

What's New with CoML?
May – July 2004

- **All Program Meeting.** The Second CoML All Program Meeting will be held in conjunction with the 2005 International Senckenberg Conference on marine biodiversity, organized by CeDAMar project manager, Pedro Martinez. The Senckenberg Conference is scheduled for 30 October – 4 November 2005 in Frankfurt, Germany. The All Program Meeting will be held 5-6 November 2005 in Frankfurt. The goals of the All Program Meeting will likely be a mid-term synthesis of the research and identification of needs for the latter half of the program. The meeting will focus on integration of projects and working groups based on the *ocean realms* (of the Research Plan). More information on the meeting will be available in late December 2004... Please mark your calendars!
- **Scientific Steering Committee (SSC).** The SSC would like to welcome two new members, Dr. Michael Sinclair, Director of the Bedford Institute of Oceanography in Nova Scotia, Canada, and Dr. D. Chandramohan, Deputy Director of the National Institute of Oceanography, India.

The SSC met 1-2 July 2004 in Horta, Açores, Portugal, hosted by the Departamento de Oceanografia e Pescas, Universidade dos Açores and the Centro do Mar. The management subcommittee of the SSC reported on their preliminary recommendations about the reciprocal roles and responsibilities of the CoML National and Regional Committees (N/RICs) and the SSC, which will be discussed further with the N/RICs at the Paris SSC meeting. SSC members were assigned as liaisons to the various N/RICs to better communication between the central and distributed managements of the program. The SSC also endorsed proposals to initiate two new Ocean Realm Field Projects on zooplankton and marine microbes.

The next SSC meeting will take place on 1-3 December 2004 in Paris, France, hosted by Patricio Bernal and the IOC. Representatives from the CoML N/RICs (both formed and under organization) are requested to attend this meeting.

- **Secretariat.** CORE has just received renewed funding to support the SSC and serve as the international Secretariat for CoML. CORE Research Director Reggie Beach will take an active role as Program Manager of CoML at CORE to clarify the internal management of the Secretariat and improve tracking and reporting capacity.

The Secretariat would like to say farewell to Giselle Firme, who has ended her research fellowship at CORE. We've appreciated her work over the past year and will miss her. Giselle will be moving back to Brazil later this summer to take on a new role in her family's architectural and construction firm. She also hopes to remain active in marine science in Brazil.

- **Education and Outreach.** The Education and Outreach team at URI is currently developing the first CoML Annual Highlights report, due out in October. It will highlight the exciting scientific discoveries of the CoML projects over the past year.

The Outreach Liaison Network will hold its next meeting in Paris, France on 2-3 December 2004.

- **Ocean Biogeographic Information System (OBIS).** As of 28 July 2004, total data holding in the OBIS network is 2,929,761 records, 38,754 scientific names, and 30,543 species.

OBIS has received renewed funding from the Sloan Foundation to serve as OBIS Secretariat, support the International Committee, and establish and support a network of Regional OBIS Nodes (RONs). This network of Regional Nodes is developing in conjunction with national organizations such as: Fisheries and Oceans Canada and the Centre for Marine Biodiversity (Canada); NaGISA and Japan GTI (Japan); CSIRO and the National Oceans Office (Australia); National Institute of Water and Atmospheric Research (New Zealand); the National Oceanic and Atmospheric Administration's National Ocean Data Center, National Marine Fisheries Service, and the National Biodiversity Information Infrastructure (USA); and, in Europe, through cooperation among national data centers and EU projects (MARBEF/EurOBIS, EuroCAT/Species 2000 Europa, BioCASE, BIOMARE, MarLIN, SAHFOS, and the Flanders Marine Data and Information Centre). OBIS Regional Nodes are also proposed for South America, Southern Africa, the Caribbean and the Indian Ocean. The next meeting of the OBIS regional nodes is scheduled for 16-18 September 2004 at the Bedford Institute of Oceanography in Nova Scotia, Canada, hosted by Bob Branton.

