

Findik, O. and Turan, M.A. (2012) Metal Concentrations in Surface Sediments of Beyler Reservoir (Turkey)." Bull Environ Contam Toxicol 88:193–197.

ABSTRACT

The accumulation of metals (Iron, Aluminium, Zinc, Copper, Manganese, Boron, Chromium, Nickel, Cadmium, Lead) was seasonally (November 2009 to July 2010) measured in sediment samples taken from different areas of Beyler reservoir which is an important water source for irrigation in West Black Sea region (Turkey). Metals in sediment samples were analyzed by ICP-OES. The difference between the stations except for Zn metal ($p < 0.05$) has not been considered as important and a statistical difference between seasons for Fe, Ni metals ($p < 0.01$) and Cu metal ($p < 0.05$) has been observed. The magnitude of metal concentrations in sediment was determined as Aluminium > Iron > Manganese > Zinc > Chromium > Copper > Boron > Nickel > Lead > Cadmium. Enrichment factor (EF) for all metals has been calculated ($EF < 1$). In the evaluation done by considering the EF values, it is seen that the metal concentrations found in the Beyler Dam Lake sediment stem from the natural composition of the sediment.