

Table 3.1. Record of horseshoe crab survey at every sampling zone.

Species	Prosomal width (mm)	Substratum	GPS coordinate	Grouping
TC1 (search hour = 2 hr)				
No record				
TC2 (search hour = 2 hr)				
No record				
TC3 (search hour = 2 hr)				
No record				
ST (search hour = 2.5 hr)				
<i>Tachypleus tridentatus</i>	12.66	M	22° 17.162' N 113° 55.496' E	
<i>T. tridentatus</i>	12.2	M	22° 17.146' N 113° 55.494' E	1
<i>T. tridentatus</i>	15.49	M	22° 17.146' N 113° 55.494' E	1
<i>T. tridentatus</i>	22.19	M	22° 17.159' N 113° 55.507' E	
<i>T. tridentatus</i>	16.93	M	22° 17.160' N 113° 55.509' E	2
<i>T. tridentatus</i>	22.69	M	22° 17.160' N 113° 55.509' E	2
<i>T. tridentatus</i>	17.52	M	22° 17.159' N 113° 55.508' E	
<i>T. tridentatus</i>	17.99	M	22° 17.159' N 113° 55.509' E	
<i>T. tridentatus</i>	16.43	M	22° 17.148' N 113° 55.512' E	
<i>T. tridentatus</i>	16.58	M	22° 17.148' N 113° 55.519' E	
<i>T. tridentatus</i>	20.33	M	22° 17.140' N 113° 55.512' E	
<i>T. tridentatus</i>	16.71	M	22° 17.133' N 113° 55.510' E	
<i>Carcinoscorpius rotundicauda</i>	26.79	M	22° 17.148' N 113° 55.497' E	
<i>C. rotundicauda</i>	11.42	M	22° 17.131' N 113° 55.512' E	3
<i>C. rotundicauda</i>	19.25	M	22° 17.131' N 113° 55.512' E	3
<i>C. rotundicauda</i>	17.68	M	22° 17.131' N 113° 55.512' E	3

M = Soft mud

Individuals in a group was given the same grouping number

Table 3.2. Summary of horseshoe crab survey at every sampling zone.

	TC1	TC2	TC3	ST
Search duration (hr)				2.5
<i>Tachypleus tridentatus</i>				
no. of individuals				12
mean prosomal width (mm)				17.31
range of prosomal width (mm)				12.20 - 22.69
Search record (ind. hr ⁻¹ person ⁻¹)				2.40
	N.A.	N.A.	N.A.	
<i>Carcinoscorpius rotundicauda</i>				
no. of individuals				4
mean prosomal width (mm)				18.79
range of prosomal width (mm)				11.42 - 26.79
Search record (ind. hr ⁻¹ person ⁻¹)				0.80

ST (3 December 2012)

Tachypleus tridentatus



Carcinoscorpius rotundicauda



Figure 3.1. Examples of photographic records of horseshoe crab in the present survey

Table 3.3. Summary of seagrass beds survey at every sampling zone

Species	Estimated area (m ²)	GPS coordinate	Estimated coverage (%)	Remark
TC1 & TC2 & TC3 (search hour = 2 hr each zone)				
No record				
ST (search hour = 2.5 hr)				
<i>Halophila ovalis</i>	169.0	22° 17.209' N 113° 55.478' E -- 22° 17.218' N 113° 55.472' E	50-80	
<i>H. ovalis</i>	312.0	22° 17.208' N 113° 55.473' E -- 22° 17.191' N 113° 55.475' E	70-85	A long strand of seagrass bed nearby the seaward side of mangrove area at 2.0m above C.D.
no. of patches	2			
Total area (m²)	481.0			
Average area (m²)	240.5			



Figure 3.2. *Examples of photographic records of seagrass beds (Halophila ovalis) survey at ST (3 December 2012)*

Table 3.4. *Relative distribution (%) of types of substratum along the horizontal transect at every tidal level and sampling zone.*

Sampling zone	Tidal level	Percentage		
		Gravels and Boulders	Sands	Soft mud
TC1	H	80		20
	M	90		10
	L	40	10	50
TC2	H		30	70
	M		20	80
	L		40	60
TC3	H		70	30
	M		60	40
	L	70	30	
ST	H	60	40	
	M	50	50	
	L		50	50

H: 2.0 m above C.D.; M: 1.5 m above C.D.; L: 1.0 m above C.D.

TC1 M (16 December 2012)



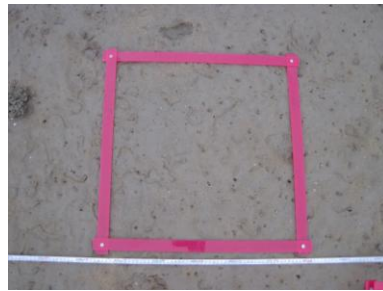
TC1 L (16 December 2012)



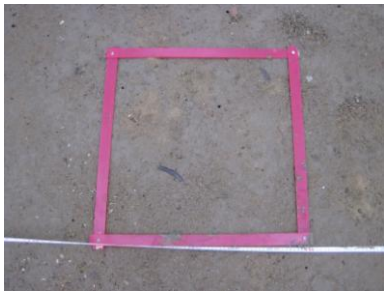
TC2 H (15 December 2012)



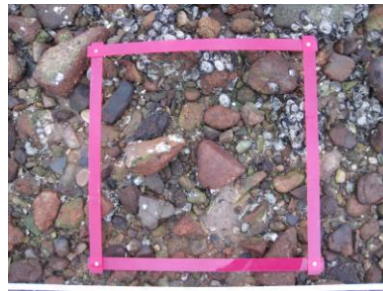
TC2 L (15 December 2012)



TC3 M (1 December 2012)



TC3 L (1 December 2012)



ST H (2 December 2012)



ST L (2 December 2012)



Figure 3.3. Examples of photographic records of quadrat for intertidal soft shore community survey (H: 2.0 m above C.D.; M: 1.5 m above C.D.; L: 1.0 m above C.D.)

Table 3.5. *Total abundance, density and total biomass of every phylum*

Phylum	Total Abundance	%	Density (ind. m⁻²)	Number of taxon
<i>Dec 2012</i>				
Mollusca	11277	95.4	376	39
Arthropoda	447	3.8	15	14
Annelida	53	0.4	2	11
Sipuncula	39	0.3	1	1
Nemertea	4	0.0	0	1
Chordata	2	0.0	0	2
Echiura	1	0.0	0	1
Total	11823			

0.0 %: Total abundance of the phylum is less than 0.1% of relative abundance.

0 ind. m⁻²: Density of the phylum is less than 1 ind. m⁻².

