Newsletter 14 – October 2013

IGU Commission C12.32 Mountain Response to Global Change

Editorial

Dear Colleagues,

welcome back to the fourteenth edition of our newsletter! Now that the IGU 2013 Kyoto Regional Conference is over (see section “Past Events”), the next event of interest for our Commission is drawing nearer: The AAG Annual Meeting in Tampa, April 2013, which will see our Member Fausto Sarmiento host a special session for international mountain research (see section “Forthcoming Events”).

Steering Committee Members until 2016 are:

Prof. Dr. Jörg Löffler (Chair) (Germany)
University of Bonn
Department of Geography
Meckenheimer Allee 166
D-53115 Bonn
E-mail: joerg.loeffler@uni-bonn.de

Prof. Dr. Yuri Badenkov (Russia)
Institut Geografii Rossijskoy Akademii Nauk
Staromonetnyy pereulok, 29
119017 Moskva
E-mail: yubaden@mail.ru

Dr. Nazzareno Diodato (Italy)
Met European Research Observatory, GEWEX(DIG) - World Climate Research Programme
Via Monte Pino
i-82100 Benevento
E-mail: nazdiod@tin.it

Prof. Dr. Monique Fort (France)
Department of Geography
UFR GHSS
Case postale 7001
Université Paris Diderot-Paris 7
F 75 205 Paris Cedex 13
E-mail: fort@paris7.jussieu.fr

Prof. Dr. Donald A. Friend (USA)
Department of Geography
Minnesota State University
Armstrong Hall 7
Mankato, MN 56001
E-mail: friend@mnsu.edu

Prof. Dr. Hans Hurni (Switzerland)
Institute of Geography
University of Bern
Hallerstrasse 10
CH-3012 Bern
E-mail: Hans.Humi@cde.unibe.ch

Prof. Dr. Anders Lundberg (Secretary) (Norway)
University of Bergen
Department of Geography
Fosswinkelsgt. 6
N-5007 Bergen
E-mail: anders.lundberg@geog.uib.no

Prof. Dr. Yolanda Jiménez Olivencia (Spain)
Institute for Regional Development
University of Granada
c/ Rector Lopez Argueta, s/n.
E - 18071 Granada
E-mail: yjimenez@ugr.es

Dr. Jean-Paul Métailié (France)
Director, GEODE - UMR 5602 CNRS (GÉOgraphie De l’Environnement)
Université Toulouse-le Mirail
31058 Toulouse cedex
E-mail: metalie@univ-tlse2.fr

Prof. Dr. Martin Price (UK)
Chairholder, UNESCO Chair in Sustainable Mountain Development
Director, Centre for Mountain Studies
Perth College
University of the Highlands and Islands
Crief Road
Perth PH1 2NX, UK
E-mail: Martin.Price@perth.uhi.ac.uk

Prof. Dr. Fausto Sarmiento (USA)
Department of Geography
University of Georgia
110 GG Building
Athens, GA. 30606
Email: fsarmien@uga.edu
Please send us information on upcoming events, recent publications, organisations, networks, or research projects that you would like to be announced (email to anschlag@giub.uni-bonn.de). Please also visit the Commission's homepage on http://tolu.giub.uni-bonn.de/igu-mountains.de.

Yours,
Jörg Löffler

**Forthcoming Events**

**MRI events at the AGU Fall Meeting, San Francisco, 9-13 December 2013**

The Mountain Research Initiative organises a Key Contact Workshop at the UC Berkeley Faculty Club on 8 December 2013, and also a series of events at the AGU Fall Meeting:

- 9 Dec 2013: A11A Accelerated Warming at High Elevations: Evidence, Processes, and Future Projections Posters
- 10 Dec 2013: Side Event to discuss A Global Campaign on Elevation Dependent Warming
- 11 Dec 2013: GC32B. Environment and Ecosystem Changes in the Third Pole and Other Mountain Regions II
- 11 Dec 2013: GC33B. Environment and Eco-system Changes in the Third Pole and Other Mountain Regions III Posters
- 12 Dec 2013: Side Event to discuss Mountain Observatories: A Global Fair and Workshop on Social-Ecological Systems

