

U.S. Fish & Wildlife Service

# Malheur

*National Wildlife  
Refuge*



## Introduction

One of the crown jewels of the National Wildlife Refuge System, Malheur National Wildlife Refuge



protects a vast complex of wetlands in Oregon's high desert. The refuge is famous for its tremendous diversity and spectacular concentrations of wildlife. Boasting over 320 bird species and 58 mammal

species, Malheur is a mecca for birdwatchers and wildlife enthusiasts.

People have been drawn to Malheur's abundant wildlife and natural resources for thousands of years.

When unregulated market and plume hunting began to decimate populations of migratory birds, President Theodore Roosevelt stepped in to stop the slaughter. In 1908, he designated Malheur a sanctuary for birds.

Today, Malheur National Wildlife Refuge consists of more than 187,000 acres of prime habitat, including 120,000 acres of wetlands, on the Pacific Flyway. Particularly important to colonial waterbirds, sandhill cranes, and redband trout, the refuge also encompasses upland and riparian habitats vital to many migrating birds and other wildlife.

Malheur is one of over 500 refuges in the National Wildlife Refuge System – a network of lands set aside specifically for wildlife. Managed by the U.S. Fish & Wildlife Service, the System is a living heritage, conserving wildlife and habitat for people today and for generations to come.



*Common  
yellowthroat*

©David Pitkin



## A Year of Wildlife

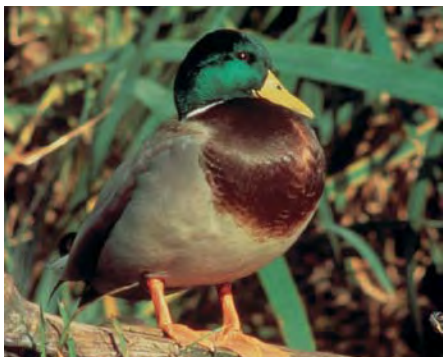
### Great blue herons

*In spring, colonies of egrets, herons, pelicans, ibis, and terns nest on Malheur Lake.*



### Mallard

*Mallard broods are commonly seen in summer.*



### Mule deer

*Mule deer are abundant in fall.*



### Bald eagle

*Bald eagles are often seen on the refuge in winter.*



## A Year of Wildlife

### Spring

Spring is the most spectacular season at Malheur. Over 130 species of birds nest on the refuge, while others stop to rest and refuel for their migration further north. In February, northern pintails and tundra swans begin to arrive, followed by sandhill cranes and flocks of snow, Ross', and white-fronted geese. Waterfowl are most plentiful in March, while the majority of shorebird species arrive in April. Songbird numbers peak in late May, when spring migration is on the downswing for other species. May and June are active months for breeding and nesting. Pronghorn antelope and mule deer fawns are also born at this time.

### Summer

As the flurry of migration settles, wildlife focus on raising their young. Broods of trumpeter swans and other waterfowl can be seen on most refuge ponds throughout June and July. Migrant shorebirds return in early July, congregating on mud flats and alkali playas.

### Fall

Activity increases again as fall migration begins. One of the refuge's greatest attractions occurs in September and October, when greater sandhill cranes "stage," or gather, in the southern Blitzen Valley before migrating to wintering grounds in California's Central Valley. Look for large flocks of ducks and Canada geese during these months. In November, tundra swans can be seen in abundance. By late November, most migrating birds have headed south.

### Winter

Winter is the quietest season at the refuge. Although most ponds freeze over, some remain open, providing food and water to wintering wildlife. Many mammals and a variety of raptors, including bald eagles and rough-legged hawks, winter on the refuge.

## Managing Wildlife Habitats

*A controlled burn in the Blitzen Valley wetland.*



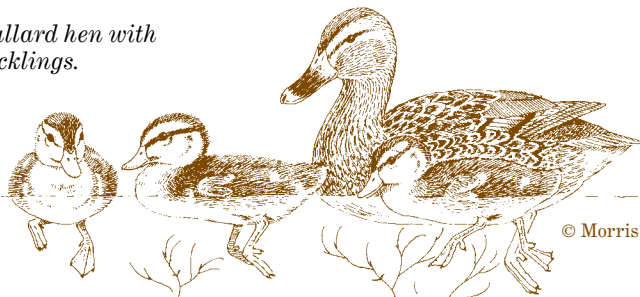
### Managing Land Helps Wildlife

Birds and other wildlife need several types of habitat for food, shelter, and raising young. Some species use Malheur just for nesting, while others use it as a stop-over during migration. Still others spend the winter here. Our managers understand the varying needs of wildlife and develop land use plans to manage refuge habitats to meet these needs.

