

Bringing Together Selenga-Baikal Research International Conference and Workshop

31 August - 2 September 2018













First Circular and Call for Presentations

Call for Presentations

Organizing Committee

Dear colleagues,

we would like to invite you to the *Bringing together Selenga-Baikal Research* conference which will be held in Nalaikh, just outside Ulaanbaatar, Mongolia from 31 August to 2 September 2018. **Registration** for the conference is open from now **until 15 June 2018**.

In order to register, please send an email to Daniel Karthe (see below), including your contact details and the title of your presentation or poster (please indicate if it will be a presentation or poster). If you have further questions, please do not hesitate to contact us. We look forward to seeing you soon.

Jeff Nittrouer, Sergey Chalov, Jerker Jarsjö & Daniel Karthe

Prof. Dr. Daniel Karthe	Environmental Engineering Section German-Mongolian Institute for Resources and Technology (GMIT) Nalaikh, Ulaanbaatar, Mongolia Email: <u>karthe@gmit.edu.mn</u>
Prof. Dr. Jeffrey Nittrouer	Sedimentology Group Department of Earth Science Rice University, Houston, Texas, USA Email: <u>nittrouer@rice.edu</u>
Prof. Dr. Sergey Chalov	Faculty of Geography Lomonosov Moscow State University Moscow, Russia Email: <u>hydroserg@mail.ru</u>
Prof. Dr. Jerker Jarsjö	Department of Geography Stockholm University, Sweden Email: j <u>erker.jarsjo@natgeo.su.se</u>

About this conference

Since 2012, scientists working on water-related issues on Lake Baikal and in the Selenga River Basin have been meeting regularly in order to exchange their findings, network with colleagues from around the world, and jointly discuss new research ideas and partnerships.

2012	Bringing Together Selenga-Baikal Research conference International campus of Moscow State University, Geneva, Switzerland
2013	Jointly organized topical session European Geosciences Union General Assembly, Vienna, Austria
2014	Bringing Together Selenga-Baikal Research conference Helmholtz Centre for Environmental Research, Leipzig, Germany
2015	Jointly organized topical session International Geographical Union Congress, Moscow, Russia
2016	Bringing Together Selenga-Baikal Research conference hosted by Rice University, Houston (TX), USA

Conference participants have jointly worked on numerous publications, and results from past conferences have been published in books as well as special issues of journals such as *Regional Environmental Change* and *Environmental Earth Sciences*. For the 2018 conference, we envision a high-level review paper, co-authored by leading experts on the region, as one of the chief results.



Participants of the 2014 Conference in Leipzig, Germany

Conference scope and topics

The Selenga River – Lake Baikal basin is home to one of the largest undammed river networks in the world. The conference intends to bring together leading international experts working on water in this unique ecoregion. Besides presentations on the latest research results, the conference will provide a forum for the discussion of future research needs, discuss the future agenda for research on hydrology, water quality and aquatic ecosystem management, and work towards high-level international publications.

Potential topics for posters and oral contributions include:

- Hydrology of the Selenga and its tributaries, including impacts from
 - climate change,
 - land use change,
 - water abstractions
- Sediment and contaminant transport in the Selenga river system, e.g.
 - sediment and contaminant source identification
 - instream transport and deposition processes
 - assessment of ecological and toxicological relevance
 - Aquatic ecosystems of the Selenga and Lake Baikal, including
 - characterization and specific features
 - impacts of global and regional environmental change
 - provision of ecosystem services
- Environmental change in the Selenga River Basin,
 - relevance for hydrology and hydrogeology, water quality and aquatic ecosystems
 - historical and recent urbanization and mining processes\
 - Selenga River Delta
 - historical evolution
 - sediment and contaminant transport and deposition processes
 - kidney of Lake Baikal (as a natural biogeochemical filter)
- Technical and non-technical solutions and considerations for water management, including
 - water treatment technologies
 - strategies to improve water use efficiency
 - water governance, including transboundary water management
 - capacity development

Bringing Together Selenga-Baikal Research 2018 First Circular and Call for Presentations

Preliminary schedule	
30 August 2018	International participants: Arrival in Mongolia
31 August 2018 to 2 September 2018	Transfer of participants to GMIT Nalaikh Conference program (full day) including local half-day excursion on 1 September 2018
3 September 2018	Optional: individual tours

First Circular and Call for Presentations

Conference Venue

German-Mongolian Institute for Resources and Technology GMIT campus • 2nd khoroo • Nalaikh district • Ulaanbaatar • Mongolia



About ...

As a state university for scientific teaching and research, GMIT provides a pioneering model for the reform of university education in Mongolia. Based on an agreement between the Mongolian and German government which was signed in October 2011 by Mongolian President Tsakhjagiin Elbegdorj and German Chancellor Angela Merkel, the German-Mongolian Institute for Resources and Technology (GMIT) was established in 2013 as a Mongolian state university with the objective to promote scientific teaching and research in the mineral resource sector and downstream industries, thus responding to global economic, environmental and social challenges and a need for specialized workforce in Mongolia alike.

