CENSUS OF MARINE LIFE
U.S. Program Office

Newsletter

VOLUME 4, ISSUE 1, SEPTEMBER 2009
1201 NEW YORK AVENUE, NW, 4TH FLOOR, WASHINGTON, DC 20005, USA

Upcoming Events/Meetings:

USNC Fall Meeting
September 21-23, 2009
Honolulu, HI

Gulf of Maine Science Symposium
October 4-9, 2009
St. Andrews, New Brunswick
Canada

CoML Scientific Steering Committee (SSC) Meeting
October 10-12, 2009
Monaco

Consortium for Ocean Leadership Board Meeting
October 15-16, 2009
Washington, D.C.

Oceans '09 MTS/IEEE
October 26-29, 2009
Biloxi, MS

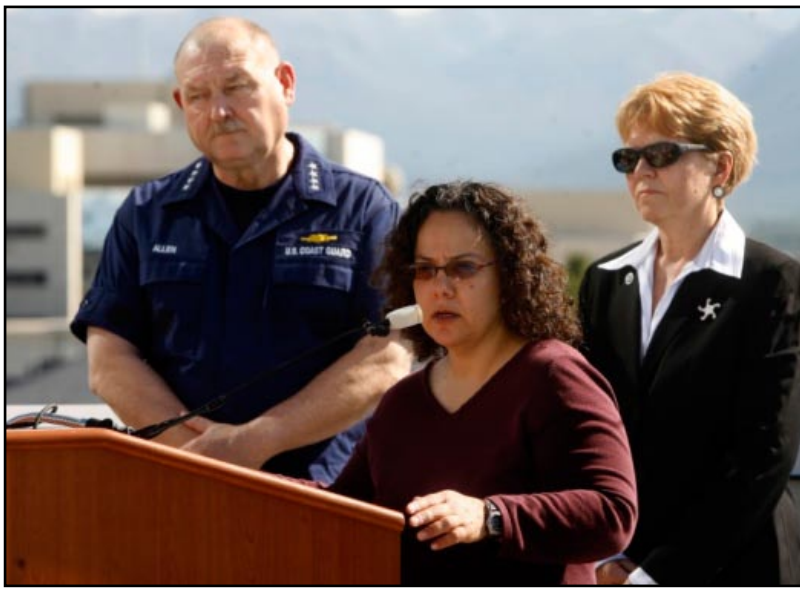
Ocean Research and Resources Advisory Panel (ORRAP) Meeting
November 17-18, 2009
Orlando, FL

Inside This Issue:

Recommendations Released for First U.S. National Ocean Policy

By Staci Lewis, Policy Analyst for the Consortium for Ocean Leadership and USNC Office Staff

On June 12, 2009, President Obama issued a memorandum establishing an Ocean Policy Task Force, led by the Council on Environmental Quality (CEQ) and composed of senior administration department and agency officials. The Task Force was charged with providing recommendations for a National Ocean Policy, a supporting governance framework, and an implementation strategy within 90 days. This effort will be followed by a charge to develop a framework for Coastal and Marine Spatial Planning within 180 days.



Nancy Sutley, chair of the Council on Environmental Quality, center, during Task Force public hearing in Anchorage, Alaska. Thad Allen, commandant of the U.S. Coast Guard, left, and Dr. Jane Lubchenco, administrator for the National Oceanic and Atmospheric Association, right, listen. (Photo: AP Photo/Al Grillo)

CEQ, with the help of Federal agencies like the National Oceanic and Atmospheric Administration (NOAA), the Environmental Protection Agency (EPA), and the Department of Interior, have worked diligently over the summer to accomplish these tasks with input from the public. Constituent roundtables were convened at which representatives from the Consortium for Ocean Leadership testified on behalf of the ocean sciences community. This participation included commenting on the role of science in a National Ocean Policy, oceans, human health initiatives, and ocean observatories, as well as representing the role of science in a broader discussion with representatives from the environmental nongovernmental community. Ocean Leadership's public comments are available on the Task Force web site (*www.whitehouse.gov/administration/eop/ceq/initiatives/oceans/*). In accordance with the President's request, the Task Force presented its recommendations for a National Ocean Policy to President Obama on September 10, 2009. The Interim Report of the Interagency Ocean Policy Task Force was subsequently released to the public on September 17, providing the first clear insight into the ocean policy goals of this administration. The full report is available online at *www.whitehouse.gov/assets/documents/09_17_09_Interim_Report_of_Task_Force_FINAL2.pdf*.

