

What's New with CoML?

December 2006 - March 2007

Upcoming CoML Cruises: Watch the project websites for news and cruise diaries!

28 March-11 April: CenSeam voyage to seamounts of Tasmania: censeam.niwa.co.nz 17 April-2 May: COMARGE-associated Philippines Deep-Sea cruise

Top News!

On 7 March, MAR-ECO was announced as a recipient of the 2006 **Descartes Prize for Science Communication** at a ceremony at the European Commission in Brussels. MAR-ECO is one of five winners, chosen from among 33 nominees, and the prize is 50,000 euros. MAR-ECO was nominated for the prize under Category 4: Innovative action for science communication. Congratulations to MAR-ECO! For more, see: http://ec.europa.eu/research/index.cfm?pg=newsalert&lg=en&year=2007&na=na-070307-1. Odd Aksel Bergstad's thank you speech can be read at: http://www.mar-eco.no/ data/page/852/OA-thank-you.doc.

Scientific Steering Committee (SSC)

The **SSC** met 13-14 February in Panama at the Smithsonian Tropical Research Institute (STRI). Major topics of discussion included: the integration of OBIS, marine barcoding, and the Encyclopedia of Life; the 2010 synthesis report and other recommendations for communication of CoML findings; and leadership needs for synthesis and a CoML II after 2010. The SSC next meets in Ecuador on 26-30 June.



SSC Member (and COMARGE PI) **Myriam Sibuet was awarded** Officier de l'Ordre National du Mérite for her major contributions to the ocean sciences on 7 December 2006. This prestigious French award was given by Laucien Laubier on behalf of the Président de la République and in presence of Fred Grassle for the Census of Marine Life. The ceremony was held at the Ifremer head office in Paris.

CoML Reporting Framework

The **Reporting Framework Committee met 25-26 January** in North Carolina, hosted by member Pat Halpin. The committee will be finalizing its recommendations for the thematic structure of the 2010 report, implementation, and for potential products, based on prioritization responses from the CoML projects. The committee presented its initial recommendations at the February SSC meeting. The formal recommendations will be presented to the SSC in June and to the entire CoML community at the 2007 All Program meeting.

2007 All Program Meeting

The 3rd CoML All Program Meeting & Public Symposium will be held at the University of Auckland, New Zealand, on 14-16 November 2007. Topics of particular importance for the All Program meeting will be synthesis and integration, technology for ocean observing, communication of societal impacts, and early discussions on what we can say about biodiversity in the face of global change over the coming decades. Individual projects and committees will be meeting on 11-13 and 17-18 November. The full preliminary schedule, draft All Program agenda, and accommodation information can be found at: www.comlsecretariat.org/Dev2Go.web?id=308572.

New Community Resource

The E&O team and the Secretariat will be asking all CoML projects and national and regional committees (NRICs) to complete forms for the **Community and Bibliographic Databases** in mid-March. The Community Database will help ensure that all CoML participants are in the system and that their

information is up-to-date. The Bibliographic Database will be a searchable reference, serving as an archive for CoML results and means of sharing information among colleagues.

Education and Outreach



The cover of the **17 February issue of Science News** featured a plankton photo by Russ Hopcroft. The three-page story inside reported a wide range of highlights from CAML's *Polarstern* and MAR-ECO's *G.O. Sars* expeditions, Nick Makris' (GOMA) OAWRS technology, CenSeam's "Jurassic" discovery, ICoMM's *PNAS* paper, and more. The article even reminisced briefly back to CoML's beginnings.

The E&O team released the **2006 Highlights Report** on 10 December and was available electronically in five languages (English, German, Portuguese, Chinese and French). The highlights were reported in 30 wire stories, which were moved by 20 major news agencies, leading to extensive coverage on air, in print and online. In all, almost 100 original print and electronic stories were

captured in nine languages across 25 countries using only free and low-cost news search engines. The websites of more than 275 media organizations around the globe featured the story.

Scientist-photographers from several CoML projects were winners in the BP Kongsberg Underwater Image Competition at the 11th Deep Sea Biology Symposium.

From MAR-ECO: David Shale (1st place in Category 3: Microscopic/specimen images of deep-sea species or features) and Nicola King (7th place in Category 1: Underwater images (>200m depth))

From CeDAMar: Klaus Hausmann (9th place in Category 3: Microscopic/specimen images of deep-sea species or features)

From ChEss: Craig Smith (2nd place in Category 1: Underwater images (>200m depth)), Daniel Desbruyeres (3rd place in Category 3: Microscopic/specimen images of deep-sea species or features), and Maria Baker (3rd place in Category 4: Fieldwork/experiment set-up/vessels and vehicles/equipment)

From ArcOD: Kevin Raskoff (2nd place in Category 3: Microscopic/specimen images of deep-sea species or features; 4th place in Category 3: Microscopic/specimen images of deep-sea species or features; 2nd place in Category 4: Fieldwork/experiment set-up/vessels and vehicles/equipment)

To view the winning photographs and for a full list of winners, visit: www.serpentproject.com/imagecompentries.php

Database: Ocean Biogeographic Information System (OBIS)

On 1 April, the OBIS team at Rutgers will **welcome Edward Vanden Berghe as the new OBIS Executive Director**. Edward will manage and guide the OBIS to becoming a permanent component of the global online infrastructure in biodiversity and ocean sciences.

OBIS reached a milestone, **serving data from 200 datasets**. OBIS China has started to publish data to the OBIS Portal, which brings the total number of data sets available through OBIS to 200! OBIS has grown phenomenally over the last year and now publishes data from literally around the globe through its 11 regional nodes. This latest increase results from the Chinese Regional OBIS Node, which is now publishing a small part of the data from the Chinese National Comprehensive Oceanographic Survey (1958-1960), mainly information on Polychaeta and Echinodermata. Almost1200 stations were sampled in the surveyed area, which covered the coast of China Seas, including the Bohai Sea, the Yellow Sea, the East China Sea, and the South China Sea.

OBIS is currently working on a **standard habitat classification** to provide searches by habitat in 2008. It is important for the Realm Field Projects to contribute to this dialogue. COMARGE plans to hold a habitat classification meeting for continental margins in June.

Mark Costello, Tony Rees, and colleagues have committed to produce, by the end of 2007, the **most** comprehensive list vet of accepted scientific names of marine organisms. This list will be immensely

valuable to OBIS and to the CoML generally. Please help with your taxonomic group, if Mark asks. Several CoML-related experts will also be participating in the 29 March events of the Catalogue of Life project at the University of Reading (UK), when it will announce that its catalogue has passed one million names. See: http://www.sp2000.org/.

The **OBIS International Committee** met in Panama on 11-12 February, in conjunction with the meeting of the CoML Scientific Steering Committee. The **OBIS Manager's Committee** (managers of Regional OBIS Nodes) will meet in Brazil in April, and then with the Global Biodiversity Information Facility Nodes Committee in Amsterdam in mid-October.

The next **Ocean Biodiversity Informatics** (**OBI**) **conference** will be held 2-4 October 2007 at the Bedford Institute of Oceanography in Dartmouth, Nova Scotia, Canada. The unifying theme for the conference, which is the third of its kind, will be enhancing data quality assurance and translating the data housed in databases into products that are useful for society in general and decision makers in particular. Presentations are invited on the application of Ocean Biodiversity Informatics to various topics including: conservation of species and habitats; modeling of global change impacts; invasive species; ecosystems based management; ecologically & biologically sensitive areas; museum collections; fisheries management; harmful algal blooms; and oil and gas exploration. Also invited are technical topics including: data and metadata standards for distributed systems; managing complex data; species information systems; linking biological to physical and chemical data; interacting with ocean observing systems; visualization and mapping; data collection and quality control; decision making and predictive modeling, and annotation schemes for networked information systems. Abstracts are due 30 April. For more information, visit: www.iobis.org/Members/brantonb/obi07/OBI07 poster.htm. Conference registration is available at: www.surveymonkey.com/s.asp?A=112455253E16598.

