D-11 A survey of marine macroalgae in some selected sites of the southern coast of Sri Lanka

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Sri Lanka has a coast of 1700 km in length encircling its territory. In many places of the southern coast there is an algal belt 10-15 m wide that covers the sub-littoral zone. The study of marine macro-algae in the coasts of Sri Lanka has been poor and literature reveals only 2 studies. Present study attempts to identify and quantify the macroalgal species in the upper sub-littoral zone of 5 study sites from Hambantota to Dikwella. Observations were made in the study sites to identify their physical and biological nature. From each site algal species were collected and brought into the laboratory for taxonomic identification. In the laboratory these algae were separated into 3 groups; one for preservation in FAA/Cupric acetate solution, one for herbarium specimen prepared by pressing between 2 sheets of tissue paper, and the last to keep live in aerated sea water tank. Using a quadrat of the size 20 by 20 cm^2 algal community was randomly sampled. Taxonomic identification enabled making a list of algal species present at each study site. The diversity of the macro-algae was site specific probably depending on various physical and biological factors. R:P index also varied indicating the effect of physical factors such as temperature on the algal community structure. The comparable variation of R:P and R:G indices would reflect presence of site - specific habitat characteristics. Biomass values estimated that the relative cover of the species in many sites was higher for *Sargassum* spp. and *Ulva* spp.