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Nutrient analysis of some fresh water fish

Fish are a good source of proteins and minerals. The n-3 fatty acids found in fish oil could prevent heart diseases. The chemical composition of marine fish has been extensively studied but information on fresh water fish is rare. This study was undertaken to determine whether fresh water fish cold be used as a less expensive substitute for marine fish. It will help the fish processing industry.

Present study reports the content of moisture, edible flesh, proteins, carbohydrates, lipids, ash minerals (calcium, sodium, potassium, iron, cobalt, copper, magnesium, manganese, phosphorus, Zinc) found in *Cirrhinus mrigala* (E. Mrigal), *Labeo dussumieri* (E. Hirikanaya), *Catla Catla* (E. Catla), *Labeo rohita* (E. Rohu), *Cyrinus carpio* (E. Common Carp).

Moisture, protein, carbohydrate and lipid contents were determined by Dean and Stark apparatus, Kjeldhal method, anthrone method, and chloroform-methanol extraction method, respectively. Mineral contents were determined by analysis of the ash using atomic absorption and UV spectroscopy.

Catla had the highest content of moisture (83 g/ g%), carbohydrates (3.1 g/ g%), ash (2.3 g/g%), iron (3.3 mg/ 100g), and phosphorus (82.6 mg/ 100g), while protein content (18.2 g/g%) was highest in Hirikanaya. Calcium (416.1 mg/100g), sodium (152.6 mg/ 100g), and zinc (1.4 mg/ 100g) contents were highest in common Carp. Manganese (0.3 mg/ 100g) and copper (0.3 mg/ 100g) contents were highest in Mirigal. Rohu had the highest content of cobalt (0.2 mg/ 100g).

The moisture, carbohydrates, proteins, lipids ash, sodium, potassium, calcium, iron, phosphors content in marine fish are 66-84%, 0-2.9%, 15-20%, 0.1-20%, 0.8- 2%,30-140 mg/g, 250-320 mg/ g, 37-715 mg/g, 0.7-13.9 mg/ g, 161-349 mg/g. Comparing the values for the nutrients in marine and fresh water fish it can be concluded that fresh water fish can be supplemented in our diet for marine fish.