Extensive Sharing of COI and CYB Haplotypes in the Reef-building Staghorn Coral (Acropora spp.) in Sabah, North Borneo

Abstract

The relationship between zooplankton community structure and selected environmental conditions was investigated by simultaneous two-day consecutive sampling in the waters overlying Coral and sand sites off Sibu Island and a Seagrass site off Tinggi Island, Johor, Malaysia. A total of 129 taxa were identified, 60 non-Copepod taxa and 69 Copepod species in all samples. Uni- and multi-variate analyses reveal distinct Coral, sand, Seagrass Copepod assemblages with indicator Copepod species and attributes of their size fractions. Small fraction (100–335 µm) samples contained greatest number of individuals, few rare species and were densest at onshore depths, and the opposite for large fraction (>335 µm) samples but were densest at nighttime and most species rich in the Coral site at night. Higher species diversity at offshore stations is due likely to ecotonal effects of overlapping oceanic and nearshore communities. This study demonstrates the usefulness of uni- and multi-variate analyses in identifying patterns in Zooplankton community structure in representative shallow tropical habitats, and the need for accurate Zooplankton taxonomy, nighttime and daytime and onshore and offshore sampling, and size fractionation of samples.