

CoML Cruises Underway

ChEss: <http://www.soc.soton.ac.uk/chess/smar05/17feb.html>

CeDAMar: <http://www.deepsea-research.org> or <http://www.tiefsee-forschung.de>

- **Research Plan.**

The updated 2005 version of the Census of Marine Life Research Plan is now online at www.coml.org or www.comlsecretariat.org. We thank all of the project teams for their assistance in updating the plan.

- **All Program Meeting.**

There has been a change in the schedule for the Second All Program Meeting. The new dates are Friday-Saturday, 4-5 November 2005 in Frankfurt, Germany. The Senckenberg Biodiversity Conference will not be held as scheduled. The All Program Meeting will be held in conjunction with a EuroCoML symposium (similar to the Washington DC symposium, October 2003) on Thursday, 3 November. Graham Shimmield (EuroCoML) is leading the planning committee for the symposium, which will likely focus on EuroDeep, the polar projects, and plankton. More information regarding travel and a preliminary agenda will be forwarded in the coming months. For details on the new schedule, visit: <http://www.coreocean.org/Dev2Go.web?id=263697>.

- **Scientific Steering Committee (SSC).**

The SSC will next meet on 26-27 April 2005 at Scripps Institution of Oceanography in La Jolla, CA, immediately following the *Future* Known-Unknown-Unknowable Conference.

Following SSC meetings will take place on 26-27 August 2005, in conjunction with the Dynamic Planet Conference in Cairns, Australia and 6 November 2005 in Frankfurt (note: this is a change from the original 7 November date due to the change in the All Program schedule).

- **Education and Outreach.**

CoML was featured on the January 10th issue of Scholastic News online: <http://teacher.scholastic.com/scholasticnews/magazines/edition4/011005/index.asp>. Scholastic is the largest publisher and distributor of children's books in the world, serving millions of children, families and schools for over 80 years.

CoML will be featured in the April issue of *Popular Mechanics* in its Technology Talk section. The issue should be on newsstands in the beginning of March.

The Education and Outreach Liaison Network will hold its next workshop in Frankfurt, Germany in conjunction with the EuroCoML symposium and All Program Meeting.

- **Ocean Biogeographic Information System (OBIS).**

Karen Stocks (OBIS Vice-Chair), Mark Costello (OBIS Chair), Fred Grassle (OBIS Secretariat Director), and Phoebe Zhang (OBIS Portal Manager) are part of a team of researchers, led by the University of California San Diego, who have been awarded a grant by the Gordon and Betty Moore Foundation to develop advanced informatics infrastructure for marine and freshwater systems. OBIS will provide one of several test beds for prototype development, bringing the attention of computer scientists at the San Diego Supercomputer Center to OBIS cyber-infrastructure development issues. Read the press release from the Moore Foundation at: http://crbs.ucsd.edu/Moore_Grant_Release.pdf.

The Regional OBIS Node (RON) portal "toolkit" developed in Plone (for setting up regional nodes of the OBIS Portal) has been completed and is being tested by Vishwas Chavan, manager of the OBIS Indian Ocean node.

Data available from the Portal continue to increase. The RON in Canada provided a new source of data to the Portal, numbering 5000 records on Resolute Passage Copepod Distribution. The total distribution data holding in the OBIS network numbers 5.6 million records. Of these, 4.2 million records are resolved to the genus or species level of naming, with almost 120,000 different taxon names held, covering 38,648 species.

Siddharth Paralikar and Wan-Hsu Tsai, recommended by Daphne Fautin of the OBIS International Committee and Management Committee and by Vishwas Chavan of the OBIS Management Committee, were accepted as 2 of the 20 representatives selected to attend the Global Biodiversity Information Facility (GBIF) workshop on “Modeling Biodiversity Data” in Mexico City from 4-8 April 2005. OBIS, an Associate Member of GBIF, is interested in exploring biodiversity modeling for research and management. Biodiversity modeling uses species occurrence data, served by the OBIS Portal, and relates them to ecological and environmental data.

Recent OBIS-related meetings include “Library and Laboratory: the Marriage of Research, Data, and Taxonomic Literature” in London, England, attended by Fred Grassle, Director of the OBIS Secretariat. This meeting, organized by the London Natural History Museum, the Smithsonian, and the American Museum of Natural History, brought together scientists, librarians, representatives of publishing interests, and experts on data systems.

