



THE WILDERNESS SOCIETY

## Oil Development Would Harm Arctic Refuge Wildlife

### *Overwhelming Scientific Evidence Points to Expected Impacts*

Drilling proponents claim that wildlife has not been harmed by development on the North Slope of Alaska and that oil development in the Arctic National Wildlife Refuge would not impact the Porcupine Caribou Herd or other wildlife. However, study after study consistently proves otherwise.

In 2003, the National Academy of Sciences (NAS) released a study<sup>1</sup> that documented major cumulative impacts of oil development on wildlife, wilderness, and Native American cultures across an extensive area of the North Slope.

Even as far back as 1987, the Department of Interior concluded that there would be major impacts to the Porcupine Caribou Herd, muskoxen, water quality and quantity, subsistence, recreation, and wilderness if oil development were allowed on the Coastal Plain of the Arctic National Wildlife Refuge.<sup>2</sup> In 1995, the U.S. Fish and Wildlife Service (FWS) reviewed subsequent biological studies and validated the Interior Department's conclusions.<sup>3</sup> In 2002, U.S. Geological Survey (USGS) biologists released a report based on 12 years of studies that further emphasized the sensitivity of the Porcupine Caribou Herd, muskoxen, snow geese, and other animals to the potential impacts of oil development in the Arctic Refuge.<sup>4</sup>

#### **The Porcupine Caribou Herd**

The Porcupine Caribou Herd migrates seasonally between Canada and the United States and is the largest international migratory caribou herd in the world, with approximately 130,000 animals. Among migratory mammals, their 800-mile long migration is second only to the wildebeests of Africa.<sup>5</sup> According to NAS, the Porcupine Caribou Herd is the most vulnerable to human-induced and natural stresses of all the caribou herds in Alaska. This vulnerability is caused by differences in ecological conditions, including a concentrated calving area and a lack of alternative habitat. If approved by Congress, oil development in the Arctic Refuge would spread across the Porcupine Caribou Herd's most sensitive calving and post-calving habitat: the Coastal Plain of the Arctic Refuge.

The majority of Porcupine Caribou calves are born in the Arctic Refuge. Research has shown that oil development pushes caribou away from their historic calving areas and places stress on the herd while their young are most vulnerable. If the caribou are displaced from their calving grounds, scientists predict that the survival of young calves will decline. Scientific studies have also shown that the free movement of females throughout the entire calving grounds is critical to calf survival.<sup>6</sup>

#### **Polar Bears**

The Arctic Refuge has the highest concentration of onshore denning polar bears in North America and, therefore, the preservation of this region is vital to protect polar bears in the United States.<sup>7</sup> Polar bears are particularly sensitive to oil development, as low reproductive rates of females make polar bear populations highly susceptible to even small reductions in numbers.<sup>8</sup> In addition, human disturbances are correlated with female bears abandoning their dens, which can produce deadly results for cubs too young to survive without their mothers.<sup>9</sup>

## Birds

Millions of migratory birds journey thousands of miles each spring to nest and feed in the Coastal Plain of the Arctic Refuge. Of the 180 distinct species of birds that have been recorded there, 70 species depend on the Coastal Plain for their nesting grounds. The birds travel to the Coastal Plain from six continents and every state in the United States.<sup>10</sup> Oil drilling, with its associated roads, pipelines, processing plants, airstrips, and other industrial facilities, would permanently disturb these species' nesting and foraging habitats. Any decline in the nesting habitat of these migratory birds in Alaska would have significant impacts on the birds' populations; as a result, the decline would be evident in the populations at the wintering grounds and migratory habitat in the other 49 states and beyond.

## Muskoxen

Muskoxen live in the Arctic Refuge year-round, and thus would be particularly vulnerable to winter and spring oil exploration and development. According to FWS and USGS biologists, major impacts from development would include displacement from preferred feeding areas and reduced calving rates, which are already low with females bearing single calves annually.<sup>11</sup>

## Conclusion

Multiple studies have produced overwhelming evidence that demonstrates the negative impacts from existing oil development on North Slope wildlife. These studies also predict substantial harm to wildlife if oil companies are allowed to drill the Coastal Plain of the Arctic Refuge. Scientists have little doubt that opening the Arctic National Wildlife Refuge to oil development would significantly harm wildlife and irrevocably change one of America's greatest refuges.

