

# Annual Report

October 2012 – September 2013

submitted by

## **APECS Executive Committee 2012-2013**

### **President**

Penelope Wagner

### **Vice-Presidents**

Erli Schneider Costa, Jennifer Provencher, Ines Tavernier, Yulia Zaika

### **Ex-officios**

Gerlis Fugmann, Allen Pope

### **Director**

Alexey Pavlov (until June 2013)

Special thanks to the APECS Annual Report 2012-2013 editor team: Gerlis Fugmann, Micheal Laiho, Heather Mariash, Tristy Vick-Majors, Ines Tavernier, Penelope Wagner, Yulia Zaika

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# Executive Summary

During the 2012-2013 term APECS has had a year full of many transitions and exciting activities initiated by our APECS members. Our membership keeps growing steadily to currently more than 4000 members from 79 countries. Within our last term alone over 400 new early career scientists joined APECS! Our members are very actively involved not only on the international but also on the national level. APECS has now 29 National Committees with Slovenia, US Northwest, France, Japan, Turkey, Bulgaria, Luxembourg, Romania, China, and South Korea being our newest, helping us to better respond to the needs of a specific country!

APECS was able to renew its partnership with the International Arctic Science Committee (IASC) and the Scientific Committee on Antarctic Research (SCAR) for another 5 years. In addition, new partnership agreements were signed with Polar Educators International (PEI) and the American Geophysical Union (AGU). APECS is excited to continue working with those and all of our other partners in the future to create new opportunities for our members. In 2012-2013 in particular we were able to connect with our partners to provide support and participation opportunities for APECS members. For example through IASC for the International Conference on Arctic Research Planning (ICARP III) as part of the ASSW 2015, SCAR for the SCAR Open Science Conference 2014, the Climate and Cryosphere Project (CliC) through strong involvement of APECS representative at the CliC steering meeting in Germany February 2013 or the CliC Sea Ice Observing and Modeling Workshop in Norway in June 2013, and many more. We are also working with several of the Arctic Council (AC) working groups including the Arctic Monitoring and Assessment Program (AMAP) and the Conservation of the Arctic Flora and Fauna (CAFF) in order to build capacity and knowledge about the workings of the AC. We are currently working on new opportunities for our participation in for example the ARCUS logistics workshop on Future Directions for Arctic Research Logistics in October 2013, and the Arctic Circle meeting in October 2013, the International Glaciological Society sea ice meeting in March 2014 and International Congress of Arctic Social Sciences (ICASS) VIII in May 2014, along with many more!

One of the major changes for APECS this year included a transition in the APECS International Directorate. We have secured funding for the next three years with the fantastic support of the University of Tromsø, Norwegian Polar Institute, and the Research Council of Norway! Dr. Alexey Pavlov, who has lead the APECS Directorate since June 2012 has left APECS in June 2013 to further pursue his research career and we thank him for his work and wish him good luck for his future plans! The new Director of APECS is Dr. Gerlis Fugmann, an outstanding young scientist and a long-standing APECS member who is joining us after working as a postdoctoral fellow at the International Centre for Northern Governance and Development (ICNGD) at the University of Saskatchewan in Canada. Gerlis will lead the APECS Directorate from October 2013 and we are looking forward to working with her in the coming term!

In 2012-2013, APECS organized more than 30 international panels, workshops, and field schools together with our partners and in conjunction with major polar conferences and meetings, such as the American Geophysical Union (AGU) Fall Meeting 2012 in San Francisco (USA), Arctic Frontiers in January 2013 (Norway), Arctic Summit Science Week (ASSW) meeting in April 2013 (Poland). At the Antarctic Treaty meeting in May 2013 APECS Belgium organized a successful outreach event in the weekend of 25 and 26 May 2013 which featured a science fair (experiments), lectures, and documentaries that were open to everyone interested in our polar regions. We also had our first APECS workshop at the DACA-13 meeting supported by the International Association of Cryospheric Sciences (IACS), CliC, and APECS to introduce APECS to the alpine early career scientists. APECS is organizing many online activities for APECS members worldwide. In September 2012 we celebrated International Polar Week with PolarTREC and the International Polar Week September 2013 organized together with the Arctic Research Consortium of the US (ARCUS), PEI, IASC and SCAR with many great events around the world from e.g. APECS Brazil is currently underway at the time of

writing. One of our newest National Committee in Bulgaria for example organized several activities to celebrate Antarctica Day 2012 during November and December 2012 with the support of the Bulgarian Antarctic Institute. We are also currently planning more events for the coming year at e.g. the International Glaciological Society meetings, ASSW 2014, AGU 2013, ICASS VIII, SCAR 2014, and many others.

After continued success with its career development webinar series and the Fram Webinars in 2012-2013, APECS will continue to add to its career development resources by expanding our webinar series in fall 2013. Please keep following us to find out more! We were also able to receive funding from the Nordic Council of Ministers for a project on Bridging Polar Early Career Researchers and Indigenous Peoples in Nordic Countries and will launch the associated activities including web-based resources, a webinar series and a workshop in April 2014 in the coming weeks. Recently we have worked with CliC to expand our exposure of early career scientist FrostBytes. These 30 to 60 second audio or video recordings were designed to help researchers easily and accessibly share their latest findings to a broad audience. Now we can work with other international organizations to include these Frostbytes on their websites for ease of access.

All of these activities would not be possible without the volunteer help of very dedicated members and mentors that helped us achieve continued success in shaping the future of polar research. We want to thank all of them for their continuous help and support over the past year and are looking forward to working with you more in the coming years! Also, we want to thank all of our partners for making these opportunities possible and for helping to train the next generation of polar scientists. Without your enthusiasm, opportunities for young researchers to get involved would not be possible.

Last, all of the activities organized by APECS would not be possible without the support by various sponsors. A special thank you goes to our Directorate sponsors but also to all other organizations that contributed to our activities over the last year. APECS is still working towards sustainable funding and has a built-in user-friendly capacity for soliciting and accepting donations on the APECS website to further the APECS mission. For more information please visit <http://apecs.is/donate> for our funding booklet and <http://apecs.is/partnersand-sponsors> to see who has joined us! Please consider donating – every little bit goes a long way in developing the careers of literally thousands of young researchers and educators around the world.

To learn more about our past and upcoming highlights and all APECS' amazing activities, please read the full report or visit our website at [www.apecs.is](http://www.apecs.is).

Sincerely,

Penelope Wagner  
APECS President 2012 - 2013

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# Chapter 1: APECS News

The 2012-2013 term has been another very successful and eventful year for APECS. The new APECS Executive Committee 2012-2013 started its work on October 1, 2012. President for the term was Penelope Wagner from the University of Delaware, USA. In addition, Erli Schneider Costa



(Universidade Federal do Rio de Janeiro, Brazil), Jennifer Provencher (Carlton University, Canada), Ines Tavernier (Universiteit Gent, Belgium) and Yulia Zaika (Khibiny education and scientific station of Lomonosov Moscow State University, Russia) served as vice-presidents on the 2012-2013 Executive Committee. Gerlis Fugmann (International Centre for Northern Governance and Development, University of Saskatchewan, Canada) and Allen Pope (Scott Polar Research Institute, United Kingdom / National Snow & Ice Data Center, USA) contributed to the Executive Committee in an ex-officio role. The APECS Directorate was run until June 2013 by Alexey Pavlov in Tromsø, Norway, as the essential central coordinator without which the organization and running of the various APECS activities and programmes would hardly be possible. To find out more about the 2012-2013 APECS Executive Committee go to: [http://www.apecs.is/index.php?option=com\\_content&view=category&layout=blog&id=341&Itemid=489](http://www.apecs.is/index.php?option=com_content&view=category&layout=blog&id=341&Itemid=489)



The APECS Council was chaired by Sanna Majaneva (University of Helsinki, Finnish Environmental Institute / Marine Research Centre, University Centre in Svalbard – Finland / Norway) and Christie Wood (Clark University, USA). In total 23 early career researchers served on the Council in 2012-2013: Emily Choy (Fisheries and Oceans Canada and University of Manitoba, Canada), Sarah Crowley (Arctic Research Consortium of the United States, USA), Eleanor Darlington (Loughborough University, United Kingdom), Pedro Echeveste (University of the Balearic Islands, Spain), Russell Fielding (University of Denver, USA), Jolie Gareis (Simon Fraser University, Canada), Maeva Gauthier

(Coastal and Ocean Research Inc., Canada), Kristen Gorman (Simon Fraser University Canada), Molly Zhongnan Jia (University of Tasmania, Hobart, Tasmania), Alia Khan (University of Colorado, USA), Michael Laiho (Arctic Centre, University of Lapland, Finland), Maja Lisowska (Jagiellonian University, Poland), Silvia Lourenco (Universidade de Lisboa, Portugal), Heather Mariash (University of Jyväskylä, Finland), Jean-Sébastien Moore (University of British Columbia, Canada), Dagmar Obbels (Ghent University, Belgium), Julia Schmale (Institute for Advanced Sustainability Studies e.V., Germany), Sara Strey (University of Illinois, United States), Anton Van de Putte (Royal Belgian Institute of Natural Sciences, Belgium), Tristy Vick-Majors (Montana State University, United States), Mariette Wheeler (Endangered Wildlife Trust, South Africa).

A number of previous Council and ExCom members have stayed on as ex-officio Council members to serve as Council advisors: Tosca Ballerini (Mediterranean Institute of Oceanography, Marseille, France), Benjamin Beall (Bowling Green State University, United States), Francisco Fernandez (National University Andrés Bello, Chile), Silje-Kristin Jensen (St. Andrews University, United Kingdom / Institute of Marine Research, Tromsø, Norway), Kim Jochum (University of Alaska Fairbanks & Anchorage, USA), Daniela Liggett (University of Canterbury, New Zealand), Inga May (Germany), Dirk Notz (Max-Planck Institute, Germany), Angelika Renner (Norwegian Polar Institute), Norway), Carolyn Wegner (Leibniz Institute for Marine Sciences, Germany). To find out more about the 2011-2012 APECS Council go to: [http://www.apecs.is/index.php?option=com\\_content&view=category&layout=blog&id=353&Itemid=524](http://www.apecs.is/index.php?option=com_content&view=category&layout=blog&id=353&Itemid=524)



APECS volunteers organized workshops and panels around the globe. Several new agreements have been signed with APECS and our members were invited to represent our organization at meetings and workshops organized by our sponsors and partners. This section presents some highlights for APECS this year.

## **APECS, IASC and SCAR continue cooperation in the next 5 years**

A trilateral agreement in the form of a 5 years Memorandum of Understanding (MoU) between the Association of Polar Early Career Scientists (APECS), the International Arctic Science Committee (IASC) and the Scientific Committee on Antarctic Research (SCAR) was signed on 16th April 2013, during the Arctic Science Summit Week 2013 (Krakow, Poland, <http://www.assw2013.us.edu.pl/>). The signed MoU is a renewal of a previous partnership agreement between these three organizations.

APECS, IASC and SCAR share common goals of working internationally and across disciplines to increase our understanding of Earth's polar regions and their connections to the global system. They recognize the importance of fostering the next generation of researchers that will be faced with increasingly critical challenges due to the impacts of climate change on these regions and their global significance. At the closing ceremony of the International Polar Year (IPY) Montreal Conference in 2012, APECS, SCAR, and IASC received the IPY torch (a Norwegian "budstikke"), indicating that these three organizations are now assuming responsibility for securing the IPY legacy.

This agreement identifies a joint commitment to the professional development of early career polar researchers and the need for a continuum of leadership in polar research as important mutual aims of all three organizations. Examples of joint activities will include:

- ❖ Working together to ensure representation of early career researchers in the Parties respective bodies, including but not limited to, participating in Standing Committee/Working Group, Delegates/Council, and other meetings and activities;
- ❖ Communicating to each Parties members updates, newsletters, and other communications of interest, as well as

working together on education, outreach, and polar science communication activities;

- ❖ Agreeing to representatives of IASC and SCAR serving as members of the APECS Advisory Committee to offer assistance and guidance; and representatives of APECS being available to IASC and SCAR for early career perspectives;



Photo by Volker Rachold. David Hik (President, IASC), Alexey Pavlov (Director, APECS), Jerónimo López-Martínez (President, SCAR) during the signing ceremony.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6107:apecs-iasc-and-scar-continue-cooperation-in-the-next-5-years&catid=22&Itemid=120](http://www.apecs.is/index.php?option=com_content&view=article&id=6107:apecs-iasc-and-scar-continue-cooperation-in-the-next-5-years&catid=22&Itemid=120)

## **Memorandum of Understanding between APECS and PEI**



On May 23rd 2013, a memorandum of understanding (MoU) between the Association of Polar Early Career Scientists (APECS) and Polar Educators International (PEI) was signed by APECS Director Alexey Pavlov and the PEI Executive Committee Member Sarah Bartholow and will stand through December of 2015. The MoU is based on the mutual interest of APECS and PEI in engaging, supporting and promoting polar science education, outreach, and

communication (EOC). Through this agreement, the APECS Executive Committee and the PEI Executive Committee will strive to identify and collaborate on mutually beneficial activities towards strengthening that interest.

A great benefit of this MoU is standing reciprocal council positions within each organization. Currently the council liaison for APECS to PEI is held by Christie Wood, and the PEI liaison to APECS is Sarah Bartholow.

Thanks to the initiatives of the recent International Polar Year to bring outreach efforts to the forefront of the polar science community, APECS has worked to strengthen professional development for early career researchers on effective outreach, while PEI is the formal structure for a global professional network for those who educate in, for, and about the polar regions.

PEI and APECS have already been working together on events such as International Polar Week and activities such as Cool Speakers. The two organizations will work closely to align their objectives and goals for public science literacy campaigns, support for polar scientists engaging in education and outreach efforts, and educators' exposure to current polar science and practices.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6167:memorandum-of-understanding-between-apecs-and-pei&catid=22&Itemid=120](http://www.apecs.is/index.php?option=com_content&view=article&id=6167:memorandum-of-understanding-between-apecs-and-pei&catid=22&Itemid=120)

## Strengthening cooperation between AGU and APECS



On 31 January 2013, the American Geophysical Union (AGU) and the Association of Polar Early Career Scientists (APECS) signed a memorandum of understanding (MoU). APECS has organized career development panels and workshop at previous AGU Fall Meetings, and AGU has provided support to APECS members and events. With a shared interest in fostering the next generation of Earth and space scientists

involved in polar and cryospheric research, this mutually beneficial MoU is intended to help both partners engage and train that next generation. AGU and APECS will be working together to exchange information about relevant polar and cryospheric issues, to share expertise to better train and engage targeted students and early career researchers, to collaborate on areas such as career development workshops, webinars, mentor panels, virtual poster sessions, outreach and science communication activities, and to innovate into the future.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6018:strengthening-cooperation-between-agu-and-apecs&catid=22&Itemid=120](http://www.apecs.is/index.php?option=com_content&view=article&id=6018:strengthening-cooperation-between-agu-and-apecs&catid=22&Itemid=120)

## APECS & Cryospheric Organizations Meeting

As a side event at the 2012 American Geophysical Union Fall Meeting in San Francisco, a group of Cryospheric organizations met to discuss progress on a joint Memorandum of Understanding. This group, including representatives from APECS (Allen Pope), the Climate and the Cryosphere Project (Vladimir Ryabinin), the Scientific Committee on Antarctic Research (Chuck Kennicutt), the International Arctic Science Committee (Volker Rachold), the American Geophysical Union Cryosphere Focus Group (Anne Nolin), the European Geosciences Union Cryosphere Division (Hilmar Gudmundsson), the International Commission on Snow and Ice Hydrology (Regine Hock), the International Association of Cryospheric Sciences (Charles Fierz), the International Permafrost Association (Inga May), and the Arctic Research Consortium of the United States (Kristina Creek), aims to increase coordination of activities and events with the Cryospheric community. One output of this agreement has been the development of a Cryosphere Community Calendar (<http://www.climate-cryosphere.org/index.php/meetings/community-calendar>), hosted by the Climate and Cryosphere (CliC) Project. The group expressed the desire to also have a planning calendar, including the 5-year strategic aims of each organization, so as to be able to better work together. The attendees reaffirmed the need to

support the training and engagement of early career researchers, and APECS is committed to helping them make that happen. If you have ideas of how you would like to work with any of these organizations or see APECS better represented, please let us know!

Opportunities to get experience in leadership, management, and coordination such as this are regularly provided to interested APECS members. Be sure to stay tuned for future similar opportunities!

The meeting notes can be downloaded here. Questions about the December Meeting should be directed to Allen Pope.

If you or your organization would like to join this group, please contact the coordinator, Jenny Baeseman, CliC Director.

Original posting: <http://www.climate-cryosphere.org/index.php/news/clic-news/377-cryoorg-dec12-notes>

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5952:apecs-a-cryospheric-organizations-meeting&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=5952:apecs-a-cryospheric-organizations-meeting&catid=96&Itemid=121)

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6068:cryosphere-organizational-leaders-meeting-summary-available&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6068:cryosphere-organizational-leaders-meeting-summary-available&catid=96&Itemid=121)

## **APECS Directorate Funding renewed until the end of 2016!**



APECS is excited to announce that the funding for our APECS International Directorate in Tromsø has been renewed till the end of 2016!

This was made possible through generous contributions by the University of Tromsø, the Norwegian Polar Institute as well as a successful application for partial support to the Research Council of Norway!

The University of Tromsø is the northernmost university of the world. Research and studies offered at the university focus on Arctic and

northern issues: marine science, biomedicine, telemedicine, physics, linguistics, multiculturalism and research related to the Saami and indigenous people. The university contributes to the national Norwegian diversity of basic scientific research and for some research areas it shall be among the best international actors. - <http://uit.no>

The Norwegian Polar Institute is Norway's central institution for scientific research, environmental monitoring and mapping of the polar regions. The Institute is the Norwegian authorities' consultant and supplier of knowledge, and contributes to the best possible administration of Norwegian polar areas. Through active participation in national and international bodies, the Norwegian Polar Institute is central when it comes to protecting national interests in matters of research and the environment. - <http://npolar.no>

The Research Council of Norway promotes basic and applied research and innovation in order to help meet research needs within society. It also works actively to encourage international research cooperation. Underlying all the Research Council's activities is the viewpoint that research expands the boundaries of what we know, understand and can achieve. Research adds cultural resonance to society and creates a viable framework for welfare, value creation and sustainable development. Through its efforts as an advisory body on research strategy issues, a research funding agency and initiator of meeting places and networks, the Research Council seeks to meet and constantly refine the objectives for Norwegian research policy. - <http://rcn.no>

APECS is very thankful for this opportunity to continue shaping the future of polar research in the coming years!

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6157:apecs-directorate-funding-renewed-until-the-end-of-2016&catid=22&Itemid=120](http://www.apecs.is/index.php?option=com_content&view=article&id=6157:apecs-directorate-funding-renewed-until-the-end-of-2016&catid=22&Itemid=120)

## Announcing the new APECS Director: Dr. Gerlis Fugmann



APECS is happy to announce that Dr. Gerlis Fugmann will be starting as the new APECS Director on 1 October 2013!! As the sole full-time employee of APECS, Gerlis will be in charge of guiding the

development and administration of the organization, along with overseeing and managing all APECS activities, finances and events, recruiting volunteers and members, and interacting with APECS members, mentors, advisors and supporters.

In the last two years, Gerlis had been working as a post-doctoral researcher at the International Centre for Northern Governance and Development (ICNGD) at the University of Saskatchewan in Canada. She completed her PhD in Geography in 2011 at the Department of Geography of the Justus-Liebig University Giessen in Germany. Her research focused on projects in the Canadian Arctic and Sub-Arctic as well as Northern Scandinavia, addressing questions of comparative economic development, entrepreneurship, tourism, resource development and Northern engagement and participation in innovation and the knowledge economy.

Gerlis has been very actively involved in the APECS leadership for several years, helping to shape and manage many of the projects, events and resources made available through APECS. She served as an Executive Committee member between 2009 - 2011 and since then has mentored and advised the Executive Committee in an ex-officio role. During the 2009 – 2010 term, Gerlis also served as the elected APECS President.

Gerlis is a strong advocate of early career scientist participation, recognizing the importance of networking, professional development, and extra-curricular training in the polar and cryosphere communities. We are very excited to have her lead the APECS Directorate in the next few years and are

confident that she will be helping to shape the development of the organization into new heights. You can reach Gerlis any time at [gerlis.fugmann@apecs.is](mailto:gerlis.fugmann@apecs.is).

For more information visit the [APECS International Directorate page](#).

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6224:announcing-the-new-apecs-director-dr-gerlis-fugmann&catid=22&Itemid=120](http://www.apecs.is/index.php?option=com_content&view=article&id=6224:announcing-the-new-apecs-director-dr-gerlis-fugmann&catid=22&Itemid=120)

## APECS representative in the Interim Planning Group for ICARP III



Over the past two decades, the International Arctic Science Committee (IASC) has been organizing forward-looking conferences focused on international and interdisciplinary perspectives for advancing Arctic research cooperation and applications of Arctic knowledge. Indeed, the IASC Founding Articles call for IASC to host such a conference periodically in order to "review the status of Arctic science, provide scientific and technical advice, and promote cooperation and links with other national and international organizations." In 2015, it will have been 10 years since the 2nd International Conference on Arctic Research Planning (ICARP II in 2005) and it is time for ICARP III (together with IASC 25th anniversary celebration will be held during ASSW 2015 in Japan). The final product of ICARP III will be a consensus statement identifying the most important Arctic research needs for the next decade.

Sanna Majaneva is honored to have been nominated to represent APECS in the Interim Planning Group for ICARP III. She is now finishing her doctoral thesis project at the University of Helsinki in collaboration with the University Centre in Svalbard and the Finnish Environment Institute / Marine Research Centre. In her thesis, she is working on a better understanding of the role of gelatinous zooplankton populations in the Arctic Ocean and Baltic Sea and how different aspects of the changing climate could affect these

communities. Furthermore; the overall goal of this project is to indicate that more emphasis should be placed into the gelatinous part of the plankton community to be able to adequately model the community interactions and changes.

Sanna has been an APECS member since its early stages 2007 and has served on the APECS Council since 2011 and is now one of the two APECS council co-chairs for 2012-2013. She is also co-founder of APECS Finland for which she currently acts as co-chair. Outside of her scientific pursuits, she is also active in enhancing communication of the Arctic issues. She is looking forward to the planning of the ICARP III and the opportunity to participate in defining an interdisciplinary vision for future Arctic research.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6015:apecs-representative-in-the-interim-planning-group-for-icarp3&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6015:apecs-representative-in-the-interim-planning-group-for-icarp3&catid=96&Itemid=121)

## **Alia Khan to serve as a member of the AntClim21 Scientific Research Programme of SCAR**



APECS Council member Alia Khan is representing APECS as a member of the AntarcticClimate21 (AntClim21) Scientific Research Programme of the Scientific Committee on Antarctic Research (SCAR). This programme will aim to understand Antarctic environment change over the 21st Century thru quantification of Antarctic climate variability, climate model verification for the Antarctic region, and Antarctic climate projection to 2100 AD. Alia is excited to serve in this role for the next 2 to 3 years.

Alia is a new member of the APECS Council and currently a PhD student at the University of Colorado – Boulder, Institute of Arctic and Alpine Research. She has completed two field seasons in the McMurdo Dry Valleys, Antarctica. The first during her MS as a member of the Long Term Ecological Research (LTER)

Stream Team, measuring stream-flow and water quality of ephemeral glacier fed streams. This past year she began her doctoral research looking at black carbon transport and deposition in the dry valleys. She is interested in local and long-range transport of anthropogenic pollutants to pristine areas and their resulting impacts on the environment, and more specifically, using black carbon as a tracer of human impact in the dry valleys. She is interested in black carbon impacts on surface albedo of snow and ice, as well as changes to water quality. Thanks to the flexibility of a NSF-Graduate Research Fellowship, and supportive collaborative partners, her other field sites include the Nepalese Himalaya and Svalbard. Alia is very interested in effective communication of polar science to the public, such as her NYT 'Scientists at Work' Blog during her first Antarctic field season: <http://scientistatwork.blogs.nytimes.com/author/alia-khan/>.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6154:alia-khan-to-serve-as-a-member-of-the-antclim-21-scientific-research-programme-of-scar&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6154:alia-khan-to-serve-as-a-member-of-the-antclim-21-scientific-research-programme-of-scar&catid=96&Itemid=121)

## **Two APECS representatives for the ISOC for the SCAR OSC**

APECS Council members Tristy Vick-Majors and Anton Van de Putte are representing APECS on the International Scientific Organising Committee (ISOC) for the SCAR Open Science Conference that will take place in Auckland, New Zealand from 25 – 29 August 2014!



Anton Van de Putte is a member of the APECS Council and co-editor of the APECS Newsletter. He is a Marine Biologist with a strong interest in the role of fish in the Southern Ocean Ecosystem. He received his PhD in 2008 for his research on the ecology and evolution of Southern Ocean fish, with special focus on the mesopelagic lantern fish *Electrona antarctica*. He has experience in Science Education and Outreach. Currently, he is a science officer for

the Belgian SCAR-Marbin and AntaBIF projects that aim to provide free and open access to Antarctic biodiversity data.



Tristy Vick-Majors is currently the co-chair of the APECS Research Activities Committee (RAC). She studies microbial ecology, limnology and biogeochemistry in icy, cold environments. She spent three field seasons in the

McMurdo Dry Valleys of Antarctica doing research for her M.S. on permanently ice-covered lakes, and is now working on her Ph.D on biogeochemical processes in Subglacial Lake Whillans, which lies 800 meters beneath the surface of the West Antarctic Ice Sheet. Tristy is constantly looking for new ways to form collaborations and to improve networking opportunities for graduate students and other aspiring scientists.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6173:two-apecs-representatives-for-the-isoc-for-the-scar-osc-2014&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6173:two-apecs-representatives-for-the-isoc-for-the-scar-osc-2014&catid=96&Itemid=121)

## APECS and CliC collaborations



In February 2013, APECS attended the Climate and Cryosphere (CliC) 9th steering group meeting in Potsdam, Germany. We introduced APECS to the CliC community to encourage participation with young scientists and early career researchers to help with CliC's international initiatives. The revamping of the CliC organization has provided a great deal of opportunities for APECS members to get involved with additional leadership activities and provide scientific input to the cryosphere community.

For more information on CliC activities, please go to: <http://www.climate-cryosphere.org/>. Don't forget to sign up as a member to get up-to-date announcements on future opportunities.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6087:apecs-and-cliC-collaborations&catid=22&Itemid=120](http://www.apecs.is/index.php?option=com_content&view=article&id=6087:apecs-and-cliC-collaborations&catid=22&Itemid=120)

## APECS Members at CliC Sea Ice Monitoring and Observing Workshop

At the beginning of June, the Climate and Cryosphere Project (CliC) initiated a sea ice modeling and observing workshop that brought together Arctic and Antarctic sea ice scientists to discuss the gaps in knowledge found with sea ice data (<http://www.climate-cryosphere.org/meetings/seaice2013>). Sea ice database representatives for the Arctic (Ice Watch) and the Antarctic (ASPECT) developed targeted activities in conjunction with sea ice modelers and invited APECS members. Working groups were developed during this workshop and will carry out the developed action items within time frames established by each group. This multifaceted approach to resolve challenges with combining sea ice observations and models will ensure continued efforts in both communities for CliC's sea ice initiatives. CliC and APECS will also implement Frostbytes from the early career scientists (<http://www.climate-cryosphere.org/activities/outreach/479-cliC-frostbytes-frequently-asked-questions>). CliC also has many opportunities for early career scientists in several research disciplines. For more information go to: <http://www.climate-cryosphere.org/> and become a member today!!

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6132:apecs-members-at-cliC-sea-ice-monitoring-and-observing-workshop&catid=232&Itemid=122](http://www.apecs.is/index.php?option=com_content&view=article&id=6132:apecs-members-at-cliC-sea-ice-monitoring-and-observing-workshop&catid=232&Itemid=122)

## AMAP Working Group Meeting – September 2013

AMAP (the Arctic Monitoring and Assessment Program, a working group of the Arctic Council; <http://www.amap.no/>) held its 27th working group meeting in Troshavn, Faroe Islands from September 15-18th, 2013. The meeting included delegations from each of the

Arctic Council nations, as well as representations from the permanent participants, and observer nations and organisations. Jennifer Provencher acted as the APECS representative to the meeting. The group was updated on projects that are wrapping up, and discussed upcoming events and projects that the working group wants to prioritize and focus on in the coming years.



AMAP has a number of current projects underway including a radioactivity report, persistent organic pollutants report, and the Adaptation Actions in a Changing Arctic (AACCA) project. Emphasis on improving outreach, the use of local and traditional knowledge and involving early career researchers in projects was a theme heard throughout the meeting.

APECS and AMAP also agreed to continue to work together on integrating early career researchers into their program, both from an expert group and a communications perspective.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6229:jennipro&catid=232&Itemid=122](http://www.apecs.is/index.php?option=com_content&view=article&id=6229:jennipro&catid=232&Itemid=122)

### Yulia Zaika to serve as IGS Council Member



APECS Vice-President Yulia Zaika has recently been elected to serve on the Council of the International Glaciological Society (IGS)! We are very excited for her and are sure she will help to develop more great opportunities for young

scientists and a good connection with the IGS.

Yulia has been a long-term APECS member and has served on the APECS Executive Committee since 2011 and was elected APECS President for 2011-2012. She is a research assistant at the Khibiny education and scientific station (<http://www.eu-interact.org/field-sites/russia-6/khibiny/>) of the Faculty of Geography M.V.Lomonosov Moscow State University. Her research focuses on observations of climate data, snow cover and avalanches in the industrialized Russian Arctic regions. She is also involved in INTERACT (International Network for Terrestrial Research and Monitoring in the Arctic - <http://www.eu-interact.org/>) as the Khibiny station representative.

Congratulations Yulia and good luck with this great opportunity!

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6205:yulia-zaika-to-serve-as-igs-council-member&catid=22&Itemid=120](http://www.apecs.is/index.php?option=com_content&view=article&id=6205:yulia-zaika-to-serve-as-igs-council-member&catid=22&Itemid=120)

### Wang Yuzhe represented APECS at EC-PORS Meeting



The Executive Committee on Polar Observations, Research, and Services promotes and coordinates relevant

programmes that are carried out in the Antarctic and Arctic regions by nations and by groups of nations. It interfaces with all World Meteorological Organization programmes and other related programmes throughout the world, meeting global needs and requirements for meteorological observations, research and services in the polar regions.

The EC-PORS meeting was held in March 2013 in Lanzhou, China. APECS was represented by APECS member Wang Yuzhe. In his words:

"I'm a masters student at State Key Laboratory of Cryospheric Sciences, Cold and Arid Regions

Environmental and Engineering Research Institute, Chinese Academy of Sciences, Lanzhou City, China. I'm working on the glacier volume changes of Mt. Qilian, in northeast Tibetan Plateau during the early twenty-first century. The goal of this research is to calculate the regional mass balance and how much glacier mass has changed in the recent decade and try to link the glacier volume change to regional climate change and glacier runoff. I use satellite data (i.e SRTM, ICESat, Chinese ZY-3) and field survey GPS data. I will graduate in May this year. This is a good opportunity for me to shape my successive doctoral direction of polar studies. The meeting will be held in Lanzhou and I can provide the local service for APECS' friends."

He has submitted this very informational report, detailing current actions involving progress on the "Global Cryosphere Watch" and the "International Polar Initiative" as well as a large number of APECS partners.

EC-PORS will have upcoming meetings in New Zealand (2014) and Iceland (2015), and we'll be looking for APECS reps then! [Find out more about current APECS reps, their responsibilities, and becoming one.](#)

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6050:wang-yuzhe-to-represent-apecs-at-ec-pors-meeting&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6050:wang-yuzhe-to-represent-apecs-at-ec-pors-meeting&catid=96&Itemid=121)

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6073:apecs-rep-yuzhe-wang-reports-on-ec-pors-4&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6073:apecs-rep-yuzhe-wang-reports-on-ec-pors-4&catid=96&Itemid=121)

## Report on the WWRP Prediction Project Steering Group Meeting

12-13<sup>th</sup> December 2012

European Centre for Medium Range Weather Forecasting (ECMWF) (Reading, England)

The World Weather Research Program (WWRP) Polar Prediction Project (PPP) is a ten year initiative aiming to promote cooperative international research into polar weather prediction at hourly to seasonal timescales. As part of this project plans are being made for a

Year of Polar Prediction (YOPP) in 2017-2018, this will involve an intensive observation and modelling effort to improve polar prediction.

Ella Darlington and Jonny Day attended this meeting representing APECS, who are being consulted on project matters related to outreach and education. The meeting was mainly concerned with finalising the project implementation plan. During the discussion on how early career scientists could become more involved in and contribute to the PPP, the following ideas were discussed:

- ❄ Invite early career scientists to PPP events (not just workshops; but also steering groups, etc.).
- ❄ Run mentoring sessions at SG meetings and PPP workshops.
- ❄ Involve early career scientists in informal social settings such as icebreakers where they are encouraged to meet and talk with senior scientists.
- ❄ Run skills training workshops to ensure that early career scientists are familiar with tools as well as operational in-house systems (e.g., models, and diagnosis and verification systems) and can more readily run models or analyse operational centre data. (Existing examples include twice yearly WRF workshops and verification workshops run by JWGFVR.)
- ❄ Run summer schools.

