

# Overview of Atlantic Offshore Renewable Energy Studies Program

Brian Hooker  
Office of Renewable Energy Programs

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# Completed Studies of Interest

- Compendium of Avian Information and Comprehensive GIS Geodatabase
- Effects of Electromagnetic Fields from Undersea Power Cables on Elasmobranchs and other Marine Species
- Mitigation of Underwater Pile Driving Noise During Offshore Construction (TA&R)
- Determining Night-time Distribution of Long-tailed Ducks Using Satellite Telemetry
- Seabed Scour Considerations for Offshore Wind Development on the Atlantic OCS
- OCS Renewable Energy and Space-Use Conflicts and Related Mitigation (June 2012)

# Ongoing: Biological Effects Studies Marine Mammal/Sea Turtle

- Atlantic Marine Assessment Program for Protected Species (AMAPPS) – Joint with NMFS/FWS
- Underwater Hearing Sensitivity in the Leatherback Sea Turtle (*Dermochelys coriacea*): Assessing the Potential Effect of Anthropogenic Noise
- Atlantic Marine Mammal and Sea Turtle Data Search and Literature Synthesis Including Stranding and Nesting Sites
- Characterization and Potential Impacts of Noise Producing Construction and Operation Activities on the OCS (Part I & II)

# Ongoing: Biological Effects Studies Fish and Fish Habitat

- Effects of Noise on Fish, Fisheries, and Invertebrates in the U.S. Atlantic and Arctic from Energy Industry Sound-Generating Activities
- Offshore Electrical Cable Burial for Wind Farms: State of the Art; Standards and Guidance; Acceptable Burial Depths and Separation Distances; and Sand Wave Effects (TA&R)
- *In Situ* Study of Electromagnetic Field Response in Fish (Pacific)

# Ongoing: Biological Effects Studies

## Avifauna

- Potential for Interactions between Endangered and Candidate Bird Species with Wind Facility Operations on the Atlantic OCS
- Surveying for Marine Birds in the Northwest Atlantic
- Automated Analysis of Bird Vocalization Recordings
- Acoustic Monitoring of Temporal and Spatial Abundance of Birds Near Structures on the OCS of the Atlantic and Gulf of Mexico
- Pilot Study of Aerial High-Definition Video Surveys for Seabirds, Marine Mammals, and Sea Turtles on the Atlantic OCS
- Information Synthesis on the Potential for Bat Interactions with Offshore Wind Facilities
- Statistical Guidelines for Marine Avian Studies (NOAA/NOS)

# Ongoing: Environmental Survey and Monitoring Studies

- Roadmap: Technologies for Cost Effective, Spatial Resource Assessments for Offshore Renewable Energy (Sep 2012)
- Developing Environmental Protocols and Modeling Tools to Support Ocean Renewable Energy and Stewardship (Sep 2012)
- Statistical Guidelines for Marine Avian Studies (NOAA/NOS)
- Protocols for Baseline Studies and Monitoring for Ocean Renewables
- Bayesian Integration for Marine Spatial Planning and Renewable Energy Siting
- Evaluating Acoustic Technologies to Monitor Aquatic Organisms at Renewable Sites

# New Starts - 2012

- Evaluation of Lighting Schemes for Offshore Wind Facilities and Impacts to Local Environments
- Determining Offshore Use by Diving Marine Birds Using Satellite Telemetry
- Building a Database to Assess the Relative Vulnerability of Migratory Bird Species to Offshore Renewable Energy Projects on the Atlantic OCS
- The Socioeconomic Impact of OCS Wind Development on Fishing
- Developing Protocols for Reconstructing Submerged Paleocultural Landscapes and Identifying Ancient Native American Archaeological Sites in Submerged Environments
- Atlantic Offshore Wind Development: Public Attitudes, Values, and Implications for Recreation and Tourism

# Meetings and Events

- OCS Scientific Committee
  - Orientation Meeting for New Members (just completed)
  - Evaluation of 2013 Proposals - May 2012
- BOEM Fish Acoustics Workshop – March 2012 ([www.BOEMSoundWorkshop.com](http://www.BOEMSoundWorkshop.com))
- Atlantic Wind Workshop (TBD)

# Questions?

<http://boem.gov/Renewable-Energy-Program/index.aspx>