The Living Fossil (Horseshoe crab)

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CHAPTER - 9

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

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Abstract

Monthly and seasonal variation in the major macrobenthic diversity along the balok station were studied during New moon days. Highest diversity of macrobenthic community was observed during June 2010 (Shannon H' = 0.685; Simpson 1/D = 4.765) while the lowest diversity was recorded during Mar-10 (H' = 0.59; 1/D = 3.115). There was no significant variation in the macrobenthic diversity was observed between monsoon and non monsoon period ($p > 0.05$). richness indexes showed that the species richness was higher during Dec-10 (Marfalf d = 1.728; McIntosh D = 1.067) and lower during March and May-10 (d = 1.35; D = 1.033). Macrobenthos richness was higher during monsoon period compared to non monsoon time. Higher dominance of macrobenthos was observed during the horseshoe crabs peak mating season (Junc- August). There was no significant variation in the evenness was observed during sampling period which showed the homogeneous distribution of species round the year.

Key words: Horseshoe crab, Macrobenthos, Nesting ground, Balok station, Diversity Indices.

Introduction

Macrobenthic community analysis provides an instantaneous both snapshot assessment of current disturbance effects, much as most chemical and physical analyses can provide, as well as an integrated response of the disturbance effects over the life span of the studied organisms. These assets have resulted in macrobenthic community analysis to become part of international standards for the assessment of marine habitat quality (Borja *et al.*, 2003; Rosenberg *et al.*, 2004). Moreover, macrobenthic species are of special interest in this context because: (1) most of