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News from the

Scientific Committee on Antarctic Research

January 2017

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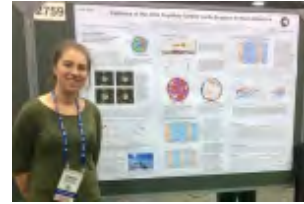
- Antarctic Course in Biological Adaptations to Environmental Change, Polar prediction and sea ice modelling workshops, A free virtual field trip to Antarctica, The 23rd International Symposium on Polar Sciences at KOPRI

SCAR News

[SCAR Physical Sciences Group supports Ice Core Early-Career Scientists at the Fall AGU Meeting](#)

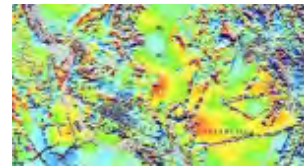
Ten early-career scientists studying ice core science were supported with travel funds for the recent Fall AGU (American Geophysical Union) meeting in San Francisco. The [SCAR Physical Sciences Group](#) provided the funds to the [Ice Core Young Scientists \(ICYS\)](#) group following an open call to those first authors presenting either posters or talks at the meeting.

[Read More](#)



[ADMAP \(Antarctic Digital Magnetic Anomaly Project\) Workshop Report Published](#)

The most recent meeting of the ADMAP (Antarctic Digital Magnetic Anomaly Project) community took place at the Renaissance Hotel in Kuala Lumpur, just before the start of the 2016 SCAR Open Science Conference. With completion of the ADMAP-2 compilation just a step or two away, the meeting was a full and exciting one, with much to arrange for the coming year. The [report](#) summarises the discussions and some of the next most important steps to bring ADMAP2 to a successful conclusion. The next planned meeting will be a splinter meeting at EGU 2017.



For more information on the ADMAP Expert Group, visit the [ADMAP section of the website](#).

Read the report of the ADMAP-2 Workshop on the [ADMAP Publications page](#).

[2017 Biogeochemical Processes at Sea Ice Interfaces \(BEPSII\) Meeting](#)

The annual meeting of the [Biogeochemical Processes at Sea Ice Interfaces \(BEPSII\) Action Group](#) will be held on 3-5 April 2017 at the Scripps Institute of Oceanography, La Jolla, San Diego, California. It follows the Gordon Research Conference on Polar Marine Science, to be held at the end of March in Ventura, California.



The 2017 BEPSII meeting will include the launch and first meeting of the new [SCOR working group on Measuring Essential Climate Variables in Sea Ice \(ECV-ice\)](#). The meeting will be a combination of overview and new science talks, posters, and discussion sessions. A rough agenda is available on [the meeting webpage](#). Anyone wishing to participate must add their details to the [registration form](#). Limited travel support is available.

For more information, see the [BEPSII Meeting webpage](#).

[International Antarctic permafrost, periglacial processes and soils workshop](#)

The SCAR Antarctic Permafrost and Soils (ANTPAS) Expert Group is holding its first international workshop on 4-5 October 2017 at Insubria University, Varese, Italy.



The workshop will mainly focus on the main SCAR Horizon Scan questions and the future hot scientific topics concerning the permafrost environment in Antarctica. For the past 20 years, research has mainly focused on the thermal state of permafrost and the active layer, periglacial processes and landforms and cryosols. However, recently the community is becoming multidisciplinary, with research more focused on terrestrial ecosystem dynamics under a changing climate. Simultaneously, the links between ecosystem and permafrost scientists became stronger and more collaborative.

This workshop aims at being the starting point for a tentative new SCAR multidisciplinary research programme focusing on a holistic approach to the changing Antarctic permafrost systems. Several SCAR Horizon Scan questions can only be properly addressed within an encompassing new research programme.

[Read More](#)

[Read more](#)

[SOOS Field Projects Database in Beta Test Stage](#)

For some years, oceanic and polar researchers have been discussing the need for a tool that allows us to share information on field projects, before heading to sea. SOOS (the Southern Ocean Observing System) is coordinating the development of a multi-disciplinary, international field projects database. This database will host details of voyage transects and of the individual project leaders working on board.

