



# **Second Workshop of I.A.G./A.I.G. SEDIBUD**

## **Sediment Budgets in Cold Environments**

### ***Sediment Fluxes and Sediment Budgets in Changing High-Latitude & High-Altitude Cold Environments***

**Abisko, Sweden,  
September 15-19, 2007**

**- Third Circular (August 20, 2007) -**

Dear all,

We thank you for your interest in the Second Workshop of the I.A.G./A.I.G. Working Group *SEDIBUD* (*Sediment Budgets in Cold Environments*), which will take place in Abisko, Sweden, from September 15 - 19, 2007.

## Themes of the Workshop

The Workshop will address major topics of the I.A.G./A.I.G. Working Group *SEDIBUD*. The focus is on *High-Latitude and High-Altitude Cold Environments* and contributions to the following themes are invited:

- Source-to-Sink Fluxes / Correlations and Sediment Budgets
- Source-to-Sink and Sediment Budget Studies and Global Change
- Source-to-Sink and Sediment Budget Studies at Different Scales
- Exogenous - Endogenous Interactions and Source-to-Sink and Sediment Budget Studies

The Workshop will provide a multinational and interdisciplinary forum for exchanging and sharing knowledge. The major purpose of the Workshop is to take further the issues addressed and discussed within *SEDIFLUX* (2004 – 2006) and I.A.G./A.I.G. *SEDIBUD* (2005 - ) (<http://www.geomorph.org/wg/wgsb.html>).

Central issues of working group sessions will be the further discussion of relevant science questions to be addressed within the *SEDIBUD* programme, the presentation and discussion of the *SEDIFLUX* Manual (First Edition), the presentation, open discussion and selection of *SEDIBUD* key test sites (catchments), the development (concept) of the *SEDIBUD* metadata database, and the development of further ideas to continue and to extend the scientific activities, which have been started within *SEDIFLUX* and *SEDIBUD*.

## Programme of the Meeting

*Saturday, September 15, 2007*

Arrival at the Abisko Mountain Station and check-in

From 15:00 onwards

Registration of Workshop participants at the Workshop registration desk in the Abisko Mountain Station

16:00 – 18:00

Welcome and Reception for Workshop participants (Abisko Mountain Station)

18:00 – 19:00

Excursion "Abisko in 60 minutes"

19:30

Dinner in the Abisko Mountain Station

*Sunday, September 16, 2007*

09:00 – 09:30

Registration of Workshop participants at the Workshop registration desk in the Abisko Mountain Station

09:30 – 09:40

Opening of the Second I.A.G./A.I.G. *SEDIBUD* Workshop and Welcome to Abisko

09:40 – 10:00

Overview of *SEDIBUD* objectives and aims for this *SEDIBUD* Workshop

10:00 – 10:15

Coffee break

Paper Presentations

Paper Session 1

Chairs: Armelle Decaulne & John F. Orwin

10:15 – 10:35

Jukka Käyhkö: Reconstruction of the largest Holocene jökulhlaup within Jokulsá á Fjöllum, NE Iceland, based on hydraulic modelling and sedimentary field evidence

10:35 – 10:55

Þorsteinn Sæmundsson, Ólafur Arnalds, Christof Kneisel, Helgi Páll Jónsson & Armelle Decaulne: Monitoring of the Orravatnsrústir Palsa site, in the Hofsafrétt area in Central Iceland

10:55 – 11:15

Alexander Vasiliev & Irina Streletskaia: Coastal erosion sediment input to the Barents and Kara Seas (based on ACD classification)

11:15 – 12:00: Poster Session

Achim A Beylich: Quantitative studies on sediment fluxes and sediment budgets in changing cold environments and the expected benefit from the unification of methods and measuring techniques

Achim A. Beylich, Scott F. Lamoureux & Armelle Decaulne: Sediment fluxes and sediment budgets in changing cold environments – examples from coordinated quantitative studies in three SEDIBUD key test areas in Canada, Iceland and Norway

Dorothea Gintz, Katja Laute, Karl-Heinz Schmidt & David Morche: Hydraulic geometry, grain size and grain shape characteristics of a high mountain river (Partnach River, Upper Bavaria)

Helgi Páll Jónsson, Armelle Decaulne & Þorsteinn Sæmundsson: Tephrochronology as a relevant dating tool in Icelandic geomorphology

Hugues Lantuit, Achim A. Beylich & Scott Lamoureux: Sediment budget in coastal settings: On the necessity to create a common framework for SEDIBUD and ACCO/Net activities during the International Polar Year

Timi Lopez, Achim A. Beylich, Winfried Schenk: Assessment and impact of cultural landscape in a U-shaped valley system in Western Norway (Erdalen/Nordfjord)

Grzegorz Rachlewicz, M. Burzyk, M. Samolyk, A.M. Szczucińska & W. Szczuciński: Particulate and dissolved matter transfer in small High-Arctic non-glaciated basins – Central Spitsbergen

Ola M. Sæther, Achim A. Beylich & G. Åberg: Strontium isotope systematics in the Oppstryn drainage basin, western Norway

Irena Streletskaia & Alexander Vasiliev: Organic carbon in Quaternary sediments of Russian West Arctic coasts.

