



Report on Activities During 2011

Purpose:

The purpose of SCOR is to further international scientific activity in all branches of oceanic research. The Scientific Committee on Oceanic Research (SCOR) is a non-governmental organization, created in 1957 by the International Council of Science (ICSU). SCOR promotes international cooperation in planning and conducting interdisciplinary oceanographic research programs and solving methodological and conceptual problems that hinder research. SCOR promotes scientific excellence and integrity and has direct access to the international ocean science community. The primary purpose of CNC-SCOR is to provide communication between the Canadian Ocean Science community and the international activities that come under SCOR's umbrella. CNC-SCOR brings together the Canadian Ocean Science community across disciplinary boundaries and the boundaries of universities, government and private sector organizations.

CNC-SCOR Highlights for 2011

The Annual General Meeting was held 5 June 2011 in conjunction with the 45th Annual CMOS Congress in Victoria. CNC-SCOR will host the 2012 Annual Meeting of SCOR-International in Halifax and Dartmouth, in October. Arrangements have been made to accommodate the delegates in Halifax and to organize the meeting around a celebration of the 50th anniversary of BIO.

CNC-SCOR maintains an internally circulated file showing actions agreed to and milestones reached for each year. A mid-term meeting was held by conference call on 3 November 2011 to discuss progress and take decisions on outstanding items.

Working Groups (WGs) are the core of SCOR's activities. These small international WGs - not more than 10 members - are established in response to proposals submitted to SCOR by the ocean science community. In general they are established to address well defined topics of emerging importance, which would benefit from coordinated international attention. WGs are expected to provide a final report, organize a workshop or symposium, or otherwise make significant contributions to advancing the topic at hand within a 3 - 4 year period. Nine senior Canadian scientists currently serve on six SCOR WGs. The Newsletter published updates on the activities of eight WGs (126, 128, 130, 132, 133, 134, 136 and 137) during the period.

CNC-SCOR reviewed the proposals for nine new international working groups, providing detailed written comments and a prioritized list to SCOR's Executive Director. These proposals were discussed at the Executive Committee Meeting of SCOR at Helsinki in September, which was attended by the CNC-SCOR Chair. SCOR-International approved two new groups: WG 139 on organic ligands, and WG 140 on exchange processes at the sea-ice interface. WG 140 had been CNC-SCOR's highest priority for new work, and has Nadja Steiner as its Canadian member.

CNC-SCOR published eight issues of the electronic Canadian Ocean Science Newsletter during 2011. The subscriber database is dynamic and was reviewed to eliminate non-functioning addresses; the newsletter currently has about 425 subscribers. In addition to articles on ocean science and updates in ocean science programs, the newsletter reports milestones in the careers of Canadian ocean scientists and includes job postings (at least one was in DFO) and training opportunities for graduate students, young scientists and teachers. The newsletter gives periodic status reports on the work of SCOR's international Working Groups, written, where possible, by the Canadian representatives.

The CNC-SCOR sponsored NSERC Scholarship Supplement for Ocean Sciences for 2011, in the amount of \$5,000, was presented at the CMOS Awards banquet in June 2011 to Ali Mashayek, a Ph.D. student at the University of Toronto. He is working on turbulence in the oceans, with a focus on transport and mixing of tracers such as salt, heat and CO₂, and its implications for the climate system. Agathe Lisé-Pronovost, a Ph. D. student in oceanography at UQAR/ISMER received a \$5,000 continuation scholarship for her work to reconstitute the paleomagnetic vector from lake sediments from Laguna Potrok Aike in Patagonia and to look for climate indicators in the variable magnetic mineral assemblages.

