



SCOR Electronic Newsletter #1
December 2004

The Scientific Committee on Oceanic Research (SCOR) is an international nonprofit organization whose purpose is to promote international cooperation in all branches of oceanic research. This purpose is achieved through the sponsorship of large-scale ocean research projects, working groups and panels on specific ocean science topics, and activities designed to increase the research capacity of developing nations.

The XXVIth SCOR General Meeting was held at the CNR–Istituto di Scienze Marine (ISMAR) in Venice, Italy, at the invitation of the Italian SCOR Committee. ISMAR is located in the historic Palazzo Pappadopoli on Venice’s Grand Canal. This event was SCOR’s first annual meeting in Italy since its 1966 meeting in Rome.

New SCOR Officers

John Field presented a report of the SCOR Nominating Committee (Wolfgang Fennell [Germany]; John Field [South Africa], chair; Huasheng Hong [China-Beijing], and Graham Shimmield [UK]) regarding the election of new officers. Prof. Field reported that two new officers were elected to begin their terms at the end of the Venice SCOR meeting: Bjørn Sundby (Canada) is the new SCOR President and Victor Akulich (Russia) is a new SCOR Vice-President.

Bjørn Sundby earned a Ph.D. from the University of Bergen (Norway) in 1966 and a Dr. Philos from the University of Bergen in 1987. His career in oceanography began in 1972 as a postdoctoral fellow at the Bedford Institute of Oceanography. He has been Professor of Oceanography at the Université du Québec à Rimouski, Canada, Head of the Department of Chemical Oceanography and Marine Pollution at the Netherlands Institute of Oceanography, and Director of Physical and Chemical Sciences at the Maurice Lamontagne Institute, Canada. Since 1999, Prof. Sundby has been Professor of Oceanography at the Institut des Sciences de la Mer de Rimouski in Canada and Adjunct Professor in Earth and Planetary Sciences at McGill University in Canada.



Prof. Sundby's research focuses on redox chemistry, but is relevant to any element whose distribution in sediments is in some way related to the carbon cycle. These include major elements such as iron and manganese, nutrient elements such as nitrogen, phosphorus, and silicon, and trace elements such as cadmium, molybdenum, uranium, and rhenium. The interactions between living organisms (bacteria, animals, plants) and sediments receive special attention. His recent and ongoing projects include the use of a solid state voltammetric microelectrode to measure redox species directly in sediment porewater; recent changes in sediment chemistry in the deep Arctic Ocean basins as a result of global warming; hypoxia in the St. Lawrence estuary; the cycle of lead in the root zone of salt marsh sediments; the coupled geochemistry of manganese, nitrogen, and iodine in sediments; and

geochemistry of cadmium, molybdenum, uranium, and rhenium in view of their use as tracers of redox conditions in paleo-sediments. Prof. Sundby served as SCOR Secretary from 1996 to 2000.

Victor A. Akulichev is a member of the Russian Academy of Sciences and Director of the V.I.Ili'chev Pacific Oceanological Institute in Vladivostok, Russia. He earned a Ph.D. from the Institute of Acoustics, Moscow, in 1966, and a Doctor of Physics and Mathematics from the Institute of Acoustics, Moscow in 1975. He is a Fellow of the Acoustical Society of America. Dr. Akulichev's research focuses on ocean acoustics and hydrophysics. His research includes studies of large-scale inhomogeneities in physical structure of the ocean, propagation of acoustic signals through eddies in the ocean, cavitation nuclei and threshold of acoustic cavitation in seawater, ocean acoustic tomography and global acoustic monitoring of the ocean, transient acoustic backscattering from microinhomogeneities in seawater, and methods of acoustic spectroscopy of bubbles in liquids. He was a member of SCOR WG 96 on Acoustic Monitoring of the World Ocean.



