

International Conference. 1 to 3 October 2014. Helmholtz Centre for Environmental Research, Leipzig, Germany.



Co-organized by:

HELMHOLTZ CENTRE FOR ENVIRONMENTAL RESEARCH - UFZ





Conference Program and Posters

Oral Presentations

Wednesday 1 October, 13:30 – 15:00 Session 1: Opening Lectures

Nikolay S. Kasimov Faculty of Geography Lomonosov Moscow State University, Russia Selenga-Baikal: Environmental, Geochemical and Hydrological Model of the Transboundary Basin

Petr Gunin & Sergei Bazha A.N. Severtsov Institute of Ecology and Evolution Russian Academy of Sciences, Moscow, Russia Interaction of Ecosystems of the Selenga Basin and Environmental Risks in Central Asia

Christian Opp & Tatiana I. Abidueva Department of Soil and Hydro-Geography, Faculty of Geography Marburg University, Germany **Natural conditions, land use impacts and protection strategies of Lake Baikal - a retrospective overview**

Wednesday 1 October, 15:00 – 15:30 Coffee Break

Wednesday 1 October, 15:30 – 17:45
Session 2: Climate, Land Use and Hydrology

Martin Kappas Department of Cartography, GIS and Remote Sensing Georg August University, Göttingen, Germany **Review of Long-term Satellite Data Series on Mongolia for the Study of** Land Cover and Land Use

Lucas Menzel Hydro-Geography and Climatology Unit, Institute of Geography University of Heidelberg, Germany Environmental Change and Hydrological Processes in the Steppe-Taiga Interface

Conference Program and Posters

Marcus Malsy Center for Environmental Systems Research (CESR) University of Kassel, Germany Large-scale modelling of water resources in the Selenga River

Jerker Jarsjø Department of Physical Geography and Quaternary Geology Stockholm University, Sweden Hydro-Climatic Development and Implications for Water Resources in the Selenga River Basin

Endon Garmaev Baikal Institute of Nature Management Ulan Ude, Russia Recommendations to Ensure the Hydroecological Safety in the Basin of the Selenga River

Wednesday 1 October, 18:30 Conference Dinner

Conference Program and Posters

Thursday 2 October, 09:15 – 11:00 Session 3: Environmental Impacts and Water Quality

N.E. Kosheleva, Nikolay S. Kasimov, Petr D. Gunin, Sergei N. Bazha, Enkh-Amgalan Sandag, Olga Sorokina, Ivan Timofeev, Alexey Alexeenko, T. Kisselyeva Faculty of Geography Lomonosov Moscow State University, Russia Institute of Geography, Mongolian Academy of Sciences, Mongolia A.N. Severtsov Institute of Ecology and Evolution, Russian Academy of Sciences, Moscow, Russia

Hot Spot Assessment: Cities of the Selenga River Basin

Mikhail Lychagin, Galina Shinkareva Faculty of Geography Lomonosov Moscow State University, Russia **Heavy Metal Fluxes in the Rivers of the Selenga Basin**

Sergey Chalov, Anna Romanchenko Faculty of Geography Lomonosov Moscow State University, Russia Linking Catchments to Rivers: Predicting Contaminant Loads due to Human Impact and Enviromental Change in the Selenga River

Josephine Thorslund Department of Physical Geography and Quaternary Geology Stockholm University, Sweden Geochemical Controls on the Partitioning and Hydrological Transport of Metals in the Non-Acidic Tuul River System

Thursday 2 October, 11:00 – 11:30 Coffee Break Conference Program and Posters

Thursday 2 October, 11:30 – 13:15 Session 4: Sediment Transport and Fluvial Morphology

Nikolay Alexeevsky, Ekaterina Promakhova Faculty of Geography Lomonosov Moscow State University, Russia Source to Sink: Water and Sediment Transport in the Selenga-Baikal Catchment

Jan Pietron Department of Physical Geography and Quaternary Geology Stockholm University, Sweden **Modelling Sediment Transport Processes in Tuul River (Upper Selenga Basin)**

Phillip Theuring Department Aquatic Ecosystem Analysis and Management Helmholtz Centre for Environmental Research, Magdeburg, Germany Sediment Source Finger Printing in the Kharaa River Basin

Jeff Nittrouer Department of Earth Science Rice University, Houston, TX, USA Sediment transport dynamics linked to geomorphological evolution of the Selenga River delta, Lake Baikal, Russia

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Thursday 2 October, 13:15 – 14:00
Lunch Break
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Thursday 2 October, 14:15 – 15:30 Session 5: Aquatic and Terrestrial Ecosystems

Enkh-Amgalan S, Dorjgotov D., Oyungerel J., Enkh-Taivan D., Batkhishig O. Institute of Geography Mongolian Academy of Sciences, Ulaanbaatar, Mongolia **Geoecological Issues in the Selenga River Catchment**

Bringing Together Selenga Baikal Research 2014 Conference Program and Posters

Till Luckenbach Department Bioanalytical Ecotoxicology Helmholtz Centre for Environmental Research, Leipzig, Germany Is the Endemic Fauna of Lake Baikal Affected by Global Change?

