



Metal (Pb, Cd and Hg) Inputs Via The Rivers to the Southern Marmara Sea Shelf, Turkey

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A chemical study of the major rivers waters of Southern Marmara Sea Shelf, Turkey, was carried out to investigate the metal distributions and sources. The distribution of “Total” (dissolved and in the suspended matter) metal (Pb, Cd and Hg) concentrations show that the high metal concentrations in the Erdek Bay waters are mainly due to the land-based natural inputs from the erosion products of mineralized zones to the bay by two rivers (Biga and Gönen). However, the relatively high metal concentrations in the Gemlik Gulf and Izmit Bay waters suggested the some anthropogenic (domestic + industrial) inputs via the other rivers (Susurluk and Dil Deresi) to the southern shelf. Generally dissolved metal contents are found higher than including by the suspended matter throughout the water column. Especially Cd contents are lower than the detection limit of the method ($<0.01 \mu\text{g/l}$) in the suspended matter except Biga and Gönen waters.