

U.S. Fish & Wildlife Service

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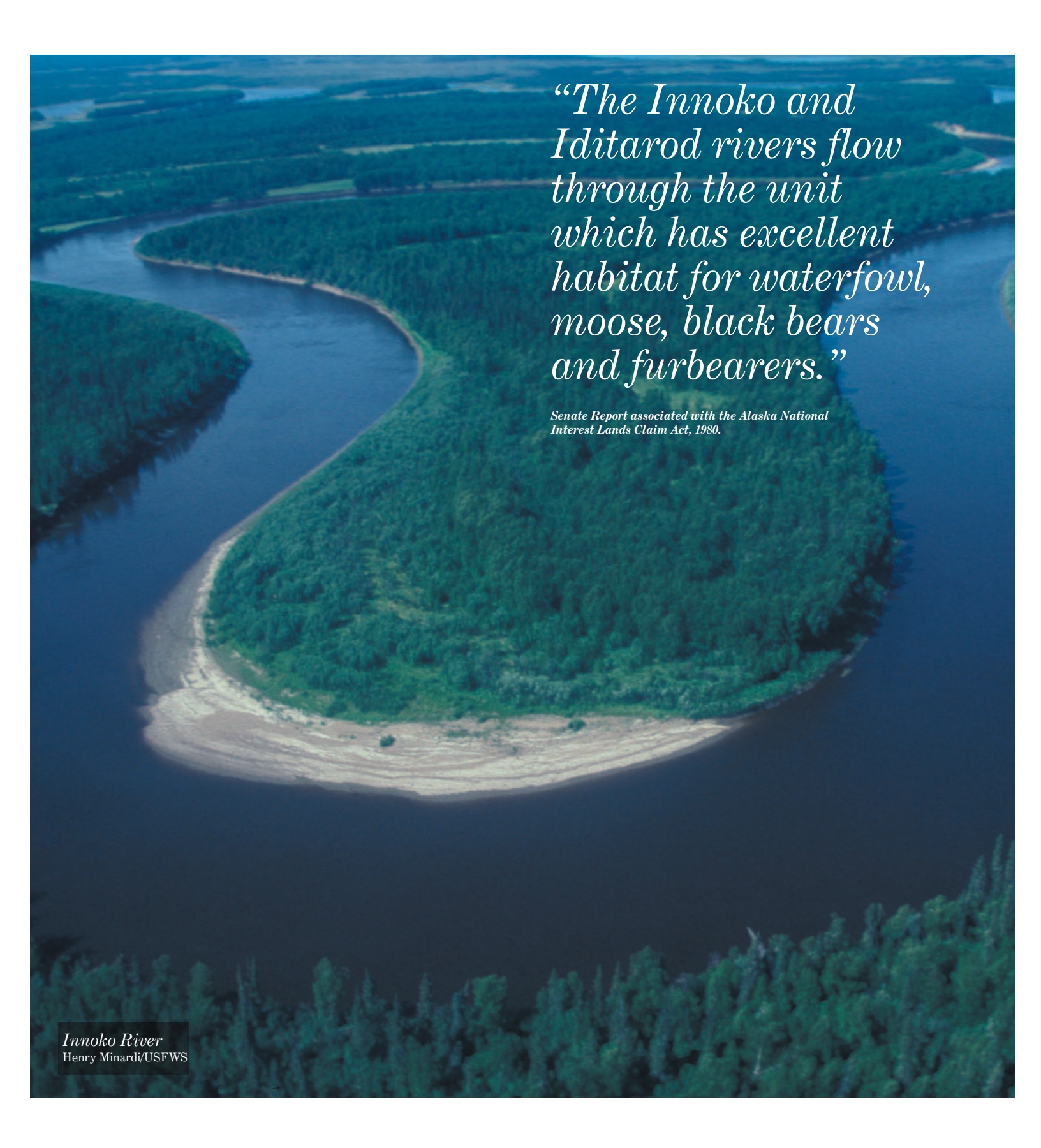
**U.S. Fish & Wildlife Service
1 800/344 WILD
<http://www.fws.gov>**

January 2003

Innoko *National Wildlife Refuge*



White-fronted Geese
©Gary Kramer



*“The Innoko and
Iditarod rivers flow
through the unit
which has excellent
habitat for waterfowl,
moose, black bears
and furbearers.”*

*Senate Report associated with the Alaska National
Interest Lands Claim Act, 1980.*

Innoko River
Henry Minardi/USFWS



This flying "Blue Goose" (a stylized Canada goose) was designed by renowned cartoonist and conservationist J.N. "Ding" Darling in 1935. It has become the symbol of the National Wildlife Refuge System.

