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PROGRAMME and BOOK of ABSTRACTS

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University of Natural Resources and Life Sciences, Vienna

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European Lakes Under Environmental Stressors

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Paleolimnology of Lake Garda

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Lake Garda is the largest Italian lake. The deep basin is relatively little impacted by human activities and is suitable for environmental reconstructions, including effects of climate change. In contrast, the shallow basin (81 m) is strongly affected by human activities and is for this reason more suitable for studying eutrophication.
Beside being a studiy site of Eulakes Project, it ia also investigated in my PhD. The main aim of the study is reconstruct the long-term ecological lake conditions in relation to human impact and climate change based on sedimentary diatom and cladocera remains, and sediment geochemistry. The reconstructions will be validated through combination of monitoring data and paleolimnological data recorded during the last two decades.
Additional investigation will regard the X-ray fluorescence (XRF) analyses for trace metal concentrations and the Fourier transform infrared spectroscopy (FTIRS). for biogeochemical sediment properties.
Determining the historical status of the lake, in particular before severe human impact during the 20th century, is also of crucial importance for future lake management. Furthermore, the paleolimnological data will also build the basis to evaluate the vulnerability of Lake Garda in the context of climate change and increasing human impact (e.g., hydroelectrical exploitation).
Objective, methods and preliminary results will be presented.