

## Fatty Acid Composition of Muscle Lipids of *Cyprinus carpio* L. Living in Different Dam Lake, Turkey

**Authors :** O. B. Citil, V. Sariyel, M. Akoz

**Abstract :** In this study, total fatty acid composition of muscle lipids of *Cyprinus carpio* L. living in Suğla Dam Lake, Altınapa Dam Lake, Eğirdir Lake and Burdur Lake were determined using GC. During this study, for the summer season of July was taken from each region of the land and they were stored in deep-freeze set to -20 degrees until the analysis date. At the end of the analyses, 30 different fatty acids were found in the composition of *Cyprinus carpio* L. which lives in different lakes. *Cyprinus carpio* Suğla Dam Lake of polyunsaturated fatty acids (PUFAs), were higher than other lakes. *Cyprinus carpio* L. was the highest in the major SFA palmitic acid. Polyunsaturated fatty acids (PUFA) of carp, the most abundant fish species in all lakes, were found to be higher than those of saturated fatty acids (SFA) in all lakes. Palmitic acid was the major SFA in all lakes. Oleic acid was identified as the major MUFA. Docosahexaenoic acid (DHA) was the most abundant in all lakes.  $\omega$ 3 fatty acid composition was higher than the percentage of the percentage  $\omega$ 6 fatty acids in all lake.  $\omega$ 3/ $\omega$ 6 rates of *Cyprinus carpio* L. Suğla Dam Lake, Altınapa Dam Lake, Eğirdir Lake and Burdur Lake, 2.12, 1.19, 2.15, 2.87, and 2.82, respectively. Docosahexaenoic acid (DHA) was the major PUFA in Eğirdir and Burdur lakes, whereas linoleic acid (LA) was the major PUFA in Altınapa and Suğla Dam Lakes. It was shown that the fatty acid composition in the muscle of carp was significantly influenced by different lakes.

**Keywords :** *Cyprinus carpio* L., fatty acid, composition, gas chromatography

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