



Summary

Meeting of the U.S. National Committee for the Census of Marine Life September 21-22, 2009

**New Otani Kaimana Beach Hotel
2863 Kalakaua Ave.
Honolulu, HI 96815**

The U.S. National Committee (USNC) of the Census of Marine Life (CoML) held its biannual meeting at the New Otani Kaimana Beach Hotel in Honolulu, HI on September 21-22, 2009. The meeting was lead by Chair Dr. Andrew Rosenberg of the University of New Hampshire and Vice-Chair Dr. Wes Tunnell of the Harte Research Institute of Texas A&M University. Jo-Ann Leong, host, welcomed the USNC members and meeting guests.

The first day of the meeting was dedicated to the details of essential deadlines and the necessary/desired synthesis products and activities that must be completed by December 2010. A primary goal of the meeting was to develop a 16-month work and communications plan detailing interactions with new members of the Administration and recent government and agency related activities. Other key discussions focused on the current status and continued growth of OBIS-USA and ongoing plans for the next USNC sponsored workshop – a small working group on ocean technology and ethics. It was also agreed that the USNC should refine its number of synthesis products and focus on the few that would have the most impact. The second day of the meeting allowed the USNC, as a group, to discuss the ‘big picture’ of what happens to CoML after 2010 and the USNC’s role in the future of the program.

Meeting guests included Megan Moews (NOAA Coral Reef Ecosystem Division and Census of Coral Reef Ecosystems (CReefs) project member) who participated in discussions during the two day meeting. A special presentation was made by Russell Moffitt (also NOAA Coral Reef Ecosystem Division and CReefs project member) who discussed the CReefs project, their current research (including the use of Autonomous Reef Monitoring Structures technology) and their plans for synthesis products that will contribute to the overall CoML celebration event in October 2010. Philip Goldstein (University of Colorado) presented on the current status of OBIS-USA and plans for Year 2 funding received from the U.S. Geological Survey (USGS).

Government and Agency Related Activities: A. Rosenberg began discussions by stating that the USNC needs to determine just how they want to relate to the new administration, the Ocean Policy Task Force (OPTF) and other federal/agency groups. These decisions would feed into the development of an action plan for the next 16 months. Michael Feldman briefly described the USNC’s past interactions with the NOAA Science Advisory Board (SAB) and the Ocean Research and Resources Advisory Panel (ORRAP). The ORRAP formed a recommendation during their April 2009 meeting regarding the future direction CoML which was directed towards the National Ocean Research Leadership Council (NORLC) through the Interagency Committee

on Ocean Science and Resource Management Integration (ICOSRMI). As of yet, no response or conclusion has resulted from the recommendations. It was agreed that the USNC should remain engaged with the ORRAP, but should wait and see what direction the new chair, Admiral Paul Gaffney, takes the committee. As for the SAB, the USNC has been unable to convince SAB members how CoML can help NOAA meet their missions, despite numerous briefings. Additional opportunities may exist now that Jane Lubchenco is the NOAA Administrator. It was noted that J. Lubchenco could change the membership of the SAB and re-task them, over time. Therefore, it was agreed that it remains worthwhile for the USNC to continue voicing its interest in helping the SAB shape NOAA programs and determine how to deal with marine biodiversity within the agency. J. Leong noted that she is the co-chair for the SAB working group on Ecosystem Sciences and Management and could try to reintroduce the topic of CoML to the SAB through her working group at their October meeting. The U.S. Program Office agreed to send J. Leong all the documents that were provided to David Fluharty (SAB Chair) for his presentation on CoML at a previous SAB meeting.