Upcoming OBIS-related meetings include:

- GBIF SpeciesBanks workshop, 2-4 March, in Amsterdam. Rainer Froese, a member of the OBIS International Committee, will be a speaker, plus EurOBIS will be represented.
 - GBIF Governing Board, 18-22 April, in Brussels. Rainer Froese, head of the OBIS delegation to GBIF, and Richard Chinman, OBIS representative to the GBIF Nodes Committee, attending.
 - OBIS Management Committee meeting, 23-24 April, in Brussels. All members of the OBIS MC (i.e., Managers of the Regional OBIS Nodes) attending.
 - IODE (International Oceanographic Data and Information Exchange of the Intergovernmental Oceanographic Commission) 8th Session, 26-30 April, in Ostend, Belgium. Bob Branton (OBIS MC Chair) representing OBIS, and Edward Vanden Berghe and other members of the OBIS IC and MC attending.
- **History of Marine Animal Populations (HMAP).**

The HMAP Open Science Conference, *Oceans Past - Multidisciplinary Perspectives on the History of Marine Animal Populations*, will be held 24-27 October 2005 at Hotel Comwell in Kolding, Denmark. Oceans Past is a global conference dedicated to the history of the oceans and marine life. The conference format will be an open science forum where researchers from all relevant disciplines are welcome, both from the natural sciences and the humanities. The conference will present a large number of scientific papers in addition to discussions in open sessions about what we know, do not know, and may never know about past oceans, and how we can improve marine historical research on a global scale. The call for papers closes 29 March 2005 and can be found at <http://www.hmapcoml.org/Default.asp?ID=251>.

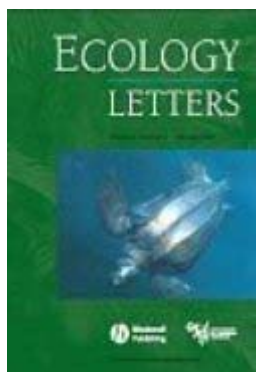
We congratulate HMAP Chair Poul Holm on his recent election as President of the European Society for Environmental History, which reflects the growing esteem for all HMAP research, as well as Poul’s personal leadership.

The Northwest Atlantic team is publishing a startling and elegant piece of history marine ecology on cod fisheries described in a press release at <http://www.coml.org/embargo/embargo5.htm>.

Future of Marine Animal Populations (FMAP).

Ransom Myers attended the meeting of the 17-21 February meeting of the American Association for the Advancement of Science in Washington, D.C., where he participated in a panel discussion entitled “Recovering Our Lost Legacy: Science and Policy to Restore Overfished Seas.”

Also in February, members of the FMAP project team published results in two high-impact journals”



In their article published in February’s *Ecology Letters*, Mike James, Andrea Ottensmeyer, and Ransom Myers used satellite tagging data, morphometric measurements, and entanglement records to demonstrate that northern coastal and shelf areas are important habitats for adult and juvenile leatherback turtles (*Dermochelys coriacea*). This paper is of great significance for the preservation of leatherbacks in the Pacific and Atlantic Oceans, where the threat of entanglement in fixed gears has received relatively little management attention. James, Ottensmeyer, and Myers also recommend considering modifying fishing methods of pelagic longlining fisheries rather than closing areas to longlining as a means of reducing harm to leatherbacks, since closed areas merely displace fishing effort and will have relatively impact on leatherback turtle mortality. (James, M. C., C.A. Ottensmeyer and R.A. Myers. 2005. Identification of high-use habitat and threats to leatherback sea turtles in northern waters: new directions for conservation *Ecology Letters*. 8: 195-20.)

View the abstract or download the paper (with subscription) at: <http://www.blackwell-synergy.com/links/doi/10.1111/j.1461-0248.2004.00710.x/abs/>.

In "Extinction, survival, or recovery of large predatory fishes," Ransom Myers and Boris Worm explore the viability of large predatory fish populations from around the world. Alarming, they demonstrate that current abundance of sharks, tunas, billfish and some groundfish populations are currently reduced by at least one order of magnitude from their un-fished abundances, with some populations of cod, sharks, and reef fish being reduced to 0.1 - 2% of their former abundances. At a typical fishing mortality of 0.4 (i.e. 40% of the population removed per year), 42 out of 114 fish populations analyzed are predicted to become extinct. In a non-selective fishery that targets recruits as well as mature individuals, all shark species and half of the large bony fishes would be predicted to become extinct. If a fishery targets only mature fish, then 40% of shark species and 20% of bony fish species would be expected to become extinct. Myers and Worm estimate that, in order for shark species in the Northwest Atlantic to survive 40-80% reductions in fishing mortality are required. Interestingly, the analysis also shows that species susceptible to extinction were found across the entire range of temperatures tested, reinforcing the need for a worldwide change in fisheries management to preserve the diversity of large predatory fishes and to "keep all the pieces" that make up marine ecosystems. Four management tools recommended by Myers and Worm to ensure the survival of sensitive predatory species include: 1. reduction in fishing mortality required to protect sensitive species; 2. reductions in bycatch; 3. temporary spatial closures to allow immediate recovery; and 4. permanent protected areas in spawning grounds and diversity hotspots. (Myers, R.A., and B. Worm. 2005. Extinction, survival, or recovery of large predatory fishes. *Proceedings of the Royal Society B*. In Pre-press.) View the abstract or download the paper (with subscription) at: http://www.pubs.royalsoc.ac.uk/proc_bio_homepage.shtml.

