

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

13 July – 19 Aug: ECOMAR cruise to the Mid Atlantic Ridge - www.oceanlab.abdn.ac.uk/ecomar/index.php

28 Nov – 4 Feb: CeDAMar (ANDEEP-SYSTCO) cruise to Weddell Sea - www.awi.de/en/infrastructure/ships/polarstern/

Top News!

Bluefin Tuna: Past and Present

Census of Marine Life (CoML) historians and scientists are working to **chronicle past and present populations of Bluefin Tuna**. Research results from HMAP's Brian MacKenzie and the late Ransom Myers of FMAP were combined with those of TOPP's Barbara Block and her colleagues at Tag A Giant Foundation to paint an in-depth portrait of the status of Bluefin Tuna in the past and at present. The past work, published in *Fisheries Research*, detailed a burst of fishing from 1900 to 1950 that preceded the collapse of once abundant bluefin tuna populations off the coasts of northern Europe. The present results of modern electronic fish tagging efforts off Ireland and in the Gulf of Mexico, published in *Hydrobiologia* and *Marine Biology*, revealed remarkable migrations and life-cycle secrets of the declining species. To view the press release summarizing these stories and for links to the papers, please visit: www.coml.org.

2010 Reporting Framework

The formal recommendations of the 2010 Framework Committee (chaired by Paul Snelgrove) were presented to the SSC at its June 2007 meeting and focused on analysis of CoML project and stakeholder desires for information and the types of products that would meet those needs. The CoML community will be hearing these formal recommendations and agreeing to process-related issues at the All Program meeting in November.

Scientific Steering Committee (SSC)

The CoML international SSC held its last meeting in Ecuador from 26-28 June. On the 26th, they met in Quito, with guests from the CoML South American Committee and potential partners in Ecuador and Chile. The second day of the meeting was held in Puerto Ayora, Galapagos on the 28th, in conjunction with a meeting of the ChEss Steering Group and a celebration of the 30th anniversary of the discover of hydrothermal vents. Discussions at the SSC meeting focused on the 2010 synthesis report, including the reporting framework, supporting products and a process for accomplishing all of these tasks.

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

Three new CoML online databases are now operational for Bibliographic

(<http://db.coml.org/comlrefbase/>), Community (Contact, <http://db.coml.org/community/>) and Schedule

(<http://db.coml.org/schedule/>) information. A database for Milestones should become operational later in

the year. We ask all of the projects and NRICs to continually add and update their information. Once populated, these will be useful tools for all of us, but this is dependent on the input of the community.

Education and Outreach

The E&O team at URI will hold a **meeting of E&O liaisons from all of the CoML Projects and NRICs** on 11-12 November 2007 in Auckland, New Zealand. This will be in conjunction with the All Program meeting. Topics will include 2010 priorities for education and outreach, establishing the Portal as a CoML Legacy, using graphic design to enhance communications, the status of CoML's educational legacy, and building press awareness.

Database: Ocean Biogeographic Information System (OBIS)

OBIS will hold a biogeography workshop at the CoML All Program Meeting in New Zealand to discuss one of the common interests amongst CoML projects, namely biogeography. The meeting will precede the CoML Public Symposium on the morning of Wednesday, 14 November 2007. The meeting hopes to help projects understand how OBIS can help them in their research and address how OBIS can prioritize its development to address the needs of the CoML participants. CoML project representatives should RSVP to Mark Costello (m.costello@auckland.ac.nz) and Edward Vanden Berghe (evberghe@gmail.com).

Pat Halpin and his team at Duke University, who are currently developing OBIS-SEAMAP, an online database that tracks the movements of endangered species in the oceans and can create predictive maps of a species location, were recently **featured in separate articles in the New York Times and Duke Environment**, a publication of the Nicolas School of the Environment and Earth Sciences. Halpin uses geospatial technologies such as GIS software, satellites, remote sensing and model simulations to help scientists and policymakers find improved ways to protect species, improve fisheries and manage the ocean's resources. Halpin explains that these technologies "help us surmount problems that used to be insurmountable, and collect, manage, analyze and share data in ways that were unimaginable before". The articles can be viewed at <http://www.nicholas.duke.edu/dukenvironment/sp07/f-mapping.html> and <http://www.nicholas.duke.edu/notebook/>.

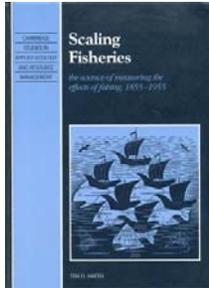
The Centre for Marine Biodiversity and the Bedford Institute of Oceanography (BIO) are proud to announce the opening of general registration for the Ocean Biodiversity Informatics (OBI) **International Conference on Marine Biodiversity Data Management** being held at the Bedford Institute of Oceanography, Dartmouth, N.S., Canada, on 2-4 October 2007. This conference is **co-organized by the Ocean Biogeographic Information System (OBIS)**, the International Ocean Data and Information Exchange (IODE), the International Council for Exploration of the Sea (ICES). The goal of the conference is to focus on biological data quality issues and the value of cross-disciplinary interchange. Links to the registration form and additional conference information, including abstracts of 45 oral presentations and 12 posters that have already been submitted, can be found at the conference website: <http://www.marinebiodiversity.ca/OBI07>.

The **OBIS Managers' Committee met in Sao Sebastiao, Brazil** from 16-17 April 2007 at the Centro de Biologia Marinha, Universidade de Sao Paulo. The committee discussed the future of the OBIS network and its sustainability after 2010. Bob Branton stepped down as the MC Chair and Vishwas Chavan was elected as the new Chair. OBIS would like to welcome Vishwas and thank Bob for his dedicated work as Chair. Bob will still remain active, leading many of the OBIS Working Groups.

Oceans Past: History of Marine Animal Populations (HMAP)

HMAP has issued a first announcement and call for papers for a workshop on "**Cod and Herring: The Archaeology and Early History of Intensive Fishing**," to be held in Westray, Orkney, Scotland on 4-8 June 2008. The is sponsored by the International Council for Archaeozoology, the History of Marine Animal Populations, the Global Fisheries History Network and the McDonald Institute for Archaeological Research at the University of Cambridge and aims to bring archaeologists and historians together to discuss the origins and consequences of fishing on cod and herring. As Westray is a small island and the number of participants will be limited, early expressions of interest are strongly advised. Visit

<http://www.mcdonald.cam.ac.uk/conferences/codherring2008/> for more information or contact CodHerring2008@mcdonald.cam.ac.uk.



Tim D. Smith's book on the history of fisheries science is to be reprinted by Cambridge University Press during the summer of 2007. The book, Scaling Fisheries: The science of measuring the effects of fishing, was originally printed in 1994. To read the preface, visit <http://www.hmapcoml.org/Default.asp?ID=403>.