Nina Young opened the discussion on the new administration by noting that the USNC must better formulate its message(s) to take to individuals such as J. Lubchenco (NOAA), Marcia McNutt (USGS), Nancy Sutley (CEQ) and Carry Ann Miller (State Department). She believed developing a message around J. Lubchenco's direction for NOAA and how CoML and the continuance of a marine biodiversity program associated with OBIS-USA fits into the needs of marine spatial planning would be best. The USNC agreed that commenting on the OPTF Interim report was necessary. Agencies are hindered in effectively conducting MSP if you don't have an inventory of all the known biology of the region in question. Communities and habitats must be taken into consideration! The USNC's developed comments could then be used as talking points for meetings with the members of the administration mentioned above. A group of USNC members agreed to draft comments on the OPTF Interim report for submission by October 16. The USNC will also provide comments on the Marine Spatial Planning report in December. The USNC will continue to work with Gregg Schmidt (Ocean Leadership) and Darlene Crist (CoML E&O) on an op-ed in response to the OPTF final report and presidential approval expected in January, 2010.

SSC and USNC - Future Plans and Events: During this section of the agenda, discussions focused on what the global CoML community has been working on and how the USNC could best interact with the activities of the global program. The committee was informed that many of the details regarding the Washington, D.C. premiere of the Galatée film *Oceans*, and the USNC's role, were still unclear. The French Embassy received funding to launch the film and schedule coordinated activities. The international and U.S. CoML program offices contacted the embassy to offer assistance and access to CoML scientists and are awaiting a response. The USNC agreed that they must be ready to mobilize rather quickly in order to take advantage of the opportunity provided by the film to raise the profile of CoML in the U.S. The D.C. premiere events are scheduled for April 9, 2010. The next USNC meeting will take place in Washington, D.C. during April 7-9, 2010.

M. Feldman informed the USNC that the Science Council, which was initially convened to determine the scope of a CoML program for the next ten years, only met twice (in conjunction with planned CoML meetings) with no clear actions or outcomes to date. N. Young noted she spoke with Dan Costa recently and he admits to having very little time to dedicate towards organizing meetings and developing plans, even if the Science Council were to receive support. The international secretariat for CoML sent out letters of inquiry to a number of foundations for Science Council support and received very little response. M. Brodeur agreed to circulate a list of which foundations were contacted regarding funding. It was agreed that the USNC should

continue trying to build traction for a biodiversity program in the U.S. and ensure that the Science Council (and appropriate SSC representatives) remain informed and involved with any future plans.

The USNC was informed that the majority of the London 'CoML 2010: A Decade of Discovery' events will be by invitation only. Currently, each NRIC and CoML project is allowed eight invitees total. One member of the USNC will have eight to ten minutes to present on the findings and outcomes of their national work during the NRIC section of the CoML Symposium at The Royal Society on October 5, 2010. The U.S. Program Office will circulate additional details regarding attendance at the London events as they become available.

Discussions shifted to the plans for the USNC's celebration event in Washington, D.C. The event, specifically targeted at a U.S. audience in November 2010, will build upon the international press of the London events. The USNC agreed that some part of the event has to focus on the celebration of the past ten years, but not to dwell on the end of CoML, while also focusing on where marine biodiversity research needs to go in the next ten years. Some meeting participants suggested the public be involved to some degree to get press to the event and increase public awareness and interest. A. Rosenberg noted that he could contact COMPASS about getting press to cover the event. It was asked if the Smithsonian's Science on Sphere could be used to tell a story of CoML research. The U.S. Program Office agreed to contact Pat Halpin about its use, but noted that cost and effectiveness will be the major deciding factors. A draft format for the celebratory event was circulated in the meeting documents and suggested locations and events, but it was clear that the USNC must first decide on messaging before any decisions about audience, format or location can be determined.

USNC Synthesis: Daphne Fautin thanked all the authors and contributors of the U.S. contribution to the NRIC Synthesis Volume. She noted the result of all their work was a solid and impressive document that met the requirements set forth by the international CoML editors and could be built upon by the USNC in the future. It was agreed that the chapters could serve as a basis of communicating what we can provide in terms of regional assessments. Chapters also provided lists of regional data sets, which have been passed on to OBIS-USA as possible data sets to pursue for ingestion. The U.S. Program Office has yet to hear back from the editors but hopes to receive comments by the end of October. M. Feldman noted that the chapter still needed some refining; particularly the tables, maps and bibliography, as well as the conclusion which needs to be stronger. The authors agreed that the important messages to capture in the conclusion relate to our gaps of knowledge, known hot spots, areas of concern and why particular areas indicate how ecosystems are responding to climate change. W. Tunnell asked the chapter and lead authors to read the entire combined document and come up with topics to build upon for the conclusion.