[Read More](#)



[Developing the West Antarctic Peninsula International Network within SOOS](#)

The 1st Workshop of the Southern Ocean Observing System (SOOS) West Antarctic Peninsula Regional Working Group (WAP WG) will be held at the Aurora Conference Centre, British Antarctic Survey, Cambridge, UK, 15-16 May 2017.

This workshop will focus on the development of the West Antarctic Peninsula Working Group, including building the community, identifying existing activities and observational gaps, aligning data efforts, and articulation of an action plan moving forward. The workshop is sponsored by the British Antarctic Survey, SCAR and SOOS and is open to anyone interested in attending.



For more information, visit [the workshop website](#).

[POLENET/SERCE Glacial Seismology Training School - Apply by 31 January](#)

A training school focused on exploring glacial seismology will be held from 11-17 June 2017 on the campus of Colorado State University, Fort Collins, Colorado, USA. The programme will include lectures and practical exercises aimed at current and emergent seismological studies of glacial dynamics, structure, seismogenic processes, and seismic observables. While primarily aimed at graduate students and early-career scientists, all interested parties are encouraged to apply regardless of career or experience level. There is no registration fee, and participants will be provided with food and lodging for the duration of the training school. Funding for additional travel expenses, including airfare, may also be available for both US and non-US participants.



Financial support for the training school is provided by the National Science Foundation (NSF) through the Antarctica Network (ANET) component of the Polar Earth Observing Network (POLENET) project and by the Scientific Community on Antarctic Research (SCAR) through the [Solid Earth Responses and influences on Cryospheric Evolution \(SERCE\)](#) programme.

The deadline to apply is 31 January 2017. For more information on the school and to apply, visit www.polenet.org and click on the "Training School Information and Applications" link.

[CLIVAR/CliC/SCAR Southern Ocean Region Panel \(SORP\) meeting report available](#)

The 11th session of the CLIVAR/CliC/SCAR Southern Ocean Region Panel (SORP) was held on 17-18 September 2016 at Hyatt Regency Hotel in Qingdao, China. Download the report [here](#).

The purpose of the group is to serve as a forum for the discussion and communication of scientific advances in the understanding of climate variability and change in the Southern Ocean, and to advise CLIVAR, CliC, and SCAR on progress, achievements, new opportunities and impediments in internationally-coordinated Southern Ocean research.



To learn more about the group and their activities, visit their [webpage hosted by CLIVAR](#).

[Antarctic Meteorological and Climate Workshop and Meetings](#)

Three Antarctic-related meetings to be held from 26-30 June 2017: the



12th Workshop on Antarctic Meteorology and Climate, the second planning meeting on YOPP In the Southern Hemisphere, and the Southern Ocean Regional Panel (SORP) Meeting, all kindly hosted by the National Center for Atmospheric Research (NCAR) in Boulder, Colorado, USA.



The 12th Workshop on Antarctic Meteorology and Climate brings together those with both research and operational interests in Antarctic meteorology and forecasting and related disciplines. It serves as a forum for current results, ideas, and issues in Antarctic meteorology, numerical weather prediction, forecasting, and climate. The workshop is sponsored by SCAR through the OpMet (Operational Meteorology in the Antarctic) Expert Group. Visit [the workshop website](#) for more information.

The Year of Polar Prediction (YOPP) will be officially launched in May 2017. During the core phase of YOPP from mid-2017 to mid-2019, a Special Observing Period in the Southern Hemisphere will take place from mid-November 2018 to mid-February 2019. This will have intensified research activities, including enhanced routine synoptic observations and radiosonde launches.

[Read More](#)

[SCAR Strategic Plan 2017-2022 Published](#)

5 January 2017:

We are pleased to share the [2017-2022 SCAR Strategic Plan](#). The plan was written by a [team of dedicated SCAR-affiliated scientists and leaders](#) over the course of 2016, in consultation with SCAR's Delegates, National Committees, Partners and concerned scientists and educators.

