



International Council for Science
Scientific Committee on Oceanic Research

Electronic Newsletter #5
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The Scientific Committee on Oceanic Research (SCOR) promotes international cooperation in ocean science through its sponsorship of large-scale ocean research projects, working groups, and other activities.

RESEARCH PROJECTS

SCOR now sponsors five large-scale ocean research projects:

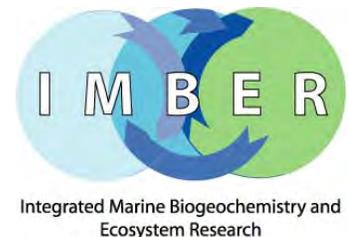
GEOTRACES—GEOTRACES is an international study of the global marine biogeochemical cycles of trace elements and their isotopes. The *Science Plan* has been approved by the SCOR Executive Committee and will soon be published. GEOTRACES is laying the groundwork for its research by convening small meetings on data management and on standards and intercalibrations.



GEOHAB (with IOC)—A series of four open science meetings on harmful algae blooms in upwelling systems, fjords and coastal embayments, eutrophied systems, and stratified systems has been completed. A report on HABs in Upwelling Systems was published in mid-2005 and is available through SCOR and IOC. Other reports will be published in time for the 12th International Conference on Harmful Algae in Copenhagen, Denmark on 4-8 September 2006.



IMBER (with IGBP)—An international project office was established at the European Institute for Marine Studies in Brest, France on 25 October 2005 and is staffed by Dr. Sylvie Roy (Executive Officer), Dr. Sophie Beauvais (Deputy Executive Officer), and Ms. Elena Fily (Administrative Assistant). IMBER is implementing its project plans, which include joint activities with SOLAS on the ocean carbon cycle and with GLOBEC on end-to-end food webs.



GLOBEC (with IGBP and IOC)—In addition to progressing with a wide range of synthesis and integration activities, GLOBEC launched two new regional projects in 2005 and is working with IMBER on end-to-end food webs. GLOBEC-relevant research that will feed into IMBER upon completion of GLOBEC in 2009 is being identified. Funding has been secured to allow the project office to operate until early 2010.



SOLAS (with IGBP, WCRP, and CACGP)—SOLAS sponsored a meeting on “Mesoscale Iron-Enrichment Studies” in Wellington, New Zealand in late 2005. The goal of the meeting was to synthesize the results of the twelve large-scale iron addition experiments, using the SF₆ patch-labeling technique, that were undertaken over the past 11 years. Implementation plans for the three research foci will soon be posted on the SOLAS Web site.



WORKING GROUPS

WG 116 on Sediment Trap ²³⁴Th Methods for Carbon Export Flux Determination—WG 116 is preparing a major review article for the *Journal of Marine Systems* that will provide an up-to-date assessment of sediment trap flux and accuracy issues, and make recommendations on their future use.

WG 123 on Reconstruction of Past Ocean Circulation (with IMAGES)—WG 123 is preparing a special issue on reconstruction of past ocean circulation for the electronic journal *Geochemistry, Geophysics, Geosystems*. The closing date for submissions is 31 March 2006.

WG 125 on Global Comparisons of Zooplankton Time Series—WG 125 is well advanced in identifying and consolidating a globally representative set of long zooplankton time series. The working group will apply a diverse suite of numerical methods and analyses to a search for global synchronies and correlations with climate across regions and ocean basins. GLOBEC, PICES, and ICES support associate working group members.

WG 126 on the Role of Viruses in Marine Ecosystems—WG 126 is planning a major symposium on “Virus Ecology in Marine Systems: A Workshop on Methods” in Victoria, BC, Canada, on 1-3 June 2006, following the ASLO summer meeting.

WG 127 on Thermodynamics and Equation of State of Seawater—The membership of WG 127 has been approved by SCOR (see <http://www.jhu.edu/scor/WG127.htm>).

WG 128 on Natural and Human-Induced Hypoxia and Consequences for Coastal Areas—The revised terms of reference and membership for WG 128 have been approved by SCOR (see <http://www.jhu.edu/scor/wg128.htm>).

OTHER ACTIVITIES

Second Symposium on The Ocean in a High-CO₂ World—SCOR and IOC have begun planning for the second symposium on ocean acidification and ocean carbon sequestration. The planning committee for the second symposium is chaired by Dr. James Orr. He was the vice-chair of the planning committee for the first symposium and the lead editor of a special section of *JGR - Oceans* that resulted from the symposium (see below). An important feature of the second symposium will be greater attention to paleo-CO₂ research. A Fast Track initiative on this issue, led by PAGES and sponsored by IGBP and SCOR, is under way.

Review of Anthropogenic Nitrogen Impacts on the Open Ocean—A review of anthropogenic nitrogen impacts on the open ocean will be conducted in November 2006 at a workshop set up by SOLAS and the International Nitrogen Initiative (INI), and partially funded by SCOR.



SCAR/SCOR Group of Experts on Oceanography—This group met for the first time in October 2005. (The meeting report is posted at <http://www.clivar.org/organization/southern/expertgroup/index.htm>).

Its primary purpose is to help coordinate activities and identify gaps in existing research activities in the Southern Ocean. The group will initially focus on physical oceanography, but its activities will gradually expand to include interdisciplinary research.

