Studies Offshore Maryland

- Baseline Wildlife Studies Offshore of Maryland
- Determining Offshore Use by Marine Mammals and Ambient Noise Levels Using Passive Acoustic Monitoring
- Aerial Surveys for Marine Mammals and Sea Turtles
- Seafloor Classification
- Using Underwater Video to Assess Epibenthic Communities and Habitats
Aerial Surveys for Marine Mammals and Sea Turtles

Collect data on presence, density, and seasonality of marine mammals and sea turtles

Virginia Aquarium & Marine Science Center Foundation, Riverhead Foundation for Marine Research & Preservation, and St. Andrews University

Survey design:
- 12 track lines
- 55-67 km long
- 718 km total
- monthly surveys
- July 2013-June 2015
Marine Mammal and Sea Turtle Sightings

Published on the Ocean Biogeographic Information System (OBIS):
http://seamap.env.duke.edu/dataset/1340
Seafloor Classification

Maryland Geological Survey analyzed side scan sonar imagery, acoustic seabed classification, and multi-beam bathymetric data sets.

Goal:
Identify the surface substrate classes, i.e., surface sedimentary characteristics, which form the environment in which benthic communities develop.

Figure 1: Study area marked as CCS Target with USGS 2014 survey area to the West and the Maryland Wind Energy Area to the East
Using Underwater Video to Assess Epibenthic Communities and Habitats

Objectives:
• Document distribution of benthic sediments and habitat types, and the abundance and distribution of mobile and sedentary organisms.

Methods:
• Designed and built CamSled
• Conducted video and beam trawl surveys

University of Maryland Eastern Shore
Bradley G. Stevens and Wilmelie Cruz-Marrero

Map of transects completed in OCS blocks 6724 and 6725.
Regional Ocean Planning

Draft Mid-Atlantic Regional Ocean Action Plan (June 2016)

Information and data synthesis
• Regional Ocean Assessment
• Human Use Data Synthesis
• Marine Life Data and Analysis

Initiatives under consideration
• ocean acidification monitoring network
• ocean health indicators
• applied science research agenda
Regional Ocean Assessment

Gather, integrate, and distill the best available information from publications, data sources, and subject matter experts to characterize conditions of the Mid-Atlantic Ocean:

- biological
- chemical
- ecological
- physical
- cultural
- economic
- historical

Most comprehensive summary of data in the Mid-Atlantic to date

Accessible digital format

http://midatlanticocean.org/
# Mid-Atlantic Regional Human Use Data Synthesis (HUDS) Project

<table>
<thead>
<tr>
<th>Theme</th>
<th>Layer Count</th>
<th>Summary of Datasets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishing</td>
<td>15</td>
<td>VMS (herring, monkfish, multispecies, scallop, surfclam/ocean quahog); CAS (dredge, gillnet, groundfish &gt; 65ft, groundfish &lt; 65ft, lobster, longline, pots/traps, seine, shrimp); Artificial Reefs</td>
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<tr>
<td>Recreation</td>
<td>9</td>
<td>Recreational Boater Activities, Recreational Boater Routes; Coastal Use Surveys (Surface Water Activities, Shore Based Activities, Underwater Activities, Wildlife/Sight Seeing Activities); PGIS (NJ Sport fishing, VA to NJ, NY Recreational Uses)</td>
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<tr>
<td>Energy</td>
<td>4</td>
<td>BOEM Wind Energy Areas, BOEM Wind Planning Areas, Coastal Energy Facilities</td>
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<tr>
<td>Security</td>
<td>15</td>
<td>Danger Zones &amp; Restricted Areas, Unexploded Ordnances, Navy Operational Areas</td>
</tr>
</tbody>
</table>

64 Human Use Data Sets
The Marine-Life Data and Analysis Team is aggregating data, models and synthesis products that describe the distribution, abundance and trends of marine life in the Mid-Atlantic.
Regional Initiatives Under Consideration

• Foster establishment of an ocean acidification monitoring network

• Establish Mid-Atlantic Ocean indicators/metrics

• Develop applied research forum and agenda

http://www.boem.gov/mid-atlantic-regional-planning-body