Mercury profiles and the sedimentation rate in the coastal area west of Alexandria

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SUMMARY

More than 18 sediment cores collected from the coastal area west of Alexandria (Mex Bay) were analysed for their mercury concentrations.

The depth profiles showed significant features in the vertical distribution of mercury. Taking into consideration the operational date of the adjacent Chlor-alkali Plant, and assuming a constant sedimentation rate, the authors explain the changes in the vertical distribution of mercury to changes in the industrial activity in the Chlor-alkali Plant.

The authors made use of mercury profiles in Mex Bay sediments to calculate the settling rate in the area.

Formal model of the marine inshore phytoplanktonic community

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ABSTRACT

A formal model of the Romanian eutrophicated inshore area is described using exclusively the loop represented by phytoplankton.

Man-made changes on the marine phytoplanktonic ecosystem were presented in other papers. We used here some results of our research to point particular workgates and forcing factors (BOLOGA et al.,1985; MIHNEA and VOINESCU, 1977 a,b; 1978; MIHNEA, 1978 a,b; MIHNEA et al., 1980 and personal unpublished data).

Symbols significance:

POC_1: particulate organic carbon as alive phytoplankton; POC_2: particulate organic carbon as alive bacteria; POC_3: dead particulate organic carbon; DOC: dissolved organic carbon; Indol: β - indolil acetic acid; B: Marine bacteria; F: Marine fungs; G: Grazing; M: Mortality; A: Anoxy; Gross pr. in mg C m^{-3} d^{-1}; Biomass in mg m^{-3}; Chlorophyll a in mg m^{-3}.

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