International Ocean Carbon Coordination Project (IOCCP)—JAMSTEC, IOCCP, and CLIVAR co-hosted an “International Repeat Hydrography and Carbon Workshop” in November 2005. The workshop brought together 49 scientists from 11 countries with expertise in carbon, hydrography, tracers, prognostic modeling, data assimilation, the Argo profiling float program, and data and information management. The goals were to assess existing ship-based hydrography programs and determine whether they are adequate to meet the needs of research programs, and to develop a robust mechanism for compiling information and data from ship-based hydrography. The workshop report is available at <http://ioc.unesco.org/ioccp/Docs/IRHWreportFINAL.pdf>.

POGO/SCOR Meeting on International Research Cruise Database and Web Site—The objective of this activity is to improve access to information on past and future research cruises by establishing a comprehensive and user-friendly database and a searchable Web site with information on cruise tracks, types of observations, chief scientist contact information, metadata (for past cruises), project identifier, and berths available. Recommendations from the meeting will be considered by POGO and SCOR.



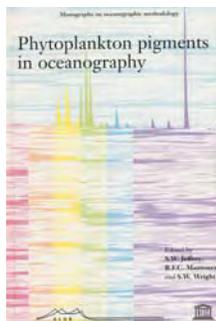
Project Coordination Summit—SCOR has received funding from the Alfred P. Sloan Foundation to convene a second “summit” of large-scale ocean research projects. The meeting will take place in London, England, in late 2006. So far, potential topics include data management (including project relations with World Data Centers), project relations with GOOS, IPY activities, update on planned research cruises, techniques for visualizing project data, means to make project information more accessible through the Web, continuity of ocean color sensors and support for advanced missions, and project education outreach.

PUBLICATIONS

Orr, J.C., S. Pantoja, and H.-O. Pörtner (eds.) 2005. The Ocean in a High-CO₂ World. (Special section of *Journal of Geophysical Research—Oceans* 110). A bound collection of the papers from this symposium will be distributed to the symposium participants; a limited number of copies will also be available from SCOR and IOC (see <http://www.agu.org/journals/ss/HIGHCO2/>).

Bowie, A.R. et al. 2006. A community-wide intercomparison exercise for the determination of dissolved iron in seawater. *Marine Chemistry* 98:81-99.

This paper resulted from a subcommittee of the SCOR/IUPAC Working Group 109 on the biogeochemistry of iron in seawater and led to a more intensive intercomparison exercise. Harmonizing measurement techniques for low levels of iron in seawater is important for making iron measurements by different laboratories around the world comparable.



Second Edition of *Phytoplankton Pigments in Oceanography*—In 2005, SCOR and IOC funded a reprint of this book, first published in 1997. SCOR will sponsor a meeting to scope out a supplement to this book, which would update the methods used to measure phytoplankton pigments in seawater. The scoping meeting will be held in April 2006 and will identify new chapters and topics, authors, an editorial panel, a timeline, SCOR and UNESCO requirements, and a detailed costing for supplementary volume.

SCOR Annual Meetings

2006—The 2006 SCOR General Meeting will be held in Concepción, Chile on 23-26 October 2006. The Chilean SCOR Committee is arranging a symposium on “Oxygen minimum systems in the ocean: distribution, diversity and dynamics” to coincide with the SCOR meeting. Nominations for SCOR officers (Secretary and Vice-Presidents) for the 2006 elections will be accepted beginning 23 April. A call for working group proposals will be made in mid-February.

2007—SCOR will meet in Bergen, Norway, either following or in parallel with an open science conference on “Polar Dynamics: Monitoring, Understanding, and Prediction” on 29-31 August.

2008—SCOR will celebrate the 50th anniversary of its formation at a meeting in Woods Hole, Massachusetts, USA (the site of the first SCOR meeting) in late 2008, in conjunction with the 2008 SCOR General Meeting. The anniversary meeting will be entitled “The Changing Ocean - From The Past to the Future” and will have a two-fold focus: (1) exciting future scientific opportunities for international ocean sciences research; and (2) the impact of SCOR, its working groups, and the scientific programs it has sponsored. An event of the Census of Marine Life may be held in conjunction with these meetings.

For additional information about SCOR activities, please see the SCOR Web site:

<http://www.jhu.edu/scor>.

Picture credits:

Research Cruise Database:

[http://www.rcom-bremen.de/English/English/Project_D2 - Mud Transport in Estuaries 9.html](http://www.rcom-bremen.de/English/English/Project_D2_-_Mud_Transport_in_Estuaries_9.html)

Group of Experts on Oceanography: http://www.antarctica.ac.uk/About_Antarctica/Ice/Sea_Ice.html

Acronyms:

ASLO	American Society for Limnology and Oceanography
CACGP	Commission on Atmospheric Chemistry and Global Pollution
CLIVAR	Climate Variability and Prediction project
GEOHAB	Global Ecology and Oceanography of Harmful Algal Blooms program
GLOBEC	Global Ocean Ecosystem Dynamics project
GOOS	Global Ocean Observing System
HABs	harmful algal blooms
ICES	International Council for the Exploration of the Sea
IGBP	International Geosphere-Biosphere Programme
IMAGES	International Marine Past Global Changes Study
IMBER	Integrated Marine Biogeochemistry and Ecosystem Research project
IOC	Intergovernmental Oceanographic Commission
IOCCP	International Ocean Carbon Coordination Project
IPY	International Polar Year
IUPAC	International Union of Pure and Applied Chemistry
JAMSTEC	Japan Agency for Marine-Earth Science and Technology
PAGES	Past Global Changes Study
PICES	North Pacific Marine Science Organization
POGO	Partnership for Observation of the Global Oceans
SOLAS	Surface Ocean – Lower Atmosphere Study
WCRP	World Climate Research Programme