



## SCOR Newsletter

November 2014 • #28



2014 SCOR Annual Meeting Group Photo

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### 2014 SCOR Meeting

SCOR held its XXXII General Meeting in Germany, at the Center for Marine Environmental Studies (MARUM) at the University of Bremen. Representatives of national SCOR committees reviewed all SCOR activities, approved new working groups, and were briefed on activities of partner organizations. The meeting was preceded by a meeting of the SCOR Committee on Capacity Building and followed by a day of presentations about ocean science in Germany and a tour of the MARUM laboratories.

### Elections for SCOR Officers

Four individuals took up new SCOR Officer positions at the end of the SCOR meeting. National SCOR committees elected Corina Brussaard, a Nominated Member from The Netherlands, as the new SCOR Secretary. Dr. Brussaard served for two years (2012-2014) as a SCOR Vice-President, and her term as SCOR Secretary will be from 2014 to 2018. Dr. Brussaard is a senior scientist at the Royal Netherlands Institute for Sea Research, where her research focuses on marine viral ecology. She was formerly a member of SCOR WG 126 on [The Role of Viruses in Marine Ecosystems](#). Dr. Brussaard is chair of the Netherlands SCOR Committee.



Sergey Shapovalov is a Nominated Member from Russia and is a newly elected SCOR Vice-President, for a 2014-2016 term. Dr. Shapovalov is head of the Center for Coordination of Ocean Research in the P.P. Shirshov Institute of Oceanology of the Russian Academy of Sciences. His research interests primarily

involve the physical processes of interaction at the air-sea and ocean-seafloor boundaries.

Sun Song is a Nominated Member from China (Beijing) and is a newly elected SCOR Vice-President, for a 2014-2016 term. He was a member of SCOR WG 118 on New Technologies for Observing Marine Life. Prof. Sun is Director of the Institute of Oceanology of the Chinese Academy of Sciences. His research interest is mainly in marine ecology, especially in the zooplankton population dynamics and ecosystem dynamics. Prof. Sun is the chair of the China-Beijing SCOR Committee.



Ilana Wainer is a Nominated Member from Brazil and is a newly elected SCOR Vice-President, for a 2014-2016 term. Dr.



Wainer previously served as a SCOR Vice-President for one term (2010-2012) and as a Co-opted Member of the SCOR Executive Committee. She is currently an Associate Professor in the Department of Physical Oceanography, at the University of São Paulo, Brazil. Dr. Wainer's research focuses on physical oceanography effects on climate and modeling these

effects. Specifically, she has worked on modern and paleoclimate of the southeastern Brazilian shelf, Antarctic sea ice, effects of tropical variability on the North Atlantic Oscillation, and representation of Southern Ocean processes (subjection, glacial cycles, precipitation, ocean-atmosphere interactions) in global climate model. Dr. Wainer is chair of the Brazilian SCOR Committee.



John Turner has replaced Athena Coustenis as the ex-officio member from the International Association of Meteorology and Atmospheric Sciences (IAMAS). He is a research scientist at the British Antarctic Survey in Cambridge, UK where he leads a project investigating the climate of the Antarctic. Since 1986, Dr. Turner has

investigated high-latitude precipitation, polar lows, teleconnections between the Antarctic and lower latitudes and weather forecasting in the Antarctic.

## New SCOR Working Groups

SCOR meeting participants approved three working groups for the first time since 2003. This was possible because of SCOR's good financial condition. Eight proposals were evaluated by national SCOR committees and discussed at the Bremen meeting. The groups approved were the following.

