



CSS Acadia—Canada's first hydrographic ship

SCOR Newsletter No. 21

March 2012

XXXIth SCOR General Meeting

The 2012 SCOR General Meeting is scheduled to be held on 21-23 October in Halifax, Nova Scotia, Canada. The meeting will be hosted by the Canadian National Committee for SCOR and events will take place at Dalhousie University, the Bedford Institute of Oceanography, and the Maritime Museum of the Atlantic in Halifax. The Web site for the meeting can be found at <http://www.scor-int.org/2012GM/2012GM.htm>. Meeting information will be posted when available and registration will be available through the site. The meeting will review the progress of all SCOR activities and select new working groups for funding, as well as announcing the SCOR Officers for 2012-2014 (see below).

Call for SCOR Working Group Proposals

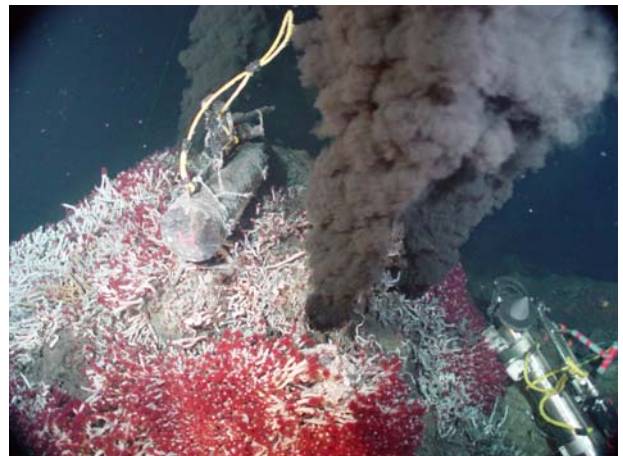
SCOR is seeking proposals for new working groups. The call for proposals can be found at http://www.scor-int.org/2012GM/2012_Call_for_Proposals.pdf. SCOR encourages proposals from groups of scientists who desire an international approach to advance their area of ocean science. Proposals are due by **15 April 2012** and proposals received by this date will be posted on the SCOR Web site for review. National SCOR Committees rank the proposals according to criteria given in the call for proposals and decisions will be made at the General Meeting regarding which proposals will be funded. SCOR also welcomes review comments from anyone in the worldwide ocean science community. Sufficient funding should be available to support two new working groups to start in 2013. SCOR working groups are an important mechanism for the ocean science community to identify and advance important ocean science issues.

2012 SCOR Elections

The Nominating Committee for the 2012 election of SCOR Officers is chaired by Bjørn Sundby (Canada) and includes as members Colin Devey (Germany), Julie Hall (New Zealand), and Temel Oguz (Turkey). The call for nominations will be made by the committee by April 22 and will close on June 22. The offices of SCOR President and all three Vice-Presidents are open for nomination; each of the current Vice-Presidents is eligible to serve another 2-year term.

SCOR Working Groups

SCOR/InterRidge WG 135 on Hydrothermal Energy Transfer and its Impact on the Ocean Carbon Cycles met in Hangzhou, China on 10-11 October 2012. Meeting participants worked on two modeling and synthesis papers that will present conceptual models for carbon cycling at the ocean-crust interface and in hydrothermal plumes. The group plans to hold a final meeting and workshop later this year. Thank you to the Second Institute of Oceanography, State Oceanic Administration, in Hangzhou, China for hosting the meeting.



SCOR WG 139 on Organic Ligands – A Key Control on Trace Metal Biogeochemistry in the Ocean met for the first time in Salt Lake City, Utah, USA on 25 February to begin to fulfill its terms of reference. Bioactive metals are important at all levels of oceanic food chain, in terms of availability of trace metals for organismal growth (e.g., iron) or sequestration of toxic trace metals (e.g., copper). In this way, ligands play an important—yet poorly quantified—role in the global carbon cycle and climate. A better understanding of the role of ligands in the global carbon cycle is necessary for specifying model parameters correctly. On a more basic level, ligands control the global cycles of trace elements by their effects on solubility and residence time of the metals in seawater. The working group discussed actions needed to develop a database of the experimental results from ligand titrations and measurements in the ocean (including on GEOTRACES sections), the need for additional intercalibrations and development of more-standardized methods, how to create an online resource of best practices, and how to extend the study of ligands to developing countries. The group will submit a report from its first meeting to *EOS*.