In December 2006, **OBIS** was invited to make presentations at the IODE Group of Experts on Biological and Chemical data management (GEBICH) in Oostende, Belgium, and at the SCOR meeting to coordinate activities between global marine programmes in London. OBIS also participated in the conference on the Biodiversity of Coral Reef Ecosystems (BIODEC) in Noumea, New Caledonia in November, where several presentations mentioned OBIS and led to constructive discussions on the potential of OBIS for data publication and integration, and as a resource for researchers and managers.

OBIS SEAMAP participant **David Hyrenbach has received a Pew Marine Conservation Fellowship**. David's project will evaluate the feasibility and effectiveness of establishing protected areas for highly-mobile marine vertebrates, such as birds, mammals and turtles, in the Alborán Sea of the Western Mediterranean. The project will also establish a framework for developing conservation measures in other areas of the Mediterranean Sea.

Oceans Past: History of Marine Animal Populations (HMAP)

The HMAP Steering Group met in Roskilde, Denmark on 24-25 February. An important outcome of this meeting was the establishment of a **new Executive Committee and Scientific Steering Group for HMAP**. Executive Committee members are based in Denmark and include Poul Holm (the Chair), Bo Poulsen and Anne Marboe, of Roskilde University, and Brian MacKenzie, of the Danish Institute for Fisheries Research. The new Scientific Steering Group includes representatives from each of the HMAP case studies: Alison MacDiarmid (New Zealand), Andrzej Antczak (Venezuela), Andy Rosenberg (USA), David Starkey (UK), Henn Ojaveer (Estonia), James Barrett (UK), Jeremy Jackson (USA), Julia Lajus (Russia), Malcolm Tull (Australia), Michaela Barnard (UK), Poul Holm (Denmark), Ruthy Gertwagen (Israel), and Tim Smith (USA). **Kira Paulli Pravato will serve as new project coordinator and education and outreach liaison**. Kira is based at Roskilde and can be reached at kpp@ruc.dk.

The steering group meeting was held in conjunction with a **MarFISH/HMAP workshop** (22-23 February) on "Long term spatial impact of natural variability and human induced changes in marine ecosystems." This workshop, a collaboration of Roskilde University, Ifremer, and MarBEF, brought together multiple disciplines, time series and spatially resolved data spanning the last millennia, with the intent to gain new insights into the driving forces of marine resource exploitation. More information on the workshop can be found at: http://www.marbef.org/projects/marfish/news.php.

Bo Poulsen of Roskilde University won the prestigious Hoogendijk Prize for his PhD dissertation, "Historical exploitation of North Sea herring stocks: an environmental history of the Dutch herring fisheries c. 1600-1860," which was written under the auspices of HMAP.

Oceans Future: Future of Marine Animal Populations (FMAP)

The **9 January edition of** *Current Biology* featured a report by FMAP researchers RAM Myers, Boris Worm, Andy Rosenberg and others, entitled "Saving endangered whales at no cost." The study looked at ways to help the recovery of North Atlantic right whales, which are virtually extinct in Europe, but exist in a small population of about 350 individuals on the east coast of North America. A leading threat to the species is lethal entanglement by fishing gear, primarily from lobster fishing gear. The FMAP team, supported by the Lenfest Ocean Program at the Pew Charitable Trusts, compared the Nova Scotian and Maine lobster fisheries and found that Maine lobstermen could substantially reduce the number of traps, shorten the fishing season by as much as six months and still catch the same amount of lobsters – at lower cost and reduction of risk of right whale entanglements. Read the report at: www.lenfestocean.org/publications/saving_endangered_whales.html.

Hiroyuki Matsuda has received a Pew Marine Conservation Fellowship. He is the first Pew Fellow from Japan, and will use his fellowship to develop a Marine Management Plan for the Shiretoko World Heritage (SWH) site. The project is in response to a request by UNESCO that called for a marine ecosystem management plan for the SWH by 2008. His project will assess populations of Steller sea lions, sea birds (including Steller's sea eagles) and walleye pollock as benchmarks to measure the benefits of ecosystem management. He will also evaluate international co-management strategies since a large part of this region lies between Japan and Russia. Matsuda's project will serve as a case study for adaptive management of marine ecosystems and co-management of coastal fisheries. For more information, see: http://risk.kan.ynu.ac.jp/matsuda/2007/PewFellowship07.html.

Hiroyuki Matsuda also wrote an editorial about tuna fisheries and consumption for the Japanese newspaper *Asahi Herald*. Read it online at: http://www.asahi.com/english/Herald-asahi/TKY200702210110.html.

As many of you know, FMAP leader RAM Myers has been diagnosed with a brain tumor and is undergoing treatment. **Our best thoughts and prayers go out to RAM and his family**. You can leave a get well message for RAM at http://as01.ucis.dal.ca/ramweb/.

Ocean Present: Realm Field Projects

Near-Shore: Natural Geography In Shore Areas (NaGISA)

NaGISA has a **new regional office in Canada** thanks to the support of the Huntsman Marine Science Centre and Atlantic Ocean (AO) regional coordinators Dr. Gerhard Pohle and Lou Van Guelpen. The goal for the AO region will be to survey NaGISA sites throughout the Atlantic with special interest in the corridor between Canada and the United States and along the West African coastline. The first activity for the regional office will be participation in the Biodiversity Discovery Corridor Workshop (part of GoMA and CoML Canada activities) in St. Andrews on 28 February-2 March.

A workshop on Marine Gastropoda and Polyplacophora was held in Jakarta, Indonesia on 5-8 December. Over 20 participants from 6 countries (Indonesia, Thailand, Vietnam, Philippines, Malaysia and Japan) learned about Gastropoda and Polyplacophora characteristics, how to identify them, and how best to photograph them. Participants identified specimens from their own samples under the supervision of Dr. Hasegawa and Dr. Saito of the National Natural History Museum of Japan.

The **next workshop**, on the taxonomy of Scalidophora, will be held 13-17 March in Shirahama, Japan.

In December, NaGISA was **awarded renewal funding** for another two years. Congratulations to Yoshihisa Shirayama, Brenda Konar, Robin Rigby, Katrin Iken and the entire NaGISA team.

The Nippon Foundation has also renewed its support for NaGISA in the Western Pacific.

Reefs: Census of Coral Reefs (CReefs)

In September and October, the **SANTO 2006 Survey**, which provides a deep reefs component to CReefs, documented the fauna and flora of the South Pacific island Espiritu Santo in Vanuatu. A total of 190 participants from 25 countries we involved in 4 expedition themes (Marine Biodiversity; Karst; Fallows and Aliens; Forests, Mountains and Rivers). Philippe Bouchet and Bertrand Richer de Forges led the marine biodiversity component, which involved 97 scientists, students, support staff and volunteers, from 18 countries. The number of species inventoried was remarkable, including 1,100 species of decapod crustaceans (crabs, shrimps and hermit crabs) and around 4,000 species of molluscs. Hundreds of new species - possibly over a thousand - were discovered. The deep reefs were sampled both by low tech (tangle nets) and high tech (divers using trimix gases with rebreathers) approaches. For more, visit the blog at www.ird.fr/recherche/santo2006/blog/ and at the expedition website (in French) at www.santo2006.org.