HMAP has been **awarded two years of renewed funding** to continue the program. Congratulations to Poul Holm, Andy Rosenberg, and the entire HMAP team!

Oceans Future: Future of Marine Animal Populations (FMAP)

FMAP has a **new office manager and outreach coordinator, Zoey Zahorodny**. She is replacing Gretchen Fitzgerald, who has taken a job with the Sierra Club, Canada. Zoey received her Masters Degree at the University of North Carolina and brings with her experience in managing scientific labs and outreach programs. Contact her at: zoey@mathstat.dal.ca.

In March, the Associated Press reported on a project of the late FMAP member Ransom Myers, who sadly passed away on died on March 27, 2007 after battling a brain tumor. The study found that the **over fishing of great sharks on the U.S. east coast has had major ecosystem consequences**, leading to the decline of bay scallop populations. RAM Myers and Charles Peterson, working on separate projects, realized that their research had an interesting connection. As the number of sharks decline, the number of skates and rays increase, as does their consumption of shellfish, particularly the bay scallops. Scallops, once prevalent, are easy meals for rays since they do not burrow into the sand. The scallop numbers are so reduced that there is a fear their spawning is being inhibited. This research may demonstrate how removing a top predator in the ocean, such as a shark, can have cascading effects in the food chain. Scientists will debate whether the decline in scallops is related to the over fishing of sharks or simply due to loss of habitat and environmental changes. But the message the research sends is an important one: that ecosystems are sensitive and the loss of top predators can have more damaging effects on the entire system. The negative effects could eventually upset human activities as well, such as impacting fisheries. More information can be found at the Global Shark Assessment website:

<http://www.globalshark.ca/pressmaterial/cascading/pressmaterial.php>.

Ocean Present: Realm Field Projects

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

The **NaGISA Protocols have been adopted** by *Monitoring 1000*, a national Japanese survey of biodiversity. Information on this development and the chosen sites will be made available shortly at <http://www.nagisa.coml.org/>.

The NaGISA protocols for seagrass and macroalgal habitats have been published in a **special handbook entitled "Sampling Biodiversity in Coastal Communities."** The guides were written with the intent of instructing life science students and researchers on handling specimens outside their own field of expertise.

NaGISA's Indian and Atlantic Ocean regions are joining up for a **cross cultural educational and scientific exchange program** this (northern) summer. High school exchange students from Florida and Zanzibar will work together to sample NaGISA's first island site in the Indian Ocean, along with researchers from the University of Dar es Salaam and the Kenyan Marine Fisheries Research Institute.

Reefs: Census of Coral Reefs (CReefs)

The **launch of the Australian CReef** will take place on 22 August 2007. Mr. Marcus Randolph, Group Executive and Chief Executive Ferrous and Coal, BHP Billiton and the Honorable Malcolm Turnbull, Minister for the Environment and Water Resources, will announce the launch, as well as a grant to Australian Institute of Marine Science (AIMS) for three Australian CReef sites.

The **SANTO 2006 Expedition**, a contributing project to CReefs, has published its 2006 Progress Report. The report summarizes the first findings of the expedition to the South Pacific island Espiritu Santo in Vanuatu. Perhaps their most exciting results were not the numbers of species collected (1,000 liters of ethanol was used to preserve the samples), but the growing patterns of spatial distributions and species assemblages. There is hope that these emerging patterns will lead to more highly developed assessments of biodiversity in future studies. The Santo Expedition willingly admits that the project was so successful due to the eager and knowledgeable participants. Numerous scientific papers are expected to be published on the results in the upcoming months and years. The next expedition, planned for 2008-2009, will focus on Mozambique and Madagascar. For more information, visit the expedition website at www.santo2006.org.

Regional Ecosystems: Gulf of Maine Area Program (GoMA)

Peter Lawton has agreed to serve as GoMA's new project manager. Peter is the Director of the Bedford Institute of Oceanography's Centre for Marine Biodiversity (Fisheries and Oceans Canada).

Peter Lawton has an article on the Gulf of Maine Discovery Corridor in the **Summer 2007 issue of "Gulf of Maine Times."** The article describes the origins of the discovery corridor and makes special note of new deep sea coral species occurrences reported at a March 2007 workshop. Read the article at: <http://www.gulfofmaine.org/times/summer2007/biodiversity.html>. View video from the Discovery Corridor at: <http://www.marinebiodiversity.ca/cmb/news>.

The **National Marine Education Association's Downeast 2007 conference** was held on 23-27 July 2007 in Portland, Maine. The theme for the conference was "**Ideas, Innovations, and Inspirations.**" National Marine Education Association members are always searching for new ideas and methods for educating children and adults about the marine environment. The program included a keynote lecture by CoML Senior Scientist Ron O'Dor and presentations by GoMA project team members Lew Incze and Suzy Ryan. For more information, visit the conference's website at <http://gommea.org/downeast2007/>.

Colin Woodard's in depth look into the Gulf of Maine program appears in the July 2007 issue of Down East magazine. Entitled 'Race Against Time', the article describes how "**scientists are rushing to crack the mysteries of the Gulf of Maine before the clock runs out**". To purchase the July issue featuring this article, visit <http://www.downeast.com/index.php/page/issues/id/2671>.

Continental Shelves: Pacific Ocean Shelf Tracking (POST)

The Ocean Tracking Network (OTN), which will utilize technology developed and demonstrated through POST and TOPP, was featured in the May 2007 issue of ECOS, Australia's most authoritative magazine on sustainability in the environment, industry and community. The article, "Ocean management goes global," highlights the tracking technology as a way to collect data to assist conservation and management of over-fished and endangered species by providing critical information on animal migration, habitat ranges and mortality, predator-prey interactions and climate-induced changes in physical ocean properties such as temperature, salinity and currents. POST Senior Scientist, George Jackson, stated, "In many ways POST is the flagship program of what OTN will become around the world. Broadly, the OTN aims to expand POST tracking around the world, and then combine the tagging technologies used in POST and TOPP to revolutionize underwater tracking of marine organisms." Read the article at: http://www.publish.csiro.au/?act=view_file&file_id=EC136p34.pdf.

The POST Management Board will meet 5-6 September in Vancouver, BC, Canada.

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

The **next COMARGE workshop will be held 3-7 September 2007 at NIWA** (National Institute of Water and Atmospheric Research) in Wellington, New Zealand. The workshop is entitled "COMARGE Workshop on Marine Squat Lobsters" and will deal with the worldwide distribution and taxonomy of Galatheids and allied taxa (Chirostylidae and Kiwaidae).

COMARGE held a **workshop on habitat mapping** at the National Oceanography Centre, Southampton on 4-6 June 2007. The workshop hoped to 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 also planned to agree upon a habitat classification scheme for COMARGE by comparing the different classification schemes used, their convergence, their divergence and the practicalities to merge them, at least for the purpose of the project. That discussion will hopefully contribute to the development of a habitat classification system for OBIS searches.

