

**SCAR/SCOR interactions 2005-2006.****1. The joint SCAR/SCOR Expert Group on Oceanography.**

This group was formed at the end of April 2005 with the following Terms of Reference:

- to encourage an inter-disciplinary approach to Southern Ocean observations, modeling and research, recognizing the interdependence of physical, chemical and biological processes in the ocean at present and in the past;
- to facilitate coordination between the physical oceanographic research groups currently active and those planning research in the Southern Ocean;
- to identify historical and reference data sets of value to researchers, focusing initially on physical oceanography data; and
- to encourage the exchange of information with operational agencies.

In addition, the Group should recognize the need to develop initiatives for education and training.

The initial focus of the Group will be on physical oceanography, to ensure that a comprehensive view is obtained of the physical processes on which biological and chemical processes ultimately depend.

The Group is co-chaired by Eberhard Fahrback, for SCAR, and Eileen Hofmann, for SCOR.

An informal meeting of some of the members was held in the margins of the Southern Ocean Implementation Panel meeting that took place in June 2005 at the Scott Polar Research Institute, and a further informal meeting involving some of the members was held in the margins of the IAPSOI/IABO meeting in Cairns, Australia, in August 2005.

The first formal meeting of the group took place in Venice, Italy, on October 7 and 8, 2005, in association with the 3rd International Conference on the Oceanography of the Ross Sea and the 9<sup>th</sup> meeting of iAnZone. The meeting report is available on the Group's web site at <http://www.scar.org/researchgroups/physicalscience/oceanography/>. Topics covered included:

- (i) Collating all available physical oceanographic data;
- (ii) Promoting interdisciplinary research in the Southern Ocean;
- (iii) Southern Ocean observing systems;
- (iv) Improving the bathymetric database;
- (v) Data management and exchange;
- (vi) Developing a web site as the basis for coordination.

The web site for data and products can be found at:

[http://www.clivar.org/organization/southern/SCAR\\_SCOR/index.htm](http://www.clivar.org/organization/southern/SCAR_SCOR/index.htm).

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The second formal meeting of the group took place in Hobart, Tasmania, on July 10-11, 2006, in association with the XXIX SCAR Meeting. The meeting report is currently in final draft stage and should be available soon on the Group's web site. Good progress was reported in collating available physical oceanographic data, in the development of interdisciplinary research under the umbrella of the new ICED programme, and in the development of a Southern Ocean Observing System (SOOS). Little progress had been made in developing the International Bathymetric Chart of the Southern Ocean (IBCSO). More work is needed to populate the web site with data. A number of programmes will be undertaking oceanographic activities in the Southern Ocean during the IPY (2007-2008). The Group is strongly linked to iAnZone, IPAB, GLOBEC, ICED, IMBER, the CLIVAR/CLIC/SCAR Southern Ocean Implementation Panel, and SOLAS, and links are developing with GEOTRACES.

## **2. SCOR Officer at the recent XXIX SCAR meeting.**

The SCOR President was invited to attend the XXIX SCAR meeting and Open Science Conference in Hobart during 12-19 July. He was represented at the meeting by Julie Hall, who made presentations to the SCAR Delegates on interactions between SCOR and SCAR, and on the proposed Working Group on iron enrichments. SCAR Delegates warmly appreciated the growing links between SCAR and SCOR.

## **3. SCAR's co-sponsorship of GLOBEC**

Since October 2004, SCAR has been a co-sponsor of the Southern Ocean component of GLOBEC. Eileen Hofmann, representing SO-GLOBEC, is a member of the SCAR/SCOR Oceanography Group. Mike Meredith is the SCAR representative appointed to liaise with SO-GLOBEC and is likely to attend the GLOBEC meeting on 27 November in Boulder, Colorado.

