

Figure 2.1. Locations of sampling zones. The study site was divided into three sampling zones (TC1, TC2, TC3) in Tung Chung Bay and one zone in San Tau (ST) (map generated from Google Map).

TC1



TC2



TC3



ST



Figure 2.2. *Photographic record of the environment in every sampling zone. (March 2019)*

TC1



Plastic waste



Trash gill net

TC3



Boat wreckage

ST



Trash gill net and hand trolley



A tangled horseshoe crab on a trash net
(record in June 2017)

Figure 2.3. *Examples of photographic record of the big trashes found on the mudflat.*

Mating pair of *Carcinoscorpius rotundicauda* at TC2 (large individuals (>100 mm) of horseshoe crabs records were excluded from data analysis)



Large individual of *Carcinoscorpius rotundicauda* at TC2 (large individual (>100 mm) of horseshoe crabs records was excluded from data analysis)



Figure 3.1. *Examples of photographic records of horseshoe crab (March 2019)*

Table 3.1. *Summary of horseshoe crab survey in every sampling zone*

	TC1	TC2	TC3	ST
Search duration (hr)	2	2	3	3
No. of individuals	0	0	0	0
Mean prosomal width (mm)	\	\	\	\
Max..prosomal width (mm)	\	\	\	\
Min. prosomal width (mm)	\	\	\	\
Search record (ind. hr ⁻¹ person ⁻¹)	0.0	0.0	0.0	0.0

No horseshoe crab was recorded in present survey.

March 2015 - ST



June 2017 – TC2



(Female)



(Male)

June 2017 – TC3



Figure 3.2. Photographic records of mating pair of Carcinoscorpius rotundicauda

December 2017 – TC3



June 2018 – TC3



(Female)



(Male)

Figure 3.2 (Cont'd). *Photographic records of mating pair of Carcinoscorpius rotundicauda*

March 2019 – TC2



Figure 3.2 (Cont'd). *Photographic records of mating pair of Carcinoscorpius rotundicauda*

TC1



TC2



Figure 3.3. *Photographic records of newly hatched individuals of horseshoe crab (September 2018)*

Carcinoscorpius rotundicauda

June 2017



December 2017



December 2018



March 2019



Figure 3.4. *Photographic records of large individuals (>100 mm) of horseshoe crabs records were excluded from data analysis*

Tachypleus tridentatus

September 2017



Figure 3.4. (Cont'd) *Photographic records of large individuals (>100 mm) of horseshoe crabs records were excluded from data analysis*

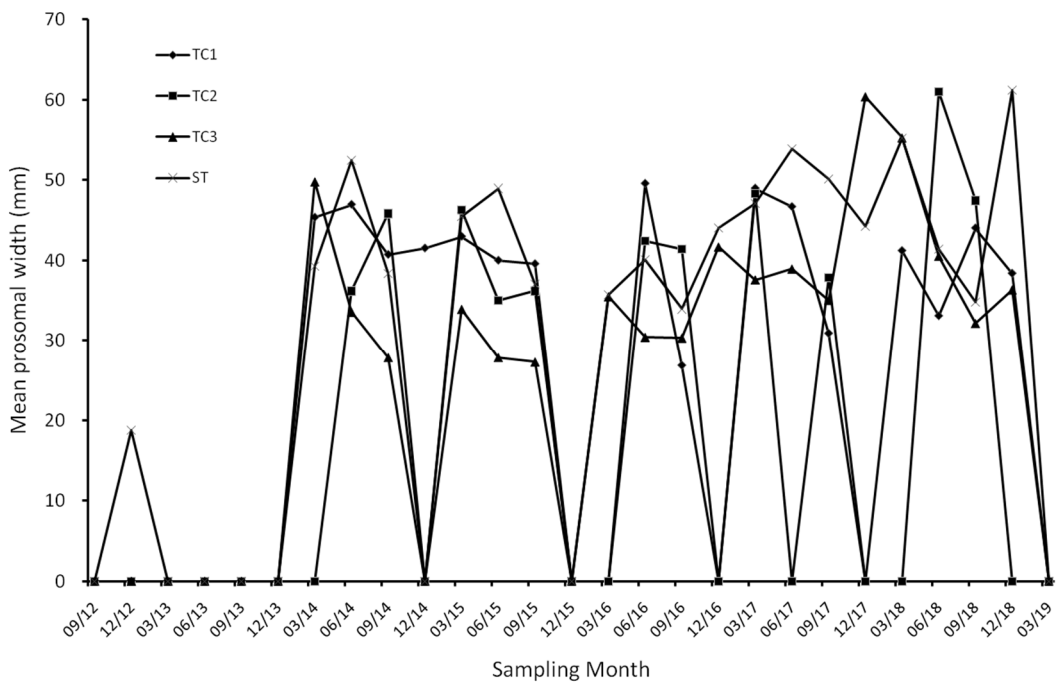
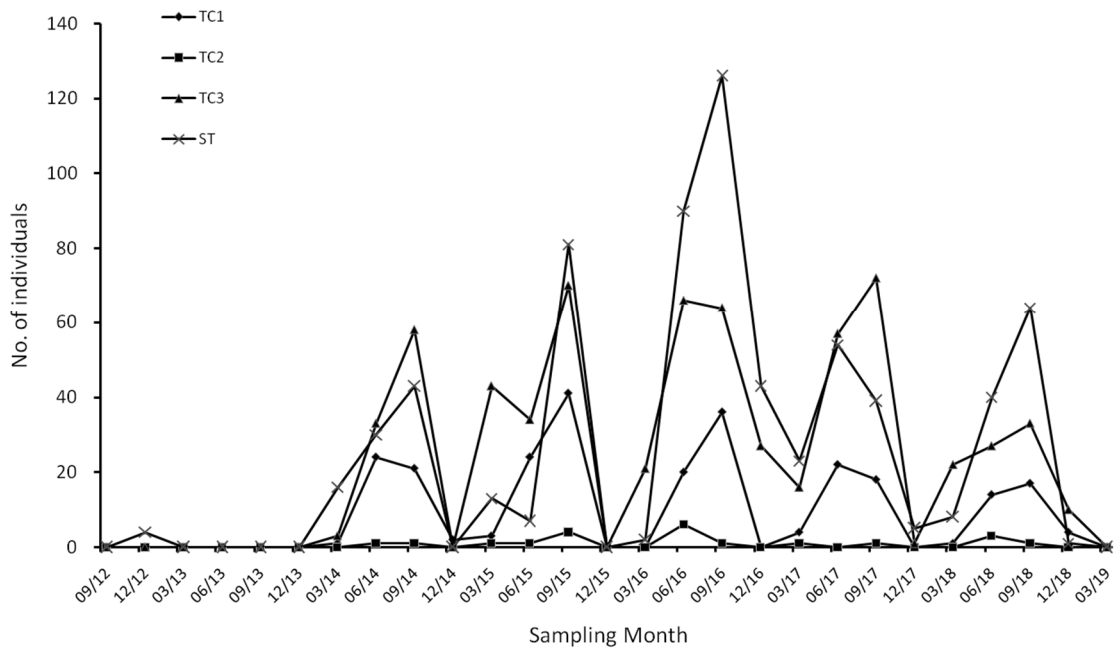


Figure 3.5. Changes of number of individuals mean prosomal width and search record of horseshoe crab *Carcinoscorpium rotundicauda* in every sampling zone along the sampling months

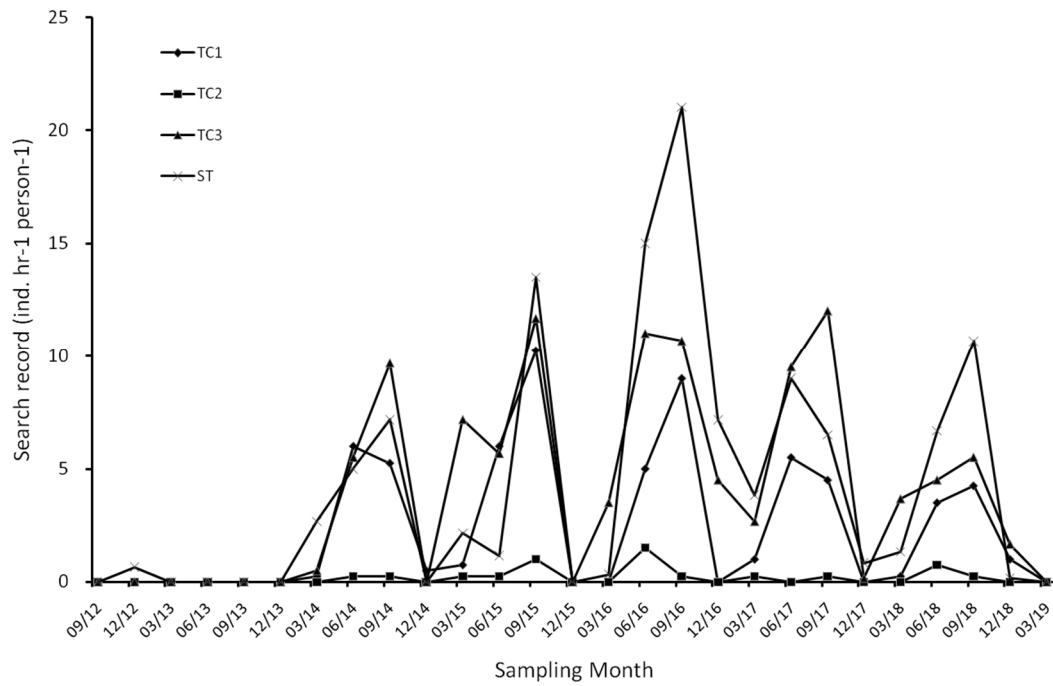


Figure 3.5 (Cont'd). Changes of number of individuals mean prosomal width and search record of horseshoe crab *Carcinoscorpius rotundicauda* in every sampling zone along the sampling months

