7	8.6	12.5	31.1	
<i>Conchoderma auritum</i>	2.0	0.0	6.3	9.1	40.3	
	Group A	Group C				
<i>Amphibalanus improvisus</i>	0.0	4.8	9.4	12.5	12.5	
<i>Balanus trigonus</i>	0.0	4.4	8.6	11.4	23.9	75.5
<i>Magallana gigas</i>	0.0	2.7	5.2	6.8	30.7	
<i>Amphibalanus amphitrite</i>	5.3	7.7	4.7	6.2	36.9	
	Group A	Group D				
<i>Balanus trigonus</i>	0.0	6.4	11.1	12.3	12.3	
<i>Magallana gigas</i>	0.0	4.2	7.3	8.1	20.3	90.6
<i>Hydrodoides ezoensis</i>	0.0	3.9	7.0	7.7	28.1	
<i>Amphibalanus amphitrite</i>	5.3	3.5	6.6	7.3	35.4	
<i>Mytilus galloprovincialis</i>	0.0	3.2	5.6	6.2	41.6	
	Group B	Group C				
<i>Amphibalanus amphitrite</i>	3.9	7.7	6.8	13.2	13.2	
<i>Planocera reticulata</i>	0.0	2.3	4.0	7.8	21.0	51.3
<i>Nereis multigranatha</i>	0.0	2.0	3.5	6.7	27.8	
<i>Cirolana koreana</i>	0.0	1.9	3.3	6.4	34.1	
<i>Balanus trigonus</i>	2.7	4.4	3.0	5.9	40.0	
	Group B	Group D				
<i>Balanus trigonus</i>	2.7	6.4	5.8	8.9	8.9	64.8
<i>Amphibalanus amphitrite</i>	3.9	3.5	5.7	8.8	17.7	
<i>Amphibalanus improvisus</i>	4.0	0.8	5.3	8.1	25.9	
	Group C	Group D				
<i>Amphibalanus amphitrite</i>	7.7	3.5	5.5	8.9	8.9	
<i>Amphibalanus improvisus</i>	4.8	0.8	4.9	8.0	16.9	61.6
<i>Hydrodoides ezoensis</i>	0.0	3.9	4.8	7.7	24.6	
<i>Mytilus galloprovincialis</i>	0.0	3.2	3.8	6.2	30.9	

**Supplementary Table S6.** One-way ANOSIM pairwise tests for differences between vessel groups for hull-fouling macroinvertebrates (Global R = 0.532, p < 0.001).

Vessel clusters	R statistic	Significance level (p)	Possible permutations	Actual permutations	Number ≥ Observed
Isabu vs. Onnuri	0.34	0.029	35	35	1
Isabu vs. Eardo	0.35	0.057	35	35	2
Isabu vs. Jangmok 1	1.00	0.029	35	35	1
Isabu vs. Jangmok 2	1.00	0.029	35	35	1
Onnuri vs. Eardo	0.08	0.229	35	35	8
Onnuri vs. Jangmok 1	0.32	0.029	35	35	1
Onnuri vs. Jangmok 2	0.39	0.029	35	35	1
Eardo vs. Jangmok 1	0.46	0.029	35	35	1
Eardo vs. Jangmok 2	0.64	0.029	35	35	1
Jangmok 1 vs. Jangmok 2	1.00	0.029	35	35	1

**Supplementary Table S7.** Spearman rank correlation (q) of the variables of the biological indices and operating conditions of vessels (Abbreviations: TODs, total operation days; TADs, total anchoring days; CODs, coastal operation days; OODs, ocean operation days).

Variables	No. of species	No. of individuals	Biomass	H'	J'	TOD	TAD	COD
No. of species								
No. of individuals (ind./m <sup>2</sup> )	0.760***							
Biomass (gWWt./m <sup>2</sup> )	0.755***	0.755***						
H'(loge), Diversity index	0.742***	NS	0.48*					
J', Evenness index	NS	NS	NS	0.82***				
Total operation days (TODs)	NS	NS	NS	-0.625**	-0.576**			
Total anchoring days (TADs)	NS	NS	NS	0.625**	0.576**	-1***		
Coastal operation days (CODs)	0.668**	0.658**	0.686**	0.507*	NS	-0.671**	0.671**	
Ocean operation days (OODs)	-0.668**	-0.658**	-0.686**	-0.507*	NS	0.671**	-0.671**	-1***

Significance level alpha = 0.05 (\*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001, NS: non-significant)

**Supplementary Appendix S1.** Hull-fouling macroinvertebrate specimens identified to species on the Isabu research vessel.