The next steps for the Task Force will be preparing recommendations for a marine spatial planning framework. The task force is continuing public outreach efforts by holding a

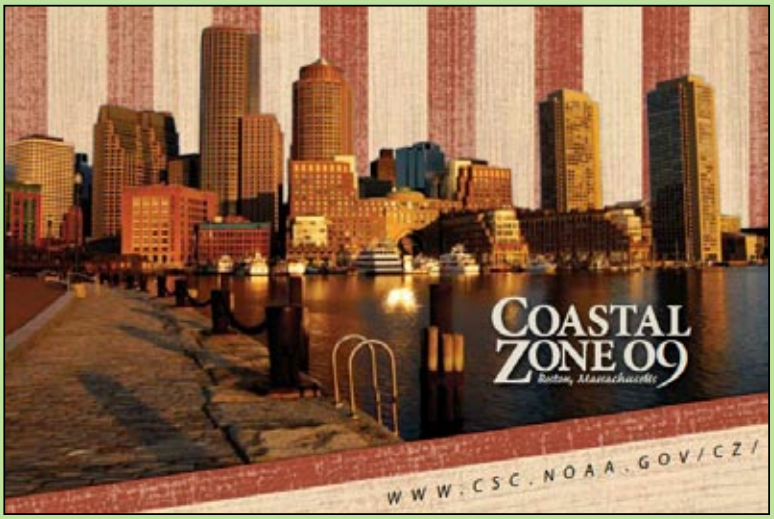
Recommendations Released for First U.S. National Ocean Policy *(continued)*

series of regional Town Hall meetings nationwide through October, with the first meeting held in Anchorage, Alaska on August 21, 2009. The next meeting will be held in Providence, Rhode Island on September 24, 2009. These meetings present opportunities for the Task Force to hear regional perspectives from the public and invited witnesses on the myriad of issues surrounding a National Ocean Policy and the concept of marine spatial planning.

The exciting opportunity to be a part of this cutting edge U.S. ocean policy has not gone unnoticed by the U.S. CoML program office or the Consortium for Ocean Leadership. The U.S. Program Office is encouraged by the recognition of the importance in understanding biological diversity and biological processes as they relate directly to ecosystem based management. We encourage our readers to get involved in this process by attending meetings and following the Ocean Policy Task Force progress on Ocean Leadership's web site (*www.oceanleadership.org/ocean-policy-legislation/*). Stay tuned for more information as it becomes publicly available!

CoML Catches the Wave of Change

On July 23, 2009, Dr. Ed Urban, Executive Director of the Scientific Committee on Oceanic Research (SCOR), presented at Coastal Zone '09 in Boston, MA on behalf of the USNC and U.S. program office. Dr. Urban presented "Do Ethics Matter? Addressing Unforseen Ethical, Legal and Regulatory Implications of New Ocean Science Technology" during the Technology and Information Management segment of the program. Urban's presentation (co-authored with Melissa Brodeur of the U.S. CoML program office) highlighted some examples of technologies used by CoML, benefits from the information gained from these technologies, and potential ethical and legal issues raised by the use of these technologies.



In the past two years, the USNC members have tasked themselves with examining some of the personal and scientific responsibilities that emerge while conducting marine research. In 2007, the USNC developed a 'Code of Conduct for Scientific Collections', in response to the stringent regulations and complicated research permitting process in the Northwestern Hawaiian Islands Marine National Monument. (The Code can be found at *http://coml.us/?anchor=coml_us_code*.) More recently, the USNC decided to review new technologies that have rapidly changed how marine research is conducted, as well as the societal responsibility of their use by CoML scientists and other researchers. Dr. Urban's presentation is an initial exploration of the ethics in marine research topic. The USNC plans to build on these discussions by convening a small group of legal and scientific experts to develop position papers exploring the issues of ethical, legal, and regulatory implications of new and improved research technologies.

Coastal Zone '09 (CZ09), which took place from July 19 -23, 2009, is an important conference for coastal resource managers. This year's conference, themed Revolutionary Times: Catching the Wave of Change, allowed participants to explore the changes occurring in coastal and ocean habitats. Participants were also able to share tools and information to help manage changing coastal and ocean resources as well as impact sound ocean policy. To learn more about CZ09, please visit the conference web site at *www.csc.noaa.gov/cz/*. To view Dr. Urban's presentation, please go to the U.S. CoML web site for CZ09 at *http://coml.us/?Anchor=conferences_cz09*.

Education Corner

Are you an educator looking for a better way to teach marine science, collaborate with colleagues and learn some new techniques? In this issue, Allison Byrd, an Education Associate for the National Ocean Sciences Bowl, provides a suggestion.

