

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

26 Mar – 26 Apr: CenSeam cruise to Macquarie Ridge - [http://censeam.niwa.co.nz/outreach/censeam\\_cruises/macridge](http://censeam.niwa.co.nz/outreach/censeam_cruises/macridge)

19 Feb – 10 Apr: CAML -Bellingshausen & Amundsen Seas - <http://www.caml.aq/voyages/james-clark-ross-early2008/index.html>

**Top News!**

**Census Named One of “2007’s Top 10 Scientific Discoveries”**



**CeDAMar's discovery** of more than 700 new species of organisms in the deep Weddell Sea led the list of new species discoveries, **cited by TIME magazine as fourth in its top ten scientific discoveries of 2007**. New species discoveries were joined by stem cell breakthroughs, advances in human genetic mapping, and the recording of the brightest supernova, which were the top three scientific discoveries, respectively. See [http://www.time.com/time/specials/2007/top10/article/0,30583,1686204\\_1686252\\_1690920,00.html](http://www.time.com/time/specials/2007/top10/article/0,30583,1686204_1686252_1690920,00.html) for the full article.

**CoML Mentioned in “The Year in Science and Medicine”**

TheStar.com highlighted CoML in its “The Year in Science and Medicine” article days before 2008 began. The article called CoML **“the most ambitious scientific collaboration the world has ever seen”** that will produce a “representative picture of marine life” by 2010. In the article, Ron O’Dor, CoML’s Senior Scientist, remarked on his estimate that the Census will have covered “no more than a quarter of the world’s oceans by volume when it ends”. To read the article, visit:

<http://www.thestar.com/News/Ideas/article/289382>.

**Scientific Steering Committee (SSC)**

The CoML international **SSC met in Punta Arenas, Chile on 17-18 February 2008**. Much of the meeting focused on Census legacies, partnerships and strategies for the 2010 synthesis, including the methods and personnel needed to deliver the numerous synthesis products such as books, summary reports and journal articles. The SSC also contemplated the objectives for the upcoming 1-2 May 2008 CoML National and Regional Synthesis Planning Workshop in Washington, D.C. where the National and Regional Implementation Committees (NRICs) will discuss their contribution of a regional synthesis volume to the 2010 products. Given the location of the SSC meeting, a portion of the discussion focused on polar activities and presentations were made on CoML project-related Antarctic activities as well as Chilean military activities in the Antarctic.



While in southern Chile, the **SSC members also traveled to King George Island, Antarctica** for two days where they were guests at the Chilean Eduardo Frei Montalva Air Base. The SSC also visited the Great Wall Base of the People’s Republic of China, the Russian Bellingshausen and Uruguayan Artigas Antarctic Bases. Guided expeditions took the group to the Chilean Antarctic Institute (INACH), Villa Las Estrellas (home to many of the Chilean military officers and their families) and nearby areas to view Elephant seals and Chinstrap

penguins. The trip was a once in a lifetime experience and the SSC members are grateful to all those that played a part in making the trip a success, particularly SSC Vice Chair Victor Ariel Gallardo.

**The SSC will meet next in Hangzhou, China on 24-25 May 2008.**

**Fred Grassle**, Chair of the SSC, was **quoted in a recent article** in the Philadelphia Inquirer entitled “Study finds human activity has taken a toll on oceans.” The article responded to an article in the journal *Science* that reported 40 percent of the world’s oceans have been degraded. The authors of the article were surprised to find that less than four percent of the oceans, mostly the regions near the poles, were considered “very low impact areas”. Fred noted that “the ocean is so vast and we tend to deal with the effects on the ocean in terms of particular events in particular localities” and **what’s been missing until recently is “the big picture”**.

**The SSC is happy to announce that Patricia Miloslavich** from the Universidad Simon Bolivar in Caracas, Venezuela, and member of NaGISA and the South American and Caribbean National Committees, **is the new CoML Co-Senior Scientist**, along with Ron O’Dor. Her position will become official in April, however, she will begin performing some of her duties and familiarizing herself more with the activities of the individual projects. We ask the entire CoML community to welcome Patricia in this role and respond to her requests and inquiries.

### **Synthesis**

We are pleased to announce that **Michele DuRand of Memorial University in Newfoundland, Canada will serve as CoML’s Synthesis Manager**. She will work closely with Synthesis Chair Paul Snelgrove and the Secretariat and E&O teams to ensure all products are delivered in time for the October 2010 release events. We encourage all CoML participants to respond to Michele’s inquiries.

**We would like to thank two new editors of 2010 synthesis products**. Alasdair McIntyre of EuroCoML and long-time consultant to the SSC has agreed to serve as Editor for the Project Synthesis Volume, the collection of reports from each of the CoML Projects. Charles Griffiths of CoML-Africa has agreed to serve as Editor for the Regional Synthesis Volume, the collection of reports from each of CoML’s National and Regional Committees. Thanks to both of them.