The OBIS-SEAMAP (Spatial Ecological Analysis of Megavertebrate Populations) team held a Data Providers Meeting at Duke University in Durham, North Carolina, on 10-11 May. The first day focused on new web tools, particularly mapping and tracking applications compatible with Tracking of Pacific Pelagics project data. The second day reviewed the wide range of data types being brought together in SEAMAP from all oceans except the Arctic. A high point was a report from the British Antarctic Survey on the recent BirdLife Global Procellariiform Satellite Tracking Workshop, which illustrated the incredible new insights possible from data sharing by albatross trackers in the Southern Ocean. Other bird data providers included Wake Forest University, and University of Washington; turtle data from Duke University, Blue Ocean Institute and SeaTurtle.org; mammal data from New England Aquarium, University of Southern Maine and the National Marine Mammal Laboratory. NOAA Northeast, Southeast and Southwest Fisheries Science Centers all provided an impressive array of data from all taxa from surveys and cruises, both in the US EEZ and internationally. For further information see: <http://seamap.env.duke.edu/>.

OBIS – in partnership with the IOC International Oceanographic Data and Information Exchange, the International Association for Biological Oceanography (IABO), and the Flanders Marine Institute – will hold a major international workshop on Ocean Biodiversity Informatics in Hamburg, Germany, 29 November – 1 December 2004. For more information, visit <http://www.vliz.be/obi/>. The OBIS International Committee plans to meet in conjunction with this conference on 26-27 November in Hamburg.

The OBIS international Secretariat at Rutgers University (USA) is currently seeking a Program Manager to oversee day-to-day operations and planning for a federation of OBIS-affiliated data systems throughout the world. The Program Manager will have full responsibility for managing activities related to the OBIS Portal at Rutgers University and its partners, including a number of independent marine biological databases, Census of Marine Life Field Projects, and Regional OBIS Nodes in eight countries. For more information, please contact Fred Grassle (grassle@imcs.rutgers.edu) or visit <http://www.coreocean.org/Dev2Go.web?id=260273>.

- **History of Marine Animal Populations (HMAP).** The first HMAP Modeling workshop took place in Esbjerg, Denmark on 21-23 April with 19 participants from Denmark, US, UK, Russia, South Africa, Belgium. For the agenda, abstracts and a list of participants, visit the workshop page at <http://www.hmapcoml.org/Default.asp?ID=190>.

The fifth annual HMAP workshop, *Testing the HMAP Hypotheses: known, unknown and unknowable*, will take place on 11-13 August 2004 at the University of Southern Denmark in Esbjerg. Marine scientists, historians, archaeologists and ecologists working on the HMAP case studies around the world will attend the meeting with the aim to assess the progress and future development of the project. A number of presentations will be heard, including a final installment of Neil Klaer's work on the SE Australian shelf. The workshop will comprise delegates from the US, UK, Russia, Estonia, Latvia, Germany, Belgium, Australia, New Zealand, Sweden as well as from Denmark.

The book "Learning from Environmental History in the Baltic Countries," which includes a chapter written by Poul Holm, has been produced within the framework of "The Baltic Sea Project" as a part of the UNESCO Associated Schools Project.

A workshop has been funded under the auspices of EuroCoML to develop an HMAP case study in the Mediterranean Sea. It will be held 20-23 September 2004 in Barcelona, Spain. Dr. Isabel Palomera of the Institut de Ciències del Mar is hosting.

The HMAP Open Science Conference, *Oceans Past – Multidisciplinary Perspectives on the History of Marine Animal Populations*, will take place from 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. A call for papers will be issued in late 2004. For more information, visit the conference website at <http://www.hmapcoml.org/Default.asp?ID=194>.

- **Future of Marine Animal Populations (FMAP).** FMAP has assigned full-time Ph.D. student Derek Tittensor to work with the developing Seamount project and to develop methods for biodiversity modeling to be used for other projects. There is a meeting planned for 15 September 2004 at Woods Hole Oceanographic Institution (WHOI) to examine the field survey data issues associated with the Seamount project.

Another modeling meeting is planned with Zooplankton group (Ann Bucklin) for 16 September at WHOI. The goal of this meeting is also to help design an efficient sampling program.

FMAP expects to hold its next steering group meeting this coming (northern) winter in Japan (dates TBD). Some members may also meet in conjunction with the Known, Unknown, Unknowable workshop on Future Biodiversity scheduled for 22-25 April 2004 in La Jolla, CA.

