

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. (June 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 *Tachypleus tridentatus* at TC3 (large individuals >100 mm) of horseshoe crabs records were excluded from data analysis)



Large individual of *Tachypleus tridentatus* at TC3 (large individual (>100 mm) of horseshoe crabs records was excluded from data analysis)



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

Mating pair of *Tachypleus tridentatus* at ST (large individuals >100 mm) of horseshoe crabs records were excluded from data analysis)



Large individual of *Tachypleus tridentatus* at ST (large individual (>100 mm) of horseshoe crabs records was excluded from data analysis)



Figure 3.1. (CON'T) *Examples of photographic records of horseshoe crab (June 2019)*

Table 3.1. *Summary of juvenile 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 juvenile 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 pairs of horseshoe crab

December 2017 – TC3



June 2018 – TC3



(Female)



(Male)

Figure 3.2 (Cont'd). *Photographic records of mating pair of horseshoe crab*

March 2019 – TC2



June 2019 – TC3



Figure 3.2 (Cont'd). *Photographic records of mating pair of horseshoe crab*

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



June 2019



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

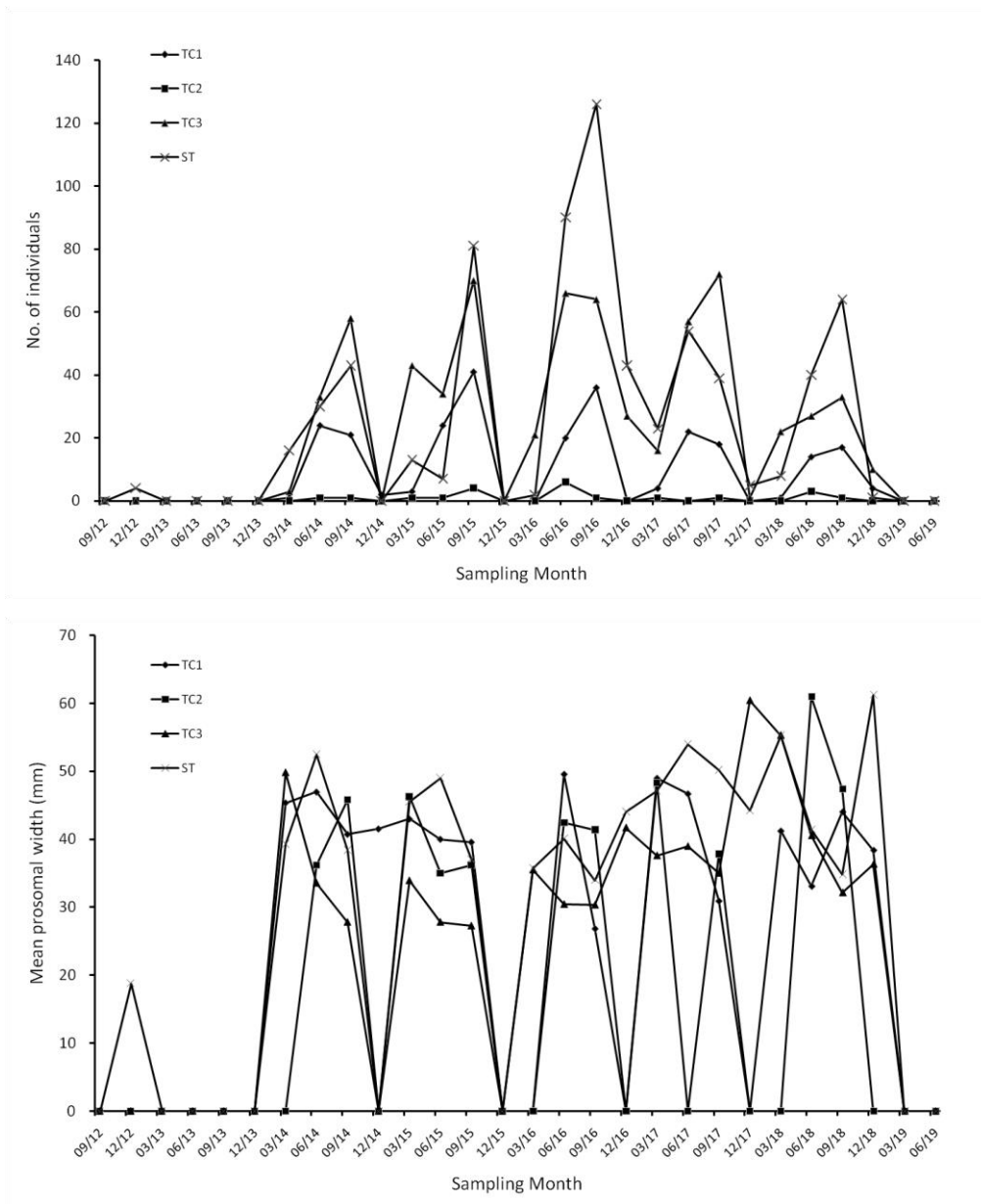


Figure 3.5. Changes of number of individuals mean prosomal width and search record of horseshoe crab *Carcinoscorpius rotundicauda* in every sampling zone along the sampling months

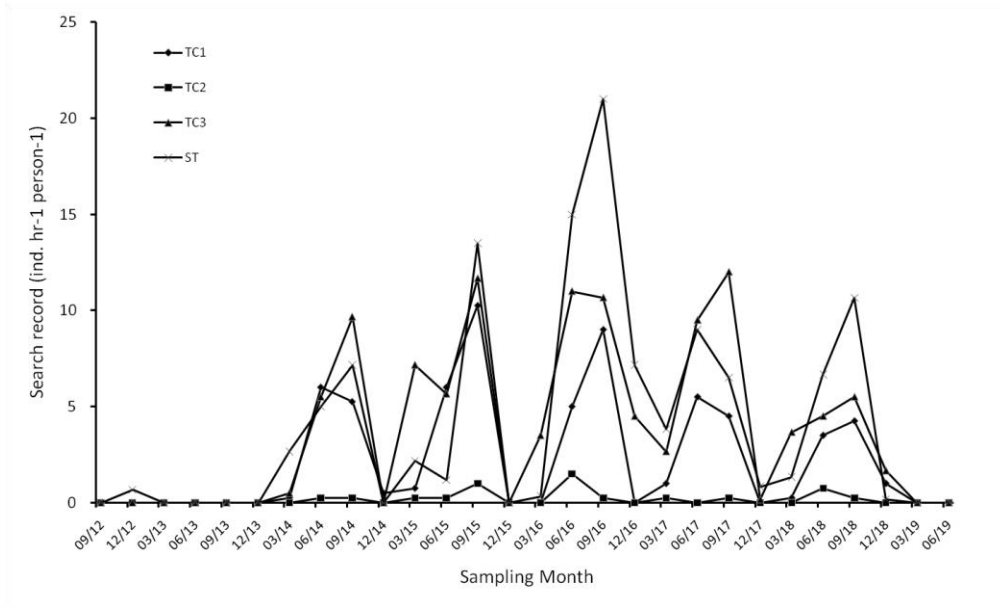


Figure 3.5 (Cont'd). Changes of number of individuals mean prosomal width and search record of horseshoe crab *Carcinoscorpius rotundicauda* in every sampling zone along the sampling months

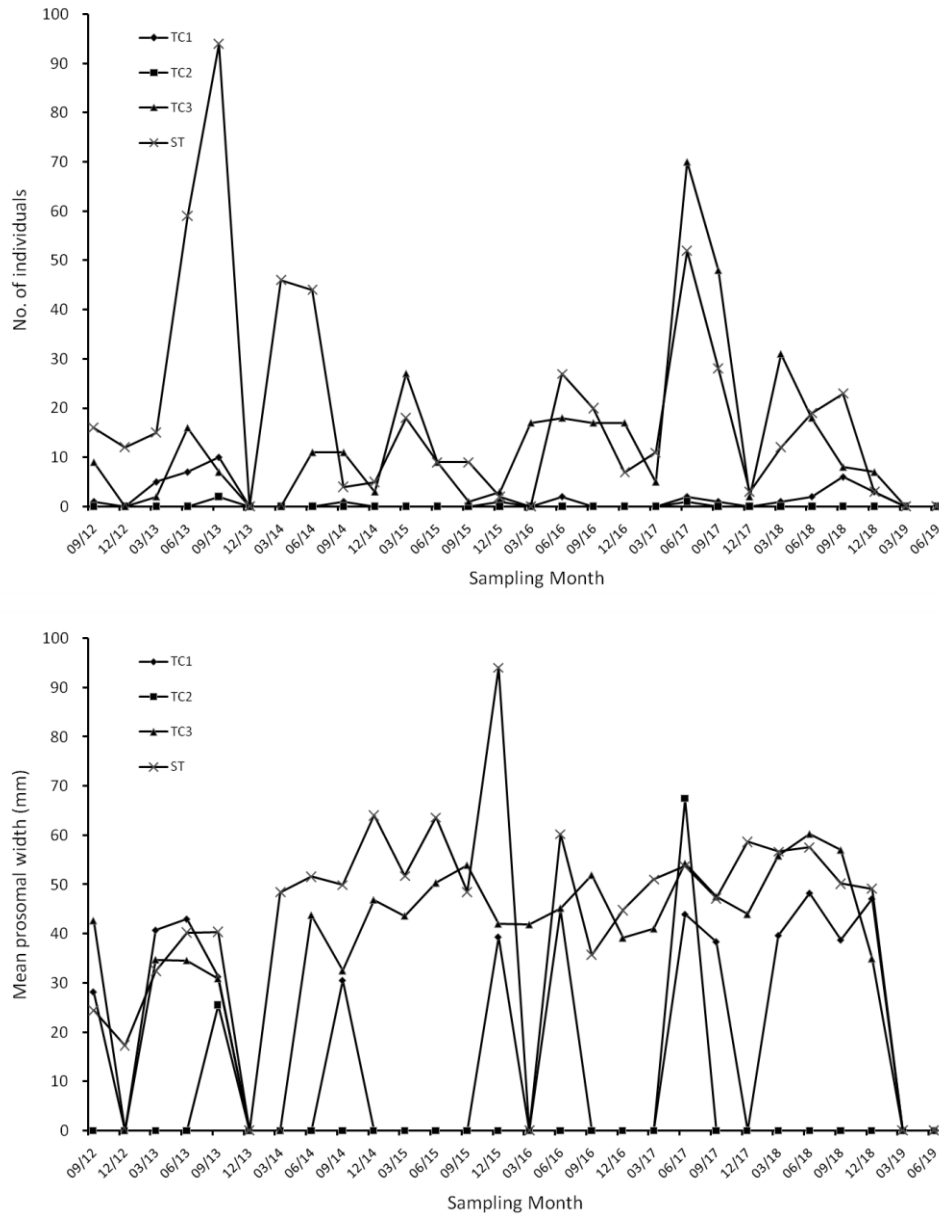


Figure 3.6. Changes of number of individuals mean prosomal width and search record of horseshoe crab *Tachypleus tridentatus* in every sampling zone along the sampling months