COMARGE's UNESCO/IOC Training-Through-Research program and the European Union project HERMES **explorations in the depths of the Gulf of Cadiz revealed two new species**. A new ghost shrimp, family Callianissidae, was discovered in sediments from the outer rim of the Captain Arutyunov mud volcano crater. The new species' unusual morphological features led to the creation of a new sub-family, the Vulcanocalliicinae. The second new species, a hydroid (*Tubiclavoides striatum*) was found to be common in the Gulf of Cadiz, growing in colonies fixed on carbonate chimneys, coral debris, polychaete tubes, sponges and other hydrozoan species. For more info visit the COMARGE website: <http://www.ifremer.fr/comarge/en/News.html>.



The **Expedition to the Deep Slope 2007** took place aboard the NOAA ship Ronald Brown from June 4 to July 6. The cruise was a continuation and expansion of the 2006 expedition to study hydrocarbon seep communities deeper than 1000 meters in the Gulf of Mexico. The 2007 mission planned to focus on sampling and mapping four sites visited in 2006 as well as new sites identified from seismic data. The scientific team included US scientists who have led explorations of the cold seeps in the Gulf of Mexico for the last 20 years as well as international seep experts, and CoML scientists, from Germany, France and Austria. Web coverage of the expedition, including logs, photos and video is available on NOAA's Ocean Explorer website: <http://oceanexplorer.noaa.gov/explorations/07mexico/welcome.html>.

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

CeDAMar's 2007 SSC meeting will take place 11-14 September in Korcula, Croatia. The group will discuss activities of CeDAMar, the upcoming All Program Meeting in New Zealand in November, and CeDAMar's legacy in 2010 and beyond.

MARBEF-MANUELA is offering a **workshop on meiobenthological methods** at the German Centre for Marine Biodiversity Research, Senckenberg Institute in Wilhelmshaven from 15-20 October 2007. You can visit the website at <http://www.marbef.org/projects/Manuela/meeting.php#work7> or contact jan.vanaverbeke@ugent.be.

ANDEEP, a component project of CeDAMar, **finds potential 'cradle of life' in Antarctic Deep Water**. The ANDEEP findings were recently published by lead author, and CeDAMar researcher, Angelika Brandt in the **17 May 2007 volume of Nature**. It had once been assumed that the deep, cold water of the world's oceans was void of rich marine life. However, the recent findings of the ANDEEP (Antarctic Benthic Deep-Sea Biodiversity) project suggest that marine life may have originated in Antarctic waters. Researchers on the ANDEEP project collected biological samples from the Weddell Sea, part of the Southern Ocean, at depths ranging from 2,000 to 21,000 feet. They focused on cataloging the overall biodiversity, as well as searching for any connections between organisms found in shallow and the much deeper waters. Looking at evolutionary adaptations, such as the absence of eyes in deep water organisms, the researchers found that some species apparently moved from the deep ocean to the much shallower shelf. The Southern Ocean has changed little in the past 40 million years, giving these organisms ample time to evolve. Another exciting discovery was the existence of nearly identical species of foraminifera in the Weddell Sea and the Arctic Ocean, strengthening the awareness of the significant link between the Southern Ocean and other oceans, including the Atlantic. Understanding the complex biodiversity of the deep ocean will hopefully continue to bring forth many fascinating insights into the overall global distribution of marine life. To view the letter to Nature, which has created a large amount of public interest, go to <http://www.nature.com/nature/journal/v447/n7142/abs/nature05827.html>. A news article about the discovery can be read at <http://news.nationalgeographic.com/news/2007/05/070516-deep-sea.html>.

The CeDAMar crew will pack its bags for another **ANDEEP-SYSTCO cruise** to the Antarctic, which sets sail on 28 November 2007. SYSTCO is a follow-up project of ANDEEP and was chosen by the organizing committee of the International Polar Year (IPY) as a lead project. The *Polarstern* cruise will run through 4 February 2008 and concentrate on coupling processes between the atmosphere, water column and deep-sea floor in the Southern Ocean, along the meridian north and south of the Polar Front. Education and Outreach staff from CAML and CeDAMar will be taking part in the expedition as well. You will be able to follow the ship's course at: <http://www.awi.de/en/infrastructure/ships/polarstern/> or <http://www.deepsea-research.org/>.

CeDAMar's **datamining of published benthic species reports** below 2000 meter depth is an ongoing process. Hopefully by the end of 2007, most of the existing reports of this nature will be supplied to OBIS.

In late March, a **workshop on deep-sea Isopoda** was held at the German Centre of Marine Biodiversity Research in Wilhelmshaven. Twenty-three international taxonomists discussed their knowledge and ideas about the emerging techniques for species descriptions and systematics. Main topics covered included standard methods, the use of computer software, molecular genetics and different microscopy methods such as scanning electron microscopes (SEM) and confocal laser scanning microscopy (CLSM). The discussion also touched on how the above techniques could contribute to the accuracy of species descriptions, accessibility and the amount of information available.

Dr. Adrian Glover of the Natural History Museum in London agreed to compile a **summary of the January 2007 abyssal polychaete workshop** held at the Darling Centre. The summary will be made available for download on the CeDAMar website: www.cedamar.org.

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

Members of the ECOMAR project, an element of MAR-ECO funded by the Natural Environment Research Council (NERC), are participating in a **research cruise from 13 July to 19 August on one of the world's newest research vessels**, the *RRS James Cook*. This is one of three cruises of the ECOMAR project, led by Monty Priede, a member of the MAR-ECO Steering Group, which will explore the Mid-Atlantic Ridge. Thirty-one scientists explored life in the North Atlantic Ocean at various depths of 800 to 3,500 m, uncovering a wealth of new information and insights, stunning images and marine life specimens, with one species thought to be new to science. The ECOMAR research will be mainly concentrated around the Charlie Gibbs Fracture Zone, a giant canyon hundreds of kilometres long and about 35km wide that cuts through the mountain range and connects the two halves of the ocean. The researchers aim to determine the local, regional and global ecological impact of the Mid-Atlantic Ridge as a physical structure. It will provide a comprehensive overview of how all forms of life interact and function in this environment. To read the daily reports from the cruise, visit <http://www.oceanlab.abdn.ac.uk/blog/>. For more information on ECOMAR, visit: <http://www.oceanlab.abdn.ac.uk/ecomar/>.



The “Deeper than Light” traveling exhibition about the deep sea celebrated its Portuguese opening in Porto on 12 June 2007. The exhibition took place at a **brand new discovery center, PLANETA MAR**, a collaboration between the Matosinhos community and the Interdisciplinary Marine and Ambient Water Research Centre (CIIMAR). PLANETA MAR offers “hands-on” activities for school children, as well as hosting traveling exhibitions on marine topics. The opening at PLANETA MAR was hosted by the Norwegian Embassy in Portugal.

