

**APPLICATION OF DISCRIMINANT ANALYSIS FOR WATER QUALITY ASSESSMENT IN THE AEGEAN**

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**ABSTRACT**

A classification system is proposed for water quality assessment in coastal regions in the Aegean. Data sets for nitrate, phosphate and chlorophyll  $\alpha$  were used, collected from 14 sampling stations in the Aegean, already characterized for their trophic state. The statistical method of descriptive discriminant analysis was used for data processing in order to maximize the separation of the three trophic states and a territorial map was plotted divided into three clearly defined regions, a eutrophic, a mesotrophic and an oligotrophic. The proposed classification scheme was further evaluated with a number of stations spaced out along coastal areas in the Aegean Sea.