Regional Ecosystems: Gulf of Maine Area Program (GoMA)

A **Biodiversity Discovery Corridor Workshop** took place in St. Andrews, New Brunswick from 28 February to 2 March. Fifty regional researchers participated from Canada and the U.S. to discuss progress to date, data from the 2005 and 2006 cruises, and plans for 2007-2008. A workshop report should be available in the next newsletter. The Discovery Corridor, a contributing project of GoMA, aims to inventory species and seascapes within the corridor, act as a catalyst for training in systematics, promote biodiversity research and conservation, and establish a monitoring program to look at long-term change. Find out more at: www.marinebiodiversity.ca/en/corridor.html.

GoMA has recently developed a **new website**. Visit: http://www.usm.maine.edu/gulfofmaine-census/.

Continental Shelves: Pacific Ocean Shelf Tracking (POST)

Heather Holden has left her position as Executive Director of POST and has accepted a position as Director of the Centre for Studies in Risk, Regulation and the Environment at the Fraser Institute, a Canadian think tank. Best of luck to Heather!

Jonathan Thar is assuming many of Heather's duties. **Jonathan spent a few days at the CoML Secretariat** in DC getting a complete immersion in the program. The Secretariat welcomes such visits from all program managers.

On 19 February, POST was prominently featured at the **American Association for the Advancement of Science (AAAS) annual meeting** in a 90-minute symposium on Conservation Oceanography. TOPP and the developing Ocean Tracking Network (OTN) were also featured.

Continental Margins: Continental Margin Ecosystems on a Worldwide Scale (COMARGE)

The Steering Committee of COMARGE has been expanded. Reinforcements will come from Joëlle Galéron (France), Baban Ingole (India), Hiroshi Kitazato (Japan), Elena Krylova (Russia), Gary Poore (Australia), Javier Sellanes (Chile), and Ann Vanreusel (Belgium). The new Steering Committee met for the first time on 25-26 January 2007 at the Smithsonian in Washington DC. Pedro Martinez (CeDAMar) and Michael Vecchione (MAR-ECO) were present to discuss collaborations between the deep-sea projects.

The multidisciplinary cruise "SeepOx" took place off Concepción, Chile aboard the Chilean Navy oceanographic research vessel AGOR Vidal Gormáz from 30 August to 4 September 2006. Target areas of the cruise were the recently discovered Concepción Methane Seep Area and the nearby Oxygen Minimum Zone. This cruise was funded mainly by FONDECYT Project #1061217 led by Javier Sellanes from the Universidad Católica del Norte (UCN). The activities on the SeepOx Expedition consisted of sediment and water sampling at seven stations ranging from 64 to 850 m water depth. These stations were arranged to represent oxic bottoms, anoxic bottoms, and seep and non-seep conditions. For COMARGE, the project contributes to the assessment and understanding of relationships between habitat heterogeneity and regional diversity on continental slopes.

This past November, a team of 21 scientists, led by Amy Baco-Taylor (Woods Hole Oceanographic Institution) and Ashley Rowden (NIWA), **explored the continental margin off New-Zealand** aboard RV *Tangaroa*. In addition to the discovery of giant cold seeps (of large interest for ChEss), the towed video, still camera system, and samplers allowed the observation and study of cold corals. They also revealed an extraordinary mass of giant worms, burrowing sea cucumbers, sea urchins, and enormous tube building foraminifera on the floor of the Kaikoura Canyon, highlighting the diversity of habitats on the New-Zealand margin. The cruise was jointly funded by the U.S. NOAA Office of Ocean Exploration and NIWA (New Zealand), with additional support from WHOI, Scripps, and the University of Hawaii. For images and video from the cruise, visit: www.ifremer.fr/comarge/en/Gallery_NZvoyage.html.

CSIRO Marine and Atmospheric Research joined with taxonomists from Australian museums on a cruise along the deep continental shelf and slope of southwestern Australia in December 2005 to understand the evolution and biogeography of the region and to support implementation of the SW Regional Marine Plan and Commonwealth Marine Protected Areas program. Principal Investigators were Alan Williams and Rudy Kloser (CSIRO) and Gary Poore (Museum Victoria). This was the second cruise of FRV Southern Surveyor in the region, an earlier one being devoted largely to mapping and video-survey. Almost 200 benthic samples were taken and identification began during 2006. First indications for decapod crustaceans are showing more species found than anticipated. Few of the species are from the relatively well-known southern Australia fauna but instead include new records of tropical species plus numerous new species. The percentage of taxonomically difficult species is much higher than anticipated. Museum Victoria has catalogued all records which are fed to the On-line Zoological Catalogue of Australian Museums (OZCAM) and accessible through OBIS. At the beginning of 2007, 1416 records of SW Australian Decapoda identified during 2006 are available to OBIS through OZCAM. Of these, 1072 are of species with specific names (the remainder are new species or species whose identity is uncertain). In all, 448 species of crabs, lobsters and squat lobsters are recognized, with hermit crabs, shrimps and prawns yet to be added. Similar results are anticipated for the other groups being studied: sponges, echinoderms, corals, and larger molluscs.

A new species of amphipod, *Ampelisca mississippiana*, has recently been described by Yousria Soliman and Mary Wicksten from Texas A&M University. The new species inhabits the head of the Mississippi canyon around 460m depth and was discovered as part of the Deep Gulf of Mexico Benthos program leaded by COMARGE PI Gilbert Rowe (Texas A&M University) and funded by the U.S. Minerals Management Service. Although small (less than 6 mm in length), these tubiculous crustaceans carpet the seabed, with densities up to 12,000 ind./m². Based on its abundance and the stabilizing effects of the tube mats on sediments, *Ampelisca mississippiana* is likely of great ecological importance. The paper by Soliman and Wicksten, titled "*Ampelisca mississippiana*: a new species (Crustacea: Amphipoda: Gammaridae) from the Mississippi Canyon (Northern Gulf of Mexico)," is currently in press for *Zootaxa*.

COMARGE participated in a **workshop on Oxygen Minimum Systems in the Ocean:** Distribution, Diversity and Dynamics. The workshop was held 24-26 October in Concepcion, Chile, organized by Victor Gallardo and the Faculty of Natural and Oceanographic Sciences, the Department of Oceanography, and the COPAS Center of the University of Concepción. Scientific topics covered aspects of physical and chemical oceanography, biogeochemistry, ocean-atmosphere interactions, biology, biodiversity, ecology, paleoceanography, and anthropogenic influences, all related to oxygen minimum zones and oxygen-deficient waters. The proceedings of the workshop will soon be available online in a special issue of *Gayana* (http://www.scielo.cl/scielo.php/script_sci_serial/pid_0717-6538/lng_en/nrm_iso). For further information on research on the SE Pacific OMZ visit: http://omz.udec.cl.

The 2007 **Philippines Deep-Sea Cruise**, led by Philippe Bouchet, is scheduled to take place between 17 April 17 and 2 May. This cruise contributes to COMARGE.

Helena Passeri Lavrado and Barbara Lage Ignacio are the editors of a **synthesis of the benthic fauna and flora** of the central region of the Brazilian margin. As part of the REVIZEE program, more than 1400 macrobenthic species have been sampled and identified between 50m and 2000m depth along the Brazilian margin. Environmental heterogeneity given by differences in shelf and slope substrata, the

presence of a biogenic bottom, estuaries, coral reefs, seamounts and canyons provides a great variety of habitats and seems to be responsible for the high benthic diversity found. Data from the REVIZEE program have been already provided to OBIS (see the link) [Reference: Biodiversidade Bentônica da região central da Zona Econômica Exclusiva brasileira (*Benthic diversity of the central region of the Brazilian Exclusive Economic Zone*). Helena Passeri Lavrado & Barbara Lage Ignacio (eds.). Museu Nacional, Série Livros n.18, Rio de Janeiro, Brasil 389p (in Portuguese), 2006. ISBN 85-7427-014-8. See abstract (in English) on COMARGE website: www.ifremer.fr/comarge/en/BrazilianAtlas.html] An Atlas of the most abundant and common invertebrate species is also being prepared. More information about the REVIZEE program is available at the Brazilian Ministry of Environment homepage: www.mma.gov.br/revizee/.

