

**MERCURY DISTRIBUTION IN THE MARMARA SEA, BLACK SEA AND  
MEDITERRANEAN SEA**

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**ABSTRACT**

Long term vertical and spatial distribution of total mercury ( $Hg_T$ ) in sea water was determined in the Turkish Straits (Dardanelles and Bosphorus) Marmara Sea, Black Sea and Mediterranean Sea. Within the the Turkish Straits (Dardanelles and Bosphorus) Marmara Sea, Black Sea system two permanent layers are separated by a sharp halocline. The spatial variation of  $Hg_T$  (total mercury) concentration was small. The upper layer of the Marmara Sea has a thickness of about 20 m. The concentration of  $Hg_T$  in the upper layer (UL) of the Marmara Sea lies between 2.7 ng/L and 5.3 ng/L. The lower layer  $Hg_T$  concentration was in the range 2.0 ng/L and 4.4 ng/L. During the late winter and early spring time the vertical distribution of  $Hg_T$  in the water column of Marmara Sea was similar to the distribution pattern of the fluorescing material (FM) in sea water. Mediterranean sea water contains  $Hg_T$  in the range of 2.5-7.5 ng/L while Aegean concentrations lies between 4ng/L and 24 ng/L. The Black Sea water contains mercury concentrations in the range of less then 0.15 ng/L and 11.0 ng/L.