

OCCURRENCE OF SOME MOLLUSCS SPECIES FROM CHAUNGTHA ENVIRONS, PATHEIN TOWNSHIP, AYEYARWADY REGION, MYANMAR

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ABSTRACT

Occurrence of some molluscs species from Chaungtha environs, Pathein Township, Ayeyarwady Region were carried out from January 2016 to March 2016. In the present study, some gastropods and pelecypods were observed on the Molluscs fauna of Chaungtha. A total of 24 molluscs species, belonging to 23 genera, 20 families and six orders were recorded. Altogether of 21 species of gastropods and 3 species of pelecypods were recorded. The systematic position, species occurrence, species composition, habitat and abundance of molluscs species and economic importance together with diagram of each species is given.

Keywords: Occurrence, Gastropods and Pelecypods, Chaungtha.

INTRODUCTION

Molluscs are the largest marine Phylum, comprising about 23% of all the name marine organisms. The name molluscs was derived from Latin molluscs meaning soft. Molluscs are soft bodied animals, often with hard shells for protection. They are one of the most diverse phyla. Molluscs occupy habitats ranging from the deep ocean to shallow waters to moist terrestrial niches (Morton, 1979).

Many studies had been made on molluscs collected from various parts of Myanmar. In the north western part of Pathein Township in Ayeyawaddy Region of Myanmar, facing the deep blue sea, Bay of Bangal, Chaungtha beach is situated. The molluscan fauna of Chaungtha is extensive and the present study could not cover all the species. Only some specimens of the Classes Gastropoda and Pelecypoda of the Phylum Mollusca are included in this study.

In Chaungtha, the livelihood of the villagers was depended upon their local areas. Most of them are fishermen and some are coconut plantation. Some of people were made their professions with the local products. The fresh of molluscs specimens were edible as sea food and their shells were ornamented by various ways (Nwe Nwe Aye, 1998).

By this study, the writer came to know the natural habits and habitats of the molluscs and also the usefulness and economic importance of these molluscs as food or ornamentations. Now, some companies were fattening the molluscs with local farming and exported to foreign countries, mainly Chinese and Singapore.

Many studies on molluscs of Myanmar coastal waters had been done by various authors. There still remains a need to find out the species which may occur but is not yet recorded in Myanmar coastal areas. In addition, the knowledge on the ecological aspects of these species is necessary for academic and conservation purposes. A database on the mollusks fauna is a requisite for the substantial development of shell fishery.

The objectives of the present study are:

- to investigate the occurrence of some molluscs species from this study site.

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- to analyze the composition of some molluscs species related to varying groups.
- to record the habitat of some molluscs species in the study area.
- to obtain the knowledge on the economic importance of some molluscs species.

MATERIALS AND METHODS

Study Area

Chaungtha, on the Rakhine coastal area of Patheingyi township of Ayeyarwady Region was chosen as the study site. This study area lies on a narrow coastal plain lying between the mountains on the Rakhine Yoma and the Bay of Bengal. It is situated at Latitude 16° 57" North and Longitude 94° 26" East (Fig. 1).

Study Period

The study period lasted from January 2016 to March 2016.

Collected sites

The study sites deep water, moderately deep, sublittoral, low tide level, mid intertidal, sand, sandy silt, sandy mud silt, mud silt, muddy, sandy muddy rock, sandy rocky and rocky along Chaungtha Coastal Region were designated to collect the specimens. Alive molluscs are found on the sand, rocky, sandy muddy rock and low tide level. The specimens were mainly collected from the exposed intertidal zones during ebb tides as well as from the catches of inshore fishery.

Collected of data

Specimens were collected by using time method two times in a day. Low tide is the most favourable time for collecting molluscs inhabiting the intertidal zone. All molluscs were recorded immediately after collecting. This was done by label slips including number, date of finding, and habitat. Then, these specimens were preserved in 10% formalin for identification.

Identification

The color of the species and required local names were recorded from fresh specimens. Three to five specimens were studied for each species. Identification of the specimens were made based on the structure and coloration of the shell. The principal methods of measurements, the general nomenclature of the external morphology and detailed descriptions are conducted following that of Habe and Kosuge (1972) and Shrock and Twenhofel (1953).