A third **comprehensive review of COMARGE-relevant background research** is now in press ("Use of Diversity Estimation in the Study of Benthic Communities," R.S. Carney, Annual Review of Oceanography and Marine Biology, 2007). Previous reviews of bathymetric zonation and seep communities in the context of the COMARGE environment were published in 2005 by Bob Carney and Lisa Levin.

A paper describing the **ecology of megabenthic assemblages associated with a new giant pockmark** off West Africa is also in press. This pockmark was discovered during the Biozaire program (www.ifremer.fr/comarge/en/SEAtlantic.html), led by Myriam Sibuet and co-funded by Ifremer and Total (K. Olu-Le Roy, J.-C. Caprais, A. Fifis, M.-C. Fabri, J. Galéron, H. Budzinski, K. Le Ménach, A. Khripounoff, H. Ondréas & M. Sibuet." Cold-seep assemblages on a giant pockmark off West Africa: spatial patterns and environmental control"). The paper will be issued in March in a special volume of the journal Marine Ecology on "Recent Advances in Vent, Seep, Whale- and Wood-Fall Biology." The volume, edited by L. Levin, J. Barry, H. Felbeck, C. Smith and C. Young, will be open access. Contributions to this volume also include the description of meiobenthic and macrobenthic communities associated to cold seeps from the NW Black Sea, the Aleutian and the Florida escarpment.

COMARGE is **planning a workshop on habitat classification and mapping** at NOC, Southampton on 4-6 June 2007. The workshop will identify which segments of deep continental margins (~200m to ~3500m) have been studied with sufficient details, both from a geophysical and biological point of view, to test whether or not 1) what geologists and biologists define as habitats are what the assemblages of animals see as habitats, and 2) there is a relationship between habitat heterogeneity and faunal diversity at regional scale. The workshop participants will also agree upon a habitat classification scheme for COMARGE by compare the different classification schemes used, their convergence, their divergence and the practicalities to merge them, at least for the purpose of the project. This discussion will also contribute to the development of a habitat classification system for OBIS searches.

Abyssal Plains: Census of the Diversity of Abyssal Marine Life (CeDAMar)

Stefanie Keller joins CeDAMar as Project Coordinator. Steffi is located at the German Center for Marine Biodiversity Research in Wilhelmshaven. Contact her at: skeller@senckenberg.de.

CeDAMar is currently **offering several fellowships for taxonomic exchanges of deep-sea scientists**. These fellowships support short-term visits of taxonomists to other institutes in order to work with colleagues there and exchange knowledge concerning abyssal material collected within CeDAMar. This instrument will allow taxonomists to cross-reference their samples with material from previous expeditions and natural history collections. The grants are typically up to 2,000 Euros. The upcoming application deadline is 15 March 2007. More information and application guidelines at: www.cedamar.org.

A **CeDAMar expedition** (**LEVAR project**) **took place** in the eastern Mediterranean aboard the RV *Meteor* 28 December 2006 to 15 January 2007. The cruise departed Heraklion, Greece, under Chief Scientist Dr. Michael Türkay, to investigate the diversity of the benthic fauna of the eastern Mediterranean deep sea and its correlation with abiotic and biotic parameters, particularly with depth and distance to coast. The study covered all size classes from microbes to megafauna and also examined the relative importance of pelagic production versus lateral transport for explaining diversity patterns in the

extremely oligotrophic Levantine Basin, southeast of Crete. For daily logs, visit: http://www.deepsearesearch.org. For more on LEVAR, visit the CeDAMar website.

CeDAMar and MANUELA-MarBEF co-hosted a workshop on "taxonomy and identification of deep-sea nematodes and the use of the NeMys tool kits" on 8-12 January at the University of Ghent (Belgium). The aims of the workshop were to: learn techniques for preparation of slides for taxonomic study, identify the major deep-sea genera, use NeMys as identification and archiving tool, make taxonomic descriptions for identification of within genera diversity. The NeMys database system was developed at the Marine Biology Section (Ghent University) to store as many as possible types of biological information (morphology, biogeography, taxonomy, literature, pictures, collections and molecular analyses) on mainly marine taxa in a fully digital way.

Mid-Ocean Ridges: Mid-Atlantic Ridge Ecosystem Project (MAR-ECO)

The **kick-off meeting for ECOMAR**, the UK MAR-ECO initiative, was held at Oceanlab, University of Aberdeen, Scotland on 29-31 January. The attendees finalized cruise and equipment requirements for the main disciplines (oceanography, circulation and remote sensing, pelagic fauna and biomass and benthic fauna and biomass) for the RRS *James Cook* cruise (JC011), planned for summer 2007.

The "Deeper than Light" exhibit has been selected as one of Norway's representatives for the "WONDERS" finals in Finland. The "WONDERS" Carousel of Science programme encourages interaction and collaboration between participating countries by providing support for exchanges between countries to generate a synergy effect in science communication across Europe and to strengthen the relationship between science and society. "Deeper than Light" was shown in the final Carousel Event in Heureka, in Vantaa, Finland, 8-9 December 2006.

MAR-ECO is also **making strides in unconventional art forms!** Former MAR-ECO E&O coordinator, Anette Petersen, now located in Brazil, teamed up with a local graffiti artist, Roderigo Vitoriio Libsboa Souza, to create an ocean-themed wall of art in Arambepe in the suburbs of Salvador in Brazil. Roderigo's huge graffiti painting shows fishes, cephalopods, medusa and other



deep-sea organisms artistically woven in between colourful letters reading MAR-ECO.

The **Centro Virtual de Interpretacao Marinha** (**CIMV**), a center for outreach and education on marine biodiversity and ecosystems of the Mid-Atlantic Ridge, was inaugurated in the Azores (Horta) on 9 January. The center is a model submersible (called CIMV3000) that contains a number of computers with 3D simulations of the world underwater to give visitors a virtual trip to the coastal and oceanic ecosystems of the Azores. Some of the image and video used in CIMV are provided by MAR-ECO and ChEss, and the center itself was coordinated by Ricardo Serrão Santos, a member of the steering groups of both projects. For more, see: www.cimvazores.info.

The new book "Biogeography of the North Atlantic Seamounts" (edited by A. Mironov, A. Gebruk and A. Southward) was published in Moscow with support from MAR-ECO.

Seamounts: Census of Marine Life on Seamounts (CenSeam)

CenSeam PI **Karen Stocks welcomes daughter, Addison Leigh**, born on 17 February. Congratulations to Karen and her husband!

The CenSeam **Data Analysis Working Group (DAWG)** met in rain-soaked San Francisco in December, in association with the American Geophysical Union (AGU) meeting. The DAWG addressed the difficulties inherent in finding regional faunal datasets for seamounts that can be combined to undertake a robust multi-taxa analysis. The meeting focused on datasets from the South Pacific region and concluded with some recommendations for further work - which will ultimately be made available online and in publications but early versions have been made available to COMARGE to facilitate linkages between the projects.

The final activity planned for the current phase of CenSeam is an **image analysis workshop**, tentatively scheduled for May 2007. The workshop will bring together members of CenSeam's DAWG and Standardisation Working Group (SWG), as well as recognized specialists, to review existing methods that can help standardize image analysis approaches to allow for more comparable data analyses on seamounts from a number of programmes. It will be held in Western Europe and is in the final stages of planning.