It was agreed to:

- ❄ Invite local APECS representative(s) to take part in the next PPP-SG meeting (tentatively Boulder, Colorado, USA in October 2013).
- ❄ Run a mentoring session in association with the PPP-SG meeting.

In addition Jonny agreed to sit on the project steering group and YOPP planning committee to liaise with both the PPP steering group and APECS concerning the PPP education and outreach plan and its implementation.

[http://www.wmo.int/pages/prog/arep/wwrp/new/polar\\_prediction\\_research\\_project\\_main\\_page.html](http://www.wmo.int/pages/prog/arep/wwrp/new/polar_prediction_research_project_main_page.html)

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5981:report-on-the-](http://www.apecs.is/index.php?option=com_content&view=article&id=5981:report-on-the-)

## **APECS at the AMAP AACAC Workshop in Saint Petersburg**

Jennifer Provencher represented APECS at the AMAP AACAC workshop in Saint Petersburg Russia. The AACAC (Adaptations for Action in a Changing Arctic) workshops are a series of workshops that seek to integrate knowledge from modelers and researchers about the future of changing Arctic systems, and plan potential adaptations actions for the region.



Currently, the Barents Sea, Bering-Chukchi-Beaufort Seas and Davis Strait-Baffin Bay regions have been identified as the pilot areas where assessment and planning will take place in the next year. The meeting was highly successful with three local regional meetings planned for the fall in which more early career representatives will be invited to participate in. At regional meetings expertise from all sectors active in the region and stakeholders will be brought together to identify areas where further existing framework exists, and where further planning is needed.

The main message that all the working groups are taking away that although climatic changes may be affecting the region differently, major changes are taking place in the Arctic region and strategic plans are needed in order to plan.

*[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6111:apecs-at-the-amap-aaca-c-workshop-in-saint-petersburg&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6111:apecs-at-the-amap-aaca-c-workshop-in-saint-petersburg&catid=96&Itemid=121)*

## **Perspective: APECS Member on AGU Council**



My name is Allen Pope – as a former president of APECS and frequent poster to the APECS email list, there's a strong likelihood that you may have seen it before. Originally because of my involvement with APECS, one thing led to another, and I am now one of the first elected student members of the Council (~50 people) of the 66,000-member American Geophysical Union (AGU). I have been asked to write a short post on how I found myself in this position, what responsibilities it comes with, what I hope to contribute, what I hope to learn, why I'm excited to have this opportunity, and why I think I shouldn't have gotten this job!

The AGU Council is the assembly responsible for the scientific affairs of the Union. It represents, advocates, deliberates and prioritizes member issues impacting the science of AGU. And starting in 2013, there are 6 elected seats on the Council for students and early career scientists. As one of the student reps, my role is twofold: one, to serve as a bridge between the Union and student members and two, to be a fresh, innovative voice on the Council as we discuss how to run the fall meeting, how to communicate science, and much more. I hope to do both of those things, and the other student members and I have already started plotting and scheming! In our term, communication will be paramount and in two years' time, we want early career members to feel that their voice is heard and for them to hear all the opportunities that AGU is providing them with.

So, where does APECS come in? It was through organizing an APECS panel at last year's fall meeting that I started talking to Anne Nolin, former president of the AGU Cryosphere Focus Group, and it was she who encouraged me to apply for the slot. APECS involvement really is a great way to gain skills, confidence, and contacts! The AGU Council is going to be a great opportunity to see how AGU operates –

and for me to share many of the lessons APECS has already learned about serving an early career constituency. There is so much that I can help make happen, especially with the resources AGU is able to provide.

So, why would I ever think I shouldn't have gotten the job? Because it is such a sweet gig that I'm amazed only a few dozen people put themselves forward for the 6 slots! I know there are tons of enthusiastic & highly competent people out there, so when my term ends in 2 years, I hope that that many APECS members alone apply for the position – and we'll talk about what you can give and learn then.

For now, it's easy to get involved with AGU by [contacting me](#) or [signing up online](#) – or APECS by emailing [info@apecs.is](mailto:info@apecs.is).

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5957:perspective-apecs-member-on-agu-council-&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=5957:perspective-apecs-member-on-agu-council-&catid=96&Itemid=121)

## **APECS at the CAFF Board Meeting – Yellowknife, September 10 – 12, 2013**

APECS Council member Jean-Sébastien Moore recently represented APECS at the CAFF Board Meeting in Yellowknife in September 2013.

*Conservation of Arctic Flora and Fauna* (CAFF) is a working group of the Arctic Council that deals with issues relating to biodiversity in the circumpolar Arctic. The CAFF board meets twice a year to discuss the management of the CAFF and ongoing and future projects of the working group. I was lucky enough to be in town for this event and to participate in the discussion.

The following is a non-exhaustive list of items that were discussed that caught my attention:

❖ The Arctic Biodiversity Assessment (ABA): this is a very important product of the CAFF. It is an exhaustive document summarizing the state of Arctic biodiversity, trends in abundance, and current and future risks. It also provides a series of recommendation for policy-makers. The full document along with a summary for policy-makers can be found here: <http://www.arcticbiodiversity.is/>

❖ Arctic tourism: The Sustainable Tourism Initiative which deals mainly with the potential impact of cruise ship operations was discussed.

❖ Traditional knowledge: The challenges regarding the inclusion of traditional ecological knowledge into the ABA were discussed. It was agreed that a kind of 'lessons learned' document would be a useful output of the process.

❖ Ecosystem services: One of the cool things with CAFF is that it allows its 'observer' members (i.e. non-voting members of the group) to participate and provide input into CAFF's work. The World Wildlife Fund was therefore present at the meeting to discuss a project they are leading on ecosystem services.

❖ Migratory birds: Birds migrate over large distances and across many international boundaries, and international groups like CAFF are therefore the perfect venue to coordinate such conservation efforts. For info on one of the projects CAFF is involved with, go to: [www.eaaflyway.net](http://www.eaaflyway.net)

Potential for APECS involvement:

❖ *Recommendation analysis*: One of the most important end results of the ABA is a series of 17 recommendations to policy-makers. APECS was asked to participate in a process of analysis of these recommendations to promote their implementation.

❖ *The ABA Symposium*: In order to promote and implement the recommendations of the ABA, a symposium will be held to bring together scientists, policy-makers, and private industry. While the exact time and date is yet to be determined, APECS involvement in such an event would be important.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6231:apecs-at-the-caff-board-meeting-yellowknife-sept-10-12-2013&catid=294&Itemid=173](http://www.apecs.is/index.php?option=com_content&view=article&id=6231:apecs-at-the-caff-board-meeting-yellowknife-sept-10-12-2013&catid=294&Itemid=173)

## UKPN and APECS representatives attend Antarctica 100 meeting

Each year, the UK community of organisations interested in polar heritage gathers together at a meeting called "Antarctica 100." The meeting is organised by the UK Antarctic Heritage Trust, was hosted by the Scott Polar Research Institute, and was particularly exciting because it was concluded by a tea reception and lecture for the UKAHT's patron HRH The Princess Royal, Princess Anne.



The UK Polar Network was represented by Dr. Amelie Kirchgaessner and APECS was represented by Allen Pope. APECS and the UKPN were both introduced to the community (the UKPN has participated in previous A100 meetings), and discussions were initiated about potential synergies between the UKPN and other A100 attendees. APECS members maybe be particularly interested in hearing about potential funding for their projects from the Shackleton Scholarship Fund and the Trans-Antarctic Association, as well as connection with educators through the wide range of museums present at the meeting, the International Polar Foundation, and the Fuchs Foundation.

The majority of the meeting was spent both summarising events celebrating the Scott Centenary and planning the upcoming Shackleton Centenary (and Shackleton's granddaughter was there, too). There will be lots of great upcoming events all around the UK and abroad! We saw great potential further collaboration with IAATO, the UK FCO, the IPF, and more. We look forward to collaborating with the UKAHT and A100 members in the future. If you have ideas for how to best take

advantage of this in the future (or events that you'd like to see happen), please do get in contact with the APECS ExCom and the UKPN Committee.



[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5948:ukpn-and-apecs-representatives-attend-antarctica-100-meeting&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=5948:ukpn-and-apecs-representatives-attend-antarctica-100-meeting&catid=96&Itemid=121)

## APECS Director Transition

Dear APECS friends and colleagues,

APECS Director position is being re-announced these days. Though, it is primarily done in connection with a renewal of the contract, it gave me a chance to think about continuation with the APECS Director position. After many considerations, I have decided not to apply for this position in order to get back to research and finalize scientific ideas and initiatives started earlier during my PhD studies.



Having said that, I would like to look back and to see what has been achieved in the past year. A prolongation of the APECS Directorate funding until the end of 2016 is definitely the greatest recent news (<http://apecs.is/news-feeds/features/6130-apecs-international-directorate-funding-renewed-until-end-of-2016>), which will allow APECS leadership dedicating more time to strategic initiatives and further developments. Other achievements would include a gradual transition from the post-IPY stage towards a beyond IPY thinking, increased recognition within the Polar community, a number of partnership agreements with our key

partners, and numerous contributions of APECS members and representatives to polar events, and many more.

We had a challenging year and I was fortunate to work with our fantastic teams of APECS Executive Committee, APECS Council, working groups, national committees, mentors, advisors, the APECS Advisory Board, as well as the whole APECS community. All major achievements and developments would not be possible without your work and dedication! Thank you again for a wonderful year of joint efforts, and mutual learning experience!

My personal plan after leaving director position is to remain an APECS mentor and supporter, and to find a meaningful role in some of the upcoming APECS initiatives! From the 1st of July 2013 I will join the Norwegian Polar Institute for summer months, as well as will continue my affiliation with my home institution – the Arctic and Antarctic Research Institute in St. Petersburg, Russia. In the future, I look forward to working with many APECS colleagues with research in oceanography, air-sea interactions, marine optics, linkages between physics, biogeochemistry and biology in the Arctic ocean.

Being the APECS Director was a great experience and a very rewarding job. I encourage everyone to apply for this wonderful opportunity of a lifetime! We all hope for a great number of applications and a new outstanding APECS leader in the years to come!

Yours,  
Alexey Pavlov

[http://www.apecs.is/index.php?option=com\\_content&view=category&layout=blog&id=96&Itemid=121&limitstart=12](http://www.apecs.is/index.php?option=com_content&view=category&layout=blog&id=96&Itemid=121&limitstart=12)

## **New Funding for APECS Sweden – A way to go for other National Committees!**



Last year, APECS Sweden wrote a letter asking for support for a position of an executive secretary. This letter was sent to all university departments in Sweden where polar early career

scientists work and study. The idea was to create a position that would rotate between departments all over the Sweden for each year and that the funding of the position would be shared by the host departments. Since the position we suggested only corresponded to 10 % of a full time position (appr. 4 hours/week) the cost for each department would be very low and the position could be given to any PhD student instead of teaching or other department administrative work that PhD students do.

The outcome of this (as for today) is that four departments have agreed to help fund this position, starting this year 2013. For this first year the APECS Sweden secretariat will be hosted by the Department of Physical Geography and Quaternary Geology at Stockholm University, with Ylva Sjöberg as the executive secretary. The four other funding departments are the departments of Geological Sciences, Meteorology, and Zoology, all at Stockholm University, and the Arctic research centre Arcum at Umeå University. The Swedish Polar Research Secretariat (SPRS) also sponsors the new secretariat with financial support for travels etc. This is a great achievement for APECS Sweden since it means that the work with promoting the interests of polar early career scientists is not dependent entirely on voluntary efforts anymore. We hope that this can inspire other national committees to similar initiatives, so don't hesitate to contact us ([apecs.sweden@gmail.com](mailto:apecs.sweden@gmail.com)) if you have questions about how your national committee can do something similar. Find out more about APECS Sweden at [www.apecssweden.se](http://www.apecssweden.se) and on Twitter (@APECS\_Sweden)!

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6084:new-funding-for-apecs-sweden--a-way-to-go-for-other-national-committees&catid=22&Itemid=120](http://www.apecs.is/index.php?option=com_content&view=article&id=6084:new-funding-for-apecs-sweden--a-way-to-go-for-other-national-committees&catid=22&Itemid=120)

## **APECS Delegates in Romania or how we met amazing people**

On 20-25 February Romania has hosted the first for the last few years National Symposium Criosfera 2013 in PiatraNeamt. APECS International and APECS Polska were invited to share opportunities and experience on how to

establish the national committee of APECS in Romania. During this symposium we have explored an amazing history of polar research in Romania starting from Emil Racovita and remembered the great Romanian Polar explorer and scientist Teodor Negoita, who was also one of the most supportive APECS mentors and headed the first permanent Romanian research and exploration station in Antarctica, the Law-Racovita Station, which he established in 2006.



Our team consisted from Poland delegates – Maja Lisowska, Bartosz Lisowski, Michal Wegrzyn and from APECS Executive Committee - Yulia Zaika. We've met students and young scientists from different corners of Romania and have successfully started APECS Romania. A lot of interesting questions and discussions went our way and we hope that we answered all of them.

We want to thank our new friends and we hope they will become great mentors for those

enthusiastic young scientists in Romania – Dr. Dumitru Murariu (Președinte Comisia Antarctică a Academiei Române), Constantin Lacatusu (Clubul Montan Român), Christian Lasku (Editor-in Chief, National Geographic Romania), Dr. Roxana Bojariu (Administrația Națională de Meteorologie), Dr. Petre Popescu (Institutul Astronomic al Academiei Române), Dr. Petru Urdea (Universitatea de Vest, Timișoara) and one of the most wonderful organizer we have ever met Stelian Grigore (Director of Casa de Culture Piatra Neamt)!



Last but not least, we have met an amazing teacher – Cosmina Dragomir, who is trying to explore the polar world together with school kids in Romania but more to come later...

We are looking for our further collaborations with Romania and are very much impressed with Romanian hospitality!

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6052:apecs-delegates-in-romania-or-how-we-met-amazing-people&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6052:apecs-delegates-in-romania-or-how-we-met-amazing-people&catid=96&Itemid=121)

## Chapter 2: APECS Events



APECS aims to provide opportunities for young researchers to connect with senior researchers and leaders in the international polar science community. Aside from our online activities, we also plan events, such as career development workshops and mentor panels in connection with larger scientific conferences where polar researchers will be present. This maximizes the number of mentors that can participate and at the same time minimizes the need for additional travel support for early career researchers to attend these events.

Conference organizers often provide the use of the conference venues as an in-kind support. Besides providing practical career development skills which early career researchers need for a successful career in polar science, these events also help early career researchers to “break the ice” and help generate communication between the next generation of researchers and those experienced scientists that know the field through years of research experience.

### 2.1 Career Development Workshops and Mentor Panels

#### APECS Oceania’s Networking Event at 2012 Antarctica New Zealand Conference a great success

4 – 5 October 2012, Christchurch, New Zealand

APECS Oceania just hosted its event debut at the 2012 Antarctica New Zealand Conference in Christchurch last week! With more than half of the conference attendees participating in the speed networking game “SPEED-MEET-A-GEEK”, the APECS Oceania event can be announced a great success. APECS Oceania managed to get students, early career scientists and mentors to meet and talk – and enjoy it! Furthermore, pieces of the Flakes, Blobs and Bubbles art project were included in the event. APECS Oceania appreciates the generosity of Antarctica New Zealand and COMNAP who both sponsored the event. Read more about SPEED-MEET-A-GEEK on [APECS Oceania’s blog!](#)

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5869:apecs-oceanias-networking-event-at-2012-antarctica-new-](http://www.apecs.is/index.php?option=com_content&view=article&id=5869:apecs-oceanias-networking-event-at-2012-antarctica-new-zealand-conference-a-great-success&catid=96&Itemid=121)

*zealand-conference-a-great-success&catid=96&Itemid=121*

#### APECS Panel during the Polar Ecology Conference in Ceske Budejovice, Czech Republic

3 October 2012, Ceske Budejovice, Czech Republic

For all of you who wanted to participate in this event but couldn’t, and for all who would like to learn some tips and tricks about how to be a smart early career scientist, we present a short summary below.

The panel called "International Collaborations and Networking in Polar Science World" was organized by APECS (Yulia Zaika, Maja Lisowska) together with the conference organizers (Jan Kavan and Alex Bernardova), and took place on 3rd October 2012. It was aimed to help young researchers and students find their way how to design the new research projects, how to start successful collaborations with different international organizations and institutes and finally how to obtain a funding to start a project. Well-known APECS mentors and advisors were invited to share their knowledge and experience with their younger colleagues:

Josef Elster (chair of the conference scientific committee and the head of the Centre for Polar Ecology), Kim Holmen (head of the Norwegian Polar Institute), Terry Callaghan (head of the Abisko reserach station - Swedish Academy of Sciences), Ad Huiskes (Unit of Polar Ecology, Netherlands Institute of Ecology) and David Hik (International Arctic Science Committee president).



The participants of the panel could learn about the activities and different opportunities for young researchers provided by the International Arctic Science Committee (presented by David Hik), Scientific Committee of Antarctic Research (presented by Ad Huiskes), and Norwegian Polar Institute (presented by Kim Holmen).

Terry Callaghan gave us a comprehensive piece of advice on making presentations and posters (you can watch the recording of Terry's talk here), and advertised some funding opportunities for fieldwork in the Arctic (INTERACT Transnational Access program - webpage).

We would like to thank you all the mentors and attendees of this panel for their interest and enthusiasm.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5898:panelpolarecologyconference&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=5898:panelpolarecologyconference&catid=96&Itemid=121)

### **First APECS BeNeLux Event 11 – 12 October 2012, Ghent, Belgium**

With the support of the Belgian Science Policy Office (Belspo), the first joint event of the APECS national committees from Belgium, the Netherlands and Luxembourg took place mid

October in Ghent, Belgium. With lots of enthusiasm, we chose a nice venue in the city centre of the historic town Ghent, invited inspiring keynote speakers, encouraged young scientists to present their work, organised four workshops to let young scientists develop important research skills and arranged a networking game, accompanied by drinks typical from Ghent. This mixture appeared to be more than successful! The big Belgian group was accompanied by three people from the Netherlands and we had a skype call with our Luxembourg component, Tania, who lives and works in Canada. No border or ocean can stop us from bounding!



On the first day, our keynote speakers gave the best of themselves: Dr. Renuka Badhe told us everything we always wanted to know about SCAR, Dr. Pete Convey talked about Antarctic terrestrial microbiology, Dr. Frank Pattyn gave a presentation on ice sheet modelling and Dr. José Xavier inspired us all to do more education and outreach. Talks by these amazing keynote speakers were alternated with talks from other (young) researchers on broad topics, including palaeoclimate, finding Wally in Arctic archaeology, glacier modelling, the Belgian Antarctic research station and how a high school teacher involves his technical students in all sorts of projects. With the kind support of SCAR, we were able to hand out awards for oral and poster presentations to Harry Zekollari (best presentation – experts), Charlotte Havermans (best presentation – public), Wim van Buggenhout (best poster – experts), and Denis Callens (best poster – public). On day 2, four workshops took place: non-academic careers, talking to the media, presentation skills, and proposal writing, given by our experienced

keynote speakers, two journalists and two people from Belspo. Together with some nice restaurants and the finest Belgian beers, this first APECS BeNeLux symposium turned out to be a great success. Now we are looking forward to the next APECS BeNeLux event, in 2013, in the Netherlands!



Again a big thank you to our enthusiastic keynote speakers, our workshop experts and all of the young scientists present. Thank you to Belspo for supporting this great event. For more information and pictures: find us on Facebook (APECS Belgium) or email [apecsbelgium@gmail.com](mailto:apecsbelgium@gmail.com)

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5893:first-apecs-benelux-event&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=5893:first-apecs-benelux-event&catid=96&Itemid=121)

### **October 18th: APECS Portugal, a day dedicated to career development in Lisbon** **18 October 2012, Lisbon, Portugal**

APECS Portugal organized in Lisbon in the last October, 18th its third development career workshop dedicated to geopolitics, funding opportunities and writing proposals, to education and outreach, and to international networking. The day was organised in three thematic sessions and one discussion panel. For the thematic sessions we invited several Portuguese specialists, that in 90 minutes sessions passed through subjects transversal to our science, as the importance of the Antarctic treaty to research in the field, how to write good research proposals and how to make your message heard in a school room.



The discussion panel moderated by José Xavier, our mentor and researcher of IMAR-UC, was dedicated to the role of early career scientists in polar research, have the participants contacted with the presence of the presidents of the PYRN, Alexandre Trindade, UK Polar Network, Ella Darlington, of the APECS Brasil Erli Costa and of the APECS Spain Pedro Echeveste, showing to the APECS Portugal members how their organizations and national committees are organized and what are their main activities and sponsors. We also had the great opportunity to have Polar Science lead investigators in the room to share with us their ideas. We counted with the presence of Professor Alan Rodgers from the British Antarctic Survey, Professor Andrés Barbosa of the National Natural Science Museum of Madrid, CSIC, Professor Jefferson Cardia Simões from the Brazilian Polar Program and Dr Warwick Vincent from the Canadian CEN.

We counted with the presence of 26 early career scientists from different research areas covering from biology and geosciences to social sciences. We believe that the workshop was a success, the Portuguese APECS community is growing and we are very happy.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5889:silvia-lourenco&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=5889:silvia-lourenco&catid=96&Itemid=121)

### **APECS Sweden Workshop on field based research methods and project design!**

**24 October 2012, Stockholm, Sweden**

On October 24 APECS Sweden organized a workshop for early career scientists at the Royal Swedish Academy of Sciences, with support

from the Swedish Polar Research Secretariat. More than 50 people from 12 countries signed up for the workshop, which was held on the day before the International Glaciological Society's Nordic Branch meeting. The theme of the day was fieldwork and research project design and six excellent invited speakers covered topics from field safety and logistics to data processing and how to form an idea to a research project. APECS Sweden made many new friends during this event and look forward to future activities with all the enthusiastic polar early career scientists in Sweden.



Follow APECS Sweden activities on their website <http://www.apecssweden.se> and Twitter @APECS\_Sweden

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5896:apecs-sweden-workshop-on-field-based-research-methods-and-project-design&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=5896:apecs-sweden-workshop-on-field-based-research-methods-and-project-design&catid=96&Itemid=121)

## **APECS at the Inuit Studies Conference in Washington, DC**

**25 October 2012, Washington, DC, USA**

This past October the 18th Inuit Studies Conference (<http://www.mnh.si.edu/arctic/ISC18/>) was held in Washington, DC. Despite Frankenstorm Sandy bearing down on the east coast of North America the conference was a huge success! More than 500 people gathered to learn about Inuit Studies in the north from fine arts to education programs, from policy to learning how developments impact communities.

The conference was hosted by the Smithsonian, with events scattered around the many Smithsonian institutions in DC. On the first day APECS hosted a career development workshop, How to Shape your Future in Polar Social Sciences. Scot Nickels (Inuit Tapiriit Kanatami (ITK)), Shari Gearheard (University of Colorado),

Peter Pulsifer (University of Colorado) and Frank Tester (University of British Columbia) shared their knowledge on what to think about when entering grad school, work life balance, challenges of working in polar regions and what to expect after grad school. A small but very active group participated in the panel discussion.



[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5897:apecs-at-the-inuit-studies-conference-in-washington-dc&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=5897:apecs-at-the-inuit-studies-conference-in-washington-dc&catid=96&Itemid=121)

## **ART – APECS Workshop – Shaping the Future of Arctic Research**

**23 – 26 October 2012, Sopot, Poland**

On October 23-26, 65 early career and senior Arctic researchers met in Sopot, Poland for the ART-APECS Science Workshop entitled "Overcoming challenges of observation to model integration in marine ecosystem response to sea ice transitions" (<http://www.iarc.uaf.edu/ART/workshops/2012/october/>).



Organized for the first time, workshop thematically addressed the challenge of integrating modelling and observations in order to identify linkages and feedbacks between atmosphere-ice-ocean forcings and biological-geochemical processes that are key to

ecosystem function, land-ocean interactions and to the productive capacity of the Arctic Ocean.

The workshop was divided into two parts: 1) training sessions on theoretical and practical aspects of marine sciences; 2) plenary talks and break-out sessions to discuss and initiate the writing of collaborative papers, which was one of the main outcomes of the workshop. Thirty five posters were presented during two poster sessions. Preliminary a special issue in a polar related peer-review journal will be prepared in 2013.

This ART-APECS workshop would not be possible without a generous support of the International Arctic Science Committee (IASC), the Prince Albert II of Monaco Foundation, the Polish Academy of Sciences (IO-PAN), the Polish SCOR, the International Arctic Research Center (IARC), the CNRS-Laval Takuvik Joint Laboratory, the Alfred Wegener Institute for Polar and Marine Research (AWI), and the Department of Fisheries and Oceans Canada (DFO).

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5913:art-apecs-workshop-shaping-the-future-of-arctic-research&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=5913:art-apecs-workshop-shaping-the-future-of-arctic-research&catid=96&Itemid=121)

## **Arctic Days 2012: International Workshop on Arctic Marine Ecosystems**

**14 – 16 November 2012, Plouzané, France**

The European Institute for Marine Studies (IUEM, France) organized a workshop about Arctic marine ecology and ecosystem functioning, November 14th to 16th 2012 in Plouzané: Arctic Days 2012 (Journées De l'Arctique 2012).

The French government recently stated the importance of making Arctic research a priority (i.e. [http://media.enseignementsup-recherche.gouv.fr/file/2008/53/9/rapport\\_final\\_39539.pdf](http://media.enseignementsup-recherche.gouv.fr/file/2008/53/9/rapport_final_39539.pdf)). In this context, the French CNRS (National Scientific Research Center) has encouraged researchers to develop new research projects and to collect long term data sets in the framework of Arctic observatories.

The Arctic Days 2012 aimed therefore to facilitate exchanges between French and foreign

scientists already experts in Arctic research and establish reliable collaborations. 15 international researchers from 10 different countries, 57 French researchers from 20 national institutions, and 44 Master students joined the workshop. During the 2 first mornings, national and international invited speakers gave an overview of their research topics and presented their new findings. These plenary talks covered a broad spectrum of disciplines including physical oceanography, glaciology, physical-biological coupling, primary production, microbial food webs, ocean acidification, zooplankton, benthos, proxies. The other plenary sessions of the workshop were dedicated to presentations and discussions about existing networks, ongoing projects and observatories.



The first afternoon, French master students and international speakers met together in the framework of a 'speed dating', a concept developed by APECS. In the framework of their mandatory classes, student had to develop fake research proposals. Students had therefore 15 minutes by mentor to ask tips to improve their proposals about experimental strategy, logistic needs, funding sources, international collaborations, scientific careers, outreach, scientific communications... and to ask questions in the scientific field of expertise of the mentors.

The French community met in order to discuss the opportunity to create a French network on "Arctic marine ecosystems and their changing environment". It was agreed that this network would be run as a group on APECS website, within the frame of APECS France.

This workshop was made possible thanks to funding from LabexMer, University of Western

Brittany, Regional Council and other local sources (BMP, CG29, Pôle Mer Bretagne), ANR-ECOTAB.

Organizing committee: Nathalie Morata, Joëlle Richard, Fanny Narcy and Christine David-Beausire

Contact e-mail: [info.jda@univ-brest.fr](mailto:info.jda@univ-brest.fr)

Website: <http://jda2012.sciencesconf.org/>

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5940:arctic-days-2012-international-workshop-on-arctic-marine-ecosystems-&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=5940:arctic-days-2012-international-workshop-on-arctic-marine-ecosystems-&catid=96&Itemid=121)

## **APECS Seminar: Future of Polar Research in Finland**

**November 2012, Helsinki, Finland**

It's always a great pleasure to work in person with amazing people who share the same interest to the Polar Regions. At the end of November APECS Finland held a multidisciplinary seminar with scientific talks and a career development workshop in Helsinki, Finland.



The beginning of the day with talks on strategies of polar research in Finland and in different institutes together with funding possibilities from Academy of Finland was full of new information for most participants and gave the day a great start. Talks by different groups doing Arctic and Antarctic science were interesting and inspirational, and opened up new research collaborations. The scientific seminar was a great success with the auditorium full of young scientists as well as interested senior researchers. Fortunately so much polar research is presently conducted in Finland that many

groups were introduced among the very interesting poster session in the afternoon. Thank you for all the speakers and poster makers.

Early career scientists were particularly happy with the afternoon workshop on communication and the mentor panel. The major topics covered during the workshop and mentor panel were: How to communicate with Media both from researchers and media's perspective? How to make successful scientific presentation? How to communicate within research group? And How valuable communication with the research community is to a PhD students? APECS has actively worked on career development internationally throughout its history, and it was great to see that also early career scientists in Finland found these matters valuable. Many thanks go to the fantastic mentors who shared their experience and wisdom with us: Johanna Ikävalko, Jari Haapala, Noora Partamies and Janne-Markus Rintala.

Thanks you also to the organizing committee, Finnish Environment Institute and Finnish Meteorological Institute for their great support. The day was a big success! We look forward in working with you again in future.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5958:apecs-seminar-future-of-polar-research-in-finland&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=5958:apecs-seminar-future-of-polar-research-in-finland&catid=96&Itemid=121)

## **APECS Panel at AGU Fall Meeting 2012**

**3 December 2012, San Francisco, USA**

APECS held a career development mentor panel and pub night at the 2012 AGU Fall Meeting in San Francisco in collaboration with the AGU Cryosphere Focus Group. Discussion with the audience of 35-40 people ranged from the benefits and drawbacks of PhDs and postdocs in the USA as opposed to Europe and the importance of publication record in postdoc applications to the importance of flexibility and coherence in how you sell yourself and the need to find the right challenge that you are passionate about. Panelists spoke about the importance of recognizing and cultivating the skills that a masters or PhD gives you besides research (for non-academic jobs) as well as

advocating how helpful it can be to develop a career plan, with achievable goals along the way, to set up your career in the direction you would like to see it go. The audience was both amused and encouraged to hear that many of these very successful panelists had made professional choices for personal reasons – and the glaciology-heavy crowd was relieved to hear that glaciology funding and research in the US doesn't appear to be a bubble market.

Organizers Christine Dow and Allen Pope would like to thank the panelists for their insights and their time during such a busy conference. The panelists were:

Robin Bell (LDEO & Cryosphere Division President-Elect)

Ginny Catania (UTIG & UT JSG)

Ian Eisenman (SIO, UCSD & 2012 AGU Young Cryosphere Investigator)

Andrew Fountain (PSU)

Cody Johnson (Polar Field Services)

Plans are already in the works for an APECS / AGU Cryosphere mentor panel for next year. See you in San Francisco in 2013!

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5953:apecs-panel-at-agu-fall-meeting-2012&catid=22&Itemid=120](http://www.apecs.is/index.php?option=com_content&view=article&id=5953:apecs-panel-at-agu-fall-meeting-2012&catid=22&Itemid=120)

## **APECS at ISAR3 (Tokyo) and Hokkaido University (Sapporo) – A growing interest in APECS in Asia**

**14 – 17 January 2013, Tokyo, Japan**

During the Third International Symposium of Arctic Research (ISAR3) in Tokyo, Japan (14-17 January 2013), an APECS career development panel was organized. Such a panel aims to break the ice between senior scientists with an extensive career and young students who can benefit from the experience and perspectives of mentors.

The panel was composed of five mentors (from left to right):

Dr. Hans-Wolfgang Hubberten, head of the AWI Research Unit Potsdam with the Section of

Periglacial Research and professor for Isotope Geology at the Potsdam University

Dr. Larry Hinzman, director of the International Arctic Research Center (IARC) and professor of Civil and Environmental Engineering at the University of Alaska Fairbanks

Dr. Volker Rachold, Executive Secretary of the International Arctic Science Committee (IASC)

Dr. Atsuko Sugimoto, professor at the Faculty of Environmental Earth Science at Hokkaido University

Dr. Kazuyuki Shiraishi, director-general of the National Institute of Polar Research (NIPR)



About 50 polar researchers, young and older, Japanese and international, attended the panel and asked several questions to these mentors. Questions such as: "How do you find a good mentor to guide you through your scientific career?" were answered, and accompanied by practical tips.



*Dr. Volker Rachold: "I found it quite interesting that most experts had the same tips."*

After moderating the panel with Neurasimuguli Alimasi, Ines Tavernier, APECS Vice President, gave an introduction about APECS at the University of Hokkaido (Sapporo) upon request of professor Atsuko Sugimoto. First, a student seminar was held, followed by the talk on APECS.



Professor Ralf Greve, Glacier and Ice Sheet Research Group, Sapporo: "I know APECS from the beginning and thought of them as just another organization. But it is absolutely amazing to see how they have grown over the past years."



Ines gave a general introduction of APECS and the people running this organization on a day-to-day base. She told her personal story of how she was introduced to APECS, how APECS Belgium and APECS BeNeLux (Belgium, The Netherlands, Luxembourg) were formed, what Frostbytes are and most importantly: what APECS does for young researchers and how they can be involved.