Table 3.6. *The number of individuals, relative abundance (percentage) and density of each phylum at every sampling zone.*

Phylum	TC1	%	Density (ind. m ⁻²)	TC2	%	Density (ind. m ⁻²)	TC3	%	Density (ind. m ⁻²)	ST	%	Density (ind. m ⁻²)
Mollusca	3835	94.7	511	1292	91.3	172	3072	96.1	410	3078	97.4	410
Arthropoda	177	4.4	24	96	6.8	13	105	3.3	14	69	2.2	9
Sipuncula	27	0.7	4	2	0.1	0	6	0.2	1	4	0.1	1
Annelida	8	0.2	1	24	1.7	3	11	0.3	1	10	0.3	1
Nemertea	2	0.0	0	1	0.1	0	1	0.0	0			
Chordata	1	0.0	0				1	0.0	0			
Echiura	1	0.0	0									
Sub-total	4051			1415			3196			3161		

0.0 %: Total abundance of the phylum is less than 0.1% of relative abundance of the sampling zone.

0 ind. m⁻²: Density of the phylum is less than 1 ind. m⁻² of the sampling zone.

Table 3.7. *The abundant species (relative abundance >10%) at every sampling zone.*

Sampling zone TC 1	Group	Species	mean density (ind. m ⁻²)	relative abundance (%)	cumulative relative abundance (%)
High	G	<i>Batillaria multiformis</i>	386	64	61
	G	<i>Monodonta labio</i>	76	13	74
Mid	G	<i>Batillaria multiformis</i>	350	52	52
	G	<i>Monodonta labio</i>	140	21	72
	Bi	<i>Saccostrea cucullata</i>	114	17	89
Low	Bi	<i>Saccostrea cucullata</i>	119	35	35
	G	<i>Lunella coronata</i>	42	12	47
	Ba	<i>Balanus amphitrite</i>	40	12	59

Ba = Barnacle, Bi = Bivalve, G = Gastropod

Table 3.7(Cont'd). *The abundant species (relative abundance >10%) at every sampling zone.*

Sampling zone TC 2	Group	Species	mean density (ind. m ⁻²)	relative abundance (%)	cumulative relative abundance (%)
High	G	<i>Cerithidea djadjariensis</i>	272	79	79
Mid	G	<i>Cerithidea djadjariensis</i>	89	58	58
	Ba	<i>Balanus amphitrite</i>	23	15	72
	G	<i>Batillaria zonalis</i>	19	12	84
Low	G	<i>Cerithidea djadjariensis</i>	22	34	34
	G	<i>Cerithidea cingulata</i>	16	25	59
	Ba	<i>Balanus amphitrite</i>	8	12	71
	G	<i>Batillaria zonalis</i>	8	12	83

Ba = Barnacle, G = Gastropod

Table 3.7(Cont'd). *The abundant species at every sampling zone.*

Sampling zone TC 3	Group	Species	mean density (ind. m ⁻²)	relative abundance (%)	cumulative relative abundance (%)
High	G	<i>Batillaria multiformis</i>	102	35	35
	G	<i>Cerithidea djadjariensis</i>	59	20	56
	G	<i>Cerithidea cingulata</i>	52	18	73
	Bi	<i>Saccostrea cucullata</i>	33	11	85
Mid	G	<i>Batillaria multiformis</i>	80	34	34
	G	<i>Cerithidea djadjariensis</i>	37	16	49
	G	<i>Cerithidea cingulata</i>	34	14	64
Low	Bi	<i>Saccostrea cucullata</i>	294	39	39
	G	<i>Batillaria multiformis</i>	194	26	65
	G	<i>Monodonta labio</i>	117	16	81

Bi = Bivalve, G = Gastropod

Table 3.7(Cont'd). *The abundant species at every sampling zone.*

Sampling zone ST	Group	Species	mean density (ind. m ⁻²)	relative abundance (%)	cumulative relative abundance (%)
High	G	<i>Batillaria multiformis</i>	474	63	63
	G	<i>Monodonta labio</i>	137	18	81
Mid	Bi	<i>Saccostrea cucullata</i>	154	40	40
	G	<i>Monodonta labio</i>	75	19	60
Low	Bi	<i>Saccostrea cucullata</i>	54	42	42
	Ba	<i>Balanus amphitrite</i>	17	13	55

Ba = Barnacle, Bi = Bivalve, G = Gastropod

Table 3.8. Mean values of number of species, density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) at every tidal level and sampling zone

Sampling zone	Tidal level	Mean number of species (spp. 0.25 m ⁻²)	Mean density (ind. m ⁻²)	mean H'	mean H' across tidal level	mean J	mean J across tidal level
TC1	H	9	600	1.12	1.45	0.52	0.64
	M	10	679	1.32		0.62	
	L	12	342	1.91		0.79	
TC2	H	6	346	0.76	0.97	0.44	0.65
	M	5	155	1.04		0.67	
	L	4	65	1.13		0.83	
TC3	H	9	291	1.40	1.61	0.70	0.71
	M	10	237	1.79		0.78	
	L	13	750	1.63		0.63	
ST	H	11	751	1.29	1.49	0.53	0.67
	M	12	384	1.73		0.70	
	L	7	130	1.45		0.78	

Figure 3.4. Temporal changes of number of species, density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean \pm SD) at every tidal level and sampling zone