Ocean Realm Field Projects

- **Gulf of Maine Area Program: GoMA.** A team of explorers completed its second “Mountains in the Sea” cruise to the Manning, Kelvin, and Bear seamounts. Objectives of the May 2004 cruise included documenting the occurrences of corals with respect to current flow, and seeing what the relationships are of the benthic fishes, not only to corals distributions but also to other aspects of the seamount landscape. The cruise was assisted by NOAA’s Office of Ocean Exploration. See <http://oceanexplorer.noaa.gov/explorations/04mountains/welcome.html>

Cruises also were made in late spring by Michael Vecchione to Bear Seamount and by Michael Fogarty to the Slope Sea.

The Gulf of Maine Census is participating with Tom Trott of Suffolk University on his project to sample “critical marine invertebrate areas” in coastal Maine regions. This work is funded by Maine Sea Grant. One objective, in addition to documenting change in these areas, is to demonstrate that diversity and distribution data collected in small areas can be integrated into GMBIS.

As a result of the initiative of DFO-Canada, the development of a Discovery Corridor is underway. The Discovery Corridor, which will extend from the intertidal area to deep basins and the seamounts, will serve as an organizing tool for amassing what is known about the diversity and distribution of life in the Gulf of Maine across a variety of habitats. The effort is chaired by Peter Lawson.

The Gulf of Maine Ocean Data Partnership is up and running. It was launched at a meeting at the Northeast Fisheries Science Center in Woods Hole in late April. At present the Partnership consists of 14 members, including some of the largest data generators in the region, coordinators of databases, and holders of small area databases. The Partnership's goal is to create a truly dynamic system of sharing and integrating data—physical, biological, geological, and cultural. For the Census, this will greatly advance the opportunity to understand the workings of the Gulf of Maine ecosystems. David Mountain of the NEFSC is chair, and GoMOOS is hosting the Partnership. The Gulf of Maine Census has coordinated its organization.

- **Mid-Atlantic Ridge: MAR-ECO.** The long-awaited MAR-ECO cruise on the *R/V G.O. Sars* set sail from Bergen, Norway, 5 June 2004 for a 2-month voyage. On 3-4 July, the ship docked in Horta, Azores, flying the banners of MAR-ECO and CoML, to change research teams for the second leg. The CoML Secretariat and Scientific Steering Committee were there to greet them and learn of the discoveries of Leg 1, which travelled south along the mid-Atlantic Ridge from south of Iceland to the Azores. During its stay in Horta, the ship was open to interested members of the public. Leg 2 is travelling north along the same route, but focusing in two sub-areas north of the Azores (approx 43°N) and near the Charlie-Gibbs Fracture Zone (approx 52°N). The exciting two-months will end in Bergen on 4 August, followed by an international press release on 5 August. You can follow the *G.O. Sars* journey on MAR-ECO's website: <http://www.mar-eco.no/>.

On 21 July, the Royal Norwegian Airforce 333 Squadron airdropped to the *Sars* much-needed parts for the ROV *Bathysaurus*. The *Bathysaurus* has the capability to dive to 5000m. Now back in operation, it will allow the crew to study the very deep life on the Mid-Atlantic Ridge. We extend our deepest thanks to Lieutenant Colonel Asak and the 333 Squadron for their willingness to perform this unusual mission.

- **Chemosynthetic Ecosystems: ChEss.** ChEss welcomes Prof. Yoshihiro FUJIWARA from Japan to the ChEss SSC. He represents the Japan Agency for Marine-Earth Science and Technology (JAMSTEC).

The development of the ChEss database (ChEssBase) has been progressing well. The team expects to have a user-friendly web presence and interoperability through OBIS before the end of the year.

Eva Ramirez-Llodra of ChEss is participating on the InterRidge Global Exploration Working Group.

ChEss will be involved in the Organising Committees for the 3rd Hydrothermal Vent Symposium (Scripps, 2005) and 11th Deep-Sea Symposium (SOC, 2006).

- **Tagging of Pacific Pelagics: TOPP.** Since our last “What’s New?,” the TOPP field programs have moved into full swing, with lots of tags going out and data coming in.

