

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.
(December 2021)



TC1

Plastic waste



Trash gill net



TC3

Boat wreckage



Trash gill net



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.

ST *Carcinoscorpius rotundicauda* (large individuals (>100mm) of horseshoe crab record was excluded from data analysis)



ST *Tachypleus tridentatus* (large individuals (>100mm) of horseshoe crab record was excluded from data analysis)



Figure 3.1 Examples of photographic records of horseshoe crab (Dec 2021)

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

	TC1	TC2	TC3	ST
Search duration (hr)	2	2	3	3
<i>Carcinoscorpius rotundicauda</i>				
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)	0.00	0.00	0.00	0.00
<i>Tachypleus tridentatus</i>				
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)	0.00	0.00	0.00	0.00

Remark: No juvenile horseshoe crab was recorded in the present survey.

March 2015 - ST



June 2017 – TC2



(Female)

June 2017 – TC3



(Male)



Figure 3.2 Photographic records of mating pairs of horseshoe crab

December 2017 – TC3



June 2018 – TC3



(Female)

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

(Male)

March 2019 – TC2



June 2019 – TC3



March 2020 – TC1



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



March 2019



December 2018



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



March 2020



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

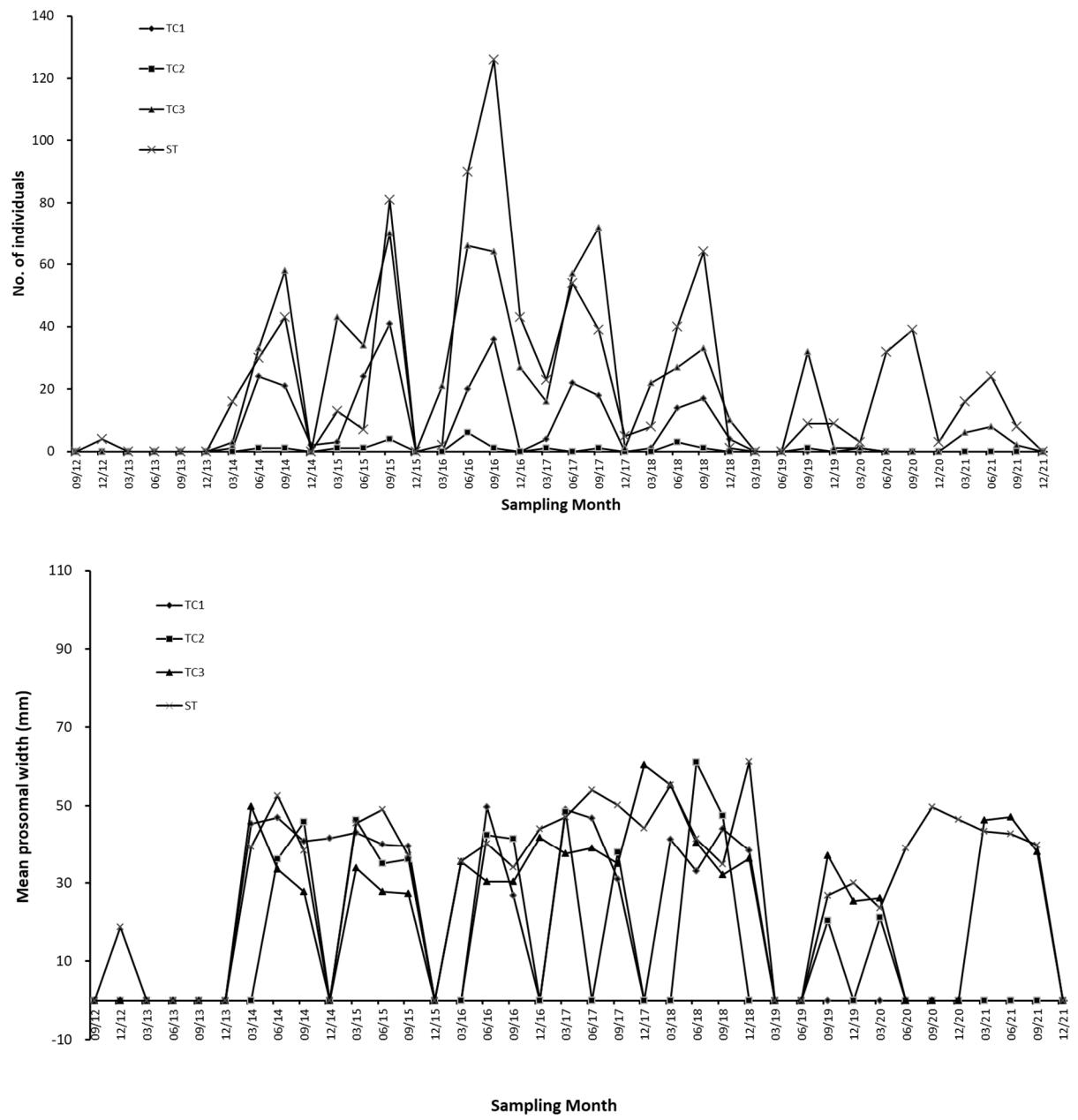


Figure 3.5 Changes of number of individuals mean prosomal width and search record of horseshoe crab *Carcinoscorpius rotundicauda* in every sampling zone along the sampling months

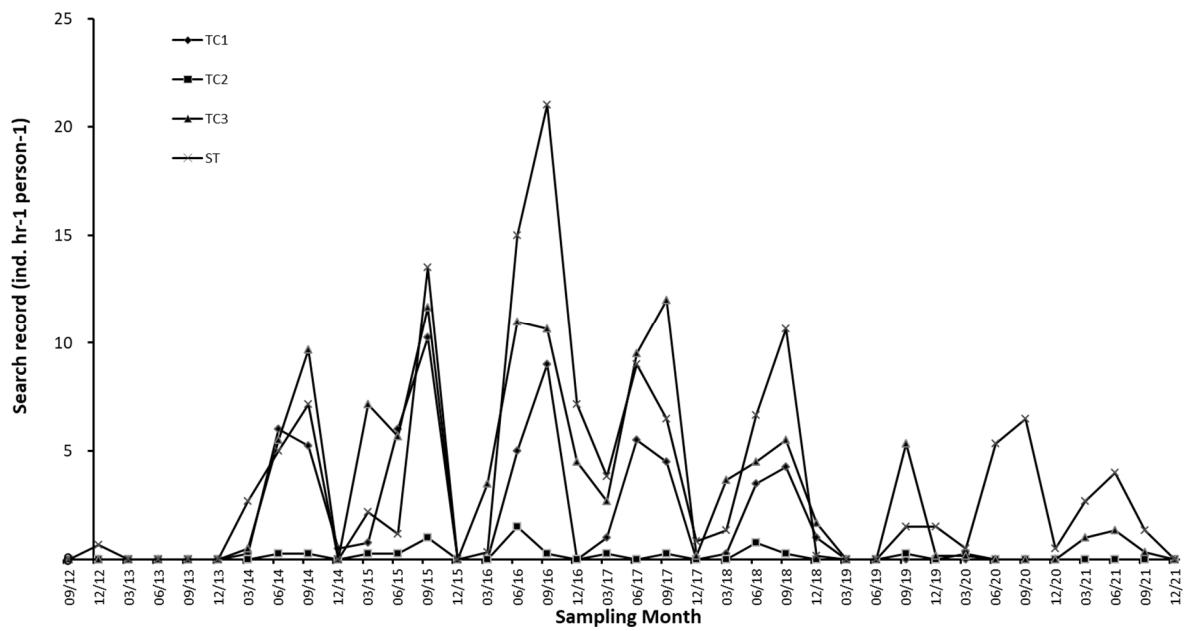


Figure 3.5 (Cont'd) Changes of number of individuals mean prosomal width and search record of horseshoe crab *Carcinoscorpius rotundicauda* in every sampling zone along the sampling months

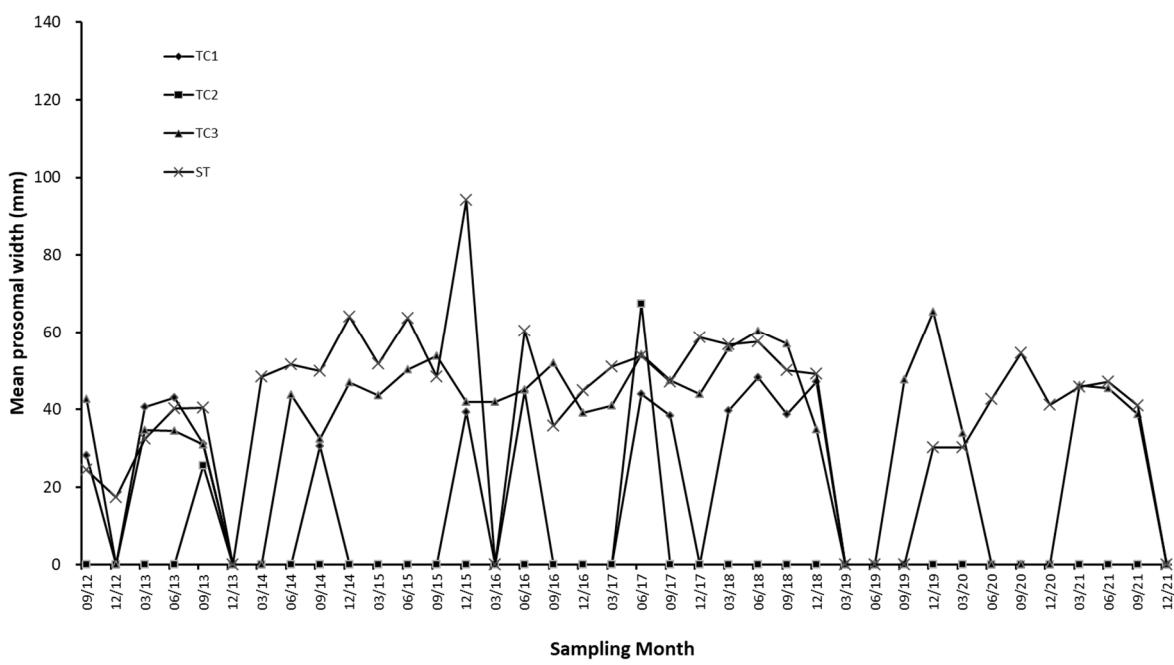
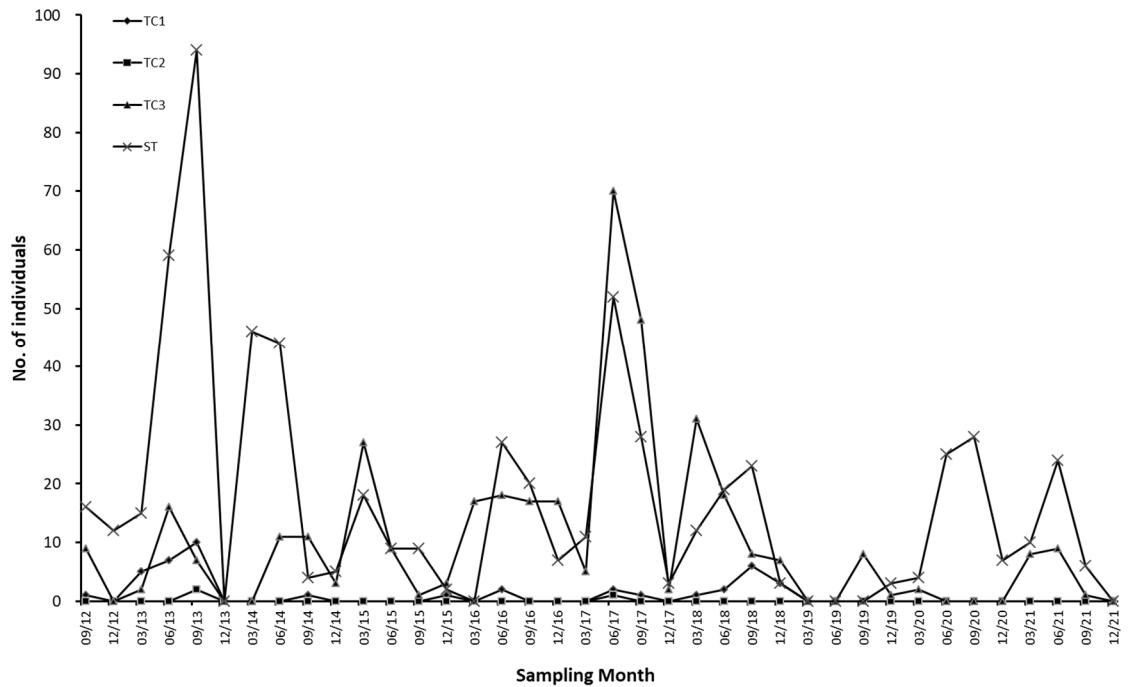