Jazz musician Oded Ben-Horin has **translated MAR-ECO images into music and lyrics**. The music for “Underwater” was inspired by MAR-ECO and written for the “Deeper Than Light” traveling exhibition. “Underwater” consists of four compositions, the first of which was written for a short film about the species viewed during the G.O. Sars cruise and is described as “rhythmically very active and surprising, symbolizing the deep sea’s wondrous but dangerous realities”. The music can be heard online at www.thesciencefair.net.

MAR-ECO has been **awarded two years of renewed funding** for the next phase of the project. Congratulations to Odd Aksel Bergstad and the entire MAR-ECO team!

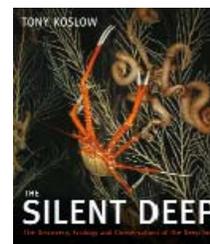
Seamounts: Census of Marine Life on Seamounts (CenSeam)

The CenSeam Standardisation Working Group (SWG) and the Data Analysis Working Group (DAWG) held an **image analysis workshop**, 14-17 May 2007 in Plymouth, UK. The workshop brought together members of CenSeam's DAWG and SWG, as well as recognized specialists, to review existing methods of image collection, design, processing, storage, and data analysis. The outcome of the workshop will be a final report to include recommendations for standards for consistent data collection and methods.

The **third CenSeam voyage** to the Tasmanian Seamount set sail in April 2007. The Australian Marine National Facility Research Vessel *Southern Surveyor* set sail with 14 scientists to survey a number of seamounts south of Tasmania. The voyage was very successful with over 600 different taxa photographed, with sponges making up the greatest number of species. Many ship-to-shore communications were planned and can be viewed, along with project objectives, summaries and ship information on line at: <http://www.marine.csiro.au/nationalfacility/voyages/0207/index.html>.

A CenSeam mini grant funded a **revision of deep-sea coral collection protocols**. Prior to 2002 there were no published methodologies on how to collect samples while meeting national and international standards. The protocols were originally funded in 2002 by NOAA Office of Ocean Exploration. The revised protocols are envisioned to standardize past and future research, as well as provide non-scientists with directives on how to collect and document deep-sea coral samples that meet archival standards. The protocols can be viewed and downloaded from the CenSeam website: http://censeam.niwa.co.nz/censeam_news/coral_collection.

The **new book**, "The Silent Deep", written by former CenSeam Steering Committee member Tony Koslow, is now available. Koslow reveals some of the unique and sometimes bizarre creatures that live in the abyssal plains, on seamounts and in the deep ocean hot springs. The book also describes the footprints humans leave behind on the deep sea created by fishing, mining, pollution and climate change. Koslow has made a global call to end bottom trawling and wishes to raise awareness of the deep sea, an unrivaled environment that is largely still unknown. To order a copy of "The Silent Deep", visit www.unswpress.com.au.



Recently, **CenSeam was added to the Encyclopedia of Earth (EoE)**. The EoE is a new electronic reference about the Earth and its natural environments. The Encyclopedia is a free, searchable collection of articles, written in non-technical language, which can be used by students, educators, scholars and the general public. To read more, please visit: <http://www.eoearth.org/article/Seamount>.

For more information, **CenSeam's latest newsletter** (No. 8, August 2007) can be viewed at: http://censeam.niwa.co.nz/censeam_news/newsletters.

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

The **4th ChEss steering group meeting** was held in Puerto Ayora, Galapagos on 27-28 June 2007. The steering group discussed issues related to Synthesis Plans for the ChEss project in the framework of CoML requirements for 2010, as well as other important issues such as the increasing impact of human activities, in particular deep-sea mining and fisheries, in chemosynthetic habitats and stronger collaborations with COMARGE, CenSeam, MAR-ECO, CeDAMar and CAML in order to provide a global picture of biodiversity and functioning of the deep-sea ecosystem as a whole.



On 28 June, ChEss, joined by the CoML international SSC, **celebrated the 30th anniversary of the discovery of hydrothermal vents** at a lovely restaurant in the highlands of Santa Cruz island, Galapagos. The discovery occurred not too far from the Galapagos Islands, which made the venue both enchanting and appropriate. The celebration was followed, on 29 June, by a public symposium for the local community to learn about the vents, the life found there, and the impact of their

discovery on science. Photos, abstracts and podcasts from the event are available at: <http://www.noc.soton.ac.uk/chess/galapagos.html>.

ChEss participated in Expedition 11: The Gakkel Ridge aboard the Swedish icebreaker *Oden* from 1 July to 10 August 2007. The cruise is the first to use underwater and under-ice vehicles in an attempt to reach the Arctic Ocean seafloor and search for hydrothermal vents. The Gakkel Ridge is the deepest mid-ocean ridge and was once considered to be lacking in volcanic activity. But, in 2001, scientists aboard the U.S. Coast Guard icebreaker *Healy* discovered that there were volcanic areas of the ridge based on dredged up rocks and sensors that detected warmer water and chemicals associated with vent fluids. The Expedition 11: Gakkel Ridge cruise hopes to discover any active vents and if found, compare the life that lives there to other known vent communities. Two autonomous underwater vehicles (AUV's), PUMA and JAGUAR, will be used to create holes in the sea ice and explore the depths below. CAMPER, an experimental vehicle on a sled, equipped with cameras, sensors, and sampling devices, will also be used. Learn more about the cruise and read the daily logs at the Dive & Discover webpage: <http://www.divediscover.whoi.edu/expedition11/index.html>.

ChEss now has **free educational posters** for schools available for download. The posters explain hydrothermal vents, cold seeps and whale falls. To view or download the posters, go to http://www.soc.ac.uk/chess/education/edu_home.php.

Paul Tyler, ChEss Co-PI, participated in the *RV James Cook* cruise with ISIS ROV to explore the Gulf of Cadiz mud volcanoes in the framework of the EU HERMES project. The three-leg cruise ran from 14 May – 7 July 2007. The first leg investigated the fascinating mud volcanoes in the Gulf of Cadiz, where fluids, gases and mud ooze out from volcano-shaped features on the seafloor. The ship then sailed to the vast Portuguese canyons to study transport of sediment from the coast to the deep sea and how this affects biological communities in the canyons. The third leg visited the Whittard Canyon offshore SW Ireland, carrying out a number of experiments to see how active the canyon is and what lives there. The cruise was part of the Classroom at Sea project. For more information, visit <http://www.classroomatsea.net/>.

ChEss partially funded the **Rocks'n'Beasts Interdisciplinary Conference on Vent Systems** in Leeds, UK, 17-19 June 2007.

