

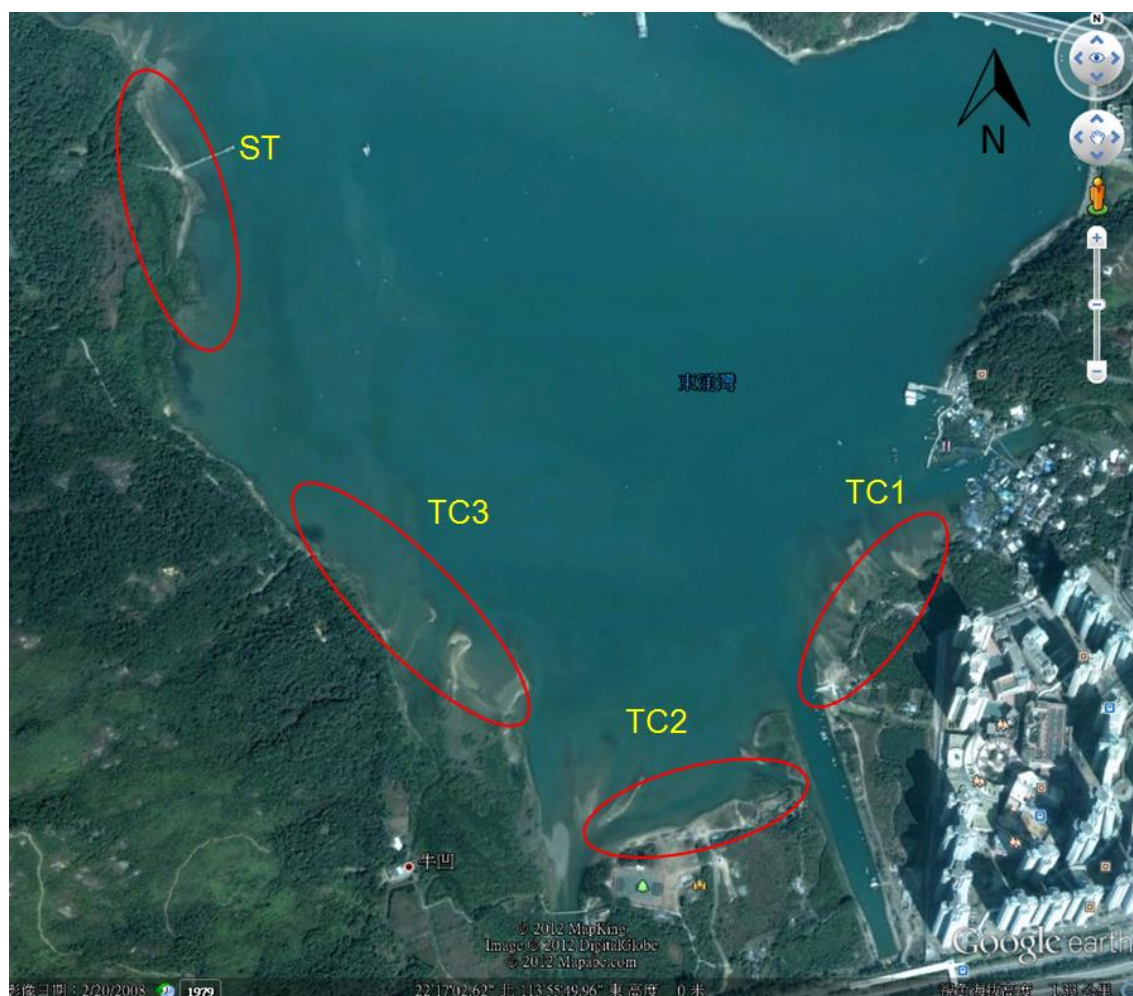


Figure 2.1. Locations of sampling zones. The study site was divided into three sampling zones (TC1, TC2, TC3) in Tung Chung Bay and one zone in San Tau (ST) (map generated from Google Map).

TC1



TC2



TC3



ST



Figure 2.2 *Photographic record of the environment in every sampling zone. (September 2024)*

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



Trash gill net (recorded in September 2024)



Trash nets deposited at ST for several years, where horseshoe crab occasionally tangled on them (record in September 2024)

Figure 2.3 (Continued) Examples of photographic record of the big trashes found on the mudflat.

ST *Carcinoscorpius rotundicauda*



ST *Tachypleus tridentatus*



Sep. 2023

Figure 3.1 Examples of photographic records of horseshoe crab *Carcinoscorpius rotundicauda* (Mar 2023), *Tachypleus tridentatus* (September 2023).

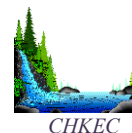


Photo taken in March 2024



Photo taken in September 2024

Figure 3.1 (Cont'd) Examples of photographic records of horseshoe crab *Tachypleus tridentatus* (March 2024 and September 2024).

**Table 3.1.** Summary of horseshoe crab survey in September 2024

	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	0	0	0
<i>Tachypleus tridentatus</i>				
No. of individuals	0	0	0	2
Mean prosomal width (mm)	\	\	\	42
Max..prosomal width (mm)	\	\	\	44
Min. prosomal width (mm)	\	\	\	40
Search record (ind. hr-1 person-1)	0	0	0	0.33

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



March 2020 – TC1



June 2022 – 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



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



June 2022



September 2022



September 2023



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

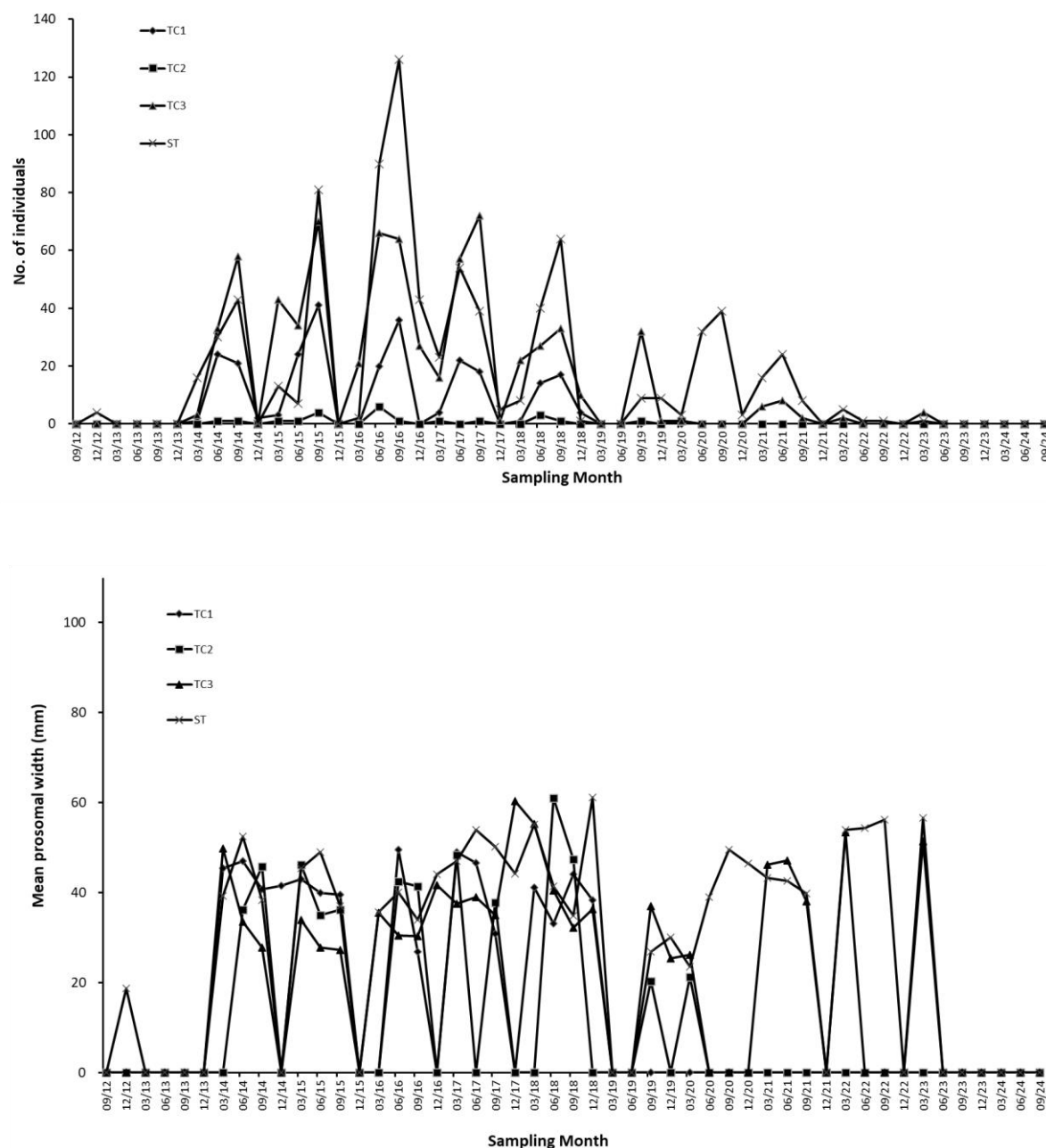


Figure 3.5 Changes of number of individuals mean prosomal width and search record of horseshoe crab *Carcinoscorpius rotundicauda* in every sampling zone along the sampling months

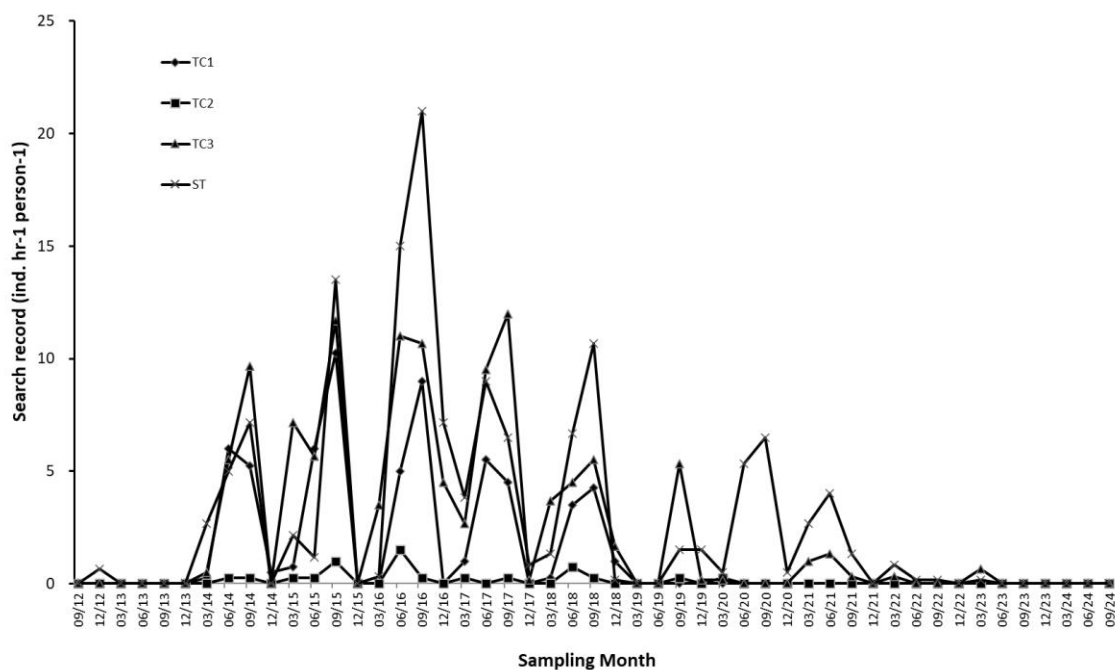


Figure 3.5 (Cont'd) Changes of number of individuals mean prosomal width and search record of horseshoe crab *Carcinoscorpius rotundicauda* in every sampling zone along the sampling months

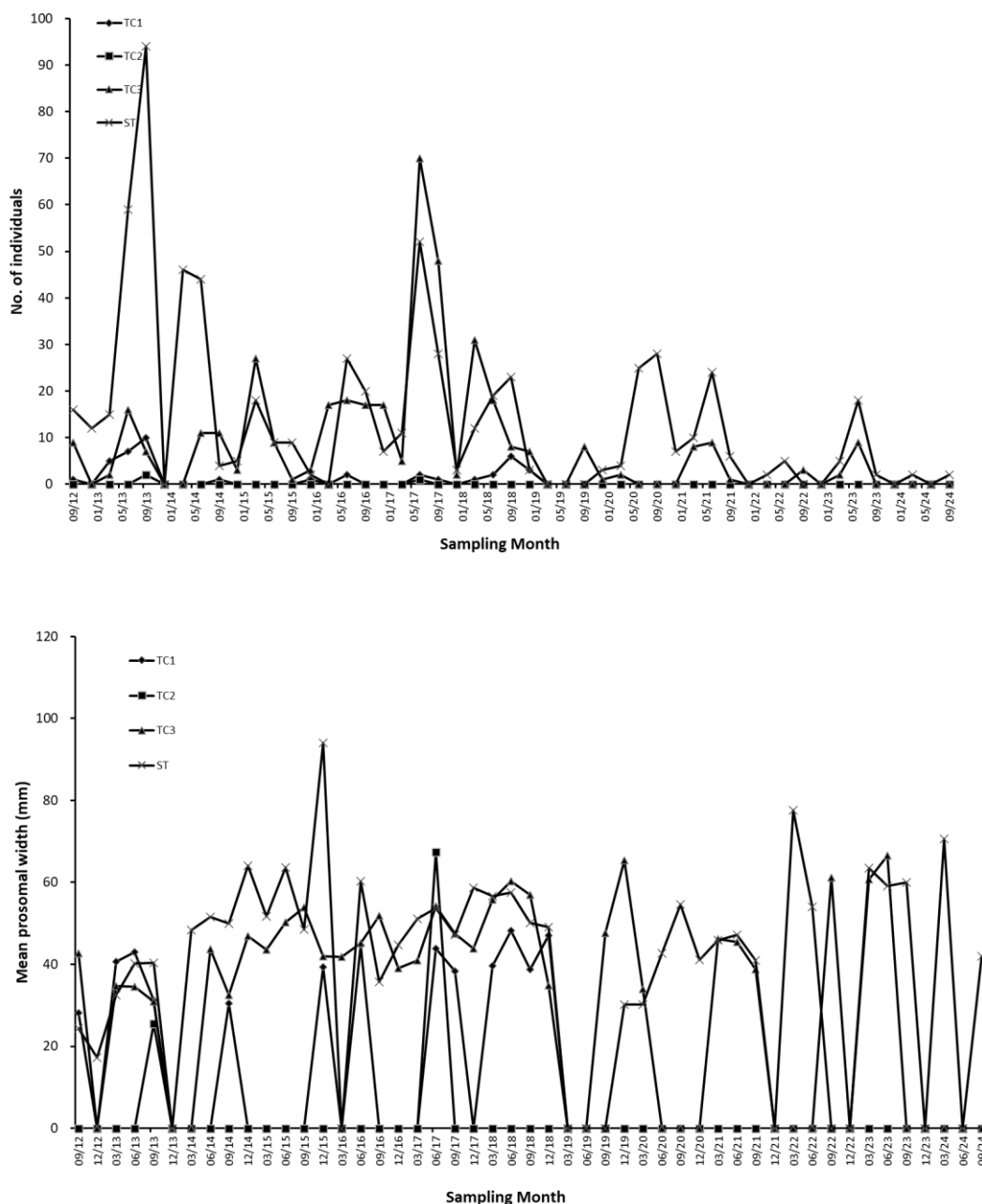


Figure 3.6 Changes of number of individuals mean prosomal width and search record of horseshoe crab *Tachypleus tridentatus* in every sampling zone along the sampling months