Figure 3.6 Changes of number of individuals mean prosomal width and search record of horseshoe crab *Tachypleus tridentatus* in every sampling zone along the sampling months

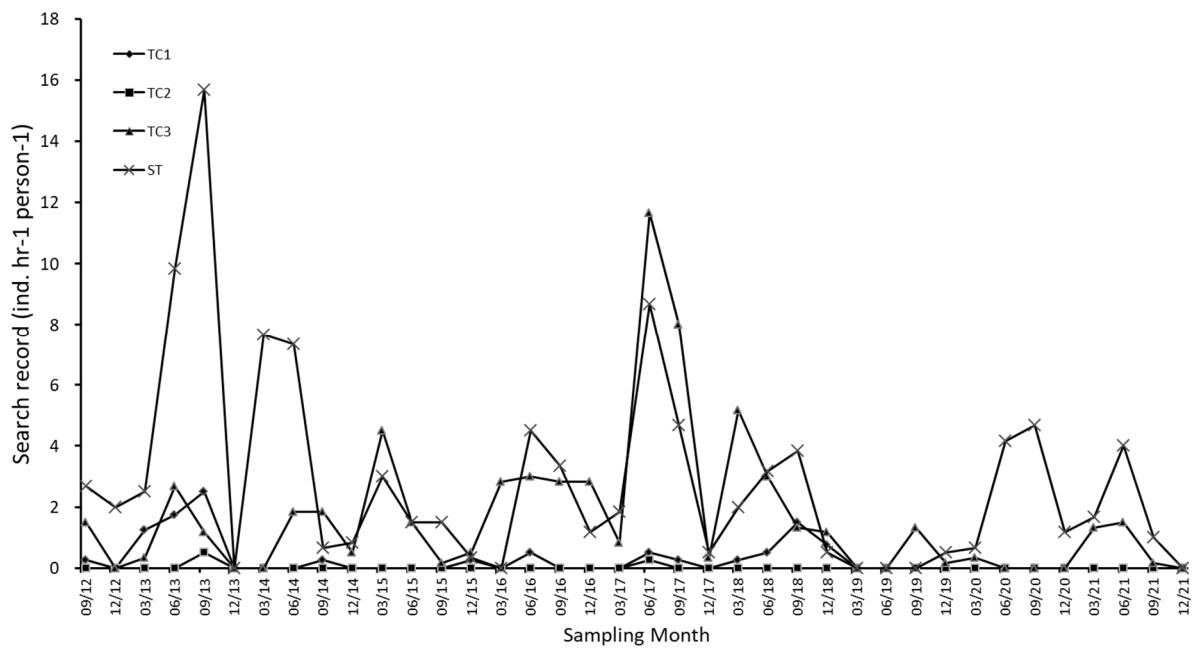


Figure 3.6 (Cont'd) Changes of number of individuals mean prosomal width and search record of horseshoe crab *Tachypleus tridentatus* in every sampling zone along the sampling months

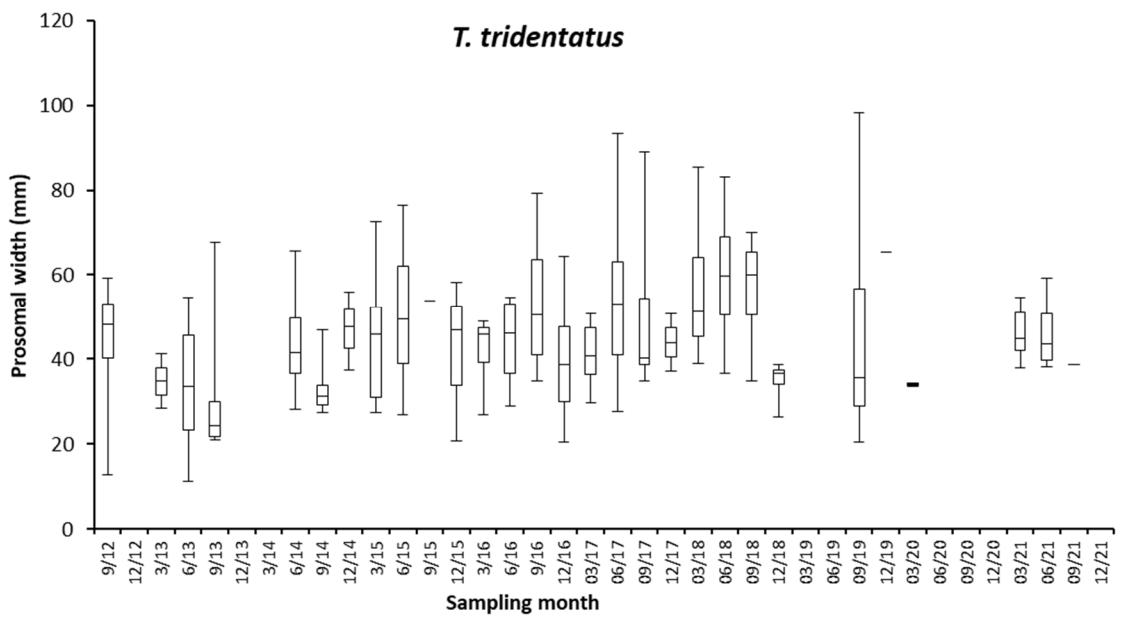
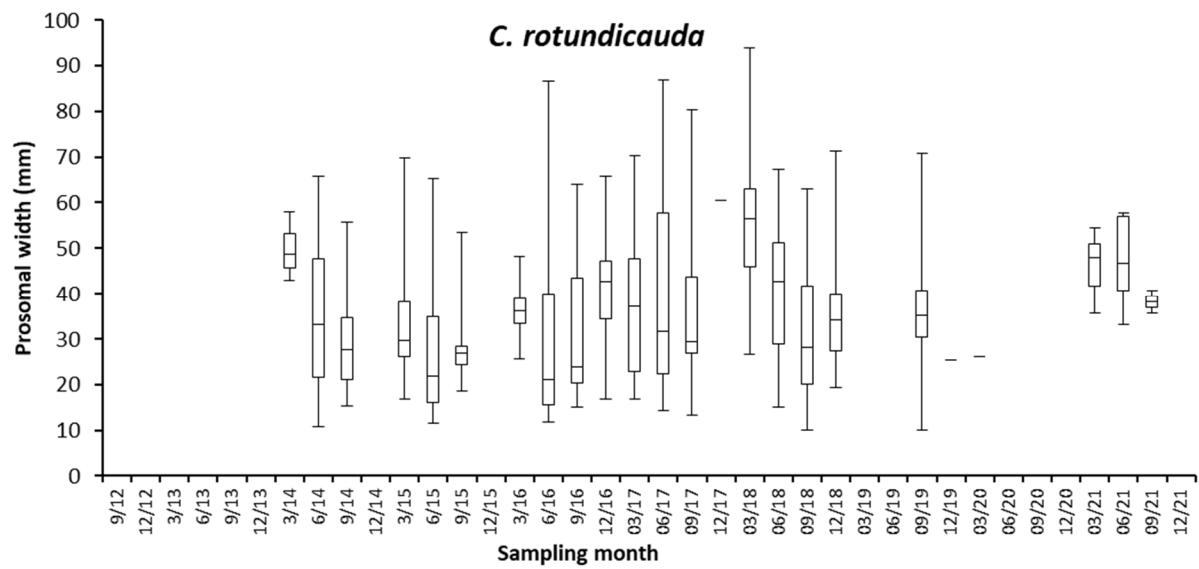


Figure 3.7 Box plot of prosomal width of horseshoe crab in the sampling zone TC3 along the sampling months. (The box represents 50% of the sample (upper to lower quartile) with a middle line showing the median value. The upper whisker and lower whisker showed the 25% of sample above upper quartile and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

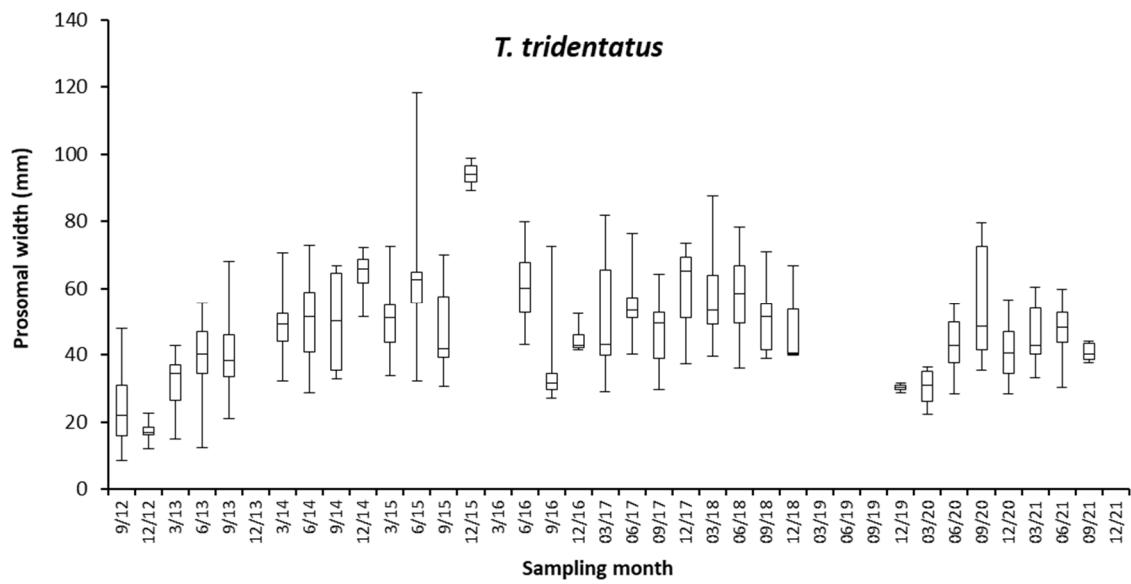
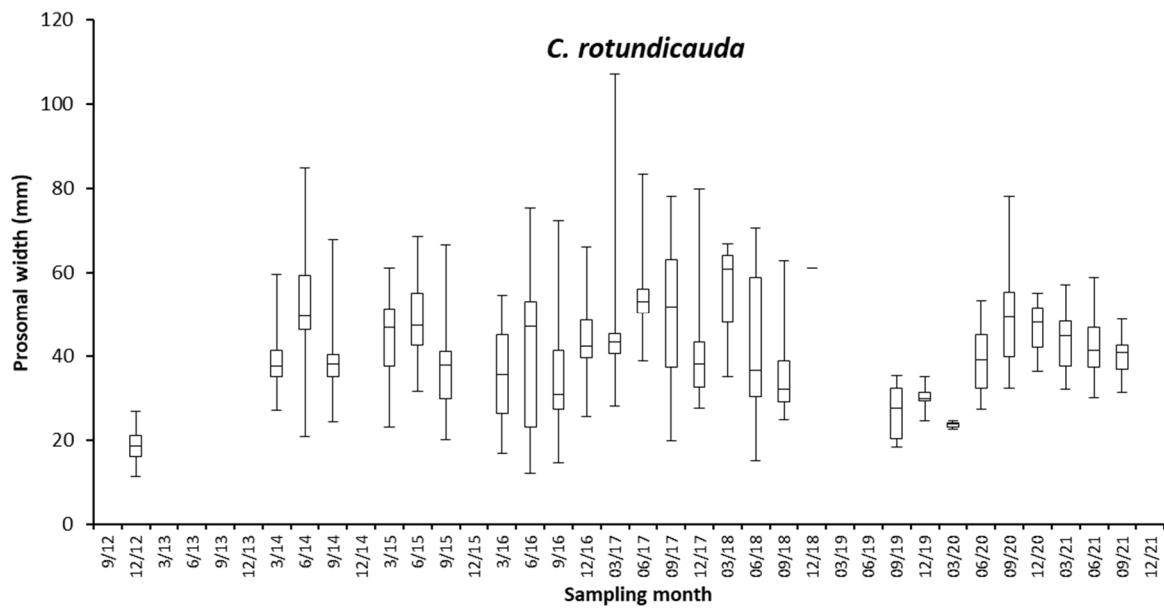


Figure 3.8 Box plot of prosomal width of horseshoe crab in the sampling zone ST along the sampling months. (The box represents 50% of the sample (upper to lower quartile) with a middle line showing the median value. The upper whisker and lower whisker showed the 25% of sample above upper quartile and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

***Halophila ovalis* in TC3**



Figure 3.9 Photographic record of seagrass beds in present survey.

