

THE FLUCTUATION OF NUTRIENTS AND ORGANIC CARBON IN THE WATERS OF SOME RIVERS IN THE WESTERN GREECE

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EXTENDED ABSTRACT

In this paper are presented preliminary results of a monitoring project for the water quality of three important rivers of the western Greece (Acheloos, Louros and Acherontas). The results include the concentrations as well as the temporal and spatial distributions of nitrates, nitrites, phosphates, ammonia, silicates and total organic carbon for a five month period (October 2002 to February 2003). Monthly samplings occurred in four sampling sites at Acheloos and Louros rivers and two at Acherontas river.

The samples were analyzed by standard spectrophotometrical methods. All samples were preserved by adding few drops of HgCl₂ and storing in 4 °C until the chemical analysis.

According to our measurements, Louros is the most polluted river as it concerns nitrogen compounds, probably due to the increased human activities in its catchment area. It also accepts temporary pollutants from the small stream of Vossa.

Although Acheloos is the biggest and most important river for the whole territory, seems to be the less polluted. The chemical parameters level, indicate the enrichment of its water in nutrients, from the water of Lisimahia lake that enters Acheloos through the Water Lock of Dimikos.

Not significant inflow of pollutants was observed in Acherontas river, as no remarkable spatial variation recorded. The concentration of silicates increased during autumn with a maximum in December. This behavior is probably due to the soil corrosion by the turbulent flow of the water during this season.

Key words: Acheloos, Louros, Acherontas, Nutrients, TOC