**WG 145 on Chemical Speciation Modelling in Seawater to Meet 21st Century Needs (MARCHEMSPEC)**—This group will document the current status, and basis in laboratory measurements, of Pitzer models of seawater and estuarine water, focusing on the chemistry of ocean acidification and micronutrient trace metals. Current capabilities and limitations for oceanographic and biogeochemical calculations will be defined, and future needs established. Important gaps in knowledge, which should have high priority for new measurements, will be identified. The components to be covered will include the seawater electrolytes, selected trace metals, buffer solutions, and key organic ligands. The group will specify the functions and capability for a Web-based modelling tool that will make chemical speciation calculations easily accessible for a wide range of applications in oceanographic research and teaching, and thus improve understanding and spread best practices in modelling. The group will implement the Web-based tool for chemical speciation calculations. It will follow up some of the work of [WG 139 on Organic Ligands – A Key Control on Trace Metal Biogeochemistry in the Ocean](#) and will contribute to the SCOR GEOTRACES project. WG 145 is chaired by David Turner (Sweden), with Simon Clegg (UK) and Sylvia Sander (New Zealand) serving as vice-chairs. Prof. Turner co-chaired [SCOR/IUPAC WG 109 on the Global Biogeochemistry of Seawater](#) and Dr. Sander currently co-chairs SCOR WG 139.

**WG 146 on Radioactivity in the Ocean, 5 decades later (RiO5)**—This group will combine and build upon existing global and individual databases of natural and artificial radionuclide

distributions to make a user-friendly and easily accessible on-line product that will be useful to both the scientific community and the public. The group will summarize and publish review papers in peer-reviewed journals on these global radionuclide datasets and provide examples of how the datasets can help improve our understanding of ocean processes and contaminant fate and transport. The group will identify gaps in scientific knowledge in relation to radioactivity in the marine environment and publish the results in a “perspectives” paper. The group will bring together academic, nuclear industry, and national laboratory expertise for an international symposium on radionuclides in the ocean. A warehouse of educational materials will be produced to assist in the education and training of the next generation of marine radiochemists and radioecologists. Finally, the group will develop Web-based tools to enhance public understanding of radioactivity, in particular, in the ocean. The group is co-chaired by Ken Buesseler (USA) and Minhan Dai (China-Beijing). Dr. Buesseler chaired [SCOR WG on Sediment Trap and  \$^{234}\text{Th}\$  Methods for Carbon Export Flux Determination](#).

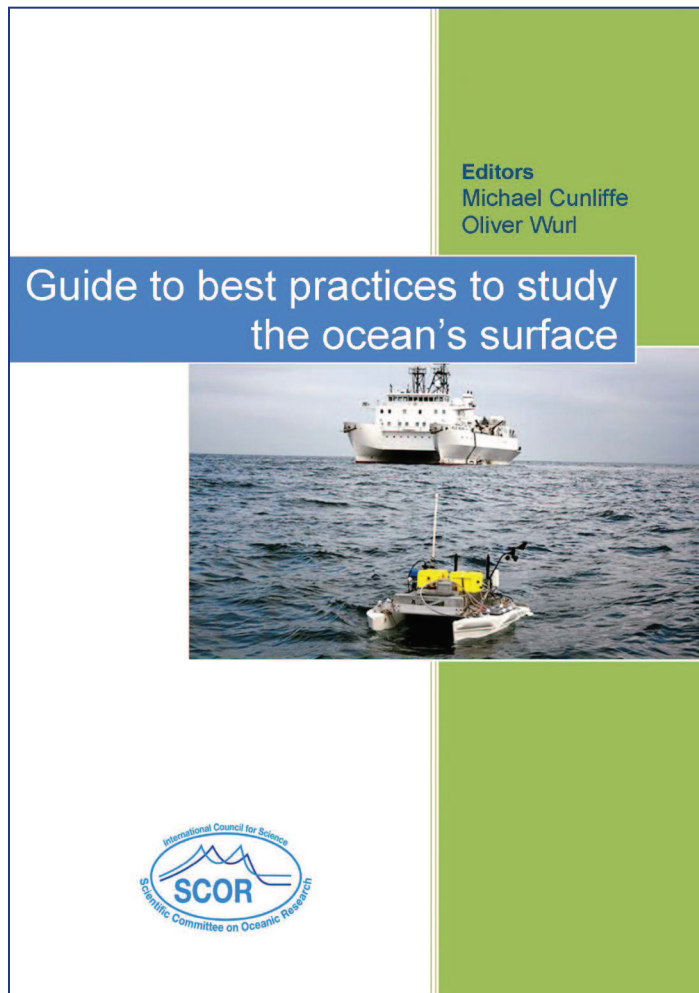
**WG 147: Towards comparability of global oceanic nutrient data (COMPONUT)**—This group will establish mechanisms to ensure comparability of oceanic nutrient data. It will assess the homogeneity and stability of currently available reference materials (RMs) for nutrients. Standardized data-handling procedures will be developed, with common data vocabularies and formats, across producers and users, linking national and international data archives. The group will promote the wider global use of RMs by convening workshops to actively encourage their use and to provide training in analytical protocols and best practices, particularly targeted towards developing countries. The group will continue regular global inter-comparison studies, following on from the previous exercises in 2003, 2006, 2008 and 2012, with collaboration of the Scientific Steering Group of the International Ocean Carbon Coordination Project (IOCCP). The GO-SHIP nutrient measurement manual, which was originally a product of the IOC-ICES Study Group on Nutrient Standards, will be updated. The group is co-chaired by Michio Aoyama (Japan) and Malcolm Woodward (UK).