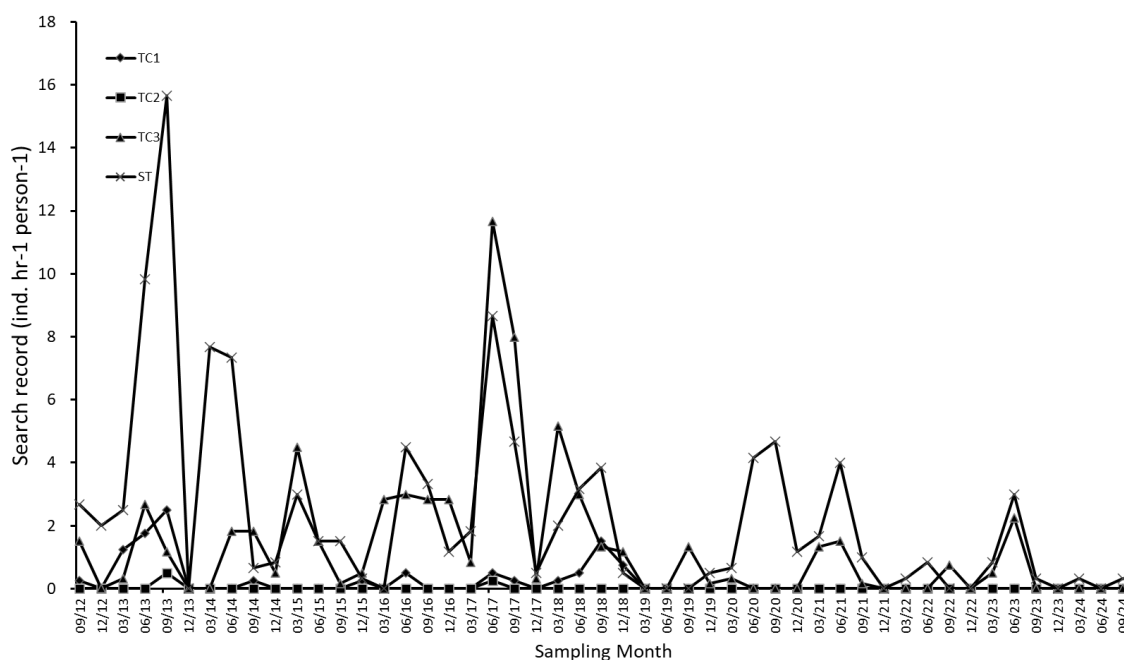


Figure 3.6 (Cont'd) Changes of number of individuals mean prosomal width and search record of horseshoe crab *Tachypleus tridentatus* in every sampling zone along the sampling months

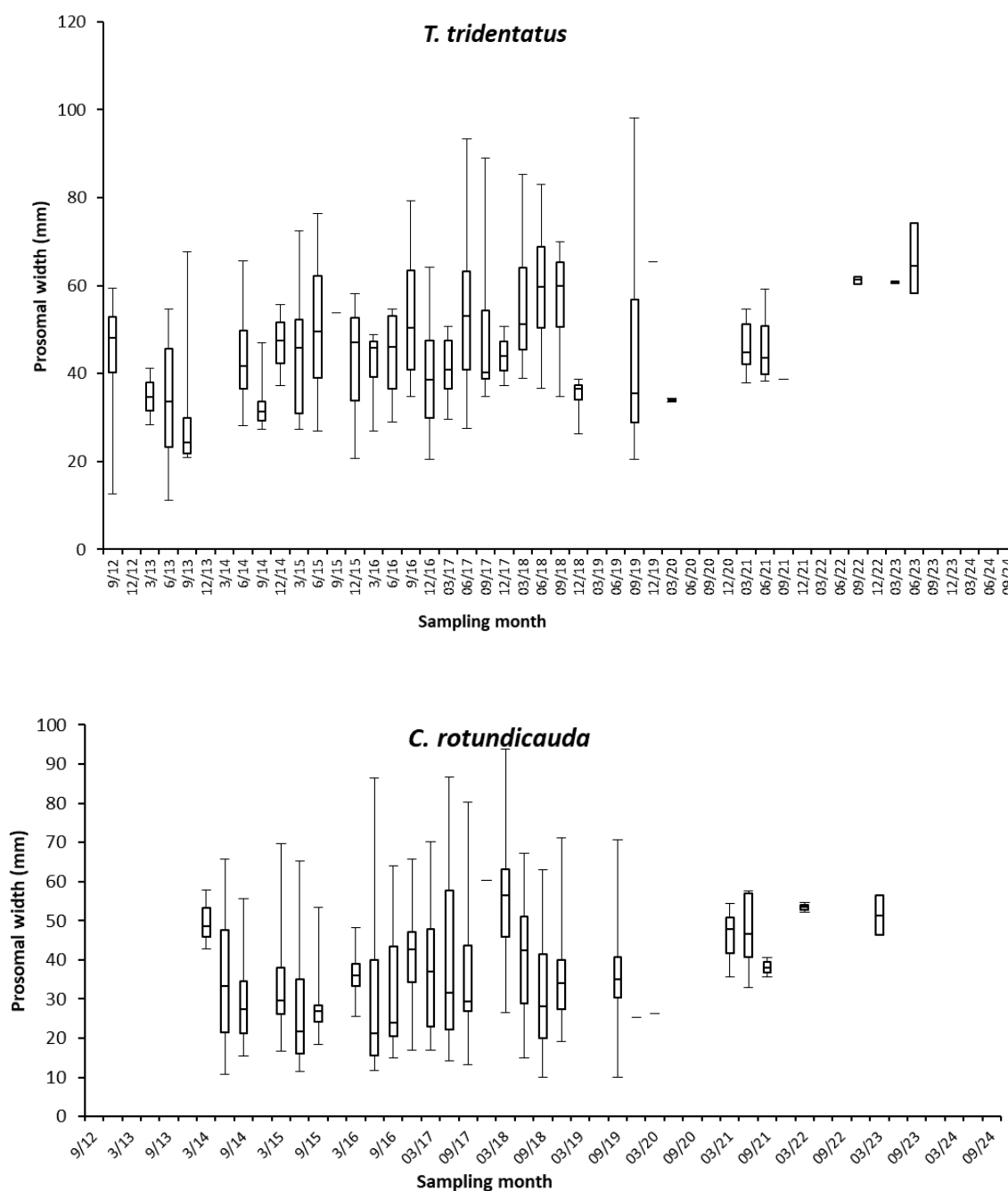


Figure 3.7 Box plot of prosomal width of horseshoe crab in the sampling zone TC3 along the sampling months. (The box represents 50% of the sample (upper to lower quartile) with a middle line showing the median value. The upper whisker and lower whisker showed the 25% of sample above upper quartile and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

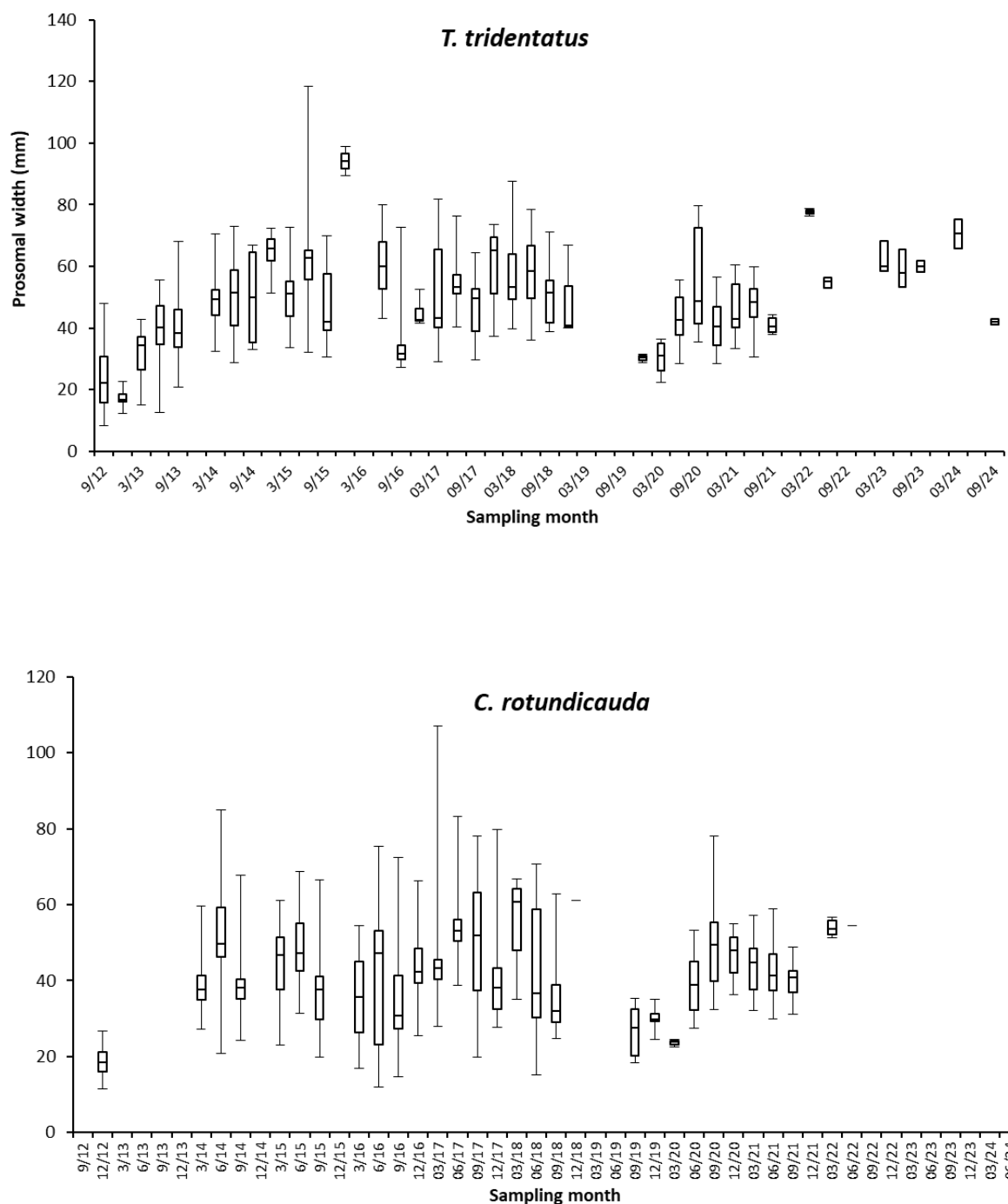


Figure 3.8 Box plot of prosomal width of horseshoe crab in the sampling zone ST along the sampling months. (The box represents 50% of the sample (upper to lower quartile) with a middle line showing the median value. The upper whisker and lower whisker showed the 25% of sample above upper quartile and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

Photos below: Brown filamentous algae bloom at ST, March 2022



Photos below: Brown filamentous algae at seagrass bed at ST disappeared, June 2022

Halophila ovalis covered large area of mudflat

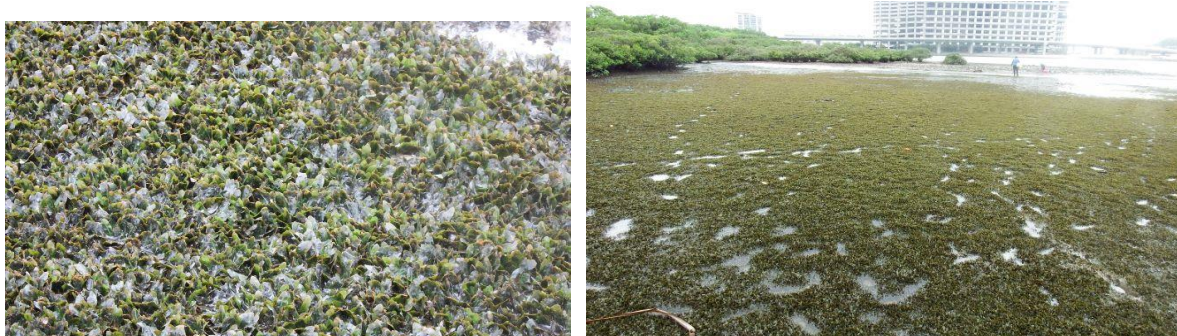


Figure 3.9 Examples of Photographic record of seagrass beds.

