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Testimony to the U.S. Commission on Ocean Policy
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On behalf of the entire Pew Oceans Commission, thank you for the chance to speak with you today.

I am pleased to be joined today by a fellow commissioner and fellow Californian, Pietro Parravano, who will speak on the next panel. It is important for our two commissions to stay in touch and, as best we can, coordinate our recommendations to Congress and the Bush administration.

Several members of the Commission on Ocean Policy have participated in our recent meetings. During our recent meeting in New Orleans we were fortunate to have Mr. Dickerson talk to us about oil and gas development. And earlier this year Mr. William Ruckelshaus and Dr. Andy Rosenberg attended our governance workshop in Monterey.

We look forward to continuing this collaboration. Hopefully the combined force of our recommendations will lead to the action needed to restore and protect our oceans.

Before I get to my remarks about the Pew Oceans Commission's work on marine protected areas, I would like to present *Coastal Sprawl: The Effects of Urban Design on Aquatic Ecosystems in the United States*, the latest in a series of science reports prepared for the commission and released this week.

The author of this report, Dana Beach of the South Carolina Coastal Conservation League, presents his findings on the effects of urban design and land-use practices on aquatic ecosystems in the United States. Although America's coastal counties make up only 17 percent of nation's area, they are home to more than half our population. It is estimated that an additional 27 million more people will live in this narrow strip of coastal land over the next 15 years.

The report offers new strategies and tools that communities may use to preserve the same ecosystems that attract residents, tourists, and businesses to the coasts. We will provide copies to each of you. I believe you will find it interesting and useful to your deliberations as well.

Coastal development is one of four committees we have established. The others are fishing, governance, and pollution. When it came time to consider marine protected areas, we decided that it did not neatly fit into any one of the committees. We recently decided instead to create a separate MPA task force, of which I am the chair.

Although this task force is just getting started, I am able to share our plans for the coming months and give you a general sense of how we are approaching the subject. We recognize that there is no “one size fits all” solution out there when it comes to marine protected areas. Of course, marine protected areas come in many shapes and sizes. For example:

- We have four marine sanctuaries off California that provide varying levels of protection.
- MPAs can be fishery closure areas that protect spawning or nursing grounds.
- They can be cultural heritage sites.
- We have seen sensitive habitats such as coral reefs placed off limits.

MPAs can cover the whole range of management and protection options. We have also heard repeatedly that the types of MPAs chosen to address management challenges in any area should be designed to meet specific goals and objectives. As with all the issues we are reviewing, we are studying MPAs with three major themes in mind:

- ***Restoring and preserving ecosystems.*** Do MPAs contribute to our overarching goal of restoring and preserving ocean ecosystems?
- ***Regional decision-making.*** Marine protected areas succeed when local communities are involved. Fishermen, scientists, environmentalists, and the business community must all be part of the process.
- ***Research and monitoring.*** Just as the creation of any MPA must be based on sound science, it is important that a strong research and monitoring program be part of any MPA program.

Restoring and preserving ecosystems.

The Commission has found that marine ecosystems are threatened by a multitude of human activities both on land and at sea, including pollution, aquaculture, coastal development and fishing. Nutrient runoff from agricultural land is an increasing problem for ocean ecosystems, often resulting in dead zones. The escape of farm-raised fish can introduce exotic species, disease, and genes into the environment. Coastal development can impair water quality in coastal streams and damage coastal wetlands that are vital nursery grounds for many marine species. Unsustainable removal of fish products from the oceans, habitat alteration by fishing gear, and large volumes of fish caught unintentionally as bycatch cause additional stress on marine ecosystems.

The collection of these multiple stresses on the oceans today (i.e., pollution, coastal development, overfishing, aquaculture), despite existing management efforts, suggests that different management tools are necessary to protect and maintain healthy marine ecosystems. The use of marine protected areas has gained a great deal of interest lately as one possible solution.

Regional decision-making.

Our research at Scripps and the science the Commission has reviewed from other sources strongly suggests that MPAs should certainly be one of the tools communities and managers have at their disposal to protect ecosystems. The process for identifying, establishing, and managing an MPA or network of MPAs **must** include all members of the public.

Everyone must be at the table when decisions are made about whether and how to create MPAs. This is especially true for my good friend Pietro and his colleagues in the fishing industry. This simple ideal has been the hallmark of successful MPAs thus far. The same constituents should also be involved in the ongoing management. And MPAs must be just one of a range of tools available to communities.

Research and monitoring.

Finally, it is important to have a strong ***research and monitoring*** program to continually evaluate the effectiveness of MPAs. The science is advancing rapidly and scientists are providing managers with a range of options that provide equivalent conservation benefits.

I will add (switching to my Scripps hat for a moment) that our scientists find that MPAs – in particular, fully protected marine reserves – are beneficial to non-mobile species with short reproductive cycles.

Monitoring and re-evaluation of the observed benefits is needed to ensure that goals are being met and management can adapt.

CONCLUSION

In summary, we are considering the best use of MPAs to support our overall goal of restoring and protecting ocean ecosystems. As with all the issues we are reviewing, we are studying the ability of MPAs to ***restore and preserve ecosystems***, as a tool for ***regional decision-making***, and implemented using ***research and monitoring***.

To that end, the Pew Oceans Commission has asked Harvard University scientist Steven Palumbi to prepare a report on MPAs. Dr. Palumbi will summarize the latest science on MPAs, and will discuss such issues as:

- Ecosystem regeneration within MPAs
- Spill-over effect
- Interaction with regional fishery management

We expect to publish this report later this summer. As I mentioned previously, the Commission is still in the early stages of developing its recommendations on MPAs. We look forward to continuing this dialogue and working with you as we prepare our final recommendations.