



I.A.G./A.I.G.
International Association of
Geomorphologists
*Association Internationale des
Géomorphologues*



COMMUNITY SURFACE
CSDMS
DYNAMICS MODELING SYSTEM

Working Group
on
Sediment Budgets in Cold Environments

SEDIBUD Fifth Newsletter

October 9th, 2008

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<http://www.geomorph.org/wg/wgsb.html>

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1. Third SEDIBUD Workshop, September 9 – 13, 2008, Boulder, CO, USA – Summary

1.1. Location and sponsorship

The 3rd SEDIBUD workshop was held at the Niwot Ridge Mountain Research Station of the University of Colorado at Boulder, USA. The workshop was hosted by INSTAAR and locally organised by Nel Caine and Irina Overeem. Additional sponsorship was provided by the Community Surface Dynamics Modeling System (CSDMS - <http://csdms.colorado.edu>).



Participants of the Third SEDIBUD Workshop in Mountain Research Station and Niwot Ridge, CO, USA, September 9-13, 2008 (Photos by Jukka Kaybko and Armelle Decaulne)

1.2. Paper and Poster Presentations, and Field Trip

23 participants met at the Niwot Ridge Mountain Research Station, coming from 9 countries and representing 14 research institutes. 13 papers and 4 posters were presented at the workshop. The one-day field trip to Niwot Ridge was led by Nel Caine. Armelle Decaulne distributed SEDIBUD bags and hats to all workshop participants.

The abstract volume including all paper, poster abstracts and names and contact addresses of all workshop participants is published:

BEYLICH A.A., LAMOUREUX S.F. & DECAULNE A. (Eds.), 2008 - *Third I.A.G./A.I.G. SEDIBUD Workshop, Boulder, USA: Sediment Budgets in Changing High-Latitude & High-Altitude Cold Environments*. NGU Report, 2008.058, 41 p.

The abstract volume is available online at:

<http://www.ngu.no/no/hm/Publikasjoner/Rapporter/2008/2008-058/>

2. SEDIBUD Key Test Sites: Facts Sheets Volume and Database

38 key test site proposals have been accepted for the SEDIBUD program. Scott F. Lamoureux has compiled a SEDIBUD Test Sites Fact Sheet Volume highlights relevant key facts of SEDIBUD key test sites. The first edition of the book is available in the SEDIBUD website, and it has been distributed to participants at the Boulder meeting, in September 2008.

A SEDIBUD Key Test Site Database has been developed by Katja Laute, Dorothea Gintz and Achim A; Beylich, under Microsoft Office Access (available at the SEDIBUD Website), and will be improved in the close future. Also, John Dixon and Katja Laute will identify gaps within the existing network of SEDIBUD key test sites, the aim being to include new sites from missing cold environments to reach a final amount of 45 sites. Scott F. Lamoureux will then prepare a second edition of the SEDIBUD Test Sites, Fact Sheet Volume early in 2009.

The protocol was further developed during the meeting, and further prerequisite data for SEDIBUD key test sites were defined, to include researches that are not specifically hydrology related:

Basin Boundary Conditions

- Area (km²)
- Relief (absolute relative ; reference from the lowest gauging station) (m)
- Latitude & longitude
- Processes (dominant)
- Glaciation (Y/N)
- Permafrost (Y/N)
- Vegetation (categories from SEDIBUD database)
- Lithology (dominant type of the 6 listed in the world atlas of lithology)
- Human impact (Y/N)

Catchment

- Mean annual temperature (°C)
- Total annual precipitation (mm)
- Total annual discharge (mm)
- Annual suspended sediment yield (t/km²)
- Annual solute yield (atmospherically corrected) (t/km²)

Slope characteristics

- Slope aspect (orientation)
- Slope form (concave, convex, talus, cone...)
- Mean slope angle (°)
- Processes acting on slopes (rock-fall, snow avalanche, debris flow, landslide, solifluction...)
 - runout distance (m) recognized from geomorphological evidence
 - deposit volume (m³)
 - triggering factors (rain, snow-melt, rain-on-snow, earthquake..)
- Connection to river (Y/N)

A call for annual data (see protocols) will go out soon. Also, the SEDIBUD key test site database will be updated and extended.

3. Revision of the SEDIFLUX Manual

It was decided during the Third SEDIBUD meeting that a Second Edition of the SEDIFLUX Manual will be produced. Scott F. Lamoureux will lead the production of a review paper based on chapter 3 “present-day sediment fluxes”. In addition, Jeff Warburton will lead a review paper based on chapter 2 “storage elements”. The second edition of the SEDIFLUX Manual will be presented at the **Fourth SEDIBUD Meeting, in fall 2009 in Kingston, Canada**. The review papers will be submitted to the Special Issue arising from the Third SEDIBUD Meeting.

4. Publication of Papers and Posters presented at the Third SEDIBUD Workshop in Boulder, CO, USA

A special issue arising from this Third SEDIBUD Workshop is planned. This special issue shall be composed of the two review papers (Warburton et al., Lamoureux et al.) as well as contributions (papers and posters) from this workshop. We are now looking for a possible journal for this publication.

The presentations from the Second SEDIBUD Workshop in Abisko, Sweden, will be published in a Special Issue of the Journal Arctic, Antarctic and Alpine Research. All submitted papers are currently under review.

5. Forthcoming relevant conferences, workshops and sessions

5.1. Seventh International Conference on Geomorphology, Melbourne, Australia, 6-11 July 2009

The Seven International Conference on Geomorphology will be held in Melbourne from July 6 to 11, 2009. A special session on sediment budgets will be convened by Achim A. Beylich and John F. Orwin. Abstracts for oral and poster presentations are invited. The Session will include a section particularly focussed on high-latitude and high-altitude cold environments but is also open for oral and poster contributions on sediment budget studies from all different climates.

Several other sessions offer possibilities to present your work, e.g. “Regolith, Soils and Weathering”, “Geomorphology and Global Environmental Change”, “Modelling Landscapes and Landscape Processes”, “Hillslopes and Mass Movement”, “Glacial and Periglacial Geomorphology in a Warming World”...

The call for abstracts is now open, until **December 3rd, 2008**.

Further information is available on the conference website: <http://www.geomorphology2009.com/>

5.2. Fourth SEDIBUD Workshop, Kingston, Canada

The next SEDIBUD Workshop will be held in Kingston, Canada, in fall 2009. Scott F. Lamoureux will be the local organizer of the workshop. More information will be soon delivered.

6. Views of a SEDIBUD key test site



Godley Valley key test site, Southern Islands, New Zealand (Photos: John F. Orwin)

7. Important date

Deadline for abstract submission to the 7th International Conference on Geomorphology, Melbourne, Australia, 6-11 July 2009: **December 3, 2008**.

Next SEDIBUD Newsletter (2009 A): March 2009

Achim A Beylich, Chair
Scott F. Lamoureux, Vice-Chair
Armelle Decaulne, Secretary

**You are kindly invited to send contributions related to SEDIBUD and Cold Environments to
Dr. Armelle Decaulne, SEDIBUD Secretary (armelle.sedibud@gmail.com)
to be included in the coming SEDIBUD Newsletters.**