***Halophila ovalis* in TC3, June 2024**



***Halophila ovalis* (left) and *Zostera japonica* (right) in ST June 2024**



Figure 3.10 Photographic records of seagrass beds in 2024 survey

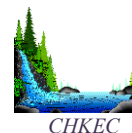
***Halophila ovalis* in TC3, September 2024**



***Halophila ovalis* (below left) and *Zostera japonica* (below right) in ST September 2024**



Figure 3.10 (Cont'd) Photographic records of seagrass beds in 2024 survey

**Table 3.2.** Summary of seagrass beds survey

Sampling zone	TC3 <i>Halophila ovalis</i>	ST <i>Halophila ovalis</i>	ST <i>Zostera japonica</i>
Number of patches	3	6	1
Total area (m ²)	16000	22300	25
Average area (m ²)	5333	3717	25.00

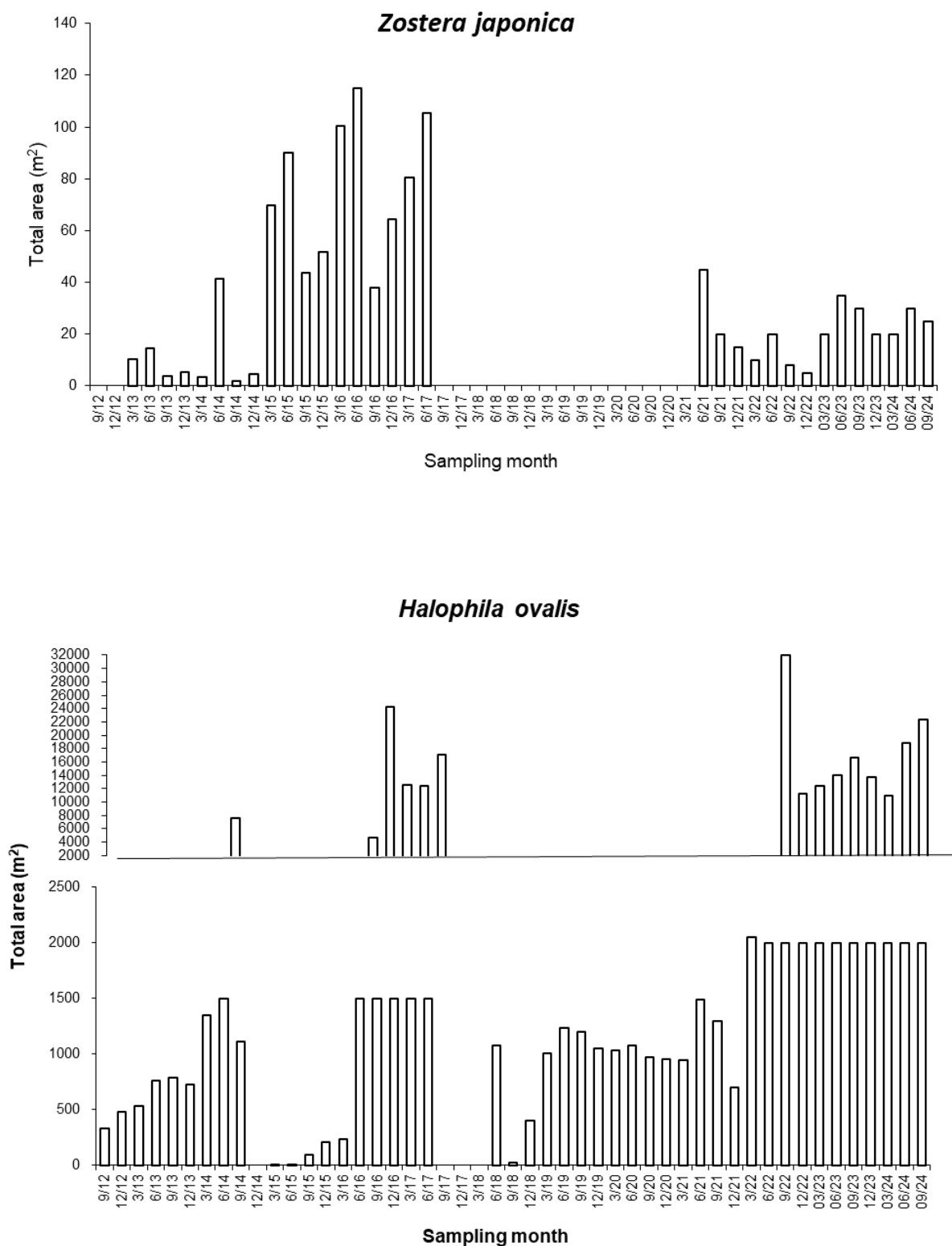


Figure 3.11 Temporal changes of estimated total area of seagrass beds in ST.

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 in ST. 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



December 2021



March 2022



June 2022



September 2022



December 2022



March 2023



June 2023



September 2023



December 2023



March 2024



June 2024



Figure 3.12 (Cont'd) Comparison of pictures taken in different sampling months shows the successive disappearance and recolonization of seagrass beds in ST.

September 2024



Figure 3.12 (Cont'd) *Comparison of pictures taken in different sampling months shows the successive disappearance and recolonization of seagrass beds in ST.*

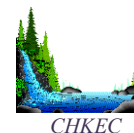


Table 3.3. *Relative distribution (%) of types of substratum along the horizontal transect at every tidal level and in every sampling zone.*

Sampling zone	Tidal level	Percentage		
		Gravels and Boulders	Sands	Soft mud
TC1	H	85	15	0
	M	80	10	10
	L	0	10	90
TC2	H	90	5	5
	M	70	15	15
	L	5	5	90
TC3	H	80	10	10
	M	60	20	20
	L	0	5	95
ST	H	90	5	5
	M	70	20	10
	L	0	5	95

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

Figure 3.13 Examples of photographic records of quadrat for intertidal soft shore community survey in September 2024 (H: 2.0 m above C.D.; M: 1.5 m above C.D.; L: 1.0 m above C.D.)

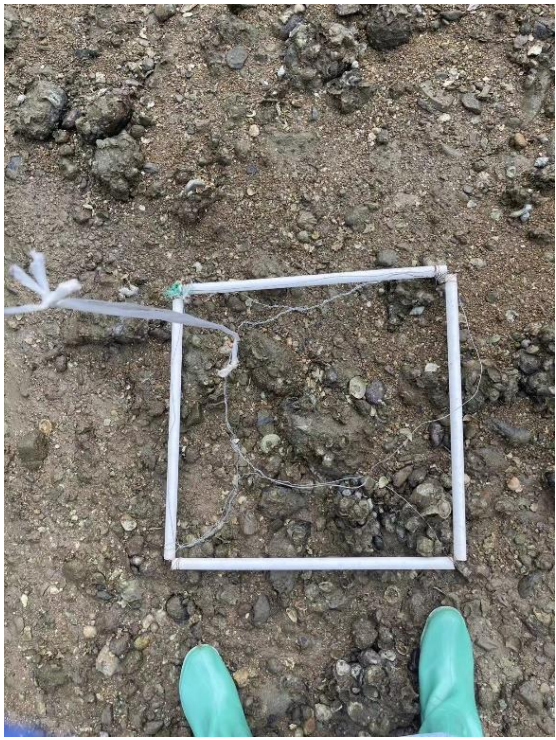
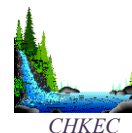
TC1 H	TC1 L	
		
TC2 H	TC2 L	
		

Figure 3.13.(Cont'd) Examples of photographic records of quadrat for intertidal soft shore community survey in September 2024 (H: 2.0 m above C.D.; M: 1.5 m above C.D.; L: 1.0 m above C.D.)

TC3 H	TC3 L
	
ST H	ST L
	

**Table 3.4** *Total abundance, density and number of taxon of every phylum*

Phylum	Total Abundance	%	Density (ind. m ⁻²)	Number of Taxon
<u>Sep 2024</u>				
Mollusca	6633	87.5	221	32
Arthropoda	559	7.4	19	6
Annelida	102	1.3	3	3
Sipuncula	172	2.3	6	2
Nemertea	39	0.5	1	1
Cnidaria	60	0.8	2	1
Platyhelminthes	15	0.2	1	1
Total	7580			

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		TC2	Density		TC3	Density		ST	Density	
		%	(ind. m ⁻²)		%	(ind. m ⁻²)		%	(ind. m ⁻²)		%	(ind. m ⁻²)
Mollusca	1585	88.7	211	1548	83.6	206	1707	88.4	228	1793	89.2	239
Arthropoda	114	6.4	15	225	12.1	30	111	5.7	15	109	5.4	15
Annelida	39	2.2	5	0	0.0	0	44	2.3	6	19	0.9	3
Sipuncula	31	1.7	4	30	1.6	4	53	2.7	7	58	2.9	8
Nemertea	0	0.0	0	20	1.1	3	2	0.1	0	17	0.8	2
Cnidaria	18	1.0	2	29	1.6	4	0	0.0	0	13	0.6	2
Platyhelminthes	0	0.0	0	0	0.0	0	15	0.8	2	0	0.0	0
Sub-total	1787			1852			1932			2009		

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>	109	39	39
	G	<i>Monodonta labio</i>	65	23	62
Mid	Bi	<i>Saccostrea cucullata</i>	80	33	33
	G	<i>Monodonta labio</i>	51	21	54
	G	<i>Batillaria zonalis</i>	36	15	69
Low	G	<i>Batillaria multiformis</i>	44	22	22
	G	<i>Nodilittorina radiata</i>	39	20	42
	Bi	<i>Barbatia virescens</i>	32	16	58

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>	113	38	38
	G	<i>Monodonta labio</i>	60	20	58
	G	<i>Batillaria multiformis</i>	38	13	71
Mid	Bi	<i>Saccostrea cucullata</i>	79	34	34
	G	<i>Batillaria zonalis</i>	32	14	48
	G	<i>Monodonta labio</i>	38	16	64
Low	Bi	<i>Barbatia virescens</i>	54	26	26
	G	<i>Batillaria multiformis</i>	40	19	45

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>	117	40	40
	G	<i>Monodonta labio</i>	66	22	62
Mid	Bi	<i>Saccostrea cucullata</i>	86	35	35
	G	<i>Monodonta labio</i>	40	17	52
Low	Bi	<i>Barbatia virescens</i>	51	22	22
	G	<i>Lunella granulata</i>	37	16	38
	G	<i>Batillaria multiformis</i>	35	15	53

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>	110	38	38
	G	<i>Monodonta labio</i>	48	16	54
	G	<i>Batillaria multiformis</i>	32	11	65
Mid	Bi	<i>Saccostrea cucullata</i>	82	27	27
	G	<i>Monodonta labio</i>	100	33	60
Low	G	<i>Batillaria zonalis</i>	61	29	29
	G	<i>Lunella granulata</i>	39	18	47

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	16	16	278	238	1.9	2.07	0.7	0.77
	M	15		240		2.0		0.8	
	L	16		197		2.3		0.8	
TC2	H	16	15	298	247	2.0	2.13	0.7	0.77
	M	15		236		2.1		0.8	
	L	15		207		2.3		0.8	
TC3	H	16	16	295	257	2.0	2.23	0.7	0.80
	M	18		240		2.3		0.8	
	L	15		237		2.4		0.9	
ST	H	16	16	293	269	2.1	2.20	0.8	0.80
	M	17		301		2.2		0.8	
	L	16		212		2.3		0.8	