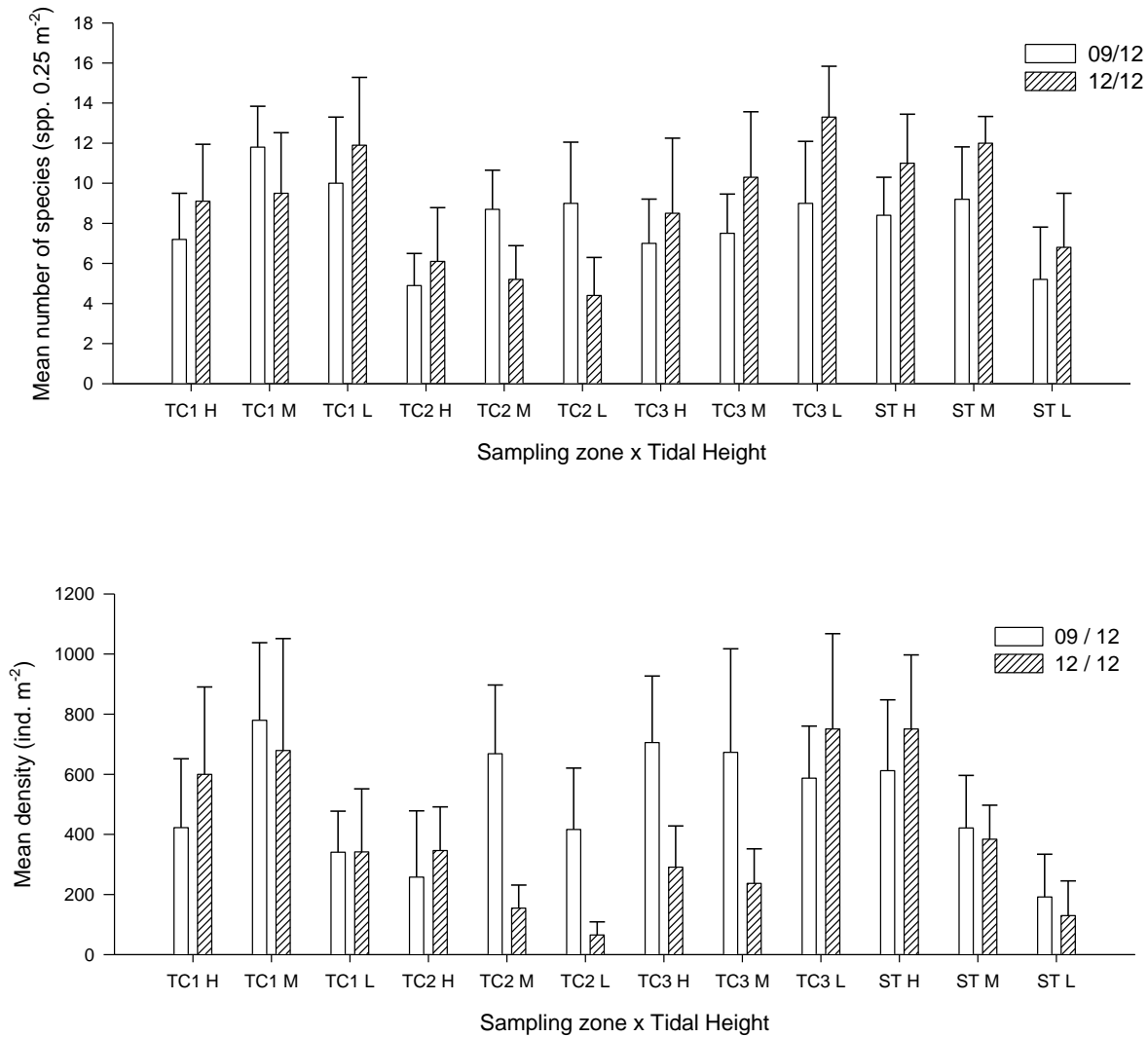
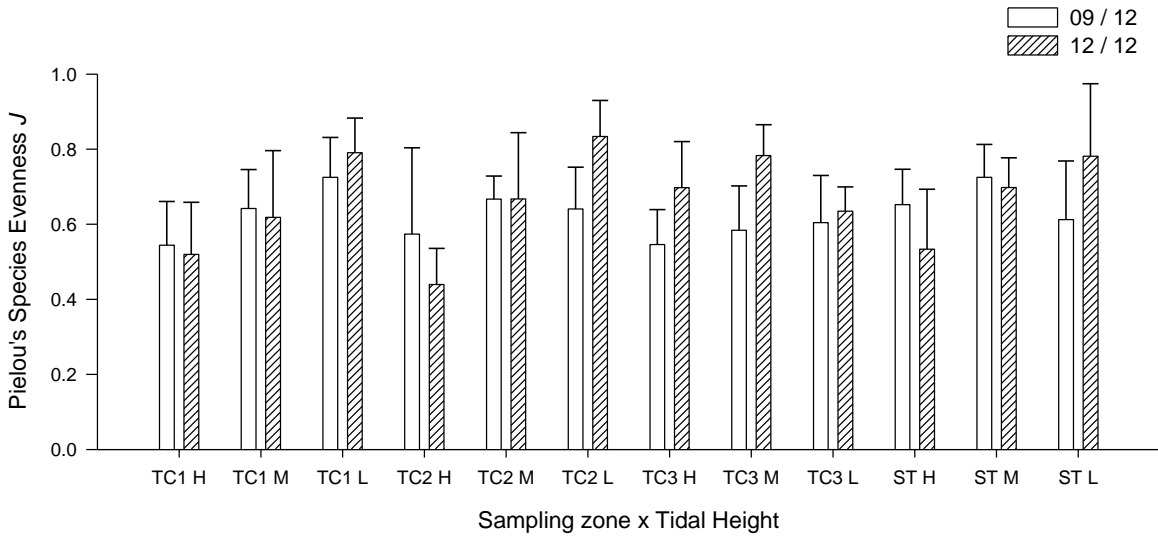
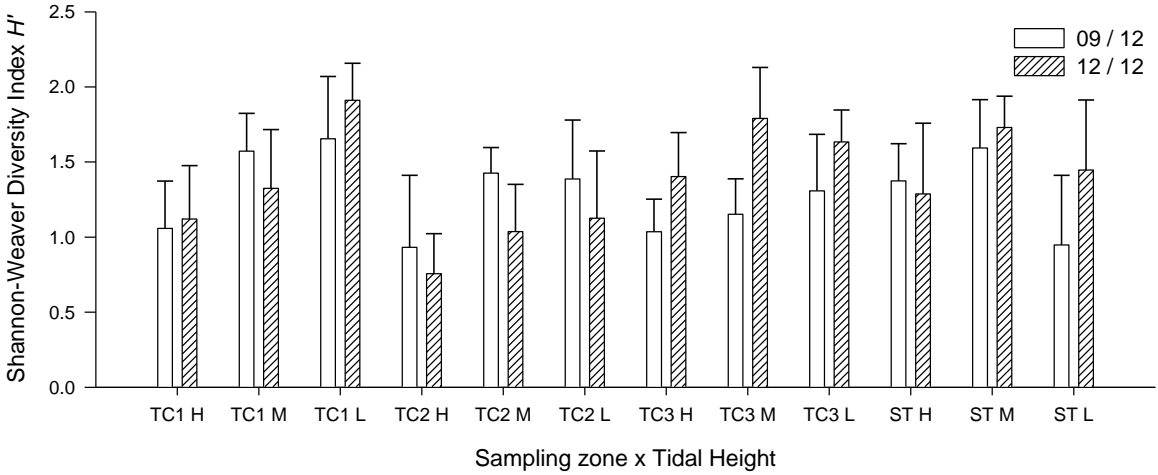
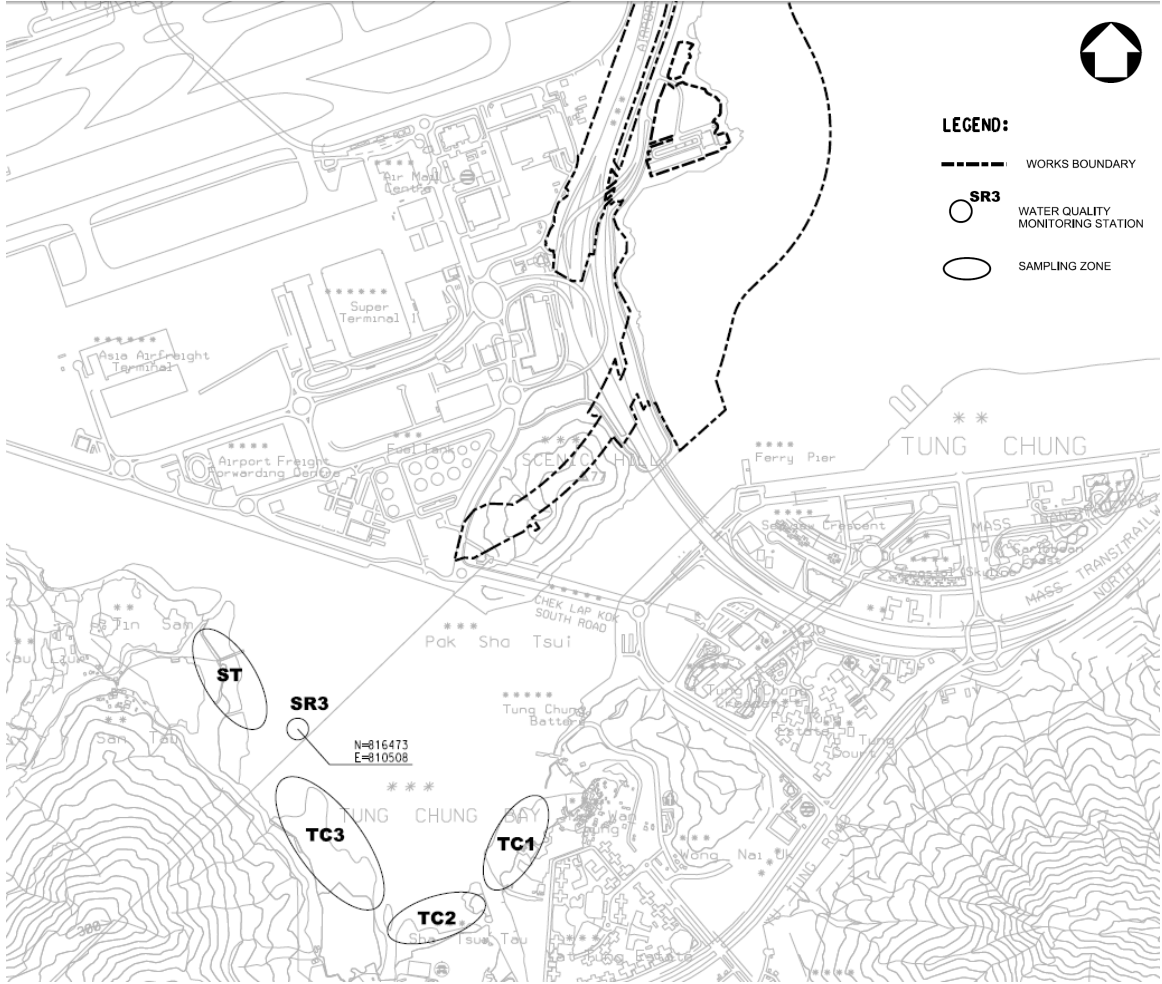