FISHES. Recovery of archival tagged bluefin and yellowfin are exceeding expectations. In June, Japan returned 3 archival tags from bluefin released off Baja, California. A bluefin tuna, tagged with a Lotek archival tag in August 2002 was captured off Japan in the spring of 2004. After spending 8 months off California and Mexico this remarkable tuna traveled to Japan and back to Baja and then to Japan once again a journey of over 18,000 nm in 677 days. The tuna teams have recovered over 7000 days of data on yellowfin, bluefin and albacore tuna.

SHARKS. The shark team has had incredible success with satellite tagging salmon sharks. Migrations as long as two years have been recorded. TOPP researchers will be in Alaska in July testing a new UK tag that will provide the first real-time speed and depth temperature profiles. The shark team is staying busy and two teams are currently in the field tagging blue, mako and great white sharks in the Southern California Bight. Later this year additional tags will be deployed off Mexico and Northern California.

SEABIRDS. The first tracks from Laysan albatrosses for the non-breeding season show extraordinary movement across the north Pacific with birds concentrating in the Aleutian Islands and Alaska Gyre. In Chile, 2 archival tags were recovered from pink-footed shearwaters after 7-8 month. This is the smallest seabirds (~800 g) ever tracked for this duration. One bird was headed north along the coast of Central America before its tag stopped functioning.

ELEPHANT SEALS. The development of the new conductivity, temperature, depth (CTD) tag is progressing nicely. This spring CTD tags were deployed on 9 elephant seals for the 2-5 day trip across Monterey Bay. After correction for near field effects the data collected was virtually indistinguishable from that obtained using a Seabird CTD cast at the time of release. Even this small number of deployments provided over 3,000 individual oceanographic profiles for Monterey Bay. This spring 4 satellite linked CTD tags were deployed on elephant seals for the 8-month, post-molt migration. These tags are currently providing real-time salinity data.

EDUCATION AND OUTREACH. The TOPP education and outreach team is currently recruiting two full-time staff to support the ongoing E&O effort. One will provide oversight of the TOPP web programs, and the other will be responsible for developing content for web, print and media.

- **Coastal Tracking: POST.** All 2004 milestones initially planned for POST have been met. The completion of all lines forming the 2004 acoustic array was officially achieved on 8 June 2004, when the acoustic line north of Icy Strait, Alaska, was deployed. In addition, all tagging targets have been met with the exception of one wild stock from the Nimpkish River (NE coast of Vancouver Island), which has not yet begun to migrate to

sea. They wait to see if the run is simply late. To date, a total of 1,955 tagged animals have been released with POST tags in 2004. Equipment recovery, initial data download, and redeployment of the acoustic array will now begin.

- **Latitudinal/Longitudinal Gradients in Near-Shore Biodiversity: NaGISA.** The NaGISA Protocols are available as a PowerPoint presentation online at the NaGISA website: <http://220.111.242.120/>.

- **Abyssal Sediments: CeDAMar.** CeDAMar PI's Joelle Galleron (IFREMER), Craig Smith (University of Hawaii) and Pedro Martínez (German Centre for Marine Biodiversity Research) participated in the French NODINAUT cruise on the *R/V L'Atalante*, which departed Manzanillo (Mexico) on 17 May and ended successfully in Noumea (New Caledonia) on 27 June 27. Chief scientist Joelle Galeron led a group of 20 scientists from 8 different countries (France, England, Spain, Italy, Korea, Japan, USA and Canada) to obtain data on the sediment geochemistry and the microbiology and diversity of abyssal communities at two sites in the Pacific nodule province, an area of about 3 million square km at a depth of about 5000m. The cruise sought to answer question, such as: (1) is there a specific fauna associated with the nodules? (2) Does the presence of nodules influence the diversity and abundance of benthic communities? (3) What consequences will large-scale exploitation of the nodules in this area have for abyssal life? (4) How does the diversity of the Pacific nodule province compare to abyssal basins in other Oceans? (5) How is the gene flow between organisms in the Pacific region? The cruise employed the French manned submersible *Nautilie*, which itself had a crew of 8. The *Nautilie* was used to perform 14 dives of about 9 hours duration each to about 5000m depth. The dives recorded 70 hours of video and hundreds of photographs of the seafloor and of the abyssal fauna, which will be analyzed at IFREMER to identify the megafauna and to calculate its densities and community structure. The most abundant organisms recorded were holothurians of different species, as well as sponges, cnidarians, sea stars, deep sea fishes and squids. Spurs of bioturbation like burrows, tracks and mounds were also recorded. Other instruments used included multi-corer and box-corer grabs and Landers to measure of oxygen consumption and colonization of artificial substrate experiments.