*Rei Fujiyoshi, student at Hokkaido University: "I strongly wish that a similar organization would exist for students not active in the polar regions!"*

Professor Atsuko Sugimoto definitely does not need to be convinced of the importance of APECS for her students and of the possibilities their involvement would create, so we do hope the number of members in Japan will increase in the future and that they will engage themselves to become an active group of enthusiastic young polar researchers.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6002:apecs-at-isar3-tokyo-and-hokkaido-university-sapporo-a-growing-interest-in-apecs-in-asia&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6002:apecs-at-isar3-tokyo-and-hokkaido-university-sapporo-a-growing-interest-in-apecs-in-asia&catid=96&Itemid=121)

## APECS at ASSW 2013

**13 – 19 April 2013, Krakow, Poland**

### *The Workshop*

Prior to the science symposium at the Arctic Science Summit Week (ASSW) in Kraków, Poland, APECS held a one day career development and thematic workshop on 16 April.

28 early career researchers from more than 10 countries and a large variety of research disciplines used the opportunity to learn about new approaches in conducting science, how to communicate their science to stakeholders, and to discuss about the global relevance of the Arctic.

6 mentors, representing natural and social sciences, indigenous people and the science-policy interface, gave talks and led the breakout groups in the morning and afternoon. Some of the discussed topics were:

- ❄ What skills do we need to be successful scientists?
- ❄ Tips and tricks for science communication.
- ❄ How can we better engage stakeholders and local communities in solution-oriented science through mutual learning?
- ❄ New developments in Arctic research.
- ❄ The Arctic's relevance in the Earth System.

In addition, our executive director gave an introduction to APECS.



At the end of an intensive workshop day, a number of ideas and recommendations were discussed. Main outcomes from this event are:

- ❖ APECS will nominate a representative for the MOSAiC project.
- ❖ The indigenous people secretariat encouraged APECS to jointly do a field school or similar event in a local Arctic community.
- ❖ It was recommended that APECS reaches out further into the global research community and uses upcoming opportunities to highlight the importance of including early career researchers in science and governance processes as well as organizations.
- ❖ APECS was encouraged to develop an internship program. First organizations assured their support during the workshop and following science symposium.

For details regarding the program, mentors and attendees please click [here](#).

Further APECS activities during ASSW

APECS members were engaged in a number of additional ways in this year's Arctic Science Summit Week.

More than 10 APECS members attended the working group meetings of the International Arctic Science Committee (IASC) prior to the conference

9 APECS members served as early career co-conveners in all sessions during the science symposium

On 17 April, APECS invited early career researchers to learn about APECS activities

3 APECS members received poster awards during the closing ceremony

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6116:apecs-workshop-at-assw&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6116:apecs-workshop-at-assw&catid=96&Itemid=121)

## 2.2. Upcoming Events in 2013 – 2014

### UKPN Software and Polar Science Workshop – 17<sup>th</sup> September 2013

17 September 2013, Cambridge, UK

We are pleased to announce the call for participation in the UKPN 'Software and Polar Science Workshop'. If you are a Polar Scientist who at any point during your research will use computer software, then this workshop will be great for you! The one day event will run on the 17th September 2013 at the Scott Polar Research Institute (directly preceding the Arctic Science Conference (<http://www.arctic.ac.uk/research/uk-arctic-science-conference-2013/>)).

With our workshop funders, the Software Sustainability Institute ([www.software.ac.uk](http://www.software.ac.uk)), we aim to provide useful guidance and practical assistance for Polar researchers who are in need of inspiration when it comes to dealing with plotting, analysing or sharing data.

Specifically we aim to:

- ❖ Help you choose the right software for your project
- ❖ Identify how to develop maintainable software
- ❖ Give you ideas for visualisation of data
- ❖ Show you available means of sharing your data so that it is useful for all!

At present confirmed speakers include the Software Sustainability Institute; and Dr. Jon Blower from the University of Reading. Further information, including the draft programme is available at <http://polarnetwork.org/events-and-workshops/2013-software-and-polar-research->

workshop/ Speakers and sessions will be added as they are confirmed.

There is no charge for the UKPN workshop and a lunch will be provided on the day. Some funding is available to support travel to and accommodation in Cambridge. All participants are expected to give a short (~2 minute) presentation on a piece of software that they use – if everyone donates one piece of useful knowledge from their experience, then each participant will walk away with lots of great ideas!

Once again, the UKPN is offering you a fantastic opportunity to gain useful skills, whilst also meeting up with some of your fellow Polar Scientists. If you would like to take part, please go to <http://polarnetwork.org/events-and-workshops/2013-software-and-polar-research-workshop/register/> to complete the registration form. Registration will be open until 15 July 2013.

Kind regards,

UKPN Software Workshop Team

TJ Young  
Nick Toberg  
Martin O'Leary  
Johnny Ryan  
Jen King  
Laura Hobbs  
Allen Pope  
Aisling Dolan

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6133:ukpn-software-and-polar-science-workshop-17th-sept-2013&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6133:ukpn-software-and-polar-science-workshop-17th-sept-2013&catid=96&Itemid=121)

## 2<sup>nd</sup> APECS Benelux Symposium

31 October 2013, The Hague, Netherlands



The 2<sup>nd</sup> APECS Benelux Symposium is an open science symposium. Hosted by APECS Netherlands, we now welcome abstract submissions of early career researchers in any discipline, at either pole or in the wider cryosphere, and at any time. This includes polar education and outreach. Everyone belongs!

The registration fee is 20 Euro for APECS members and 25 Euro for non-members. This fee includes admission to the keynote speakers, admission to all sessions, refreshments during the breaks, and lunch. So join the network today. It's free. (Let op! Joining APECS International on [www.apecs.is](http://www.apecs.is) is not the same as registering for this symposium!)

Registration is limited to 50 participants. Each participant can submit one abstract. Registration and abstract submission will soon be possible via the symposium website (<https://sites.google.com/site/apecsnetherlands/>) Any eager beavers may already request a registration form from [apecsnl@gmail.com](mailto:apecsnl@gmail.com).

31 October 2013, The Hague, The Netherlands

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6186:2nd-apecs-benelux-symposium&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6186:2nd-apecs-benelux-symposium&catid=96&Itemid=121)

## APECS participation in the Canadian Science Policy Conference

November 2013, Toronto, Canada

APECS vice-president Jennifer Provencher has been invited as a panel member at the Canadian Science Policy conference entitled "Is Canada able to meet its needs for research and innovation on northern issues, given that it does not have graduate programs situated in the three Canadian territories?"

As a representative of APECS, the focus of Jennifer's remarks will be to bring forth the perspective of early career scientists. Recent emphasis on training of graduate students with northern expertise, e.g. resulting from major funding for northern research initiatives such as IPY and ArcticNet, has succeeded in generating lots of HQP skilled in Arctic issues. However, many of these graduates are being exported because of a lack of jobs North of 60. Jennifer will also reflect on skills that early career scientists find they need to develop once they enter the workplace that they haven't been able to learn at university. The current ability of traditional academic programs to teach HQPs the necessary "soft skills" for working in the north is where APECS finds its largest demand, such as how to undertake community

consultations, how to integrate local knowledge into science research, how to interact with volunteers and community members as research helpers, how to navigate multi-level permit processes etc. Tied in with the above, but a slightly different perspective, is do tradition education programs that focus on written tests, comprehensive exams, attendance within a classroom, thesis driven research etc., actually meet the needs of developing HQPs in the north, or the needs of northern students.

### **APECS participation at the IGS Sea Ice Symposium in Hobart, Tasmania**

**March 2014, Hobart, Tasmania**

We hope to draw your attention to the volunteer opportunities for the upcoming International symposium on sea ice in a changing environment, holding by International Glaciological Society (IGS) March 2014, in Hobart, Tasmania, Australia.

The 5-day symposium will include oral and poster presentations from 13 topics on current sea ice research. IGS will also organize a public science day before the symposium. The science day will consist a variety of activities in hope to raise public awareness of polar and sea ice researches. Please refer to the symposium website for more details. (<http://www.igsoc.org/symposia/2014/hobart/>)

The symposium committee would like to offer early career researchers some great opportunities to get involved with symposium organization.

- 1). Discussion leaders for symposium sessions
- 2). Helper for the science day
- 3). General reception for the symposium

If you plan to participate in the symposium, please take a few minutes to complete a short survey

(<https://docs.google.com/a/udel.edu/forms/d/1wfTrM7VAsHN1LieuopfJmL3j7AjiHoxOMjNAMEt5jMA/edit>) to let us know if you are interested to help and your availability. Please provide your comments before September 25th, 2013.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6200:apecs-](http://www.apecs.is/index.php?option=com_content&view=article&id=6200:apecs-)

[participation-at-the-igs-sea-ice-symposium-in-hobart-tasmania-march-2014&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6200:apecs-participation-at-the-igs-sea-ice-symposium-in-hobart-tasmania-march-2014&catid=96&Itemid=121)

### **APECS Workshop at the ASSW 2014**

**April 2014, Helsinki, Finland**

APECS is planning a workshop at the Arctic Science Summit Week (ASSW) 2014 as part of its project "Bridging Early Career Researchers and Indigenous People in Nordic Countries". Announcements will be available on the APECS website shortly.

[http://www.apecs.is/index.php?option=com\\_content&view=category&layout=blog&id=754&Itemid=793](http://www.apecs.is/index.php?option=com_content&view=category&layout=blog&id=754&Itemid=793)

### **APECS Workshop at ICASS VIII**

**May 2014, Prince George, Canada**

APECS is planning a workshop at the 8<sup>th</sup> Congress of Arctic Social Sciences (ICASS III), in Prince George, BC, Canada. ICASS III is organized by the International Arctic Social Sciences Association (IASSA). Announcements will be available on the APECS website shortly.

### **APECS Workshop at SCAR OSC 2014**

**August 2014, Auckland, New Zealand**

APECS is planning a series of career development workshops for the 2014 SCAR OSC, to take place in Auckland, NZ 25-29 August 2014.

# Chapter 3: Norwegian Highlights 2013



Since establishing its International Directorate Office in Tromsø., Norway, APECS has contributed to the career development of Norwegian Students, enhanced recruitment, promoted Norwegian excellence in Polar Research and facilities and helped establish new international collaborations. Our Norwegian membership numbers have increase constantly. Norway is today among the top five countries in membership numbers in APECS! This section highlights some of the major events and activities that APECS has successfully organized in 2012-2013.

## 3.1. Arctic Frontiers 2013



The Arctic Frontiers conference on Geopolitics and Marine Production in a Changing Arctic concluded on the January 25th 2013. It was an exciting event with a number of outstanding presentations during both the Policy and Science sections. It also brought many opportunities for Arctic early career researchers. The Emergent Leaders program and Young Scientist Forum were run in conjunction with the conference and brought together young people working in various realms of Arctic science and industry. A great addition to the conference was the Podcast Series organized by Tom Fries (The Arctic Institute). This was coordinated in cooperation with Arctic Frontiers, the Arctic Institute and the GeoNorth program.

It was a fantastic week for APECS as well. We organized three events – the joint Fram Centre – APECS reception entitled “Arctic Games”, APECS Discussion Panel, and Outstanding Poster Awards for early career researchers:

### Arctic Games reception at the Fram Centre

The Arctic Games reception was organized as a joint effort between the High North Research Centre for Climate and the Environment (The Fram Centre) and APECS, and with the help of the Climate and Cryosphere project (CliC) on January 22<sup>nd</sup>. This event brought more than 200 conference participants together for a lively mingling and networking with the overall goal to foster communication between experts,

scientists, politicians, industry representatives and early career scientists working in the Arctic.

### Meet Arctic Frontiers Poster Award Winners

APECS is pleased to announce winners of the Arctic Frontiers Outstanding Poster Awards coordinated by APECS and supported by the organizing committee of Arctic Frontiers. Winners were officially announced during the conference dinner on January 24<sup>th</sup>. We thank judges for their reviews.

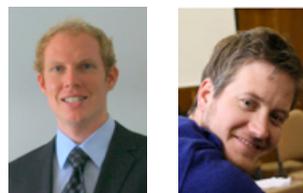
#### ❄ Moritz Schmid & Jordan Grigor



*Takuvik Joint International Laboratory, University Laval (Canada) & CNRS (France)*

Poster Title: In situ imaging of mezozooplankton in order to assess scale spatiotemporal variability

#### ❄ Malte Humpert & Andreas Raspotnik



*The Arctic Institute & University of Cologne (Germany)*

Poster Title: From “Great Wall” to “Great White North”: Explaining China’s Politics in the Arctic

#### ❄ Gen Nakamura



*Tokyo University of Marine Science and Technology (Japan)*

Poster Title: Needs of oosteological comparison between North Atlantic minke

whales with North Pacific minke whales to clarify for their taxonomic status

## APECS Discussion Panel on Traditional Knowledge during Arctic Frontiers

APECS hosted a Discussion Panel entitled "Local knowledge and research and policy: bridging the past and present with preparations for the future" in the afternoon on January 25<sup>th</sup>, which was the final event of the Arctic Frontiers conference 2013.



In keeping with the conference theme, "Geopolitics and Marine Production in a Changing Arctic", the subject of the discussion panel was the collaboration of local knowledge with science and policy, and touched several important questions, such as: How to integrate local ecological knowledge into research practices, as well as what are the ways to validate this knowledge; ethical questions of working with local communities; insights on future synergies between northern communities and researchers. Panelists included Grete K. Hovelsrud (CICERO), Mario Acquarone (NAMMCO/UiT), Camilla Brattland (NIKU), Einar Eythórsson (NIKU), and Ole Mathis V. Hætta.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6019:apecs-at-arctic-frontiers-2013&catid=22&Itemid=120](http://www.apecs.is/index.php?option=com_content&view=article&id=6019:apecs-at-arctic-frontiers-2013&catid=22&Itemid=120)

## Arctic Frontiers Emerging Leaders

Twenty-one young people from industry, consulting and academia met under the Emerging Leaders program in conjunction with the Arctic Frontiers 2013 conference. Emerging Leaders program is aiming at strengthening

communication and networking between emerging leaders and established Arctic experts within academia and corporate sector. This program is organised by Arctic Frontiers, and its development was carried out in cooperation with the Research Council of Norway (RCN) and ConocoPhillips, and with technical support from SALT, Lofoten.

Former APECS Director, Alexey Pavlov, was lucky to join this program and to follow lectures and presentations on governance, policy, industry, science related to the Arctic region during the 2.5-day trip between Bodø – Svolvær – Tromsø. It was a great mix of topics providing a broad perspective on the present and future of the Arctic region. During the program, Emerging Leaders were challenged to think about the future of the Arctic in 2050 and to make presentation on the topic. Fruitful brainstorming and discussions resulted in 20 min performance during the second day of the Arctic Frontiers conference. You can watch the presentation online and meet current Emerging Leaders at the Arctic Today Show in 2050 (*Tuesday, Session 4 - presentation start at ca. 21:00 min*): <http://tinyurl.com/2013EmergingLeaders>.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6016:arctic-frontiers-emerging-leaders&catid=88&Itemid=186](http://www.apecs.is/index.php?option=com_content&view=article&id=6016:arctic-frontiers-emerging-leaders&catid=88&Itemid=186)

## 3.2. Arctic Frontiers 2014

### Four Early Career Representatives join Scientific Committees of the Arctic Frontiers Conference 2014

We are happy to announce that four early career representatives are joining four scientific committees of the Arctic Frontiers Conference 2014 with a theme 'Humans in the Arctic'. They will help scientific committees to plan and shape a program for the science section. Early career representatives are:

Health, Society and Environment  
**Marney Paradis** for the Part I – Health, Work &

Wellbeing in the Arctic

**Frigga Kruse** for the Part II – Health & Environment in the Arctic

Operational Challenges

**Mia Bennett** for the Part III – Shipping & Offshore in the Arctic

**Piotr Graczyk** for the Part IV – Search and Rescue

Read more about Marney, Frigga, Mia and Piotr at <http://apecs.is/about-apecs/leadership/representatives/5170-current-apecs-representatives> and find out more about the Arctic Frontiers conference at <http://www.arctic-frontiers.com/>.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6149:four-early-career-representatives-join-scientific-committees-of-the-arctic-frontiers-conference-2014&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6149:four-early-career-representatives-join-scientific-committees-of-the-arctic-frontiers-conference-2014&catid=96&Itemid=121)

### 3.3. Norwegian Events 2012-2013

#### APECS at The Economist's Arctic Summit

The Economist Group attempts to provide high-level international forums for senior executives to discuss opportunities and challenges in different spheres. The Economist's Arctic Summit was designed to focus on the Arctic and to promote constructive thinking on its present and future state and development. The Arctic Summit took place in Oslo, Norway on March 11th and 12th and attracted more than 150 policy makers, scientists, environmentalists, businessmen, and representatives from the industry sector. A number of topics through a combination of plenary talks and panel discussions were covered: changes in the Arctic environment, shipping, exploration of mineral resources, shipping and associated risks in the Arctic, environmental and geopolitical perspectives of the Arctic development. APECS was invited to be present at the meeting as well, and three APECS representatives participated in it: Teresa Valkonen (Co-Chair, APECS Finland and APECS Education and Outreach

Committee), Ylva Sjöberg (Executive Secretary, APECS Sweden) and Alexey Pavlov (Director, APECS).

What are the major thoughts about the Summit from early career researchers' perspective?

1. The Economist's Arctic Summit showed very clearly how difficult it is to effectively communicate between different groups: scientists, policy makers, industry representatives, environmentalists, general public and others. This question was briefly brought up during discussions. One particular core group that was mentioned is young people as a group that realistically could change their opinions about topics related to the polar regions and a climate change.

2. Arctic exploration is not restricted by political or law regulations, it is restricted by technological challenges and will require sound scientific findings. Thus, it was clearly stated that new, breakthrough technologies will be required in the future and need to be created by a competent and well-educated people. Human capital will be crucial here. Representatives from almost all sectors strongly emphasized the need for more data and research in the Arctic.

3. A striking aspect of the Summit was a lack of women among the speakers with an original program with only 1 female expert of 25 speakers (Nina Jensen, WWF Norge). Due to a last minute change in the program, Ellen Baum from the Clean Air Task Force also appeared at the Summit.

What APECS could do in the future?

1. There are huge differences in how language, and communication in general, is used in different fields of the society. Acknowledging these differences will be the first step to get the voice of scientists to be heard. APECS Education and Outreach committee has already done a great deal in this direction. APECS should further ensure outreach, education and science communication activities and to emphasize its importance for the whole APECS community. Even more work with schools and the general public will be required in the future. We should also facilitate more cross-disciplinary communication within the APECS community as well as between APECS members

and early career representatives of different sectors.

2. APECS leadership should look wider beyond traditional academic careers and build meaningful relationships with an industry sector to provide more relevant training and opportunities for polar early career researchers. In parallel, APECS should invest more into emphasizing the importance of interdisciplinary and international research cooperation.

3. APECS is already doing a great job in terms of training of female polar scientists. For example, 4 of 5 APECS Presidents have been female researchers and a current executive committee consists of all 5 enthusiastic ladies. We hope that we could continue this tendency in the future.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6085:apecs-at-the-economists-arctic-summit&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6085:apecs-at-the-economists-arctic-summit&catid=96&Itemid=121)

## APECS Panel at the Arctic Ocean Acidification Conference

During the AMAP's International Arctic Ocean Acidification Conference in Bergen, Norway on May 7<sup>th</sup> 2013, APECS teamed up with AMAP to deliver a panel discussion for early career scientists. We talked about "Ocean Acidification in the future Arctic: From science to policy", aiming to get tips for early career scientists from experienced scientists and policy makers.



On the stage that day we had Prof. Dr. Ulf Riebesell from GEOMAR, Germany; Dr. Elizabeth Jewett from NOAA, US; Dr. Nadja Steiner from Canadian Centre for Climate Modelling and Analysis, Canada; Prof. Dr. Leif G Anderson from University of Gothenburg, Sweden and Lars-Otto Reiersen, who is an Executive Secretary of AMAP, Norway.

We asked panelists to share their experiences of being involved with the policy making process,

and to provide their ideas on how early career researchers can get involved in such a process.

Some pieces of advice were:

- ❖ Discuss with your supervisor that you are interested in getting involved
- ❖ Find a good mentor
- ❖ Do the best science you can, and publish your science
- ❖ Make your work popular (through social media and outreach activities)
- ❖ Share your science with the general public to learn who to explain it in an easy way; go to schools to educate kids. This will make you experienced in using simple language to communicate your science.
- ❖ Be active and use opportunities: there are many of them and they are open: get involved with AMAP, just let them know what science you do and that you are interested in contributing to the assessment writing process.
- ❖ Most important is "do whatever you think is fun to do"!
- ❖ Be amazing!

Link to the webcast, where you can watch the discussion is here: <http://www.ustream.tv/recorded/32521609> and processed video is now available on APECS Vimeo Channel at <https://vimeo.com/67637060>.

\* Test by Anna Silyakova, Helen Findlay and Alexey Pavlov

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6168:apecs-panel-at-the-arctic-ocean-acidification-conference&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6168:apecs-panel-at-the-arctic-ocean-acidification-conference&catid=96&Itemid=121)

## APECS Outreach Panel at the International Workshop on Antarctic Ice Rises

Another fruitful discussion took place during two discussion panels hosted by APECS on August 26<sup>th</sup>, during the International Workshop on Antarctic Ice Rises (

cryosphere.org/meetings/ice-rises-2013) in Tromsø, Norway.

Two sessions covered topics of education and outreach at schools, as well as science communication and interaction with media and policy makers. Six panelists had a broad range of expertise and represented different career stages – from postdocs to senior researchers, which stimulated a great discussion.

While as usual there were many general suggestions and tips for early career researchers, several pieces of advice can be particularly highlighted:

### Communication with media/journalists

- ❖ Keep the message simple while be true to science
- ❖ In most cases, don't worry about what you said during the interview as general public will mostly remember the fact that you were on TV/radio/newspaper etc.
- ❖ Try to talk to journalists before the actual interview. This helps to understand what to expect from the upcoming meeting
- ❖ Watch out for opportunities to join media training courses

### Working with schools

- ❖ Contact relevant organizations: PolarTREC, PEI and APECS
- ❖ Bring tangible things and artifacts to classrooms – kids like that
- ❖ Show your passion and let kids know that polar researchers are real and normal people
- ❖ Use different approaches when talk to different age groups
- ❖ Promote polar (earth) sciences as a field where kids could apply their math and physics skills

### Science communication to general public

- ❖ Use opportunities to join science weeks
- ❖ Organize events on your own and together with partners such as APECS (E.g. Science Fairs)
- ❖ Cooperation between Art and Science might be very fruitful!
- ❖ Try to use press offices at your institution to highlight recently published results

### Communication with policy makers

- ❖ Normally, politicians are short-term goal driven, so it is difficult to send a message across regarding any long term measures or investments. Try your best if you are in a position to do that. As in other cases, keep message simple, be true to science and bring artifacts!

Also, check out 19April 2013 Special Issue in Science on Grand Challenges in Science Education at <http://www.sciencemag.org/site/special/education2013/>. A number of good articles can be found there!



Both sessions had positive feedback from workshop participants. Even more positively was met a BBQ that followed the panels and primarily supported by APECS with a contribution from SCAR, the Scientific Committee on Antarctic Research! Many thanks to Justin Beckers and Anna Silyakova for helping with BBQ organization!

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6227:apecs-outreach-panel-at-the-international-workshop-on-antarctic-ice-rises&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6227:apecs-outreach-panel-at-the-international-workshop-on-antarctic-ice-rises&catid=96&Itemid=121)

## 3.4. Norwegian Highlights in the APECS Newsletter

### High North Academy

APECS is happy to highlight our new partner in Norway. High North Academy (HNA) <http://www.highnorthacademy.com> is a project

functioning under support of the University of Tromsø and the Fram Centre. HNA is developing and offering graduate courses in transferrable skills for students, scientists and educators at the University of Tromsø and in Northern Norway with the main aims to: increase the quality of graduate studies in the High North; stimulate High North research output and communication; enhance social interactions across institution boundaries; raise awareness of the skills acquired through graduate studies and about the different career paths after graduate studies; improve recruitment to higher education and research in the High North.

A formal agreement between APECS and HNA in form of a Memorandum of Understanding was signed at the end of September. And this fall we already work together on a series of APECS Career Development Webinars and a Graduate Programmes database.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5870:high-north-academy&catid=88&Itemid=186](http://www.apecs.is/index.php?option=com_content&view=article&id=5870:high-north-academy&catid=88&Itemid=186)

### ARCTOS Network – Meet APECS' neighbour in Norway



ARCTOS is an international Arctic marine research network. Established in 2002, ARCTOS was the initiative from scientists at the University of Tromsø, the Norwegian

Polar Institute, the University Centre on Svalbard (UNIS) and Akvaplan-niva. Later, researchers from the Institute of Marine Research and University of Nordland have joined, as well as scientists in several other institutions in Norway and other countries.

ARCTOS scientists conduct science over a broad range of marine ecology topics in the Barents Sea and around Svalbard, and in most of the northern waters. And after 10 years of its existence, ARCTOS has become an active and important player in the field of Arctic marine ecology in Norway and internationally. Currently, APECS International Directorate

Office and ARCTOS Secretariat are co-located under the same roof of Hyperboreum building – a part of the Faculty of Biosciences, Fisheries and Economics on campus of the University of Tromsø.

If you are seeking to extend your Arctic research network in Norway then ARCTOS is a good community to get in contact with. Find out more at <http://www.arctosresearch.net/>

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5912:arctos-network-meet-apecs-neighbor-in-norway&catid=88&Itemid=186](http://www.apecs.is/index.php?option=com_content&view=article&id=5912:arctos-network-meet-apecs-neighbor-in-norway&catid=88&Itemid=186)

### Centre for Climate Dynamics



Norway meets the demand for cutting edge climate research. The Centre for Climate

Dynamics (<http://skd.bccr.no>) is a new research and competence centre for the advancement of climate science. They have received funding from the Norwegian Ministry of Education and Research for the next 10 years, which will build on the expertise of the Bjerknes Centre for Climate Research, University of Bergen, the Institute of Marine Research, Uni Research Ltd and the Nansen Environmental and Remote Sensing Center. The Centre for Climate Dynamics will conduct research to enhance the understanding of the variability and changes in the climate. They plan to develop state-of-the-art modeling tools to ensure the provision of global and regional climate scenarios for the North Atlantic and the Arctic, Europe and selected developing countries. At the international level, the Centre will contribute to major climate research initiatives, such as the Intergovernmental Panel on Climate Change (IPCC). At the same time, there will be some benefits for APECS members since Centre for Climate Dynamics will focus on training and recruitment of the next generation of climate scientists working in the High Latitudes and particularly in the Arctic!

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5947:centre-for-climate-dynamics&catid=88&Itemid=186](http://www.apecs.is/index.php?option=com_content&view=article&id=5947:centre-for-climate-dynamics&catid=88&Itemid=186)

## Leadership in Arctic Gas Hydrate Research



As announced lately by the Research Council of Norway, a Centre for Arctic Gas Hydrate, Environment and Climate at the University of Tromsø (UiT) was granted a status of a Centre of Excellence for the

next ten years. Under guidance of the UiT professor Jurgen Mienert, the new Centre will focus on studies of gas migration processes, fluid flow and permafrost in the Arctic, and their importance for the Arctic marine environment and for a global climate system.

This news is definitely of interest for many polar early career researchers and APECS members working in this field. Additionally, there is an annual funding of 14 millions NOK where approximately 30-40 new PhD and PostDoc positions will be created in coming years!

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5975:leadership-in-arctic-gas-hydrate-research&catid=88&Itemid=186](http://www.apecs.is/index.php?option=com_content&view=article&id=5975:leadership-in-arctic-gas-hydrate-research&catid=88&Itemid=186)

## Arctic Frontiers Emerging Leaders

Arctic Frontiers



ConocoPhillips

The Research Council of Norway

Twenty one young people from industry, consulting and academia met under the

Emerging Leaders program in conjunction

with the Arctic Frontiers 2013 conference. Emerging Leaders program is aiming at strengthening communication and networking between emerging leaders and established

Arctic experts within academia and corporate sector. This program is organised by Arctic Frontiers, and its development was carried out in cooperation with the Research Council of Norway (RCN) and ConocoPhillips, and with technical support from SALT, Lofoten.

Alexey Pavlov was lucky to join this program and to follow lectures and presentations on governance, policy, industry, science related to the Arctic region during the 2.5-day trip between Bodø – Svolvær – Tromsø. It was a great mix of topics providing a broad perspective on the present and future of the Arctic region. During the program, Emerging Leaders were challenged to think about the future of the Arctic in 2050 and to make presentation on the topic. Fruitful brainstorming and discussions resulted in 20 min performance during the second day of the Arctic Frontiers conference. You can watch the presentation online and meet current Emergent Leaders at the Arctic Today Show in 2050 (*Tuesday, Session 4 - presentation start at ca. 21:00 min*):<http://tinyurl.com/2013EmergingLeaders>.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6016:arctic-frontiers-emerging-leaders&catid=88&Itemid=186](http://www.apecs.is/index.php?option=com_content&view=article&id=6016:arctic-frontiers-emerging-leaders&catid=88&Itemid=186)

## APECS in Norway: A good start of the year

Dear APECS community,

APECS has been extremely active in Norway during January-March this year. First, the Arctic Frontiers conference was a great success with a number of side arrangements including the Emerging Leaders and the Young Scientists Forum. Now planning for the next conference is underway, check latest updates at <http://www.arcticfrontiers.com/>.

The University of Tromsø has announced its new leadership – Anne Husebekk, a new rector and her team have a High North among strategic priorities, which is partly reflected in Anne Husebekk's twitter account (@AnneHusebekk) – “University of Tromsø - A partner for development of the Arctic”. This is good news for Arctic researchers and APECS,

and we hope for a continuation of fruitful cooperation with the University of Tromsø.

After an invitation from The Economist, three APECS representatives, Ylva Sjöberg, Teresa Valkonen, and myself took part in The Economist's Arctic Summit in Oslo on March 11-12, which was an interesting event. You can find a summary of this meeting under APECS News.

In the upcoming weeks, APECS will be working together with the Arctic Monitoring and Assessment Programme on a thematic discussion panel during the AMAP Arctic Ocean Acidification conference in Bergen, May 6-8, 2013. This is expected to be a great event! We thank AMAP for this cooperation and for a financial support to a number of APECS members.

What's happening now? Nothing, because it is a Påskeferie or Easter holidays!

God Påske fra APECS Directorate!  
Alexey

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6086:apecs-in-norway-a-good-start-of-the-year&catid=88&Itemid=186](http://www.apecs.is/index.php?option=com_content&view=article&id=6086:apecs-in-norway-a-good-start-of-the-year&catid=88&Itemid=186)

## **“Arctic Ocean Acidification” in Norway**

Key ocean acidification experts were brought to the Arctic Ocean Acidification conference in Bergen, on May 6-8, 2013. Led by the Arctic Monitoring and Assessment Programme (AMAP), this conference addressed important topics such as observations and modeling of Arctic Ocean acidification, its effects on marine ecosystems, linkages and feedbacks to the climate system, economic, social and policy implications of the Arctic Ocean acidification. At this conference AMAP will present results of its new assessment on the Acidification in the Arctic Ocean.



Traditionally, AMAP has been supportive to early career researchers and APECS. In cooperation with AMAP, APECS hosted a

discussion panel on the topic “Ocean Acidification in the future Arctic: From science to policy – tips for early career scientists” on May 7th.

Find out more about the conference and APECS Panel

at <http://amap.no/Conferences/aoa2013/about.html>

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6120:arctic-ocean-acidification-in-norway&catid=88&Itemid=186](http://www.apecs.is/index.php?option=com_content&view=article&id=6120:arctic-ocean-acidification-in-norway&catid=88&Itemid=186)

## **APECS Directorate at the Faculty of Biosciences, Fisheries and Economics of the University of Tromsø**

We received funding for the APECS Directorate in Tromsø for the next 3,5 years. The University of Tromsø will continue to host the APECS International Directorate Office. However, starting from this summer it will become officially attached to the Faculty of Biosciences, Fisheries and Economics (BFE Faculty). Before, APECS Directorate was formally a part of the University's administration.

BFE is one of the six faculties of the University of Tromsø, and is one of the most active with regards to Arctic and polar research. With more than 300 employees, and more than 1000 students, the main focus areas of the Faculty are aquatic and terrestrial ecosystems, climate, life in the Arctic, marine bio prospecting, fish health, business and macro economics, resources and environment, markets and management of marine resources industry. It has a unique mix of business and entrepreneurship environment, fundamental and applied research. And we expect that with this new place at the BFE Faculty, the APECS Directorate will be able to integrate to and cooperate more with a local polar and research community.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6131:apecs-directorate-at-the-faculty-biosciences-fisheries-and-economics-of-the-university-of-tromso&catid=88&Itemid=186](http://www.apecs.is/index.php?option=com_content&view=article&id=6131:apecs-directorate-at-the-faculty-biosciences-fisheries-and-economics-of-the-university-of-tromso&catid=88&Itemid=186)

## Chapter 4: APECS Membership 2013 continues to grow!

Another year has passed and our organization continues to be an example of enthusiasm and energy. It is really amazing to see how the growth of APECS worldwide is infectious! We are happy to report that as of September 2013, APECS is made up of more than 4200 members from more than 75 countries all over the world.



