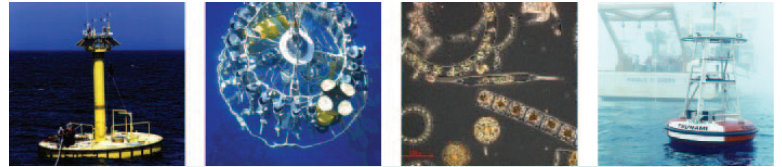




# Partnership for Observation of the Global Oceans

Newsletter

Issue 7  
Jan 2012



## 13th POGO Annual Meeting in Honolulu, Hawaii

This year's POGO Meeting was hosted by the School of Ocean and Earth Science and Technology (SOEST) of the University of Hawaii at Manoa, from 9 to 11 January 2012. The meeting was well attended, with around 60 participants from 18 countries. A total of 29 of the 37 POGO member institutions were represented, as well as key partner organisations such as the Scientific Committee on Oceanic Research (SCOR), the Intergovernmental Oceanographic Committee (IOC) and its project office for International Oceanographic Data and information Exchange (IODE), the Integrated Ocean Drilling Programme (IODP) and the Sloan Foundation, and representatives of various relevant ocean observation programmes.

### Southern Ocean Observing System (SOOS) Initial Science and Implementation Strategy

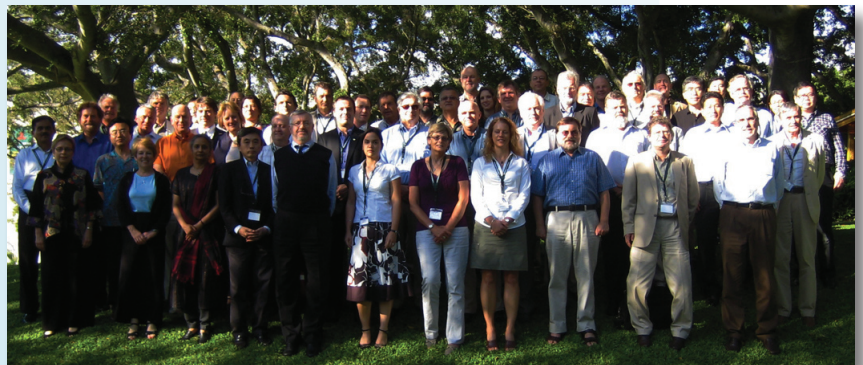
has now been published, and is available to download from [http://www.soos.aq/pdf/SOOS\\_Strategy-lowres.pdf](http://www.soos.aq/pdf/SOOS_Strategy-lowres.pdf). A limited number of hard copies are available from the POGO Secretariat or from the SCOR Secretariat (contact Ed Urban, [ed.urban@scor-int.org](mailto:ed.urban@scor-int.org)).

In addition to reports and discussions on 2011 POGO activities, such as capacity building, support of the International Quiet Ocean Experiment and OceanSITES, and preparations for the Expo 2012 in Yeosu Korea, other programmes of relevance to POGO were discussed. These included international programmes for coordination of ocean observations, such as the Framework for Ocean Observing, the Southern Ocean Observing System (SOOS), which has recently published its Science Plan and set up a Project Office within the Institute for Marine and Antarctic Studies (IMAS), the Panel for Integrated Coastal Observations (PICO), which has also recently published its Implementation Plan, and the Global Alliance of CPR Surveys, a new initiative by the Sir Alister Hardy Foundation for Ocean Science (SAHFOS) to bring together existing Continuous Plankton Recorder Surveys and facilitate the establishment of new ones to provide a truly global coverage of this valuable time-series of plankton data.

Some new initiatives were presented to the participants, such as the SeaOrbiter project, which is an ocean exploration and educational project on-board a partially submerged drifting vessel. The participants were also given an update on the "Mohole" project to drill into the earth's mantle, which has recently conducted an "Initial Feasibility Study for 2017". A report was also given on the recent International Telecommunications Union meeting that addressed the potential use of telecommunications cables for ocean observations.