For details, see [http://mri.scnatweb.ch/events/](http://mri.scnatweb.ch/events/) and [http://fallmeeting.agu.org/2013/](http://fallmeeting.agu.org/2013/). If you have more questions, please contact Greg Greenwood: green@giub.unibe.ch


Sessions include e.g.:

- Forest cover changes in mountain areas (Ref. 0015; Chair: Eric Lambin)
- Coupled human-natural system models for the assessment of the dynamics and resilience of mountain socio-ecological systems (Ref. 0058; Chair: Gregory Greenwood)
- Evaluating the sensitivity of mountain forests ecosystem services to the combined impacts of climate change and land use change (Ref. 0063; Chair: Harald Bugmann)
- The role of governance in adaptation to global change in mountain regions (Ref. 0072; Chair: Gregory Greenwood)

For more information, see [http://www.glp-osm2014.org/](http://www.glp-osm2014.org/)
AAG Annual Meeting in Tampa, 8-12 April 2014

Steering Committee Member Fausto Sarmiento has extended a cordial invitation to our membership to consider attending the AAG Annual meeting in April 2014, in Tampa, Florida, where he will organize a special session for international mountain research. If you have questions, suggestions and ideas on how our IGU Mountains Commission and the AAG's Mountain Geography Specialty Group can cooperate, please contact Prof. Sarmiento at fsarmien@uga.edu.

Registration and abstract submissions will be open until 3 December 2013 (ATTENTION: registration fees increase on 23 October 2013). Abstracts and sessions can only be submitted online. You do not need to be an AAG member to register! For more information, see http://www.aag.org/cs/annualmeeting/call_for_papers

Past Events

Past IGU event: IGU 2013 Kyoto Regional Conference, 4 – 9 August 2013

Hermann Kreutzmann and Teiji Watanabe chaired sessions of “Changing mountain communities and environments in the Pamirs” as Commission Sessions of C12.32 Mountain Response to Global Change on 6 August. The first session had four presentations: Land use in Zarabad, Gojal District, northern Pakistan by Kazuo Mizushima; The influence of the Karakoram Highway submergence on local industry: The case of Passu Village, Northern Areas of Pakistan by Yasuhiro Ochiai; Pattern of travel behaviour on foreign tourists in the Pamirs by Ikuko Miyahara; and Current status and proposal for the sustainable tourism in the Lenin Peak Area, southern Kyrgyz Republic by Yang Liu. The second session had five presentations: The tragedy of responsibility – High Asian pastoral practices in transition by Hermann Kreutzmann; Transhumance in the northern part of the Pamirs by Shigeru Shirsaka; A study of grazing intensity on the pasture slopes in the Kyrgyz Pamir by Jie Liu;GPS collar tracking of argali (Ovis ammon) in the Sarychat-Ertash State Reserve, Kyrgyzstan by Shigeyuki Izumiya; and Characteristics of summer grazing in the Alai valley, southern Kyrgyzstan, before and after the 1991 independence by Feng Song. It is planned that the chairs will publish an edited book including some of the presentations.

Past IAG 8th International Conference on Geomorphology (Paris, August 2013)

Francisco Brardinoni and Lothar Schrott chaired the Session 25C on Mountain Geomorphology, with 19 posters and 17 oral presentations, listed below (with only the first’s author name):

- Lightning strikes and their influence on mountain geomorphology and sediment supply - Jasper KNIGHT, Johnnesburg, SOUTH AFRICA
- Debris talus and cones dynamic in a calcareous Atlantic high mountain (Picos de Europa, Northern Spain) - Enrique SERRANO, Valladolid, SPAIN
- Holocene rockwall retreat in an inner-alpine headwater catchment (Gradenmoos Basin, Schober Mountains, Austrian Alps) - Joachim GÖTZ, Salzburg, GERMANY
- Geomorphological and climate context of debris flow regional occurrence in the Northern French Alps - Irina PAVLOVA, Meudon, FRANCE
Geomorphic change detection using LiDAR DTMs in two small basins of the Italian Alps - Beatrice GOLDIN, Padova, ITALY