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<sup>1</sup> National Research Council. 2003. *Cumulative environmental effects of oil and gas activities on Alaska's North Slope*. National Academies Press.

<sup>2</sup> U.S. Department of the Interior. 1987. Clough, N.K., Patton, P.C., and Christiansen, A.C., editors. *Arctic National Wildlife Refuge Coastal Plain Resource Assessment: Report and Recommendation to the Congress of the United States and Final Legislative Environmental Impact Statement*.

<sup>3</sup> U.S. Fish and Wildlife Service. 1995. *A preliminary review of the Arctic National Wildlife Refuge, Alaska, Coastal Plain resource assessment: Report and recommendation to the Congress of the United States and Final Legislative Environmental Impact Statement*.

<sup>4</sup> D.C. Douglas, P.E. Reynolds, and E.B. Rhode, editors. 2002. *Arctic Refuge Coastal Plain Terrestrial Wildlife Research Summaries. Biological Science Report*. U.S. Geological Survey, Biological Resources Division, Biological Science Report USGS/BRD/BSR-2002-0001.

<sup>5</sup> U.S. Fish and Wildlife Service. 2004. Frequently asked questions about Caribou. (Accessed 2/26/05) <http://alaska.fws.gov/nwr/arctic/carcon.htm>. The distance between winter and summer ranges is 400 miles and some animals have been radio-tracked to travel 3,000 miles in a year.

<sup>6</sup> Griffith, B., D.C. Douglas, N.E. Walsh, D.D. Young, T.R. McCabe, D.E. Russell, R.G. White, R.D. Cameron, and K.R. Whitten. 2002. "The Porcupine Caribou Herd." Pg. 8-37 in U.S. Geological Survey. 2002. *Arctic Refuge Coastal Plain Terrestrial Wildlife Research Summaries*. Biological Science Report USGS/BRD/BSR-2002-0001.

<sup>7</sup> Steven C. Amstrup. 2002. Polar Bears. Pages 65-69 in D. C. Douglas, P. E. Reynolds, and E. B. Rhode, editors. *Arctic Refuge coastal plain terrestrial wildlife research summaries*. U. S. Geological Survey, Biological Resources Division, Biological Science Report USGS/BRD/BSR-2002-0001.