### Membership Growth Over Time



So, who exactly is APECS in 2013? Continuing recent trends, APECS has most of its members in Europe and North America (combined about 70 percent). But our membership in Latin and South America, Asia and Australia and New Zealand are constantly growing. Brazil, India and Australia are within the top 10 countries in membership numbers! About 29 percent of all European members are located in Scandinavia

with Norway making up the largest portion with more than 200 members. Nationally, the top 5 countries – United States, Canada, United Kingdom, Norway and Brazil make up about 55 percent of the total APECS membership. Russia, Germany and India also have each more than 100 members and these numbers keep growing. There is increasing engagement on the national level within APECS and this year alone we have seen 8 National Committees (re-)established covering the European APECS membership such as Romania, Slovenia, Bulgaria and others. We are also happy that our Asian membership is growing as we now have had National Committees established in Japan and China this year. We are very much looking forward to new national and international activities and a growing membership in all our APECS countries.

One of the major aims of APECS is to facilitate opportunities for early career scientists in polar sciences. As you know, different educational and professional levels may open more and new exciting opportunities. Thus, it is very important for APECS to keep track of all those stages that young scientists pass through their career. More than half of APECS members are graduate students (Master and PhD students) and about 22 percent are postdoctoral researchers, research scientists, senior researchers and early faculty members. The rest are undergraduate students, teachers, research assistants, laboratory technicians, program coordinators, administrators and other early career scientists who greatly contribute to Polar research.

To keep in balance the great variety of Polar sciences and to ensure the better research perspective, APECS has grown as a multi- and interdisciplinary organization with members engaged in Arctic and Antarctic science as well as cryospheric research. We have young specialists in Ecology (including Biodiversity, Fisheries, Forestry, Plant Sciences, Toxicology, Microbiology, Aquatic and Zoology) and Environmental Science, Geosciences (including geology, soils, permafrost, hydrology, water resources, remote sensing and Palaeontology), Glaciology, Atmospheric Sciences, Oceanography, and Social Sciences (including anthropology, international relations, law, urban studies, human health, medicine and economics).

This section has been all about the early career scientists of APECS, but beyond these facts and figures is much more. APECS is an amazing community of partners, mentors, teachers, young scientists and friends from all over the world, and we look forward to continued growth and collaboration in the years to come.

*All membership statistics are correct as of September 2013*



## Chapter 5: APECS National Committees

To better respond to the needs of a specific country, APECS has several branches in different countries, national committees, which are linked to the international overarching organization. APECS now has 29 active national committees. Some countries have well developed national committees, whereas others are just getting started. Here are some of their highlights from 2012-2013. This term, 10 new committees started: Romania, Slovenia, US Northwest, France, Japan, Turkey, Bulgaria, Luxembourg, China, and Korea.



To find out more about the APECS national committees go to [http://www.apecs.is/index.php?option=com\\_content&view=category&layout=blog&id=24&Itemid=113](http://www.apecs.is/index.php?option=com_content&view=category&layout=blog&id=24&Itemid=113)

### APECS Belgium



APECS Belgium is composed of an active and enthusiastic group of people. They have bimonthly meetings in Brussels, a central place in the country. The group

formed on December 1<sup>st</sup> 2011, on Antarctica day. In 2012, they visited the New Belgica project, a social project aiming to build a form-replica of the research vessel Belgica from Adrien de Gerlache. In October 2012, they hosted the first APECS BeNeLux symposium (Belgium-Netherlands-Luxembourg) in Ghent attended by about 30 people. Both young researchers and invited keynote speakers presented their research on day 1, followed by 4 workshops on day 2 (talking to the media; presentation skills; non-academic careers; proposal writing). Social activities were held after those very productive days. In May 2013 APECS Belgium 'brought the poles to Brussels' by organising a science fair during the Antarctic Treaty Consultative Meeting in Brussels. This free outreach event, with posters, 'cool' experiments, a photo exhibition, games and lectures was open for everyone. Young researchers from different universities presented their research using experiments for all ages and invited speakers talked about various topics in different languages (Dutch, French, English). You can read more about this event on the website

(<https://sites.google.com/site/sciencefairenglish/>) and in a special edition of Science Connection, where APECS BeNeLux is introduced

([http://www.belspo.be/belspo/organisation/Publ/pub\\_ostc/sciencecon/41sci\\_nl.pdf](http://www.belspo.be/belspo/organisation/Publ/pub_ostc/sciencecon/41sci_nl.pdf)). Now APECS Belgium is planning a day for teachers and young scientists and looks forward to the next APECS BeNeLux symposium in the Netherlands. They are also aiming to form an official structure (a 'vzw'). The national committee is represented on the Council by Anton Van de Putte and Dagmar Obbels whereas Ines Tavernier serves on the Executive Committee.





Pictures taken at the science fair: (1) visitors attending the science fair (experiments, posters); (2) visitors attending the science fair; (3) penguin game

Contact person: Ines Tavernier (Ines.Tavernier@UGent.be), Anton Van de Putte (antonarctica@gmail.com), Dagmar Obbels (Dagmar.Obbels@UGent.be).

## APECS Brazil



After five years of hard work, the National Committee (NC) of Brazil has developed dozens of activities to promote the dissemination and communication of polar science all over the country and abroad.

The 2012-2013 organizational structure of our NC includes:

- ❖ a Board (Erli Schneider Costa, President; Rodrigo Kerr, Vice-President; Elaine Alves dos Santos, Secretary General; Juliana Assunção Ivar do Sul, first Treasurer; Fernanda Quaglio, second Treasurer; Arnaldo Russo, first Secretary; Miriam Hebling Almeida, Coordinator of Education & Outreach)
- ❖ a Council (Moacir Silva, Nubia Caramello, Roberta da Cruz Piuco)
- ❖ active members (Alexandre Silva, Adriana de Lira Rodriguez Pessôa, Jaqueline Brumelhaus, Julia Finger, Juliana Silva Souza, Larissa Castro, Maria Rosa

Dmengeon Pedreiro, Priscila Krebsbach, Sandra Freiberger)

- ❖ Ex-officio members (Alexandre Alencar and Rosemary Vieira)
- ❖ and more than 500 members registered on our website, Facebook fan page and/or in our newsletter contacts.

The activities focused on Education & Outreach (E&O; lectures, educational and entertaining activities, media releases), participation and organization of Workshops and Symposia, meetings with government officials and Brazilian Committees for Antarctic Science, as well as submission of grant projects to funding agencies in order to raise and widen our E&O activities and provide opportunities for the early career scientists and educators in Brazil.

*Lectures and educational and entertaining activities for elementary and high schools*

- ❖ Several lectures on Arctic and Antarctic environment were given by the APECS-Brasil members in elementary and high schools of different cities of Brazil (Colégio Estadual Monsenhor Miguel de Santa Maria Mochón, Rio de Janeiro – RJ; Curso de Ciências Biológicas da Universidade Federal do Paraná – PR; Escola Estadual de Ensino Fundamental e Médio, Erval Grande – RS; Escola Municipal de Ensino Fundamental Pinhalzinho, Erval Grande – RS; Escola Estadual de Ensino Fundamental Sete de Setembro, Erval Grande – RS; Escola Municipal CEI Olívio Soares Sabóia, Curitiba – PR; Escola Municipal de Ensino Fundamental Cônego Alberto Schwade, Feliz – RS; Escola Municipal de Ensino Fundamental São José, Bom Princípio – RS; Colégio Riachuelo de Ensino Fundamental, Santa Maria – RS; Creche Ipê Amarelo UFSM, Santa Maria – RS; CEFET, Curvelo – MG; Instituto Educacional N Senhora das Graças, Nazaré da Mata – PE; Faculdade da Região Serrana, Farese, Santa Maria do Jequitibá – ES; Escola Nossa Senhora das Graças, São Paulo – SP; Colégio Ipê, São Paulo – SP; Colégio Visconde de Porto Seguro, São Paulo – SP; Colégio Santa Cruz São Paulo – SP; Letícia Educação Infantil, Rio de Janeiro – RJ; Colégio Maria Auxiliadora, Canoas – RS; Colégio de Aplicação Simonsen, Rio de Janeiro – RJ;

Escola Municipal Telêmaco Gonçalves Maia, Rio de Janeiro – RJ; Colégio de Aplicação da UERJ, Rio de Janeiro – RJ; Escola Municipal Azevedo Junior, Rio de Janeiro – RJ; Colégio Evangélico Augusto Pestana, Ijuí – RS; Centro Estadual de Educação Profissional, Curitiba, PR; Colégio Puríssimo Coração de Maria, Rio Claro – SP; Escola Estadual Michel Antonio Álem, Rio Claro – SP; Escola Municipal Antonio Maria Marrote, Rio Claro – SP; Escola Municipal Professora Diva Marques Gouvea, Rio Claro – SP; UNESP, Rio Claro – SP);

- ❖ Lectures, video playing and other activities launched in elementary and high schools of the Brazilian States of Rio Grande do Sul (5), Paraná (5), Rio de Janeiro (12), Rondônia (2) and São Paulo (6), during the IX International Polar Week (March 2012);
- ❖ High school students learned about the equipments and tools used in Antarctic expeditions during a guided visit to the Brazilian Antarctic Support Station at Rio Grande town, Brazil;
- ❖ Development of teaching-learning material to students with special needs (for more information access <http://www.acilianesaladerecursos.blogspot.com.br/>; in Portuguese);
- ❖ Promotion of the flag drawing competition for the Antarctica Day (1<sup>st</sup> of December 2012), with more than hundred flags sent by elementary and high school students of all over Brazil.

#### Outreach

- ❖ New APECS-Brazil webpage ([www.apecsbrasil.com](http://www.apecsbrasil.com)) – a repository of information on our NC actions and access to polar science and education activities;
- ❖ Regular updating of the Facebook fanpage, with scientific information and suggestions on activities to the wider community;
- ❖ Two newsletters (Jun-Dec 2012 and Jan-Jun 2013) where published and record the main activities developed all over the country, regarding polar science, education and international meetings (<http://www.apecsbrasil.com/informativo/>);
- ❖ Participation in the “III Workshop de Desenvolvimento de Carreira” (3<sup>rd</sup> Workshop on Career Development)

organized by APECS-Portugal (October 2012). Our President Erli Costa was invited to held a lecture on APECS-Brazil history and trends;

- ❖ Participation in the Science Fair, in Belgium (May 2013). Our President Erli Costa was invited to lecture on APECS-Brazil Education and Outreach activities). Also, the Brazilian NC took part in the CEP/ATCM held in the same event;
- ❖ Participation in the “XIX Simpósio Brasileiro sobre Pesquisa Antártica” (19<sup>th</sup> Brazilian Symposium on Antarctic Research), held in the University of São Paulo, Brazil (September 2012). Our President Erli Costa gave a talk about the activities of the APECS-Brazil. Also, our 2<sup>nd</sup> treasurer Fernanda Quaglio presented a poster about our activities to invite early career scientists to join APECS-Brazil (Ivar do Sul et al. 2012);
- ❖ Launching a logo drawing competition through Facebook voting for the 10<sup>th</sup> International Polar Week to be held in September 2013;
- ❖ Our President Erli Costa was interviewed by the Radio show “Curta Cultura” of the FM Radio Claretiana (Rio Claro city, Brazil) and talked about the 10<sup>th</sup> International Polar Week;
- ❖ Publication of APECS-Brazil activities in several newspapers, magazines and school internet sites all over the country.

#### Submission of grant projects

- ❖ Grant proposal in order to publish teaching-learning material on behalf of the “Ministério do Meio Ambiente” (Ministry of Environment);
- ❖ Grant proposal submitted to the FAPERJ funding agency to develop the E&O project “A APECS-Brasil e a formação de educadores/pesquisadores e de pesquisadores/educadores” (APECS-Brazil and the training courses of teachers-researchers and researchers-teachers);

Financial support for the production of an Antarctic Calendar designed by scientists of the Federal University of Rio de Janeiro (UFRJ).

#### Official meetings

- ❖ Our President Erli Costa attended a meeting with the Brazilian Admiral Silva Rodrigues and team (Brasília, June 2013), in order to create E&O join projects of APECS-Brazil with the “Comissão Interministerial para os Recursos do Mar” (Interdepartmental Commission for Marine Resources);
- ❖ Our President Erli Costa met Cristovam Buarque, Senator of the Federative Republic of Brazil and who created the “Frente Parlamentar para o PROANTAR” (Parliamentary Committee for the Brazilian Antarctic Program), to introduce him the goals and current and future activities of the APECS-Brazil (Brasília, May 2013);
- ❖ The APECS-Brazil was invited by the Brazilian Admiral Silva Rodrigues of the “Comissão Interministerial para os Recursos do Mar” (Interdepartmental Commission for Marine Resources) to take part of several official meetings that will define the future of the Polar Science in Brazil. An example is the meeting on the project of the next Brazilian Antarctic Station, held in July.
- ❖ Our President Erli Costa attended a meeting with the and team (Brasília, June 2013), in order to create E&O join projects of APECS-Brazil with the “Comissão Interministerial para os Recursos do Mar” (Interdepartmental Commission for Marine Resources).

#### *Other activities*

- ❖ Our NC also contributed to the new guidelines for the incoming “Plano de Ação para a Ciência Antártica Brasileira 2013-2022” (Action Plan for the Brazilian Antarctic Science 2013-2022) in order to enhance opportunities for the early career scientists and educators of Brazil in promoting the science to the development of our country.

#### *Upcoming activities*

Several events are scheduled for the end of 2013 and 2014:

#### *Later this year*

- ❖ Next August, Amazon will held the “I Seminário Polar Internacional na Amazônia: O papel da pesquisa científica na motivação de jovens pesquisadores na Amazônia e o

papel do educador nesse diálogo” (1<sup>st</sup> International Polar Wokshop in Amazon: the role of scientific research in motivating early career scientists of Amazon and the role of the educators in this link). The workshop has been organized by Nubia Caramello, (active member of APECS-Brazil) with support of the APECS-Spain and APECS-Portugal;

- ❖ During September, the “X Semana Polar Internacional” (10<sup>th</sup> International Polar Week) will be carried out in parallel with the “I Workshop de Desenvolvimento de Carreira” (1<sup>st</sup> Workshop on Career Development), with 18 courses for early career scientists and educators. All board, council and active members will be present;
- ❖ Still in September, the APECS-Brazil will be formally launched according to the current Brazilian Law and goals of the APECS international;
- ❖ Our NC was invited to organize the oral and poster presentations of the “XX Simpósio Brasileiro sobre Pesquisa Antártica” (20<sup>th</sup> Brazilian Symposium on Antarctic Research), that will be carried out in São Paulo at the end of September;
- ❖ From next October on, the travelling exhibition “A UERJ na Antártica” (The State University of Rio de Janeiro in Antarctica) will initiate in the State of Rio de Janeiro and is supported by APECS-Brazil and organized by Dr Alexandre Alencar, *Ex-Ofício* member and mentor of APECS-Brazil;
- ❖ For December we are preparing the commemorations for the Antarctica Day.

*Other activities are also being prepared for 2014*

- ❖ APECS-Brazil will support the 11<sup>th</sup> International Polar Week, parallel events during the ATCM that will be held in Brasília, and the 3<sup>rd</sup> APECS-Brazil in Arraial do Cabo town.
- ❖ Following the active participation during the ATCM/CEP in Belgium, the APECS, represented by the APECS-Brazil, was invited by the “Ministério das Relações Exteriores” (Brazilian Ministry of Foreign Affairs) to collaborate with the organization of the next ATCM, that will be carried out in Brasília, in May. One of the main

achievements of the Brazilian NC during the CEP/ATCM event in Belgium was the inclusion of E&O activities in the next five years agenda of the CEP/ATCM. This was approved with the support of Belgium, Portugal, Argentina, Malaysia, Romania and ASOC. The inclusion of a new item to be coordinated by the APECS-Brazil was also approved: a proposal of long term strategy and action plans to accomplish E&O activities.

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## APECS Bulgaria



APECS-Bulgaria has passed successfully its first year with a lot of enthusiasm, plenty of outreach events and promising partnerships. Bulgarian National Committee started its work in the summer 2012 with a dozen of talks and photo exhibition for the general audience.

During the Fall 2012 Bulgaria celebrated for a very first time the International Polar Week. Bulgarian students drew flakes, blobs and bubbles within the flagship educational activity and also took a part in a video talk with the Portuguese researcher Dr. José Xavier. The activities were held in collaboration between APECS Bulgaria, APECS Portugal, Bulgarian Antarctic Institute and British Council-Bulgaria and were

Bulgarian National Committee organized in Sofia in November and December 2012 several activities to celebrate for the first time the Antarctica Day. During the celebration about 200 students were actively involved. Various activities were conducted - lectures and talks given by the early career scientists Denitsa Apostolova and Igljika Trifonova in schools in different Bulgarian towns, virtual balloon launch, creation of flag designs for the flagship activity "From the Classroom to Antarctica", interviews in newspapers and radio broadcasts, photo exhibition of Igljika Trifonova "Antarctica – the cold south" held in the National Library.

On December 1, students from the Eco-Bio Club "Green Clover" of the English School in Sofia prepared presentations on topics related to the poles in the European Union Information Centre's official hall. Researchers from Bulgarian Antarctic Institute, early career scientists from APECS Bulgaria and students from the same school attended the 90 minutes lectures. It was great to see students' deep interest discussing the importance of Polar Regions to conserve the planet and life as we know nowadays.

The Spring International Polar week in Bulgaria was delayed with some weeks because of the British Council's Science Festival in Sofia. There Antarctic and the Polar education were a key attraction and several members of APECS and Bulgarian Antarctic Institute attended science outreach events. During the Festival in May 2013 students from many schools could see from inside the tent of the 1<sup>st</sup> Bulgarian expedition (1987-1988) and feel like real Polar explorers. There were lectures, a digital photo exhibition and we are proud that Asparuh Kamburov - a Polar early career scientist was one of the finalists in the Fame Lab competition! A very good collaboration between APECS-Bulgaria, Bulgarian Antarctic Institute and British Council-Bulgaria!

During the spring 2013 the coordinator of APECS Bulgaria attended the International Workshop "Education Meet Science: Bringing Polar Research into classrooms" in Coimbra, Portugal and the Science Fair, organized by APECS Belgium as a side event to the Antarctic Treaty Consultative Meeting (ATCM) in Brussels, sharing experiences and exchanging ideas and contacts.

Summer 2013 activities of APECS Bulgaria include firstly talks and drawing contest for orphans and street children from the Social and Youth center of Concordia Bulgaria Foundation. A large educational Antarctic photo exhibition dedicated to the 25<sup>th</sup> anniversary of the Bulgarian Antarctic expeditions was held at the end of July with a great success. It was created in cooperation with the Bulgarian Antarctic Institute and was exposed in the most popular place in the heart of Sofia town – on the "Lovers Bridge" close to the National Palace of Culture.

All of these public engagement activities received wide media coverage and excellent feedback from the different publics. We strongly believe that science communication is very important for the success of Antarctic educational activities and we try to expand continuously our media relations.

In 2013 APECS Bulgaria continues to follow its long-term educational and outreach program willing to spread its knowledge and polar experiences in Bulgarian schools, kindergartens and Universities around the country. Therefore on our agenda is the intention to register APECS Bulgaria as a non governmental organization and to be more ready for collaboration in education, outreach and scientific projects with the other National Committees.

Fall IPW – September 2012



Antarctica Day – December 2012



Spring IPW – May 2013



If you have questions, comments, or want to get involved on APECS activities in Bulgaria, just contact us: Iglia

Trifonova: [iglicat@gmail.com](mailto:iglicat@gmail.com). We look forward to hearing from you!

Contact person: Iglia Trifonova ([iglicat@gmail.com](mailto:iglicat@gmail.com))

## APECS Canada



The inaugural meeting of APECS-Canada took place at the International Polar Year (IPY)

Conference in Montreal, Canada (2012). After sharing ideas on structure and goals, working groups were established based on the needs of researchers in Canada's north: 1) a series of webinars highlighting Canadian research, 2) a calendar for researchers to coordinate field site research tools and resources, 3) compiling resources on northern communities, and 4) creating a list of polar related meetings and event with potential for APECS collaboration. After this meeting logo ideas were shared and with the help of Gerlis Fugmann the APECS-Canada website was created and the logo established. The working groups for the field work collaboration calendar and Canadian webinars were very successful, with Jean-Sébastien Moore creating the calendar for the 2013 field work season and Louise Chavarie hosting four webinars highlighting research in the Eastern and Western Arctic. The other working groups are in progress. APECS-Canada is currently a loose structure with a board of 33, and over 400 APECS-Canada members. With the high volume of polar early career scientists in Canada over a large geographical area there is a large potential for future resource sharing and collaborations and we are currently pursuing a sharing of ideas with the UKPN to learn more about how to maintain a successful national committee in the long-term. Our website can be found at [apecs.is](http://apecs.is) under 'Get Involved' then 'National Committees', and features Canadian polar news, events, webinars and the field calendar.

Contact person: Meagan Grabowski ([meagangrabowski@gmail.com](mailto:meagangrabowski@gmail.com)), Jennifer Provencher ([jennifpro@gmail.com](mailto:jennifpro@gmail.com)), Louise Chavarie ([chavarie@ualberta.ca](mailto:chavarie@ualberta.ca))

## APECS Chile



APECS Chile will provide updates to APECS International later on this year. You can have a look at their website

(<http://apepschile.wix.com/apeps-chile>) or Facebook page (<https://www.facebook.com/groups/36381179312/?fref=tsp>).

Contact persons: Claudia Maturana (cmaturana.ciencias@gmail.com) and Francisco Fernandoy (ffernandoy@gmail.com) or at [apeps.chile@gmail.com](mailto:apeps.chile@gmail.com)

## APECS China

The WMO EC-PORS-4 (Executive Council Panel of Experts on Polar Observations, Research and Services fourth session) was held in Lanzhou during 13-15 March 2013. APECS' representative Wang Yuzhe attended the meeting where young scientists and organizations interested in the third pole were invited to join.

Tosca Ballerini attended the SOOS Asian Workshop on May 23 2013 in Shanghai, where five early career scientists from Chinese universities participated in the web broadcasting.

Yuzhe Wang promoted APECS in his own lab and introduced it to professors at the Nanjing University and Shanghai Normal University. APECS China is not yet a solid group, but the first steps have been made.

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## APECS Denmark



APECS Denmark continues its philosophy of combining events of scientific relevance with social happenings and education in practical skills unique to the harsh (Ant)arctic environment in which we work. To that end the past year has offered a number of

interesting events:

In late 2012 we hosted a 20-people cabin retreat during which we isolated ourselves from our every-day lives for a weekend in the woods, while learning about the work of others members of the group, as well as further developing a strategy for the continuation of the national group. A number of internal groups were set up, dealing with topics such as social events, scientific events, mentoring, funding etc. The purpose was to assign responsibility for each, so as to ensure the continued growth of the group and its philosophy, despite the revolving door membership that is typical in the academic world. An internal newsletter was also founded during this retreat, allowing for the continued sharing of important information, such as articles published and upcoming conferences of interest in the region.

In the spring of 2013 we also hosted a course on arctic first aid, taught by a former Danish special forces soldier. The course was a huge success with more than 30 people involved, learning how to survive under the critical and stressing conditions that is ubiquitous in our working environment. The event was followed up by a cozy night in a shelter.

General feedback from the event gave the feeling that the group had developed a sense of community. This was evident from a number of spontaneous social events that came about naturally as members started to suggest happenings on the fly. To mention but a few we have had events with skating, skiing, barbecues and nights of arctic documentaries on big-screen.

All in all, the group is doing well, and the philosophy of combining scientific events with social/practical events seems consistently to draw in curious members by word-of-mouth sharing. It offers the group a more unique and memorable approach to meetings, social-interaction and networking, and ultimately results in a more tightknit community, which essentially ends up running itself as members take initiative on their own.

For the coming year we plan to expand on our scientific program, both in terms of conference-connected workshops and the mentoring program, while still maintaining the attitude that

all events should be balanced by scientific and socializing content.

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## APECS Finland

2012-13 has been another great year for the APECS Finland. Following the initiative and enthusiasm of eager Finnish APECS members, APECS Finland held a multidisciplinary seminar with the support of the Finnish Environment Institute and the Finnish Meteorological Institute in Helsinki, Finland at the end of November 2012.

The seminar provided the ideal platform for networking, career advice and sharing ideas for PhD, Masters and undergraduate students from across Finland. The seminar introduced different institutes and their strategies of polar research, and Arctic funding possibilities with the Academy of Finland. In addition, presentations by different research groups, doing Arctic and Antarctic research, were interesting and inspirational, and opened up new research collaborations. Fortunately so much polar research is presently conducted in Finland that many groups were introduced also in the poster session.

In conjunction to the seminar, a career development workshop on science communication was held together with a mentor panel. The major topics covered during the workshop and mentor panel were from how to communicate with media both from researchers and media's perspective to how valuable connection with the research community is for early career scientists. The seminar and workshop were a great success with the auditorium full of young scientists as well as interested senior researchers.

During the term 2012-2013, APECS Finland members have had active participation in multiple events both inside Finland and at an international level. Members have joined the International Polar Week and the Antarctica Day, the Fifth Polar Law Symposium in Finland, ASSW 2013 conference and APECS workshop in Poland, and were represented in the APECS Council and subcommittees.

Moving forward this coming fall, APECS Finland will be hosting an event together with APECS Sweden in conjunction with the IGS Symposium at Lammi Field Station, Finland. APECS Finland members have been involved writing the successful APECS NORDEN proposal and are also participating and organizing the "Bridging early career researchers and youth Indigenous peoples" workshop in tandem to ASSW 2014 in Helsinki, Finland.

In the meantime, we have encouraged our APECS Finland members to be active, to recruit new members and mentors and to participate in international APECS activities. Also the APECS Finland webpage is an ongoing process. We are also looking forward to working further with APECS Sweden and Norway, and hope to get more ideas from our members and what they would like to see APECS Finland do for them.

For further information, you are very welcome to get in touch with the committee by emailing to [sanna.majaneva@gmail.com](mailto:sanna.majaneva@gmail.com). We look forward to hearing from you!

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## APECS France



**APECS  
FRANCE**

APECS-France officially formed on June 4<sup>th</sup> at the first symposium of the French Arctic Initiative organised at Collège de France in Paris. This happened a short time after the organisation of the first French polar week in april by Pascaline Bourgain, Camille Robineau & Anne-Mathilde Thierry. During this week, about 300 young students attended several webinars on different subjects such as living on an Antarctic station or in a small village in Greenland, polar science, and polar animals, using APECS GoToWebinar platform. The students also had the opportunity to send questions to polar scientists. The outline of this country-specific polar week was presented at the science symposium of the French Committee on Arctic & Antarctic Research in May in Paris, as well as at the XIth SCAR Biology Symposium in July in Barcelona.

The first weeks of APECS-France consisted in listing the French and French-speaking young polar scientists and educators, as well as potential mentors, with more than 80 people already on the APECS-France e-mailing list, and numbers growing. A second polar week will be organised between September 30 and October 4. It aims to propose a large panel of thematic webinars about the polar regions for students from 5 to 18 years old. 11 schools have already registered for the event. Finally, a workshop dedicated to early career polar scientists in France is also in the planning stage for spring 2014.

Talk presented at the science symposium of the French Committee on Arctic & Antarctic Research (not officially APECS-France yet though...), 16-17 may 2012, Paris

L'École des Pôles, une initiative de vulgarisation des sciences polaires sur le plan national

Anne-Mathilde Thierry<sup>1,2,3</sup>, Pascaline Bourgain<sup>1</sup>, Camille Robineau<sup>1</sup>

<sup>1</sup> APECS Association of Early Career Polar Scientists, French National Committee

<sup>2</sup> PEI Polar Educators International

<sup>3</sup> Institut Pluridisciplinaire Hubert Curien, Département Ecologie, Physiologie et Ethologie, CNRS – Université de Strasbourg, France

Poster presented at the XIth SCAR Biology Symposium, 15-19 July 2013, Barcelona Country-specific actions and international cooperation to better communicate polar sciences in communities and classrooms

Anne-Mathilde Thierry<sup>1,2,3</sup>, Pascaline Bourgain<sup>1</sup>, Sarah Crowley<sup>2,4</sup>, Camille Robineau<sup>1</sup>, Heidi Roop<sup>1,2,5</sup>, Teresa Valkonen<sup>1,6</sup>, Janet Warburton<sup>2,4</sup>

<sup>1</sup> APECS Association of Early Career Polar Scientists, French National Committee

<sup>2</sup> PEI Polar Educators International

<sup>3</sup> Institut Pluridisciplinaire Hubert Curien, Département Ecologie, Physiologie et Ethologie, CNRS – Université de Strasbourg, France

<sup>4</sup> PolarTREC, ARCUS Arctic Research Consortium of the U.S., Fairbanks, AK, USA

<sup>5</sup> Antarctic Research Centre, Victoria University of Wellington, New Zealand

<sup>6</sup> University of Helsinki, Finland (+ 4 Webinars for schools during the French polar week in April, before being officially APECS-France)

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## Indian Polar Research Network (IPRN)



Highlights of last year (2012-2013) activities of IPRN:

1. Constitution of IPRN documented and First IPRN Excom elected
2. Creation of IPRN facebook page (<https://www.facebook.com/iprn.india>)
3. IPRN website launched (<http://iprnindia.wix.com/iprn>)
4. 20 new members joined IPRN (2012-2013)

5. Creation of standard handouts of IPRN and their distribution to National and International polar researchers during PAGES Meet in Goa. This can be downloaded at ([http://media.wix.com/ugd//fdefd8\\_55286a12ca\\_ddb8a40ecda26705ee6b53.pdf](http://media.wix.com/ugd//fdefd8_55286a12ca_ddb8a40ecda26705ee6b53.pdf)).

6. IPRN poster presentation at Young Scientists Meeting and Open Science Meeting during PAGES Meet in Goa (13- 16 Feb 2013)

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## APECS Italy

The APECS Italy committee has been very active in the year 2012/2013, with the organization of several in-person meetings, training courses and schools and participating to international conferences and workshops.

In October 2012 the APECS Italy committee organized the first meeting of APECS Italy members with the Italian managers of Polar Research. The meeting was held at the Italian Antarctic Museum in Siena, Italy, and was organized in collaboration with the Commissione Scientifica Nazionale per l'Antartide (CSNA) and the support of the Consiglio Nazionale delle Ricerche (CNR).

A list of the activities organized by the APECS Italy Outreach and Education community is provided below.

Development of teaching tools:

- ❖ App for iPad *CLAST* (acronym for CLimate of Antarctica from Sediments and Tectonics): this is a teaching-learning application (<http://www.mna.it/clast/>) developed by a team composed by two Polar Professors (Prof. Talarico Univ. Of Siena and Prof. Zattin Univ. Of Padova) and three Italian Science Teachers, C. Bianchi, M. Cattadori, and M. Macario (this last one in connection with her PhD project), actively involved in promoting Polar Sciences in Italy. The App is both in English and in Italian version and downloadable for free by Apple Store.

Organization of courses and schools:

- ❖ "Polar Science Day" for teachers and students, December 2012, including training courses dedicated to Italian Teachers who are interested in digging deeper in polar sciences. The courses have been designed and promoted by teachers that participated in the SPES 2012 Summer School.
- ❖ Training course for Italian Science teachers: *Dai Poli alla Scuola (From the Poles to the school)*. Istituto Comprensivo "Primo Levi", Prato, Italy, from January to June 2013. 20 teachers from the Elementary to Lower-Secondary Level participated in the training course organised by M. Macario. The course aimed to test the teaching modules (including lesson plans, hands on labs and a lot of media tools) produced in the PhD project of M. Macario self. The course will probably carried out again in 2014.
- ❖ Second edition of Polar Summer School for teachers (SPES), in Genova, Italy, on July 2012. 20 teachers participated in.

Outreach:

- ❖ *Three days for the school*, conference with 400 students in Torino, Italy, April 2013
- ❖ Exhibition *Obiettivo Antartide* at the school of one of teachers that participated to the Italian Polar Summer School 2012, May 2013.

- ❖ paper by MariaCira Veneruso (one of former SPES teachers that traveled to Antarctica) on the journal *Il Polo* ([http://www.museopolare.it/3%C2%B0\\_2012.htm](http://www.museopolare.it/3%C2%B0_2012.htm))
- paper on the journal *La Zolla*, published by a school in Milano (<http://ilgiorno.campionatodigiornali.smo.it/2013/05/30/scuola-elementare-la-zolla-di-milano-alla-scoperta-dellantartide/>)

Participation to meetings and conferences:

- ❖ Macario et al. *CLAST: a Science Education App for Tablet Examining the Dynamic of an Antarctic Glacial System*. Oral presentation at the International conference: New perspective in science education - Florence 14-15 March 2013
- ❖ Marzo 2013 partecipazione a workshop di Coimbra di PEI Polar Educator International [http://www.educapoles.org/news/news\\_dettaglio/international\\_workshop\\_bringing\\_polar\\_research\\_into\\_the\\_classrooms/](http://www.educapoles.org/news/news_dettaglio/international_workshop_bringing_polar_research_into_the_classrooms/)
- ❖ Macario et al. *Developing and testing multimedia educational tools to teach Polar Sciences in the Italian school*. Oral presentation at the European Geological Union meeting (Vienna, Austria, 07-12 April 2013)
- ❖ Macario et al. *From the Polar Regions to the Schools - Approaching Polar Science with IBS (Inquiry Based Science)*. Poster presentation at the final meeting of the European Project INQUIRE - Kew (London) 8-10 July 2013
- ❖ Macario et al. *From the Polar Regions to the Schools: Teaching tools for Evidence-Based Polar Education in Italy*. Interactive Poster presentation at the ESERA (European Science Education Research Association) conference, Cyprus 2-7 sept 2013. This participation could be an interesting opportunity to build up a team group in Geosciences Education, for the future ESERA conference that will be held in Helsinki in 2015. We strongly encourage APECS in promoting and scaffolding this objective, so important from an educational point of view.