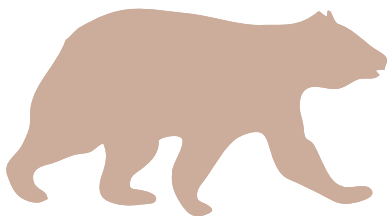
Managed by Forces of Nature

The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

The Innoko National Wildlife Refuge in Interior Alaska

Remote and isolated even by Alaska standards, the 3.85 million acre Innoko National Wildlife Refuge is one of the most important waterfowl areas in Interior Alaska. The refuge provides nesting and molting habitat for hundreds of thousands of geese, ducks, loons and swans. It also provides excellent habitat for moose and a large variety of raptors. Rich in history and natural resources, the refuge offers people a unique opportunity to observe fish and wildlife in a natural and relatively undisturbed habitat.

Much of the refuge is relatively flat lowland. Due to frequent natural flooding, slow moving river systems support rich wetland communities. Natural wildfires may burn around 200,000 acres of habitat each year. These forces of nature create a healthy mosaic of plants in different stages of succession, providing habitat for waterfowl, moose, bears, wolves and other wildlife, as well as resident and neotropical birds.



Natural Boundaries

Without fences or signs to define its boundaries, the refuge relies on natural features instead. The refuge is bordered on the north by the Khotol Hills, on the east and south by the Kuskokwim Mountains, and on the west by the mighty Yukon River. The Innoko River flows through its center, dividing the northern portion of the refuge from the southern Innoko Wilderness Area.



Wildfire in Spruce



Moose
Sally Collins/USFWS

Established to Maintain Natural Diversity

The Innoko National Wildlife Refuge was established in 1980 by the Alaska National Interest Lands Conservation Act (ANILCA). A main purpose of the refuge is the conservation of fish and wildlife populations and habitats in their natural diversity. Management efforts focus on protecting these natural resources and providing for public use. The Northern Unit of the refuge, also called Kaiyah Flats, is administered by the Koyukuk/Nowitna National Wildlife Refuge Complex in Galena. The Southern Unit is administered by the Innoko National Wildlife Refuge Headquarters in McGrath.

Part of a Nationwide System of Refuges

The Innoko National Wildlife Refuge is one of more than 540 refuges in the National Wildlife Refuge System. Administered by the U.S. Fish and Wildlife Service, these refuges stretch across the United States from above the Arctic Circle in Alaska to the subtropical waters of the Caribbean and South Pacific. The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people.



Ducklings
USFWS

A Land Rich in Resources

The Athabaskan people lived along the Innoko and Iditarod rivers for centuries, in villages called Dishkakaket, Dementi, Holikachuk and Old Shageluk. They also used a variety of seasonal campsites, depending on the resources being harvested. As hunters and gatherers, their very survival depended on the harvest of plants, animals and fish. These rich, renewable resources provided food,



Lina Demoski weaves a basket at the Innoko Environmental Science Camp.
©Kathy Bushue

Subsistence and Preserving a Way of Life

shelter, fuel, clothing, tools, and barter for other needed supplies. The Athabaskan people set up spring camps to harvest furbearers and waterfowl, and summer camps for fishing and picking berries. The summer camps, also called “canoe camps,” were often located near the forks of rivers or along the Yukon River, where salmon and whitefish runs were abundant. Hunters roamed the land year-round in search of caribou, waterfowl and other wild game. Since the expansion of moose into the Innoko area in the early 1900s, this large mammal has been eagerly sought as a major food source in the local diet.

Although there are no communities within the refuge boundaries today, residents of adjacent villages on the lower Innoko and Yukon rivers continue to harvest the land’s resources to feed their families and to preserve local cultural practices. ANILCA recognized this historic, cultural lifestyle and provides rural residents with continued opportunities for subsistence use.



Subsistence Use by Local Residents



USFWS

Wolf Pup on River Bank

Gold and the Iditarod Trail

Gold rush fever struck Interior Alaska in the early 1900s. After gold was discovered on tributaries of the Innoko and Iditarod rivers, supply towns sprang up on what is now the refuge. Between 1908 and 1911, when the Alaska Road Commission was building a winter overland trail between Seward and Nome for the delivery of mail, it became clear that a branch trail to the growing support town of Iditarod and other supply towns was needed. This trail system became known as the Iditarod Trail, now a designated National Historical Trail. The gold boom was short lived. Supply towns and roadhouses were abandoned and now add to the historical and cultural appeal of the refuge. The trail used by today's Iditarod Sled Dog Race is just outside the refuge's southern boundary in odd years and northern boundary in even years.