Only a year after the expedition ANDEEP I and II, a first set of publications is about to be published as a special volume of *Deep Sea Research*.

The CeDAMar SSC will meet in Wilhelmshaven on August 6th. CeDAMar welcomes Brigitte Hilbig, co-PI of ANDEEP, who, since June, serves as CeDAMar scientific project manager in charge of the Outreach activities and the CeDAMar secretariat.

- **Ice Oceans: Arctic.** Russ Hopcroft, Rolf Gradinger, and Bodil Bluhm of the University of Alaska have received funding from the Sloan Foundation to launch and organize an Arctic Ocean Census of Marine Life (ArcCoML). An international steering group, comprised of representatives from Canada, Russia, Norway, Denmark, Germany and the U.S., guides the project. For more information, visit the project website: <http://www.sfos.uaf.edu/research/arcdiv/>.

The announcement of ArcCoML was met with much international media attention on 24 June 2004. Read the press release at <http://www.coreocean.org/iDuneDownload.dll?GetFile?AppId=141&FileID=260332&Anchor=&ext=.pdf>. Several of the articles spurred by this release can be found at the news section of the CoML portal: <http://www.coml.org/medres/medres1.htm>.

The full proceedings of the Arctic biodiversity workshop that initiated development of this project in April 2003 are now available as a PDF through the Alaska Sea Grant bookstore website: http://www.uaf.edu/seagrant/Pubs_Videos/pubs/M-26.html.

National and Regional Activities

- **Australia.** The Australian Committee is making plans to hold a Known, Unknown, Unknowable workshop on the Western Pacific. They will collaborate with New Zealand and the South Pacific island nations. They also plan to hold a major national education and outreach event in 2005.
- **Canada.** The Census of Marine Life Canada will hold a workshop 29-31 October in Ottawa to create a unified, research agenda to advance knowledge of biodiversity in Canadian waters, the variables that regulate biodiversity pattern, and how to use this knowledge to manage and conserve marine biodiversity. The workshop will focus on processes that regulate biodiversity from populations to ecosystems. A major objective is to determine how interaction with international initiatives can make the most of Canadian resources that are small relative to the country's extensive ocean borders. Dr. Paul Snelgrove, Memorial University of Newfoundland and Dr. Mike Sinclair, Bedford Institute of Oceanography, will chair the meeting.
- **Caribbean.** A CoML-sponsored regional workshop on Caribbean marine biodiversity took place 15-17 June 2004 in Isla de Margarita, Venezuela, organized by Patricia Miloslavich and Eduardo Klein of Universidad Simón Bolívar. The workshop included approximately 20-25 participants from around the Caribbean including Belize, Bermuda, Columbia, Costa Rica, Cuba, Dominican Republic, Grand Cayman, Jamaica, Guatemala, Mexico, Panama, Puerto Rico, Tobago, and Venezuela. The group identified 4 primary areas of interest for a CoML Caribbean initiative: OBIS, NaGISA, Coral Reefs, and HMAP (Megamollusks). The background papers will serve as the proceedings of the workshop. The next challenge is the establishment of a formal CoML-Caribbean committee, which will be chaired by Patricia Miloslavich.
- **Europe.** EuroCoML attended the EurOcean Conference in Galway, Ireland on 10-13 May 2004. CoML received a lot of positive attention and was featured on the Irish radio program "Seascapes."

The next meeting of the full EuroCoML Committee will be held 4-5 October 2004 (location TBD).

- **Indian Ocean.** The IO-CoML Committee has been formally established. Members include: Mohideen Wafar (Chair – India), John Keesing (Australia), Charles Griffiths (South Africa and Chair of the Sub-Saharan African CoML Committee), Jan Sopaheluwakan (Indonesia), Mazlan Ghaffar (Malaysia), Yoshihisa Shirayama (Japan and member of the CoML international SSC), Mitra Bhikajee (Mauritius) and Vishwas Chavan (India). The Secretariat for the Indian Ocean Regional Committee is located at the National Institute of Oceanography in Goa, headed by NIO Deputy Director P.A. Lokabharathi.

