Benthic Fauna of a Tropical Sandy Shore in the Townsville Region

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Richard S. Muffley

20 February 1981

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Richard S. Muffley

20 February 1981

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ABSTRACT

A beach in tropical North Queensland was studied to ascertain the types, distribution, and abundance of the benthic fauna along a transect for one year. During this time 91 species were found. This number, combined with a generally low abundance of dominating species, caused a much higher species diversity value to be shown than that found for American beaches.

The spatial distribution of species produced three zones which existed throughout the year, and the pattern of the diversity index value for the three zones remained the same. The upper zone was isolated from the lower zone by the faunistic response to the sediment differences, and perhaps other physical factors.

The upper zone was characterized by low species numbers and constancy of species composition and abundance throughout the year. There were no highly dominant species. The intermediate zone was made unique by the presence of three specific species. The diversity values of this zone were intermediate to those of the zones above and below. The lower zone had variable species abundances for the seasons studied, but broader species distributions than the upper beach. On the lower beach there was greater similarity between stations within seasons.

There was a high turnover of dominant species at Pallarenda, but, when compared with other beaches, there was not a large number of single occurrence species.

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