The Secretariat will host an **NRIC Synthesis Planning Workshop in Washington DC on 1-2 May 2008**. The goal of this meeting, which will be attended by almost all NRICs, is to discuss the synthesis challenges facing the NRICs and to develop a report outline that captures the similarities – as well as the unique flavors – of each of the NRICs.

The Synthesis Group **call for Letters of Intent for cross-project synthesis initiatives closed on 10 April**. Thanks to all from the CoML community who submitted thoughtful proposals. The decisions will be made by July 2008.

Please **mark your calendars for the 1-5 February 2009 CoML Synthesis Workshop** aboard the Queen Mary in Long Beach, CA. It is important for synthesis writers from all of the Projects, NRICs and other cross-project initiatives to attend. More details to come.

The CoML **grand “finale” and release events are scheduled for 1-4 October 2010** in London. Mark your calendars!

### **Mapping & Visualization**

**Pat Halpin** of the Marine Geospatial Ecology Lab at Duke University **appeared on CNN explaining the importance of CoML’s Ocean Biogeographic Information System (OBIS)**. OBIS is a useful tool for mapping the locations of all species, but particularly helpful in providing information on endangered species. He noted that OBIS, which has allowed for mapping in both space and time, has helped researchers find emerging patterns in species distributions. To view the entire CNN interview, please visit the CoML Maps website at <http://comlmaps.org/video>.

The Mapping and Visualization team will hold the first **CoML Visualization Workshop** on 23-25 October 2008 at Duke University in Durham, North Carolina, USA. **Each project should plan to send**

**an appropriate representative working on visualization issues.** For more information, please contact Pat Halpin ([phalpin@duke.edu](mailto:phalpin@duke.edu)).

### Education and Outreach

Videographer **Richard Morris** has recently released a six-minute video he produced called “**Counting Creatures**,” where he profiles the work of the **Census of Marine Life**. The video is filled with outstanding imagery and a thoughtful interview of Jesse Ausubel of the Sloan Foundation. You can view this video at: <http://phe.rockefeller.edu/movies/countingcreatures.mov>.

### Database: Ocean Biogeographic Information System (OBIS)

**OBIS is seeking a portal manager, to be stationed at the OBIS secretariat at Rutgers University** in New Brunswick, New Jersey, USA. Applicants should have an extensive and wide-ranging knowledge of IT, including knowledge of web based tools and proven experience with relational database management. For more information or to apply online, please visit the job posting on Rutgers website: <http://uhr.rutgers.edu/jobpostings/aps/Detail.asp?id=08-000242>.

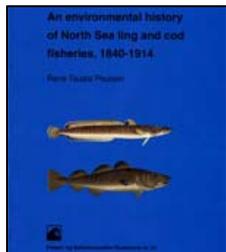
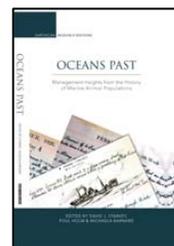
The regional OBIS node managers met at Rutgers University on 28-29 February. The meeting **focused on plans for participating in the CoML synthesis phase and determining new sources of support for OBIS beyond 2010.**

The World Register of Marine Species (**WoRMS**) **reached, and surpassed, its target of 100,000** valid marine species names, which was a goal for the end of 2007. The next target is to reach 200,000, or roughly 80% of known marine species, by the end of 2008. **WoRMS is currently used in the quality control of species names in OBIS** and will soon be included in the web interface.

OBIS was invited to the 8-9 January Intergovernmental Oceanographic Commission meeting in Oostende, Belgium, to discuss a **new data and information system for Harmful Algal Blooms**. The system should supply information on blooms and associated information, such as taxonomy, bio-active substances, and species records. **OBIS will play a role in taking this initiative forward.** The present IOC information system on HABs is available through <http://www.ioc-unesco.org/hab/>.

### Oceans Past: History of Marine Animal Populations (HMAP)

**Oceans Past: Management Insights from the History of Marine Animal Population**, a new book edited by David J. Starkey, Poul Holm and Michaela Barnard, presents **studies of long-term interactions between humans and the marine environment**. It demonstrates the value of validated evidence derived from primary sources as varied as archaeological finds, newspaper reports, business advertisements, municipal archives, fishing returns, whaling logbooks, trade journals, personal records, and state departmental memoranda. This pioneering book demonstrates how an understanding of the past can explain the current state of the seas and inform the management of ocean resources in the future. The press release can be read on the HMAP website: <http://www.hmapcoml.org/>. The book is also for sale at <http://www.earthscan.co.uk/Default.aspx?tabid=1482>.



**Another HMAP book**, entitled An environmental history of North Sea ling and cod fisheries 1840-1914, by René Taudal Poulsen **examines the Bohuslän longline fisheries in the Skagerrak and the North Sea** from 1840 to 1914 and emphasizes the importance of ecology to maritime history. The analysis has documented that major changes in the North Sea ecosystem may have taken place from the 19th to the 21st century. Read the conclusion at: <http://hmap.ruc.dk/documents/Conclusion.pdf>. The book is for sale at [www.fimus.dk](http://www.fimus.dk).

