



Canadian National Committee for SCOR  
Comité national canadien pour SCOR

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# Scientific Committee on Oceanic Research

## 38<sup>th</sup> SCOR EXECUTIVE COMMITTEE MEETING

Bergen, Norway

26-28 August 2007

Meeting Report by Gordon McBean, [gmcbean@eng.uwo.ca](mailto:gmcbean@eng.uwo.ca)

### Introduction and General Business

Professor Bjørn Sundby, the President of SCOR and from Canada opened the meeting. The meeting was attended by three Canadians: B. Sundby as President of SCOR; Professor Lawrence Mysak of McGill University as President of the International Association of the Physical Sciences of the Oceans (IAPSO); and Professor Gordon McBean of The University of Western Ontario as Chair of the CNC SCOR. A moment of silence was observed to recognize the deaths of Grant Ingram (Canada – The University of British Columbia) and Dale Krause (USA). This annual meeting was attended by about a dozen national members plus representatives from related programs and associations. This report will provide only selected highlights and details on many of these matters are available in meeting documents on the SCOR Web site.

The President noted that he had been asked to represent ICSU at the Intergovernmental Oceanographic Commission (IOC) annual meeting and had represented SCOR at the International Geosphere-Biosphere Programme (IGBP) Science Committee. SCOR had also held a summit on large-scale research projects in London, co-chaired by Sundby and Peter Burkill. SCOR has, like most similar international organizations, financial constraints on the activities it can undertake and all countries are encouraged to make their financial contributions. China (Beijing) Committee has increased its level of membership. The SCOR Secretariat has moved to the University of Delaware. As part of its ongoing assessment, the disciplinary balance of SCOR groups will be assessed through a group led by Laurent Labeyrie (France). The question of whether to undertake studies in the social sciences related to the oceans was discussed.

In 2008 the President (Bjørn Sundby) and all three Vice-Presidents are open for election. One Vice-President (Victor Akulichev) will have served his maximum term.

### Discussion of Working Groups

SCOR has a large number of Working Groups, some of which are co-sponsored with other organizations. The meeting reviewed these and also considered proposals for new WGs (typically 2 new ones are established each year).

**WG 78 on “Determination of Photosynthetic Pigments in Seawater”** is now disbanded and the publication of its reports was discussed. The first volume was published by UNESCO Press. Publication of Volume 2 of *Phytoplankton Pigments in Oceanography* has a number of options which were discussed and the final approach will depend on an assessment and funding options.

**WG 111 on “Coupling Winds, Waves and Currents in Coastal Models”** is developing a book entitled *Coupled Coastal Wind-Wave-Current Dynamics*, which will be published by Cambridge University Press.

**WG 115 on “Standards for the Survey and Analysis of Plankton”** held its final meeting in May 2006 in Plymouth, UK at the Sir Alistar Hardy Foundation for Ocean Sciences and group members plan a series of papers for a special issue of the *Journal of the Marine Biological Association of the U.K.* Unfortunately, only one of the papers has been completed as planned and the timeline has slipped. It was agreed that they should be urged to get the job done within one year.

**WG 116 on “Sediment Traps and <sup>234</sup>Th Methods for Carbon Export Flux Determination”** completed its work with an article in the *Journal of Marine Research*. The meeting agreed to disband the group.

**SCOR/IOC on “WG 119 on “Quantitative Ecosystems Indicators for Fisheries Management”** will use its remaining funds to contribute to a workshop on “Coping with global change in marine social-ecological systems” which will contribute to the objectives of both GLOBEC and IMBER. The meeting agreed to disband the group.

**WG 120 on “Marine Phytoplankton and Global Climate Regulation: The *Phaeocystis* Species Cluster As Model”** convened its symposium in September 2005 as their final meeting. The papers from the meeting were published in a special issue of the journal *Biogeochemistry*. Meeting participants agreed to disband the group.

**SCOR/IAPSO WG 121 on “Ocean Mixing”** held their symposium was in 2004 and the final meeting of the group was held in conjunction with the 2007 IUGG General Assembly. The group will be disbanded with expectations of a final article.

**SCOR/LOICZ/IAPSO WG 122 on “Estuarine Sediment Dynamics”** will meet on September 23-27, 2007 with the publication of its findings expected for a special issue of *Coastal and Estuarine Science*.

**SCOR/IMAGES WG 123 on “Reconstruction of Past Ocean Circulation (PACE)”** produced a special theme section on Past Ocean Circulation for the AGU publication, *Geochemistry, Geophysics, Geosystems* and paper in *Science*. The group was disbanded noting that it had done very well.

**SCOR/IMAGES WG 124 on “Analyzing the Links Between Present Oceanic Processes and Paleorecords (LINKS)”** met for the final time on 20–24 November 2006 and is preparing a series of 5 manuscripts that mainly target understanding of the changes in ocean productivity and the connection to the recorded signal at the seafloor.