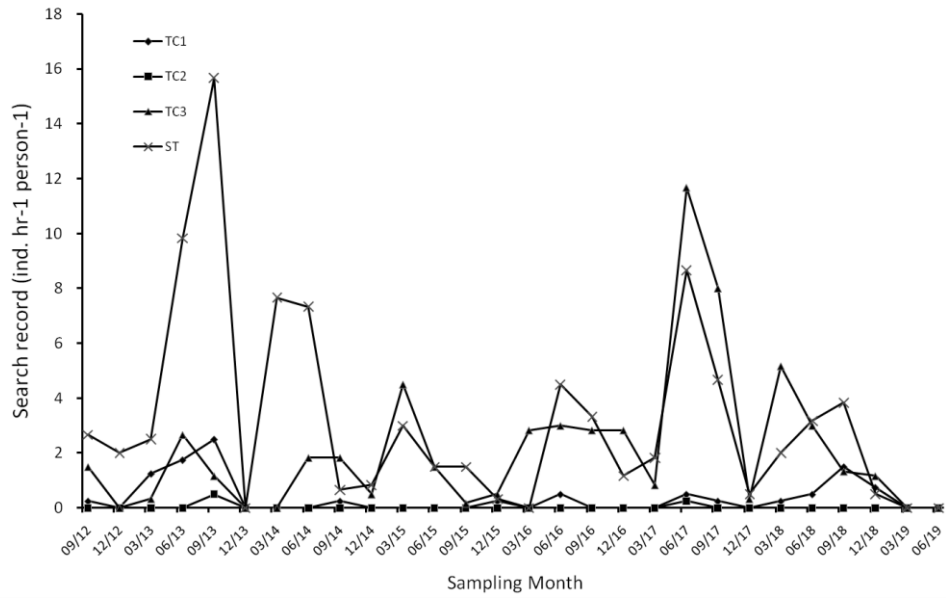


Figure 3.6 (Cont'd). Changes of number of individuals mean prosomal width and search record of horseshoe crab *Tachypleus tridentatus* in every sampling zone along the sampling months

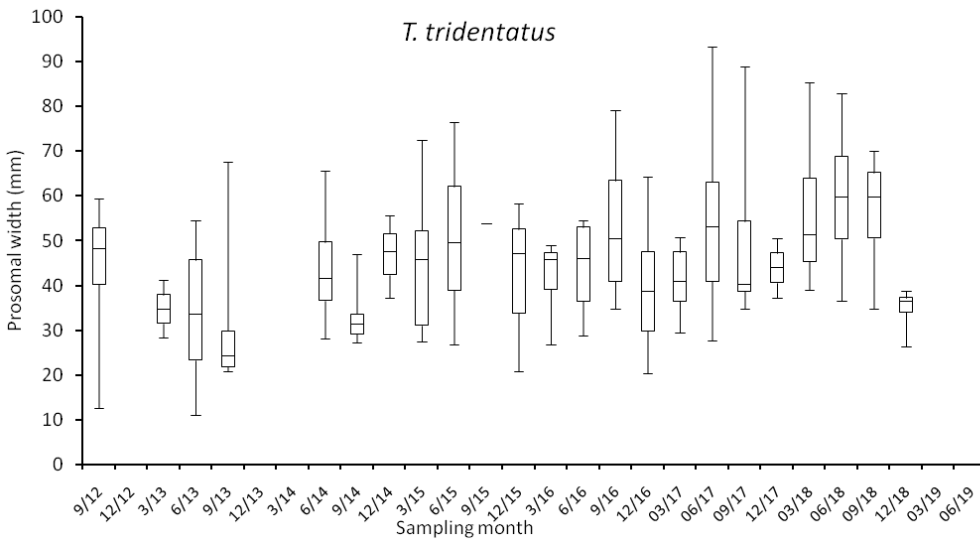
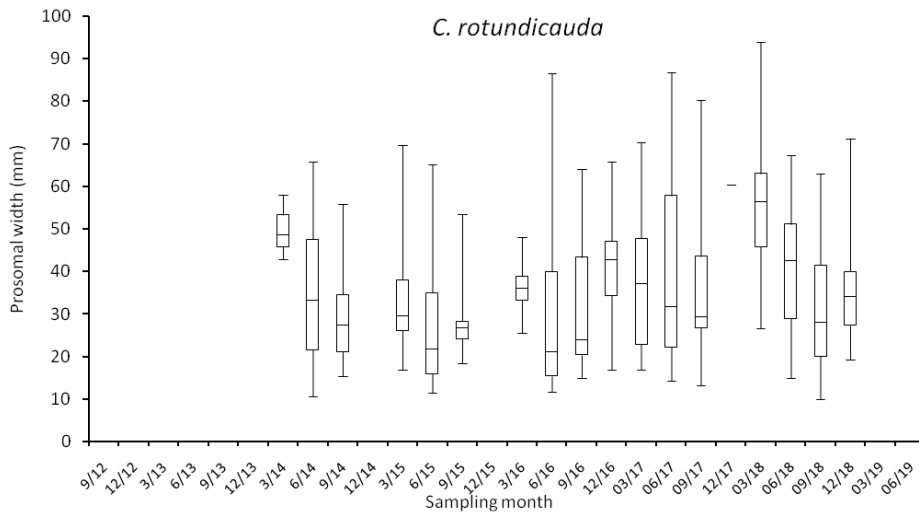


Figure 3.7. Box plot of prosomal width of horseshoe crab in the sampling zone TC3 along the sampling months. (The box represents 50% of the sample (upper to lower quartile) with a middle line showing the median value. The upper whisker and lower whisker showed the 25% of sample above upper quartile and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

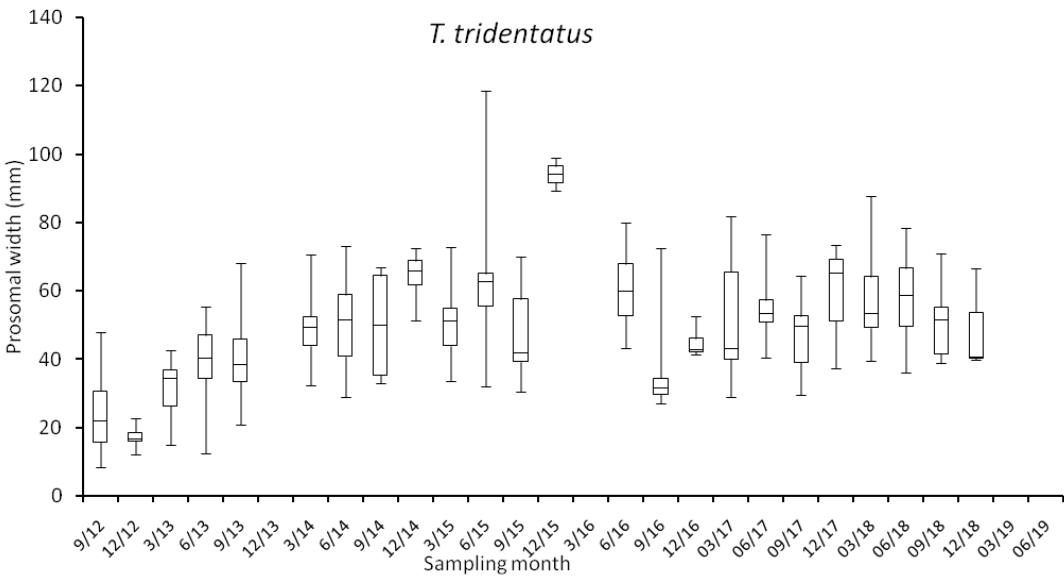
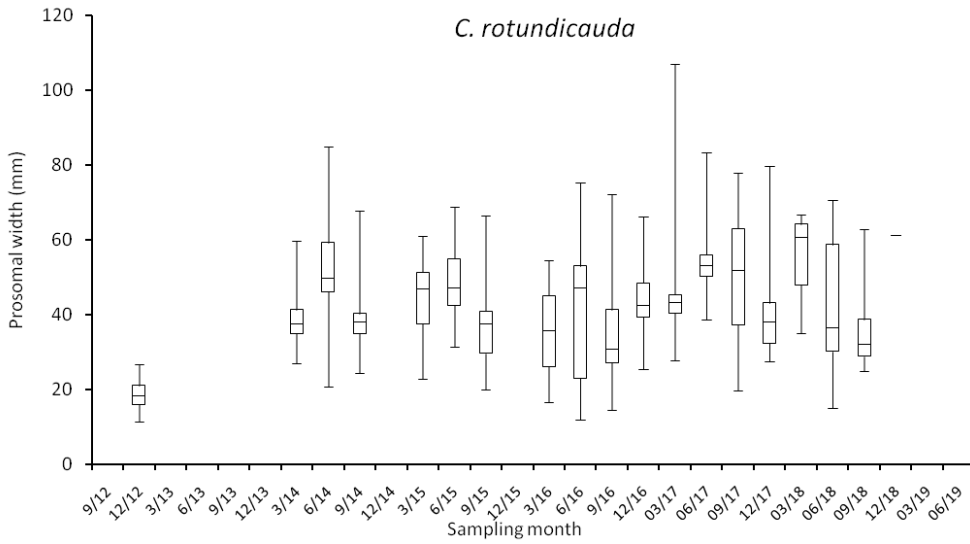


Figure 3.8. Box plot of prosomal width of horseshoe crab in the sampling zone ST along the sampling months. (The box represents 50% of the sample (upper to lower quartile) with a middle line showing the median value. The upper whisker and lower whisker showed the 25% of sample above upper quartile and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