Arctic: Arctic Ocean Diversity (ArcOD)

ArcOD is soliciting proposals in the area of Arctic marine biodiversity as part of its second mini grant program. Applications are sought from studies that will contribute to expanding the knowledge of Arctic marine biodiversity by compiling data, improving taxonomic resolution on previously obtained samples, species descriptions or synthesizing information in models or publications, for example. The submission deadline is 15 September 2007 and funding decisions will be made by 15 November. For more information on criteria and requirements, visit the ArcOD's "News and Workshops" webpage at <http://www.sfos.uaf.edu/research/arcdiv/news/index.html>.

ArcOD's database, housed with the Alaska Ocean Observing System (www.aoots.org), has undergone substantial work and now has over 22,000 records, along with metadata for all records. The database, which is linked to OBIS, includes data on sea ice algae, phytoplankton, zooplankton, zoobenthos, fish and birds. The data are provided by museum collections as well as historic and recent Arctic research projects. The database concept was presented in early May 2007 at the International Data Exchange Workshop "Building a Global Data Network for Studies on Earth Processes at the World's Plate Boundaries" in Kiel Germany.

Images by ArcOD photographers are being used in a variety of outreach products, including 2007 and 2008 Alaska Sea Grant calendars, a book by North American Commission for Environmental Cooperation, Morgan-Cain & Associates teacher's outreach products, the University of Alaska office of Research Services brochures, and a text book by the Danish Malling Beck publishing company.

Antarctic: Census of Antarctic Marine Life (CAML)

The **CAML Scientific Steering Committee met in Bialowieza, Poland** from 4-7 June 2007. The meeting was in conjunction with the SCAR-MarBIN Workshop that took place 7-8 June at the Laboratory

of Polar Biology and Oceanobiology, University of Lodz, Poland. About 33 CAML researchers from 15 countries participated in the meeting and discussed education and outreach as well as data integration and synthesis in a framework to 2010. Collaboration with other CoML projects, including ArcOD, was discussed in preparation for the November Census All Program Meeting.

In May, researchers from TOPP and CAML tagged crabeater and southern elephant seals in order to transmit information on the seal's locations and diving behaviors, as well as the temperature and salinity of the water they are moving through. To learn more, visit: <http://ontoppoftheworld.blogspot.com/> and follow the predator posts link for crabeater seals.



Top Predators: Tagging of Pacific Predators (TOPP)

TOPP has a new website. Visit it at www.topp.org.

CoML and TOPP were mentioned in the August 2007 issue of *Popular Science*. The article made reference to the use of elephant seals as new ocean sensors. Satellite tags attached to the heads of the seals record and relay their depth, as well as the water temperature and salinity. TOPP plans to also use 6000 tags on 23 other species, including bluefin tuna and white sharks by 2010.

TOPP teamed with Yahoo!, Conservation International, The Leatherback Trust and Costa Rica's Ministerio de Ambiente y Energía (MINAE) to launch **the Great Turtle Race** in April 2007. The race followed 11 TOPP-tagged endangered Leatherback turtles along the two-week journey from their breeding grounds in Costa Rica to their feeding grounds in the Galapagos. The interactive, educational website allowed users to choose a favorite sea turtle and track its migration. The website also offered a great amount of educational resources for students and teachers about sea turtles. The Great Turtle Race was a highly successful E&O initiative, generating a huge amount of public interest and appearing on television (CNN, ABC, NBC), radio (NPR, many stations in metropolitan areas), news services (Reuters, AP), worldwide newspapers, hundreds of blogs, Steven Colbert's Colbert Report, and the Colbert Nation Web site. The Great Turtle Race website (www.greatturtlerace.com) had three million hits from 650,000 unique visitors and the www.topp.org site that accompanied it at the time received 11,000 to 15,000 hits a day during the race.

TOPP has been **awarded two years of renewed funding** to continue the project. Congratulations to Barbara Block, Dan Costa, Steven Bograd and the entire TOPP team!

Zooplankton: Census of Marine Zooplankton (CMarZ)

We are sad to report that CMarZ Steering Group Member **Francesc Pagès** died on 5 May 2007. Francesc, of the Institut de Ciències del Mar in Barcelona, Spain, was a world-renowned expert in taxonomy of gelatinous mesozooplankton, especially siphonophores and ctenophores, in deep-water habitats. He will be dearly missed by his many colleagues and friends. Our condolences and prayers go out to Francesc's family. **A memorial has been created in his memory** on the CMarZ website: www.cmarz.org.



CMarZ-Asia program manager **Ryuji Machida** was recently awarded the **2007 Okada prize** from the Oceanographic Society of Japan (OSJ) for his accomplishments in research on "Molecular Genetics and Evolution of Marine Zooplankton". The prize is awarded to young members of the OSJ who have made outstanding contributions to the progress of oceanography.

The **Regional Zooplankton Taxonomy and Identification Training Workshop** was held in January 2007 in Namibia with the help of CMarZ funding. The workshop discussed the declining numbers of zooplankton taxonomists as part of a project on 'Retrospective Analysis of Plankton Community Structure in the Benguela Current Large Marine Ecosystem (BCLME), to Provide an Index of Long-Term Changes in the Ecosystem'.

Microbes: International Census of Marine Microbes (ICoMM)

ICoMM organized a special session at the **Phycological Society of America and the International Society of Protistologists Meeting** in Providence, RI. The session, entitled "Protists and the Molecular

and Informatics Revolution: from Species Pages to Barcodes,” took place on 8 August and was presided over by Linda Amaral-Zettler and Robert Andersen.

Congratulations to Julie Huber, who was recently recognized for her work with ICoMM. She was awarded the 2007 L’Oréal USA Fellowship for Women in Science at the American Museum of Natural History in New York City on 24 May 2007. As part of her L’Oréal USA Fellowship, she will utilize the new application of ‘megagenomics’ in hopes of understanding how microbes populations function and help regulate the world’s oceans. See: http://www.eurekaalert.org/pub_releases/2007-05/mbl-msj052407.php.

ICoMM hosted a session “The Rare Microbial Biosphere – Implications and Study” at the ASM meeting in Toronto, Canada on 23 May 2007.

National and Regional Activities

Arabian Sea

The **Arabian Sea KUU meeting on marine biodiversity** is scheduled for 28-30 October 2007 at Sultan Qaboos University, Oman. It is co-sponsored by CoML and the Intergovernmental Oceanographic Commission (Perth).

Australia

CoML was highlighted during a presentation at the United National Informal Consultative Process on Ocean and the Law of the Sea (UNICPOLOS) meeting in New York on 25-29 June. Libby Evans-Illidge from the Australian Institute of Marine Science (AIMS) presented on the need for global cooperation in regards to information about marine species and where they are found. She also stressed the need for integrating taxonomic data, drawing attention to CoML’s OBIS. Many meeting participants stated their support for CoML as a program for international cooperation.