Sundew
Franzi Abplanalp/USFWS

Bogs

Natural Ecosystems

Largely undisturbed by humans, the refuge vegetation reflects a transition zone between the spruce, birch and aspen boreal forest of Interior Alaska and the tundra regions common in western and northern Alaska. These natural ecosystems provide the food, shelter and water wildlife need to survive.

Raised islands of black spruce and tamarack are scattered throughout the bogs in the refuge lowlands. With their thick, floating mats of sphagnum moss, the bogs are home to unique plants such as sundews, *Andromeda* and bog cranberry. As the underlying permafrost melts and refreezes, bogs go through constant, although gradual, changes. Red-backed voles and many species of birds are abundant on the bog islands. Sandhill cranes and shorebirds such as the Hudsonian godwit use the open areas as nesting sites.

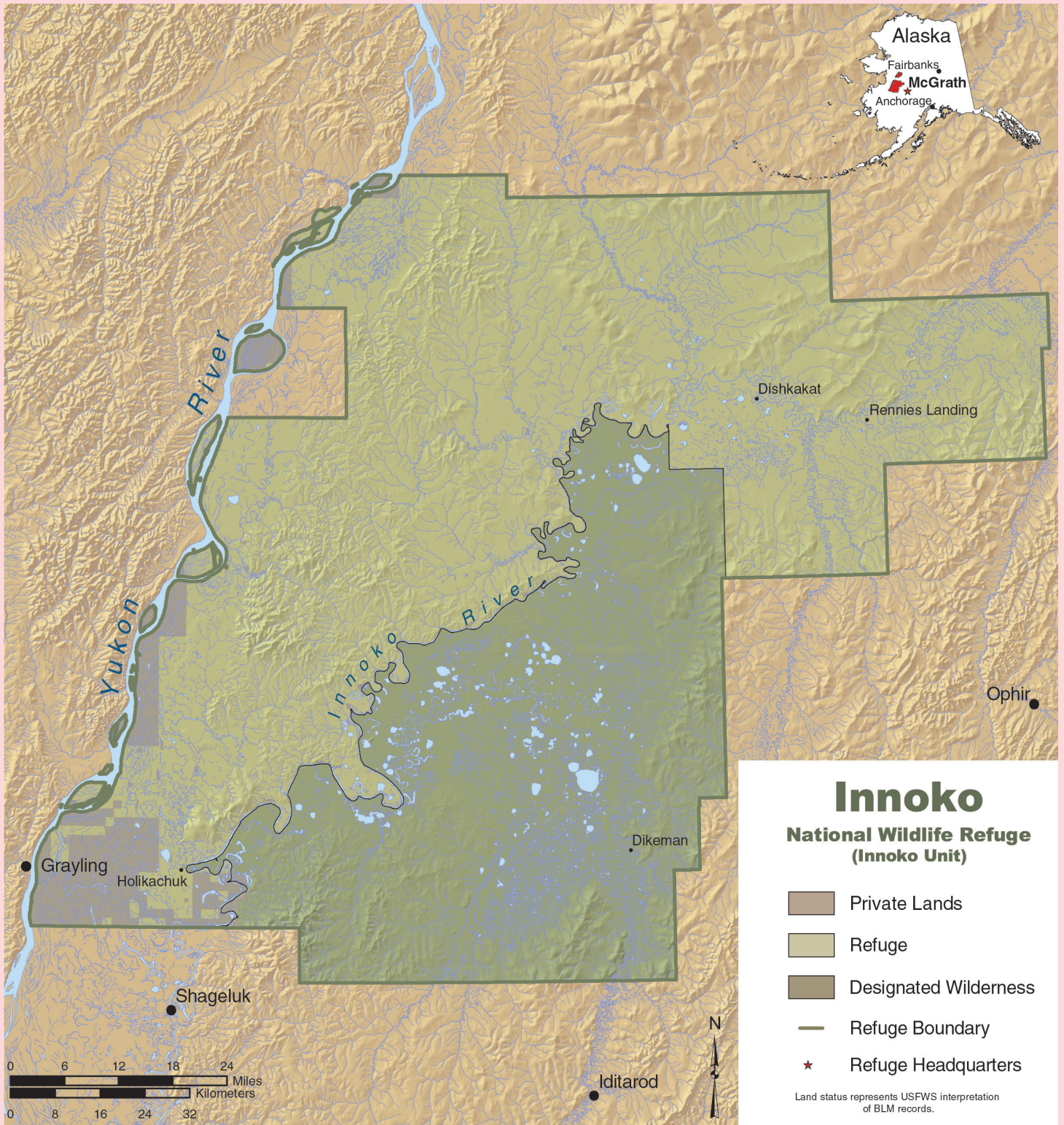
Wet Meadows

Wet meadows of tussock grasses and sedges are common along the river floodplains. Maintained by seasonal flood cycles, these natural marshes are extremely important for waterfowl and other birds. They also provide needed habitat for Interior Alaska's only known amphibian – the wood frog.