Ocean Realm Field Projects

- **Mid-Atlantic Ridge: MAR-ECO.**

In January, the MAR-ECO mammals and birds sub-group held a workshop in Iceland on 11-12 January. They are now working on several papers based on Icelandic and Norwegian observations, which will be presented at the MAR-ECO workshop on 2-3 June in Lisbon, Portugal.

In the Bergen Museum, several visiting scientists from Russia and USA have been working on the *G.O. Sars* benthos collection. Thanks to a great effort by the Museum staff, the curation of the extensive fish collection from the 2004 expedition on the RV *G.O. Sars* is almost finished.

The sorting of the mesozooplankton material is progressing well. Sub-group meetings were held in the Faroe Islands, Iceland and Norway, and Egor Vinogradov came for a 4-week visit to the Institute of Marine Research, Floedevigen, Norway. The work will continue in all countries and the sorting of the samples will be finished before the summer.

A week-long international workshop on demersal fishes organized by Ingvar Byrkjedal and Franz Uiblein was held at the University of Bergen biological station at Espegrend (Participants from the UK, Portugal, USA, Norway).

The Icelandic student Hildur Petursdottir is currently visiting Stig Falk-Petersen in Tromsø to facilitate trophic studies of copepods using lipid analyses.

Schools in Scotland and Norway have had projects about MAR-ECO and deep-sea biology. In Scotland, Nicola King from University of Aberdeen, led students from the Ellon Academy in Scotland in investigating the adaptations of deep-sea animal, contrasting the fauna and habitat seen in ROV footage from two different depths, and reviewing the MAR-ECO project using web-based resources. The students also made posters on marine life for different age groups, which are available on the MAR-ECO website: http://www.mar-eco.no/learning-zone/school_tasks/Hard_working_students.

MAR-ECO was profiled among remarkable scientific activities in the period 1905-2005 in a poster and magazine issued by the Norwegian Research Council. The magazine targets schoolchildren, and the poster is expected to be displayed in lots of classrooms around the country.

- **Gulf of Maine: GoMA.**

In July 2005, the Gulf of Maine Area Program of the Census of Marine Life will sponsor a cruise aimed at a high priority question of the Program's Large Vertebrates Working Group: what drives the patterns of utilization by birds and mammals of off-shore banks and submarine ridges? For years it has been observed that offshore banks are at

times rich in birds and mammals, but at other times are barren of them. Is this pattern being driven by underlying oceanography, by prey fields and the effects of predation, or something else? The study will examine the intersection of foraging with the underlying biology and oceanography. The study site will be Platt's Bank and Three Dory Ridge, about 30 nautical miles off southwestern Maine's shore. The study will combine aerial and vessel surveys to obtain frequent, synoptic, and larger scale views of the area. The PIs are Lewis Incze, Scott Kraus, and Peter Stevick.

- **Chemosynthetic Ecosystems: ChEss.**

ChEss researchers are at sea exploring vent sites along the Mid-Atlantic Ridge south of the Equator. Follow the cruise on the ChEss website: http://www.soc.soton.ac.uk/chess/smar05/smar_background.html.

ChEss will benefit from several cruises this year. In March, scientists will embark on a cruise to the Easter Island microplate for the exploration and study of chemosynthetic ecosystems. In April, a second cruise to the Mid-Atlantic Ridge will collect data from 2°S-11°S aboard the *Meteor*. In May, a Franco-Russian cruise planned by EXOMAR will visit TAG, Lost City, and Rainbow hydrothermal fields on the Mid-Atlantic Ridge, while another cruise will visit the Lau Basin hydrothermal vents in the Pacific. Finally, in June, the cruise (BOA 1) on board the IRD ship ALIS will head to New Caledonia for the study of sunken wood and its associated fauna.

