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## **EUTROPHICATION MODELLING OF GOLESTI RESERVOIR IN ROMANIA**

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### **Abstract**

Global existence of a large percentage of lakes with eutrophication problems (54% in Romania) demands a predictive tool for the quality of these ecosystems. In this context, this paper proposes an eutrophication model that describes the thermal and biochemical behaviour of an eutrophic reservoir. This model was used to study an artificial lake (Golești reservoir) located in Romania. The conceptual model concerns a lake, which is considered as a closed aquatic system, and analyze a simply food web (nutrients, primary producers and secondary consumers). The model, calibrated and validated using the data collected over the two years (2008 and 2009), reproduces spatial and temporal concentration distribution of water quality constituents.

*Key words:* eutrophication, lake, model, nutrients, water quality

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