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## APECS Japan

In the beginning of 2013, Ines Tavernier (APECS Vice-President) informed Japanese students of Hokkaido University about APECS, as was requested by professor Atsuko Sugimoto. Now, young researchers plan to hold the first APECS meeting, including an informal social gathering to get to know each other, in October, during the fall meeting of the Oceanographic Society of Japan and/or in November, during the Symposium on Polar Science of Japan. There, they will discuss the vision of APECS Japan and how to form a coherent group.

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## APECS Korea

APECS Korea is in the earliest stage of forming a national committee and will provide updates to APECS International later on this year.

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## APECS Luxembourg



APECS Luxembourg has been working throughout the past year in close relationship with COLUPO (Luxembourg's IPY committee) to create a sustainable joint luxembourgish bi-polar network: [www.polar.lu](http://www.polar.lu). This Network of scientists, scholars, museums, artists, Inuit living in Luxembourg and explorers will take an official form of an a.s.b.l. (Association sans but lucratif) and is to be launched within the next few months

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## APECS Netherlands

APECS Netherlands was founded on June 29, 2012. The momentous occasion was marked with an inaugural workshop co-hosted by NWO

(Netherlands Organisation for Scientific Research), the Willem Barentsz Polar Institute (WBPI), and VPRO (the Dutch Broadcasting Corporation).



Since then the network has grown substantially and the above collaborations are still going strong. Besides the first APECS BeNeLux Symposium in Gent on October 11-12, 2012, which was attended by a Dutch delegation, there have been no other meetings. However, the Dutch network communicates extremely well via its mailing list and via Facebook. Young researchers have engaged in some exemplary blogging from the Netherlands Arctic Station in Ny Ålesund on Svalbard and the recently established Dirck Gerritsz Laboratory at Rothera Research Station in Antarctica.

In addition, APECS Netherlands has undertaken a concentrated effort to recruit Dutch mentors into its sphere of influence. This has been highly successful with senior scientists, educators, and others seeking and maintaining fruitful connections with us.



APECS Netherlands is currently organizing the 2<sup>nd</sup> APECS BeNeLux Symposium. This will be held in The Hague on October 31, 2013. It precedes the Netherlands National Polar Symposium, this year under the title 'Polar science and policy: a happy marriage?'

Read more about the symposium: <https://sites.google.com/site/apecsnetlands/home>

Group picture taken at the launch of APECS Netherlands.

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## APECS Norway

Many APECS members were active within APECS Tromsø group (see updates there). In addition to Tromsø activities, APECS Norway members, Teresa Valkonen and Alexey Pavlov participated in the Economist's Arctic Summit in Oslo, in spring 2013. In May 2013, Anna Silyakova and Alexey Pavlov co-organized an APECS panel during AMAP's Arctic Ocean Acidification conference in Bergen, which was a great success. As in case with APECS Tromsø, we look forward for a productive season 2013-2014!

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## APECS Oceania



APECS Oceania has achieved several 'firsts' since our official establishment in May 2012.

We had our first continuous blog post. The blog story was written by our committee members on board of the expedition Sea Ice Physics and Ecosystem eXperiment (SIPEX-2). SIPEX-2 travelled to the Southern Ocean during austral winter 2012, with more than 60 scientists, including four of our committee members.

We have successfully organized our first Australia-based workshop during the 'Strategic Science in Antarctica' conference held in Hobart, Tasmania. The workshop themed 'leadership in science', which included a leadership-related presentation, hands-on activities, and a panel discussion at the end.

We are planning our first committee elections in August 2013 to get more enthusiastic members involved in the future.

Besides all these 'firsts', we also coordinated several social events through the year:

- ❄️ Pub Night SCAR - Open Science Conference, Portland 2012
- ❄️ Speed-meet-a-geek (networking event) - Antarctica NZ Conference, Christchurch 2012
- ❄️ Panel Session - IceFest, Christchurch NZ 2012
- ❄️ Pub Night - Strategic Science in Antarctica, Hobart, Tasmania 2013
- ❄️ Scientific Writing Workshop (Feb 2013)

To sum up, our NC has some great ideas for future events, but the group is still young and we are eager to recruit more helpers.

To follow us, please subscribe to:

Facebook page:  
<https://www.facebook.com/ApecsOceania>

Twitter: @APECSOceania

Blog: <http://apecsocceania.blogspot.com.au/>

And email us: [apecs.oceania@gmail.com](mailto:apecs.oceania@gmail.com)

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## APECS Poland

Polish APECS members were deeply involved in the Arctic Science Summit Week 2013 in Kraków, Poland. We had 'our people' in the organizing team - the Secretariat and the Volunteer group - and a very strong representation in almost every thematic session, also among the conveners. We also contributed to the APECS Workshop held during the ASSW, both as co-organizers and participants.

A delegation from APECS Poland was invited to join a Romanian national polar symposium 'Criosfera 2013' in February 2013 in Piatra Neamt where APECS Romania was launched. We were very happy to share our experience and ideas among young Romanian polar and mountain scientists, and to be the witnesses of a very enthusiastic and promising start of a new APECS national committee.

APECS Poland members are taking part in the EDUSCIENCE project. The main aim of the project is to raise the interest in studying subjects of great importance for the management and economy through the use of

an interactive e-learning platform. The project is directed to students and teachers from 250 schools in Poland, chosen at random on all levels of education.

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## APECS Portugal



Between September 2012 and July 2013, APECS Portugal organized and was involved in

different activities promoting interdisciplinary and educational outreach, e.g., the International Polar Weeks and the 3<sup>rd</sup> APECS Portugal Career development Workshop and several early career scientists presented their work at international conferences.

During the fall, International Polar Week in September 2012, APECS Portugal in coordination with APECS Brazil (and Polar Educators International) organized 63 activities with schools, as skype calls with scientists, lectures, school room activities and others, involving about 4000 students, 115 teachers and 25 scientists from Brazil, Portugal, Canada, Australia, Bulgaria and the UK.



The Spring International Polar week took place during March 2013, APECS Portugal, once again in collaboration with APECS Brazil, IMAR (University of Coimbra) and PEI, participated in the 42 activities organized for and by schools in Portugal, Brazil and S. Tomé. In the Spring IPW were involved 177 teachers and 10 scientists of

Brazil, France, Germany, United Kingdom and S.Tomé reaching to up to 2500 students.

During Spring International Polar Week, several members APECS Portugal attended the International Workshop Education Meet Science: Bringing Polar Research into classrooms. The goal of this workshop, organized by IMAR (University of Coimbra, Portugal), AWI (Germany) and BAS (UK), was to facilitate the communication between teachers and scientists dedicated to the polar research. Here, we contributed with a communication about APECS Portugal and its activities.

In the 3<sup>rd</sup> APECS Portugal career development workshop, we had the presence of 26 earlier career scientist promoting interdisciplinarity and the networking organizing an international pannel and inviting representatives of other earlier career scientists associations as APECS Brazil and APECS Spain, the UK Polar Network and the Permafrost Young Researchers Network, but also international polar program research leaders mentoring us during a day.

We are now organizing the 4<sup>th</sup> APECS Portugal career development workshop. The workshop is going to talk place on October 31<sup>th</sup> in the University of Algarve as a side event of the Portuguese Polar Science Conference. This year the workshop is going to be dedicated to Science Communication.

In the latest year, several members of the Portuguese national committee have been attending several conferences, discussion pannels and international workshops as e.g. the SCAR Biology Conference and APECS Spain workshop in Barcelona.

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## APECS Romania

January:

- ❄ 3<sup>rd</sup> of January: Official launch of the "Criosfera 2013" site, a site for the first Romanian symposium on the cryosphere. Responsible: Stelian GRIGORE
- ❄ 5<sup>th</sup> of January: Official launch of "Primii pasi in criosfera" (First steps into the cryosphere)

project, addressed to children aged 3 to 9. Over 500 children were involved in the project. As a result, over 600 of their works were gathered in an exhibition shown in Piatra Neamt and Bucharest. Project coordinator: PhD. Cosmina DRAGOMIR

#### February:

- ❖ 18-24 of February: National Symposium “Criosfera 2013” Piatra Neamt. More than one hundred participants from six countries.
- ❖ 22 February: Foundation of APECS Romania as part of APECS International

#### March:

- ❖ 22 February - 10 March: Expedition in the Himalayans, monitoring of the Annapurna Glacier. Leader of the expedition: PhD Istvan FALKA
- ❖ 15 March: Inauguration of APECS headquarters in Piatra Neamt

#### April:

- ❖ 1 April: Launch of essay contest for high school students ‘I want to become a polar explorer’
- ❖ 15 April: Assignment of APECS Romania Board and Mentoring Council
- ❖ National Monitoring Program for Permanent Cryosphere Deposits (three field rounds: LICAS Glacier, CEAHLAU Glacier and SCARISOARA Glacier)

#### May:

- ❖ 8-12 May: Romanian Explorer School “EMIL RACOVITA” (RESER), Ecolog Chalet, spring module
- ❖ 14 May: Board meeting for planning CRIOSFERA 2014 symposium: Location established in Ploiesti, Oil and Gas University (UPG Ploiesti)
- ❖ 30 May - 2 June: National Monitoring Program for Permanent Cryosphere Deposits (first monitoring round in 2013: HADES Glacier, Piatra Craiului)

#### June:

- ❖ 8 June: Paula Cretu appointed national representative at APECS International
- ❖ 15-16 June: National Monitoring Program for Permanent Cryosphere Deposits (HADES Glacier, Piatra Craiului)

- ❖ 24 June: Start of fundraising campaign for “Criosfera 2013” magazine

#### July:

- ❖ 1-7 July: Romanian Explorer School “EMIL RACOVITA” (RESER), Piatra Craiului, summer module
- ❖ APECS Romania’s project is selected for ADfel Cultural Fair in Bucharest (12-14 august)
- ❖ APECS Romania’s project is selected for the National School of Photography, Diaporama and Film (three APECS Romania members and one mentor)
- ❖ 19-22 July: National Monitoring Program for Permanent Cryosphere Deposits (HADES Glacier, Piatra Craiului)

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### APECS Russia



**APECS  
RUSSIA**

The season 2012-2013 for APECS Russia was marked by some new and very impressive

achievements. First and foremost is that 2 active APECS Russia members held the leadership positions in APECS which helps to bridge international community of young scientists with Russian members (Alexey Pavlov, Directorate and Yulia Zaika, Executive Committee). We have launched the APECS Russia facebook page at <https://www.facebook.com/APECSRussia> and linked it with the twitter account at [https://twitter.com/APECS\\_Russia](https://twitter.com/APECS_Russia) where we will post some polar and APECS news as well as announcements, ideas, conferences and meetings information. Keep your eyes on our resources!

Throughout the year APECS Russia members gave several presentations at different conferences to promote polar research and share experiences on how to develop and sustain the national committee. For example, we’ve been involved in the International Conference ‘The HISTORY of the ARCTIC EXPLORATION - from the PAST to the FUTURE’

in Arkhangelsk, in fall 2012 with presentations of Yulia Zaika and Alexey Pavlov entitled 'IPY and APECS: New page in the history of an International cooperation in the Arctic'. Or, in February 2013 APECS Russia together with APECS Polska was invited to Romania to help young scientists to establish APECS Romania. During the CRIOSFERA Symposium in Piatra Neamt, Yulia gave a presentation about APECS, organized a round-table with young scientists to discuss the most urgent issues and best practices in polar research. As a result APECS Russia has established good connections with APECS Polska and Romania and we are looking forward for new joint projects.

Since the end of 2012 APECS Russia has also been actively involved in brainstorming and writing the project called 'Bridging Polar Early Career Researchers and Indigenous Peoples in Nordic Countries' funded by the Nordic Council of Ministers (Norden) where our members will organize some activities as online webinars and participation in the workshop to be held next year in Helsinki in conjunction with the Arctic Science Summit Week 2014.

Along with international collaborations APECS Russia is working on getting more involved on the national level. Thus, this year we have established new and sustain existing strong partnerships with young scientists and mentors from the leading Polar institutions of Russia - the Institute of Geography RAS, Arctic and Antarctic Research Institute, Northern (Arctic) Federal University, young scientists from PYRN Russia and Lomonosov Moscow State University. After the Arctic Science Summit Week in Krakow (April 2013), APECS Russia helps the International Arctic Science Committee (IASC) to get young scientists from Russia involved into activities of its advisory group ISIRA (International Science Initiative in the Russian Arctic).

We are looking forward to the new and more exciting year!

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## APECS Slovenia



This report describes the activities since the establishment of the national committee of APECS in Slovenia that started in the middle of 2013. It contains a short overview of activities performed until July 2013.



Although Slovenia is not a country with well-known activities in Polar Regions, there are strongly involved individuals in various cryospheric topics. Research and activities in the field of the cryosphere are in Slovenia very dispersed and performed at many different institutions. The idea about APECS in Slovenia is some kind of a next step after the Section for Cryosphere formation in the frame of the Slovenian Association of Geodesy and Geophysics (SZGG).



The establishment of the National committee of APECS in Slovenia is still in progress and has just started with activities towards official formation. The first step was made in June 2013 when the website <http://www.slometeo.net/apecs-slo> was

released. In the meantime, individuals work on various research and applied projects and collaborate also with scientists from Alpine as well as polar research.



Research results were presented in various conferences, meetings and via publications. During the incoming months further activities towards effective NC are planning – after the summer we start with activities during the International Polar Week.

The main goals of the new incoming national committee are to bring international activities on cryospheric sciences closer to the people in the field of research of ice and snow in Slovenia, to become actively involved in APECS, to encourage individuals with interests in the cryosphere, to share ideas and possibilities for cooperation on the wider cryosphere, and to cooperate with other APECS National committees and partners.

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## APECS South Africa

APECS South-Africa is currently encouraging her fellow team members on Marion Island (Sub-Antarctica) to join APECS and she hosted an event where part of the team watched the foodweb webinar in June. Daleen Kock hosted a Midwinter celebration in South-Africa on June 22. The NC is in touch through a national mailinglist.

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## APECS Spain



The Spanish branch of APECS was legally established in 2012, and after one year the number of members increased from 14 to 24. During the XIth SCAR Biology Symposium

(SBS) we have engaged more than 10 Spanish early career researchers (ECS) to collaborate with APECS Spain. Thanks to different media platforms, like Facebook, Twitter and our blog (<http://apecsspain.wordpress.com/>) APECS Spain is gaining visibility and every day more ECS in Spain are aware of the advantages of becoming members of the association.



APECS-Spain is gradually more committed to E&O activities from APECS International. To celebrate Antarctica Day (December 1<sup>st</sup>) some members of APECS Spain carried out the *Antarctica Day Flags – From the Classroom to Antarctica* activity at Jaume Balmes High School in Barcelona. 12-year old students learned about Antarctica, why it is so important and how thanks to the Antarctic Treaty nations we are able to work together peacefully for scientific purposes. Students also designed their own flags for Antarctica, which were displayed on a holiday meal celebration in Antarctica on December 25<sup>th</sup>.



The 1<sup>st</sup> APECS Spain workshop was held at Cosmocaixa on the 14<sup>th</sup> July. More than 30 participants, including ECS, teachers and senior scientists discussed some tips for young

researchers. Themes like 'how to write your first paper,' 'how remark your skills in your CV' or 'how to get your desired job' were addressed by Renuka Badhe (SCAR), Jose Xavier (APECS mentor), Mary-Anne Lea (Institute for Marine and Antarctic Studies), Anton Van de Putte (APECS Belgium), Hauke Flores (Alfred Wegener Institute), Irene Schloss (Argentine Antarctic Institute) and Patricia Azinhaga (PEI).

APECS Spain had also an important role in the organization of the XIth SBS, with two members involved in the Local Organizing Committee, and during the E&O day (Wednesday July 17<sup>th</sup>). Begoña Vendrell-Simón (APECS Spain vice-president) was convener and chair of the E&O sessions and had an oral presentation, and Rodrigo Soteres (APECS Spain member) contributed with a poster and a talk about APECS Spain. Other members of APECS Spain also contributed with posters, talks and co-chairing different sessions during the symposium.

On 18<sup>th</sup> July, APECS Spain organized a Panel Discussion. The invited speakers were Mike Sparrow (SCAR Executive Director), Andrés Barbosa (Vice-director of Research at the Museo Nacional de Ciencias Naturales, CSIC, Spain), Miquel Ojeda (Head of the Spanish Antarctic Logistics) and Sergi Taboada (APECS Spain). Attendees and panelists shared ideas and impressions about the present situation of polar science in the current economic scenario. The main conclusions were related to the importance of polar science dissemination as a tool for 'pressing' the national administrations. Another important issue addressed was about the new opportunities that countries which recently included polar research in their national science programmes are creating for young researchers. Finally, all participants agreed that in spite of the difficult situation we are going through right now, there is always light at the end of the tunnel: do not be despondent and do not fall into despair, but keep struggling to accomplish your goals.

The Symposium was followed by the SCAR Delegates Meeting, where chief officers of the SG, the chairs of the SRPs and EXCOM members discussed the progress and plans of the different SRPs among other issues. APECS Spain had two observers: Francyne Elias-Piera

(APECS International and APECS Spain) and Rebeca Zapata-Guardiola (APECS Spain and Local Organizing Committee - Secretary).

Before the XIth SBS, members of APECS Spain were involved organizing a series of E&O activities in Barcelona. The project called *Barcelona capital de la Biologia Polar 2013* included a series of talks on different Antarctic themes both for the general public and in Secondary Schools. Future activities (talks, exhibitions, a gymkhana, educational programmes, etc.) will be carried out in the Natural Sciences Museum, the Maritime Museum of Barcelona and the Institute of Marine Sciences, as well as in schools all around the city and public libraries.

Next month APECS Spain will participate in 2 polar events organized by APECS Brazil. The first one, a Polar Seminar which will take place in Rondonia (Rolim de Moura city, Western Brazil); the event will be auspice by the International Polar Week project *Amazon goes to Artic and Antarctica*. The second event will be in Rio de Janeiro (eastern Brazil), where Francyne Elias-Piera and Pedro Echeveste will take part in the I Career Development Workshop.

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## APECS Sweden



APECS Sweden has gone through some structural changes during the past year.

From January 2013, we have funding for a part-time (10%) executive secretary. The new secretariat is funded jointly by the departments of Geological Sciences, Meteorology, Zoology, and Physical Geography and Quaternary Geology at Stockholm University, the arctic centre ARCUM at Umeå University, and the Swedish Polar Research Secretariat. The executive secretary position will rotate between these departments each year. The secretariat was officially opened on the 20<sup>th</sup> of March with a small celebration at the department of Physical Geography and Quaternary Geology, which will host the

secretariat for 2013. APECS Sweden also elected a new Steering Committee in March 2013, consisting of Moa Hamré, Cecilia Wesslén, Johanna Mård Karlsson, Elin Jantze, Malin Johansson, Katrin Lindbäck and Ylva Sjöberg.



*APECS Sweden has arranged two larger events during the past year:*

A full day workshop for polar ECRs was held in conjunction with the IGS Nordic Branch meeting in October 2012, attracting approximately 50 people. The theme of the workshop was field logistics and project design. The day and the six invited speakers were very much appreciated by the workshop participants.



During the Swedish Polar Research Secretariat's (SPRS) annual meeting, Polarforum (March 2013, Stockholm), APECS Sweden arranged a side meeting for ECS and also had an information desk at the meeting venue. During this meeting the new Steering Committee was also elected.

*Other activities have included:*

- ❖ With support from the SPRS we were able to help sponsor the participation of one of our members in the ASSW conference in Krakow, April 2013.
- ❖ Our website [www.apecssweden.se](http://www.apecssweden.se) has been further developed, with help from SPRS and is now regularly updated with relevant news and events.
- ❖ A twitter account has been started and will circulate between members of APECS Sweden.

- ❖ APECS Sweden's executive secretary represented APECS (Sweden) at the Economist Arctic Summit in Oslo (March).
- ❖ In May, a movie night with climate change theme was arranged at Stockholm University.
- ❖ APECS Sweden was involved in writing the proposal for the project "Bridging early career researchers and youth Indigenous peoples", which has received funding from NORDEN (Nordic Council).
- ❖ APECS Sweden's executive secretary was, as APECS representative, involved in writing the proposal for a joint PYRN-APECS workshop in conjunction with the 4<sup>th</sup> European Conference on Permafrost 2014. The project received funding from CliC and planning of the workshop has started.

*Upcoming events:*

For the near future we will arrange a workshop in polar photography at Abisko research station (August, 2013). Photographer Peter Rosén will teach both practical and theoretical sessions for taking photos for scientific publications. The workshop will be filmed and shared on the APECS Sweden website afterwards. In September, APECS Sweden members have been invited to attend the Science Symposium in the memory of Bert Bolin during the IPCC WG1 closed meeting in Stockholm. In exchange APECS Sweden members will help out with practical tasks during the meeting. In late October, an event for ECS will be organized during the IGS Nordic Branch meeting in Lammi (Finland), together with APECS Finland.

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## **APECS Tromsø**

APECS members in Tromsø participated in and contributed to several events in 2012-2013. In fall 2012 and winter 2013, Angelika Renner, Ingeborg G. Hallanger and Alexey Pavlov co-organized a series of six Fram Webinars in cooperation with the Fram Centre. Members of APECS Tromsø also contributed to the Svalbard Online workshop sponsored by the Research Council of Norway in autumn 2012. APECS

Tromsø took active part in the Arctic Frontiers Conference in January 2013 co-hosting the Arctic Games reception (together with the Fram Centre), coordinating poster awards for early career researchers and hosting a discussion panel on traditional knowledge. Throughout the past year, APECS directorate in Tromsø has been working with the Ice Rises project (led by the Norwegian Polar Institute) on joint outreach activities. In summer 2013, APECS is contributing to the organization of the international Antarctic Ice Rises workshop in Tromsø. We look forward to having more in person and social activities within APECS Tromsø in the coming year.

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## APECS Turkey

The idea of establishing APECS Turkey came out during Antarctic Treaty Consultative Meeting in Brussels (2013). As of Polar scientist, I believe it is important to facilitate national and international networking for sharing experiences. Once APECS Turkey is established, we plan to involve students (undergraduate and graduate), early career scientists, researchers, educators to develop research ideas under the frame of polar science. It is also necessary to reach out future generations to integrate them into polar research and to make them aware current status of Polar Regions. It is essential to educate young generation accordingly to constitute strong background to make them become future leaders in polar research. We are hoping to collaborate with other countries that established APECS already.

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## UK Polar Network (UKPN)



2012-13 has been another great year for the UK Polar Network, with workshops, mentor panels and outreach events aplenty! We have also launched our new-look

website, where members and non-members alike can find information about our activities, initiatives and opportunities. Particular mention should be made of Ella Darlington and TJ Young for their efforts with this excellent new feature at the centre of UKPN affairs!

Bangor Polar Symposium was held in December 2012, organised by Coleen Suckling, and provided the ideal platform for networking, career advice and sharing ideas for PhD, Masters and undergraduate students from Wales and across the UK. This year's AGM was held in tandem with the UKPN Grant Writing Workshop in March 2013, which was generously hosted by the British Antarctic Survey and provided around thirty early career participants with focused, practical advice on how to win research funding and create a launchpad for a successful career in polar science.



On the outreach agenda, the UKPN were a key attraction at the British Science Festival in September 2012 in Aberdeen, Scotland and several members attended science outreach events in June 2013 at Thinktank, Birmingham's most innovative science museum! The UKPN also played a central role in the polar science education sessions at the Natural History Museum's "Science Uncovered" event. All of these public engagement activities received excellent feedback and saw inspired audiences taking away an appreciation for and knowledge of our wonderful and critically important polar regions, so well done to all who took part!

Another exciting year is in store for 2013-14 with a Software and Polar Sciences Workshop at the Scott Polar Research Institute in September and a Polar Marine Sciences Workshop at the

Scottish Association of Marine Sciences (SAMS) in the pipeline. A further workshop focusing on Outreach and Communications has just been awarded funding by the UK Foreign and Commonwealth Office, a partnership which has been hugely successful and valuable in the past, and which we hope we can nurture and develop over the foreseeable future. The UKPN will also hold a mentoring panel at the biennial UK Arctic Science meeting. Education and outreach will continue to be a primary focus into 2013-14 and beyond as we will be “back by popular demand” at the British Science Festival and Natural History Museum’s Science Uncovered Events, and several schools workshops and public engagement events are planned for Polar Week, Antarctica Day and throughout what promises to be another productive year for the UKPN!

For further information, you are very welcome to take a look around our new website [www.polarnetwork.org](http://www.polarnetwork.org) and/or get in touch with the committee [com@polarnetwork.org](mailto:com@polarnetwork.org). We look forward to hearing from you!

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### **APECS US Northeast**

The United States Northeast Regional Committee had its inaugural online meeting in July of 2012. Since then, we have attracted 55 members to our list-serv, which we have used to organize conference meet-ups; held an online research-sharing meeting in which eight members used 5-min powerpoint presentations to present their work (November 2012); and co-hosted a student networking pizza night at the Institute for Arctic and Alpine Research (INSTAAR)'s Arctic Workshop in Amherst, MA (March 2013).

Most recently, Christie Wood (Clark University, remote from Russia) and Alexandra Giese (Dartmouth) welcomed aboard Alexander Robel (Harvard) as a fellow co-chair. Future short-term activities will focus on member recruitment, particularly in the Greater Boston area, and growing an active polar community. We will be devoting attention primarily to developing a website that

effectively disseminates information on potential mentors and/or external advisers in the Northeast corridor, relevant academic and public events, and various post-PhD career paths.

Contact persons: Christie Wood  
([christie.ice@gmail.com](mailto:christie.ice@gmail.com)), Alexandra Giese  
([Alexandra.L.Giese.GR@dartmouth.edu](mailto:Alexandra.L.Giese.GR@dartmouth.edu)),  
Alexander Robel ([alexander.robel@gmail.com](mailto:alexander.robel@gmail.com))

### **APECS US Northwest**

Activity to start the US APECS Northwest Regional Committee began in late June 2013. It is in the early stages of recruiting membership, and recruiting activities are currently focused on researchers working in the Arctic and Alaska. We have reached out to leadership and members of the North Slope Early Career Scientists to merge activities and provide a means to broaden the scope of membership to include a wider geographic range of polar researchers. Future activities will include the organization of seminars or webinars on Arctic research beginning with activities in the North Slope. We will look to recruit additional members from outside the Alaska region by contacting existing APECS members in the US Northwest region with an emphasis on identifying members interested in leadership positions and identifying the geographic range in which to focus future activities. One of the early goals of the APECS US Northwest Regional Committee is to promote networking and collaborative research activities among polar researchers in both a professional and social setting.

Contact person: Olivia Lee  
([olivia@gi.alaska.edu](mailto:olivia@gi.alaska.edu))

# Chapter 6: APECS Working Groups

Working on projects and ideas together is the main way APECS works toward shaping the future of polar research. Ideas such as the Virtual Poster Session, the APECS Mentorship Programme, the Literature Discussion Forum and the many workshops and panel discussions we have all started with a few talented people working together with a specific aim - to help each other and to create a better way to conduct polar research and to help others learn about it. APECS Working Groups are how new ideas become reality. Whether you like to join one of the current APECS working groups or even create your own, visit [http://www.apecs.is/index.php?option=com\\_content&view=category&layout=blog&id=137&Itemid=176](http://www.apecs.is/index.php?option=com_content&view=category&layout=blog&id=137&Itemid=176)



## 6.1. Current APECS Working Groups

### Traditional Knowledge Working Group

Traditional Knowledge has many definitions, however the core definition is well described by an elder from Tuktoyaktuk in the Inuvialuit Settlement Region: Traditional Knowledge is the pride in knowing your culture and knowing how to survive in your surroundings. Traditional Knowledge is a rich knowledge base, it is knowledge gained from the experience of living on the land and knowledge passed down by ancestors, and it takes a holistic approach to understanding the environment. As science often takes a reductionist approach to understanding the environment, using Traditional Knowledge and scientific knowledge together creates a more in-depth understanding of ecosystems or species of study.

We have created the APECS Traditional Knowledge web resource and Working Group to assist Early Polar Career Scientists (EPCS) in incorporating Traditional Knowledge into the their research. We have also created the web resource to facilitate the meeting of EPCS and northern communities can meet to discuss research ideas and research needs.

The TK Working Group works hard to develop this resource in collaboration with northern communities! Be sure to check back often to see what is new!

What we are developing for APECS Traditional Knowledge web resource:

- ❖ Ideas and methods for northern community consultation and research involvement
- ❖ Ideas and methods for use of Traditional Knowledge in research
- ❖ Map of Inuit regions across the Circumpolar Arctic
- ❖ Resources for documented Traditional Knowledge
- ❖ Northern community contacts for initiating community-driven and community-based research and the incorporation of Traditional Knowledge into research projects
- ❖ An online meeting place where northern communities and EPCS can post profiles, research ideas and research needs and where EPCS and northern communities can “meet” with each other.

*Co-Chairs: Jennie Knopp and Yulia Zaika*

[http://www.apecs.is/index.php?option=com\\_content&view=category&layout=blog&id=324&Itemid=437](http://www.apecs.is/index.php?option=com_content&view=category&layout=blog&id=324&Itemid=437)

### Research Sites Working Group



The Research Sites Working Group is composed of APECS members who remember how

challenging it was to start field research programs in remote polar regions. We're working hard to create a map-based interactive resource that you can use to do some research

on your future field sites or field stations well in advance of your field season.

We'll have links to field station websites, similar to other on-line polar resources, but also a section where station users can post comments and tips! This is a great way to find out what equipment, supplies and infrastructure are in place at your future field site – and also a great way to discover other useful tips and tricks.

Tips and tricks can include just about anything: how to ship equipment to your site, where to get a haircut after your field season, fun things to do on days off, where to find free WiFi, the best restaurant in the nearest town, and local “can't miss” attractions or community events.

We're also hoping this turns into a resource that APECS members use to meet fellow researchers and form collaborations before heading into the field – and to stay in touch with friends and colleagues once the field season is over.

If you're interested in joining the Research Sites Working Group, please let us know at [research-sites@apecs.is](mailto:research-sites@apecs.is)

[http://www.apecs.is/index.php?option=com\\_content&view=category&layout=blog&id=238&Itemid=180](http://www.apecs.is/index.php?option=com_content&view=category&layout=blog&id=238&Itemid=180)

## Video Editing Working Group

Video editing working group was initiated at the beginning of 2013 in hope to form a stable volunteer team to process APECS video resources for public audience. The working group currently involves three active editors. Erik Warming and Molly Zhongnan Jia were the former FrostByte editors at IPY Montreal conference in 2012, and have helped with many APECS-related videos. Paz Tornero kindly offered her professional skills and joined the working group recently. Also, another former FrostByte editor Alisa Baranskaya sits in the working group as a back-up editor, preparing to help out when we receive a massive task.

Even before officially established, the working group editors have been working on video clips taken in many APECS events, such as APECS webinars, workshops, conference discussion panels. Most of them recently uploaded to

APECS Vimeo (<http://vimeo.com/apecs>) channel were trimmed, refined, and polished by our editors. Each editor has spent a considerable amount of time to improve the quality of these recordings to make the videos more enjoyable to watch for young scientists and mentors from around the world.

Workload for our working group could be intensive sometimes, and all the editors devote great efforts to develop the videos. We are all current or just graduated students, work in different fields, and bear different levels of editing skills. We welcome new members who are interested in learning or improving their editing skills. The working group is a great platform and motivation to develop and learn about video editing techniques. The learning process could be fun and the outcome is always fruitful. Please check the video editing working group page if you want to know more about each editor.

*The Video Editing WG Coordinator – Molly Jia*

## 6.2. Past Working Groups

### Sediment Budgets Working Group

As you all probably know cold regions are undergoing rapid environmental changes in response to global warming. One of the most important effects of those changes is the transformation of cold regions land surface and sediment fluxes through the landscape. However, in contrast to development in mid and low latitude sediment budget studies, relatively little is known regarding the potential impacts of climate and sea-level changes on polar and other cold regions sediment fluxes.

That's why an APECS Working Group on Sediment Budgets in Cold Environments was formed and aimed to address this deficiency by creating a space for discussion and research cooperation for all young scientists interested in understanding the mechanisms and patterns of sediment fluxes in cold regions. As studying sediment budgets is one of the most interdisciplinary types of research in geosciences we strongly believe that our

activities will interest broad community of APECS members.

