



IP 17
Agenda Item: 7.2
Person Responsible: Terauds

XXXIV SCAR Delegates Meeting
Kuala Lumpur, Malaysia, 29-30 August 2016

**Report of the Joint CEP/SC-CAMLR Workshop on
Climate Change and Monitoring**

Punta Arenas, Chile 19-20 May 2016

Executive Summary

Authors: Aleks Terauds (SC-ATS), Louise Newman (SOOS), Eugene Murphy (ICED)

Important Issues or Factors:

SCAR was represented at the second joint CEP/SC-CAMLR Workshop on Climate Change and Monitoring, in Punta Arenas, 19-20 May 2016 by Aleks Terauds (Standing Committee on the Antarctic Treaty System), Eugene Murphy (Integrating Climate and Ecosystem Dynamics of the Southern Ocean) and Andrew Constable (Southern Ocean Observing System). There was a clear recognition that SCAR has developed a very functional and productive relationship with the CEP, with the provision of climate related scientific advice effectively facilitated and coordinated through SC-ATS. It was also recognised that SCAR is communicating effectively with SC-CAMLR, through co-sponsored programmes such as ICED and SOOS who engage directly with both CCAMLR Working Groups and the Scientific Committee. The recommendations from the workshop indicated that SCAR is well placed to continue and develop the provision of relevant science to both the CEP and CCAMLR, and that if appropriately targeted, such advice will inform and assist in the formulation of policy and management decisions.

Recommendations/Actions and Justification:

We request that Delegates note the active role that SCAR is playing in the provision of climate related science to both the CEP and CCAMLR, and recognise that this engagement is best facilitated through SC-ATS (with respect to the CEP) and SC-ATS, ICED and SOOS (with respect to SC-CAMLR).

Budget Implications:

The continued financial and/or in-kind support of SCATS, ICED and SOOS is integral to the functioning of these groups and the ongoing provision of advice to the Antarctic Treaty System.

Introduction

The second Joint Workshop of the Committee on Environmental Protection (CEP) and the CCAMLR Scientific Committee (SC-CAMLR) was held at the Dreams Hotel, Punta Arenas, Chile, from 19 to 20 May 2016. The workshop was co-convened by Dr Susie Grant (United Kingdom) and Dr Polly Penhale (United States).

The workshop was attended by 43 participants (listed in Appendix 1). The SCAR Delegation was made up of Dr. Aleks Terauds (Chief Officer of the SCAR Standing Committee on the Antarctic Treaty System – SC-ATS), Prof. Eugene Murphy (Chair - Integrating Climate and Ecosystem Dynamics – ICED) and Dr. Andrew Constable (Vice-chair –Southern Ocean Observing System – SOOS).

At their respective annual meetings in 2014, CEP (CEP XVII Report, paragraph 52) and SC-CAMLR (SC-CAMLR-XXXIII Report, paragraph 10.3) endorsed the proposal to hold a second Joint CEP/SC-CAMLR Workshop in 2016. The agreed general scope of the workshop was to identify the effects of climate change that are considered most likely to impact the conservation of the Antarctic, and to identify existing and potential sources of research and monitoring data relevant to the CEP and SC-CAMLR.

The workshop terms of reference were to:

- i. Identify those drivers or effects for which measurable responses are required to support the goals of the CEP and SC-CAMLR;
- ii. Consider existing monitoring programs to determine whether the data is sufficient to assess climate change impacts or whether new approaches are needed; and
- iii. Define mechanisms for practical cooperation, including the sharing of data and information.

Workshop Summary (from a SCAR perspective)

Members of the SCAR delegation made presentations to the workshop and engaged in wide ranging discussion on the provision of climate related science to the CEP and SC-CAMLR.

Dr Aleks Terauds presented a summary of SCAR activities on climate change and monitoring. SCAR also presented *Workshop Paper XP005 – Antarctic Climate Change and the Environment 2016* update.

Prof. Eugene Murphy presented an outline of the Integrating Climate and Ecosystem Dynamics in the Southern Ocean (ICED) programme. SCAR also presented *Workshop Paper XP015 – Report on the activities of the Integrating Climate and Ecosystem Dynamics in the Southern Ocean (ICED) programme.*

Dr. Andrew Constable presented an introduction to the Southern Ocean Observing System (SOOS) (*Workshop Paper XP 018*).

The workshop thanked Drs Terauds and Constable and Prof. Murphy for their presentations, and expressed particular appreciation for the opportunity to learn more about the very wide range of relevant activities being undertaken by SCAR and its subsidiary bodies, as well as associated programmes including ICED and SOOS.

It was agreed that this joint workshop had been very timely, given the maturity now being reached by programmes such as ICED and SOOS following a period of development in recent years. The representatives from SCAR indicated their strong desire to contribute to the work of the CEP and SC-CAMLR wherever possible.

