

Scientific Committee on Antarctic Research

Connecting and Building Antarctic Research

www.scar.org



WHAT IS SCAR?

The 1957-8 [International Geophysical Year](#) established that international scientific activity in Antarctica needed coordination - so SCAR was born!

SCAR is an inter-disciplinary committee of the [International Science Council \(ISC\)](#)

SCAR initiates, develops and coordinates high quality international scientific research in the Antarctic region.

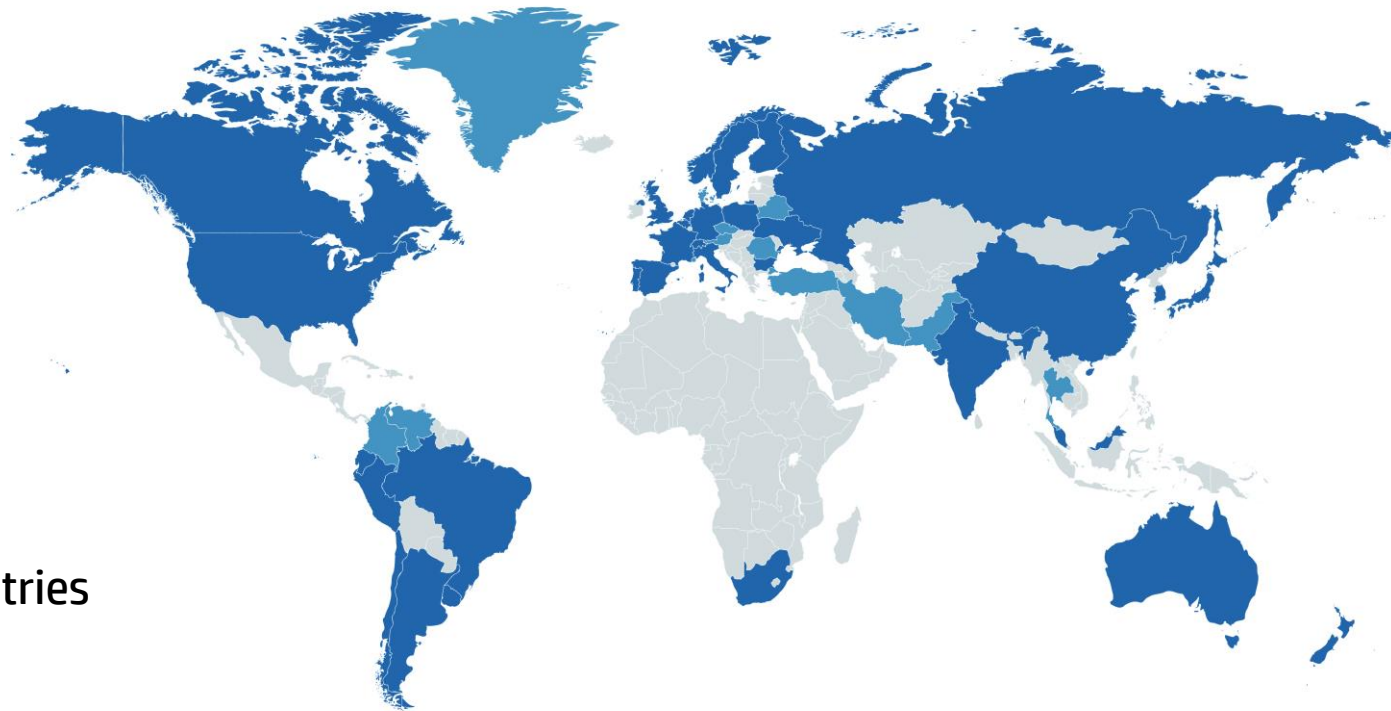
The scientific business is conducted by SCAR [Science Groups](#) which represent the scientific disciplines active in Antarctic research.

SCAR provides objective, independent scientific advice to the [Antarctic Treaty Consultative Meetings](#) and other organizations such as the [UNFCCC](#) & [IPCC](#)



MEMBER COUNTRIES AND UNIONS

- 44 Member countries
 - 31 Full member countries
 - 13 Associate member countries
- 9 international unions



Full members

Associate members



WHO ARE SCAR?

SCAR Delegates represent SCAR's member countries and ISC unions and are responsible for setting out the main direction of SCAR.

SCAR Executive Committee (President , 4 Vice Presidents and Executive Director) are responsible for working with the Secretariat and members of the community to execute decisions set forth by the SCAR Delegates.

SCAR Secretariat is responsible for the day-to-day administration of SCAR

SCAR Group Leaders/members are volunteers who put in countless hours to help drive activities, develop products and carry out much of the business of SCAR.



