

A MORPHOLOGICAL CHARACTER-BASED TAXONOMIC REVIEW OF THE GENUS *Sargassum* C. Agardh (PHAEOPHYTA) IN SRI LANKA

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Sargassum C. Agardh (1820) is the most species-rich genus within the family Sargassaceae. It is abundantly distributed in tropical and subtropical regions of the world. In Sri Lanka, *Sargassum* is recognized as the most economically important seaweed genus. However, the current taxonomic status of the genus *Sargassum* in Sri Lanka remains uncertain, as no valid taxonomic literature has been published with species-level identification since 1961. Therefore, this study aimed to address the six-decade gap in *Sargassum* taxonomy by analysing the morphological characters of *Sargassum* specimens collected from various coastal localities around Sri Lanka. The coastal regions of Sri Lanka; Southern, Northern, Western, and Eastern were explored for sample collection, resulting in the collection of nine specimens of *Sargassum*. For each collected specimen, 30 morphological characters were recorded, and photographs of the thallus morphology were taken. Voucher herbarium specimens were prepared for each collected specimen. Of the nine collected specimens, seven were identified as distinct species based on their unique morphological characters. Those seven species include *Sargassum aquifolium* (Turner) C. Agardh, *S. cymosum* C. Agardh, *S. vulgare* C. Agardh, *S. siliquosum* J. Agardh, *S. oligocystum* Montagne, *S. carpophyllum* J. Agardh and *S. natans* (Linnaeus) Gaillon. The other two specimens could not be differentiated due to their similar morphology. These results were confirmed by the Multiple Correspondence Analysis (MCA) based on the recorded morphological characters of the collected specimens. For the accurate identification of those two specimens, molecular characterization is needed. This study serves as a preliminary guide for understanding the morphological diversity of the *Sargassum* species in Sri Lanka, which will be important in future taxonomic research and for using *Sargassum* species in various economic aspects. However, further research is needed for more accurate identification and a comprehensive review of the genus *Sargassum* in Sri Lanka.

Keywords: Morphology, *Sargassum*, Sri Lanka, Taxonomy