A ChEss-related research team led by Charles Fisher (ChEss steering group and Ridge 2000) has discovered that zinc contained in the hemoglobin of deep-sea tubeworms is used to bind and transport nutrients to symbiotic bacteria. Further research with the hemoglobin could lead to its use in a variety of ways, including as an artificial substitute for oxygen-carriers in human blood. News of the discovery is published online in the Proceedings of the National Academy of Science (February 22, 2005; 102 (8)): <http://www.pnas.org/>.

- **Tagging of Pacific Pelagics: TOPP.**

TOPP's winter 2004-2005 tagging season has been particularly ambitious, with continued efforts on a broad range of species including pinnipeds, sea birds, and sea turtles. TOPP has placed over 1500 tags in the water. Recent highlights include:

- **Marine Mammals.** During January and February 2005, we successfully recovered instruments from 22 of the 25 female elephant seals tagged at the Ano Nuevo rookery in June 2004. Most of these animals had ocean journeys across the North Pacific to the waters off the Aleutians. Twenty-one of these females returned to the Ano Nuevo rookery while one female traveled to the Piedras Blancas rookery, located at the southern end of Big Sur. The data retrieved from the instruments include high quality water temperature, light level and salinity profiles. One of the animals logged the deepest dive to date for a female elephant seal. On a single dive lasting 42 minutes, she descended to 1,656 meters, one meter short of the deepest recorded dive for any northern elephant seal (in this case, a male) at 1,657 meters. TOPP's cetacean team continues to track 4 blue whales in early 2005.
- **Fishes.** The TOPP tuna team is rich in data sets. After placing over 300 archival tags in three species of tunas (albacore, bluefin and yellowfin), 140 archival tags have been recovered, with tracks from 100-866 days. These data, archival data records include behavior of tunas in relationship to the environment in the California Current.
- **Sharks.** In 2004, TOPP shark researchers deployed 60 electronic tags on five species in the eastern North Pacific. Two sharks are carrying a newly designed SMRU tag capable of providing direct up links with oceanographic data. As of early winter 2005, eleven blue sharks, 13 makos and 16 salmon sharks were transmitting near real time data sets. In addition 14 white and thresher sharks are archiving data on electronic tags due to pop up later in the year. Together, these datasets will provide extensive information on how these sharks use the ecosystem. Remarkably, one salmon shark has been tracked by TOPP for over 2.5 years.
- **Sea Turtles.** During the month of February 2005, TOPP scientists successfully deployed eight SMRU SRDL tags on female leatherbacks nesting at Playa Grande beach in Costa Rica. TOPP is successfully tracking 18 additional sea turtles from 2004 deployments, many tracks extending now for 14 months. These include efforts to follow turtles tagged in Costa Rica and Monterey Bay. The tags are recording oceanography and behavior and promise to deliver extensive data sets on this endangered species in the eastern North Pacific.
- **Seabirds.** From December 2004 through February 2005, scientists on the seabird team began tracking efforts at Tern Island in Northern Hawaii, and Guadalupe Island in Mexico. This information will provide an important comparison of the two Laysan breeding colonies. Tracks of the foraging trips show no overlap between the two breeding colonies during the nesting season. During January and February 2005, two additional teams traveled

to the southern hemisphere to deploy archival tags on sooty shearwaters off New Zealand and pink-footed shearwaters off Chile. Forty-five archival tags will be deployed for a period of 8-10 months to determine the migratory routes of the birds as they commute from breeding sites in the southern hemisphere to the North Pacific.

- **Education and Outreach.** The TOPP education and outreach team has worked with the data management team to make the live access server (http://las.pfeg.noaa.gov/TOPP_recent/index.html) accessible through the current TOPP web site. They are also now working with the TOPP scientists and engineers to develop a new Web site design that will present the information TOPP collects to the public, engaging, educating and exciting individuals about the marine environment and related conservation issues.

- **Salmon/Coastal Tracking: POST.**

The POST Management Board will meet 14-15 March 2005 in Seattle, WA, USA.

- **Latitudinal/Longitudinal Gradients in Near-Shore Biodiversity: NaGISA.**

The NaGISA Project is compiling a handbook for Sampling Coastal Seagrass and Macroalgae Community Biodiversity. The handbook will be used during NaGISA training workshops, as a text for university ecology field courses and as a reference manual for researchers and interested parties. The handbook will be a concise (85 pages) reference for conducting biodiversity sampling in Seagrass and Macroalgae communities. NaGISA is soliciting illustrated abstracts for side boxes within the guide. For instructions, see:

<http://www.nagisa.coml.org/downloads/sideboxes.pdf> (deadline: 4 April).

NaGISA plans to revisit Libong Island (Thailand, south of Phuket) to compare the current biota with samples from before the tsunami.