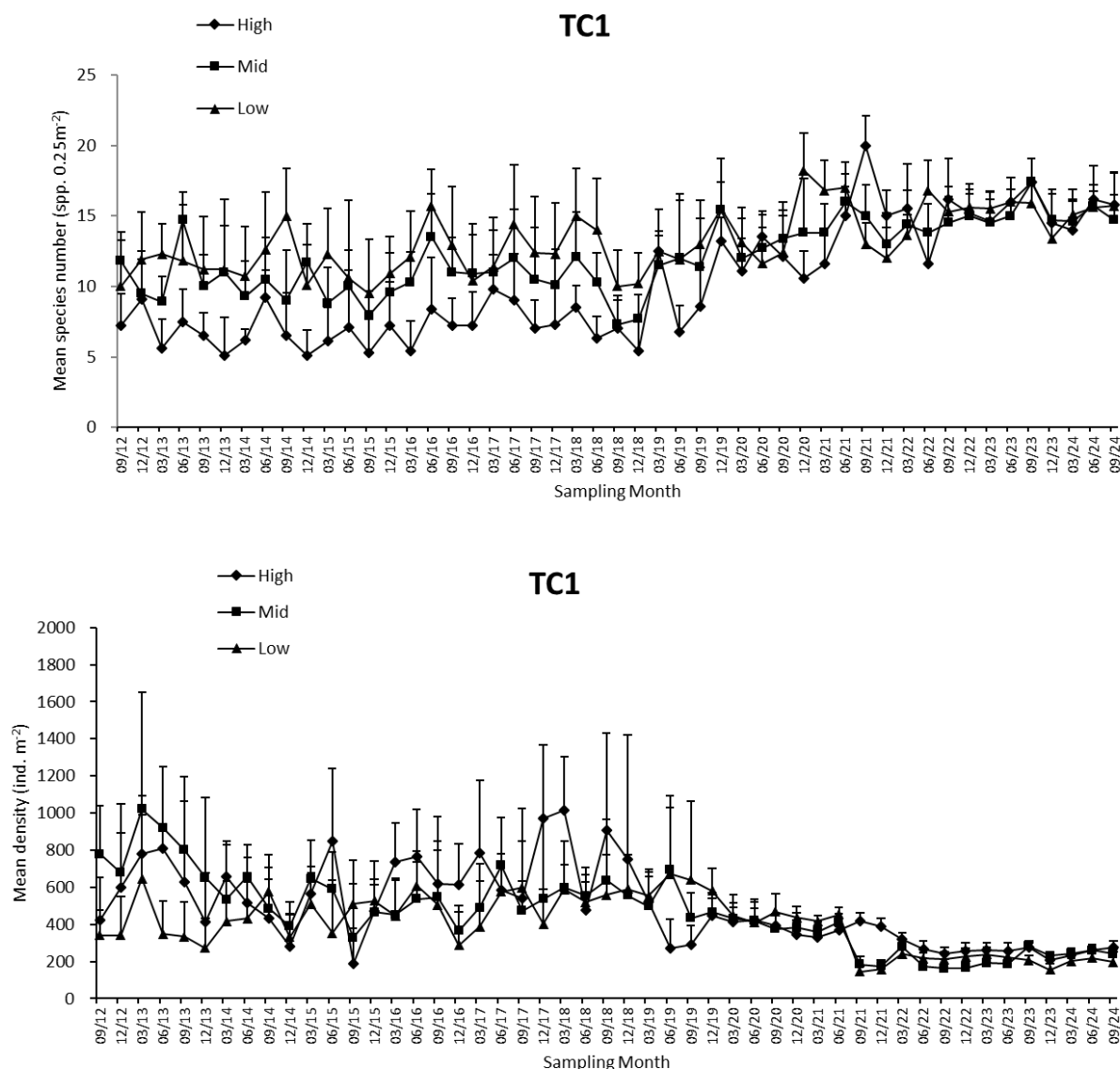


Figure 3.14 Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC1

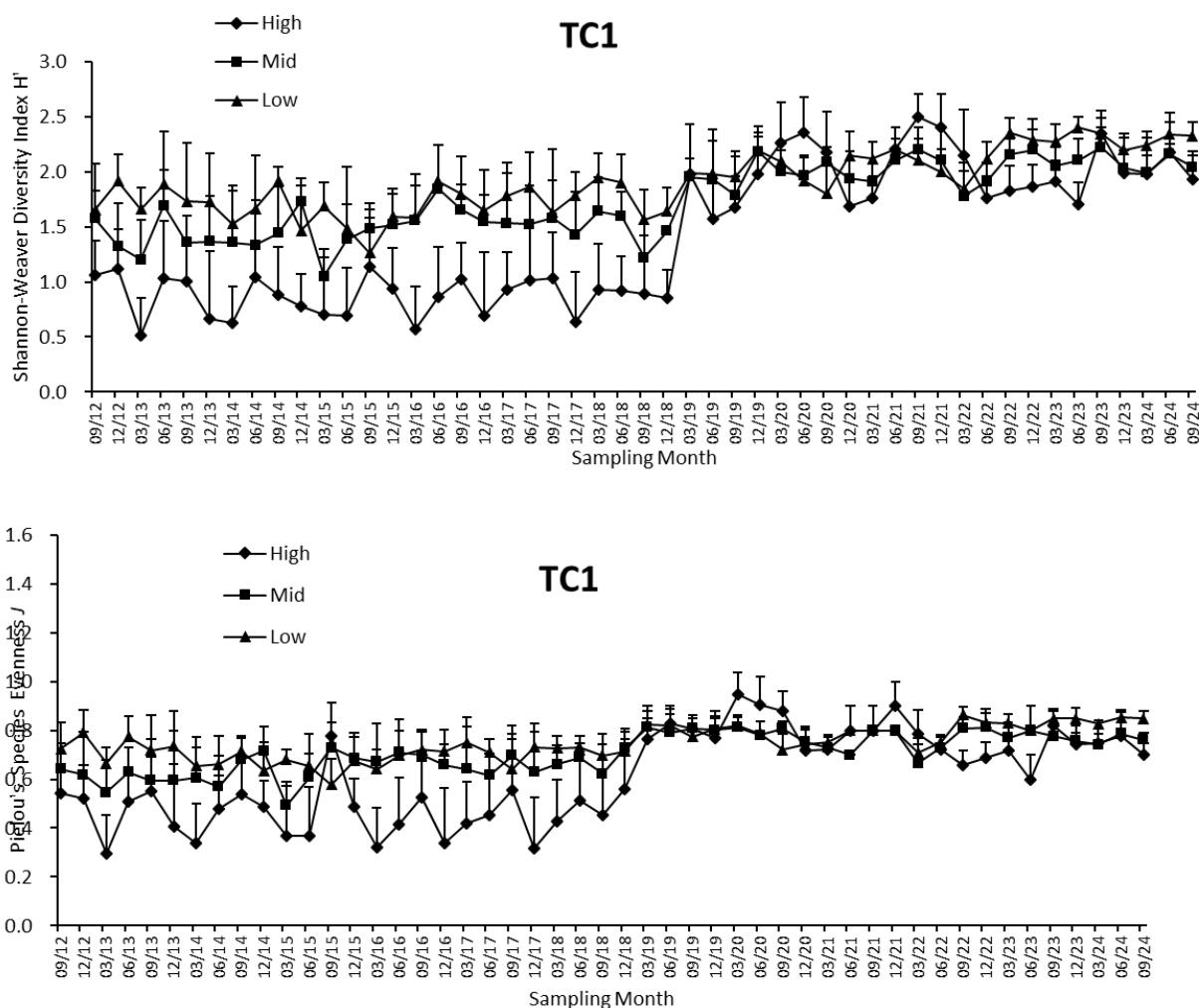


Figure 3.14(Cont'd) Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC1

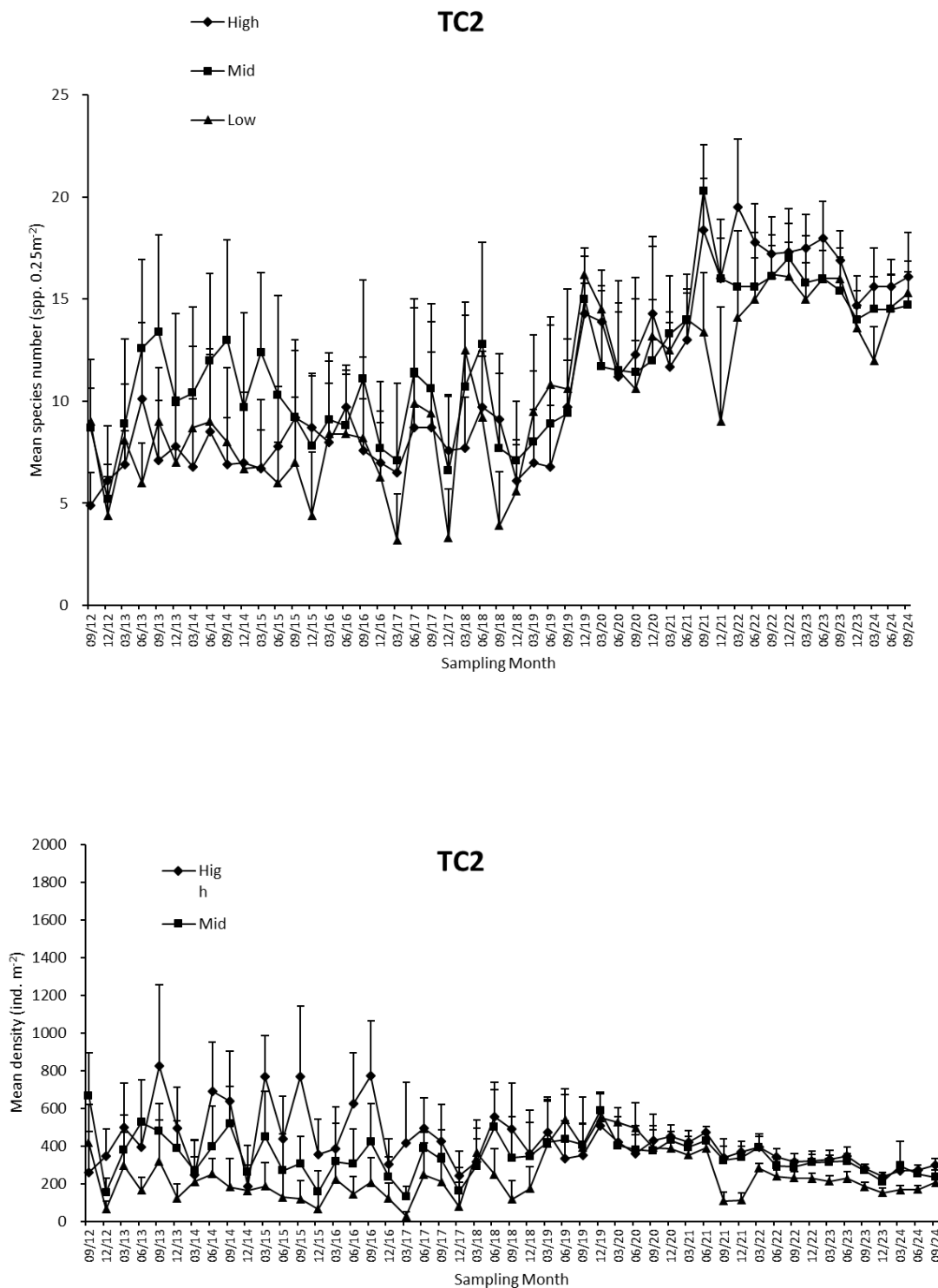


Figure 3.15 Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC2.

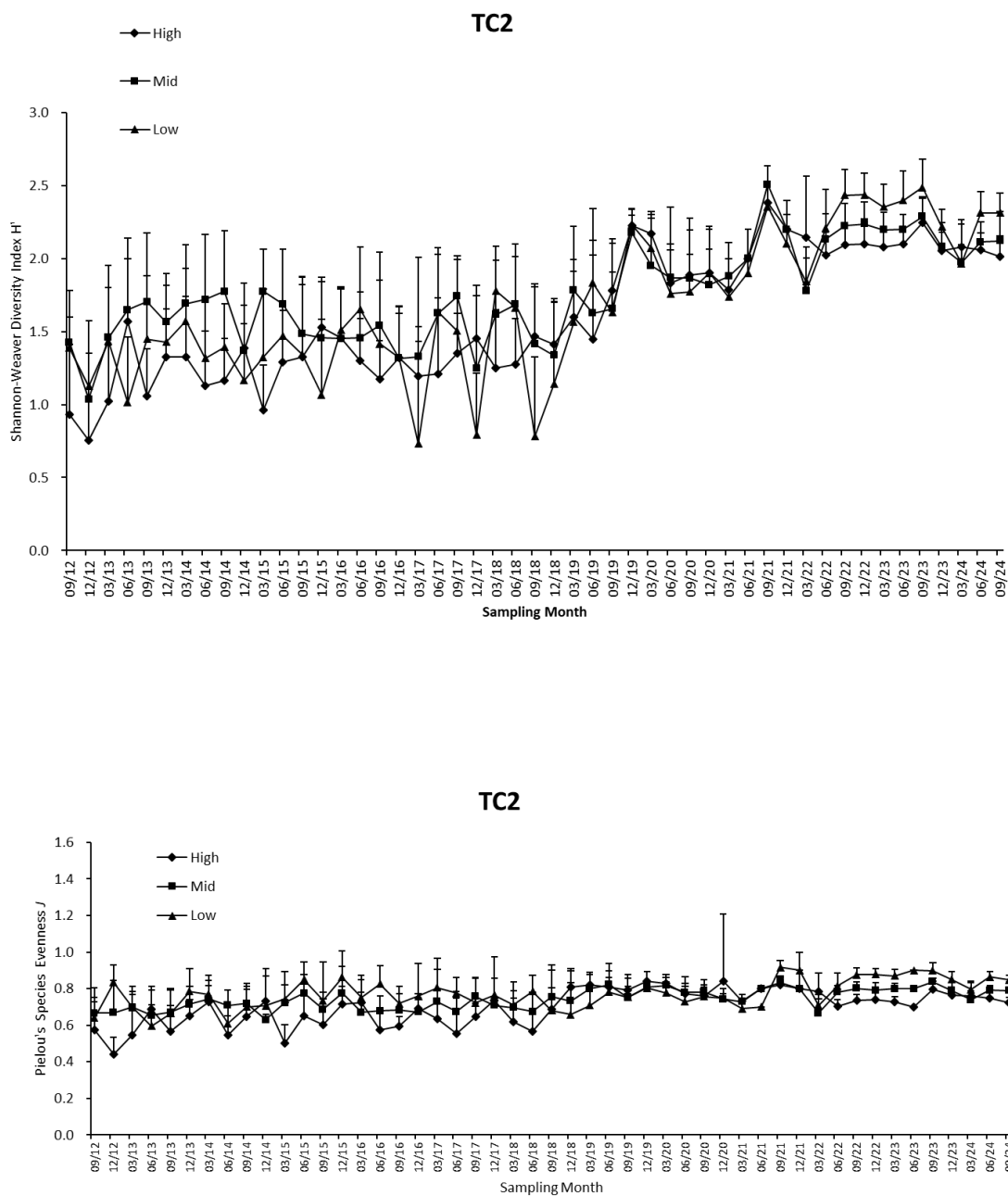


Figure3.15 (Cont'd) Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC2.

