



## THE LAND

Nowitna Refuge is one of four refuges (Nowitna, Innoko, Kanuti, and Koyukuk) in Alaska's interior encompassed by a solar basin characterized by encircling hills, light winds, low rainfall, short warm summers and severe winters. The Yukon River forms the refuge's northern boundary; low lying foothills of the Kuskokwim Mountains border the refuge on the south. The Nowitna River, a nationally designated Wild River, bisects the refuge and forms a broad meandering floodplain.

The topography varies from flat lowlands dotted with wetlands to rolling hills capped by alpine tundra. A large portion is covered by taiga, a boreal forest which is common in northern latitudes of North America and Eurasia. White and black spruce dominate the forests, the former growing to over 80 feet along the Nowitna River. Large deciduous trees include paper birch and balsam poplar. Smaller trees include birch, alders and willows. In spring and summer, the land is carpeted with wildflowers including bluebells, wild irises, monkshood, fireweed, yellow and dwarf pond lilies and wild roses.



yellow pond lily and baby goldeneye



moose



white-fronted goose and goslings

## DIVERSITY OF WILDLIFE



northern red-backed vole

Moose, a staple in the diet of the local people, are common in the Yukon and Nowitna floodplains. Caribou are uncommon, occurring occasionally in the more open country of the southern foothills. Predators (bears, foxes, wolves, and lynx) range throughout the refuge. Both black and grizzly bears are present, the former being very common.

Nowitna's old growth white spruce forests support a high population of pine marten that forms the backbone of the local trapping industry. Other members of the weasel family include the elusive wolverine, river otter, least weasel and short-tailed weasel or ermine. Red fox and lynx are important predators whose abundance is influenced markedly by population fluctuations of a preferred prey, the snowshoe hare.

Other mammals include beaver, muskrat, porcupine, red squirrel, northern flying squirrel, northern bog lemming, meadow jumping mouse, four species of shrews and five species of voles. The northern red-backed vole is probably the single most abundant mammal on the refuge, though other rodents may predominate in particular habitats. Small mammals such as voles are of immense ecological importance. Their combined weight exceeds that of all large animals, including the mammalian and avian predators whose lives are interwoven in a complex ecosystem.

Howl



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regulations:

Information on state hunting/fishing

FOR ADDITIONAL INFORMATION

## NOWITNA National Wildlife Refuge



marten

The Nowitna National Wildlife Refuge was established in 1980 to conserve a diverse array of wildlife and habitats. It comprises approximately 2.1 million acres of wetlands, boreal forest and tundra. The refuge lies 150 miles west of Fairbanks in the central Yukon Valley.

## BIRDS

The observant visitor is likely to see several birds-of-prey including the bald eagle, northern harrier (marsh hawk), rough-legged and red-tailed hawk. The latter is the most common and may occur in a light or dark (Harlan's) color phase. Two large owl species, the great horned and great gray, are often seen along rivers and streams. Other owls include the northern hawk-owl (a long-tailed owl), short-eared owl (often seen patrolling wetlands) and the forest-loving boreal owl (smallest of the refuge owls).

Thousands of ponds and lakes and many miles of rivers and streams support a variety of waterfowl species. The most spectacular waterfowl are the trumpeter and tundra swans. Nearly all of the swans nesting on the refuge are trumpeter swans. Both Canada and white-fronted geese are present but white-fronted geese far outnumber Canadas. Large mixed flocks of adult and young geese may be seen along riverbanks in the summer.

The most common nesting ducks on Nowitna Refuge are American wigeon, mallard, northern pintail, northern shoveler, green-winged teal, common goldeneye and greater and lesser scaup. Other species you may see include bufflehead, common and red-breasted merganser, canvasback, Barrow's goldeneye and black, surf and white-winged scoters.

Arctic and common loons are prevalent nesters. Sandhill cranes, along with common loons, give the refuge some of its most hauntingly beautiful sounds. You may frequently observe shorebirds, including spotted sandpipers, lesser yellowlegs, semipalmated plovers and common snipe. Several gulls such as the mew, herring and Bonaparte's, can be observed near refuge wetlands. Graceful arctic terns vigorously defend their nests, usually located on river sandbars, against intruders.

Belted kingfishers nest in riverbanks, but the commonly observed clusters of burrows belong to bank swallows. You may notice enlarged burrows that are evidence of bear predation. Cliff, tree and violet-green swallows also can be seen. The common raven and gray jay are among the nearly two dozen species which remain on the refuge throughout the winter. Woodpeckers include the downy, hairy, northern three-toed, black-backed and northern flicker. Willow and rock

ptarmigan are also present. If you hear a drumming sound in the spring, it is probably a ruffed grouse advertising for a mate. Spruce grouse are also common.

Many small perching birds, or passerines, nest on the refuge. Robins, Swainson's and gray-cheeked thrushes, Wilson's and yellow warblers, northern waterthrushes; and American tree, white-crowned and savannah sparrows are the most abundant passerines. During the summer, Nowitna's varied habitats support over 125 avian species. The number drops dramatically to a few dozen during the winter. A refuge bird list may be obtained by writing to the refuge headquarters.



great gray owl

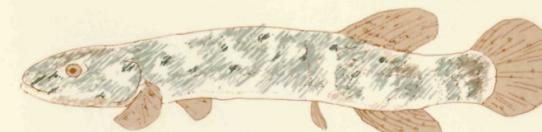


great horned owl

## FISH

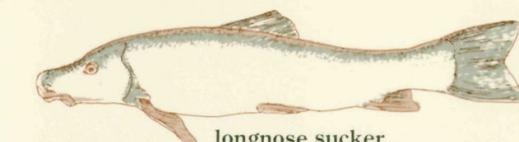
The Nowitna's most conspicuous fish is the voracious northern pike present in the mid-to-lower reaches of almost all streams and in many lakes. They are a popular sport fish that can attain weights of over 20 pounds. Sheefish, sometimes call "tarpon of the north," are also present in refuge streams. They are an excellent sport fish providing opportunities commonly in the 10-15 pound class. They are prized for their sweet, white and tender flesh. Like salmon, sheefish are usually anadromous; spending parts of their life cycle in both fresh and ocean waters. However, the Nowitna River supports one of only three known non-migratory populations of sheefish in Alaska.

The arctic grayling can be found in most clear water streams on the refuge. Grayling are easily recognized by their large dorsal fin. Other fish on the refuge include burbot, least cisco (one of Alaska's most abundant fishes), Bering cisco, lake chub (Alaska's only minnow), longnose sucker, ninespine stickleback, slimy sculpin, Alaska blackfish, arctic lamprey, and broad, round and humpback whitefishes.



Alaska blackfish

Displaying tolerance of extreme cold, the Alaska blackfish can survive after parts of its body, including the head, have been completely frozen.



longnose sucker

Though primarily a bottom feeder, longnose suckers occasionally feed upside down on terrestrial insects floating on the surface of small "whirlpools" or eddies.