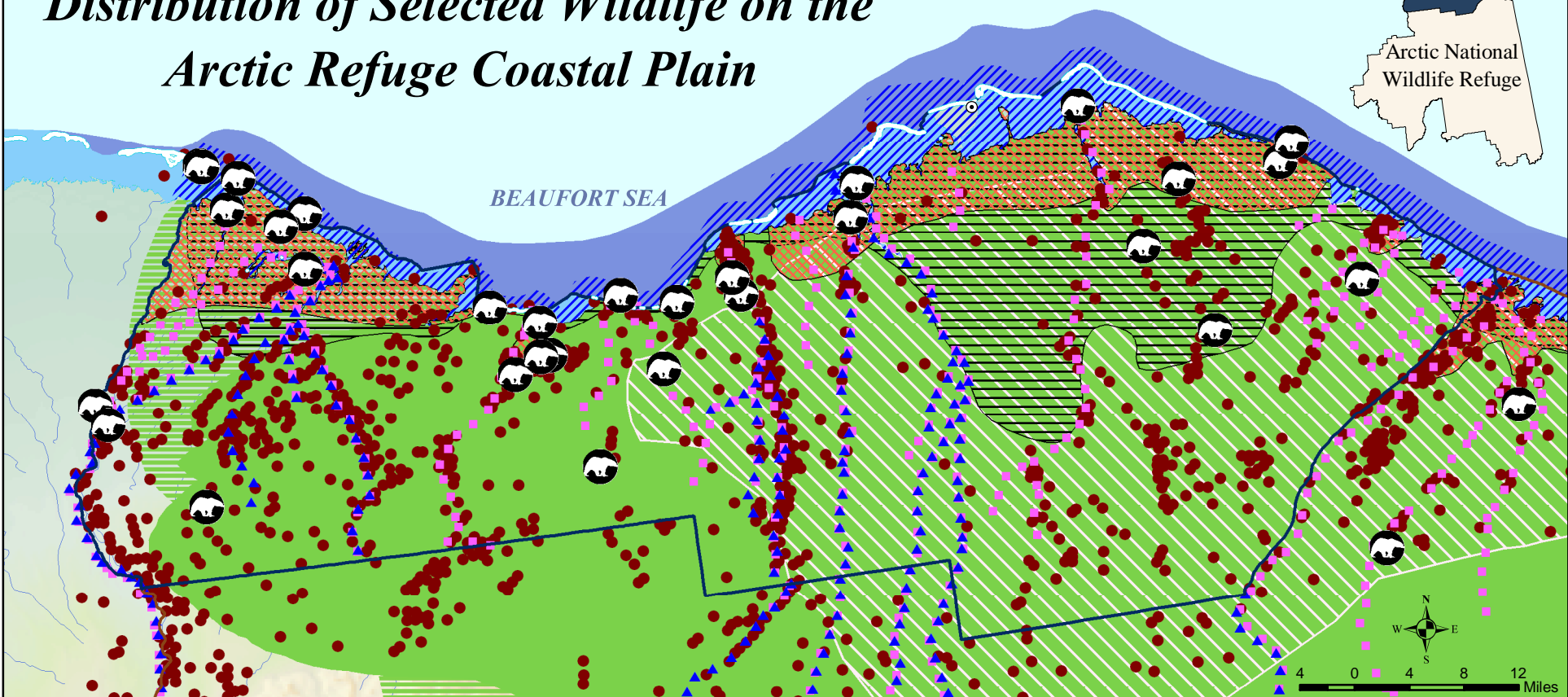
<sup>8</sup> Servheen, C., S. Herrero and B. Peyton. 1999. Bears, Status Survey and Conservation Action Plan. IUCN/SSC Bear and Polar Bear Specialist Groups. IUCN, Gland, Switzerland and Cambridge, UK.

<sup>9</sup> U.S. Department of Interior. 1987. Clough, N.K., Patton, P.C., and Christiansen, A.C., editors. *Arctic National Wildlife Refuge Coastal Plain Resource Assessment: Report and Recommendation to the Congress of the United States and Final Legislative Environmental Impact Statement*. P. 129.

<sup>10</sup> US Fish and Wildlife Service. *Arctic National Wildlife Refuge: Fast Facts*. <http://arctic.fws.gov>.

<sup>11</sup> U.S. Fish and Wildlife Service. 1995. Muskox (Ovibos moschatus). Species Fact Sheet, Wildlife Biologue Series. <http://training.fws.gov/library/Pubs/muskox.pdf>.

# Distribution of Selected Wildlife on the Arctic Refuge Coastal Plain



## Mammals

**Polar Bear** - Maternity dens located 1981-2002

**Muskoxen** - Distribution of radio-collared animals

## Porcupine Caribou Herd

Extent of calving 1983-2000

Post-calving nursery area (cows and calves)

## Fish

**Arctic Grayling** - Spawning, rearing, migration

**Dolly Varden** - Rearing

**Dolly Varden** - Coastal feeding, migration

## Migratory Bird Use of Coastal Habitats

**Snow Geese** - Fall staging distribution 1982-1993

**Tundra Swans** - Nesting and feeding

**Inshore Waters** - Feeding, migration by Common and King Eiders, Long-tailed Ducks, other waterfowl, Phalaropes.

**Barrier Islands, Beaches, Spits** - Nesting Common Eiders, Arctic Terns, Glaucous Gulls, Black Guillemots, Snowy Owls. Fall migration by Ruddy Turnstones, Sanderlings, Phalaropes.

**Coastal Lagoons** - Tundra Swans, Black Brant, 31 other species. Breeding, feeding by Yellow-billed, Pacific, Red-throated Loons. Molting by Scoters and up to 35,000 Long-tailed Ducks.

**River Deltas, Freshwater and Salt Wetlands** - Migration, feeding by Black Brant, waterfowl, loons, shorebirds.