



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

#### **Conservation Legacy**

News of birds nesting from horizon to horizon across the delta of the Yukon and Kuskokwim rivers sparked national attention early last century. In 1909 President Theodore Roosevelt declared this land to be the first national refuge for birds on mainland Alaska.

The Yukon Delta National Wildlife Refuge is now one of the largest refuges in the nation — nearly the size of the state of South Carolina — and incorporates previously established Clarence Rhode, Nunivak and Hazen Bay refuges.

Yukon Delta Refuge is part of the National Wildlife Refuge System, a national network of lands and waters administered for the conservation. management and 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.

Missions

The mission of the U.S. Fish & 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.

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 the present and future generations of Americans.

—National Wildlife Refuge System Improvement Act of 1997



Kuskokwim River

#### Gift of the Rivers

The Refuge owes a majority of its wildlife habitat to the two largest rivers in Alaska, the Yukon and Kuskokwim.

The rivers created a broad, flat, treeless delta, much of it less than 100 feet above sea level. The delta, more water than land, is just right for millions of geese, ducks, swans, shorebirds, cranes, loons, grebes, migrating salmon and other fishes.



Askinuk *Mountains* 

> Inland, the rivers cut through higher and drier uplands and mountains with peaks over 3,000 feet. These areas provide extensive prime shrub and forest habitats that support an abundance of migrant songbirds.

> Offshore in the Bering Sea, the large volcanic island of Nunivak rises to a 1.600-foot central peak. In summer its 450-foot sea cliffs provide nesting ledges for about a million seabirds. Winds whip the island's sandy beaches into 100-foot dunes.



Muskox on Nunivak Island.

SFWS

# Rivers in the Sky

Every spring another kind of river pours into the Refuge — a flood of migrating birds following ancient "rivers in the sky," invisible flyways drawing birds here from five continents. Flocks of bar-tailed godwits leave New Zealand and Australia and land on the delta 7,000 miles later.



Wading bar-tailed godwits.

The millions of shorebirds that come to nest on the Yukon Delta Refuge far outnumber shorebirds nesting on comparable areas elsewhere in North America and probably in all arctic and subarctic regions.

At least 43 species of shorebirds have been seen here and 27 are known to nest on the Refuge including the feisty black turnstone, ready to defend its eggs or chicks by hurling its 4-ounce body at predatory gulls 10 times its size.



Black Turnstone



Black Bellied Plover



Bristle-thighed Curlew

A majority of the world's breeding bristle-thighed curlews hide their nests in the hills of the Andreafsky Wilderness Area. After the eggs hatch, one or two adults may provide "day care" for many families of curlew chicks while other parents concentrate on eating to regain energy before flying south.



Dunlins taking flight.

Fall migration brings a few million\_more shorebirds to the Refuge for a feeding frenzy. Flocks look like smoke above the delta as they soar and twist in an ancient dance.



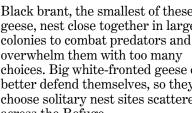
Flocks of flying swans.

# **Returning Waterfowl**

Honks, cackles and squawks shatter the frozen silence of April as nearly two million returning ducks and geese squabble over favored nesting territories.

The Yukon-Kuskokwim Delta has long been famous for its abundance of waterfowl. Since the 1980s, however, a quartet of geese have received special attention to help their populations increase after serious declines.

Black brant, the smallest of these geese, nest close together in large colonies to combat predators and overwhelm them with too many choices. Big white-fronted geese can better defend themselves, so they choose solitary nest sites scattered across the Refuge.







Cackling Canada Goose

All the world's cackling Canada geese and almost all emperor geese raise their goslings here within 10 miles of the coast. Unlike the others that fly to the Lower 48 or Mexico for the winter, most emperor geese spend the winter in Alaska's

Aleutian Islands.



A pair of spectacled eiders.

ThreatenedSpecies

Spectacled and Steller's eiders were once more numerous as well, but now few nest on the Refuge. Just as they did for the geese, scientists are working to discover the causes of their declines to help remove these sea ducks from the Threatened Species list.