CNC-SCOR selects and sponsors two tour speakers each year, with the Secretariat working to establish the itineraries and help with logistics. These tours provide an excellent opportunity for mid-career ocean scientists to expand their network by making them a focus of attention at laboratories and universities they would seldom visit. The venues also allow the speakers to reach university students whom they would not normally meet, a mutual benefit. The tour speaker going east in 2011 was Paul Myers, from the University of Alberta, whose topic was *Freshwater Processes and Transport in the Arctic and Sub-Polar North Atlantic*. Dr. Myers visited Ottawa, Rimouski, Quebec, Montreal, St. John's, Halifax and Dartmouth between October 21 and October 28. The speaker going west was Charles Gobeil, from INRS Quebec, whose topic was *Biogeochemical Coupling of Elemental Cycles in the Arctic Ocean as Reflected by Sediment Records*. Prof. Gobeil visited Winnipeg, Edmonton, Sidney, Vancouver and Victoria from November 7 to November 15.

For a second year, CNC-SCOR provided financial support to a teacher to participate in Project Maury, which involves training at the US Naval Academy in Annapolis, Maryland. Project Maury promotes understanding of the physical foundations of oceanography through a dedicated training course directed at school teachers. In 2011, CNC-SCOR and CMOS jointly sponsored two Canadian teachers who were selected based on the merit of their applications: Rod Carmichael, from Oak Bay High School (Victoria, BC) and Michele Banks, from Simonds High School (Saint John, NB). The workshop included a wide range of oceanographic topics and activities on-site (classroom and lab) and off-site, including a

field trip on a research vessel. The intention of CNC-SCOR is to make accessible up-to-date ocean science to K1-12 school curricula through selected teacher training. Both teachers are committed to expanding the reach of their new training by offering a workshop to other teachers in their area.

The list of masters' theses and doctoral dissertations on CNC-SCOR's website was updated. The reporting network was further expanded to 13 universities. Because of reporting lags, the most recent year for which data are reasonably complete is 2009, when the reporting universities granted 46 master's degrees and 27 doctoral degrees in ocean sciences.

SCOR-International partners with other organizations to sponsor several large scale international science programs. Of these, Canadian scientists serve on the committees for GEOHAB, IMBER, LOICZ, GEOTRACES, SOLAS, IMAGES and InterRidge. CNC-SCOR provides a way for the scientists involved to communicate program updates to the Canadian community through the medium of the Newsletter.

Two Committee members helped Dalhousie University review the terms of reference for one of their graduate scholarships in ocean science. The terms of reference for the Professor F Ronald Hayes International Scholarship require a periodic review by two independent members of CNC-SCOR. The Chair of the Department of Oceanography was grateful for the support.

The present chair of CNC-SCOR is one of twenty who have been invited to join the CCA Expert Panel recently convened to determine priority research questions for Canadian ocean science.

Other CNC-SCOR activities included: working with sister organizations in Canada and abroad on ocean research initiatives; and maintaining its web site (<http://cmos.ca/scor/scorindexe.html>). The website is a cooperative endeavour with CMOS and is maintained through the able support of the CMOS_webmaster. Among the various pages are background information on CNC-SCOR, a membership list, information about and links to ocean science activities, and historical photos of Canadian oceanographers and vessels. All material stored on the site is searchable, and past copies of the newsletter can be retrieved.

CNC-SCOR Members During 2011

Rob Macdonald (Chair), DFO/IOS

Gordon McBean, University of Western Ontario

Bjorn Sundby, Université du Québec à Rimouski

Paul Myers, U Alberta

Alfonso Mucci, McGill

Philippe Tortell, UBC (until June)

Len Zedel, Memorial

Catherine Johnson, DFO/BIO

Markus Kienast, Dalhousie

Gary Stern, DFO/FWI

Ian Perry, DFO/PBS

Bob Wilson (Secretary), retired

Helen Joseph, (ex-officio), DFO HQ

Bill Crawford (ex-officio until June), IAPSO

Blair Greenan (ex-officio from June), IAPSO

Dave Fissell (ex-officio until June), CMOS

Norm McFarlane (ex-officio from June), CMOS

Michael Scarratt (ex-officio, from June), SOLAS

Ian Rutherford (ex-officio), CMOS Executive Director