

Biochemical composition of enigmatic green macroalgae, *Caulerpa macrodisca* Decaisne (Bryopsidales, Chlorophyta)

ABSTRACT

The green macroalga *Caulerpa macrodisca* Decaisne was recently reported in East Malaysia with limited information recorded on the nutritional properties of this particular species. Hence, the present study was conducted to determine the biochemical composition of *C. macrodisca* collected from Sabah waters, Malaysia. The biochemical composition analysis determined the proximate composition, fatty acid, amino acid, minerals, and caulerpin content. *Caulerpa macrodisca* contained a high amount of protein (20.54%), fiber (21.98%), and omega-6 polyunsaturated fatty acids (13.16% of total fatty acids). High amount of macrominerals, sodium (6.18 g (100 g)⁻¹) and potassium (2.15 g (100 g)⁻¹), was also recorded in the species with low sodium to potassium (Na/K) ratio (2.87). The important bis-indolic alkaloid caulerpin was also detected in the species with substantial concentration of 5.8±0.12 g mL⁻¹. Thus, findings from the present study provided baseline nutritional information of another promising *Caulerpa* species, *C. macrodisca*, that might be beneficial for the global seaweed industry.