



Environmental Data Base of the Lakes of West Macedonia (Greece) for Their Sustainable Management[#]

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Abstract: Lakes are sensitive ecosystems, critical for natural equilibrium and local economies. Irrational and excessive human interventions have a major impact in biodiversity and productivity. This paper describes the design and the implementation of a database for the lakes in West Macedonia, Greece aiming to their monitoring within sustainable development. Data were collected from scientific references, studies and research programs about lakes of Small (Micro) Prespa, Big (Macro) Prespa, Zazari, Chimadits, Petron, Vegoritis, Kastoria and Polyfytou. In the database are included qualitative and quantitative information of the lakes such as hydrological, geomorphologic information, physico-chemical characteristics of the lakes, the flora and fauna, avifauna, fish fauna, the protection legal status, land and water uses, economic activities, information on fishery production and infrastructure, human interventions and also information on the active management plan and measures for the protection, rehabilitation and sustainable development of the lakes. To help users effectively handle the stored data, a Graphical User Interface (GUI) was designed to customize the system to the users' demands and needs and support information flow. The integration of ecological, biological and socio-economic data for the lakes in a user-friendly database is important for many disciplines and supporting while planning of local projects.

Key words: *database, lake ecosystems, data management, sustainable exploitation, West Macedonia.*

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