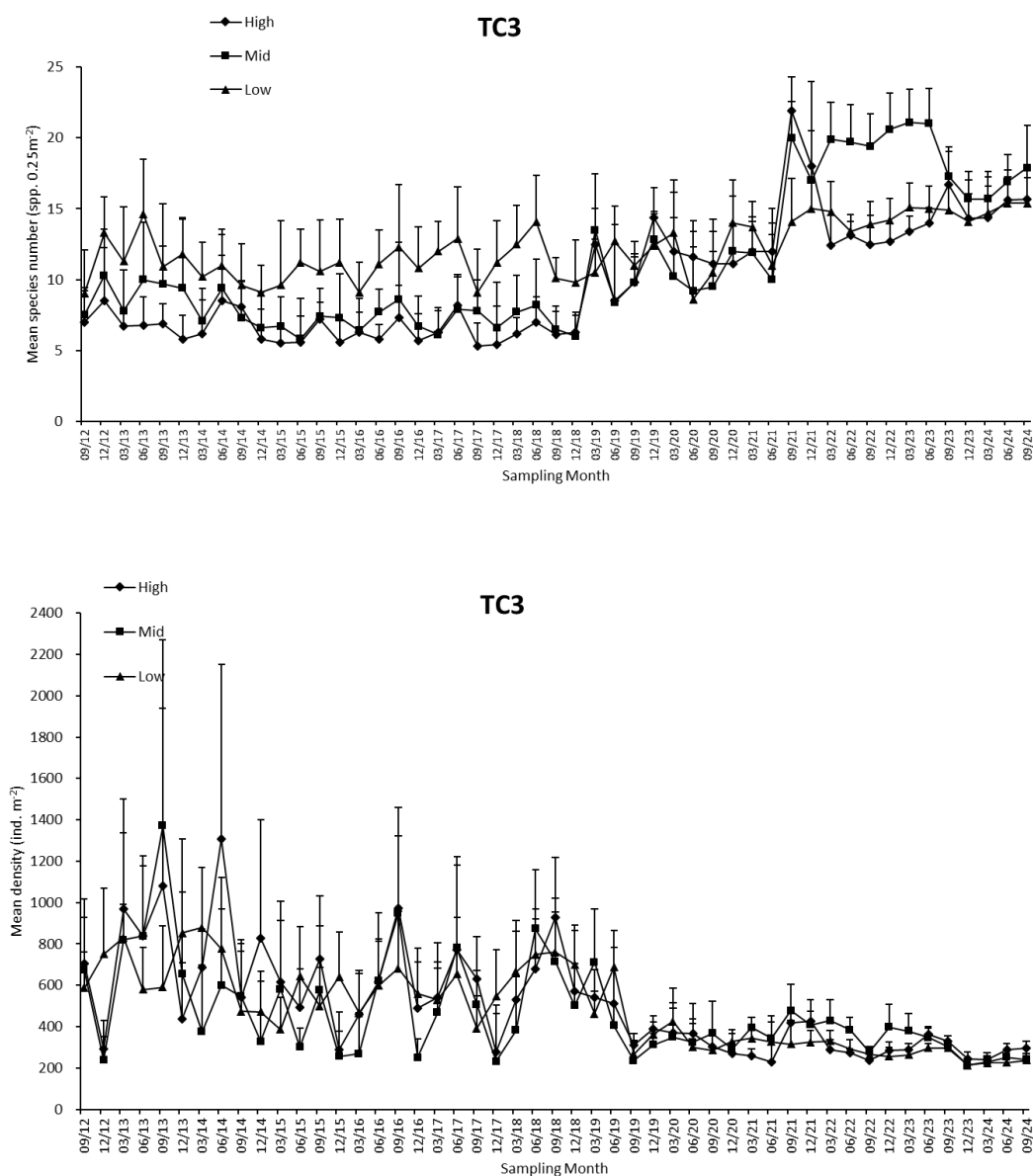


Figure 3.16 Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC3.

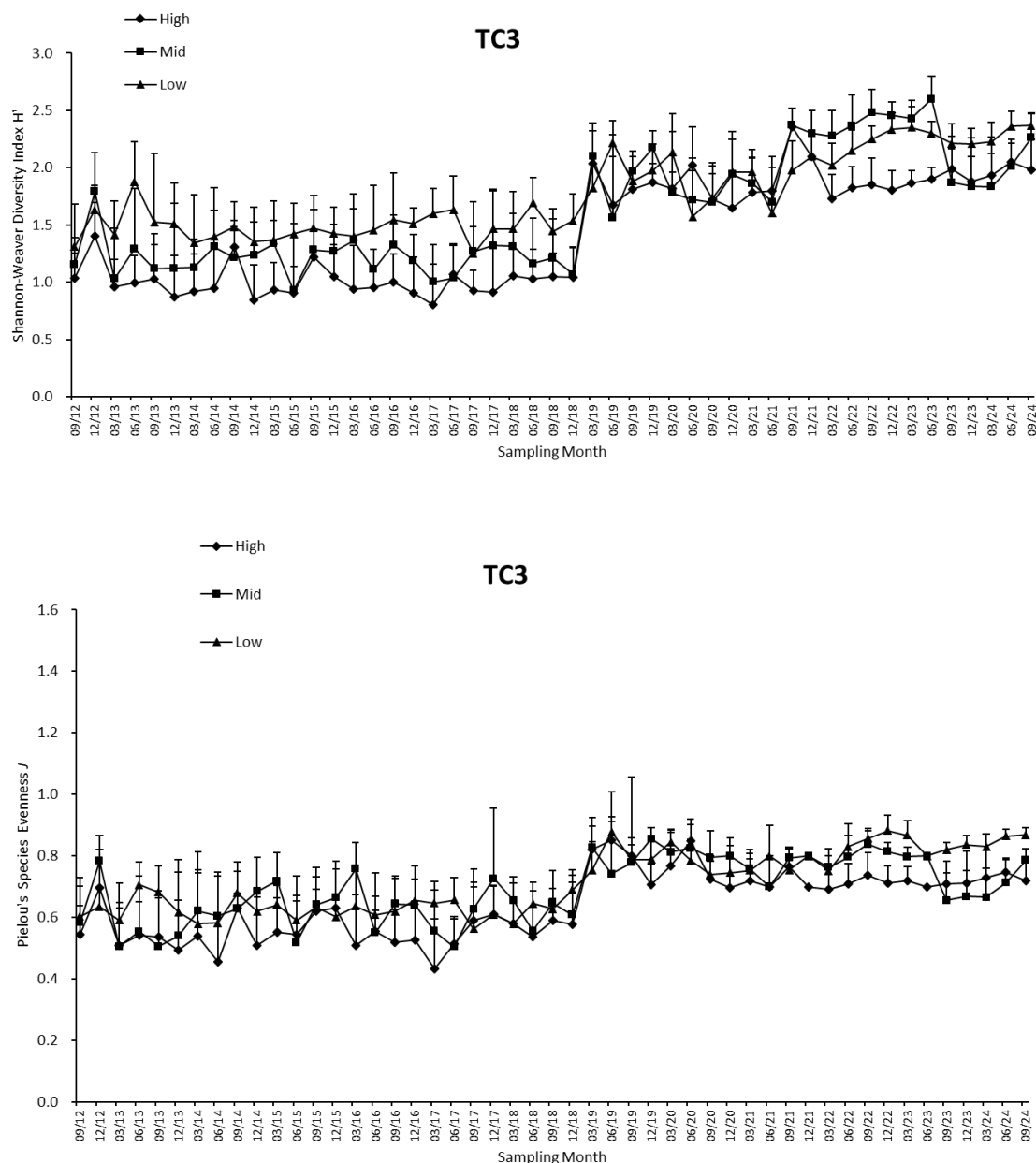


Figure 3.16 (Cont'd) Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone TC3.

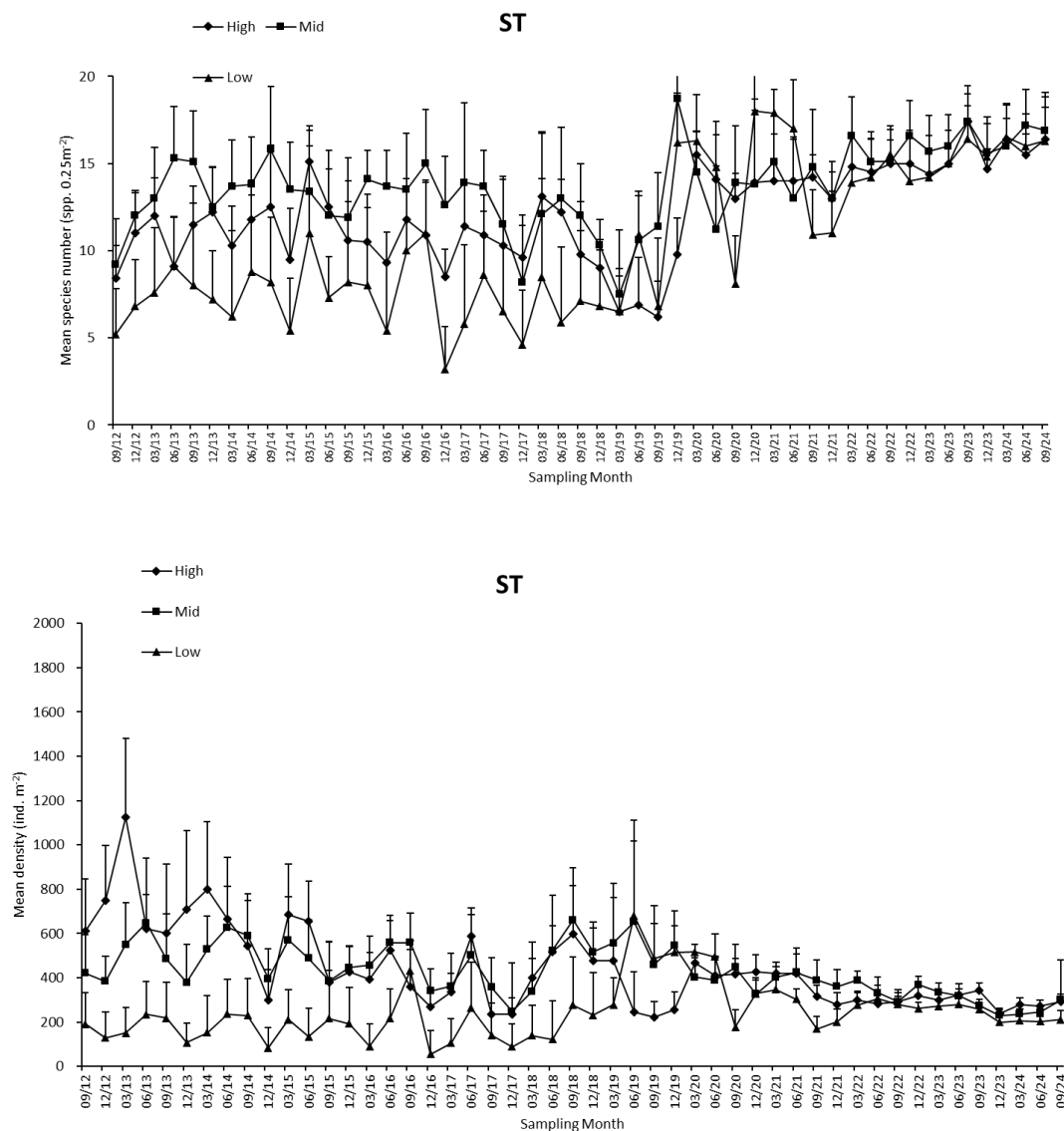


Figure 3.17 Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone ST.

