

Scientific Committee on Oceanic Research

Newsletter No. 7

November 2006



The Scientific Committee on Oceanic Research (SCOR) promotes international cooperation in ocean science by sponsoring working groups, large-scale ocean research projects, and other activities. Approximately 250 scientists participate in these activities on a voluntary basis at any given time. This issue of the newsletter will focus on decisions made at the SCOR General Meeting held in Concepción, Chile, on 23-26 October 2006. The meeting reviewed ongoing SCOR activities and considered proposals for new working groups. In parallel with the SCOR meeting, the University of Concepción hosted an excellent conference on “Oxygen minimum systems in the ocean: Distribution, diversity and dynamics.” Participants from the two meetings had many opportunities to interact and discuss science. SCOR sincerely thanks the staff of the university and the Centro de Investigación Oceanográfica en el Pacífico Sur-Oriental (COPAS) for their work in hosting both meetings.

New SCOR Officers

SCOR Officers are nominated and elected by SCOR National Committees and thus represent National Committees on the SCOR Executive Committee. Three new officers were elected to help manage SCOR activities:

Jorma Kuparinen (Finland) was elected Secretary of SCOR, replacing Julie Hall, who stepped down from the Executive Committee after 6 years of dedicated service. He earned his Ph.D. in Limnology from the University of Helsinki in 1986. He has worked since 2001 as a professor in Marine Biology at the University of Helsinki. The focus of Kuparinen’s research has been on the carbon cycle in the pelagic food web, specifically the production and utilization of carbon by autotrophic and heterotrophic micro-organisms, including nutrient fluxes in benthic habitats, nuisance blooms and sea-ice ecosystems. Kuparinen has worked in the Baltic Sea region, Northern Atlantic Ocean, Pacific Ocean and Southern Ocean. He has represented Finland in various international organizations, for example, SCOR, the International Council for the Exploration of the Seas, The Helsinki Commission, and Baltic Marine Biologists, acting as the chair, convener, secretary and member of committees and working groups. Kuparinen’s term as SCOR Secretary will run from 2006 to 2010. Two of his recent publications are



Tuomainen, J.M., S. Hietanen, **J. Kuparinen**, P.J. Martikainen, and K. Servomaa. (2005) Community dynamics of the bacteria associated with *Nodularia* sp. (Cyanobacteria) bloom in the Baltic Sea. *FEMS Microbiology Ecology* (submitted).

Tuomainen, J., S. Hietanen, **J. Kuparinen**, P. Martikainen, and K. Servomaa. (2003) Baltic Sea cyanobacterial bloom contains denitrification and nitrification genes, but has negligible denitrification activity. *FEMS Microbiology Ecology* 45:83-96.

Peter Burkill (UK) was elected SCOR Vice-President. He earned his Ph.D. in 1975 from the University of Southampton on the topic of marine microzooplankton ecology. He is currently in transition from his position as Head of the George Deacon Division for Ocean Processes and Professor of Ocean Science at the University of Southampton's National Oceanography Centre, to his new position as Director of the Sir Alister Hardy Foundation for Ocean Sciences, Plymouth (UK) and Professor of Ocean Science at the University of Plymouth (on 1



January 2007). Burkill's research focuses on ocean biogeochemistry and biodiversity, with a special emphasis on microbial and planktonic food webs. He has pioneered the use of flow cytometry for analyzing plankton, including recently, in situ analyses using submersible cytometers carried on autonomous underwater vehicles. He has authored ~200 publications in journals, books and proceedings arising from participation on 33 cruises in the North and South Atlantic oceans, Indian Ocean, Arctic Ocean, and Southern Ocean. Burkill chairs the Royal Society's SCOR Working Group and previously served on the SCOR Executive Committee as a Co-opted Member (from 1998 to 2000). He is a Fellow of both the Royal Microscopical Society and the Institute of Biology. Burkill's first term as Vice-President will run from 2006 to 2008. Two of his recent publications are

Martin, A.P., M.V. Zubkov, **P.H. Burkill**, and R.J. Holland. (2005) Extreme spatial variability in marine picoplankton and its consequences for interpreting Eulerian time series. *Biology Letters* doi 10.1098/rsbl.2005.0316

Zubkov M.V., G.A. Tarran, and **P.H. Burkill**. (2006) Abundance and amino acid uptake by bacterioplankton groups in the suboxic waters of the Arabian Sea and the Gulf of Oman. *Aquatic Microbial Ecology*. (in review).

