



Gulf of Maine Task Force Meeting

Underwater Sound and Protected Species

What sounds will be made?

The major sources of noise include geological and geophysical surveys, vessel noise, and construction noise. **Pile driving** is the loudest sound of concern from the project. Not all project-related sounds are expected to be harmful. Some sounds will only be present during pre-construction data collection, construction, or operations over the life of an offshore wind farm.

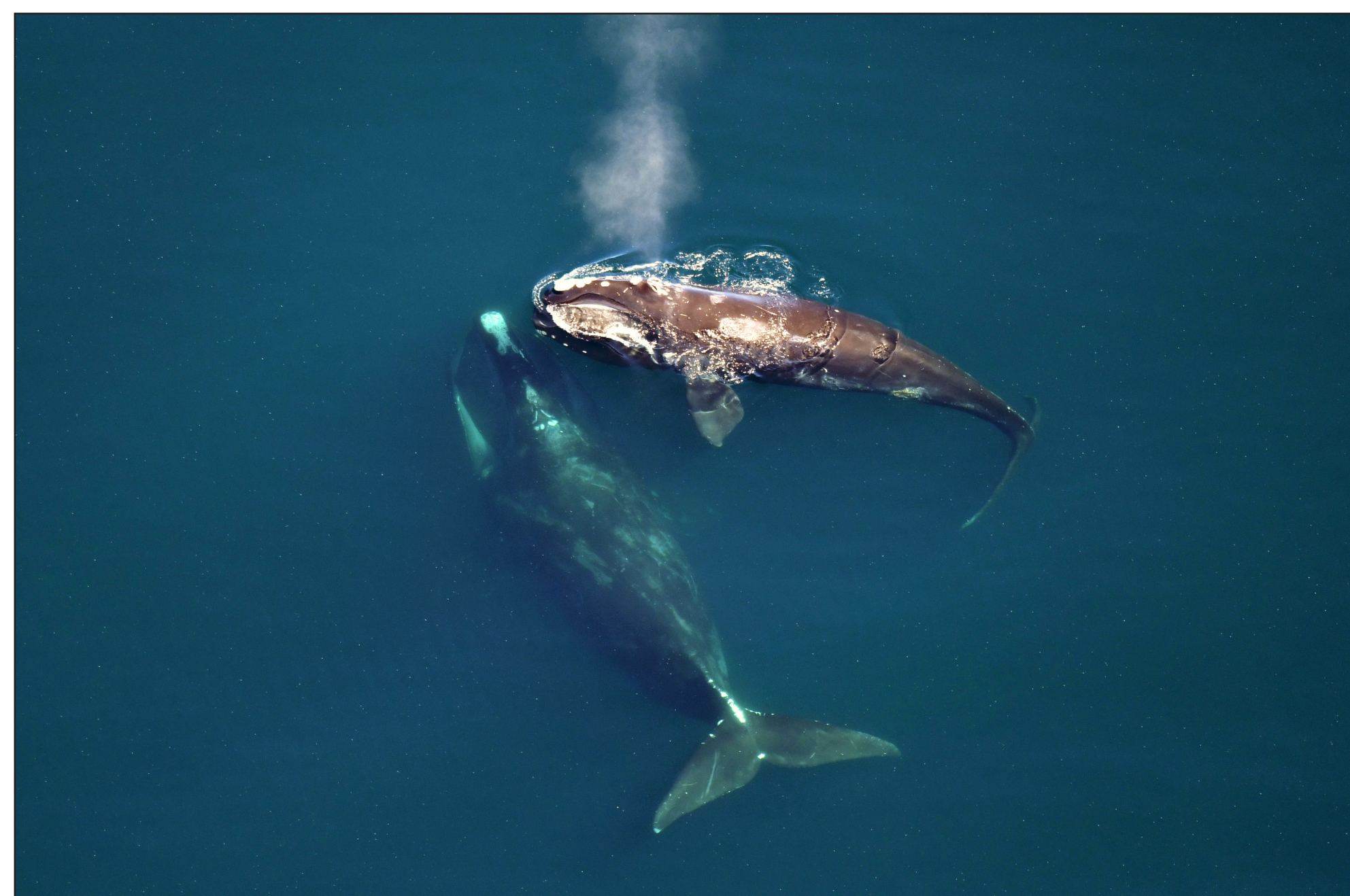


Studies in European waters show that harbor porpoises may leave an area and feed less when pile driving begins, but generally return within weeks after pile driving activities end.

What natural and man-made sounds may be present?

Baseline acoustic studies are needed to characterize:

- Commercial and recreational boats
- Scientific surveys
- Fishing and navigational sonars
- Animal vocalizations
- Wave action, storms



The endangered population of North Atlantic right whales has been declining and is a species of particular concern in offshore wind development areas. BOEM will work with its partners to develop appropriate mitigation, monitoring, and reporting conditions for whales and other protected species.

