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Nutritional assessment of Sri Lankan seer fish *Scomberomorus commerson*

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Proximate composition of Sri Lankan *Scomberomorus commerson* (total length 70 - 80 cm) was determined in the skin, red muscle, white muscle and belly flap. Although similar studies using different body parts have been reported on other fish species no literature was available on *Scomberomorus* spp. Furthermore, the fatty acid profile was derived for white muscle and total mercury content was analysed in the skin, red and white muscles.

Significant variances were observed among the different tissue parts tested ($p < 0.05$). The highest protein (25.02 ± 1.06 %) and lipid content (19.17 ± 1.26 %) as well as lowest moisture (53.35 ± 2.27 %) and ash content (0.77 ± 0.33 %) were recorded in the skin. The white muscle recorded the highest moisture (74.11 ± 1.66 %) and ash contents (1.12 ± 0.15 %) along with the second highest protein content (19.63 ± 0.36 %) and the lowest lipid content (5.62 ± 1.68 %). In the red muscle and belly flap the corresponding values were respectively 15.64 ± 0.56 % and 14.34 ± 0.68 % for protein content and, 12.66 ± 2.47 % and 13.31 ± 0.76 % for lipid content. A literature review has shown controversy regarding fat content of Sri Lankan *Scomberomorus* spp. with the few reported values varying from 0.5 % to 4.0 % in different studies. Based on the results for crude fat content of white muscle (80 - 95 % of steak) in the present study this species can be deemed a medium fat fish (5 - 10 % fat). It was noted that in the white muscle total saturated fatty acids (SFA), monounsaturated fatty acids (MUFA) and polyunsaturated fatty acids (PUFA) were present in the ratio of 41:24:32. The two physiologically important n-3 fatty acids, EPA (11.88 ± 0.17 %) and DHA (8.74 ± 0.56 %) were present in reversed proportions uncommon in most fish. The nutritional indicators such as PUFA / SFA ratio (0.79) and the n-6 / n-3 ratio (0.20) were well within the preferred limits. Only trace amounts of total mercury were present (below detection level 0.05 µg g^{-1}) in the samples. The results tentatively suggest that steaks of Sri Lankan *S. commerson* of 80.0 cm total length contain the required nutritional levels and are a favourable source of fatty acids while being safe from undue mercury contamination.

Keywords: Fatty acids, proximate composition, *Scomberomorus commerson*

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