Ilana Wainer was re-appointed as a Co-opted Member to the SCOR Executive Committee for a second two-year period. Dr. Wainer is an Associate Professor in the Department of Physical Oceanography of the University of São Paulo, Brazil. She earned a Ph.D. in Atmospheric Sciences in 1992 from the Department of Meteorology at Pennsylvania State University. Dr. Wainer's research interests focus on observations (satellite and in situ) and modeling of air-sea fluxes of heat, dynamics of ocean currents and fronts, and interactions of climate with physical oceanography in the tropical and South Atlantic Ocean regions. She has been a Nominated Member of SCOR from Brazil since 2000. Dr. Wainer has been a member of international committees for the Global Ocean Observing System (GOOS), the Climate Variability and Prediction (CLIVAR) project, and the Surface Ocean - Lower Atmosphere Study (SOLAS).



New Working Groups

National SCOR committees reviewed three proposals for new SCOR working groups and two proposals were approved: (1) Global Comparisons of Zooplankton Time Series and (2) The Role of Viruses in Marine Ecosystems. One SCOR Executive Committee member has been assigned to work with the proponents of each proposal to revise the membership and terms of reference for the working groups according to SCOR requirements.

Global Comparisons of Zooplankton Time Series—This working group was proposed by David Mackas (Canada) and Hans Verheye (South Africa). Several organizations have already agreed to support Associate Members of the group. The primary purpose of the group will be to identify and consolidate a globally representative set of long zooplankton time series. Where appropriate, they will encourage the migration of individual data sets to a permanent and secure electronic archive. They will develop and share protocols for within-region and within-time-period data summarization (e.g., spatial, seasonal and annual averaging, summation within taxonomic and age categories). Based on these activities, the group will develop priorities and recommendations for future monitoring efforts and for more detailed re-analysis of existing sample archives. Once the regional data sets are compiled and collated, the group will carry out a global comparison of zooplankton time series using a diverse suite of numerical methods.

The Role of Viruses in Marine Ecosystems—This working group was proposed by Markus Weinbauer (France) and Steven Wilhelm (USA). The group will summarize past results on virus-mediated mortality of algae and prokaryotes and the impact on oceanic carbon and nutrient cycling. They will coordinate data collection to assess the role of viruses in different water masses and will assess the methodological limitations of the techniques available for quantifying the virus-mediated mortality of microorganisms (eukaryotes and prokaryotes) and their impact on carbon and nutrient cycling, and will make recommendations for the best available approaches to study viruses and viral processes in the sea. The group plans to establish and maintain a Web site as forum that can be used by the “viral community” for exchange of data and ideas and future plans. Their activities will culminate with an international symposium that will be followed by a published proceedings, such as a special issue of *Limnology and Oceanography* or *Deep-Sea Research*.

Evaluation of Past SCOR Working Groups

Bjørn Sundby presented an analysis of input from past SCOR working groups. He found that SCOR working groups have been responsible for some notable products, of which the organization can be proud. Sundby also made recommendations about how working groups could be improved in the future, which will be incorporated in future requests for working group proposals and instructions to approved working groups.

Major Projects Sponsored by SCOR

SCOR/IOC Global Ecology and Oceanography of Harmful Algal Blooms (GEOHAB) Programme—The GEOHAB Scientific Steering Committee (SSC) met on 21-23 November in Cape Town, South Africa to continue work on implementing GEOHAB. Two focused Open Science Meetings have been held so far to help develop research plans for core GEOHAB research. The next one, on HABs and Eutrophication, will be convened in Baltimore, Maryland, USA in March 2005. GEOHAB is still looking for a host institution for its International Programme Office (IPO).

Geotraces—The Geotraces Planning Committee has been working on its Science Plan and an editorial subcommittee will meet in Boston, Massachusetts, USA in early December to finish preparing the draft plan for review.

SCOR/IGBP/IOC Global Ocean Ecosystem Dynamics (GLOBEC) Project—New members of the GLOBEC SSC were approved: M. Schaeffer (The Netherlands), J.W. Hurrell (USA), and Ruben Escribano (Chile).

SCOR/IGBP Integrated Marine Biogeochemistry and Ecosystem Research (IMBER) Project—An editorial subcommittee of the IMBER SSC will meet in mid-December to finalize the IMBER Science Plan/Implementation Strategy for review by SCOR and the International Geosphere-Biosphere Programme (IGBP). IMBER will establish its IPO in Brest, France in mid-2005.