The National Marine Educators Association (NMEA) is the one conference held each year that is specific to the marine education field. The NMEA strives to bring together those interested in the study and enjoyment of both fresh and salt water, and provides a focus for marine and aquatic studies all over the world. This year, the annual conference was held June 29- July 3 in Monterey, CA. The meeting accommodates a fairly small group, perfect for sharing new teaching ideas and curriculum, catching up with old friends, and meeting new educators. People come from around the globe to attend the numerous activities -- plenaries, field trips and workshops. There is plenty of fun to be had at the Marine Educators conference too with a live auction, a silent auction, music by the Banana Slug String Band and a private night at the Monterey Bay Aquarium featuring a dessert buffet and music by Gary Bowman.

NMEA is the perfect conference to attend if you are looking for new teaching ideas, trying to spread the word about a new program, or just interested in meeting people that do the same thing you do each and every day, in hopes of reaching the same goal: educating people about the importance of our oceans.

This year, the theme of the NMEA conference was "One World Conserving One Ocean." In light of this theme, the conference organizers really tried to "go green." The conference was held at the Asilomar Conference Center, a green facility where no plastic water bottles or bags were used, and the program was made extra thin in an effort to save paper. The beautiful conference site was situated right across the street from the ocean, and provided a wonderful opportunity to really experience the California coast.

The next annual meeting of the NMEA will be held in Gatlinburg, TN from July 18-23, 2010.

EDUCATION LINK OF THE QUARTER

www.marine-ed.org/bridge

The NMEA is also the host of one of the premiere ocean education teacher resource web sites - the Bridge. So, to no one's surprise, this months' education link of the quarter is the Bridge. The Bridge is a growing online collection of reliable, teacher-approved information, data, and resources on global, national, and regional marine science subjects and issues. A main goal of the Bridge is to improve communications among educators, as well as between educators and researchers. The site offers a search engine to assist in locating resources on all marine science disciplines and ocean literature (for those interested in language arts). If you are interested in a forum that allows scientists and educators to discuss ideas, opportunities, and classroom resources, join Scuttlebutt, the Bridge's marine science education email discussion list. To learn more, please visit *http://web.vims.edu/bridge*.

Census of Marine Life Scientific Steering Committee Meets in Cape Town, South Africa

The International Scientific Steering Committee (SSC) of the CoML traveled far south to meet in Cape Town, South Africa on June 15-17, 2009. Hosted by Charles Griffiths, the CoML Sub-Saharan African Regional Committee Chair, the meeting focused largely on the progress of the program as it heads towards its final report and symposia titled "CoML: A Decade of Discovery" in October of 2010. The committee was especially pleased to hear from several local scientists who were invited to speak about their research in the southern Africa region. The group included Alison Kock of the University of Cape Town, who caught the group up to date on the exciting world of white sharks research; Marten Grundlingh, who spoke on the excellent progress of the OBIS node in Sub-Saharan Africa; and Tony Ribbink, from the Sustainable Sea Trust. The committee was also privileged to hear from member Victor Gallardo from the University of Concepcion, Chile, on new findings of large continuous tracts of bacteria found on the continental margins of South America. **The SSC next meets in Monaco from October 10-12, 2009.**

SSC meets in Cape Town, South Africa.

The Launch of OBIS-USA

OBIS-USA screen shot showing observations of *Amphipoda* in the Gulf of Mexico (datasets searched: GoMexMacro).

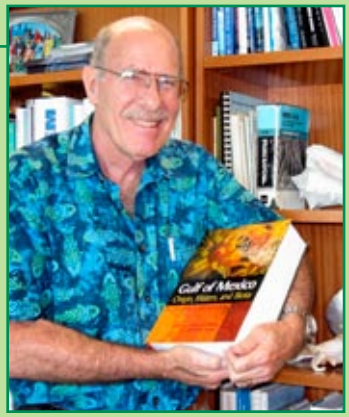
The USNC and U.S. CoML program office are excited to announce the launch of OBIS-USA. OBIS-USA is the U.S. Node of the international Ocean Biogeographic Information System (iOBIS) and is hosted by the U.S. Geological Survey's (USGS) National Biological Information Infrastructure (NBII).

OBIS-USA is a system that allows a single point of access to search and download marine data and metadata describing when and where species were observed and collected. This is accomplished in collaboration with data providers. The compilation of data is in a common format so that the data are interoperable and can be consistently applied. Users can select one or more data sets through the atlas and search in key fields, such as scientific name. Once identified, data can be displayed on a map or evaluated by viewing the various attributes of the data set to assess its quality and completeness. The data have broad uses for researchers, decision-makers, and resource managers. To achieve its goal of providing comprehensive high-quality data in U.S. marine regions, OBIS-USA is committed to continuing and enhancing its number of partnerships and growing its list of data providers.