### Oceans Future: Future of Marine Animal Populations (FMAP)

The journal PLoS Biology published an FMAP article by J.S. Ford and the late R.A. Myers, entitled “**A Global Assessment of Salmon Aquaculture Impacts on Wild Salmonids**,” on 12 February 2008. The article addressed the important impacts salmon farming has on wild salmon and trout at a population level. Past studies have shown that farm bred salmon that escape and breed with the wild populations

pass diseases and parasites to the wild salmon. The Ford and Myers study compared the survival of salmon and trout that swam past salmon farms and detected a decline in the survival of populations that were exposed to salmon farms. The wild salmon populations they investigated, associated with salmon farming, have been dramatically reduced in abundance. Read the entire article at [http://as01.ucis.dal.ca/ramweb/papers-total/Ford\\_Myers\\_2008.pdf](http://as01.ucis.dal.ca/ramweb/papers-total/Ford_Myers_2008.pdf).

A recent FMAP paper, “**A clear human footprint on the Caribbean coral reefs**”, was published online on January 8, 2008 on the *Proceedings of the Royal Society* website. Camilo Mora’s study used a large-scale database on the status of coral reef communities in the Caribbean and analyzed the data in conjunction with socioeconomic and environmental data to identify what was driving reef community changes. To article can be found at <http://as01.ucis.dal.ca/ramweb/papers-total/Mora2008.pdf>.

## **Ocean Present: Realm Field Projects**

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

**NaGISA has a new Alaska Coordinator, Ann Knowlton**, who will be based at the University of Alaska, Fairbanks. She will be taking on the responsibilities of Synthesis and outreach and can be reached at [knowlton@sfos.uaf.edu](mailto:knowlton@sfos.uaf.edu). Welcome Ann! NaGISA plans to hire another coordinator, who will be based in Japan, in the near future.

### **Reefs: Census of Coral Reefs (CReefs)**

**The first Australian CReefs expedition launched** in April. The Australian Institute of Marine Science (AIMS), which leads the Australian node of CReefs, assembled a team of 25 scientists and support staff drawn from AIMS and a group of Australian natural history museums and herbaria to head to Lizard Island on the Great Barrier Reef for a three-week field survey. Led by CReefs PI Julian Caley, the expedition systematically searched waters around Lizard Island for species previously unknown to science. Later in the year, there will be similar expeditions to Heron Island on the Great Barrier Reef and Ningaloo Reef off the coast of Western Australia. Three expeditions to each of these locations are planned over the next four years. CReefs Australia is funded by Australian resources company BHP Billiton in a deal brokered by the Great Barrier Reef Foundation. Read the full press release at: [www.aims.gov.au/news/pages/media-release-20080331.html](http://www.aims.gov.au/news/pages/media-release-20080331.html).

CReefs PI Nancy Knowlton was recently named the **Sant Chair in Marine Science** at the Smithsonian Institution. A gift of Roger and Vicky Sant allowed Nancy to occupy the first endowed chair at the National Museum of Natural History. Nancy will work with the Museum and the Smithsonian to promote global knowledge of marine systems.



### **Regional Ecosystems: Gulf of Maine Area Program (GoMA)**

GoMA, along with the Gulf of Maine Research Institute, was **featured on “Maine Watch,”** a program on the Maine public television station. The program looked at the collaborative efforts of scientists and fishermen and what those efforts mean for fish stocks and the ocean environment, as well as **mentioning how Maine is playing a critical role in a worldwide effort of CoML.** The clip can be viewed online at <http://www.mpbn.net/mainewatch/gulf+of+maine.html>.

**GoMA has been awarded support from the Sloan Foundation** through 2010. Congratulations to Lew Incze, Peter Lawton, Sara Ellis, Suzy Ryan and the entire GoMA team!

### **Continental Shelves: Pacific Ocean Shelf Tracking (POST)**

**POST is pleased to announce the Frank L. (“Larry”) Cassidy Jr. as the new Chair** of its Management Board. In February 2008 Larry Cassidy retired from the Northwest Power and Conservation Council, where he was appointed by the Governor of Washington in 1998 to work on the Council to develop a regional power and conservation plan as well as a fish and wildlife plan. Having played the role of both Member and Chair on the Council, **Cassidy brings a strong sense of leadership and broad knowledge of aquatic and marine conservation issues to the POST Project.** Larry has also served as a cabinet appointee to the State of Washington’s Salmon Recovery Funding Board and as a Commissioner

to both the Pacific Salmon Commission and the North Pacific Anadromous Fish Commission. Larry takes over the role of Chair of the POST Management Board from Jesse Ausubel and will serve in the role of Chair of the POST Management Board until December 31, 2010, overseeing the progress of the project through the synthesis phase.

