

U.S. Fish & Wildlife Service

Little Pond Oreille

*National Wildlife
Refuge*



*Little Pend Oreille
National Wildlife Refuge
strives to be a secure
home for fish and wildlife,*

*an archive of historic
landscapes and a place
to enjoy our wildlife
heritage.*



*Bayley Lake
Mike Muntz*

About the Refuge



Named for the river that flows through its northern expanse, Little Pend Oreille National Wildlife Refuge includes 43,597 acres on the west slope of the Selkirk Mountain Range in northeastern

Washington. It is the only mountainous, mixed-conifer forest refuge in the National Wildlife Refuge System, outside of Alaska.

Elevations



Penstemons above Bayley Lake

Continental ice sheets from the north excavated and molded valleys and scoured lakes more than 10,000 years ago. Elevations range from 1,800 feet on the refuge's western lowlands to 5,610 feet on its eastern boundary at Olson Peak. Within this elevation range are six forest zones including Douglas fir, grand fir, ponderosa pine, western red cedar, western hemlock and subalpine fir.

Habitats



In addition to diverse rolling pine and fir forests, refuge habitats include scattered lakes, shallow marshes, ponds and springs, plus more than 80 miles of streams. Water rushes from narrow steep canyons with fast rocky flows, or meanders slowly through broad valleys.

Olson Creek

NWR System



This blue goose, designed by J.N. "Ding" Darling, has become the symbol of the National Wildlife Refuge System.

Little Pend Oreille was established in May 1939 by Executive Order of President Franklin D. Roosevelt as a refuge and breeding ground for migratory birds and other wildlife. It is one of more than 560 refuges in America's National Wildlife Refuge System, the world's largest and most diverse network of lands and waters devoted specifically to wildlife.

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.



© Scott Price

Warbling vireos nest in refuge forests but winter in Mexico and Central America.

Pend Oreille, pronounced "pondoray," literally translates "hanging ears." This name was given to the local indigenous people by French Canadians.

Long Lake



Habitats and Wildlife



© Scott Price
Quaking aspen

The range of elevations, climate and soil types on the refuge combine to create diverse plant communities. Sandy loam soils, derived from deep glacial drift, underlay most of the area. Eighteen to 25 inches of moisture in the form of rain or snow falls in the valleys, and up to 40 inches at higher altitudes.

Diverse habitats and relatively unfragmented forests attract hundreds of bird, mammal, amphibian and reptile species. In combination with adjacent public lands, the refuge also provides habitat for species that require large forest tracts.

Dry Forests



© Scott Price
Pines

Low elevation, dry forests dominated by ponderosa pine and Douglas fir trees cover about 26 percent of the refuge. These forests thrive under hotter, drier conditions and frequent fire. Wildlife dependent on dry forests includes wintering white-tailed deer, white-headed woodpecker, pygmy nuthatch, flammulated owl, yellow-pine chipmunk and silver-haired bat.

Moist Forests



© Scott Price
White-tailed deer

Moist, mixed-conifer forest types comprise approximately 59% of refuge habitats. Douglas fir, grand fir, western larch and lodgepole pine, with western red cedar and hemlock in the moister areas, may dominate these complex forests. Mixed conifer forests provide homes for many wildlife species including black bear, pileated woodpecker, northern goshawk, brown creeper, winter wren, Williamson's sapsucker, Vaux's swift and pygmy shrew.

Cold Forests



© Scott Price

Elk

The refuge's highest ridges support cold forests dominated by subalpine fir, Engelmann spruce, western larch and lodgepole pine. Wildlife species dependent on these higher elevation forests include moose, elk and spruce grouse. Historically, these habitats were also important for Canada lynx and marten.

Deciduous Trees

Pockets of aspen, alder and willow are scattered throughout refuge forests. These deciduous habitats are critically important to wildlife including ruffed grouse, Wilson's warbler, orange-crowned warbler, black bear, red-naped sapsucker, northern pygmy-owl and western screech-owl.

Field Openings



© Scott Price

Homestead meadow

Old agricultural fields, remnants from the homestead era, provide early spring forage for wintering white-tailed deer herds who nibble tender green shoots. During spring and summer, bluebirds, kestrels, meadowlarks and flycatchers relish the insect food these fields provide. Surrounding forests are reclaiming many of these open areas.

