

Environmental Studies Program: Studies Development Plan | FY 2023–2024

Title	Pacific Marine Assessment Partnership for Protected Species (PacMAPPS) II (PC-23-02)
Administered by	Pacific OCS Regional Office
BOEM Contact(s)	Desray Reeb (desray.reeb@boem.gov)
Procurement Type(s)	Interagency Agreements
Conducting Organization(s)	National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS), Southwest Fisheries Science Center and Pacific Islands Fisheries Science Center
Total BOEM Cost	TBD
Performance Period	FY 2023–2026
Final Report Due	Hawaiian Archipelago: June 30, 2025 California Current: June 30, 2026 Winter Hawaiian Archipelago: September 30, 2026
Date Revised	August 5, 2022
PICOC Summary	-
<i><u>Problem</u></i>	Up-to-date density estimates for protected species are needed to ensure that environmental assessments are accurate. Prior to PacMAPPS I, these data were several years old.
<i><u>Intervention</u></i>	Collaborate with ongoing NMFS efforts to continue to conduct multiple biological surveys to estimate population densities of endangered or threatened marine species and continue to fill spatial and temporal gaps in current survey efforts
<i><u>Comparison</u></i>	Comparisons between the older existing data sets and this new species density and distribution data will inform trends or changes in environmental variables and/or species densities and distributions.
<i><u>Outcome</u></i>	Up-to-date assessments, including spatial and temporal distribution, of protected species in areas of the Pacific that are of special interest to BOEM
<i><u>Context</u></i>	Southern California, Central California, Northern California, Washington, Oregon, Hawaii

BOEM Information Need(s): BOEM Pacific Region continues to assess environmental effects of existing oil and gas development activities and proposed renewable energy facilities using the best available information. For marine mammals, we often rely on stock assessment reports prepared annually by NMFS. Although these reports are prepared annually, the underlying data supporting these reports may be several years old and NMFS’ Science Center cruise schedules in the Pacific (Southwest, Northwest, and Pacific Islands Fisheries Science Centers) are not necessarily coordinated across species distributions. Likewise, there is limited information on offshore distribution and use of the Outer Continental Shelf (OCS) by other protected species including seabirds and sea turtles. This study supports a Pacific-wide strategic plan for coordinated protected species assessment surveys and derived site-specific analyses relevant to BOEM’s areas of interest.

Background: In 2011, BOEM and NMFS signed a memorandum of understanding whereby both agencies agreed to cooperate and coordinate environmental studies and analyses. Collection and analysis of protected species (marine mammals, seabirds, and sea turtles) data are fundamental needs for both agencies. In 2013, the Marine Mammal Commission recommended that BOEM Pacific Region partner with other state and federal resource agencies, academic institutions, and private researchers to support broad-scale, multi-year, seasonal wildlife surveys. BOEM met with NMFS, U.S. Navy (Navy), and U.S. Fish and Wildlife Service (FWS) representatives from West Coast and Pacific Islands Science Centers and regional offices on March 18, 2016. The objective was to develop a multi-year strategic plan for protected species assessment surveys across the Pacific that would address each agency's information needs. BOEM, Navy, FWS, and NMFS all agreed that the U.S. West Coast (California Current ecosystem) and Hawaiian Archipelago were high-priority areas for protected species survey effort. A white paper arising from the 2016 workshop (<https://www.fisheries.noaa.gov/west-coast/science-data/pacmapps-pacific-marine-assessment-program-protected-species>) described the resulting partnership between our agencies (BOEM, Navy, NMFS) and included a plan (schedule and funding needs) to conduct protected species surveys throughout the North Pacific between 2017 and 2022 and to conduct analyses of these data. That first round of PacMAPPS generated valuable data products (see BOEM 2021; Moore 2021a, 2021b; Oleson 2021a, 2021b). The goal now is to maintain the successful partnership established between our agencies and regions under PacMAPPS, so that we can continue to support ongoing information needs pertaining to accelerating wind energy development planning across the Pacific. To this end, it is time to initiate a new round of protected species surveys and analysis. BOEM's contribution to this effort will help update knowledge about protected species distributions and densities, help fill spatial and temporal gaps from prior survey efforts, and provide important baseline information for eventually evaluating the potential impacts of offshore wind energy development to protected species taxa in the study area.