Anton Gurkov Institute of Biology, Irkutsk State University, Russia Can Gammarus lacustris Come to Lake Baikal Because of Climate Change: Comparative Study of Cellular Stress Response Systems between Baikal and Palearcric Amphipods

Thursday 2 October, 15:30 – 16:00 Coffee Break and Poster Session

Thursday 2 October, 16:00 – 18:00 Session 6: Innovative Monitoring Technologies

Yosef Akthman Geodetic Engineering Laboratory EPFL Lausanne, Switzerland Leman-Baikal: Remote Sensing of Lakes Using an Ultralight Plane

Vincent Nouchi Geodetic Engineering Laboratory EPFL Lausanne, Switzerland High-Resolution Mapping of Water Quality in the Selenga Delta from Remote Sensing

Almut Gerhardt LimCo International GmbH, Constance, Germany The Multispecies Freshwater Biomonitor: Applications in Ecotoxicology and Water Quality Biomonitoring

Konrad Siegfried Department Environmental Microbiology Helmholtz Centre for Environmental Research, Leipzig, Germany Advantages of Biosensor Water Quality Monitoring

Bringing Together Selenga Baikal Research 2014 Conference Program and Posters

Daniel Karthe Department Aquatic Ecosystem Analysis and Management Helmholtz Centre for Environmental Research, Magdeburg, Germany **Development of a Rapid Detection System for Waterborne Pathogens**

Thursday 2 October, 18:00
Conclusions and Final Discussion

Friday 3 October Individual Discussion and Sightseeing in Leipzig Conference Program and Posters

Poster Presentations

Gunsmaa Batbayar

Department Aquatic Ecosystem Analysis and Management Helmholtz Center for Environmental Research, Magdeburg, Germany **Investigation of Water Quality in Northern Mongolia**

Enkhbayar Dandar, Jesús Carrera Ramirez, Buyankhishig Nemer Polytechnic University of Catalonia (UPC) Barcelona, Spain **Evaluation of groundwater resources in the upper Tuul River basin, Mongolia**

Christophe Delacourt, Nicolas le Dantac Laboratoire Domaines Océaniques, Institut Universitaire Europeen de la Mer (IUEM), Universite de Bretagne Occidentale (UBO) Plouzane, France **Morphological analysis of the upper reaches of the Kukuy Canyon**

derived from shallow bathymetry

Almut Gerhardt LimCo International GmbH, Constance, Germany Monitoring and diagnosis of pollution peaks in waste water treatment plants: case study

Sonja Heldt Duisburg-Essen University, Germany European Water Management in Mongolia - Drafting a RBMP for the Kharaa River Basin

Lucas Menzel Hydro-Geography and Climatology Unit, Institute of Geography University of Heidelberg, Germany

Assessing the Hydroclimatic Variability under Uncertainty in Northern Mongolia

Daniel Karthe Department Aquatic Ecosystem Analysis and Management Helmholtz Centre for Environmental Research, Magdeburg, Germany **Implementing Science-Based IWRM in a Data-Scarce River Basin: Experiences from the Kharaa, Mongolia**

Conference Program and Posters

Anna Romanchenko Faculty of Geography Lomonosov Moscow State University, Russia Floods Impact on Pollutant Transport in the Selenga River

Galina Shinkareva Faculty of Geography Lomonosov Moscow State University, Russia Geochemical Assessment of Deltaic Enviroment of Selenga River

Olga Sorokina Faculty of Geography Lomonosov Moscow State University, Russia Environmental-Geochemical Map of Ulaanbaatar City: Methodology of Compiling and Perspectives of Applying

Ivan Timofeev, Igor Pavlov Faculty of Geography Lomonosov Moscow State University, Russia Geochemical Transformation of Soils Caused by Non-Ferric Ore Mining in the Selenga River Basin (Case Study of Zakamensk)