Figure 3.4 (Cont'd). Temporal changes of number of species, density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean \pm SD) at every tidal level and sampling zone



Annex I Location of sampling zones (map from ATKINS China Ltd.)



Annex II Taxonomic resolution of every recorded species

Kingdom	Phylum	Class	Order	Family	Species
Animalia	Annelida	Clitellata			Marine oligochaete spp.
Animalia	Annelida	Polychaeta	Eunicida	Eunicidae	Eunicidae spp.
Animalia	Annelida	Polychaeta	Eunicida	Onuphidae	Onuphidae spp.
Animalia	Annelida	Polychaeta	Phyllodocida	Glyceridae	Glyceridae spp.
Animalia	Annelida	Polychaeta	Phyllodocida	Goniadidae	Goniadidae spp.
Animalia	Annelida	Polychaeta	Phyllodocida	Nereididae	Nereididae spp.
Animalia	Annelida	Polychaeta	Phyllodocida	Polynoidae	Polynoidae spp.
Animalia	Annelida	Polychaeta	Sabellida	Oweniidae	Oweniidae spp.
Animalia	Annelida	Polychaeta	Terebellida	Cirratulidae	Cirratulidae spp.
Animalia	Annelida	Polychaeta		Maldanidae	Maldanidae spp.
Animalia	Annelida	Polychaeta		Opheliidae	<i>Ophelina acuminata</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Alpheidae	<i>Alpheus distinguendus</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Diogenidae	<i>Diogenes</i> sp.
Animalia	Arthropoda	Malacostraca	Decapoda	Grapsidae	<i>Metopograpsus latifrons</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Macrophthalmus erato</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Macrophthalmus</i> sp.
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Uca lactea</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Uca</i> sp.
Animalia	Arthropoda	Malacostraca	Decapoda	Ocypodidae	<i>Uca vocans</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Paguridae	<i>Pagurus dubius</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Penaeidae	<i>Penaeus</i> sp.
Animalia	Arthropoda	Malacostraca	Decapoda	Sesarmidae	<i>Nanosesarma minutum</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Gaetice depressus</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Varunidae	<i>Hemigrapsus penicillatus</i>
Animalia	Arthropoda	Maxillopoda	Sessilia	Balanidae	<i>Balanus amphitrite</i>
Animalia	Chordata	Actinopterygii	Perciformes	Blenniidae	<i>Omobranchus fasciolatoceps</i>
Animalia	Chordata	Ascidiacea			Ascidiacea spp.
Animalia	Echiura				Echiura spp.
Animalia	Mollusca	Bivalvia	Arcoida	Arcidae	<i>Barbatia signata</i>
Animalia	Mollusca	Bivalvia	Arcoida	Arcidae	<i>Barbatia virescens</i>
Animalia	Mollusca	Bivalvia	Mytiloidea	Mytilidae	<i>Xenostrobus atrata</i>
Animalia	Mollusca	Bivalvia	Ostreoida	Ostreidae	<i>Saccostrea cucullata</i>
Animalia	Mollusca	Bivalvia	Veneroidea	Corbiculidae	<i>Geloina erosa</i>

