



## **Hydrochemical Investigation of the Balıklı Spa (Kangal Fish Spring), Sivas, Turkey**

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Balıklı Spa (Kangal Fish Spring) is situated to the northeast of Kangal district centre, Sivas, Turkey. Balıklı Spa is of a particular place amongst the other thermal baths found in Turkey and is used in the treatment of psoriasis. The temperature and discharge of the Balıklı Spa water range between 33.6 and 35.4 oC and 145-220 L/s, respectively. The discharge of the Çermik Stream measured downstream of the Balıklı Spa is in the range of 150-660 L/s, and is mostly supplied by Balıklı Spa. Total dissolved solids (TDS) of the Balıklı Spa and Çermik Stream waters range between 348 and 395 mg/L and 278 and 377 mg/L, respectively. Dominant ions of these waters are Ca, Mg and HCO<sub>3</sub>, and they are classified as calcium bicarbonate type waters. In terms of balneological classification Balıklı Spa is “acrotothermal water”. Secondary and minor element (B, Cr, Mn, Fe, Cu, Zn, As, Se, Sr, Sb, Ba, Hg, Pb) concentrations in the investigated waters are below 1 mg/L. The stable isotope (oxygen-18 and deuterium) composition of the Balıklı Spa water suggests that the origin of the thermal water is meteoric water.