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OFFICE OF NAVAL RESEARCH
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IN REPLY REFER TO:

3910
Ser 32OA/075
14 Jul 2023

From: Office of Naval Research, Ocean Battlespace Sensing Department
To: Jolie Harrison, Division Chief, Office of Protected Resources, Permits and Conservation, National Marine Fisheries Service

Subj: Request for Renewal of Incidental Harassment Authorization for Office of Naval Research Arctic Research Activities

Encl: (1) Incidental Harassment Authorization, September 13, 2022
(2) AMOS 2022 Marine Mammal Report, October 26, 2022

1. The Office of Naval Research (ONR) requests a renewal of the Incidental Harassment Authorization (IHA) to cover research activities in the Beaufort Sea from September 14, 2023 to September 14, 2024. The request follows the instructions provided in Encl. (1).

2. DESCRIPTION OF THE ACTIVITY

ONR-supported scientists will continue their research as described in the existing IHA. This will involve acoustic transmissions from leave-behind sources in the time-period September 14, 2023 to September 13, 2024. It is possible that icebreaking activity will take place during cruises in Fall 2023 or Summer 2024. Previous analyses, take estimates, and mitigation and monitoring requirements can remain in place, as the current IHA (year 5) represents the analysis of icebreaking (2 cruises) and acoustic sources.

3. MONITORING REPORT

Under current methodology, the leave-behind sources are not monitored in-situ. During the most recent research cruise aboard the R/V Sikuliaq in Fall 2022 (as summarized in Encl. (2)), the only marine mammals sighted within the ONR study area were ringed seals, walrus, and polar bears. None of these sightings occurred during any source deployments; a walrus approached the ship during two separate stationary retrievals of non-acoustic monitoring instrumentation, which was delayed until the animal moved away. No beluga whales were sighted during the research cruise. Due to a lack of in-situ monitoring for leave-behind sources, it is not possible to know marine mammal acoustic exposures over the course of the IHA coverage period. However, based on previous modeling and research cruise information, it is not expected that impacts of a scale or nature not previously analyzed or authorized would occur due to renewal of the ONR IHA. Inquiries regarding this renewal request should be made to Scott Harper, Office of Naval Research, scott.l.harper5.civ@us.navy.mil, (703) 696-4721.

DR. TOM DRAKE, SES
Head, Ocean Battlespace Sensing Department

AMOS 2022 Marine Mammal Report
Suzanne Yin and Sonia Groves
26 October 2022

From the bridge, we stood visual watches on 41 days, with 30 sightings of marine mammals.

We had ten baleen whale sightings, which included sightings of humpback (*Megaptera novaeangliae*, 1 sighting), fin (*Balaenoptera physalus*, 1 sighting) and gray whales (*Eschrichtius robustus*, 4 sightings), as well as four sightings of unidentified large whales. We were unable to obtain photographs of any of these encounters, as the whales were mostly detected far from the ship. We did not approach for photo-identification of individuals or species determination of the unidentified whale sightings. The majority of our whale sightings were seen at N67°, with two unidentified whale sightings at N71°. No whales were sighted in the AMOS operational area north of N72°. After seeing a flyer on the bridge of the RV Sikuliaq, and after obtaining permission from our chief scientist, Dr. Luc Rainville, we reported our gray whale sightings to Dr. Kate Savage and Dr. Mandy Keough of NOAA Fisheries. Gray whale sightings are of interest due to the ongoing Unusual Mortality Event (UME), which started in 2019, where gray whales been dying in record numbers. Both biologists were very pleased to hear from us and to know that their flyer was still on the ship.

Inside the AMOS operational area, we had one sighting of walrus (*Odobenus rosmarus*) and seven sightings of ringed seal (*Phoca hispida*). We had two on-effort sightings of polar bears (*Ursus maritimus*) and one off-effort sighting of a mother and two cubs by the bridge crew.

South of N72°, we had three sightings of walrus (*Odobenus rosmarus*), one sighting of ringed seal (*Phoca hispida*), one sighting of a bearded seal *Erignathus barbatus*, and five sightings of unknown pinnipeds.

All of the polar bears that we observed were on the ice and looked healthy and well fed. Meanwhile, all of the sighted pinnipeds were in the water; none of the pinnipeds were sighted on the ice. Many of the ringed seals that we observed approached the ship when we were stationary for ice operations or CTD.