Temporal variations of bedload transport in a glacierized mountain basin - Francesco COMITI, Bolzano, ITALY

Root-exposure: a new tool to quantify medium term erosion rates in gypsum areas (Massif de la Vanoise, France) - Georges ROVERA, Grenoble, FRANCE

Glacial chronology in the Mérida Andes, Venezuela, deduced from cosmogenic 10Be radionuclide dating - Isandra ANGEL, Caracas, VENEZUELA

Terrestrial cosmogenic nuclides dating of a sackung on a cirque in the Japanese Alps - Ryoko NISHII, Shizuoka, JAPAN

Geomorphic landscape evolution along the river valleys in Ladakh region of NW Trans Himalayan range during Late Quaternary: implications to climate and tectonics - Binita PHARTIYAL, Lucknow, INDIA

Consequences of a subglacial lake outburst flood for a proglacial fluvial system (Fagge River, Kaunertal, Austria) - Henning BAEWERT, Halle, GERMANY

Ground ice distribution in a high mountain sedimentary environment and its influence on sediment fluxes and local hazards: results of geoelectrical tomography in the Rognes sector (Mont-Blanc, France) - Jean-Baptiste BOSSON, Lausanne, SWITZERLAND

Influences of Snow Cover on Permafrost in unstable Rock Walls - Daniel DRAEBING, Bonn, GERMANY

Mapping and modelling the discontinuity of mountain permafrost: a challenging task - Christophe LAMBIEL, Lausanne, SWITZERLAND

Permafrost landforms in the Tröllaskagi peninsula, northern Iceland - implications for the deglaciation pattern - Karianne LILLEØREN, Oslo, NORWAY

Possible climatic controls on the recent (2004-2013) variations of surface displacements of cryospheric landforms in an Andean environment (Chile, 33°S) - Sophie SCHIAVONE, Le Bourget Du Lac, FRANCE

This Focus Issue of MRD contributes to the International Year of Water Cooperation by presenting knowledge about water governance in mountains—a topic that has received little attention, even though the key role of mountains in providing water for the world's population is widely acknowledged. MountainDevelopment papers investigate Peruvian communities' struggles to maintain access to water in a state-dominated context; transboundary water management in a fragmented setting in the USA; water governance and its adaptive capacity in the Swiss Alps; and transdisciplinary knowledge production for water governance in the Swiss and Austrian Alps. Papers in the MountainResearch section analyze the adaptive capacity of water governance regimes in the Swiss Alps and the Chilean Andes; informal irrigation systems and their relation to
national water management in Colombia; the feasibility of collaboratively governing a proposed
Ramsar wetland in Ecuador; alpaca herders' traditional irrigation systems in the Peruvian Andes;
and post-Soviet collective management of hill irrigation systems in Kyrgyzstan and Tajikistan.
Further articles examine the status and conservation of black-necked cranes in China, vegetation
patterns on arid slopes in China, development dynamics in an urban coastal mountain area in
Chile, and energy use and greenhouse gas emissions in the Hindu Kush–Himalayas.

Volume 33, Issue 3 is available online and open access: http://www.bioone.org/toc/mred/33/3.

Read about the journal's section policies, guidelines and submission procedure at: http://www.mrd-
journal.org/.

Hans Hurni and David Molden, Editors-in-Chief, MRD Editorial Office, University of Bern, Centre
for Development and Environment, mrd-journal@cde.unibe.ch

“Mountain Geography. Physical and Human Dimensions” now available

Edited by Martin F. Price, Alton C. Byers, Donald A. Friend, Thomas
Kohler and Larry W. Price, this book was published as a hardback and
e-book in September 2013 by University of California Press (400 pp.,
134 b/w photographs, 119 line illustrations, 8 maps, 12 tables, ISBN
978-0-520-25431-2). It is a major revision of Larry Price’s book
“Mountains and Man” (1981). For more information, see

ATTENTION: a 20 % discount is available in some parts of the world
(America, Australia, and New Zealand: Phone orders via 1-800-777-
4726; UK: Phone orders via +44 (0) 1243 843291); for this discount,
use the source code 14M2714).