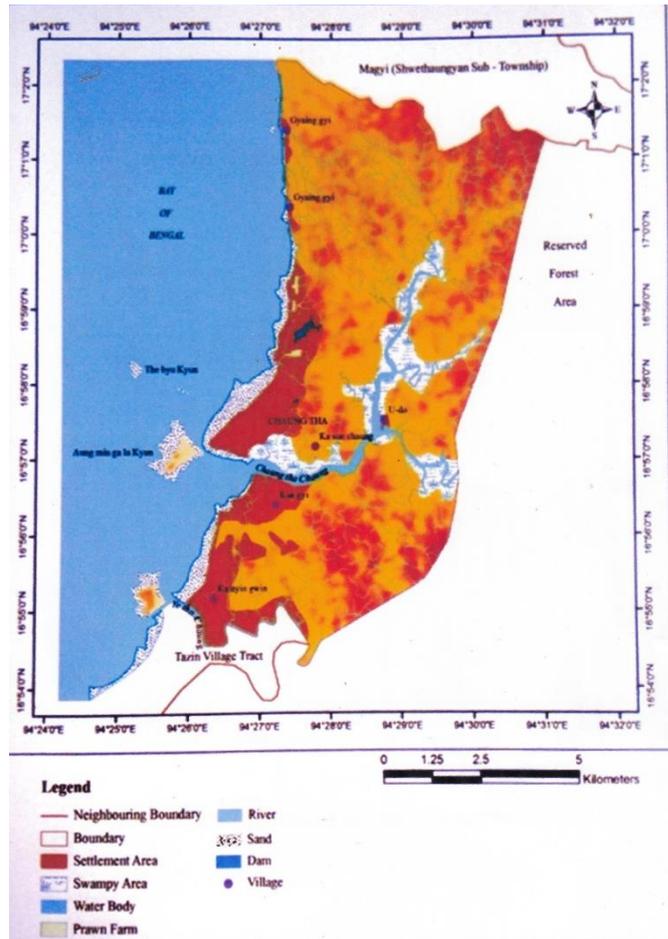


Fig. 1 Map of Chaungtha Environs, Patheingyi Township, Ayeyarwady Region Source: Geography Department, Patheingyi University

RESULTS

Systematic position

In the present study, a total of 24 species of 23 genera belonging to 20 families of six orders were recorded. Altogether of 21 species of Gastropods and 3 species of Pelecypods were recorded (Table 1).

Molluscs species

Systematic position of the collected molluscs was according to Habe and Kosuge (1972) and Shrock and Twenhofel (1953).

Phylum - Mollusca

Species abundance of molluscs along Chaungtha Coastal Area

Species abundance were recorded by counting the molluscs after sorting the various types from the collection of data. The specimens were collected almost regularly mounting up to 10 and above per record per day, were abundant. The specimens, obtained throughout per day, through few in number (at least five) were common, and occasionally recorded were rare

Distinctive characters of recorded molluscs species

Several species of molluscs are found in Changtha Coastal Area, through only a few are large enough to be of commercial and sport interest. Mollusca having distinct characters an exterior skeleton or shell with many distinct characters.

Economic importance of molluscs species along Chaungtha Coastal Area

In this study area, the usefulness and economic importance of molluscs species as food or ornamentations, medicinal importance of *Chicoreus ramosus*, *Cypraea Arabica* and cosmetic product of clams were observed.

