

Delicate balance: snow geese, lemmings, arctic foxes

by Robin West

April 17, I saw some of the first snow geese arriving on the Kenai River Flats near Warren Ames Bridge. Along with small flocks of Canada and white-fronted geese, and a few mallard and pintail ducks, these migrating birds signal that Spring is indeed arriving. Over the past several years people have questioned whether the snow geese are returning in the numbers that they used to.

People seemed most interested in this type of information when the City of Kenai was sponsoring their \$10,000 Snow Goose Classic. While we don't know exactly how many birds will return each year, or when they will first arrive, we do know quite a lot about the overall health of the snow goose population and where these birds spend most of their lives. And while we are fortunate to be able to see these birds essentially every year, only a small proportion of the approximately 90,000 Wrangell Island snow geese ever pay us a visit.

Snow geese returning to the Kenai River Flats each spring are heading to nesting grounds on Wrangell Island located about 90 miles off the northeast coast of Siberia in Russia. They are returning from wintering areas in the Central Valley of California, or from the Skagit River coastal area near northern Washington and southern British Columbia. Most of the birds returning up the Pacific Coast, and to the Kenai River Flats, are from the Northern (Washington - B.C.) wintering area. The majority of the California wintering snow geese migrate through the Canadian prairies and Arctic Alaska on their return to Wrangell Island.

The Northern and Southern wintering geese can usually be distinguished from one another by the red staining that occurs on the Northern birds' heads and necks, which is caused by feeding on grass roots and tubers in wet iron-rich soils. We see this red staining on many of the birds passing through our local area.

Many of the birds stopping to feed for a few days before resuming their journey are last year's young; these yearlings are more grayish in color than the nearly pure white adults.

The snow geese arrive on Wrangle Island in mid to late May and complete their nesting in June. Young family groups leave the nesting colony and go to the

northern coast of the island by early July and begin returning to wintering areas in August and September. While these birds are rarely seen on their return flights in the Kenai area, many will stop for a spell in Western Alaska near the Yukon-Kuskokwim River Delta.

The population status of these birds has not always been the best, declining from approximately 150,000 birds in 1970 to a low of about 56,000 geese in 1975. For the past several years, however, the birds have been doing well, increasing steadily since 1994.

The life of a snow goose is not always easy. Late springs and bad weather in nesting colonies can essentially eliminate successful nesting in any given year. Arctic foxes can take as many as 80 percent of the eggs, and an additional 30 percent of the goslings may be taken by snowy owls, foxes, and glaucous gulls.

Historically humans have also taken their toll. Until the 1950's there were two distinct snow goose colonies on Wrangell Island, but Russian geologists and settlers decimated one of the colonies by using the birds for food. Out of concern for the geese, the Russian government designated the island as a "Zakaznik" (emergency nature reserve) in 1961. Full fledged "Zapovyednik" (wildlife preserve) status came in 1976.

Goose hunting was closed in 1976 on the island, and throughout the whole Magadan District, but the new regulations also eliminated fox trapping, and 200-600 foxes had generally been taken each year in the past. Increasing fox numbers increased the rate of predation in the snow goose colony, particularly in years of low lemming numbers when goose eggs and goslings were the only abundant food available.

Over the years a balance seems to have been struck that has allowed the snow geese and Arctic fox to both prosper on their island home, but the nature of their existence is somewhat cyclic and some years are certainly better than others.

How many snow geese arrive on the Kenai River Flats each spring, and how long they stay is largely a function of how break-up is progressing throughout their migratory path. If the Flats open up early, and before other coastal areas, we can expect good numbers of the snow geese to stop over.

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