***Halophila ovalis* and *Zostera japonica* in ST**



Figure 3.9 (Cont'd) 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	ST	ST
	<i>Halophila ovalis</i>	<i>Halophila ovalis</i>	<i>Zostera japonica</i>
Number of patches	3	6	1
Total area (m²)	350	680	15
Average area (m²)	116.7	113.33	15

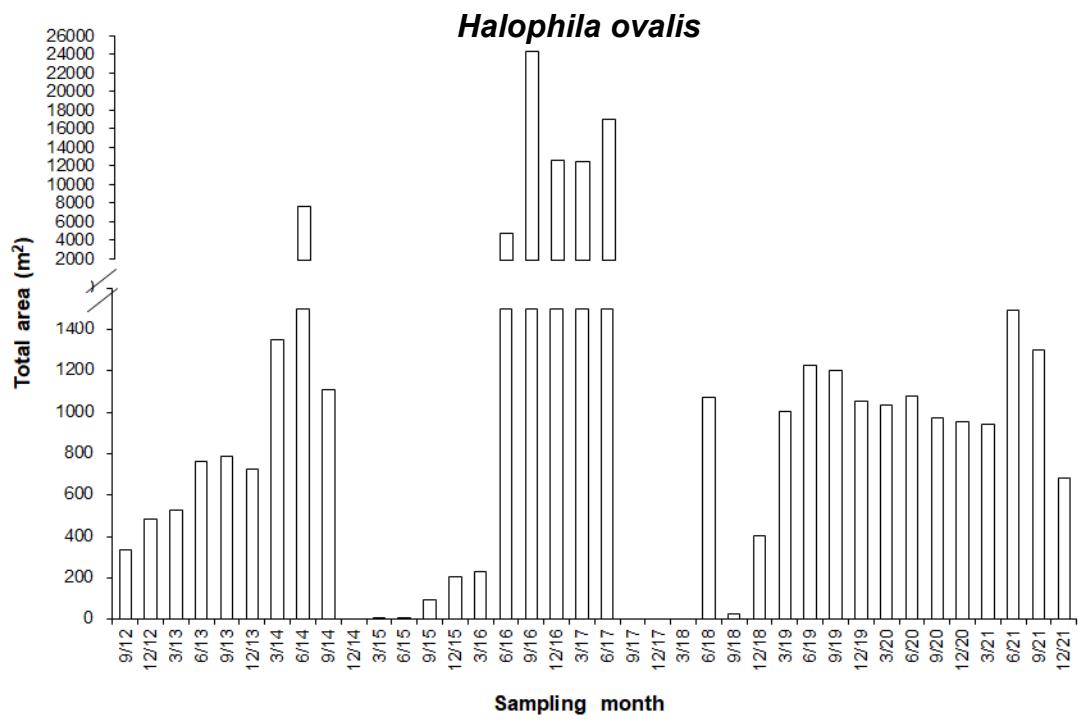
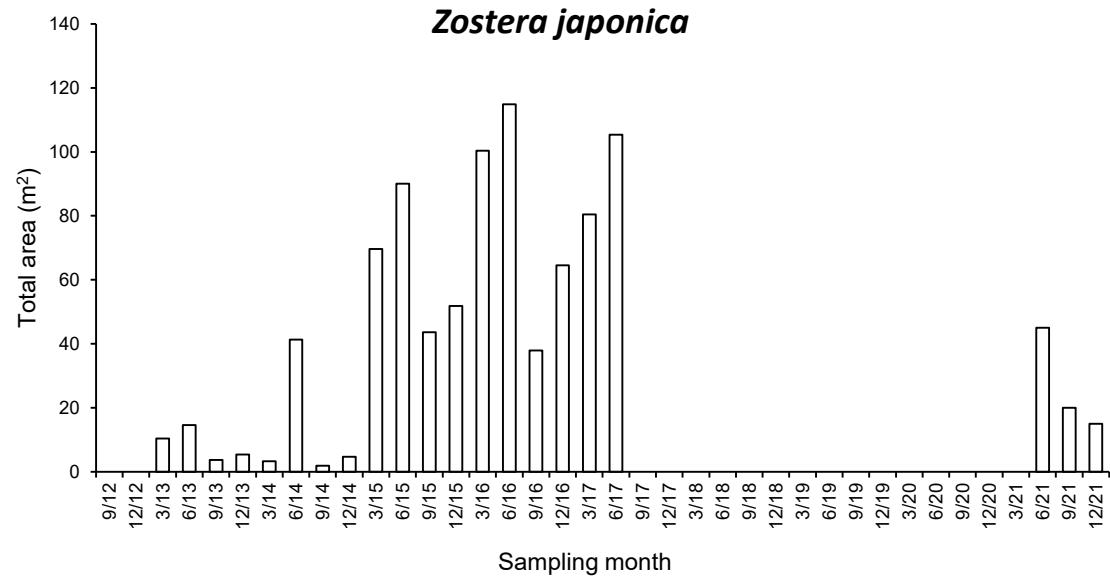


Figure 3.11 Temporal changes of estimated total area of seagrass beds in ST

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



September 2019



December 2019



March 2020



June 2020



September 2020



December 2020



March 2021



June 2021



September 2021



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



6/12/2021

TC2 H

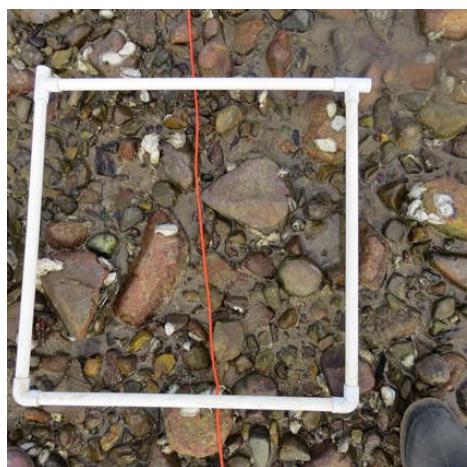


TC2 L



16/12/2021

TC3 H



TC3 L



17/12/2021

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



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>December 2021</i>				
Mollusca	7750	87.5	258	29
Arthropoda	687	7.8	23	6
Annelida	151	1.7	5	2
Sipuncula	177	2.0	6	2
Nemertea	52	0.6	2	1
Cnidaria	41	0.5	1	1
Platyhelminthes	2	0.0	0	1
8860				
Total				

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	1462	81.4	195	1806	87.8	241	2619	90.2	349	1863	88.5	248
Arthropoda	288	16.1	38	150	7.3	20	155	5.3	21	94	4.5	13
Annelida	12	0.7	2	15	0.7	2	64	2.2	9	60	2.9	8
Sipuncula	20	1.1	3	39	1.9	5	54	1.9	7	64	3.0	9
Nemertea	0	0.0	0	26	1.3	3	8	0.3	1	18	0.9	2
Cnidaria	14	0.8	2	22	1.1	3	0	0.0	0	5	0.2	1
Platyhelminthes	0	0.0	0	0	0.0	0	2	0.1	0	0	0.0	0
Sub-total 1796				2058			2902			2104		

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	Bi	<i>Saccostrea cucullata</i>	113	29	8
	G	<i>Monodonta labio</i>	73	19	7
	G	<i>Batillaria multiformis</i>	48	12	56
Mid	Bi	<i>Saccostrea cucullata</i>	47	30	19
	G	<i>Monodonta labio</i>	33	21	29
Low	Bi	<i>Saccostrea cucullata</i>	54	34	33
	G	<i>Monodonta labio</i>	24	15	54

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	Bi	<i>Saccostrea cucullata</i>	108	29	41
	G	<i>Monodonta labio</i>	53	14	8
	G	<i>Batillaria multiformis</i>	47	13	72
Mid	Bi	<i>Saccostrea cucullata</i>	88	26	37
	G	<i>Monodonta labio</i>	53	16	12
	G	<i>Batillaria multiformis</i>	45	13	8
	G	<i>Batillaria zonalis</i>	45	13	54
Low	Bi	<i>Saccostrea cucullata</i>	31	28	46
	G	<i>Monodonta labio</i>	16	14	9

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>	137	32	7
	G	<i>Monodonta labio</i>	69	16	2
Mid	Bi	<i>Saccostrea cucullata</i>	136	33	8
	G	<i>Batillaria multiformis</i>	40	10	71
	G	<i>Monodonta labio</i>	50	12	5
Low	Bi	<i>Saccostrea cucullata</i>	103	32	37
	G	<i>Monodonta labio</i>	50	16	1
	G	<i>Lunella granulata</i>	46	14	1

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	Bi	<i>Saccostrea cucullata</i>	103	37	16
	G	<i>Batillaria multiformis</i>	40	14	23
	G	<i>Monodonta labio</i>	34	12	39
Mid	Bi	<i>Saccostrea cucullata</i>	105	29	28
	G	<i>Monodonta labio</i>	50	14	46
	Bi	<i>Xenostrobus atratus</i>	49	14	2
Low	Bi	<i>Saccostrea cucullata</i>	61	30	25
	G	<i>Monodonta labio</i>	40	20	37

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

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' across tidal levels	Mean J across tidal levels
TC1	H	15		387		2.4	0.9
	M	13	13	175	239	2.1	2.17
	L	12		156		2.0	0.8
TC2	H	16		369		2.2	0.8
	M	16	14	340	274	2.2	2.17
	L	9		113		2.1	0.9
TC3	H	18		426		2.1	0.7
	M	17	17	409	386	2.3	2.17
	L	15		324		2.1	0.8
ST	H	13		279		2.0	0.8
	M	13	12	360	280	2.0	1.97
	L	11		202		1.9	0.8

