

2nd edition - February 14th, 2011

Afternoon Session Briefs

The afternoon was devoted to an update on the Monaco Blue Initiative's 2010 Conference themes - Deep Seas and Large Marine Predators - discussed this year as domains of application for Marine Protected Areas.

 **1. "The Deep Ocean: an unknown biodiversity to be protected"**

Moderator: Lisa SPEER, Director of the International Oceans Council of the *US Natural Resources Defense Council*

One key deep-seas environment is the Arctic, where ice melt due to climate change is having a profound ecological impact while opening up a pristine environment to exploitation. Gas and oil, fishing and shipping interests will all be moving into the area, Ms. SPEER said, and "our preparation ranges from bad to nonexistent."

No international standards currently regulate gas and oil exploration in the Arctic, and no framework exists for establishing MPAs nor for assessing the impact of human activity, she added. At the same time, the Arctic represents an opportunity to implement ecosystem-based management from the start, Ms. SPEER and other participants agreed.

Scientists have identified areas particularly important to the Arctic ecosystem's resilience, and next May's ministerial-level meeting of the 8-state Arctic Council "may be the best chance to put in place management of future activities," according to Ms. SPEER. There is widespread support for the process but one question is Russia, whose political will is not clear, she said.

Robert CALCAGNO, Managing Director of Monaco's Oceanographic Institute, outlined another opportunity which grew out of last year's MBI - the planned international scientific symposium on deep seas to be held at the Paris branch of the Oceanographic Institute in October 2011. Gathering representatives from the scientific, industrial, economic, legal and political fields, it will address the current state of, and threats to, the deep seas as well as the outlook for exploitation, policies and governance. The symposium should also help raise public awareness of the issues, Mr. CALCAGNO noted.

Participants agreed that tackling the spiny question of areas beyond national jurisdiction constitutes a precondition for meaningful protective efforts such as MPAs in deep-sea ecosystems. The UN has a task force dealing with marine biodiversity beyond national jurisdiction, pointed out Biliiana CICIN-SAIN, co-Chair of the Global Forum on Oceans, Coasts

and Islands. The task force's working group is to meet in June. Increasing regional experimentation to generate case studies would be helpful, because “when you have concrete examples, global discussion becomes easier,” she said.

One obstacle to gaining such experience in the deep seas is technology, warned Sylvia EARLE, National Geographic Explorer-in-Residence and founder of SEAlliance. Only five submersibles worldwide are able to visit the depths, and they can only go half-way to the deepest ocean floor. Only one has gone to the bottom, and that was 60 years ago, she pointed out, whereas “there is life all the way down.”

“We’re trying to make decisions about exploiting the unknown. That’s not acceptable. We must seriously commit to the technology enabling exploration,” and until then exercise the precautionary principle, she said.

Despite the legislative and technological hurdles, the deep seas also represent an opportunity for the development of MPAs, Ms. EARLE suggested, because the areas involved, such as the Arctic, mostly situated far from nations' borders, offer the chance to shift toward much larger protected areas.

Dan LAFOLLEY called the Arctic “an opportunity and a concern wrapped up in one.” To him, the biggest threat to the Arctic sea is acidification, which he estimates will affect a major percentage of those waters within 10 years, causing them to become corrosive to organisms. The challenge will be to bridge the gap between the science on acidification, and protection, which requires working with local communities and political leaders, he said.



2. "Large Marine Animals: keystone species crucial to ocean health"

Moderator: Philippe CURY, Director of the *Mediterranean and Tropical Halieutic Research Center of France's IFREMER*

This session focused on strategies for using marine protected areas to assist recovery of large marine animal populations. Large marine species migrate over huge distances, making MPAs, which tend to be small, necessary but insufficient, participants agreed. Other measures such as fishing restrictions are needed, accompanied by effective, continuous enforcement, Mr. CURY said, noting the sobering example of the moratorium on big-eye tuna fishing in the Gulf of Guinea, which collapsed when fishermen became aware that they could infringe it with impunity.

Dan LAFOLLEY said that given large marine species' range, it was a question of MPA “connectivity” – of viewing networks of MPAs as “stepping stones and corridors” for these migrating creatures, linking up seas as distant as those of Hawaii and Russia, for instance. Protection must be coherent: it would be a tragedy if, having protected whales and dolphins for most of the year in one area, they were then exposed to devastating levels of underwater sound somewhere else. All of this requires better management and sharing of science and databases, he said.

WCPA Mediterranean and Black Seas Marine Coordinator Giuseppe NOTARBARTOLO DI SCIARA

said that the impact of climate change on large marine animals makes it even more important to reduce other threats. Such efforts are hindered by a lack of communication and coordination in maritime activities.

"A major military exercise is underway right now in the Mediterranean involving extensive use of sonar right over an important underwater shelf," he noted. "We know this is dangerous! We could provide indications on where to do this with less harm, but there's no communication," he lamented.

Olivier LAROUSSINIE, Director of the Agency for French Marine Protected Areas, suggested combining MPAs, which can protect key feeding, migration or reproduction zones, with measures to limit bycatch by the fishing industry, collisions with ships and sonic pollution. Furthermore, given that large marine animals' habitats are international, actions must be, as well. Effective action requires knowledge of the species but also of the effects of interaction with human activity, he suggested. The difficulty lies in the fact that zones of greatest interaction and harm to species tend to be those where economic interests are strongest.

Measures must be accompanied by a monitoring system to evaluate effectiveness, and such a system must be ocean-wide, not just limited to MPAs. Such systems exist, he said, citing SCAN in the Atlantic Ocean, France's REMMOA and the ACCOBAMS SURVEY project in the Mediterranean. They are costly but only such programs can provide us with the information necessary to adapt systems of protection, he argued, adding that technological innovation should make them less expensive in the future.

Finally, communication is essential, said Mr. LAROUSSINIE. "Politicians care about what interests the general public," he noted. He suggested a documentary approach gathering old photographs and film footage as well as accounts of elder fishermen and sea-divers to show that "the baseline isn't the current state of affairs but an ocean in which large fish were abundant."

Sebastian TROËNG, Vice President in charge of Marine Conservation at Conservation International, explained that MPAs were crucial in protecting the most sensitive stages of marine animals' life cycles, such as aggregation and reproduction. Networks of marine protected areas that protect several of the life stages for individual species are even more effective. The Eastern Tropical Pacific, where multiple shark species move between sites in Costa Rica, Colombia and the Galapagos in Ecuador has demonstrated that intelligent networks of MPAs "can reduce mortality of large marine animals to sustainable levels," he noted. This is sufficient to allow marine animal populations to recover and prosper, Mr. TROËNG explained, adding that "we don't have to be perfect."

Global databases are indeed crucial tools to help define indicators of success regarding MPAs and to guide their creation, he agreed. He singled out two existing ones - the Society for the Conservation of Reef Fish Aggregations' database on spawning aggregations and the State of the World's Sea Turtles (SWoT) database on sea turtle nesting beaches - as particularly useful.

Regional MPA design builds networks that enhance species protection but also yields economies of scale, Mr. TROËNG pointed out. This is why most of CI's marine conservation investments in recent years have gone into large regions called "Seascapes," which represent 43 of the 53 new marine protected areas CI and its partners have catalyzed in that period, he said.

He agreed that in addition to MPAs, other conservation measures were needed to protect large marine animals. Restricting international trade in endangered species is important. "Adding the blue fin tuna to CITES would be one such measure and I commend the Principality of Monaco for its global leadership in promoting such a listing," he said.

