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## PHYSICO-CHEMICAL CHARACTERISTICS OF SEA WATER OF BEACHES ALONG VLORA BAY, ALBANIA

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### ABSTRACT

This study presents an assessment of marine water quality in beaches along Vlora Bay, as important areas for recreation and tourism in Albania, based on physical-chemical parameters and nutrient content (nitrites, nitrates, and phosphates). Changes in the physico-chemical characteristics such as pH, temperature, dissolved oxygen (DO), biological oxygen demand (BOD), particulate material (TSS), etc. and nutrients give information on the quality of the water, the source(s) of the variations and their impacts on the functions and biodiversity of the water body. For this purpose, parameters such as pH, temperature, Electrical Conductivity (EC), salinity, dissolved oxygen (DO), biological oxygen demand (BOD), total suspended solids (TSS), total dissolved solids (TDS) and nutrients ( $\text{N}/\text{NO}_2^-$ ,  $\text{N}/\text{NO}_3^-$ ,  $\text{P}/\text{PO}_4^{3-}$ ) were determined in eight water samples collected in beaches along Vlora Bay (in city of Vlora). Although physico-chemical parameters, including dissolved oxygen (DO), and nutrients resulted in normal levels, it is recommended to strengthen the measures that could be taken to reduce the level of urban discharges near the coastal area of the beach.

**Key words:** Beach, Vlora Bay; Seawater, Physico-chemical parameters, Nutrients.