ENVIRONMENTAL STUDIES PROGRAM: Ongoing Studies

Region: Atlantic OCS Region

Planning Area(s): All

Title: Building a Database to Assess the Relative Vulnerability of Migratory Bird Species to Offshore Renewable Energy Projects on the Atlantic OCS

BOEM Cost: $68,597.93 **Period of Performance:** FY 2012-2013

Conducting Organization(s): Normandueau Associates, Inc. (M12PD00026)

BOEM Contact: Dr. David Bigger

Description:

Background: The launching of the Secretary's "Smart from the Start" wind energy initiative for the Atlantic OCS is aimed at facilitating the prioritization, rapid siting and leasing of new projects. Experience from onshore wind development and wind development offshore in Europe suggests that siting of facilities is an important consideration for minimizing impacts to bird species.

European researchers (e.g., Garthe and Huppop 2004, Desholm 2009, MacArthur 2012: http://www.scotland.gov.uk/Resource/0038/00389902.pdf) have used a combination of species' attributes (i.e., demographic, flight behaviors, regional abundance, peak migration time, etc…) to rank species vulnerability to collision with wind turbines and habitat loss by offshore wind facilities (displacement). Similar approaches may be appropriate for the Atlantic OCS and may also be coupled with existing distribution and abundance information to further inform the site selection process for renewable energy project in a manner that minimizes adverse effects to birds. There is an additional need to account for demonstrated avoidance of turbines or demonstrated displacement.

This study will quantify the vulnerability of seabirds to collision to offshore wind turbines and to displacement by offshore wind facilities, include a peer-review of the methods, and compile species-specific data to calculate indices of vulnerability for more than 150 bird species.

Objectives: This study will provide a robust method to rank the relative vulnerability of more than 150 bird species to offshore wind energy development off the Atlantic OCS.

Importance to BOEM: The BOEM uses distribution and abundance information of bird species to assist in the environmental review of wind energy areas and in the evaluation

of sites for new offshore projects. Additional information is needed to better assess the relative vulnerability of individual migratory bird species to renewable energy development. Such information coupled with existing information on distribution and abundance can provide a means to assess and advise site selection for renewable energy project in a manner that minimizes adverse effects to birds using the Atlantic OCS. Satisfying this immediate BOEM need will also support future needs including: the interpretation of existing avian survey data for NEPA, the design of future monitoring efforts, and the assessment of impacts due to other activities in on the OCS.

Current Status: Awarded on August 30, 2012. Post award meeting was held on September 21, 2012

Final Report Due: August 30, 2013

Publications: None

Affiliated Web Sites: None

Revised Date: December 11, 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