The national review process and discussions at the annual SCOR meeting are intended to help ensure that working groups meet SCOR requirements for working group composition and that the terms of reference and products are relevant for a SCOR working group. The final memberships and terms of reference of these three groups will be given on a separate Web page for each group on the SCOR Web site, after changes requested by SCOR have been adopted.



## News from SCOR Working Groups

**WG 141 on Sea-surface Microlayers** recently released its best practices manual for studying microlayers, entitled *Guide to Best Practices to Study The Ocean's Surface*, edited by group co-chairs Michael Cunliffe (UK) and Oliver Wurl (Germany). The most immediate purpose of the guide will be as a manual for a course at the Ocean University of China in conjunction with the group's meeting there in October 2014.



**WG 144 on Microbial Community Responses to Ocean Deoxygenation** held a practical workshop at Saanich Inlet and at the University of British Columbia, Vancouver, BC. from 13 to 18 July 2014, attended by 6 Full Members and 14 additional student and technical participants. During the workshop, the group ground-truthed common standards for process rate and molecular microbial measurements and identified model ecosystems for future cross-scale comparative analyses, largely fulfilling the group's terms of reference for year 1. After all the data products from the workshop have been completed, the group will compile a report documenting the workshop outcomes. The group has also constructed a Web site at <http://omz.microbiology.ubc.ca/index.html> to enhance the

group's visibility and the visibility of oxygen minimum zone research in general, as well as to facilitate information sharing between working group members and other researchers working on oxygen minimum zones.



*Sampling as part of practical workshop at Saanich Inlet*

## Publications

- Hood, R.R., M. McPhaden, and E. Urban. 2014. New Indian Ocean Program Builds on a Scientific Legacy. *Eos, Transactions of the American Geophysical Union* 95:349-350.
- Cunliffe, M. and O. Wurl. 2014. *Guide to Best Practices to Study The Ocean's Surface*.

## Large-Scale Ocean Research Projects

**International Indian Ocean Expedition-2**—SCOR's preparations for the International Indian Ocean Expedition-2 continue. SCOR sponsored a meeting in Bremen, Germany on 12-13 September to review the draft science plan prepared by the SCOR Science Plan Development Committee (SPDC). The meeting finalized the 6 themes of the plan and core questions for each theme. The meeting also began compiling a list of research plans in the Indian Ocean during the period of the Expedition. This list will be available soon on the [Web page of the SPDC](#) and updated frequently, to stimulate coordination of research in the same area and/or on the same themes by scientists from different nations. The Intergovernmental Oceanographic Commission is forming an Interim Planning Committee (IPC) to prepare for discussions at the IOC General Assembly in June 2015. SCOR has nominated two individuals for the IPC.