Objectives: The purpose of this study is to provide up-to-date assessments, including spatial and temporal distribution, of protected species in areas of the Pacific that are of special interest to BOEM. Specific objectives include:

1. Provide updated estimates of population size and maps of animal density, particularly for marine mammal species.
2. Identify oceanographic conditions that influence protected species distribution.
3. Describe how protected species distribution in the Pacific may shift with changing environmental conditions.
4. Identify geographic features that are associated or interact with key life history elements (e.g., feeding, migration, breeding, and birthing).
5. Evaluate the relative importance of protected species habitat on a scale useful for the evaluation of offshore energy projects in the Pacific.
6. Archive survey data in a system that will allow current data to be compared with past and future efforts.

Collection of data across the range of species' distribution provides context for environmental review of offshore projects. A clear understanding of what drives species' use of marine habitats allows us to describe the relative intensity of interactions between protected species and offshore human activities. Both context and intensity are critical components of National Environmental Policy Act reviews.

Methods: NOAA vessels will conduct long-range visual and acoustic line-transect surveys for protected species and collected oceanographic data in the Hawaiian Archipelago ecosystem in Calendar Year (CY) 2023 (circa Aug–Dec). Another survey effort in the California Current ecosystem (Washington through California) will be conducted in CY 2024 (Aug–Nov/Dec). And a third survey effort will be conducted in the Hawaiian Archipelago again, but in winter (to describe animal ecology at that time of year) in CY 2025 (Jan–Mar). The resulting data will be used to support up-to-date stock assessments and derived protected species use and distribution products for areas of interest to BOEM (currently portions of Oregon, central and southern California, and the Main Hawaiian Islands).

Specific Research Question(s):

1. Where do marine mammals live in the Pacific?
2. Why do they live there?
3. What factors can we look at to predict future distribution?

Current Status: N/A

Publications Completed: N/A

Affiliated WWW Sites: N/A

References:

- [BOEM] Bureau of Ocean Energy Management. 2021. Pacific Marine Assessment Partnership For Protected Species. <https://marinecadastre.gov/espis/#/search/study/100179>
- Moore JE. 2021a. Final report of the California Current Ecosystem Survey (CCES) 2018: a PacMAPPS study. Camarillo (CA): U.S. Department of the Interior, Bureau of Ocean Energy Management. 187 p. Report No.: OCS Study BOEM 2021-013. https://espis.boem.gov/final%20reports/BOEM_2021-013.pdf
- Moore JE. 2021b. Technical summary of Pacific Marine Assessment Partnership for Protected Species (PacMAPPS): California Current Ecosystem. Camarillo (CA): U.S. Department of the Interior, Bureau of Ocean Energy Management. 6 p. https://espis.boem.gov/technical%20summaries/BOEM_2021-013.pdf
- Oleson EM. 2021a. Final report of the Hawaiian Islands Cetacean and Ecosystem Assessment Study (HICEAS) 2017 and 2020: a PacMAPPS study. Camarillo (CA): US Department of the Interior, Bureau of Ocean Energy Management. 313 p. Report No.: OCS Study BOEM 2021-042. https://espis.boem.gov/final%20reports/BOEM_2021-042.pdf
- Oleson EM. 2021b. Technical summary of Pacific Marine Assessment Partnership for Protected Species (PacMAPPS): Hawaiian Archipelago. Camarillo (CA): US Department of the Interior, Bureau of Ocean Energy Management. 7 p. https://espis.boem.gov/technical%20summaries/BOEM_2021-042.pdf