Bob Skinner/USFWS

Bog



*Spruce Forests
and Willow
Sandbars*

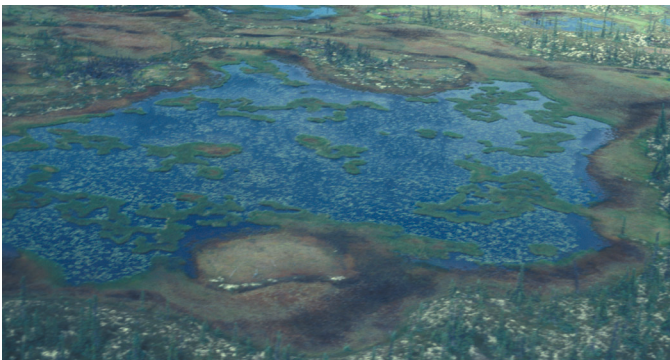


Birch and Spruce
Candace Stoughton/
USFWS

Low hills of spruce and birch cover nearly half of the refuge. Forests of stunted black spruce with an understory of lichens and mosses blanket the cold permafrost sites. Large stands of white spruce dominate the well-drained hillsides facing south, as well as riverside terrain where flooding thaws the permafrost and supports their growth. These old growth forests provide winter cover for moose and year-round habitat for red squirrels and black and grizzly bears. Along the rivers and sloughs, dense willow stands interspersed with spruce woods provide winter food and cover for moose, beaver, snowshoe hare and other wildlife. Historically, fires sparked by lightning returned vast areas to early successional stages of aspen, birch, willow and alder. Even today fire continues to play an important part in shaping the habitats of the refuge.

*Innoko
Wilderness Area*

One third of the 3.85 million acre refuge is designated the Innoko Wilderness Area. Motorized equipment is prohibited on wilderness lands, but ANILCA makes exceptions for snow machines, motorboats and airplanes for traditional use and access. Chainsaws may be used only for qualified subsistence purposes in Wilderness Areas.



A vast acreage of lakes and bogs form the Innoko NWR

Robert Fernau/USFWS



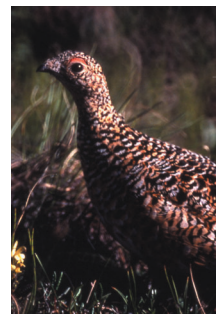
Redpoll

USFWS

A Home For Wildlife

The refuge is home to a diversity of wildlife well adapted to the extreme weather conditions of Interior Alaska. Each season yields new opportunities for wildlife observation. Whether you are following wolf tracks in the snow in the winter, or spotting a moose cow with her calves along the Innoko River in summer, a visit to the refuge can be a truly rewarding experience.

*Birds of
the North*



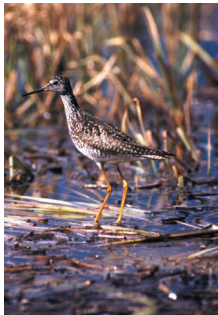
Spruce Grouse
USFWS

Approximately 20 species of birds, including owls, woodpeckers, grouse, chickadees, gray jays, juncos, redpolls and ravens, are year-round residents of the refuge. More than 100 different species of birds nest here, including waterfowl and an abundance of neotropical migrants who fly thousands of miles each spring to return to the pristine upland forests, river corridors and vast wetlands of the refuge. The long-distance record for migration belongs to the arctic tern. Each year it travels from its wintering grounds in the Antarctic to the Innoko Refuge – approximately 20,000 miles round trip!

