

28th SCOR General Assembly

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The 28th SCOR General Assembly was attended by representatives of 23 of its 33 member nations. Observers also attended from Columbia, Cuba, Kuwait and Venezuela. Given the South American location (and the accompanying workshop on Oxygen Minimum Systems in the Ocean), all of the Latin American members of SCOR were represented at the meeting. The meeting and its workshop was attended by three Canadians: Bjorn Sundby (McGill University), the current and ongoing President of SCOR, Denis Gilbert (Institut Maurice Lamontagne), the co-chair of SCOR WG 128 and co-organizer of the scientific workshop, and Allyn Clarke (Bedford Institute of Oceanography), Canadian nominated member for SCOR.

As is the custom, the meeting was opened with a few moments of remembrance and respect to those ocean scientists who had contributed to SCOR and who had died during the previous year. This year we remembered, Agustin Ayala-Castañares (Mexico), Sayed El-Sayed (USA), Sergey Sergeevich Lappo (Russia), Henk Postma (Netherlands), Robert Stewart (Canada), and Ümit Ünlüata (Turkey).

The new elected SCOR executive consists of:

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| President | (2004 – 2008) | Bjorn Sundby | Canada |
| Past-President | (2004 – 2008) | Robert Duce | USA |
| Secretary | (2006 – 2010) | Jorma Kuparinen | Finland |
| Vice-President | (2006 – 2008) | Peter Burkill | UK |
| | (2004 – 2008) | Victor Akulichev | Russia |
| | (2006 – 2008) | Huasheng Hong | China-Beijing |

The President discussed his efforts during the past year in strengthening SCOR's links with its international sponsors and partners. His discussions with ICSU have led to an understanding that SCOR will play a stronger role as ICSU's voice on the oceans. This means SCOR needs to be proactive with respect to working groups co-sponsored by ICSU with ocean components. SCOPE is an example of a committee where SCOR can explore common interests, for example the proposed SCOPE WG on Enclosed Basins. Capacity building should also be a strong focus for SCOR in partnership with the IOC and ICSU.

The SCOR Executive Director pointed out that the SCOR budgetary reserve has allowed it to co-sponsor several important meetings and workshops during the past year, including the very important workshop on the impacts of high CO₂ on the oceans. The Executive Director asked member nations to develop more flow-through funding from their national funding agencies to help fund specific SCOR activities. Presently much of SCOR's funding, exclusive of membership fees, comes through USA funding agencies. A more diverse funding would provide SCOR's finances with greater stability.

A few selected highlights of the SCOR meeting follow.

WG 78 – Determination of Photosynthetic Pigments in Seawater. The original WG had produced a monograph on the analytical methods of determining these pigments. This was published by UNESCO in 1997 and is currently out of print. Analytical methods and techniques have also evolved since the mid 1990's. SCOR sponsored a meeting in April 2006 to scope out a revised monograph on this subject. Authors are presently writing chapters for the new volume; Suzanne Roy of the University of Quebec is a member of the 4 person editorial board for the new volume.

WG 111 – Coupling Winds, Waves and Currents in Coastal Models, WG 115 – Standards for the Survey and Analysis of Plankton, WG 116 – Sediment Traps and ²³⁴Th Methods for Carbon Export Flux Determination, WG 120 – Marine Phytoplankton and Global Climate Regulation, and SCOR/Images WG 123 – Reconstruction of Past Ocean Circulation (PACE) have all held their final meetings and have their final publications in press, submitted for publication or in the final stages of preparation. All of these WG's will produce significant publications reviewing their specific areas of concern.

SCOR / IOC WG 119 – Qualitative Ecosystems Indicators for Fisheries Management is holding its final workshop in November. This will be followed by a final publication. Villy Christensen (UBC) is the WG Chair, and Daniel Pauly (UBC) Tony Pitcher (UBC), Jake Rice (DFO/HQ) and Kees Zwanenburg (BIO) are Associate Members.

SCOR/IAPSO WG 121 – Ocean Mixing has published a special issue of Deep-Sea Research II in 2006. They are planning to sponsor a Gordon Research Conference on ocean mixing before holding their final meeting at the 2007 IUGG General Assembly. Chris Garrett (UVic) is a WG Member and Barry Ruddick (Dalhousie) is a WG Associate Member.

SCOR/LOICZ/IAPSO WG 122 – Estuarine Sediment Dynamics. The meeting decided to suspend funding to this WG until they present a credible work plan.

