



Canadian National Committee for SCOR
Comité national canadien pour SCOR

Scientific Committee on Oceanic Research

Report on Activities During 2013

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. Under the auspices of CMOS, 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 2013

CNC-SCOR's Annual Meeting was held 26 May 2013 in conjunction with the 2013 Joint Scientific Congress of the CMOS, CGU and CWRA, in Saskatoon. In 2012, DFO had not renewed its contribution agreement to CNC-SCOR which has been the primary source of funding and thus resulting in a budget deficit of approximately \$18,700 for CNC-SCOR's year 2012. Eventually in 2013, DFO signed a new 3-year contribution. Although the new agreement no longer allows funding training opportunities or scholarships, it does provide funding to CNC-SCOR up to 2015.

Small international Working Groups (WGs) are the core of SCOR's activities. These WGs -- typically with no more than 10 members -- are established in response to proposals submitted to SCOR by the international ocean science community. In general, they are established to address well-defined topics of emerging importance that 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. Canadian participation on SCOR Working Groups has declined and there are currently 9 Canadians serving on 5 of the 8 active WGs.

In 2013, CNC-SCOR reviewed the proposals for eleven new international working groups. Input from external reviewers was also collected and CNC-SCOR provided detailed written comments and a

prioritized list to SCOR's Executive Director. These proposals, none of which originated in Canada, were discussed during the Annual Meeting of SCOR in Wellington, New Zealand. The International Committee approved two new initiatives: WG 143 "*Dissolved N₂O and CH₄ measurements: Working towards a global network of ocean time series measurements of N₂O and CH₄*"; and WG 144 "*Microbial Community Responses to Ocean Deoxygenation*". The proposals for both groups were supported by CNC-SCOR and Canadians will be members of both WGs.

CNC-SCOR published six electronic issues of the Canadian Ocean Science Newsletter during 2013. The subscriber database is dynamic and is continually reviewed to eliminate non-functioning addresses. The subscriber base has been declining slowly over the last few years, from approximately 445 in May, 2009 to about 405 in December, 2013. 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 and training opportunities for graduate students, young scientists and teachers. The newsletter provides periodic status reports on the work of SCOR's international Working Groups, written, where possible, by the Canadian representatives.

CNC-SCOR has been sponsoring one NSERC Scholarship Supplement for Ocean Sciences in the amount of \$5,000, usually presented at the CMOS Awards banquet. Unfortunately, in 2012 DFO did not renew the collaborative agreement that provide funding for this award, and the new agreement signed in 2013 no longer permits funding these awards. Therefore, CNC-SCOR is no longer able to sponsor a Scholarship Supplement. The second year renewal of the award to the 2012 winner was funded through reserve funds.

CNC-SCOR annually supports a national lecture tour to foster cross-Canada communication in ocean science. Two prominent Canadian scientists are selected to travel and speak in oceanographic centres on the opposite side of the country. These tours promote ocean science, support student education through the talks at universities, and help the speakers build professional networks. In 2013, the speakers were Susan Allen, UBC (centres from Ottawa east) and Phillipe Archambault, UQAR (centres from Winnipeg west). Dr. Allen visited Ottawa, Montreal, Québec, St. John's, Dartmouth and Halifax in the week of 18 November 2013 speaking on *From Dynamics to Hindcasting to Prediction: A Coastal Bio-Physical Model Does it All*. Dr. Archambault will speak at centres in Winnipeg, Edmonton, Vancouver, Victoria and Nanaimo during the week of 17 March 2013 on *Marine biodiversity and its influence on ecosystem functioning*.

For a fourth year, CNC-SCOR provided financial support to a school 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 2013, CNC-SCOR and CMOS jointly sponsored Leslie Haussmann, from the École Sunrise Ridge Elementary School, in Surrey, British Columbia. 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 annual update was made to the list of masters' theses and doctoral dissertations completed in ocean science at Canadian universities. The list can be found on CNC-SCOR's web pages. Data were assembled from departmental website listings, library catalogue searches and the Thesis Canada portal.

CNC-SCOR was actively involved in the preparation of a recent Council of Canadian Academies report (released in November 2013) on "Ocean Science in Canada: meeting the challenge, seizing the opportunity", through the participation of Dr. Ian Perry as a member of the Expert Panel that conducted the study. This report is an evidence-based assessment of the current state of ocean science in Canada, and whether it has the human, infrastructure, and funding capacities and scientific collaborations to meet the ocean science challenges facing Canada over the next decade. The report received extensive media coverage and was tabled in the House of Commons.

CNC-SCOR contributed to the advancement of coordinated observation programs through the participation of Helen Joseph (DFO), Doug Wallace and Brad de Young as Canadian representatives at the Launching of a Canada-EU-USA Research Alliance (Galway, 24 May 2013) and follow up discussions on the development of an Integrated Atlantic Ocean Observing System.

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, GEOTRACES, SOLAS, and IMAGES. CNC-SCOR provides another way for these programs to communicate updates to the Canadian community in the Newsletter. A \$4.8 million, 5-year grant was awarded through NSERC's Climate Change and Atmospheric Research (CCAR) program to a research network led by Roger François, at UBC, to participate in a multi-national GEOTRACES effort in the Arctic Ocean. The Canadian Arctic GEOTRACES Program will provide fundamental new information on the distribution of trace elements that can regulate biological and geochemical cycles in seawater. CCAR also awarded a 5-year, \$5 million grant to the Ventilation, Interactions and Transports Across the Labrador Sea (VITALS) program, a multi-investigator initiative led by CNC-SCOR Chair Dr. Paul Myers. The VITALS network will answer fundamental questions about how the deep ocean exchanges carbon dioxide, oxygen, and heat with the atmosphere through the Labrador Sea.

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 15 October 2013 to discuss progress and take decisions on outstanding items.

Other CNC-SCOR activities included: working with sister organizations in Canada and abroad on ocean research initiatives; assisting IAPSO representatives in obtaining input from the Canadian ocean science community for the compilations of required annual reports; and maintaining its web site (<http://cmos.ca/scor/scorindexe.html>). CNC-SCOR's pages on the CMOS website are maintained by the CMOS_webmaster, Bob Jones. 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 Active in 2013

Paul Myers, U Alberta (Chair)

Rob Macdonald (past Chair), DFO/IOS

Bjorn Sundby, ISMER, Université du Québec à Rimouski

Alfonso Mucci, McGill

Len Zedel, Memorial

Paul Snelgrove, Memorial

Martin Taillefer, Maritime Way Scientific Ltd.

Céline Guégen, Trent

Markus Kienast, Dalhousie

Ian Perry, DFO/PBS

Bob Wilson (Secretary through March 2013), retired

Michel Mitchell (Secretary), DFO retired

Helen Joseph, (ex-officio), DFO HQ

Blair Greenan (ex-officio), IAPSO

Ian Rutherford (ex-officio through October), CMOS Executive Director

Andrew Bell (ex-officio CMOS from October), CMOS Executive Director

Peter Bartello (ex-officio CMOS President)

Michael Scarratt (ex-officio), SOLAS

Jean-Éric Tremblay (ex-officio Québec-Océan from September)