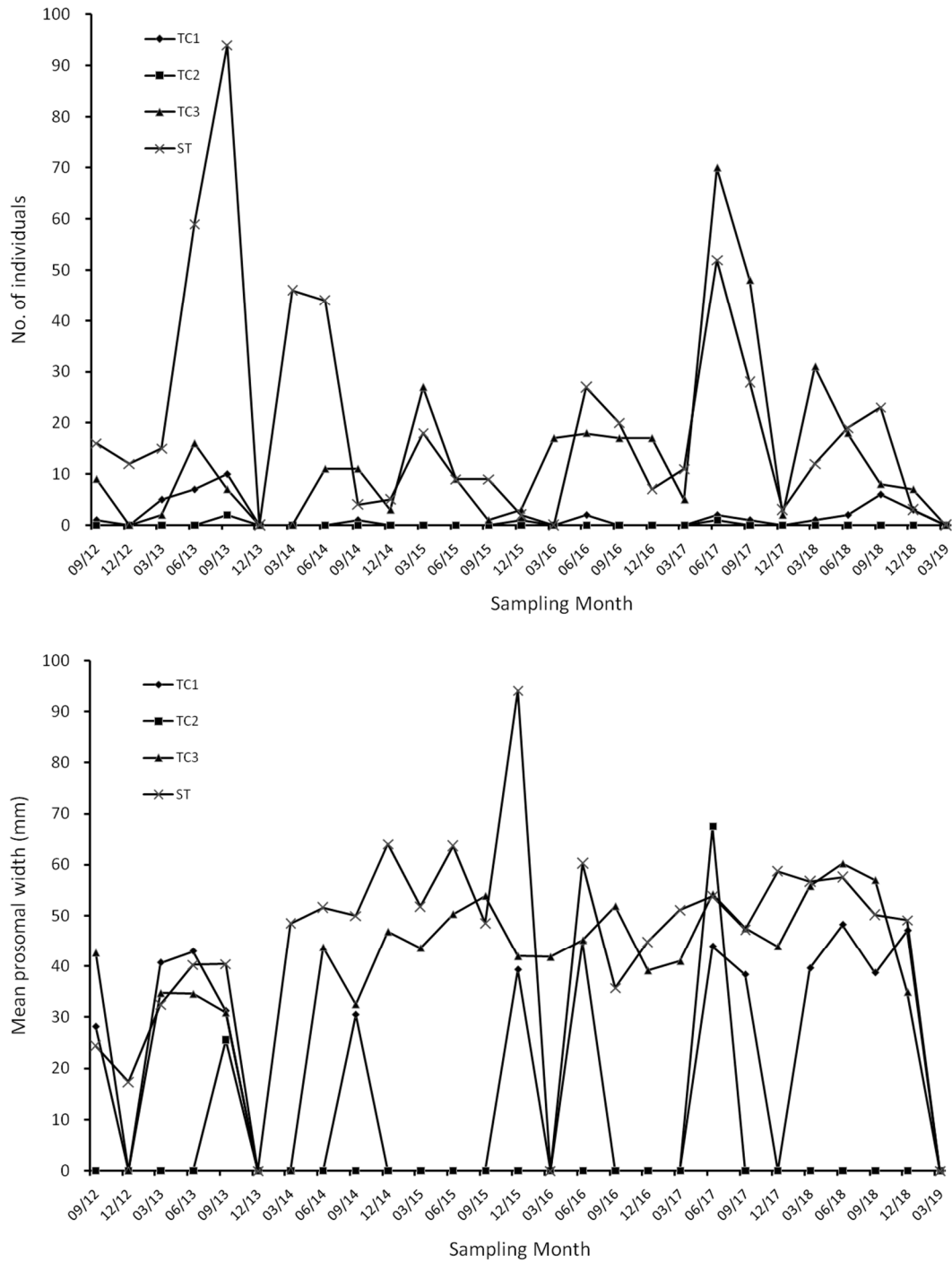


Figure 3.6. Changes of number of individuals mean prosomal width and search record of horseshoe crab *Tachypleus tridentatus* in every sampling zone along the sampling months

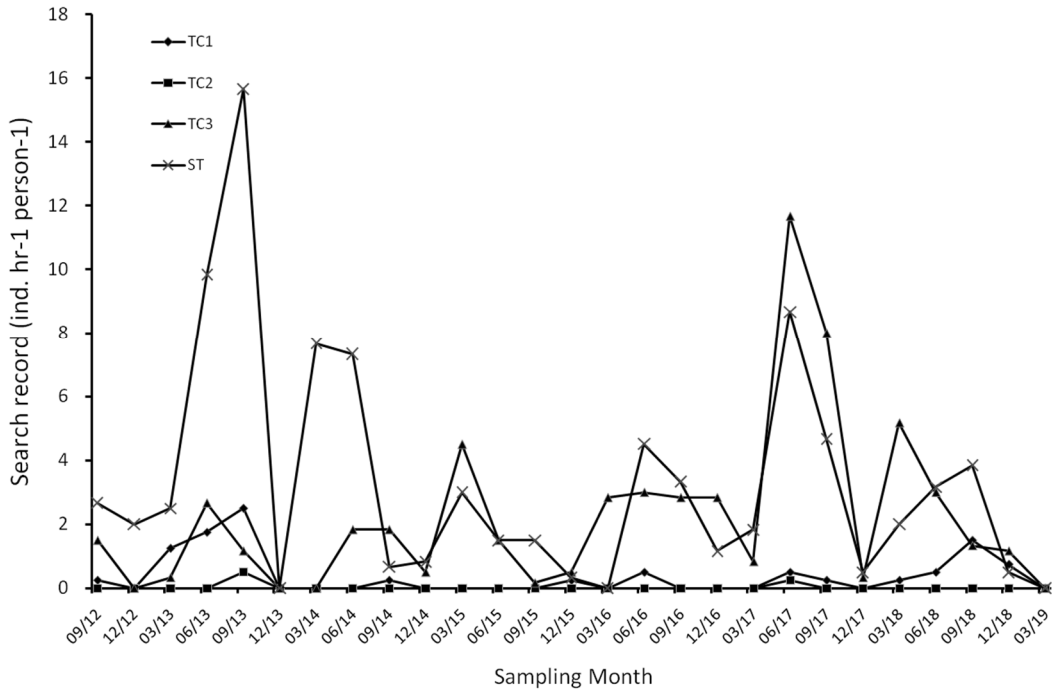


Figure 3.6 (Cont'd). Changes of number of individuals mean prosomal width and search record of horseshoe crab *Tachypleus tridentatus* in every sampling zone along the sampling months

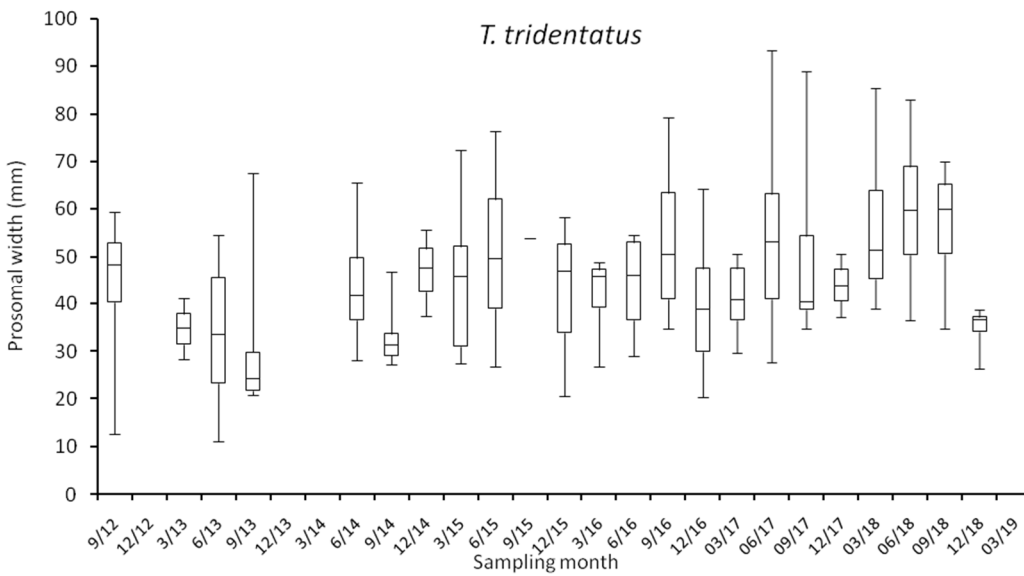
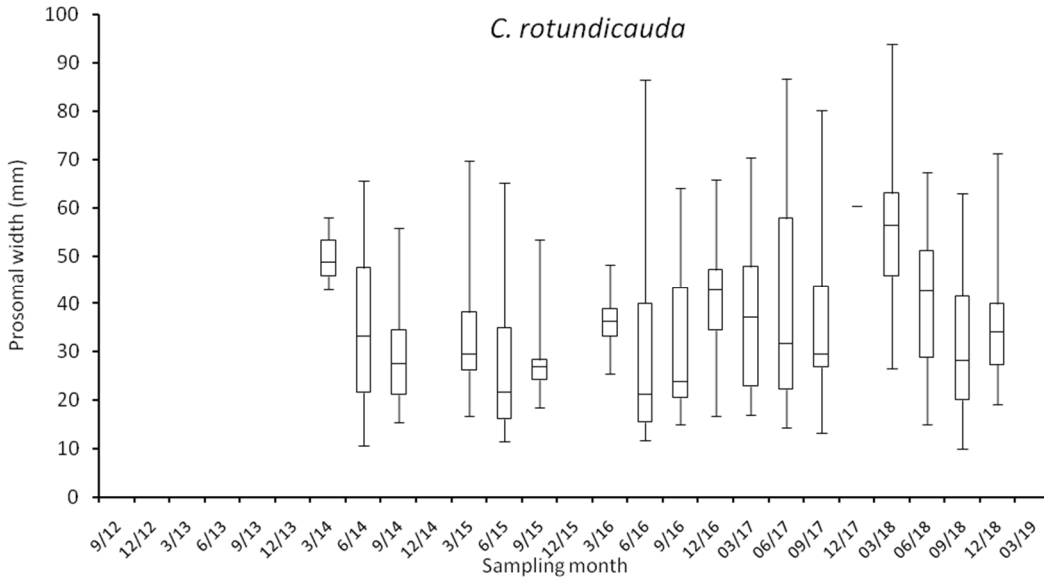


Figure 3.7. Box plot of prosomal width of horseshoe crab in the sampling zone TC3 along the sampling months. (The box represents 50% of the sample (upper to lower quartile) with a middle line showing the median value. The upper whisker and lower whisker showed the 25% of sample above upper quartile and below the lower quartile respectively)

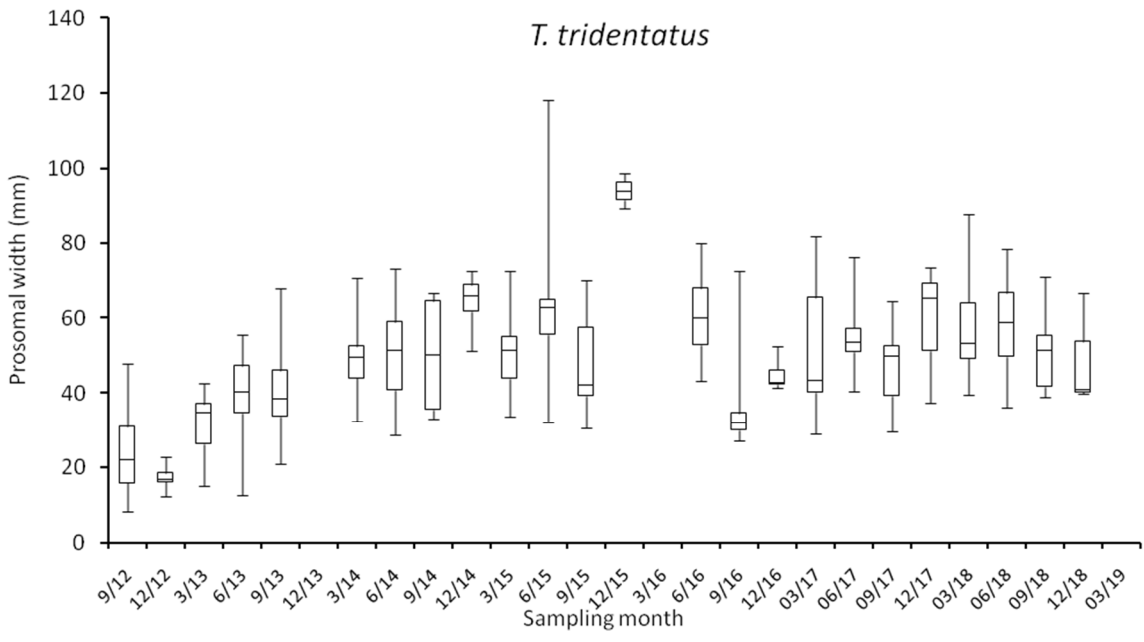
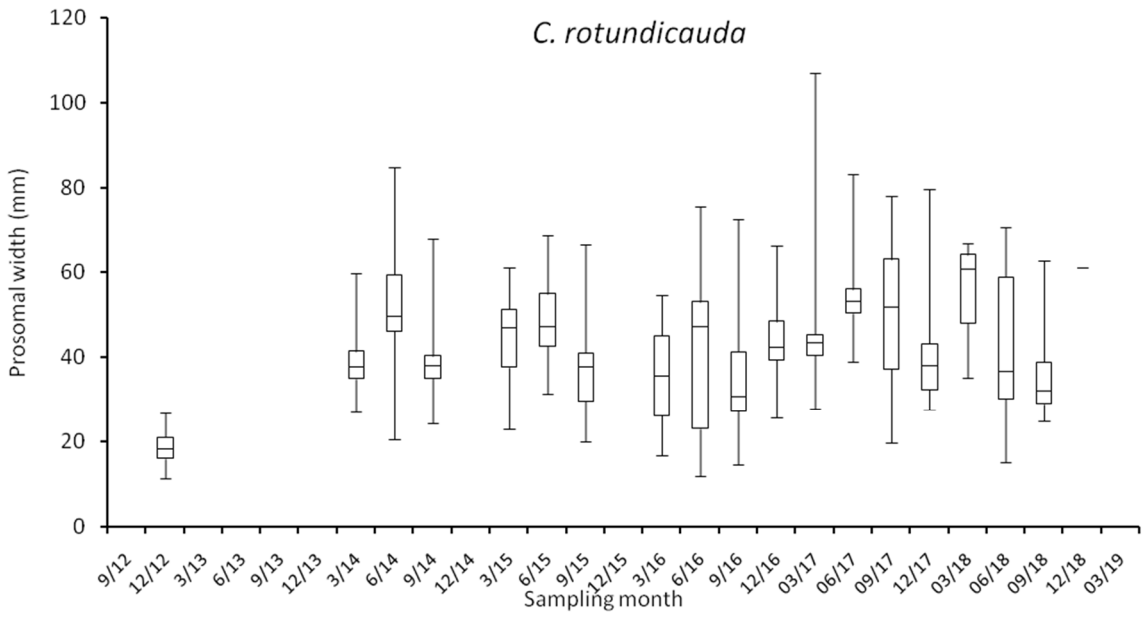


