



**The Goodwin-Niering Center for Conservation Biology and
Environmental Studies, Connecticut College**

**Summary of paper presented at the conference:
Saving Biological Diversity:
Weighing the Protection of Endangered Species vs. Entire Ecosystems
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Challenges in Preserving Biodiversity in Marine Ecosystems

Presented by Susan Farady

Summary by Lindsay Michel 09

After talking just five minutes with Susan Farady, her love of the ocean and its ecosystem dynamics shined through. Ms. Farady lives just minutes from the ocean in Cape Elizabeth, Maine and works for The Ocean Conservancy, the nation's largest non-profit organization focused on ocean conservation. At the Biodiversity Conference, Ms. Farady's lecture highlighted the difficulties and obstacles she must overcome in her everyday work as an ocean conservation advocate.

Ms. Farady started her lecture with a quote about the term "sea change" from Shakespeare's *The Tempest*. She went on to discuss how that policy formulation and management are difficult because the oceans are 3-dimensional, remote, hostile, not well understood, seemingly vast and limitless, related to people in very individualized ways, and categorized as public trust resources.

Part of the problem with ocean management is that the world's oceans have historically been a global commons with no ownership rights where all people have open access to ecosystems and their resources. As Ms. Farady briefly mentioned, this was slightly transformed with the adoption of the Law of the Sea Convention in 1982. This

convention set limits to protect the marine environment and defined zones that could be controlled by different countries (Oceans and Law of the Sea 2006). One of the most significant zones created by the Law of the Sea Convention is the exclusive economic zone, which is an area that generally extends two hundred nautical miles off the coast of a nation. These areas create places where a country has sole exploitation rights over all natural resources and were mainly developed to settle disputes over fishing rights (Office of Coast Survey 2006). Ms. Farady said that the United States has the largest exclusive economic zone in the world because of the areas around Alaska and the Hawaiian Islands.

With the largest exclusive economic zone, the U.S. has historically abused its rights through over fishing, over harvesting, and pollution to the detriment of ocean organisms and their habitats. This degradation brought about a need for an extensive scientific study to track the human impacts on the United States' surrounding seas. Ms. Farady discussed the Pew Oceans Commission report that was released in 2003. This report titled, "America's Living Oceans: Charting a Course for Sea Change," called for a reform in U.S. ocean policy to reflect principles of ecosystem health, sustainability, and precaution. As Ms. Farady said, this commission led directly to the United States Commission on Ocean Policy in 2004. Their final report called for two hundred and twelve recommendations addressing ocean and coastal policy. The members of the commission called on the President and Congress to take immediate action to carry out the recommendations in order to halt the decline of the nation's oceans and coasts. In response to these recommendations, an executive order was put forth establishing the U.S. Ocean Action Plan and a committee on Ocean Policy within the Council on

Environmental Quality (United States Commission on Ocean Policy 2006). Even with this direct action, Ms. Farady does not feel that the current system of management is adequate to tackle environmental degradation because most management plans still focus on single-species protection instead of a more holistic ecosystem protection plan.

Ms. Farady did shed some light on ocean management when she mentioned that there have been efforts to cooperate and form regional oceans policy. The Northeast Regional Oceans Council (NROC) has started to take shape, but it is hard to get cooperation because many state agencies do not want to give up their sovereign power to local resources and policy formulation or the control of the little bit of funding that they receive. These regional collaborations are supported within the U.S. Ocean Action Plan and as Ms. Farady said, “make complete sense because the organisms and pollutants within these ecosystems know no territorial boundaries.”

After Ms. Farady discussed the history of ocean management in the United States, she moved on to her area of expertise, marine sanctuaries. Her main focus is on Gerry E. Studds Stellwagen Bank National Marine Sanctuary located at the mouth of Massachusetts Bay. The management plan focuses on resource protection and use, which is evident in Stellwagen’s mission statement: “Our mission is to conserve, protect and enhance the biological diversity, ecological integrity and cultural legacy of the sanctuary while facilitating compatible use” (Stellwagen Bank National Marine Sanctuary Web Group 2007). This emphasis on compatible use of resources makes sanctuaries very different from other ecosystem protection areas like reserves or refuges. She discussed the differences between a sanctuary and a wildlife refuge. In a sanctuary, for instance, fishing is allowed unless there is notice that it is to be restricted, whereas in a refuge,

fishing is restricted unless there is notice that it is allowed. This slight difference in wording causes huge differences in how the site is protected. In a sanctuary there is more opportunity to over fish and deplete resources creating a collapse in the ecosystem, whereas a refuge is developed primarily to protect species and their habitats. The Stellwagen Bank Sanctuary was originally protected because there were developers who wanted to build a floating casino and others who wanted to sand and gravel mine, which created a public outcry that resulted in action.

Sanctuary designation created protection against some destructive uses like industrial extraction, dumping, seabed alteration, disturbing cultural resources, and the taking of organisms, but it left the door open for many other damaging practices. Recreation activities like waterskiing and jet skiing, as well as commercial fishing and shipping are allowed. These activities have become a problem because ship traffic has tripled in the last twenty-five years and visitors now amount to about one million each year (Stellwagen Bank National Marine Sanctuary Web Group 2007). Intensified activities like whale watching have begun to use larger ships to accommodate more people, striking and killing many whales. Other aspects of the ecosystems are suffering from increased pollution, ballast dumping, runoff and treated sewer discharges. The hardest part about management of the Stellwagen Sanctuary is that its main goal incorporates compatible use principles, which becomes increasingly difficult with a growing urban population of about six million people (Stellwagen Bank National Marine Sanctuary Web Group 2007).

The original management plan was formulated in 1993, one year after Stellwagen was established as a national sanctuary, and every five years the plan is reviewed and

updated to adapt to scientific discoveries and advancements. Ms. Farady is at the forefront of this update as the Vice Chair of the Citizen Advisory Council where she is in charge of conservation measures. She believed that key recommendations from the Pew Oceans Commission and the U.S. Commission on Ocean Policy need to be embraced in the new Stellwagen Management Plan. Mainly Ms. Farady wanted to see the concept of ecosystem-based management embodied within an updated plan to better protect this area holistically instead of the old piecemeal single species protection. The new version was finally enacted in the winter of 2006 after several years of debating and drafts and hopefully it will have a positive effect on the area's degraded ecosystem (Stellwagen Bank National Marine Sanctuary Web Group 2007).

Susan Farady has loved the oceans since fourth grade, and that love has motivated her to do all she can to protect its precious organisms and habitats. Her work on the Stellwagen Bank National Marine Sanctuary has helped create a plan with a more holistic ecosystem-based approach that will hopefully better protect this environment from human abuses. Only time will tell how well the plan will work, but one can be guaranteed that Ms. Farady will do everything in her power to make Stellwagen Bank a successful protection area.

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