The **GEOTRACES** Data Management Committee met in Stellenbosch, South Africa on 6-7 October, followed by a meeting of the GEOTRACES Scientific Steering Committee (SSC) on 8-10 October. The SSC reviewed national plans for GEOTRACES section cruises and process studies, and reviewed follow-up activities related to the first **GEOTRACES Intermediate Data Product**. GEOTRACES will hold meetings in 2015 to begin to synthesize knowledge of ocean cycling and fluxes of trace elements and isotopes.



*GEOTRACES DMC and SSC Meeting Participants*

The **Integrated Marine Biogeochemistry and Ecosystem Research (IMBER)** project announced dates for its Imbizo IV: 26-30 October 2015 in Trieste, Italy. IMBER is co-sponsored by SCOR and IGBP.

The **Surface Ocean – Lower Atmosphere Study (SOLAS)** continues planning for its **2015 Open Science Conference**, which will be held on 7-11 September in Kiel, Germany. SOLAS is co-sponsored by SCOR, IGBP, WCRP, and iCACGP.



## Outreach

SCOR now has a Twitter account, which will be used to transmit news items from SCOR and its projects, working groups, committees, and other activities. The Twitter address is @SCOR\_Int.

## Capacity Building

The SCOR Committee on Capacity Building met on 14 Sept. to review existing SCOR capacity building activities and plan new ones. The committee welcomed visitors from Bangladesh, India,

and Tanzania. The committee recommended travel support for scientists from developing countries for several scientific meetings to be held over the next year.

The application period for 2015 SCOR Visiting Scholars is now open. Information about applications can be found at [http://scor-int.org/2015\\_SCOR\\_Visiting\\_Scholars.pdf](http://scor-int.org/2015_SCOR_Visiting_Scholars.pdf).

Venu Ittekkot, chair of the SCOR Committee on Capacity Building, and Ed Urban made visits to institutions in Mauritius and Durban, South Africa in early October to discuss capacity building opportunities through SCOR, as well as opportunities for involvement in the International Indian Ocean Expedition-2. Ittekkot and Urban held meetings at the University of Mauritius (meeting with the new Faculty of Ocean Sciences and making a presentation at the 100th anniversary of the School of Agriculture), the Mauritius Institute of Oceanography, and the Mauritius Research Council. In Durban, discussions were held with staff of the Ocean Research Institute.

## Future SCOR Annual Meetings

**2015**—SCOR will hold its 2015 Executive Committee Meeting in Goa, India on 7-9 December.

**2016**—SCOR will hold its 2016 General Meeting in Sopot, Poland.

The SCOR Executive Committee is accepting invitations from national SCOR committees to host meetings in 2017.

**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](mailto:Ed.Urban@scor-int.org)).

## ACRONYMS

<b>iCACGP</b>	International Commission on Atmospheric Chemistry and Global Pollution
<b>IGBP</b>	International Geosphere-Biosphere Programme
<b>IMBER</b>	Integrated Marine Biogeochemistry and Ecosystem Research project (co-sponsored by SCOR and IGBP)
<b>IOC</b>	Intergovernmental Oceanographic Commission
<b>IOCCP</b>	International Ocean Carbon Coordination Project
<b>IUPAC</b>	International Union of Pure and Applied Chemistry
<b>DMC</b>	Data Management Committee
<b>SCOR</b>	Scientific Committee on Oceanic Research
<b>SOLAS</b>	Surface Ocean – Lower Atmosphere Study (Co-sponsored by SCOR, IGBP, WCRP, and iCACGP)
<b>SSC</b>	Scientific Steering Committee
<b>WCRP</b>	World Climate Research Programme
<b>WG</b>	working group