The **POST Management Board met 13-14 March in Washington DC** at the Consortium for Ocean Leadership. During the meeting the board discussed data management issues as well as the growth of the POST array in 2008 and possible expansions of the arrays in 2009. The **next POST Management Board meeting** is scheduled for 31 July – 1 August 2008 in Juneau, Alaska.



A POST article, “**Marine Migration of North American Green Sturgeon**”, was published in *Transactions of the American Fisheries Society*, describing the migration of North American Green Sturgeon, a key species monitored by POST's acoustic tracking network. The **Green Sturgeon serves as a good example of the broad reach of POST's work** because it pulls together such issues as International cross-boundary migration, Native Tribe jurisdictions, endangered species management, and wider than expected distribution patterns. The sturgeon appear to engage in frequent, long range migrations that may make them more vulnerable to bottom trawling fisheries activity. The article is available online at: <http://afs.allenpress.com/perlserv/?request=get-document&doi=10.1577%2FT07-055.1&ct=1>.

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

In February, **COMARGE held a workshop on large scale patterns in bathyal free-living nematodes**, organized by the Marine Biology Research group at Ghent University, Belgium. The goal of the workshop was to bring together deep-sea nematologists in order to investigate worldwide large-scale patterns in deep-sea nematode diversity, distribution and community composition.

On March 28, SSC member and COMARGE PI **Myriam Sibuet was interviewed on the French Radio Courtoisie**. She was joined by Claire Nouvian, author of the popular photography book *The Deep*.

Myriam Sibuet will also be contributing to the **Hotspot Ecosystem Research on the Margins of European Seas (HERMES)** Annual Meeting near Faro, Portugal on 31 March – 4 April, 2008.

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

On February 4, 2008, the German research icebreaker *Polarstern* returned to the port of Cape Town, ending a **successful 2-month SYSTCO expedition to the Weddell Sea**. The expedition was a joint project of CeDAMar and CAML (Census of Antarctic Marine Life) in the framework of the International Polar Year (IPY). Visit the [expedition site](#) for a daily logbook for personal insights into science and day-to-day life from all cruise participants.

Just before Angelika Brandt and Brigitte Ebbe set out for the SYSTCO expedition, a **second volume of Deep Sea Research II** (54(16-17):1645-1904), which they guest edited, published results from the ANDEEP expeditions. In contrast to the first volume, the focus of the second one is on broader biological, zoogeographical and ecological issues. The issue is available online at: <http://www.sciencedirect.com/science/journal/09670645>.

The Scientific Committee on Antarctic Research (SCAR) Executive Committee **awarded Angelika Brandt the 2008 SCAR Medal for Excellence in Antarctic Research** for her considerable contributions to Southern Ocean deep sea biology. Angelika is on the second recipient of the new award, which is made every two years.



CeDAMar researchers **Pedro Martinez Arbizu and Angelika Brandt were quoted in Berliner Morgenpost**, a German newspaper, on 7 April. The article mentioned CeDAMar and CoML's importance in acquiring the necessary data and knowledge for protecting marine ecosystems and understanding the dramatic decline in global fisheries. The important gap in knowledge of the economically insignificant species was highlighted.

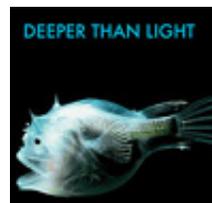
### Mid-Ocean Ridges: Mid-Atlantic Ridge Ecosystem Project (MAR-ECO)

The **January 2008** thematic issue of *Deep Sea Research II: Topical Studies in Oceanography* featured **22 “Mid Atlantic Ridge Habitats and Biodiversity”** papers on the results from the MAR-ECO project. The issue contains articles discussing topics such as demersal fish populations, zooplankton distributions, methods and technologies, and trophic interactions, among others. The issue is available online at <http://www.sciencedirect.com/science/journal/09670645>.

MAR-ECO also recently published a **thematic issue of *Marine Biology Research*** (Vol. 4, Issues 1-2). The issue covered subjects such as benthic sampling methods, inventories of echinoderms, sponges, and holothurians on the Mid-Atlantic Ridge, and numerous descriptions of new species. Some of the articles are open access at: <http://www.informaworld.com/smpp/title~content=g790771631~db=all>.

MAR-ECO researchers from the University of Bergen, Norway and those working with the Consortium for the Barcode of Life (CBOL) were **recently mentioned on the Rockefeller University Barcode Blog** (<http://phe.rockefeller.edu/barcode/blog/>) for their work on lumpsuckers (globular, scaleless marine fish that have a ventral sucking disk which allows them to adhere to substrates that are found in the Arctic and N. Atlantic and Pacific oceans). The research, published in the *Journal of Fisheries Biology*, found that **two species of lumpsuckers had identical mitochondrial DNA sequences** and further genetic work revealed that *E. eggvinii* were all males and *E. spinosus* were all females. The authors determined that the two species were sexually dimorphic forms of *E. spinosus*. **The study suggests that DNA testing should be as common a taxonomic practice as measuring size, shape and coloration.** The journal article can be found at: <http://www.blackwell-synergy.com/doi/abs/10.1111/j.1095-8649.2007.01550.x>.