SCAR's vision is to create a legacy of Antarctic research as a foundation for a better future. In line with this vision, through scientific research and international cooperation SCAR will establish a thorough understanding of the nature of Antarctica, the role of Antarctica in the global system, and the character and effects of environmental change and human activities on Antarctica. SCAR's work in the next five years will focus on key objectives:

[Read More](#)



[Congratulations to SCAR Delegate Dame Jane Francis!](#)

[Dr. Jane Francis](#), Director of the British Antarctic Survey and UK Delegate to SCAR was recently made a dame for her services to polar science and diplomacy. Dame Francis has been involved with Antarctic research since the early 1980s with her paleobiology work and was only the fourth woman to receive the prestigious UK Polar Medal in 2002.

Jane has been an active member of the SCAR community for many years, including her service as the UK Delegate and her mentoring of many young female scientists and help with the [Celebrating Women in Antarctica Wikibomb](#) held this past year.



Dr. Francis was included in the [2017 New Year Honours List](#) and THE QUEEN has awarded her the title of Dame Commander of the Order of Saint Michael and Saint George.

Please join us in congratulating Jane on her many accomplishments and this great honour.

Upcoming Events

[Submit your abstracts for the SCAR Biology Symposium and the Humanities and Social Sciences Conference!](#)

February 2017

[International Symposium on the Cryosphere in a Changing Climate](#)
[3rd Snow Science Winter School](#)

March 2017

[Ice Memory International Workshop](#)
[Conservation of Marine Living Resources in the Polar Regions: Science, Politics and Law](#)

[Conservation of Marine Living Resources in the Polar Regions: Science, Politics and Law](#)
[2017 Gordon Research Conference on Polar Marine Science](#)
[4th Polar Prediction Workshop](#)
[2nd Sea Ice Model Intercomparison Project \(SIMIP\) Meeting](#)
[Arctic Science Summit Week 2017](#)

April 2017

[BEPSII - Biogeochemical exchange processes at Sea Ice Interfaces Meeting](#)
[2017 Polar Technology Conference](#)
[3rd International Workshop of Polar Educators International \(PEI\)](#)
[Airborne Geodesy and Geophysics with Focus on Polar Application](#)
[EGU General Assembly](#)
[IPICS Session at EGU](#)

May 2017

[Past Global Changes \(PAGES\) Open Science Meeting](#)
[SOOS West Antarctic Peninsula Regional Working Group Workshop](#)
[23rd International Symposium on Polar Sciences](#)
[International Conference on High Latitude Dust 2017](#)
[ATCM XL - CEP XX](#)

June 2017

[Year of Polar Predictions \(YOPP\) Special Session](#)
[SOOS Scientific Steering Committee Meeting](#)
[2017 Glacial Seismology Training School](#)
[Forum for Research into Ice Shelf Processes \(FRISP\) Workshop](#)
[27th International Ocean and Polar Engineering Conference](#)
[12th Workshop on Antarctic Meteorology and Climate](#)
[Year of Polar Prediction in the Southern Hemisphere \(YOPP-SH\) Meeting](#)
[Southern Ocean Regional Panel \(SORP\) Meeting](#)

July 2017

[2nd Asian Conference on Permafrost \(ACOP2017\)](#)
[2017 HASSEG/History Groups Biennial Conference](#)
[Workshop on Priority Threat Management for Antarctica](#)
[SCAR Biology Symposium](#)
[Conference on Regional Sea-level Changes and Coastal Impacts](#)
[SCAR Astronomy & Astrophysics from Antarctica \(AAA\) Meeting 2017](#)

August 2017

[XXXII International Union of Radio Science \(URSI\) General Assembly & Scientific Symposium](#)

September 2017

[International Association of Geodesy/SCAR SERCE Workshop on "Glacial isostatic adjustment and elastic deformation"](#)
[Past Antarctic Ice Sheet Dynamics \(PAIS\) Conference 2017](#)

