

Species assemblages of benthic harpacticoid copepods on tide rock pool seaweeds of Pulau Besar, Melaka, Malaysia

Abstract

An ecological survey was carried out to study species assemblage of meiobenthic harpacticoid copepods in different seaweed species found in tide rock pools in Pulau Besar, Melaka. Samples of sediment and four different seaweed species, *Ulva reticulata*, *Padina* sp., *Amphiroa fragilissima* and *Gracilaria salicornia* were collected from tide rock pools on the island during low tide. A total of 25 harpacticoid species from 11 families and 16 genera were identified. Many of the species found were associated exclusively on seaweeds (10 species). *Diarthrodes tetrastachyus*, *Nitocra typica* and *Harpacticus uniremis* were the most abundant species on seaweeds whereas sediment around them was dominated by *Amphiascus rebus*, *Heterolaophonte longifurcata* and *Parastenhelia littoralis*. *Robertgurneya diversa*, *Robertgurneya oligochaeta*, *Idomene* sp. and *Nitocra spinipes armata* were only found in sediment samples. Analysis of similarity (ANOSIM) showed that the harpacticoid assemblages on different seaweed species were significantly different ($P < 0.001$). The assemblages in seaweed and sediment were also different significantly ($P < 0.002$), indicating their life history strategy to adapt to the harsh environment on the island.