Figure 3.8. Box plot of prosomal width of horseshoe crab in the sampling zone ST along the sampling months. (The box represents 50% of the sample (upper to lower quartile) with a middle line showing the median value. The upper whisker and lower whisker showed the 25% of sample above upper quartile and below the lower quartile respectively.)

***Halophila ovalis* in ST**



The largest sized of seagrass patch in ST.



Three small sized of seagrass patch in ST (Highlighted in red).

Figure 3.9. *Photographic record of seagrass beds in present survey.*

TC3



Single patch of *Halophila ovalis*

TC3 - ST



Extensive patch of *Halophila ovalis*



ST



Medium, horizontal patch of *Zostera japonica*



Figure 3.10. Examples of photographic records of seagrass beds (record in June 2017)

Table 3.2. *Summary of seagrassbeds survey*

Sampling zone	ST <i>Halophila ovalis</i>
Number of patches	4
Total area (m²)	1003
Average area (m²)	250.75

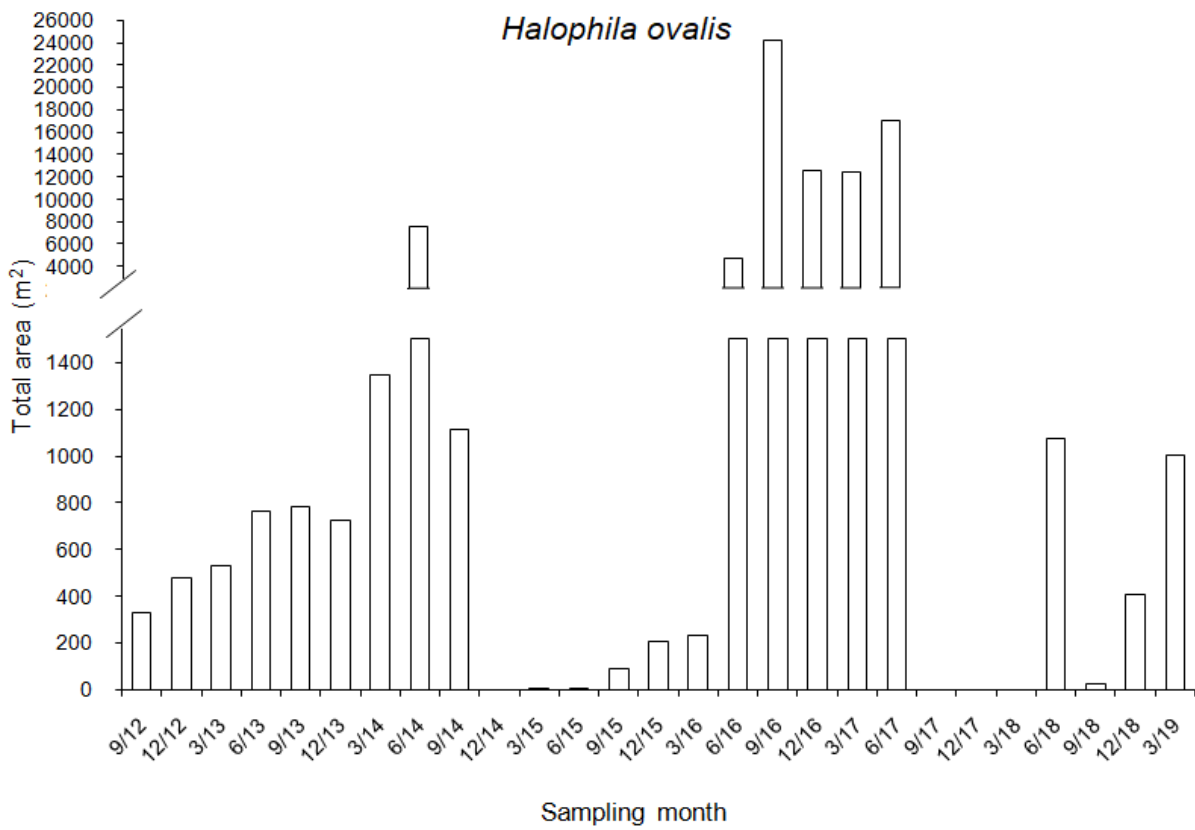
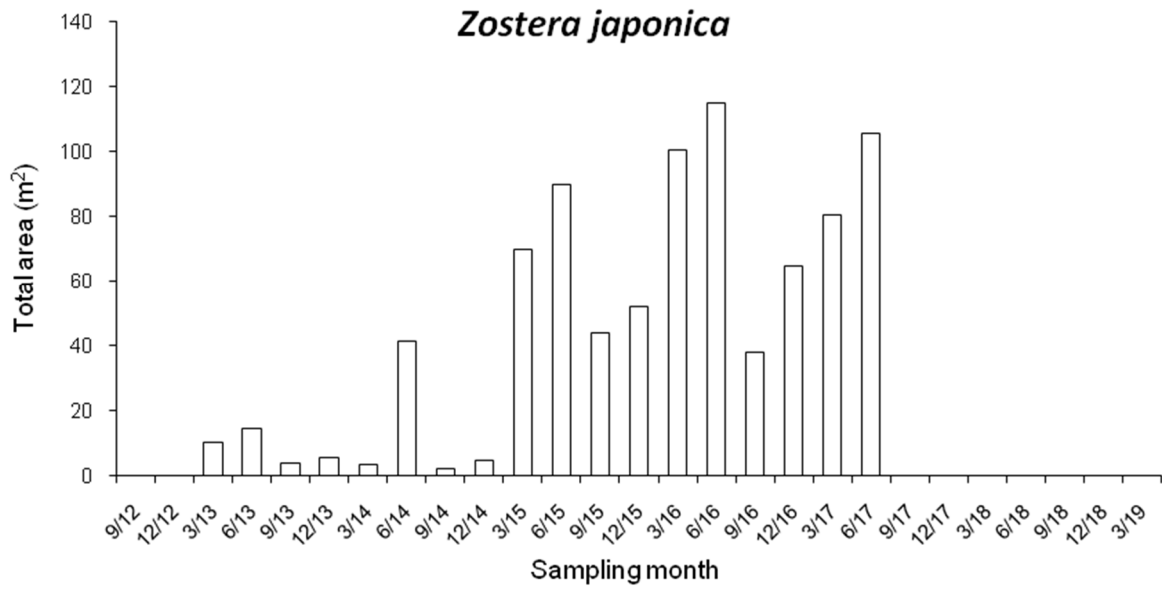


Figure 3.11. Temporal changes of estimated total area of seagrass beds in ST

June 2014



December 2014 (no seagrass)



September 2015



June 2017



September 2017-March 2018 (no seagrass)



September 2018



Figure 3.12. Comparison of pictures taken in different sampling months shows the successive disappearance and recolonization of seagrass beds. The picture of December 2018 was lacking due to night-dawn survey time.

March 2019



Figure 3.12. (Cont'd) *Comparison of pictures taken in different sampling months shows the successive disappearance and recolonization of seagrass beds. The picture of December 2018 was lacking due to night-dawn survey time.*

Table 3.3. *Relative distribution (%) of types of substratum along the horizontal transect at every tidal level and in every sampling zone.*

Sampling zone	Tidal level	Percentage		
		Gravels and Boulders	Sands	Soft mud
TC1	H	70	20	10
	M	60	40	
	L	40	20	40
TC2	H	30	50	20
	M	30	20	50
	L	20	20	60
TC3	H	10	60	30
	M		30	70
	L	80		20
ST	H	100		
	M	50	50	
	L	30	70	

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

TC1 H



TC1 L



22/3/2019

TC2 H



TC2 L



21/3/2019

TC3 M



TC3 L



21/3/2019

Figure 3.13. 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.)

ST H



ST L



21/3/2019

Figure 3.13. (Cont'd) *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 3.4. *Total abundance, density and number of taxon of every phylum*

Phylum	Total Abundance	%	Density (ind. m⁻²)	Number of Taxon
<i>March 2019</i>				
Mollusca	13903	93.9	463	47
Arthropoda	698	4.7	23	6
Annelida	128	0.9	4	9
Sipuncula	45	0.3	1	1
Nemertea	24	0.2	1	1
Cnidaria	5	0.0	0	1
Total	14803			

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 3.5. *The number of individuals, relative abundance (percentage) and density of each phylum in 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	3630	92.4	484	3037	92.9	405	4119	95.3	549	3117	94.9	416
Arthropoda	255	6.5	34	205	6.3	27	160	3.7	21	78	2.4	10
Annelida	15	0.4	2	11	0.3	1	21	0.5	3	81	2.5	11
Sipuncula	15	0.4	2	11	0.3	1	19	0.4	3	0	0.0	0
Nemertea	9	0.2	1	4	0.1	1	2	0.0	0	9	0.3	1
Cnidaria	5	0.1	1	0	0.0	0	0	0.0	0	0	0.0	0
Sub-total	3928			3268			4322			3285		

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 3.6. *The abundant species (relative abundance >10%) in every sampling zone*

Sampling zone TC1	Group	Species	Mean density (ind. m ⁻²)	Relative abundance (%)
High	Bi	<i>Saccostrea cucullata</i>	190	37
	G	<i>Monodonta labio</i>	61	12
Mid	Bi	<i>Saccostrea cucullata</i>	108	22
	G	<i>Monodonta labio</i>	74	15
	G	<i>Batillaria multiformis</i>	63	13
Low	Bi	<i>Saccostrea cucullata</i>	146	26
	G	<i>Lunella coronata</i>	81	15

Bi = Bivalve, G = Gastropod

Table 3.6(Cont'd). *The abundant species (relative abundance >10%) in every sampling zone*

Sampling zone TC2	Group	Species	Mean density (ind. m ⁻²)	Relative abundance (%)
High	G	<i>Pirenella incisa</i>	102	21
	Bi	<i>Saccostrea cucullata</i>	87	18
	G	<i>Pirenella asiatica</i>	74	16
	G	<i>Monodonta labio</i>	66	14
Mid	G	<i>Pirenella asiatica</i>	81	19
	Bi	<i>Saccostrea cucullata</i>	74	17
Low	Bi	<i>Saccostrea cucullata</i>	99	24
	G	<i>Monodonta labio</i>	42	10
Bi = Bivalve, G = Gastropod			624	