October 2017

[IX Congreso Latinoamericano de Ciencia Antártica / IX Latin American Congress on Antarctic Science](#)
[1st International ANTPAS Workshop on Antarctic permafrost, periglacial processes and soils](#)
[Polar-CORDEX Meeting](#)

March 2018

[International Symposium on the Cryosphere and Biosphere](#)

April 2018

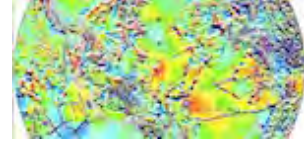
[International Conference on Marine Ecosystem Assessment for the Southern Ocean](#)

June 2018

[POLAR2018 - XXXV SCAR Meetings and SCAR/IASC Open Science Conference](#)

Antarctic Digital Magnetic Anomaly Map Project (ADMAP)

ADMAP has been providing a unique opportunity for integrating scientific research and investigations over Antarctica. ADMAP aims to enable geologic studies of Antarctica where almost 99% of the continent is covered by ice and snow.



Considerable attention is paid to the Antarctic is because of the central role of its tectonic and geologic researches in both Gondwana and Rodinia evolution, and the fact that it is the most poorly understood region of the planet. As a consequence, numerous near-surface magnetic surveys carried out by the multi-national scientific communities are critical to unveil the evolutionary history of both paleo-continent. In addition, the state-of-art magnetic satellite missions have been carried out to augment the gaps where near-surface surveys were not done. Accordingly, ADMAP was launched in 1995 to compile and integrate into a digital database all existing near-surface and satellite magnetic anomaly data collected in Antarctica and surrounding oceans south of 60 degrees. Since then, the ADMAP Group has been updating the databases with additional surveys as well as investigating the areas of special interest, first as a SCAR Working Group and currently as an Expert Group.

ADMAP is also a SCAR Product, produced by the Expert Group. [See the ADMAP product.](#)

Biogeochemical Exchange Processes at the Sea-Ice Interfaces (BEPSII)

The Action Group on Biogeochemical Exchange Processes at the Sea-Ice Interfaces (BEPSII) represents a group of researchers in sea-ice biogeochemistry that started as a group in 2009 and was formalized as a [SCOR \(Scientific Committee on Oceanic Research\) working group](#) in 2012. It has since continued to grow.



BEPSII serves as a unique forum linking modellers and field scientists studying sea-ice biogeochemistry. As a SCOR working group, BEPSII has been organized around three task groups, focused on:

1. improving observation methods;
2. building large-scale databases; and
3. upscaling processes within models.

The working group's lifetime in SCOR ended but the community sought to continue and expand the group's goals and membership. With an increasing awareness of the important role of sea-ice biogeochemistry in climate-relevant elemental cycles, approval has been granted for BEPSII to continue as a SCAR Action Group within Life Sciences.

The aim of BEPSII is to support and further develop an international community on sea-ice biogeochemistry; to stimulate the interaction between experimentalists and modelers working on this topic and to help the community articulate research priorities and identify optimized and cost-effective approaches and research platforms in internationally resource-limited times.

For more information, see the [original BEPSII website](#).

Antarctic Permafrost, Soils and Periglacial Environments (ANTPAS)

Permafrost in the Antarctic is widespread in the ice-free areas and a key variable for ecosystems, hydrology and geomorphological dynamics. It was only in the last decade that it was possible to have a more accurate overview of the thermal state of permafrost and active layer dynamics in the Antarctic. This followed the installation of new GTN-P boreholes and active layer monitoring sites (CALM) within IPY projects ANTPAS and TSP. However, there is still a lot to be understood about Antarctic permafrost and active layer and mainly on their relationships to other environmental variables. Even in cold permafrost areas, extreme warm events can induce significant modifications in the active layer dynamics as has been shown in the McMurdo Dry Valleys. Other areas of the Antarctic show warm permafrost and several sites suggest that it is thawing fast due following climate change, such as the South Shetlands and Northwest Antarctic Peninsula region. An interdisciplinary



change, such as the South Orkneys and Northwest Antarctic Peninsula region. An interdisciplinary approach is needed to fully unravel consequences of these changes in the highly sensitive Antarctic environments.