***Halophila ovalis* in TC3**



***Halophila ovalis* in ST**



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	TC3 <i>Halophila ovalis</i>	ST <i>Halophila ovalis</i>
Number of patches	1	3
Total area (m²)	4	1229
Average area (m²)	4	410

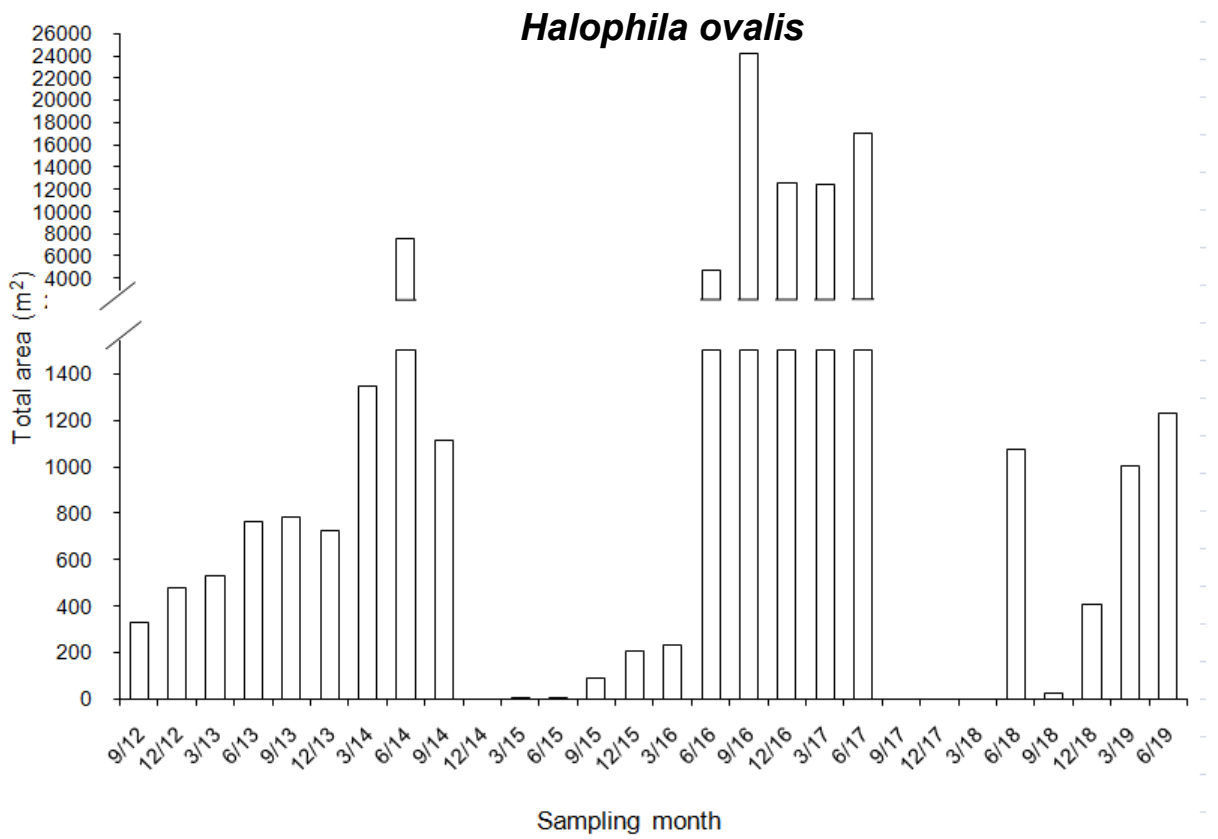
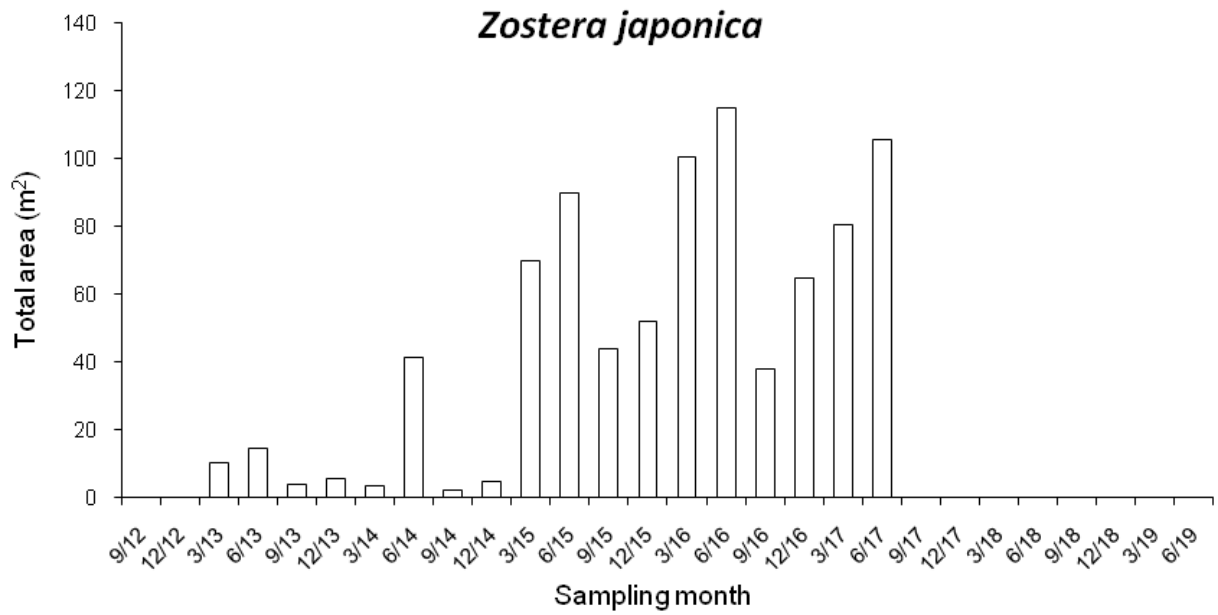


Figure 3.11. Temporal changes of estimated total area of seagrass beds in ST

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

June 2019



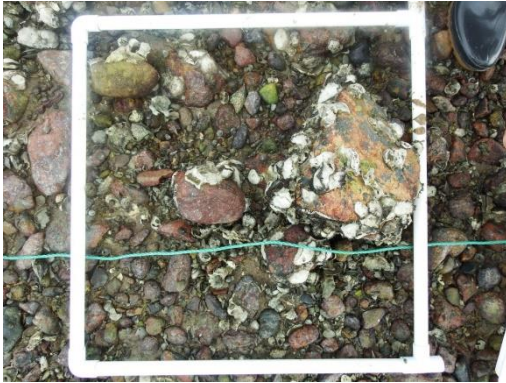
Figure 3.12. (Cont'd) Comparison of pictures taken in different sampling months shows the successive disappearance and recolonization of seagrass beds. The picture of December 2018 was lacking due to night-dawn survey time.

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	90	10	
	M	70	30	
	L	50	10	40
TC2	H	80	20	
	M	60	10	30
	L	40	20	40
TC3	H	50	30	20
	M	40	40	20
	L	70	10	20
ST	H	90	10	
	M	70	30	
	L	40	30	30

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



4/6/2019

TC2 H



TC2 L



5/6/2019

TC3 M



TC3 L



17/6/2019

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



18/6/2019

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>June 2019</i>				
Mollusca	14170	92.4	472	44
Arthropoda	1008	6.6	34	7
Annelida	60	0.4	2.0	8
Sipuncula	20	0.1	0.7	1
Nemertea	27	0.2	0.9	1
Cnidaria	52	0.3	1.7	1
Platyhelminthes	2	0.0	0.1	1
Total	15339			

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	3895	95	519	3128	96	417	3462	86	462	3685	93	491
Arthropoda	142	3	19	106	3	14	524	13	70	236	6	31
Annelida	19	0	3	9	0	1	15	0	2	17	0	2
Sipuncula	9	0	1	8	0	1	3	0	0	0	0	0
Nemertea	13	0	2	9	0	1	3	0	0	2	0	0
Cnidaria	6	0	1	8	0	1	28	1	4	10	0	1
Platyhelminthes	0	0	0	0	0	0	0	0	0	2	0	0
Sub-total	4084			3268			4035			3952		

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 (%)	Cumulative relative abundance (%)
High	G	<i>Batillaria zonalis</i>	57	21	1
	G	<i>Monodonta labio</i>	52	19	5
	G	<i>Batillaria multiformis</i>	32	12	65
Mid	Bi	<i>Saccostrea cucullata</i>	153	22	16
	G	<i>Monodonta labio</i>	96	14	32
	G	<i>Batillaria multiformis</i>	78	11	64
Low	G	<i>Monodonta labio</i>	111	17	63
	Bi	<i>Saccostrea cucullata</i>	96	14	34

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 (%)	Cumulative relative abundance (%)
High	G	<i>Monodonta labio</i>	77	23	3
	Bi	<i>Saccostrea cucullata</i>	55	17	45
	G	<i>Batillaria multiformis</i>	55	17	83
	G	<i>Batillaria zonalis</i>	34	10	73
Mid	Bi	<i>Saccostrea cucullata</i>	123	28	35
	G	<i>Batillaria zonalis</i>	54	13	63
	G	<i>Monodonta labio</i>	54	12	6
	G	<i>Batillaria multiformis</i>	48	11	11
Low	G	<i>Monodonta labio</i>	102	19	3
	Bi	<i>Saccostrea cucullata</i>	101	19	53

Bi = Bivalve, G = Gastropod

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 (%)	Cumulative relative abundance (%)
High	Bi	<i>Saccostrea cucullata</i>	82	17	2
	G	<i>Monodonta labio</i>	71	15	1
	G	<i>Batillaria multiformis</i>	53	11	74
Mid	Bi	<i>Saccostrea cucullata</i>	63	16	4
	G	<i>Monodonta labio</i>	46	11	2
	G	<i>Batillaria multiformis</i>	42	10	83
Low	Bi	<i>Saccostrea cucullata</i>	137	20	37
	Bi	<i>Barbatia virescens</i>	71	10	3
	G	<i>Lunella granulata</i>	71	10	0