SCIENCE GROUPS

GeoSciences



Life Sciences



Physical Sciences



SCAR's three permanent disciplinary Science Groups:

- **Share** information on disciplinary scientific research;
- **Identify** research areas or fields where current research is lacking;
- **Coordinate** proposals for future research;
- **Establish** groups to address specific research topics within the discipline.

Expert Groups

GeoSciences

IBCSO



International Bathymetric Chart of the Southern Ocean (IBCSO)

...To gain better knowledge of the sea floor topography in the Southern Ocean. The [Southern Ocean Regional Center](#) collects and compiles bathymetric data from hydrographic offices, scientific institutions and data centers to create the first regional digital bathymetric model that covers all circum-Antarctic waters.

Latest News / Activities:

**Fourth Nippon Foundation-GEBCO Seabed 2030
Project Arctic-Antarctic and North Pacific Mapping
Meeting (21st to 24th March 2022)**

Virtual and Stockholm University, Sweden



SCIENTIFIC RESEARCH PROGRAMMES (SRPs)

SRPs address major, priority, scientific issues of global or fundamental importance, at the cutting edge of the science, requiring substantial fieldwork and/or observations in the Antarctic. These SRPs were approved in 2020 and will last until 2028.

INStabilities and
Thresholds in
ANTarctica
(INSTANT)

Near-term
Variability and
Prediction of the
Antarctic Climate
System (AntClim^{now})

Integrated Science
to Inform Antarctic
and Southern
Ocean
Conservation (Ant-
ICON)

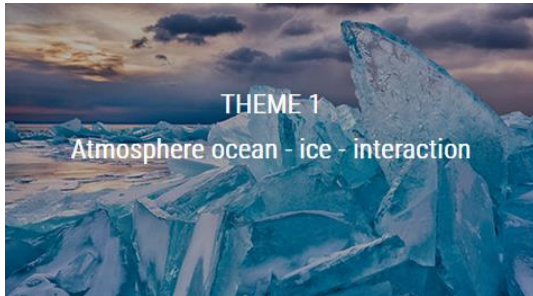


SCIENTIFIC RESEARCH PROGRAMMES (SRPs)



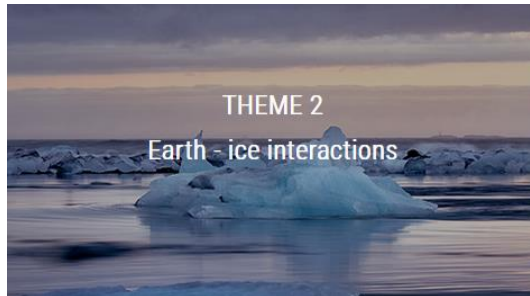
INStabilities and Thresholds in ANTarctica (INSTANT)

INSTANT aims to quantify the Antarctic ice sheet's contribution to past and future global sea-level change, from improved understanding of climate, ocean and solid Earth interactions and feedbacks with the ice, so that decision-makers can better anticipate and assess the risk in order to manage and adapt to sea-level rise and evaluate mitigation pathways. www.scar-instant.org



THEME 1

Atmosphere ocean - ice - interaction



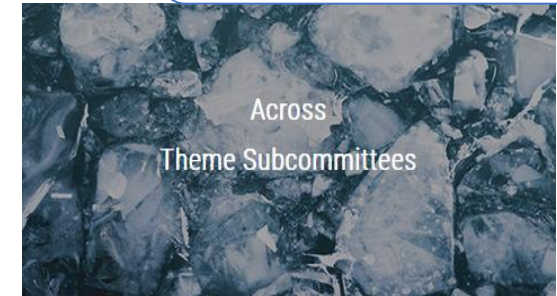
THEME 2

Earth - ice interactions



THEME 3

Antarctic contribution to sea level change &
Science - Stakeholders interactions



Across

Theme Subcommittees

Research Themes:

- Climate-Ice sheet Processes in Antarctica (CLIP-Ant)
- High Resolution Seasonal to Decadal Records
- Southern Ocean- Antarctic Chronology and Environmental proxies (SOACEP)
- Southern Ocean Antarctic Interactions

Research Themes:

- Antarctic Geothermal Heat Flux
- Probing Solid Earth and its Implications
- Earth -Ice -Sea Level
- Antarctic Geological Boundary Conditions

Research Themes:

- Data-Modelling Integration Hub

Research Themes:

- Inter-Ice Sheet Model Design
- Antarctic Sea Level Fingerprint



SCIENTIFIC RESEARCH PROGRAMMES (SRPs)



INSTabilities and
Thresholds in
ANTarctica
(INSTANT)

Latest News:

SCAR INSTANT Fellowships: Call for Applications:

The goal of SCAR INSTANT fellowships is to increase the engagement of Early-Career Researchers in INSTANT activities and to promote participation of scientists from regions currently under-represented in INSTANT, i.e., South America, Asia and Africa.

