The Living Fossil (Horseshoe crab)

Kamaruzzaman Yunus
Akbar John
Ahmed Jalal Khan Chowdhury
Zaleha Kassim

IIUM PRESS

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

The Living Fossil
(Horseshoe crab)

Editors,

Kamaruzzaman Yunus

Akbar John

Ahmed Jalal Khan Chowdhury

Zaleha Kassim

IIUM Press

Published by:
IIUM Press
International Islamic University Malaysia

First Edition, 2011

Perpustakaan Negara Malaysia Cataloguing-in-Publication Data

Kamaruzzaman Yunus
The Living Fossil (Horseshoe crab)
Kamaruzzaman Yunus
Include index
Bibliography: p.
ISBN

ISBN: 978-967-418-042-3

Member of Majlis Penerbitan Ilmiah Malaysia – MAPIM
(Malaysian Scholarly Publishing Council)

Printed by :
IIUM PRINTING SDN.BHD.
No. 1, Jalan Industri Batu Caves 1/3
Taman Perindustrian Batu Caves
Batu Caves Centre Point
68100 Batu Caves
Selangor Darul Ehsan

Table of Contents

CHAPTER - 11

Macrobenthic diversity at the Horseshoe Crab nesting ground, Pekan station, Pahang, Malaysia – Part 2

Nasihin, S., Jalal, K.C.A., Akbar John, B.

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

Abstract

Detailed investigation was carried out to determine the major macrobenthic community composition and diversity along the observed nesting grounds of horseshoe crab at Pekan station (Estuarine nesting ground). Macrobenthic samples were collected in every new moon days between March 2010 and February 2011. Group wise identification were carried out for each samples and abundance were recorded. Different diversity indices showed no significant variation in macrobenthic diversity during monsoonal and non monsoonal period ($P > 0.05$) while their richness was higher during monsoon period compared to non monsoon time. Diversity indices data proved the homogeneous distribution of major macrobenthic species round the year. Overall, Shannon diversity value proved the lower diversity of species along the Pekan nesting grounds which eventually proved influence of habitat destruction on the macrobenthic community composition in the nesting grounds of horseshoe crabs.

Key words: horseshoe crab, diversity indices, nesting grounds, new moon days, Pekan station.

Introduction

Horseshoe crabs are omnivorous feeders on a wide variety of benthic invertebrates, including bivalves, polychaetes, crustaceans, and gastropods. The functional morphology of feeding and the anatomy and physiology of the digestive system has recently been reviewed by Botton and Shuster (*2003*), so this contribution emphasizes the ecological importance of horseshoe crab predation on estuarine and coastal benthic communities. Studies have revealed that the extant 4 species of horseshoe crabs are selective feeders primarily feed on bivalves including blue