## **4. SCAR's co-sponsorship of ICED [a regional project of IMBER and GLOBEC]**

SCAR co-sponsored and participated in the science planning meeting for ICED, held at the British Antarctic Survey in Cambridge UK on May 24-26, 2005. ICED is represented within the SCAR/SCOR Oceanography Group by Eileen Hofmann, and Mike Meredith is the SCAR liaison with ICED. An ICED session was held as part of the XXIX SCAR Open Science Conference in Hobart during July 12-14, 2006. SCAR will continue to co-sponsor ICED.

## **5. Development of a Southern Ocean Observing System (SOOS)**

During the SCAR/SCOR Oceanography Group meeting in Hobart it was agreed that one of the key functions of the Group is to facilitate the development of a SOOS. This it will do in conjunction and consultation with other interest groups such as GOOS, JCOMM, POGO and CAML. Following the Group's meeting on July 10-11, a SOOS meeting was

held on July 15, co-sponsored by SCAR, CAML, and POGO. The upshot of the meeting was that a small steering group was formed to take these developments forward. A report of the meeting is available on the CAML web site [www.caml.aq](http://www.caml.aq).

## **6. SCAR's and iAnZone**

During 2005 SCAR adopted iAnZone as an affiliated programme under the SCAR/SCOR Expert Group on Oceanography, and an iAnZone representative (Karen Heywood) is a member of the Group.

## **7. SCAR's linkage to SOLAS and GEOTRACES**

Richard Bellerby of SOLAS is a new member of the SCAR/SCOR Expert Group on Oceanography, to help to cement the links between the two organisations. The Group would like to develop a stronger link to GEOTRACES.

## **8. SCAR's links to GEBCO**

SCAR has an Action Group led by Hans-Werner Schencke to develop the International Bathymetric Chart of the Southern Ocean (IBCSO), which will be a component of the GEBCO.

## **9. SCAR's involvement in the Census of Marine Life**

SCAR has an Action Group for the Census of Antarctic Marine Life (CAML), which is the Southern Ocean component of the global Census of Marine Life. CAML is well-funded by the Sloan Foundation and has held a number of planning meetings to gear up for seagoing operations through 2007 to 2009 that will contribute to the IPY. Details are available on the CAML web site ([www.caml.aq](http://www.caml.aq)).

In support of CAML, and therefore also in support of GLOBEC and ICED, SCAR now also supports the collection of Continuous Plankton Recorder (CPR) data through a newly formed CPR Action Group led by Graham Hosie of the Australian Antarctic Division. SCAR's infrastructure support for activities like CAML, GLOBEC and ICED also takes place through the SCAR Marine Biodiversity Information Network (MarBIN), based in Belgium, which provides a marine biological database. Given its extensive and long continuing interests in the biology of the Southern Ocean, SCAR is keen to support both the Ocean Biogeographical Information System (OBIS) and the Global Biodiversity Information Facility (GBIF). There are natural and developing links between MarBIN, OBIS, and GBIF, all of which SCAR is actively pursuing. SCAR-MarBIN is already accepted as the Antarctic Regional OBIS Node and should in the future significantly contribute to GBIF by organising access to all pertinent Antarctic marine biodiversity data as well as by managing the marine biodiversity data produced by the various SCAR programmes such as CAML. Data from the various SCAR marine activities contribute

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valuable data to the work of the Commission on Conservation of Antarctica Marine Living Resources (CCAMLR).

## **10. SCAR and the International Polar Year (IPY) 2007-2009**

SCAR has a direct interest in the IPY, which will help to ramp up the level of activity in all SCAR's programmes. All SCAR core programmes have submitted proposals to the IPY that have been accepted as core elements of the IPY. This will help to ensure that SCAR gets the best out of the IPY, and emerges stronger for the IPY experience after the 2-year IPY period. CAML and MarBIN are among the core IPY programmes. They will contribute to the overall goals of IPY, at the same time contributing to their SCAR mission. During the IPY SCAR will evaluate the performance of its various marine biological programmes to see where effort needs to be focused once the IPY is completed. It is safe to assume that after the IPY by one means or another, not least through EBA, SCAR will continue to collect marine biological data relevant to a continuing OBIS.