
SHC 34 . TOXICOLOGICAL ASPECTS OF ORGANOCHLORINE PESTICIDES ON *CYPRINUS CARPIO* L. IN ATATURK DAM LAKE, TURKEY

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Ataturk Dam Lake is on the Euphrates river in south-east Turkey. It is the largest dam in the country. Residue levels of organochlorine pesticides (OCPs) were determined in water, sediment and liver tissue samples of the common carp (*Cyprinus carpio* Linnaeus, 1758) collected from the littoral zone of Ataturk Dam Lake. The sampling points were chosen based on pollution in the main agricultural sector of this region. The organochlorine pesticides extracted with a mixture of organic solvents were quantified by Gas Chromatography–Mass Spectrometry. Pesticide residues in the sediments were higher than the residues in the water and fish. The highest residue in all the samples analyzed was DDE. Ethoxyresorufin O-deethylase, glutathion S-transferase, superoxide dismutase and catalase activities have been measured in liver samples of *Cyprinus carpio*. The enzyme analysis results showed that the activities were significantly different ($p<0.05$) in the stations where OCP contaminations were highest. Differences in enzyme activity can be interpreted to accumulation of the OCPs and the other many xenobiotics on sediment and also in fish tissues. This study revealed that pesticide residue levels in the fish samples were above the maximum residue limits so could be a threat to the human health.

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