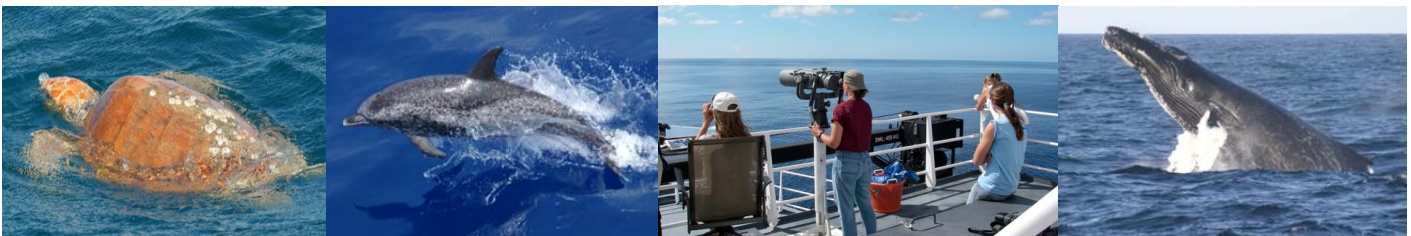


Environmental Studies – Marine Mammals/Sea Turtles

Applied Science for Informed Decisions on Ocean Energy

The Bureau of Ocean Energy Management (BOEM) is responsible for overseeing renewable energy development on the outer continental shelf (OCS) in an environmentally sound manner. On the Atlantic and Pacific OCS, BOEM is contributing to the collection of information about the presence, distribution, and migratory pathways of marine mammals in support of offshore energy development. While the information collected by BOEM provides a baseline on a regional basis for marine mammal and sea turtle distributions, industry will be required to collect site specific data based on species present and local concerns. BOEM has prepared guidelines for industry to assist in determining the specific data collection efforts that may be required, which are available on the BOEM website:

<http://www.boem.gov/Survey-Guidelines/>



ATLANTIC MARINE ASSESSMENT PROGRAM FOR PROTECTED SPECIES (AMAPPS)

BOEM is partnering with NOAA's National Marine Fisheries Service and the US Fish and Wildlife Service to collect data on the seasonal distribution and abundance of marine mammals, sea turtles, and seabirds through aerial and shipboard surveys. The goal of this initiative is to develop models and associated tools to provide seasonal, spatially-explicit density estimates of marine mammals, sea turtles, and seabirds in the western north Atlantic. BOEM will use the information to identify areas of high usage by these species and reduce conflicts with wind energy development. Concurrently, NOAA is also conducting telemetry studies, passive acoustic monitoring, and developing alternative survey methodologies. **Status:** Surveys started in 2010 and will continue through 2019. A final report for the first four years will be available in Spring 2017.

DETERMINING OFFSHORE USE BY MARINE MAMMALS AND AMBIENT NOISE LEVELS USING PASSIVE ACOUSTIC MONITORING

BOEM and the State of Maryland are jointly funding a passive acoustic monitoring study in and around the offshore Maryland Wind Energy Area (WEA). Passive acoustic recordings allow for continuous monitoring of sound producing animals and can provide information on the daily cycles of behavior, habitat use, and regional distributions of marine animals, as well as provide information on inter-annual and seasonal variation. **Status:** Initiated in the fall of 2014, recording devices are currently in the water listening. Study results will be available in 2017.

SEABIRD AND MARINE MAMMAL SURVEYS OFF THE NORTHERN CALIFORNIA, OREGON, AND WASHINGTON COASTS

BOEM in partnership with the U.S. Geological Survey and the U.S. Fish and Wildlife Service conducted aerial surveys along the Pacific coast in 2011 and 2012 to update information about the presence, abundance, and distribution of marine mammals and seabirds. Results are compared to previous field studies from 1980-1983 and 1989-1990. **Status:** A final report (BOEM 2014-003) is available on the BOEM website. Additional study products are in preparation including an Atlas of the Pacific Outer Continental Shelf and a Pacific Seabird Shelf Monograph.

FIELD SURVEYS AND MARINE RESOURCE CHARACTERIZATION FOR OFFSHORE WIND ENERGY PLANNING IN THE MASSACHUSETTS WIND ENERGY AREA

Through a cooperative agreement, BOEM is partnering with the Commonwealth of Massachusetts to survey for marine mammals, turtles, and birds within the Massachusetts Wind Energy Area. The surveys will be used to develop a baseline understanding of the distributions and abundances of avifauna, North Atlantic Right Whales and other large whales, and sea turtles. BOEM will use the information to assess the location and configuration of future offshore wind energy development. **Status:** Fieldwork is complete and final reports now available on the BOEM website.

Abundance and Distribution of Seabirds Off Southeastern Massachusetts, 2011-2015

<http://www.boem.gov/RI-MA-Seabirds/>

Northeast Large Pelagic Survey Collaborative Aerial and Acoustic Surveys for Large Whales and Sea Turtles <http://www.boem.gov/RI-MA-Whales-Turtles/>

UNDERSTANDING WHALE PRESENCE IN THE VIRGINIA OFFSHORE WIND ENERGY AREA USING PASSIVE ACOUSTIC

The coastal Mid-Atlantic waters are part of the home range or migratory corridor of several baleen whale species, including the critically endangered North Atlantic right whale (NARW). The seasonal usage of this area by different whale species is unclear; existing sources suggest that right whale occurrence around Virginia is limited to nearshore locations around the mouth of the Chesapeake Bay during winter months (December-March). This study will extend existing data collection activities by Cornell University using passive acoustic monitoring through 2017. **Status:** Fieldwork is underway with a final report expected in Fall 2018.

For more information about BOEM's Environmental Research:

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Renewable Energy Research Webpage: www.boem.gov/Renewable-Energy-Environmental-Studies/