SCOR/IMAGES WG 124 – Analyzing the Links Between Present Oceanic Processes and Paleo-records (LINKS) will hold their final meeting in November, 2006. This is expected to lead to their final publication in 2007. Roger François (UBC) is a WG Member.

WG 125 – Global Comparisons of Zooplankton Time Series is planning its second meeting in late November 2006. On the recommendation of WG 115, the meeting added a TOR giving this group the responsibility to evaluate the global monitoring of zooplankton. This WG is co-chaired by Dave Mackas (IOS). The WG has good co-funding from national agencies and is making good progress.

WG 126 – Role of Viruses in Marine Ecosystems held its first meeting and workshop in Victoria in June 2006. They have established the outline of their final publication, a textbook on Methods in Aquatic Virus Ecology. It is intended to have this document

available as an electronic publication. They are seeking co-funding to deal with the publication costs. Curtis Suttle (UBC) is a member of the WG and organized the Victoria meeting and workshop.

SCOR/IAPSO WG 127 – Thermodynamics and Equation of State of Seawater has held its first meeting and has established a detailed work plan that will allow it to accomplish the exacting task of redefining the standards for salinity and the equation of state for seawater. The Secretary General of IOC asked if IOC might co-sponsor this WG and this was agreed. IOC and the SCOR Executive are to determine if additional members should be added to the group. The final recommendations of this WG will be presented to the general assemblies of each of its sponsors for final approval before these new formulations become the new standard. Dan Wright (BIO) is a member of the WG.

SCOR WG 128 on Natural and Human-Induced Hypoxia has held its first meeting and organized a scientific workshop in association with this SCOR Assembly. They have a work plan towards their ultimate publication. There appears to be great scientific interest and excitement with respect to this WG. Denis Gilbert (IML) co-chairs this WG.

After considerable discussion, the meeting supported two new working groups, namely: a **Working Group on Deep Ocean Exchanges with the Shelf**, and a **Working Group on Automatic Plankton Visual Identification**. All members agreed that both were worthy proposals. There was considerable discussion on whether the Deep Ocean Exchanges proposal should have more inclusion of chemical and biological processes but the eventual consensus was that the focus on physical processes was necessary to allow the working group to accomplish its objectives. Members were concerned that the Automatic Plankton Visual Identification was too narrowly focussed on a particular instrument and its associated software. The terms of reference will be broadened somewhat to allow a more generic approach although many of the members supporting this proposal have purchased (or are considering purchasing) this instrument and do look to this WG to improve the available procedures and software.

GLOBEC. This project has largely completed its field studies and is in its integration / analysis / modelling phase. Its final Open Science Meeting is planned for 2009. Over the past year, this project has sponsored 7 scientific workshops in addition to various working and task group meetings. The project has generated more than 1600 publications including a number of special volumes of various scientific journals. NERC UK has renewed their funding for the International Project Office. Rosemary Ommer (UVic) and Ian Perry (PBS) are SSC Members.

GEOHAB. GEOHAB has conducted open Science meetings to formulate Implementation plans for its four Core Research Programs called for in its 2003 Science Plan. GEOHAB is making slow but steady progress. It has been a challenge as its community of scientists learn to work collaboratively together regionally and internationally. The present challenge is to standardize on protocols and data standards. The lack of an International Project Office also makes co-ordination and organization

difficult. Administrative assistance is presently provided by SCOR and the IOC on a part time basis. Canada has no GEOHAB program nor any members on the SSC.

SCOR/IGBP Integrated Marine Biogeochemistry and Ecosystem Research (IMBER) Project. IMBER has published its Science Plan and Implementation Strategy and is working on its Implementation plan through Task Groups and Working Groups. It has created a Task Team on Capacity Building. Its Data Management Committee is developing its data sharing policy and guidelines. The present plan is for the project office to store the metadata with the data itself to be stored in a number of national and regional centres. No formal Canadian IMBER projects and no Canadian on the SSC.

GEOTRACES Planning Committee. GEOTRACES has published its Science Plan and its new SSC will hold their initial meeting in December. Canada has one full member and one associate member on the SSC. GEOTRACES is a strongly coordinated program that aims for a new global survey of the distribution of geochemical tracers in the ocean. SCOR is the sole sponsor of GEOTRACES. Kristian Orians (UBC) and Roger François (UBC) are both Associate members of the GEOTRACES Planning Group.