The report of the Indian Ocean biodiversity workshop held December 2003 will be published as a special issue of the Indian Journal of Marine Sciences. Mohideen Wafar and Shubha Sathyendranath are hard at work editing the volume.

- **South America.** CoML South America has a new website. Please visit it at <http://www.coml-sa.org>.

The proceedings of the November 2002 South American biodiversity workshop are published as a special issue of *Revista Gayana* 67(2):2003. Victor Ariel Gallardo, workshop organizer and Vice Chair of the CoML international SSC edited the volume. Please contact the Secretariat at CORE for a copy.

- **Southeast Asia.** The Research Center for Oceanography, Indonesian Institute of Sciences (LIPI) has recently established an Indonesia Census of Marine Life Program entitled Marine Life in Indonesia (MarLIIn). They plan to hold a National Workshop on Marine and Coastal Biodiversity on 30 August – 1 September 2004 in Jakarta.

- **USA.** The U.S. National Committee met 3-4 June 2004 in Long Beach, CA. They are currently preparing for targeted visits to federal agencies to present the components of the U.S. program plan as they support specific recommendations of the final report of the U.S. Commission on Ocean Policy. The agency visits will take place in September and October.

An Ocean Research Coordination and Advancement Act (S.2648) was introduced to the U.S. Senate on July 13th by Senators Hollings, Stevens and Inouye. The Act calls for a 10-year interagency Marine Ecosystem Research Program to be established and maintained by a National Ocean Science Committee (the National Oceanic and Atmospheric Administration, the National Science Foundation, the United States Geological Survey, the Office of Naval Research, and others). The proposed program includes elements addressed by and important to the Census of Marine Life, such as: dynamic access to biological and other data through an integrated ocean biogeographic information system; integrated national and regional studies and products that focus on appropriate scales to support ecosystem-based management; improved biological sensors for ocean and coastal observing systems; investment in exploration and taxonomy to study little known areas and describe new species; studies of earlier changes in marine populations to trace information on biological abundance and diversity to the earliest historical periods of minimum human impact; and improved predictive capability. The program is to include competitive research grants to the scientific community. The

proposed authorization for development and implementation of the research program is \$50M for each of fiscal years 2005 through 2010, to be appropriated to the National Oceanic and Atmospheric Administration.

A CoML session for the 6th International Aquarium Congress (5-10 December 2004, Monterey, CA) has been accepted. Jerry Schubel, chair of the USNC education and outreach subcommittee, is organizing this session.

Cross-cutting and Other Related Activities

- **SCOR Panel on New Technologies.** The SCOR Panel is developing a new website on technologies for observing marine life. The website will draw international attention to the potential benefits of emerging technologies in the detection and enumeration of marine life, explore the relative merits of different technologies and identify those that deserve further research, reflect the Panel's thinking on emerging technologies, serve as an archive of technical articles, links, references, etc., and enable both general-purpose.

- **Microbes.** The SSC has endorsed an International Census of Marine Microbes (ICOMM), a new CoML global field project proposed by Mitch Sogin (Marine Biological Laboratory, USA) and Jan de Leeuw (The Royal Netherlands Institute for Sea Research). The project would catalogue all known diversity of single-cell organisms inclusive of the Bacteria, Archaea, Protista and associated viruses, explore and discover unknown microbial diversity, and place that knowledge into appropriate ecological and evolutionary contexts. ICOMM will also serve as a crosscutting effort across CoML field projects with existing or potential microbial components. The proposal awaits formal review.

- **Zooplankton.** The SSC has endorsed a proposal for a Census of Marine Zooplankton (CMarZ), a new global field project to make a taxonomically comprehensive assessment of biodiversity of animal plankton throughout the world ocean. Ann Bucklin (University of New Hampshire, USA), Shuhei Nishida (University of Tokyo, Japan) and Sigrid Schiel (Alfred Wegener Institute for Polar and Marine Research, Germany) are the Principal Investigators. The proposal awaits formal review. In the meantime, the group is working with FMAP to examine sampling design issues. This will be done through a small meeting scheduled for 16 September in Woods Hole, MA.