A CoML affiliated project entitled ‘**Seabed Biodiversity on the Continental Shelf of the Great Barrier Reef World Heritage Area**’ hopes to provide information for marine conservation planning and management. From 2003-2006 the project mapped the deeper seabed habitats and their associated biodiversity throughout the Great Barrier Reef Marine Park using various methods including underwater video and digital cameras, echo sounders and sample collection with sleds and trawls. The project has created distribution maps for more than 850 species and has found that the depletion trends that were seen on the GBR up until the late 1990’s have been reversed. The project is now focusing on comparing their seabed biodiversity dataset to other such datasets and identifying any remaining organism and sediment samples. To learn more, visit www.reef.crc.org.au/resprogram/programC/seabed/index.htm.

The Western Australian Science meets Parliament day was held 14 August 2007. This yearly event is organized to provide an opportunity for scientists and related professionals to meet with politicians or their aides, and present issues that are important for Australian science and scientists. One of the three marine science booths at the event focused on international marine science, including **an emphasis on CoML**.

Caribbean

The Caribbean CoML participated in the **33rd Scientific Conference of the Association of Marine Laboratories of the Caribbean (AMLC)** on 4-8 June 2007. The conference also celebrated AMLC’s 50th year since its founding as the Association of Island Marine Laboratories of the Caribbean (AIMLC). AMLC is a confederation of more than 30 marine research, education, and resource management institutions endeavoring to encourage the production and exchange of research and resource management information, advance the cause of marine and environmental education in the region, and facilitate cooperation and mutual assistance among its membership. Participation in the conference raised the visibility of CoML in the region.

Andrzej Antczak will present research on “**a contribution to the history of marine turtle exploitation in Venezuela**” during a special session on Historical Perspectives for the Gulf and Caribbean Fisheries at the 59th Gulf and Caribbean Fisheries Institute Meeting in Belize, 6-10 November 2007.

China

CoML China participated in a **cruise on 15-30 June 2007**, the first of a three-year national project on “biodiversity and community structure of the benthos in the cold water of the Yellow Sea.” Samples of benthos and plankton were collected at 76 stations.

In Fall 2007, CoML China will begin the Chinese Offshore Investigation and Assessment (908). This is a **large project on census of marine life offshore of China**. One of its goals is to understand the status of Chinese coastal environment and resource, to understand the status of marine development and utilization, and to predict the future of the marine environment and ecology.

Europe

EuroCoML, in conjunction with EcoTechSystems of Italy, is **producing a short video on what life and work is like at sea**. The video will call attention to the research taking place on board the *R/V Urania* and *R/V Universitatis* during sampling in the Gulf of Cadiz and the Eastern Mediterranean Levantine Sea. The goals and objectives of EuroCoML, in context of studying the pelagic and benthic habitats, will also be highlighted. Hopefully the video will be complete by the end of October, in time for the CoML All Program Meeting in Auckland, New Zealand.

A **joint CoML-MarBEF-EuroCoML workshop**, “Novel modeling approaches to relate biodiversity of marine sediments to ecosystem functioning”, will take place on 15-17 October 2007 in Amsterdam. Innovative modeling approaches in marine benthic biodiversity research will be discussed. New modeling approaches for benthic marine biodiversity research will be developed, most strongly related to active empirical work within CoML, EuroCoML and MarBEF. The meeting hopes to establish a collaborative new research project, as well as create a report on the mechanistic modeling of marine benthic biodiversity.

Project officers of the European led Deep-Sea projects (CeDAMar, ChEss, CoMargE and MAR-ECO) as well as EuroCoML, are writing and editing the **accompanying book to the exhibition “Deeper than Light”**. The hard cover book would be roughly 80 pages of text, facts, stories, photographs and illustrations highlighting the different and unique habitats of the deep sea. The book will first be available in Portuguese, but is planned to be translated into the languages of each country where the exhibition will be held.

EuroCoML’s website has two new education and outreach-related additions under its “Kids Section”. To draw in a younger audience, **electronic jigsaw puzzles** have been created using some of the photographs available in the gallery. Screensavers, mostly of Scottish and Mediterranean underwater images, can also be downloaded from the website: <http://www.eurocoml.org/>.

The **Marine Genomics Europe summer course** on Plankton Bloom Dynamics – “An integrative approach to using molecular and genomic tools”, co-organized with MarBEF, was held in Barcelona, Spain, 4-15 June 2007.

The 2nd issue of the EuroCoML newsletter (Spring 2007) is available at: http://www.eurocoml.org/index.php?option=com_content&task=blogcategory&id=59&Itemid=158.

Indonesia

Dr. Ian Poiner, Vice-Chair of the Scientific Steering Committee, and Dr. Terry Done, Australian Institute of Marine Science, were invited to the **inauguration of the Census of Marine Life program in Indonesia** on 24 July 2007 at the Department of Marine Affairs and Fisheries’ Agency for Marine and Fisheries Research in Jakarta, Indonesia. Participants were briefed on the goals of CoML Indonesia, including: establishing a CoML Indonesia National Implementation Committee; incorporating existing accessible Indonesian marine biodiversity data for the Arafura and Timor Seas (ATS) into the CoML OBIS; and undertaking a marine biodiversity review of what used to live, what currently lives, and what

might live in the ATS. Members of CoML Indonesia plan to attend the All Program meeting in New Zealand and will update the CoML community on possible links between Indonesia and existing CoML projects.

Indian Ocean

India has established its first NaGISA site in a sea grass bed of the Kavaratti Atoll in Lakshadweep. The site was agreed upon during the training workshop on NaGISA observation protocols in Kenya in June 2006.

IO-CoML held the first ever, anywhere in the world, **hands-on training on barcoding of marine life** on 16-21 April at the National Bureau of Fish Genetic Resources in Lucknow, India. The participants were trained using a combination of lectures, demonstrations and hands-on activities on DNA extraction, purification, amplification, sequencing and interpretation of sequences. Following up on the workshop, IO-CoML will now initiate a network for marine barcoding in the region. For more information or to view the report, visit the “What’s New” section at www.iocoml.org.

South America

A journal article by Victor A. Gallardo and Carola Espinoza entitled “New communities of large filamentous sulfur bacteria in the eastern South Pacific” will be available in volume 10 of *International Microbiology*. The **article describes the large filamentous marine bacteria that were found in oxygen-poor sediments off the coasts of such countries as Chile, Ecuador, Panama and Costa Rica** that are thought to be “living fossils” of bacteria that developed in the early ocean’s anoxic or oxygen diminished conditions. These bacteria have recently been found in various environments such as oxygen minimum zones, muddy-sand beaches near mangrove swamps and under aquaculture pens. The article can be viewed at: <http://www.im.microbios.org/>.

