

Science and Economics?

By Amanda Gammisch

“How would improving the habitat of the Chesapeake Bay benefit society?” That is the question environmental economist Dr. Rob Hicks, Dept. of Coastal and Ocean Policy, is investigating in a new study.

While earlier research has focused on oyster disease and habitat, Hicks wants to expand this focus to help understand the link between an improved aquatic environment due to oyster reef restoration and the people who use or value the Bay. “In theory, improved oyster reefs will enhance the fishing experience, fish habitat, nutrient filtering, and water quality,” says Hicks. “I want to get a clearer understanding of these difficult-to-quantify values.”

Hicks feels that it is much easier to demonstrate the cost of environmental regulations designed to insure the Bay’s health than to calculate the benefits from the Bay’s environmental services. His project is designed to develop a comprehensive inventory of value arising from the Bay’s oyster reefs, making it possible to compare costs and benefits. The research will also help target specific areas where oyster reefs can be placed.

According to Hicks, there are several ways in which people will

benefit from these improvements. The first benefits come from direct use of the reefs (use values) with improved water quality, better sport fishing, improved commercial fishing, increased land values, and more enjoyable boating. Indirect benefits for those who do not directly use the Bay (non-use values) are derived from knowing that oyster reefs exist and provide positive environmental services to the ecosystem (existence values). Finally,

knowing that improved environmental conditions will make future use of the Bay more enjoyable (should one choose to use it) offers option values.

The project is estimated to take one year to complete and will cover areas in Virginia and Maryland. Working with Hicks are colleagues Tim Haab from Ohio State University, and Doug Lipton

and Bill Goldsborough from University of Maryland. Hicks explains that “when assessing the merits of environmental programs- particularly oyster restoration- the focus has almost always been on the costs of the programs because these are easy to measure. Hopefully this study will provide information about the benefits from a healthy oyster population in the Bay, allowing society to compare costs to something tangible.”



Dr. Rob Hicks at reef site in York River.