**WG 125 on “Global Comparisons of Zooplankton Time Series”** held a full meeting in Lima, Peru in association with the International Conference on the Humboldt Current System: Climate, ocean dynamics, ecosystem processes, and fisheries (27 Nov. 27-1 Dec. 2006) and an opportunistic meeting in May 2007. Papers will be collected for a special issue of *Progress in Oceanography*.

**WG 126 on “Role of Viruses in Marine Ecosystems”** had a very productive meeting in Bergen, Norway in May. The major outcome of the Bergen meeting was a multi-lab comparison of techniques. The group’s book, tentatively entitled *Methods in Aquatic Viral Ecology*, is expected to be ready for publication in 2009. The final meeting will be in 2009.

**SCOR/IAPSO WG 127 on “Thermodynamics and Equation of State of Seawater”** held its second meeting on 7-11 May in Reggio Calabria, Italy and will meet next in Berlin on 4-10 September 2008 in conjunction with the International Association of the properties of water and seawater. It is moving along well.

**WG 128 on “Natural and Human-Induced Hypoxia and Consequences for Coastal Areas”** will meet for the second time on 20-23 September in Shanghai, China, in conjunction with the IMBER/LOICZ Continental Margins Open Science Meeting and most of the papers for their special issue (potentially for *Biogeosciences*) are underway and will be discussed at the Shanghai meeting.

**SCOR/IAPSO WG 129 on “Deep Ocean Exchanges with the Shelf”** met for the first time on 10-11 July in Perugia, Italy in conjunction with the IUGG meeting. They are planning a symposium for their final meeting at the IAPSO meeting in Montreal in 2009.

**SCOR WG 130 on Automatic Plankton Visual Identification”** met for the first time on 2-3 June in Hiroshima, Japan in conjunction with the Fourth International Zooplankton Production Symposium there. The group developed an ambitious plan to fulfill its terms of reference. Its 2008 meeting will be partially or wholly funded by the Brazilian company Petrobras.

Generally, the last 6 or 7 WGs have had very enthusiastic reports, but the earlier ones had more negative comments. Probably managing the WGs over a shorter period of time has improved and this approach should be continued.

### **New Working Group Proposals**

Three proposals for new WGs were examined. After considerable debate it was recommended that WG on the Legacy of in situ Iron Enrichment: Data Compilation and Modeling be supported. The agreement was that the value of gathering together the data from the diverse set of previous experiments, especially given the new experiments, was important. The SCOR EC will issue a scientific statement regarding such experiments and the challenge of sequestering substantial amounts of carbon. Further work on modeling and analysis efforts will be considered based on subsequent inputs.

The proposal for a WG on Land-Based Nutrient Pollution and the Relationship to Harmful Algal Blooms in Coastal Marine Systems, another very important and timely topic was recommended for strengthening the proposal so that it could be considered for funding either later this year (if funds are available) or in next year's competition.

The proposal for a WG on the Coral Triangle: The Centre of Marine Diversity also led to strong interest in this proposal. In the end, a number of refinements and linkages with other activities were suggested with encouragement to resubmit it for next year.

### **Large-Scale Scientific Programs**

SCOR co-sponsors with a range of partners a number of large scale scientific programs. The meeting reviewed each of these.

### **SCOR/IGBP/IOC Global Ocean Ecosystems Dynamics (GLOBEC) Project**

GLOBEC continues its integration and synthesis activities to work toward its completion at the end of 2009. GLOBEC and IMBER are working together on an activity on end-to-end food webs and will be developing a transition team in fall 2007 to identify aspects of GLOBEC that IMBER might take on after GLOBEC ends. Ian Perry (Canada) was endorsed as the new Chairman.

### **SCOR/IOC Global Ecology and Oceanography of Harmful Algal Blooms (GEOHAB) Program**

The research plan for the HABs in Eutrophied Systems was published in 2007 and NOAA is providing funding for this CRP, through IOC. The SSC is beginning a discussion about adding a CRP on benthic HAB species, such as those that cause ciguatera. A new Asian GEOHAB activity is under development and a second meeting will be held in Vietnam in January 2008. A new GEOHAB Web site has been launched (see <http://www.obs-vlfr.fr/LOV/OMT/GEOHAB/>). GEOHAB still needs an International Program Office.

### **SCOR/IGBP Integrated Marine Biogeochemistry and Ecosystem Research (IMBER) Project**

The IMBER SSC met in June 2007 in Victoria, B.C. to discuss implementation activities. The IMBER Data Management Committee met in conjunction with the SSC meeting and is making good progress in developing the IMBER data management system. IMBER will hold an open science meeting in late 2008.

## **GEOTRACES Project**

The GEOTRACES Scientific Steering Committee held its first meeting in San Francisco, California, USA, on 16-18 December 2006. A standing GEOTRACES data management committee was created and initial planning undertaken for a GEOTRACES Data-Model Synergy Workshop and for GEOTRACES cruises in the Pacific, Atlantic and Indian oceans. GEOTRACES is in initial discussions regarding the placement of an international GEOTRACES data management office.