Sub-Saharan Africa

CoML Africa Chair **Charles Griffiths has been awarded the prestigious Gold Medal of the Zoological Society of Southern Africa (ZSSA)**. The medal was presented at the 33rd meeting of ZSSA, 8-11 July 2007 in Potchefstroom, South Africa. It honors Charles for his international reputation in taxonomy, intertidal and subtidal ecology and for his significant contributions towards serving zoologists.

USA

The **U.S. National Committee** of the Census of Marine Life met 9-10 May 2007 at the Consortium for Oceanographic Research and Education offices in Washington, DC. The focus of the meeting was on the future of the CoML, nationally and internationally, beyond 2010. Meeting participants included representatives from CoML Education and Outreach, CoML SSC, the US Regional OBIS Node, NOAA’s Office of Ocean Exploration, NOAA’s IOOS Program Office, NSF’s Office of Polar Programs, and Oceans.US. USNC members spent the afternoon of the second day on Capital Hill meeting with their respective local Senatorial Representatives. The goal was to educate the Senate staff on the importance and relevance of the CoML program.



The **next U.S. National Committee meeting** will be held 9-10 October, 2007 in New Hampshire, hosted by USNC Chair Andy Rosenberg of the University of New Hampshire.

The USNC is planning a **workshop on “Ocean Observing: Using the Census of Marine Life as a Biological Component of IOOS”** to be held early next year. The workshop will demonstrate the importance of incorporating biological data into the Integrated Ocean Observing System (IOOS).

Capital Hill Oceans Week (CHOW) took place 5-7 June 2007. CoML hosted a luncheon panel, at the Canon House Office Building, on 6 June entitled “Census of Marine Life: Incorporating Biological Data in Ocean Observatories”. Panelists Dr. Steven Bograd (NOAA/NMFS Southwest Fisheries Science Center), Dr. Churchill Grimes (NOAA/NMFS Southwest Fisheries Science Center) and Dr. Mark Luther (University of South Florida) discussed the importance of incorporating biological data in ocean

observatories, focusing on the CoML projects Pacific Ocean Shelf Tracking (POST) and Tagging of Pacific Pelagics (TOPP). Thanks go to Dr. Paul Sandifer, Senior Scientist for Coastal Ecology for NOAA's National Ocean Service, for moderating the session and to the Alfred P. Sloan Foundation and the Consortium for Oceanographic Research and Education for sponsoring the luncheon. Before the panel began, RADM West presented awards to the Governors of Washington, Oregon and California for their efforts towards protecting the ocean and coastlines with their West Coast Governors Agreement on Ocean Health (visit <http://westcoastoceans.gov/> for more information on the alliance). For more information about CHOW, please visit <http://www.nmsfocean.org/chow2007/>.



The US National Committee's 2006 **Biodiversity Workshop Report is now available**. The workshop entitled "Approaches for Researching the Roles of Marine and Coastal Biodiversity in Maintaining Ecosystem Services," held in September 2006, was sponsored by the U.S. Census of Marine Life, NOAA's Oceans and Human Health Initiative, NOAA Fisheries, NOAA Office of Ocean Exploration and the Sloan Foundation. The report can be downloaded at http://www.coml.us/Dev2Go.web?Anchor=2006_biodiversity_work-shop or a hard copy can be requested by contacting CoML@coreocean.org.

The USNC has released the 4th issue of its newsletter. The May issue features an interview with Dr. James Baker, a former Administrator of NOAA. To view the newsletter, please visit www.coml.us. If you would like to receive the newsletter by email, please contact CoML@coreocean.org.

The **CoML/NOAA Lunchtime Seminar Series** launched on April 16th, 2007 with an overview talk by US CoML Committee Chair, Dr. Andy Rosenberg. Over a period of eight weeks, twenty additional CoML scientists presented on topics ranging geographically from pole-to-pole, shore to the abyss, and from microbes to coral reefs to top predators. The speakers also facilitated discussion on the NOAA relevance of their topic. The presentations were made at NOAA in Silver Spring, MD and live video webcasts were available for remote users. For the list of dates, speakers and topics please visit <http://www.explore.noaa.gov/about/seminar.html>. The presentations are also available for download on the above website.

The USNC website (www.coml.org) now includes "fun and games," like **Hangman, Matching, Concentration and Word Search**, meant to interest students and the public in marine biodiversity.

Crosscutting and Other Related Activities

SCOR: Panel on New Technologies & Other Events

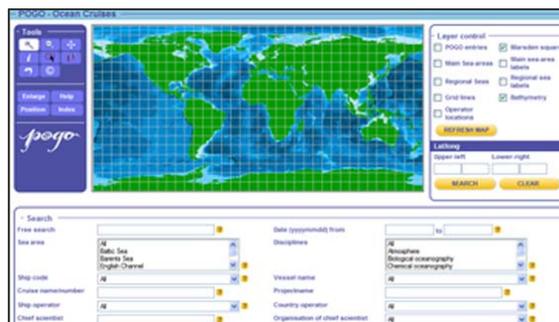
SCOR's international Secretariat will move to the University of Delaware's College of Marine and Earth Studies (CMES) in October 2007. The relocation will allow the SCOR Secretariat many opportunities to develop activities with CMES scientists who conduct research in all areas of ocean science and policy. Contact the SCOR for more information at secretariat@scor-int.org.

Cruise Database

The Partnership for Observation of the Global Oceans (POGO), together with CoML, launched a new operational **International Cruise Information Database** in May 2007. The new database and related website hope to support more efficient use of ocean-going research vessels, and pooling and combining resources for mutual planning of cruises. The website will provide public access to 3 databases:

Characteristics of Research Vessels, Planned Research Cruise programmes, and Cruise Summary

Reports of executed cruises. The subgroup of SeaDataNet are responsible for the technical development and facilities for maintenance and web publishing. POGO members, vessel operators and chief scientists are responsible for providing new information or updates. SeaDataNet is a EU-funded 5 year



project (2006 - 2011) for further development of the Pan-European infrastructure for ocean and marine data management. The cooperation between POGO and contributors of SeaDataNet will ensure an efficient use of resources and the development of global standards. Visit www.pogo-oceancruises.org for more information.

Barcoding Marine Life

The **Second International Barcode of Life Conference** will be held 16-21 September 2007 in Taipei, Taiwan at Academia Sinica. The Marine Barcode of Life and CoML are organizing a one-day workshop on Friday, 21 September designed at planning the implementation of barcoding projects for marine species. The deadline for submitting abstracts and applications for travel bursaries is extended until July 1st. Applicants will be informed about decisions by July 15th. Please visit the website to find the most up to date information, including the agenda and travel information: www.dnabarcodes2007.org.

A protocol will be available soon that summarizes several techniques of field sampling and preservation of samples that are designated for DNA barcoding. This compilation also contains an introduction to barcoding and the use of the Barcode of Life Database. When available, it will be distributed to all of the CoML projects. For more information, contact Dirk Steinke (dsteinke@uoguelph.ca).