NaGISA will hold a taxonomy workshop on echinoderms during the 1st week of March.

- **Abyssal Sediments: CeDAMar.**

CeDAMar scientists are aboard the Polarstern in the Southern Ocean. Follow the research cruise through daily logs at: <http://www.deepsea-research.org>.

In March, CeDAMar researchers will cruise to the deep-sea basins of the eastern Atlantic aboard the DIVA-2 expedition Diva 2 to investigate latitudinal gradients in biodiversity.

- **Ice Oceans – Arctic: ArcOD.**

The members of the ArcOD office in Fairbanks will receive funding from NOAA's Office of Ocean Exploration for an expedition to the high Arctic Canada Basin this summer. The cruise will leave out of Barrow, Alaska on 27 June 2005 and will explore the shelf break of the Chukchi Sea, the deep Canada Basin and the morphologically complex Northwind Ridge area. Researchers will spend four weeks onboard the icebreaker USCGC Healy to conduct their investigations on the sea ice, the water column and the sea floor. They will be using various gear types such as a CTD-rosette, ice corer, plankton nets, benthic trawl and a deep-diving ROV in addition to other camera systems. Team members will include Russian, Canadian, German and US American scientists in addition to media and outreach representatives. The public will be able to follow the progress of the cruise on a dedicated web page established through NOAA (<http://www.oceanexplorer.noaa.gov/>).

- **Ice Oceans – Antarctic: CAML.**

The Census of Antarctic Marine Life (CAML) project will hold its first scientific steering group meeting on 27-31 May 2005 in Brussels, Belgium. The meeting will be held in conjunction with the first implementation workshop of the SCAR-Marine Biodiversity Information Network (SCAR-MarBIN), which takes place on 25-26 May.

- **Seamounts: CenSeam.**

NIWA, in New Zealand, seeks a researcher to support the new CenSeam project. This position will include responsibility for aspects of the day-to-day administration and organization of the Secretariat (based at NIWA), extensive liaison with the CenSeam Steering Committee, seamount researchers around the world, and other Census of Marine Life programmes. The researcher will also contribute to the outreach and seamount research for the project. For more details, contact Malcolm Clark (<mailto:m.clark@niwa.co.nz>). Closing date for applications is 25 February 2005.

- **Microbes: ICoMM.**

ICoMM has started off the year with three successful meetings. The Benthic Systems Working Group meeting was held at the Southampton Oceanography Centre, UK on 14-15 January 2005. Thanks to Paul Tyler and Eva Ramirez-Llodra for helping to host the meeting and for providing an overview of ChEss for the working group. The Technology Working Group met at the Max Planck Institute in Bremen, Germany on 31 January-1 February. One of the outcomes of this meeting was the decision to form a separate Database Working Group that ICOMM is now in the process of putting together. The first Scientific Advisory Council and Scientific Organizing Committee Meeting occurred on 7-8 February 2005 in Amsterdam, the Netherlands. ICOMM is planning an Open Ocean and Coastal Systems meeting for 10-11 May with the help of the David Karl who is chairing this working group.

- **Zooplankton: CMarZ.**

CMarZ co-P.I. Sigrid Schiel (Alfred Wegener Institute for Polar and Marine Research, Germany) has just returned from the ISPOL (Ice Station Polarstern) expedition to the Weddell Sea, Antarctica. The 8-week cruise (9 November 2004 – 19 January 2005) characterized the zooplankton community in the western Weddell Sea during the Spring-Summer transition. ISPOL measured zooplankton abundance, biomass, species composition, horizontal and vertical distribution, population structure, maturity of gonads, gut content, CN, lipids, stable isotopes, plus experimental studies on feeding, excretion and respiration. Samples were preserved for taxonomic and genetic analysis in formalin, alcohol, and liquid nitrogen.

Another CMarZ cooperating project was carried out in Monterey Bay, California. Led by CMarZ investigators Steve Haddock (Monterey Bay Aquarium Research Institute, USA) and Erik Thuesen (Evergreen State College, USA) the project used various nets, water samplers, an ROV, and a team of para-taxonomists to cross-calibrate methods for collecting and quantifying zooplankton down to 3500m. The goal was to develop ways to assess zooplankton biomass and biodiversity, while accurately representing the contribution of fragile gelatinous groups.

The city of Amiens France is now preparing an exhibition related to the works of Jules Verne, who lived in Amiens for his last years. A special focus will be the strange inhabitants of the oceans – with a nod to his famous novel “Twenty Thousand Leagues Under the Sea”. The Census of Marine Life will be referenced, with photography by ArcOD and CMarZ investigator, Russell R. Hopcroft.

