

Koyukuk and Northern Innoko National Wildlife Refuges



Rounding the river bend, a large flock of resting ducks takes flight. The stir of a cow moose and calf in willows nearby makes a subtle presence. In the waters below, hundreds of salmon swim undetected upriver to their spawning grounds.

Welcome to the Koyukuk and Northern Innoko National Wildlife Refuges.

Introduction

The 3.5 million acre Koyukuk Refuge lies within the expansive floodplain of the Koyukuk River in interior Alaska. The refuge's rich wetlands combine with lowland forests to support a diversity of wildlife, from healthy moose populations to large waterfowl populations from four continental flyways. South of the Yukon River is the 750,000 acre Northern Unit of the Innoko National Wildlife Refuge, also known as Kaiyuh Flats. A myriad of wetlands make the flats a significant breeding area for waterfowl and fish. Established in 1980 by the Alaska National Interest Lands Conservation Act, the refuges preserve the natural diversity of plants, animals, and their habitats. These two refuges and the Nowitna Refuge are managed by the Koyukuk/Nowitna Refuge Complex office in Galena. A separate brochure is available on the Nowitna Refuge.

Four thousand acres of the Koyukuk Refuge are designated as wilderness and belong to the National Wilderness Preservation System. Situated within black spruce forest is a unique geological phenomenon – the Nogabahara Sand Dunes. They were formed thousands of years ago when sand from melting glaciers was blown into a near circular field about six miles in diameter. Barren of most vegetation, these dunes continue to shift ever so slightly with the wind. Three Day Slough, a productive wildlife area, is also within the Wilderness Area. Under wilderness designation, subsistence and recreational activities are permitted, however certain forms of motorized access and other uses are restricted. Please consult refuge personnel for current regulations.



For more information contact:
 Refuge Manager
 Koyukuk/Nowitna Refuge Complex
 P.O. Box 287
 Galena, AK 99741
 Telephone: 907/ 656 1231 or
 800/ 656 1231 (within Alaska)
 Fax: 907/656 1708
 Internet address:
 R7kynwr@mail.fws.gov

U.S. Fish and Wildlife Service
 Anchorage Regional Office
 888/ 262 6719 /TDD

U.S. Fish and Wildlife Service
 800/ 344 WILD
 Region 7 Home Page Internet
 address: <http://www.r7.fws.gov>
 Washington, DC Home Page Internet
 address: <http://www.fws.gov>

Alaska Department of Fish and Game
 Galena Office
 907/656 1345

The Koyukuk and Northern Innoko
 Refuges are part of the nationwide
 system of wildlife refuges under the
 administration of the U. S. Fish and
 Wildlife Service, Department of the
 Interior. 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
 fish, wildlife and plant resources and
 their habitats within the United
 States for the benefit of present and
 future generations.