SCOR / IGBP / WCRP / CACGP Surface Ocean-Lower Atmosphere Study (SOLAS). SOLAS has completed detailed research plans for its focus areas and is planning its second Open Science Meeting in 2007. 2007 will see the end of the SSC terms for the final original SSC members, including that of the chair. This represents a major change in leadership of this program. Ken Denman will rotate off the SSC at the end of 2006. This will leave Canada without an SSC member, perhaps appropriate given the failure of Canada SOLAS to get funding renewal from NSERC.

Land Interactions in the Coastal Zone (LOICZ) Project. While SCOR had agreed to co-sponsor those parts of LOICZ related to Coastal Ocean Science it does not co-sponsor the program as a whole. There was no written report from either the LOICZ Project Office or the SSC. Julie Hall, the SCOR Executive Officer responsible for LOICZ reported that its Project Office has relocated to Germany and there has been considerable turnover in members of the SSC. There is no Canadian LOICZ project and no Canadian members of the SSC. SCOR will support LOICZ through travel grants to their workshops and summer schools.

IOC / IGBP International Ocean Carbon Coordination Project (IOCCP). IOCCP has been greatly revitalized (replacing the old SCOR / IOC Panel on Ocean CO₂) and has an active program integrating the various ocean carbon observation programs. This is a very necessary support to GOOS. There are discussions to include this activity under an overall Carbon Theme Office in UNESCO; this office would deal with carbon in earth, air and water. Helmut Thomas (UBC) is a Canadian member of the committee.

SCOR / IOC International Symposium on “The Ocean in a High CO₂ World”. A special issue of JGR-Oceans was published containing the papers from the first symposium. A second symposium is being planned for 2008, likely in Monaco. SCOR

and IOC are seeking financial support for this meeting. Likely support from US NSF and Monaco.

SCOR Summit of International Marine Research Projects. A meeting of the leaders of the major international marine research projects will be held in December chaired by the President of SCOR. Some of the funding will be provided by the Sloan Foundation. Plan to hold such meetings every two years. Focus will be on data policy and coordination among programs.

Panel on New Technologies for Observing Marine Life. This panel has held its second meeting. It is funded by the Sloan Foundation and focuses on the observational needs of the Census of Marine Life project. There is no Canadian member on the panel. The acoustic tag technology for fish tracking developed by a Canadian company would seem to fall under the interest of this panel.

SOLAS/INI Workshop on Anthropogenic Nitrogen Impacts on the Open Ocean. This activity is co-sponsored by SOLAS, SCOR and SCOPE. INI – International Nitrogen Initiative is a SCOPE project. Workshop will be held in November. Aims to produce a major synthesis paper on this issue as well as a collection of specialist papers.

Regional Graduate Schools of Oceanography and Marine Environmental Sciences. The very successful Regional school in Concepción is actively seeking funding to replace the funding that had earlier been provided by Germany. SCOR has budgeted funds for a regional meeting in Southeast Asia to advance plans for that region. SCOR will cooperate with Canadian scientists to plan a similar meeting for South Asia, in Sri Lanka, funded by the Canadian International Development Agency (CIDA). Plans are being made for this meeting, pending stabilization of the security situation there.

SCOR Finances. The meeting discussed the longer term finances of SCOR. The SCOR budgets of 2005 – 2007 are spending more than annual income in order to reduce SCOR's accumulated reserves to about \$100,000. This process is expected to be completed by the end of 2007 hence a more substantial increase in income will be needed at that time. The finance committee proposed and the Assembly accepted a 3% increase in dues for 2008. The ICSU guideline for dues increases is 5%.

Disciplinary Balance among SCOR Working Groups. The disciplinary Balance Committee was charged with reviewing the disciplinary balance within SCOR working groups and other programs and to identify gaps that should be highlighted in the 2007 call for new working group proposals. Allyn Clarke (BIO) served on the Disciplinary Balance Committee. The disciplinary balance committee reported that the balance among working groups is presently good; however, several groups are expected to end during the coming year. They recommended that the 2007 call for working group proposals specifically seek proposals on issues related to benthic communities, microbial life, and the physical / chemical stability of the sediments on continental shelves and slopes. The committee also noted that in the longer term there will be need to do large

scale synthesis of the accelerated research programs in the polar regions under the IPY. These recommendations were accepted by the Assembly.

The 2007 SCOR Executive meeting will take place in Bergen, Norway with probable dates of Aug 26-28, just before a Scientific Conference on Polar Dynamics. The 2008 SCOR General Meeting will take place at Woods Hole, with probable dates Oct 20-24 and will be associated with an Open Science meeting celebrating SCOR's 50th Anniversary.