Monitor National Marine Sanctuary

Habitat and Biodiversity

Management Issue

Limited baseline data inhibits the ability to track the biological health of the resources in the *Monitor* National Marine Sanctuary (MNMS or Sanctuary).

Description

The Sanctuary was established primarily due to its cultural resources, and the majority of the research that has been conducted has focused on those resources. There have been very few studies looking at habitat types and biodiversity within the sanctuary, and the studies that have been conducted have been too infrequent to establish any biological parameters. There is need to collect baseline biological data in order to establish a long-term biological monitoring system for the Sanctuary and its surrounding waters. This information is imperative as it can be used to identify any changes, drive research needs, and enhance management actions within the Sanctuary.

The Monitor is also a habitat and attracts many animals and the structure to form an artificial reef. Photo Credit: Monitor NMS

Questions and Information Needs

1) What are the major habitat types found throughout the entire Sanctuary and the surrounding waters?

2) What is the condition of biologically structured habitats?

3) How are habitats changing?

4) What, where, and how much biodiversity exists?

5) Are there differences when comparing biodiversity within and outside of the Sanctuary?

Scientific Approach and Actions

- Surveys using multi-beam, side-scan, and sub-bottom profiling
- Use of ROVs, AUVs, and other submersibles
- Analysis for habitat classification
- Analysis for biodiversity classification
- Establishment of interagency relationships for research purposes

Key Partners and Information Sources

NOAA's National Center for Coastal Ocean Science, North Carolina Aquarium, East Carolina University, Duke Marine Lab, University of North Carolina Coastal Studies Institute, NOAA Fisheries Lab (Beaufort, NC), National Marine Fisheries Service Northeast Fisheries Science Center

Management Support Products

- Scientific papers and reports
- Maps of habitats
- Extensive list of flora and fauna located within the sanctuary
- Reports on distribution of habitats

Planned Use of Products and Actions

- Baseline data will be used as a starting point with which to detect changes and compare future results
- Appropriate management within sensitive habitat areas

Program References

MNMS Management Plan,

- The MNMS is currently going through Management Plan Review

MNMS Condition Report

- What is the status of key species and how is it changing?
- What is the condition or health of key species and how is it changing?
- What is the status of non-indigenous species and how is it changing?
- What are the abundance and distribution of major habitat types and how are they changing?
- What is the condition of biologically-structured habitats and how is it changing?
- What are the contaminant concentrations in sanctuary habitats and how are they changing?
- What is the status of biodiversity and how is it changing?

ONMS Performance Measures

- 3.2: Habitat Protection Performance
- 3.3: Measuring Living Resources Protection Performance

Other Documents

- National Marine Sanctuary State of the Sanctuary Report 2008

A Manta (Manta birostris) flies over the Monitor while Navy divers take a break from their mission to look on in awe. Photo Credit: Monitor NMS

An oyster toadfish (Opsanus tau) rests on the side of the USS Monitor. Photo Credit: Monitor NMS