Water Habitats



© Scott Price

American dippers walk on the bottom of streams.

The refuge's streams, lakes, cattail marshes, beaver ponds and seeps are used by about 80 percent of wildlife living here. Lakes provide migratory stopover points for waterfowl and shorebirds, breeding areas for cavity-nesting ducks, and prey for winged anglers like bald eagle, osprey and great blue heron. Streamside habitats support willow flycatcher, McGillivray's warbler, American redstart, Columbia spotted frog, mink and beaver.

Spring



Western bluebird pair

Right: Moose



Wilson's snipe

The Columbian ground squirrel spends about 70 percent of the year under ground.



Habitat and wildlife come alive after the cold of winter. Black bear, chipmunks, moose, migratory songbirds including bluebirds, thrushes and warblers, beaver, snipe, coyote pups, Columbian ground squirrels and tree frogs are some of the species that can be seen.

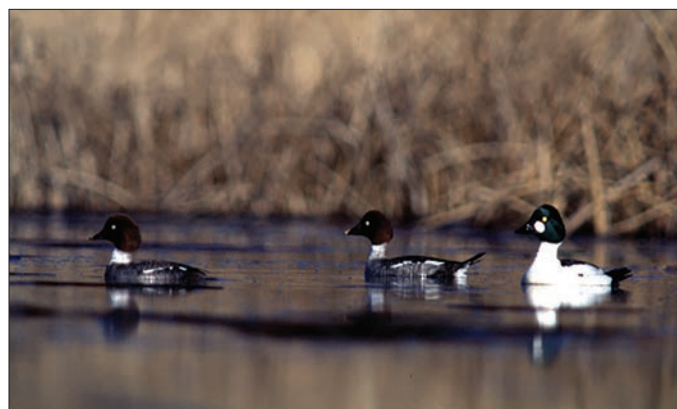
Summer

Long, warm summer days are great for spotting wild turkey, osprey, swallows, hummingbirds, painted turtles, deer fawns, garter snakes, common nighthawks, pileated woodpeckers or red-tailed hawks doing lazy circles overhead.



Right: Painted turtle

White-tailed deer fawn



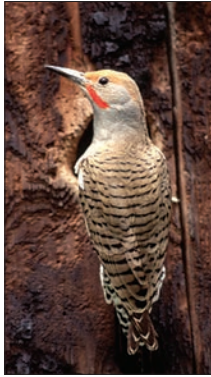
Common goldeneyes

Fall



Red crossbill

Right: Northern flicker

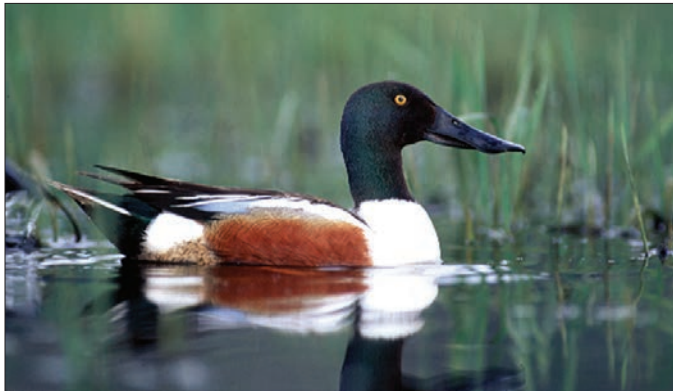


© Scott Price



Right: Northern goshawk

Northern shoveler



© Scott Price

Changing colors and a briskness to the air herald migration time, but many species may also be seen scurrying as they get ready for winter, such as ruffed grouse, golden-crowned kinglets, red crossbills, many waterfowl species, northern flickers, common ravens and red squirrels.

Logging

Winslow Logging Company began building a logging railroad into the Little Pend Oreille River Valley in 1909. About 16 miles of the old grade, as well as scattered ties and decaying bridges, can be traced through the western flank of the refuge. Several refuge campgrounds were originally logging camps for Winslow's crews, including Camp 1 (renamed River Camp), Camp 2 (renamed Cottonwood Camp) and Horse Camp. Horses were used extensively to log huge ponderosa pine, fir and cedar trees.

