



**Report on the Activities in 2009 of the
Canadian National Committee (CNC) of the
Scientific Committee on Oceanic Research (SCOR)**

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 stands for scientific excellence and integrity and has direct access to the international ocean science community.

The primary purpose of CNC/SCOR is to provide the communication links between the Canadian Ocean Science community and the international activities sponsored by SCOR. CNC/SCOR also provides an organization that brings together the Canadian Ocean Science community across the disciplinary boundaries as well as across the boundaries of universities, government and private sector organizations.

CNC/SCOR Highlights for 2009

An electronic Canadian Ocean Science Newsletter, initiated in July 2003, published 7 issues in 2009. The Newsletter is published subscription free and is disseminated to almost 450 subscribers. The Newsletter continues to be widely acclaimed as providing a useful and timely service to the ocean science community. Past issues may be found at:
<http://www.cmos.ca/scor/newsletters.htm>

CNC/SCOR established in 2006, in partnership with DFO and CMOS, a new NSERC Scholarship Supplement for Ocean Sciences in the amount of \$5,000/year to a deserving student for a period of two years. Only those students who have succeeded in winning an NSERC Postgraduate Scholarship or a Canada Graduate Scholarship are eligible. The initial award of \$5,000 is renewable for the second year provided that the student continues to hold the NSERC postgraduate scholarship. The Supplement was awarded in May 2009 to Kristina Brown of the University of British Columbia. Using stable carbon isotopes to shed light on carbon cycling in sea-ice associated biological communities, she will undertake research for her PhD on the

application of various chemical tracer measurements to quantify dissolved CO₂ export within brines formed during sea ice growth. Her project will tackle the difficult question of carbon cycling in sea ice and brines, and how these affect carbon transport in convecting sea water. This work will require a melding of thermodynamic processes in ice and seawater, and carbon transfers and fractionations in ice-associated biota. Further information on the Supplement and how to apply may be found on the NSERC web site: http://www.nserc-crsng.gc.ca/Students-Etudiants/PG-CS/Supplements-Supplements/Oceanography-Oceanographie_eng.asp

In 2005 CNC/SCOR initiated a new project to establish an archive of Canadian oceanographic photographs. The web site <http://www.cmos.ca/Oceanphotos/photoindex.html> was updated in 2009 with additional photos as they became available. The site has a dedicated search engine to better help find individuals.

CNC/SCOR established a new lecture tour project in 2005, for lecturers from one coast of Canada to visit the other coast of Canada, and vice-versa. The 2009 tour speakers were Bernie Boudreau from Dalhousie University and Kim Juniper from the University of Victoria. In the summer of 2009 new lecturers were selected by CNC/SCOR to undertake east and west coast tours in 2010. CNC/SCOR funds the required flights and the local hosts cover local travel, food and accommodation costs. A listing of previous speakers may be found at: <http://www.cmos.ca/scor/tourspeakers.html>

CNC/SCOR continued to update its listings of PhD and MSc theses, on related ocean sciences topics, which have been awarded at Canadian institutions since 2000. The site may be found at <http://www.cmos.ca/scor/thesesdirectory.html>.

In 2009, the Secretary of CNC/SCOR was appointed Co-Chair of the Scientific Program Committee of the joint 2010 CMOS/CGU Congress which will be held in Ottawa, May 31 – June 4, 2010. The Congress will have some 70 scientific sessions dealing with a wide range of topics. Other CNC/SCOR activities have included: providing information to the community on news, events and ocean science programs; working with sister organizations in Canada and abroad on ocean research initiatives; and maintaining its web site at www.cncscor.ca

SCOR Working Groups are the mainstay of the SCOR workload. These small international groups - not more than 10 members - are established in response to proposals from national committees for SCOR and other scientific organizations. In general they are designed to address fairly narrowly-defined topics which can benefit from coordinated international attention. Working Groups are expected to provide a final report, organize a workshop or symposium, or otherwise make a significant contribution to advancing the topic at hand within a 3 - 4 year time scale. Active SCOR working groups in 2009 included:

WG 111 on Coupling Winds, Waves and Currents in Coastal Models.