The traveling exhibition “**Deeper than Light**” opened in Oslo, Norway on January 15, with great Norwegian national recognition by the state secretary Vidar Ulriksen. The opening featured presentations on MAR-ECO, the role of technology and research vessels in MAR-ECO research and Mar-ECO’s extensive scientific collection at the Bergen Museum. A Public Day, held on January 27, featured presentations along with a Jazz group, which played and discussed their MAR-ECO inspired music. The exhibit will next travel to Aberdeen, UK and then to the Oceanográfico in Valencia, Spain by the time of the World Conference on Marine Biodiversity.



### Seamounts: Census of Marine Life on Seamounts (CenSeam)

CenSeam is happy to announce **a voyage to the Macquarie Ridge aboard the *RV Tangaroa***, which began in late March. The voyage is truly multi-disciplinary, bringing together physicists, geologists, and biologists to undertake hydrographic surveys, deploy Argo floats, collect sediment cores and investigate seamount communities. During the voyage the researchers will link with the Nelson Girls School in New Zealand, who will be following the trip, and even requested experiments for the team to conduct at sea, including submerging polystyrene cups at depth. To learn more about the trip, including daily ship-to-shore reports, visit: [http://censeam.niwa.co.nz/outreach/censeam\\_cruises/macridge](http://censeam.niwa.co.nz/outreach/censeam_cruises/macridge). The *Tangaroa* returns to Wellington on 26 April.

**CenSeam sails 18 April to Antarctica on board the *R/V Nathaniel B. Palmer*** to investigate deep-water corals living on seamounts and ridges in the Drake Passage and Scotia Sea. The voyage has two main goals: (1) to determine the location, habitats and species diversity of deep-water corals on shelves, seamounts and ridges within the Drake Passage and Scotia Sea, and (2) to perform geochemical analyses on the skeletons of fossil corals to reconstruct the history of radiocarbon within the water column and address the role of the Southern Ocean in climate change over tens of thousand of years. Visit the website to learn more about the voyage: [http://censeam.niwa.co.nz/outreach/censeam\\_cruises](http://censeam.niwa.co.nz/outreach/censeam_cruises).

At the end of 2007, CenSeam announced the availability of mini-grants to expand the scope of already funded seamount expeditions, provide additional funding to support the development of large, collaborative proposals, and aid data recovery, linkage and analysis. The CenSeam steering committee met in December 2007 and **selected eight (8) winning mini-grant proposals**. The mini-grant recipients

will be individually featured in the CenSeam newsletter, beginning with issue #9, just released. Visit: <http://censeam.niwa.co.nz/>.

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

The Autonomous Benthic Explorer (ABE) has allowed researchers to locate, map, and photograph hydrothermal vent sites that were previously undiscovered. Described in a recent article, “**Hydrothermal exploration with the Autonomous Benthic Explorer**”, in the journal *Deep-Sea Research I*, researchers from ChEss and Woods Hole Oceanographic Institution have pioneered a method of using the autonomous vehicle to seek out hydrothermal vent plumes by pinpointing their source. ABE helps researchers characterize the site by taking photographs of the vent and surrounding area. An animation that uses the real data from this paper to show the 3 phases of surveying using ABE (constructed by Tim Silva and Chris German, WHOI) can be seen at <http://www.noc.soton.ac.uk/chess/ABEwmrk-1.wmv>.

ChEss recently announced the availability of **new Training Awards for New Investigators (TAWNI)**. The aim of TAWNI is to provide the necessary funds for upcoming investigators to participate in short stays or activities to further develop their skills in relation to taxonomical issues during their postgraduate or postdoctoral career. TAWNI proposals are required to have a major morphological taxonomy component, although complimentary molecular work may be included. Proposals are due 23 May. For more information, visit: [http://www.noc.soton.ac.uk/chess/docs/tawni\\_call.pdf](http://www.noc.soton.ac.uk/chess/docs/tawni_call.pdf).

**JAMSTEC recently announced the ChEss prize winner of their art competition** “Draw your dreams of the Ocean.” The winner - Daichi Fujita - receives a copy of the new DESEO publication *Deeper than Light*, and he and 15 other students will have a diving cruise using the ROV “Hyper Dolphin” in July-August in Kagoshima Bay, where the shallowest habitat of vestimentifren tubeworms exist. View the winning entry at: [http://www.noc.soton.ac.uk/chess/Images/jamstec\\_winner\\_large.pdf](http://www.noc.soton.ac.uk/chess/Images/jamstec_winner_large.pdf).