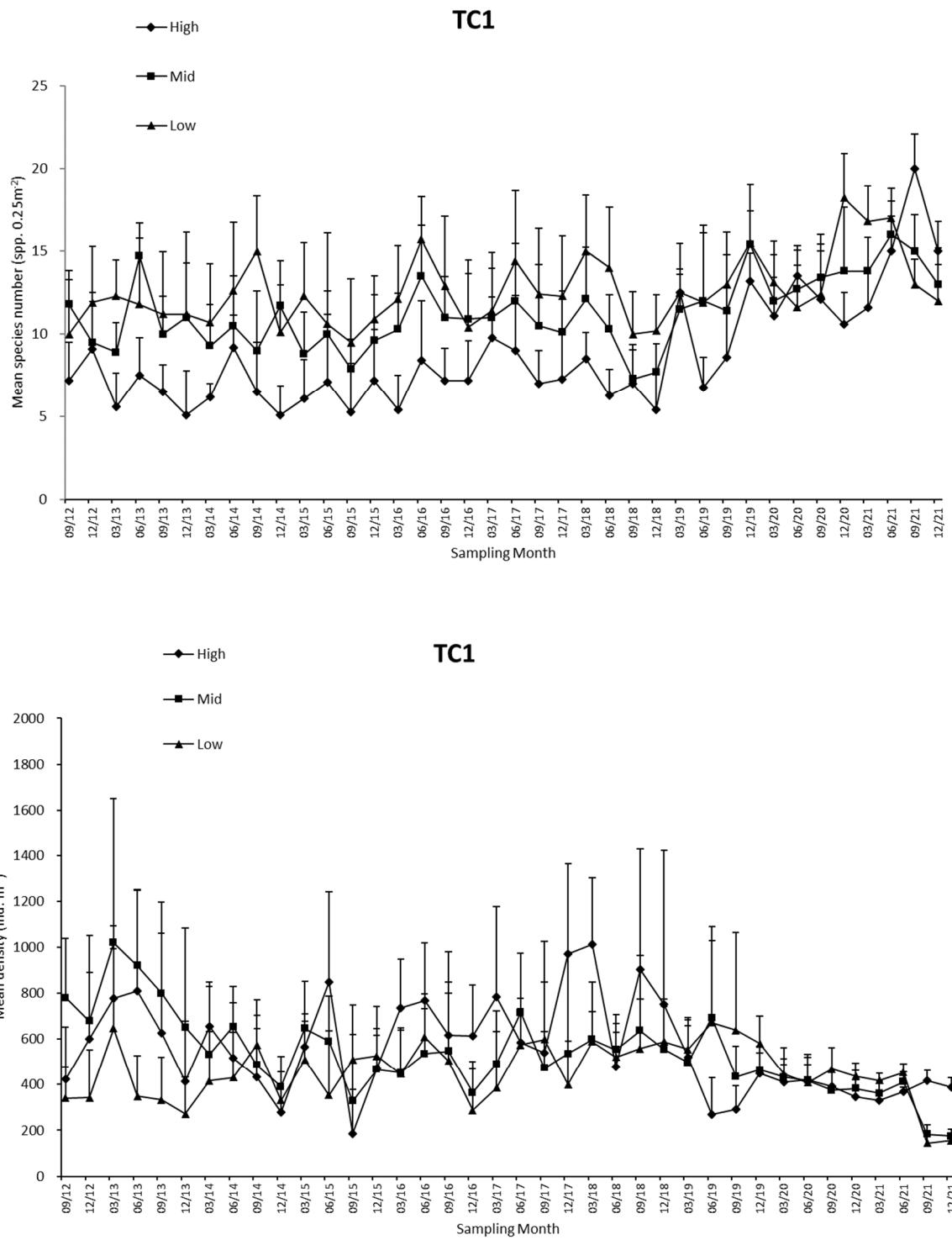


Figure 3.14 Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC1

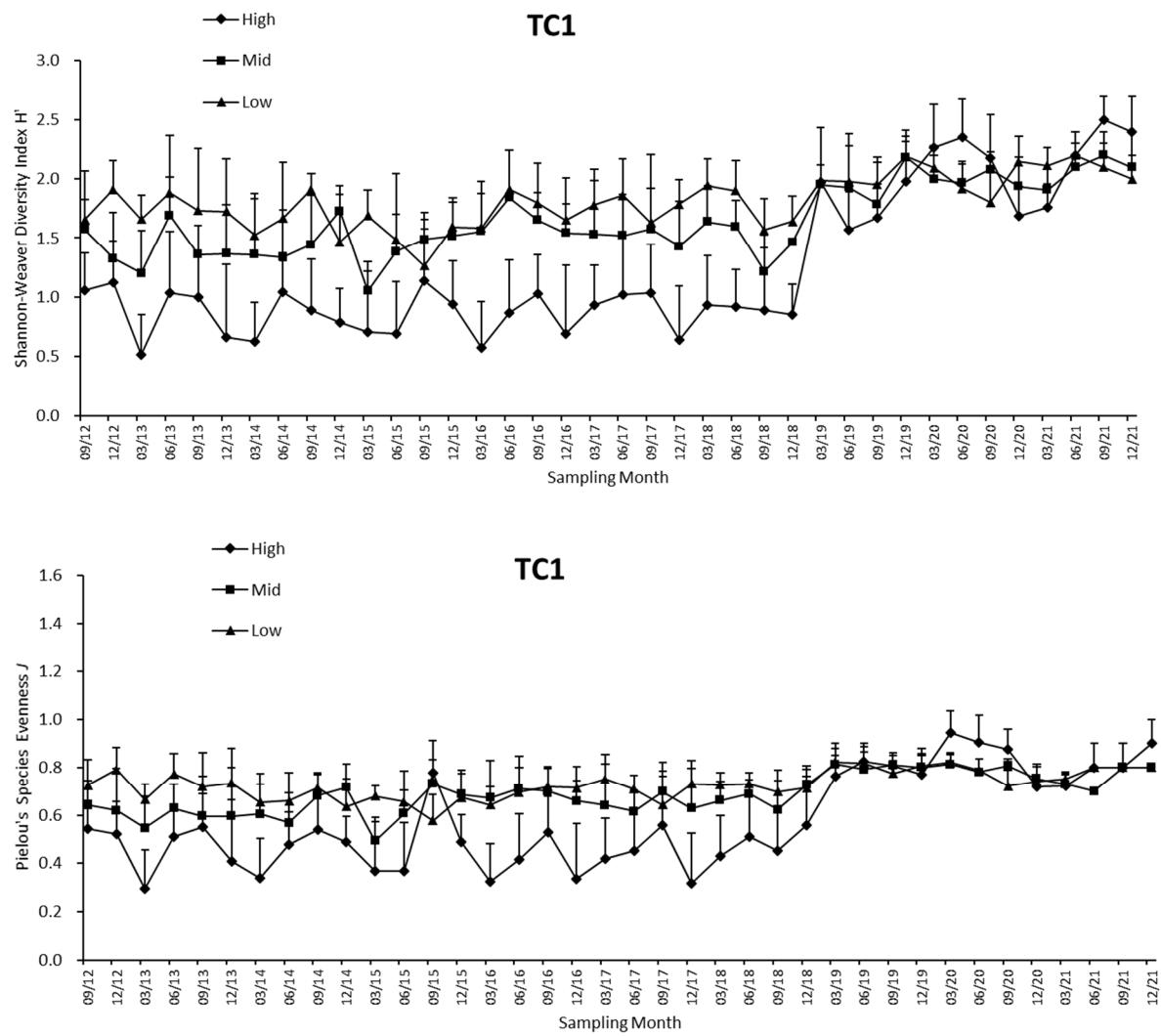


Figure 3.14(Cont'd) Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC1

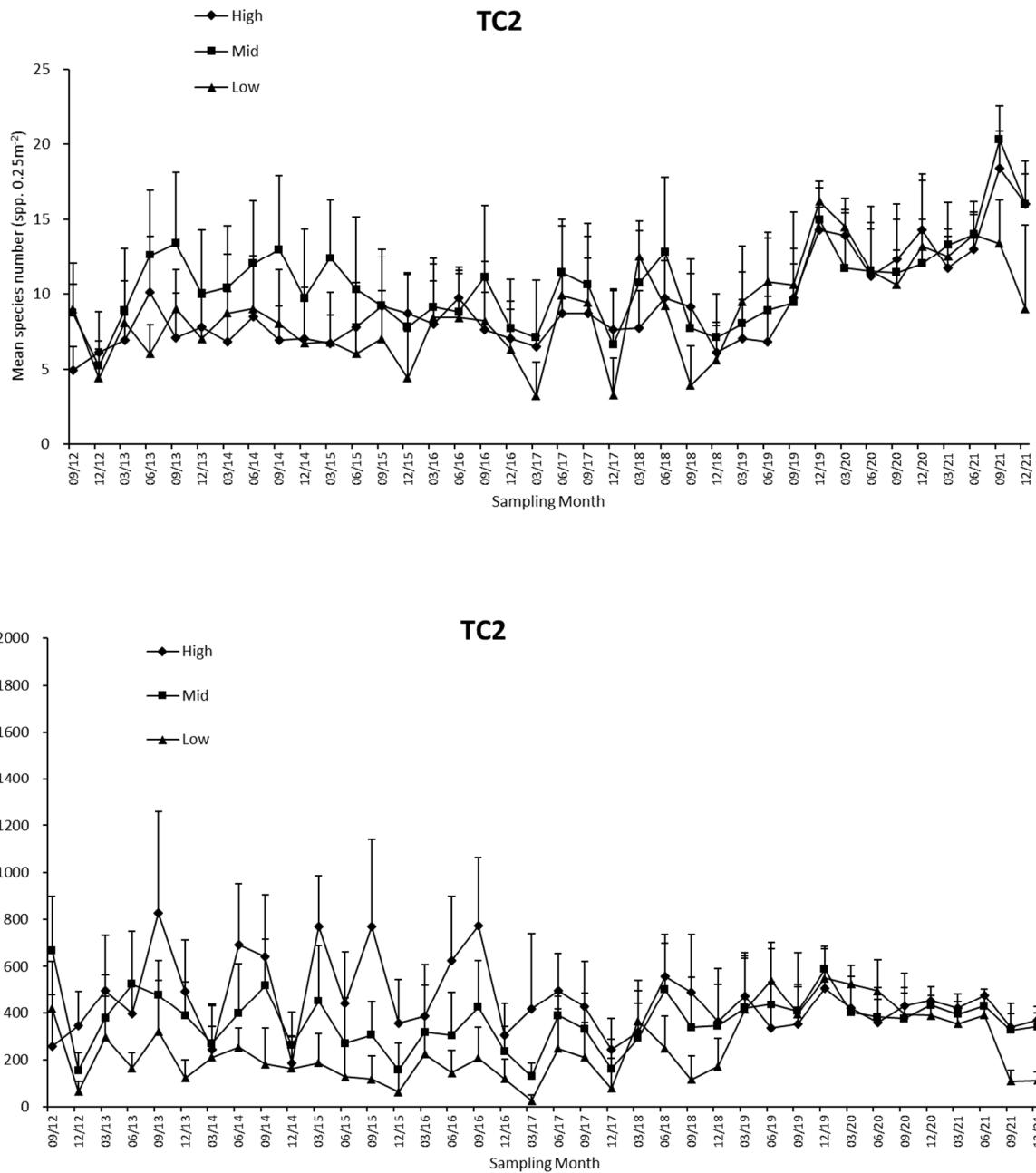


Figure 3.15 Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC2

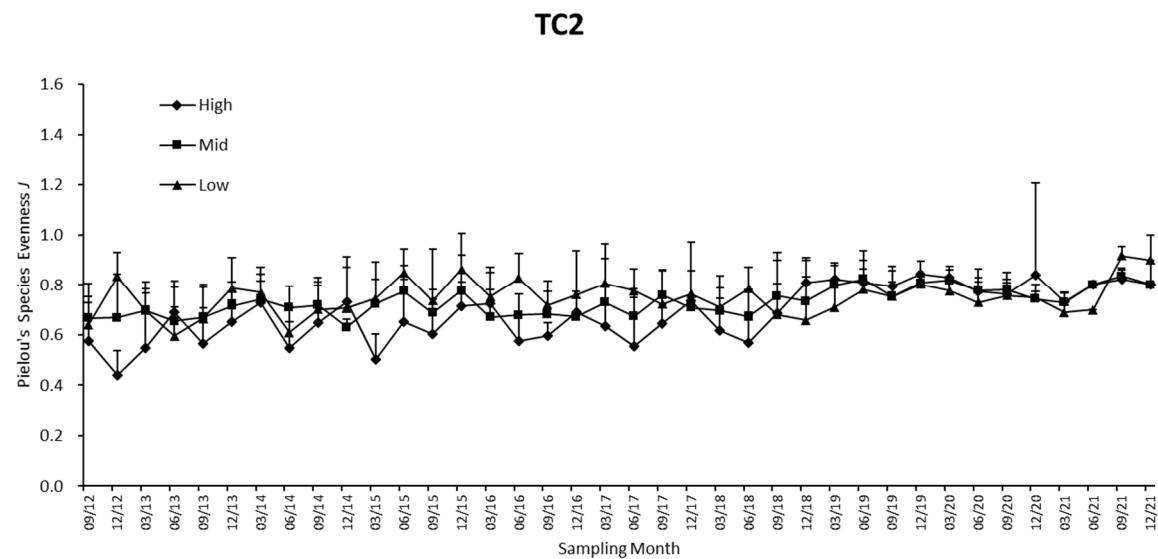
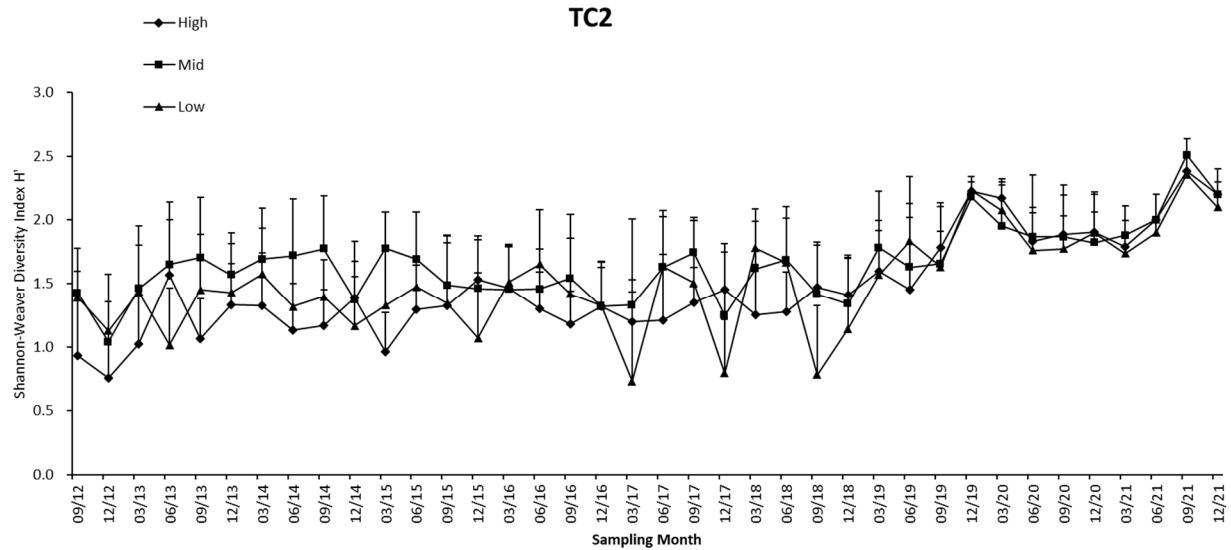