Synthesis discussions also focused on the additional synthesis products brought up at past meetings. The USNC agreed it was best to narrow the list down to focus their time and effort on a few select products. Dan Finamore noted he still plans to work on the publication in *Sea History* and would speak with Jeff Bolster (History of Marine Animal Populations project) regarding his interest in participating. Judith Connor and Melissa Brodeur agreed to continue to focus on a U.S. CoML relevant Public Service Announcement, possibly building upon the conclusion of the U.S. chapter for the NRIC Synthesis Volume. Judy Kildow planned to work on her essay on economic implications of marine biodiversity, but would require additional thought on how to bridge the topic with the social sciences. These and other synthesis products developed from the USNC's discussions can be found in the meeting actions document.

Ethics Working Group Plans: During the March 2009 USNC meeting it was agreed that the USNC would sponsor a small working group to address the ethical, legal and regulatory implications of CoML research with specific applications to policy. As an initial step in addressing the topic, the U.S. Program Office submitted an abstract to Coastal Zone '09. The abstract was accepted and on July 23, 2010, Ed Urban (Scientific Committee on Oceanic Research) presented 'Do Ethics Matter? Addressing Unforeseen Ethical, Legal and Regulatory Implications of New Ocean Science Technology,' on behalf of the USNC. E. Urban noted he wishes to remain active with the topic and would like to participate in the working group. A conference call was held in late August and the available USNC ethics sub-committee members [J. Connor, J. Leong and Margot Bohan (NOAA OER)] discussed the topic, product and possible working group members. During the call, the sub-committee agreed that the desired end product is an op-ed to be published in *Science* or *Nature* with a longer, detailed report to be made available online. The convened working group should have 8-10 people representing the following groups, if possible: CoML/USNC, legal experts, environmental lawyers, ecologists, resource managers, philosophers, and socio-economists. N. Young suggested an animal rights attorney could be added to the list. USNC members provided suggestions for individuals that may be appropriate for the working group. They included Julia Ekstrom (Postdoc at Lawrence Berkeley National Laboratory) who created a computer program that identifies gaps between legislation and ecosystems and Jason Scorse (faculty at Monterey Institute of International Studies) who has a background in resource economics. M. Brodeur agreed to compile a list of suggested participants and schedule another ethics sub-committee call to discuss the list further.

OBIS-USA: Mark Fornwall gave a quick update on OBIS-USA activities. He was happy to inform the USNC that OBIS-USA became operational on the National Biological Information Infrastructure (NBII) portal on July 31, 2009 (<http://obisusa.nbii.gov>). Since going live, the team has transitioned back to increasing the amount of data in the system and improving its functionality. The team wants to implement functions and tools that users have requested as soon as possible, but they also need to keep the data pipeline filled with providers. M. Fornwall noted that he and the OBIS-USA team still require continued support from the USNC, recommendations for good data providers and suggestions for functions and applications that serve OBIS-USA's various key stakeholders. In light of the new relationship between iOBIS and the Intergovernmental Oceanographic Commission (IOC), M. Fornwall plans to attend an iOBIS meeting in November to better determine OBIS-USA's relationship to the iOBIS operation now that the program is under the IOC's International Oceanographic Data and Information Exchange (IODE).