One of the benefits of the POGO meetings is that POGO members can share information on their national research programmes and learn from one another, as well as identifying areas for international collaboration. Institutes from emerging countries had the opportunity to present recent developments in their ocean observing capabilities, and discuss challenges that are common to these countries (for example piracy). A session was dedicated to disaster mitigation and response, focussing on tsunamis and the Great Tohoku earthquake of March 2011.

Areas for collaboration between POGO, IOC, IODE and SCOR were explored, with presentations given by Wendy Watson-Wright (Executive Secretary, IOC), Peter Pissierssens (Head, IOC Project Office for IODE) and Ed Urban (Executive Director, SCOR).



Attendees of the POGO-13 Meeting. Photo S. Seeyave

The meeting was concluded with a series of presentations on SOEST research of particular relevance to POGO: Hawaii Ocean Time-series (Matt Church), WHOI Hawaii Ocean Time-series Station (Roger Lukas), Aloha cabled observatory (Bruce Howe) and modelling marine and tsunami debris (Nikolai Maximenko). As well as being a productive and stimulating meeting, it was much enjoyed by the participants thanks to the Hawaiian hospitality and beautiful surroundings.

## News from the POGO members



11<sup>th</sup> Biennial Conference of  
Pan Ocean Remote Sensing Conference (PORSEC)- 2012  
05-09 November, 2012  
Kochi, Kerala, India



### **PORSEC-2012 "Ocean remote sensing for well-being of all" to be hosted by INCOIS**

The Pacific Ocean Remote Sensing Conference (PORSEC) is an organisation dedicated to helping developing nations streamline their science programs with special focus on the applications of remote sensing technology to ocean sciences. For more than a decade, PORSEC has been working with over thirty countries and participating agencies towards advancing science capabilities in developing countries, by organising conferences every two years. The Indian National Centre for Information Services (INCOIS), a member of POGO, has been selected to host PORSEC-2012 in Kochi, Kerala, India, from 5 to 9 November 2012.

The conference will review and discuss the state-of-the-art in ocean remote sensing and will help scientists and students involved in ocean-atmosphere studies using remote sensing techniques to benefit from interactions with the experts participating from all over the world. The conference will also provide an opportunity to showcase the research work carried out using remote sensing from various satellite missions and the application of remote sensing for societal benefits.

A pre-conference tutorial is planned for students/researchers from universities and research institutes in Indian Ocean rim countries. The faculty for the tutorial will include eminent scientists specialised in ocean remote sensing from India and abroad. The tutorial will take place at the Centre for Marine Living Resources and Ecology (CMLRE), Ministry of Earth Sciences, Kochi, from 31 October to 3 November 2012, with a maximum of 25 participants. The tutorial will emphasise hands-on training in the applications of altimeter, scatterometer and ocean colour data for oceanographic applications, including the remote sensing of marine fishery resources. The training will also include training on the use of oceanographic equipment on-board a research vessel.

Registration for the tutorial is free. Although most participants will need to cover their own travel, accommodation and food, partial funding will be available for selected participants through the PORSEC Association.

See <http://www.porsec2012.incois.gov.in/> for further details, to register for the tutorial and to submit an abstract. The deadline for abstract submission has been extended to 29 February 2012.

### **IFM-GEOMAR sails under a new name**

On 1 January 2012 the former Leibniz Institute of Marine Sciences (IFM-GEOMAR) converted into GEOMAR Helmholtz Centre for Ocean Research Kiel due to the transition of the institute into the Helmholtz Association. The change provides challenges and opportunities to further strengthen the national as well as the international role of Kiel marine sciences.