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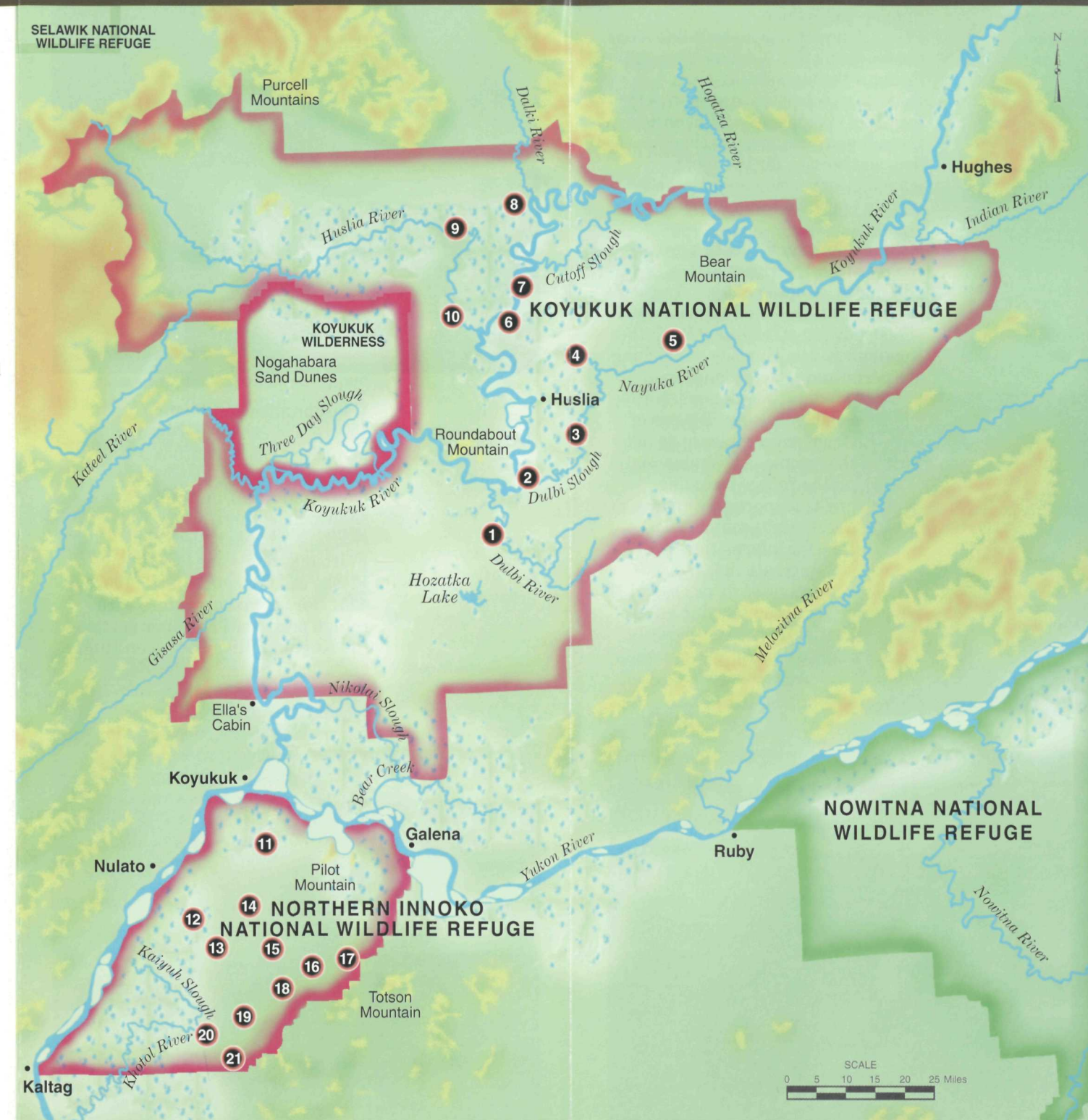
NATIVE PLACE NAMES OF THE KOYUKUK REFUGE UNIT

KOYUKON NATIVE PLACE NAME	MAP OR LOCAL NAME	TRANSLATION
1 Dolbaatno'	Dulbi River	'Gosling River'
2 Kk'otaafkkaakk'at		'mouth of Dulbi Slough'
3 Nokk kuh Yeet	High Bar	'big sand bar lake'
4 Kk'otaal Kkokk'a	Willow Lake	'lake at the head of Dulbi Slough'
5 Hænoo' Denh	Upper Bear Mtn. Lake	'upper place' (big lake)
6 Toyenaalyeez Denh	Cut off Slough	'Place where the river broke through with force'
7 Hægh Hooneetlaakk Denh	Huntington Slough	'place where river cut through'
8 Dæghædletne	Dakli River	'creek running off mountain'
9 Taaïdzaakkaakk'et	mouth of N. Fork Huslia River	'mouth of Taaïdzaatna'
10 Hængge Denh		'place (lake) behind the hill along the Huslia River'

NATIVE PLACE NAMES OF THE KAIYUH REFUGE UNIT

KOYUKON NATIVE PLACE NAME	MAP OR LOCAL NAME	TRANSLATION
11 Nekk'ets'æhdeef 'eel Denh	Dinner Camp Lake	'place where people or someone was caught off guard'
12 K'ehegetegge Ten	Short Cut Slough	'short cut trail'
13 K'ets'uts Keeyet	Sap camp	'Point of elbow'
14 Nemenhdaaldlo Hu		'area of many lakes'
15 Nekkufeyonh Denh	Duck Lake	'place where high ground slopes down'
16 Denaanlot'ots'en Hæmeenkk'et	Frank's camp (lake)	'back of a person's hand' (lake)
17 Taameef Teeloeyet		'a fishnet point'
18 T'egehef - nookkaakk'et	Cottonwood City	'mouth of Cottonwood Creek'
19 K'oolkkoy Tin	Yukon Creek	'pike trail, canoe trail'
20 Too Zeneedaakk Denh		'place where we hit the water', (lake)
21 Kk'eïdoyeet	American Creek	'mouth of the lake creek'

These Koyukon place names identify areas where indigenous people have hunted, fished and trapped for centuries and where their ancestors lived years ago before settling into villages. Special thanks to Athabascan linguist Eliza Jones for her assistance with translation and transcription and to Stephen and Catherine Atlla (Huslia) and Eddie Hildebrand, Josephine Mountain, Humphrey Ambrose, Henry Ekada, Pauline Peter and Victor George (Nulato) for sharing their knowledge of place names.