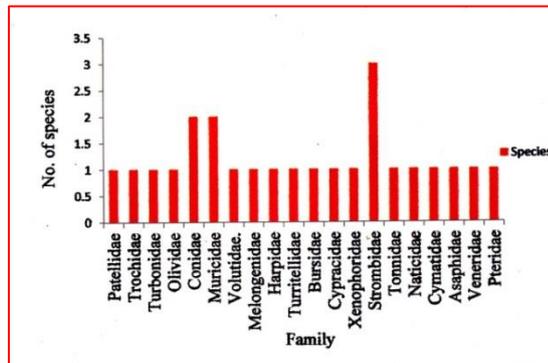


Fig. 2. Species occurrence of the different families of molluscs

Table 1. Species occurrence of molluscs along Chaungtha Coastal Area

Order	Family	Species	Common Name	Local Name
1. Archaeogastropoda	1. Patellidae	<i>Patella stellaeformis</i>	Limpet shell	Kha-yu-kha-mauk
	2. Trochidae	<i>Trochus radiate</i>	Trochid	Kyauk-baung
	3. Turbinidae	<i>Turbo argyrostomus</i>	Silver-mouthed turban	Kha-yu-sein-khar, Gyey
2. Neogastropoda	4. Olividae	<i>Oliva erythrostroma</i>	Olive shell	Kha-yu-phet-late
	5. Conidae	<i>Conus distans</i>	Distant cone	Kywey
		<i>Conus betulinus</i>	Birch Bark Cone	Kha-yu-mway-pway
	6. Muridcidae	<i>Murex trapa</i>	Triple-spined murex	Na-ga-goung
		<i>Chicoreus ramosus</i>	Giant murex, Ramose murex	Kha-yu-thinn
	7. Volutidae.	<i>Melo melo</i>	Indian volute, Hamp shell	Sar-taw-sinh
	8. Melongenidae	<i>Volegalea wardiana</i>	Ward's volema	Kha-yu
9. Harpidae	<i>Harpa davidis</i>	Articulated harp shell	Kywey	
3. Mesogastropoda	10. Turritellidae	<i>Turritella carinifera</i>	Turret shell	Pin-le-Oo-Na-kaung
	11. Bursidae	<i>Bursa rana</i>	Frog-shell	Kha-ya
	12. Cypracidae	<i>Cypraea Arabica</i>	Arabian cowry	Kywey-poad
4. Mesogastroda	13. Xenophoridae	<i>Stellaria solaris</i>	Sunbrust	Kha-yu-kha-mauk-gyi
		<i>Lambis lambis</i>	Scorpions shell	Kha-yu-latt
	14. Strombidae	<i>Laevistrombus canarium</i>	Dog conch	Kywey-sin, Kha-yu-seik
		<i>Mirabilistrombus listeri</i>	Lister's conch	Kha-yu-taung-pan
		<i>Tonna tessellate</i>	Elongated fig shell	Kha-yu
	16. Naticidae	<i>Polinices pyriformis</i>	Pearl-shaped flat moon shell	La-thar-kha-yu, Kha-yu-phyu
	17. Cymatidae	<i>Cymatium aquatile</i>	Hairy triton	Gyeik-hmwe
5. Heterodonta	18. Asaphidae	<i>Asaphis dichotoma</i>	Pacific as aphid	Kyauk-gohn
	19. Veneridae	<i>Dosinia dunkeri</i>	Clam	Gohn
6. Anisomyaria	20. Pteridae	<i>Pinctada fucata</i>	Oyster	Gyin



(A) *Murex trapa*



(B) *Chicoreus ramosus*



(C) *Melomelo*



(D) *Volegaleawardiana*



(E) *Harpadavidis*



(F) *Turritellacarinfera*



(G) *Bursa rana*



(H) *Cypraea arabica*



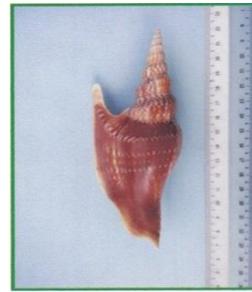
(I) *Stellariasolaris*



(J) *Lambislambis*



(K) *Laevistrombus canarium*



(L) *Mirabilistrombus listeri*

Plate 1. Recorded some molluscs species along Chaungtha Environs

DISCUSSION

Myanmar has many coastal regions. Marine flora and fauna are richly found along the Myanmar Coastal Area. The present study, the commercial importance of some marine molluscs in Chaungtha Environ, Pathien Township of Ayeyarwady Region. A total of 24 species belonging to 23 genera, 20 families and six orders. Altogether 21 species of gastropods and 3 species of pelecypods were observed. Nwe Nwe Aye (1998) recorded the gastropods and pelecypods of Chaungtha and Wet-thay located in Pathein Township. A total of 64 species belonging to 47 genera, 37 families and seven orders were recorded. In her investigation, the highest number of species were recorded for order Neogastropoda. In present study, order Neogastropoda had the highest number of species and percent. It agrees with the finding of this study period. In this study area, the fresh molluscs were eaten not only local food of the villagers but also sold as the special sea food, the shell of molluscs have various colors, shape and size. So, it is ornamented in many ways by traditional hand made such as necklaces, hand chains, vases, ash-tray and toys of animals and so on. Therefore, it is attracted to the foreigners and visitors as ornamental products and for souvenirs. In conclusion, the molluscan fauna of Chaungtha areas were not completely studied. Only some specimens of gastropods and pelecypods were collected and studied. There still remains much more species to be recorded.

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