100 years of “The Journal of Alpine Research | Revue de géographie alpine”: Complete
online access

JAR | RGA is an international, multi-disciplinary journal. It publishes hitherto unpublished scientific
articles on spatial and environmental issues affecting the Alpine Arc and other mountains of
Europe, as well as other mountain regions of the world. All the social sciences (geography,
anthropology, sociology, history, political science, etc.) are invited to contribute to discussion and
debate on issues concerning mountain areas. Articles are now published in two languages, one of
which must be one of the alpine languages (French, Italian, German) or Spanish, the other being in
English.

This year, the journal is celebrating its centenary and all the articles published since the first issue
can be accessed on http://persee.fr/web/revues/home/prescript/revue/rga (1913-2006) and on the
“Sustainable Mountain Development: Getting the Facts Right” by Jack D. Ives, released in July, 2013, by The Himalayan Association for the Advancement of Science, Kathmandu

Information provided by the author:

The book is dedicated to Professor Walther Manshard who was so influential in the "mountain cause" both as Vice-Rector of UNU and as Secretary-Treasurer of IGU.

The book is hardbound, in large format (21 by 27 cm), xvi+293 pp. ISBN 978-9-937-26195-1. It contains over 130 Hasselblad colour photographs, 42 full-page. Also several old monochromes used for photo-replication. Hard copy, US $54.00, or in electronic form from Amazon. For local sale in Nepal, it will be available in all major bookstores at a lower price. For bulk purchase contact the publisher at editor@himjsci.org

The author takes us on an epic journey in search of recognition of the importance of our mountain regions and their indigenous peoples for preservation of an environmentally viable world. The book embraces far-flung field research, challenges to major paradigms of the day, team work, and long-term political manipulation. The journey begins in the 1960s when environmental concern and the recognition of the need for “developing-country aid” were in their infancy. Then, mountains that occupy more than a fifth of the world’s terrestrial surface and provide home for a tenth of its population were virtually ignored. Yet by the 1970s world authorities were predicting catastrophic consequences, for instance, from assumed total Himalayan deforestation. The author describes how these false assumptions were overthrown. This involved fieldwork in mountain regions throughout the world, from the heights into the homes of indigenous people. It attracted the support of some of the world’s most powerful leaders. It also involved high adventure.

The associated political struggle led eventually to the Rio de Janeiro 1992 Earth Summit. It assisted Maurice Strong, its Secretary-General, to include a “mountain chapter” in AGENDA 21, leading to the United Nations declaration of 2002 as the International Year of Mountains. The final chapters examine current unsubstantiated predictions such as: a landslide-dammed lake in the High Pamir will burst and eliminate five million people; and that climate warming will cause disappearance of all the Himalayan glaciers – to produce devastating floods, followed by drought on the plains downstream and loss of hundreds of millions of lives. The book demonstrates that these latest alarms are not based on fact; they are exposed as dangerous melodrama. The narrative encapsulates a great range of personalities, from international leaders to the often wrongly criticized indigenous mountain people.

Partly as recognition of his contribution to the mountain cause, the author received the award of the King Albert I Gold Medal (2002), the Patron’s Medal of the Royal Geographical Society (2006), and Iceland’s Knight’s Cross of the Order of the Falcon (2007).

Jack D. Ives, Department of Geography and Environmental Studies, Carleton University, Ottawa, Canada. Home address: 412 Thessaly Circle, Ontario, K1H 5W5. E-mail: jack.ives@carleton.ca


Rehm EM, Feeley KJ (2013) Forest patches and the upward migration of timberline in the southern Peruvian Andes. Forest Ecology and Management 305: 204-211