

## SKQ 2025-15S: Marine Mammal Observer Report

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### Overview

From August 12<sup>th</sup> to August 29<sup>th</sup>, 2025 (17 days), a marine mammal watch was conducted from the bridge of the R/V *Sikuliaq* during the Arctic Collaborative Ecosystem Cruise. The cruise departed ahead of schedule from Teller, AK, and sailed up through the eastern Bering and Chukchi Seas to the western Beaufort (Figure 1) before returning to Nome on August 29<sup>th</sup>. Watches were conducted during daylight hours when the ship was underway and supplemented by periodic scans around the ship when on station. The marine mammal observer was assisted in spotting mammals by the seabird observer and, occasionally, crew and scientists. **The purpose of the watch is to detect marine mammals and identify sightings to species at temporal and spatial scales consistent with oceanographic sampling.** The overarching goal is to improve integration of upper-trophic species' distribution, relative abundance, and behaviors with measures of biophysical variability in the Pacific Arctic marine ecosystem.

A total of ~85 watch effort hours were completed (Table 1). We had many days of heavy fog and/or high sea states. During those periods, the watch was curtailed, even though the observer mainly remained on the bridge and completed periodic scans to look for marine mammals and keep an eye on the weather. There were also days where the boat was primarily on station, and similarly, the observer remained on the bridge in case of a sighting. There were 10 days where no cetaceans were seen and 12 days where no pinnipeds were seen.

**Table 1.**

Hours of watch effort per day (H) and number of sightings / number of animals, by species. GW = gray whale, FW = fin whale, SP = spotted seal, KW = killer whale, and WS = walrus \* Nearest station.

| Date   | H | GW     | FW    | SP | KW    | WS      | Comments                               |
|--------|---|--------|-------|----|-------|---------|----------------------------------------|
| Aug-13 | 5 | 7 / 11 |       |    |       |         | Feeding, *DBO 1.6, 1.8                 |
| Aug-14 | 3 |        |       |    |       |         | Heavy fog all day, *M8, DBO 1.4, 1.2   |
| Aug-15 | 6 | 2 / 2  |       |    |       |         | * DBO 1.1, 2.0                         |
| Aug-16 | 5 |        | 4 / 4 |    | 1 / 8 |         | * DBO 2.1, 2.2, 2.3, 2.7               |
| Aug-17 | 8 |        |       |    |       | 1 / 200 | * DBO 2.4, 3.8                         |
| Aug-18 | 7 |        |       |    |       |         | * DBO 3.7, 3.6, 3.5, 3.4 3.3, 3.2, 3.1 |

|        |   |       |  |       |  |          |                                     |
|--------|---|-------|--|-------|--|----------|-------------------------------------|
| Aug-19 | 5 |       |  |       |  |          | * C15                               |
| Aug-20 | 3 |       |  |       |  |          | * C2                                |
| Aug-21 | 6 |       |  |       |  |          | * IC5, IC6, IC7, IC8, IC9, C1, IC10 |
| Aug-22 | 8 | 1 / 2 |  |       |  | 17 / 201 | * IC11, C4, DBO 4.1n                |
| Aug-23 | 4 |       |  |       |  |          | * DBO 4.5n, 4.6n                    |
| Aug-24 | 3 |       |  |       |  |          | * CK9                               |
| Aug-25 | 5 |       |  |       |  |          | * DBO 5.7                           |
| Aug-26 | 6 |       |  | 1 / 1 |  | 1 / 9    | * DBO 5.3                           |
| Aug-27 | 4 |       |  |       |  |          |                                     |
| Aug-28 | 6 |       |  |       |  | 3 / 26   | * In the Bering Strait              |

### Highlights:

- Gray whales
  - Most gray whales were seen at the beginning of the cruise, at the southernmost part of the track (Figure 1). They were often observed with associated mud plumes in the water, suggesting attempted feeding. Almost gray whales were seen in DBO 1 (Figure 1).
  - Overall, we saw far fewer gray whales than seen in 2024; 15 and 232, respectively. This may be in part due to weather, a shorter cruise duration, or to the ongoing gray whale unusual mortality event (UME).
- Fin whales
  - We saw four total fin whales, all on the same day but as distinct sightings within DBO 2 (Figure 1).
- Spotted seals
  - One spotted seal was seen in the water in the northeastern part of the Chukchi (Figure 1).
- Killer whales
  - We saw a small pod of transient killer whales (Figure 2). There was an unidentified whale in the vicinity, seen near the killer whales. It was thought to be a small humpback whale, but no ID was confirmed.
- Walrus

- Walrus were the most frequently seen marine mammal. When in the ice, we saw a scattering of large and small groups among the floes.
- We also saw a few medium-sized groups in the water (~20) at multiple points along the cruise (Figure 3).