An article on CMarZ, written by Ann Bucklin, Shuhei Nishida and Sigrid Schiel appeared in the December 2004 issue of the IGBP Global Change NewsLetter (No. 60, pp. 8-10).

The first CMarZ Steering Group meeting will be held 29 June-1 July in Bremerhaven, Germany. The meeting will be hosted by CMarZ co-P.I., Sigrid Schiel, of the Alfred Wegener Institute for Polar and Marine Research.

Developing Field Projects

- **Coral Reefs.**

The SSC has endorsed a proposal for a new ocean realm field project on coral reef ecosystems, led by Nancy Knowlton (Scripps, USA), Rusty Brainard (NOAA Pacific Islands Fisheries Science Center, USA) and Julian Caley (AIMS, Australia). If approved, the field project will commence in April 2005.

- **Margins.**

The SSC has endorsed a proposal for a new ocean realm field project on continental margin ecosystems, led by Myriam Sibuet (Ifremer, France), David Billett (SOC, UK), Robert Carney (Louisiana State University, USA), Lisa Levin (Scripps, USA), Helena Passeri Lavrado (Federal University of Rio de Janeiro, Brazil), and Gilbert Rowe (Texas A&M, USA). If approved, the field project will commence in April 2005.

National and Regional Activities

- **Australia.**

In early February, the National Oceans Office organized the third meeting of the National Census of Marine Life (CoML) Committee, which was held in Melbourne. The Committee members are scientists, policy-makers and marine information managers who have come together to provide a national focus for exploring, and better coordinating national marine biodiversity and bioinformatics issues and to play a role in promoting Australian biodiversity research.

The Australian Committee has published its own web site at (www.coml.org.au). Over the next few weeks more content will be uploaded about the Committee's activities, Australian CoML field projects and relevant information on global and regional CoML biodiversity issues. It is intended that the national Committee will play a role in promoting and coordinating national biodiversity research agendas beyond the life of the global Census program.

To start engaging those agencies, managers and scientists concerned with local and regional marine biodiversity issues, the Committee resolved at its latest meeting to plan and host a national CoML workshop. It is likely that a one-day workshop will be held in conjunction with the Australian Marine Science Association (AMSA) Conference, scheduled for July 2005 in Darwin. Stay tuned to the national CoML web site for details as they evolve.

The Committee will also oversee development of an Australian Node of the Ocean Biogeographic Information System (OBIS). Establishment of the Australian Node will provide an important mechanism for data on Australasian species to be entered into the global network. OBIS is a publicly accessible system that will eventually provide complex data modeling and manipulation tools. Australia has already played a key role in developing software that is used by the network.

- **Canada.**

The Canadian OBIS node provided a new source of data to the OBIS Portal, numbering 5000 records on Resolute Passage Copepod Distribution.

- **Caribbean.**

The manuscripts from the June 2004 workshop are being prepared for publication. The proceedings will be published by DesTech Publications in 2005. The book will have an introductory chapter, 10 marine biodiversity reviews of different Caribbean countries, an archaeological study of pre-Hispanic fisheries, and the summaries of the CoML projects, research institutions or programs and conservation agencies that participated in the workshop.

- **Europe.**

EuroCoML has been approved for two years of funding from the Stavros Niarchos Foundation, which has been the primary supporter of the CoML in Europe since 2000.

The EuroCoML Executive Committee met on 15-16 February to discuss plans for the year, including the European symposium in Frankfurt in November.

The MedOBIS database is now ready to be served to OBIS via EurOBIS (at the Flanders Marine Institute - VLIZ): <http://www.marbef.org/data/dataset.php?show=html&dased=481>. It contains almost 3,000 benthic species from 255 stations and will continue to grow from additional data being gathered by Christos Arvantidis, Tasso Eleftheriou and their colleagues at the Hellenic Center for Marine Research.

- **Indian Ocean.**

The Indian Journal of Marine Sciences will feature the papers from the December 2003 workshop on Indian Ocean Biodiversity will be published in its March 2005 issue.

- **South America.**

Congratulations to Miriam Fernandez on her appointment as a Pew Fellow in Marine Conservation: <http://www.pewmarine.org/pewFellowsDirectoryTemplate.php?PEWSerialInt=10266>.

