

The Impact of Environmental Factors on the Water Quality of the Lakes in Bistrița Basin, Romania

Authors : Mihaela Alina Stanciu, Daniel Toma

Abstract : With a touristic and economic potential among the highest in our country, Neamț County has a large number of impressive storage lakes (Izvoru Muntelui - Bicaz, Bâta Doamnei, Vaduri, Pângărați), with high hydrographic capacities, but also a diversity of biotopes and habitats. Being an area with frequent exceedances of environmental quality indicators, we analyzed in this work their impact on the water quality parameters in three of the most visited lakes of Neamț County: Bâta Doamnei, Vaduri, and Pângărați. An additional reason is the risk of the water eutrophication process in these lakes, representing one of the first six most important pollution problems worldwide. During the research carried out over a period of four years (2020 - 2024), we identified the major sources of water pollution for the mentioned reservoirs. We analyzed the type of impact produced by each source separately, and we proposed prevention and control measures detailed according to their action on water quality parameters.

Keywords : ecosystem, environment, eutrophication, lakes, nutrients, pollution, water quality

Conference Title : ICEBESE 2025 : International Conference on Environmental, Biological, Ecological Sciences and Engineering

Conference Location : Istanbul, Türkiye

Conference Dates : November 08-09, 2025