The CMarZ Science Plan is available for review. You can find it linked from the News column at www.comlsecretariat.org. Please send comments, corrections, suggestions, and additional information to Ann Bucklin (ann.bucklin@unh.edu).

- **Coral Reefs.** The CoML U.S. National Committee is sponsoring a workshop to identify the appropriate goals and scope of a census of marine life on coral reefs, which would be the U.S. component to a global coral reef initiative under the CoML umbrella. This workshop is scheduled for 15-18 August 2004 at the Hawaii Institute of Marine Biology on Oahu, Hawaii. More information can be found at the workshop website: <http://www.coreocean.org/Dev2Go.web?id=260543>.

The international group met during the International Coral Reef Symposium on 27 June in Okinawa to discuss the key aspects of a global project. Striking a good balance between basic biodiversity information and utility for conservation was considered the critical factor. In addition, it was acknowledged that the diversity and physical complexity of reefs would make designing a protocol challenging. The plans for an international coral reef field project will continue to develop.

- **DNA Barcoding.** The CONSORTIUM FOR THE BARCODE OF LIFE (CBOL) is an international collaboration of natural history museums, herbaria, biological repositories, and biodiversity inventory sites, together with academic and commercial experts in genomics, electronics, taxonomy, and computer science whose mission is to rapidly accelerate the compiling of DNA barcodes of known and newly discovered plant and animal species, establish a public database of sequences linked to vouchered specimens and associated biological information, and promote technology development for inexpensive hand-held DNA analysis for species identification. The inaugural meeting for the Consortium for the Barcode of Life was held at The Smithsonian Institution in Washington DC on 24-25 May 2004. Several CoML scientists attended. James Baker (Academy of Natural Sciences, Philadelphia) serves on the steering committees for CBOL and CoML, providing a bridge between the two programs. For Barcoding news visit <http://phe.rockefeller.edu/BarcodeConference/>.

- **Known, Unknown, Unknowable.** The Known, Unknown, Unknowable (KUU) conference on Future Marine Biodiversity is scheduled for 22-25 April 2005 at Scripps Institute of Oceanography in La Jolla, CA. More information will be available in the coming months.

- **Meeting of International Marine Programs.** The Scientific Committee on Oceanic Research (SCOR) will convene a meeting of representatives of the major international ocean research and observation projects and programs on 23-24 September 2004 in Venice, Italy. The Census of Marine Life will participate in this meeting, which is being held to discuss common opportunities and issues, focusing on ocean observing systems, data management and global marine assessments. More information is available at <http://www.jhu.edu/scor/ProjCoord.htm>.

General News

- **National Oceanographic Partnership Program.** The U.S. National Oceanographic Partnership Program (NOPP) has released its fiscal year 2005 Broad Agency Announcement (BAA) on July 13, 2004. Up to \$11.8M over three years may be available for this solicitation, subject to appropriation and final approval by the National Ocean Research Leadership Council (NORLC). Additionally, non-Federal institutions have expressed to the government that they have similar research interests and goals as expressed under this BAA and may potentially provide up to \$3M in separately funded non-Federal projects. NOPP seeks proposals relating to:

- Fusing multi-sensor regional scale data to monitor and quantify coastal processes;
- Integration of private and public data sets in the northern Gulf of Mexico;
- New methods for detection of fish populations or mapping of fish habitat; and
- Sensors for sustained, autonomous measurement of chemical or biological parameters in the ocean.

The response date for the NOPP BAA is 14 October 2004. Team efforts among academia, industry, and government participants are required (at least 2 of the 3). For the full announcement, visit http://www.onr.navy.mil/02/baa/docs/04_022.pdf.

• **National Science Foundation Arctic Research Program.** The U.S. National Science Foundation (NSF) is soliciting proposals under the Arctic Research Program to conduct research and perform data analysis. The goal of the program is to gain a better understanding of the earth's physical, biological, geological, chemical, social and cultural processes, and the interactions of ocean, land, atmosphere, biological, and human systems in the Arctic. Approximately \$75M per year is expected to be available for 130-160 awards; approximately \$25M is available each year for new projects. Proposals are due 30 August 2004. For more information: <http://www.nsf.gov/pubs/2004/nsf04587/nsf04587.htm>.