

Evaluation of Nutrient Values of Selected Native Fish Species in Sri Lanka

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Fish is an important source of animal protein and other essential required nutrients in human diets. According to the current nutritional status of Sri Lanka with regards to eliminating malnourished status, introducing a lower-cost nutrient-rich diet is a must. With the presence of available resources, freshwater fisheries show great potential to address the nutrition status in rural communities. The consideration given to the native fish species in Sri Lanka is comparatively low. Determination of the proximate composition of fish meat is necessary to prove that it meets requirements for food regulation and commercial designations. This study was conducted to determine the moisture, ash, protein, and fat content of selected 05 native fish species in the North Central province of Sri Lanka. The proximate data were assessed through Analysis of Variance (ANOVA) with a significance level used for all the tests at 95% ($p < 0.05$). Sampled fish include wild captured, *Anguilla nebulosa* (Mottled Eel), *Heteropneustes fossilis* (Asian Stinging Catfish), *Channa striata* (Stripped Snakehead), *Anabas testudineus* (Climbing Perch), *Eutropius Suratensis* (Green Chromide). The moisture content ranged from $69.43 \pm 1.14\%$ to $82.62 \pm 1.77\%$, ash content varies from $0.94 \pm 0.08\%$ to $1.04 \pm 0.28\%$. The mean protein content of Mottled Eel was $18.29 \pm 2.09\%$, Stinging Catfish; $16.69 \pm 2.09\%$, Climbing Perch; $18.45 \pm 1.56\%$, Stripped Snakehead; $17.94 \pm 1.55\%$ and Green Chromide; $16.18 \pm 1.47\%$. The fat contents were $11.14 \pm 2.09\%$, $0.81 \pm 0.16\%$, $0.85 \pm 0.22\%$, $0.5 \pm 0.22\%$ and $0.33 \pm 0.04\%$, respectively. Ash and Protein contents were not significantly different ($p > 0.05$) within the groups. The obtained protein values were compared with the secondary data of reservoir-grown Tilapia (*Oreochromis niloticus*) in which the highest mean protein value was $16.14 \pm 0.01\%$, and was lower than the Climbing Perch, Mottled Eel, and Stripped Snakehead. Tilapia's fat content was lower than Eel's fat content and higher than the other four species. The present study demonstrated that the flesh of all studied species is rich in nutritional values.

Keywords: Evaluation, Freshwater fish, Malnourish, Nutrient, Proximate analysis

This research was funded by the National Aquatic Resources Research and Development Agency (NARA) and it is acknowledged

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