Annex II (Cont') *Taxonomic resolution of every recorded species*

Kingdom	Phylum	Class	Order	Family	Species
Animalia	Mollusca	Bivalvia	Veneroida	Mesodesmatidae	<i>Caecella chinensis</i>
Animalia	Mollusca	Bivalvia	Veneroida	Solenidae	<i>Solen canaliculatus</i>
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Anomalocardia squamosa</i>
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Cyclina sinesis</i>
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Dosinia japonica</i>
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Marcia japonica</i>
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Ruditapes philippinarum</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Batillariidae	<i>Batillaria bornii</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Batillariidae	<i>Batillaria multiformis</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Batillariidae	<i>Batillaria zonalis</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Planaxidae	<i>Planaxis sulcatus</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Cerithidea cingulata</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Cerithidea djadjariensis</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Cerithidea rhizophorarum</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Clithon oualaniensis</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Nerita albicilla</i>
Animalia	Mollusca	Gastropoda	Littorinimorpha	Littorinidae	<i>Echinolittorina radiata</i>
Animalia	Mollusca	Gastropoda	Littorinimorpha	Littorinidae	<i>Littoraria articulata</i>
Animalia	Mollusca	Gastropoda	Littorinimorpha	Littorinidae	Peasiella spp.
Animalia	Mollusca	Gastropoda	Neogastropoda	Muricidae	<i>Thais luteostoma</i>
Animalia	Mollusca	Gastropoda	Neogastropoda	Nassariidae	<i>Nassarius festivus</i>
Animalia	Mollusca	Gastropoda	Neogastropoda	Nassariidae	<i>Nassarius semiplicatus</i>
Animalia	Mollusca	Gastropoda	Neogastropoda	Nassariidae	<i>Nassarius</i> sp.
Animalia	Mollusca	Gastropoda		Lottiidae	<i>Nipponacmea concinna</i>
Animalia	Mollusca	Gastropoda		Lottiidae	<i>Patelloida pygmaea</i>
Animalia	Mollusca	Gastropoda		Lottiidae	<i>Patelloida saccharina</i>
Animalia	Mollusca	Gastropoda		Nacellidae	<i>Cellana toreuma</i>
Animalia	Mollusca	Gastropoda		Siphonariidae	<i>Siphonaria japonica</i>
Animalia	Mollusca	Gastropoda		Siphonariidae	<i>Siphonaria lacinoso</i>
Animalia	Mollusca	Gastropoda		Trochidae	<i>Gibbula affinis</i>
Animalia	Mollusca	Gastropoda		Trochidae	<i>Monodonta labio</i>
Animalia	Mollusca	Gastropoda		Turbinidae	<i>Chlorostoma argyrostoma</i>
Animalia	Mollusca	Gastropoda		Turbinidae	<i>Lunella coronata</i>
Animalia	Mollusca	Polyplacophora	Chitonida	Ischnochitonidae	<i>Lepidozona</i> sp.

Annex II (Cont') *Taxonomic resolution of every recorded species*

Kingdom	Phylum	Class	Order	Family	Species
Animalia	Nemertea				Nemertea spp.
Animalia	Sipuncula	Sipunculidea	Golfingiida	Sipunculidae	<i>Sipunculus nudus</i>

Annex III (Cont'd) *List of recorded fauna at every sampling zone*

Dec 2012		Sampling zone TC 1		High tidal level (2.0 m above C.D.)																					
				1		2		3		4		5		6		7		8		9		10		sub-total	
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C		
G	<i>Lunella coronata</i>	1		2		2		2		1		2										2		12	
G	<i>Monodonta labio</i>	27		49		11		15		31		4		40								14		191	
G	<i>Nassarius festivus</i>															1		2						3	
G	<i>Nerita albicilla</i>			2		2				6		1										2		13	
G	<i>Nipponacmea concinna</i>							1						1										2	
G	<i>Patelloida pygmaea</i>													1										1	
Hc	<i>Pagurus dubius</i>			1																				1	
Ol	Marine oligochaete spp.	1						1																2	
Sp	<i>Sipunculus nudus</i>																			1				1	
																						Total		1500	

Annex III (Cont'd) List of recorded fauna at every sampling zone

Dec 2012		Sampling zone TC 1		Mid tidal level (1.5 m above C.D.)																			
Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total	
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C		
Ba	<i>Balanus amphitrite</i>	3												1								4	
Bi	<i>Barbatia signata</i>	1				1																2	
Bi	<i>Barbatia virescens</i>					1		2		3												6	
Bi	<i>Ruditapes philippinarum</i>											1										1	
Bi	<i>Saccostrea cucullata</i>	102		50		35		7		23		1		9		28		29				284	
Bi	<i>Xenostrobus atrata</i>	5								4		2		2		12						25	
C	<i>Hemigrapsus penicillatus</i>	3		1		2		7		1		1		2		4		4				25	
C	<i>Metopograpsus latifrons</i>					1																1	
C	<i>Nanosesarma minutum</i>					1		1										1				3	
F	<i>Omobranchus fasciolatoceps</i>					1																1	
G	<i>Batillaria multiformis</i>	9		89		59		35		25		283		133		153		89				875	
G	<i>Cellana toreuma</i>			3				4		1												8	
G	<i>Cerithidea cingulata</i>			1																		1	
G	<i>Cerithidea djadjariensis</i>	1		6				4		1										1	1	14	
G	<i>Cerithidea rhizophorarum</i>			3																		3	
G	<i>Echinolittorina radiata</i>	1																				1	
G	<i>Littoraria articulata</i>	1										9		10		2		3				25	
G	<i>Lunella coronata</i>	5		5		4		9		5		2		2				3				35	

Annex III (Cont'd) *List of recorded fauna at every sampling zone*

Dec 2012		Sampling zone TC 1		Mid tidal level (1.5 m above C.D.)																				
				1		2		3		4		5		6		7		8		9		10		sub-total
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
G	<i>Monodonta labio</i>	37		32		27		29		18		41		34		57		74						349
G	<i>Nassarius festivus</i>			1						1														2
G	<i>Nerita albicilla</i>	2				1		5		9				1		2						1		21
G	<i>Nipponacmea concinna</i>					3		1													1			5
G	<i>Patelloida saccharina</i>									1						1								2
Hc	<i>Pagurus dubius</i>									1														1
P	Maldanidae spp.																						1	1
Sp	<i>Sipunculus nudus</i>	2																						2
																						Total	1697	

Annex III (Cont'd) *List of recorded fauna at every sampling zone*

Dec 2012 Sampling zone TC 1 Low tidal level (1.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>	3		1				14		5		10		34		11		15		6		99
Bi	<i>Barbatia signata</i>											1		2				4		5		12
Bi	<i>Barbatia virescens</i>			2								1						3		4		10
Bi	<i>Caecella chinensis</i>					2																2
Bi	<i>Dosinia japonica</i>										1											1
Bi	<i>Ruditapes philippinarum</i>			9	4	1		10	2	1	1			1		1					3	33
Bi	<i>Saccostrea cucullata</i>	2		14				18		2		56		73		29		59		44		297
Bi	<i>Xenostrobus atrata</i>							6				11		17		9		10		4		57
C	<i>Hemigrapsus penicillatus</i>			1								1		7				1		4		14
C	<i>Nanosesarma minutum</i>													2		1		1		2		6
G	<i>Batillaria bornii</i>			2	1					1		2										6
G	<i>Batillaria multiformis</i>		3	32	3			1		7		7										53
G	<i>Batillaria zonalis</i>	1				4	1	1			2											9
G	<i>Cellana toreuma</i>											1										1
G	<i>Cerithidea cingulata</i>	2		1																		3
G	<i>Cerithidea djadjariensis</i>	2	3	1																		6
G	<i>Cerithidea rhizophorarum</i>			1																		1
G	<i>Chlorostoma argyrostoma</i>							2		1		3		3		1	1	10		8		29

