

NATIONAL AQUARIUM CONSERVATION CENTER OVERVIEW

The National Aquarium is growing from a successful attraction with conservation as its primary message to a nationally recognized and respected conservation Institute that measures success through its positive impacts on people, the environment, and aquatic life. In 2010, the National Aquarium established a Conservation Center to expand its conservation scope.

Through pioneering science and partnerships with like-minded organizations, the National Aquarium Conservation Center is committed to becoming a global leader in conservation research, education, and an advocate for ocean health. The National Aquarium Conservation Center will focus its efforts on the protection of aquatic ecosystems worldwide.

The initial emphasis of the Conservation Center is on conservation areas including coastal ecosystems and watershed health, ocean health, environmental advocacy and ecological aquaculture. It has partnered on exciting scientific research efforts that will protect vital ecosystems; increase our understanding of mercury levels in wild and captive dolphins; quantify sediment contamination in the Inner Harbor; protect spotted eagle rays; and promote the future of aquaculture.

Current projects include:

NATURAL RESOURCE DAMAGE ASSESSMENT OF SARASOTA BAY (MOTE, JHU)

An independent, comprehensive study using semi-permeable membrane devices to ensure that pre- and post- Deepwater Horizon oil spill impact status of Sarasota Bay is documented as rigorously as possible. This method could be replicated to protect vital ecosystems across the globe.

ASSESSMENT OF MERCURY (Hg) BIOACCUMULATION IN SMALL CETACEANS (MOTE, JHU)

Two separate studies are underway to analyze mercury levels in wild and captive dolphins. One approach is tracking mercury through the food chain using the resident dolphin population in Sarasota Bay; the second is analyzing mercury content in fishes fed to the dolphins at the National Aquarium and studying accumulation in dolphin tissue.

SEDIMENT CONTAMINATION IN BALTIMORE HARBOR (MOTE, JHU)

A study with the Maryland Department of the Environment to examine the impact of organic contaminants on the Baltimore Harbor, looking specifically at DNA damage to clams and worms.

PROTECTION OF SPOTTED EAGLE RAYS (MOTE)

Spotted eagle rays are threatened or near-threatened, yet little is known about their basic biology. Researchers are tagging and tracking spotted eagle rays that routinely migrate in and out of Sarasota Bay, FL, annually to determine their distribution and other ecological information. Scientists will study blood samples from these animals to learn more about spotted eagle ray biology and reproduction.

ADVANCEMENT OF AQUACULTURE (UMBI)

The aquaculture industry has been growing 8-10% annually and currently provides 50% of our seafood. With this growth it is clear that aquaculture development must proceed in a way that is environmentally responsible. This effort is developing a land-based aquaculture system (RAS) that has minimum impact on the environment. The technology relies on natural communities of microorganisms to continually clean water that is re-circulated through the system.

Project details can be obtained through the National Aquarium's Media Relations Department.