Bi = Bivalve, G = Gastropod

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 (%)	Cumulative relative abundance (%)
High	G	<i>Monodonta labio</i>	79	32	45
	Bi	<i>Saccostrea cucullata</i>	47	19	11
Mid	Bi	<i>Saccostrea cucullata</i>	122	19	27
	G	<i>Monodonta labio</i>	92	14	54
	Bi	<i>Xenostrobus atratus</i>	70	11	2
Low	Bi	<i>Saccostrea cucullata</i>	151	22	23
	G	<i>Monodonta labio</i>	97	14	48

Bi = Bivalve, G = Gastropod

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

Samling 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	7		269		1.6		0.8	
	M	12	10	693	545	1.9	1.8	0.8	0.8
	L	12		672		2.0		0.8	
TC2	H	7		333		1.4		0.8	
	M	9	9	434	436	1.6	1.6	0.8	0.8
	L	11		540		1.8		0.8	
TC3	H	9		504		1.7		0.9	
	M	8	10	406	535	1.6	1.8	0.7	0.8
	L	13		696		2.2		0.9	
ST	H	7		247		1.6		0.9	
	M	11	10	652	527	1.9	1.8	0.8	0.8
	L	11		681		2.0		0.8	

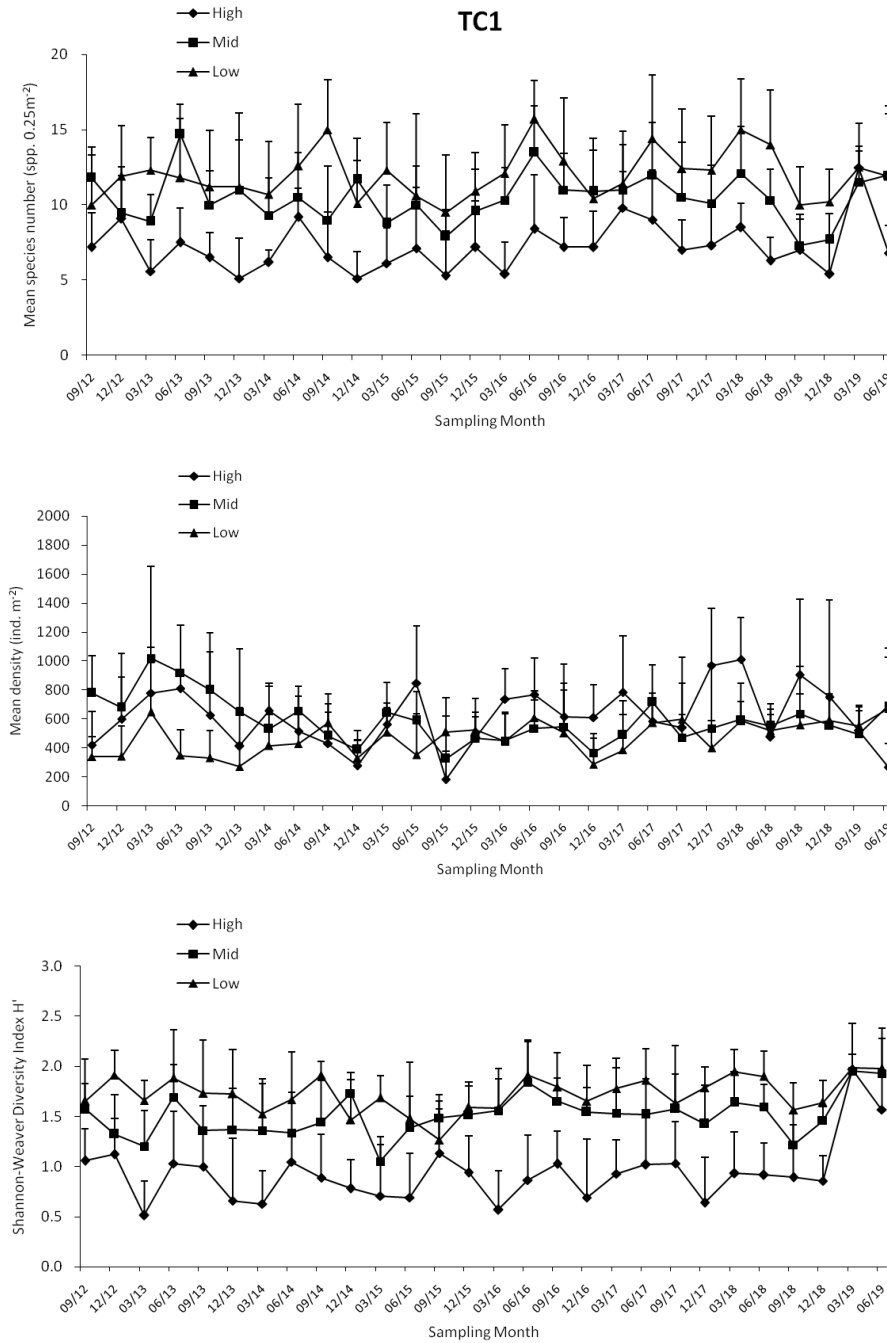


Figure 3.14. Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC1

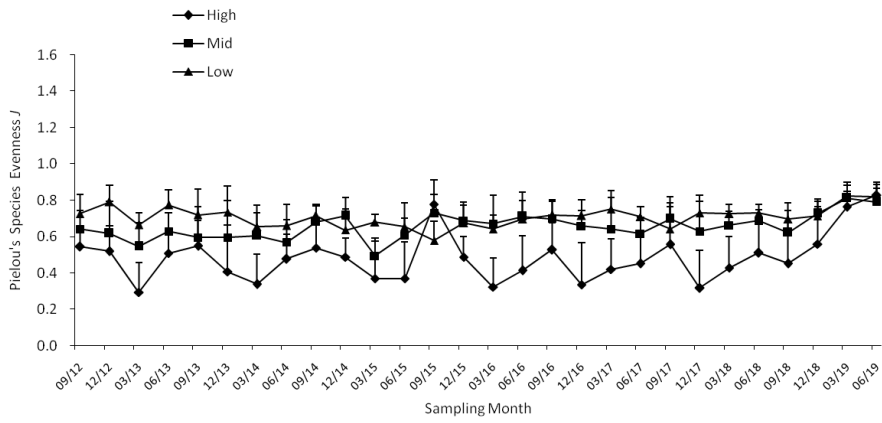


Figure 3.14 (Cont'd). Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC1

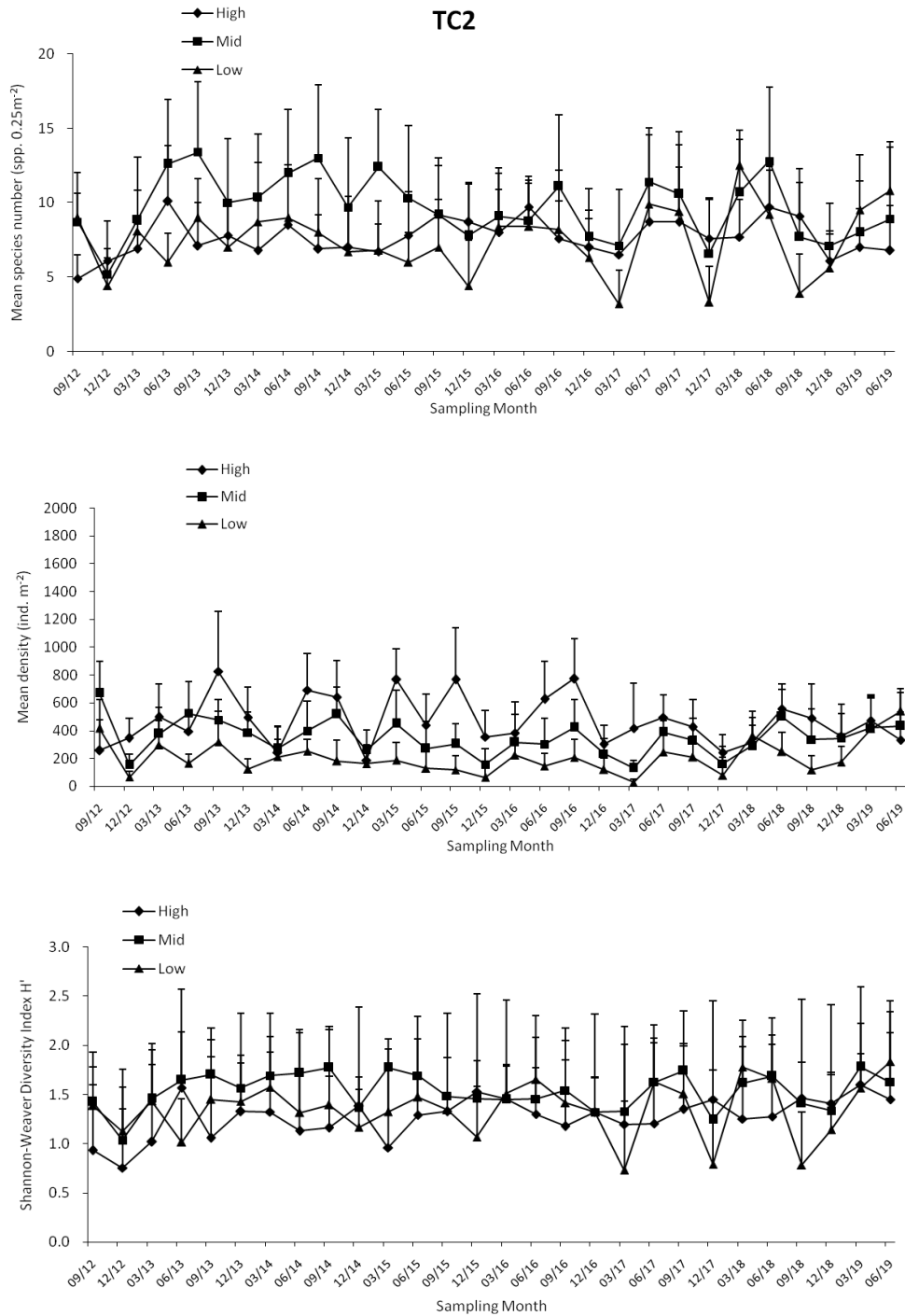


Figure 3.15. Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC2

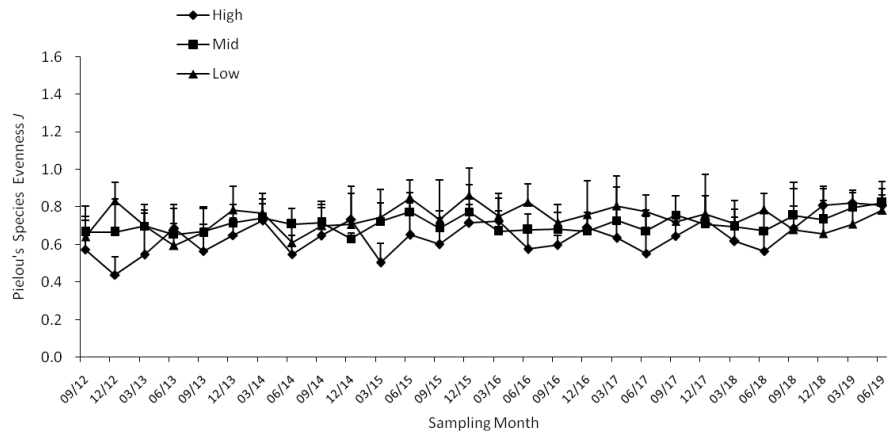


Figure3.15 (Cont'd). Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC2

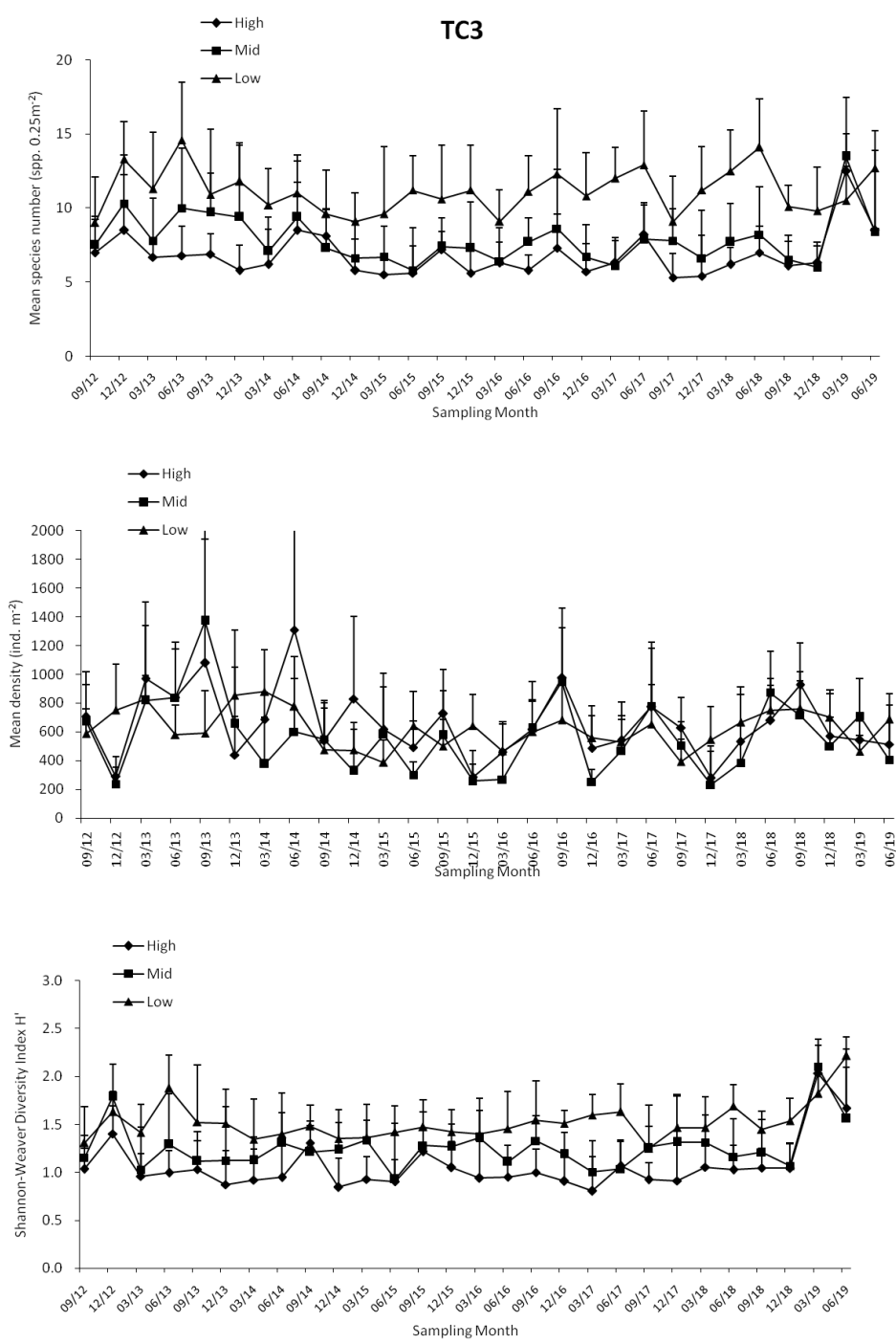


Figure 3.16. Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC3

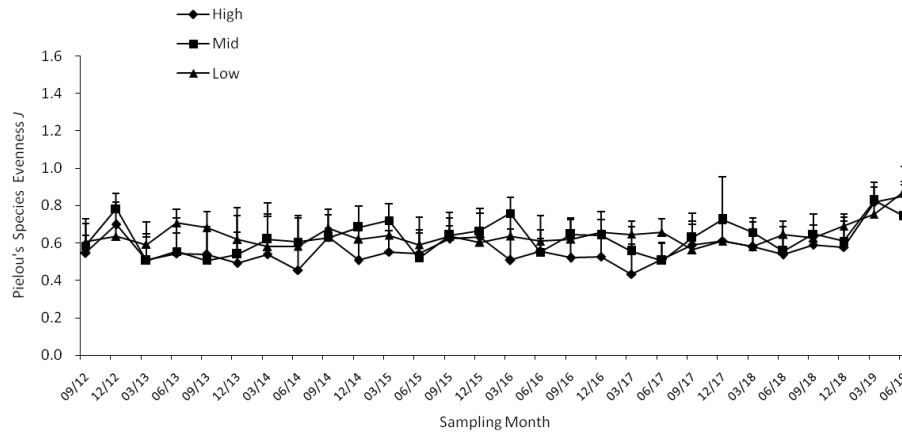


Figure 3.16(Cont'd). Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC3

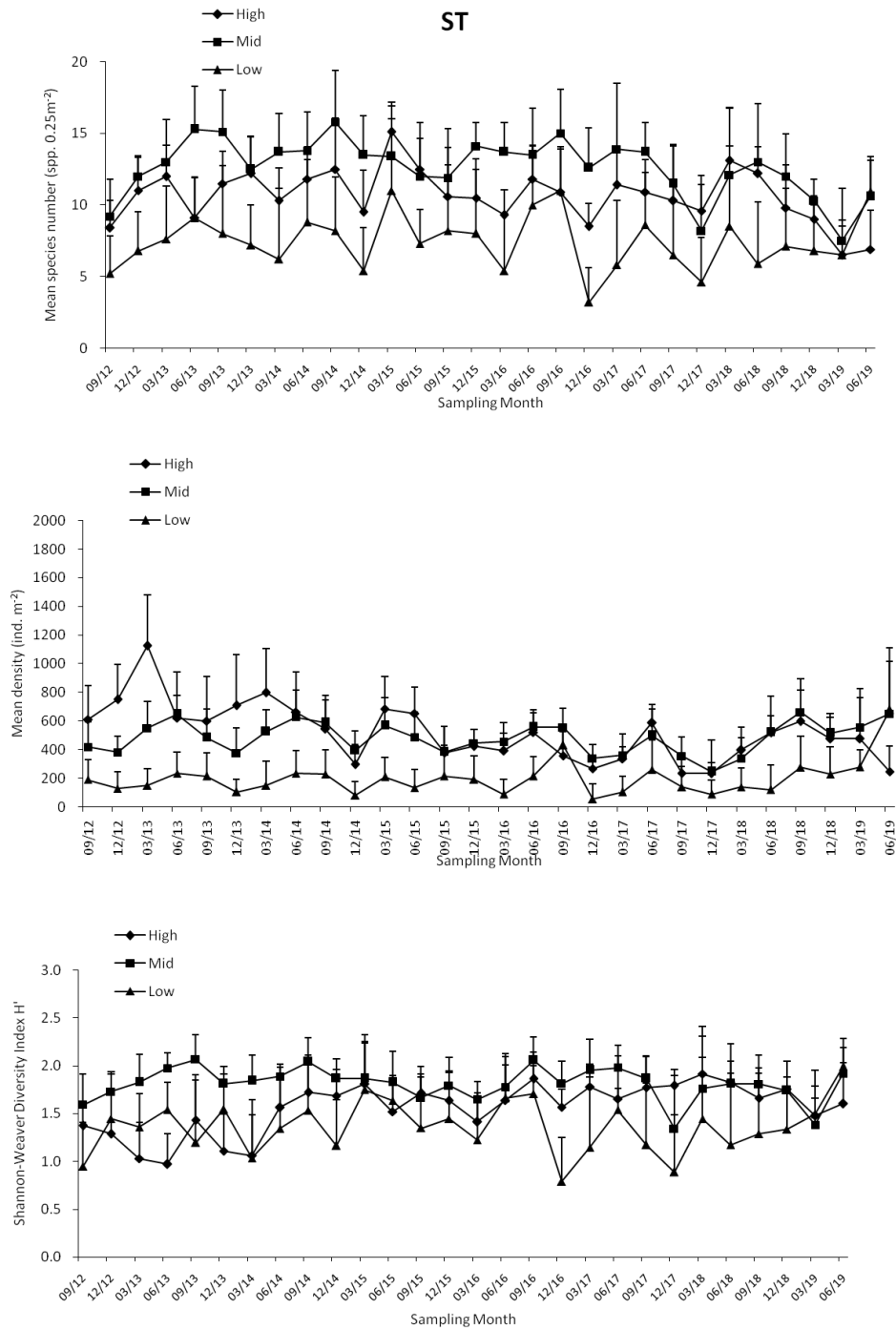


Figure 3.17. Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone S

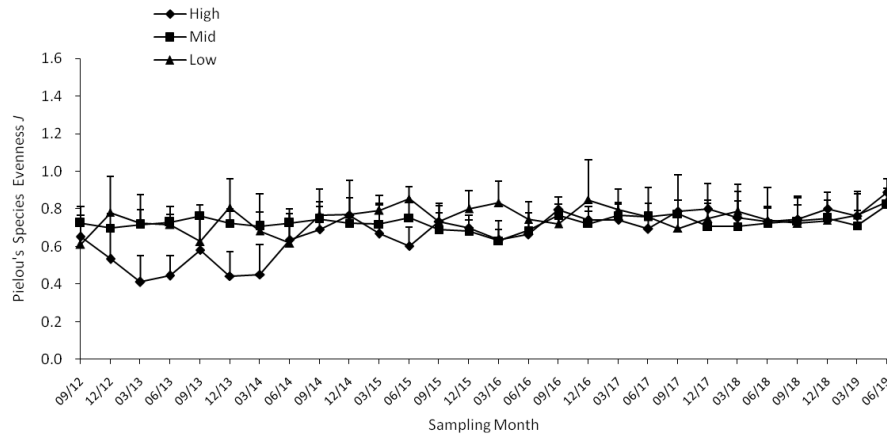


Figure 3.17(Cont'd). Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone ST

Annex I. Location of sampling zones (map from ATKINSChina 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)					
No record					
TC3 <i>Halophila ovalis</i> (search hour = 3 hrs)					
4	90-100	horizontal line	22°17'004"N	113°55'035"E	A horizontal strand of seagrass bed nearby the seaward side of mangrove area at tidal level 2.0 m above C.D.
			22°17'004"N	113°55'035"E	
ST <i>Halophila ovalis</i> (search hour = 3 hrs)					
15	90-100	horizontal line	22°17'014"N	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.
			22°17'015"N	113°55'029"E	
114	90-100	horizontal line	22°17'015"N	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.
			22°17'016"N	113°55'029"E	
1100	60-70	horizontal line	22°17'017"N	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.
			22°17'016"N	113°55'029"E	

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

Kingdom	Phylum	Class	Order	Family	Species
Animalia	Annelida	Polychaeta		Orbiniidae	<i>Ordiniidae</i> spp.
Animalia	Annelida	Polycheata	Phyllodocida	Nereididae	<i>Nereididae</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	Ampharetidae	<i>Ampharetidae</i> spp.
Animalia	Annelida	Polycheata		Maldanidae	<i>Maldanidae</i> spp.
Animalia	Arthropoda	Malacostraca	Decapoda	Grapsidae	<i>Metopograpsus latifrons</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Grapsidae	<i>Metopograpsus quadridentatus</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Alpheidae	<i>Alpheus brevicristatus</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Paguridae	<i>Pagurus dubius</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Sesarmidae	<i>Sabellastarte</i> spp.