Diverse Habitats

A prominent feature of these refuges is their diverse habitats for fish and wildlife. Branching rivers and sloughs are bordered by hundreds of lakes. White spruce and birch meet the river along high banks, and dense thickets of willow and alder grow in low areas. Especially common are black spruce forests and bogs occurring where permafrost is present. Forests gradually change to tundra on surrounding hills and low mountains. These wildlands are part of a dynamic system where wildfires, ice scouring, and periodic flooding continue to shape the landscape and river systems.



Wildland fires significantly influence the uplands. Lightning-ignited fires burn in irregular patterns with varying intensity. The resulting patchwork of habitats yields vegetative growth in different stages. Many animals of interior Alaska benefit from such a combination to meet their needs for food, water and cover. During spring break up, moving ice scours river banks and shears willows on sandbars. The regrowth of tender willows is relished by moose. Spring flooding and snow melt recharge wetlands with nutrient-rich waters. Shallow lakes warmed by long summer days create ideal conditions for the growth of aquatic vegetation and invertebrates. The summer diet of moose largely consists of young willows and aquatic plants. Breeding waterfowl and their young feed on invertebrates which are high in protein, and vegetation above and below the water. These ecosystems are driven by forces of nature; without them, habitats would become stagnant and unproductive.

Visiting the Refuges

Hunting and Fishing

People harvest fish and wildlife from the Koyukuk and Northern Innoko Refuges throughout the year. Important subsistence activities for people of six villages within or near the refuges include gathering meat, fish, and berries for the table; trapping furbearing animals, and cutting house logs and firewood.

Northern pike and sheefish are caught along the rivers and tributaries of both refuges. Arctic Grayling can be fished at the mouth of fast-flowing streams entering the Koyukuk River. Hunting and fishing are permitted in accordance with state and federal regulations. Native tradition calls for using all parts of the gifts from nature; please do not waste fish or game. All commercial activity on the refuge including guiding and transporting requires a Special Use Permit; contact the refuge office for information. All commercial, recreational, and subsistence activities on or around the refuges are monitored to assure these activities do not significantly impact wildlife populations and their habitats and are compatible with refuge purposes.



WHITE-FRONTED GOOSE

Seasons of Wildlife and Research

Spring

Days lengthen and temperatures warm in late March; tree buds swell. Brown bears emerge from their dens and black bears soon follow. Ice thaws on lakes and rivers, a welcoming sign to waterfowl traveling to their breeding grounds. Thousands of ducks, primarily wigeon, pintail, scaup, white-fronted and Canada geese, and hundreds of tundra and trumpeter swans converge on large shallow lakes. Songbirds migrate thousands of miles from wintering grounds in Mexico, Central America, and South America to nest in shrub and forested areas. Songbird surveys are done in the spring to determine trends in breeding populations. Bird banding follows in the summer, providing information on reproduction and long term breeding success. In late May, moose and caribou calving usually occurs within a few days. Twin moose calves are common on the Koyukuk Refuge, an indicator of good habitat quality and the overall health of the population.



Transportation and Floating

The refuge can be accessed by motorized boats, floatboats (including canoes, kayaks and motorized rafts), aircraft or snowmobile; there are no roads. Air charters are available from Fairbanks and some local villages. Please call the refuge office (907/656 1231) for air taxi operators with refuge permits. The upper portion of the Koyukuk River between Hughes and Huslia is the best for floating. Large gravel bars along the wide, placid river offer good opportunities for viewing bears, moose, and wolves. Low water levels may restrict passage to the upper reaches of some rivers and sloughs. On USGS topographic maps (1:250,000 scale) the Koyukuk Refuge is divided among Hughes, Kateel River, Melozitna, Nulato, and Shungnak quadrangles.