There have also been some **changes within the CenSeam steering committee**, with Tony Koslow departing and Alan Williams joining. Tony leaves to concentrate on a new position as a research professor at the Scripps Institution of Oceanography (University of California, San Diego) and Director of CalCOFI. Alan joins us from Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) and is an expert in fish taxonomy and fisheries biology. We welcome Alan and wish Tony good luck in his new position. The steering committee currently has a total membership of 13 individuals from 11 countries.

The **second CenSeam voyage** sailed to the Rumble III seamount in New Zealand in October 2006. The aim of the voyage was to determine the influence that Rumble III had on the water column, and involved the collaboration of physicists and biologists. The work was followed on land via a daily-web page. A **third CenSeam voyage is scheduled** for March 2007, and will visit seamounts south of Australia (in Tasmania) aboard the Southern Surveyor.

The DAWG report on "Seamounts, deep-sea corals, and fisheries: vulnerability of deep-sea corals to fishing on seamounts beyond areas of national jurisdiction" was published at the end of 2006, and is available at: http://www.unep-wcmc.org/resources/publications/UNEP_WCMC_bio_series/25.htm. The work was funded by the Dutch Government and the report published by UNEP-WCMC. The Executive Summary was distributed in New York on 4-5 October to the negotiators involved in the first round of the UN General Assembly's fisheries resolution negotiations, and work has also been presented at several international conferences (e.g. Deep-sea biology symposium, American Geophysical Union) with scientific papers being prepared for publication.

On 22 December 2006, the fully edited draft of "Seamounts: Ecology, Fisheries and Conservation" was delivered to Blackwell (Oxford, UK) publishers. This is co-sponsored by CenSeam and will be published in the Fisheries and Aquatic Resources Series (FAR) this year.

In May 2006, the New Zealand research vessel *Tangaroa* visited the Graveyard seamount complex. CenSeam used the cruise to **outreach to New Zealand students**. The voyage was followed by scientists and the public through the CenSeam website. School children from Miramar Central School in Wellington, New Zealand were regular visitors and in October PhD student Michelle Carter and CenSeam coordinator Mireille Consalvey visited the school to talk more about the voyage. Michelle and Mireille talked to the children about life aboard a research vessel, and how we sample seamounts. The children were able to see some of the weird and wonderful creatures that have been found on seamounts - learning about creatures ranging from the elusive giant squid to a new species of carnivorous sponge. The visit gave the children the opportunity to ask the scientists questions first hand – including *Is the Loch Ness monster real?*

Malcolm Clark attended the MAR-ECO South meeting in Brazil last September to discuss plans for MAR-ECO research on the southern mid-Atlantic Ridge. The CenSeam interest in this was through the number of seamount features along the mid-Atlantic Ridge and side-ridges coming off it, and the limited biodiversity information from the region (SeamountsOnline has about 400 faunal records from 15 seamounts).

Look for **more CenSeam news** in its forthcoming newsletter, which will be available at: http://censeam.niwa.co.nz/censeam_news/.

Vents & Seeps: Biogeography of Deep-water Chemosynthetic Ecosystems (ChEss)

Eva Ramirez-Llodra and David Billett authored a chapter in *The Exploration of Marine Biodiversity* (www.fbbva.es). The chapter, about deep-sea ecosystems, featured the innovative work being done by ChEss, COMARGE, MAR-ECO, CeDAMar, and OBIS.

The **March 2007 issue of** *Oceanography* **magazine** is a special edition on InterRidge. ChEss was a cosponsor of the issue and contributed papers, including "Biodiversity and Biogeography of Hydrothermal Vent Species: Thirty Years of Discovery and Investigations," by Eva Ramirez-Llodra, Tim Shank, and Chris German.

A **special issue of Marine Ecology in March 2007** focuses on the Biology of Vents, Seeps, Whale and Wood Falls.

On 26 January, ChEss steering group member Tim Shank (WHOI) participated in the **first link-up between a deep-ocean submersible and the International Space Station**. Tim is co-leader of the current National Science Foundation-funded Ridge2000 expedition to the famed hydrothermal vent field at 9°N, 104°W, site of an extensive underwater volcanic eruption in 2005-2006. The unusual life in the extreme pressures and temperatures of the abyss have provoked interest from scientists interested in astrobiology. During the call, Tim was diving in Alvin on the East Pacific Rise. He compared notes on science in extreme environments and on the value of firsthand human exploration with astronaut Sunita Williams, as she orbited on the International Space Station.

ChEss will be holding its next steering group meeting in the Galapagos Islands on 27-28 June, along with a symposium on 30 June to celebrate the **30**th **anniversary of the discovery of hydrothermal vents**. The discovery of the vents occurred in the Galápagos Rift in 1977 (CoML SSC Chair Fred Grassle participated in the cruise) and changed our understanding of life on Earth, sparking thirty years of research and exploration like that of ChEss. The public symposium on 30 June, in collaboration with InterRidge and Ridge2000, will feature talks about past, present and future research in hydrothermal vents, movies and an exhibition. For more information, visit: www.noc.soton.ac.uk/chess/galapagos.html.

Arctic: Arctic Ocean Diversity (ArcOD)

ArcOD project leaders **Bodil Bluhm and Rolf Gradinger are new proud parents** of a baby girl, Tuuli, born on 21 November. Congratulations to Bodil and Rolf!

The **ArcOD** scientific steering group held its third meeting in Frankfurt, Germany, at the Senckenberg Museum, on 19-20 February. This was followed by the **1**st **International Polar Year (IPY) Arctic Marine Biodiversity Cluster Meeting** on 20-22 February, also held in Frankfurt. Dr. Pedro Martinez (CeDAMar) kindly helped organize these meetings and EuroCoML kindly co-sponsored the IPY Meeting. The latter brought together investigators of biodiversity-focused IPY projects to facilitate synergies, identify overlap and begin to develop a 'cluster' identity. IPY begins in March 2007 and last through March 2009 (www.ipy.org).

ArcOD **outreach activities planned for IPY** include an exhibition of ArcOD photography in combination with paintings by a Fairbanks artist, inspired by Arctic marine fauna. Fairbanks art gallery owner and painter Dave Mollet offered to host this exhibit.

Kevin Raskoff's siphonophore image, which graced the cover of the CoML 2005 highlights report, was featured in the **21/28 December 2006 issue of** *Nature*. The photo of the creature, dubbed jelly rocket by the magazine, was selected for *Nature*'s 2006 gallery of exciting science imagery.

Falk Huettmann, ArcOD and Institute of Arctic Biology at UAF, co-organized a **Metadata Workshop** in collaboration with the Alaska Region Supercomputing Center, held in Fairbanks on 18 January. The agenda included presentations on the why and how of metadata, examples of large-scale projects requiring strict metadata formats, as well as hands-on demonstrations.

Antarctic: Census of Antarctic Marine Life (CAML)

The **CAML team returned from sea!** Aboard the RV *Polarstern*, 47 scientists from twelve countries explored the biological diversity of an oceanic region alongside the Antarctic Peninsula. This region has become accessible to science after a large section of the Larsen B Ice Shelf collapsed in 2002, enabling scientists to answer: What kind of life actually existed under the former floating ice shelf which was up to several hundred meters thick? What are the prospects for the future after the collapse of the ice shelf? Among their findings were 15 potential new amphipod species, including one of the largest ever

collected, four presumed new species of cnidarians, and deep-sea species (sea cucumbers and stalked feather stars) at unusually shallow depths. The expedition, which ran from 23 November 2006 to 30 January 2007, contributes to CAML initiatives during the International Polar Year, which was launched on 1 March 2007. Images, video and daily logs from the ship's scientists are available at: www.cousteau.org/caml.html. The news release of the findings on 25 February has since generated 75 or so known original stories prepared by various media organizations worldwide, which now appear on 200+ media websites in eight languages across 27 countries.