The [Antarctic Permafrost, Soils and Periglacial Environment \(ANTPAS\) Expert Group](#) aims at promoting international collaboration towards the development and consolidation of Antarctic permafrost research. Such is done through annual organization of workshops and conference sessions, dissemination of an annual newsletter on member activities and promotion of discussion of needs for Antarctic permafrost research. As such and following the IPY approach, ANTPAS promotes the main science guidelines for international cooperation on hot topics in permafrost science in key areas of the Antarctic.

ANTPAS links with other SCAR bodies on advisory issues related to permafrost, as well as with other associations, such as the International Permafrost Association.

Solid Earth Response and influence on Cryospheric Evolution (SERCE)

The [Solid Earth Response and influence on Cryospheric Evolution \(SERCE\)](#) scientific research programme aims to advance understanding of the interactions between the solid earth and the cryosphere to better constrain ice mass balance, ice dynamics and sea level change in a warming world. This objective will be accomplished through integrated analysis and incorporation of geological, geodetic and geophysical measurements into models of glacial isostatic adjustment (GIA) and ice sheet dynamics.



The programme is designed to synthesize and integrate the extensive new geological and geophysical data sets obtained during and subsequent to the International Polar Year with modeling studies, in a timeframe to contribute to IPCC AR6. SERCE will provide the international collaborative framework and scientific leadership to investigate systems-scale solid earth – ice sheet interactions across Antarctica and relate these results to global earth system and geodynamic processes.

A series of expert workshops will produce synthetic science products based on extensive new geophysical data sets for Antarctica as well as improved data-modeling integration. Thematic science symposia and workshops, and ensuing published thematic journal issues, will propel the science of solid earth – cryosphere interactions beyond the current state of knowledge and contribute a body of new knowledge to the IPCC AR6 assessment.

The SERCE programme will conduct major efforts in capacity building, training and public outreach using complementary strategies to achieve technical capacity via information exchange, analytical capacity via training schools, engagement of new polar researchers via thematic science sessions, and public outreach via the world wide web.

For more information about the goals and objectives of SERCE, take a look at the [implementation plan](#).

[Join the SERCE mailing list here](#)

SCAR Featured Member Country

Highlighting India's national activities

As part of our drive to promote SCAR's national committees and feature the efforts of our members' research communities, we are delighted to highlight the work of our colleagues from India. The Indian Antarctic Programme is the responsibility of the [National Centre for Antarctic and Ocean Research \(NCAOR\)](#), an autonomous organisation of the Ministry of Earth Sciences, Government of India. The national committee recently submitted its [National Annual Report for 2016](#), including research highlights from the 2015-16 season.



India's first expedition to Antarctica was in 1981. Two years later, India signed the Antarctic Treaty, and constructed its first research base, Dakshin Gangotri, during the 1983-84 season. It joined the SCAR family on 1 October 1984.

[Read More](#)

Research Features

[SCAR AnT-ERA science onboard the RRS James Clark Ross](#)

- contributed by Jose Xavier

The Antarctic research cruise *JR 16003* is the Western Core Box cruise of the 2016-17 voyage of the *RRS James Clark Ross* to the Antarctic, around South Georgia, with extra stations at the Antarctic Polar Front region.



Since 1981, the British Antarctic Survey (BAS) have undertaken cruises to determine Antarctic krill (*Euphausia superba*) biomass as part of the ongoing assessment of the status of the marine ecosystem in the region of South Georgia. It comprises an acoustic grid survey of 8 transects each of 80 km in length, together with associated net and oceanographic sampling and the calibration of acoustic instrumentation. In addition to the acoustic survey, which covers a wide area but has limited temporal coverage, there are three moorings (one on the shelf in the Western Core Box, and two in deep water to the southwest and northwest of South Georgia) to provide a temporal, year-round set of observations. The mooring instruments record parameters such as temperature, salinity and current velocities, as well as sediment traps that enable us to monitor the annual flux of carbon to deep waters. These moorings are recovered during the cruise, refurbished and data downloaded, and then redeployed later in the cruise. The shallow Western Core Box mooring has been in position more or less continuously since 2003.