For more information or to get group's materials please contact Mat Strezelecki.

## Funding Resources Working Group

Ever wanted to go to a conference/meeting/workshop or field school and did not know what channels to follow to find travel funding? Did you wish that there was some database that you could consult to help you identify who to contact? Need a little bit of seed money to start a new research project? Or maybe you need some extra funds to have a few more analyses done to complete your next paper?

The APECS Funding Resources Working Group created the user-friendly, international and interdisciplinary database of funding resources - [http://www.apecs.is/index.php?option=com\\_fabrik&view=list&listid=11&Itemid=254](http://www.apecs.is/index.php?option=com_fabrik&view=list&listid=11&Itemid=254). It grows by people like you adding opportunities that you know of. This is not meant to be for specific calls for jobs or research positions, but for places where you can apply for funds to accomplish your research goals.

## Who is Who in Polar Science Working Group



There are many acronyms, abbreviations, and organization names in Polar Science - and this can be intimidating to people new to Polar Research. The

Who's Who in Polar Research Database aims to build upon the existing organisation databases compiled by IASC, CliC, and the Scott Polar Research Institute to become a centralized compilation of all organizations, abbreviations and important vocabulary related to Polar Science. This will include the group's logo (if applicable), a short description, and a link to their website.

This project was completed in summer of 2011! We're very excited to share this resource with the APECS and polar research communities. And please don't be shy - if we missed your group or organization, or if the information in an entry is now out-of-date, just let us know and we'll update it for you!

To use the Who's Who in Polar Science page [http://www.apecs.is/index.php?option=com\\_content&view=category&layout=blog&id=175&Itemid=135](http://www.apecs.is/index.php?option=com_content&view=category&layout=blog&id=175&Itemid=135)

Working group contact: Jolie Gareis

## APECS Mentorship Program Working Group



The APECS Mentor Program was officially launched in February 2010 by the APECS Executive Committee. This is an exciting initiative for APECS because

it allows our members to tap into the experience of more senior researchers and polar professionals. It also enables the organization to engage more actively with more senior people in the polar research community.

This initiative was an extension to the strong track record that APECS has already established by hosting mentor panels at major conferences, and we would like to continue to build up our mentor database and actively publicize this program.

The mentor database consists of an online form for people to sign up as APECS mentors (<http://apecs.is/mentors>) and this database is accessible to APECS members who want to find a mentor. The level of involvement is totally up to the individual mentor, but activities may include meeting students at conferences, participating in APECS mentor panels and providing general career guidance for young scientists.

Due to the important nature of the mentorship program for bringing together early career reserachers and established researchers this

working group has been moved become part of the Membership and Involvement Committee started in August 2011.

## Virtual Poster Session Working Group



This effort focuses on bringing the concept of the poster presentation beyond the four walls of the conference halls and creates an online database of polar research poster publications. This project allows members with similar goals and interests to exchange information and assures a platform for the exchange of Arctic, Antarctic and Cryospheric research, policy, and education activities that are *Shaping the Future of Polar Research*. APECS is leading an effort towards e-conferences among polar researchers where participants can present their research findings to an international audience through web-based settings using the APECS website.

The success of the Virtual Poster Session has been so successful that it has been moved in the Research Activities Council as a permanent part of the APECS. Visit the RAC page for more information on what the VPS is currently doing at

[http://www.apecs.is/index.php?option=com\\_content&view=category&layout=blog&id=13&Itemid=179](http://www.apecs.is/index.php?option=com_content&view=category&layout=blog&id=13&Itemid=179)

## Climate Change Answers in Various Languages Working Group



As scientists working on polar areas, we are often asked questions about global warming: "is global warming really anthropogenic? I heard that this has already happened in the past it is true?...". However, as early career, we do not always have answers for those questions and we

try to go out of the discussion by saying it is not our field of expertise... however, very often,

answers exist to those questions, and it is a matter of having them clear for us, and for the public. Nowadays, an important mode of communication is the existence of internet "chains", where information are easily diffused to mailing lists as soon as they have nice pictures. The goal of this working group is to identify those questions, bring simple answers to them, and make those questions/answers available to the public through a simple power point show in various languages.

This working group became incorporated in the Education and Outreach Committee Activities in January 2012. We got so much feedback and thought it was a good idea that we decided to make it a task of our more permanent EC Committee. You can visit the projects progress here

[http://www.apecs.is/index.php?option=com\\_content&view=category&layout=blog&id=288&Itemid=510](http://www.apecs.is/index.php?option=com_content&view=category&layout=blog&id=288&Itemid=510)

# Chapter 7: Education and Outreach Highlights



science to have a broader Impact.

The IPY placed strong emphasis on education and outreach in its planning and many early career polar researchers are using this momentum to get involved in broader communication of their work and the importance of the Polar Regions. Here we outline polar science outreach activities and how APECS and its members are staying involved, sharing experiences of outreach involvement, and continuing to communicate polar research.

For more information on APECS Education and Outreach activities go to: [http://www.apecs.is/index.php?option=com\\_content&view=category&layout=blog&id=5&Itemid=11](http://www.apecs.is/index.php?option=com_content&view=category&layout=blog&id=5&Itemid=11)

## 7.1. International Polar Week - September 2012

### International Polar Week September 2012: APECS Brazil and APECS Portugal Joining Forces

For the first time the APECS National Committees from Portugal and Brazil joined forces to gather researchers, students, educators and the general community interested in polar science. The intention of this joint effort was to discuss the importance of the Polar Regions, as well as the conservation of the planet as we know it. During the INTERNATIONAL POLAR WEEK about 4,000 students, 115 teachers and 25 scientists and educators from Brazil, Portugal, Canada, Australia, Bulgaria and the UK were actively involved. Several activities were conducted at schools, including Skype conferences (20), lectures (17), virtual balloon launches (22), Snowflakes activity with APECS International (2), and "ask-a-scientist" (2). We also carried out several parallel activities in schools, including awareness sessions, exhibition of films over the poles, elaboration of

An important part of our job as scientists is communicating our research and its relevance to others. This communication happens on many levels. We have well established methods of sharing our research with others in our field and with the broader scientific community through our publications, conference presentations, posters, etc. How we communicate with the general public, decision makers, teachers and students in many fields is less formalised. Although, this type of communication is often less practised it is an essential part of science and arguably needed for

posters, writing articles, drawings, interviews in newspapers and television. Most extraordinary was the enthusiasm and dedication of teachers/educators, schools and polar scientists, as well as the value of using new technology to communicate, which all contributed to the overall sharing of experiences and scientific knowledge with students.



Special acknowledgements should be made to those engaged from Brazil, Portugal and other countries - mentioned below:

Brazil: Miriam Almeida, Elaine Santos, Otilia M. Schneider Costa, Josiane Vial, Odete Carminati, Adriana Faé, Elsa Andréia, Sueli Matos, Religious Maria Madalena, Cecília Coradi, Maritânia Matiello, Priscila Scotta, Cíntia Lautert, Maria Teixeira, Nubia Caramello, Erli S.

Costa, Juliana Ivar do Sul, Roberta Piuco, Loirite Romanzini, Alessandra Carvalho, Sandra Emília Gomes, Moacir Silva, Juliana Sousa, Francine Piera (both Brazil and Spain), Dayana G. Almeida, Rosemary Vieira and Lucia Campos.

Portugal: Patricia Azinhaga, Emiltina Matos, Paulo Silva, Alda Pimenta, Fátima Carvalho, Nuno Gaspar, Alexandre Trindade, José Xavier, Pedro Guerreiro, Gonçalo Vieira, João Canário, Marco Jorge, Adriane Machado, Marta Nogueira, Marc Oliva, Vera Fernandes, Sílvia Lourenço, Pedro Pina.

Other countries: Catherine Smith (United Kingdom), Iglia Trifinova (Bulgaria), Claire Horan (Canada), Linda Jabs (Canada), Mary Anne Lea (Australia), Andrew Perkins (Canada), Jonathan Cripps (Canada) and Jared Peters (Canada).

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5917:internacional-polar-week-apecs-brazil-and-apecs-portugal-joining-efforts&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=5917:internacional-polar-week-apecs-brazil-and-apecs-portugal-joining-efforts&catid=96&Itemid=121)

## **Bulgaria celebrated the Polar Week for the first time**

Newly established APECS Bulgaria was active for the first time during the September 2012 Polar week. Bulgarian students drew flakes, blobs and bubbles under the flagship educational activity and also took part in a video talk with the Portuguese researcher Dr. José Xavier. The activities were held in a collaboration with APECS Bulgaria, APECS Portugal, the Bulgarian Antarctic Institute and British Council-Bulgaria.

On September 19<sup>th</sup>, Dr. José Xavier participated in a Skype call with 30 students from the Eco Club of the English Language School in Sofia. The students were between 16 and 18 years of age. The call took place at the official hall of the British Council-Bulgaria and all the participants were welcomed by the Director of the British Council, Mrs. Lyubov Kostova.



Dr. Jose Xavier introduced his research, the main results and successful experiences achieved during his project to these students. He talked about his work on penguin biodiversity in relation to climate change in the Portuguese Antarctic Campaign 2011-12, during which time he spent more than two months in fieldwork in the Bulgarian Base on Livingston Island.

The Bulgarian students prepared a lot of questions while working on "Antarctic Science: is climate change that important?", and the discussion lasted more than an hour. After the talk the students shared their wish to become more involved in APECS' activities and gave many ideas for future common events during the next Polar week.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=5868:bulgaria-celebrated-for-the-first-time-the-international-polar-week&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=5868:bulgaria-celebrated-for-the-first-time-the-international-polar-week&catid=96&Itemid=121)

## **7.2. Antarctica Day 2012**

### **Antarctica Day – Over 100 Antarctic Flags from Brazilian Students!**

APECS Brazil, together with researchers from the Penguins and Skuas project, carried Antarctic flags made by Brazilian students during Antarctic Day activities celebrated on December 01!



APECS Brazil and the APECS community want to thank all teachers and students that worked together to make this happen - it was really

amazing! We hope that all who participated in 2012 could help us to celebrate another successful, brilliant Antarctic Day in 2013!

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6081:antarctic-day-over-100-antarctic-flags-from-brazilian-students&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6081:antarctic-day-over-100-antarctic-flags-from-brazilian-students&catid=96&Itemid=121)

## Antarctica Day 2012 Celebration in Bulgaria

With the support of the Bulgarian Antarctic Institute, APECS Bulgaria organized in Sofia in the last November and December several activities to celebrate Antarctica Day for the first time.

During the celebration about 200 students were actively involved. Several activities were conducted - lectures in schools, virtual balloon launch, creation of flag designs for Antarctica, interviews in newspapers and radio, photo exhibition etc.

- ❖ 20 November - Photo exhibition of Iglia Trifonova entitled "Antarctica – the cold south" in the National Library. Great success with the presence of former Prime Minister Mrs. Reneta Indzhova, former Rector of Sofia University and famous writer prof. Boyan Biolchev, the Director of Bulgarian Antarctic Institute prof. Christo Pimpirev and many guests. The exhibition remained in the National Library till 2 February 2013 and toured some of the Bulgarian cultural institutes in Europe after that date.
- ❖ 28 November-1 December - Lectures about Antarctic mammals given by the early career scientists Denitsa Apostolova and Iglia Trifonova in schools in 2 Bulgarian towns: Sofia and Svoge. The educators answered questions of children aged between 9 and 11 years and encouraged them to paint flags for "Antarctica Day Flags".
- ❖ 12 December – Twenty students from the Eco-Bio Club "Green Clover" of the 1<sup>st</sup> English School in Sofia made presentations on topics related to the poles. In the official hall of the EU Information Centre the children aged between 16 and 18 years old talked about ice melting, penguins, scientific

expeditions to the poles, marine world, auroras, polar flora and fauna, polar bears and pinnipeds mammals. Researchers from the Bulgarian Antarctic Institute, early career scientists from APECS Bulgaria and students from the same school attended the 90 minutes lectures. It was extraordinary the enthusiasm of students discussing the importance of the Polar Regions to conserve the planet and life as we know nowadays.

- ❖ Children from several Bulgarian schools took part with their paintings in the flagship activity "Antarctica Day Flags - From the Classroom to Antarctica".

In 2013 APECS Bulgaria continues to follow its long-term educational and outreach program willing to spread its knowledge and polar experiences in Bulgarian schools and Universities around the country.

## 7.3. More Education and Outreach Highlights

### ATCM Brussels Science Fair

For the occasion of Belgium's hosting of the Antarctic Treaty Consultative Meeting (ATCM; 20-29 May), where the Antarctic Treaty and Environmental Protocol are discussed and determined, APECS Belgium organized a 2-day education and outreach event for the wider audience: Bringing the poles to Brussels. Young scientists were determined to transfer their enthusiasm about the Polar regions and science in general to others.

This event took place in the beautiful setting of the old stables of the Royal Belgian Academy of Sciences, which has a large and stunning atrium. Here people could learn more about the Polar regions through experiments, games, lectures, documentaries and a live connection with researchers at the South Pole.

Representatives of various Belgian universities, The botanical garden of Meise, the International Polar Foundation, the New Belgica project, teachers and invited guest speakers helped to make this a great event that was enjoyed by an

estimated 400 people. Guest speakers included representatives of Norway, Portugal and Brazil.



Brazil will be hosting the ATCM meeting in 2014 and APECS Brazil is keen to host a similar outreach event. A representative of APECS Bulgaria was also present to learn how to organize such a science fair. Hopefully this will be the start of a long series of education and outreach events organised by APECS national committees.

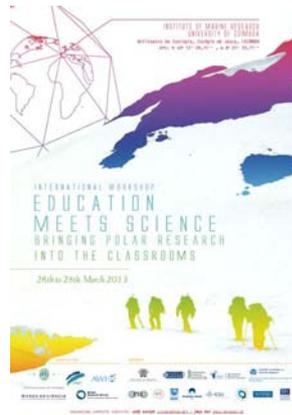


*This event was organized with the kind support of the Belgian Science Policy Office and the Scientific Committee on Antarctic Research.*



[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6164:atcm-brussels-science-fair&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6164:atcm-brussels-science-fair&catid=96&Itemid=121)

## International Workshop on Polar Education and Science



One of the biggest challenges that scientists face today is to communicate their science efficiently to their peers, to the media, and to the general public. Today we can still experience colleagues talking in conferences on subjects that we understand very little of. A solution to this problem is to improve your communication skills. Your supervisor, your department, your colleagues (or student peers), and especially your CV will thank you!

To address this issue, an international workshop was organized in Portugal between March 26-28, 2013, titled "EDUCATION MEETS SCIENCE: BRINGING POLAR RESEARCH INTO THE CLASSROOMS", by the Institute of Marine Research of the University of Coimbra (Portugal), the Alfred Wegener Institute (Germany) and the British Antarctic Survey (UK), with the Museum of Science of the University of Coimbra and the national Agency

Ciência Viva, following the success of the teachers/educators workshops at the International Polar Year (IPY) Conferences in Oslo (2010) and Montreal (2012).



A total of 41 invited participants (teachers/educators and scientists) from 13 countries (USA, Canada, Portugal, Spain, Italy, France, Netherlands, Belgium, Iceland, Bulgaria, UK, Germany and Switzerland) participated, including various APECS members (both scientists and teachers/educators). The scientists gave science lectures in the morning, whereas the afternoons were composed of demonstrations that teachers/educators could implement in their classrooms, finishing the days with panel discussions addressing key issues for teachers/educators and scientists.



The workshop was a success and concluded that the new association Polar Educators International (PEI) is getting stronger and stronger, highly engaged in collaborating with other organizations, such as APECS, and determined to define a clear strategy to help polar teachers/educators and scientists to introduce polar science at local (schools), national and international levels, while sharing educational resources. For early career scientists

this means more opportunities to get involved in education and outreach and improve their communication skills. This is really good news for APECS!

You can find a YouTube video of the event at <http://www.youtube.com/watch?v=jDdNuPP3fSk>.

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6106:international-workshop-on-polar-education-and-science&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6106:international-workshop-on-polar-education-and-science&catid=96&Itemid=121)

## First French Polar Week in April

There is a growing need for improved science communication from polar scientists to communities and classrooms around the world. However, linking people with the often-distant polar regions can be a significant challenge. One way to address this challenge is through an international educational event led by polar scientists called the International Polar Week (IPW). Expanding on country-specific activities and participation is key to expanding the IPW.

Three French APECS members organised the first French Polar Week last April. Several activities were proposed to schools, including an Ask-a-Scientist forum and Webinars. Thanks to APECS GoToWebinar platform, more than 300 students were able to hear young scientists talk about different topics such as living in a small village in Greenland or on a research station in Antarctica.

Thanks to the great feedback received from the different schools, which participated in this first French Polar Week, we are planning to develop the project, wishing that it will continue for years into the future. Anyone interested in the project is welcome to send an e-mail to [ecole.des.poles@gmail.com](mailto:ecole.des.poles@gmail.com) for further information.

*Contributed by Anne-Mathilde Thierry*

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6137:first-french-polar-week&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6137:first-french-polar-week&catid=96&Itemid=121)

## APECS Outreach Panel at the International Workshop on Antarctic Ice Rises

Another fruitful discussion took place during two discussion panels hosted by APECS on August 26<sup>th</sup>, during the International Workshop on Antarctic Ice Rises (<http://www.climate-cryosphere.org/meetings/ice-rises-2013>) in Tromsø, Norway.

Two sessions covered topics of education and outreach at schools, as well as science communication and interaction with media and policy makers. Six panelists had a broad range of expertise and represented different career stages – from postdocs to senior researchers, which stimulated a great discussion.

While as usual there were many general suggestions and tips for early career researchers, several pieces of advice can be particularly highlighted:

### Communication with media/journalists

- ❖ Keep the message simple while be true to science
- ❖ In most cases, don't worry about what you said during the interview as the general public will mostly remember the fact that you were on TV/radio/newspaper etc.
- ❖ Try to talk to journalists before the actual interview. This helps to understand what to expect from the upcoming meeting
- ❖ Watch out for opportunities to join media training courses

### Working with schools

- ❖ Contact relevant organizations: PolarTREC, PEI and APECS
- ❖ Bring tangible things and artifacts to classrooms – kids like that
- ❖ Show your passion and let kids know that polar researchers are real and normal people
- ❖ Use different approaches when you talk to different age groups
- ❖ Promote polar (earth) sciences as a field where kids could apply their math and physics skills

### Science communication to the general public

- ❖ Use opportunities to join science weeks

- ❖ Organize events on your own and together with partners such as APECS (E.g. Science Fairs)
- ❖ Cooperation between Art and Science might be very fruitful
- ❖ Try to use press offices at your institution to highlight recently published results

### Communication with policy makers

- ❖ Normally, politicians are short-term goal driven, so it is difficult to send a message across regarding any long-term measures or investments. Try your best if you are in a position to do that. As in other cases, keep the message simple, be true to science and bring artifacts.

Also, check out the 19 April 2013 Special Issue in Science on Grand Challenges in Science Education

at <http://www.sciencemag.org/site/special/education2013/>. A number of good articles can be found there!



BBQ outside Fram Centre. Photo: Alexey Pavlov

Both sessions received positive feedback from workshop participants. Even more positively was a BBQ that followed the panels and primarily supported by APECS with a contribution from SCAR, the Scientific Committee on Antarctic Research. Many thanks to Justin Beckers and Anna Silyakova for helping with the BBQ organization!

[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6227:apecs-outreach-panel-at-the-international-workshop-on-antarctic-ice-rises&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6227:apecs-outreach-panel-at-the-international-workshop-on-antarctic-ice-rises&catid=96&Itemid=121)

## Antarctica: Creative Polar Science Education



APECS member Charlotte Havermans has organized polar science education sessions for secondary school students in a Belgian school (Eerste graad Sint-Jan scholengroep, Diest) during the school year 2012-2013. The aim of her project AntARTica was to increase young students' awareness of the importance of polar regions. During art classes, students worked every session on a different theme, which was being introduced using a PowerPoint presentation, with pictures and short movies. Students have been acquainted with several general notions about the Arctic and Antarctic, their marine life both in shallow waters and the deep sea, and the consequences of climate change. After each presentation, students created an artwork related to these themes such as graphic arts, paintings, clay and 'papier-mâché' works. Since these sessions were

organized in the relaxed atmosphere peculiar to art classes, the students could use their creativity and develop their own ideas, which made them feel very enthusiastic and captivated by the magic of the poles. Their work has been presented at an international conference on Antarctic biology in Barcelona.



[http://www.apecs.is/index.php?option=com\\_content&view=article&id=6233:antartica-creative-polar-science-education&catid=96&Itemid=121](http://www.apecs.is/index.php?option=com_content&view=article&id=6233:antartica-creative-polar-science-education&catid=96&Itemid=121)

## Chapter 8: APECS Webinars and Virtual Poster Sessions

This year saw an expansion of webinar use and application. There were six webinar series, for a total of thirty four (34) webinars held between September 28, 2012 and June 24, 2013. There were 1072 total participants, with an average of 30 participants per webinar. Webinars were advertised internationally, although the webinars were consistently held during the morning/midday for U.S. time zones and in the evening in European time zones. There was 62 hours of hosted webinars, with an average duration of 110 minutes per webinar. APECS is very thankful to Bredbåndsfylket in Tromsø, Norway, for generously hosting our webinars as of January 2012 using GoToWebinar services. GoToWebinar is an essential part for many of APECS's online activities from webinars to showcasing special events like the Svalbard workshop or Belgium Science days.



While no formal data was collected on participant satisfaction, participant comments in the closing of each webinar were often gracious, and the questions to presenters were time and again thoughtful and provocative. Data collected using the webinar delivery platform, *GoToWebinar*, recorded the participation level of attendees, shows that 65% of the people who participated in the webinars were highly to moderately interested and stayed online for the entire event. Every effort is made to record and archive each webinar. Most webinars are available online afterwards for individuals to view at their convenience. In the past several months several of the archives have upwards of 20-60 views.

For more information on the APECS Webinar Series please go to:  
[http://apecs.is/index.php?option=com\\_content&view=category&layout=blog&id=167&Itemid=209](http://apecs.is/index.php?option=com_content&view=category&layout=blog&id=167&Itemid=209) or email [webinars@apecs.is](mailto:webinars@apecs.is)

### 8.1. Career Development Webinar Series



The Career Development Webinar series was originally made possible through cooperation

between the National Science Foundation-funded ARCSS Thermokarst Project and the Association of Polar Early Career Scientists (APECS). Support from the High North Academy enabled APECS to further develop and maintain the webinar series that first began in 2010. In the past year, APECS conducted sixteen (16) career development webinars between October 2, 2012 and April 3, 2013. The webinar series focuses on career development skills not often obtained through traditional graduate studies. Topics during the spring 2012-2013 series included inter-team communication, graphic design, using video as a research tool, field safety and success,

databank management, becoming a graduate student, building collaborative networks, event/project planning, integrating community science, and using social media for science.

#### Fall 2012 Webinar Series:

##### Ten Steps to Good Research Design 2 October 2012

The way in which you design or plan your research can have significant implications for the success of your project. Grant writing is increasingly important in the academic sphere, and successful applications must be well designed following the correct scientific methodology. This webinar will discuss scientific methodology, before going on to outline ten steps for good research design.

- ❖ Bethan Davies (Centre for Glaciology, Aberysthwyth University)
- ❖ Recording: <http://vimeo.com/51639620>

### **Academic Balancing Acts: Getting it Right with Advisors, Grad Programs, and Real Life** 9 October 2012

This webinar is specially tailored for undergrad and graduate students who are looking for solutions in managing their current and future education and career goals. This webinar was presented by a panel of experienced polar researchers with extensive mentoring experience, and included discussions on academic skills; balancing school, work, advisors; gaining research experience; the importance of networking; sleuthing out grad school; writing thesis; and getting published.

❄ Julie Brigham-Grette (University of Massachusetts-Amherst), Mary Albert (Dartmouth), Mike Retelle (Bates College)

❄ Recording: <http://vimeo.com/52374447>

### **Addressing Sustainability in Polar Research** 16 October 2012

The webinar investigates issues related to sustainability in polar research, and helps participants think about ways to make their polar research more sustainable in the face of climate change and rising fuel prices.

❄ Sandra Vanhove (International Polar Foundation), Olivia Remple (Dalhousie University, Co-Founder Carbon Neutral Antarctica)

❄ Recording: <http://vimeo.com/53455708>

### **Graphic Design 101: Tips for Improving Talks, Reports, Posters, and Figures** 23 October 2012

The webinar outlines tips and the process for beginning and carrying out a graphic design product. It also discussed the use of color, tips for creating good layout, typography, and branding for graphic consistency

❄ Kristin Timm (University of Alaska Fairbanks, Science Communications Scenarios Network for Alaska and Arctic Planning)

❄ Recording: <http://vimeo.com/53464051>

### **Operating Safe and Successful Field Research Campaigns in the Polar Regions** 6 November 2012

Polar scientists work in some of the most amazing, yet also remote and potentially dangerous environments on the planet. Seth Campbell explains what it takes to design, safely operate, and successfully complete field work in such remote areas. The webinar provides insight into remote field work from the early stages of planning to the safe completion of the project with emphasis on real world mistakes and successes, unexpected field challenges, and criteria that may be used for selection of early career scientists as field assistants.

❄ Seth Campbell (University of Maine / US Army ERDC-Cold Regions Research and Engineering Lab)

❄ Recording: <http://vimeo.com/53487539>

### **Incorporating Citizen Science in Your Research Project** 13 November 2012

Citizen science is the act of involving the general public in the processes of data collection. Citizen science can be a great way to generate more robust research results, while helping the general public understand some of the fundamentals of the scientific processes and data collection techniques. Katie Villano-Spellman has incorporated a citizen science component in her research project about invasive species in Alaska. Katie discusses the lessons she has learned in incorporating citizen science into her research, and provides a step by step process and tips for those who are interested in using this effective research and outreach technique.

❄ Katie Villano-Spellman (University of Alaska Fairbanks)

❄ Recording: <http://vimeo.com/53543372>

### **Where's the REB GPS? Navigating the Research Ethics Review System for Research Involving Aboriginal Peoples** 20 November 2012

❄ Julie Bull

## **The IPCC Second Assessment and Lessons Learned in Confronting Climate Deniers** 27 November 2012

Ben Santer was one of the lead authors of the IPCC's Second Assessment Report, and played a key role in the genesis of the "balance of evidence" statement that formally articulated human contributions to global climate change. During the webinar he shared valuable insights from the evolution of the IPCC process, and discussed the many lessons he has learned since the IPCC report, during the process of responding to climate change myths and disinformation with sound science.

❖ Ben Santer (Lawrence Livermore National Laboratory)

❖ Recording: <http://vimeo.com/54422176>

## **Spring 2013 Webinar Series:**

### **Navigating Language Barriers in the Polar Research World** 13 February 2013

Between papers, proposals, and presentations, being a non-native English speaker in the polar research world can present many challenges. Jose Xavier discussed his experiences and the lessons he has learned in communication in order to become a successful researcher. This webinar may be useful for early career polar researchers looking for tips to improve their research communication skills when English is not the language they are used to working in.

❖ Jose Xavier (Institute of Marine Research, University of Coimbra & British Antarctic Survey)

❖ Recording: <http://vimeo.com/60712964>

### **You're Gonna Need a Bigger Boat: One Perspective on the Evolution of Data Management** 20 February 2013

This webinar provides one perspective on the evolution of data management and why it matters to you and the scientific community. Tom Kurkowski will walk participants through his own experience managing data at various

levels of complexity from this time as an isolated graduate student to leading technical staff at a moderately sized research center that produces, validates, and serves various data products to the world.

❖ Tim Kurkowski (Scenarios Network for Alaska and Arctic Planning, University of Alaska Fairbanks)

❖ Recording: <http://vimeo.com/60726066>

### **Tackling the Thesis or Dissertation and Making it Work for you When it is Complete** 27 February 2013

Completing a thesis or dissertation can be a lot of work and at times seems insurmountable. During this webinar, polar scientists and graduate advisor and mentor John Cassano, discusses strategies and techniques for completing your thesis or dissertation. He also talks about how your thesis or dissertation can best serve you as you move on to the next education level, apply for jobs, and strive to succeed in the polar research community.

❖ John Cassano (University of Colorado Boulder)

❖ Recording: <http://vimeo.com/61972197>

### **Building Your Resume with APECS: How and Why to Get Involved** 6 March 2013

APECS has grown rapidly since its inception in 2006, and the number of ways to get involved in this organization are numerous! This webinar features a panel, led by APECS Director, Alexey Pavlov and several APECS Mentors who have seen people succeed within the organization. This webinar explores the way you can get involved in APECS activities. It also explored the ways that you can build your career and market your experience with APECS when you look for your next job.

❖ Alexey Pavlov (APECS), Gerlis Fugmann (International Centre for Northern Governance and Development, University of Saskatchewan), Masha Tsukernik (Brown University), Renuka Bhadhe (Scientific Committee on Antarctic Research)

❄ Recording: <http://vimeo.com/61979455>

### **Integrating Video as a Research Tool** 13 March 2013

This webinar covers basic camera principles and techniques for utilizing digital video into research projects. The webinar covers camera and basic equipment options, fundamental filming techniques, legal concerns, and data retrieval and storage.

❄ Maya Salganek (University of Alaska Fairbanks)

❄ Recording: <http://vimeo.com/63776477>

### **Making a good Meeting a Great Meeting: Secrets to Success in Event and Project Planning** 20 March 2013

The webinar provides tips for a successful meeting, including, setting goals and agendas, facilitating discussion, preparing participants, dealing with group dynamics, and maintaining momentum; and how to utilize these project planning skills in a science career. Whether it's a small team meeting, a planning teleconference, or a large science meeting, this webinar covers techniques and skills that will help you plan and execute a successful meeting.

❄ Helen Wiggins (University of Alaska Fairbanks), Olivia Lee (Arctic Research Consortium of the US)

❄ Recording: <http://vimeo.com/63781974>

### **Collaborative Networks to Address Complex Issues in Polar Science** 27 March 2013

In this webinar, Bruno Danis talks about the new technological tools and mindsets that are urgently needed to address the considerable changes taking place in the polar regions. To address the potential impact of these changes, this webinar develops a vision of emerging collaborative networks, illustrated by a set of real-life examples.

❄ Bruno Danis (Université Libre de Bruxelles)

❄ Recording: <http://vimeo.com/63786046>

### **Blogging to Improve Scientific Communication** 3 April 2013

In this webinar, Mathew Reeve presents his perspective and experience on improving science writing through blogging. This webinar will introduce participants to the Climate Snack blog concept and describe how people can get involved in science blogging.

❄ Mathew Stiller-Reeve (University of Bergen, ClimateSnack Project)

❄ Recording: <http://vimeo.com/63789797>

## **8.2. Fram Centre Webinar Series**



### **Fram Centre**

The FRAM center supported 6 webinars organized by APECS in the fall and winter of 2012-2013. The webinar series were centred on the flagship programme of the FRAM centre. Topics included hazardous substances in the north, sea ice in the Arctic Ocean, effects of climate change on sea and coastal ecology, ocean acidification, and effects of climate change on terrestrial ecology and indigenous peoples.