The workshop recognized the value of programmes such as SOOS in providing monitoring information, and encouragement was given to engage with SOOS regarding specific questions of

interest and what sort of data products would be most valuable to the Committees. This would allow for the development of discovery tools and could be built into future SOOS work plans.

It was agreed that the CEP Climate Change Response Works Program (CCRWP) is particularly useful in setting out priorities and identifying gaps and requirements, and that it presented a well-ordered set of priorities, highlighting areas in which joint cooperation between the Committees would progress work. SCAR is identified as playing an important role in many of the actions outlined in this works program.

It was also agreed that the climate change scenarios provided in the Antarctic Climate Change and the Environment (ACCE) report provide important baseline information for identifying drivers or effects of climate change. While recent ACCE updates provide an important summary of research progress, workshop participants suggested it would also be valuable to have a regular, high-level summary update on the state of knowledge regarding climate change scenarios

Data archiving and data sharing was discussed in some detail. Dr. Terauds reminded participants of the SCAR Standing Committee on Antarctic Data Management, which is tasked with coordinating the management of data and information on behalf of the SCAR community. Dr. Terauds also highlighted the capability of the biodiversity.aq portal and the Antarctic Master Directory to support the data sharing and exchange recommendations (see Appendix 2 for more detail)

Recommendations

Sixteen recommendations from the Workshop, which are provided in full in Appendix 2, were presented to CEP XXIX in Working Paper 53. The Convenors Report and recommendations will also be presented to SC-CAMLR at its annual meeting in October. SCAR was explicitly referred to in eight of these recommendations. The existing contributions of SCAR and associated programmes ICED and SOOS were recognised, as was the potential to improve the flow of information from SCAR to these Committees. The recommendations make it clear that SCAR is well-placed to continue and develop the provision of relevant climate-related science to both the CEP and SC-CAMLR, and that if appropriately targeted, such advice has the potential to inform and assist in the formulation of policy and management decisions.

Conclusions

Throughout the workshop, both Committees recognized the benefits of communication and collaboration, particularly through periodic joint workshops. It was agreed that a 5-year period between joint workshops would fit with the existing 5-year work planning periods of the CEP.

The workshop particularly noted the benefits of increased collaboration with SCAR and its co-sponsored groups ICED and SOOS and other programmes of relevance to the goals of the Committees.

There was a clear recognition that SCAR has developed a very functional and productive relationship with the CEP, with the provision of climate related scientific advice effectively facilitated and coordinated through SC-ATS. It was also recognised that SCAR is also communicating effectively with SC-CAMLR, through co-sponsored programmes such as ICED and SOOS who engage directly with CCAMLR Working Groups and the Scientific Committee. The Workshop participants also recognised that the transmission of some aspects of SCAR science to SC-CAMLR could be improved. Mechanisms for improving the flow of information will be explored further in ongoing discussions between SCAR and SC-CAMLR representatives.

Appendix 1 – Workshop participants

Name	Party	Organization
María Mercedes Santos	Argentina	Instituto Antártico Argentino
Patricia Ortuzar	Argentina	Dirección Nacional del Antártico
Andrea Capurro	Argentina	Dirección Nacional del Antártico
Andrew Constable	Australia	Australian Antarctic Division, (SC-CAMLR Rep.)
Ewan McIvor	Australia	CEP Chair
Gwen Fenton	Australia	Australian Antarctic Division, (AAD Chief Scientist)
Phillip Tracey	Australia	Australian Antarctic Division, (CEP Representative)
César Cárdenas	Chile	Instituto Antártico Chileno (INACH)
José Retamales	Chile	Instituto Antártico Chileno (INACH)
Verónica Vallejos	Chile	Instituto Antártico Chileno (INACH)
Enrique Vargas	Chile	DIRECTEMAR (Maritime Interests and Marine Environment Directorate, Chilean Navy)
Geraldine Asencio	Chile	Instituto Antártico Chileno (INACH)
Yang Lei	China	Chinese Arctic and Antarctic Administration (CAA)
Christian Diaz	Colombia	Comisión Colombiana Oceano
Carole Semichon	France	Ministère de l'Environnement, de l'Énergie et de la Mer
Philippe Koubbi	France	Université Pierre et Marie Curie
Heike Herata	Germany	German Environment Agency
Wiebke Schwarzbach	Germany	German Environment Agency
Stefan Hain	Germany	AWI, Helmholtz Centre for Polar & Marine Research
Kentaro Watanabe	Japan	National Institute of Polar Research
Mari Takehara	Japan	Ministry of the Environment of Japan
Danica Stent	New Zealand	Antarctica New Zealand
Neil Gilbert	New Zealand	Department of Conservation
Birgit Njaastad	Norway	Norwegian Polar Institute
Andrew Lowther	Norway	Norwegian Polar Institute
Valery Lukin	Russian Federation	Arctic and Antarctic Research Institute
Sergey Tarasenko	Russian Federation	Arctic and Antarctic Research Institute
Sonia Ramos	Spain	Spanish Polar Committee Technical Secretariat
Mark Belchier	United Kingdom	SC-CAMLR Chair
Susie Grant	United Kingdom	British Antarctic Survey
Marta Soeffker	United Kingdom	Centre for Environment, Fisheries & Aquaculture Science (Cefas)
Polly Penhale	United States	National Science Foundation
Jeremy Rusin	United States	US National Marine Fisheries Service
Christopher D. Jones	United States	NOAA Antarctic Ecosystem Research Division
Keith Reid	CCAMLR	CCAMLR Secretariat
Aleks Terauds	SCAR	SCAR (SC-ATS)
Eugene Murphy	SCAR	ICED, British Antarctic Survey
Rodolfo Werner	ASOC	Antarctic and Southern Ocean Coalition/The Pew Charitable Trusts
Ryan Dolan	ASOC	The Pew Charitable Trusts. Global Penguin Conservation Campaign. ASOC
Andrea Kavanagh	ASOC	The Pew Charitable Trusts
Claire Christian	ASOC	Antarctic and Southern Ocean Coalition
Amanda Lynnes	IAATO	IAATO