Animalia	Arthropoda	Malacostraca	Decapoda	Grapsidae	<i>Gaetice depressus</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Varuniae	<i>Hemigrapsus penicillatus</i>
Animalia	Arthropoda	Maxillopoda	Sessilia	Balanidae	<i>Balanus amphitrite</i>
Animalia	Cnidaria	Anthozoa	Actiniaria	Diadumenidae	<i>Diadumene lineata</i>
Animalia	Mollusca	Bivalvia	Arcoida	Arcidae	<i>Barbatia virescens</i>
Animalia	Mollusca	Bivalvia	Eutheterodonta	Hiatellidae	<i>Hiatella arctica</i>
Animalia	Mollusca	Bivalvia	Veneroida	Tellinidae	<i>Anomalocardia squamosa</i>
Animalia	Mollusca	Bivalvia	Mytioda	Mytilidae	<i>Xenostrobus atratus</i>
Animalia	Mollusca	Bivalvia	Ostreoida	Mytilidae	<i>Septifer virgatus</i>
Animalia	Mollusca	Bivalvia	Ostreoida	Ostreidae	<i>Saccostrea cucullata</i>
Animalia	Mollusca	Bivalvia	Pterioda	Pteriidae	<i>Isognomon isognomum</i>
Animalia	Mollusca	Bivalvia	Venerida	Glauconomidae	<i>Glauconome chinensis</i>
Animalia	Mollusca	Bivalvia	Veneroida	Tellinidae	<i>Tellina</i> sp.
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Marcia japonica</i>
Animalia	Mollusca	Bivalvia	Veneroida	Veneridae	<i>Ruditapes philippinarum</i>
Animalia	Mollusca	Gastropoda	Archaeogastropoda	Nacellidae	<i>Cellana grata</i>
Animalia	Mollusca	Gastropoda	Archaeogastropoda	Nacellidae	<i>Cellana toreuma</i>
Animalia	Mollusca	Gastropoda	Archaeogastropoda	Trochidae	<i>Monodonta labio</i>
Animalia	Mollusca	Gastropoda	Archaeogastropoda	Turbinidae	<i>Lunella coronata</i>
Animalia	Mollusca	Gastropoda	Archaeogastropoda	Turbinidae	<i>Lunella granulata</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Batillariidae	<i>Batillaria multiformis</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Batillariidae	<i>Batillaria sordida</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Batillariidae	<i>Batillaria zonalis</i>

Kingdom	Phylum	Class	Order	Family	Species
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Cerithidea cingulata</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Cerithidea microptera</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Pirenella asiatica</i>
Animalia	Mollusca	Gastropoda	Caenogastropoda	Potamididae	<i>Pirenella incisa</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	Cycloneritimorpha	Neritidae	<i>Nerita polita</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Nerita squamulata</i>
Animalia	Mollusca	Gastropoda	Littorinimorpha	Littorinidae	<i>Littoraria articulata</i>
Animalia	Mollusca	Gastropoda	Littorinimorpha	Littorinidae	<i>Littoraria</i> spp.
Animalia	Mollusca	Gastropoda	Neogastropoda	Muricidae	<i>Cronia margariticola</i>
Animalia	Mollusca	Gastropoda	Neogastropoda	Muricidae	<i>Thais bronni</i>
Animalia	Mollusca	Gastropoda	Neogastropoda	Muricidae	<i>Thais luteostoma</i>
Animalia	Mollusca	Gastropoda	Neogastropoda	Nassariidae	<i>Nassarius festivus</i>
Animalia	Mollusca	Gastropoda	Neotaenioglossa	Cerithiidae	<i>Clypeomorus moniliferum</i>
Animalia	Mollusca	Gastropoda	Neotaenioglossa	Littorinidae	<i>Nodilittorina radiata</i>
Animalia	Mollusca	Gastropoda	Neotaenioglossa	Littorinidae	<i>Nodilittorina vidua</i>
Animalia	Mollusca	Gastropoda	Patellogastropoda	Lottiidae	<i>Lottia dorsuosa</i>