SCOR/IGBP/WCRP/CACGP Surface Ocean – Lower Atmosphere Study (SOLAS)—SOLAS Science 2004 was held recently in Halifax, Nova Scotia, Canada and attracted about 250 participants from around the world. SOLAS is planning its second summer school for Corsica in 2005 (see <http://www.uea.ac.uk/env/solas/summerschool/>). SOLAS and IMBER are working to create a joint plan for ocean carbon research.

Project Coordination Meeting—SCOR convened a meeting on Coordination of International Marine Research Projects on 23-24 September 2004 in Mestre, Italy, funded by the Alfred P. Sloan Foundation. Meeting participants included representatives from virtually all international marine

research projects and programmes (CLIVAR, CoML, DIVERSITAS, GEOHAB, GLOBEC, iAnZone, IMAGES, InterRidge, IMBER, LOICZ, and SOLAS) and the chairs of the Global Ocean Observing System (GOOS). Profs. John Field and Laurent Labeyrie convened the meeting on behalf of the SCOR Executive Committee. The purpose of this meeting was to bring together representatives of the major international ocean research and observation projects and programs to discuss common opportunities, issues, and problems. The meeting agenda included several specific topics determined in advance to be important inter-project issues, including data management, interactions of projects with GOOS, project coordination in the area of Southern Ocean research and participation in the International Polar Year, project needs for time-series stations, and future project contributions to global environmental assessments. The agenda also provided an opportunity for projects to raise and discuss other issues that were not determined in advance. Information about the meeting is available on the activity Web page (see www.jhu.edu/scor/ProjCoord.htm). The SCOR Secretariat has begun working on implementing recommendations from the meeting.

SCOR Panel on New Technologies for Observing Marine Life

SCOR is pleased to announce the establishment of the SCOR Panel on New Technologies for Observing Marine Life, sponsored by the Alfred P. Sloan Foundation.

The overall purpose of the panel will be to serve as a resource to the Census of Marine Life (CoML) in terms of technologies that could be applied to CoML projects. The panel will communicate with CoML project leaders on a regular basis to discuss project technology needs. It will identify and bring to the attention of the international community of fisheries scientists, marine biologists and others, the potential benefits of emerging technologies in the detection of marine life. The panel will explore the relative merits of different technologies and identify those that deserve further research based on their potential for making significant contributions to the detection of marine life. Finally, the panel will develop a Web site to disseminate information about technologies for observing marine life widely.

The panel is chaired by Elgar De Sa (National Institute of Oceanography, Goa, India). Other members cover the range of relevant technologies for observing marine life and include Yogi Agrawal (Sequoia Scientific, Inc., USA), Geoff Arnold (Consultant, UK), David Farmer (University of Rhode Island, USA), Gaby Gorsky (CNRS, France), John Gunn (CSIRO, Australia), Antonio Pascoal (Inst. for Systems and Robotics, Portugal), Alex Rogers (British Antarctic Survey, UK), Heidi Sosik (Woods Hole Oceanographic Institution, USA), and Song Sun (Chinese Academy of Sciences, China-Beijing). Other members may be added. Liaisons identified to date include Ron O'Dor (CoML), William Karp (ICES and NOAA), and Peter Pissierssens (IOC). Liaisons from other organizations are welcome.

Affiliated Projects

SCOR agreed that it will remove the 10-year sunset period on project affiliations with SCOR, since both SCOR and the projects benefit from the affiliations. At the same time, SCOR will seek more specific project management information and scientific highlights from the affiliated projects each year. Projects affiliated to SCOR include the Census of Marine Life (CoML), International Antarctic Zone Program (iAnZone), International Marine Global Change Study (IMAGES), International Ocean Colour Co-ordinating Group (IOCCG), and International RIDGE Studies (InterRidge) project.

SCOR-SCAR Interactions

SCOR and SCAR have been developing several activities together, including a joint session on Southern Ocean Circulation and Marine Life at the IAG/IAPSO/IABO meeting in Cairns, Australia and the proposed SCAR/SCOR Expert Group on Oceanography.

2005 SCOR Executive Committee Meeting

The 2005 SCOR Executive Committee Meeting will be held in Cairns, Queensland, Australia, during the week following the IAG/IAPSO/IABO meeting in Cairns. Details of the meeting location and hotel(s) will be announced in early 2005.