OBIS-USA is continually expanding database query capabilities and other functions available to users, ensuring new ways to explore and obtain data. In particular, OBIS-USA plans to continue working closely with its network of federal partners to ensure the system fulfills the data needs and requirements of U.S. federal agencies. In fact, OBIS-USA hopes to become a key data contributor of biological information to the Integrated Ocean Observing System (IOOS).

To learn more about OBIS-USA or begin using the system, please visit *http://obisusa.nbii.gov*.

A Long Awaited Delivery



Dr. 'Wes' Tunnell and his recent delivery.

The Harte Research Institute (HRI) for Gulf of Mexico Studies recently announced its latest publication, Gulf of Mexico: Origin, Waters and Biota – Volume 1, Biodiversity, edited by Darryl L. Felder and David K. Camp, has been published by Texas A&M University Press. Volume one, of seven, contains a listing of all known species in the Gulf of Mexico - some15,419 species in 40 phyla listed by 140 authors/taxonomists from 80 institutions in 15 countries. However, the inventory is much more than just a list. For each species, the list includes habitat, biology, depth range, distribution in the Gulf of Mexico and beyond, and pertinent references. Future volumes will highlight topics such as geology, ecosystem-based management, and human issues.

Biodiversity of the Gulf of Mexico Project leader, and CoML U.S. National Committee (USNC) Vice-Chair, Dr. Wes Tunnell says, "it will represent one of the few instances of a total inventory of all species from a large marine ecosystem anywhere in the world, and it will allow scientists, managers and policy makers to better understand and care for the long-term sustainable use and conservation of the Gulf of Mexico, which is the mission of the HRI."

The U.S. program office would like to congratulate Dr. Tunnell, and all those who participated in the creation of the multi-volume set, on this wonderful achievement.

To learn more about this publication, and other volumes, please visit *www.harteresearchinstitute.org/publications.html*.

Seven Questions with Dr. Reg Beach

As a regular feature of the U.S. CoML Newsletter, we ask a member of the CoML Community seven (or so) questions. This edition features an interview with Dr. Reg Beach from NOAA's Office of Ocean Exploration and Research. Dr. Beach is also a member of the Interagency Working Group on Ocean Partnerships (IWG-OP) and initiated an IWG-OP ad hoc Interagency Marine Biodiversity group in July 2008.

Melissa Brodeur: Why did you decide to establish the interagency group on marine biodiversity?

Dr. Reg Beach: I chose biodiversity because it is the 'ecological underpinnings' of the environment. I decided now, because losses are accelerating and, at present, it isn't fully considered in the U.S. implementation of ecosystem based management. And, I wanted it to be Interagency because it's too big an issue for any one agency to tackle by itself. This is a tough, necessary proposition and we need to engage it more fully. Lots of folks felt the same way - there needed to be a forum.

> *"We'd better start getting ready, the data floodgates are opening and new insights will overwhelm old paradigms!"*
>
> –R. Beach

MB: What is the group's mission?

RB: U.S. agencies must ensure that their actions maintain the health and stability of marine ecosystems, considering both monetary and non-monetary benefits. The group strives to identify common ground, plan future steps, and initiate partnership activities to expand upon what is known in the domestic and international marine science community regarding biodiversity and build upon existing agency strengths and mandates through new partnerships, approaches, and science. We regularly discuss these four overarching areas: Biodiversity Technology and Science; Biodiversity Metrics, Indices, and Proxies; Applications and Data Sharing; and International Conventions and Frameworks.

MB: What would you like to see happen over the next five years in regards to marine biodiversity research?

RB: Three thrusts that have risen to the top in group discussions are: 1) Organize Baseline Biodiversity Inventories across Agencies (data management); 2) Establish Relationships between Biodiversity and Ecosystem Functions, Services, and Resilience (science); and 3) Develop and Deploy Operational Biodiversity Observing Networks (determine status and trends). These three areas are very parallel to the Group on Earth Observations Biodiversity Observation Network's (GEO BON) recommendations.

MB: Are there global models that the U.S. can look to for examples of effectively studying and managing marine biodiversity information?

RB: Our neighbors to the North are very pro-active in this regard. They have national laws using the Convention on Biodiversity as an overarching policy umbrella across government, industry, and military sectors. The U.S. is a party to the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) and a full member of the Commission set up by the Convention, so there are national pockets of knowledge, they just aren't uniform across all agencies.

MB: Everyone who attends meetings with you knows that you are a huge fan of oceanographic technologies. What latest technology has you flabbergasted?

