



Impact of shifts in agriculture practices on lake ecosystems from SE Romania

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Well preserved lacustrine and wetland areas of special ecological interest from Ialomitei and Danube River Basins were investigated with the aim to assess temporal and spatial variability in sediment accumulation rates in relation to the multiple socio-economic and political changes that occurred with the rise and fall of socialism (1948–1989) in Romania. These shifts in the political systems resulted in space dynamics of the main land use/cover classes and their quality, a new type of landed property and land exploitation.

The temporal context for the study (last 100 years) was provided by Pb-210 geochronology with Chernobyl Cs-137 as independent chronological marker. The study sites are located on the Southern Romanian Plain (Danube Plain), the main agricultural area in Romania, well known for high productivity of soils and good crop yields. The post-communist land reform resulted in the excessive fragmentation of farm land and the marked degradation of soil quality, leading to increased land vulnerability to extreme weathering and eventually to its abandonment in low-productive regions. The results are discussed in the context of the chronological data, sediment composition and historic meteorological records.

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