Table 3.6(Cont'd). *The abundant species (relative abundance >10%)in every sampling zone*

Sampling zone TC3	Group	Species	Mean density (ind. m ⁻²)	Relative abundance (%)
High	Bi	<i>Saccostrea cucullata</i>	111	20
	G	<i>Batillaria multiformis</i>	87	16
	G	<i>Monodonta labio</i>	55	10
Mid	Bi	<i>Saccostrea cucullata</i>	118	17
	G	<i>Batillaria zonalis</i>	111	16
	G	<i>Batillaria multiformis</i>	88	12
Low	Bi	<i>Saccostrea cucullata</i>	135	28
	G	<i>Pirenella asiatica</i>	70	15
	G	<i>Lunella coronata</i>	50	10
Bi = Bivalve, G = Gastropod			826	

Table 3.6 (Cont'd). *The abundant species (relative abundance >10%) in every sampling zone*

Sampling zone ST	Group	Species	Mean density (ind. m ⁻²)	Relative abundance (%)
High	Bi	<i>Saccostrea cucullata</i>	147	31
	G	<i>Batillaria multiformis</i>	117	24
	G	<i>Batillaria zonalis</i>	61	13
Mid	Bi	<i>Saccostrea cucullata</i>	165	30
	G	<i>Batillaria zonalis</i>	85	15
	G	<i>Pirenella incisa</i>	78	14
	G	<i>Batillaria multiformis</i>	66	12
Low	Bi	<i>Saccostrea cucullata</i>	90	32
	G	<i>Pirenella incisa</i>	50	18
Bi = Bivalve, G = Gastropod			860	

Table 3.7. Mean values of species number, density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) at every tidal level and in every sampling zone

Sampling zone	Tidal	Mean species number (spp. 0.25m ⁻²)	Mean species number across tidal levels	Mean density (ind. m ⁻²)	Mean density across tidal levels	Mean H'	Mean H' across tidal levels	Mean J	Mean J across tidal levels
TC1	H	13		521		2.0		0.8	
	M	12	12	496	524	2.0	2.0	0.8	0.8
	L	13		554		2.0		0.8	
TC2	H	7		474		1.6		0.8	
	M	8	8	421	436	1.8	1.6	0.8	0.8
	L	10		413		1.6		0.7	
TC3	H	13		541		2.0		0.8	
	M	14	12	711	572	2.1	2.0	0.8	0.8
	L	11		462		1.8		0.8	
ST	H	7		478		1.5		0.8	
	M	8	7	556	438	1.4	1.4	0.7	0.7
	L	7		279		1.5		0.8	

