New working group on debris covered glaciers

IACS is pleased to announce the establishment of a new working group on debris covered glaciers.

The proportion of the glacierized surface that is debris covered is expected to increase under continuing negative glacier mass balance due to ongoing climate change. Knowledge of how debris-covered glaciers respond to climate will therefore have important implications for planning of hydrological resources, hazards associated with glacial lake outburst floods, and future sea-level change.

The overall goal is to provide - for the first time - a comparison of (1) debris thickness estimation methods and (2) sub-debris ablation models, in order to advance our understanding of how debris impacts glacier response and improve our ability to incorporate debris cover into larger-scale modeling efforts.

The working group will work closely with the debris-covered glaciers community to coordinate knowledge exchange and engage as wide a group of scientists as possible.

In order to achieve this in a practical sense, the working group will have two levels of participation: members and participants. For more information on how to contribute to working group activities, please visit:

www.cryosphericsciences.org/wg_debrisCovGlaciers.html

The working group is co-chaired by Lindsey Nicholson, Francesca Pellicciotti, and David Rounce. The planned period is 2018-2022 (4 years).

What is an IACS working group?

Working Groups address scientific problems of the cryosphere that are timely and well constrained. Working Groups have explicit aims, objectives, milestones and deliverables. They are international in composition. They typically achieve their objectives by holding workshops, and by writing group publications. Working Groups are normally limited to up to four years duration. Examples of ongoing working groups are:

- Randolph Glacier Inventory and infrastructure for glacier monitoring
- Glacier ice thickness estimation

Want to suggest a new working group? See terms of reference at the IACS webpage.

www.cryosphericsciences.org/workingGroups.html
IACS at Polar 2018

IACS held its annual Bureau business meeting in Davos in June during the Polar 2018 Open Science Conference, a joint event of the Scientific Committee on Antarctic Research (SCAR) and the International Arctic Science Committee (IASC). Four members of the Bureau were present in person, and four other Bureau members attended via video-link.

IACS also held an open meeting to provide information and receive feedback from the many cryospheric scientists attending Polar2018, and the Working Group on Ice Thickness Estimation also met during this time.

Hiroyuki Enomoto represented IACS at business meetings of IASC and Ian Allison attended the SCAR Delegates Meeting as an IACS observer and the formal IUGG Delegate.

«Taking the helm» event

An international panel discussion, “From Entering the Field to Taking the Helm, Perspectives of Women in Polar Research” convened at POLAR2018. More than 300 participants representing 32 countries engaged in a vibrant, interactive dialog with the five panelists Susan Barr, HongKum Lee, Chandy Nath, Morgan Seag and Colleen Strawhacker. The panelists contributed with insight and humor into their feelings of accomplishment, how they perceived the challenges of engaging in polar research as women, and their deep appreciation for and joy in partaking in this type of work. Audience questions honed in on and amplified those sentiments of the panelists focused on barriers and challenges.

The event generated a strong response across social media platforms, where hundreds participated in the virtual conversation following the hashtag #PolarWomen2018. The event was co-sponsored by IACS.
International summer school in glaciology

Nearly 30 graduate students from >25 universities and a dozen countries as far as Nepal, India, Peru and New Zealand gathered in the small Alaskan village of McCarthy, June 5-15, 2018, to participate in the University of Alaska Fairbanks’s (UAF) fifth 11-day International Summer School in Glaciology. Steep ice-covered mountains provided the perfect setting to equip PhD students with tools to address the expanding challenges in quantifying and modeling rapid changes in glaciers and ice sheets occurring in response to a warming climate. All eight instructors from UAF and three other US universities and institutions stayed for the entire period, offering plenty of opportunity for interaction between the instructors and students during and outside the formal instruction period.

Students took part in glaciology lectures, exercises and computer projects, and presented their own research in an outdoor poster session. Excursions to nearby glaciers provided hands-on experience of a glacial environment, a memorable experience especially for the almost 10 students who (though studying glaciers) in fact had never been on a glacier. A number of evening activities rounded off the program. Participants left not only with a stronger background in glaciology, but also with a network of professional contacts from around the world. As in previous years, the course relied on contributions from international organizations including IACS and IUGG as key sponsors providing financial support.

Workshop in China

IACS sponsored the International Workshop on Cryospheric Changes and Their Regional & Global impacts held in Dunhuang from July 31 to August 1, 2018, and attended by more than 200 scientist from around the world. IACS president Regine Hock awarded Early-Career-Scientists Awards to five young scientists for their excellent oral presentations (see photo).

The workshop was held after the Third Lead Author meeting of the Intergovernmental Panel on Climate Change’s (IPCC) special report on the Ocean and Cryosphere in a Changing Climate (SROCC) held in Lanzhou. Seven current and past IACS bureau members are involved in the writing of the report and attended the meeting.
Join the IUGG assembly in Montréal July 2019

The 27th IUGG General Assembly will be held July 8-18, 2019 at the Palais des Congrès in Montréal, Québec, Canada. The IACS sessions will be held July 9-13.

This is a special opportunity for cryospheric scientists from around the world to join other IUGG associations in the wonderful city of Montreal, Canada, to share their science and culture. 2019 marks the 100th anniversary of IUGG. This is also the 125th anniversary of the Commission Internationale des Glacières. The anniversary will be celebrated in a special symposium on aspects of the history of cryospheric sciences. Waleed Abdalati (U Colorado, Boulder) will give the prestigious IACS-led Union Lecture.

IACS will host or co-host more than ten symposia joint with other IUGG associations on the most pressing interdisciplinary cryospheric science topics, including: projecting future sea level, climate-sea ice interactions, mountain hazards, hydrological impacts of declining snow and ice, changes in Arctic snow, permafrost and river ice, the future of the West Antarctic Ice Sheet, gravity-driven flows in the Earth System, atmospheric boundary layer and snow processes, cryo-seismology, and relationships between the solid Earth, ice sheets and ocean.

Additionally, IACS will host 16 more focussed symposia with topics including: glacier monitoring, remote sensing of the cryosphere, glacier modelling, ice-sheet surface mass balance, fast glacier flow, paleoclimate reconstructions from ice cores, the hydrological cycle at high latitudes, tropical glaciers, debris covered glaciers, snow mechanics, impacts to snow and glaciers due to deposition of light-absorbing particles, terrestrial cosmogenic nuclides and glacial landscapes, and cryospheric processes and related socioeconomic services.

Abstract submission opens in October and closes in early February. Read more at: iugg2019montreal.com/

About IACS

The International Association of Cryospheric Sciences (IACS) is a constituent Association of the International Union of Geodesy and Geophysics (IUGG).

IACS promotes and sponsors workshops, symposia and educational activities. IACS has targeted working groups on cryospheric topics.

IACS offers free individual membership: www.cryosphericsciences.org

Become involved in leading IACS

A new Bureau will be elected at the Plenary Administrative Session of IACS to be held during the IUGG General Assembly in Montréal. Suggestions of cryospheric scientists suitable for any position within the IACS Bureau (except President, but including President-Elect) are most welcome from the community. Please refer to by-law 4 of the IACS statutes on our website for full details on the nomination process.

Nomination packages should be sent to the Chair of the independent Nomination Panel, Ralf Greve (greve@lowtem.hokudai.ac.jp) no later than January 7, 2019.