A Workshop on Shipping and Fishing Activity in the Arctic

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Receding Arctic ice cover, which has been driven by climate change, is lengthening the shipping season in northern Alaska and elsewhere in the Arctic. This phenomenon is likely to result in expanded shipping, fishing and industrial activity in Northern Alaskan waters, with serious consequences for the stocks of marine mammals upon which native hunters depend for sustenance. Currently, governing entities are attempting to mitigate shipping and fishing impacts on right whale and other marine wildlife in the Northwest Atlantic. Suitable proactive management of Arctic industrial development could reduce or prevent comparable future stresses on the Bering, Chukchi and Beaufort Seas marine animals. A recent fishing ban on Arctic waters has been instituted by the North Pacific Fisheries Management Council until pertinent data are in place. This ban suggests that significant management changes are practical and achievable in the Arctic.

In collaboration with the Department of Wildlife Management (DWM) of the North Slope Borough, which is based in Barrow, Alaska, and with support from the Clark Arctic Research Initiative, we convened a workshop on shipping and fishing activity in the Arctic. This workshop brought key local, state, federal and industry representatives together with researchers and native whalers. Presentations included:

- a review of shipping and fishing industry impacts on North Atlantic right whales;
- efforts to minimize fishing and shipping interactions with whales in the Northwest Atlantic Ocean;
- a summary of current Arctic shipping and future projections;
- evidence of line entanglement and vessel collisions on bowhead whales;
- Arctic oil spill response;
- Arctic fisheries management;
- a consideration of the value of Automatic Identification System network for identifying and tracking ships the North Slope;
- ballast water practices and the risk of invasive species;
- the role of marine pilots;
- management of the entanglement threat to whales in Arctic waters;
- federal options in the response to dead marine mammals in Alaska;
- the role of Marine Protected Areas in Alaska; and,
- a legal framework for protecting bowhead whales in the Arctic.

The workshop resulted in a paper that will be submitted shortly for peer-reviewed publication. The title of the paper is: *"Threatened subsistence hunting resources: Possible strategies to mitigate vessel and fishing gear trauma as industrial activities increase in the Arctic."* The paper is designed as a discussion document for management authorities, native hunters and industrial representatives in order that they may have a cohesive summary of the major issues that will likely develop in coming decades, how comparable threats have been managed in the

Northwest Atlantic and potential solutions to consider. Our hope is that the workshop and paper will guide Arctic development in an anticipatory, proactive manner, thus helping to safeguard the populations of bowhead whales (and other marine mammals) – for the sake of both biodiversity conservation and human subsistence.

Bowhead whale bones, along with the frame of an umiaq, are shown here on the waterfront in Barrow, Alaska.

We wish to thank the donors of the Clark Arctic Research Initiative for supporting this valuable workshop.