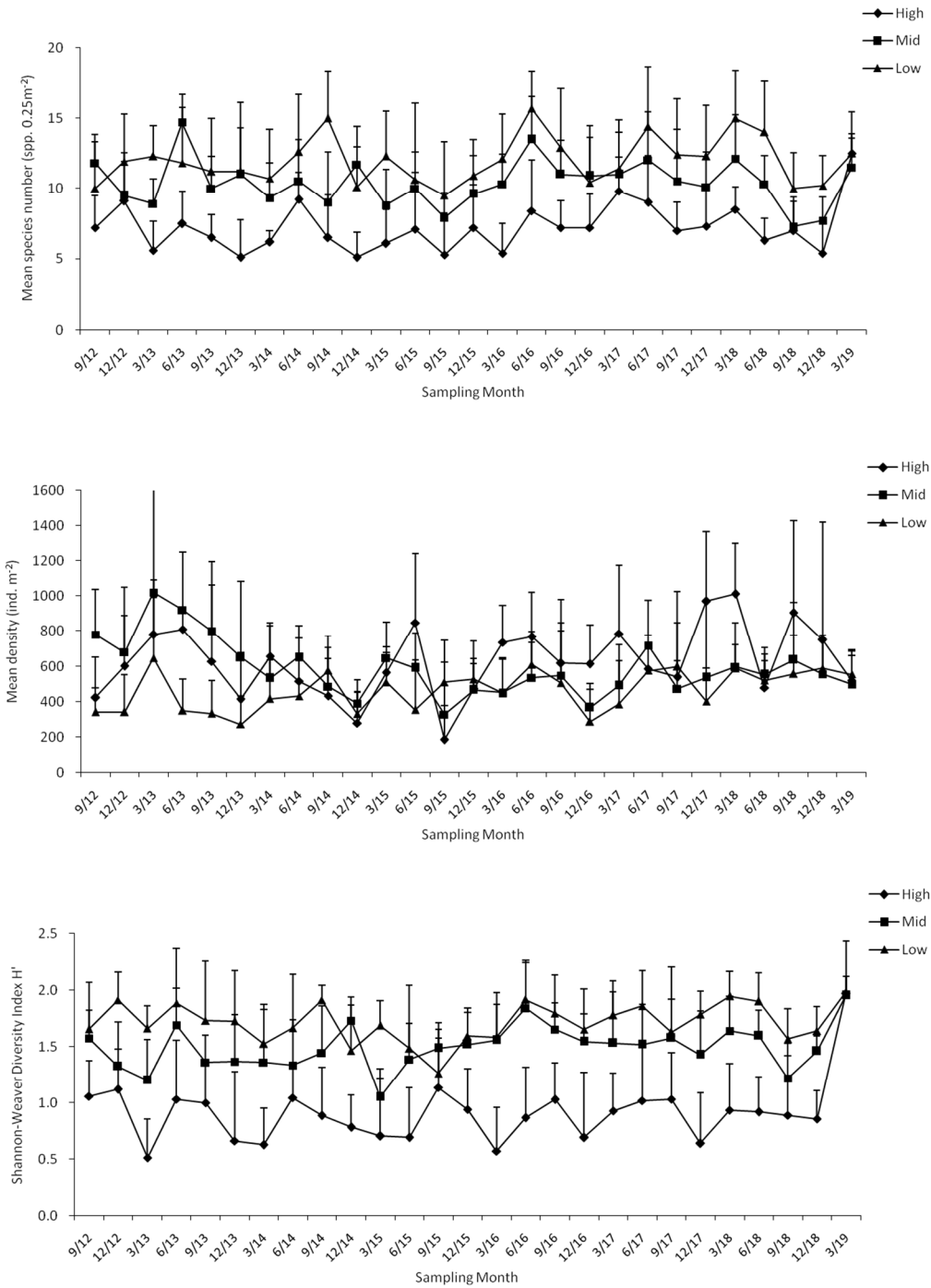


Figure 3.14. Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC1

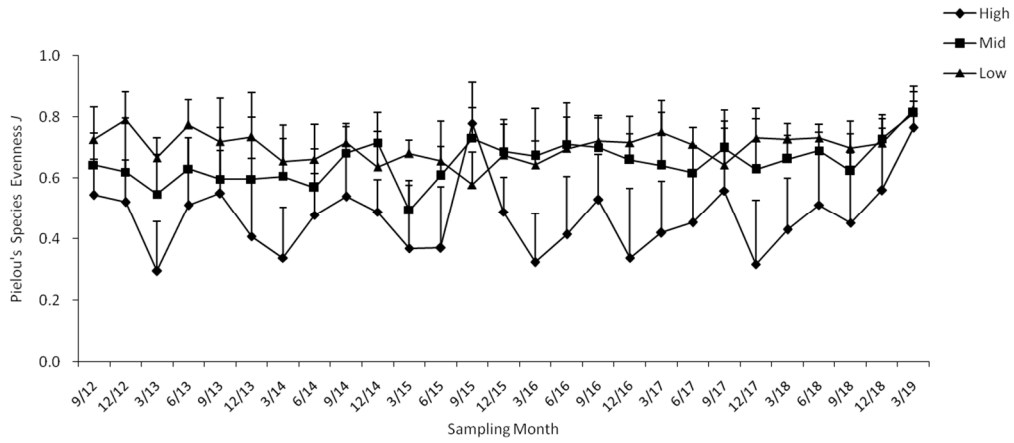


Figure 3.14 (Cont'd). Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC1

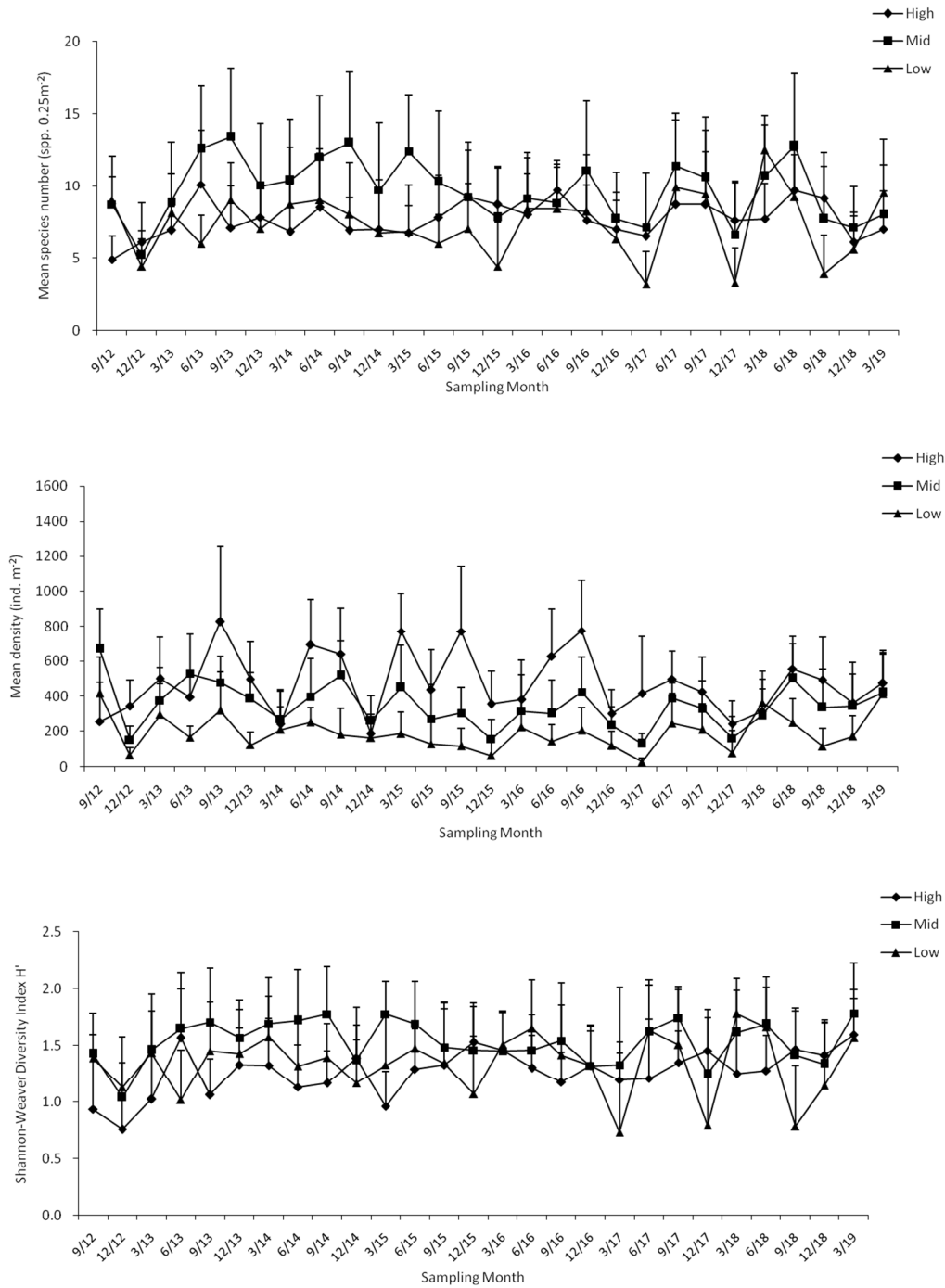


Figure 3.15. Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC2

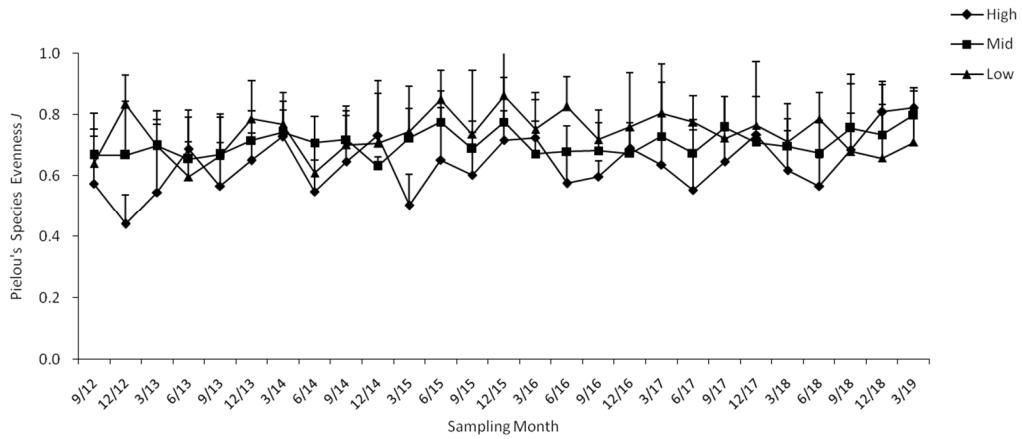


Figure 3.15 (Cont'd). Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC2

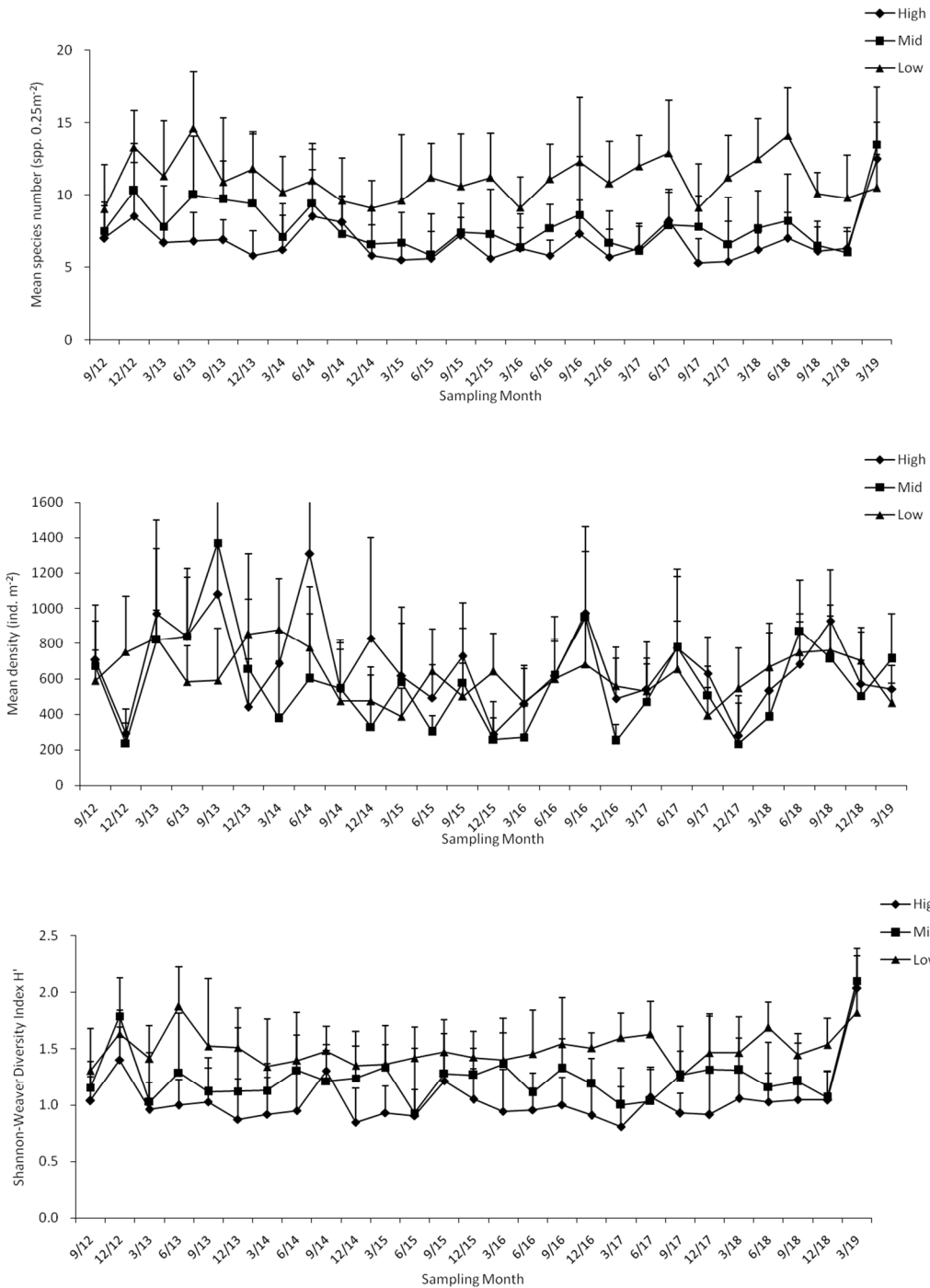


Figure 3.16. Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC3

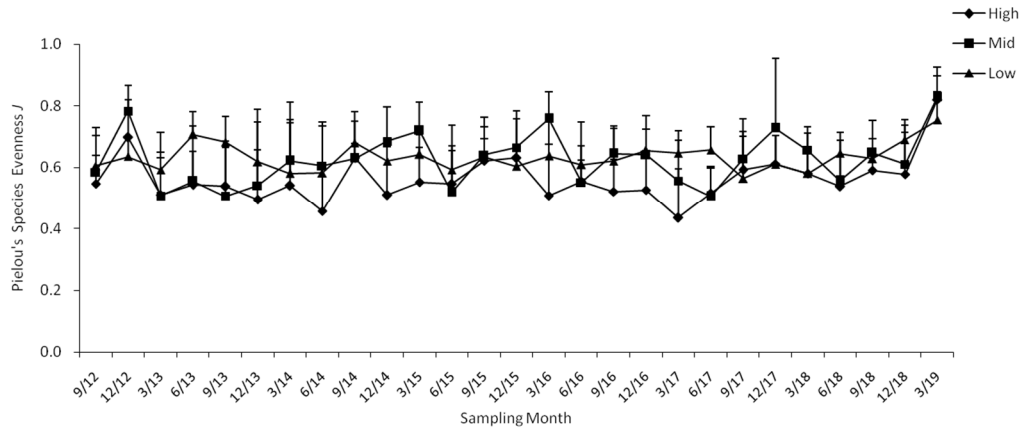


Figure 3.16 (Cont'd). Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC3

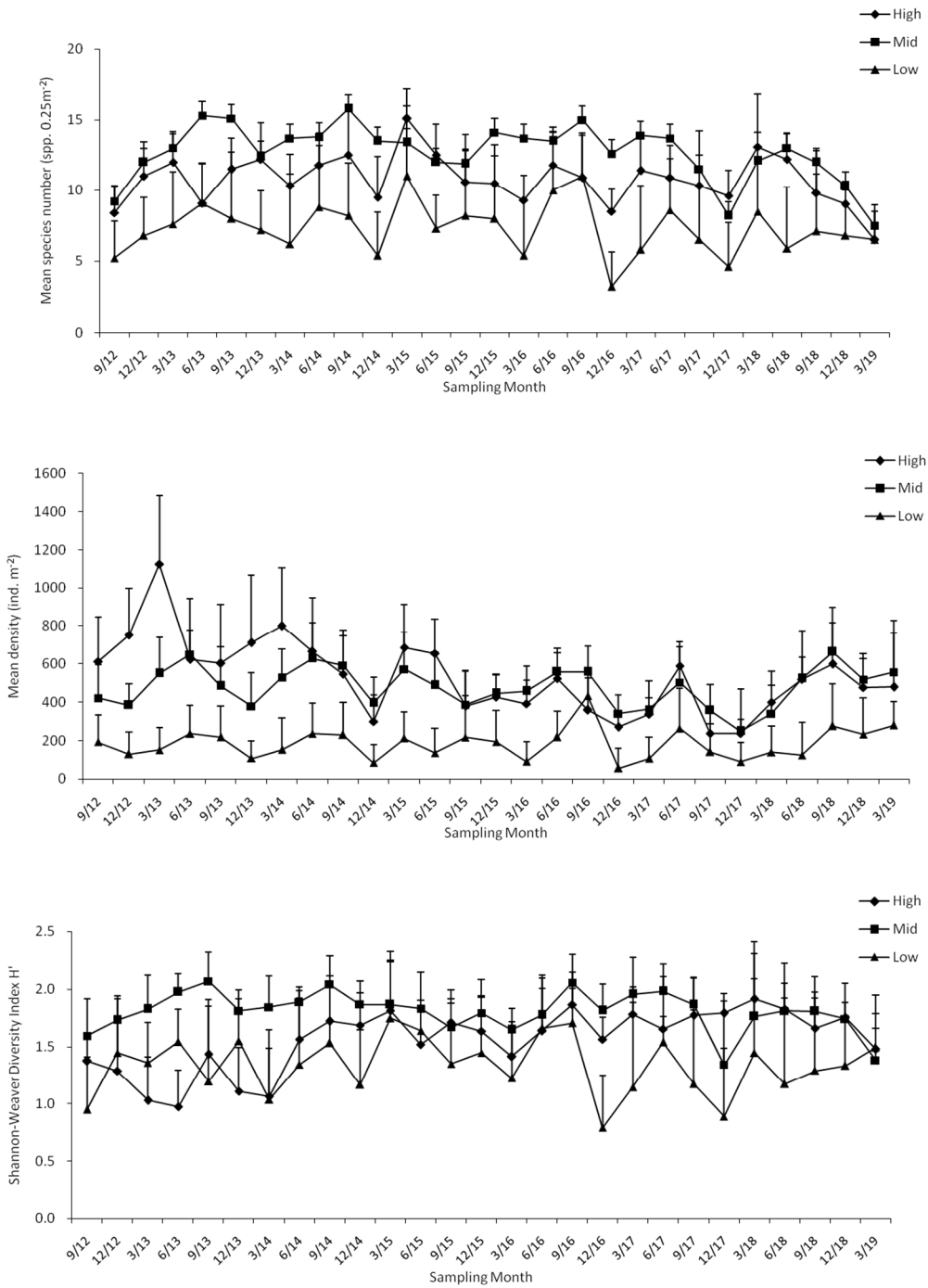


Figure 3.17. Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone ST

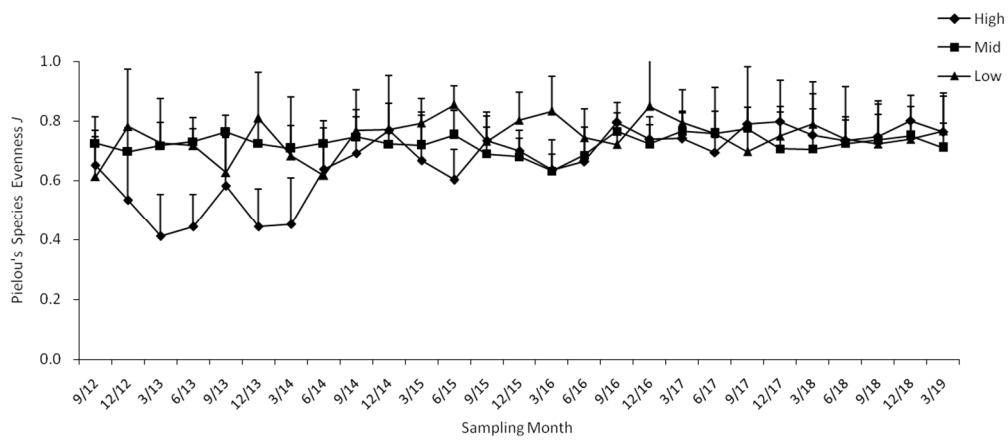


Figure 3.17(Cont'd). Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone S

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



Annex II. Record of horseshoe crab survey in every sampling zone.

