

# Report of the 9<sup>th</sup> annual meeting of the German Young Geomorphologists

"International Young Geomorphologists' Workshop"

in Heimbach-Hergarten, Eifel-Nationalpark

May  $8^{th} - 10^{th} 2015$ 

The 9<sup>th</sup> annual meeting of the German Young Geomorphologists (YG) was held from the 8<sup>th</sup> until the 10<sup>th</sup> of May 2015 in Heimbach-Hergarten in the vicinity of the Eifel Nationalpark, southeast of Aachen. It was the second time after 2014 that international participants were explicitly invited. In total, 41 undergraduate, graduate, PhD students, and postdocs from 16 different Institutions and Universities (and 5 countries, including UK, Australia, Belgium, Austria and Germany) came together for a three-day workshop to discuss their own research, as well as topics of geomorphologic interest in general, in a rather informal environment.

After a casual introduction of the participants this year's program started with a "Late-Night" poster session and accompanying 3 min. introductionary talks from all presenters (see attached program for further details).

On Saturday morning, Prof. Sean Willet from ETH Zurich gave a "Wake-up lecture" entitled

"River network response to tectonic forcing"

which was followed by a Keynote talk given by Prof. Frank Lehmkuhl from RWTH Aachen about

"Geomorphology: Processes and landscape evolution for geoecology, hydrology and geoarcheology. Examples from the Eifel Mountains towards the lower Rhine Embayment, Western Germany".

A field trip to the surroundings of Heimbach-Hergarten was organized and held by Prof. Wolfgang Römer from RWTH Aachen. The fieldtrip focused on the geologic architecture of the Eifel orogeny and geomorphologic imprints of Cenozoic tectonics including middle Pleistocene terraces and meander cutoff development

The program for the next two days included 11 work-in-progress reports as well as reports from advanced PhD-projects which were organized in three sessions (see attached program for details):

- **Session I:** *Mass movements* featuring talks by Adrian Slee (Queensland), Bamidele Ayoniyi (Vienna) and Mark Allan (Northumbria).
- Session II: *Periglacial processes and erosion studies* featuring talks by Christian Halla (Bonn), Hanne Hendrickx (Ghent), Karoline Messenzehl (Bonn) and Armaury Frankl (Ghent).
- Session III: Arid region sedimentology & Fluvial processes featuring talks by Kaifeng Yu (Aachen), Andrea Junge (Gießen) and Henning Baewert (Halle).

#### **General Points**

On Saturday evening two chairpersons and a support team of 7 young geomorphologists were elected: Jan Blöthe (Uni Bonn, reelected) and Julia Meister (FU Berlin) will chair the YG for a two-year period until the 2017 meeting. They are supported by Christoph Kappler (GFZ Potsdam), Anna Schoch (Uni Bonn), Andrea Junge (Uni Gießen), Phillip Schulte (RWTH Aachen), Veit Nottebaum (RWTH Aachen), Steffen Pötsch (EMAU Greifswald), and Karoline Meßenzehl (Uni Bonn) in the upcoming tasks. Prior to the elections formal regulations for future elections of the YG speakers and board were discussed and adopted by show of hands.

The next Young Geomorphologists' Workshop is scheduled for May 2016 and will probably be organized by a group from the Berlin/Potsdam region. The participants of the meeting concordantly expressed their wish to keep the YG meeting apart from the annual AK Geomorphology conference. Participants prefer a half-year period between the two meetings due to logistical reasons.

The YG group expresses their thanks to the AK Geomorphologie for financial support of the annual meeting. We also thank Veit Nottebaum (RWTH Aachen) and Phillip Schulte (RWTH Aachen) for organising the venue and Julia Meister (FU Berlin) for handling participant communication. Finally, we are grateful for the excellent presentations of the keynote speakers and the AK Geomorphology and the sponsoring companies (see attached) for their financial support of the event. Last but not least we would like to thank Sabine Kraushaar (Vienna) for her commitment, effort and excellent work during the last 4 years as chairperson of the YG.

# Feedback and Suggestions for future meetings and developments of the YG and the AK Geomorphologie

In a completing feedback session the event was evaluated positive. However, constructive comments and suggestions will help the newly elected team to improve the organisation of future activities of the YG. In particular, the participants suggested that the event has reached a reasonable size with 40-50 attendees and it should not grow further. Moreover, the internationalisation of the meeting is received very positively and was felt to have increased the quality of the meeting. Furthermore, the poster session (introduced last year) was mentioned as a great success by several participants, though they wished to allow more time for the session. Other suggestions involved to cut the time for presentations to 15 min each, to increase the number of

posters, and possibly cut the keynote presentations down to one invited speaker and focus on a workshop instead. Finally, several participants proposed to include short abstracts of the posters and presentations in the program of the meeting. It will be up to the newly elected team to incorporate these suggestions in the organization of the coming YG meeting in 2016.