In early January, the Cousteau Society's Project Leader and polar expert Tarik Chekchak set sail from Ushuaia, Argentina aboard the icebreaker *Gregoriy Mikheev*. Over the course of a month, Chekchak **retraced the path taken by Captain Jacques Cousteau** and his ship *Calypso*, revisiting the sites of the two Cousteau expeditions, five films and petition campaign for the protection of Antarctica that constitute part of the Society's historical commitment to the preservation of the ice continent. Follow the journey on the Cousteau Society website.

Top Predators: Tagging of Pacific Pelagics (TOPP)

TOPP Education and Outreach support has shifted away from the Monterey Bay Aquarium and now resides among Stanford and UCSC academic institutions. Multimedia journalist and long-time science reporter **Jane Stevens has been hired to lead the Education & Outreach efforts**. Web and infographics designer Val Krist has also joined our team. TOPP is exploring the potential of syndicating its content on popular social networking sites such as YouTube, MySpace, Bebo, and others. These sites, based on community submission of content, are a relatively new phenomenon on the Web and their potential as channels of educational communication are just now being investigated.

TOPP has started a blog! The current postings include a story on shark tracking by white shark researcher Sal Jorgensen and a video of elephant seals at dawn. Visit the blog at: http://ontoppoftheworld.blogspot.com/.

The **10 November issue of Geophysical Research Letters** contains a publication by TOPP researchers Michael J. Weise, Daniel P. Costa, and Raphael M. Kudela titled: "Movement and diving behavior of male California sea lion (Zalophus californianus) during anomalous oceanographic conditions of 2005." Download the publication at: http://www.toppcensus.org/web/PublicationDetails.aspx?id=22.

The **20 December 2006 issue of Live Science** presents TOPP research efforts based at the University of California, Santa Cruz. Discussed are the potential contributions of TOPP tagging data to oceanography. View this article at: http://www.livescience.com/animalworld/061220 animal scientists.html.

Another story about TOPP's elephant seal oceanographers was featured on the front page of **www.nasa.gov** in early February.

The tagging efforts of the TOPP Seabird working group are highlighted in **12 December 2006 of BBC News**. The story discusses how Albatrosses are being used to gather sea-surface temperature readings in the North Pacific. View this article at: http://news.bbc.co.uk/2/hi/science/nature/6161167.stm.

TOPP researcher **Rory Wilson received a 2006 Rolex Award**, supporting individuals breaking new ground in areas that advance human well-being and knowledge. Rory was honored for his work to develop a lightweight electronic logging device for observing animals in their environment. The new logger harnesses the laws of physics to accurately estimate the energy expenditure, as well as information about behavior and location, of animals on land, at sea, and in the air.

Zooplankton: Census of Marine Zooplankton (CMarZ)

The **CMarZ Steering Group meeting** was held 6-8 November 2006 in Tokyo, Japan. Hosted by CMarZ co-P.I. Shuehi Nishida (Ocean Research Institute, University of Tokyo), the meeting began with a public symposium on Nov. 6th. Zooplankton experts from Japan made presentations, and listened to presentations by CMarZ researchers. The next steering group meeting is tentatively scheduled for March 2008, in conjunction with the Ocean Sciences meeting in Orlando, Florida.

CMarZ steering group member **Vijayalakshmi R. Nair participated in a workshop** on a "Biogeographic Information System for Indian Ocean," held at India's National Institute of Oceanography Regional Centre in Kochi on 25-26 September 2006. The workshop was organized under the auspices of IndOBIS, one of the seven regional nodes established by OBIS. IndOBIS is responsible for the collection, collation and dissemination of data and information about the biodiversity in the Indian Ocean region through its portal http://www.indobis.org. Dr. Nair presented the objective, responsibilities and achievements of CMarZ.

Training courses on zooplankton ecology and identification were held in Haiphong City, Vietnam (6-8 Nov. 2006) and at the University Putra in Malaysia (27-29 Nov. 2006). The course included a census of jellyfishes and jellyfish fisheries in Vietnam, coral reef food-web dynamics in the region, and production of an identification manual of Asian zooplankton. Funding was provided by the Japan Society for the Promotion of Science.

In 2006, **CMarZ members collected samples on over a dozen cruises**, ranging from the Poles to the Tropics. Beautiful photographs of zooplankton from the *Galathea-3* expedition northwest of Australia (November 2006), taken by CMarZ steering group member Russ Hopcroft, can be viewed at www.cmarz.org (click on links to Gallery, then Zooplankton II).

Microbes: International Census of Marine Microbes (ICoMM)

ICoMM will soon announce a **call for participation** in "Unveiling the Ocean's Hidden Majority through 454 Tag Sequencing." See: http://icomm.mbl.edu/.

ICoMM was a **sponsor of "Plankton as an Artistic Inspiration"** at the ASLO Ocean Sciences Meeting in Santa Fe, New Mexico (4-9 February 2007). This exhibit, open to the local community, explored artistic inspiration derived from plankton under a set of themes: 1) Ernst Haeckel and his Influence, 2) Medusae as an Artistic Inspiration, 3) Art Scientists Saw in their Subject, 4) Plankton and the Decorative Arts and Crafts, 5) Bioluminescence - Inspired by Fire, and 6) Plankton in Fiber.

On 13 March, Craig Venter and his team will celebrate the publication of findings from the first half of the Sorcerer II Expedition. The papers will be published in a **special edition of** *PLoS Biology*. SSC Vice Chair and co-author Victor Gallardo participated in the cruise and will attend the festivities in Washington DC.

In December, ICoMM was **awarded renewal funding** for three more years. Congratulations to Mitch Sogin, Jan de Leeuw and the entire ICoMM team.

National and Regional Activities

Arabian Sea

CoML and the Intergovernmental Oceanographic Commission (IOC) Perth Regional Programme Office will co-host a workshop on Ocean Observing and Biodiversity in the Arabian Sea and Gulf of Oman. The workshop is hosted by Sultan Qaboos University in Oman, under the leadership of Michel Claereboudt of the Department of Marine Science and Fisheries of the College of Agriculture and Marine Sciences. Other organizing committee members include Sharon Smith (University of Miami), Saiyed Ahmed (Sultan Qaboos University), Adnan Al-Azri (Sultan Qaboos University), William Erb (IOC Regional Office, Perth), D. James Baker (CoML SSC), and Ian Poiner (CoML SSC). The workshop will be held in June or October 2007.

Australia

The Australian Government is committing funding through the National Collaborative Research Infrastructure Strategy (NCRIS) to **establish an Integrated Marine Observing System (IMOS**). IMOS will deliver a true paradigm shift in Australia's marine research effort by creating an enhanced, nationally integrated capacity to collect marine data, draw it together and make it accessible to researchers and other users in a timely and usable fashion. Included in this initiative are components for an Australian Acoustic Tagging and Monitoring system, managed by the Sydney Harbour Institute of Marine Science to observe

the movements of marine animals in coastal and continental shelf ecosystems, and the Great Barrier Reef Ocean Observing System (GBROOS), developed by Australian Institute of Marine Science (AIMS) to observe the interaction of heat and light in coral bleaching and understand its influence on the ecosystems of the Great Barrier Reef.

Canada



On 12 February, the Canadian postal service issued domestic rate stamps to mark the International Polar Year (IPY). One **stamp features ArcOD scientist/photographer Kevin Raskoff's infamous jelly image**.

Peter Lawton has recently been elected as new Director for the Centre for Marine Biodiversity (CMB) of Fisheries and Oceans Canada. CMB is

strongly linked to CoML on a number of levels, including GOMA and the Canadian OBIS node, and Dr. Lawton has expressed his intentions to continue to promote this strong linkage.

