

Environmental Studies Program: Ongoing Study

Title	Protected Species Database and Information Management (AT-21-03)
Administered by	Office of Renewable Energy Programs
BOEM Contact(s)	Greg Fulling, Ph.D. (gregory.fulling@boem.gov)
Procurement Type(s)	Contract
Conducting Organization(s)	Mysticetus, LLC
Total BOEM Cost	\$226,000
Performance Period	FY 2022-2025
Final Report Due	July 30, 2025
Date Revised	August 8, 2023
PICOC Summary	
<i><u>Problem</u></i>	Protected species observer data collected across BOEM programs are not consistently collected, reported, and managed.
<i><u>Intervention</u></i>	Develop a common platform that data can archived and provided to BOEM. Develop a master database that will store PSO data and will be available to industry protected species observers and other organizations to query and provide data in a standardized way to a centralize location.
<i><u>Comparison</u></i>	Conduct an assessment of data requirements, develop common reporting fields for similar activities, and identify differences across common BOEM and BSEE program areas.
<i><u>Outcome</u></i>	Develop a data management system and web access portal to archive, manage and query information.
<i><u>Context</u></i>	National

BOEM Information Need(s): BOEM compiles protected species data through reporting requirements for geological and geophysical surveys conducted on leases and through other approved plans. Often, these requirements also satisfy reporting requirements under the Endangered Species Act (ESA) and Marine Mammal Protection Act. Survey vessels are often present for weeks, months, or over multiple years conducting survey activities depending on the purpose of the survey (e.g., sand resource characterization or oil and gas surveys). Both mandatory and voluntary reporting from a consistent platform to collect data on protected species and other information such as fishing vessel activity on the Outer Continental Shelf (OCS) would provide a valuable tool to the offshore community and to BOEM. Other federal agencies and non-governmental organizations have expressed interest in the value and analysis of such data. In the Gulf of Mexico, these data have been analyzed and applied adaptively in assessments under the National Environmental Policy Act and the ESA (Barkaszi et al. 2012; Barkaszi and Kelly 2019). Additionally, the National Marine Fisheries Service proposed the creation of standardized forms for seismic surveys within a year of the implementation of the Biological Opinion as part of their non-discretionary terms and conditions during the ongoing Section 7 ESA consultation process for the Gulf of Mexico.

Background: The protected species database will be designed as a centralized database that serves as a long-time data archive of field data collected and will capture visual observation data that will later be used to assess the occurrence and prevalence of offshore species, habitat, and anthropogenic activities. A goal is to more seamlessly integrate data collected across BOEM program areas into a standard format. The standardization of data collection will reduce errors and improve

post-processing time by BOEM. Standardized data will be integrated into a cloud-based database and used for a decision and compliance tool for BOEM.

Objectives: The objective of the project is to create a database with cloud storage solution that can be queried via a web portal. This database will allow industry, PSO providers, and BOEM with the ability to receive and map protected species data across a large range of areas that have been collected during offshore activities. A long-term database management strategy must be included.

Methods: The database should be developed through the best available information from peer-reviewed literature, gray literature, and expert elicitation of federal users, PSO providers, and industry. Existing PSO database collections/platforms may be available to add on to or develop a separate through private software developed independently by Industry or PSO Providers.

Specific Research Question(s):

- What are the data fields required for each BOEM program area?
- What standardized data formats are required for visual data?
- What are the operating and maintenance requirements for the database and web portal?
- What are data storage and access requirements for BOEM, industry, and other partners?

Current Status: The contract was awarded in August 2022. The database is under development and is being populated with protected species observer data. A data portal is also being developed.

Publications Completed: None.

Presentations: None.

References:

Barkaszi MJ, Butler M, Compton R, Unietis A, Bennet B. 2012. Seismic survey mitigation measures and marine mammal observer reports. New Orleans, Louisiana: U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region.

Barkaszi MJ, Kelly CJ. 2019. Seismic survey mitigation measures and protected species observer reports: Synthesis report. U.S. Dept. of the Interior, Bureau of Ocean Energy Management.