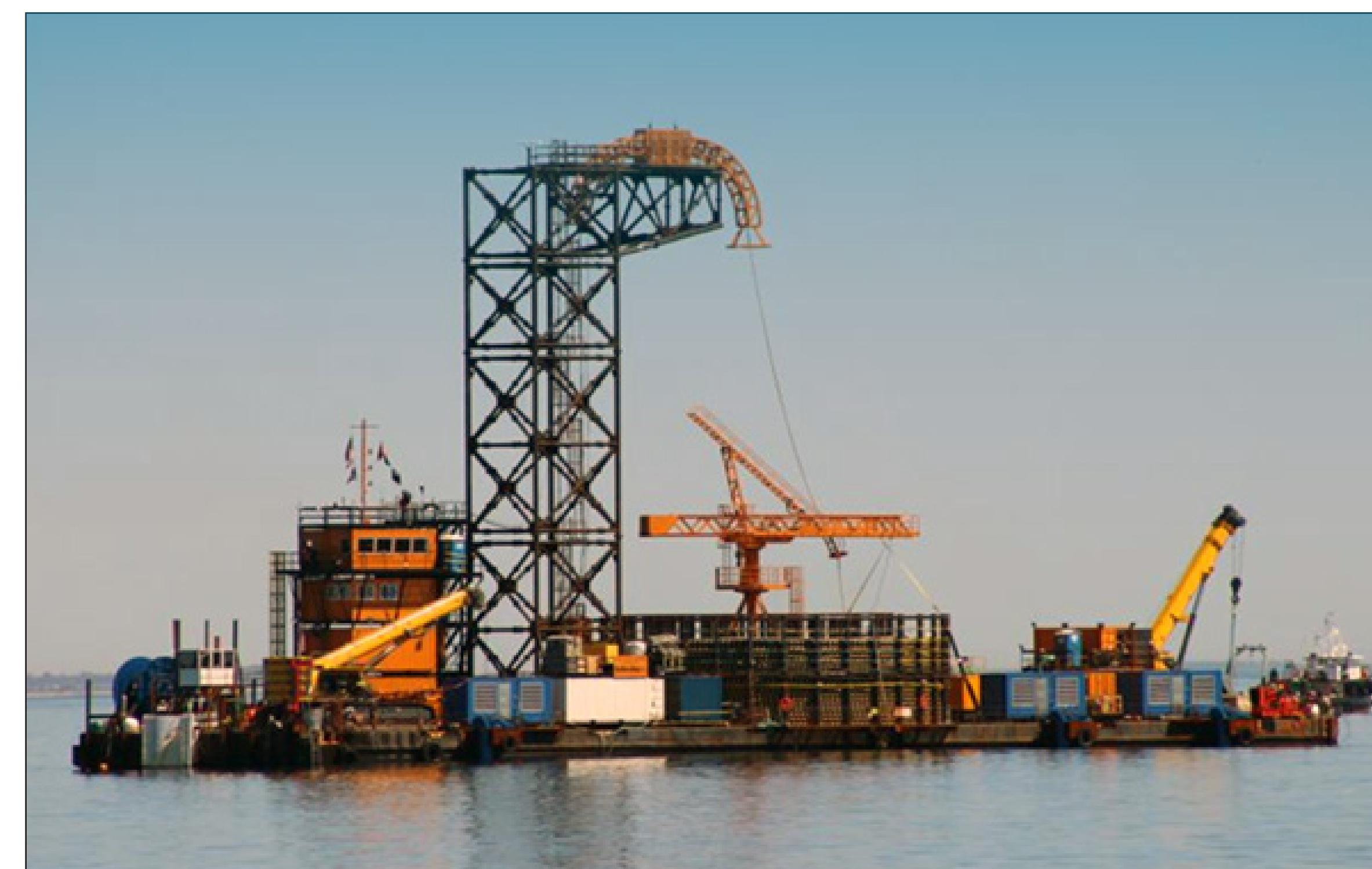
Photo taken under NMFS permit number 19674.

Why is underwater sound an issue of concern?

- Animal communication
- Finding mates
- Navigation
- Feeding (echolocation)
- Avoiding predators/danger
- Man-made impacts to the acoustic habitat
- Public and scientific concern

PROJECT IMPACTS: What sounds will be made?

Not all project-related sounds are expected to be harmful. Some sounds will only be present during some stages over the life of an offshore wind facility.



A cable laying vessel installation an electricity transmission cable.

What information will inform BOEM assessments?

- Baseline measurements of ambient sound levels
- Technical information on sound sources
- Underwater sound modeling
- Animal movement modeling to assess realistic exposures
- The seasonal occurrence of protected species in the lease area
- Information on animal responses to sound
- NOAA guidance on assessing the effects of sound on marine mammals