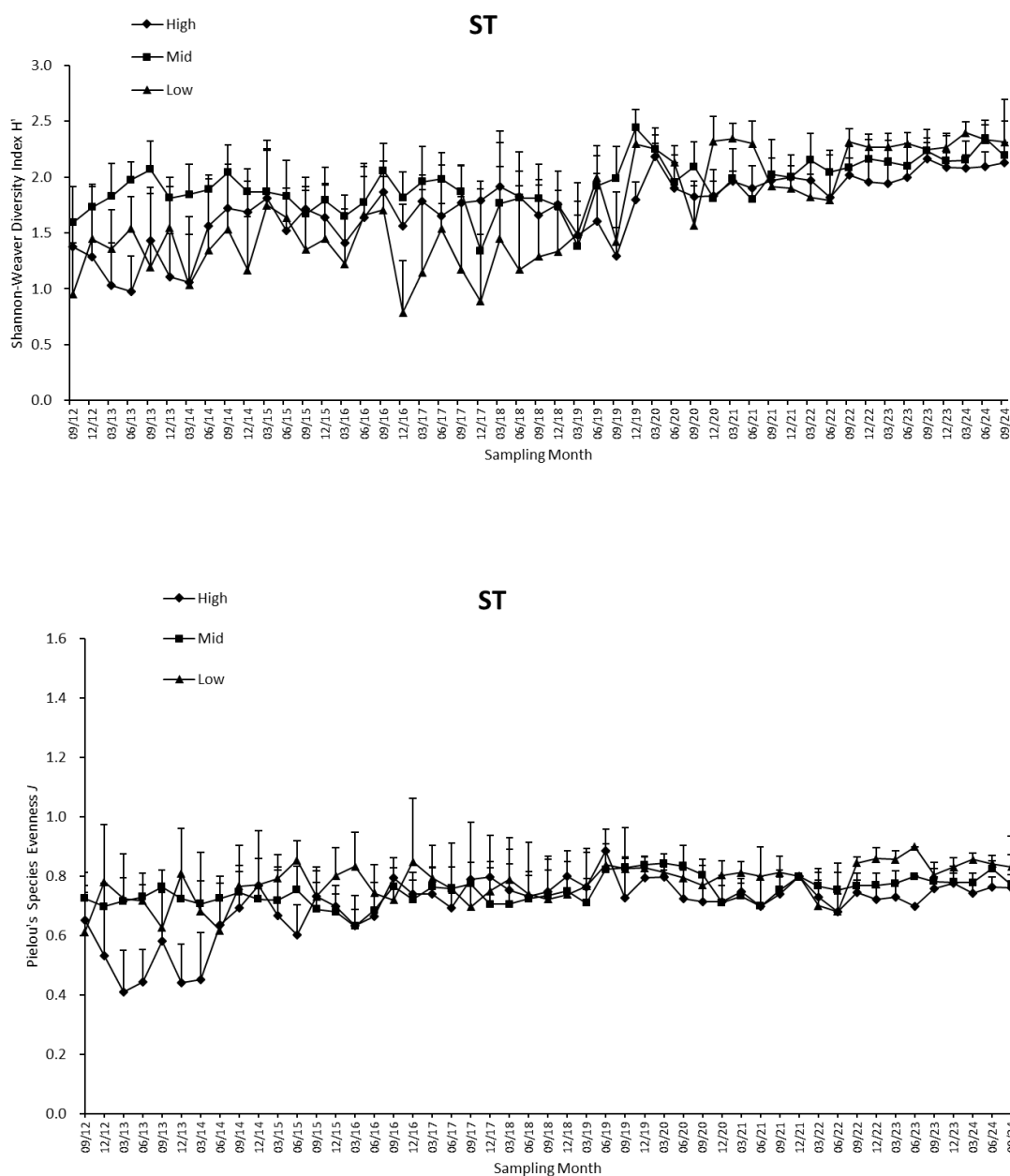
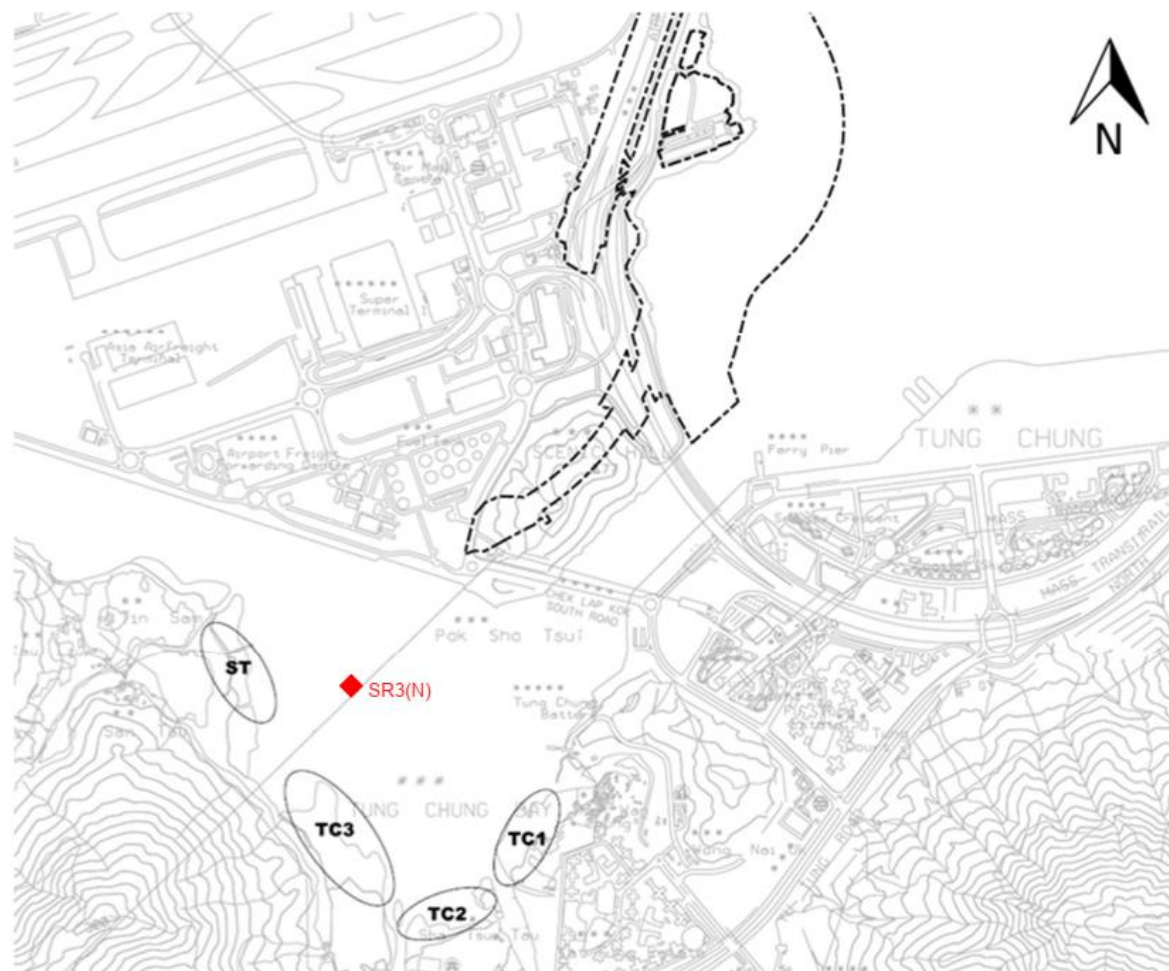


Figure 3.17(Cont'd) Temporal changes of mean number of species, mean density, Shannon-Weaver Diversity Index (H') and Pielou's Species Evenness (J) (mean + SD) at every tidal level in sampling zone ST.



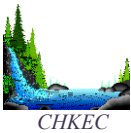
Annex I. Location of sampling zones (map from ATKINS China Ltd.)





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					
No. of ind.				0	0
<u>Sampling site TC2</u> (Search hour = 2 hrs)				<i>Carcinoscorpius rotundicauda</i>	<i>Tachypleus tridentatus</i>
No record					
No. of ind.				0	0
<u>Sampling site TC3</u> (Search hour = 3 hrs)				<i>Carcinoscorpius rotundicauda</i>	<i>Tachypleus tridentatus</i>
No record					
No. of ind.				0	0
<u>Sampling site ST</u> (Search hour = 3 hrs)				<i>Carcinoscorpius rotundicauda</i>	<i>Tachypleus tridentatus</i>
1	M	22°17'012"N	113°55'030"E		40.0
		E 1	113°55'030"E		
2	M	22°17'013"N	113°55'029"E		44.0



No. of ind.		0	2

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

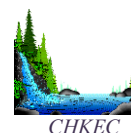


Annex III Record of seagrass beds survey in every sampling zone.

Estimated area (m²)	Estimated coverage (%)	GPS coordinate			Remark
TC1& TC2 (search hour = 2 hrs)					
No record					
TC3 <i>Halophila ovalis</i> (search hour = 3 hrs)					
10000	50-60	horizontal	22°17'007"N	113°55'033"E	A horizontal strand of seagrass bed nearby the seaward side of mangrove area at tidal level 1.5 m above C.D.
		line	22°17'007"N	113°55'033"E	
4000	40-50	horizontal	22°17'001"N	113°55'038"E	A horizontal strand of seagrass bed nearby the seaward side of mangrove area at tidal level 1.5m above C.D.
		line	22°17'001"N	113°55'038"E	
2000	15-30	horizontal	22°17'007"N	113°55'034"E	A horizontal strand of seagrass bed nearby the seaward side of mangrove area at tidal level 1.5m above C.D.
		line	22°17'007"N	113°55'034"E	
ST <i>Zostera Japonica</i> (search hour = 3 hrs)					
25	40-60	horizontal	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.
		line	22°17'012"N	113°55'029"E	
ST <i>Halophila ovalis</i> (search hour = 3 hrs)					
12000	60-80	horizontal	22°17'018"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.
		line	22°17'018"N	113°55'030"E	
9000	50-60	horizontal	22°17'017"N	113°55'031"E	A horizontal strand of seagrass bed nearby the seaward side of mangrove

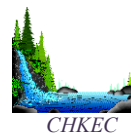


		line	22°17'017"N	113°55'031"E	area at tidal level 1.5 m above C.D.
1000	30-50	horizontal	22°17'015"N	113°55'030"E	A horizontal strand of seagrass bed near the seaward side of mangrove area
		line	22°17'015"N	113°55'030"E	at tidal level 1.5 m above C.D.
900	20-30	horizontal	22°17'013"N	113°55'029"E	A horizontal strand of seagrass bed near the seaward side of mangrove area
		line	22°17'013"N	113°55'029"E	at tidal level 1.5 m above C.D.
800	10-20	horizontal	22°17'012"N	113°55'032"E	A horizontal strand of seagrass bed near the seaward side of mangrove area
		line	22°17'012"N	113°55'032"E	at tidal level 1.5 m above C.D.
600	10-20	horizontal	22°17'010"N	113°55'032"E	A horizontal strand of seagrass bed near the seaward side of mangrove area
		line	22°17'010"N	113°55'032"E	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	Polychaeta	Phyllodocida	Nereididae	<i>Nereididae spp.</i>
Animalia	Annelida	Polychaeta	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	Arcoidea	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

time

Sep 2024

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	
Ba	<i>Balanus amphitrite</i>	1	1	0		1						2				1				1	1	8
Bi	<i>Barbatia virescens</i>					3		2		2		2		0		3		1		0		13
Bi	<i>Brachidontes variabilis</i>	0		2		0						1		1						2		6
Bi	<i>Glaucanome chinensis</i>			0				0		0		2		0		1		1	1	3		8
Bi	<i>Saccostrea cucullata</i>	33		25		27		32		26		24		22		30		33		21		273
Bi	<i>Xenostrobus atratus</i>			1			1	1		1				0		1		2		1		8
C	<i>Gaetice depressus</i>	1		2						0		3	1	2				0				9
C	<i>Metopograpsus latifrons</i>	2		0		2		2		2		3				2	1	0				14
C	<i>Pagurus dubius</i>	0				0		2				0				2	1	1		4		10
G	<i>Batillaria multiformis</i>	1		2					1			2		1		1				3		11
G	<i>Batillaria zonalis</i>	1	1	4			1	2				4		4		2				2		21
Cn	<i>Diadumene lineata</i>	0				0								1		3						4
G	<i>Cellana toreuma</i>			0		4		0		2								2		1		9
G	<i>Chlorostoma argyrostomum</i>			0				1	1	2		1		0		2		1				8
G	<i>Clithon faba</i>	1				1	1			2	3	1		1		0		2		0		12
G	<i>Littoraria articulata</i>			0				1		2				0		2		1	1	2		9

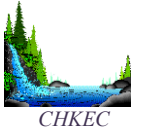
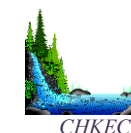


		TABLE 2														
		1980			1981			1982			1983					
		1	2	3	4	5	6	7	8	9	10	11	12			
G	<i>Lottia dorsuosa</i>	1	2			0		0	1	3	2			9		
G	<i>Lottia luchuana</i>	1	1	1	1	1	0	1	1	1				8		
G	<i>Lunella coronata</i>	2	0	3	0	3	0		3	1	0			12		
G	<i>Lunella granulata</i>	1		1	0	0	2	1	2			0		7		
G	<i>Monodonta labio</i>	21	18	11	16	16	17	14	20		18	11		162		
G	<i>Nipponacmea concinna</i>	2	2	3	0	0	2	2	1		1			13		
G	<i>Nodilittorina radiata</i>	1	0		2	1	1	1			0			7		
G	<i>Patelloida pygmaea</i>	1						2	2		2			7		
P	<i>Nereididae spp.</i>				0	2		2	0					4		
G	<i>Pirenella asiatica</i>	0	0	0	0	2	1	2	1	2	0	0		8		
P	<i>Sabellidae imbricatus</i>	0	3	1	2	1	2		1		1	0		11		
Po	<i>Lepidozона spp.</i>	1	1	0	3	1	2	1	3	2	2	0	2	1	1	20
Sp	<i>Siphonosoma sp.</i>			1				0		1		1	0			3
															Total	694

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

Sep 2024	Sampling Zone TC1	Mid tidal level (1.5 m above C.D.)																					
		1		2		3		4		5		6		7		8		9		10			
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Sub-total	
Ba	<i>Balanus amphitrite</i>	0		1		0		3		0		1		1		0		1				7	
Bi	<i>Barbatia virescens</i>	1		0										0						0		1	
Bi	<i>Brachidontes variabilis</i>	2		3		0		2		0		2		1		0		1				11	
Bi	<i>Glaucanome chinensis</i>	0						2		0		2		2				1		1		8	
Bi	<i>Saccostrea cucullata</i>	1		2				16		23		18		23		19		21		15		21	199
		8		5																			
Bi	<i>Xenostrobus atratus</i>	2				1		1		1		1				0						6	
C	<i>Gaetice depressus</i>	1		2	1	1				2				2		1		1		1		12	
C	<i>Hemigrapsus penicillatus</i>			1	2	0		0		0		0		1				0		1		5	
C	<i>Metopograpsus latifrons</i>	1		0		1		1		0		3	2	0		1		1		1		11	
G	<i>Batillaria multiformis</i>	1			1	0		1		2		1	1			0						7	
G	<i>Batillaria zonalis</i>	1																					
		1		7		9		6		13	2	6		11		7		9			10	91	
G	<i>Chlorostoma argyrostomum</i>	1				2				0						1		0		1		5	
G	<i>Clithon faba</i>			1		1		0		1		0		0	1	0				0		4	
G	<i>Clithon retropictus</i>					1		0				0		1		1						3	



G	<i>Littoraria articulata</i>	0	5			0		0					5
G	<i>Lottia dorsuosa</i>	0		0		1	1	1	2	1	2		8
G	<i>Lunella coronata</i>	1	3	0	2	1	2	1	2	1			13
G	<i>Lunella granulata</i>	2	0	2	0	1	0	0	2			0	7
G	<i>Monodonta labio</i>	8	1	16	16	11	16	13	12	1	12	11	127
G	<i>Nerita squamulata</i>	1	0	0	1		1	0	1		3	2	9
G	<i>Nipponacmea concinna</i>	2	0	6	0	1	0	0				0	9
G	<i>Nodilittorina radiata</i>	3	2					0				1	6
G	<i>Patelloida pygmaea</i>			1				1	2		1	1	6
G	<i>Pirenella asiatica</i>	1	4		1	1	1		1		2	0	11
P	<i>Nereididae spp.</i>	1	1	1	2	1	3	1	1	0	0	2	13
Po	<i>Lepidozona spp.</i>		2			0		0	1		0		3
Sp	<i>Siphonosoma sp.</i>	1	0	0	0	2	0	0	2			0	5
Sp	<i>Sipunculus nudus</i>		1	1	1	1	0	0	1	1	1	1	9
Total													601

