

ENVIRONMENTAL STUDIES PROGRAM: Ongoing Studies

Region: Atlantic

Planning Area(s): North and Mid-Atlantic

Title: Determining Offshore Use by Diving Marine Birds Using Satellite Telemetry

BOEM Cost: \$1,380,000

Period of Performance: FY 2012-2016

Conducting Organization(s): U.S. Fish and Wildlife Service (M12PG00005)

BOEM Contact: [Dr. Jim Woehr](#)

Description:

Background: Specific information is needed on migration corridors and winter concentration areas used by surf scoters, northern gannets and red-throated loons during spring and fall migratory flights along the U.S. Atlantic coast and OCS, especially south of New England to the Carolina Outer Banks, where there is great interest in development of wind energy facilities. The Sea Duck Joint Venture and USGS are currently capturing Surf Scoters and surgically implanting satellite transmitters programmed to send GPS coordinates of birds during their breeding season in northern Canada. It is likely that an Inter-Agency agreement between BOEM and these agencies could enable the capture of more Scoters, Gannets, and Red-throated Loons and the implantation of satellite transmitters in those birds as well. Transmitters would be programmed to send GPS coordinates during the fall and spring migration periods and during the winter rather than on breeding grounds in northern Canada.

Little information exists on the occurrence and movements of these three species (or any marine diving birds) in the areas from Long Island to the Outer Banks despite great interest in potential construction of wind energy facilities in that region.

Objectives: The primary objectives will be to determine the occurrence and movement patterns south of New England to the Outer Banks of three diving marine bird species with diverse life history strategies: the surf scoter, northern gannet and red-throated loon.

This will permit delineation of specific fall and spring migration corridors used by these species and will help to identify winter concentration areas for each species. These species have been identified as high priority species by the U.S. Fish and Wildlife Service because of their population trends, paucity of information on the Atlantic south of New England and/or because of the perceived threat of wind energy development to diving birds.

Methods: Fifteen birds of each species will be captured offshore during fall and winter of each year for three years and fitted with surgically implanted satellite transmitters with a battery life of less than one year. Transmitters will be programmed to send data during winter and migratory periods when birds are most likely to occur in the study areas. To assure that transmitted birds will yield data on movements south of New England, most

birds will be captured off the Outer Banks of North Carolina and off the Chesapeake Bay.

Importance to BOEM: The surf scoter, northern gannet and red-throated loon are nonlisted migratory birds identified by the U.S. Fish and Wildlife Service as species of high concern. Although all three species winter as far south as Florida, very little information exists concerning migration corridors used by these species south of New England.

There is great interest in wind energy development in the region south of Massachusetts to the Outer Banks. Thus BOEM has an urgent need to identify the primary migration corridors and winter concentration areas used by these species along the mid-Atlantic coast of the U.S. in order to enable EAs and EISs to adequately assess potential impacts of proposed wind energy development on migratory marine diving birds.

Current Status: Intra-agency Agreement signed 03/14/2012. Fourteen red-throated loons, eleven surf scoters, and six northern gannets were captured and surgically implanted with satellite transmitters as of 03/30/2012. All tagged birds have returned to their northern breeding grounds in spring 2012. Birds with still active PTTs, including gannets with tail tags from breeding colony captures in spring 2012 have now been tracked in their southward migrations during fall 2012.

Final Report Due: January 31, 2016

Publications: None.

Affiliated Web Sites: None.

Revised Date: December 10, 2012

ESPIS: Environmental Studies Program Information System

All *completed* ESP studies can be found here:

http://www.data.boem.gov/homepg/data_center/other/espis/espisfront.asp