### **Arctic: Arctic Ocean Diversity (ArcOD)**

ArcOD recently had an article by S. Yu. Gagaev published in the *Russian Journal of Marine Biology*, which describes a new species of polychaete worm from the Canadian Basin of the Arctic Ocean. The **new species is named *Sigambra healyae* after the U.S. Coast Guard Cutter *Healy***, on which the Hidden Ocean 2005 expedition was conducted. A full description of the species and its unique characteristics can be found in the article. The article (2008, Vol. 34, No. 1) is expected to be available online at <http://www.springerlink.com/home/main.mpx>.

ArcOD had a busy week in association with the Ocean Sciences Meeting in Orlando, Florida, in early March, where it **held its 4<sup>th</sup> Scientific Steering Group meeting March 1-2, 2008**. Besides giving project updates, the agenda focused on discussion of synthesis directions, products and opportunities. ArcOD also held the **2<sup>nd</sup> Arctic Marine Biodiversity IPY Cluster Meeting on March 3**, updating 17 participants from seven cluster (and several other) projects on central cluster activities and participants reported on individual project progress. Finally, ArcOD chaired a **special session at the Ocean Sciences Meeting titled “Arctic Marine Communities and Biodiversity”**. Several of the papers given in the session are nearing submission to *Deep-Sea Research* and other journals.



In January, ArcOD **launched their new website** [www.arcodiv.org](http://www.arcodiv.org). The web traffic has increased since the new site went live. While we are still preparing content, we **encourage CoML researchers to provide feedback**. Species pages are part of the new web site concept; a first example is posted at [www.arcodiv.org/Acartia\\_longiremis\\_main.html](http://www.arcodiv.org/Acartia_longiremis_main.html). Content for about 30 other species has been prepared and awaits posting.

ArcOD's **2<sup>nd</sup> round of mini-grants resulted in the funding of 19 projects in six countries**. Projects range taxonomically from microbes to birds and cover the Barents to the Bering Seas with several pan-Arctic activities. Several projects focus on barcoding, others on species descriptions, yet others on data compilation and sample identifications. Many mini-grant recipients will contribute to the online species pages.

Several IPY projects that, in some fashion, contribute to the ArcOD cluster are currently in the field. ArcOD leader **Rolf Gradinger and his team are investigating sea ice primary production and its relevance for pelagic and benthic grazers** in the Bering Sea onboard the U.S. Coast Guard Cutter *Healy*. To follow that expedition, visit <http://bsierp.nprb.org/>. Kit Kovacs from the Marine Mammal Explorations of the Oceans – Pole to Pole project is currently tagging seals onboard the *R/V Lance* in the West ice north of Jan Mayen. To learn more about the project, visit <http://biology.st-andrews.ac.uk/seaos/index.html#>.

#### **Antarctic: Census of Antarctic Marine Life (CAML)**

**CAML is busy at sea this season with 13 voyages**, including the New Zealand IPY Cruise aboard the RV *Tangaroa* (31 January – 21 March) and the Australian, French and Japanese CEAMARC (Collaborative East Antarctic Marine Census) cruises *Aurora Australis* (16 December – 30 January), *L’Astrolabe* (28 December – 21 January), and *Umitaka Maru* (23 January – 17 February). These voyages generated numerous news releases based on findings of giant sea spiders, jellyfish with 12-foot tentacles, huge sea snails and starfish the size of big food platters. The article “**Giant sea spiders’ blitz the web**” in the *Daily Telegraph* noted that the term “giant sea spiders” had jumped to the top of **Yahoo’s most popular internet search** topics after video filmed by scientists studying Antarctic waters captured the creatures. Learn more about all CAML voyages at: <http://www.caml.aq/voyages/index.html>.

CAML Project Manager, **Victoria Wadley, was interviewed by National Geographic’s Weekend radio show and World Talk**. The interviews will be posted on the CoML Portal ([www.coml.org](http://www.coml.org)) soon.

A story on CAML was published in an Estonian magazine, *Tarkade Klubi*, in March 2008. This publication illustrates the growing reach and popularity of the Antarctic project.

#### **Top Predators: Tagging of Pacific Predators (TOPP)**

In February, TOPP’s shark researchers made the news when they **unveiled results of white shark tags at the American Association for the Advancement of Science annual meeting** in Boston. The TOPP team, led by Sal Jorgensen, tagged more than 100 white sharks along the central California coast and, through tracking the tagged sharks, found most of the sharks favored a hotspot in the middle of the Pacific Ocean, roughly 1,300 miles from the mainland, about half the distance to Hawaii. Researchers are calling this area “the white shark café,” but just what the attraction is out there remains something of a puzzle.