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

Sep 2024	Sampling Zone TC1	Low tidal level (0.5 m above C.D.)																					
		1		2		3		4		5		6		7		8		9		10			
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Sub-total	
Ba	<i>Balanus amphitrite</i>	1				2				0		0		0		0		0		1		4	
Bi	<i>Barbatia virescens</i>	7		5		9		7		7		13		12	1	9		5		5		80	
Bi	<i>Anomalocardiasquamosa</i>	0		0		1		0		0		1		3								5	
Bi	<i>Brachidontes variabilis</i>		1					2		0		2		0		1				2		8	
Bi	<i>Glaucanome chinensis</i>	1										2	1			3				1		8	
Bi	<i>Saccostrea cucullata</i>					2		2				0				0		2		0		6	
Bi	<i>Xenostrobus atratus</i>			1		2		1		3				2		3			1			13	
C	<i>Gaetice depressus</i>					0		0	1			0		3		0		2		1		7	
C	<i>Hemigrapsus penicillatus</i>	0				1						2				2		2		0		7	
C	<i>Metopograpsus latifrons</i>		1	1			2													1		5	
C	<i>Pagurus dubius</i>	2		2	1	1				2		2		2		2		0		1		15	
Cn	<i>Diadumene lineata</i>			0		2		2		1		3	1	3		0		1		1		14	
G	<i>Batillaria multiformis</i>	8		11		13		15		6		14		14		13		4		11		109	
G	<i>Batillaria zonalis</i>											1				1		1		1		4	
G	<i>Chlorostoma argyrostomum</i>	1		1		0		2		0				0				2				6	
G	<i>Clithon retropictus</i>			0		1		1				3				3				1		9	

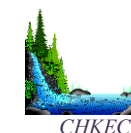


G	<i>Littoraria articulata</i>	1	1		1		1		1		3	8
G	<i>Lottia dorsuosa</i>				1					0	2	3
G	<i>Lottia luchuana</i>	1		2	0	0	0	0	0			3
G	<i>Lunella coronata</i>		1	2	1	1	0	3	0			8
G	<i>Lunella granulata</i>	0		2		1		1	1	1	0	6
G	<i>Monodonta labio</i>		1	0	3	3	2	2	2	1		14
G	<i>Nerita lineata</i>	1	0			0	2	1	1		1	6
G	<i>Nerita polita</i>	0	1			2	0	1	0	0	1	5
G	<i>Nerita squamulata</i>	0	1	1	1	0	1	0	2	0	1	9
G	<i>Nipponacmea concinna</i>		1	1			0		0		2	5
G	<i>Nodilittorina radiata</i>	8	9	14	11	9	15	11	1	10	7	97
P	<i>Nereididae spp.</i>	0	2			1		1			0	4
P	<i>Sabellidae imbricatus</i>	2	1	0			1		1		2	7
Po	<i>Lepidozона spp.</i>	1	0	1		0	1	0			0	3
Sp	<i>Siphonosoma sp.</i>		0		1	1		1	1		0	4
Sp	<i>Sipunculus nudus</i>	3				0	2	1	0	3	0	10
											Total	492

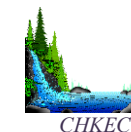
Key for faunal groups (Gp):

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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

Sep 2024	Sampling Zone TC2	High tidal level (2.0 m above C.D.)																					
		1		2		3		4		5		6		7		8		9		10			
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Sub-total	
Ba	<i>Balanus amphitrite</i>	0		1						0		1				2				1		5	
Bi	<i>Barbatia virescens</i>	1														0						1	
Bi	<i>Brachidontes variabilis</i>			1						1		2				0						4	
Bi	<i>Glauconome chinensis</i>	2		3		0		1		2		1		0		2		0		3		14	
Bi	<i>Saccostrea cucullata</i>	2		3		2		3		2		3		2				25		31		33	282
		5		3		2		1		6		0		6									
Bi	<i>Xenostrobus atratus</i>	1		1	1	0		3		2		2		3		1		1				15	
C	<i>Gaetice depressus</i>			3		2						0		0				2	1	3		11	
C	<i>Hemigrapsus penicillatus</i>	1										0		1	1					3		6	
C	<i>Metopograpsus latifrons</i>		1					1						1								3	
C	<i>Metopograpsus quadridentatus</i>	3		2		1		2				0				1		1		2		12	
Cn	<i>Diadumene lineata</i>		1			2						0		3				3		1		10	
G	<i>Batillaria multiformis</i>	1		1				1		1				5		7		11		7	0	8	95
		3		0		8	0	5		1													
G	<i>Batillaria zonalis</i>	2						2		0		0				1						5	
G	<i>Chlorostoma argyrostomum</i>	1		1		3		0		1				1				0		1		8	



G	<i>Clithon retropictus</i>				1		1	0	0		0			2
G	<i>Littoraria articulata</i>	2		1	1			1		0	2		1	8
G	<i>Lottia dorsuosa</i>	0			2	1	1		0	0	1	1		6
G	<i>Lunella coronata</i>			2	1	1	1	2			3		2	12
G	<i>Lunella granulata</i>				0	3		1		1	0			5
G	<i>Monodonta labio</i>	1	1	1	1	1		2						
		4	2	8	8	2	8	0	16	18	15			151
G	<i>Nerita squamulata</i>	1	3			1	1	1	0	1	1		3	12
G	<i>Nipponacmea concinna</i>	2	1		1		3		2	1	1	1		12
G	<i>Nodilittorina radiata</i>	1			1			1	1					4
G	<i>Patelloida pygmaea</i>			0		1	3	0	0	1			0	5
G	<i>Pirenella asiatica</i>	0	3	2					1	1	0		2	9
G	<i>Pirenella incisa</i>	2		0	1				3		3		0	9
Ne	<i>Nemertea sp.</i>	0	1	1	1	1		0	1	3	1	1	1	11
Po	<i>Lepidozona spp.</i>			1	0	3	2	1	3	0	0		1	11
Sp	<i>Siphonosoma sp.</i>	1		2	3	2	1	1	1	2	1		2	17
Total														745

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

Sep 2024	Sampling Zone TC2	Mid tidal level (1.5 m above C.D.)																					
		1		2		3		4		5		6		7		8		9		10			
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Sub-total	
Ba	<i>Balanus amphitrite</i>			2		0		1				0		3		0				1		7	
Bi	<i>Barbatia virescens</i>	1		2								0		2				1				6	
Bi	<i>Brachidontes variabilis</i>	2		3				3	1			1		1				3				14	
Bi	<i>Glaucanome chinensis</i>	1		0		2				1		0		3		2		2				11	
Bi	<i>Saccostrea cucullata</i>	20		14		17		22		23		23		21	1	24		15		18		198	
Bi	<i>Xenostrobus atratus</i>	2		2		0		1	1	2	1	2				0		2		3		16	
C	<i>Gaetice depressus</i>	1		1		3		3		1				1		2		0		1		13	
C	<i>Metopograpsus latifrons</i>			0						2				1				3		2		8	
C	<i>Pagurus dubius</i>							0		0				0		3		0		0		3	
Cn	<i>Diadumene lineata</i>			1		1				0		1				1		0		0		4	
G	<i>Batillaria multiformis</i>	1		3		1		6		5		2		2		1		6		9		36	
G	<i>Batillaria zonalis</i>	8		5		8		7		5		7		7		24		4		6		81	
G	<i>Clithon faba</i>	0		1		2		1		0		2		3		2		2		2		15	
G	<i>Clithon retropictus</i>	1				1		0				0				1		3		1		7	
G	<i>Littoraria articulata</i>	0		1		3		3		1						3		1				12	

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

Sep 2024	Sampling Zone TC2	Low tidal level (0.5 m above C.D.)																				
		1		2		3		4		5		6		7		8		9		10		
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Sub- total
Ba	<i>Balanus amphitrite</i>	0		2		2		2		0		3		3		2		3		2		19
Bi	<i>Anomalocardia squamosa</i>	2	1							1												4
Bi	<i>Barbatia virescens</i>	13	1	15		16		14		15		16		17		8		9		11		135
Bi	<i>Brachidontes variabilis</i>	0		2				2				0				2						6
Bi	<i>Glauconome chinensis</i>			1		1		1				3		0		3		2				11
Bi	<i>Isognomon isognomum</i>									0				2		1		3		3		9
Bi	<i>Saccostrea cucullata</i>			2	1	1		2				1						2		0		9
Bi	<i>Xenostrobus atratus</i>	2			1	1	1		1	1	1	1		2		0		2		1		14
C	<i>Gaetice depressus</i>			1		1		1	1							2		2		2		10
C	<i>Hemigrapsus penicillatus</i>	3		0				0		2				1	1					2		9
C	<i>Metopograpsus latifrons</i>									1				0		2						3
C	<i>Pagurus dubius</i>	2	1	1	1	3		0	1	2		3		1		0		1				16
Cn	<i>Diadumene lineata</i>			0				0		1		0				2				1		4
G	<i>Batillaria multiformis</i>	11		10		8		6		8		10		8		11		12		15		99
G	<i>Batillaria zonalis</i>			1		2		1				6		3		4		2		1		20

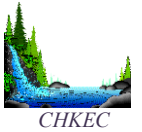


		TABLE 1												
		1	2	3	4	5	6	7	8	9	10	11	12	Total
G	<i>Clithon retropictus</i>	0	2	2	0				2	0	1	0	7	
G	<i>Littoraria articulata</i>		0	3	0	1	1	1	3		2	0	11	
G	<i>Lottia dorsuosa</i>	0	2	2	2				3	1	2	2	14	
G	<i>Lunella coronata</i>	3	0	2	1	0		3	0	3	1	1	14	
G	<i>Lunella granulata</i>	2	1	3	1	2	1	1	2	6	8	11	45	
G	<i>Monodonta labio</i>	3	0	3	0			2		2		2	12	
G	<i>Nipponacmea concinna</i>	0	3		3	0			0		2	0	8	
G	<i>Nodilittorina radiata</i>		2		2	0				3		3	10	
G	<i>Patelloida pygmaea</i>	0		0				1	3	1			5	
G	<i>Pirenella incisa</i>	1	1	0	1	1	2	0	2	1	1	1	11	
Po	<i>Lepidozona spp.</i>	2	2	0	0	2	0			0	0		6	
Sp	<i>Siphonosoma sp.</i>	1	0	0	0			0	0			2	3	
Sp	<i>Sipunculus nudus</i>	1		0		1	1	1	0	0	0		4	
Total													518	

Key for faunal groups (Gp):

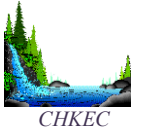
Ba: Barnacle, Bi: Bivalve, C: Crab, Cn: Cnidarin, Eh: Echiuran, F: Fish, G: Gastropod, Hc: Hermit crab, Ne: Nemertean, Ol: Oligochaete,

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

Sep 2024	Sampling Zone TC3	High tidal level (2.0 m above C.D.)																					
		1		2		3		4		5		6		7		8		9		10			
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Sub-total	
Bi	<i>Barbatia virescens</i>	2				3				3				2		0		0				12	
Bi	<i>Brachidontes variabilis</i>			0				0				0				0						3	
Bi	<i>Glaucanome chinensis</i>	3	1	0		1	0	1		0		1		2		2		1		1		11	
Bi	<i>Saccostrea cucullata</i>	31		33		25		31		25		24		33	2	24		30		33	2	277	
Bi	<i>Xenostrobus atratus</i>	3		0		0		0		0		0		3		0		2		3		14	
C	<i>Gaetice depressus</i>	1		0		0		0	1	0		0	1	2	2	5	2	2		2	2	10	
C	<i>Metopograpsus latifrons</i>	2	1			1				3	1					1		5				12	
C	<i>Pagurus dubius</i>			0				0				0		0		5		2		1		4	
G	<i>Batillaria multiformis</i>	1		1		1		1		2		1		2		1	1	2	1	2		13	
G	<i>Batillaria zonalis</i>	3	1	0		0		2	1	1	1	0				2		0		2	2	6	
G	<i>Clithon oualaniensis</i>	1		1				1				1		1		2	2			1		6	
G	<i>Clithon retropictus</i>	0		1		2		3		1	1	1				1		1				10	
G	<i>Littoraria articulata</i>	2		1	1	1	1	1		1		1		1			1	1	2	1		20	

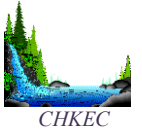


G	<i>Lunella coronata</i>	2	1	1	1	2	2	1	1			3	2	5			18	
G	<i>Lunella granulata</i>	3		1		1			1	1	1					1	10	
G	<i>Monodonta labio</i>	18		26	8	26	14		26		11	1	9		14	13	155	
G	<i>Nerita chamaeleon</i>				1		3	1			0				0		4	
G	<i>Nerita polita</i>	1									2		3		1	2	15	
G	<i>Nerita squamulata</i>				2		2								2		17	
G	<i>Nipponacmea concinna</i>				2		2								2		8	
G	<i>Nodilittorina radiata</i>			1	1	1	1	1	1		1		2			1	14	
G	<i>Patelloida pygmaea</i>	1			1		1						0			2	7	
G	<i>Pirenella incisa</i>	1		4	1	4	3		4		3		1		0	3	17	
G	<i>Thais clavigera</i>				0		0								1		3	
P	<i>Nereididae spp.</i>	3											1	2	2	2	13	
P	<i>Perinereis sp.</i>	1			3		3	1			0					0	13	
P	<i>Sabellidae imbricatus</i>	3		1	0	1	0		1	1	0				2	0	13	
Pl	<i>Platyhelminthes</i>	1		3	0	3	0		3		0	1	3			0	1	13
Total																	718	

