

WILDLIFE SOCIETY



Arctic National Wildlife Refuge



A polar bear (*Ursus maritimus*) and her cubs at the Arctic National Wildlife Refuge. The 1002 Area is considered an important location for polar bears as an increasing number of pregnant female polar bears den in the area as sea ice melts² (Credit: Susanne Miller, USFWS).

The Arctic National Wildlife Refuge was established in 1960 to preserve unique wildlife, wilderness, and recreational values. Congress enlarged the Refuge to 19.6 million acres and designated 8 million acres of the Refuge including mountains, foothills, and coastal plain as Wilderness in the Alaska National Interest Lands Conservation Act of 1980 (ANILCA).

Potential Oil and Gas Development

Section 1002 of ANILCA required the Secretary of the Interior to assess the petroleum and wildlife values of a 1.5-million-acre portion of the Arctic Refuge coastal plain often referred to as the 1002 Area.¹ ANILCA prohibits oil and gas leasing and production in the 1002 Area unless Congress passes legislation to allow development.² Assessments of the 1002 Area indicate that it may contain substantial amounts of oil and gas.^{2,3} The assessments also found that the 1002 Area is of vital importance to many wildlife species.^{2,3}

Importance of the 1002 Area to Wildlife

The 1002 Area is an area critical to the abundance and diversity of wildlife in the Arctic National Wildlife Refuge. The 1002 Area is located on the coastline of the Refuge and is an important migratory corridor for caribou. Caribou, migratory birds, musk oxen, polar bears, wolves, and many other species use the 1002 Area for habitat.²

ANILCA established the following purposes for the Arctic National Wildlife Refuge¹:

- 1. To conserve fish and wildlife populations and habitats in their natural diversity.
- 2. To fulfill the international treaty obligations of the United States with respect to fish, wildlife, and their habitats.
- 3. To provide the opportunity for continued subsistence uses by local residents.
- 4. To ensure, to the maximum extent practicable water quality and necessary water quantity within the Refuge

The 1002 Area also possesses significant cultural, aesthetic, recreational, and scientific values.² ANILCA requires Congress to balance these values and wildlife uses with the potential impacts energy development in the ANWR may have.

Impacts of Oil and Gas Development on Wildlife

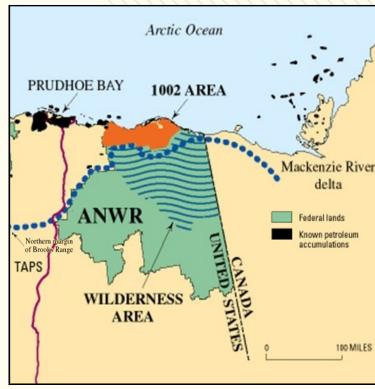
Petroleum exploration and development resulting in industrial activities may have negative effects on those values and wildlife. Adverse effects on some wildlife species of petroleum development at existing oil fields on the North Slope of Alaska have been recorded.^{4, 5}

On the North Slope, important wetland habitat for birds has been filled in by gravel due to energy development.⁴ Studies have shown that the nesting success of eiders is much lower in the oil fields than in other areas.^{4, 6} The introduction of invasive species and habitat fragmentation on the North Slope are also impacting wildlife.^{7, 8}

The impacts of oil development need to be carefully considered due to the unique aspects of wildlife resources and the environment of the 1002 Area. The potential long-term, cumulative effects on wildlife resources and the ecosystem from oil development are unknown.



A musk ox (*Ovibos moschatus*) in the Arctic National Wildlife Refuge (Credit: Hillebrand, USFWS). An abundance of wildlife diversity can be found in the Refuge.



Map of the Arctic National Wildlife Refuge in northeast Alaska (Credit: USGS).

Future Considerations

A comprehensive plan for development of the 1002 Area that provides for an adequate assessment of potential environmental effects and for comparing costs versus benefits of development is needed. Maintaining part of Alaska's Arctic Coastal Plain in an undeveloped state will allow for long-term studies of the effects of climate change in the Arctic on wildlife resources and ecosystem processes. This is especially important because rates of warming in the Alaskan arctic are generally higher than in other regions. The development of a comprehensive plan that considers needs of wildlife in the context of climate change would help reduce potential impacts of energy development.



The Wildlife Society

Government Affairs & Partnerships 425 Barlow Place, Suite 200 Bethesda, MD 20814 policy@wildlife.org

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¹ USFWS. Overview of Refuge Purposes. Arctic National Wildlife Refuge. http://www.fws.gov/refuge/arctic/purposes.html Accessed 5 Nov 2014.

² Corn, M. L., M. Ratner, and K. Alexander. 2012. Arctic National Wildlife Refuge (ANWR): A Primer for

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States and final legislative environmental impact statement: Washington, D. C., U.S. Fish and Wildlife
Service, U.S. Geological Survey, and Bureau of Land Management.

⁴ Gore, A. E. 2009. Broken Promises: The Reality of Oil Development in America's Arctic. 2nd Ed. The Wilderness Society, Anchorage, AK.

⁵ Joly, K., C. Nellemann, and I. Vistnes. 2006. A Reevaluation of Caribou Distribution Near an Oilfield Road on Alaska's North Slope. Wildlife Society Bulletin 34: 866-869.

⁶ Dickson, D. L., and P. A. Smith. 2013. Habitat used by common and king eiders in spring in the southeast Beaufort Sea and overlap with resource exploration. Journal of Wildlife Management 77: 777-790.

⁷ Sawyer, H., M. J. Kauffman, and R. M. Nielson. 2009. Influence of Well Pad Activity on Winter Habitat Selection Patterns of Mule Deer. Journal of Wildlife Management 73: 1052-1061.
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⁹ EPA. 2013. Climate Impacts in Alaska. http://www.epa.gov/climatechange/impacts-adaptation/alaska.html. Accessed 6 Nov 2014.