Helmholtz Centre for Ocean Research Kiel

The Helmholtz Association (<http://www.helmholtz.de>) is a community of 18 scientific-technical and biological-medical research centres with more than 30,000 employees and an annual budget of 3.3 billion Euros. These centres have been commissioned with pursuing long-term research goals on behalf of the state and society. GEOMAR contributes with its specific expertise in ocean and deep-sea research to the research field "Earth and Environment" of the Helmholtz Association.

The director of GEOMAR, Professor Peter Herzig, is looking forward to the changes and perspectives of the new centre. "With our research agenda and in particular the technologies for deep-sea research we are unique in the Helmholtz Association", Professor Herzig explains. "GEOMAR will play a central role in the earth system research in the Helmholtz Association. So far, research on global oceanic processes and deep-sea research was not present in the Helmholtz portfolio", Herzig continues. Together with the Alfred Wegener Institute for Polar and Marine Research, the German Research Centre for Geosciences, the Helmholtz Centre Geesthacht and the Helmholtz Centre for Environmental Research, GEOMAR forms the basis of the research field "Earth and Environment". The new website for GEOMAR Helmholtz Centre for Ocean Research Kiel is <http://www.geomar.de>.

## News from the POGO members (cont'd)

### CSIRO: looking for climate clues in the Southern Ocean

The Australian Antarctic Division's *Aurora Australis* has set sail from Hobart with a complement of 50 scientists and support staff for a month-long voyage to Commonwealth Bay, the Ross Sea and return to Fremantle. The mission is led by Dr Steve Rintoul, an oceanographer with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Antarctic Climate & Ecosystem Cooperative Research Centre (CRC).

One of the goals of the expedition is to retrieve current meter moorings deployed two years ago. The moorings' sensors have been measuring the speed, temperature and salinity of the coastal currents adjoining the Antarctic continental shelf. "These measurements, the first of their kind in this part of the ocean, will allow us to discover how the deep ocean around Antarctica is changing and how these changes are spreading north into the other ocean basins", Dr Rintoul said. "The Southern Ocean helps to slow the rate of climate change by absorbing large amounts of heat and carbon dioxide. A key goal of our work is to determine if the Southern Ocean will continue to play this role in the future."

The team will also measure changes in temperature, salinity, carbon dioxide, oxygen and nutrients between Casey station and Fremantle. The measurements are collected using a profiler that is lowered from the ship down to the sea floor, to depths of more than 5 km. Other projects to be carried out on the voyage include:

- Sampling of Southern Ocean zooplankton to see if acidification of the ocean caused by carbon dioxide emissions is affecting their ability to form shells;
- Deployment of new profiling floats that can sample ocean currents in the sea ice zone during winter when the region is usually inaccessible;
- Novel metagenomic studies that will collect fragments of DNA from sea water to determine how the physical environment influences the distribution and function of microbes;
- Mapping biodiversity of plankton in the Southern Ocean, and continuing to build on the life history information of the krill fishery, the largest Antarctic fishery.

You can listen to the podcast, 'Scientists set sail south in search of climate evidence', on [http://www.csiro.au/Organisation-Structure/Divisions/Marine--Atmospheric-Research/~//link.aspx?\\_id=5663B25161C34CDA87AC69CA5DD91B84&\\_z=z](http://www.csiro.au/Organisation-Structure/Divisions/Marine--Atmospheric-Research/~//link.aspx?_id=5663B25161C34CDA87AC69CA5DD91B84&_z=z).

### New Chinese research vessel launched

The latest addition to the Chinese research vessel fleet, *Kexue* (meaning "Science") cost about 550 million RMB (86 million USD), and will be able to carry 80 people at a top speed of 15 knots on voyages of 28,000 km, lasting up to 60 days. The CAS Institute of Oceanology in Qingdao, Shandong province, a POGO member, was in charge of *Kexue*'s design and operation. Director Sun Song commented that "It is modelled on the United Kingdom's *RRS James Cook* and Norway's *G.O. Sars*" and "It is on a par with these top research vessels". See <http://www.nature.com/news/china-pushes-to-rule-the-waves-1.9564> to read the Nature article published on 6 Dec 2011.