Moving logs on Little Pend Oreille River



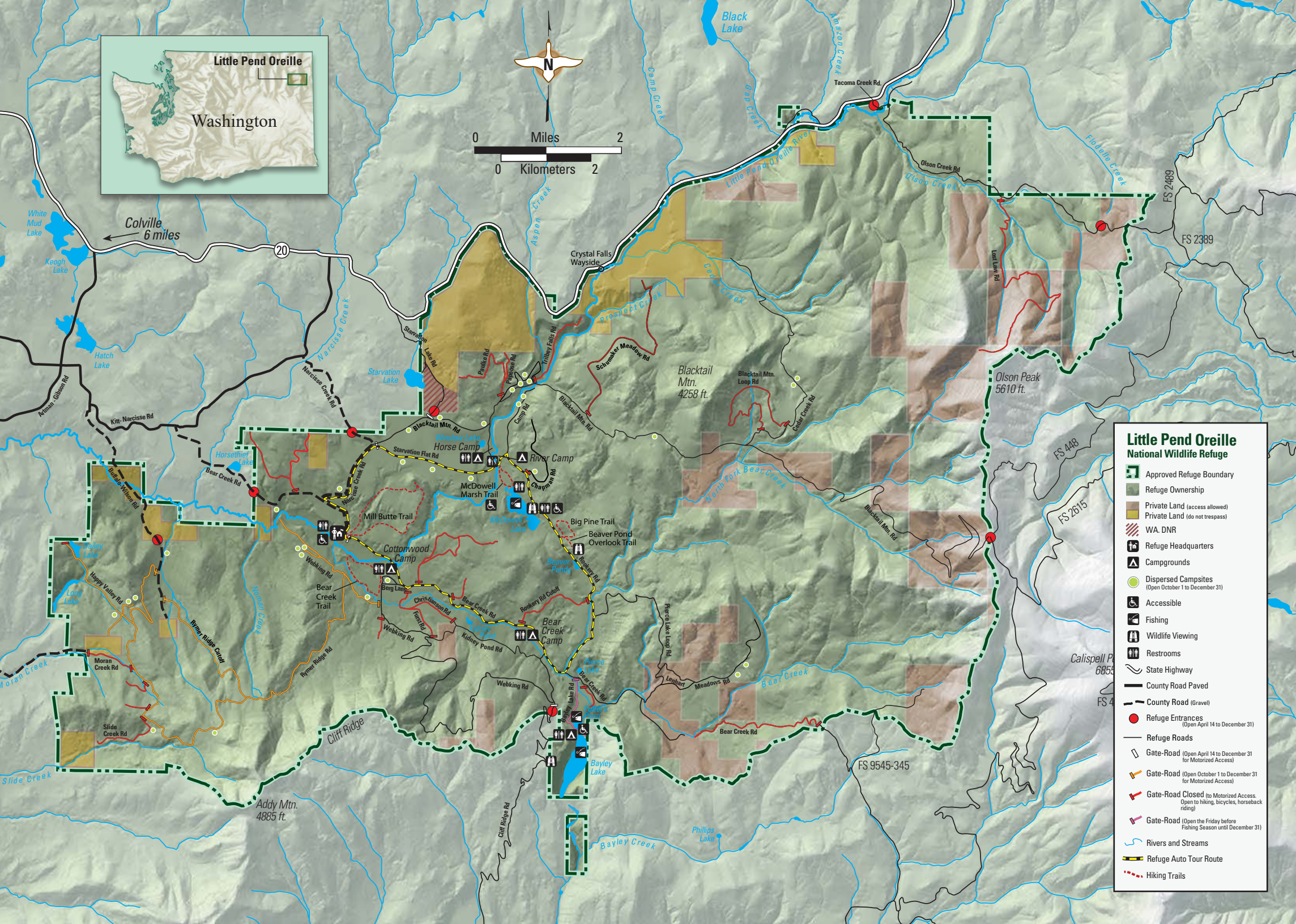
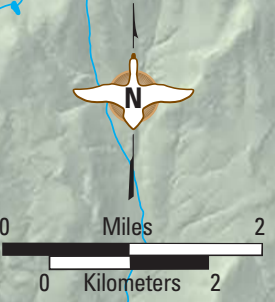
Depression and Resettlement

When the Great Depression hit in the 1930s many people gave up and left the area. Others sold or traded their land for more productive land. Under President Franklin D. Roosevelt's New Deal, the Federal government began programs to reduce the impact of the depression. One program involved the acquisition and retirement of marginal farmland through an agency called the Resettlement Administration. Approximately 27,000 acres of refuge lands originated from this resettlement effort.