### Wetlands

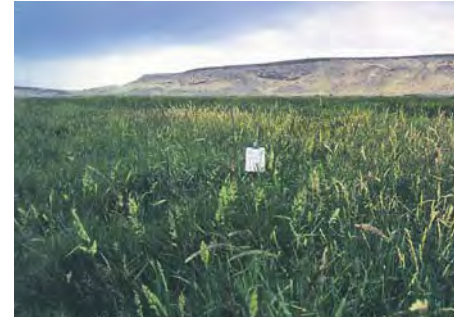
Water is the lifeblood of the refuge. Ponds, marshes, and lakes attract many species – trumpeter swans, ducks, pelicans, and grebes – who rely on these wetlands for food and safe nesting places. We use a series of dams, canals, levees, and ditches to ensure a good supply of water while birds are rearing their broods. We also raise or lower water levels to improve marsh soils, stimulate growth of plants, and control carp, which destroy plants that waterfowl use for food. Deep flooding drowns unwanted vegetation, creating areas of open water where broods feed and rest, safe from predators.

*Mallard hen with ducklings.*



## Managing Wildlife Habitats

*A few months after a burn, vegetation returns.*



### Irrigated Meadows and Grain Fields

Meadows are important feeding areas for sandhill cranes, Canada geese, nesting waterfowl, and mule deer. To encourage growth of nutritious food needed by breeding birds, we mow, graze, or burn meadows to remove old plants and stimulate new growth. In spring, the sun thaws frozen soil earlier, giving new plants a head start. Breeding waterfowl and cranes feed on early plant growth and invertebrates that live in the soil.

### Riparian Areas

A riparian zone is the habitat that borders a river or stream. Plants that grow in these areas depend on a steady supply of fresh water. Scattered throughout the refuge are riparian zones dominated by willow. This habitat provides food, water, nest sites, and shelter for a wide variety of wildlife. We plant willow to increase the amount of this valuable habitat.

### Uplands

Common upland plants like sagebrush, greasewood, and Great Basin wildrye provide forage for deer and antelope, and nesting sites for ducks, pheasants, sage thrashers, and quail. We carefully burn uplands to encourage growth of native grasses for nesting.

## The Basin Through Time

For thousands of years, people have been drawn to Malheur by the abundant natural resources found in its vast wetlands. During wet cycles, the marsh expanded and wildlife populations increased. Dry years shrank both the marsh and the amount of resources available to people.

**8,000 Years Ago**  
*Earliest evidence of people*

The first documented use of the Harney Basin began around 8,000 years ago. These early people caught tui chub, suckers, and squawfish, and hunted ducks, antelope, coyote, muskrat, and bison.

**3,500 Years Ago**  
*Early villages*

Small villages were built along the edge of the marsh and river. At one such village, people ate rabbit, fish, and large game animals. They harvested grass and juniper seeds and made fires using conifer and sagebrush. This village was abandoned when an eruption at Diamond Craters blanketed the landscape with hot cinders.

**1,400 Years Ago**  
*Wet cycle brought heavy use*

Following a dry period, moist conditions returned, bringing an abundance of resources to lakes, marshes, and uplands, and attracting many people. This may be the period of most intensive use of resources in the basin. Villages of mat-covered shelters called wickiups sprang up along virtually every pond and marsh. The descendants of these people, the Wada'tika – Northern Paiute of the Harney Basin – occupied the area when the first Europeans arrived.

**1820s to 1850s**  
*First nonnative contact*

In 1826, Peter Skene Ogden, a fur trapper from Hudson's Bay Company, was the first European to enter the Harney Basin. The 1845 Meek Wagon Train and the 1853 "Lost Wagon Train" followed trappers, stopping to use the abundant springs west of Harney Lake.