### **Fram Centre Overview Session** 29 October 2012

❄ History and structure of the Fram Centre (Jan-Gunnar Winther - Norwegian Polar Institute, Fram Centre)

❄ Outreach and opportunities for early career scientists (Helge Markusson - Fram Centre)

❄ Fram Centre in a perspective of International Cooperation in the Polar Sciences (Jenny Baeseman - Climate and Cryosphere (CliC) Project)

❄ Five Flagship Programmes of the Fram Centre (Jo Aarseth - Fram Centre)

## **Hazardous substances – effects on ecosystems and human health**

**22 November 2012**

- ❄ Contamination in the North (Eldbjørg Sofie Heimstad - Norwegian Institute for Air Research; Fram Centre & Flagship Leader: Hazardous substances – effects on ecosystems & human health, Fram Centre)
- ❄ Will Arctic oil exploitation harm the existing crustacean? (Louise Kiel Jensen - Norwegian Radiation Protection Authority)
- ❄ Is it possible to construct theoretical models to predict how emerging compounds interact with macromolecular targets? (Lisa Bjørnsdatter Helgason - University of Tromsø)
- ❄ Pathogen + PCB 153 = Double trouble? (Ingebjørg Helena Nymo - Norwegian School of Veterinary Science)
- ❄ Decreasing POP concentrations in human males from 1979 to today (Therese Haugdahl Nøst - University of Tromsø & Norwegian Institute for Air Research)

## **Sea ice in the Arctic Ocean, technology and agreements**

**12 December 2012**

- ❄ Introduction to the Arctic Ocean flagship (Gunnar Sander - Norwegian Polar Institute, Fram Centre & Flagship leader: Sea ice in the Arctic Ocean, technology and agreements)
- ❄ Comparison of feature based segmentation of SAR satellite sea ice images with manually drawn ice-charts (Mari-Ann Moen - University of Tromsø)
- ❄ Arctic Futures: Images and conceptualisations of a changing Arctic (Maaïke Knol - University of Tromsø)
- ❄ The potential for high-latitude species invasions via an Arctic shipping network (Chris Ware - University of Tromsø)
- ❄ New legal developments in the Russian regulation of navigation in the Northern Sea Route (Jan Solski - University of Tromsø)

- ❄ International institutions and governance of shipping in the Arctic (Piotr Graczyk - University of Tromsø)

## **Effects of climate change on sea and coastal ecology in the north**

**31 January 2013**

- ❄ The Fram Centre Flagship for Fjord and Coastal Ecosystem Research (Paul Renaud, Akvaplan-niva)
- ❄ Coastal temperatures controls the area utilization of anadromous Arctic char and brown trout (Jenny Jensen, University of Tromsø)
- ❄ Overfishing and ecological change in the Porsanger fjord, northern Norway (Camilla Brattland, The Norwegian Institute for Cultural Heritage Research)
- ❄ Habitat use and migration of arctic seabirds using new technology - the importance of multi-year tracking for management (Børge Moe - The Norwegian Institute for Nature Research)
- ❄ The red king crab – an invader with big appetite (Mona M. Fuhrmann - University of Tromsø)

## **Ocean acidification and ecosystems effects in Northern waters**

**28 February 2013**

- ❄ Introduction to Ocean Acidification Flagship (Melissa Chierici - Institute of Marine Research (IMR))
- ❄ Evolutionary effects of ocean acidification on pelagic copepods (Peter Thor - Norwegian Polar Institute (NPI))
- ❄ Monitoring changes in seawater carbonate system: from laboratory facilities to in situ observations (Emanuele R. Reggiani - Norwegian Institute for Water Research (NIVA))

## Effects of climate change on terrestrial ecosystems, landscapes, society and indigenous peoples

7 March 2013

- ❖ Effects of climate change on terrestrial ecosystems, landscapes, societies and indigenous peoples (Dorothee Ehrich - University of Tromsø)
- ❖ Monitoring cultural heritage sites in Northern Norway - effects of regrowth and shrub expansion (Alma Tuestad - The Norwegian Institute for Cultural Heritage Research (NIKU))
- ❖ Effects of increased reindeer abundance - An ecosystem approach (John-André Henden - University of Tromsø)
- ❖ Adaptive capacity to climate change in local land-based activities in Northern Norway (Helene Amundsen - The Center for International Climate and Environmental Research – Oslo (CICERO))
- ❖ Ecosystem responses to snowfences in Adventdalen, Svalbard: A quick overview (Philipp Semenchuk - University of Tromsø)

## 8.3. APECS Canada Webinar Series



APECS Canada hosted 4 webinars between September 28, 2012- April 19,

2013, as a way to bridge information between researchers working in either side of the Canadian North. Two webinars were about working in/with communities and afterwards. The other two showcased Western and Eastern Canadian Arctic research.

### Introduction to working with communities 28 September 2012

- ❖ Presenters: Jamal Shirley, Alana Mero, Jolie Gareis

### Working with northern communities and afterwards (part II) 14 March 2013

- ❖ Presenters: Kiah Hachey, Sonia Wesche, Deborah Simmons, Jean Polfus, Walter Bayha

- ❖ Recording: <http://vimeo.com/62954146>

### Eastern Arctic Research Webinar 5 April 2013

- ❖ Presenters: Jean-Sebastian Moore, Mortiz Schmid, Heather Mariash, Cortney A. Watt, Jennifer Provencher

- ❖ Recording: <https://vimeo.com/63521279>

### Western Arctic Research Webinar 19 April 2013

- ❖ Presenters: Gabriella Gascon, Falk Huettmann, Emily Choy, Adam Houben, Louise Chavarie, Kristen Peck

- ❖ Recording: <http://vimeo.com/65007808>

## 8. 4. APECS Svalbard Workshop



Svalbard is the site for numerous international and interdisciplinary research projects every year that involve both senior

and early career researchers. To foster international cooperation among all scientists, sharing of information and data on the research conducted on Svalbard is essential. Especially for early career researchers that may conduct their first field season in this area, knowing the logistics and infrastructure available to carry out their research and developing international connections with ongoing research are critical. APECS created a platform for early career researchers working on Svalbard to form a network to help increase our understanding of the environment and social conditions on this Arctic Archipelago.

The impetus for this network was a workshop held on 8 October 2012 for early career scientists working in the various international research communities such as Hornsund,

Barentsburg, Ny-Alesund and Longyearbyen, remote camps and vessels to discuss current research, develop collaborations and learn more about the facilities and research logistics offered on Svalbard. To allow for easy data sharing and live discussion between early career researchers at their field stations and their home institutions and allow others who are interested in working on Svalbard to join the discussion and share ideas, this workshop was held online using our web conferencing technology – gotomeetings! The online workshop was a great success with high participation from 75 participants tuning in to listen to several keynote speakers and early career researcher presentations on a wide selection of topics from permafrost, glaciology, geology, sea ice, marine and terrestrial ecosystems, social science, and education and outreach.

*Thematic presentations by keynote speakers:*

- ❖ Education, Logistics and Infrastructure on Svalbard (Ole Arve Misund, *UNIS, Norway*)
- ❖ Research and International Cooperation on Svalbard (Kim Holmen, *Norwegian Polar Institute, Norway*)
- ❖ Data sharing policy and data management on Svalbard (incl. SIOS) (Vigdis Lonar Barth, *Norwegian Space Centre, Norway*)

*Thematic presentations by early career researchers:*

- ❖ Permafrost (Stefanie Härtel, *Center for Permafrost, Dept. of Geography & Geology, Univ. of Copenhagen & UNIS*)
- ❖ Glaciology (Torbjørn Østby, *Department of Geosciences, University of Oslo, Norway*)
- ❖ Atmospheric science (Tiina Kilpeläinen, *Finnish Meteorological Institute, Finland*)
- ❖ Geology (Kirstin Werner, *GEOMAR, Germany*)
- ❖ Sea Ice (Justin Beckers, *Department of Earth & Atmospheric Sciences, Univ. of Alberta, Canada*)
- ❖ Oceanography (Fred Wobus, *School of Marine Science and Engineering, University of Plymouth, UK*)
- ❖ Marine ecosystems (Ingeborg G. Hallanger, *University of Tromsø, Norway*)

- ❖ Terrestrial ecosystems (Liliana Keslinka-Nawrot, *University of Gdansk, Poland*)
- ❖ Limnology/freshwater systems (Trine Holm, *Institute of Ecology, University of Innsbruck, Austria*)
- ❖ Education and Outreach (Bart Peeters and Ingeborg Pay, *IPY Field Summer School 2012*)

## 8.5. APECS France Polar Week



APECS France ran a Polar week outreach program for school children (mainly primary) to get acquainted with the polar and polar science. Four webinars were held for this special event during the week of April 8-12, 2013.

### **La science aux poles (Science at the Poles)** **8 April 2013**

- ❖ Presenter: Pascaline Bourgain

### **La vie dans un village au Groenland (Life in a village of Greenland)** **9 April 2013**

- ❖ Presenter: Camille Robineau

### **La vie dans une base scientifique en Antarctique (Life at the Antarctic science base)** **9 April 2013**

- ❖ Presenter: Anne-Mathilde Thierry

### **Les animaux polaires (Animals of the poles)** **12 April 2013**

- ❖ Presenters: Camille Robineau, and Anne-Mathilde Thierry

## 8.6. APECS Research Features Virtual Poster Sessions

APECS's research activities committee (RAC) organized a couple Research Feature webinars. The Polar Geography webinar was organized in conjunction with the European geography students association (EGEA) held March 21, 2013. The event had such a good response the organizers are working on a follow up event for September 2014.

### Svalbard October 2012

- ❄ Life History in Leptagonus Decagonus (Atlantic Poacher) in Svalbard Waters (Kristin Heggland, Camilla Ottesen, Jørgen Berge)
- ❄ Genetic Diversity of Eukaryotic Picoplankton in the Arctic Ocean (Estelle Killas, Eva-Maria Nöthig, Christian Wolf, Katja Metfies)
- ❄ Disrupting the Harmony: Effects of Climate Warming on Arctic Terrestrial Ecosystems (Allen B. Campeau, Sienna Gray, Kjersti Kjær, Marius Næss, Bart Peeters)
- ❄ Canadian Arctic Foreign Policy in an Era of Cooperative Arctic Governance: Analyzing the Use of Multilateralism in Canadian Arctic Foreign Policy (Ciara Sebastian, M.A. Candidate, University of Regina)

### Polar Geography Webinar (Jointly with EGEA) 21 March 2013

- ❄ Timothy Heleniak (University of Maryland): <https://vimeo.com/66067033>
- ❄ Andrey Petrov (University of Northern Iowa): <https://vimeo.com/66067035>
- ❄ Nikolay Shiklomanov (George Washington University): <https://vimeo.com/66067032>

### Polar Food Webs: Methodologies and recent findings in a climate change scenario 24 June 2013

- ❄ Arctic and Antarctic Food Webs under the Ice (Hawke Flores, Researcher at the Alfred-Wegener Institute)
- ❄ Southern Ocean food webs and the role of the pelagic ecosystem (Anton Van de Putte, Science Officer for Belgian SCAR-Marbin and AntaBIF)
- ❄ Southern Ocean food webs from a top predators perspective (José Xavier, Researcher, University of Coimbra and British Antarctic Survey)

Video will be processed soon by APECS Video Editing WG

## Chapter 9: APECS Publications 2013

Schmale J., M.Lisowska, and M. Smieszek (2013), Title: Future Arctic research – Integrative approaches to scientific and methodological challenges, *Eos Trans. AGU, EOS, Transactions American Geophysical Union*, 94(339), pp 292.

Forest, A., M. Kedra, and A. Pavlov (2013), Bridging Time Scales, Disciplines, and Generations to Better Understand the Arctic Marine Ecosystem, *Eos Trans. AGU*, 94(11), 107.

Tavernier, I, D. Obbels, and A Van de Putte (2013): APECS BeNeLux – United we stand, divided we fall. *Belspo – Le magazine de la Politique Scientifique Fédérale* 41, p. 57 – 59. [http://www.belspo.be/belspo/organisation/Publ/pub\\_ostc/sciencecon/41sci\\_fr.pdf](http://www.belspo.be/belspo/organisation/Publ/pub_ostc/sciencecon/41sci_fr.pdf)

Costa, E.S. & Kerr, R (Eds). 2012. *Informativo APECS Brasil*. July to December 2012. 35p. [http://www.mar.mil.br/secirm/document/doc\\_poa/inf-apecs.pdf](http://www.mar.mil.br/secirm/document/doc_poa/inf-apecs.pdf)

# Chapter 10: Research Features

The Research Features series provides APECS members with a forum for sharing current knowledge and happenings in their fields. A webpage highlighting research updates, resources, mentors, publications, blogs, photos, and APECS activities is usually developed as the main outcome of a Research Feature. Virtual Poster Sessions, which are often linked to Research Features, serve to bring the poster presentation beyond the four walls of the conference hall and creates an online database of polar research poster publications. Virtual Poster Sessions often include presentations by a mix of early career and established scientists.

APECS wants to thank Bredbåndsfylket in Tromsø, Norway, for generously hosting our Virtual Poster Session calls from January 2012 using GoToWebinar services. GoToWebinar is an essential part for many of APECS's online activities including the Virtual Poster Session. The VPS recordings were made available on the APECS website. The editing was possible through funds provided by the Scientific Committee on Antarctic Research (SCAR).

## Svalbard October 2012



Svalbard is the site for numerous international and interdisciplinary research projects every year that involve both senior and early career researchers. To foster international cooperation among all scientists, sharing of information and data on the research conducted on Svalbard is essential. Especially for early career researchers that may conduct their first field season in this area, knowing the logistics and infrastructure available to carry out their research and developing international connections with ongoing research are critical. APECS is creating a platform for early career researchers working on Svalbard to form a network to help increase our understanding of the environment and social conditions on this Arctic Archipelago. The impetus for this network will be a workshop for early career scientists working in the various international research communities such as Hornsund, Barentsburg, Ny-Alesund and Longyearbyen, remote camps and vessels to discuss current research, develop collaborations and learn more about the facilities and research logistics offered on Svalbard.

To continue the discussion about Svalbard after the workshop and to create a site for sharing data and research projects as well as resources

important for early career researchers working or wanting to work on Svalbard, APECS created this Svalbard Early Career Researcher Network Platform! We will add tools for you to share ideas and projects as well as resources like the recordings of the initial workshop, the posters of Svalbard research from the APECS Virtual Poster Session, Svalbard FrostBytes and many more!

[http://www.apecs.is/index.php?option=com\\_content&view=category&layout=blog&id=338&Itemid=485](http://www.apecs.is/index.php?option=com_content&view=category&layout=blog&id=338&Itemid=485)

## Ocean Acidification November 2012



The ocean does not only cover two thirds of the Earth's surface thereby linking Polar regions and the tropics but is also home to a multitude of living organisms, including bacteria, phytoplankton and zooplankton, fish, seabirds and marine mammals. The Ocean provides many people with living and food, and until now it has acted as a buffer for climate change.

However, there are significant signals that this equilibrium is close to a tipping point. Scientists have already observed dramatic decreases in winter sea ice extent and duration in the

Southern Ocean and melting of permanent sea ice in the Arctic Ocean. Sea ice is the physical platform used by many marine top predators for breeding, resting, escaping predators, and its reduction puts at risk the survival of charismatic species such as polar bears in the Arctic and emperor and Adélie penguins in the Antarctic.

Sea level rise is threatening the safety of entire human settlements in shallow coastal regions, and the increase of sea water temperature determines changes in salinity and in the capacity to store CO<sub>2</sub>. Ocean acidification is a major problem for invertebrate organisms whose carbonate shells are dissolving as water pH goes down. Due to a combination of factors, such as increase in sea and air temperature and modified atmospheric circulation, ocean currents will change and this will influence local climates.

All these changes in the physical environment have profound effects on polar marine food webs and on their capacity to sustain the rich biomass of top predators (penguins, albatross, seals and whales) that inhabit the polar marine ecosystems. For example, sea ice is the nursery habitat for krill and fish species that are at the base of the food web in the Southern Ocean. If sea ice is to disappear, how will the carrying capacity of this ecosystem change? And what are the effects of humans harvesting krill? Are we exacerbating the effects of climate warming on the reduction of food available for seabirds and marine mammals?

All these questions, concerns, and much more are addressed in the various fields of research related to polar marine science. APECS tries to answer these issues from an interdisciplinary point of view through collaboration of scientists from marine and social research areas and through integrating traditional knowledge.

## **Antarctica Day December 2012**

Antarctica Day is a day to recognize this international landmark and the global vision of the twelve original nations as well as all 47 nations who have acceded to the Antarctic

Treaty. The Antarctic Treaty was signed on December 1, 1959, marked the world's first international space having no sovereign jurisdictions.

Celebrated now as a day of freedom and peace for all mankind, as the Antarctic Treaty set aside nearly 10% of the Earth to be used exclusively for peaceful purposes.



Participate this year by joining in live webinars with early-career scientists, by designing an Antarctic flag that will be sent to the ice with a team of researchers, or launch a virtual balloon.

Antarctica Day is a partnership with a number of organizations lead by APECS, Our Spaces, PolarTREC and Polar Educators International (PEI).

[http://www.apecs.is/index.php?option=com\\_content&view=category&layout=blog&id=321&Itemid=494](http://www.apecs.is/index.php?option=com_content&view=category&layout=blog&id=321&Itemid=494)

## **Polar Food Webs June 2013**

Marine ecosystem and foodweb structures are among the most studied systems on Earth. Despite that, its complexity and variety of structure bring always new questions and challenges. Polar regions have the advantage of being relatively constant environments with relatively shorter foodwebs. In a scenario of climate changes, those are the best regions to study the effects of environmental shifts in prey vs consumers availability and seasonality. New ecosystem modeling approaches and biochemical tools have been used recently to identify key-species and shifts in foodwebs main paths.

[http://apecs.is/index.php?option=com\\_content&view=category&layout=blog&id=96&Itemid=121](http://apecs.is/index.php?option=com_content&view=category&layout=blog&id=96&Itemid=121)

# Chapter 11: Partnerships and Sponsors

## 11.1. Formal Partnerships (MoUs)



- ❖ Scientific Committee on Antarctic Research and International Arctic Science Committee (renewed on 16 April 2013)
- ❖ University of the Arctic and the International Antarctic Institute (9 June 2010)
- ❖ International Association of Arctic Social Scientists and Social Sciences and Humanities Antarctic Research Exchange (24 Sept 2010)
- ❖ Arctic Frontiers (5 October 2010)
- ❖ Conservation of the Arctic Flora and Fauna (CAFF) (17 February 2011)
- ❖ International Association for Cryospheric Sciences (23 September 2011)
- ❖ Bredbåndsfylket - 27 February 2012
- ❖ Arctic Frontiers - 27 August 2012
- ❖ Permafrost Young Researchers Network (PYRN) and International Permafrost Association (IPA) - 18 August 2012
- ❖ High North Academy (HNA) – 24 September 2012

- ❖ American Geophysical Union – 31 January 2013
- ❖ Polar Educators International – 23 May 2013

These groups often provide in kind support in the form of advertising, high-level endorsement, meeting space at conferences, travel support for APECS members.

## 11.2. Partnership Highlights and Funded Projects

Through the generous support provided by the Research Council of Norway, the University of Tromsø – Norway’s Arctic University and the Norwegian Polar Institute, APECS was able to secure funding for its International Directorate Office at the University of Tromsø for 2013 - 2016. Thank you from the entire APECS leadership to our sponsors for helping us Shape the Future of Polar Research in the years to come!

Other funded projects and contributions from partners during 2012-2013 include:

- ❖ Prince Albert II of Monaco Foundation contributed 10 000 Euros (≈ 80 088 NOK) towards the joint ART-APECS Science Workshop “Overcoming challenges of observation to model integration in marine ecosystem response to sea ice transitions”, convened from 23 – 26 October 2012 in Sopot, Poland.
- ❖ Research Council of Norway / Svalbard Science Forum: 100 000 NOK towards project “Svalbard Young Researchers Network” in 2012.
- ❖ The Fram Centre: 50 000 NOK towards “The Fram Centre Virtual Poster Session Series” in 2012
- ❖ The High North Academy: 60 000 NOK for the development of Career Development Webinars 2012-2013 and towards the

development of a funding resources database on the APECS website

- ❖ Nordic Council of Ministers: 142 000 NOK towards the project “Bridging Polar Early Career Researchers and Indigenous Peoples in Nordic Countries”
- ❖ The Climate and Cryosphere (CliC) project contributed with 47 000 NOK towards travel of early career researchers attending CliC events, video recording, processing, editing and posting from CliC workshops and events
- ❖ Several APECS National Committees were able to get funding from various national sponsors!
- ❖ Travel support for APECS leaders and representatives to attend various meetings and events was provided among others by: Scientific Committee on Antarctic Research, International Arctic Science Committee, Arctic Monitoring and Assessment Programme, the Arctic Frontiers conference, the Climate and Cryosphere (CliC) project Norwegian Polar Institute, the Research Council of Norway, Fram entre, University of Tromsø

### 11.3. News and Updates from our Partners and Sponsors

#### International Arctic Science Committee (IASC)



The International Arctic Science Committee (IASC) is a non-governmental, international scientific organization, founded in 1990 by representatives of national scientific organizations of the eight Arctic countries - Canada, Denmark, Finland, Iceland, Norway, Russia (at that time Union of Soviet Socialist Republics), Sweden and the United States of America. The Founding Articles committed IASC to pursue a mission of encouraging and facilitating cooperation in all

aspects of Arctic research, in all countries engaged in Arctic research and in all areas of the Arctic region. IASC promotes and supports leading-edge multi-disciplinary research in order to foster a greater scientific understanding of the Arctic region and its role in the Earth system. Over the past 22 years, IASC has evolved into the leading international science organization of the North and its membership today includes national science organizations from 21 countries involved in Arctic research.

IASC’s mission includes “promoting and involving the next generation of scientists working in the Arctic”. As a joint commitment to the professional development of early career polar researchers and recognizing APECS as the preeminent organization for young researchers working in the Arctic, Antarctic, and Cryospheric, in 2008 IASC and SCAR signed a joint Memorandum of Understanding (MoU) with APECS. This MoU was renewed at the Arctic Science Summit Week (ASSW) 2013.



Photo: David Hik (President of IASC), Alexey Pavlov (Director of APECS) and Jeronimo Lopez Martinez (President of SCAR) signing the IASC-SCAR-APECS Memorandum of Understanding at the Arctic Science Summit Week 2013 in Krakow (Poland).

IASC is engaged in all fields of Arctic research and its main scientific working bodies are five Working Groups (WGs): Atmosphere, Cryosphere, Marine, Social & Human and Terrestrial. The main function of the WGs is to encourage and support science-led international programs by offering opportunities for planning

and coordination, and by facilitating communication and access to facilities. All five WGs held their annual meetings at the ASSW 2013 and several APECS members participated in the discussions. An overview of the ongoing activities and initiatives of the WGs was published in the summer 2013 issue of the IASC Newsletter:

[http://www.iasc.info/images/pdf/IASC\\_Progress\\_summer2013.pdf](http://www.iasc.info/images/pdf/IASC_Progress_summer2013.pdf)

IASC WGs are expected to use approximately 1/3 of their funds to support early career scientists and thus many APECS members are participating in these activities. Some IASC activities, such as “Arctic in Rapid Transition (ART)”, which recently became an IASC Network, are coordinated by early career scientists (<http://www.iarc.uaf.edu/ART>).

IASC is also providing travel support for early career researchers to participate in major international conferences, in particular the ASSW. For the scientific symposium of the ASSW 2013 in Krakow (Poland), IASC supported one APECS convener for each of the nine thematic sessions. Over the last years, the ASSW has become an important venue for early career scientists and the APECS workshop has evolved into a regular event.

In addition to providing travel stipends and involving APECS members in its scientific activities, IASC is also supporting APECS’s outreach activities, such as the APECS Belgium event ‘young scientists are bringing the polar regions to Brussels’, held in conjunction with the Antarctic Treaty Consultative Meeting, May 2013.

IASC’s main upcoming activity is the 3rd International Conference on Arctic Research Planning (ICARP III), which will be held as part of the ASSW 2015 and IASC’s 25th Anniversary Symposium. Over the past two decades, IASC has been organizing forward-looking conferences focused on international and interdisciplinary perspectives for advancing Arctic research cooperation and applications of Arctic knowledge. In 2015, it will have been 10 years since the 2nd International Conference on Arctic Research Planning (ICARP II in 2005) and 20 years since the first ICARP in 1995. ICARP III

will provide an opportunity to further the development of cross-cutting, inter-disciplinary and trans-disciplinary initiatives. It will engage IASC’s partners, including APECS, in future collaborative activities building on past experiences. It will present a framework to identify Arctic science priorities for the next decade, to coordinate Arctic research agendas, and to inform policy makers, people who live in or near the Arctic and the global community who have growing concerns about the changing Arctic environment and its impact on the planet.

Website: [www.iasc.info](http://www.iasc.info)

## Scientific Committee on Antarctic Research (SCAR)



SCAR is committed to developing scientific capacity in all its members, emerging National Antarctic Programmes, students and early career scientists (ECS). SCAR has worked closely with APECS to involve ECS in all of its activities including, but not limited to, conferences, meetings, symposia, business meetings, science groups and research programmes. Over the last year SCAR has supported APECS workshops and meetings around the world, including in Portugal, Spain, the UK and Belgium.

This year SCAR awarded five Fellowships (one jointly with COMNAP) and our partners COMNAP awarded a fifth (<http://www.scar.org/awards/fellowships/>). The winners of the Fellowships will carry out a range of scientific research in areas including marine biology, climatology, remote sensing, and understanding terrestrial ecosystem complexity. Candidates come from a wide geographic spread of countries, including Argentina, Belgium, New Zealand, Russia, Spain, Venezuela and USA. In 2013, we had a generous voluntary contribution of 15 000 USD from Germany, and SCAR was able to offer one extra Fellowship.

The next generation of SCAR Scientific Research Programmes (SRPs) officially started this year: State of the Antarctic Ecosystem (AntEco), Antarctic Thresholds - Ecosystem Resilience and Adaptation (AnT-ERA), Antarctic Climate Change in the 21st Century (AntClim21), Past Antarctic Ice Sheet Dynamics (PAIS) and Solid Earth Responses and influences on Cryospheric Evolution (SERCE). Although the Science steering committees for these programmes are still being finalised, all will include representation of ECS. These new programmes join Astronomy and Astrophysics from Antarctica (AAA). See <http://www.scar.org/researchgroups/progplanning/>.

Planning for the 2014 SCAR Open Science Conference ([www.scar2014.org](http://www.scar2014.org)) in August 2014 is moving ahead. ECS are represented on the International Scientific Organising Committee by APECS representatives and ECS will be included as conveners for many of the science symposia, sessions and other activities.

The 1st SCAR Antarctic and Southern Ocean Science Horizon Scan has been a focus over the last months and will continue to be so over the next year or so. The Scan will assemble 50 of the world's leading Antarctic scientists, policy makers, leaders, and visionaries in New Zealand in April 2014 to identify the most important scientific questions that will or should be addressed by research in and from the southern Polar Regions over the next two decades. A proportion of the places will be allocated to ECS. The Scan process of bringing the global Antarctic science and policy community together to plan for the future will also serve as an unprecedented opportunity to enhance existing partnerships, forge new relationships, mentor early career scientists and students, and communicate the importance of Antarctic and Southern Ocean science to the public and policy/decision makers. See <http://www.scar.org/horizonscanning/> for details.

For further information and to keep up to date with SCAR news see [www.scar.org](http://www.scar.org) or join us on Facebook, LinkedIn or Twitter.

## Conservation of the Arctic Flora and Fauna (CAFF)



The Conservation of Arctic Flora and Fauna (CAFF) is the biodiversity working group

of the Arctic Council. CAFF's mandate is to address the conservation of Arctic biodiversity, and to communicate its findings to the governments and residents of the Arctic, helping to promote practices, which ensure the sustainability of the Arctic's living resources. It does so through various monitoring, assessment and expert group activities.

This year CAFF released the Arctic Biodiversity Assessment (ABA) a report containing the best available science informed by traditional ecological knowledge on the status and trends of Arctic biodiversity and accompanying policy recommendations for biodiversity conservation. APECS members have been involved in various aspects of the assessment generation and release.

To accompany the Arctic Biodiversity Assessment report and the Arctic Biodiversity Assessment Synthesis, CAFF has prepared a summary of the key findings and developed policy recommendations in an Arctic Biodiversity Assessment Report for Policy Makers (available in English, Russian and Inuktitut). These documents, as well as a press release (available in English, Finnish and Inuktitut) and additional information for partners and members of the press (photos, videos, backgrounders) can be found on the ABA website: [www.arcticbiodiversity.is](http://www.arcticbiodiversity.is).

The ABA, involving over 250 scientists has been produced by some of the world's leading experts and was presented to the Foreign Ministers of the Arctic Council countries at the Arctic Council Ministerial on May 15, 2013. This major circumpolar effort provides a much needed description of the state of biodiversity in the Arctic. The ABA:

- ❖ creates a baseline for use in global and regional assessments of Arctic biodiversity which will inform and guide future Arctic Council work;

- ❖ provides up-to-date knowledge gathered from scientific publications supplemented with insights from traditional knowledge holders;
- ❖ identifies gaps in the data record;
- ❖ describes key mechanisms driving change; and
- ❖ presents science-based suggestions for action on addressing major pressures on Arctic biodiversity.

CAFF is currently finalizing an implementation plan for the ABA where various activities and projects will build and act on recommendations from the report.

CAFF continues to develop mentorship opportunities with APECS through the Circumpolar Biodiversity Monitoring Program (CBMP), an international network of scientists, governments, Indigenous organizations and conservation groups working to harmonize and integrate efforts to monitor the Arctic's living resources. The CBMP organizes its efforts around the major ecosystems of the Arctic. It coordinates the development and implementation of integrated circumpolar marine, freshwater, and terrestrial biodiversity monitoring plans and activities, while establishing international linkages to global biodiversity initiatives.

APECS members have attended various workshops and meetings to contribute to the development of the CBMP's integrated biodiversity monitoring plans. In 2013 the Arctic Freshwater Biodiversity Monitoring Plan was released, and the Arctic Terrestrial Biodiversity Monitoring Plan is set to be released later in the year. The existing Arctic Marine Biodiversity Monitoring Plan coordinates marine biodiversity monitoring and reporting efforts across the Arctic, using existing monitoring capacity and information. The overall goal of the CBMP-Marine Plan is to improve the ability to detect and understand the causes of long-term change in the composition, structure, and function of Arctic marine ecosystems, as well as to develop reliable assessments of key elements of Arctic marine biodiversity. The Marine group has initiated implementation of their activities with more detail provided in the Arctic Marine Biodiversity

Monitoring Plan Annual Report 2012 or its summary document, and in country profiles: Canada, U.S.A., Norway and Greenland.

APECS members are also active in the CAFF Flora Group meeting in Krakow Poland this year. An APECS representative also attended and contributed to the CAFF Board meeting in September in Yellowknife, Canada, where the Life Linked to Ice sea ice biodiversity assessment was released, a project that has had good support and involvement from APECS.

Website: [www.caff.is](http://www.caff.is)

## Arctic Monitoring and Assessment Programme (AMAP)



AMAP is an international organization established

in 1991 to implement components of the Arctic Environmental Protection Strategy (AEPS). Now a working group of the Arctic Council, AMAP's current objective is "providing reliable and sufficient information on the status, trends and effects due to pollution and climate change on arctic environment and human health; and providing scientific advice on actions to be taken in order to support arctic governments."

AMAP's assessments of contaminants in the Arctic are well known in the scientific community as high-quality compilations of information, in which individual studies are combined to provide a comprehensive picture of circum-arctic pollution issues. What is perhaps less well known – to young scientists at least – is the impact these assessments have had in promoting initiatives to reduce Arctic contamination – prime examples being the global agreements to reduce persistent organic pollutants (the Stockholm Convention) and the new global agreements on mercury that will be signed later this year (the Minamata Convention).

AMAP has been coordinating two projects on the influence of climate change on the long-range transport of contaminants to the Arctic, the transfer of contaminants within

environmental media and through Arctic food webs, and ultimately the exposure of Arctic residents to environmental contaminants and their health impacts. Funding for one of these projects, the EU FP7 project ArcRisk (Arctic Health Risks: Impacts on health in the Arctic and Europe owing to climate-induced changes in contaminant cycling), has partially or fully supported the work of seven PhD students and three post-doctoral researchers, while funding from the Nordic Council of Ministers has funded the work of several students working on Master of Science degrees. Results from these projects and other relevant work in Arctic countries will be used in the preparation of a new assessment of human health in the Arctic, scheduled to be completed in 2015.

The first Arctic Ocean Acidification assessment was produced by AMAP in the period 2010-2013. There were more than 60 scientists from many different countries working with the assessment; among them oceanographers, chemists, biologist and economists. The results show that the Arctic Ocean is highly vulnerable to ocean acidification. There are ten key findings from the assessment including that acidification is not uniform across the Arctic Ocean, arctic marine ecosystems are highly likely to undergo change due to acidification and this may affect fisheries and livelihoods of Arctic people. There is still much we don't understand about ocean acidification and the possible consequences. For young scientists there is work to be done in this field for many years. Biological responses to ocean acidification is one example of this. AMAP arranged an international conference on Arctic Ocean Acidification in Bergen, Norway, May 6-8 2013 with more than 120 participants. At this conference APECS contributed with oral presentations, posters, session moderators and there was an APECS panel session on "Ocean acidification in the future arctic. From science to policy – tips for early career scientists". Students from the University of Bergen facilitated the video recordings from the conference. AMAP gave financial support to young scientists' conference attendance.

One of the most recent initiatives of the Arctic Council is the project "Adaptation Actions for a

Changing Arctic" (AACA). The overall objective of the AACA is to enable more informed, timely and responsive policy and decision making in a rapidly changing Arctic. Part C of AACA is led by AMAP and the activities will target three Arctic regions, namely: 1) The Barents Region, 2) the Baffin Bay/Davis Strait Region and 3) the Bering/Chukchi/Beaufort Seas Region where the project will produce targeted integrated assessments to inform adaptation actions. In these three pilot regions the project will assess adaptation actions based on what to expect in the future for sectors like shipping, tourism, demand for natural resources, economic and technology development and how this will affect ecosystems and livelihoods of local and indigenous peoples. The pilot regions will include both sea and land areas. Final delivery is to the Arctic Council Ministerial meeting in 2017. APECS has participated in scoping workshops for AACA-C and we foresee further involvement from APECS in all three pilot regions.

APECS participated in the AMAP Working Group meeting in Stockholm in October 2012. During discussions on the organization of the work of AMAP's Expert Groups, it was stated that there is a need to recruit new, younger experts and to enhance the value of being an AMAP expert so that it becomes more attractive to younger scientists. One way of making AMAP work more attractive to younger scientists can be through its relationship to APECS. At the same meeting, emphasis was put on the need for use of different means of communication with the younger generation, and the APECS Observer offered to assist AMAP in this work.