Taxa	Species name / Sector	upper-1	upper-2	upper-3	middle-1	middle-2	middle-3	bottom-1	bottom-2	bottom-3	bottom-4	niche-1	niche-2	niche-3	niche-4	Total
CCi	<i>Amphibalanus amphitrite</i>	85	68	59	47	92	107	74	35	25	44	115			34	785
CCi	<i>Conchoderma auritum</i>							5		1	9					15
CCi	<i>Fistulobalanus kondakovi</i>											6				6
CAm	<i>Monocorophium acherusicum</i>			1												1
CAm	<i>Caprella equilibra</i>										1					1
CAm	<i>Crassicorophium crassicorne</i>										1					1
CAm	<i>Pareurystheus anamiae</i>					1										1
	No. of species	1	1	2	1	2	1	2	1	2	4	2	0	0	1	7
	No. of individuals (ind.)	85	68	60	47	93	107	79	35	26	55	121	0	0	34	810
	Biomass (gWWt)	6.4	4.9	4.9	1.5	2.9	2.6	4.6	1.02	2.0	24.8	9.8	0	0	5.5	70.9

CCi: Crustacea Cirripedia; CAm: Amphipoda

**Supplementary Appendix S2.** Hull-fouling macroinvertebrate specimens identified to species on the Onnuri research vessel.

Taxa	Species name / Sector	upper-1	upper-2	upper-3	middle-1	middle-2	middle-3	bottom-1	bottom-2	bottom-3	bottom-4	niche-1	niche-2	niche-3	Total	
CCi	<i>Amphibalanus amphitrite</i>							80	49	87		1	1	1	219	
CCi	<i>Amphibalanus improvisus</i>							98	68	88		1	2	3	260	
CCi	<i>Balanus trigonus</i>										53				53	
APol	<i>Hydroides ezoensis</i>				1						7				8	
MBi	<i>Mytilus galloprovincialis</i>					1			2	3		2				8
MBi	<i>Magallana gigas</i>										3					3
MBi	<i>Hiatella arctica</i>										2					2
CAm	<i>Monocorophium acherusicum</i>										1					1
CAm	<i>Eriichthionus pugnax</i>										1					1
	No. of species	0	0	0	2	0	0	3	3	2	7	2	2	2	9	
	No. of individuals (ind.)	0	0	0	2	0	0	180	120	175	69	2	3	4	555	
	Biomass (gWWt)	0	0	0	0.01	0	0	0.7	0.4	0.7	7.6	0.008	0.02	0.01	9.4	

CCi: Crustacea Cirripedia; MBi: Mollusca Bivalvia; APol: Annelida Polychaeta; CAm: Amphipoda

**Supplementary Appendix S3.** Hull-fouling macroinvertebrate specimens identified to species on the Eardo research vessel.

Taxa	Species name / Sector	upper-1	upper-2	upper-3	upper-4	middle-1	middle-2	middle-3	middle-4	bottom-1	bottom-2	bottom-3	niche-1	niche-2	niche-3	niche-4	niche-5	Total
CCi	<i>Amphibalanus amphitrite</i>	208	114	303		302	647	567		46	118	162						2,467
CCi	<i>Balanus trigonus</i>												75	355	323	115	1070	1,938
MBi	<i>Magallana gigas</i>			1									73	88	38	101	91	392
MBi	<i>Mytilus galloprovincialis</i>	2	3	10									1	1		75	34	126
CAm	<i>Jassa slatteryi</i>				94		1		1				1	1			1	99
APol	<i>Hydrodoides ezoensis</i>				1								7	13	6	10	33	70
CTu	<i>Pyura</i> sp.														1		31	32
CTa	<i>Zeuxo</i> sp.	8		11	4	2									1			26
CAm	<i>Apocorophium acutum</i>	1	1			3	1						1	2	1	1		11
CIs	<i>Cirolana koreana</i>	1		6													3	10
CTu	<i>Styela clava</i>													1		1	7	9
APol	<i>Nereis multigranata</i>		1										4			4		9
CCi	<i>Amphibalanus improvisus</i>									2			2			3		7
CAm	<i>Monocorophium acherusicum</i>			2												2		4
MBi	<i>Musculus senhousia</i>			1												2		3
CAm	<i>Erithonius pugnax</i>					2												2
Plat	<i>Planocera reticulata</i>													1	1			2
MBi	<i>Hiatella arctica</i>														1		1	
APol	<i>Eteone longa</i>												1					1
MBi	<i>Modiolus kurilensis</i>												1					1
MGa	<i>Cheilea cepacea</i>															1		1
APol	<i>Platynereis bicanaliculata</i>	1																1
CAm	<i>Photis reinhardi</i>						1											1
CDe	<i>Philemus minutus</i>														1		1	
CAc	<i>Heteranthus</i> sp.														1		1	
	No. of species	6	4	8	2	4	4	1	1	2	1	1	9	9	7	11	11	25
	No. of individuals (ind.)	221	119	335	98	309	650	567	1	48	118	162	165	463	371	313	1275	5,215
	Biomass (gWWt)	63.8	35.6	59.9	0.1	2.4	8.1	6.5	0.001	6.2	6.2	9.6	172.6	175.0	100.3	421.4	307.3	1,374.9

