Scientific Committee on Oceanic Research

SCOR Newsletter No. 11

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SCOR 50th Anniversary Symposium

The Web site for the SCOR 50th Anniversary Symposium (see https://www.confmanager.com/main.cfm?cid=1285), has the program, travel details, information about the poster session, and an on-line registration and payment system. The symposium will start with highlights of SCOR's history. This will be followed by three keynote presentations and several sessions that will seek to identify important future research topics. symposium will be held in the Lillie Auditorium of the Marine Biological Laboratory, and hotel rooms have been reserved in Woods Hole and Falmouth.



Cape Cod, Martha's Vineyard, and Nantucket Island Credit: NASA/GSFC/JPL, MISR Team

SCOR XXIXth General Meeting

The 2008 SCOR General Meeting will be held in the Clark Laboratory, Woods Hole Oceanographic Institution, after the 50th Anniversary Symposium. Reports from SCOR working groups, committees, and panels, and from cooperating organizations are due by 1 August. The Web site for the meeting can be found at http://www.scor-int.org/2008GM/2008GM.htm.

Working Groups

The call for proposals for new working groups was issued on 1 March and proposals are due by 31 May. SCOR tries to initiate two new working groups each year, depending on availability of funds.

SCOR/IAPSO WG 127 on Thermodynamics and Equation of State of Seawater is charged with providing improved algorithms and descriptions of the thermodynamic properties of seawater. The group has made significant progress on many of its goals, and has sought advice from the oceanographic community regarding the most practical ways of adopting these developments into oceanographic practice. The group has met twice; the third and final meeting will be held in Berlin in September 2008.

The most accurate algorithms to date for the thermodynamic properties of seawater (such as density, entropy, enthalpy, specific heat capacity, etc.) will shortly become available. Achieving this accuracy requires a salinity variable that represents absolute salinity more accurately than the conductivity-based Practical Salinity. The group is systematically building a case for a new salinity variable with a series of 5 or 6 papers. For an example, see the Millero et al. paper in the Publications section below.

SCOR/IAPSO WG 129 on Deep Ocean Exchanges with the Shelf will hold an open workshop on 6-8 October 2008 in Cape Town, South Africa (see http://www.scor-int.org/CapeTownWorkshopPoster.pdf). In addition to support from the organizational cosponsors, new funding has recently been committed by the U.S. Office of Naval Research. The meeting will emphasize outreach to African scientists.

SCOR WG 131 on The Legacy of in situ Iron Enrichment: Data Compilation and Modeling is pulling together data and metadata from previous natural and artificial iron enrichment experiments. Baseline metadata have been received from most of the previous iron enrichment experiments and work is proceeding on obtaining the detailed metadata (methods, etc.) and the baseline data (CTD, underway sampling, etc.) from the experiments.

SCOR/LOICZ WG 132 on Land-based Nutrient Pollution and the Relationship to Harmful Algal Blooms in Coastal Marine Systems was approved in principle at the 2007 SCOR Executive Committee meeting, but was not funded at that time. Half of the funding for the group has been committed by the Institute of Oceanology, Chinese Academy of Sciences, Qingdao, because of their interest and involvement in this topic and their desire to contribute to international SCOR. The other half of the funding will be contributed by LOICZ. The first meeting of this group will be hosted by the LOICZ International Project Office in Germany.

SCOR Capacity-building Activities

The SCOR Secretariat is awaiting a decision from the U.S. National Science Foundation regarding renewal of the SCOR grant that allows scientists from developing countries and countries with economies in transition to travel to ocean science meetings.

The SCOR Committee on Capacity Building has approved a program to make it possible for retired ocean scientists to do mentoring and training in developing countries (http://www.scor-int.org/SCOROS.pdf) and has prepared a document on design principles for Regional Graduate Schools of Oceanography (http://www.scor-int.org/RGSO Design Principles.pdf).

POGO Cruise Database

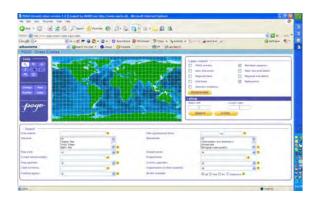
Every year, a few hundred ocean research cruises are conducted by academic institutions and government agencies worldwide, with major expenditures of financial and human resources. Ships may be in the same ocean area at the same time without prior knowledge of each others' activities, missing opportunities for joint work, filling empty berths, deploying instruments, and conducting sea-truthing activities for satellite data. The Partnership for Observation of the Global Oceans

(POGO), Census of Marine Life (CoML) and SCOR, in consultation with other organizations, has promoted the development of a Web site, created last year by a subgroup from the EU-funded SeaDataNet project. The Web site includes three databases for oceanographic research vessels and cruises:

- 1. Worldwide research vessel characteristics (initially for vessels larger than 60 m in length)
- 2. Planned research cruises
- 3. Cruise Summary Reports (CSRs)

These three databases can be found at http://www.pogo-oceancruises.org/. They provide a new tool to allow ocean scientists to become more efficient in cruise planning, instrument deployment, and servicing of moorings. Funding for the database development was provided by the Alfred P. Sloan Foundation and NOAA. The database will be maintained by SeaDataNet, with funding support from NOAA through POGO.

We invite all ship operators, project leaders and cruise leaders to contribute to this database.