Huasheng Hong (China-Beijing) was elected SCOR Vice-President. She earned a Ph.D. in Oceanography from the University of Rhode Island in 1984. She is presently a Professor in the State Key Laboratory for Marine Environmental Science of Xiamen University in Xiamen, China. Hong is also Deputy Director of the Coastal Sustainable Development Training Centre in Xiamen and Chair of the China-Beijing SCOR Committee. She was a member of the international Scientific Steering Committee (SSC) of the Joint Global Ocean Flux Study (JGOFS). Hong's research focuses on marine environmental studies, with particular emphasis on the biogeochemistry of biogenic elements and trace organic pollutants in the marine environment related to global change. She also conducts studies related to the utilization and protection of the marine environment and health of marine ecosystems, marine pollution and ecotoxicology, providing the scientific and technological basis for ocean and coastal sustainable development. Her first term as SCOR Vice-President will run from 2006 to 2008. Two of her recent publications are



Hong, H., J. Wu, S. Shang, and C. Hu. (2005) Absorption and fluorescence of chromophoric dissolved organic matter in the Pearl River Estuary, South China. *Marine Chemistry* 97:78-89.

Shang, S., C. Zhang, **H. Hong** et al. (2005) Hydrographic and biological changes in the Taiwan Strait during the 1997-1998 El Niño winter. *Geophysical Research Letters* 32:L11601.

Additionally, **Victor Akulich** (Russia) was re-elected SCOR Vice-President for a two-year term running from 2006 to 2008. **Laurent Labeyrie (France)** was appointed as a Co-opted Member of the Executive Committee from 2006 to 2008 with responsibility for chairing the program committee for the SCOR 50th Anniversary Symposium on 20-21 Oct. 2008. **Venu Ittekkot (Germany)** was appointed as a second Co-opted Member for 2006-2008 as chair of the new SCOR Committee on Capacity Building.

Working Groups

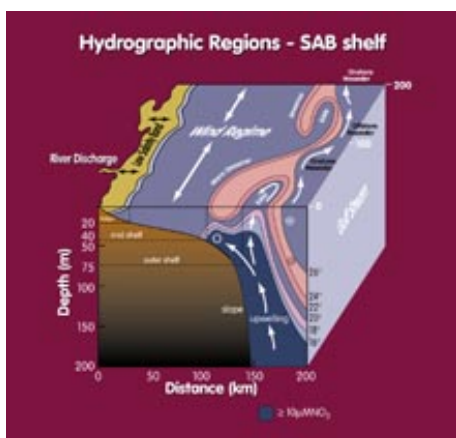
SCOR sets up working groups to advance new areas of ocean science and to overcome technical problems related to oceanographic measurements. SCOR working groups also document the state of the art in particular areas of ocean science, identify priority research questions, and identify needs for new observations.

Two working groups were approved for start in 2007:

Working Group on Deep Ocean Exchanges with the Shelf (with IAPSO)—The primary goal of this group is to understand the physical interactions taking place at the shelf break between deep ocean circulation and shelf currents. The working group will complete the following tasks over a period of four years:

- Establish the current state of knowledge and make recommendations for future research related to physical interactions at the shelf break.
- Determine where new observational programmes are needed to improve understanding of shelf-break processes and to provide help with the formulation of more realistic models of the fluxes between the shelf and the deep ocean;
- Serve as an international forum for oceanographers to discuss current research on the interaction between the coastal zone and the deep ocean.
- Foster collaboration between developed and developing countries that have interest in the shelf zone.
- Produce a comprehensive, published final report incorporating the latest results on the above topics.