CCi: Crustacea Cirripedia; CAm: Amphipoda; CIs: Isopoda; CTa: Tanaidacea; CDe: Decapoda; MBi: Mollusca Bivalvia; MGa: Gastropoda; APol: Annelida Polychaeta; Plat: Platyhelminthes; CTu: Chordata Tunicata.; CAc: Cnidaria Actiniaria

Taxa	Species name / Sector	upper-1	upper-2	upper-3	middle-1	middle-2	middle-3	bottom-1	bottom-2	bottom-3	niche-1	niche-2	niche-3	Total
CCi	<i>Amphibalanus amphitrite</i>	306	43	296		370	922	864	207		358	71	99	3,536
CCi	<i>Balanus trigonus</i>	89		7		25	55	87	99		10		9	381
CCi	<i>Amphibalanus improvisus</i>	6				51	154	105	5		61	3	163	548
MBi	<i>Magallana gigas</i>	2				2	6	7			14	2	16	49
Plat	<i>Planocera reticulata</i>					3		2			12		10	27
APol	<i>Nereis multigranata</i>				1		1	11	1				1	15
CIs	<i>Cirolana koreana</i>			1			10	1						12
CAm	<i>Marea</i> sp.			2		1	1							4
APol	<i>Syllis</i> sp.							4						4
Bry	<i>Bugulina californica</i>							1						1
CAm	<i>Monocorophium acherusicum</i>												1	1
CAm	<i>Erithonius pugnax</i>					1								1
APol	<i>Marphysa americana</i>							1						1
APol	<i>Perinereis nuntia</i>							1						1
APol	<i>Polydora</i> sp.						1							1
CAm	<i>Melita koreana</i>			1										1
CAm	<i>Melita hoshinoi</i>					1								1
CDe	<i>Hemigrapsus sinensis</i>	1												1
CIs	<i>Paranthuria japonica</i>									1				1
	No. of species	5	1	6	0	9	7	11	5	0	5	4	6	19
	No. of individuals (ind.)	404	43	308	0	455	1149	1084	313	0	455	77	298	4,586
	Biomass (gWWt)	68.3	2.7	46.1	0	63.5	183.7	167.0	24.7	0	139.6	8.1	380.0	1,086.5

CCi: Crustacea Cirripedia; CAm: Amphipoda; CIs: Isopoda; CTa: Tanaidacea; CDe: Decapoda; MBi: Mollusca Bivalvia; APol: Annelida Polychaeta; Plat: Platyhelminthes; Bry: Bryozoa.

**Supplementary Appendix S5.** Hull-fouling macroinvertebrate specimens identified to species on the Jangmok 2 research vessel.

Taxa	Species name / Sector	upper-1	upper-2	upper-3	upper-4	middle-1	middle-2	middle-3	middle-4	bottom-1	bottom-2	bottom-3	niche-1	niche-2	niche-3	Total
CCi	<i>Balanus trigonus</i>	19	27	26	91				10	465	282	162	118	93	96	1,389
APol	<i>Hydroides ezoensis</i>	10	9	1	21				4	56	211	232				544
MBi	<i>Magallana gigas</i>	39	37	39	31				3	29	5	12	21	19	16	251
MBi	<i>Mytilus galloprovincialis</i>	19	38	9	1				20			1				88
CAm	<i>Jassa slatteryi</i>	9	4	2						5	14	4				38
Bry	<i>Bugulina californica</i>	1	1	1	1				1	1	1	1	1			9
APol	<i>Nereis multicornis</i>		1	3							1	2				7
CTa	<i>Zeuxo</i> sp.	1	5													6
CAm	<i>Caprella californica</i>		1								3	1				5
CTu	<i>Styela clava</i>												3	1		4
CHy	<i>Sertulariidae unid.</i>	1	1		1											3
APol	<i>Nereis pelagica</i>			2												2
CTu	<i>Ascidia</i> sp.		1						1							2
APol	<i>Eteone longa</i>									1						1
ClIs	<i>Cirolana koreana</i>								1							1
ClIs	<i>Dynoides dentisinus</i>				1											1
CCi	<i>Lepas anatifera</i>				1											1
Bry	<i>Bugula neritina</i>								1							1
	No. of species	8	11	8	8	0	0	0	8	6	7	8	4	3	2	18
	No. of individuals (ind.)	99	125	83	148	0	0	0	41	557	517	415	143	113	112	2,353
	Biomass (gWWt)	50.0	58.1	54.4	89.3	0	0	0	29.8	44.0	32.2	27.9	69.8	71.9	52.5	579.8

CCi: Crustacea Cirripedia; CAm: Amphipoda; ClIs: Isopoda; CTa: Tanaidacea; MBi: Mollusca Bivalvia; APol: Annelida Polychaeta; CHy: Cnidaria Hydrozoa; CTu: Chordata Tunicata; Bry: Bryozoa.