Large-Scale Ocean Research Projects

GEOTRACES—The U.S. National Science Foundation and the UK Natural Environment Research Council have committed two years of funding to initiate the GEOTRACES International Data Management Office. This office will be hosted by the British Oceanographic Data Centre, located in Liverpool, UK. GEOTRACES Data Management Committee will soon complete plans for the office and fill the position of the GEOTRACES Data Liaison Officer. The International Data Management Office will compile data received from national data offices, as well as from PIs in nations that do not have their own National Oceanographic Data Centers. The office will create global datasets for all GEOTRACES key parameters—Fe, AI, Zn, Mn, Cd, Cu, $\delta^{15}N$ (nitrate), $\delta^{13}C$, ϵ^{230} Th, ϵ^{231} Pa, Pb isotopes, and Nd isotopes—and will help individual cruise Pls to ensure that their cruise plans include appropriate collection and reporting of metadata.

GLOBEC, IMBER, and SOLAS—The Scientific Steering Committees of GLOBEC, IMBER, and SOLAS will be meeting separately and together before the May 2008 IGBP Congress. GLOBEC continues to focus on synthesis and integration activities, working toward its third open science meeting in May/June 2009 (dates and venue to be announced soon). IMBER will be holding its first Imbizo in Miami, Florida, USA on 10-13 November 2008 (see http://www.confmanager.com/main.cfm?cid=1185).

GEOHAB continues implementation of two of its Core Research Projects (CRPs), on harmful algal blooms in eutrophied systems and upwelling systems. A third CRP, on harmful algal blooms in stratified systems, is expected to complete its science plan this year and move into its implementation phase. A workshop on modeling harmful algal blooms is tentatively scheduled for mid-2009. This workshop will contribute to improving the ability to predict harmful algal blooms by stimulating modeling activities in GEOHAB CRPs, and thereby help identify research that will yield better models; link research, observations, and modeling; and provide opportunities for researchers in this field to gain handson experience with models.

SCOR Panel on New Technologies for Observing Marine Life

The SCOR Panel on New Technologies for Observing Marine Life supports the Census of Marine Life (CoML), which concludes at the end of 2010. The Panel will produce a special volume of papers highlighting CoML's contribution to new technologies for observing marine life. It will organize a workshop on ocean biology observatories, and continue to work on developing electronic tag technologies. The Web site for the Panel is being redesigned to make it more useful for scientists and others interested in the state of the art of observational technologies.

Other Activities

Second Symposium on The Ocean in a High-CO₂ World—All of the invited speaker slots on the program have been filled and the registration for the symposium is open (see http://www.confmanager.com/main.cfm?cid=975). A fourth day has been added to the symposium for public outreach and to explore the social and economic aspects of ocean acidification. The deadline for abstract submissions is 31 May 2008.

SCOR/GESAMP Statement on Deliberate Nutrient Additions to the Ocean—SCOR and the Joint Group of

Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) released a position statement on 4 March 2008 on Deliberate Nutrient Additions to the Ocean (see http://www.scorint.org/SCOR-GESAMP.pdf). The statement concludes that to be scientifically credible the design and implementation of large-scale nutrient experiments must be transparent and the results must be clearly stated and made available to the scientific community and the general public. Transparency is essential, because any appearance of lack of independence from vested interests lowers the credibility of the results among ocean scientists, environmental organizations, policymakers, and potential investors in carbon credits. Carbon credits for fertilization should not be allowed unless and until reliable methods have been developed to estimate and verify the amount of carbon actually sequestered, and side effects have been properly understood and taken into account. The goal of any new experiment on the effects of nutrient addition should be to increase our understanding of ocean processes at adequate spatial and temporal resolution; experiments should build on the lessons and the insights of previous experiments.

Publications

Guide **Best** Practices for Ocean CO Measurements—The International Ocean Carbon Coordination Project (an IOC/SCOR activity), North Pacific Marine Sciences Organization (PICES), and U.S. Department of Energy collaborated to update this manual. It contains the most up-to-date information available on the chemistry of CO2 in seawater and the methods for determining carbon system parameters. Copies will be sent to the SCOR list of libraries in developing countries and countries with economies in Others wishing to obtain copies of this document should contact Alex Kozyr (kozyra@ornl.gov).



From SCOR/IAPSO WG 127: Millero, F.J., R. Feistel, D.G. Wright, and T.J. McDougall. 2008. The composition of Standard Seawater and the definition of the Reference-Composition Salinity Scale. *Deep Sea Research, Part I* 55:50-72.

SCOR Annual Meetings

2009—The 2009 SCOR Executive Committee Meeting will be held in Beijing, China, in conjunction with an open science meeting of the GEOHAB Core Research Project on HABs in Eutrophied Systems and SCOR/LOICZ WG 132 on Land-based Nutrient Pollution and the Relationship to Harmful Algal Blooms in Coastal Marine Systems. The dates will be announced later this year.

2010—SCOR has accepted an offer from the French SCOR Committee to hold the 2010 SCOR General Meeting in Toulouse, France.

For additional information about SCOR activities, please see the SCOR Web site: http://www.scorint.org.

Acronyms:

CMES College of Marine and Earth Studies,

University of Delaware

CRP Core Research Project (GEOHAB)

GEOTRACES an international study of the global marine

biogeochemical cycles of trace elements and

their isotopes (SCOR)

GLOBEC Global Ocean Ecosystem Dynamics project

(SCOR, IGBP, IOC)

IGBP International Geosphere-Biosphere

Programme

IHDP International Human Dimensions of Global

Change Programme

IMBER Integrated Marine Biogeochemistry and

Ecosystem Research project (SCOR, IGBP)

IOC Intergovernmental Oceanographic

Commission

IUGG International Union of Geodesy and

Geophysics

LOICZ Land-Ocean Interactions in the Coastal Zone

project (IGBP, IHDP)

PICES North Pacific Marine Sciences Organization SCAR Scientific Committee on Antarctic Research SCOPE Scientific Committee on Problems of the

Environment

SCOR Scientific Committee on Oceanic Research

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Sunset at Cape Cod National Seashore