## **SCOR/IGBP/WCRP/CACGP Surface Ocean-Lower Atmosphere Study**

SOLAS held its second open science meeting in Xiamen, China in March 2007 and also is planning its third summer school for 2007 (see <http://www.solas-int.org/>). SOLAS and IMBER have created a cooperative research activity related to ocean carbon and have formed a working group to guide the activity and to interact with IOCCP. The SCOR Executive Committee and other co-sponsors approved a new chair (Prof. Dr. Doug Wallace, Germany) and members of the SSC in May 2007.

## **Ocean Carbon and other activities**

### **IOC/SCOR International Ocean Carbon Coordination Project (IOCCP)**

IOCCP led planning for a Surface Ocean CO<sub>2</sub> Variability and Vulnerabilities Workshop on 11-14 April in Paris, France and is publishing a revised CO<sub>2</sub> methods handbook and will revise the WOCE/CLIVAR hydrography manual.

### **SCOR-IOC International Symposium on “The Ocean in a High-CO<sub>2</sub> World”**

SCOR, IOC, IAEA and IGBP are planning a second symposium, in Sept./Oct 2008, at the Oceanography Museum in Monaco. Half of the speakers for the symposium have been selected and half will be chosen on the basis of abstracts submitted. The portal to international activities related to the science of ocean acidification is <http://ocean-acidification.net/>.

### **SCOR Summit of International Marine Research Projects**

SCOR, with funding from the Alfred P. Sloan Foundation, convened a meeting on major large-scale ocean research projects in London, England on Dec. 7-9, 2006. A discussion was held on a 2008 meeting.

### **Panel on New Technologies for Observing Marine Life**

The panel will meet next at the CoML All Program meeting in Auckland, New Zealand in November 2007.

### **SOLAS/INI Workshop on Anthropogenic Nitrogen Impacts on the Open Ocean**

A joint SOLAS-International Nitrogen Initiative (INI) workshop was held on 17-20 November 2006 in Norwich, UK, with a focus on the current understanding of the potential for changes in open ocean health due to human alteration of the marine nitrogen cycle, either directly or indirectly.

### **SCOR Committee on Capacity Building**

Significant attention was devoted to the issue of enhancing SCOR's capacity-building activities. In response to a decision last year, a new SCOR Committee on Capacity Building has been formed, led by Venu Ittekkot of Germany, who was appointed to the SCOR EC as a co-opted member. The committee has been largely formed, a questionnaire was sent to national members, and discussion on many of the topics during the meeting considered the potential for enhancing capacity-building activities (e.g., one of the WGs expects to be meeting in South Africa and taking the opportunity to invite a number of African scientists to participate in their efforts). The committee will also be continuing the effort to promote regional graduate schools of oceanography and marine environmental sciences in developing country regions, to sustain the various fellowship programs for developing country scientists, to provide travel

support grants, to send free copies of reports to developing nation libraries, etc. G. McBean, chair of the Canadian SCOR Committee and also of START, reported on START's outreach activities as well, and encouraged cooperative activities.

### **Relations with Intergovernmental and Other Organizations.**

SCOR interacts with the Intergovernmental Oceanographic Commission, Global Ocean Observing System (GOOS) and the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP), with which there are promising areas of future interaction. The North Pacific Marine Science Organization (PICES) will hold its 2008 meeting in China. The International Council for Science has continued its development of regional offices in Africa, Southeast Asia, and South America. G. McBean described the new Integrated Research on Disaster Risk program. SCOR representatives have attended the International Geosphere-Biosphere Program (IGBP) which will hold its 2008 Congress in Cape Town, South Africa. World Climate Research Programme (WCRP) is co-sponsoring the SOLAS project and SCOR projects are working well with CLIVAR, the part of WCRP most relevant to SCOR. G. McBean described the Global Change START (System for Analysis, Research and Training) which is co-sponsored by IGBP, IHDP, WCRP and invited collaborations. Scientific Committee on Antarctic Research (SCAR) and SCOR are co-sponsoring a joint Expert Group on Oceanography. SCOR's major activity with Scientific Committee on Problems of the Environment (SCOPE) is the PACKMEDS project. The International Association for Meteorology and Atmospheric Sciences (IAMAS) was represented by M. MacCracken and the International Association for the Physical Sciences of the Oceans (IAPSO) by L. Mysak. The Partnership for Observation of the Global Ocean (POGO) 2008 meeting will be held in Bermuda in January 2008.

### **SCOR 50<sup>th</sup> Anniversary Celebration**

SCOR's 50<sup>th</sup> anniversary celebration will be held in Woods Hole in October 2008. The primary focus will be on future directions and needs in the ocean sciences and SCOR's role. The program will be made up of a few plenary talks, a couple of panels, and a high quality poster session of papers to be submitted by young scientists competitively selected by SCOR member nations. For this event, especially to cover costs of bringing in speakers and the young scientists, member nations have been asked to make some additional contributions.

Report prepared by G. McBean, based on SCOR Meeting Report and the Joint IAMAS/IAPSO Liaison Report for the SCOR Annual Executive Committee Meeting, Bergen, Norway