

The epifaunal marine bivalves and macrophytes in Merambong Shoal, Pulau River Estuary, Straits of Malacca

ABSTRACT

The study was carried out to investigate the diversity of epifaunal bivalves in Merambong seagrass bed, Pulau River Estuary. The sample collection field trips started from May 2008 to July 2009, 18 transects (from six stations) have been laid perpendicularly along the elongated shoal during lowest low spring tide. A total of 15 species from 10 bivalve families were recorded throughout the study period. Young *Anadara gubernaculum* attached to *Enhalus ecoroides* showed the highest abundance throughout the seagrass bed. Veneridae is the most diverse family with four species recorded during the study followed by 2 species each for Mytilidae and Pinnidae. Negative correlation was observed between *Circe scripta* abundance and *Ulva* spp. coverage ($r^2 = -0.829$, $P = 0.042$). Station 4 ($H' = 1.2137$; $1-D = 0.5807$; $S = 10$) and Station 6 ($H' = 1.5279$; $1-D = 0.6696$; $S = 13$) have higher bivalve diversity and species richness, and are more heterogeneous compared to other stations. However, bivalve density was relatively lower in both stations 4 and 6 than the rest of the stations. The result of this study revealed that the coverage of macrophytes plays an important role in determining the density and distribution of epifaunal bivalves.

Keyword: Epifaunal bivalve; Marine macrophytes; Seagrass