P. Goldstein provided an update of the datasets available on the live OBIS-USA site and noted it was a massive effort by his limited staff over the past six months that ensured the site was ready to go live. He gave a short demo of the live site, specifically showing how users select datasets and receive prompts about use restrictions and attribution authorization. Stemming from a critical request from Pat Halpin at previous USNC meetings, citation text is part of every downloaded data document, ensuring users know how to properly cite the data. In Year 2, the OBIS-USA team plans to work on additional web tools and functions while focusing efforts to build additional data, specifically environmental data from three sources: data that current providers recorded simultaneously with their biological observations; IOOS data; and NOAA buoy network data. P. Goldstein noted his plan to create more query paths, especially by common name, and integrate with the Integrated Taxonomic Information System (ITIS), exploring how to populate taxa that aren't fully filled out in the datasets. To better understand OBIS-USA users, P. Goldstein, showed a list of detected users since OBIS-USA went live and will continue to collect data on the exact data sets and taxa that users have searched. Lastly, P. Goldstein discussed the capabilities and functions he hopes to have established six months from now, including a main

screen map from which users can sort by metadata (provider, agency, taxa, date or study type) and the ability for users to search by shapefile (EEZ, LMEs, etc.).

USNC Presentation Opportunities to Highlight CoML:

- **AAAS (Feb. 18-22, 2010, San Diego, CA)**

A proposal was accepted for a three hour session during which members of the CoML community will provide examples of why society needs marine biodiversity. The U.S. Program Office is working with COMPASS, who recommended the CoML session for a corresponding press briefing.

- **Ocean Sciences (Feb. 22-26, 2010, Portland, OR)**

A session on global CoML accomplishments and findings was accepted. Town Halls were submitted for the following topics and are awaiting decisions: 1) Integrated ocean observing and predictive modeling; and 2) recommendation for the direction of marine biodiversity research in the U.S. over the next five years (in conjunction with PISCO).

- **PICES (Oct. 22-31, 2010, Portland OR)**

A session proposal has been submitted for the 2010 PICES annual meeting, asking for a half day session on CoML. Clarence Pautzke and Vera Alexander will be attending a PICES meeting in Korea in October and will go before the board that will lay out the agenda for the 2010 meeting.

- **Other Meetings**

It was suggested that the U.S. Program Office consider presenting or having a booth at the National Marine Educators Association (NMEA) Conference in Gatlinburg, Tennessee on July 18-23, 2010.

U.S. CoML Post 2010 Strategies: Much of the meeting discussion centered on the existence of CoML, or a follow-on marine biodiversity program, after 2010. Discussion was centered around the following critical questions as to where the program should reside, what it should look like, what the program should focus on, how it should be funded and who should be in charge of its development.

Where should it reside?: Many participants suggested NOAA was the natural lead, especially now that J. Lubchenco is the Administrator and she has a keen interest in biodiversity and ecosystem based management. The USNC does not expect NOAA would fund the entire program, but would commit to some funding and be willing to partner with USGS because of OBIS-USA. Others suggested the Smithsonian be considered as well since it gets buy-in from all agencies, has taxonomic experts at hand and is an important link to the public. Everyone agreed that it should be an interagency effort with NOAA, USGS and possibly NSF taking roles. A. Rosenberg noted that there is growing support for the interagency process under the Ocean Council of the OPTF. Others suggested the program be inter-organizational, not just interagency, to get academic institutions, industry and non-governmental organizations (NGOs) to participate. Both industry and NGOs can particularly help in reaching members of Congress and the general public.

What should it look like?: Although many liked the potential for an interagency group to oversee the program, that option may result in the loss of a secretariat office. A FACA committee and program staff at the funding agencies would most likely take a large role in the program's coordination. If a secretariat was an absolute necessity, options included housing it at Ocean Leadership or the Smithsonian. Another suggestion was the creation of a cooperative institute

(CI), allowing agencies to provide funds while allowing the secretariat to be housed outside of an agency at a university. A. Rosenberg suggested the Cooperative Institute for Coastal and Estuarine Environmental Technology (CICEET) was a CI to emulate as it is housed at the University of New Hampshire, but not owned by UNH, and works effectively to distribute grants to others (with very little of the money staying at UNH). M. Fornwall noted that in any future plan, the Mapping and Visualization team's role should be expanded as much as possible to highlight the data and products.