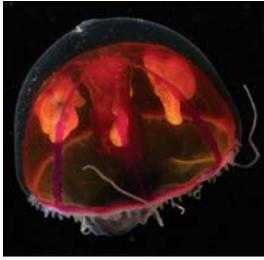
In January and February 2008, five scientists from the **TOPP project participated in the Marine Science Seminars** at Camp Ocean Pines in Cambria, CA and Avila Beach Marine Institute in Avila Beach, CA. The TOPP scientists presented on the technology behind their tagging and tracking as well as on the results and patterns of TOPP’s tagged elephant seals, sooty shearwaters, sea turtles, sharks and tuna. Bill Gilly also taught a professional development course on giant squid with tips for classroom squid dissections.

TOPP PIs Barbara Block and Dan Costa will host **the Third International Biologging Science Symposium** on 1-5 September 2008 in Pacific Grove, CA. The program will feature plenary sessions by keynote researchers in a variety of biologging fields, symposia sessions and posters focused on methodologies that will allow integration across taxa and technological platforms, and sessions on advancement of biologging technology, animal behavior, environmental integration, modeling tagging data and development of hot spot and spatial analyses. In addition, they plan to hold sessions on how biologging data can be used for application to conservation & management. For more information, visit: <http://bio-logging.org/>.

The **TOPP steering group met 27-28 March** to outline plans for its synthesis phase.

#### **Zooplankton: Census of Marine Zooplankton (CMarZ)**

**CMarZ was highlighted in the January 2008 issue of *Popular Science***, in an article entitled “2008: Your Guide to the Year in Science”. The article offered a guide to the biggest stories of the year ahead, including ‘**Attack of the Jellies**’ in which Ann Bucklin offered insight into the recent and puzzling jellyfish invasions threatening coastal economies and important fishing grounds. She agreed that the



blooms are much more severe than they have been in the past. Warmer ocean temperatures and a decline in predators were two reasons given as the reason of the increased populations of jellyfish.

CMarZ held a **session on “Global Ocean Holozooplankton Diversity: Assessment, Analysis, and Prediction”** at the **Ocean Sciences Conference** in Orlando, Florida. The CMarZ steering group met on 9-10 March, following the conference. Agenda items included discussion on CMarZ field, lab, education and outreach activities for 2008-2010 as well as identifying synthesis products and formulating a synthesis plan.

The **CMarZ website has a new look**. Check it out at [www.cmarz.org](http://www.cmarz.org).

### **Microbes: International Census of Marine Microbes (ICoMM)**

ICoMM’s Linda Amaral-Zettler participated on the organizing committee for the **International Workshop on ribosomal RNA Technology**, held 7-9 April in Bremen, Germany. ICoMM speakers were prominently featured in this program, as were speakers from other CoML projects.

ICoMM researchers will participate in the 13-18 July 2008 **Gordon Conference on Marine Microbes**, which will take place in Italy. See: <http://www.grc.org/programs.aspx?year=2008&program=marinemicro>.

### **National and Regional Activities**

#### **Canada**

The **Ocean Tracking Network will hold its First Annual Ocean Tracking Conference** on 5-6 June in Halifax, NS, Canada. The program will include inaugural meetings of the OTN Management and Regional Network Operations Boards.

#### **Caribbean**

**CoML Caribbean has launched a new website**. The website offers information on the Caribbean region and the Caribbean Regional Committee’s goals, objectives and future actions. The site also provides links to CoML projects with field programs in the Caribbean region, such as NaGISA. Please visit <http://www.intecmar.usb.ve/CoMLCaribbean/>.

#### **Europe**

A February 28, 2008 article published in *Nature* features the work of the **European Census of Marine Life (EuroCoML) project EUTOPIA** (European Tagging of Predators in the Atlantic). EUTOPIA strives to understand the distribution, migration, and trophic interactions of marine vertebrates, including turtles, pelagic fish, sharks, birds, and mammals. The article, entitled “Scaling laws of marine predator search behavior” **describes the foraging activity of free-ranging predators**, such as sharks and bony fishes, and the movement patterns that maximize their encounters with prey. An abstract is available online at: <http://www.nature.com/nature/journal/v451/n7182/abs/nature06518.html>.

EuroCoML Chair Graham Shimmield has moved to the U.S., where he has the position of **Executive Director of the Bigelow Laboratory for Ocean Sciences** in Maine. He will continue to serve as EuroCoML chair and remain actively involved in EuroCoML activities.

#### **Southeast Asia**

Phillipe Bouchet and Bertrand Richer de Forges are part of the international team currently participating in Lumiwan 2008. The expedition, aboard the *MV DA-BFAR*, is **conducting a survey of deep benthic fauna of the South China Sea** off the Philippine Island Lumiwan.



#### **Indian Ocean**

The **Indian Ocean CoML (IO-CoML)** was associated with the first event of the **2008 International Year of Coral Reefs**. A national workshop entitled **STAPCOR 08** (Status and Protection of Coral Reefs

2008) was held on 21-23 January at Kadamat Island in Lakshadweep, India. Forty-nine workshop participants discussed management and rejuvenation strategies, capacity building, societal issues and the research and development needs for future efforts.



