



ENG

Agenda Item: ATCM 4, CEP 5

Presented by: SCAR

Original: English

Submitted: 7/4/2022

The Scientific Committee on Antarctic Research Annual Report 2022 to the XLIV Antarctic Treaty Consultative Meeting

The Scientific Committee on Antarctic Research Annual Report 2022 to the XLIV Antarctic Treaty Consultative Meeting

Information Paper submitted by SCAR

Summary

This paper presents the annual report of The Scientific Committee on Antarctic Research (SCAR) to the Antarctic Treaty Consultative Meeting. For ease of consideration, the main features of the report are presented as an infographic (attachment 1).

Background

The mission of SCAR is to advance Antarctic research, including observations from Antarctica, and to promote scientific knowledge, understanding and education on any aspect of the Antarctic region. To this end, SCAR is charged with the initiation and international coordination of Antarctic and Southern Ocean research beneficial to global society. SCAR provides independent and objective scientific advice and information to the Antarctic Treaty System and other bodies, and acts as the main international exchange of Antarctic information within the scientific community. Descriptions of SCAR's activities and scientific outputs are available at: <https://www.scar.org/>.

Science Priorities

SCAR's three Scientific Research Programmes (<https://www.scar.org/science/srp/>) are the main vehicles through which SCAR facilitates and coordinates science in, from and about Antarctica.

- **Integrated Science to Inform Antarctic and Southern Ocean Conservation (Ant-ICON)** is looking at the conservation and management of Antarctica and the Southern Ocean, focusing on research to drive and inform international decision-making and policy change.
Ant-ICON hosted a community engagement session targeted at early- and mid-career researchers in September 2021. Two community workshops were organised in March and April 2022 to focus on the human dimensions of Antarctic conservation and management. The Programme will also be convening a mini-symposium and two parallel sessions at the upcoming 10th SCAR Open Science Conference (<https://scar2022.org/>).
- **INStabilities and Thresholds in ANTArctica (INSTANT)** is a cross-disciplinary programme looking at quantifying Antarctica's contribution to past and future global sea-level change, helping decision-makers to better anticipate, manage, and adapt to sea-level rise.
INSTANT held a successful kick-off workshop over three days in February 2021 to identify themes and sub-committees and develop a detailed work plan for the Programme. INSTANT is funding four fellowships to support early-career researchers from under-represented regions. The first round of the fellowships opened in early 2022.
- **Near-term Variability and Prediction of the Antarctic Climate System (AntClim^{now})** is looking at near-term Antarctic climate variability and trends, understanding contemporary climate change, and modelling future climate projections.

AntClim^{now} hosted a launch event in June 2021 to identify opportunities for future collaborations and engagement. The Programme launched a yearly scheme to support the development and stewardship of Antarctic climate-monitoring datasets. Two inaugural awards for the grants were awarded in 2021. The call for the 2022 scheme opened in March 2022.

Recent Developments

In addition to the synopsis of key outcomes and activities of SCAR presented in Attachment 1, SCAR's three Science Groups, Research Programmes, and several specialised subsidiary groups have undertaken a wide variety of activities and produced many outputs, a range of which are formally presented at this meeting, including in the SCAR Lecture.

As part of the **United Nations Decade of Ocean Science** for Sustainable Development (2021-2030), SCAR coordinated the Southern Ocean Task Force (<https://www.sodecade.org>), which was set up to develop the Southern Ocean Action Plan launched in April 2022. The work of the Task Force was presented at the Southern Ocean Decade and Polar Data Forum Week 2021 and the UN Ocean Decade Laboratories. Further detail is provided in IP107 *UN Decade Southern Ocean Action Plan*.

A new **SCAR film, "Peace and Science"**, gives an insight into the important work of SCAR, specifically its three Scientific Research Programmes (Ant-ICON, INSTANT and AntClim^{now}) and the vital scientific questions they address. The film was produced and directed by John Weller and is available on YouTube (https://www.youtube.com/watch?v=9kXPRrWf_H4), with subtitles currently available in English, French, German, Spanish and Portuguese.

SCAR featured in the new **Unlocking Science series**, produced for the International Science Council (ISC) by BBC StoryWorks Commercial Productions. The dynamic article "*What Antarctica can teach us about climate change*" (<http://www.bbc.com/storyworks/specials/unlocking-science/what-antarctica-can-teach-us-about-global-climate-change/>) highlights how SCAR brings together scientists from different disciplines and countries to make more precise predictions about future climate change.