RB: My favorite technologies are affordable and scalable, like gliders, autonomous underwater vehicles (AUV's) and animal-borne-sensors. But, the technologies that have me flabbergasted are the implications of genetic sequencing of living marine resources. For instance, I learned that the National Science Foundation (NSF) is now funding gliders that sample and genetically sequence microbes as they fly along,

7 Seven Questions with Dr. Reg Beach continued...

radioing the sequence data back when they surface. The Autonomous Reef Monitoring System (ARMS) allows collection and sequencing of whole communities of colonizing invertebrates at all once! We'd better start getting ready, the data floodgates are opening and new insights will overwhelm old paradigms!

MB: If you could design your dream research project (physics or marine science), what would it be?

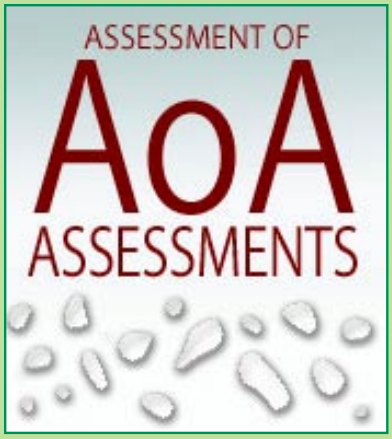
RB: I think its astounding that earthlings have yet to map, at high resolution, the 50,000 km of mid ocean ridge. The 13,000 km Pacific Equatorial Undercurrent spans the Pacific Ocean. We have insight into the physical and chemical characteristics of it, but little of the biology. Many signs point to it being one of the largest large marine ecosystems on earth. There are approximately 100,000 seamounts, yet we've only visited a couple of hundred. If we found such biogeochemical environments on other planets, you can bet we'd be all over it. We need to go after these grand challenges with emerging technologies and make leap-ahead increments in earth-system knowledge.

> *"If we found such [unique] biogeochemical environments on other planets, you can bet we'd be all over it. We need to go after these grand challenges with emerging technologies and make leap-ahead increments in earth-system knowledge."*
>
> –R. Beach

MB: We have to ask...since you have a background in physics, how did you end up leading a group interested in marine biodiversity?

RB: I like puzzles and finding solutions, and compared to biodiversity, physics is pretty well constrained. I won't be the one who determines the role of biodiversity in ecosystem function, services or resilience, or the threshold biodiversity level which triggers catastrophic environmental loss, but I'm determined to lay the groundwork for smarter people than me to figure it out. I get a real kick out of that idea; I can see the pieces coming together and am really looking forward to the answers!

USNC Chair Participates in the United Nations Assessment of Assessments



CoML U.S. National Committee (USNC) Chair and History of Marine Animal Populations (HMAP) principal investigator Dr. Andrew Rosenberg presented on the proposed establishment of a Regular Global Marine Assessment Process at the World Wildlife Foundation headquarters in Washington, D.C. on June 29, 2009. A panel of experts discussed the 'Assessment of Assessments' (AoA), which was endorsed by the United Nations (UN) General Assembly in 2002. The AoA is the first step of an international initiative to improve our global understanding of the oceans and to develop a mechanism for delivering science-based information to decision makers. The process builds on the work done by other international forums and by national authorities concerned with the marine environment. The start-up phase of the AoA established an international Group of Experts, including presenters Dr. Rosenberg and Dr. Lee A. Kimball, to produce an "assessment of assessments" report. The report reviews existing marine data collection and assessment activities in order to: (1) assess building blocks and assessment capacity for a regular, global marine assessment, and (2) identify a framework and options for the Regular Process, including best practices and institutional arrangements. The recently-completed report was the basis for a one-week ad hoc meeting of the UN General Assembly, which met in New York from August 31-September 4, 2009. The full report and the meeting participants recommendation to the General Assembly at its 64th session this fall is available in at *www.unga-regular-process.org*.

Check out our YouTube Video Clip of the Quarter!

The Beagle

www.youtube.com/watch?v=2Cop_cFrME0

HMS Beagle - Daar gaan ze! (There they go!), Photo by Lisette van Blokland

Happy Birthday Darwin! To celebrate Charles Darwin's 200th birth year, and the 150th anniversary of his publication On the Origin of Species, VPRO (a Dutch public broadcaster) is assembling a 35-part series called "Beagle: On the future of species." The project will reconstruct Darwin's five-year long voyage on the HMS Beagle over the course of one year, departing September 1, 2009. The project will attempt to assess where the world stands today in light of Darwin's theory on evolution. The entire voyage, and any resulting scientific discoveries, can be viewed on the VPRO web site at *http://beagle.vpro.nl/*.

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