Many scientists – whether young or old - want their work makes a positive contribution to society, and contributing to AMAP assessments is certainly one way to achieve this. AMAP has a number of expert groups that are responsible for delivering its assessments, and several of these are keen to engage the next generation of scientists in their work.

Website: [www.amap.no](http://www.amap.no)

## International Arctic Social Science Association (IASSA)



IASSA is gearing up for its Eighth International

Congress on Arctic Social Sciences (ICASS VIII), 22-26 May 2014, to be held at the University of Northern British Columbia. The call for papers (and posters) will be released on 22 October, with a list of proposed sessions, and a 'due date' of 17 December 2013. Keynote speakers from Canada, Greenland, the Russian Federation and Sweden have been confirmed. ICASS VIII will also have three plenary panels on *Northern Sustainabilities*, the theme of the Congress. Along with the academic program, we are organizing outreach activities for the local school district, a film night (premier), an evening of music by D.J. Tundra, and of course our Congress Banquet. See the conference website for more information:

<http://resweb.res.unbc.ca/icass2014/index.htm> . IASSA has also recently launched a website to help disseminate information about both the Congress and our Association – please visit and add to the pages you follow.

Funds are being solicited for travel stipends to help early career scholars attend ICASS VIII, and APECS has kindly agreed to provide an arms-length review of the proposals, for awarding of such stipends. APECS will also be hosting a workshop on career development at ICASS VIII. Do plan to come if you are an APECS social scientist or humanities scholar, or just interested in the general topic.

IASSA has recently been involved in early ICARP-III planning, with councilor Florian Stammler attending the IASC-organized September planning meeting in Potsdam. ICASS VIII will include an ICARP-III planning townhall, where registrants can provide early input into the ICARP III process, generously supported by IASC Social & Human Sciences Working Group

IASSA has joined the International Social Science Council (ISSC), with the goal of encouraging greater knowledge about Arctic Social Sciences outside of the Arctic. At ISSC's upcoming, biennial World Social Science

Forum (Montreal, October 2013), themed "Social Transformations and the Digital Age", IASSA will host a panel on Social Transformation and the Digital Age in the Arctic,"

ICASS's president Gail Fondahl spent the winter in Europe this past year, and had the opportunity to present on Arctic social sciences in several cities (Berlin, Copenhagen, Dublin, Girona, Groningen, the Hague, Madrid, Oslo, Paris, Tromsø, Wrocław), at events hosted by the local Canadian Embassy, and often involving ambassadors or other senior personnel from other Arctic states.

We look forward to seeing many APECS members at our upcoming Congress.

Gail Fondahl, IASSA President

Website: [www.iassa.org](http://www.iassa.org)

## Highlights and current activities of the IUGG International Association of Cryospheric Sciences (IACS)

# IACS



The Memorandum of Understanding (MoU) between our two associations recognizes APECS as the pre-eminent organization for young researchers working in all cryospheric regions and that APECS strives to provide a continuum of leadership in polar research and cryospheric sciences. This year, just prior to DACA-13 (see below), APECS organized its first ever workshop for early career scientists working in mountainous regions. An intense exchange of ideas led to the recognition that APECS should be best brought to the attention of early career scientists by their mentors and teachers. The latter, however, first need to be aware of APECS activities themselves. Moreover, APECS should make clear that the Association wants to address all early career scientists in cryospheric sciences.

IACS strongly believes that the focus at larger scientific assemblies should be on



interdisciplinary links. The program of the Davos Atmosphere and Cryosphere Assembly on Air, Ice & Process Interactions DACA-13, held 8-12 July 2013 in Davos, Switzerland, fully hit this goal. During the well attended closing ceremony, six “poster distinctions” sponsored by the Swiss Meteorological Society (SGM) and the Swiss Snow, Ice and Permafrost Society (SIP) were presented to Fabiano Monti, Franziska Koch, Heather Archambault, Rianne H. Giesen, Saehee Lim and Narendra Ojha; 3 of the awardees are early career scientists working on mountain related topics of cryospheric sciences.

IACS will continue to promote activities of early career scientists at its scientific meetings and greatly appreciates their contribution in the planning and management of such events. Preparations for the next General Assembly of the International Union of Geodesy and Geophysics (IUGG), 23 June – 1 July 2015 in Prague, Czech Republic, are already underway. IACS, together with the seven other scientific associations of IUGG, will strongly support both attendance and activities of early career scientists at this interdisciplinary meeting.

Finally, the most important and most visible activities of a scientific association like IACS are carried out by Working (WG) and Standing Groups (SG). These groups can be very stimulating and bring scientists from quite different fields to discuss on seemingly simple questions such as the size of snow grains. Based on this first workshop, the WG “From quantitative stratigraphy to microstructure-based modelling of snow” is already planning further activities as found on its webpage. Contributions from early career scientists are highly welcome here too.

In summary, IACS is still a small, but growing organisation and we welcome your suggestions and ideas to help us better serve the community.

Charles Fierz  
IACS President  
24 September 2013

Website: <http://www.cryosphericsscience.org>

## Climate and Cryosphere (CliC)



The "Climate and Cryosphere" project (<http://www.climate-cryosphere.org/>) encourages and promotes research of the cryosphere and its interactions as part of the global climate system. It seeks to focus attention on the most important issues, encourage communication between researchers with common interests in cryospheric and climate science, promote international co-operation, and highlight the importance of this field of science to policy makers, funding agencies, and the general public. CliC was established as a core project of the World Climate Research Programme and is co-sponsored by the Scientific Committee on Antarctic Research (SCAR) and the International Arctic Science Committee. CliC aims to encourage improvements on how the cryosphere and the climate of cold regions are evaluated and our understanding of the physical processes and feedbacks through which the cryosphere interacts within the climate system. CliC has provided significant support to facilitate scientific assessments of changes in the cryosphere and their impacts, in particular to the IPCC 5th Assessment Report. To attain these goals, CliC seeks to develop and coordinate national and international activities aimed at increasing the understanding of four main scientific themes which are interactions between: 1) the atmosphere and snow and ice on the land surface, 2) glaciers and ice sheets and sea level, 3) sea ice, oceans, and the atmosphere, and 4) the cryosphere with the atmosphere and oceans on a global scale. With rapidly new developments in cryosphere research, CliC also promotes the establishment of new cryospheric monitoring programmes.

CliC has also been instrumental in initiating several workshops and meetings that also supported participation and input from early career scientists. In February 2013, an APECS representative attended the Climate and Cryosphere (CliC) 9th steering group meeting in Potsdam, Germany. We introduced APECS to the CliC community to encourage participation with young scientists and early career researchers to help with CliC's international

initiatives. The revamping of the CliC organization has provided a great deal of opportunities for APECS members to get involved with additional leadership activities and provide scientific input to the cryosphere community.

At the beginning of June, CliC held a sea ice modelling and observing workshop that brought together Arctic and Antarctic sea ice scientists to discuss the gaps in knowledge found with sea ice data (<http://www.climate-cryosphere.org/meetings/seaice2013>). Sea ice database representatives for the Arctic (Ice Watch) and the Antarctic (ASPECT) developed targeted activities in conjunction with sea ice modelers and invited APECS members. This multifaceted approach to resolve challenges with combining sea ice observations and models will ensure continued efforts in both communities for CliC's sea ice initiatives. CliC teamed up with APECS to help enhance their FrostBytes project. FrostBytes are short (often 30-60 second) videos of researchers talking about their current projects and neat discoveries created by Jenny Baeseman during her position as APECS Director. CliC Frostbytes can be found at: <http://www.climate-cryosphere.org/activities/outreach/frostbytes>.

CliC, APECS, and the International Association of Cryospheric Sciences (IACS) organized a 1-day science and career development workshop before the start of the Davos Atmosphere and Cryosphere Assembly DACA-13, in Davos Switzerland July 7, 2013 to introduce opportunities with leadership roles for young researchers and early career scientists. The workshop aimed to discuss cross-collaboration ideas with both cryospheric and alpine sciences, as well as provide a session for career development, which will help students to gain skills necessary for work in the international and interdisciplinary area of polar research. The agenda included: science presentations with experts in cryosphere and alpine research.

An interdisciplinary 3.5-day workshop on Antarctic ice-rises was held in Tromso, Norway in August 2013, which brought the community together to expand our knowledge of ice rise with the Antarctic ice sheet dynamics. It provided the opportunity to connect ice-rise

researchers from multiple disciplines, including glaciology, oceanography, geology, geophysics, (paleo)climatology, and atmospheric sciences and early career scientists from all disciplines. The goal of this workshop was to develop a summary of the current challenges of ice-rise research, share community-wide understandings of the current status of knowledge beyond each discipline, and identify and produce recommendations for future directions of collaborative interdisciplinary work on ice rises. APECS participated in this event by hosting several webinar sessions.

Some upcoming CliC meetings include organizing the WCRP Cryosphere in a Changing Climate Grand Challenge the workshop, which is open to researchers and other professionals interested in addressing the WCRP Grand Challenge on The Cryosphere in a Changing Climate. Participation is limited in order to facilitate a functional environment for the workshop. For more information go to: <http://www.climate-cryosphere.org/index.php/meetings/wcrp-cryo-gc-2013>. For more information on additional fantastic CliC activities and upcoming events please refer to the website at: <http://www.climate-cryosphere.org/>.

## **Polar Educators International (PEI) - A Fledgling Organization Takes Flight**



PEI (Polar Educators International) is a vibrant network of educators and researchers promoting polar education, science and research to a global community. It is a leading organization sharing research outcomes with a broad public audience in order to close the gap between science and society. By working at the interface between science research and education, PEI works to bridge the gap in communication to educators, students, policy makers, funding agencies, and the general public. At the core of the organization is a unique and valuable resource, our Global Advisors' group. The Global Advisors serve in a guiding role to ensure PEI maintains a global

philosophy of inclusivity and multi-lingual approaches and remains truly international in its vision and activities. The aim is to create a 'global impact audit' to evaluate the organization on a regular basis.



In the short year since its inception at the Montreal IPY Conference in 2012, Polar Educators International (PEI) created a Strategic Plan, elected a Council and Executive Committee, organized Working Groups and is planning a public international launch in December, 2013. The launch includes both face-to-face activities at the AGU (American Geophysical Union) Conference in San Francisco in December and virtual events simultaneously across the globe, and the long-awaited public release of our website.



It has been an exhilarating year for PEI as members shared ideas for the direction they wanted to see their organization take and worked to make those dreams a reality. A robust network of regional committees is in the works as the organization creates innovative ways to provide and promote professional development for both the education and science

communities. Developing relationships with valued partner organizations is a top priority as the organization is launched.

Current partnerships include the Association of Polar Early Career Scientists (APECS), the International Arctic Science Committee (IASC), and the Scientific Committee on Antarctic Research (SCAR). We are also proud to announce that the Arctic Research Consortium of the United States (ARCUS) has signed on as the first secretariat for PEI.



Some of the Education, Outreach, and Communication activities PEI has been involved with this year included a professional development webinar in partnership with APECS during the International Polar Week (IPW) fall,

2012. PEI members contributed activities and resources in multiple languages. In December 2012, PEI partnered with Our Spaces (UK) for Antarctica Day celebrations to promote knowledge on the Antarctic Treaty and released a short film showcasing the importance of the treaty signed in 1959. At the AGU meeting in 2012, PEI hosted a joint meeting with APECS, *Polar Science Outreach: Moving Forward*. PEI also contributed to the town hall meeting on the International Polar Initiative (IPI). In March, 2013, the international workshop *Education Meets Science: Bringing Polar Research into the Classroom* met in Portugal under the direction of Dr. Jose Xavier (Portugal) and Dr. Inga May (Germany). PEI members were involved in the planning and leadership of the conference, which provided access to tools for teachers and facilitated working with polar scientists. PEI, through generous time and funding from the International Polar Foundation, provided a poster at the Antarctic Treaty Commission meeting in Belgium in May 2013. The first PEI social event was hosted at the US National

Science Teachers Association meeting in April, 2013.

PEI looks forward to continued collaborations with our current partners and developing new partnerships with other like-minded scientific organizations. Educators hold the key to communicating polar science, polar education, and polar research to wider audiences and to helping researchers meet their broadest of broader impacts!

## International Antarctic Institute (IAI)



The International Antarctic Institute (IAI) is a consortium of universities dedicated to providing training and education in polar sciences. The 20 member universities, who are world leaders in polar science, are committed to training the next generation of polar scientists. IAI encourages the development of polar courses and degree programs and facilitates student and staff mobility between members. The IAI mission is to promote international cooperation engendered by the Antarctic Treaty System, by providing exceptional educational and cultural experiences for our students. This can only be accomplished by international sharing of resources, knowledge and expertise.

The IAI signed an MOU with Association of Polar Early Career Scientists (APECS) during the IPY so as to formalise and build on our joint networks of expertise in Antarctic education and research. The IAI network provides a mentor base for APECS, locally within our home countries, and internationally both within and across scientific disciplines. APECS has a seat on our IAI council, and provides us with advice and direction, and more importantly energy and enthusiastic ideas for collaboration.

During the year we had several IAI students travelling between partner institutes, including and Institut Universitaire Européen de la Mer, University of Tasmania, the University Center Svalbard taking wonderful polar courses and conducting research programs.



A three-week field excursion in June brought 20 Hamilton College students to Tasmania, joined by several University of Tasmania Masters Students, discovering the geology of Tasmania in context of Gondwana reconstruction. This brilliant course was led by Professor Eugene Domack.



Several IAI masters students joined a multidisciplinary multinational Antarctic expedition during the late winter/ early spring to study aspects of sea ice ecology aboard the Australian ice breaker the RV Aurora Australis

## Arctic Portal



The Arctic Portal is a versatile arctic science communications organization providing a wide range of information and data sharing, consultation, education and science outreach services. The Arcticportal.org website is a comprehensive gateway to arctic information and data on the internet, increasing information sharing and co-operation among arctic stakeholders and granting exposure to arctic related information

and data benefiting diverse groups of stakeholders, policymakers, scientists, educators and the general public. The Arctic Portal provides consultation and web presence to various Arctic organizations and projects through the Arctic Portal Community, including APECS, IASC, ICR - The International Centre for Reindeer Husbandry, NRF – the Northern Research Forum, IPA – International Permafrost Association, CAFF – Conservation of Arctic Flora and Fauna, PAME – Preservation of Arctic Marine Environment, IASSA – International Arctic Social Science Association, IPS – Indigenous Peoples Secretariat, IPY – the International Polar Year, SAON and many others.

The Arctic Portal is active in international project participation with emphasis on dissemination and data management. Ongoing projects and developments include: Uarctic Virtual Learning Tools project [www.vlt.is](http://www.vlt.is), the EU funded EU Arctic Information Centre Preparatory Action, „Strategic Environmental Impact Assessment development of the Arctic“, which is a first step to strengthen communication and outreach within the EU and between the EU and the Arctic community <http://arcticinfo.eu>, EU 7th framework project PAGE21 “Changing Permafrost in the Arctic and its Global Effects in the 21st Century“, which aims to understand and quantify the vulnerability of permafrost environments to a changing global climate [www.page21.eu](http://www.page21.eu) and Icelandic Arctic Cooperation Network project, which brings together the Icelandic arctic organizations and actors of international relevance <http://arcticiceland.is>

The Arctic Portal and APECS share common goals of working internationally and across disciplines to increase understanding on the changing Arctic natural and political environment and facilitating outreach and information sharing of Arctic scientific resources. Arctic Portal has been involved in the development of APECS from the first days of the organization and developed and supported the web based presence of APECS throughout the years.

Website: [www.arcticportal.org](http://www.arcticportal.org)

## University of Tromsø (UiT), the Arctic University of Norway



The University of Tromsø has had an exciting year. On the 1st of August, we officially merged with the University college of Finnmark, and became UiT, the Arctic University of Norway. The new name reflects that we are in the High North and our strategic fields of interest related to the High North. Following the merger, UiT now has campuses in Kirkenes, Hammerfest and Alta as well as Tromsø. With a steady increase in students, UiT now has nearly 12 000 students, and can offer an even wider range of programmes and subjects. UiT is still a traditional university with a wide range of subjects, but in addition UiT now has a national responsibility for research and education in fields especially relating to the High North.

One such field is the “joker” in the climate predictions, the gas hydrates, also called frozen methane. UiT is proud to announce that as of January 2013, we are hosting the Centre for Arctic Gas Hydrate Environment and Climate (CAGE), which has been awarded status as a Norwegian Centre of Excellence in Research. This research centre will investigate the role methane released by warming oceans plays in the climate dynamics.

January also marks the return of the sun in Tromsø, and with that the Arctic Frontiers conference, hosted at the main campus in Tromsø. AF is successful in drawing attention to important issues in the Arctic, both from a political and academic perspective. It is also an ideal meeting place for scientists and politicians from all over the world to discuss arctic issues. This is reflected in the large number of side events taking place before during or after the conference itself. For many APECS members, the Young Scientist forum has been a rewarding experience both socially and academically.

Together with the Polar Research Institute and the Northern Arctic Federal University in Arkhangelsk, the 100 years anniversary for the expedition to Siberia made by Nansen and Lied in 1913 is commemorated. The Nansen

Memorial Expedition sailed from Arkhangelsk to the mouth of the river Yenisei. Around 20 Russian and 30 Norwegian participants were recruited from academia, public and private sector. The idea was to replicate the goals of the 1913 expedition, which was to explore the possibilities in the North East. During this expedition, an idea of common Russian-Norwegian student cruises was discussed. Hopefully, next year young researchers and students will be invited on an unforgettable research cruise to the Russian part of the Arctic ocean.

Website: [www.uit.no](http://www.uit.no)

## Norwegian Polar Institute



The Norwegian Polar Institute (NPI) is as busy as ever. The institute is Norway's main institution for research, monitoring and topographic mapping in

Norwegian polar regions, and also advises Norwegian authorities on matters concerning polar environmental management. The NPI is not an educational establishment, but students and PhDs from all over the world have been supervised by researchers at the institute for many years.

One of the highlights of 2013 is the start of the process of acquiring a new research vessel. The "Kronprins Haakon" will cost 1,4 billion NOK, and will be owned by the NPI and operated by the Institute of Marine Research. The main user will be the University of Tromsø. Although the ship will not be ready for Arctic and Antarctic waters until 2016, it will attract a lot of focus in the time to come.

Old *Lance*, the institute's current vessel, is ready to retire as a research vessel. What better way to exit than to be the centre of a special campaign? The NPI research programme "Norwegian Sea Ice Cruise 2015" (N-ICE 2015) will have *Lance* freeze into the ice north of Svalbard, and serve as a research platform during the dark season from November 2014. National and international leading scientists are invited to take part with their own projects.

Another focal point at present is the IPCC Fifth Assessment Report (AR5). With director Jan-Gunnar Winther as one of the lead authors in the Working Group 1 report, the institute is involved in spreading information about the work of the IPCC, the background for AR5 and the results of climate research.

Website: [www.npolar.no](http://www.npolar.no)

## Akvaplan-niva and Arctic Frontiers



Akvaplan-niva provides consultancy and research services to companies, authorities, NGO's and other customers worldwide. Our services include environmental monitoring surveys, impact and risk assessments, arctic environmental research and aquaculture design. Akvaplan-niva is based in Tromsø and manages the secretariat for the High North conference Arctic Frontiers.

The 8th Arctic Frontiers conference in Tromsø will take place from January 19th to 24th 2014. The theme for 2014 conference is Humans in the Arctic. Arctic Frontiers 2014 will explore how living conditions for humans is being influenced by changing climate, migration and industrial and business development. What will the cumulative effect of these changes be on the health, well-being and working conditions, and what will the effect be at a societal level? At the same time increasing business and recreational activities in the Arctic will require the maritime sector to be strengthened. Arctic Frontiers will further discuss how to meet the main challenges for offshore and shipping activities, and the need to develop search and rescue services.

Every year Arctic Frontiers invites young and enthusiastic stakeholders to share their perspectives and innovative solutions to current global challenges and discuss Arctic development issues with political decision makers and representatives from business, academia and civil society. The Young Scientist Forum (YSF) is an integrated part of the Arctic Frontiers conference, and facilitates networking and interdisciplinary discussions among early

career scientists, young professionals and senior conference delegates. During Arctic Frontiers 2013 more than 250 young stakeholders attended and participated in a comprehensive program organised in cooperation with our partner institutions. Activities blend the discussion of scientific and technical challenges with cultural and personal experiences, ranging from mentor speed dating, funding seminars, art exhibitions, outreach programs, to daily social gatherings. AEPCS is one of the YSF main partners, and we look forward to future endeavors to promote polar early career scientists. The YSF 2014 program will be launched at the end of September 2013.

Visit the our websites to keep posted on YSF and Arctic Frontiers updates.

Websites: [www.arcticfrontiers.com](http://www.arcticfrontiers.com) and <http://www.akvaplan.niva.no/en/>

## High North Academy (HNA) - is cementing it's course portfolio



High North Academy (HNA) is an recent initiative for an overarching institution of higher learning in the High North, encompassing both University of Tromsø and FRAM. The overall aim of HNA is to increase the quality of PhD-studies associated with High North issues, to stimulate High North research output and communication, and in the long run improve recruitment to higher education and research in the High North.

Since fall 2011 HNA has been offering ECTS-yielding courses for PhD-students and scientific staff in a range of transferrable skills. We have given courses in scientific writing, giving scientific presentations, writing popular science articles, giving interviews to a camera-team, taking photos, how to combine science with art, making movies, doing maps, how to lead, and how to start your own business. All the courses aim at giving the students practical tools and tangible products that they can use in their further careers.

During these initial years of course development, we have had 153 students from 12 universities and 8 research institutes both nationally and internationally, and the feedback on the courses has been positive. This year, HNA is aiming to cement the existing course portfolio in order to acquire predictability, and acquire long-term funding for the activities so that we can keep on inviting exiting experts from all around the world to teach on our courses.

For more info on the existing course portfolio, visit our website [www.highnorthacademy.com](http://www.highnorthacademy.com)

## FRAM - High North Research Centre for Climate and the Environment



*VIP visitors and guests galore*

In 2012, the role that Tromsø and the Fram Centre play in connection with research and monitoring of the climate and environment in the North was underlined by some prominent visitors. The enormous security detail and the very thorough preparations in advance of the visit confirmed that someone significant was coming to Tromsø. The American Secretary of State is regarded as one of the most powerful people on the planet, and when Hillary Clinton visited Tromsø in June, it made headlines in international, national and local media. The host of the visit was the Norwegian Minister of Foreign Affairs, Jonas Gahr Støre.

*Arctic allies*

During their summaries, both the American Secretary of State and the Norwegian Minister of Foreign Affairs, Jonas Gahr Støre (the Norwegian Labour Party), emphasized the importance of seeing with their own eyes what is happening in the North. The visit to Norway will bring the US and Norway closer as Arctic allies, the two said. "It has been important to develop and deepen the cooperation between myself and Jonas, and the US and Norway. It is also important to send a clear signal. Even though it appears an insurmountable task for

humanity to take the necessary steps to limit the consequences of global warming and climate change, everyone can do something. And it is our job to make that happen," Clinton said.

#### *Finnish state visit*

Tromsø's role had been noted, and when Finland's President visited Norway on an official state visit, the message from the Finnish side and the Norwegian Ministry of Foreign Affairs was clear: We want to go to Tromsø! On 12 November, the Finnish President Sauli Niinistö and his wife, Jenni Haukio, were welcomed at Tromsø Airport by Crown Prince Haakon, County Governor Svein Ludvigsen, and representatives from the regional and local political administration. In his speech at the University of Tromsø, Niinistö emphasised the important role the Fram Centre plays in research in the North.

#### *Great interest*

Representatives from other countries also visited the Fram Centre in 2012. Their number and diversity bears witness to the international interest in researching and monitoring the climate and environment in the High North. The visitors included official and academic representatives from Belgium, Brazil, Canada, China, Denmark, Greenland, The Netherlands, South Korea, Sweden, the UK and the US.

#### *Victory in the Researcher Grand Prix*

This was the second time that the Fram Centre and the University of Tromsø, together with the Norwegian Research Council, hosted "Forsker Grand Prix" in Tromsø. The regional competition was held at Rica Ishavshotel, the same venue as last year, and was completely sold out. This year, the national final was also held in Tromsø, in the main hall of the Tromsø Cultural Centre. The Researcher Grand Prix is a competition in research communication. The participants are PhD candidates who are well underway toward their degrees, but who have not yet presented their thesis. Participants are selected months in advance and given professional help with the content of their presentation, media training, performing on stage, and using their voice. Each participant presents his or her own research project within

a given timeframe, and is then ranked on the basis of votes from the audience and the evaluation of a panel of judges. Møllersen is a PhD candidate at the Department of Mathematics and Statistics at the University of Tromsø, and their subject area is statistics.

#### *Intensifying research cooperation with China*

An international workshop was organised at the end of January 2013 aimed particularly at intensifying the research cooperation between Norway and China. It is a continuation of the existing cooperation agreement between the two countries. In 2010, the Norwegian Polar Institute and the Polar Research Institute of China signed a cooperation agreement for polar research. The agreement includes research into glaciers and sea ice, among other topics, as well as facilitation of research cruises in the Arctic.

#### *Our Synthetic World*

The exhibition "Our Synthetic World" is designed to spread knowledge about hazardous substances in the High North. Artists and scientists have come together to make a difficult theme easier to understand. The exhibition opened in Tromsø in January 2013. Through an installation, storytelling, film and a theatre performance, they tell how humans and animals, climate and the environment are influenced by man-made substances, and how research contributes to improve our everyday life. Scientists from the Fram Centre's Flagship "Hazardous substances – effects on ecosystems and human health" have collaborated with Sadio Nor Theatre, artists, and communication experts to tell people of all ages about this research. The scientists selected the themes for the exhibition: the food chain in the Arctic, health and human influence, climate change and multi-stress. Our Synthetic World is shown in combination with a theatre performance, and the entire event was developed in cooperation between Polaria, Fram Centre and Sadio Nor Theatre. The installation was created by Lawrence Malstaf, and the films were produced by Fersk Film. The project is financed by Troms County Council, VRI Troms, Fram Centre Intro-funding, and the Research Council of Norway.

Website: <http://www.framsenteret.no>

## ArcticNet and the ArcticNet Student Association (ASA)



ArcticNet is a Network of Centres of

Excellence of Canada that brings together scientists and managers in the natural, human health and social sciences with their partners from Inuit organizations, northern communities, federal and provincial agencies and the private sector. The objective of ArcticNet is to study the impacts of climate change in the coastal Canadian Arctic. Students and young scientists are very active within the network. This is illustrated by the diverse and numerous activities and projects undertaken by the ArcticNet Students Association and APECS.

The ArcticNet Student Association (ASA) represents over 300 students across Canada involved in the ArcticNet Network of Centres of Excellence. We exist to promote student learning, leadership, research and networking opportunities between students, academics, governmental partners, and northerners. Each winter Canadian Arctic researchers come together at the ArcticNet Annual Science Meeting (ASM) to share their research, network, and plan upcoming projects. At these meetings the ASA holds a “Student Day” where skills pertinent to young Arctic researchers are developed.

The 2012 Student Day workshop, titled ‘Survival Skills for the Arctic Scientist’, was held in Vancouver. This event was one of the longest and most involved student workshops the ASA has planned to date. The event, which spanned 1.5 days, incorporated plenary speeches with sixteen workshops, and saw the significant involvement of members from the Inuit Tapiriit Kanatami (ITK). Building on the success of 2012, the upcoming 2013 Student Day in Halifax will offer students networking and learning opportunities, with a particular focus on career options for early career polar scientists.

Several other projects are also planned for this upcoming year including participation in the annual “Arctic Science Day” in Winnipeg (Canada), put on by ArcticNet’s Schools on

Board organization, as well as organization of the Maamuitaaq – Illinnia field school running February 16-23, 2014, in association with the Arctic Science Partnership (ASP) and the Centre for Northern Studies (Centre d’études Nordiques, CEN).

Website: <http://www.arcticnet.ulaval.ca/>

## Permafrost Young Researcher Network (PYRN)



The Permafrost Young Researchers Network (PYRN) is an international organization that fosters collaboration amongst its

members and seeks to recruit, retain, and promote future generations of permafrost researchers. PYRN began as an IPY initiative in close collaboration with APECS and with its overarching organization, the International Permafrost Association (IPA). PYRN seeks to increase global awareness, understanding, and action in relation to permafrost in a changing climate. Our main goal is to provide a common forum to communicate and exchange ideas related to permafrost science and engineering. This includes coordinating activities such as workshops, meetings, and awards to encourage PYRN members to share knowledge and expertise on permafrost-related topics. PYRN leadership consists of an Executive Committee (led by a President) and a Council. One member from the Executive Committee jointly serves on the APECS Open Council. Last year a memorandum of understanding was signed between APECS, PYRN, and IPA to enhance the close cooperation on aspects of polar research that are of mutual interest in the future.

The IV Iberian conference of the International Permafrost Association took place from 25 to 27 of June 2013 in Vall de Núria (Catalonia) in the Eastern Pyrenees and was organized by the University of Barcelona ([http://paisatge.wix.com/servei\\_ub/ipa-2013#!\\_ipa-2013](http://paisatge.wix.com/servei_ub/ipa-2013#!_ipa-2013)). During the conference around 30 oral presentations and 15 posters were presented related to permafrost topics on

polar and mountain environments as well as planetary.

PYRN organized the Award for best oral and best poster presentations, evaluating 5 oral presentations and 7 poster presentations. The evaluators were Prof. Dr. Gonçalo Vieira (Portuguese representative of the IPA), Prof. Henrique Serrano (Spanish Representative of the IPA) and Alexandre Nieuwendam (president of PYRN).

For the best oral presentation the winner was Lourenço Bandeira from the Institute for Technical Studies from the Lisbon (Portugal) who presented the communication entitled "Ultra-high resolution image acquisition with an Unmanned Aerial Vehicle for detailed mapping in Barton Peninsula (King George Island, Antarctica)". The best Poster presentation was Manuel Gómez Lende from the University of Valladolid (Spain) with the presentation on "Los ortotermogramas en los estudios de hielo de cuevas heladas. El caso de la cueva helada de Peña Castil (Picos de Europa)". The last day was mostly dedicated to a great field trip in the Pyrenees, and in the end of the day, Alexandre made a short presentation about PYRN and the plans for the ongoing organization of two workshops during EGU and EUCOP in 2014.

Miguel Angel de Pablo from the University of Alcalá was appointed the new PYRN National Representative for Spain. PYRN will be organizing for the first time a workshop on methods and techniques to study permafrost in a climate change scenario, during EGU in 2014. The main goals of the workshop are: 1. Equipping young researchers with a multidisciplinary understanding of the role of permafrost in the climate system, 2. Strengthening international collaboration of early career researchers, and 3. Enabling the participants to put their research into a larger context. The workshop would fulfill these goals through a series of presentations and discussions, interactions with peers and top level permafrost researchers, and reference materials prepared for the workshop.

The next major joint activity of APECS and PYRN will be a "Permafrost Young Researchers Workshop" that will be hosted together with the

young researcher representatives of the two projects PAGE21 (Changing Permafrost in the Arctic and its Global Effects in the 21st Century) and ADAPT (Arctic Development and Adaptation to Permafrost in Transition) in the context of the Fourth European Conference on Permafrost (EUCOP4) in June 2014 in Portugal (<http://www.eucop4.org/permafrost-young-researchers-workshop.html>). The workshop aims at building interdisciplinary knowledge on how the Arctic and Antarctic permafrost regions play a key role in the Earth System and to give each participant a more overarching view on the regions beyond disciplinary research questions. To achieve this, the participants will share knowledge with each other in thematic break-out sessions and elaborate the future avenues of permafrost research together, with mentors playing a key role in permafrost research either in large-scale international projects or science policy.

For more information on PYRN visit us at <http://pyrn.arcticportal.org/en/>

## Young Earth System Scientists (YESS) community

A self-maintained communication platform that aims to enhance communication among young Earth System researchers.



The Young Earth System Scientist community (YESS) has continued to grow in 2013, now numbering close to 300 members. Starting from its origins as a means to connect German climate-science-related graduate schools, it has now been established as one of Germany's leading early career networks and has opened up to other European and international countries. The biggest part of YESS activities has been the organization of the Interdisciplinary Conference of Young Earth System Scientists on Understanding and Interpreting Uncertainty, ICYESS 2013 (<http://icyess.eu>). This early career conference will take place in September 2013 in Hamburg and will bring together scientist from natural, social and political sciences. Together, ICYESS will attempt to break language

barriers between disciplines and discuss methods and options of how to deal with shared - and also different - uncertainties. Another key aspect that follows up on the YESS retreat 2012, is the question of how these scientific uncertainties - if understood in an interdisciplinary context - can then be transferred and communicated to the broader public. The organization of this conference is supported by a multitude of relevant German climate research agents, notably by CLISAP and the DKK, with additional funding from the university of Hamburg and the Koerber Stiftung.

YESS will try in 2014 to go beyond its local basis and approach international agencies to increase the reach of our community. Regular meetings in cities with high YESS membership count and meetings at big conference that are relevant in the Earth System Sciences will continue to be one of the main points of entry for YESS, allowing young scientist from a variety of institutions and backgrounds to mingle and create a strong early career network. If you are interested, just join YESS at <http://yess-community.org>.