- **USA.**

The US National Committee (USNC), in collaboration with partners, is co-organizing a conference track (3-6 sessions) on ocean observing systems and observatories at the annual Marine Technology Society / Institute of Electrical and Electronics Engineers, Inc. (MTS/IEEE) Oceans '05 Conference. The Conference will be held 19-23 September 2005, at the Marriott Wardman Park Hotel and Conference Center. The USNC is actively encouraging abstract submissions in three areas: 1) current biological and chemical sensor technology with (potential) application to ocean systems; 2) data management and synthesis technologies related to integrated systems for chemical and biological data; and 3) applications of observing system data and products to the field of education and outreach. The USNC wishes to share the current state of chemical and biological sensing technologies, and to identify how the community will address the growing gap with physical sensing technologies. Authors are advised to include in the title and/or abstract the words Ocean Observing System or Ocean Observatory. For more information contact Peter

Fippinger (pfippinger@COREocean.org), Andy Clark (a.clark@ocean.us) or visit the Conference website: <http://www.oceans2005.org/>.

Congratulations to USNC member Shirley Pomponi, President of Harbor Branch Oceanographic Institution, for her appointment as Chair of the National Academies Ocean Studies Board.

The USNC will next meet 4-5 April 2005 in Washington, DC.

Cross-cutting and Other Related Activities

- **SCOR Panel on New Technologies.**

The panel held its first meeting under new Chair Elgar De Sa in Goa, India on 14-16 February 2005. The members discussed the new and ongoing CoML field projects, including Seamounts, ArcOD, CAML, CMarZ, and MAR-ECO. The panel also reviewed its developing website, which will be launched in the coming months to inform both the public and the CoML community of the range of technologies available for biological surveys and observations.

- **DNA Barcoding.**

The First International Conference for the Barcoding of Life, held at The Natural History Museum, London on 7-9 February, was a success and received quite a bit of international press, including an article in *Science* (Vol. 307, 18 February 2005, p. 1037). Announced at the conference, was the commencement of an initiative to get comprehensive barcode data on all known fish types, including approximately 15,000 known marine species plus those collected by the CoML, by 2010. An initial workshop for the All Fish barcoding initiative is preliminarily scheduled for 6-8 June 2005 in Guelph, Ontario, Canada.

The Barcode of Life Database (BoLD) has now holds over 32,000 barcode sequences, representing more than 12,000 individual species.

In conjunction with the Barcode conference in London was a meeting on Library and Laboratory: the Marriage of Research, Data, and Taxonomic Literature, which brought together an interesting group of scientists, librarians, representatives of publishing interests, and experts on data systems. There was a general feeling that open access to the world's scientific literature will rapidly increase. Ways to respect intellectual property rights and allow open access were discussed. The central importance of authoritative lists of taxonomic names was emphasized. In addition to GBIF, Species 2000, and ITIS, organizations such as OBIS and CBOL (Committee for the Barcode of Life) will need to take increased responsibility for producing and maintaining these lists. The Proceedings can be found at: <http://barcoding.si.edu/LibraryAndLaboratory.htm>.

Ann Bucklin and other "marines" at the London meeting suggested organizing a workshop within the next year bringing together barcoding researchers from throughout CoML, and the SSC is looking into ways to implement this good suggestion.

- **Marine Life in the North Pacific.**

Marine Life in the North Pacific: the Known, Unknown and Unknowable, the joint report from the North Pacific Marine Science Organization (PICES) and CoML, will be published in March. Please be sure to check for the announcement of its release (and the link to the report) under Special Publications on the PICES website (<http://www.pices.int/>) or on the News column of the CoML Secretariat website (www.comlsecretariat.org).

General News

- **GEOSS.**

The Global Earth Observation System of Systems (GEOSS) 10-Year Implementation Plan, adopted at the GEO-6 and EOS-III meetings, 16 February 2005, notes "Understanding, monitoring, and conserving biodiversity" as one of the nine areas toward which GEOSS will contribute information as a basis for sound decision making. GEOSS is a step toward addressing the challenges articulated by United Nations Millennium Declaration and the 2002 World Summit on Sustainable Development, including the achievement of the Millennium Development Goals. GEOSS will also further the implementation of international environmental treaty obligations. For more information on this meeting and to download the Implementation Plan, visit: <http://earthobservations.org>.

- **TOS/IOC International Ocean Research Conference.**

The Oceanography Society and UNESCO's Intergovernmental Oceanographic Commission will hold their joint International Ocean Research Conference in Paris from 6-10 June 2005. The goals of the meeting are to reflect on how far oceanography has come and to help define the coming decade of international collaboration in science and education. General plenary sessions include: Harmful Algal Blooms, Black Sea Oceanography, Molecular Evolution and Diversity of the Oceans, Biogeochemical Cycles of Trace Elements and Implications for Marine Ecosystems. Odd Aksel Bergstad and Tone Falkenhaug of MAR-ECO will co-chair a session on International Ocean Exploration with Jonathan Phinney from the NOAA Office of Exploration. Papers will be presented from MAR-ECO, ChEss, and GoMA. The abstract submission deadline has passed.