What should be the focus?: Many meeting participants noted that a research plan has to be created in order for any progress to be made. The plan would have to state how the program would be funded, but also what the program would entail. Questions arose as to whether the follow-on program would focus on discovery or monitoring. The fear was a program based solely on discovery wouldn't get us far with the agencies. However, V. Alexander stated that she would hate to see the uniqueness and spirit of CoML diminished; CoML fostered the excitement of new discoveries. Monitoring biodiversity, and subsequent findings of how biodiversity is changing, could feed into explaining why exploration is also a necessary part of the program. The USNC unanimously agreed that the focus should be on the U.S. for now (and possibly international later) and that the program must absolutely deal with the big issues of the day, tying the research into an ecosystem approach. M. Feldman asked if the program should focus on the six regions designated for the U.S. contribution to the NRIC Synthesis Volume. If so, the structure of the program could have a POST-like listening line, a NaGISA-like protocol and a CenSeam-like project (for example) in each region that could help provide answers for management and MSP. He asked if the next program should follow the examples of the Gulf of Mexico and Gulf of Maine CoML projects and take a look at the entire ecosystem.

Though there is much yet to be determined, the USNC members voted and agreed that a marine biodiversity follow-on program to CoML should be:

- a program that combines marine biodiversity monitoring and discovery;
- a program focused within the U.S. (initially);
- multi-agency; and
- funded by means of a public/private/government partnership.

Initial actions: After all the discussion, it was decided that a few USNC members would work on a one to two page options paper that captures a few of the larger alternatives that had been discussed. The document will describe each option and what the USNC believes are the benefits and potential results of each. C. Pautzke suggested that a USNC member meet informally with Margaret Spring first to get an idea of the situation at NOAA and develop the options paper based on those discussions in order to have real potential when shopping our ideas around to the agencies. It was agreed that the document could be refined as needed, based on feedback received. A basic timeline for the options paper was agreed upon:

- 1st draft complete by December 1, 2009 (USNC Leads: George Sedberry, J. Kildow, M.Fornwall, C. Pautzke, W. Tunnell);
- Circulate draft to entire USNC for comments during first two weeks of December;
- Shop document in January, starting with NOAA (but informing USGS of our intentions prior to NOAA).
- By February 2010 the USNC should be ready to hold a meeting with J. Lubchenco.

N. Young suggested that while the options paper was shopped around the USNC should continue to look for a champion and get a hearing to disclose what is happening in the program and convince the agencies that there has to be buy-in in the long term. She also suggested the USNC

continue its support of Reg Beach's (NOAA OER) ad-hoc interagency biodiversity group. They could be an ideal group to develop an interagency biodiversity research priorities plan. USNC members could also encourage other agencies already familiar with CoML and OBIS-USA to join the ad-hoc group.

USNC Membership and Charter: Since the last USNC meeting, M. Spring had to step down from the USNC given her new position as NOAA Chief of Staff. The main concern was the appearance of bias towards CoML. N. Young, now with the Marine Mammal Commission, was added to the committee as an ex-officio member to supplant some of the expertise M. Spring provided and utilize her strong understanding of USNC and CoML past activities. It is of note that she was added as an ex-officio member to allow her to immediately participate in USNC meetings without the need for a full committee vote. According to the Charter, ex-officio members can be added at anytime at the discretion of the USNC Chair. There were no other membership items as all members agreed during previous meetings to continue their memberships until 2010.

Future USNC meetings: The USNC will meet next during April 7-10, 2010 in Washington, D.C. Exact dates will be determined once the Galatée *Oceans* premiere date and activities are solidified. The possibility of a fall 2010 meeting will be discussed in April. **Please note:** The dates for the October 2010 celebratory events in London are October 4-7, 2010. The U.S. Program Office will contact USNC members as soon as possible with more information regarding our attendance at the events.