Summer

When the seeds from cottonwood trees are sent adrift in the wind, king and summer chum salmon are moving up the river and branching tributaries to spawn. Villagers set nets in rivers and sloughs to catch fish they will use throughout the year. By July, lakes and ponds are teaming with ducklings feeding on aquatic insects. Refuge staff float small tributaries to survey waterfowl populations and record annual trends. On the average over 100,000 ducks are produced during the nesting season. Blueberries ripen and berry picking begins at the end of July. Lowbush cranberries ripen with the first frost in late August. White-fronted geese begin moving south followed by other waterfowl signaling the end of summer.



YELLOW WARBLER

Camping

Camping is best on large gravel or sand bars away from vegetation where biting insects concentrate; these bars are more exposed in late summer. Mosquitoes and gnats may be intense; prepare yourself with headnets, bug jackets and repellents. Boil or chemically purify water before drinking as a precaution against Giardiasis, a waterborne intestinal parasite common in Alaska. Use only dead or downed trees for firewood. Within the refuge are private land inholdings; please respect private property. If you are uncertain of land status, check with refuge personnel or the respective Native corporations (Doyon Limited - Fairbanks 907/459 2030; K'oyitl'ots'ina Limited - Fairbanks 907/452 8119; or Gana-A' Yoo Limited - Galena 907/656 1606).

Bear Safety

Don't take a bear by surprise – always announce your presence, particularly when traveling through thick brush. This can be done by loud talking, singing, or with whistles. Sleeping areas should be away from food and equipment. Store food out of the reach of black bears; they can easily climb trees. Keep a clean campsite; do not bury garbage or debris, this will only encourage bears to seek and dig up campsites for food. Please pack out your trash. Additional bear safety information is available at the refuge office.



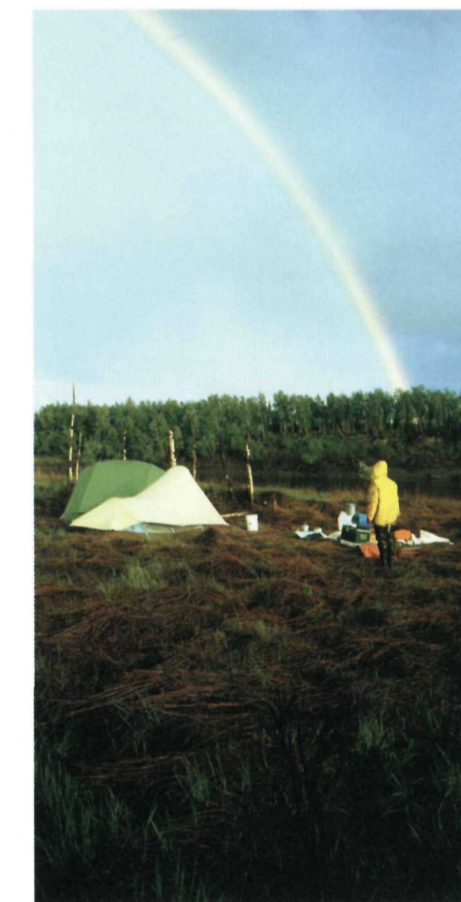
Fall

There is a cool crispness in the air as birch, cottonwood, and aspen turn shades of orange and gold. Fall chum and silver salmon are the last runs to move up the rivers to spawn. Local and non-local residents travel to refuge areas to hunt moose. Personnel at check stations register hunters and collect information on moose harvested. Law enforcement officers monitor activities of hunters in the field and camps. Moose rut in early October and caribou follow later in the month.



Winter

Rivers become motionless with freezing temperatures; snow blankets the landscape. Aerial survey crews anxiously wait for good snow cover to better spot moose during population trend surveys. Wolves are surveyed later in the winter when snow cover and long days are optimal for tracking. The 500,000 Western Arctic Caribou herd often moves into the northern portion of the Koyukuk Refuge where they paw through the snow to expose lichens. Wintering songbirds forage for seeds of spruce, birch, alder and grasses. Resident birds are surveyed during the nationwide Christmas Bird Count. In January, temperatures can drop below -50°F. Biologists settle in to analyze data gathered throughout the year and make plans for the next field season.



Trip Planning and Emergencies

Thoroughly research your trip and be prepared when venturing into remote refuge areas. Weather and situational mishaps can make conditions life-threatening. Expect minimal or no human contact outside the villages. Leave an itinerary with friends and include a time of return. Several private and official use cabins on the refuge are to be used only in emergencies. Please make arrangements to replace any supplies used if an emergency causes use of these facilities.

Enjoy and respect the challenge, discovery, and freedom of wildlands. Make demands on yourself, not on the environment and leave little or no trace of your presence.