- **Dynamic Planet 2005.**

Dynamic Planet 2005, a joint assembly of the International Association of Geodesy (IAG), International Association for Physical Sciences of the Oceans (IAPSO) and the International Association for Biological Oceanography (IABO), will be held 22-26 August 2005 in Cairns, Australia. An IABO session, organized by Mark Costello, Ron O'Dor and Ian Poiner, will focus on CoML. There are also many other joint sessions of relevance to CoML work. The closing date for the submission of abstracts is 23 April for hard copy submissions and 29 April for on-line submissions. Early-bird registration is open until 30 May, but registration will be accepted online until 18 August. For more information, see: <http://www.dynamicplanet2005.com/>

- **DIVERSITAS.**

DIVERSITAS will hold its first Open Science Conference, *Integrating biodiversity science for human well-being*, on 9-12 November 2005 in Oaxaca, Mexico. CoML is organizing a session focusing on the DIVERSITAS Theme of BioDiscovery. Abstracts are now being accepted online until 31 March at: <http://www.diversitas-osc1.org/>. Registration opened in January.

- **Possible participation in Galatee Films project *Oceans*.**

On 4 February in Paris, Fred Grassle and Jesse Ausubel continued the discussions with Jacques Perrin and his team about how CoML field projects might help provide expertise and access to the oceans. The discussions continue to be very promising. We urge the projects to share their plans for expeditions with Stephane Durand (sdurand@galateefilms.com) and to explore directly with him possible joint opportunities. For those unfamiliar with Jacques Perrin, visit: <http://www.imdb.com/name/nm0674742> and browse this site with particular attention to Perrin's career as a producer for:

Peuple migrateur, Le (2001) (a.k.a. Winged Migrations)

Microcosmos: Le peuple de l'herbe (1996)

Peuple singe, Le (1989) (a.k.a. The Monkey Folk)

You may also enjoy learning of Perrin's roles as actor, director and producer in many other fine films, including *Z*, *La Guerre d'Algerie*, *State of Siege*, *Black and White in Color*, *Cinema Paradiso*, *The Sleeping Car Murders*, and currently, *The Chorus*.

Funding Announcements

For Calls for Proposals and other Announcements of Opportunity (jobs, fellowships, post-docs, etc.), please refer to the CoML Secretariat website: <http://www.coreocean.org/Dev2Go.web?id=205630>

Calendar of Upcoming Events

March

14-15: POST Management Board meeting, Seattle, WA, USA

April

4-5: US National Committee Meeting, Washington, DC

22-25: Known, Unknown, Unknowable (KUU) Conference on *Future Marine Biodiversity*, La Jolla, CA

23-24: OBIS Management Committee meeting, Ostend, Belgium

26-27: CoML SSC Meeting, La Jolla, CA

May

10-11: ICOMM Open and Coastal Systems working group meeting

27-31: Meeting of the CAML scientific steering group, Brussels, Belgium (in conjunction with the first implementation workshop of the SCAR-Marine Biodiversity Information Network (SCAR-MarBIN) on 25-26 May)

June

- 2-3:** MAR-ECO Steering Group meeting and field phase workshop, Lisbon, Portugal
6-8: Barcode of Life workshop to establish a network to assemble DNA barcodes of all marine fish species, Guelph, Ontario (dates tentative)
6-10: TOS/IOC: International Ocean Research Conference, Paris, France (CoML participating)
27: ArcOD expedition (Ocean Exploration) to the high Arctic Canada Basin
29-1 Jul: CMarZ Steering Group meeting, Bremerhaven, Germany

July

13: The Known, Unknown & Unknowable of Australia's Marine Fauna, Darwin, Australia

August

- 22-26:** IABO/IAPSO/IAG Dynamic Planet Conference, Cairns, Australia (CoML Session)
26-28: CoML SSC Meeting, Cairns, Australia

September

19-23: MTS/IEEE Oceans 2005, Washington, DC, USA (USNC co-sponsoring a session)

October

24-27: HMAP Open Science Conference: "Oceans Past – Multidisciplinary Perspectives on the History of Marine Animal Populations", Kolding, Denmark

November

- 3:** EuroCoML Symposium, Frankfurt, Germany
4-5: 2nd CoML All Program Meeting, Frankfurt, Germany
6: CoML SSC Meeting, Frankfurt, Germany
9-12: First DIVERSITAS International Conference on Biodiversity, Oaxaca, Mexico (CoML Session)