

2006 SUMMARY OF PRESENTATIONS (Con't)

“Oregon’s Ocean: Linking the Science to Policy”

Panel III: “Looking Ahead: Marine Reserves for the Oregon Coast?”

Dr. Mark Hixon, Professor, Department of Zoology, OSU
"Marine Reserves: Theory and Practice"

Dr. Hixon described marine reserves as areas of the ocean protected legally and permanently from all extractive activities (e.g., fishing) and potentially damaging activities (e.g., oil drilling).

“There are two major types of marine reserves: those designed to conserve biodiversity (the variety of sea life), and those designed to sustain fisheries. Natural science can assist in the design of both kinds of reserves, as well as develop and test predictions regarding the benefits of reserves. Predictions regarding habitat protection and ecological reference sites are self-evident,” Hixon stated. .

Hixon described tests made to predict results inside reserves for both biodiversity and fisheries reserves, which showed increased organism biomass (weight), density (abundance per unit area), and body size. For biodiversity reserves only, results showed increased species diversity (the variety of species).

Many peer-reviewed studies around the world have confirmed all these predictions, which for fisheries provide a kind of fish population insurance. Predictions outside reserves focus on increasing catch for fisheries via two mechanisms: seeding (abundant and large fish inside reserves spawning and dispersing larvae that replenish fished areas) and spillover (abundant fish inside reserves swimming to surrounding fished areas).

Hixon closed by saying that to date, there are relatively few data regarding seeding, but reasonable data confirming spillover. Therefore, the scientific basis for establishing reserves to conserve biodiversity or to provide population insurance for fisheries is compelling, whereas fishery benefits outside reserves are still largely theoretical.

John Ugoretz, Nearshore Ecosystem Coordinator, California Dept. of Fish and Game’s Marine Region
"California’s Recent Marine Reserve Planning Experience"

With political efforts at work to develop regional approaches to ocean policy, John Ugoretz provided a lesson from California’s experience in establishing Marine Protection Areas (MPA). These marine managed areas are designed to take care of living resources...with no-take in marine reserves, limited recreation in marine parks, and limited commercial and recreational uses in conservation areas.

One lesson learned from California’s experience is the extended time frame it takes for establishing MPAs. Ugoretz used as an example the effort started in 1998 for waters around the Channel Islands. It took a Marine Reserve Working Group five years to come up with a plan for twelve new MPA’s, involving extensive public involvement.

A new approach—the Marine Life Protection Act—was enacted in 1999 in an effort to get a broader base of support and a review of the existing MPAs. This process, known as the MLPA Initiative, is expected to result in a significant increase in the amount of MPA area.

This year the California Marine Life Protection Act has been funded with \$10 million which will establish 29

MPA's with a staff of 45 positions. The program is also supported by private foundation grants and in-kind contributions from state resource agencies.

Dr. James W. Good, Professor Emeritus, Sea Grant and Oceanic and Atmospheric Sciences, OSU
"OPAC's Marine Reserve Planning Process"

In June 2005, Governor Kulongoski directed OPAC, Dr. Good explained, to implement the earlier (2002) recommendation that Oregon should “establish a limited system of marine reserves in order to test and evaluate their effectiveness in meeting marine resource conservation objectives.”

Good went on to say that because of other priorities, particularly providing advice to the Governor on his National Marine Sanctuary proposal, OPAC only recently began work on marine reserves. In June 2006, a core Marine Reserve Working Group (MRWG) was established and more members at large will be added soon.

OPAC has also requested that its scientific and technical advisory committee (STAC) provide it with assistance in gathering and evaluating information for reserve planning. OPAC intends to use the

2002 recommendation as an initial guide in designing a planning process, but will also draw on “lessons learned” elsewhere in reserve planning.

Good said no specific areas were recommended for reserves in 2002, nor were recommendations made regarding use of marine reserves for fishery management. However, the recommendation did state that “before designating any specific marine reserves, there is a need to acquire additional information, and conduct additional study, analysis, and deliberation through an open, public process.”

Finally, OPAC recommends the use of reserves as ecological reference areas and to test the effectiveness of reserves to maintain and restore ecological integrity. The next task for the MRWG is to draft a planning process and develop a timeline and budget. However, Good noted, no funding has been identified to begin the marine reserve planning process.