



Avian Species

Every year, thousands of avian species migrate to the Coastal Plain of ANWR. There they find a prime, pristine arctic breeding ground that exists as an abundant source of nutrition and nesting territory. Many of the birds that travel up to thousands of kilometers to this land are threatened or endangered species. Five species that fall into this category are the tundra swan, buff-breasted sandpiper, pigeon guillemot, sea duck, and snow goose.

Collectively, the critical time periods for courtship, breeding, and fledgling maturation or molting in the case of the sea duck occur between the months of April and November. Therefore, it is repeatedly suggested that human disturbances be limited throughout those months. The main disturbances to be concerned about are those caused by oil-drilling development such as exploration, extraction, and transportation tactics.

It has been reported by several sources that many species, especially the tundra swan and snow geese populations, are significantly affected by noise pollution. In fact, tundra swans are so sensitive that they will abandon nests, and snow geese will often not return to areas where noise repeatedly disrupts the environment. Other species such as the sea duck are more vulnerable to seismic activity that is employed for the purpose of exploration. In addition, although oil spills are becoming less common and smaller in volume as technology improves, they continue to pose a major threat to the birds that inhabit the 1002 area every summer.

[Tundra Swan](#)

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Avian Species - Tundra Swan

General Information

Twice a year, Tundra Swans migrate 6,000 km between breeding areas in Alaska and The Canadian Arctic and wintering areas in eastern and western North America. Approximately 150 pairs of tundra swans nest on the coastal plain. Tundra swans feed on the following plants: foxtail and other grasses, wild celery, pondweeds, smartweeds, square-stem spike rush , arrowhead, coontail, mermaid weed, muskgrasses, bulrushes, horsetail, wigeon grass, and bur reed. Rice and barley are eaten in stubble fields. Tundra swans also feed on waste corn in both dry and flooded fields and upon harvested potatoes. These swans commonly fly as far as 10 to 15 miles (16-24 km) inland to glean waste corn and soybeans and to browse upon shoots of winter wheat. Animals that prey on tundra swans include: Golden Eagles, jaegers, wolves, foxes, and bears.

Critical Time Periods

Tundra swans start nesting between May and late June, depending on location and weather. During fall migration, tundra swans leave their major breeding grounds in the 1002 area in late September and early October. For their spring migration, tundra swans leave their central California winter grounds in mid-February, and most of the birds have departed within 3 weeks. By early April almost all of them have migrated north to Alaska and Canada.

Sensitivities

Scientists believe that new Tundra swan pairs are less likely to establish themselves on lakes where humans reside. They are extremely sensitive to noise pollution and as a result, inadvertent disturbance can cause adult swans to abandon their nests and cygnets.

Avian Species - Snow Geese

General Information

This species migrates to the 1002 region of ANWR every year for two to four weeks before continuing on a 1300 mile journey to Northern Alberta. Their time spent on the North Slope is critical to their survival since they need to store nutrients for their long migration path. As many as 500,000 species migrate to the region each year. These birds are herbivores, feeding on cotton grass. A major predator is the arctic snow fox.

Critical Time Periods

Lesser snow geese migrate to the 1002 region late August to mid-September

Sensitivities

Studies have been done that display the birds; sensitivity to noise pollution. They are easily disturbed by noise-producing activities, which could present a major problem for oil drilling. Repeated disruptions cause the birds to not return to the same area, which can significantly reduce the amount of food available to them. This affects their survival rate since their flight to their next stop is so intensive and they need to store up on energy.

Avian Species - Sea Ducks

General Information

Sea ducks visit the 1002 region for 2 to 4 weeks every year. While they do not breed here, they use the area for molting purposes. Anywhere from 10,000 to 30,000 birds visit the region each year. Predators include the arctic fox and glaucous gulls.

Critical Time Periods

Sea ducks visit the 1002 region from mid-July to mid-September.

Sensitivities

There has been a decline in the number of sea ducks and other marine birds in the area, which raises concern about the impact that oil drilling will have on them, especially if there is a spill. Sea ducks are especially vulnerable during their stay on the North Slope because the time they spend there is for molting. This leaves them unable to fly for 3-4 weeks. Molting also requires a large amount of protein to grow new feathers. Oil drilling could potentially disrupt the ducks' foraging capabilities, depriving them of much needed nutrients. However, one study showed that the ducks' foraging patterns are not significantly altered by minor disturbances, which perhaps suggests that oil drilling will not have a large impact on them. Another study that was performed showed that seismic activity does disturb ducks. Their results show a decline in population in a certain area where seismic activity starts, although underwater seismic activity had no effect on them.

Avian Species - Buff Breasted Sandpiper

General Information

Although not a common species, buff-breasted sandpipers have been occasionally found in groups of 500-2200 in migration and on their wintering grounds. Their populations suffered tremendously from the settling of the Great Plains of North America and the Pampas of South America.

Critical Time Periods

The Buff-Breasted sandpipers arrive in their Alaskan breeding grounds in mid April and vacate their breeding grounds in mid-July.

Sensitivities

The future of this species is quite threatened. By viewing the population density map below, one can see that the 1002 area is crucial to the survival of this species.

Avian Species - Pigeon Guillemot

General Information

This species resides in rocky coastal areas, with shallow inshore waters as its feeding grounds. Nest cavities are found amongst holes and rock crevices on the West, North, East, and South sides of Great Race Rocks. Some habitat for nesting was created years ago when blasting for the helicopter pad produced rubble that they could tunnel under. Some predators include: Seagulls, Bald eagles and river otters. The Pigeon Guillemot's diet consist of Gunnels, pricklebacks, ronquils, sculpins, flatfish, rockfish, small crustacea, squid, sand lance, smelt, juveniles of cod, herring, pollock, and salmon. Due to their rather low population, great efforts are being taken to keep predators away from the Pigeon Guillemot—primarily foxes, which are their major natural predators.

Critical Time Periods

Pigeon Guillemots begin to return to their breeding grounds in April. In May, most of the birds are present at their colonies and courtship begins. Eggs are generally laid between May and June, while fledging occurs between July and August, taking anywhere from 55 to 100 days.

Sensitivities

While research has not shown this species to have many sensitivities, one very prominent sensitivity is that to oil. Because guillemots feed in shallow, nearshore waters, guillemots and the fish and invertebrates on which they prey are vulnerable to oil pollution. As a result, an estimated 10-15 percent of the spill area population may immediately following the spill, according to information from past spills.