Songs of New Life



Trumpeter Swan
USFWS



Lesser Yellowlegs
USFWS



Canvasbacks

In the spring – sometimes even before the ice melts – trumpeter swans, greater white-fronted and Canada geese, wigeons, pintails, common and Barrows goldeneyes, green-winged teals, shovelers and several species of loons arrive on the refuge. Their nesting and molting areas are scattered throughout the wetlands. In June, at the height of the breeding season, the refuge is alive with the songs of flycatchers, thrushes, sparrows and warblers. Shorebirds, such as greater and lesser yellowlegs, spotted sandpipers, snipe and Hudsonian godwits, can be seen and heard along the river corridors and on the vast expanse of marshes and bogs. Raptors, including peregrine falcons, ospreys, bald eagles and red-tailed hawks, soar above the treetops. Breeding season is short in Interior Alaska. Migratory birds begin their journey south or to the coast of Alaska in August, and are completely gone by the end of September when the rivers and lakes change to ice.



Grizzly Bear

Land Mammals

A variety of mammals, including black and grizzly bears, lynx, wolverines, river otters, beavers and porcupines, live on the refuge. The river corridors provide excellent habitat for some of Alaska's largest moose. Wolves are seen and heard on the refuge throughout the year. A small herd of caribou travels year-round between refuge lands and the Beaver Mountains (just east of the refuge boundary). Smaller mammals on the refuge include snowshoe hare, red fox, red squirrel, marten, muskrat, weasel, mink, vole, jumping mice, and several species of shrew.

Fish Resources

The Innoko River and its tributaries provide important spawning and rearing habitat for many species of fish. The refuge's Innoko River chinook "king" salmon are part of the Yukon River run – one of the largest natural salmon runs of any river system in the world. Other fish species in refuge rivers and lakes include coho and chum salmon, Dolly Varden, grayling, burbot, northern pike, and several species of whitefish including sheefish.

Explore the Wilderness

You are welcome to explore the refuge. Due to its isolation, it does not receive many visitors except for local residents. Pike and salmon fishermen visit during the summer months, while moose hunters gather in September. Fur trappers from adjacent Yukon River villages run trap lines here in winter, and subsistence waterfowl hunters visit in the spring and fall. Because there are no facilities or trails, camping and backpacking are primitive activities. In the summer, a boat or float plane will take you onto the refuge. Winter access is limited to snow machine, dog sled or ski-equipped airplane. Private land inholdings, native corporation lands, native allotments and privately-owned cabins are located throughout refuge. If you are uncertain about land status, contact the refuge office.



Fishing for Northern Pike
USFWS

Refuge Visitation Basics

The refuge office is located in McGrath. Refuge staff are available to provide information and help make your trip enjoyable. Commercial guides and air transportation operators on refuge lands are required to obtain a refuge permit.



Moose Hunters



Mosquitos provide food for waterfowl and other birds.

Environmental Concerns

- n Be prepared for changing weather. Anticipate rain at any time during spring, summer or fall. Carry rain gear and spare warm clothes. Hip or knee boots are recommended, since much of the refuge is low-lying marsh and bog. Bring a mosquito-proof tent and a warm sleeping bag. Carry a good first aid kit and plenty of insect repellent.
- n High temperatures may exceed 80° F in the summer months, although 50° F to 70° F temperatures are more common. An unexpected freeze can happen even in the summer. Expect cold, wet weather during the September moose season. Winters are very cold – temperatures may drop to below -60° F for long stretches of time.
- n Many areas of the refuge accessible by aircraft or boat are located along river corridors. A rapid rise in water can occur quickly, especially after it rains, so choose your campsite with caution.



USFWS

Sunset at Innoko NWR

*Wildlife
Concerns*

- n *Giardia lamblia*, which causes “beaver fever,” may be present in any refuge water. Boil all drinking water or use an alternate water purifying system.
- n This is bear country. In most cases bears are not a threat, but they do deserve your respect and attention. If a bear is shot in self-defense, you must follow State of Alaska salvage rules. For additional information about traveling in bear country, please refer to the publication “Bear Facts - The Essentials for Traveling in Bear Country,” available from the refuge office.

*Preserving the
Land for Future
Generations*

- n You may use any dead or down trees for firewood.
- n Disturbing and/or the collection of artifacts and paleontological remains is against the law!
- n Adopt the “leave no trace” ethic, including packing out all garbage.

“After spring cleanup..., Blanche and I loaded our canoe and started for Iditarod.... On reaching the mouth of the Tolstoi we were invited to go down to the mouth of the Iditarod on the steamer Pup.... We could sit out on deck and see moose feeding in grass shoulder-high. We took to our canoe at Dementi’s.... The valley is at this place about fifty miles wide and was almost entirely covered with water [W]e encountered head winds and landed on a small island. There were about a million little songbirds here, waiting for the water to go down.”

James S. Pitcher, [Sourdough Jim Pitcher – The Autobiography of a Pioneer Alaskan](#), 1985.

Innoko River
Henry Minardi/USFWS