The call for working group proposals to be considered at the 2005 SCOR Executive Committee meeting will be made in early January and the deadline for proposals will be **15 April 2005**. This call for proposals will emphasize physical oceanography and marine geology and geophysics activities, while also accepting proposals on other topics.

2006 SCOR General Meeting

SCOR has accepted an invitation to hold 2006 SCOR General Meeting in Chile.

SCOR 50th Anniversary Meeting in 2008

SCOR is planning its 50th anniversary meeting for Woods Hole, Massachusetts, USA, in 2008. A committee was formed to begin planning for the meeting. This committee will be chaired by Robert Duce (USA) and will also include Elizabeth Gross (USA), Laurent Labeyrie (France), Annelies Pierrot-Bults (The Netherlands), and Vere Shannon (South Africa). The committee will work by email over the next 9 months and will report back at the 2005 SCOR Executive Committee Meeting in Australia.

SCOR Publications

SCOR agreed to share with the International Oceanographic Commission (IOC) the cost of reprinting the WG 78 book (*Determination of Photosynthetic Pigments in Seawater*). SCOR will also consider having a revised edition of the report produced. SCOR will also investigate having this report and others made available on the Web.

Reports of the SCOR/IOC symposium on The Ocean in a High-CO₂ World were published in *EOS* and *Oceanography Magazine* (see

http://www.tos.org/oceanography/issues/issue_archive/issue_pdfs/17_3/17.3_scor_ioc.pdf). SCOR is investigating follow-up activities to the symposium and contributed input to a study of ocean acidification being conducted by a special committee of the Royal Society (UK).

Copies of the SCOR poster are available from the SCOR Secretariat upon request.

A new section of the SCOR Web site is devoted to SCOR national committees (see <http://www.jhu.edu/scor/NationalReports.htm>). National committees are welcome to submit information for this Web page related to their meetings and other activities.

SCOR Finances

The Ad Hoc SCOR Finance Committee (Birger Larsen [Denmark], Chair; Marie-Alexandrine Sirec [France] and Victor Akulichov [Russia]) reported that SCOR finances continue to remain in good condition and the Secretariat has been successful since the SCOR meeting in Moscow in raising financial support for new and continuing SCOR activities. A budget was approved for SCOR for

2005. SCOR approved a 1% increase in dues for Categories III, IV, and V nations for 2006, and will continue to hold 2005 dues for Category I and II nations at 2001 levels.

Travel Grants for Scientists from Developing Countries and Countries With Economies in Transition
Grants for travel of scientists from developing countries and countries with economies in transition were approved for the following meetings and training programs (funded from the current grant from the U.S. National Science Foundation): GEOHAB OSM on HABs and Eutrophication, GLOBEC OSM on Climate Variability and Sub-Arctic Marine Ecosystems, Workshop on Advances in Marine Ecosystem Modelling Research, International Ocean Research Conference, LOICZ OSM, and WG 123 (Reconstruction on Past Ocean Circulation) workshop. Individuals interested in receiving travel support for these meetings should contact the meeting organizers (see list of sponsored meetings at <http://www.jhu.edu/scor/MeetingsSupported.htm>).

Upcoming Open Meetings of SCOR Projects

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| Mar. 7-11, 2005 | GEOHAB OSM on HABs in Eutrophied Systems | Baltimore, Maryland, USA |
| Mar. 20-23, 2005 | <u>SCOR/IMAGES Workshop on Past Ocean Circulation</u> | Atlanta, Georgia, USA |
| May 16-20, 2005 | <u>International GLOBEC Symposium on Climate Variability and Sub-Arctic Marine Ecosystems</u> | Victoria, B.C., Canada |
| Aug. 29-Sept. 1, 2005 | SCOR Executive Committee Meeting | Cairns, Queensland, Australia |
| 30 Aug.-Sept. 4, 2005 | <u>WG 120 Conference on <i>Phaeocystis</i>: Major Link in the Biogeochemical Cycling of Climate-Relevant Elements</u> | Haren, The Netherlands |

For additional information about SCOR activities, please see the SCOR Web site at <http://www.jhu.edu/scor>.