[Read More](#)

[Improving our GPS Navigation in Antarctica: First Observations of GNSS Ionospheric Scintillations From DemoGRAPE Project](#)

Alfonsi, L., et al. (2016), First Observations of GNSS Ionospheric Scintillations From DemoGRAPE Project, *Space Weather*, 14, [doi:10.1002/2016SW001488](https://doi.org/10.1002/2016SW001488).



Abstract:

The Istituto Nazionale di Geofisica e Vulcanologia leads an international project funded by the Italian National Program for Antarctic Research, called Demonstrator of Global Navigation Satellite System (GNSS) Research and Application for Polar Environment (DemoGRAPE), in partnership with Politecnico di Torino, Istituto Superiore Mario Boella, and with South African National Space Agency and the Brazilian National Institute of Space Physics, as key collaborators. DemoGRAPE is a new prototype of support for the satellite navigation in Antarctica. Besides the scientific interest, the accuracy of satellite navigation in Antarctica is of paramount importance since there is always the danger that people and vehicles can fall into a crevasse during a snowstorm, when visibility is limited and travel is restricted to following specified routes using satellite navigation systems.

[Read More](#)

[New Handbook on Politics in Antarctica could transform our thinking](#)

The Antarctic and Southern Ocean are hotspots for contemporary endeavours to oversee 'the last frontier' of the Earth. The *Handbook on the Politics of Antarctica* offers a wide-ranging and comprehensive overview of the governance, geopolitics, international law, cultural studies and history of the region. Four thematic sections take readers from the earliest human encounters to contemporary resource exploitation and climate change. Written by leading experts, the Handbook brings together the very best interdisciplinary social science and humanities scholarship on the Antarctic and Southern Ocean.



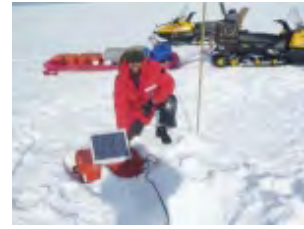
[Handbook on the Politics of Antarctica](#) - edited by Klaus Dodds, Alan D. Hemmings and Peder Roberts, with contributions from many of the SCAR History and Social Science group members.

For more information and to purchase a copy, please visit the [publisher's website](#). SCAR readers are entitled to a 35% discount - just go to [the Handbook page](#), add the book to your basket, click on the basket and use code SCAR35 in the discount box.

[Links between atmosphere, ocean, and cryosphere on the Antarctic Peninsula](#)

[Antarctic Peninsula](#)

Rick Aster and colleagues at Colorado State University have just published results from an examination of 20 years of microseism observations from the Antarctic Peninsula that help to improve our understanding of factors that potentially drive the collapse of ice shelves.



Learn more about their study from the [Press Release](#) or download the [paper from the Journal of Geophysical Research](#).

Anthony, R. E., R. C. Aster, and D. McGrath (2016), Links between atmosphere, ocean, and cryosphere from two decades of microseism observations on the Antarctic Peninsula, *J. Geophys. Res. Earth Surface*, 122, doi:10.1002/2016JF004098.

[Read More](#)

Educational Resources

[How do snowflakes become ice without melting?](#)

Glacier Dynamics Activities:

Contributed by: Gary Wesche, Polar Educators International, [PEI](#) and member of the Cressis expedition team to Byrd Surface Camp, Antarctica, 2009 as a [PolarTREC](#) teacher.

As scientists in any number of fields of research in Antarctica it is likely you have been asked to speak to a variety of audiences about your work and often about Antarctica itself. For many groups their knowledge of this icy continent is limited.

Depending on where they are located they may have limited knowledge of ice and snow and the dynamics of glaciers.