Annex III (Cont'd) *List of recorded fauna at every sampling zone*

Dec 2012 Sampling zone TC 1 Low tidal level (1.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
G	<i>Lepidozона</i> sp.										1											1
G	<i>Littoraria articulata</i>									2	1	2		3				2		1		11
G	<i>Lunella coronata</i>	4		14				10		5		23		19		9		6		15		105
G	<i>Monodonta labio</i>			2		1		2				17								1		23
G	<i>Nassarius festivus</i>			5				11	1	3		4		1		1						26
G	<i>Nerita albicilla</i>											4		1				1		7		13
G	<i>Nipponacmea concinna</i>																			1		1
Hc	<i>Diogenes</i> sp.			1				1		1												3
Ne	Nemertea spp.											2										2
P	Cirratulidae spp.					1																1
P	Nereididae spp.					1		1														2
P	Onuphidae spp.							1			1											2
S	<i>Penaeus</i> sp.	1																				1
Sp	<i>Sipunculus nudus</i>													1		3	2	18				24
																					Total	854

Annex III (Cont'd) List of recorded fauna at every sampling zone

Dec 2012 Sampling zone TC 2 High tidal level (2.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>									5								5				10
Bi	<i>Anomalocardia squamosa</i>																		1			1
Bi	<i>Cyclina sinesis</i>	1						1														2
Bi	<i>Geloina erosa</i>			1																		1
Bi	<i>Ruditapes philippinarum</i>															1						1
Bi	<i>Saccostrea cucullata</i>	2				1				8		5				4		28				48
C	<i>Hemigrapsus penicillatus</i>			1										1				1				3
C	<i>Macrophthalmus erato</i>	1																				1
C	<i>Nanosesarma minutum</i>																	1				1
G	<i>Batillaria bornii</i>															1						1
G	<i>Batillaria multiformis</i>												1									1
G	<i>Batillaria zonalis</i>										1				1	1	2	3	3			11
G	<i>Cerithidea cingulata</i>			11		16	2	11		4		3		5		2		9		4		67
G	<i>Cerithidea djadjariensis</i>	14	1	66	1	79	2	63	3	112	8	85	3	76	4	71	6	58	3	23	3	681
G	<i>Cerithidea rhizophorarum</i>					1		4		1	1	4		3	1	2		1		2		20
G	<i>Lunella coronata</i>													1		1		2				4
G	<i>Monodonta labio</i>	1																				1
G	<i>Nassarius festivus</i>							1		2				2								5
P	Maldanidae spp.															2		2				4

Annex III (Cont'd) *List of recorded fauna at every sampling zone*

Dec 2012 Sampling zone TC 2 High tidal level (2.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Sp	<i>Sipunculus nudus</i>													2								2
																					Total	865

Annex III (Cont'd) List of recorded fauna at every sampling zone

Dec 2012 Sampling zone TC 2 Mid tidal level (1.5 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>	13								23				2		9		6		4		57
Bi	<i>Ruditapes philippinarum</i>			1				1														2
Bi	<i>Saccostrea cucullata</i>	13																		1		14
Bi	<i>Xenostrobus atrata</i>									1												1
C	<i>Macrophthalmus erato</i>	3																				3
G	<i>Batillaria multiformis</i>	1	7								1			1								10
G	<i>Batillaria zonalis</i>			2			3				2	4		12	3	9		1		9	2	47
G	<i>Cerithidea cingulata</i>	3		3		2				3						4		1				16
G	<i>Cerithidea djadjariensis</i>	16	14	18	7	46	2	7	1	19	4	4	4	8	6	15	3	17	1	27	4	223
G	<i>Cerithidea rhizophorarum</i>																	1		2		3
G	<i>Lunella coronata</i>	1																				1
G	<i>Nassarius festivus</i>				1	1					1											3
G	<i>Nassarius</i> sp.													1								1
Ne	Nemertea spp.				1																	1
P	Maldanidae spp.								1													1
P	Nereididae spp.								1													1
P	Onuphidae spp.				1														1		1	3
Total																					387	

Annex III (Cont'd) *List of recorded fauna at every sampling zone*

Dec 2012 Sampling zone TC 2 Low tidal level (1.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total	
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C		
Ba	<i>Balanus amphitrite</i>																	13		7		20	
Bi	<i>Dosinia japonica</i>										2		2				3		1		1	9	
G	<i>Batillaria zonalis</i>		1	4		6	4	1				1	1					1				19	
G	<i>Cerithidea cingulata</i>	10	1	3	2	5	9	2	1	1										3	1	3	41
G	<i>Cerithidea djadjariensis</i>	3	1	4	2	7		9		3	1	3	1					10	2	3	6	55	
G	<i>Cerithidea rhizophorarum</i>	1																				1	
G	<i>Monodonta labio</i>													1								1	
G	<i>Nassarius festivus</i>				1																	1	
OI	Marine oligochaete spp.				1																	1	
P	Eunicidae spp.																			1		1	
P	Glyceridae spp.																			1		1	
P	Goniadidae spp.																1					1	
P	Maldanidae spp.		1					1		1												3	
P	Onuphidae spp.					3		1		2												6	
P	<i>Ophelina acuminata</i>																1					1	
P	Oweniidae spp.									1												1	
S	<i>Alpheus distinguendus</i>																		1			1	
																					Total	163	

Annex III (Cont'd) *List of recorded fauna at every sampling zone*

Dec 2012 Sampling zone TC 3 High tidal level (2.0 m above C.D.)

Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
As	<i>Asciacea spp.</i>																			1		1
Ba	<i>Balanus amphitrite</i>			1										1		3		1		1		7
Bi	<i>Barbatia signata</i>	4																				4
Bi	<i>Barbatia virescens</i>	2				1																3
Bi	<i>Cyclina sinesis</i>									1							1			1		3
Bi	<i>Saccostrea cucullata</i>	67		2												7		3		3		82
Bi	<i>Xenostrobus atrata</i>	1														6		1				8
C	<i>Gaetice depressus</i>															1						1
C	<i>Uca lactea</i>			1																		1
C	<i>Uca vocans</i>												1					2	1			4
G	<i>Batillaria multiformis</i>	1		3	5	8	11		2	3	65	10	1	3	13	36	42	15	11	22	5	256
G	<i>Batillaria zonalis</i>					15	2		1	1	2						4				8	33
G	<i>Cerithidea cingulata</i>	6		6	11	1	11			1	9	21	7	10	10	3	13	1	9	2	8	129
G	<i>Cerithidea djadjariensis</i>	14			15	4	18		6	1	6	27	8	5	8	1	7	9	7	2	10	148
G	<i>Clithon oualaniensis</i>					1										1						2
G	<i>Lunella coronata</i>															1		1				2
G	<i>Monodonta labio</i>	3														3		5				11
G	<i>Nassarius festivus</i>			1								4	1					1				7

Annex III (Cont'd) *List of recorded fauna at every sampling zone*

Dec 2012		Sampling zone TC 3																				High tidal level (2.0 m above C.D.)	
Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total	
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C		
G	<i>Nassarius semiplicatus</i>											2									1	3	
G	<i>Nerita albicilla</i>	2								1				2		4					2	11	
G	<i>Nipponacmea concinna</i>	2																				2	
G	<i>Patelloida pygmaea</i>															1						1	
G	<i>Planaxis sulcatus</i>															1						1	
G	<i>Siphonaria japonica</i>	1																				1	
Hc	<i>Pagurus dubius</i>	2																				2	
Ne	Nemertea spp.															1						1	
P	Maldanidae spp.												1									1	
P	Onuphidae spp.			1																		1	
Sp	<i>Sipunculus nudus</i>	1																				1	
																					Total	727	

Annex III (Cont'd) List of recorded fauna at every sampling zone

Dec 2012		Sampling zone TC 3		Mid tidal level (1.5 m above C.D.)																			
Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total	
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C		
Ba	<i>Balanus amphitrite</i>	5		3		5		3				5										21	
Bi	<i>Anomalocardia squamosa</i>									2												2	
Bi	<i>Barbatia signata</i>	1				2																3	
Bi	<i>Barbatia virescens</i>					2						2										4	
Bi	<i>Cyclina sinesis</i>																		1			1	
Bi	<i>Dosinia japonica</i>														1	1						2	
Bi	<i>Geloina erosa</i>			1																		1	
Bi	<i>Marcia japonica</i>			1			1															2	
Bi	<i>Ruditapes philippinarum</i>			1	4	2																7	
Bi	<i>Saccostrea cucullata</i>			1		24		3		1		9		3					1			42	
Bi	<i>Xenostrobus atrata</i>					4						3										7	
C	<i>Hemigrapsus penicillatus</i>					3						1										4	
C	<i>Uca vocans</i>								1					1					1			3	
G	<i>Batillaria bornii</i>					1																1	
G	<i>Batillaria multiformis</i>		2		11	22	18	2	15	4	3	8		11	11	1	22	16	39	2	13	200	
G	<i>Batillaria zonalis</i>	4	3	1		1	1	6		3	7			3	8		4	3	1	4	3	52	
G	<i>Cerithidea cingulata</i>	1	6	2	5	3	4		9		7	2		1	6		18	1	17		3	85	
G	<i>Cerithidea djadjariensis</i>	1	12	2	4	2	6	2	18	1	10			1	1		13	1	4	4	10	92	

Annex III (Cont'd) *List of recorded fauna at every sampling zone*

Dec 2012		Sampling zone TC 3		Mid tidal level (1.5 m above C.D.)																			
		1		2		3		4		5		6		7		8		9		10		sub-total	
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C		
G	<i>Cerithidea rhizophorarum</i>													3		1							4
G	<i>Clithon oualaniensis</i>							1			1			2				4					8
G	<i>Lunella coronata</i>	1				3		1		1			3										9
G	<i>Monodonta labio</i>					11					1	1											13
G	<i>Nassarius festivus</i>	1		1								1						1	1				5
G	<i>Nassarius semiplicatus</i>									1		2											3
G	<i>Nerita albicilla</i>	1				9		2		1		2						1					16
G	<i>Patelloida pygmaea</i>											1											1
P	Maldanidae spp.										1			1			1						3
P	Polynoidae spp.						1																1
S	<i>Penaeus</i> sp.																				1		1
																					Total	593	

Annex III (Cont'd) *List of recorded fauna at every sampling zone*

Dec 2012		Sampling zone TC 3																				Low tidal level (1.0 m above C.D.)	
Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total	
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C		
Ba	<i>Balanus amphitrite</i>	1		5		4		7		1								3		3		24	
Bi	<i>Barbatia signata</i>					2		6		4		10		1				1				24	
Bi	<i>Barbatia virescens</i>							2		3				2				2				9	
Bi	<i>Cyclina sinesis</i>												1									1	
Bi	<i>Ruditapes philippinarum</i>		2	5			4	1														12	
Bi	<i>Saccostrea cucullata</i>	25		34		38		90		63		112		119		123		113		17		734	
Bi	<i>Xenostrobus atrata</i>	1		1				11		4				7		3		18		1		46	
C	<i>Hemigrapsus penicillatus</i>	2		4		1		6		7		4				3		2				29	
C	<i>Macrophthalmus</i> sp.							1														1	
C	<i>Metopograpsus latifrons</i>											1										1	
C	<i>Nanosesarma minutum</i>					1				1		1		1				1				5	
G	<i>Batillaria bornii</i>									2												2	
G	<i>Batillaria multiformis</i>	37	7	49		19	1	25		8		28	2	43		141		78		48		486	
G	<i>Batillaria zonalis</i>	3						4		1		1	4					1				14	
G	<i>Cerithidea cingulata</i>		8		4		1	3	1				4									21	
G	<i>Cerithidea djadjariensis</i>		17	1	14		2	4	1	3			7			1		1				51	
G	<i>Clithon oualaniensis</i>							1														1	
G	<i>Lepidozona</i> sp.									2				1				2		1		6	

Annex III (Cont'd) *List of recorded fauna at every sampling zone*

Dec 2012		Sampling zone TC 3																				Low tidal level (1.0 m above C.D.)	
Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total	
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C		
G	<i>Littoraria articulata</i>													1		2		2		2		7	
G	<i>Lunella coronata</i>	1		2		5		14		17		5		4		5		4		7		64	
G	<i>Monodonta labio</i>			1		3		7		32		66		52		39		33		59		292	
G	<i>Nassarius festivus</i>															1						1	
G	<i>Nassarius semiplicatus</i>				1			2	1													4	
G	<i>Nerita albicilla</i>							2		5		5		2		2		4		1		21	
G	<i>Nipponacmea concinna</i>											3								1		4	
G	<i>Patelloida pygmaea</i>															3						3	
G	<i>Planaxis sulcatus</i>											1								1		2	
Hc	<i>Pagurus dubius</i>							1														1	
P	Maldanidae spp.		3											1	1							5	
Sp	<i>Sipunculus nudus</i>					2									3							5	
																					Total	1876	

