Heavy metals in seawater from Marmara sea, Istanbul

Gokberk Kara, Esin Bozkurt Kopuz, Oner Eliri and Mehmet Kesiktas
Marmara University, Turkey

In Istanbul, where dense industrialization and dense population are located, people can use Marmara Sea for recreational reasons. The beaches in which they interacted with the sea were selected primarily for the determination of heavy metal pollution. This study proposed to investigate the quality of seawater to protect health of people which do recreational activities such as swimming. Cr, and Zn concentrations and pH, temperature in seawater samples taken weekly from Kucuksu, Fenerbahce and Suadiye beaches in Asian side of Istanbul were investigated between 9 February 2009 and 4 May 2009. Measured temperature values varied from 7.1 to 27.6°C and measured pH values varied from 8.15 to 8.47. The Cr and Zn concentrations analyzed by the Inductively Coupled Plasma Mass Spectrometry (ICP-MS) were under the limit values by the Turkish Water Pollution Control Regulation published by the Ministry of Environment and Urbanization. These findings indicate that there is no significant threat to aquatic life and human health from these heavy metals in sea water in Marmara Sea.

Biography
Gokberk Kara has completed his under-graduation in the Environmental Engineering Department of Sakarya University in 2007. He is a Master’s degree student in Environmental Engineering Department of Marmara University and is also working at the RSK Environmental Consultancy Service in Istanbul, Turkey.

gokberk39@gmail.com