Jeff Warburton: Susceptibility of burnt upland soils to disturbance by cycles of wetting and frost: a laboratory simulation study

12:00 – 13:00

Lunch in Abisko Mountain Station

Paper Session 2

Chairs: Bernd Etzelmüller & Fiona S. Tweed

13:00 – 13:20

Hanna Ridfeldt, Bernd Etzelmüller, Jan Boelhouwers & Christer Jonasson: Mountain permafrost distribution in the Abisko region, sub-Arctic northern Sweden

13:20 – 13:40

Nikita I. Tananaev: Effect of within-channel permafrost on sediment transport of rivers in polar environments

13:40 – 14:00

Jonathan L. Carrivick, Lee E. Brown & Katherine E. Arrell: Linking models of glacier meltwater production, hydrogeomorphology and ecological processes in Arctic and Alpine systems

14:00 – 14:20

John F. Orwin: The proglacial control on suspended sediment transfer from a deglaciating basin, Small River, British Columbia, Canada

14:20 – 14:50

Coffee break

Paper session 3

Chairs: John C. Dixon & Jeff Warburton

14:50 – 15:10

Armelle Decaulne, Þorsteinn Sæmundsson & Helgi Páll Jónsson: Postglacial sediment budget records from colluvial cones in N and NW Iceland

15:10 – 15:30

Achim A. Beylich: Quantitative studies on mass transfers, sediment budget and relief development in a catchment in Arctic-oceanic northernmost Swedish Lapland

15:30 – 15:50

Ola Fredin, Eiliv Larsen, Astrid Lyså, Louise Hansen, Achim A. Beylich, Valentin Burki, Atle Nesje, Marc-Henri Derron, Raymond Eilertsen & Jan-Fredrik Tønnesen: SEDITRANS – a Norwegian fjord valley system; sediment budget, processes and landscape development

15:50 – 16:10

Grzegorz Rachlewicz: Seasonal changes of sediment fluxes in glaci-fluvial environment in Petunia Bay, Svalbard

16:10 – 16:30

Scott F. Lamoureux, Melissa Lafreniere, Dana McDonald, Kailey Stewart, Jaclyn Cockburn, Myrna Simpson & Andre Simpson: Climatic controls over watershed fluxes at the Cape Bounty integrated watershed observatory, High Arctic, Canada, 2003-7

16:30 – 16:50

Jeff Warburton: Sediment delivery in a large, steep-land lake catchment

16:50 – 17:10

Discussion (Chaired by Achim A. Beylich & Scott F. Lamoureux)

17:10 – 17:30

John C. Dixon, Robert G. Darmody & Colin E. Thorn: Long-term investigations of the chemical component of a sediment budget in a cold Arctic/Alpine Environment: A field excursion in Kärkevagge, Swedish Lapland

19:30

Dinner in the Abisko Mountain Station

*Monday, 17.09.07*

08:30 – 17:30

Excursion to Kärkevagge (guided by John C. Dixon)

Lunch packages from the Abisko Mountain Station will be provided. Please prepare warm clothes, rain jackets and hiking shoes.

19:00

Dinner in the Abisko Mountain Station

*Tuesday, 18.09.07*

Work Group Sessions

08:30 – 12:00

Presentation of the SEDIFLUX Manual

Presentation and discussion of SEDIBUD Key Test Sites

12:00 – 13:00

Lunch in the Abisko Mountain Station

13:00 – 17:30

Discussion of the SEDIBUD Metadata Database

Discussion of key SEDIBUD Science Questions

19:00

Conference Dinner in the Top-Station of the Abisko Mountain Station

*Wednesday, 19.09.07*

09:00 – 11:00

Final discussion and conclusion, description of next steps and closing of the Second SEDIBUD Workshop

Information concerning travel to Abisko are available in the Second Circular that has been sent to you in May 2007 (also available on the SEDIBUD Website: <http://www.geomorph.org/wg/wgsb.html>)

We are looking forward to welcoming you in Abisko.

Yours sincerely,

Achim A. Beylich, Chair of SEDIBUD (Norway)

Scott F. Lamoureux, Vice-Chair of SEDIBUD (Canada)

Armelle Decaulne, Secretary of SEDIBUD (France)