Animalia	Mollusca	Gastropoda	Patellogastropoda	Lottiidae	<i>Lottia luchuana</i>
Animalia	Mollusca	Gastropoda	Patellogastropoda	Lottiidae	<i>Nipponacmea concinna</i>
Animalia	Mollusca	Gastropoda	Trochida	Tegulidae	<i>Chlorostoma argyrostoma</i>
Animalia	Mollusca	Gastropoda		Lottiidae	<i>Patelloida pygmaea</i>
Animalia	Platyhelminthes				<i>Platyhelminthes</i> sp.
Animalia	Mollusca	Polyplacophora	Chitonida	Ischnochitonidae	<i>Lepidozona</i> spp.
Animalia	Mollusca	Scaphopoda	Dentaliida	Dentaliide	<i>Dentalium</i> spp.
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

Jun 2019		Sampling Zone TC1		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>	8		8													16		4		26	62
Bi	<i>Xenostrobus atratus</i>																4					4
C	<i>Gaetice depressus</i>						2					2										4
G	<i>Batillaria multiformis</i>									30		4		14								80
G	<i>Batillaria zonalis</i>	38		16				48		6		12		4	2	6					10	142
G	<i>Cellana grata</i>											2									24	26
G	<i>Cellana toreuma</i>																		2			2
G	<i>Clithon faba</i>																		6			6
G	<i>Clithon retropictus</i>	8																				8
G	<i>Littoraria articulata</i>			12		8		6								2		8		4		40
G	<i>Littoraria spp.</i>												4									4
G	<i>Lottia luchuana</i>					2																2
G	<i>Lunella granulata</i>	2																			8	10
G	<i>Monodonta labio</i>	14		36		24		16		6				2							32	130
G	<i>Nerita polita</i>					4										6						10
G	<i>Nodilittorina radiata</i>			22		14															10	46
G	<i>Nodilittorina vidua</i>																				2	2
G	<i>Patelloida pygmaea</i>															8					4	12
G	<i>Pirenella asiatica</i>	8		16						2		2									2	30

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

Jun 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	
G	Pirenella incisa	10								14		6				4						34
Ne	Nemertea spp.						2						6		2					1		11
P	Maldanidae spp.												2	1								3
Sp	Sipunculus nudus			2										1		1						4
Total																					672	

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

Jun 2019	Sampling Zone TC1	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>															6				8		14
Bi	<i>Barbatia virescens</i>							16				10				6				30		62
Bi	<i>Hiatella arctica</i>															2						2
Bi	<i>Saccostrea cucullata</i>			68		28		50		76		40				12		38		70		382
Bi	<i>Xenostrobus atratus</i>	24						14		36		16						8		42		140
C	<i>Gaetice depressus</i>			2						2						2				10		16
C	<i>Hemigrapsus penicillatus</i>	4		2				2														8
C	<i>Metopograpsus latifrons</i>							2				4				2						8
C	<i>Pagurus dubius</i>			2				6		4		4								4		20
G	<i>Batillaria multiformis</i>	20		42		50				24				50				10				196
G	<i>Batillaria zonalis</i>	8		36		8				8				28		2						90
G	<i>Cellana grata</i>							2				2										4
G	<i>Cerithidea microptera</i>																			2		2
G	<i>Clithon oualaniensis</i>																	2				2
G	<i>Clithon retropictus</i>			2								2								36		40
G	<i>Littoraria articulata</i>			24				8		10		10				6		18		12		88
G	<i>Lottia dorsuosa</i>							2		2		2				2		2		4		14
G	<i>Lottia luchuana</i>			6						6		12				4				2		30
G	<i>Lunella coronata</i>											10								6		16
G	<i>Lunella granulata</i>	8		22								8				2		6		30		76
G	<i>Monodonta labio</i>			54		12		48		40		36				28		22				240