Whether you have 15 minutes or 45 minutes the Center for Remote Sensing of Ice Sheets, ([CREGIS](#)), has developed a number of activities on [Glacier Dynamics](#) in their extensive curriculum, [Ice Ice Baby!](#) These hands-on activities utilize easy to obtain items to allow your audience to participate in their own understanding of glaciology.



If you are fortunate to have an ongoing relationship with an audience or group of students the 9 activities in [Glacier Dynamics](#) get progressively more advanced giving you a chance to increase your audiences understanding.

Especially helpful are the lesson plans, which can be left with a classroom teacher for their continued use with their students. They contain a basic background, directions, discussion questions, a materials list, vocabulary list, evaluation tools and links to related activities within the Ice Ice Baby! curriculum.

Check out the first lesson, [How do snowflakes become ice without melting?](#) You don't even need snow. All you need is a few marshmallows!

[Objects in Antarctica - Movies and Teacher Packs](#)

- Contributed by Naomi Chapman, Scott Polar Research Institute Polar Museum Education and Outreach Assistant

Explore a wide range of objects from Antarctica in the new short films from the Scott Polar Research Institute (SPRI). Designed for use in a classroom with primary age (7-11 year olds) students, though also accessible to older children, each film follows a theme: food, transport, navigation, science or clothing. As well as featuring beautiful photography and detailed shots of objects from the SPRI collection, each film is introduced by experts on the theme and an expert from the Polar Museum at SPRI.



As well as the films themselves, you can download accompanying teacher packs, brimming with brilliant ideas and resources to get your students thinking in new ways across a range of subjects areas, and high resolution images of the objects for use in the classroom.

Visit <http://www.spri.cam.ac.uk/museum/resources/> for more information.

Partner News and Updates

[Antarctic Course in Biological Adaptations to Environmental Change](#)

NSF Advanced Training Program in Antarctica for Early Career Scientists: Biological Adaptations to Environmental Change

This US National Science Foundation sponsored Antarctic Biology Course will be held during January 2018 in Antarctica, at the United States Antarctic Program's McMurdo Station. The training program is designed to provide early-career scientists with opportunities to work in Antarctica and to study polar biology. Applications are invited from graduate students currently enrolled in a Ph.D. program and researchers who have completed a Ph.D. within the past five years. This is an international training program, open to all nationalities. Partial support is available to cover the cost of travel from each participant's home institution. While in Antarctica, full support is provided for room & board and science activities. The emphasis of the Antarctic Biology Course is on integrative biology, with laboratory- and field-based projects focused on adaptations to extreme polar environments. This program will also provide opportunities to understand and appreciate the complexities and logistical challenges of undertaking successful science in Antarctica. A diverse instructional faculty will offer participants the opportunity to study a wide range of Antarctic organisms (bacteria, algae, invertebrates, fish), using different levels of biological analysis (spanning molecular biology, physiological ecology, species diversity, and evolution).



Deadline for receipt of completed applications is April 17, 2017. More information and the on-line application form are at <https://www.usfca.edu/arts-sciences/antarctic-biology-training-program> and <https://goo.gl/forms/7zAH4pzRf85x5Tt62>.

[Polar prediction and sea ice modelling workshops](#)

The Polar Prediction Workshop 2017 (PPW 2017) and the 2nd Sea Ice Model Intercomparison Project Meeting (2nd SIMIP Meeting) will be held at [Deutsches Schifffahrtsmuseum](#) in Bremerhaven, Germany from 27 to 30 March 2017. Both events are jointly organized by the [Polar Climate Predictability Initiative \(WCRP-PCPI\)](#), the [Polar Prediction Project \(WWRP-PPP\)](#), the [Sea Ice Prediction Network \(SIPN\)](#), and the [Sea Ice Model Intercomparison Project \(SIMIP\)](#).