Latest Publication

The Uncertain Future of Antarctica's Melting Ice

Colleoni, F., Naish, T., DeConto, R., DeSantis, L., and Whitehouse, P.L. (2022) 'EOS



Meltwater pours from a 130-meter-wide waterfall over the edge of the Nansen ice shelf in Antarctica on 12 January 2014.

Credit: Won Sang Lee, Korea Polar Research Institute



SCIENTIFIC RESEARCH PROGRAMMES (SRPs)

Near-term Variability and Prediction of the Antarctic Climate System (AntClim^{now})

The five main themes for AntClim^{now} are:

- Theme 1. Antarctic climate variability and its linkages to the global climate system
- Theme 2. Understanding present-day climate trends in Antarctica
- Theme 3. Predictability of the Antarctic climate system
- Theme 4. Global and regional cross-disciplinary impacts
- Theme 5. Communication of results to stakeholders

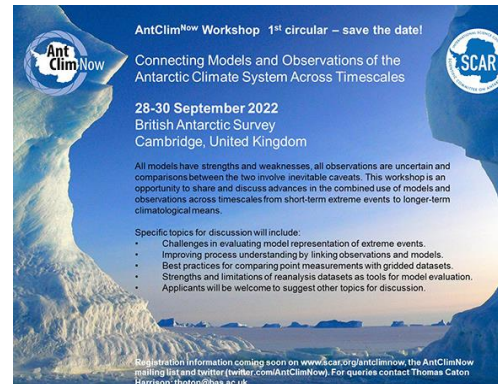
Latest News:

First Circular: AntClim^{now} Workshop: 28-30 September 2022

Contact:

Tom Bracegirdle (tjbra@bas.ac.uk)
Ilana Wainer (wainer@usp.br)

AntClim^{now} aims to answer fundamental science questions, relating to Antarctic climate variability.
The programme aims to take a regional approach to observing and modelling the Antarctic environment, but taking an integrated approach that will consider the Antarctic as a whole.



SCIENTIFIC RESEARCH PROGRAMMES (SRPs)

Integrated Science to Inform Antarctic and Southern Ocean Conservation (Ant-ICON)

Ant-ICON aims to answer fundamental science questions, relating to the conservation and management of Antarctica and the Southern Ocean. It focus on research to drive and inform international decision-making and policy change.

The four main themes for Ant-ICON are:

- Integrated forecasting of future change
- environmental sustainability of human activities in Antarctica
- Antarctic conservation in a global context
- socio-ecological approaches to the management and conservation of the Antarctic.

Latest News:

Ant-ICON Community Workshop was held in March and April 2022

Contact: Mecha Santos

mechasantos@yahoo.com.ar



→ If you are interested in joining Ant-ICON, subscribe to the mailing list.
(available at the SCAR website)



Standing Committees

Standing Committees handle ongoing business of a permanent nature to help SCAR fulfil its mission.

Antarctic Data
Management

SCADM is responsible for fostering the development and maintenance of an Antarctic Data Management System

Antarctic Geographic
Info

SCAGI delivers a range of up-to-date geographic information products through its various projects and provides advice and information to SCAR relating to geographic information.

Antarctic Treaty

SCATS provides advice and information to SCAR in relation to the Antarctic Treaty System and other policy bodies such as CCAMLR.

Finance

SC-Finance advises SCAR's Executive Committee and the SCAR Delegates Meeting on all financial matters.

Social Science
and Humanities

SC- HASS initiates, develops and coordinates rigorous and high quality research on the Antarctic region within the Humanities and Social Sciences.