The Barcoding of Marine Life has a **new website**. Visit it at <http://www.marinebarcoding.org/>.

Encyclopedia of Life

The **Encyclopedia of Life (EoL) launched on 9 May 2007** at the National Academy of Sciences in Washington, DC. The goal of EoL is to create biographies for all species on earth. CoML has committed to supporting this initiative by providing information to help populate the marine species pages. For more information about EoL, visit <http://www.eol.org/>.

Other Community News

New President at Sloan Foundation

The **Alfred P. Sloan Foundation's Board of Trustees elected a new President** on 6 June 2007. **Paul L. Joskow** will become the President of the Foundation effective January 1, 2008. He is a Professor of Economics and Management at MIT and Director of the MIT Center for Energy and Environmental Policy Research. He received a Bachelor of Arts from Cornell University and a doctorate in economics from Yale University in 1972. He has served on the Board of Directors of several US and international corporations as well as advised many companies, government agencies and non-profit organizations. Ralph E. Gomory, who has been President since 1989, will remain with the Foundation as Director of Special Programs.

Oceans Sciences 2008 Meeting Abstract Submission Opens

ASLO, AGU, TOS and ERF invite submission of abstracts for oral and poster presentations for the **2008 Ocean Sciences Meeting to be held 2-7 March 2008** in Orlando, Florida. The deadline for abstract submission is 2 October 2007. Online submission is highly preferred and can be accessed at <http://www.aslo.org/orlando2008>. CoML has organized a **session entitled "The Census of Marine Life: Discoveries of Diversity, Abundance, and Distribution in the World's Oceans"** (session 189). All CoML projects are encouraged to submit abstracts for this session. Several CoML projects are also organizing sessions, including #053: Arctic Marine Communities and Biodiversity, #031: Global Ocean Holozooplankton Diversity: Assessment, Analysis and Prediction, and #179: Marine Predator Hot Spots.

BBC eight-part television series, OCEANS

BBC Television is in the pre-production stages for **OCEANS, an eight-part series** from the Natural History and Science department in the UK. The series will initially be broadcast on the BBC and Discovery Channel in Fall 2008. The series will explore the science and history of the marine realm. Filming begins this summer in the Mediterranean Sea and will then take place in seven other locations, including the Southern Red Sea, Tasmania and the Sea of Cortez. Hannah Robson, a producer with the BBC, is hoping for feedback on content or participation with researchers or expeditions from the CoML

Community. If you have an idea on how your project can contribute to the series, please contact Darlene Crist (Darlene.crist@cox.net).

Fifth World Fisheries Conference

Hiroyuki Matsuda, DSc. is seeking Census participation for a biodiversity themed session at the **Fifth World Fisheries Conference in Yokohama, Japan** on October 20-24, 2008. Census contribution is particularly wanted in two sub-sessions: Sub-session 7-4 - Assessment of biodiversity and ecosystem services top predators, trophic cascade, and seamounts; and Sub-session 7-5 – Ecosystem and habitat assessment and management marine protected areas, nature parks and coral reefs. The conference would be an outstanding opportunity to communicate the Census findings to the research community. If interested, please contact Dr. Matsuda at matsuda2@ynu.ac.jp. More information is available at <http://risk.kan.ynu.ac.jp/matsuda/2008/WFC2008.html>.

World Conference on Marine Biodiversity

The **World Conference on Marine Biodiversity is scheduled for 11-15 November 2008**. The aim of the conference, organized by MarBEF, is “to review the current extent of understanding of marine biodiversity and its role in marine ecosystem functioning, to assess current and future threats and potential mitigation strategies for conservation and regulation of marine resource and to define the future research priorities.” Topics may include conserving marine biodiversity, societal and economic benefits of marine biodiversity and the possible response of marine biodiversity to global climate change.

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

September

- 3-6** SCOR Executive Committee Meeting, Bergen, Norway
- 3-7** COMARGE Workshop on Marine Squat Lobsters, Wellington, New Zealand
- 5-6** POST Management Board meeting, Vancouver, BC, Canada
- 10-14** Biogeochemical Interactions at deep sea vents: InterRidge Working Group, Woods Hole, MA
- 11-13** 2nd Global Conference on Large Marine Ecosystems, Qingdao, China
- 11-14** CeDAMar Steering Committee Meeting, Korcula, Croatia
- 17-19** 2nd International Conference on Barcoding Life, Taipei, Taiwan
- 17-20** Joint AIOL-SItE meeting, Ancona, Italy
- 17-21** ICES annual meeting, Helsinki, Finland
- 18** EuroCoML Scientific Steering Committee Meeting, Ancona, Italy
- 24-26** Arctic AAAS Meeting, Anchorage, Alaska
- 25-28** European Symposium on Marine Protected Areas, Murcia, Spain
- 28-30** Annual MAR-ECO project and steering group meeting, Reykjavik, Iceland

October

- 1-3** SCAR/SCOR Expert Group on Oceanography Souther Ocean Observing System Workshop, Bremen, Germany
- 2-4** Ocean Biodiversity Informatics conference, Halifax, NS, Canada
- 3-5** DNA Barcoding in Europe, Leiden, Netherlands
- 6-8** Second Symposium on the Ocean in a High-CO2 World, Monte Carlo, Monaco
- 15-17** CoML-EuroCoML-Diversitas-MarBEF workshop on novel modeling approaches to relate biodiversity of marine sediments to ecosystem functioning, Amsterdam, Netherlands
- 22-26** WIOMSA conference and Sub-Saharan African CoML meeting, Durban, South Africa
- 28-30** Arabian Sea Marine Biodiversity KUU meeting, Oman
- 26-Nov 4** PICES Annual meeting, Victoria, BC, Canada

November

- 2-4** Sitka Whale Fest featuring ArcOD invited talk, Sitka, AK, USA
- 7-9** Species2000 Meeting, Auckland, New Zealand
- 11-12** CoML E&O Workshop, Auckland, New Zealand
- 12-13** OBIS Governing Board, Auckland, New Zealand
- 12-13** COMARGE meeting, Auckland, New Zealand
- 12-13** HMAP Steering Group meeting, Auckland, New Zealand
- 13** CReefs meeting, Auckland, New Zealand
- 13** CAML meeting, Auckland, New Zealand
- 13** Marine Barcoding meeting, Auckland, New Zealand (tentative)
- 14** OBIS Biodiversity Workshop, 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
- 18** First meeting of the CoML 2020 Science Council, Auckland, New Zealand
- 20-23** 8th Asian Fisheries Forum, Kochi, India
- 24-25** 49th Phylogenetic Symposium, Frankfurt, Germany
- 28-30** GEO-IV Plenary Session and GEO Ministerial Meeting, Cape Town, South Africa

December

- 3-7** First CLIOTOP symposium on climate impacts on oceanic top predators, La Paz, Mexico