

To: National Commission on Oceans Policy
From: Doug Hopkins, Environmental Defense
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Thank you Admiral Watkins and distinguished Commissioners.

My name is Doug Hopkins. I head the Environmental Defense Oceans Program. Environmental Defense is a national, non-profit 501(c)(3) environmental advocacy organization with over 300,000 members. Environmental Defense combines science, economics and law to find solutions to the most pressing environmental problems. As part of my work I serve on the New England Fishery Management Council and, to my knowledge, I am the only representative of an environmental advocacy organization serving on any of the eight regional fishery management councils.

My testimony today is just the start of a dialogue that I hope will continue as you take up the considerable challenge ahead of you. There are many issues to address, but I can cover only a few of them today.

The Commission's work is very important for addressing serious policy and administrative issues that have had devastating impacts on ocean biodiversity and fisheries.

The problem with fish illustrates some of the structural and policy problems that the Commission will be grappling with.

The kinds of governance, institutional, and administrative reforms the Commission recommends will depend on the nature of the Commission's analysis of existing and emerging threats to the ocean environment, and on the priority the Commission places on the protection of that environment.

I urge the Commission to strive to ensure that environmental impacts are duly considered and minimized in the context of all issues to be considered: research, education, marine operations, governance, stewardship, investment and development.

Reduced zooplankton productivity along the west coast, declining fish populations, and mass coral bleaching are just a few of the many signs that the ocean, vast as it is, is stressed. Therefore economic benefits will only continue to flow from the ocean if conservation and truly sustainable use become very high priorities for all relevant agencies.

Among the nation's highest priorities should be to end overfishing and rebuild overfished fish populations. I urge the Commission to examine the Magnuson-Stevens Act and the Sustainable Fisheries Act and their implementation by the National Marine Fisheries Service, with a focus on whether the National Marine Fisheries Service's mission and institutional structure are in alignment with sustainable fisheries and ecosystem protection. The federal government's record of performance under the Magnuson-Stevens Act is not good: about a third of the assessed stocks under its management are overfished, and two-thirds are not even assessed. What is needed is to improve institutional capacity to make hard decisions required to restore depleted fisheries, protect fish habitat, and maintain sustainable fisheries in the future.

Institutional and policy changes should be aimed at correcting the fundamental drivers of overfishing and habitat damage. New mandates for the conservation of fish and shellfish populations, as well as the ecosystems they are parts of, will be necessary. However, it is

just as important to re-design fisheries management to end the tragedy of the oceans commons that so often has led to economic and ecological damage. New policies that empower alternative governance entities such as fisheries cooperatives and community-based management systems, bound to adhere to stringent federal standards, may prove more effective than the current system that relies so heavily on the regional fishery management councils. The councils often have difficulty conserving fish and shellfish populations and creating sustainable fisheries because they have not successfully blunted the strong economic pressure to overfish and to race for fish, nor have they created social or economic incentives for stewardship. In fact, their policies of open access to fisheries or ineffective limited access and effort controls actually create strong incentives to overcapitalize and overfish, resulting in both economic and ecological distress.

The regional fishery management councils strive to create consensus among large and diverse groups of stakeholders, and often settle for the lowest common denominator. Alternative entities may be able to craft solutions that are successful and durable because the number of stakeholders may be smaller and more likely to agree on principles and management measures. Social mechanisms of stewardship and enforcement (such as shaming violators) may also tend to become more effective in alternative governance entities.

Uncertainty and errors in estimating fish population levels, productivity, survival, and fishing mortality have often led to overfishing and fishery declines. Marine reserves, where fishing is banned or limited, offer insurance against scientific and management error. The fish protected within their borders are real fish, not “virtual fish” spawned in a stock assessment or computer model. Moreover, the well-documented fact that fish and shellfish within marine reserves tend to be much larger than their counterparts on the fishing grounds means that a fish protected in a marine reserve has far more spawning potential than a fish protected by catch quotas or other, more conventional fishery management measures. For many species, egg production increases exponentially with body size and age.

Marine reserves are one of the few tools that natural resource and fishery managers have at their disposal to protect the ecosystems that give rise to productive fish and shellfish populations. Well-designed reserves can protect the habitat structure and ecological processes that marine biodiversity in general, as well as exploited populations, need to thrive. There is compelling scientific evidence that marine reserves allow marine life to thrive again, even after being depleted by fishing. Fish and shellfish populations, average organism size, reproductive capacity, and species diversity are all much higher within reserves as compared with fishing grounds. Marine reserves can foster multi-species management and help accelerate re-building of troubled fish stocks and improve the biological stability of fisheries. And, marine reserves can ultimately lead to higher catches. Most of the studies that have been done so far indicate that catches are enhanced due to marine reserves. Moreover, fishermen often line the borders of marine reserves with fishing vessels, lobster pots, and other types of gear to take advantage of fish and shellfish “spilling over” the reserve borders. I urge the Commission to foster the establishment of networks of marine reserves in each biogeographical province of the US exclusive economic zone.

Marine reserves are not new or theoretical tools. The United States has made progress toward the effective use of marine reserves in recent years, most outstandingly by designating the Dry Tortugas marine reserve and the Northwestern Hawai`ian Islands Coral Reef Ecosystem Reserve. The Northwestern Hawai`ian Islands Reserve protects both existing fisheries and relatively pristine ecosystems, including 70% of the nation’s coral reefs, that could otherwise become vulnerable to overexploitation, by establishing no-fishing areas within the Reserve and by grandfathering in currently active fishers (recreational fishers, plus approximately 10 commercial bottomfish vessels). The Northwestern Hawai`ian Islands Reserve was created with widespread support among citizens of Hawai`i.

The Commission can help to ensure that the Executive Orders establishing the Northwestern Hawaiian Islands Reserve remain intact, and are not weakened in any way, so as to serve as the basis for the Northwestern Hawaiian Islands Reserve Coral Reef Ecosystem Reserve and as the underpinning for the designation of the area as the nation's 14th National Marine Sanctuary.

Let me turn briefly to the subject of marine pollution, highlight several critical problems, and offer a number of solutions I am hopeful the Commission will throw its considerable weight behind.

First, reduce nonpoint source pollution, especially nitrogen and phosphorus. Implement strong nutrient standards, coupled with market-based programs that create incentives for compliance. For example, foster smaller-scale, nutrient-stripping wastewater treatment technologies.

Second, reduce plastic and other marine debris. Massive amounts of debris continue to harm seabirds, marine mammals, endangered sea turtles, and other marine life despite international anti-dumping agreements. Plastic particles concentrate organic pollutants. New technologies to track the origins of debris and improved enforcement are needed.

Third, reduce the potential for biological invasions by exotic species.

Fourth, put the aquaculture industry on a track toward sustainability by implementing technology-forcing regulations, standards, and incentives.

Turning now to the environmental threats of oil drilling and transport, I urge the Commission to support the following:

First, continuing to avoid new offshore oil drilling lease sales within coastal waters currently protected by the congressional Outer Continental Shelf (OCS) moratorium and the presidential OCS deferrals, and within Alaskan waters where broken sea ice and extreme weather conditions make oil spill cleanup infeasible.

Second, prioritizing an aggressive federal research and development program to facilitate the development of large scale oil skimming vessels with a greater range of oil recovery and storage capabilities, in a broader range of sea conditions than current oil spill response equipment.

In closing, thank you for the chance to talk with you today about these profound threats to the ecological health, biological diversity and sustainable use of our marine environment, and about finding solutions that truly work.