

# **Census of Marine Life Leadership Meeting**

7 October 2010

Kohn Center, The Royal Society, London, England

Summary

## **Morning Session**

### **What Next? Science questions and goals for the future**

#### **I. Welcome, Introduction of Guests, Goals for the Meeting**

Ian Poiner introduced the guests and encouraged the group to use the day as a forum to discuss the priorities in research for the next phase of marine biodiversity research.

#### **II. Presentation on the PLoS Biodiversity Hub**

Catriona MacCallum gave a presentation on the newly launched biodiversity hub in PLoS. She described many of the interactive features of the hub for both authors and users, including the ability to download metrics and aggregate other data into the hub to create user communities. She also described the ability of the hub to connect with data providers, such as EoL and GBIF, to share data. PLoS continues to develop and hopes to launch several more hubs in the near future.

#### **III. Expectations for 2011: Executive Leadership and Secretariat Activities**

Ian Poiner explained the planned Secretariat and SSC activities for 2011, which include holding targeted briefings to policy makers and government officials; regional symposia; evaluations from an external consultant, David Penman, and the SSC; and the facilitation of a meeting at the World Conference on Marine Biodiversity II (WCMB). The objective of the meeting during the WCMB is to achieve community consensus on a plan for future marine biodiversity science. The Secretariat will identify a committee to steer this activity and more clearly define the output.

#### **IV. Open Discussion on Science Questions & Goals for the Future**

Discussion Questions:

- A. What and where are the next scientific priorities for researching the “oceans present” with regards to diversity, distribution and abundance?

The group discussed future scientific priorities for a next “Census,” with a particular emphasis on the need to include a strong temporal element and a focus on changes in oceans. Within that context, the group identified following critical elements:

- Greater emphasis (relative to diversity and distribution) on abundance
- The evolution and adaptability of species
- Continued distillation of current Census data and results
- Continued exploration and discovery
- Stronger connections to policy and with policy makers
- Integration with global observing systems (essential for the temporal element)
- More interdisciplinary study and analysis (e.g., with oceanographers)

An integrative approach to study areas as “ecoscoptes” was introduced in order to better understand ecosystem functioning. These ecoscoptes could be established on a global scale in alignment with the defined realms from the first Census and used in conjunction to complete comparative studies. To address policy and resource management needs, the ecoscoptes can be implemented in hot spots and areas of the greatest change (e.g., Polar Regions).

*B. What are the next scientific priorities for researching the oceans past & oceans future?*

The group consensus on research on oceans past & oceans future focused on developing scenarios of change in the oceans that can be used by policy makers and economists alike. Several critical elements were identified:

- Supporting the increasingly popular modeling efforts by providing field data that focuses on the greatest gaps in data.
- Integrating non-biological and biological data to produce models for utilization in decision making
- Focusing more field work on international locations, especially Asia and the Polar regions.

*C. What are the next steps for technology & data management in the field of marine biodiversity research?*

The technology and data management discussion focused on several key points:

- Standardization of sampling techniques to ensure data compatibility between sets
- Enhancement of emerging technologies, such as biologging.
- Development of fixed, real time observatories that can perform repeat observations
- Requiring scientists to submit data management plans with funding proposals and make data open-access.

**V. Summary of Discussions and Next Steps: World Conference on Marine Biodiversity II**

From the discussions it was evident that in a new phase of the program (or “next step”) there is the need to have an overarching vision that is exciting to scientists, relevant for society, global and inclusive in scope, and that captures the fact that the loss of biodiversity has economic implications.

Overall, the morning session came to the conclusion that three main points could shape the future of a new Census program. The program should firstly study the processes of biodiversity, especially as they relate to resilience and the capacity of predictions using proxies for ecosystem structure and function. Secondly, the program should monitor the changes in marine biodiversity in parallel with studies of other environmental changes in the oceans through the implementation several strategies such as ecoscoptes. Finally, the program should make use of available biodiversity data to model and predict future change to present options for policy decisions (e.g. for marine spatial planning).

Finally, it was noted that the first Census was a visionary program in at least two aspects, technology and availability of information and for both, capacity building is needed.