Figure3.15(Cont'd) Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC2

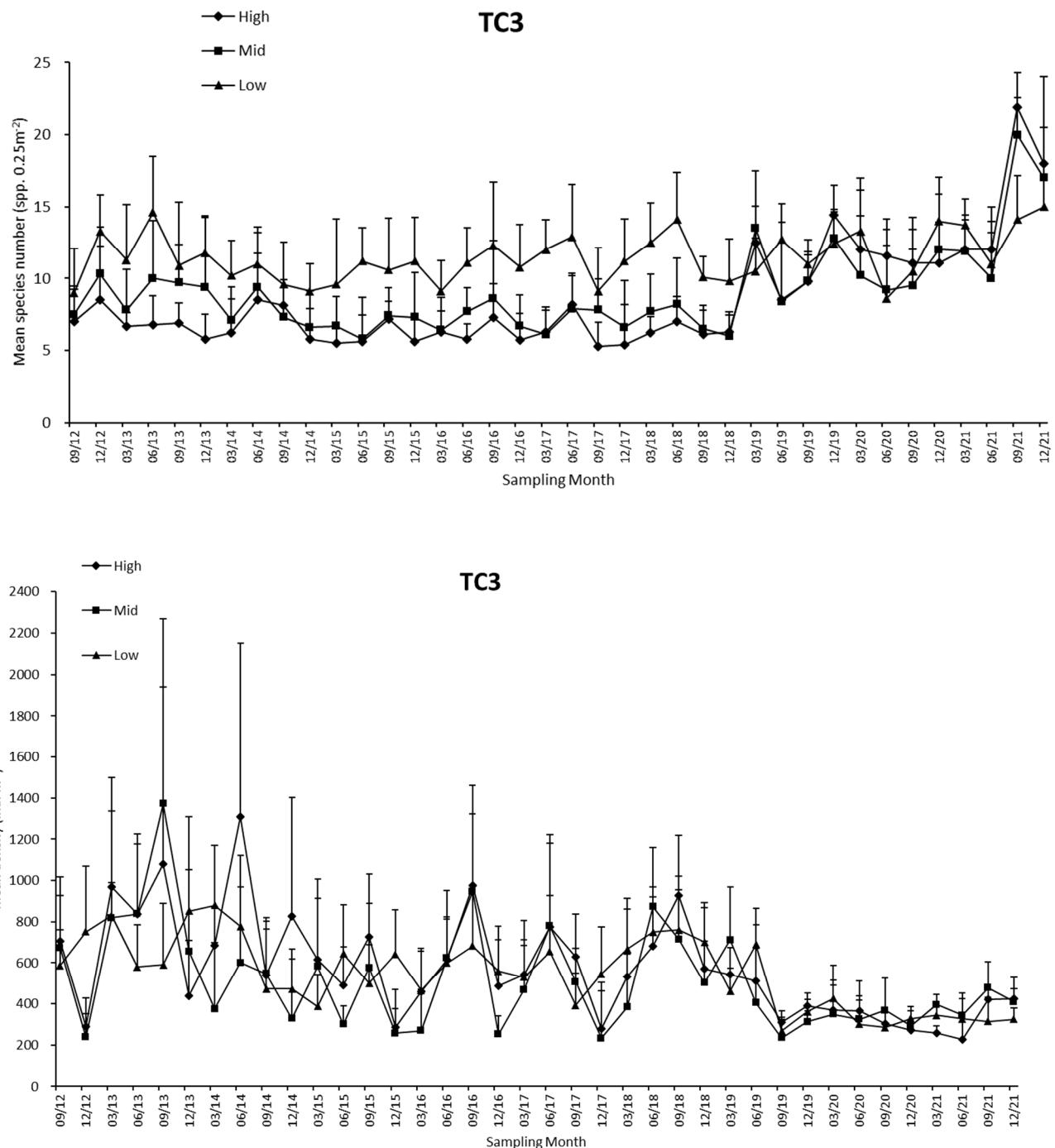


Figure 3.16 Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC3

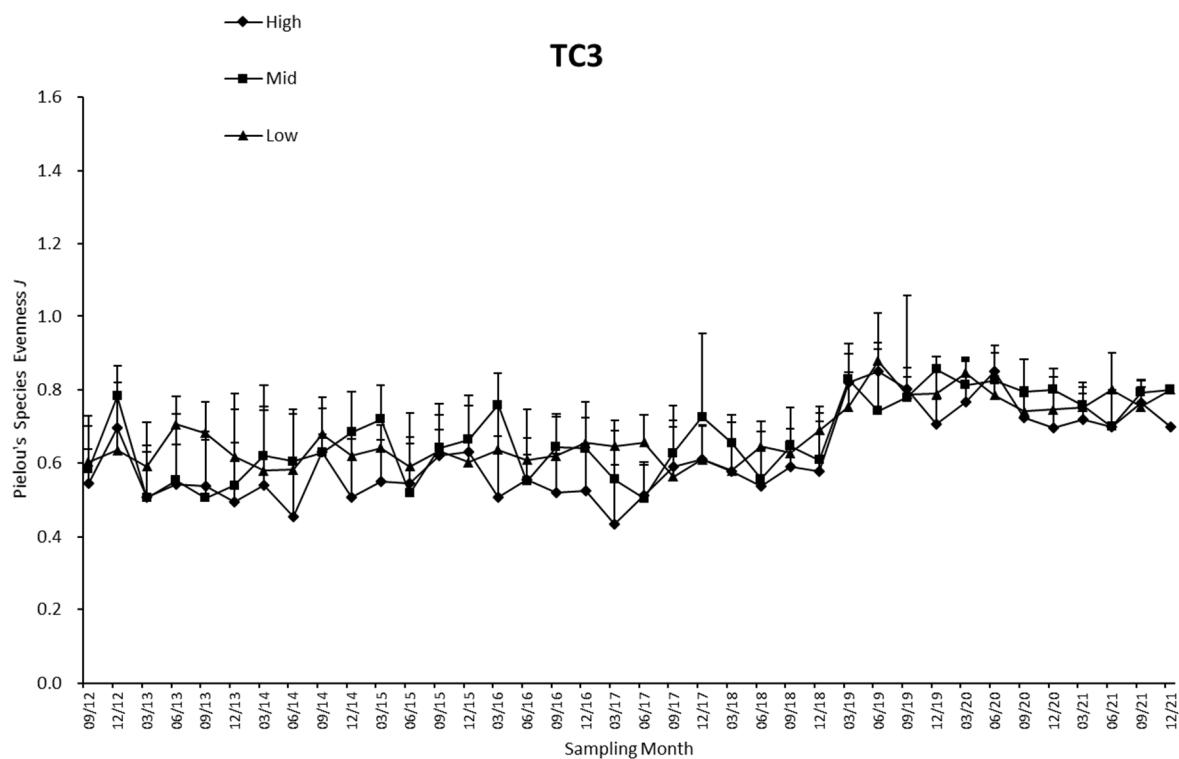
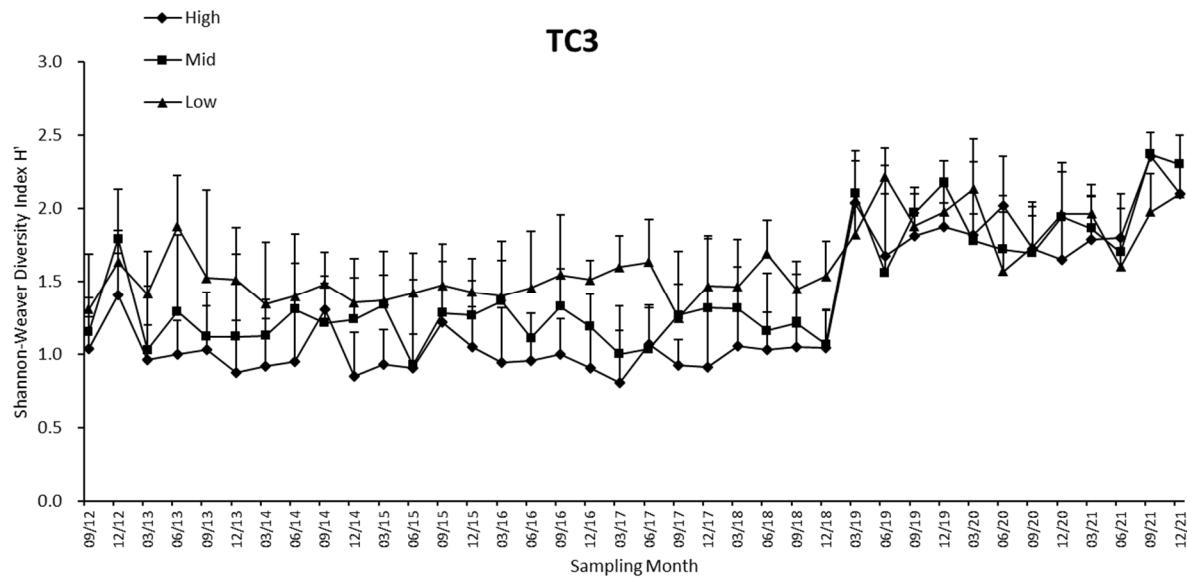