Annex III (Cont'd) List of recorded fauna at every sampling zone

Dec 2012	Sampling zone ST	High tidal level (2.0 m above C.D.)																				sub-total
		1		2		3		4		5		6		7		8		9		10		
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>					1								1								2
Bi	<i>Barbatia signata</i>									1												1
Bi	<i>Barbatia virescens</i>															1					1	2
Bi	<i>Saccostrea cucullata</i>	6		11		10		20		24		7		6		22		18		7		131
Bi	<i>Xenostrobus atrata</i>					2		1		1				1		1		2				8
C	<i>Hemigrapsus penicillatus</i>					2				1		1		1								5
C	<i>Metopograpsus latifrons</i>											1										1
G	<i>Batillaria bornii</i>			4		4		3						8		2		1				22
G	<i>Batillaria multiformis</i>	165		146		163		226		145		80		19		55		61		124		1184
G	<i>Cellana toreuma</i>													3		11		7		2		23
G	<i>Cerithidea cingulata</i>	1		3		2		1		1				3		2		3		2		18
G	<i>Cerithidea djadjariensis</i>	1		1		1								2		3		1		4		13
G	<i>Cerithidea rhizophorarum</i>													2		2						4
G	<i>Clithon oualaniensis</i>			1												2		5				8
G	<i>Echinolittorina radiata</i>					1						1										2
G	<i>Lepidozona</i> sp.															3						3
G	<i>Lunella coronata</i>	1		5		2		4		5		4		7		11		9		10		58
G	<i>Monodonta labio</i>	22		19		46		39		38		51		19		28		39		42		343

Annex III (Cont'd) *List of recorded fauna at every sampling zone*

Dec 2012		High tidal level (2.0 m above C.D.)																				
Sampling zone ST		1		2		3		4		5		6		7		8		9		10		
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	sub-total
G	<i>Nassarius festivus</i>	2		1				3		1												7
G	<i>Nerita albicilla</i>	2				1		3		12		3				1		2				24
G	<i>Nipponacmea concinna</i>			1								2				6		3				12
G	<i>Patelloida pygmaea</i>															2		1				3
G	<i>Siphonaria laciniosa</i>	1																				1
Hc	<i>Pagurus dubius</i>					1																1
P	Polynoidae spp.											1										1
																					Total	1877

Annex III (Cont'd) *List of recorded fauna at every sampling zone*

Dec 2012	Sampling zone ST	Mid tidal level (1.5 m above C.D.)																				sub-total
		1		2		3		4		5		6		7		8		9		10		
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	
Ba	<i>Balanus amphitrite</i>													1								1
Bi	<i>Barbatia signata</i>					2		1						2		1		1		4		11
Bi	<i>Barbatia virescens</i>			2				2		1		2						1		2		10
Bi	<i>Ruditapes philippinarum</i>			1								1										2
Bi	<i>Saccostrea cucullata</i>	41		38		53		59		45		5		15		32		54		43		385
Bi	<i>Xenostrobus atrata</i>			2				1		10		1				1		7		12		34
C	<i>Hemigrapsus penicillatus</i>			8		1		1				1				1		1				13
G	<i>Batillaria bornii</i>	6		4		3		4		2		1		3		9		2		5		47
G	<i>Batillaria multiformis</i>			4				2		13		1		1		2		1		7		39
G	<i>Cellana toreuma</i>	5		1		6				3				3								18
G	<i>Cerithidea cingulata</i>	3						2						1		11						17
G	<i>Cerithidea djadjariensis</i>			1						1		1		1		22		4		13		50
G	<i>Clithon oualaniensis</i>							1														1
G	<i>Lepidozona sp.</i>																				1	1
G	<i>Lunella coronata</i>	6		16		11		15		5		1		8		9		16		6		93
G	<i>Monodonta labio</i>	28		34		35		11		19				8		8		34		10		187
G	<i>Nassarius festivus</i>															1						1
G	<i>Nassarius semiplicatus</i>	1				1				1		1						6				10

Annex III (Cont'd) *List of recorded fauna at every sampling zone*

Dec 2012		Sampling zone ST		Mid tidal level (1.5 m above C.D.)																					
				1		2		3		4		5		6		7		8		9		10			
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	sub-total	
G	<i>Nerita albicilla</i>	3		10		1		2						1		1		1						19	
G	<i>Nipponacmea concinna</i>	1																2						3	
G	<i>Patelloida pygmaea</i>	1		5		1				2								2		1				12	
G	<i>Peasiella</i> spp.															1					1			2	
G	<i>Thais luteostoma</i>															1								1	
P	Nereididae spp.											1												1	
Sp	<i>Sipunculus nudus</i>			1		1																		2	
																						Total	960		

Annex III (Cont'd) List of recorded fauna at every sampling zone

Dec 2012		Sampling zone ST																				Low tidal level (1.0 m above C.D.)	
Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total	
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C		
Ba	<i>Balanus amphitrite</i>	1				5								3		13		6		14		42	
Bi	<i>Barbatia signata</i>																			6		6	
Bi	<i>Barbatia virescens</i>																			1		1	
Bi	<i>Caecella chinensis</i>										1											1	
Bi	<i>Dosinia japonica</i>				1			1		2				1						2		7	
Bi	<i>Saccostrea cucullata</i>	12				42								4		18		13		46		135	
Bi	<i>Solen canaliculatus</i>							1					1									2	
Bi	<i>Xenostrobus atrata</i>	4														3				3		10	
C	<i>Nanosesarma minutum</i>					1										1	1					3	
C	<i>Uca</i> sp.							1														1	
G	<i>Batillaria bornii</i>	1												1	1			2	1		3	9	
G	<i>Batillaria multiformis</i>																		1		3	4	
G	<i>Batillaria zonalis</i>		1	11	1			1		3	1							1	2			21	
G	<i>Cerithidea cingulata</i>		1							1					5				2			9	
G	<i>Cerithidea djadjariensis</i>													1	3			3	8		5	20	
G	<i>Gibbula affinis</i>					3										1						4	
G	<i>Lepidozona</i> sp.															3						3	
G	<i>Lunella coronata</i>	2				1								1		6		8		9		27	

Annex III (Cont'd) *List of recorded fauna at every sampling zone*

Dec 2012		Sampling zone ST																				Low tidal level (1.0 m above C.D.)	
Gp	Taxon	1		2		3		4		5		6		7		8		9		10		sub-total	
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C		
G	<i>Nassarius festivus</i>										2											2	
G	<i>Nassarius semiplicatus</i>		1																1	3	1	6	
G	<i>Thais luteostoma</i>					1																1	
P	Maldanidae spp.				1								3									4	
P	Onuphidae spp.		1							1		2										4	
Sp	<i>Sipunculus nudus</i>																			1	1	2	
																					Total	324	