**Afternoon Session**

## National and Regional Interests After the London Events: Follow-Up and Strategy

### I. Welcome, Introduction of Guests, Goals for the Meeting

Patricia Miloslavich introduced the guests for the day and encouraged the group to use the afternoon to update on future NRIC activities and possible collaborations to disseminate Census findings.

### II. Opportunities from Census 2010

Patricia Miloslavich discussed the newly approved Secretariat grant that has resources available for the NRICs to hold briefings and symposia for local policy makers and scientists. Edward Vanden Berghe also gave a tour of the newly re-designed OBIS website and features. Catriona MacCallum gave a presentation on the PLoS Biodiversity hubs and how the NRICs could use them to aggregate data on a particular region within the hub.

### III. Roundtable discussion on Regional & National Visions For the Future

Each NRIC gave a brief update on the status of any plans for briefings in 2011 and their NRIC activities in general for the future.

*Africa:* Afro-OBIS will continue into the future with secured funding from South Africa. The NRIC will continue to be involved with the South African National Biodiversity Institute and will likely focus on endemism of species.

*Japan:* Japan continues to work closely with the NaGISA program and will be focusing on collaborations with ESABII and GEO BON.

*Korea:* Korea plans to participate in the World Expo 2012 in Yeosu, Korea with an exhibit about the Census.

*Australia:* Australia is currently working on an integrating monitoring system that will continue into the near future.

*Canada:* Canada's NRIC will continue activities through the Canadian Health Oceans Network (CHONe) that will focus on biodiversity in time and space, ecosystem function, and connectivity.

*Caribbean:* Activities will continue in the Caribbean mostly on a national basis; however maintaining the established network of researchers in the region. Venezuela has implemented a new center for marine biodiversity, for example. A major goal for the Caribbean is to work closely with policy makers to shape research goals in the area.

*Europe:* As of now, Europe activities will not continue under the NRIC. A project is in the works to study human impacts on the ecosystems, and individual projects on the regional seas are likely to continue through various institutions.

*Indonesia:* Indonesia continues to work closely with Australia to produce a series of cruises. The Indonesian Secretariat aims to continue activities under the Coral Triangle Initiative management and will hold a workshop to accomplish this.

*Indian Ocean:* Indian Ocean will host a briefing in Kochi in December 2010. The NRIC has received support from the Indian government and will maintain the OBIS node and continue activities into the near future.

*South America:* South America is very interested in continuing activities as a research cooperation network and hopes to foster opportunities on a regional basis for students. They also hope to engage policy makers in the region.

*USA:* The USNC will not continue in the present form, but members will continue to engage government officials to raise awareness of marine biodiversity. OBIS-USA will continue to

evolve into the near future and has received some traction in working with government officials.

**IV. Summary of the Visions: Common themes, challenges and implementation approaches**  
Overall, the consensus was to continue the discovery aspect of the Census, as well as focusing on ecosystem-based studies, especially on a regional level for coastal management implications. The structure suggested by the morning session, including discovery and processes, monitoring, and developing predicting capabilities, was agreed upon by the NRIC leaders, as well. They noted that prediction capabilities require time to develop and suggested a workshop or discussion group be formed to establish a baseline of current predicting capabilities that are currently used in connection with ecosystems and assessment of risks.

The NRICs all agreed working with policy makers is of the highest importance, as is the continued integration of biodiversity data into OBIS. It was suggested that nations be encouraged to use OBIS data for CBD reporting. A strong theme was the need of data rescue and making data accessible. All agreed that the capacity and network building facilitated by the Census has been very successful and should be continued as much as possible.

**V. Actions in 2010-2011**

Patricia Miloslavich noted the importance of NRIC collaboration with the CBD representatives in their countries. She agreed to develop a presentation with Edward Vanden Berghe that shows how OBIS can facilitate regional analyses for the use of shaping policy. The Secretariat will continue to work with the NRICs to plan and implement any briefings and symposia that will occur in the next year.

**Executive Session - SSC, Ex-Officio & Secretariat Staff**

The SSC met in closed session to discuss future programmatic activities.