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Composition Analysis of Selected Sri Lankan Seaweeds

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Abstract

Seaweeds are a rich source of health beneficial bioactive nutraceuticals and currently they are under-utilised in Sri Lanka. In the present study, proximate analysis of seaweed varieties *Chnoospora minima* and *Porphyra* sp. obtained from Mirissa, Matara, Sri Lanka (Latitude: 5°56'53.74" (5.948262) north and Longitude: 80°28'17.71" (80.471588) east) respectively. *Ulva fasciata* was taken from Point Dondra Matara, Sri Lanka (Latitude: 5° 55' 7.9" (5.9189°) north and Longitude: 80° 35' 24.8" (80.5902°) east) on June, 2018 were investigated. The moisture content, total fat content, protein content and ash content were determined according to the AOAC procedures after drying for 8h at 60 C. The results revealed that the moisture contents (%) of *Chnoospora minima*, *Porphyra sp*. and *Ulva fasciata* were 13.25±0.21, 14.43±0.14 and 18.11±0.01 respectively. Total fat contents (%) of *Chnoospora minima*, *Porphyra sp*. and *Ulva fasciata* were 0.21±0.11, 0.19±0.03 and 0.28±0.054 respectively. Protein contents (%) of *Chnoospora minima*, *Porphyra sp*. and *Ulva fasciata* were 13.39±0.55, 21.10±0.08 and 11.49±0.62. Total ash contents (%) of *Chnoospora minima*, *Porphyra sp*. and *Ulva fasciata* were 17.21±0.25, 5.40±0.71 and 18.05±0.21 respectively. Total carbohydrate content (%) was analyzed according to the Dubois method. *Chnoospora minima*, *Porphyra sp*. and *Ulva fasciata* showed total carbohydrate content (%) as 4.61±1.38, 20.59±0.24 and 8.86±2.2 respectively. Moreover, the sulphate content was analyzed according to the precipitate method. *Chnoospora minima*, *Porphyra sp*. and *Ulva fasciata* showed 1.30±0.36, 2.63±0.21 and 4.20±0.60, sulfate contents (%) respectively. Furthermore, the analysis of Pb and Cd contents of *Ulva fasciata* and *Chnoospora minima* are in progress.

Keywords: *Chnoospora minima*, *Porphyra sp.*, *Ulva fasciata*, Proximate analysis