News from SCOR Committee on Capacity Building

The application period for the 2012 SCOR Visiting Scholars program closed on 31 December and 11 applications were received. The SCOR Committee on Capacity Building selected three 2012 SCOR Visiting Scholars:

1. Lisa Beal (USA) to teach and mentor on the topic of physical oceanography in South Africa for one semester. Dr. Beal is a co-chair of SCOR/WCRP/IAPSO WG 136 on Climatic Importance of the Greater Agulhas System, which has made efforts to stimulate scientific capacity in southern Africa, through its 2011 meeting and capacity building workshop in Mauritius, and its planned Chapman Conference in South Africa later this year.
2. René Swift of the Sea Mammal Research Unit of the University of St. Andrews (UK) will train scientists from the University of Pretoria and the Namibian Ministry of Fisheries and Marine Resources to use passive acoustic monitoring to investigate broad-scale patterns of cetacean diversity, abundance, and conservation status throughout the Benguela ecosystem. This activity will contribute to the SCOR/POGO International Quiet Ocean Experiment.
3. Jacob Larsen (Denmark) will offer training on identification of harmful algal bloom species in Ghana, related to the SCOR/IOC project on Global Ecology and Oceanography of Harmful Algal Blooms (GEOHAB).

In each case, some local support for the Scholars' visits will be provided by the hosting institutions.

Ocean Carbon Activities

Registration is open for the Third Symposium on The Ocean in a High-CO₂ World at <http://www.highco2-iii.org/>. Travel support will be available for early-career and developing country scientists (see Web site for details about applying). The deadline for travel support applications is **1 April**.

The International Ocean Carbon Coordination Project (IOCCP) office will be moving from IOC Headquarters in Paris to the Institute of Oceanology, Polish Academy of Sciences in Sopot, Poland, beginning on 1 April. SCOR thanks IOC for hosting the IOCCP office since 2005 and for providing support for IOCCP activities since that time. Thank you also to the Institute of Oceanology for agreeing to host the IOCCP office.



Large-Scale Ocean Research Projects

The Global Ecology and Oceanography of Harmful Algal Blooms (GEOHAB) project is planning two workshops for 2012. The first is an open science meeting on harmful algal blooms in fjords and coastal embayments that will be held in Victoria, British Columbia, Canada on 29-31 May 2012 (see <http://demeter.ugar.ca/geohab-osm2/>). The purpose of the meeting is to review and update research on the role of life history and growth dynamics in the control of harmful algal blooms (HABs) in coastal environments and to identify key objectives for future international studies. GEOHAB is also sponsoring a workshop on "Advances and challenges for understanding physical-biological interactions in HABs in Stratified Environments" in Monterey, California, USA on 21-23 August 2012. This purpose of this meeting is to review the major discoveries relating to the physics, biology, ecology, and chemistry of HABs in stratified systems. Meeting participants will identify the critical remaining questions about HABs in stratified systems,

and will identify new technologies that may be needed to adequately sample these systems.

The International Project Office for the Integrated Marine Biogeochemistry and Ecosystem Research (IMBER) project is moving from the University of Brest (France) to the Institute for Marine Research in Bergen, Norway. SCOR thanks the French sponsors of the IMBER IPO since 2005 and thanks the new Norwegian sponsors for their commitment to hosting the office. IMBER will be holding its third IMBIZO meeting in Goa, India on 21-28 January 2013 (see <https://www.confmanager.com/main.cfm?cid=2614>). The sponsors of IMBER approved Ratana Chuenpagdee (Canada) as a new member of the IMBER Scientific Steering Committee, with a three-year term starting on 1 January 2012.

The Surface Ocean-Lower Atmosphere Study (SOLAS) Open Science Meeting is scheduled for 7-10 May in Cle Elum, Washington State, USA. Early registration is available through **15 March** at <https://www.confmanager.com/main.cfm?cid=2445&nid=15064>. The sponsors of SOLAS approved the following new members of the SOLAS Scientific Steering Committee, with three-year terms starting on 1 January 2012: Anja Engel (Germany), Huiwang Gao (China-Beijing), and Michelle Graco (Peru).