No.	Sub.	GPS coordinate	Record of prosomal width (mm)	
		<u>Sampling site TC1</u> (Search hour = 2 hrs) No Record	<i>Carcinoscorpius rotundicauda</i>	<i>Tachypleus tridentatus</i>
		No. of ind.	0	0
		<u>Sampling site TC2</u> (Search hour = 2 hrs) No Record	<i>Carcinoscorpius rotundicauda</i>	<i>Tachypleus tridentatus</i>
		No. of ind.	0	0

Ind. #: number of Individuals (individuals in a group are shown at the same row)

Underlined: size of mating pair or large individual (excluded from data analysis)

Sub.: Substratum type; G = Gravel and Boulders, M = Soft mud, S = Sand

Annex II (Cont'd). Record of horseshoe crab survey in every sampling zone.

No.	Sub.	GPS coordinate	Record of prosomal width (mm)	
		<u>Sampling site TC3</u> (Search hour = 3 hrs) No Record	<i>Carcinoscorpius rotundicauda</i>	<i>Tachypleus tridentatus</i>
No. of ind.			0	0

Ind. #: number of Individuals (individuals in a group are shown at the same row)

Underlined: size of mating pair or large individual (excluded from data analysis)

Sub.: Substratum type; G = Gravel and Boulders, M = Soft mud, S = Sand

Annex II (Cont'd). Record of horseshoe crab survey in every sampling zone.

No.	Sub.	GPS coordinate	Record of prosomal width (mm)	
		<u>Sampling site ST</u> (Search hour = 3 hrs) No Record	<i>Carcinoscorpius rotundicauda</i>	<i>Tachypleus tridentatus</i>
No. of ind.			0	0

Ind. #: number of Individuals (individuals in a group are shown at the same row)

Underlined: size of mating pair or large individual (excluded from data analysis)

Sub.: Substratum type; G = Gravel and Boulders, M = Soft mud, S = Sand

Annex III. Record of seagrass beds survey in every sampling zone

Estimated area (m ²)	Estimated coverage (%)		GPS coordinate		Remark
TC1& TC2 (search hour = 2 hrs)& TC3 (search hour = 3 hrs)					
No record					
ST <i>Halophila ovalis</i> (search hour = 3 hrs)					
1	90-100	horizontal line	22°17'018"N 22°17'018"N	113°55'029"E 113°55'029"E	A horizontal strand of seagrass bed nearby the seaward side of mangrove area at tidal level 2.0 m above C.D.
1	50-60	horizontal line	22°17'018"N 22°17'018"N	113°55'029"E 113°55'029"E	A horizontal strand of seagrass bed nearby the seaward side of mangrove area at tidal level 2.0 m above C.D.
1	90-100	horizontal line	22°17'018"N 22°17'018"N	113°55'029"E 113°55'029"E	A horizontal strand of seagrass bed nearby the seaward side of mangrove area at tidal level 2.0 m above C.D.
1000	50-60	horizontal line	22°17'017"N 22°17'016"N	113°55'029"E 113°55'029"E	A horizontal strand of seagrass bed nearby the seaward side of mangrove area at tidal level 2.0 m above C.D.

Annex IV. Taxonomic resolution of every recorded species of intertidal soft shore community survey

Kingdom	Phylum	Class	Order	Family	Species
Animalia	Annelida	Polycheata	Terebellida	Ampharetidae	<i>Ampharetidae</i> spp.
Animalia	Annelida	Polycheata		Maldanidae	<i>Maldanidae</i> spp.
Animalia	Annelida	Polycheata	Phyllodocida	Nereididae	<i>Nereididae</i> spp.
Animalia	Annelida	Polychaeta		Orbiniidae	<i>Orbiniidae</i> spp.
Animalia	Annelida	Polycheata	Sabellida	Oweniidae	<i>Oweniidae</i> spp.
Animalia	Annelida	Polycheata	Sabellida	Sabellidae	<i>Sabellidae imbricatus</i>
Animalia	Annelida	Polycheata	Sabellida	Sabellidae	<i>Sabellidae</i> sp.
Animalia	Annelida	Polycheata	Terebellida	Terebellidae	<i>Terebellidae</i> spp.
Animalia	Arthropoda	Maxillopoda	Sessilia	Balanidae	<i>Balanus amphitrite</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Varuniae	<i>Hemigrapsus penicillatus</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Grapsidae	<i>Metopograpsus latifrons</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Grapsidae	<i>Metopograpsus quadridentatus</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Paguridae	<i>Pagurus dubius</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Sesarmidae	<i>Perisesarma bidens</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Sesarmidae	<i>Sabellastarte</i> spp.
Animalia	Cnidaria	Anthozoa	Actiniaria	Diadumenidae	<i>Diadumene lineata</i>
Animalia	Mollusca	Bivalvia	Arcoida	Arcidae	<i>Barbatia virescens</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Batillariidae	<i>Batillaria multiformis</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Batillariidae	<i>Batillaria sordida</i>
Animalia	Mollusca	Gastropoda	Archaeogastropoda	Nacellidae	<i>Cellana grata</i>
Animalia	Mollusca	Gastropoda	Archaeogastropoda	Nacellidae	<i>Cellana toreuma</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Cerithidea microptera</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Cerithidea moerchii</i>
Animalia	Mollusca	Gastropoda	Trochida	Tegulidae	<i>Chlorostoma argyrostoma</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Clithon faba</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Clithon oualaniensis</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Clithon retropictus</i>
Animalia	Mollusca	Gastropoda	Neotaenioglossa	Cerithiidae	<i>Clypeomorus moniliferum</i>
Animalia	Mollusca	Gastropoda	Neogastropoda	Muricidae	<i>Cronia margariticola</i>
Animalia	Mollusca	Scaphopoda	Dentaliida	Dentaliide	<i>Dentalium</i> spp.
Animalia	Mollusca	Bivalvia	Venerida	Glauconomidae	<i>Glauconome chinensis</i>

Annex IV (Cont'd). *Taxonomic resolution of every recorded species of intertidal soft shore
Community survey.*

Kingdom	Phylum	Class	Order	Family	Species
Animalia	Mollusca	Bivalvia	Eutheterodonta	Hiatellidae	<i>Hiatella arctica</i>
Animalia	Mollusca	Bivalvia	Pterioida	Pteriidae	<i>Isognomon isognomum</i>
Animalia	Mollusca	Polyplacophora	Chitonida	Ischnochitonidae	<i>Lepidozona</i> spp.
Animalia	Mollusca	Gastropoda	Littorinimorpha	Littorinidae	<i>Littoraria articulata</i>
Animalia	Mollusca	Gastropoda	Littorinimorpha	Littorinidae	<i>Littoraria</i> spp.
Animalia	Mollusca	Gastropoda	Patellogastropoda	Lottiidae	<i>Lottia dorsuosa</i>
Animalia	Mollusca	Gastropoda	Patellogastropoda	Lottiidae	<i>Lottia luchuana</i>
Animalia	Mollusca	Gastropoda	Archaeogastropoda	Turbinidae	<i>Lunella coronata</i>
Animalia	Mollusca	Gastropoda	Archaeogastropoda	Turbinidae	<i>Lunella granulata</i>
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Marcia japonica</i>
Animalia	Mollusca	Gastropoda	Archaeogastropoda	Trochidae	<i>Monodonta labio</i>
Animalia	Mollusca	Gastropoda	Neogastropoda	Nassariidae	<i>Nassarius festivus</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Nerita polita</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Nerita squamulata</i>
Animalia	Mollusca	Gastropoda	Patellogastropoda	Lottiidae	<i>Nipponacmea concinna</i>
Animalia	Mollusca	Gastropoda	Neotaenioglossa	Littorinidae	<i>Nodilittorina radiata</i>
Animalia	Mollusca	Gastropoda	Neotaenioglossa	Littorinidae	<i>Nodilittorina vidua</i>
Animalia	Mollusca	Gastropoda		Lottiidae	<i>Patelloida pygmaea</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Pirenella asiatica</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Pirenella incisa</i>
Animalia	Mollusca	Gastropoda	Littorinimorpha	Rissoinidae	<i>Rissoina plicatula</i>
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Ruditapes philippinarum</i>
Animalia	Mollusca	Bivalvia	Ostreoida	Ostreidae	<i>Saccostrea cucullata</i>
Animalia	Mollusca	Gastropoda	Archaeogastropoda	Fissurelloidae	<i>Scutus sinensi</i>
Animalia	Mollusca	Bivalvia	Ostreoida	Mytilidae	<i>Septifer virgatus</i>
Animalia	Mollusca	Bivalvia	Veneroida	Tellinidae	<i>Tellina</i> sp.
Animalia	Mollusca	Gastropoda	Neogastropoda	Muricidae	<i>Thais bronni</i>
Animalia	Mollusca	Gastropoda	Neogastropoda	Muricidae	<i>Thais luteostoma</i>
Animalia	Mollusca	Bivalvia	Mytioida	Mytilidae	<i>Xenostrobus atratus</i>
Animalia	Nemertea				<i>Nemertea</i> spp.
Animalia	Sipuncula	Sipunculidae	Golfingiida	Sipunculidae	<i>Sipunculus nudus</i>

Annex V. List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019	Sampling Zone TC1	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	
Bi	<i>Saccostrea cucullata</i>	38		34		46		36		28		42		96		60		45		50		475
Bi	<i>Xenostrobus atratus</i>	4				13						3						3		11		33
C	<i>Metopograpsus latifrons</i>			3																2		5
C	<i>Hemigrapsus penicillatus</i>											1										1
G	<i>Monodonta labio</i>	21		23		28		4		4		15				51		7		2		154
G	<i>Littoraria articulata</i>	1				1		3				3		4						1		12
G	<i>Lunella coronata</i>	1		2				10		22				1		14		7				58
G	<i>Pirenella asiatica</i>	5		1		17		18				20				22	1	11				96
G	<i>Batillaria multiformis</i>			8		30		25				23				5		1		9		101
G	<i>Batillaria zonalis</i>	4		11		24	2	13								4		6				64
G	<i>Cellana grata</i>	8		6		1				4				7		3				13	1	43
G	<i>Cellana toreuma</i>	2		2				1				4				4		3				16
G	<i>Clithon oualaniensis</i>	3								2						1		1				7
G	<i>Pirenella incisa</i>	8		15		23										12				14		72
G	<i>Nerita polita</i>			1						1		8				7		2		5		23
G	<i>Clithon faba</i>			1		1		2				9				4		15		17		50
G	<i>Littoraria spp..</i>			1				2										1				4
G	<i>Lottia luchuana</i>	2				13		1		7		2		4				9		19		58
G	<i>Lunella granulata</i>	3						2				1				1		2		15		24

Annex V (Cont'd). *List of recorded fauna of intertidal soft shore community survey in every sampling zone*

Mar 2019	Sampling Zone TC1	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		
Ne	Nemertea spp.		1																			1	2
P	Maldanidae spp.									2							1						3
																					Total	1302	

Key for faunal groups (Gp):

Ba: Barnacle, Bi: Bivalve, C: Crab, Cn: Cnidarin, Eh: Echiuran, F: Fish, G: Gastropod, Hc: Hermit crab, Ne: Nemertean, Ol: Oligochaete, P: Polychaete, Pl: Platyhelminthes, Po: Polyplacophores, S: Shrimp, Sc: Scaphopods, Sp: Sipunculan

