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A23. Morphology and molecular phylogeny of Malaysian crustose brown algae (Phaeophyceae)

The crustose brown algae are a polyphyletic group of the dominantly marine Phaeophyceae, largely unnoticed in this region due to their simple appearance (brownish-black spots on rocks) and lack of apparent economic value. In Malaysia, these algae have received little attention despite a long history of studies being conducted since the 1800s. Their limited source of characters served as a major obstacle in species delineation or even identification up to genus level and thus diminished study interest in these algae. Traditionally, the identification of these crust forming algae is largely based on their reproductive structures but this effort has been largely hampered by the elusive and seasonal occurrence of fertile specimens in the field. Hence the present study aims to unravel the diversity of these understudied algae which can be the dominant flora of some habitats, by utilizing molecular markers from the plastid and mitochondrial genome *viz. rbc*L and *cox*1 in tandem with morphology and anatomy studies. Prior to this, only *Mesospora schmidtii* and *Neoralfsia expansa* were reported in Malaysia. Our study presented new records of *Mesospora* spp. and *Diplura* spp. for the country. Members of the genus *Ralfsia* which have mostly been reported from the temperate region were not encountered during the course of the study.