

ENVIRONMENTAL STUDIES PROGRAM: Ongoing Studies

Region: Atlantic OCS Region

Planning Area(s): Atlantic

Title: Compendium of Avian Information: Part 2

BOEM Cost: \$228,788

Period of Performance: FY 2011-2014

Conducting Organization(s): U.S. Geological Survey (M11PG00059)

BOEM Contact: Dr. David Bigger

Description:

Background: With the passage of the Energy Policy Act of 2005, BOEM was delegated responsibilities for alternative energy activities on the Outer Continental Shelf. This responsibility includes offshore wind energy projects. Experience from onshore wind development suggests that the siting of facilities is critical to minimize impacts to bird species, particularly migratory birds. In the initial Avian Compendium study, available information contained in Atlases, Census compilations and in databases held by the U.S. Fish and Wildlife Service, U.S. Geological Survey, State environmental agencies, academic institutions or non-governmental organizations such as the Audubon Society or the Sea Duck Joint Venture was collected. This information was compiled, synthesized, standardized, and incorporated into a comprehensive Geodatabase to assist BOEM scientists and decision-makers regarding potential impacts from wind energy development on the OCS. The need for this information was identified during the BOEM Alternative Energy workshop and in the Worldwide Synthesis and Analysis of the Existing Information Regarding Environmental Effects of Alternative Energy Uses on the OCS.

This initial compilation now serves as a basis for future studies by identifying key species of concern and data gaps. Since the BOEM jurisdiction generally begins at 3 nautical miles (nmi) offshore, the focus was, and will continue to be, on avian species likely to be at risk from activities occurring greater than 3 nmi. The initial study and the proposed follow-up study focus on the Atlantic Coast, from Maine to Florida. New, significant sources of avian information are being generated by assessment and research efforts that would improve the value of the database, increasing the depth of its species and geographic coverage, and providing the basis for more extensive modeling of seabird occurrence.

Objectives: The objectives of the proposed follow-up study are: to incorporate new sources of avian information that are being collected in the Atlantic in anticipation of offshore wind development into the database developed in Part 1; to standardize the information collected to make it comparable; to add data provided by Tufts University on beached birds; and to model

seabird data based on biophysical parameters to be able to predict occurrence of seabirds and other birds in offshore environments.

Importance to BOEM: Information about birds using the Atlantic offshore environment is a critical element to ensure that this development is done in such a way as to minimize environmental impacts. Development of offshore alternative energy facilities, particularly wind turbines, has the potential to impact bird species. The Avian Compendium database provides an important information resource that can assist with assessment of Atlantic OCS species distributions and identification of knowledge gaps, and also provides the knowledge base for modeling of factors that affect avian distribution and abundance. Knowledge about the numbers and distribution of bird species that are at risk enables BOEM to identify locations that are preferred for wind energy development and those that should be avoided.

Current Status: Awarded on August 22, 2011. Received draft final report on modeling occurrence and distribution of seabird in October 2013. Data base sent to the [National Oceanographic Data Center](#) and is available to download.

Final Report Due: June 30, 2014

Publications/Presentations:

Flanders, N., B. Gardner, A. F. O'Connell, and C. Winiarski. 2013. Estimating habitat relationships and distributions of seabirds off of the coast of Rhode Island, US with aerial transect data and community occupancy models. In North Carolina Chapter of The Wildlife Society Annual Meeting. Columbia, North Carolina.

Kinlan, B., R. Rankin, and C. Caldow. 2013a. Predictive Models of Marine Bird Distribution as a Spatial Planning Tool: A Case Study in the U.S. Mid-Atlantic. In Pacific Seabird Group 40th Annual Meeting Portland, OR.

Kinlan, B., R. Rankin, and C. Caldow. 2013b. Predictive models of the at-sea marine bird occurrence and abundance in the Mid-Atlantic. In Atlantic Marine Bird Conservation Cooperative. Charleston, South Carolina.

http://acjv.org/Marine_Bird_page/workshop_2013/Kinlan_NOAA_NCCOS_Mid-Atlantic_Predictive_Modeling.pdf

Affiliated Web Sites: None.

Revised Date: January 12, 2015

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