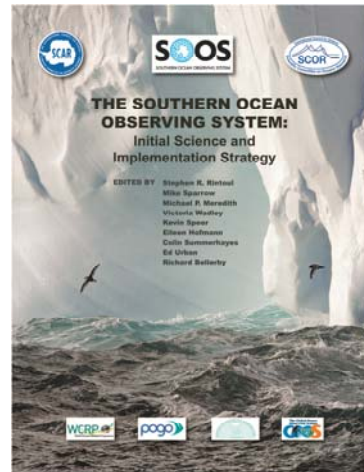
The SCOR Executive Committee approved new members of the GEOTRACES Scientific Steering Committee, with three-year terms starting on 1 January 2012: Tung-Yuan Ho (China-Taipei), Phoebe Lam (USA), Katharina Pahnke (Germany), Micha Rijkenberg (Netherlands), Alakendra Roychoudhury (South Africa), Geraldine Sarthou (France), and Yoshiki Sohrin (Japan). The GEOTRACES SSC will hold its next meeting in India.

The International Quiet Ocean Experiment (IQOE) completed the draft report from its open science meeting and the report is being reviewed by meeting participants. The next stage will be to form a project scientific steering committee, which will finalize the science plan.

Publications

The SCOR-sponsored book, *Phytoplankton Pigments: Characterization, Chemotaxonomy and Applications to Oceanography*, was recently published and is available for purchase from [Cambridge University Press](http://www.cambridge.org) (CUP). The book provides new information to update the highly successful 1997 book from SCOR WG 78 entitled *Phytoplankton Pigments in Oceanography*. The previous book has been cited more than 400 times and is still used in many laboratories worldwide. *Phytoplankton Pigments* has been sent by SCOR to libraries in developing countries and some copies are available for free distribution from the SCOR Secretariat. Some of

the data sheets from the book are freely available at the CUP site linked above.



The Southern Ocean Observing System Initial Science and Implementation Strategy has been released and is available from SCOR, the Scientific Committee on Antarctic Research (SCAR), and on line (see <http://www.soos.aq/imagetools/soos/products/attachments/SOOS-Strategy-lowres-pdf1341967256.pdf>).

The report resulted from a multi-year effort supported by SCOR, SCAR, NSF, the U.S. National Oceanic and Atmospheric Administration, and other organizations. SCOR and SCAR have approved a steering committee to focus on implementing the plan. The committee met for the first time in Salt Lake City, Utah, USA in February in conjunction with the Ocean Sciences meeting.

News from National SCOR Committees

We can sometimes provide space in the *SCOR Newsletter* for reports from national SCOR committees, regarding special events, new publications, and information about how they operate, which could be useful for other committees. A document on [best practices](#) for national SCOR committees is available on the SCOR Web site. Please contact Ed Urban at the SCOR Secretariat if you have news from national SCOR committees that you would like to include in the next newsletter.

Australia— Responsibility for the functions of Australian national committees for SCOR, IGBP, and WCRP is carried by the Australian National Committee for Earth System Science, of the Australian Academy of Science. This committee has been active in pulling together different areas of science that contribute to Australia's responses to global change issues. The committee issued a report in late 2010 entitled *To Live Within Earth's limits: An Australian Plan to Develop a Science of the Whole Earth System*. This document is designed to "set out a plan for establishing a coherent, vibrant, and effective community of Earth system scientists in Australia." It can be downloaded at <http://science.org.au/natcoms/nc-ess/documents/ess-report2010.pdf>. The focus of the Committee for Earth System Science for the near future will be implementation of recommendations presented in this plan. The plan recommends more focus on Earth system research questions and interactions among Australian science organizations on these topics, creation of an

Australian Society for Earth System Science, initiation of a series of Australian Earth System Outlook Conferences, establishment of an Australian Earth system science journal, preparation of a tertiary-level textbook on Earth system science, maintenance of national supercomputing infrastructure investment to handle the computing and observational data needs of Earth system science, creation by Australian research funding agencies of ways to competitively evaluate highly interdisciplinary Earth system research proposals, and establishment of a National Office for Earth System Science. Free hard copies of the report can be obtained by emailing nc@science.org.au. Jeanette Mill at the Australian Academy of Science works with the Australian SCOR Committee.

