

## Antioxidant Properties and Nutritive Value of Raw and Cooked Pool barb (Puntius sophore) of Eastern Himalayas

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**Abstract :** Antioxidant properties and nutritive values of raw and cooked Pool barb, Puntius sophore (Hamilton-Buchanan) of Eastern Himalayas, India were determined. Antioxidant activity of the methanol extract of the raw, steamed, fried and curried Pool barb was evaluated by using 1,1-diphenyl-2-picrylhydrazyl (DPPH) scavenging assay. In DPPH scavenging assay the IC<sub>50</sub> value of the raw, steamed, fried and curried Pool barb was 1.66 microgram/ml, 16.09 microgram/ml, 8.99 microgram/ml, 0.59 microgram/ml whereas the IC<sub>50</sub> of the reference ascorbic acid was 46.66 microgram/ml. This results shows that the fish have high antioxidant activity. Protein content was found highest in raw (20.50±0.08%) and lowest in curried (18.66±0.13%). Moisture content in raw, fried and curried was 76.35±0.09, 46.27±0.14 and 57.46±0.24 respectively. Lipid content was recorded 2.46±0.14% in raw and 21.76±0.10% in curried. Ash content varies from 12.57±0.11 to 22.53±0.07%. The total aminoacids were varied from 36.79±0.02 and 288.43±0.12 mg/100 g. Eleven essential mineral elements were found abundant in all the samples. The samples had a considerable amount of Fe ranging from 152.17 to 320.39 milligram/100 gram, Ca 902.06 to 1356.02 milligram/100 gram, Zn 91.07 to 138.14 milligram/100 gram, K 193.25 to 261.56 milligram/100 gram, Mg 225.06 to 229.10 milligram/100 gram. Ni was not detected in the curried fish. The Mg and K contents were significantly decreased in frying method; however the Fe, Cu, Ca, Co and Mn content were increased significantly in all the cooked samples. The Mg and Na contents were significantly increased in curried sample and the Cr content was decreased significantly (p<0.05) in all the cooked samples.

**Keywords :** antioxidant property, pool barb, minerals, aminoacids, proximate composition, cooking methods

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