### POGO Exhibit at Expo 2012 Yeosu Korea

The 3rd International Planning Meeting for the Ocean and Coast Best Practices Area (OCBPA) of Expo 2012 Yeosu Korea will be held on 8 Feb 2012, with a site visit to Yeosu planned for 9 Feb. Construction of the exhibits is now underway and progressing rapidly.

In addition to the POGO exhibit, there will be a special POGO event from 22 to 24 June, including public lectures and film screenings (details to be confirmed).

## Update on POGO Capacity Building

### POGO travel grant for Phytoplankton Identification Workshop

This year, POGO is offering a travel grant for a scientist from a developing country to attend the International Phytoplankton Identification Workshop organised by the Marine Biological Association of the UK and the Sir Alister Hardy Foundation for Ocean Science (SAHFOS). The workshop will be held in Plymouth, UK, from 2 to 13 July 2012.

By offering this grant, POGO hopes to support the global expansion of the Continuous Plankton Recorder Survey, and to create links between institutes in developing nations and SAHFOS, where most of the CPR expertise resides.



Photos courtesy Intituto Espanol de Oceanografia

Over fifty applications were received, and the MBA-SAHFOS committee selected Dr. Gastón Osvaldo Almandoz, assistant research scientist of the National Research Council of Argentina (CONICET), working at the Department of Phycology, College of Natural Sciences and Museum, National University of La Plata, Argentina.

The workshop will cover classification and taxonomy of the major marine microalgal groups. In addition, there will be a substantial practical element which will encompass a range of methodologies and techniques, including sampling, settling and slide preparation, cell counting, isolation, microscopy and culturing. The proposed program will consist of a series of seminars and practical sessions, with tuition from specially selected international experts, including Carmelo Tomas, Karen Steidinger, Diana Sarno and Ian Probert.

### Austral Summer Institute XII

The 12th ASI held at the University of Concepcion has recently been completed. Every year, POGO supports the ASI by providing funds for travel grants for a number of students to participate from neighbouring countries. The ASI consisted of courses run in October 2011 and January 2012.

It started with a course on Marine Genomics "From ecology to biotechnology" on 19-21 October 2011, followed by a 1-day mini-course on "Data mining and genotypification of Single Nucleotides Polymorphisms (SNP): linking genotypes to phenotypes of marine organisms".

In January, the ASI continued with a series of courses on Times Series in Oceanography "A window to the past and into the future of our planet", with lecturers from the Coastal Upwelling Time Series in the Humboldt Current System (CUTS-HCS), the California Cooperative Oceanic Fisheries Investigations (CalCOFI), the Bermuda Atlantic Time-series Station (BATS), and the Coastal Ocean Monitoring and Ecological Time Series (COMETS). The Ecology and Diversity of Marine Microorganisms (ECODIM) course, which runs every other year in conjunction with ASI, was taught this year, and included lecturers from Chile, France, USA and Switzerland.

### NF-POGO Centre of Excellence

Sixty applications from 36 countries were received for the fifth year of the NF-POGO Centre of Excellence in Ocean Observations. After a first round of review and selection by Bermuda Institute of Ocean Sciences (BIOS) faculty, a Selection Committee Meeting was held in London on 27 January to select the finalists and "reserves" for the ten Centre of Excellence slots. This list will then be reviewed by Nippon Foundation staff before the final decisions are made and the candidates notified.

The next batch of "Pogonians" will travel to Bermuda in early August 2012 to start their ten-month intensive training and become part of the Centre of Excellence "family", bringing the total number of trainees to date up to fifty.

### POGO-SCOR Fellowships and POGO Professorships

The earlier deadline and wider advertising this year led to a very high number of applications for both the visiting fellowships (75) and visiting professorships (10), with applications received from a total of 35 countries. The evaluation of these applications is currently underway and the selection will be made by mid-March.

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