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Diversity and Abundance of Scleractinian Corals in the East Coast of Peninsular Malaysia: A Case Study of Redang and Tioman Islands (Article)

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Abstract

The species lists of scleractinian hard corals in Peninsular Malaysia have not been updated for 15 years. The present study aimed to determine the diversity and abundance patterns of scleractinian hard corals at twenty eight fringing reef sites along the coast of Redang and Tioman Islands. Visual photograph analyses of the coral video transect method revealed a total of 128 species from 47 genera in Redang and 239 species from 55 genera in Tioman. Following recent taxonomy of scleractinian corals, coral surveys and past studies revealed a total of 166 species from 53 genera in Redang and 350 species from 67 genera in Tioman. Current data at both islands presented a total of 358 species from 69 genera and 15 families of scleractinian corals with an additional 8 new species records for the east coast of Peninsular Malaysia. Acropora, Montipora and Porites were the most dominant genera and were found distributed within the coral assemblages. The reefs around both islands can be categorized under “good” coral conditions with the live corals cover from 40.9% to 73.5%. Overall findings indicated that the less affected reef zones by coastal development and human activities at both islands have established good coral conditions and coral genera diversity. © 2019, Korea Institute of Ocean Science & Technology (KIOST) and the Korean Society of Oceanography (KSO) and Springer Science+Business Media B.V.

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1

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