© Milo Burcham



Little Pend Oreille
Washington



Little Pend Oreille National Wildlife Refuge

- Approved Refuge Boundary
- Refuge Ownership
- Private Land (access allowed)
- Private Land (do not trespass)
- WA DNR
- Refuge Headquarters
- Campgrounds
- Dispersed Campsites (Open October 1 to December 31)
- Accessible
- Fishing
- Wildlife Viewing
- Restrooms
- State Highway
- County Road Paved
- County Road (Gravel)
- Refuge Entrances (Open April 14 to December 31)
- Refuge Roads
- Gate-Road (Open April 14 to December 31 for Motorized Access)
- Gate-Road (Open October 1 to December 31 for Motorized Access)
- Gate-Road Closed (to Motorized Access. Open to hiking, bicycles, horseback riding)
- Gate-Road (Open the Friday before Fishing Season until December 31)
- Rivers and Streams
- Refuge Auto Tour Route
- Hiking Trails

A Brief History

Since the ice receded more than 10,000 years ago, this landscape has been traversed by Native Americans, fur trappers and traders, miners, loggers and homesteaders. The spirits of these people animate this land, linking their history to many place names.

Native Americans

Scarce information has been recorded about Native American use of the Little Pend Oreille region. A few trails, collectively called Calispel Trail, bisected portions of the refuge and were used by interior Salish-speaking natives and others traveling between two culturally important areas - the salmon fishery at Kettle Falls on the Columbia River, and the camas gathering grounds in the Pend Oreille Valley.

Settlers

David Thompson, from the Canada-based North West Company, was the first European to record exploration of the Colville valley in the early 1800s. The Hudson Bay Company established a main trading depot in the Colville area in 1825. Missionaries, miners and merchants followed and Colville became an important economic center.

Logging on Starvation Flat



Photos courtesy of the Stevens County Historical Society



Homestead on Bear Creek

Homesteading

The land reveals evidence of homesteading, logging, railroading and mining dating from the 1890s. Lilac bushes mark the spot where the Bear Creek School stood, one of two schools once located on refuge land. A short walk from the old school site lies the Biarly Post Office and home of the Christianson family. The Christiansons cleared enough land to raise a cash crop of potatoes or hay.

Between 1891 and 1925, more than 180 individual homestead claims were patented on the refuge. About one-third of these claims were sold to timber companies, with the rest going to homesteaders who worked hard to make a living in this harsh climate. Cleared fields, orchard trees, cabin remnants and place names are the legacies of the homesteading era.

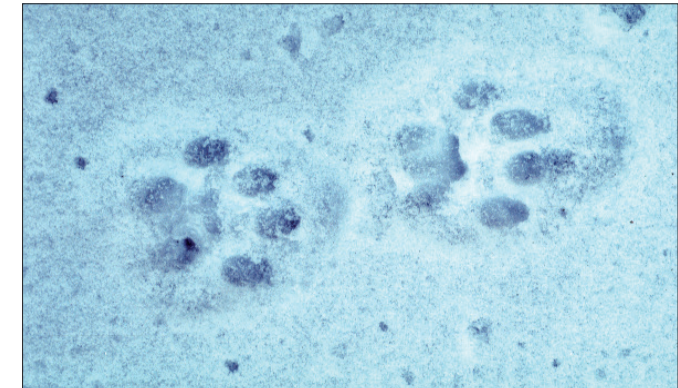
Winter

The snow arrives, refuge visitor roads are closed and wildlife, like the white-tailed deer, bald and golden eagles, snowshoe hare, northern shrike, pygmy-owls, black-capped chickadees and long-tailed weasels, busy themselves with survival. Cougar and bobcat are on the hunt and their tracks may be seen in the snow.



The refuge's white-tailed deer population triples in winter months.

Bobcat tracks



Black-capped chickadee

© Scott Price

© Scott Price

Managing and Restoring

Mixed Forests

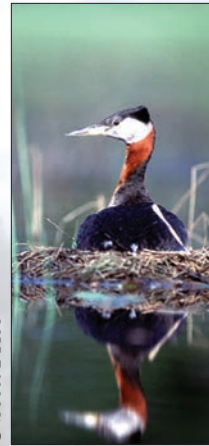
Fire, wind, ice, landslides, insects, disease and human activities are some of the forces influencing forest dynamics. Over time, these forces affect both forest development and succession. Because forests take many years to reach maturity, it is important to have a mixture of ages and stand structures at any given time. Some wildlife species can only survive in certain forest types, such as mature and old growth habitats.