WG 122 on Estuarine Sediment Dynamics. Ray Cranston (NRCan/GSC) is an Associate Member of the WG.

WG 124 on Analyzing the Links Between Present Oceanic Processes and Paleo-records

(LINKS). Roger François(UBC) is a Member of the WG

WG 125 on Global Comparisons of Zooplankton Time Series. David Mackas (DFO/IOS) is the Co-Chair of the WG

WG 126 to Investigate the Role of Viruses in Marine Ecosystems. Curtis Suttle(UBC) is a Member of the WG

WG 127 on Thermodynamics and Equation of State of Seawater. Dan Wright (DFO/BIO) is a Member of this WG.

WG 128 on Natural and Human-Induced Hypoxia and Consequences for Coastal Areas. Denis Gilbert (DFO/MLI) is a Co-Chair of this WG.

WG 129 on Deep Ocean Exchanges with the Shelf, Gordon Swaters (UofA) is a member of this WG.

WG 130 on Automatic Plankton Visual Identification

WG 131 on the Legacy of in situ Iron Enrichment: Data and Modeling.

WG 132 on Land-based Nutrient Pollution and the Relationship to Harmful Algal Blooms in Coastal Marine Systems

WG 133 OceanScope (with IAPSO)

WG 134 The Microbial Carbon Pump in the Ocean

WG 135 Hydrothermal Energy Transfer and its Impact on the Ocean Carbon Cycles

The 2009 SCOR Executive Committee Meeting in Beijing also approved two new Working Groups, namely:

WG 136 Climatic Importance of the Greater Agulhas System

WG 137 Patterns of Phytoplankton Dynamics in Coastal Ecosystems: Comparative Analysis of Time Series Observation

SCOR continues to cosponsor a number of large scale scientific programs, including Global Ecology and Oceanography of Harmful Algal Blooms (GEOHAB), the GEOTRACES Program, Global Ocean Ecosystem Dynamics (GLOBEC), Integrated Marine Biogeochemistry and Ecosystem Research (IMBER) Project, and Surface Ocean-Lower Atmosphere Study (SOLAS). Additionally SCOR has several Affiliated Programs, including the Census of Marine Life (CoML), (iAnZone) International Antarctic Zone, (IMAGES) International Marine Global Change Study, (InterRidge) International, Interdisciplinary Ridge Studies, and (IOCCG)

International Ocean Colour Coordinating Group. Program descriptions of all the foregoing may be found on the SCOR web site <http://www.scor-int.org/>

The international SCOR Annual Meeting was held in Beijing, China, October 20-22, 2009. Dr. Bjorn Sundby represented Canada at the meeting. At that meeting Canada invited SCOR to hold its 2012 Annual Meeting in Canada. The invitation was accepted; the timing and venue of the meeting has yet to be decided.

CNC/SCOR Members in 2009

Rob Macdonald (Chair, starting June 2009), DFO/IOS
Gordon McBean (Chair up until May 2009), University of Western Ontario
Bjorn Sundby, Université du Québec à Rimouski
David Barber, University of Manitoba
Allyn Clarke, DFO/BIO
Paul Myers, UofA
Alfonso Mucci, McGill
Philippe Tortell, UBC
Len Zedel, Memorial
Markus Kienast, Dalhousie
Helen Joseph, (ex-officio), DFO HQ
Bill Crawford (ex-officio), DFO/IOS, (IAPSO)
Yves Gratton, ex-officio, INRS (CMOS Scientific Committee)
Ian Perry (ex-officio), DFO/PBS (GLOBEC)
Jay T. Cullen, ex-officio, UVic, (IMBER)
Ian Rutherford (ex-officio), CMOS Executive Director
Dick Stoddart (Secretary), Stoddart Consulting