SCAR organised two events at the **UNFCCC COP26 meeting** in Glasgow, November 2021: an official Side Event titled "*Antarctic and Overshoot Scenarios: Risk of Irreversible Sea-Level rise*" and, as part of Polar Oceans Day at the Cryosphere Pavilion, an event titled "*Antarctic Marine Ecosystems Under Pressures: Protection Needs Action Locally and Globally*". SCAR also joined a call for an UNFCCC Cryosphere Dialogue as part of future meetings. Further detail is provided in WP29 *Antarctica in a Changing Climate – Implementation of ATCM Resolution 8*.

Training, support and development of the Antarctic community continue to be fundamental to SCAR and, with limited activities available to SCAR Groups, additional funds were directed to the **SCAR Capacity Building schemes**. As a result, in 2021 SCAR awarded five early-career Fellowships, with two further SCAR Fellowship applicants being funded by COMNAP. SCAR also awarded three Visiting Scholarships. Further detail is provided in IP005 *Early Career Opportunities: Antarctic Fellowships & Scholarships*.

SCAR is working with Polar Educators International (PEI), the International Arctic Science Committee (IASC) and the Association of Polar Early Career Scientists (APECS) on a project to update the **Polar Resource Book** of educational resources, created as a legacy of the International Polar Year 2007-2008. The partners have already supported the online publication of the materials from the original book and are now investigating funding for the next stage of the project, which will include updating existing resources and creating new material. More information is available at <https://polareducator.org/featured-resources/prb-2/>.

SCAR's newly-established **Equality, Diversity and Inclusion (EDI) Action Group** is tasked with broadly looking at how EDI issues can be effectively dealt with within SCAR and what practical actions are relevant for the organisation. Following an open call for volunteers initiated in 2021, over 150 responses were received and allowed the leadership structure of the

Action Group to be established and responsibilities are being assigned. Work has already begun on auditing existing information about diversity in leadership positions, applications to award schemes, and attendance at meetings and conferences. Priorities for the coming year have been identified and include building a baseline of relevant SCAR and community data to guide the work of the group, reviewing existing codes of conduct and how to promote best practice, providing feedback and guidance on the SCAR Capacity Building activities, and engaging the many existing volunteers in support of these and other activities. More details are available at <https://www.scar.org/capacity-building/edi/home/>.

Dr Keith Reid has been appointed as the new editor of the **Antarctic Environments Portal**. From 2008 to 2021, he was the Science Manager at the Secretariat of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). His work focuses on the use of science in conservation of the Antarctic and on the interface of science and policy.

SCAR and IAATO are undertaking a collaborative project to develop a **systematic conservation plan for the Antarctic Peninsula**, aimed at facilitating the concurrent management of biodiversity, science and tourism (ATCM XLII IP24 *Systematic Conservation Plan for the Antarctic Peninsula Project Updates*; ATCM XL IP166 *Systematic Conservation Plan for the Antarctic Peninsula*). Following the finalization of stakeholder engagement workshops, initial analyses and scenarios were created. During the review, it was identified that further clarification on certain visitor site data needed to be incorporated. Dr Jasmine Lee was contracted on a short-term basis by IAATO in late 2021 to address these. Upon finalization, IAATO will discuss the results with its members and SCAR, and prepare information for stakeholders, including the CEP.

In February 2022, SCAR, together with IASC, the Prince Albert II of Monaco Foundation and the Oceanographic Institute of Monaco, signed an MoU on the “**Polar Initiative**” (<https://www.fpa2.org/en/initiatives/the-polar-initiative-012>), the first activity of which was the Scientific Symposium: *From Arctic to Antarctic 'The Cold is Getting Hot!'*, held from February 24-25th in Monaco. As part of the Initiative, the Foundation will also fund an additional SCAR Fellowship each year for at least four years, beginning in 2022.

Selected Forthcoming Meetings

10th SCAR Open Science Conference. 1-10 August 2022, online. (<https://scar2022.org/>)

The theme of the conference is “Antarctica in a Changing World”. The conference will be hosted by the National Centre for Polar and Ocean Research (NCPOR), an autonomous organization under the Ministry of Earth Sciences (MoES), Government of India. It will feature a comprehensive schedule of meetings, symposia, virtual side events and social activities, daily plenary lectures and poster sessions in an innovative online format, facilitating interactions and collaboration among researchers in different time zones across the globe.