

ABSTRACT BOOK



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ENVIRONMENTAL FACTORS AS KEY DRIVERS FOR MOUNTAIN LAKES BIODIVERSITY

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Alpine lakes are mainly threatened by pollution and climate change causing biodiversity losses, or changes in the composition of their communities. These changes may be significant, so that mountain lakes can be used as early-warning sites to assess the effects of anthropogenic stressors. However, Alpine lakes being not WFD-relevant because of their dimensions, still needs an adequate coverage within the national monitoring programs as they serve in the regulation of the water balance and may represent a secondary source of pollution to lowland ecosystems.

In this context, a research study has been performed in the Stelvio National Park (Central Alps, Italy) in 2011 to assess the ecological status of some lacustrine environments through their chemistry, and macroinvertebrates and diatoms communities. The final aim of this study was to foster conservation practices of water resources in the international context of the promotion of sustainable development under climate change impact.

Samples were collected following a European wide standardized sampling protocol, through littoral handle netting, direct stones brushing, and outflow water sampling. Results showed a strong dependence of the composition of the biological community on climate and hydro-chemistry.