

**PRELIMINARY SURVEY OF SEaweEDS AT  
VANDALOUS BAY IN EAST COAST OF SRI LANKA**



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## ABSTRACT

The present study was focused on the diversity of the seaweeds found at Vandalous bay in East coast of Sri Lanka. The primary objective of this study was to assess the species composition and impacts on their current distribution. Twenty sampling points, including various micro habitats (coral, rock and sea grass) in Vandalous bay during low tide were assess the diversity and distribution of seaweeds. Line transect with intercept method was used to estimate the seaweeds upper intertidal zone ranging up to 20 m to collect the seaweed samples on monthly basis. The survey was conducted during the period from January to May 2018. Further, physico-chemical parameters of water quality parameters were measured at the study site such as temperature, dissolved oxygen, turbidity, pH and salinity. Collected samples were identified using standard seaweeds taxonomic key. The present study revealed 40 species belonging to 27 genera, 20 families, 12 orders and 3 classes out of which 55% were green algae, while red algae and brown algae were recorded as 26% and 19% respectively. Cladophoraceae was the most diverse family represented by 5 species. Among the study species, green algae were dominant in which *Halimeda opuntia* was high in terms of abundance, frequency and cover and restricted to coral micro habitats. However, red and brown algae share rocky substrates in addition to the coral micro habitats. *Sphacelaria novae-hollandiae* (brown alga) which was recorded as a new species in Sri Lanka was also collected in the present study site. Hotel waste discharges and the tourism soon after cessation of civil unrest were identified as major threats. Further, future studies must be directed for long term investigation on seasonality, Biotic factor controlling existence and distribution of seaweeds along the Vandalous Bay in East coast.

**Key words:** Composition, Diversity, East coast, Upper intertidal zone, Seaweed

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