Annex V (Cont'd). List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019		Sampling Zone TC1		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						4		26		14		4		5		4		14		74
Bi	<i>Xenostrobus atratus</i>	23		9		11		2				5		11		8		7		17		93
Bi	<i>Saccostrea cucullata</i>	27		13		52		45		18		46		20		12		9		28		270
Bi	<i>Barbatia virescens</i>			2		4		6		14		6		5						3		40
Bi	<i>Hiatella arctica</i>			2										1								3
Bi	<i>Ruditapes philippinarum</i>					4				1		8				2						15
C	<i>Hemigrapsus penicillatus</i>	1										1										2
C	<i>Metopograpsus latifrons</i>			1																2		3
C	<i>Pagurus dubius</i>									2						1						3
G	<i>Lunella coronata</i>	1						2		9		7				4				5		28
G	<i>Monodonta labio</i>	24		26		54		25				35		12		5		3				184
G	<i>Nipponacmea concinna</i>	6		15		1		14				3		1		2		5		2		49
G	<i>Batillaria multiformis</i>	35	2	20	2	25		25	2	8		10				17		12				158
G	<i>Batillaria zonalis</i>	18		14	3	8		2		2		8	1	5		9	3	28		17		118
G	<i>Littoraria articulata</i>	8		42		14		9				2				2						77
G	<i>Lottia luchuana</i>					5										1		2		1		9
G	<i>Cellana grata</i>					2								1								3
G	<i>Pirenella asiatica</i>									35		24		14		9						82
G	<i>Clithon oualaniensis</i>									2		1		1				1				5
P	<i>Nereididae</i> spp.			1		1										1		1				4

Annex V (Cont'd). List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019		Sampling Zone TC1		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	
P	<i>Ordiniidae</i> spp.					1	1			2													1	5	
Po	<i>Lepidozona</i> sp.					2		1							1									3	7
Sp	<i>Sipunculus nudus</i>											1		2				4						7	
																						Total	1240		

Key for faunal groups (Gp):

Ba: Barnacle, Bi: Bivalve, C: Crab, Cn: Cnidarin, Eh: Echiuran, F: Fish, G: Gastropod, Hc: Hermit crab, Ne: Nemertean, Ol: Oligochaete,

P: Polychaete, Pl: Platyhelminthes, Po: Polyplacophores, S: Shrimp, Sc: Scaphopods, Sp: Sipunculan

Annex V (Cont'd). List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019		Sampling Zone TC1		Low tidal level (0.5 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>	19		21		26		16		22		2		8		10		1				125
Bi	<i>Saccostrea cucullata</i>	67		17		25		23		74		36		21		57		22		24		366
Bi	<i>Xenostrobus atratus</i>	43		1		26		17		24		7		2		15		3				138
Bi	<i>Ruditapes philippinarum</i>	1						1										2		1		5
Bi	<i>Hiatella arctica</i>									4				2		9		8		19		42
Bi	<i>Barbatia virescens</i>					5		2				2		1		12		2		5		29
Bi	<i>Tellina sp.</i>			1				1								1						3
C	<i>Metopograpsus latifrons</i>	3		2		6				1								12		1		25
C	<i>Hemigrapsus penicillatus</i>			4						1				1				10				16
Cn	<i>Diadumene lineata</i>	1								2										2		5
G	<i>Lunella coronata</i>	45		35		27		18		35		14		6		19		4				203
G	<i>Monodonta labio</i>			1				5		4		15		10		3		7		16		61
G	<i>Nipponacmea concinna</i>			4		2		4				2										12
G	<i>Lottia dorsuosa</i>	5		3				14				3						4				29
G	<i>Lunella granulata</i>			2										1						24		27
G	<i>Batillaria multiformis</i>	4						3				5	7	21								40
G	<i>Batillaria zonalis</i>					4												20	2			26
G	<i>Pirenella asiatica</i>					5		18	4	9		25		28						7	1	97
G	<i>Pirenella incisa</i>	12		15		5				18	3	12						29		15	1	110
Ne	<i>Nemertea spp.</i>			2										5								7

Annex V (Cont'd). List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019		Sampling Zone TC1		Low tidal level (0.5 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	Q	C	
P	<i>Ampharetidae</i> sp.														1											1
P	<i>Nereididae</i> spp.				1									1												2
Po	<i>Lepidozonia</i> spp.	2								2						3		1						1		9
Sp	<i>Sipunculus nudus</i>	3		1														4								8
																						Total		1386		

Key for faunal groups (Gp):

Ba: Barnacle, Bi: Bivalve, C: Crab, Cn: Cnidarin, Eh: Echiuran, F: Fish, G: Gastropod, Hc: Hermit crab, Ne: Nemertean, Ol: Oligochaete,

P: Polychaete, Pl: Platyhelminthes, Po: Polyplacophores, S: Shrimp, Sc: Scaphopods, Sp: Sipunculan

Annex V (Cont'd). List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019		Sampling Zone TC2		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>					17														9		26	
Bi	<i>Saccostrea cucullata</i>					78	2	32		6				10					39		51	217	
Bi	<i>Barbatia virescens</i>					21		4		5									14		1	45	
C	<i>Metopograpsus quadridentatus</i>					1											1					2	
C	<i>Metopograpsus latifrons</i>								2			1									1	4	
G	<i>Batillaria multiformis</i>	8							7		32	7	3			14					13	2	86
G	<i>Batillaria zonalis</i>	23	5	13							12	1	13	2		5		2			14		90
G	<i>Pirenella asiatica</i>	16		5							12		51	2	44	42					12	1	184
G	<i>Pirenella incisa</i>	43	8	27	2			28		15	1	25		16		31	7	17	7	24	3	254	
G	<i>Lunella granulata</i>					18		7		13						4		5	1			48	
G	<i>Nipponacmea concinna</i>					3				6		4				2		12			12		39
G	<i>Patelloida pygmaea</i>					9				13		1									2		25
G	<i>Monodonta labio</i>					34		24		33						14		23			36		164
																					Total		1184

Key for faunal groups (Gp):

Ba: Barnacle, Bi: Bivalve, C: Crab, Cn: Cnidarin, Eh: Echiuran, F: Fish, G: Gastropod, Hc: Hermit crab, Ne: Nemertean, Ol: Oligochaete,

P: Polychaete, Pl: Platyhelminthes, Po: Polyplacophores, S: Shrimp, Sc: Scaphopods, Sp: Sipunculan

Annex V (Cont'd). List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019

Sampling Zone TC2

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>							42				14								8		64	
Bi	<i>Barbatia virescens</i>	32		13						5		12									2	64	
Bi	<i>Hiatella arctica</i>			8						1								2				11	
C	<i>Metopograpsus quadridentatus</i>	1										1										2	
G	<i>Saccostrea cucullata</i>	52						22		62		28		2							18	184	
G	<i>Lunella coronata</i>	2		6	1					13				1								23	
G	<i>Lunella granulata</i>	12								16		2		4							5	39	
G	<i>Monodonta labio</i>	26		14						25				2								67	
G	<i>Batillaria multiformis</i>			9		2	1			14		1		9		36	4	25				100	
G	<i>Batillaria zonalis</i>					5		8		2		17	2	14		25		24			2	98	
G	<i>Pirenella asiatica</i>	42	6							7		15	5	38		47	12	32				204	
G	<i>Pirenella incisa</i>	4	1			24		2				3		24		23		10			8	99	
G	<i>Nipponacmea concinna</i>	20		17						7		6		10							2	62	
G	<i>Cellana grata</i>	7								2											1	10	
G	<i>Patelloida pygmaea</i>	5								2												7	
G	<i>Nassarius festivus</i>			8								2										10	
Ne	<i>Nemertea</i> spp.																2				1	3	
P	<i>Nereididae</i> spp.												1									1	2
P	<i>Oweniidae</i> spp.			1																	1	2	
																					Total	1051	

Annex V (Cont'd). *List of recorded fauna of intertidal soft shore community survey in every sampling zone*

Mar 2019 Sampling Zone TC2		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	Sub-total

Key for faunal groups (Gp):

Ba: Barnacle, Bi: Bivalve, C: Crab, Cn: Cnidarin, Eh: Echiuran, F: Fish, G: Gastropod, Hc: Hermit crab, Ne: Nemertean, Ol: Oligochaete,

P: Polychaete, Pl: Platyhelminthes, Po: Polyplacophores, S: Shrimp, Sc: Scaphopods, Sp: Sipunculan

Annex V (Cont'd). List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019

Sampling Zone TC2

Low tidal level (0.5 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>			14		26				17				20		24		2				103
Bi	<i>Isognomon isognomum</i>					1								3						14		18
Bi	<i>Barbatia virescens</i>					12		6		4				2		15		15				54
Bi	<i>Xenostrobus atratus</i>							14						4		17		3				38
C	<i>Pagurus dubius</i>					1						1		2								4
G	<i>Saccostrea cucullata</i>	4		8		38		61		25				45		54		14				249
G	<i>Lunella coronata</i>	2		2		30	2	2						26		1		4				69
G	<i>Lunella granulata</i>					9		5		3				3		2		9	1	1		33
G	<i>Batillaria multiformis</i>												14	28							24	66
G	<i>Batillaria zonalis</i>	4						1					28	8		18					35	94
G	<i>Pirenella asiatica</i>							5		5			10	14							24	58
G	<i>Pirenella incisa</i>							18		1		2	3	7							52	83
G	<i>Monodonta labio</i>					7		27		17				25		15		13				104
G	<i>Clithon retropictus</i>					18				1				1								20
G	<i>Clithon faba</i>					5		2						1								8
G	<i>Nipponacmea concinna</i>							6		2								5				13
Ne	<i>Nemertea</i> sp.									1												1
P	<i>Nereididae</i> spp.		1	4									1									6
P	<i>Oweniidae</i> sp.																1					1
Sp	<i>Sipunculus nudus</i>					2		1		3								5				11

Annex V (Cont'd). *List of recorded fauna of intertidal soft shore community survey in every sampling zone*

Mar 2019 Sampling Zone TC2 Low tidal level (0.5 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	Sub-total			
																						Total	1033		

Key for faunal groups (Gp):

Ba: Barnacle, Bi: Bivalve, C: Crab, Cn: Cnidarin, Eh: Echiuran, F: Fish, G: Gastropod, Hc: Hermit crab, Ne: Nemertean, Ol: Oligochaete,

P: Polychaete, Pl: Platyhelminthes, Po: Polyplacophores, S: Shrimp, Sc: Scaphopods, Sp: Sipunculan

Annex V (Cont'd). List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019

Sampling Zone TC3

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	
Bi	<i>Saccostrea cucullata</i>	23		34		15		39		9		7		66				5		78		277
Bi	<i>Barbatia virescens</i>	2				1		6				6		5						4		24
Bi	<i>Xenostrobus atratus</i>	10				7		8		13		14		17						15		84
C	<i>Metopograpsus latifrons</i>			1						4						1				2		8
G	<i>Nipponacmea concinna</i>	6		25		3		17				2		8						2		63
G	<i>Monodonta labio</i>	32		28		8		27		11		1		12		1	13			4		137
G	<i>Lunella coronata</i>	5		12		6		11		14		4		11				16		2		82
G	<i>Lunella granulata</i>	14		8		1		15				8		2						1		48
G	<i>Patelloida pygmaea</i>	4						5				2		4								15
G	<i>Batillaria multiformis</i>	2		12		12		6		39	4	44	1	2		36		56		5		218
G	<i>Batillaria zonalis</i>	18	2			36		2		12		9				22		11				113
G	<i>Pirenella asiatica</i>	4		32		11		19		5				5		12		14				102
G	<i>Pirenella incisa</i>	12		25	5	3		5		28	3	4				10		21		2		118
G	<i>Rissoina plicatula</i>			5				2		8												15
G	<i>Cerithidea moerchii</i>									1												1
G	<i>Clithon oualaniensis</i>							3				1		1								5
G	<i>Nassarius festivus</i>					1		1										5				6
G	<i>Nipponacmea concinna</i>			3		5														2		10
P	<i>Ampharetidae spp.</i>			1																1		2
P	<i>Nereididae sp.</i>																			1		1

