SEASONAL METALS PROFILES İN WATER AND SEDİMENTS OF THE
SOLAKLI STREAM, TURKEY

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The main propose of this study is to understand the seasonal changes of land-based metals in the selected river. For this purpose, Water and Sediment samples were collected seasonally from 6 stations located on Solaklı stream. Temperature (°C), pH, electrical conductivity (s/m) and dissolved oxygen (mg/L) were measured in the stations. Water was filtered immediately with the hand-held vacuum pump used membrane filters of 0.45 µm pore diameter for determination the levels of dissolved metals (µg/L). Water samples were transferred to the laboratory with the car refrigerator / freezer. All sediment samples were preserved at -18 °C. Grain size were classified according to Folk \cite{Folk1954}, pH and Oxidation Reduction Potential (ORP) were measured using a Hach Lange HQ40D multi meter. Total Organic Carbon (TOC) was determined by using modified Walkley-Black titration method \cite{Gaudette1974}. Carbonate levels were measured by Piper method \cite{Piper1974}. Metal analysis (Cr, Mn, Al, Co, Ni, Cu, Zn, As, Fe and Pb) were performed using sediment passed through a sieve with 63-micron in this study. All data in sediment were given mg/kg dry weight (dw). Analysis after digestion in the closed microwave digestion system was determined using ICP-MS (inductively coupled plasma mass spectrometry). The Collusion Reaction Interface (CRI) was used during the determination of Arsenic. Both Sc and In (50 ppb) were added to all standards, blanks and samples and acted as internal standards.

REFERENCES