The Polar Prediction Workshop 2017 will start on 27 March with the public Alfred Wegener Lecture where, every other year, a distinguished climate scientist is invited to report on emerging fields of research for scientific exchange. This time, the lecture entitled "A Decade of Sea Ice Prediction" will be given by Cecilia Bitz (Atmospheric Science Department, University of Washington) who is going to review rapid advances in predicting skills of Arctic sea ice conditions since The Sea Ice Outlook began collecting and reporting predictions in 2008.

The focus of the subsequent Polar Prediction Workshop is on environmental prediction in the polar regions on subseasonal to interannual timescales, thereby helping to build a "seamless" polar prediction community. As in previous years, sea ice prediction will play a central role. Desired outcomes include the compilation of recommendations for the 2017 Sea Ice Outlook season, as well as the stimulation of collaborations in the context of the Year of Polar Prediction (YOPP; mid-2017—mid-2019).

The SIMIP workshop, which follows PPW from midday on 29 March, is devoted to discussions about the sea ice simulations from the upcoming CMIP6 experiments (SIMIP), with three distinct aims:

[Read More](#)

[A free virtual field trip to Antarctica](#)

It's not every day you get the opportunity to explore Antarctica, but Victoria University of Wellington's first massive open online course (MOOC) will allow anyone, anywhere, to do just that—and for free.

Enrolments are now open for *Antarctica: From Geology to Human History* on the [global edX platform](#)—a nonprofit, open-source technology platform founded by prestigious United States universities Harvard and MIT and governed by universities for universities.



With support from Antarctica New Zealand, Dr Cliff Atkins and Dr Rebecca Priestley filmed lectures on

with support from Antarctica New Zealand, Dr Cliff Atkins and Dr Rebecca Priestley filmed lectures on location on Ross Island and in the McMurdo Dry Valleys of Antarctica.

Together, they explore more than 500 million years of geological history and 250 years of geographical discovery and scientific endeavour on the coldest, driest, windiest continent on Earth.

"It's not easy to take students to Antarctica, but by filming the lectures on the ice, we can introduce students around the world to this incredible continent," says Dr Priestley.

Dr Atkins is an Antarctic veteran, having spent 12 seasons on the ice. He introduces students to some of the planet's most remarkable landscapes—the Dry Valleys, the Transantarctic Mountains and the world's southernmost volcanic island.

Dr Priestley, a science historian and writer who has written extensively about Antarctica, visits Captain Scott's huts on Ross Island and interviews conservators from the Antarctic Heritage Trust and scientists and logistics staff working at Scott Base and McMurdo Station.

Antarctica: From Geology to Human History starts on Saturday 15 April. Enroll now, for free, online: <https://www.edx.org/course/antarctica-geology-human-history-victoria-ice101x#>

For more information contact Kristina Keogh on 04-463 5163 or kristina.keogh@vuw.ac.nz

[The 23rd International Symposium on Polar Sciences at KOPRI](#)

[Life at the Extremes: Resilience, Adaptation and Application Potential](#)



The Korean Polar Institute is pleased to announce the [23rd International Symposium on Polar Sciences](#) in Incheon, the Republic of Korea on May 17-18, 2017. The International Symposium on Polar Sciences has been held once every year since the launch of our Antarctic research. This Symposium serves not only to bring polar scientists together, providing an international forum to exchange views and ideas, but also provides an opportunity to discuss collaborative research with colleagues. Symposium Theme: Antarctic Horizon Scan identified, 'learning how Antarctic life evolve and survived' as one of the six most important research questions for the next 20 years and beyond. Polar genomics is also one of the research initiatives KOPRI recently selected to pursue. In this regard, the theme of the 23rd International Symposium on Polar Science is timely set; "Life at the Extremes: Resilience, Adaptation and Application Potential." We cordially invite you to share your knowledge and understanding towards living organisms in the polar region.

Abstract Deadline: March 17, 2017. Find out more from the symposium website: <http://symposium.kopri.re.kr>

What's coming up...

Next month look for news about AntClim21's #GreatAntarcticClimateHack, an update on the Antarctic Near-shore and Terrestrial Observing System (ANTOS) and lots more...

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The SCAR Newsletter is Registered as ISSN 2307-275X.

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