Caribbean

The **Caribbean Regional Committee met on 12 February** at the Smithsonian Tropical Research Institution (STRI) in Panama. The group discussed ongoing participation in NaGISA, CReefs, HMAP and OBIS in the Caribbean, as well as new work in COMARGE, CeDAMar and ICOMM. There was strong participation, with attendees from 10 countries in the region.

The Caribbean regional center for NaGISA was awarded a **large grant from Chevron** to suppport an "expanded" NaGISA project to monitor marine biodiversity in the coast of Venezuela using nested designs. The 3-year grant begins in 2007.

China

CoML China has a new website. Visit it at www.coml.org.cn.

SUN Song, Chair of CoML China, **hosted the POGO-8 meeting** (Partnership for Observation of the Global Oceans) at his institution, the Institute of Oceanology of the Chinese Academy of Sciences, on 17-19 January. CoML was prominently represented at this meeting and was called upon by the Group on Earth Observations (GEO) to lead several actions in biological ocean observations. The agenda and presentations from this meeting are available at: www.ocean-partners.org/meetings/P8.htm.

Europe

Long-time CoML consultant and EuroCoML committee member, **Alasdair McIntyre and his wife Catherine recently welcomed their first grandchild**. Grandson Sebastian Jozef David was born in August. Congratulations to the McIntyre family.

CoML participant **Philippe Bouchet authored a chapter** in *The Exploration of Marine Biodiversity*, published by Fundación BBVA (www.fbbva.es). Philippe, a contributor of CReefs, COMARGE, and senior professor at the French National Museum of Natural History, reviews the global magnitude of marine biodiversity, including the current accelerated rate of species discovery. He calls out CoML as a potential turning point in restoring the image of taxonomy among marine sciences.

EuroCoML will co-host a workshop on novel modeling approaches to relate biodiversity of marine sediments to ecosystem functioning. Organized in conjunction with MarBEF and Diversitas, the workshop will take place on 4-6 June in Amsterdam, The Netherlands. The goals are to: develop new modeling approaches for benthic marine biodiversity research that are strongly linked to active empirical work within CoML, Diversitas and MarBef; establish a collaborative new research project; prepare a paper on the mechanistic modeling of marine benthic biodiversity; and strengthen collaborative links between the leaders in this field.

EuroCoML is **planning for workshops to discuss project ideas**, particularly on topics such as technology for biodiversity research or on biodiversity in trenches. A call for proposals soliciting ideas closed on 28 February. EuroCoML workshops aim to bring together European Scientists to discuss

project proposals that will go some way in answering the Census of Marine Life questions. For more information, visit the EuroCoML website.

EuroCoML is now producing its own **regular newsletter**. The inaugural issue from Autumn 2006 is available online.

Indonesia

Indonesia is in the process of establishing a national implementation committee for CoML. The committee office would be located at the Arafura and Timor Seas Experts Forum (ATSEF), housed in the the Agency for Marine and Freshwater Research (BRKP) of the Indonesian Ministry of Marine Affairs and Fisheries (MAFF) in Jakarta. Dr. Tonny Wagey would serve as Project Manager. Dr. Indroyono Soesilo, the Chairman of BRKP and of ATSEF Indonesia, has agreed to be the Chairman of the CoML Indonesia NIC.

Indian Ocean

IO-CoML has a new website. Visit it at: www.iocoml.org.

IO-CoML will **conduct a hands-on training on barcoding of marine life** on 16-21 April at the National Bureau of Fish Genetic Resources in Lucknow, India. Participants will have expertise in a wide range of marine taxa and will include 12 from India and 3 from east African nations. The outcome will be the establishment of network of scientists in the region interested in barcoding.

In November, IndOBIS Regional Node Manager, **Vishwas Chavan, was named Fellow of the Maharashtra Academy of Sciences.** He was selected for his significant contributions to Biodiversity Informatics. The induction ceremony of the new fellows was held on 27 October 2006 at Pune, India.

In February, IndOBIS leaders, Vishwas Chavan and C. T. Achuthankutty, will host **two workshops to promote OBIS**: (1) Workshop on Andaman and Nicobar Biogeographic Information System, 15-16 February, in Andaman & Nicobar Centre for Science & Technology, Port Blair, India, and (2) Workshop on Bay of Bengal Biogeographic Information System, 19-20 February, Centre for Advanced Studies in Marine Biology, Porto Nova, India.

South America

CoML South America is providing support to a **joint meeting of the Fish Barcode of Life (FishBOL)** and All Birds Barcoding Initiative (ABBI), scheduled for 14-16 March 2007 in Buenos Aires, Argentina. The main goal of the meeting is to advance in the implementation of FishBOL and ABBI in South America, to identify strengths and weakness in the region, establish cooperation networks and design regional strategies. Regional presentations on updates of the species identification performance, technical issues on sampling, sequencing and analysis and data management are scheduled. A special interest is to discuss topics on databases, local and regional capacities and expertise, funding sources strategic planning and South American cooperation.

SSC Vice Chair **Victor Gallardo authored a chapter on marine biodiversity** for *The Biodiversity of Chile*, released by the Chilean publisher Conama. See: http://www.conama.cl/portal/1301/channel.html.

Sub-Saharan Africa

Encouraged by the Sub-Saharan Africa NRIC and Tony Ribbink of the South African Institute for Aquatic Biodiversity, conversations are advancing to increase CoML involvement in the African Coelacanth Program and related initiatives on marine biodiversity in the Western Indian Ocean.

An OBIS data node, AfrOBIS (http://afrobis.csir.co.za:8000), has been established in South Africa, based at the South African Data Centre for Oceanography (SADCO). It is run by Marten Grundling and his staff. They have been very successful in obtaining data from South African data holders, and, to date, **AfrOBIS contains a remarkable 3 million plus local data points**.

Following a NaGISA meeting and training workshop in Mombasa, Kenya in June 2006, some **seagrass surveys have been undertaken in South Africa** and the data submitted. Charles Griffiths team at the

University of Cape Town will also be **working through NaGISA and HMAP** to resurvey a series of sites that were previously sampled in South Africa in the 1930s, in order to look for long term climate change induced changes. Also with HMAP, the South African group (researcher Kate Watermeyer) is constructing simulation models of the trophic structure of the Benguela region as it existed at various times in the past (e.g., pre-exploitation, at the peak of industrial exploitation, and now). This project is nearing completion and the results will be available with the next couple of months.

USA

Andy Rosenberg is the new chair of the U.S. National Committee. He took over the position from Daphne Fautin at the USNC meeting on 14-16 November in Corpus Christi, Texas. Daphne remains an active member of the committee. The USNC's next meeting will be held on 9-10 May in Washington DC.

The USNC welcomes four new committee members: Dr. Judith Connor, Director of the Information and Technology Dissemination Division at Monterey Bay Aquarium Research Institute (MBARI); Mr. Paul Kelly, a Energy and Ocean Policy Consultant who had previously served on the U.S. Commission on Ocean Policy; Dr. Judith Kildow, the Director and Principal Investigator for the National Ocean Economics Program, and the first Social Scientist at MBARI; and Dr. George Sedberry, a Senior Marine Scientist and Assistant Director at the Marine Resources Research Institute at the South Carolina Department of Natural Resources. Retiring from the USNC are long time members Tom Fry and Jerry Schubel, both of whom were original members of the USNC when it was established in 2002. Their contributions and efforts on behalf of CoML are greatly appreciated. For a current list of USNC members and bios, visit www.coml.us.

The USNC is planning a **workshop on "Ocean Observing: Using the Census of Marine Life as a Biological Component of IOOS,"** to be held 22-24 October 2007 in Washington DC. Workshop steering committee members include Daphne Fautin (OBIS), Mark Fornwall (USGS NBII), Pat Halpin (OBIS-SEAMAP), Alex Isern (NSF), Roy Mendelssohn (NOAA Fisheries), and Roz Cohen (formerly of Ocean.US).

