

Community Structure of Meiofauna in Coral Reefs at Mu Ko Similan National Park, the Andaman Sea

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ABSTRACT

Coral reefs are complex ecosystems bearing the high biological diversity of the oceans. Assessing biodiversity and ecosystem functions is an essential step to predict the consequences of biodiversity loss. Soft bottom habitats in the coral reefs, such as sand and rubble, are an important component of coral reef communities. Meiofauna are the primary food source for various marine organisms, particularly economically important species in coral reef ecosystems. Even though a lot of small invertebrates, such as meiofauna, can live in the soft-bottoms of coral reefs, but only few researches have focused on the community of meiofauna in coral communities. This study examined the abundance and composition of meiofauna in coral communities at Haad Lek (8-9 m in depth) and Hin Muan Deaw (19-20 m in depth), Mu Ko Similan National Park, the Andaman Sea in February 2021. The results showed that the average density of meiofauna at Haad Lek was 61.00 ± 2.89 inds. 10 cm^{-2} , while that at Hin Muan Deaw was 19.93 ± 2.48 inds. 10 cm^{-2} . Foraminifera and Copepoda were the major groups at both study sites. Ostracoda was an abundant group at Haad Lek, whereas Nematoda was a major group at Hin Muan Deaw. Tardigrada was found only at Hin Muan Deaw. Our results showed the difference in community structure of meiofauna between different depths. The habitat types in coral communities at Mu Ko Similan appear to be affected by different wave motions, current exposure and food supply with different depths that can influence the community structure of meiofauna in that area.

Keyword: Meiofauna/ Coral reef/ Andaman Sea/ Mu Ko Similan

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