Annex V (Cont'd). List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019 Sampling Zone TC3 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	
P	<i>Sabellidae sp.</i>																				1	1
P	<i>Terebellidae spp.</i>											1	1									2
Sc	<i>Dentalium spp.</i>			1				8		4								8		1		22
																					Total	1353

Key for faunal groups (Gp):

Ba: Barnacle, Bi: Bivalve, C: Crab, Cn: Cnidarin, Eh: Echiuran, F: Fish, G: Gastropod, Hc: Hermit crab, Ne: Nemertean, Ol: Oligochaete,

P: Polychaete, Pl: Platyhelminthes, Po: Polyplacophores, S: Shrimp, Sc: Scaphopods, Sp: Sipunculan

Annex V (Cont'd). List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019		Sampling Zone TC3		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>	4						24				17						5		15		65	
Bi	<i>Saccostrea cucullata</i>	38	4	35	2	79				17		20		15		45		15		26		296	
Bi	<i>Xenostrobus atratus</i>	39		12												7		15		7		80	
Bi	<i>Barbatia virescens</i>	5						17				8		12		13		11				66	
Bi	<i>Hiatella arctica</i>	6										4										10	
Bi	<i>Glauconome chinensis</i>	7		3		2						4										16	
Bi	<i>Septifer virgatus</i>													12		1		4				17	
Bi	<i>Ruditapes philippinarum</i>			1												2				3		6	
C	<i>Metopograpsus latifrons</i>			3														1		1		5	
C	<i>Perisesarma bidens</i>	1										1						10		12		24	
G	<i>Lunella coronata</i>			29		23		19	2	4		5		4	1	7		1		1		96	
G	<i>Lunella granulata</i>			8		17		27						2		4				5		63	
G	<i>Batillaria multiformis</i>	52	2			44		29	1	45		16		24						8		221	
G	<i>Batillaria zonalis</i>	30	7	8		27	6			67		75		39				11		7	1	278	
G	<i>Pirenella asiatica</i>	12		2		4				24		2								17	1	62	
G	<i>Pirenella incisa</i>	2		12		12		39		36		25										126	
G	<i>Nipponacmea concinna</i>	10		5		18				17				16		4		4				74	
G	<i>Nerita squamulata</i>	23	1											5		2		11				43	
G	<i>Monodonta labio</i>			5		13		21		26		17		28								110	
G	<i>Nodilittorina radiata</i>	17												2				7		19		45	

Annex V (Cont'd). List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019		Sampling Zone TC3		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>Nodilittorina vidua</i>	6		1																		7
G	<i>Cerithidea microptera</i>	8				2																10
G	<i>Clypeomorus moniliferum</i>	3				5										10		6			4	28
Ne	<i>Nemertea</i> spp.	1			1																	2
P	<i>Ampharetidae</i> spp.																2					2
P	<i>Nereididae</i> spp.	3		1										1							1	6
Po	<i>Lepidozonia</i> spp.	3											1					1				5
Sp	<i>Sipunculus nudus</i>			1	1							5		3		6						16
																					Total	1778

Key for faunal groups (Gp):

Ba: Barnacle, Bi: Bivalve, C: Crab, Cn: Cnidarin, Eh: Echiuran, F: Fish, G: Gastropod, Hc: Hermit crab, Ne: Nemertean, Ol: Oligochaete,

P: Polychaete, Pl: Platyhelminthes, Po: Polyplacophores, S: Shrimp, Sc: Scaphopods, Sp: Sipunculan

Annex V (Cont'd). List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019

Sampling Zone TC3

Low tidal level (0.5 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>	12		10		14				2		1		3				7		2		50
Bi	<i>Saccostrea cucullata</i>	32		34	3	49				40		37		58		6		36		42		338
Bi	<i>Xenostrobus atratus</i>			21						6		4		4								35
Bi	<i>Marcia japonica</i>	1						1									1					3
C	<i>Metopograpsus latifrons</i>			3				2									2					7
C	<i>Pagurus dubius</i>	1																				1
G	<i>Monodonta labio</i>	1		25		11				9		10		7				3		17		84
G	<i>Lunella coronata</i>	30	2	45		15		4		4		15				1		8				124
G	<i>Lunella granulata</i>	2		5		7		7		3		8	1	1				5				39
G	<i>Nipponacmea concinna</i>	8		12		3						2						9		4		38
G	<i>Patelloida pygmaea</i>	1				8						6										15
G	<i>Batillaria multiformis</i>					2		36									24			6		68
G	<i>Batillaria zonalis</i>					16		24	2			13	5			20		2		20		102
G	<i>Pirenella asiatica</i>	1				13		28	7	14		25	2	2		41	5			38		176
G	<i>Pirenella incisa</i>					6		31		7						14		4		7		69
G	<i>Nerita squamulata</i>	1				1		2		12				2						1		19
G	<i>Clypeomorus moniliferum</i>	1						1										1				3
G	<i>Chlorostoma argyrostoma</i>	1																		1		2
P	Oweniidae spp.			1		1																2
P	Ampharetidae spp.																	1		1		2

Annex V (Cont'd). List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019 Sampling Zone TC3 Low tidal level (0.5 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	
P	<i>Sabellastarte</i> spp.			1															2			3
Po	<i>Lepidozona</i> spp.				2		2						2				1					7
Sp	<i>Sipunculus nudus</i>	1									1								1			3
Total																				1191		

Key for faunal groups (Gp):

Ba: Barnacle, Bi: Bivalve, C: Crab, Cn: Cnidarin, Eh: Echiuran, F: Fish, G: Gastropod, Hc: Hermit crab, Ne: Nemertean, Ol: Oligochaete,

P: Polychaete, Pl: Platyhelminthes, Po: Polyplacophores, S: Shrimp, Sc: Scaphopods, Sp: Sipunculan

Annex V (Cont'd). List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019		Sampling Zone ST		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			
Bi	<i>Saccostrea cucullata</i>	103	8	70	3	21	46	11	57	9	36	4	368											
Bi	<i>Xenostrobus atratus</i>	20	5																				25	
Bi	<i>Marcia japonica</i>	2	3																				5	
G	<i>Monodonta labio</i>	18	23	5	4	5	38	10	2	12	1	118												
G	<i>Lunella coronata</i>	25	15																				87	
G	<i>Batillaria multiformis</i>	48	1	32	20	96	8	24	2	16	45	292												
G	<i>Batillaria zonalis</i>		2	12	4	3	23	1	10	5	32	21	36	4	153									
G	<i>Pirenella asiatica</i>	16	5	1																				24
G	<i>Pirenella incisa</i>	8	9	16		4	6		25		68													
G	<i>Lunella granulata</i>	10	14	2		7	4	6	5	2		50												
G	<i>Clypeomorus moniliferum</i>	2				1																3		
Ne	<i>Nemertea spp.</i>	1				1																3		
																					Total	1196		

Key for faunal groups (Gp):

Ba: Barnacle, Bi: Bivalve, C: Crab, Cn: Cnidarin, Eh: Echiuran, F: Fish, G: Gastropod, Hc: Hermit crab, Ne: Nemertean, Ol: Oligochaete,

P: Polychaete, Pl: Platyhelminthes, Po: Polyplacophores, S: Shrimp, Sc: Scaphopods, Sp: Sipunculan

Annex V (Cont'd). List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019		Sampling Zone ST		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>			6		3						3				8				28		48	
Bi	<i>Saccostrea cucullata</i>	110	25			5		34		4		47				59		72		53	4	413	
Bi	<i>Barbatia virescens</i>	6														2		4		12		24	
Bi	<i>Xenostrobus atratus</i>													24		28		12				64	
G	<i>Monodonta labio</i>	25						9				18				3						55	
G	<i>Lunella granulata</i>	4										8					1	5				18	
G	<i>Lunella coronata</i>	15		5								4				4		12		16		56	
G	<i>Thais bronni</i>	5																				5	
G	<i>Nerita squamulata</i>	5																				5	
G	<i>Batillaria multiformis</i>	26		28		84				8										17	2	165	
G	<i>Batillaria zonalis</i>	8	16			46	9			28	8	19		48		19				12		213	
G	<i>Pirenella asiatica</i>			16						24				4							1	45	
G	<i>Pirenella incisa</i>	36	10	6	6	32				48				35	9					14		196	
G	<i>Chlorostoma argyrostoma</i>	1																				1	
G	<i>Scutus sinensi</i>	2																				2	
G	<i>Patelloida pygmaea</i>	3						3				8										14	
G	<i>Nodilittorina radiata</i>	4																				4	
G	<i>Thais luteostoma</i>	2										2										4	
G	<i>Cronia margariticola</i>							7														7	
G	<i>Isognomon isognomum</i>							1		1												2	

Annex V (Cont'd). List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019		Sampling Zone ST		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	Q	C	
G	<i>Batillaria sordida</i>			1																					1	
G	<i>Nipponacmea concinna</i>															4								2		6
G	<i>Cellana toreuma</i>																				4					4
Ne	<i>Nemertea</i> spp.		1																1					1		3
P	<i>Sabellidae imbricatus</i>					21																				21
Po	<i>Lepidozonia</i> spp.	1		4		4		2								2							2			15
																						Total		1391		

Key for faunal groups (Gp):

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P: Polychaete, Pl: Platyhelminthes, Po: Polyplacophores, S: Shrimp, Sc: Scaphopods, Sp: Sipunculan

Annex V (Cont'd). List of recorded fauna of intertidal soft shore community survey in every sampling zone

Mar 2019		Sampling Zone ST		Low tidal level (0.5 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>									7						5		18				30
Bi	<i>Isognomon isognomum</i>	2				4														1		7
Bi	<i>Saccostrea cucullata</i>	21		8		32		18		54				36		8		46		3		226
Bi	<i>Septifer virgatus</i>					3		2														5
Bi	<i>Barbatia virescens</i>	2						6		4						2						14
Bi	<i>Septifer virgatus</i>			1												2						3
G	<i>Patelloida pygmaea</i>							8														8
G	<i>Chlorostoma argyrostoma</i>							4														4
G	<i>Pirenella asiatica</i>			24						2				4								30
G	<i>Pirenella incisa</i>					8		10				16	32	5		16				38		125
G	<i>Monodonta labio</i>	6	1			16										8		15				46
G	<i>Batillaria multiformis</i>																				12	12
G	<i>Batillaria zonalis</i>											17	6			13				28	2	66
G	<i>Cellana toreuma</i>									2			3	7								12
G	<i>Nipponacmea concinna</i>	5														5		7				17
Gp	<i>Lunella coronata</i>			3										4	17		6					30
Ne	<i>Nemertea</i> spp.		1								1						1					3
P	<i>Sabellidae imbricatus</i>	5				17								5	17		12					56
P	<i>Oweniidae</i> spp.												1			1						2
P	<i>Nereididae</i> spp.							2														2

Annex V (Cont'd). *List of recorded fauna of intertidal soft shore community survey in every sampling zone*

Mar 2019		Sampling Zone ST		Low tidal level (0.5 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	
																							Total	698	

Key for faunal groups (Gp):

Ba: Barnacle, Bi: Bivalve, C: Crab, Cn: Cnidarin, Eh: Echiuran, F: Fish, G: Gastropod, Hc: Hermit crab, Ne: Nemertean, Ol: Oligochaete, P: Polychaete, Pl: Platyhelminthes, Po: Polyplacophores, S: Shrimp, Sc: Scaphopods, Sp: Sipunculan