Management Challenges

Past human activity, including fire suppression, land clearing and planting for agricultural uses, and removal of mature and old forests, has compromised refuge forests. Excessive fuels from downed trees, branches, needles and dead grasses, conversion of stands to shade-tolerant, fire-sensitive tree species, and more trees per acre than normal have made refuge forests vulnerable to stand-replacing fires.

Forest Restoration

Restoring forest habitats and creating more stands of large and old trees, currently rare on the forest landscape, requires active forest management. Thinning and prescribed fire are the main tools used to manage refuge forests. These tools mimic natural processes under which these forests evolved.



© Scott Price

Red-necked grebe

Thinning reduces tree densities and competition, allowing the remaining trees to grow more rapidly. Prescribed fire, when used properly, can reduce dangerous fuels, recycle nutrients and open up space for new plant growth, providing better cover and food for wildlife.



© Scott Price

Virginia rail

Riparian

Restoring riparian or streamside habitats degraded by past land uses is another management priority. Reducing erosion, stabilizing streambanks, providing buffers for some activities and planting shrubs and trees are some techniques used to repair these damaged habitats.

Exotic Plants

Exotic plants or weeds are serious threats to native wildlife habitats. Controlling their spread is necessary to maintain refuge habitat integrity. Tools used to reduce the extent and spread of weeds include mechanical, chemical and biological treatments.

Mechanical treatments are hand pulling, mowing or removing weed flowers and seeds. Chemicals, carefully applied by licensed applicators, are effective in managing some weed species. Biological treatments include use of insects that inhibit growth of undesirable plants.

Left: Prescribed burn in ponderosa pine forest

Wildlife Viewing Tips



Northern saw-whet owl



Spotted sandpiper nest

Beware!



Black bear

Viewing wildlife in a forest environment requires patience and silence. The forests' many plant layers, including grasses, shrubs and small and large trees, offer many places for wildlife to dwell.

For closer views, use binoculars or spotting scopes. Move slowly and casually, not directly toward wildlife.

Leave pets at home to increase your chances of seeing wildlife.

Your vehicle can be an excellent blind for viewing or photographing animals.

Early morning or evening hours are best for observing wildlife. During the heat of summer days, wildlife is not active and rarely visible.

The refuge is home to several species of large mammals, including moose, elk, deer, cougar and black bear. These animals usually avoid people but when surprised, their size, strength and speed make them a potential danger. Bears and cougars are most active at dawn and dusk. Be sure to keep small children close to you when hiking.



Auto Tour



The Auto Tour is closed to motorized vehicles January 1 through April 14. Portions of the route may be closed at other times due to road conditions or wildlife protection. Check at headquarters for road status.

Look For



Tree felled by beavers

Right: Woodpecker excavations



- Shredded fir cone from a squirrel's meal
- Peeled bark from antler rubs
- Oblong holes in tree trunks made by pileated woodpeckers

Listen For...



Bayley Lake

- Heart-shaped tracks of deer
- Gnawed tree trunk from a beaver building a dam
- Cup-shaped nest of a yellow warbler
- Bear scat
- Song of the thrush
- Turkey gobble
- Tree frog chorus
- Coyote howl
- Deer snort
- Rustle of aspen leaves
- Beaver tail slap
- Cracking and heaving of lake ice
- Wails and chattering trills of red-necked grebe
- Soft churs of mountain bluebird



Mountain bluebird

Refuge Recreation

Entrances

Refuge entrances are shown on the map. Three of the 8 entrances are open year-round to vehicle access: Bear Creek, Narcisse Creek and Buffalo-Wilson. All other entrances open on April 15 or when snow melt allows safe vehicle travel conditions.

Roads



Refuge roads are gravel or dirt. Some require high clearance and/or four-wheel drive vehicles. Most roads are closed to vehicle travel from January 1 through April 14. Some roads are closed seasonally for wildlife protection, habitat rehabilitation, road maintenance or hazardous conditions.