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

Jun 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		
G	<i>Nerita polita</i>			4																	10	14	
G	<i>Nerita squamulata</i>					2		2				2						6			2	14	
G	<i>Nipponacmea concinna</i>	10															12					22	
G	<i>Nodilittorina radiata</i>							26		14		34					12		10		36	132	
G	<i>Pirenella asiatica</i>			10		40										2					4	2	58
G	<i>Pirenella incisa</i>	4		12		8															8	32	
P	<i>Ampharetidae</i> sp.									1												1	
P	<i>Nereididae</i> spp.		1							1			1	1								4	
P	<i>Ordiniidae</i> spp.															2					1	3	
Sp	<i>Sipunculus nudus</i>															1					1	2	
																					Total	1732	

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

Jun 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>							10				16						8				34
Bi	<i>Barbatia virescens</i>					42		12		12		24						28				118
Bi	<i>Glauconome chinensis</i>					8														12		20
Bi	<i>Hiatella arctica</i>											4						6				10
Bi	<i>Ruditapes philippinarum</i>													2								2
Bi	<i>Saccostrea cucullata</i>	2		6		64				82		36				8		42				240
Bi	<i>Tellina sp.</i>																	2				2
Bi	<i>Xenostrobus atratus</i>							48		34		12						34				128
C	<i>Hemigrapsus penicillatus</i>									4												4
C	<i>Metopograpsus latifrons</i>					2		2		4				2								10
C	<i>Pagurus dubius</i>			2		16		2		2										2		24
Cn	<i>Diadumene lineata</i>											2						4				6
G	<i>Batillaria multiformis</i>			30										16						34		80
G	<i>Batillaria zonalis</i>	14		32						36				32		8				14		136
G	<i>Cellana grata</i>					2		4								34		4				44
G	<i>Clithon faba</i>																			28		28
G	<i>Clithon retropictus</i>			4						6		4				6						20
G	<i>Littoraria articulata</i>	16				36		36		42								8				138
G	<i>Lottia dorsuosa</i>					10						8						2				20
G	<i>Lottia luchuana</i>							12		10						2		8				32
G	<i>Lunella coronata</i>											4										4

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

Jun 2019	Sampling Zone TC1	Low tidal level (0.5 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	
G	<i>Lunella granulata</i>					14		6				2						26				48
G	<i>Monodonta labio</i>	12		8		68		36		88		32				12		22				278
G	<i>Nerita polita</i>	4		2						8				4				2				20
G	<i>Nerita squamulata</i>									8		2									2	12
G	<i>Nipponacmea concinna</i>					14		10		6		14				4		4				52
G	<i>Nodilittorina radiata</i>					10				4						14		20				48
G	<i>Pirenella asiatica</i>	6		8				10		24	4			8								60
G	<i>Pirenella incisa</i>	12		2				14		6				14								48
Ne	<i>Nemertea</i> spp.													1				1				2
P	<i>Ampharetidae</i> sp.													1							1	2
P	<i>Nereididae</i> spp.						1			1				1							3	6
Po	<i>Lepidozona</i> spp.													1								1
Sp	<i>Sipunculus nudus</i>							1							1		1					3
																					Total	1680

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

Jun 2019	Sampling Zone TC2	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>			2																		2
Bi	<i>Barbatia virescens</i>			16				22										4				42
Bi	<i>Saccostrea cucullata</i>			30				42		16						20		30				138
Bi	<i>Xenostrobus atratus</i>			10										6				16				32
C	<i>Gaetice depressus</i>			4										2				2				8
C	<i>Metopograpsus latifrons</i>	2																				2
C	<i>Metopograpsus quadridentatus</i>													2								2
Cn	<i>Diadumene lineata</i>													2								2
G	<i>Batillaria multiformis</i>	22	4					12		14	2	12	2			8		38			24	138
G	<i>Batillaria zonalis</i>	16						4		4		16	2			4		24			14	84
G	<i>Lunella granulata</i>			30																		30
G	<i>Monodonta labio</i>			28				14		24		4		52		32		32			6	192
G	<i>Nipponacmea concinna</i>			32										6		2		4			10	54
G	<i>Nodilittorina vidua</i>													12							6	18
G	<i>Patelloida pygmaea</i>													2		4		16			8	30
G	<i>Pirenella asiatica</i>	6		4				2	2					2							12	28
G	<i>Pirenella incisa</i>	2						2		6		4	2								4	20
Ne	<i>Nemertea</i> spp.													2		1		2				5
Sp	<i>Sipunculus nudus</i>													1		3		2				6
																					Total	833

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

Jun 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>							2							12	2		22				38
Bi	<i>Barbatia virescens</i>														4	10		2				16
Bi	<i>Hiatella arctica</i>											14						4		34		52
Bi	<i>Saccostrea cucullata</i>	112						4		20		44		56				28		44		308
Bi	<i>Xenostrobus atratus</i>											10		14		6						30
C	<i>Gaetice depressus</i>											2		2						4		8
C	<i>Metopograpsus latifrons</i>											2				2				2		6
C	<i>Metopograpsus quadridentatus</i>													2				8		2		12
G	<i>Batillaria multiformis</i>			16				32		36		12		6		10		8				120
G	<i>Batillaria zonalis</i>	20		24		8		20		20		20		24				0				136
G	<i>Clithon retropictus</i>							2								2		6				10
G	<i>Lunella coronata</i>																	2				2
G	<i>Lunella granulata</i>															2		10		28		40
G	<i>Monodonta labio</i>	74				4		6		10		12		8		8		6		6		134
G	<i>Nassarius festivus</i>													2				2				4
G	<i>Nerita polita</i>									2				2				2				6
G	<i>Nipponacmea concinna</i>											4		12				10		8		34
G	<i>Patelloida pygmaea</i>									2				8		4						14
G	<i>Pirenella asiatica</i>							10		18		10		12		4		2		14		70
G	<i>Pirenella incisa</i>							14		4		2				6		4		10		40
P	<i>Nereididae spp.</i>													1		1		2		1		5

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

Jun 2019		Sampling Zone TC2		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		
P	<i>Oweniidae</i> spp.																									1	1
																						Total	1086				

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

Jun 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>																				4	4
Bi	<i>Barbatia virescens</i>					12		34				16									4	66
Bi	<i>Glauconome chinensis</i>	8						8			4											20
Bi	<i>Isognomon isognomum</i>															2						2
Bi	<i>Saccostrea cucullata</i>	16				64				74	34	34									30	252
Bi	<i>Xenostrobus atratus</i>	8				4				14	22					6					16	70
C	<i>Gaetice depressus</i>											8				2						10
C	<i>Metopograpsus latifrons</i>					4		2														6
C	<i>Metopograpsus quadridentatus</i>					4										2						6
C	<i>Pagurus dubius</i>											2										2
Cn	<i>Diadumene lineata</i>	2						2				2										6
G	<i>Batillaria multiformis</i>	12		32								2						34		2		82
G	<i>Batillaria zonalis</i>	42	4	8	2	20	2				2					8	4	32		2		126
G	<i>Cellana grata</i>									2												2
G	<i>Cellana toreuma</i>									4												4
G	<i>Clithon faba</i>															2						2
G	<i>Clithon retropictus</i>													2								2
G	<i>Clithon retropictus</i>	2														6						8
G	<i>Lunella coronata</i>	4		2		4												10		4		24
G	<i>Lunella granulata</i>								2		6	14	14			12				2		50
G	<i>Monodonta labio</i>	8		26		22		84	4	66	28										16	254

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

Jun 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	
G	<i>Nerita polita</i>	2														2						4
G	<i>Nipponacmea concinna</i>					6		22				4		8							6	46
G	<i>Nodilittorina radiata</i>							36				24		18							10	88
G	<i>Nodilittorina vidua</i>							8				22										30
G	<i>Patelloida pygmaea</i>	4				6				6		8									2	26
G	<i>Pirenella asiatica</i>	8		14						2				4		4		10		10		52
G	<i>Pirenella incisa</i>	4		16	2		2							6		24	10	28		4		96
Ne	<i>Nemertea</i> sp.					1		1						1				1				4
P	<i>Nereididae</i> spp.					1															1	2
P	<i>Oweniidae</i> sp.													1								1
Sp	<i>Sipunculus nudus</i>											1						1				2
																					Total	1349

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

Jun 2019	Sampling Zone TC3	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	
Ba	<i>Balanus amphitrite</i>	2														8		10				20
Bi	<i>Marcia japonica</i>													4								4
Bi	<i>Saccostrea cucullata</i>	2			2			94								50		56				204
Bi	<i>Xenostrobus atratus</i>							54								24		26				104
C	<i>Gaetice depressus</i>			2										4		4		4		2		16
C	<i>Hemigrapsus penicillatus</i>			2												2						4
C	<i>Metopograpsus latifrons</i>													2		2		2				6
C	<i>Pagurus dubius</i>													2	4	4		2		6		18
G	<i>Batillaria multiformis</i>													34	50						48	132
G	<i>Batillaria zonalis</i>	4								12		20				4				50		90
G	<i>Clithon retropictus</i>						2							10								12
G	<i>Clypeomorus moniliferum</i>											4										4
G	<i>Littoraria articulata</i>							40								24		12				76
G	<i>Lottia dorsuosa</i>	2														2		4		10		18
G	<i>Lunella coronata</i>																					0
G	<i>Lunella granulata</i>			6								8				18		10		8		50
G	<i>Monodonta labio</i>	8		18	2		24									42		38		46		178
G	<i>Nipponacmea concinna</i>			8												4						12
G	<i>Nodilittorina radiata</i>						22							2		8				4		36
G	<i>Nodilittorina vidua</i>						20		16					4		10						50
G	<i>Patelloida pygmaea</i>						8							14		8		2				32

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

Jun 2019	Sampling Zone TC3	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	
G	<i>Pirenella asiatica</i>	14		10						24		10						6		34		98
G	<i>Pirenella incisa</i>	12		4						10		34	2	34						18		114
P	<i>Maldanidae</i> spp.																1				1	2
																					Total	1280