Canada—The Canadian National Committee for SCOR (CNC-SCOR), besides serving as the liaison between international SCOR and the Canadian oceanographic community, promotes the health of the ocean sciences in Canada, including building of capacity within the community. Several scholarships will be awarded by the Canadian Meteorological and Oceanographic Society (CMOS), and CNC-SCOR for graduate and undergraduate studies at a Canadian university. In Project Maury, the American Meteorological Society, CNC-SCOR and CMOS will co-sponsor one elementary or high school teacher to attend this year's two-week summer workshop on oceanography at the U.S. Naval Academy. Finally, CNC-SCOR sponsors an annual lecture tour, sending one lecturer from western Canada to lecture in eastern Canada and one from eastern Canada west. CNC-SCOR Newsletters can be found at <http://www.cmos.ca/scor/newsletters.htm>. Bob Wilson assists the CNC-SCOR in its work.

United States—The [U.S. SCOR Committee](#) is represented by members of the [Ocean Studies Board](#) (OSB) at the U.S. National Academy of Sciences/National Research Council (NAS/NRC). The NRC advises U.S. federal agencies and the Congress on matters of science and technology through reports written by expert committees. In recent years, the OSB has conducted studies related to “the status of marine and coastal environments; the ocean's role in the global climate system; technology and infrastructure needs for ocean research; ocean-related aspects of national security; fisheries science, management, and policy; living and non-living marine resources; ocean education; reviews of specific agency programs; and the future of the discipline in the United States and abroad.” In a broader sense, the OSB promotes the health of the ocean sciences in the United States. The 21 members of the OSB come from academia, industry, and the non-profit sector. The OSB meets three times each year and often features presentations about SCOR and/or SCOR-related projects. Claudia Mengelt staffs the U.S. SCOR Committee at the Ocean Studies Board.

SCOR Annual Meetings

2013—The location of the 2013 SCOR meeting has not yet been determined.

2014—SCOR will hold its 2014 General Meeting in Bremen, Germany.

For additional information about SCOR activities, please see the SCOR Web site: <http://www.scor-int.org>. To reach Secretariat staff, please send an email to Ed Urban (Ed.Urban@scor-int.org) or Lora Carter (Lora.Carter@scor-int.org).

Acronyms:	
CMOS	Canadian Meteorological and Oceanographic Society
CNC-SCOR	Canadian National Committee for SCOR
GEOHAB	Global Ecology and Oceanography of Harmful Algal Blooms project
IAPSO	International Association for the Physical Sciences of the Oceans
IGBP	International Geosphere – Biosphere Programme
IMBER	Integrated Marine Biogeochemistry and Ecosystem Research project
IOCCP	International Ocean Carbon Coordination Project
IQOE	International Quiet Ocean Experiment
NAS	National Academy of Sciences (U.S.)
NRC	National Research Council (U.S.)
OSB	Ocean Studies Board (NAS/NRC)
POGO	Partnership for Observation of the Global Oceans
SCAR	Scientific Committee on Antarctic Research
SCOR	Scientific Committee on Oceanic Research
SOLAS	Surface Ocean – Lower Atmosphere Study
WCRP	World Climate Research Programme
WG	working group

Acknowledgements of Figures:

Page 1 (top)—

<http://museum.gov.ns.ca/mmanew/en/home/whattoseedo/permanentexhibits/cssacadia/default.aspx>

Page 1 (right-hand column)— Sully Vent in the Main Endeavour Vent Field, NE Pacific. A bed of tube worms cover the base of the black smoker. An acoustic hydrophone and resistivity-temperature-hydrogen (RTH) probe surround the vent during ROV ROPOS dive number 852, 2004. From <http://www.pmel.noaa.gov/vents/gallery/smoker-images.html>.

Page 2—From <http://iopan.gda.pl/>