

The Living Fossil (Horseshoe crab)

Kamaruzzaman Yunus

Akbar John

Ahmed Jalal Khan Chowdhury

Zaleha Kassim



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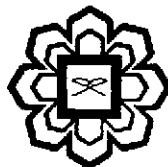
Editors,

Kamaruzzaman Yunus

Akbar John

Ahmed Jalal Khan Chowdhury

Zaleha Kassim



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Table of Contents

Chapters	Titles	Page No
1.	Global distribution and Taxonomy of extant horseshoe crabs..... (5410/18557)	1
2.	Limiting factors on the global distribution of horseshoe crabs..... (5410/18558)	11
3.	Site selection and nesting behaviour of horseshoe crabs with special reference to <i>Limulus polyphemus</i> (3575/18560)	19
4.	Distribution of horseshoe crabs at their nesting grounds, East coast of Peninsular Malaysia..... (5410/18560)	27
5.	Hydrology of horseshoe crab nesting ground at Pahang coast –Part 1..... (3575/18563)	35
6.	Hydrology of horseshoe crab nesting ground at Pahang coast –Part 2..... (3575/18566)	47
7.	Physicochemical parameters relationship at the horseshoe crab nesting grounds of Pahang coast, Malaysia..... (5410/18567)	57
8.	Macrobenthic diversity at the Horseshoe Crab nesting ground, Balok station, Pahang, Malaysia – Part 1 (3575/18568)	69
9.	Macrobenthic diversity at the Horseshoe Crab nesting ground, Balok station, Pahang, Malaysia – Part 2 (3575/18570)	83
10.	Macrobenthic diversity at the Horseshoe Crab nesting ground, Pekan station, Pahang, Malaysia – Part 1 (5410/18571)	95
11.	Macrobenthic diversity at the Horseshoe Crab nesting ground, Pekan station, Pahang, Malaysia – Part 2 (3575/18573)	109
12.	Influence of physicochemical parameters on the macrobenthic diversity and abundance in horseshoe crab nesting grounds, East coast of Peninsular Malaysia. (5410/18574)	127
13.	<i>In-vitro</i> study on the effect of salinity on the hatching success of Malaysian Horseshoe crab eggs..... (3575/18575)	137
14.	Effects of salinity on the early growth of <i>Tachypleus gigas</i> larvae - An <i>In-vitro</i> study..... (3575/18577)	147

15. Sediment characteristics of horseshoe crabs nesting ground at Balok station, Pahang, Malaysia	(5410/18579)	155
16. Sediment Profiling of the Estuarine Nesting Ground of Horseshoe Crabs at East Peninsular Malaysia	(3575/19587)	165
17. Bioaccumulation of some essential metal concentration in Malaysian horseshoe crabs (<i>Tachypleus gigas</i>).....	(5410/18584)	175
18. Cu and Cd Bioaccumulation in Malaysian Horseshoe Crab	(5410/18585)	183
19. Metal concentration in horseshoe crab nesting ground along Pahang coast, Malaysia.....	(5410/18586)	193
20. Bionomics of Malaysian horseshoe crabs <i>Tachypleus gigas</i>	(5410/19718)	203
21. Feeding Ecology of Mangrove horseshoe crab <i>Carcinoscorpius rotundicauda</i>	(5410/19717)	213
22. Emerging interest on DNA barcoding technology and its application for high-tech biodiversity studies using COI gene as a reference sequence	(3575/19716)	225
23. Can DNA barcode accurately delineate living fossil (Horseshoe crab) and its different developmental stages?.....	(5410/19715)	237
24. Revision on the molecular phylogeny of horseshoe crabs – Part 1.....	(5410/19717)	251
25. Revision on the molecular phylogeny of horseshoe crabs – Part 2.....	(5410/19720)	267
26. Genetic Diversity of <i>Tachypleus gigas</i> Population from West coast of peninsular Malaysia	(3575/19727)	275
27. Does continental drift influence in the genetic variability among the horseshoe crab population?	(3575/19727)	287
28. Evolution of horseshoe crabs – paleontological and Molecular viewpoint.....	(3575/19731)	297
29. Factors involving in the clot formation of horseshoe crab blood.....	(5410/19711)	307
30. Methods for bacterial endotoxin quantification in reference to horseshoe crab blood studies	(5410/19740)	317
31. ENDO SENSOR (TAL) production from Malaysian Horseshoe crab blood.....	(5410/19744)	325
32. Characterization of <i>Tachypleus</i> Amebocyte Lysate (TAL).....	(3575/19759)	333

33. Environmental and Pharmaceutical applications of Amebocytes Lysate (LAL/TAL) from Horseshoe crabs	(5410/19751)	343
34. <i>Tachypleus gigas</i> mortality due biomedical bleeding process	(3575/19756)	351
35. Conservation measures on horseshoe crab population – A global view.....	(5410/19759)	359
Glossary.....		369

CHAPTER - 19

Metal concentration in horseshoe crab nesting ground along Pahang coast, Malaysia

¹Zaleha, K., ²Akbar John, B., ²Kamaruzzaman, B.Y., ²Jalal, K.C.A.

¹*Institute of Tropical Aquaculture, University Malaysia Terengganu, 21030 Kuala Terengganu, Terengganu, Malaysia*

²*Institute of Oceanography and Maritime studies (INOCEM), Kulliyah of Science, International Islamic University Malaysia, Jalan Sultan Ahmad Shah, Bandar Indera Mahkota, 25200, Kuantan Pahang, Malaysia.*

Abstract

Present study was conducted to assess the metal concentration in sediment of horseshoe crab the nesting ground along the east coast of peninsular Malaysia. Three sampling stations namely Balok, Pekan and Penor were selected and sediment samples were collected in replicates. Acid Digestion was performed using (HF, HNO₃, HCl, EDTA and H₃BO₄) before determining the actual concentration of heavy metals using ICPMS. In all stations, Pb was in highest concentration (40.36 µg g⁻¹) followed by Cu (13.44 µg g⁻¹) and the least concentrated metal in the nesting ground was Cd with the high concentration of (0.26 µg g⁻¹). EF values showed that Pb is of anthropogenic source and Cd is of minimum enrichment. Although the levels of Pb are low and regarded harmless to the horseshoe crab, the fear of it affecting those who consume the eggs as well as the crab is still in consideration.

Key words: Horseshoe crabs, Nesting grounds, Metal concentration, Balok, Pekan, Penor.

Introduction

Horseshoe crabs are at the epicentre of one of the most interesting marine resource Management issues along the coast. They are marine chelicerate arthropod. Despite their name, they are more closely related to spiders, ticks and scorpions than to crabs. There are four extant species of horseshoe crabs, *Tachypleus tridentatus*, *Tachypleus gigas*, *Carcinoscorpius rotundicauda* and *Limulus polyphemus*. The first three species inhabit the Southeast Asian coast and the *Limulus*