



Marine Mammals in the Arctic National Wildlife Refuge

Polar Bear,
US Fish and Wildlife Service

There are at least six marine mammal species that can be found regularly in the Beaufort Sea off the coast of the Arctic Refuge, including the endangered bowhead whale. The other species are: beluga whales, bearded seals, ringed seals, spotted seals, and polar bears.¹ Gray whales, killer whales, harbor porpoise, and Pacific walrus are also present on rare occasions.¹

Should oil or toxic spills occur in or near the sea these can be particularly harmful because oil remains toxic for longer periods in the cold waters. Oil spills remain toxic longer and are more difficult (perhaps impossible) to clean up because it gets trapped in the ice and takes longer to breakdown in cold temperatures. Moreover, it concentrates in open waters in the sea ice and breathing holes where animals surface and congregate.² Importantly, as the Alaska Oil and Gas Association report in their recent publication: "Offshore oil exploration and development have created the potential for oil spills. While extensive prevention measures are in place, it is not possible to totally eliminate the risk of a major spill."³

Another issue of concern is that marine mammals accumulate many of the toxic chemicals in their bodies throughout their lives. When these animals die or are killed these toxins are released in more concentrated doses to the animals who prey or scavenge them. This is a complex physiological process and the severity of the problem depends upon the type of chemical and the sex, age, and species of the marine mammal impacted.^{4,5} There are numerous other potential problems such as fumes from oil affecting marine mammals eyes and respiratory system, and oil fouling the balen of whales.^{4,5}

Noises from industrial activity (seismic work, drilling, etc.) affect marine mammal navigation, social interactions, prey capture, and predator avoidance. Offshore seismic oil exploration and well drilling have already caused significant disturbance to migrating bowhead whales and altered the distribution of ringed seals.^{6,7} Specifically, seismic exploration noise was found to cause whales to deflect from their normal migratory path and avoid these activities by 20 - 30 km or more.⁸ This in turn impacts Inupiat (Eskimo) people trying to hunt bowheads in northern Alaska and is one of the main reasons why they are opposed to offshore oil and gas exploration and development.

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