The USNC is now producing its own newsletter. For recent issues, visit www.coml.us.

Crosscutting and Other Related Activities

Ocean Tracking Network

On 12 February, the Canada Foundation for Innovation announced \$35million (Canadian) contribution to provide infrastructure and operating **funds for the creation of the Ocean Tracking Network** (OTN). Canada's National Science and Engineering Research Council will provide an additional \$10 million (Canadian). OTN, based on the technology demonstrated by POST and TOPP, will allow researchers to record the movement and behavior of fish and other marine life, as well as monitor ocean characteristics, such as water depth, temperatures, and chemistry. Ron O'Dor serves as the principal investigator of the global project, which is based out of Dalhousie University. See: www.oceantrackingnetwork.org.

SCOR: Panel on New Technologies & Other Events

The **report of the SCOR Panel on New Technologies for Observing Marine Life** meeting on 18-20 October 2006 in Kobe, Japan is now available. Contact the Secretariat or SCOR Executive Director Ed Urban (scor@jhu.edu). The SCOR Technology Panel will next meet on 17 November in Auckland, New Zealand to coincide with the CoML All Program Meeting.

On 7-9 December 2006, SCOR hosted a second **Summit of International Marine Research Projects**. CoML participated in this meeting, organized to bring together representatives of the major international ocean research and observation projects and programs to discuss common opportunities, issues, and problems. The meeting agenda included several important inter-project issues, including data management and interactions of projects with World Data Centers; interactions of projects with the Global Ocean Observing System (GOOS); project coordination in the area of Southern Ocean research and bathymetry and International Polar Year activities; project needs for time-series stations; visualization

of data and capacity building. More information about the meeting is available at: http://www.jhu.edu/scor/ProjCoord2.htm.

Barcoding Marine Life

CoML welcomes Dirk Steinke as the general coordinator for marine barcoding. Dirk (University of Guelph, Canada) is setting up a marine barcoding webpage (view the draft site at: http://131.104.172.141/barcodingmarinelife.org/html/). Dirk and Bronwyn Holmes Innes (who has done great work barcoding sharks and tuna with Bob Ward at CSIRO in Australia) will participate in the marine barcode training course in India, 16-21 April, organized by Mohideen Wafar of the Indian Ocean NRIC and Dr. Lakra of India's fisheries research organization.

The **Sponge Barcoding Database (SBD) has been launched** and can be accessed via the 'Data' button at the Sponge Barcoding Project's website: www.spongebarcoding.org. The SBD was developed with the aim to function as the primary access point for DNA signature sequences together with providing information on conventional morphological taxonomic characters to aid species discovery, description and characterization.

Other interesting barcoding news can be found at <u>The Barcode Blog</u> (recent stories on Antarctic krill diets, chitons and protists).

Encyclopedia of Life

David Patterson, of the Marine Biological Laboratory in Woods Hole, attended the February 2007 CoML SSC meeting to present the plans and structure of the **Encyclopedia of Life initiative**. The initiative will be formally announced on 9 May 2007, and will be a close partner with CoML and OBIS in the development of marine species pages.

Cruise Database

The Partnership for Observation of the Global Oceans (POGO) is leading the development of a **new International Cruise Information Database**. The concept for this initiative was discussed at the POGO-6 and -7 meetings, where participants encouraged improved information sharing on pre-planned, planned, current and past cruises and related databases to enhance awareness of opportunities, to improve cost-effectiveness of cruises and to improve data mining. The online database is scheduled for launch around mid-2007.

Other Community News

Sea Change

In recent article "Sea change," Kristina Gjerde of IUCN Marine Programme **mentions CoML** as a program providing necessary information to be translated into better management practices. world_conservation_2007_01.pdf.

E&P Sound and Marine Life Program

A group of oil- and gas-producing companies, most of which are members of the International Association of Oil and Gas Producers (OGP), have embarked on a **new research initiative** on exploration and production (E&P) sound and its potential impacts on marine life. Together, the companies will provide funds for research on sounds produced during the E&P phases of offshore oil and gas operations, and the possible effects these sounds have on marine animals. More information about this program, including requests for proposals, is available at the program website: www.soundandmarinelife.org.

Funding & Employment Announcements

Information regarding Calls for Proposals and other opportunities (jobs, fellowships, post-docs, etc.) can be found at the CoML Secretariat website: www.comlsecretariat.org, under "Announcements of Opportunity."

Calendar of Upcoming Events

March

- 13-17 NaGISA workshop on the Taxonomy of Scalidophora, Shirahama, Japan
- Opening of the *Deeper than Light* exhibition at UNESCO headquarters, Paris, France
- **28-Apr11** CenSeam *Southern Surveyor* cruise to seamounts south of Australia (Tasmania)

April

- 9-13 Mediterranean Science Commission (CIESM) Congress, Istanbul, Turkey
- 15-19 XII COLACMAR Symposium & MAR-ECO South meeting, Florianopolis, Brazil
- 16-21 Indian Ocean CoML barcoding training, Lucknow, India
- 17-May 2 COMARGE-associated Philippines deep-sea cruise

May

- **6-9** BIO International Convention, Boston, MA, USA
- 9 Public Launch of Encyclopedia of Life, Washington, DC, USA
- 9-10 Meeting of the CoML U.S. National Committee, Washington DC, USA
- 9-13 IUBS 29th General Assembly, Washington, DC, USA

June

- 4-6 COMARGE Habitat Classification and Mapping workshop, Southampton, UK
- **4-6** CoML-EuroCoML-Diversitas-MarBEF workshop on Novel modeling approaches to relate biodiversity of marine sediments to ecosystem functioning, Amsterdam, Netherlands
- 4-8 CAML Steering Group meeting, Bialowieza, Poland
- 9-10 SCAR-MarBIN workshop, Bialowieza, Poland
- 13-15 2nd International Conference on Barcoding Life, Singapore
- 26-28 Meeting of the CoML International Scientific Steering Committee, Quito/Galapagos, Ecuador
- 27-29 ChEss Steering Group meeting & vent anniversary symposium, Galapagos, Ecuador
- **TBD** RV *Bigelow* cruise to the mid-Atlantic Ridge for MAR-ECO (tentative)

July

13-Aug19 ECOMAR (UK component of MAR-ECO) cruise to the mid-Atlantic Ridge on the *RRS James Cook*

September

- **3-6** SCOR Executive Committee meeting, Bergen, Norway
- 11-13 2nd Global Conference on Large Marine Ecosystems, Qingdao, China
- 17-21 ICES annual meeting, Helsinki, Finland
- **28-31** Annual MAR-ECO project and steering group meeting, Reykjavik, Iceland (tentative)

October

- 2-4 Ocean Biodiversity Informatics conference, Halifax, NS, Canada
- **26-Nov4** PICES Annual meeting, Victoria, BC, Canada

November

- 11-12 CoML E&O Workshop, Auckland, New Zealand
- 12-13 OBIS Governing Board, Auckland, New Zealand
- 12-13 COMARGE meeting, Auckland, New Zealand
- 13 CReefs meeting, Auckland, New Zealand
- 14 CoML Public Symposium, Auckland, New Zealand
- 15-16 3rd CoML All Program meeting, Auckland, New Zealand
- 17 Meeting of the CoML International Scientific Steering Committee & National and Regional Implementation Committees, Auckland, New Zealand
- 17 SCOR Technology Panel meeting, Auckland, New Zealand

- 17 CReefs meeting, Auckland, New Zealand
 17-18 CenSeam Steering Group meeting, *outside* Auckland, New Zealand
 28-30 GEO-IV Plenary Session and GEO Ministerial Meeting, Cape Town, South Africa