

Effect of Season on Fatty Acid Composition of *Cyprinus carpio* (Linnaeus, 1758) in Çavuşçu Lake

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Aim of the Study: In this study, fatty acid profiles and $\omega 3/\omega 6$ fatty acids ratio of muscle of carp (*Cyprinus carpio*) at Çavuşçu Lake in two seasons (summer and winter) were investigated.

Material and Methods: Total lipids of fish were extracted and the fatty acids in the total lipid were esterified into methyl esters. Fatty acid methyl esters (FAMES) were analyzed on a HP (Hewlett Packard) Agilent 6890N model gas chromatograph (GC), equipped with a flame ionization detector (FID) and fitted with a HP-88 capillary column.

Results: Palmitic (19.04-22.15%), oleic (11.11-11.28%) and arachidonic acid (6.70-8.68%) were identified as major saturated fatty acid (SFA), monounsaturated fatty acid (MUFA) and polyunsaturated fatty acid (PUFA) in two seasons, respectively. $\omega 3/\omega 6$ ratios useful indicator for comparing relative nutritional values of fish oils were 1.02 and 1.15 in summer and winter in carp, respectively. In conclusion, seasonal variations affected fatty acid composition of carp in Çavuşçu Lake in terms of some fatty acids.

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