The group will be chaired by John Johnson (UK), with Piers Chapman (USA) as Vice-Chair. It will meet for the first time in 2007.



Working Group on Automatic Plankton Visual Identification—Manual identification of planktonic organisms in the water column limits our ability to describe and understand the distribution of these organisms. This group will:

- Encourage international co-operation among software developers and marine scientists to use and enhance the open-source development platform, so that a common toolset of value to the community can be built up.
- Review existing practices and establish standards in the use of reference image data used for training automation machines and in training people.
- Establish a methodology for inter-comparison/calibration of different visual analysis systems.
- Encourage the adoption of open-source software by marine ecology, taxonomy and systems developers.
- Publish the products of reviews by members of the Working Group, selected presented papers and workshop reports in an internationally recognized, peer-reviewed journal or a book by a major publisher.

This working group will be co-chaired by Mark Benfield (USA) and Phil Culverhouse (UK). It will also meet for the first time in 2007.



Working Group Proposal on The Legacy of in-situ Iron Enrichments: Data Compilation and Modelling—Although SCOR does not have sufficient funds to sponsor a third working group in 2007, SCOR recognizes the importance of assembling a common open-access database of the results of the various *in situ* iron-enrichment experiments and making these important and unique data available to the international community. SCOR endorsed the concept outlined in the proposal.

Research Projects

SCOR sponsors five large-scale ocean research projects. Decisions made at the SCOR meeting in relation to the projects include

- **Integrated Marine Biogeochemistry and Ecosystem Research (IMBER) project (with IGBP)**—Two new SSC members were approved: **Mary-Elena Carr** (USA) and **Michael Roman** (USA).
- **Surface Ocean–Lower Atmosphere Study (SOLAS) (with IGBP, WCRP, and CACGP)**—Three new members were approved for the SOLAS SSC: **Veronique Garcon** (France), **Cliff Law** (New Zealand), and **David Kieber** (USA).

Other Decisions

Several other decisions resulted from the SCOR General Meeting:

- SCOR will form a Committee on Capacity Building to manage and integrate its various capacity-building activities. It was agreed that the chair of this committee, Venu Ittekkot, will become a Co-opted Member of the SCOR Executive Committee.
- The dates for the SCOR 50th Anniversary Symposium have been set for **20-21 September 2008**.
- The request of the InterMARGINS program to affiliate to SCOR has been approved.

SCOR Annual Meetings

2007—The 2007 SCOR Executive Committee Meeting will be held in Bergen, Norway on **26-28 August 2007**. This meeting will precede a conference on “Polar Dynamics: Monitoring, Understanding, and Prediction” (see <http://www.gfi.uib.no/conference2007/info.htm>) on 29-31 August 2007.

2008—The 2008 SCOR General Meeting and 50th Anniversary Symposium will be held in Woods Hole, Massachusetts, USA on 20-24 September 2008. The organizing committee for the symposium will be chaired by Laurent Labeyrie.

2009—SCOR has not made a decision about the location of its 2009 meeting and welcomes invitations.

Other Upcoming Meetings

- *SOLAS Science 2007*, 6-9 March 2007, Xiamen, China
<http://www.uea.ac.uk/env/solas/ss04.html>
- *Asian GEOHAB Meeting*, 15-16 March 2007, Tokyo, Japan
- *IMBER/LOICZ Continental Margins Open Science Meeting*, September, Shanghai, China

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

Acronyms:

CACGP	Commission on Atmospheric Chemistry and Global Pollution
COPAS	Centro de Investigación Oceanográfica en el Pacifico Sur-Oriental
IGBP	International Geosphere-Biosphere Programme
IMBER	Integrated Marine Biogeochemistry and Ecosystem Research project
SCOR	Scientific Committee on Oceanic Research
SOLAS	Surface Ocean–Lower Atmosphere Study
WCRP	World Climate Research Programme

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DOES Working Group:
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Plankton ID Working Group:
http://www.obs-vlfr.fr/LOV/ZooPart/ZooScan/article.php3?id_article=20