## Notes

Preliminary results from benthic samplers onboard suggest that there was less amphipod biomass north of St. Lawrence Island, which could help explain the lack of gray whale sightings. However, a more thorough analysis should be done, especially considering the gray whale UME. Although the most recent UME was officially declared closed, the 2025 gray whale abundance estimates are the lowest they have been since 1967, when surveys began (Eguchi et al., 2025). Because gray whale abundance is driven by prey biomass (Stewart et al., 2023), these data represent valuable data points for this species in their Arctic feeding grounds.

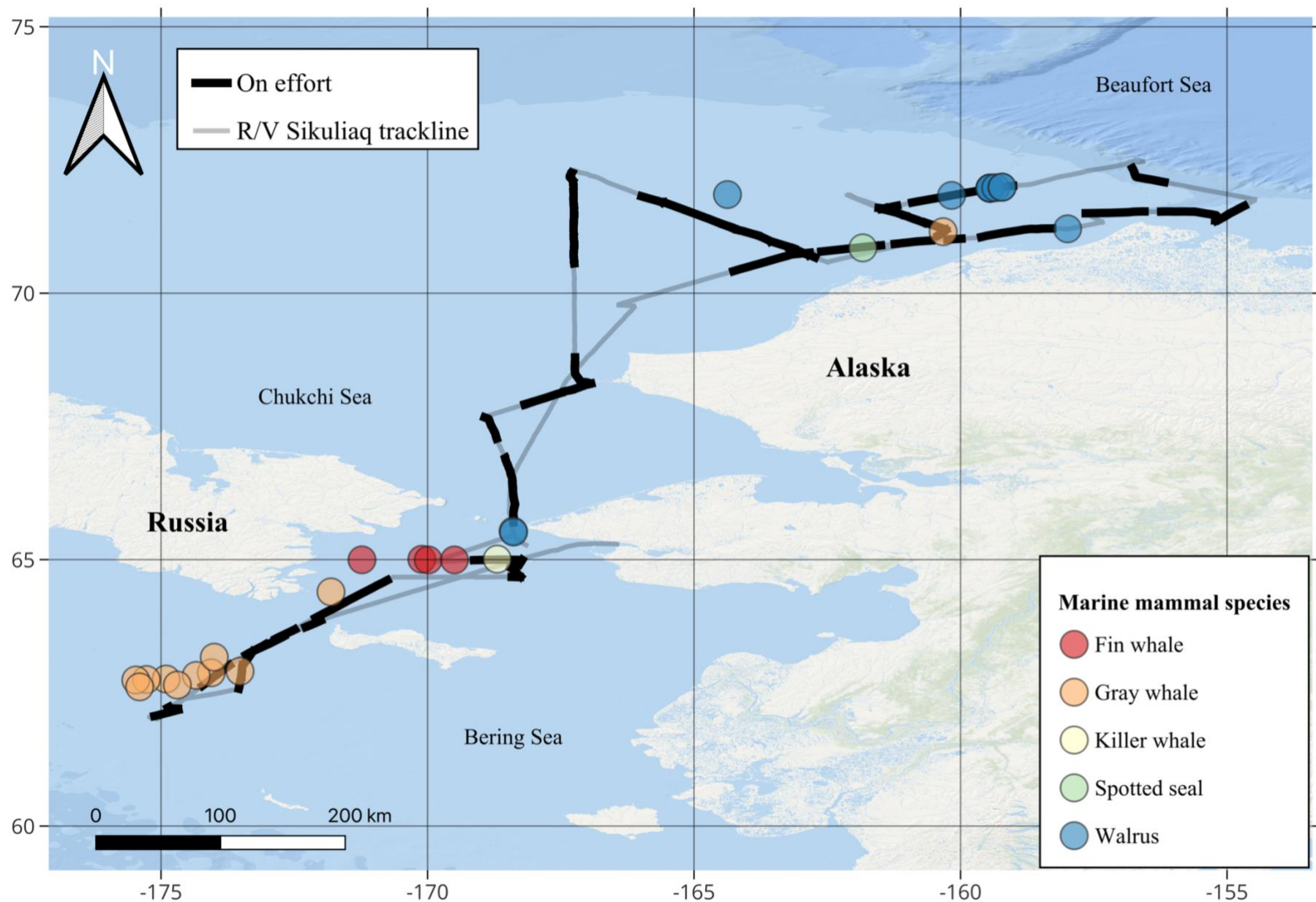
## Acknowledgements

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## Sources

Eguchi, T. et al. (2025). *Abundance of Eastern North Pacific Gray Whales 2024/25*.  
<https://doi.org/10.25923/JQEA-S505>

Stewart, J. D. et al. (2023). Boom-bust cycles in gray whales associated with dynamic and changing Arctic conditions. *Science*, 382(6667), 207–211. <https://doi.org/10.1126/science.adi1847>



**Figure 1.**

A map depicting marine mammal sighting location and species along the track of the R/V Sikuliaq from August 13<sup>th</sup> – 29<sup>th</sup>, 2025. Gray line indicates overall path of ship and black lines represent when seabird and mammal observers were “on effort”.