Participants also agreed to implement projects using bar-coding of reef organisms. SSC member Dr. D. Chandramohan delivered a plenary lecture on CoML initiatives and Dr. Wafar, chair of the IO-CoML presented on the CReefs project. Additional information on STAPCOR 08 can be found at [www.iocoml.org](http://www.iocoml.org).

### South America

In February, Brazil's President Luiz Inácio Lula da Silva visited the Brazilian Comandante Ferraz base on King George Island in Antarctica, where he **recognized CAML member Lucia de Siqueira Campos for her scientific achievements and promised more resources for Antarctic research**. This is a great honor for Lucia and good news for the CAML's Latin American (OLA-CAML) initiative.

### USA

The **U.S. National Committee (USNC) met 10-11 March** in Washington, DC. The meeting focused on synthesis, U.S. OBIS progress, and the future of the CoML program within the United States after October 2010. Following the meeting, USNC Chair **Andy Rosenberg briefed the NOAA Science Advisory Board (SAB)** members and NOAA leadership on the Census on Marine Life Program. The role of the SAB is to advise the Under Secretary of Commerce for Oceans and Atmosphere on long- and short-range strategies for research, education and the application of science to resource management and environmental assessment and prediction. The presentation generated a lot of positive feedback and the SAB agreed to form a joint subcommittee with the USNC to explore options for partnership.



The **next USNC meeting** will be held 22-23 September 2008 at the Monterey Bay Aquarium and Research Institute in Monterey, CA.

On January 14-15, the USNC held a workshop entitled "Biological Ocean Observing: Exploring components of IOOS from the perspective of Census of Marine Life" in order **to demonstrate the importance of incorporating biological data, particularly CoML data, into the Integrated Ocean Observing System (IOOS)**. This workshop brought together over 75 members of the ocean observing community, including representatives from the NOAA's IOOS Program Office, the IOOS Regional Associations, and experts from academia and management agencies. A special focus on OBIS during a post-workshop meeting yielded interesting discussions and ideas for incorporating Census information into IOOS. A comprehensive report of recommendations and outcomes from the meeting are expected to be released in the near future. For workshop presentations and future updates, visit [http://www.coml.us/Dev2Go.web?Anchor=ocean\\_observing](http://www.coml.us/Dev2Go.web?Anchor=ocean_observing).

For more USNC news, view its newsletters online at: [http://coml.us/?anchor=us\\_newsletter](http://coml.us/?anchor=us_newsletter).

### Crosscutting and Other Related Activities

#### Barcoding Marine Life

MarBOL has barcoded almost **58,000 specimens covering 4200 species**. Keep up-to-date on barcoding progress at: [www.marinebarcoding.org](http://www.marinebarcoding.org).

## Encyclopedia of Life

The **Encyclopedia of Life (EoL)** went live on **February 26, 2008**, unveiling pages for its first 30,000 species. The site was nearly overwhelmed by a massive response, receiving more than 11 million hits the first day, demonstrating the anticipation that preceded the launch of the site that assembles numerous databases. **The CoML community is urged to supply feedback**, helping EoL reach its goal of 230,000 marine species by October 1, 2010. An article on the release can be viewed at <http://www.reuters.com/article/environmentNews/idUSL2566738920080225>.

## 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](http://www.comlsecretariat.org), under “**Announcements of Opportunity.**”

## Calendar of Upcoming Events

This is a snapshot of upcoming events relevant for the Census of Marine Life. For the full calendar, visit: <http://db.coml.org/schedule/>.

### *April*

28-29 OBIS Governing Board Meeting, Rome, Italy

### *May*

19-23 International Symposium on Effects of climate change on the world's oceans, Gijon, Spain

23 CoML Synthesis Group meeting, Hangzhou, China

24-25 CoML SSC meeting, Hangzhou, China

### *June*

5-6 First OTN Conference, Halifax, NS, Canada

### *July*

7-11 Australian Marine Sciences Association AMSA2008 Conference, Christchurch, New Zealand

7-11 International Coral Reef Symposium, Ft. Lauderdale, FL

8-11 Joint SCAR/IASC IPY Open Science Conference, St. Petersburg, Russia

### *September*

22-26 ICES Annual Science Conference, Halifax, NS, Canada

### *October*

6-8 Second Symposium on the Ocean in a High-CO2 World, Monte Carlo, Monaco

16-26 PICES 17th Annual Meeting, Dalian, China

20-21 SCOR 50th Anniversary Symposium, Woods Hole, MA, USA

20-24 5th World Fisheries Congress, Yokohama, Japan

22-24 SCOR General Meeting, Woods Hole, MA, USA

23-25 First CoML Mapping & Visualization Workshop, Durham, NC, USA

### *November*

11-15 First World Conference on Marine Biodiversity, Valencia, Spain

16-17 CoML SSC Meeting, Valencia, Spain