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

Jun 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	
Ba	<i>Balanus amphitrite</i>					36						4						12				52
Bi	<i>Barbatia virescens</i>					8						4				4		10				26
Bi	<i>Glauconome chinensis</i>															2		10				12
Bi	<i>Ruditapes philippinarum</i>											2										2
Bi	<i>Saccostrea cucullata</i>	48						4				32				36		38				158
Bi	<i>Xenostrobus atratus</i>					32						12				14		18				76
C	<i>Alpheus brevieristatus</i>	2																				2
C	<i>Gaetice depressus</i>	4				2								2				6				14
C	<i>Metopograpsus latifrons</i>	2				2						2						4				10
C	<i>Pagurus dubius</i>					4				4												8
Cn	<i>Diadumene lineata</i>					4												8				12
G	<i>Batillaria multiformis</i>			16		20		14						36				2		16		104
G	<i>Batillaria zonalis</i>									14				18						22		54
G	<i>Cerithidea cingulata</i>													12				10				22
G	<i>Cerithidea microptera</i>													4		28						32
G	<i>Clypeomorus moniliferum</i>							2						2								4
G	<i>Cronia margariticola</i>																			2		2
G	<i>Lunella coronata</i>					2										4		10				16
G	<i>Lunella granulata</i>					8						16				10		8				42
G	<i>Monodonta labio</i>	24				32						26						32				114
G	<i>Nerita squamulata</i>															2						2

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

Jun 2019	Sampling Zone TC3	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	
G	<i>Nipponacmea concinna</i>					20												4				24
G	<i>Nodilittorina radiata</i>															32		6				38
G	<i>Nodilittorina vidua</i>															22						22
G	<i>Patelloida pygmaea</i>	8																				8
G	<i>Pirenella asiatica</i>							4		2				10		10		10			34	70
G	<i>Pirenella incisa</i>							10		6				22		22		4			10	74
Ne	<i>Nemertea</i> spp.															1			1		1	3
P	<i>Ampharetidae</i> spp.													4		1						5
P	<i>Nereididae</i> spp.																	2				2
Po	<i>Lepidozona</i> spp.																	5				5
																					Total	1015

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

Jun 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>	26				28		32		24		20		10				12		18		170
Bi	<i>Barbatia virescens</i>			34		24		28		16		14		22				4		36		178
Bi	<i>Marcia japonica</i>													2		2						4
Bi	<i>Saccostrea cucullata</i>	74		80		30		48		6		36						14		54		342
Bi	<i>Xenostrobus atratus</i>	8						36				44		8						24		120
C	<i>Gaetice depressus</i>			34		16		14		4		16				2						86
C	<i>Hemigrapsus penicillatus</i>			10		4																14
C	<i>Metopograpsus latifrons</i>			10				12		10		8		2		4		2				48
C	<i>Metopograpsus quadridentatus</i>			12				10		14		4						4				44
C	<i>Pagurus dubius</i>	4				2								2				4				12
Cn	<i>Diadumene lineata</i>			2								4		2				2		6		16
G	<i>Batillaria multiformis</i>			10						10		4				12						36
G	<i>Batillaria zonalis</i>	14				8		14		24						10						70
G	<i>Cerithidea microptera</i>			8								4										12
G	<i>Clypeomorus moniliferum</i>											2				2						4
G	<i>Lottia dorsuosa</i>							22		8		6										36
G	<i>Lunella coronata</i>	16								2		34		4		4		8		4		72
G	<i>Lunella granulata</i>	24		36		16		42		8		8		6		2		6		30		178
G	<i>Monodonta labio</i>											28								6		34
G	<i>Nerita squamulata</i>	8																				8
G	<i>Nipponacmea concinna</i>							8						4				4		10		26

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

Jun 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		
G	<i>Nodilittorina radiata</i>	18		10				24						8				10				70	
G	<i>Nodilittorina vidua</i>			12														2				14	
G	<i>Patelloida pygmaea</i>	28				14		40				8	2					2		4		98	
G	<i>Pirenella asiatica</i>	8				8		10														26	
G	<i>Pirenella incisa</i>							4		8												12	
P	<i>Ampharetidae</i> spp.																2					2	
P	<i>Oweniidae</i> spp.											1				1						2	
P	<i>Sabellastarte</i> spp.											1			1							2	
Po	<i>Lepidozona</i> spp.																	1				1	
Sp	<i>Sipunculus nudus</i>													1							2	3	
																					Total	1740	

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

Jun 2019	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	
Bi	<i>Barbatia virescens</i>											16				2		4				22
Bi	<i>Glauconome chinensis</i>	6		8				4														18
Bi	<i>Saccostrea cucullata</i>			16		16		14				46		4		10		10			2	118
Bi	<i>Xenostrobus atratus</i>							16				30				2		8				56
C	<i>Metopograpsus latifrons</i>														2						2	4
G	<i>Batillaria zonalis</i>															2					2	4
G	<i>Clithon faba</i>			2				2										4				8
G	<i>Clithon retropictus</i>			4						6		4		4		4					4	26
G	<i>Littoraria articulata</i>			8								8		6								22
G	<i>Lottia dorsuosa</i>							2				10				2		2			2	18
G	<i>Lunella coronata</i>											4		2								6
G	<i>Lunella granulata</i>															6		6			6	18
G	<i>Monodonta labio</i>	10		48		20		36		8		24		4		16		16			16	198
G	<i>Nassarius festivus</i>																	2				2
G	<i>Nerita squamulata</i>							8							2							10
G	<i>Nipponacmea concinna</i>											12										12
G	<i>Pirenella asiatica</i>	8				10		14										2				34
G	<i>Pirenella incisa</i>	4		8		6		16														34
P	<i>Sabellidae sp.</i>											2		4								6
Sc	<i>Dentalium spp.</i>																				2	2
																					Total	618

Key for faunal groups (Gp):

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

Jun 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	
Ba	<i>Balanus amphitrite</i>													16				10				26
Bi	<i>Barbatia virescens</i>	2								20		16						16				54
Bi	<i>Glaucanome chinensis</i>	4																				4
Bi	<i>Isognomon isognomum</i>													2							4	6
Bi	<i>Saccostrea cucullata</i>	16	34	12	6	112	62	20	38	4												304
Bi	<i>Xenostrobus atratus</i>			14		44	20	72	10	16												176
C	<i>Gaetice depressus</i>	2						14					8	8							2	34
C	<i>Hemigrapsus penicillatus</i>									22			4	2								28
C	<i>Pagurus dubius</i>							4		6		8								4		22
G	<i>Batillaria multiformis</i>	4												20				30				54
G	<i>Batillaria sordida</i>											2						8				10
G	<i>Batillaria zonalis</i>	2			32									16								50
G	<i>Cellana grata</i>			6								2						2				10
G	<i>Clithon faba</i>					10	8													2		20
G	<i>Clithon retropictus</i>							2	8													10
G	<i>Cronia margariticola</i>											4						16				20
G	<i>Littoraria articulata</i>							54	42												10	106
G	<i>Lottia dorsuosa</i>				4																	4
G	<i>Lunella coronata</i>	6		14		10												16				46
G	<i>Lunella granulata</i>			12		4												30				46
G	<i>Monodonta labio</i>	36	44	64	24	62																230

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

Jun 2019	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	
G	<i>Nerita squamulata</i>	6								4												10
G	<i>Nipponacmea concinna</i>			10				14		56		12										92
G	<i>Nodilittorina radiata</i>			12		4		8		42											16	82
G	<i>Patelloida pygmaea</i>	8		8		6		8		8								10			6	54
G	<i>Pirenella asiatica</i>	8				16		14								6					34	78
G	<i>Pirenella incisa</i>	16				8										10						34
G	<i>Thais bronni</i>											2										2
G	<i>Thais luteostoma</i>											4									4	8
P	<i>Oweniidae</i> spp.					2																2
P	<i>Sabellidae imbricatus</i>							1							2			1			2	6
Pl	<i>Platyhelminthes</i>			2																		2
Po	<i>Lepidozona</i> spp.																	1				1
																					Total	1631

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

Jun 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>			8								16		4		2					6	36
Bi	<i>Anomalocardia squamosa</i>					2						2										4
Bi	<i>Barbatia virescens</i>	36		8				6		44						8		22				124
Bi	<i>Isognomon isognomum</i>											2									2	4
Bi	<i>Saccostrea cucullata</i>	70		44		16		16		48		58				30		58		38		378
Bi	<i>Septifer virgatus</i>													2		2						4
C	<i>Gaetice depressus</i>	14		8		6				6		4									2	40
C	<i>Metopograpsus latifrons</i>	2				2		2								4		2				12
C	<i>Metopograpsus quadridentatus</i>							2				2										4
C	<i>Pagurus dubius</i>	6														2					2	10
Cn	<i>Diadumene lineata</i>	6													4							10
G	<i>Batillaria multiformis</i>	24		22				2		8					32							88
G	<i>Batillaria zonalis</i>							12							22							34
G	<i>Cellana grata</i>			6				8		12						2						28
G	<i>Cellana toreuma</i>							4		4								16				24
G	<i>Cellana toreuma</i>											2									12	14
G	<i>Chlorostoma argyrostoma</i>							24														24
G	<i>Cronia margariticola</i>					4																4
G	<i>Littoraria articulata</i>															18					22	40
G	<i>Lottia dorsuosa</i>					8									4			2		4		18
G	<i>Lunella coronata</i>														6		10					16

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

Jun 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	
G	<i>Lunella granulata</i>	28		12				22		36						18				30		146
G	<i>Monodonta labio</i>	64		48						36		52				16		26				242
G	<i>Nerita squamulata</i>			8				4		32				4						10		58
G	<i>Nipponacmea concinna</i>	40		12				4		12								12				80
G	<i>Nodilittorina radiata</i>	34				6		16				42				20				28		146
G	<i>Patelloida pygmaea</i>	18		16		16		14		32												96
G	<i>Pirenella asiatica</i>							8								4						12
G	<i>Pirenella incisa</i>															2						2
Ne	<i>Nemertea</i> spp.													2								2
P	<i>Sabellidae imbricatus</i>																	2				2
P	<i>Nereididae</i> spp.																				1	1
																					Total	1703

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