EULAKES MEETING AND SCIENCE DAY

PROGRAMME and BOOK of ABSTRACTS

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University of Natural Resources and Life Sciences, Vienna

EuLakes

European Lakes Under Environmental Stressors

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Impact of cyanotoxins: implications for management and water utilisation with particular reference to Lake Garda

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The presence of toxic cyanobacteria in freshwaters represents a risk for human health. Some cyanobacteria produce secondary metabolites which are endowed with toxicity for liver, kidneys, nervous system. Humans can be exposed to toxins through several routes: ingestion of contaminated drinking water, dermal contact, inhalation of aerosols. Kind and severity of the health problems following exposure to toxins are greatly variable and are dependent on the nature of the toxins (more than 120 different cyanobacterial toxins are reported in the scientific literature). The World Health Organization since 2003 has been developing specific guidelines for helping authorities to assess and manage risks related to cyanobacteria both in drinking waters and in recreational waters. Many countries have implemented own guidelines based on cyanobacteria monitoring and toxin determination. One major limitation of the existing guidelines is that they provide a single limit for all cyanobacteria, and a single limit for all toxins; if this approach can be considered protective, it doesn't give the real picture of the situation. A reliable risk assessment requires primarily a complete profiling of the cyanobacterial toxins. In the frame of the EULAKES project we are applying this approach to Lake Garda, which is a very important resort for touristic/recreational activities, besides being an important source of drinking water.