

ENVIRONMENTAL STUDIES PROGRAM:

Region: Headquarters

Planning Area(s): North Atlantic

Title: Determining Night Time Distribution of Long-tailed Ducks Using Radio/Satellite Telemetry

MMS Information Need to be Addressed: Although over two and a half years of data on day time bird use in Nantucket Sound the lack of data on long-tailed duck use of the Sound leaves a significant information gap. As a wind farm would run 24 hours a day, it is critical for MMS information needs to have a better understanding of night time bird in the Sound. The results of this study will also assist MMS in developing appropriate monitoring and mitigation measures. In order to develop these measures, it is necessary to obtain a reliable baseline estimate of the relative abundance of wintering sea ducks that will allow MMS to detect and interpret changes in bird abundance and distribution in Nantucket Sound should a proposed project move forward. This includes detection of changes in the numbers of wintering sea ducks in response to the construction of the wind farm, or whether the ducks experience habitat loss or displacement.

Cost Range: (in thousands): \$56K **Period of Performance:** FY 2006-2008

Description:

Background: With the passage of the Energy Policy Act of 2005, MMS was delegated responsibilities for alternative energy activities on the Outer Continental Shelf. This new responsibility includes offshore wind energy projects. As the technology is new, MMS is challenged with analyzing existing information and identifying needs for further study to develop the information necessary to adequately assess the potential project impacts under the National Environmental Policy Act (NEPA) and other relevant statutes. Based on the information available, MMS has identified impacts to birds as a primary biological concern and has been seeking additional data to describe bird use in and around Nantucket Sound.

Objectives: The objective of the study is to determine:

- 1) Do the locations of roosting sites of individual long-tailed ducks change over time (e.g., nightly, weekly, etc.) or do these ducks return to approximately the same locations?
- 2) Do long-tailed ducks roost in large congregations or are they widely dispersed across the Sound?
- 3) Are long-tailed duck roost sites concentrated or widely scattered across Nantucket Sound?
- 4) Is Horseshoe Shoal an important long-tailed duck nighttime roosting site?
- 5) Is Tuckernuck Shoal the primary nighttime roosting site for long-tailed ducks?

Methods: The research will include the capture, radio/satellite tagging, tracking and mapping of long tailed ducks in Nantucket Sound, Massachusetts

Revised Date: August 22, 2008