### Best regards

Julia Meister, Jan Blöthe, Christoph Kappler, Anna Schoch, Veit Nottebaum, Andrea Junge, Phillip Schulte, Steffen Pötsch, and Karoline Meßenzehl

#### **WORKSHOP PROGRAM**

### Friday, 8/05/2015

17:00	Welcome Coffee		
17:30	Get to know the program and the group		
	Let's learn some names and share a drink		
18:00	Dinner		
19:30	Late night shorts ("3 plus 1") and posters – Convener: Sabine Kraushaar		

You have THREE minutes to present your topic on three slides (maximum) and you'll be allowed ONE question from the audience. After the "3 plus 1" session we'll continue discussing the posters with some cool drinks.

tinue discu	ssing the posters with some cool drinks.
19:35	Martin Weber (Innsbruck): Inter- and Intra-annual variability of fluvial sediment transport in the proglacial river Riffler Bach (Weißseeferner, Ötztal Als, Tyrol)
19:40	Anna Schoch (Bonn): Spatial distribution of sediment storage in the Upper Rhone Valley, Switzerland
19:45	Igor Obreht (Aachen): Sedimentological dynamics of the Orlovat loess-paleosol sequence (Northern Serbia) show both local and regional paleoenvironmental fluctuations
19:50	Simon Meyer Heintze (Würzburg): The loess-paleosol sequence Krems-Wachtberg East - Reconstructing paleoenvironmental conditions during the MIS3/2 transition based on a high-resolution multi-methodological approach
19:55	Veit Nottebaum (Aachen): The aeolian sedimentary system along the transition between Qilian Shan and northwestern Chinese deserts
20:00	Joerg Zens (Aachen): Integrating age information from different localities for stratigraphic marker beds: discussion of the Eltville Tephra (western Europe) age
20:05	Stefan Wirtz (Trier): Smartstones: a small e-compass, accelerometer and gyroscope embedded in stones
20:10	Miriam Marzen & Thomas Iserloh (Trier): Particle transport patterns of short-distance soil erosion by wind-driven rain, rain and wind

21:00	(Hot) Discussions and (cool) drinks next to your posters
20:35	Raphael Steup (Gießen): Characterization of natural quartz samples of different genesis and origin using element analyses techniques
20:30	Declan Walters (Manchester): Searching for a topographic signature of climate: insights from numerical modelling
20:25	Rupert Brainbridge (Northumbria): Landslide censoring: Tracing the fluvial dispersion of rock-avalanche fines within the Southern Alps, New Zealand
20:20	Bradley Sparkes (Northumbria): Monitoring and Characterising Debris Flows in the Scottish Highlands
20:15	Christoph Kappler (GFZ Potsdam): Rapid assessment of dating of terrestrial geoarchives in an old man-made landscape using a portable OSL reader

## Saturday, 24/05/2014

08:00 Breakfast

## 08:30 Wakeup talk – Keynote lecture by Prof. Sean Willet (ETH Zurich):

"River network response to tectonic forcing"

10:30 Break

## 11:00 Keynote by Prof. Frank Lehmkuhl (RWTH Aachen):

"Geomorphology: Processes and landscape evolution for geoecology, hydrology and geoarcheology. Examples from the Eifel Mountains towards the lower Rhine Embayment, Western Germany"

# 12:00 Field trip to the surrounding Eifel Mountains (Prof. W. Römer, RWTH Aachen)

~16:00 Return from field trip

#### 17:00 Session I: Mass movement- Convener: Julia Meister

You have 20 minutes for your topic, so make your talk short and to the point and have plenty of time for discussion!

17:00	Adrian Slee (Queensland): Mass movement and periglacial landforms of northern, New South Wales; what do they tell us about past climatic conditions?
17:20	Bamidele Ayoniyi (Vienna): Development and application of webbased spatiotemporal database for landslide early warning system
17:40	Mark Allan (Northumbria): High resolution change detection for quantifying the magnitude-frequency of landslides above and around glaciers in the Alps

#### 18:00 Leisure time and dinner

#### 19:00 Election of YG-speaker's board

### Sunday, 25/05/2014

08:00 Breakfast

# 09:00 Session II: *Periglacial processes and erosion studies* – Convener: Jan Blöthe

You have 20 minutes for your topic, so make your talk short and to the point and have plenty of time for discussion!

09:0	00	Christian Halla (Bonn): Rock glacier permafrost in the Central Andes of Argentina
09:2	20	Hanne Hendrickx (Ghent): Studying geomorphic responses to permafrost thawing under rapid climate change: the case of the Russian Altai Mountains
09:4	10	Karoline Messenzehl (Bonn): Regional scale controls of periglacial rockfalls (Turtmann Valley, Swiss Alps)
10:0	00	Armaury Frankl (Ghent): Image-based modelling: a recently developed methodology and potential in erosion studies

# 11:00 Session III: *Arid region sedimentology & Fluvial processes* – Convener: Philipp Schulte

You have 20 minutes for your topic, so make your talk short and to the point and have plenty of time for discussion!

11:20 Andrea Junge (Gießen): Reconstruction of settlement activities and following sediment accumulation processes of Bronze Age settlements in the Negev (Israel) using OSL-dating	11:40			
11:40 Henning Baewert (Halle): Determination of surface roughness of a	12:00	Give us what we deserve!		
proglacial floodplain using TLS data. What to consider!	12:00	Give us what we deserve!  We need your opinion on what you liked and disliked!		
	12.00			
	11:00	Kaifeng Yu (Aachen): A robust geochemical approach to discriminate sediment archives and sedimentary processes.		

# 14:30 Goodbye and some final remarks

Lunch

13:30

# **List of Participants:**

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### **Sponsors**



**Annual participation fee: 17.00 Euro** 



