

**Marine algal studies and preliminary work on a National Algal Herbarium**

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A historical survey on algal research in Sri Lanka indicates many interesting studies in which algal species have been documented with voucher specimens deposited in museums (British Museum of Natural History, Trinity College Dublin, Royal, Rijksmuseum in Stockholm, and Algal Herbarium of J.G. Agardh in Lund). However, only few attempts had been made in the recent times to confirm the presence of those species detected in these earlier studies with no serious efforts undertaken to expand the list of algae for Sri Lanka. The algal herbarium at the National Herbarium at Peradeniya is incomplete and old preservation techniques used have made the preserved species of limited value to algal taxonomists. This study was launched to identify algal species at different locations along the southwestern coast of Sri Lanka and to supplement the National Algal Herbarium with better preserved specimens using new preservation techniques. The collections were confined to 4 inter-tidal areas including reef as well as rock surfaces located along the Southern coast extending from Akurala southwards to, Hikkaduwa, Dadalla and Talpe. Modified Herbarium techniques developed by Coppejens *et al*, 1997 were used to prepare voucher specimens. Altogether 115 macro-algal species belonging to 56 genera and 27 families have been recorded along the SW coast. The composition of macroalgae varied among the 4 sites. Talpe displayed maximum diversity (89 species) followed by Dadalla (85), Hikkaduwa (63) and Akurala (47). The % distribution of greens, reds and browns varied among the 4 sites. The 4 sites are found within a distance of 36 km on the southwestern coast. According to a literature survey, the total algae recorded for Sri Lanka is around 406 species. This includes the 10 new records of the authors (ie. *Cladophora laetevirens* (Dillwyn) Kützing, *Cladophoropsis sundanensis* Reinbod, *Dictyosphaeria versluysii* Weber-van Bosse, *Avrainvillea amadelpa* (Montagne) Gepp&Gepp, *Asparagopsis taxiformis* (Delile) Trevisan, *Jania adhaerens* Lamouroux, *Microcladia gloria-sepi* Stegenga, *Wrangelia p[enicilata]* (C. gardh) C. Agardh, *Cottoniella filamentosa* (Howe) Børgesen and *Dictyota dumosa* Børgesen).

Considering the total extent of the coastline of Sri Lanka which is 1585 km, this study records nearly 28% of the total records within a length of less than 2% of the total coastline. The herbarium vouchers have been prepared for all species and are ready to be handed over to the national herbarium of Sri Lanka. Through the new techniques used for preservation and preparation of herbarium vouchers, the natural color and form of specimens will be preserved for long periods thus contributing significantly for further algal research in Sri Lanka. The voucher specimens are useful in studying morphological characters only. Therefore in order to facilitate anatomical studies as well, wet specimens have also been prepared.

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