Figure 3.16(Cont'd) Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC3

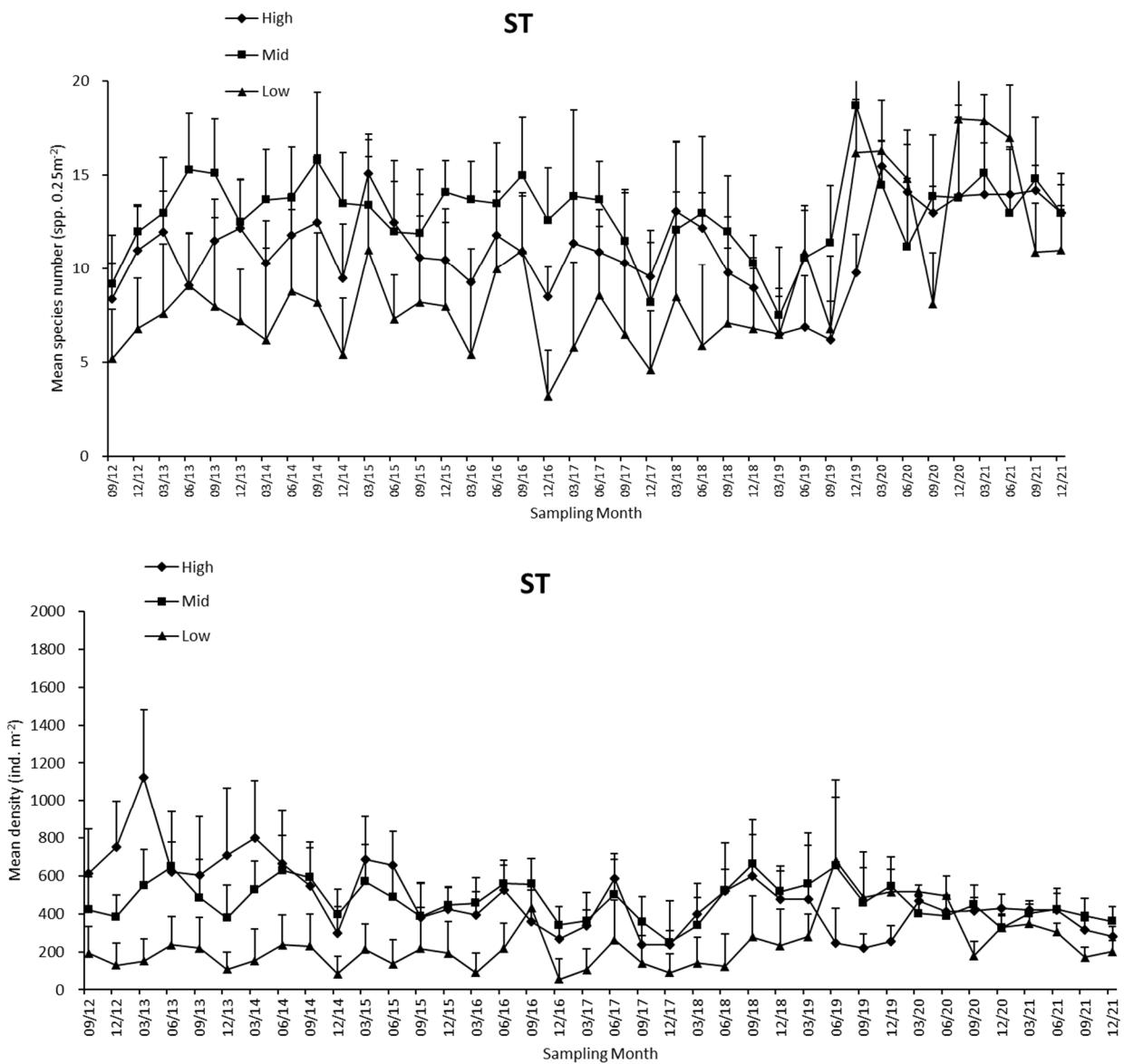


Figure 3.17 Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone S

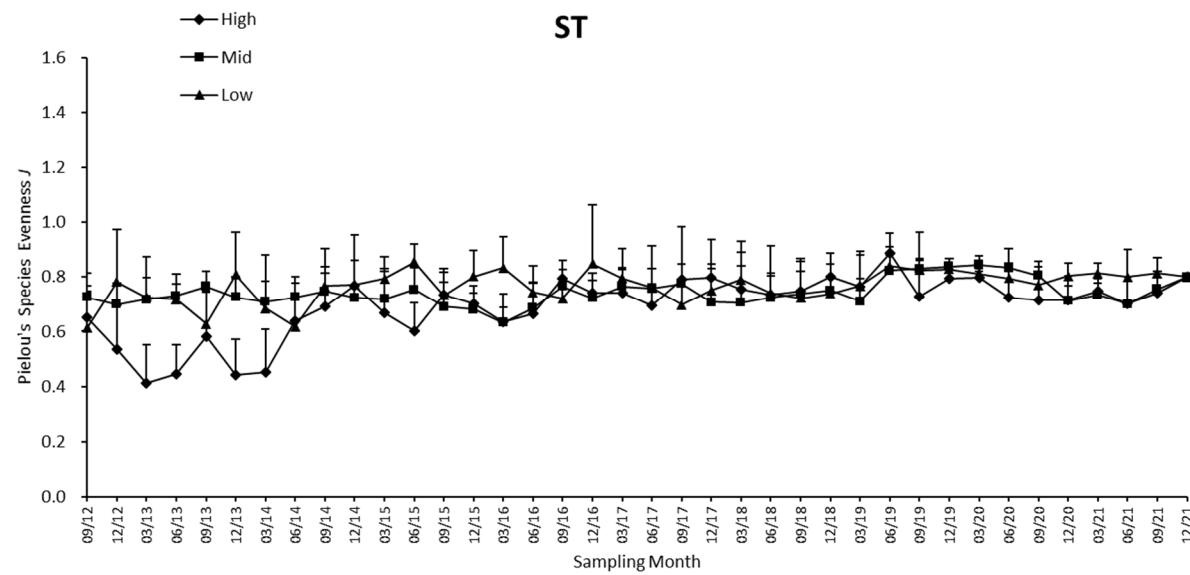
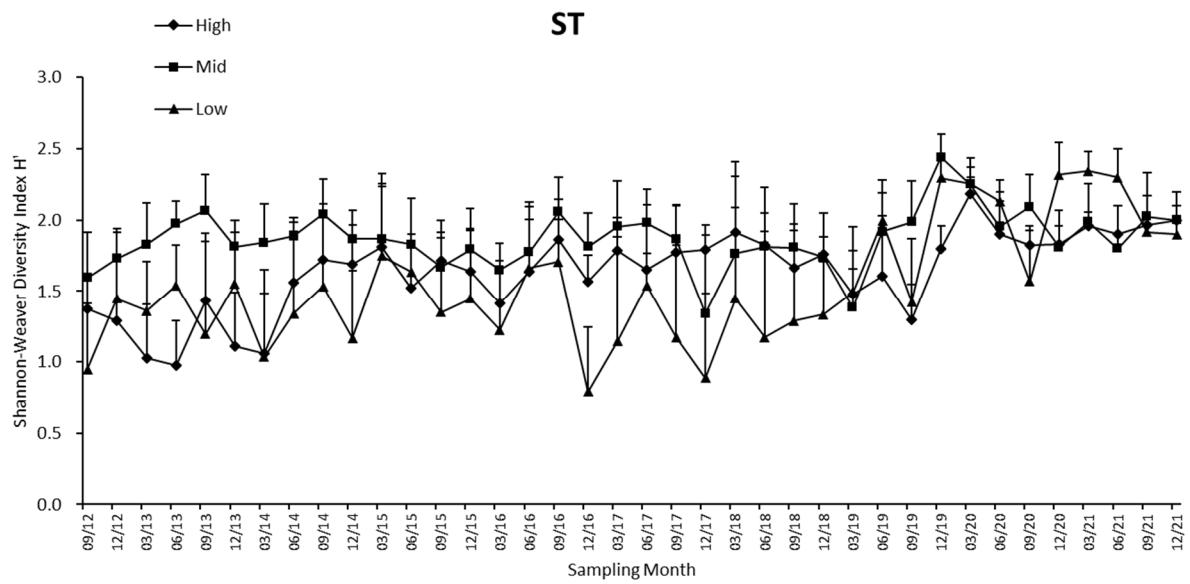


Figure 3.17(Cont'd) Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone ST

Annex I. Location of sampling zones (map from 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)		<i>Carcinoscorpius rotundicauda</i>	<i>Tachypleus tridentatus</i>
		No record		
			0	0
<u>Sampling site TC2</u>	(Search hour = 2 hrs)		<i>Carcinoscorpius rotundicauda</i>	<i>Tachypleus tridentatus</i>
		No record		
			0	0
<u>Sampling site TC3</u>	(Search hour = 3 hrs)		<i>Carcinoscorpius rotundicauda</i>	<i>Tachypleus tridentatus</i>
		No record		
			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)		<i>Carcinoscorpius rotundicauda</i> <i>Tachypleus tridentatus</i>
	No record		

No. of ind. **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)			
280	40-60	horizontal line	22°17'007"N 113°55'033"E 22°17'007"N 113°55'033"E
50	30-60	horizontal line	22°17'001"N 113°55'038"E 22°17'001"N 113°55'038"E
20	30-40	horizontal line	22°17'007"N 113°55'034"E 22°17'007"N 113°55'034"E
A horizontal strand of seagrass bed nearby the seaward side of mangrove area at tidal level 1.5 m above C.D. A horizontal strand of seagrass bed nearby the seaward side of mangrove area at tidal level 1.5m above C.D. A horizontal strand of seagrass bed nearby the seaward side of mangrove area at tidal level 1.5m above C.D.			
ST <i>Zostera Japonica</i> (search hour = 3 hrs)			
10	30-60	horizontal line	22°17'012"N 113°55'029"E 22°17'012"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.			
ST <i>Halophila ovalis</i> (search hour = 3 hrs)			
2	50-60	horizontal line	22°17'018"N 113°55'030"E 22°17'018"N 113°55'030"E
8	40-50	horizontal line	22°17'017"N 113°55'031"E 22°17'017"N 113°55'031"E
30	40-60	horizontal line	22°17'015"N 113°55'030"E 22°17'015"N 113°55'030"E
A horizontal strand of seagrass bed nearby the seaward side of mangrove area at tidal level 1.5 m above C.D. A horizontal strand of seagrass bed nearby the seaward side of mangrove area at tidal level 1.5 m above C.D. A horizontal strand of seagrass bed nearby the seaward side of mangrove area at tidal level 1.5 m above C.D.			

220	30-50	horizontal line	22°17'013"N 22°17'013"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 1.5 m above C.D.
180	40-60	horizontal line	22°17'012"N 22°17'012"N	113°55'032"E 113°55'032"E	A horizontal strand of seagrass bed nearby the seaward side of mangrove area at tidal level 1.5 m above C.D.
240	40-60	horizontal line	22°17'010"N 22°17'010"N	113°55'032"E 113°55'032"E	A horizontal strand of seagrass bed nearby the seaward side of mangrove area at tidal level 1.5 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	Phyllodocida	Nereididae	<i>Nereididae spp.</i>
Animalia	Annelida	Polycheata	Sabellida	Sabellidae	<i>Sabellidae imbricatus</i>
Animalia	Arthropoda	Malacostraca	Decapoda	Grapsidae	<i>Gaetice depressus</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	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	Mytioida	Mytilidae	<i>Brachidontes variabilis</i>
Animalia	Mollusca	Bivalvia	Mytioida	Mytilidae	<i>Xenostrobus atratus</i>
Animalia	Mollusca	Bivalvia	Ostreoida	Ostreidae	<i>Saccostrea cucullata</i>
Animalia	Mollusca	Bivalvia	Venerida	Veneridae	<i>Ruditapes philippinarum</i>
Animalia	Mollusca	Bivalvia	Venerida	Glauconomidae	<i>Glauconome chinensis</i>
Animalia	Mollusca	Bivalvia	Venerida	Veneridae	<i>Anomalocardia squamosa</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 zonalis</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 retropictus</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Nerita chamaeleon</i>
Animalia	Mollusca	Gastropoda	Cycloneritimorpha	Neritidae	<i>Nerita lineata</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	Neogastropoda	Muricidae	<i>Thais clavigera</i>
Animalia	Mollusca	Gastropoda	Neotaenioglossa	Littorinidae	<i>Nodilittorina radiata</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 argyrostomum</i>
Animalia	Mollusca	Gastropoda		Lottiidae	<i>Patelloida pygmaea</i>
Animalia	Mollusca	Polyplacophora	Chitonida	Ischnochitonidae	<i>Lepidozona spp.</i>
Animalia	Nemertea				<i>Nemertea spp.</i>
Animalia	Platyhelminthes				<i>Platyhelminthes sp.</i>
Animalia	Sipuncula	Sipunculidae	Golfingiida	Sipunculidae	<i>Siphonosoma sp.</i>
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

Dec 2021 Sampling Zone TC1

High tidal level (2.0 m above C.D.)

Gp	Taxon	1	2	3	4	5	6	7	8	9	10		
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	Sub-total
Ba	<i>Balanus amphitrite</i>	4	5	3	2	4	2			6			26
Bi	<i>Barbatia virescens</i>	2	1		8	2	6	1	3		6		29
Bi	<i>Brachidontes variabilis</i>	1	2		2	5					1		11
Bi	<i>Saccostrea cucullata</i>	25	38	26	26	32	25	33	27	27	23		282
Bi	<i>Xenostrobus atratus</i>	6		7	5		4	7	4	3	8		44
C	<i>Gaetice depressus</i>			5				3	1				9
C	<i>Metopograpsus latifrons</i>	1		6		3		3	2	2			17
C	<i>Pagurus dubius</i>				1	1	4	1	5		4		16
G	<i>Batillaria multiformis</i>	14	11	10	13	14	3	11	19	14	10		119
G	<i>Batillaria zonalis</i>	5	2	4		1	6	8	5	4	5		40
Cn	<i>Diadumene lineata</i>		3					1		3	1		8
G	<i>Cellana toreuma</i>				1					4			5
G	<i>Clithon faba</i>				1								1
G	<i>Littoraria articulata</i>	1	6		4				6	8	8		33
G	<i>Lunella coronata</i>	2	1		1		6		4	5	5		24
G	<i>Lunella granulata</i>	1	3	3		2	4	3	3	3			22
G	<i>Monodonta labio</i>	14	16	14	1	20	23	14	28	13	15	24	182
G	<i>Nipponacmea concinna</i>	3	2	5	2	2	1	3	2		5	1	26
G	<i>Nodilittorina radiata</i>				5	1	2	5		1	7		21
G	<i>Patelloida pygmaea</i>		2	3	1	4				1	1		12

P	<i>Nereididae</i> spp.				1				5	1	1	8
G	<i>Pirenella asiatica</i>	1			4							5
P	<i>Sabellidae imbricatus</i>		1	4	1		1		1	2	3	3
Po	<i>Lepidozona</i> spp.	1		1			1					3
Sp	<i>Siphonosoma</i> sp.	1				1	2		1	1	1	1
												Total 968

Key for faunal groups (Gp):

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

Dec 2021 Sampling Zone TC1

Mid tidal level (1.5 m above C.D.)

