

# HydroEco 2011

## VOLUME OF ABSTRACTS

UPDATE of PRINTED VERSION, published via  
conference web site

3rd International Multidisciplinary Conference  
on  
**Hydrology and Ecology:**  
Ecosystems, Groundwater and Surface Water  
Pressures and Options

**2 – 5 May 2011**  
**Vienna, Austria**

The convening organizations are:

- Universität für Bodenkultur Wien (BOKU), University of Natural Resources and Applied Life Sciences; Institute of Water Management, Hydrology and Hydraulic Engineering, Vienna, Austria;
- International Commission on Groundwater (ICGW), of the International Association of Hydrological Sciences (IAHS);
- Faculty of Science, Charles University, Prague, Czech Republic.



HydroEco2011, Hydrology and Ecology: Ecosystems, Groundwater and Surface Water – Pressures and Options,  
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**About this publication**

The abstracts in this volume were submitted to the HydroEco2011 conference. The abstracts were evaluated by members of the Scientific Advisory Committee, resulting in the allocation in the oral presentations (platform presentation) and poster presentations. This volume contains only those abstracts that are expected to be actually presented at the conference.

The Editors and the Organizing Committee take no responsibility for any error and omission or for the opinions of the authors.

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## **PREFACE**

Many ecological systems owe their existence to physical/chemical properties of groundwater and surface water, and can be damaged if water flow or water properties are changed by anthropogenic or natural processes. The ecological systems may be

- the terrestrial ecosystems we see every day, such as the riparian systems along the rivers, and wetlands found in headwaters as well as in low land areas, or
- the subsurface ecological systems that maintain the groundwater that sustains so many people.

To address the resulting issues, this conference brings together engineers and researchers from engineering and ecological disciplines. The disciplines include, but are not limited to, hydrology, ecology, environmental engineering, biology, chemistry, geochemistry, environmental biogeochemistry, and subsurface microbiology.

**The unifying theme is the interaction between groundwater and (or) /surface water and ecological systems. A typical example is the hyporheic zone in riparian areas, where the ecological system interacts with water and chemical flows between surface and groundwater.**

The goals of the HydroEco2011 conference are:

- (1) to provide information that will help that interactions between groundwater, surface water and ecology are better understood, measured, simulated, and managed, and
- (2) to improve the technological basis for policy decisions (including WFD implementation) related to the reconstruction of ecologically valuable environments and the use of water resources in these environments.

This prepublished volume contains the abstracts as they were submitted to the HydroEco2011 conference. They are published here as they were received. The Abstract Numbers in the TABLE OF CONTENTS are identification numbers, assigned as part of the submission process. **These abstract identification numbers are referred to from the Conference Programme, both for oral and poster presentations.** For example, “(abstract #30)” in the Conference Programme relates to “Abstract number 30 – Controls and patterns of nutrient fluxes in low stream order agricultural catchments” in this Volume of Abstracts.

We wish you a fruitful and enjoyable stay in Vienna.

### **The HydroEco2011 Organizing Committee:**

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