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

Sep 2024	Sampling Zone TC3	Mid tidal level (1.5 m above C.D.)																				
		1		2		3		4		5		6		7		8		9		10		
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Sub-total
Ba	<i>Balanus amphitrite</i>	0		1		1		2		1		0		1		0		0		0		6
Bi	<i>Barbatia virescens</i>	0		2						2		0						1				5
Bi	<i>Brachidontes variabilis</i>	1		0				0				1		1		1						4
Bi	<i>Glaucanome chinensis</i>	2		3		3		1		3		2		3	1	2		2				22
Bi	<i>Saccostrea cucullata</i>	22		21		22		19		25		19		26		20		17		22		213
Bi	<i>Xenostrobus atratus</i>	2				0				0		2				1		2		3		10
C	<i>Gaetice depressus</i>	0	1	2		3				3	1	0	1	2						2		15
C	<i>Metopograpsus latifrons</i>	3				0		0		0		3				2		0	1	2		11
G	<i>Batillaria multiformis</i>	1		1								1	3		1		6		6			19
G	<i>Batillaria zonalis</i>	2		1	1	5				5		1		1	1					2		19
G	<i>Clithon faba</i>	2				0		0		0		2				2	1	0				7
G	<i>Clithon oualaniense</i>			0										0			1	0		1		2
G	<i>Clithon retropictus</i>	2		1								2		2		1		0	1			9
G	<i>Littoraria articulata</i>	1				2		1		2		1		1						2		10



G	<i>Lottia dorsuosa</i>	2	2	1		1	2	2			2	0	12	
G	<i>Lunella coronata</i>	2	0	3	0	3	2	0	0			1	11	
G	<i>Lunella granulata</i>	1		2	5	2	1		4	4	1		20	
G	<i>Monodonta labio</i>	11	12	8	7	10	11	14	1	5	9	13	101	
G	<i>Nerita chamaeleon</i>	2			0		2			1	2	1	8	
G	<i>Nerita lineata</i>		2	0	0	1		2		1	1		7	
G	<i>Nerita polita</i>	2			1		2	1			1	1	9	
G	<i>Nerita squamulata</i>					1				1	0	2	4	
G	<i>Nipponacmea concinna</i>	0		2	2	2	0	1		1	3		11	
G	<i>Nodilittorina radiata</i>	1	1	1	1	1	2		1	1		3	12	
G	<i>Patelloida pygmaea</i>	0			1		1	1			3		6	
G	<i>Pirenella asiatica</i>	1	1	0	1	1	1	1	1	0		3	0	11
G	<i>Pirenella incisa</i>	2		1	0	0	2		2	1	1	1	0	11
Ne	<i>Nemertea spp.</i>	0						0			1		1	2
P	<i>Sabellidae imbricatus</i>	0	1		0		0		1					2
Po	<i>Lepidozона spp.</i>	0	1		0		0		1		3	1	1	7
Sp	<i>Siphonosoma sp.</i>				1						1	0		2
Sp	<i>Sipunculus nudus</i>		2	2	1	2			2			1	3	13
Total													601	

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

Sep 2024	Sampling Zone TC3	Low tidal level (0.5 m above C.D.)																					
		1		2		3		4		5		6		7		8		9		10			
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Sub- total	
Ba	Balanus amphitrite	1		3		2				3		3		0				1				13	
Bi	Barbatia virescens	13		11		17		8		16		14		14		12		11		12		128	
Bi	Anomalocardia squamosa			1		0		0		1		1		1		0				3		7	
Bi	Ruditapes philippinarum	0						2				2		2		2		0				8	
Bi	Brachidontes variabilis	0		2		0				2				3				0		0		7	
Bi	Glauconome chinensis	3		2				0		0				0		0		1		2		8	
Bi	Saccostrea cucullata	2		0		0				0		2		1				0				5	
Bi	Xenostrobus atratus	2				0		0						1		0		4		1		8	
C	Gaetice depressus	0				2	1	1				3		1		1		0		0		9	
C	Metopograpsus latifrons	0		3		1		2	1	3		2		1		0	1	0		1		15	
C	Pagurus dubius	6		13		11		8		11		9		5		7		8		10		88	
G	Batillaria multiformis	5		4		3		7		8		5		2		7		2		8		51	
G	Batillaria zonalis	2				0		0				0		0		0		2				4	
G	Clithon oualaniensis			0		1				0				3						2		6	
G	Littoraria articulata	1		2				1		1		1				1		1		2		10	

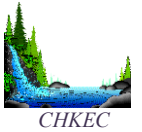


		TABLE 1												
		1	2	3	4	5	6	7	8	9	10	11	12	Total
G	Lottia dorsuosa	1	0	2	0	0	0	0	0	1	0			4
G	Lunella coronata	12	10	7	9	10	11	11	6	9	8			93
G	Lunella granulata		3	3	4	7	5	1	1	5	1	3		33
G	Monodonta labio	2	3	3	1	0	3		1	0	2			15
G	Nipponacmea concinna	3	4				2	3	1		1	0		14
G	Patelloida pygmaea	2	1	1	2			2	1	2				11
G	Pirenella incisa				0			1	2	0				3
P	Nereididae spp.	2		2	2	1		1		0	1	2	0	11
P	Sabellidae imbricatus	0		0	1			0	0	1	0	2		4
Sp	Siphonosoma sp.	3	3	2	1	0	1	3		1	0	1	3	19
Sp	Sipunculus nudus	3	3	1		2	3	0	1	1	2		3	19
		Total												593

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

Sep 2024	Sampling Zone ST	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		0		2		0		1		1		0		0					2		8
Bi	<i>Barbatia virescens</i>			0			1			1				1				2					5
Bi	<i>Brachidontes variabilis</i>	1				1		2		3								0		1			8
Bi	<i>Glaucanome chinensis</i>	1		3		1				3		3		1				1		2			15
Bi	<i>Saccostrea cucullata</i>	31		20		25		31		34		24		24		25		30		31			275
Bi	<i>Xenostrobus atratus</i>			3				0		2		2		0		0		0					7
C	<i>Gaetice depressus</i>						3					0		0		3		0					6
C	<i>Metopograpsus latifrons</i>					1	1		1								1	0		1			5
C	<i>Pagurus dubius</i>	2												3	1			2					8
Cn	<i>Diadumene lineata</i>			0		2		2		2		2	1	0		2		1					12
G	<i>Batillaria multiformis</i>	5		10		14		11		3		4		2		6		8			16		79
G	<i>Batillaria zonalis</i>	0		3		0		0		3		2		0		0				0			8
G	<i>Cellana toreuma</i>	1		0		3		2						3		1		2		2			14



		C												
G	<i>Clithon faba</i>	2	2	2	2	1	0	0	0		0	9		
G	<i>Clithon retropictus</i>	0	1	3	4	3		0		0	1	0	12	
G	<i>Littoraria articulata</i>	1	3	1	0		3	0	0	1	1		10	
G	<i>Lottia dorsuosa</i>	4	1	4		1	4	1	2			1	18	
G	<i>Lunella coronata</i>	1			1		1	3	3		1		10	
G	<i>Lunella granulata</i>		1				0		0		2		3	
G	<i>Monodonta labio</i>	12	8		12	13	14	17	9	11	15	9	120	
G	<i>Nerita chamaeleon</i>	1	1			1	2	0	0	1	2		8	
G	<i>Nerita polita</i>		1	1		0		1	2	0	3		8	
G	<i>Nipponacmea concinna</i>	1			1	2	0	3	2	2	2	2	15	
G	<i>Nodilittorina radiata</i>	0	3	1	0	1	2	0	1	1		2	0	11
G	<i>Patelloida pygmaea</i>	4	0			3			2	3			12	
G	<i>Pirenella incisa</i>	0	2		0	2	0	0	2	2	2	0	10	
P	<i>Sabellidae imbricatus</i>	0	3		0	0		2	1	0		0	6	
Po	<i>Lepidozona spp.</i>	1	1		1	2			0	2	0	1	8	
Sp	<i>Sipunculus nudus</i>		2			3			0	3	3		11	
Sp	<i>Siphonosoma sp.</i>	2	0		2	1		0	1	1	3	2	12	
Total												733		

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

Sep 2024	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			
Bi	<i>Barbatia virescens</i>	2		1		1				1		1				2		1		1		10		
Bi	<i>Glaucanome chinensis</i>			1		0				1		0				0		0		0		2		
Bi	<i>Brachidontes variabilis</i>			3		0		3		3				0		0				2		11		
Bi	<i>Saccostrea cucullata</i>	17	1	16		18		23		16		19		21		25		22		26		204		
Bi	<i>Xenostrobus atratus</i>	1	1	1		1		3		1		3		3		0		1		0		15		
C	<i>Gaetice depressus</i>			2		2		1		3				4		2				1		15		
C	<i>Metopograpsus latifrons</i>					1								3		3				1		8		
C	<i>Pagurus dubius</i>	2				2		1		1				4	1	1	1	2				15		
G	<i>Batillaria multiformis</i>	2	1	2				2				3		3		1						14		
G	<i>Batillaria zonalis</i>					2		0				1		2		1		3				9		
G	<i>Chlorostoma argyrostomum</i>	3		2	1			2		2	1	3		2	1	0		0		0		17		
G	<i>Clithon faba</i>			0		0		1		0		1		0		0		1		0		3		
G	<i>Clithon oualaniense</i>			2	1	2			1	1		2		2		2		2				15		
G	<i>Clithon retropictus</i>	2		3		1		0		3		0		2		0				1		12		
G	<i>Littoraria articulata</i>	3		2		0						0		0		2		1		0		8		



		CHKEC															
G	<i>Lottia dorsuosa</i>						0	1			1	1	1	0	1	5	
G	<i>Lunella coronata</i>	1		2			1			1				0	2	2	9
G	<i>Lunella granulata</i>	3					3				1	3	2	0	1	13	
G	<i>Monodonta labio</i>	11		12			8	6	9	7	8	13	15	161		250	
G	<i>Nerita chamaeleon</i>	1		1	1	1	2	0	1	0	2	2	2	0		13	
G	<i>Nerita lineata</i>	0					2			2	1	0	1		2	8	
G	<i>Nerita squamulata</i>												1	3		4	
G	<i>Nipponacmea concinna</i>	1	1					1						4		7	
G	<i>Nodilittorina radiata</i>				2	1	1			2			3	2		11	
G	<i>Patelloida pygmaea</i>						2	3						2		7	
G	<i>Pirenella incisa</i>	1	1	2			4		1	1			3	2	4	19	
Ne	<i>Nemertea spp.</i>						2	4	2		3		2			13	
P	<i>Sabellidae imbricatus</i>	1		2				1	2	0			3	3		12	
Po	<i>Lepidozона spp.</i>	1						2		0					2	5	
Sp	<i>Siphonosoma sp.</i>	3		2			0	2	2	2	1	1				13	
Sp	<i>Sipunculus nudus</i>	3		0			0	0	0	1	0	0	1	0		5	
Total																752	

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 surveys in every sampling zone

Sep 2024	Sampling Zone ST	Low tidal level (0.5 m above C.D.)																					
		1		2		3		4		5		6		7		8		9		10			
Gp	Taxon	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Q	C	Sub- total	
Ba	<i>Balanus amphitrite</i>			1		1				1		5		1				5		1		15	
Bi	<i>Anomalocardia squamosa</i>	0		0		1				1				3						0		5	
Bi	<i>Barbatia virescens</i>	7		2		2				4				7				7		2		31	
Bi	<i>Brachidontes variabilis</i>	2		2				2		2						1				3		12	
Bi	<i>Glaucanome chinensis</i>	1		3		1		2		1		1		0		1		1		3		14	
Bi	<i>Saccostrea cucullata</i>	0		1		3		2		3		2		2				1		1		15	
Bi	<i>Xenostrobus atratus</i>	2		0		0		3		0								1		0		6	
C	<i>Gaetice depressus</i>	1						2		1				3		0				1		8	
C	<i>Hemigrapsus penicillatus</i>					0	1	1						0				0				2	
C	<i>Metopograpsus latifrons</i>	3		3		2		1				2						0		1		12	
C	<i>Metopograpsus quadridentatus</i>			1		3		2						0		0				1		7	
Cn	<i>Diadumene lineata</i>	1		1		1		3				0		0		0				2		8	
G	<i>Batillaria multiformis</i>			3		2				2		3				1				1	3	15	
G	<i>Batillaria zonalis</i>	12		16		15		14		15		13		15		15		16		21		152	



G	<i>Chlorostoma argyrostomum</i>	0	1		0	1	0		2	1	2	1	8
G	<i>Clithon faba</i>	3	3		1	0	2	3	1		0	3	16
G	<i>Lottia dorsuosa</i>				2		1		1		1		5
G	<i>Lunella coronata</i>	2	1	2	1	0	2	0	1		0	1	10
G	<i>Lunella granulata</i>	1	2	2	1	2	0	2	1		1	1	13
G	<i>Monodonta labio</i>	7	10	8	1	11	7	11	9	5	8	21	98
G	<i>Nerita lineata</i>	3	0	0	3			3	0		1	0	10
G	<i>Nerita squamulata</i>	0	0	2	3		0		0		2	0	7
G	<i>Nipponacmea concinna</i>		3	2			1	2				1	9
G	<i>Nodilittorina radiata</i>		4		1		2		2		4	4	17
G	<i>Patelloida pygmaea</i>		1			1		1	1			1	6
G	<i>Pirenella incisa</i>	0		3	0	1	0	1			1		6
Ne	<i>Nemertea spp.</i>	2	0				0	2	0			0	4
P	<i>Sabellidae imbricatus</i>					1					0		1
Po	<i>Lepidozona spp.</i>	0		0					1		1		2
Sp	<i>Siphonosoma sp.</i>	3		3		0	0		2		1		9
Sp	<i>Sipunculus nudus</i>	1		3	0	1	0	0	0		3		8
Total													531

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

End of the report