Gp	Taxon	1	2	3	4	5	6	7	8	9	10		
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	Sub-total
Ba	<i>Balanus amphitrite</i>				2		5		3		3		13
Bi	<i>Barbatia virescens</i>					2	2		2	3			9
Bi	<i>Brachidontes variabilis</i>	2		2					1		1		6
Bi	<i>Glauconome chinensis</i>	1	2	1		1			1				6
Bi	<i>Saccostrea cucullata</i>	10	17	12	9	9	14	16	14	16	11		128
Bi	<i>Xenostrobus atratus</i>	2		1		4	2	1			2		12
C	<i>Gaetice depressus</i>	1		2				1			1		5
C	<i>Hemigrapsus penicillatus</i>		1										1
C	<i>Metopograpsus latifrons</i>	2			1	3			2	2			10
G	<i>Batillaria multiformis</i>		1	1	4		3	2		7	2		20
G	<i>Batillaria zonalis</i>		2		2	6		5	2				17
G	<i>Chlorostoma argyrostomum</i>	2	4				2			2	3		13
G	<i>Clithon faba</i>	2			2								4
G	<i>Clithon retropictus</i>		1	1	2	2				2			8
G	<i>Littoraria articulata</i>	3	5	2			1						11
G	<i>Lottia dorsuosa</i>	2		1	1		2		1	4			11
G	<i>Lunella coronata</i>	2			3			3		3	3		14
G	<i>Lunella granulata</i>						1	2			2		5
G	<i>Monodonta labio</i>	5	10	5	7	5	11	8	15	16	10		92
G	<i>Nerita squamulata</i>		1		3			2			1		7

G	<i>Nipponacmea concinna</i>				3			3
G	<i>Nodilittorina radiata</i>	4	1				1	6
G	<i>Patelloidea pygmaea</i>					1	1	2
G	<i>Pirenella asiatica</i>		1	1			1	3
P	<i>Nereididae</i> spp.	2	1	1	1		1	2
Po	<i>Lepidozona</i> spp.			1		2		3
Sp	<i>Siphonosoma</i> sp.	1		1	2	2		10
Sp	<i>Sipunculus nudus</i>		1	2	1	1	2	10
							Total	438

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

Dec 2021 Sampling Zone TC1

Low tidal level (0.5 m above C.D.)

Gp	Taxon	1	2	3	4	5	6	7	8	9	10		C	Sub-total
		Q	C	Q	C	Q	C	Q	C	Q	C	C	Q	
Ba	<i>Balanus amphitrite</i>		3	1			1	5						10
Bi	<i>Barbatia virescens</i>				1	1		4	3					9
Bi	<i>Anomalocardiasquamosa</i>		1							1	2			4
Bi	<i>Brachidontes variabilis</i>	2			1				2					5
Bi	<i>Saccostrea cucullata</i>	15	17	15	10	15	15	16	12	9	10			134
Bi	<i>Xenostrobus atratus</i>	4	2	2	1	2			2					13
C	<i>Gaetice depressus</i>			1		1				1				3
C	<i>Metopograpsus latifrons</i>	1			1			1						3
C	<i>Pagurus dubius</i>		4			1			2		4			11
Cn	<i>Diadumene lineata</i>	3									2			5
G	<i>Batillaria multiformis</i>		1		4	1	3	2			1			12
G	<i>Batillaria zonalis</i>		3		1	4		1	4					13
G	<i>Chlorostoma argyrostomum</i>			3	1			1	2		1			8
G	<i>Clithon retropictus</i>			2										2
G	<i>Littoraria articulata</i>	2		6	4	1	4			6				23
G	<i>Lottia luchuana</i>	2		2			2	1						7
G	<i>Lunella coronata</i>		3	1	3	1		2			1			11
G	<i>Lunella granulata</i>	2	2		1					2	1			8
G	<i>Monodonta labio</i>	6	8	13		4		14	5	4	5			59
G	<i>Nerita lineata</i>	2		3	1	1		3						10

G	<i>Nerita polita</i>	3	2			1	1	7
G	<i>Nerita squamulata</i>			1	3		1	5
G	<i>Nipponacmea concinna</i>			2		1		3
G	<i>Nodilittorina radiata</i>			3		2	2	7
P	<i>Nereididae</i> spp.		1	1				2
P	<i>Sabellidae imbricatus</i>			1	1	1		3
Po	<i>Lepidozona</i> spp.			1	1		1	3
Sp	<i>Siphonosoma</i> sp.	2	1	1	1		2	7
Sp	<i>Sipunculus nudus</i>				1	1		3
Total								390

Key for faunal groups (Gp):

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

Dec 2021 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>	4		3		6		3		4		8		7		6		2				43
Bi	<i>Barbatia virescens</i>							3						3		2			2			10
Bi	<i>Brachidontes variabilis</i>							2				4			4				2			12
Bi	<i>Glauconome chinensis</i>	1	1									2	2									6
Bi	<i>Saccostrea cucullata</i>	26		28		20		23		26		14		37		37		32		26		269
Bi	<i>Xenostrobus atratus</i>	6		5		4				5		5						7		2		34
C	<i>Gaetice depressus</i>	2		2						1		1						1	1	2		10
C	<i>Hemigrapsus penicillatus</i>									2										1		3
C	<i>Metopograpsus latifrons</i>	1							2										1			4
C	<i>Metopograpsus quadridentatus</i>										1		1					1	1			4
C	<i>Parasesarma bidens</i>																	1		1	2	
Cn	<i>Diadumene lineata</i>		2		2										2				3			9
G	<i>Batillaria multiformis</i>	10		12		15		14		14		15		14	2	15		6				117
G	<i>Batillaria zonalis</i>	2						12		14	5	12		5		13			5			68
G	<i>Chlorostoma argyrostomum</i>	2						4			1			1		3			1			12
G	<i>Clithon retropictus</i>							2		1			2					1				6
G	<i>Littoraria articulata</i>		5		5		7		6			9		1		1			2			36
G	<i>Lottia dorsuosa</i>	1		7		7		2		2		2		1		4		3				29
G	<i>Lunella coronata</i>	2		2		2				1		1		1		4				4		17
G	<i>Lunella granulata</i>	3		1		5				2		5		2		1		1				20

G	<i>Monodonta labio</i>	8	18	15	15	1	22	6	19	9	14	6	133
G	<i>Nerita squamulata</i>	3			1				4		1	5	14
G	<i>Nipponacmea concinna</i>	3					3				1		7
G	<i>Nodilittorina radiata</i>	3	1	2	3	1			1		5	2	18
G	<i>Patelloidea pygmaea</i>		2	3		2	1	2	1		1	5	17
G	<i>Pirenella asiatica</i>						1	3					4
Ne	<i>Nemertea</i> sp.				1		1	2		2	1	1	2
Po	<i>Lepidozona</i> spp.	1					2					1	4
Sp	<i>Siphonosoma</i> sp.			2		1	2	1		1		1	8
												Total	926

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

Dec 2021 Sampling Zone TC2

Mid tidal level (1.5 m above C.D.)

Gp	Taxon	1	2	3	4	5	6	7	8	9	10			
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Sub-total
Ba	<i>Balanus amphitrite</i>	7		5	1		4	2	6	2				27
Bi	<i>Barbatia virescens</i>		2	1	2			4	1	3	3			16
Bi	<i>Brachidontes variabilis</i>	4			2	1	3	2						12
Bi	<i>Anomalocardiasquamosa</i>				1									1
Bi	<i>Ruditapes philippinarum</i>					1					1			2
Bi	<i>Glaucome chinensis</i>					1	3	2						6
Bi	<i>Saccostrea cucullata</i>	22	32	23	17	4	32	29	18	26	16			219
Bi	<i>Xenostrobus atratus</i>	2	3	4	4		9	6	2	2	3			35
C	<i>Gaetice depressus</i>	3		1	1	2					1			8
C	<i>Hemigrapsus penicillatus</i>			2		1	1							4
C	<i>Metopograpsus latifrons</i>				1		2				1			4
C	<i>Pagurus dubius</i>		2		1	4	2	1		3				13
Cn	<i>Diadumene lineata</i>	3				2		1	1	2				9
G	<i>Batillaria multiformis</i>	11	13	16	8	4	16	13	12	14	5			112
G	<i>Batillaria zonalis</i>	15	8	15	1	15	6	5	16	8	10	14		113
G	<i>Clithon faba</i>	2		1	4						3			10
G	<i>Littoraria articulata</i>	2	1			2		7	5	2				19
G	<i>Lottia dorsuosa</i>			2	1	2	2			1				8
G	<i>Lunella coronata</i>			5		3	1	1	6	3				19
G	<i>Lunella granulata</i>	1	1			8								10

G	<i>Monodonta labio</i>	12	15	9	19	8	16	9	12	17	15	132
G	<i>Nodilittorina radiata</i>		3		2	1	3	3		4		16
G	<i>Patelloidea pygmaea</i>	1		2	2	2	4			1		12
Ne	<i>Nemertea</i> spp.		1	1	1	1	3	1	2	1	1	16
Po	<i>Lepidozona</i> spp.		2	1	1			2		1	2	10
Sp	<i>Siphonosoma</i> sp.			1			2	1		1		5
Sp	<i>Sipunculus nudus</i>	1	1	1			1	2	1	1	1	2
												Total 850

Key for faunal groups (Gp):

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

Dec 2021 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>	1						5		4		2		1							13	
Bi	<i>Ruditapes philippinarum</i>					1	1			1	2			1	1	1	1	1	1	7		
Bi	<i>Barbatia virescens</i>			1	1					2				1							5	
Bi	<i>Brachidontes variabilis</i>	3				2	2			1				2	2						12	
Bi	<i>Glauconome chinensis</i>	1	1	1	3						8	2			1						17	
Bi	<i>Saccostrea cucullata</i>	5	10	15	9	5	6	4		5	5	14									78	
Bi	<i>Xenostrobus atratus</i>				6						1							1			8	
C	<i>Hemigrapsus penicillatus</i>					1		1			2										4	
C	<i>Metopograpsus latifrons</i>							2										2	4			
C	<i>Pagurus dubius</i>	1				1	2				2							1		7		
Cn	<i>Diadumene lineata</i>																2	2		4		
G	<i>Batillaria multiformis</i>	1				1		5									1			8		
G	<i>Batillaria zonalis</i>						1	6								1			8			
G	<i>Clithon retropictus</i>	1		2	1	2			2											8		
G	<i>Littoraria articulata</i>						1	4			1	1								7		
G	<i>Lottia dorsuosa</i>						2								1			1		4		
G	<i>Lunella coronata</i>	3	3	1				2												9		
G	<i>Lunella granulata</i>	1	1								1									3		
G	<i>Monodonta labio</i>	2	8	6	2	4		1	4	4	4	8								39		
G	<i>Nipponacmea concinna</i>							1									1	2				

G	<i>Nodilittorina radiata</i>		2			1			3
G	<i>Patelloidea pygmaea</i>				1				1
P	<i>Nereididae</i> spp.	1	1		1	1	1		1 6
P	<i>Sabellidae imbricatus</i>	2	1	1	1	1	1	2	9
Po	<i>Lepidozona</i> spp.					1		1	2
Sp	<i>Siphonosoma</i> sp.	2	1			3	2	1 1	10
Sp	<i>Sipunculus nudus</i>			1		1		1 1	4
Total									282

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

Dec 2021 Sampling Zone TC3

High tidal level (2.0 m above C.D.)

Gp	Taxon	1	2	3	4	5	6	7	8	9	10		
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	Sub-total
Ba	<i>Balanus amphitrite</i>	1	4	5	5	6	8	8	4	8	8	49	
Bi	<i>Barbatia virescens</i>		4	2	6	2		4	10	8	1	37	
Bi	<i>Brachidontes variabilis</i>	1		4		2	1		2		4	14	
Bi	<i>Glauconome chinensis</i>		1	2		2	3	3		1	4	2	20
Bi	<i>Saccostrea cucullata</i>	32	29	42	33	34	13	40	48	40	31	342	
Bi	<i>Xenostrobus atratus</i>	4	3	6	5	7	5	2	2	9	3	46	
C	<i>Gaetice depressus</i>						1		2	1	2		1
C	<i>Metopograpsus latifrons</i>	1					2				2		5
C	<i>Pagurus dubius</i>	2	4				3		8	2	1		21
G	<i>Batillaria multiformis</i>	5	6	8	8	5		7	15	14	5	73	
G	<i>Batillaria zonalis</i>	1			4				8			13	
G	<i>Clithon retropictus</i>	2	2			1	1			2	3	11	
G	<i>Littoraria articulata</i>	5	5	3	12	7	6	2		5	15	60	
G	<i>Lunella coronata</i>	2		3	2	4	1		2	4	7	25	
G	<i>Lunella granulata</i>		2		8			4		7		21	
G	<i>Monodonta labio</i>	13	13	6	24	11	12	20	34	14	25	172	
G	<i>Nerita chamaeleon</i>			3	2				8	8	4	25	
G	<i>Nerita polita</i>		2	5		1	2	2		2	1	15	
G	<i>Nerita squamulata</i>			1		3		2	4			10	
G	<i>Nipponacmea concinna</i>	1	2	3		3	2	1		2	2	16	

G	<i>Nodilittorina radiata</i>	4	2	6	1	2		4		19			
G	<i>Patelloidea pygmaea</i>	4	3	2		.	2			11			
G	<i>Pirenella incisa</i>			1			2	2		5			
G	<i>Thais clavigera</i>					4	1	5		2	1	13	
P	<i>Nereididae</i> spp.		1			1		1		1		4	
P	<i>Perinereis</i> sp.						1	1	1	4	1	2	10
Po	<i>Lepidozona</i> spp.					1						1	
Sp	<i>Siphonosoma</i> sp.		2	1	1		1		3	1	1	10	
P	<i>Sabellidae imbricatus</i>	1	1	1		1		1	2		1	8	
Pl	<i>Platyhelminthes</i>					1	1					2	
										Total	1065		

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

Dec 2021 Sampling Zone TC3

Mid tidal level (1.5 m above C.D.)