GMIT strives to become a leading university of technology in Mongolia and the Asian region, thus defining the highest standards in education, research and innovation. We distinguished by our strong practice-orientation. We aim to transfer international expertise and cutting-edge standards to Mongolia in support of sustainable economic growth as well as to educate highly qualified, socially responsible, internationally recognized and creatively working engineers. The guiding principles of GMIT include the protection of the environment, and social and economic sustainability. Adherence to European quality standards in education and research are further essential characteristics of GMIT.

The German contribution to GMIT is implemented by Germany's international cooperation agency (Deutsche Gesellschaft für Internationale Zusammenarbeit, GIZ) and the German Academic Exchange Service (DAAD).

Bringing Together Selenga-Baikal Research 2018 First Circular and Call for Presentations

Anticipated Costs	
Transportation	Nalaikh is directly accessible from Ulaanbaatar Airport. The cost of a taxi is approx. \$20. Transfer time is approx. one hour.
Accommodation	Is being clarified; this information will be updated soon. It is possible to stay near the campus in a newly opened hotel; alternatively, there is regular public transportation from Ulaanbaatar (every few minutes). A third option are tourist resorts in Terelj National Park (about 10 to 15 km distance by road)
Meals	Not included, but local venues are reasonably priced. Sponsoring for the conference catering and conference dinner is anticipated.
Local excursion program (on 1 September 2018)	Included

Organizers and contact information

Prof. Dr. **Daniel Karthe** is a hydrologist working at the German-Mongolian Institute for Resources and Technology. He has coordinated several international research projects on water resources management in the Selenga River Basin. Having obtained his PhD from Göttingen University (2009), his research interests include Integrated Water Resources Management (IWRM), hydrology, water quality, water hygiene, urban water management and medical geography. Currently, he is the speaker of the working group of Hydrology of German Geographical Society.



Email: <u>karthe@gmit.edu.mn</u>



Prof. Dr. **Sergey Chalov** received his M.Sc. and Ph.D degrees in Fluvial Processes and Hydrology from the Faculty of Geography, Lomonosov Moscow State University, in 2004 and 2007 respectively. His research interests cover a vast range of water-related topics, including fluvial processes, environmental hydraulics, hydraulic risks, sediment transport and transboundary rivers. He is the author of more ~ 100 journal papers and several books, and has a significant expertise on the Selenga River Basin.

Email: <u>hydroserg@mail.ru</u>

Prof. Dr. **Jeffrey Nittrouer** investigates sediment transport, hydrology, and evolution of lowland river, delta, and coastal systems, in order to understand how physical processes interact to shape the Earth's surface over modern and geological timescales. The research includes evaluating the morphodynamics and stratigraphy of river and coastal systems and basins (modern and ancient), managing evolving fluvial-deltaic landscapes, including those influenced by human activities.



Email: <u>nittrouer@rice.edu</u>

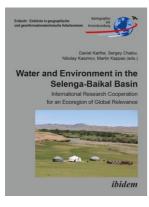


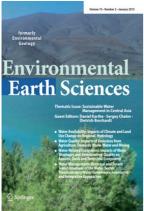
Prof. Dr. **Jerker Jarsjö** is an associate professor at the Department of Physical Geography and Quaternary Geology, Stockholm University, Sweden. His main research interests are hydrological and hydrogeological model interpretations of contaminant transport, groundwater – surface water interactions, and trends of hydro-climatic change. He is author of more than 100 scientific publications, thereof several papers on the Selenga-Baikal Basin in leading international journals.

Email: jerker.jarsjo@natgeo.su.se

Selected Outcomes of Previous Workshops

2018 will be the sixth time that international experts working (or interested to work) in the Selenga River and Lake Baikal Basin will be meeting. Previous workshops have helped to exchange knowledge, develop new research ideas and foster collaboration between experts working in the region. Moreover, numerous publication activities have resulted from the conferences, including a book, two thematic issues in *Environmental Earth Sciences* and a thematic feature in *Regional Environmental Change*.





Water and Environment in the Selenga-Baikal Basin

Book project organized during the *Bringing Together Selenga-Baikal Research Conference 2014* in Leipzig, Germany

23 chapters, 366 pages ISBN: 978-3-8382-0853-4

Water resources and their management in central Asia in the early twenty first century: status, challenges and future prospects

Thematic issue in *Environmental Earth Sciences*, initiated at the *Bringing Together Selenga-Baikal Research Conference* 2012 in Geneva, Switzerland

30 research papers, published in 2015 Volume 2 is currently in preparation



Numerous joint research papers in different journals have resulted from the conferences.

One recent example is a paper in *Regional Environmental Change* on the Selenga River Delta, which involved research teams from Russia, Sweden, USA, Switzerland and Germany who met at previous BTSBR conferences.



Water in Central Asia: an integrated assessment for science-based management

Thematic issue in *Environmental Earth Sciences*, initiated prior to the *Bringing Together Selenga-Baikal Research Conference 2016* in Chelan, WA, USA

31 research papers, published in 2017 Co-edited by 5 members of the BaSe Net Consortium