Off-road Vehicles



Off-road vehicles, including all-terrain vehicles and dirt bikes, are prohibited. Snowmobile use is only allowed on Olson Creek Road on the northeastern edge of the refuge.

Bicycles



Bicycles are allowed on maintained roads including those closed to motorized vehicle traffic and on some trails as posted.

Horses

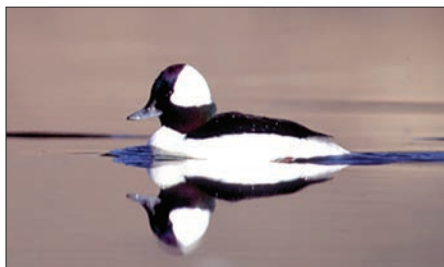


Horseback riding is only allowed on maintained roads and some trails. Horses are not allowed on Mill Butte, Big Pine, or Beaver Pond trails, the McDowell Marsh Environmental Education Trail or where otherwise posted. Cross-country travel is prohibited.

Hiking



The entire refuge is open to hiking unless posted as closed.



Male bufflehead

© Scott Price

Wildlife Observation and Photography



With more than 200 bird, 58 mammal, 6 amphibian, and 8 reptile species, there are many opportunities for viewing wildlife. Wildlife lists are available at refuge headquarters.



© Scott Price

Disabled Visitors



Potters Pond fishing dock, portions of the McDowell Marsh Environmental Trail, Headquarters trail, and all restrooms are accessible.

Fishing



Fishing is allowed on Potter's Pond, Bayley Lake, McDowell Lake and Little Pend Oreille River and its tributaries in accordance with Federal and State regulations. Special regulations apply to Bayley Lake, McDowell Lake and the Little Pend Oreille River. Anglers pursue rainbow, brook, brown and cutthroat trout.

Angler at Potter's Pond



Hunting



Hunting is allowed in accordance with Federal and State regulations. The refuge is open to State seasons starting on September 1 and closes for all pursuit and hunting of game and discharge of firearms after December 31. The refuge is also open to spring turkey hunting seasons. Dogs may be used for upland bird and migratory bird hunting only. There are No Hunting Zones within one-quarter mile of refuge buildings and campgrounds.

Weapons



Discharging of firearms is prohibited except when legally hunting.

Camping



Camping is permitted in campgrounds April 15 through December 31 and in designated dispersed sites from October 1 through December 31. Campgrounds are primitive with pit toilets, fire rings, and no potable water.



Calypso orchid

© Scott Price

Firewood



Firewood cutting is strictly prohibited except for daily camp use or with a firewood gathering permit, normally available between mid-July and October, depending on fire danger. Use only downed wood.

Pets



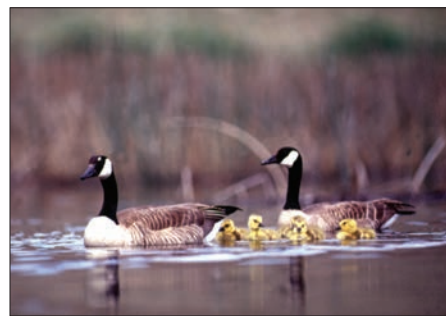
Pets must be under control at all times and are not allowed to roam freely.

Lodging



Lodging is available in Colville, approximately 13 miles northwest of headquarters. Listings are available through the Colville Chamber of Commerce, 509-684-5973.

Canada geese with brood



© Scott Price

Prohibited Activities



Off-road driving, trapping, baiting, permanent tree stands or blinds, spotlighting, shooting from or across roadways, target shooting, swimming, fireworks, collecting natural objects such as plants, animals, minerals, and objects of antiquity are all prohibited on the refuge.

Headquarters



The refuge headquarters is open Monday through Friday from 7:30 a.m. to 4:00 p.m., excluding Federal holidays.

Right: Arrow-leaved balsamroot blooms



Snowshoe tracks



© Scott Price

**Little Pend Oreille
National Wildlife Refuge
1310 Bear Creek Road
Colville, WA 99114
(509) 684-8384**

www.fws.gov/refuge/little-pend-oreille

**Information:
1 800/344 WILD
<http://www.fws.gov>**

**Visitors with disabilities
may be reasonably accomodated
upon request and/or receive an
alternative format publication.**

May 2022



Cliff Ridge

*Pileated woodpecker
excavations*

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