SCAR and the Antarctic Treaty

SCAR's Standing Committee on the
Antarctic Treaty System (SCATS)
Dr Susie Grant suan@bas.ac.uk

- Working Papers and Information Papers, e.g.
 - Non native species
 - Marine noise
 - Bioprospecting
- Annual Lecture to the ATCM



Antarctic Climate Change and the Environment

A DECADAL SYNOPSIS AND
RECOMMENDATIONS FOR ACTION



STEVEN L. CHOWN
RACHEL I. LEIHY
TIM R. NAISH
CASSANDRA M. BROOKS
PETER CONVEY

BENJAMIN J. HENLEY
ANDREW N. MACKINTOSH
LAURA M. PHILLIPS
MAHLON C. KENNICUTT II
SUSIE M. GRANT

SCAR and the Antarctic Treaty

- Antarctic Climate Change and the Environment: A Decadal Synopsis. Findings and Policy (and research) Recommendations (WP30 and 31)
- Chown, S.L., Leihiy, R.I., Naish, T.R., Brooks, C.M., Convey, P., Henley, B.J., Mackintosh, A.N., Phillips, L.M., Kennicutt, M.C. II & Grant, S.M. (Eds.) (2022) *Antarctic Climate Change and the Environment: A Decadal Synopsis and Recommendations for Action*. Scientific Committee on Antarctic Research, Cambridge, United Kingdom. www.scar.org



UN Decade of Ocean Science

The UN Ocean Decade
2021 - 2030



2021
2030 United Nations Decade
of Ocean Science
for Sustainable Development

Vision:

The science we need for the ocean we want.

Mission:

Transformative ocean science solutions for sustainable development, connecting people and our ocean

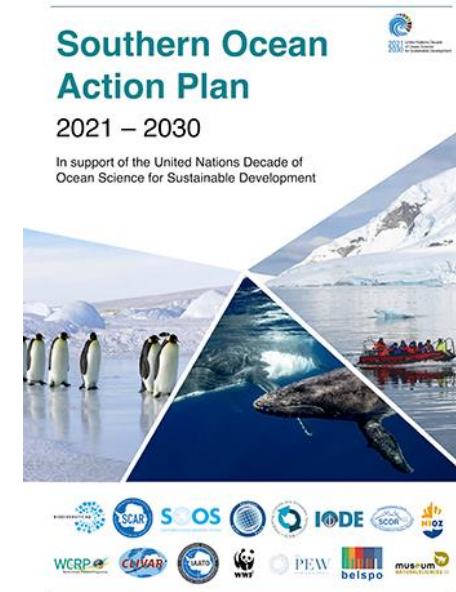
SCAR coordinates the Southern Ocean Task Force
www.sodecade.org

Just launched (March 2022): The Southern Ocean Action Plan

‘to seek engagement and leverage opportunities to deliver innovative solutions that maintain and foster the unique conditions of the Southern Ocean’

‘to strengthen links between science, industry and policy, as well as to encourage internationally collaborative activities in order to address existing gaps in our knowledge and data coverage’.

‘it is important to optimise the utility of observing assets and other polar infrastructure by coordinating their use internationally’



UN Oceans meeting June 2022

Topics Include :

- Global importance of the Arctic and Southern Oceans
- Southern Ocean Action plan and Arctic Action Plan in support of the UN decade of Ocean Science
- Ice Sheets and Sea-level Rise: the Long Global Reach and Range of Ice-Land-Ocean Interaction
- Southern and Arctic Ocean Acidification

Part of the Polar Initiative with the Prince Albert II of Monaco Foundation, International Arctic Science Committee and Oceanographic Institute of Monaco



IN THE MARGINS OF UN OCEAN CONFERENCE

POLAR OCEANS: ENGINE TO THE GLOBAL OCEAN

AUDITORIUM OF OCEANO AZUL FOUNDATION/OCEANÁRIO
28 JUNE 2022, 6.00 PM - 8.00 PM

Join HSH Prince Albert II of Monaco, polar scientists and advocates for a discussion and cocktail to raise attention to the role of the Southern and Arctic Oceans in driving ocean and climate changes.



Upcoming Events

10th SCAR Open Science Conference (virtual)

Business Meetings: 27. – 29.07.2022
Open Science Conference: 01. – 10.07.2022
Delegates Meeting: 05. – 07.07.2022

Organizers: National Centre for Polar
and Ocean Research (India)



Programme

Panel Discussion:

- Antarctic science and political priorities: trends, challenges, and opportunities

Parallel Sessions on:

- Physical Sciences
- Geosciences
- Life Sciences
- Humanities and Social Sciences
- Cross-Disciplinary Topics

Mini Symposia

- How SCAR informs and guides Antarctic policy and conservation
- Highlights of SCAR's Scientific Research Programmes
- Teleconnections between the Poles and the Tropics



Registration

2nd – 30th June 2022 (Early Bird):
After 1st July 2022 (Regular Registration):
Fee Waivers available

Registration fee: 25 USD
Registration fee: 50 USD
Registration fee (students): 25 USD



Keep in touch!



- Email info@scar.org with any questions or to sign up to the SCAR mailing list
- Follow SCAR news and learn about SCAR via our website www.scar.org
- Follow SCAR on twitter @scar_tweets