Gp	Taxon	1	2	3	4	5	6	7	8	9	10		
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	Sub-total
Ba	<i>Balanus amphitrite</i>									1	5	6	
Bi	<i>Barbatia virescens</i>	2	5	4		1	1	1		4		18	
Bi	<i>Brachidontes variabilis</i>	4	6	5			7		4		8	34	
Bi	<i>Glauconome chinensis</i>	1		2				1		5	2	11	
Bi	<i>Saccostrea cucullata</i>	32	42	36	18	40	38	18	39	39	39	341	
Bi	<i>Xenostrobus atratus</i>	2			8	5	4	4	10	6	3	42	
C	<i>Gaetice depressus</i>	2			1	6		2			3	14	
C	<i>Metopograpsus latifrons</i>			1			3	2		2	3	11	
C	<i>Pagurus dubius</i>				1	1	1			1	2	6	
G	<i>Batillaria multiformis</i>	22	19	9	10	6	17	14		2		99	
G	<i>Batillaria zonalis</i>	9	17		13	1	6	6			4	56	
G	<i>Clithon faba</i>	1	1	4	1				1	5		13	
G	<i>Clithon oualaniense</i>	1			2	5	5	1		2	2	2	20
G	<i>Clithon retropictus</i>			1	5					4		10	
G	<i>Littoraria articulata</i>	1	2	5		2			5	3		18	
G	<i>Lottia dorsuosa</i>					2	5					7	
G	<i>Lunella coronata</i>	2	3	2	2		4	8	1			22	
G	<i>Lunella granulata</i>	1		4			7	4	2	5	7	30	
G	<i>Monodonta labio</i>		14	9	16		22	18	18	16	11	124	
G	<i>Nerita chamaeleon</i>			1			1	2	2	2	3	11	

G	<i>Nerita lineata</i>			4			2	1	2	9
G	<i>Nerita polita</i>	2		1	2		2		1	8
G	<i>Nipponacmea concinna</i>					2	4			6
G	<i>Nodilittorina radiata</i>		2	1	1	2				6
G	<i>Patelloida pygmaea</i>	2		1	1	4	4			12
G	<i>Pirenella asiatica</i>	2	7	1	2	3	4		1	22
G	<i>Pirenella incisa</i>		6		1	2		2	4	18
Ne	<i>Nemertea</i> spp.		1	2	1		1	1	1	8
P	<i>Sabellidae imbricatus</i>	4	4	5	2		1	1	2	19
Po	<i>Lepidozona</i> spp.			1	1	1	2	1	1	7
Sp	<i>Siphonosoma</i> sp.		1	2	1		1	1	2	8
Sp	<i>Sipunculus nudus</i>			1	1	1	1	1	1	7
										Total 1023

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

Dec 2021 Sampling Zone TC3

Low tidal level (0.5 m above C.D.)

Gp	Taxon	1	2	3	4	5	6	7	8	9	10		
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	Sub-total
Ba	<i>Balanus amphitrite</i>			2	2			5	1		2	1	13
Bi	<i>Barbatia virescens</i>	2	4	5	5			1	1		3		21
Bi	<i>Anomalocardia squamosa</i>			1	1		1	4	5	3		1	16
Bi	<i>Ruditapes philippinarum</i>					4	2		1	2	4		13
Bi	<i>Brachidontes variabilis</i>	4						5	2	2		1	14
Bi	<i>Glauconome chinensis</i>								2	2			4
Bi	<i>Saccostrea cucullata</i>	26	25	28	28	25	22	1	25	18	24	28	250
Bi	<i>Xenostrobus atratus</i>	6	6	6	4			6		6			34
C	<i>Gaetice depressus</i>	1	2	2	3					3			11
C	<i>Metopograpsus latifrons</i>	1	3	3			1	2		1	1		12
G	<i>Batillaria multiformis</i>	2			2	2	1	8	1	8	1	8	24
G	<i>Batillaria zonalis</i>	3	5				8	4	12	2	2	1	37
G	<i>Littoraria articulata</i>	2		2	2			2		5			13
G	<i>Lottia dorsuosa</i>	1		3	3		1			2			10
G	<i>Lunella coronata</i>	2		3	3	2		1	2	1	1	4	19
G	<i>Lunella granulata</i>	8	12	13	13	12	8	15	13	10	15		119
G	<i>Monodonta labio</i>	5	4	14	14	16	15	18	16	18	13		126
G	<i>Nipponacmea concinna</i>	2	1			2			4		2		11
G	<i>Patelloida pygmaea</i>			3	3	1			1		3		11
G	<i>Pirenella incisa</i>	1	1							2		4	

P	<i>Nereididae</i> spp.	2	1	1	1	1	1	1					8
P	<i>Sabellidae imbricatus</i>	1	2	1	1	2	1	1	2	4			15
Sp	<i>Siphonosoma</i> sp.	1	2		1	1	1	1	5	3	1	1	22
Sp	<i>Sipunculus nudus</i>	1		1	1	2		1		1			7
													Total 814

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

Dec 2021 Sampling Zone ST

High tidal level (2.0 m above C.D.)

Gp	Taxon	1	2	3	4	5	6	7	8	9	10			
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Sub-total
Ba	<i>Balanus amphitrite</i>			5		3		8	2					18
Bi	<i>Barbatia virescens</i>	3	2	4				5		5		3		22
Bi	<i>Brachidontes variabilis</i>		3	2				3		5		5		18
Bi	<i>Glauconome chinensis</i>						2			2				4
Bi	<i>Saccostrea cucullata</i>	20	18	32	23	39	26	20	28	27	24			257
Bi	<i>Xenostrobus atratus</i>	3		2		2		3	1					11
C	<i>Gaetice depressus</i>				1	3	5							9
C	<i>Metopograpsus latifrons</i>	1			2		2	1						6
C	<i>Pagurus dubius</i>		2			1	1		1		1		1	6
Cn	<i>Diadumene lineata</i>		1				2			2				5
G	<i>Batillaria multiformis</i>	3		13	15	8	15	15	9	13	8			99
G	<i>Batillaria zonalis</i>	4	4	5	8		4				3			28
G	<i>Clithon faba</i>			1		1		2						4
G	<i>Clithon retropictus</i>	1			1				1	2				5
G	<i>Littoraria articulata</i>	3				1		1	3	4	2			14
G	<i>Lottia dorsuosa</i>		1			2								3
G	<i>Lunella coronata</i>	1			3		6		2					12
G	<i>Lunella granulata</i>				2									2
G	<i>Monodonta labio</i>	5	10	15		15	6	12	5	9	7			84
G	<i>Nerita chamaeleon</i>									2				2

G	<i>Nipponacmea concinna</i>		3		1					4
G	<i>Nodilittorina radiata</i>	4	5	2	6		3	8		28
G	<i>Patelloidea pygmaea</i>			5	2	1		1	2	11
G	<i>Pirenella incisa</i>					2				2
P	<i>Sabellidae imbricatus</i>					5	1	4	1	11
P	<i>Nereididae spp.</i>		1				2	1	1	5
Po	<i>Lepidozona spp.</i>								1	1
Sp	<i>Sipunculus nudus</i>	5		1	1	3	2	2		14
Sp	<i>Siphonosoma sp.</i>			1			1	5	2	4
										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, OI: 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

Dec 2021 Sampling Zone ST

Mid tidal level (1.5 m above C.D.)

Gp	Taxon	1	2	3	4	5	6	7	8	9	10		
		Q	C	Q	C	Q	C	Q	C	Q	C	Q	Sub-total
Bi	<i>Barbatia virescens</i>			3	2	6	4	3	1	5			24
Bi	<i>Glauconome chinensis</i>	1			1								2
Bi	<i>Brachidontes variabilis</i>			4		5	5	2		6	2		24
Bi	<i>Saccostrea cucullata</i>	24	35		32	25	29	26	25	35	32		263
Bi	<i>Xenostrobus atratus</i>	5		18	9	16	19	19	13	8	15		122
C	<i>Metopograpsus latifrons</i>	4				2	1	1		2	2		12
C	<i>Pagurus dubius</i>		4		4	4		2					14
G	<i>Batillaria multiformis</i>			17	5	6		3					31
G	<i>Batillaria zonalis</i>					5	12		5	15	8		45
G	<i>Clithon retropictus</i>	4		1			2						7
G	<i>Littoraria articulata</i>	1	4			4				1			10
G	<i>Lottia dorsuosa</i>			5		2	1	5	6	1	2		22
G	<i>Lunella coronata</i>		5	4	2		1		2	2	1		17
G	<i>Lunella granulata</i>	12	6	2	6	8		9	8				51
G	<i>Monodonta labio</i>			12	17		20	8	19	22	26		124
G	<i>Nerita chamaeleon</i>				5								5
G	<i>Nerita lineata</i>	2			1								3
G	<i>Nipponacmea concinna</i>					5	1	1	2				9
G	<i>Nodilittorina radiata</i>	4	5		7	5	9		5	8	6		49
G	<i>Patelloidea pygmaea</i>					1	1			1	3		

G	<i>Pirenella incisa</i>	1	1		2		1	5
Ne	<i>Nemertea</i> spp.			2		4	2	10
P	<i>Sabellidae imbricatus</i>	2	2	5	2	1	4	7
Po	<i>Lepidozona</i> spp.				2		1	3
Sp	<i>Siphonosoma</i> sp.	4	1	2	1	1	4	1
Sp	<i>Sipunculus nudus</i>	1	4					5
								Total 900

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

Dec 2021 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	
Ba	<i>Balanus amphitrite</i>			1		1		2		3		7
Bi	<i>Anomalocardia squamosa</i>	2			2			3	1	4		12
Bi	<i>Barbatia virescens</i>	1	1	4		2						8
Bi	<i>Brachidontes variabilis</i>		1	2			6		5	1	2	17
Bi	<i>Glauconome chinensis</i>	1			1			2		5		9
Bi	<i>Saccostrea cucullata</i>	23	6	13	19	8	10	23	14	29	7	152
Bi	<i>Xenostrobus atratus</i>			5								5
C	<i>Gaetice depressus</i>	1	1	1	2		5	4		1		15
C	<i>Metopograpsus latifrons</i>	5										5
C	<i>Metopograpsus quadridentatus</i>		1							1		2
G	<i>Batillaria multiformis</i>							4		3		7
G	<i>Batillaria zonalis</i>		5			2	5		8			20
G	<i>Clithon faba</i>	1								2		3
G	<i>Lottia dorsuosa</i>			2								2
G	<i>Lunella coronata</i>	6	8		4	6				5		29
G	<i>Lunella granulata</i>	8			6	7		3		3		27
G	<i>Monodonta labio</i>	14	15		10	17	14	8	13	1	8	100
G	<i>Nerita lineata</i>	1		1	1							3
G	<i>Nerita squamulata</i>		2			2	2					6
G	<i>Nipponacmea concinna</i>					2			2			4

G	<i>Nodilittorina radiata</i>	5	5			6		16
G	<i>Pirenella incisa</i>	1	1		5	1	5	13
Ne	<i>Nemertea</i> spp.		1		1	2	2	2 8
P	<i>Sabellidae imbricatus</i>	2	4	1	4	1	4	1 2 19
Sp	<i>Siphonosoma</i> sp.	2		1 2	2 1	1		9
Sp	<i>Sipunculus nudus</i>			1		5	2	8
							Total	506

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