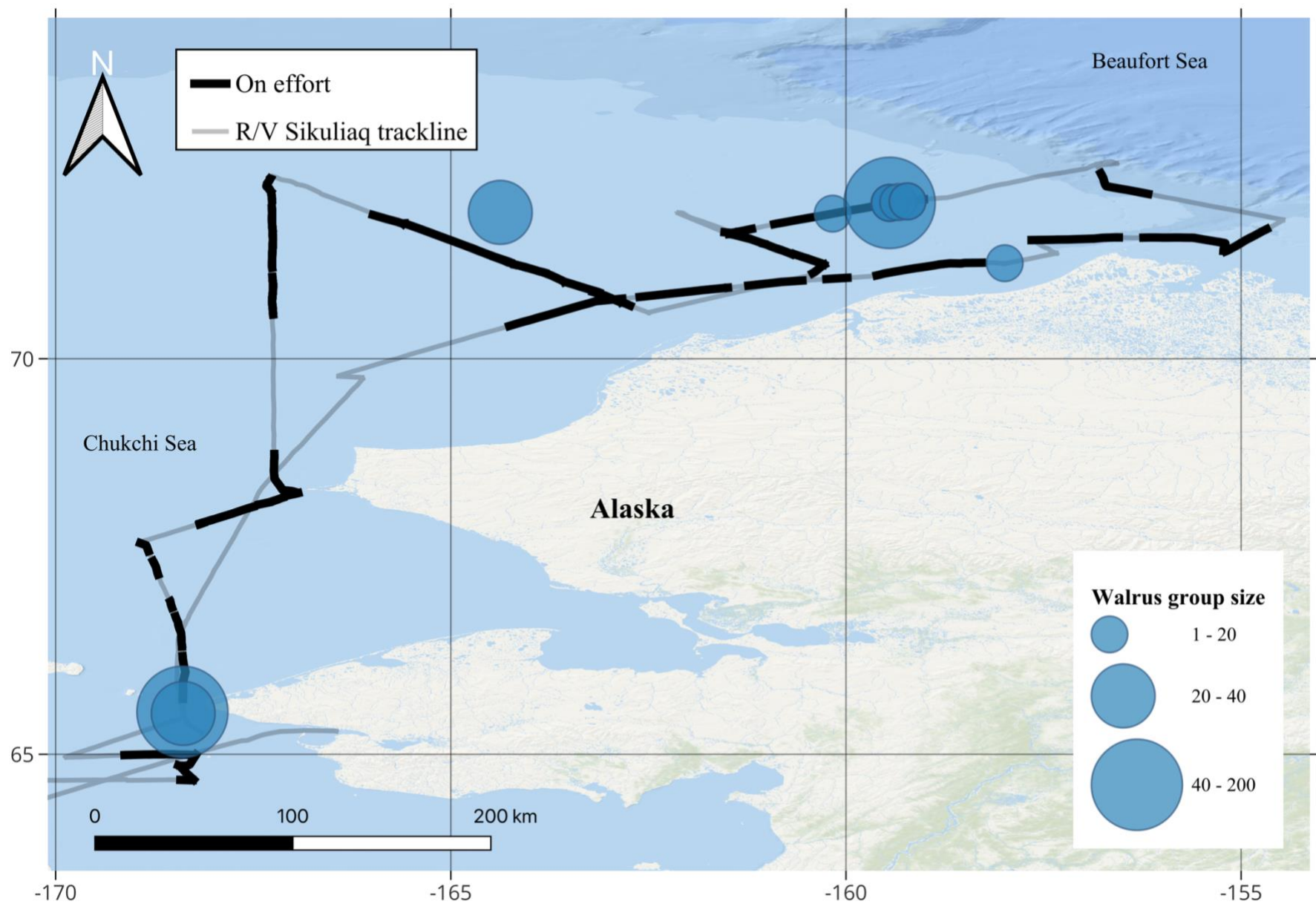




**Figure 2.**

Two of the transient killer whales (*Orca orcinus*) seen near King Island. Total pod size was approximately 5 – 6 animals.





**Figure 3.**

A map depicting sighting location and group size of Pacific walrus (*Odobenus rosmarus*) along the track of the R/V Sikuliaq from August 13<sup>th</sup> – 29<sup>th</sup>, 2025. Gray line indicates overall path of ship and black lines represent when seabird and mammal observers were “on effort”.