Grizzly bear fishing for salmon.



Pacific Silver Weed



Wild Iris



Bearberry and Crowberry

Local Color

From Sea to Mountains At least 55 kinds of mammals live on the Refuge and in its coastal waters. Seals and beluga whales swim into the river mouths after fish. Foxes hunt tundra voles on the delta. Both brown and black bears, caribou and moose, roam the Kilbuck Mountains and Nulato Hills.



Muskox in winter.

The Refuge played an important role in returning the muskox to Alaska after arctic hunters shot the last ones for food. In 1935 a small herd from Greenland was brought to Nunivak Island. As the herd grew, some animals were rounded up to start new herds. Now muskox live again in other coastal areas of Alaska and Russia.

Plants on the delta are adapted to wind, cold, and a short growing season when suddenly the land seems to burst into bloom. By mid-August the tundra glows with autumn colors.



Salmon laying eggs.

## **Swimming Upstream**

The vast network of rivers and lakes on the Refuge provides thousands of miles of migration, spawning, and rearing habitat for 42 species of fish.

Five species of Pacific salmon migrate through the Refuge to spawn once and die. Chum, chinook, and coho salmon are vital to the region's economy.

Dolly Varden, a relative of the brook trout, live year round in the rivers. Other fishes common to the Refuge include northern pike, arctic grayling, Alaska blackfish, burbot, rainbow trout and seven kinds of whitefish.

Complete lists of the wildlife found here are available from the Refuge Headquarters or its website.



Spawning chum salmon.

## A Living Heritage

Like their ancestors, the Yup'ik Eskimo residents of this region fish, hunt and gather wild resources to feed their families. One of the purposes of the Refuge is to continue to offer opportunities for these traditional subsistence activities.



Yup'ik Eskimo picking berries on the tundra.

Fishing provides many families with a majority of their yearly food supply and forms the basis of the subsistence economy in most delta villages. Salmon and herring are preserved in traditional ways on drying racks.



Salmon drying on racks. Rivers remain the main travel routes between villages and to seasonal camps. Residents rely on boats, fourwheelers, snowmachines, and aircraft in this roadless part of the state.



Yup'ik girl in parka.

Yup'ik Spoken Here

Children still grow up speaking Yup'ik as their first language in many of the 36 villages within the Refuge.



Yup'ik grass basket.

Skilled Eskimo artisans continue to do fine skin-sewing, carving, mask making, beading and basket weaving. They use these items in everyday life, traditional dance and celebrations, and for commerce.



Yup'ik loon mask.



Fall colors on the tundra.

#### **Visiting the Refuge**

No roads connect the Refuge or local villages to the rest of the state. Bethel serves as the regional hub for flights and services. From there, access to the Refuge is by aircraft or along its rivers by boat or by snowmachine.

Today snow machines have replaced sled dogs. Some residents maintain dog teams primarily for recreation.



Safe travel in this remote region requires careful planning. The Refuge staff can offer tips.

Weather changes rapidly. Summer temperatures range from 40° to 65°F. Winter typically begins in October. January temperatures average near 0°F. High winds can create chill factors of -60°F.

Mosquitoes and other insects are plentiful during the summer. Bring repellent and a headnet or bug jacket.

Summer and winter views of the Kisaralik River.



USFWS

#### More Information

Hunting and fishing are regulated. For details, contact Refuge Headquarters or the Alaska Department of Fish and Game.

For details on topics in this brochure or for educational materials or summaries of current wildlife studies, please contact the Refuge Headquarters or check its website.





Equal opportunity to participate in and benefit from programs and activities of the U.S. Fish & Wildlife Service is available to all individuals regardless of physical or mental disability. For more information please contact the U.S. Department of the Interior, Office of Equal Opportunity, 1849 C Street, NW, Washington, D.C. 20240.

"Wild birds and beasts are by right not the property merely of people today but the property of unborn generations whose belongings we have no right to squander."

-Theodore Roosevelt