Though not our primary focus, we saw at least 6 species of birds, including Glaucous Gull (*Larus hyperboreus*), Black Legged Kittiwake (*Rissa tridactyla*), Northern Fulmar (*Fulmarus glacialis*), Short-tailed Shearwater (*Ardenna tenuirostris*), Thick-billed Murre (*Uria lomvia*), Black Guillemots (*Cepphus grille*) and King Eider (*Somateria spectabilis*). The black guillemots were very interesting as they were in their non-breeding plumage. Thank you to expert bird biologist Michael Force for the bird identifications. We had been asked to keep an eye out for any dead birds as local veterinarians and scientists

were worried about the spread of avian flu, but we did not see any dead birds. We saw very little marine debris.

Thank you very much to the crew of the RV Sikuliaq for your hospitality and professionalism. Thanks to all the AMOS scientists for your camaraderie and sharing of knowledge. It was great to sail with you all.

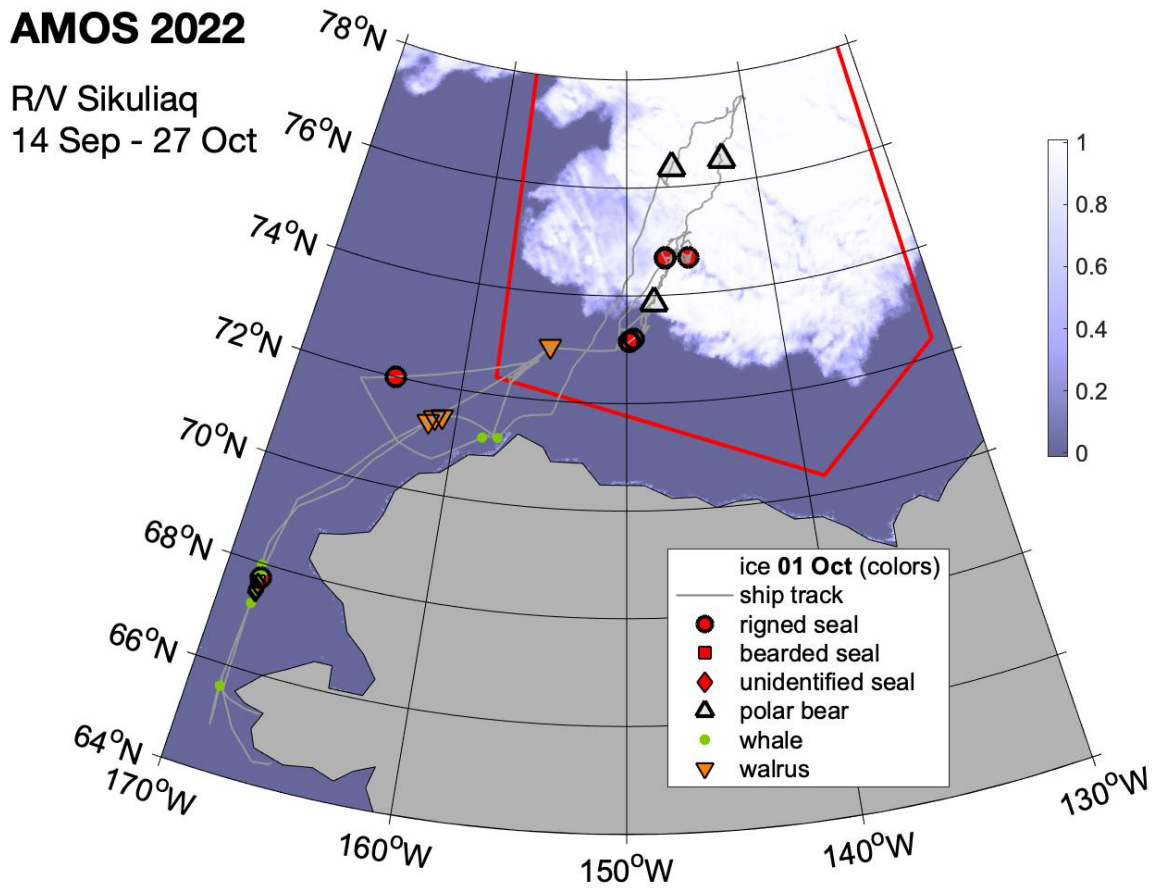


Figure 1. Map of the marine mammal sightings during the AMOS 2022 Sikuliaq cruise. AMOS operational box is shown in red.