Appendix 2 – Workshop recommendations

Recommendation 1

Encourage SC-CAMLR and CEP to recognize, encourage and support wherever possible the contribution that SCAR and programmes such as ICED and SOOS, can make to their work on climate change and related monitoring.

Recommendation 2

Encourage the articulation of clear questions to be addressed to scientific programmes in order to obtain the best scientific advice relevant to the goals of the CEP and SC-CAMLR.

Recommendation 3

Identify and convey shared climate change research and monitoring needs to SCAR, ICED and SOOS, and other similar programmes, using the process outlined in Table 2.

Recommendation 4

Encourage the periodic production of high level summaries of outcomes and progress made in programmes and reports such as SCAR-ACCE, ICED, SOOS, etc. in order to aid the CEP and SC-CAMLR in the understanding of the current state of knowledge and in the formation of questions to help progress work on climate change.

Recommendation 5

Encourage flexibility in the composition of national delegations according to relevant agenda items, to allow SC-CAMLR, CEP and SCAR to engage in discussions on specific topics.

Recommendation 6

Consider invitation of experts to CCAMLR Working Groups (particularly WG-EMM for discussions relating to climate change), including appropriate input from SCAR and programmes such as ICED and SOOS.

Recommendation 7

Promote the development of young scientists by encouraging participation in the CCAMLR Scholarship and SCAR Fellowship programmes, with the specific aim of contributing research relevant to climate change.

Recommendation 8

Encourage improved visibility of CCAMLR metadata to facilitate discoverability and exploration of data relevant to matters of mutual interest, particularly including CEMP data.

Recommendation 9

Recognize that data sharing is not just sharing the products of research already collected, but information is also needed on future plans to collect additional data, to facilitate combined efforts and avoid duplication of effort.

Recommendation 10

Encourage use of the Antarctic Environments Portal in providing policy-ready summaries on issues of mutual interest to members of both Committees. SC-CAMLR could be encouraged to request topics for inclusion, or to author summaries in due course.

Recommendation 11

Recognize the importance of using common baseline information, and recommend that summary information such as ACCE updates and are submitted under climate change agenda item in both Committees.

Recommendation 12

Consider further appropriate development of scientific reference areas with the objective of understanding impacts of climate change, using existing tools available to the CEP and SC-CAMLR.

Recommendation 13

Promote ongoing work led by Argentina, Chile, and including other Members, on the development of MPAs in planning Domain 1 (Antarctic Peninsula), acknowledging particular relevance to climate change research and the establishment of reference areas in this region of rapid change.

Recommendation 14

Acknowledge that data from MPA planning processes will integrate and make available a significant amount of information that will improve decision-making and be relevant to the work of the CEP and SC-CAMLR on a range of other topics.

Recommendation 15

Recognize that research and monitoring within CCAMLR and ATCM protected area systems will benefit from coordinated and integrated programmes within the respective regions, including the wider community of interested scientists (SCAR, ICED, SOOS, and/or national programmes).

Recommendation 16

Encourage further and regular meetings between SC-CAMLR and the CEP, at least once every 5 years. Also encourage more frequent communication on topics of mutual interest in the intervening period before the next joint meeting, including via online forums as appropriate.