## The Basin Through Time

**1872 to 1897**  
*Pete French Era*

Peter French, along with a few Mexican vaqueros and 1,200 shorthorn cattle, headed north from California into eastern Oregon. Once he entered the lush Blitzen Valley, French's search for land was over.

With financing from stock grower Hugh Glenn, French established P Ranch and the French-Glenn Live Stock Company. This empire grew to over 190,756 acres. Land disputes between French and other settlers led to French's murder in 1897.

**1900 to 1920s**  
*From ranch to refuge*

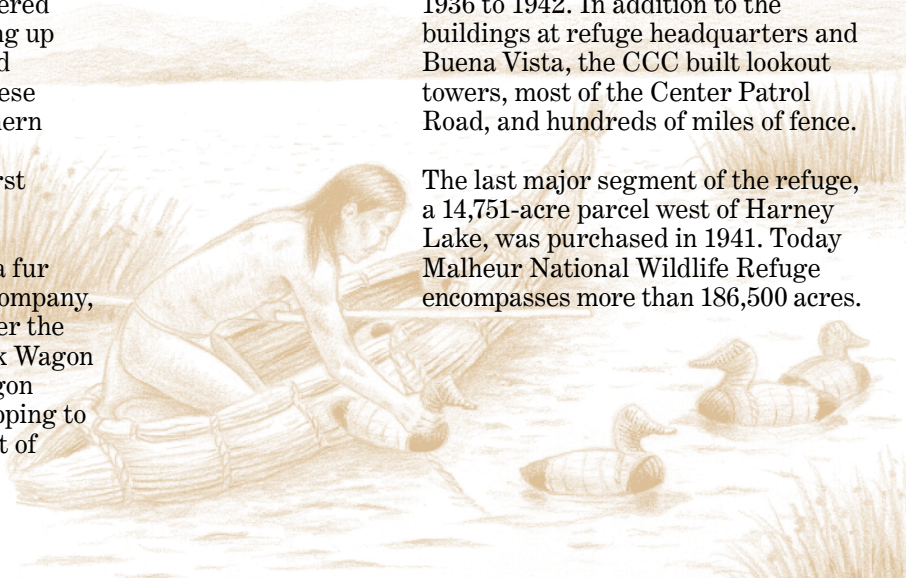
A turn-of-the-century craze for feathered hats brought plume hunters to Malheur Lake. They quickly decimated nesting colonies of egrets, grebes, and other birds, prompting establishment of the refuge in 1908.

**1930 to Today**  
*Land and water for wildlife*

Diverting water for irrigation robbed waterfowl of vital habitat. Several dry years in the 1930s prompted the government to purchase over 64,000 acres for the refuge to maintain water in the Blitzen Valley.

The refuge hosted two Civilian Conservation Camps (CCC) from 1936 to 1942. In addition to the buildings at refuge headquarters and Buena Vista, the CCC built lookout towers, most of the Center Patrol Road, and hundreds of miles of fence.

The last major segment of the refuge, a 14,751-acre parcel west of Harney Lake, was purchased in 1941. Today Malheur National Wildlife Refuge encompasses more than 186,500 acres.



## Wildlife Viewing Tips

### Be Prepared

Malheur is in the high desert, a remote land of sagebrush, marshes, and rimrock at 4,100 feet elevation. Radical weather changes, including lightning storms and intense heat or cold, can occur quickly.

Be prepared for weather extremes and traveling long distances over gravel roads. Make sure your vehicle is in good condition and your gas tank is full. Carry drinking water and mosquito repellent if you visit in the summer. Bring appropriate survival gear whenever you visit.

### Use Your Car as a Blind

Your car is an excellent observation and photographic blind. Please stay in your car to avoid scaring wildlife – the next visitors will appreciate it.

### Move Slowly

Quick movements and loud noises will scare away most wildlife.

### Use Binoculars

Binoculars and spotting scopes allow you to get a closer look without leaving your car.

### Learn About Wildlife

Study this booklet and other wildlife guides to know which animals to expect in different habitats. Check bird identification books to know when the various species of birds migrate to the refuge and Harney Basin.

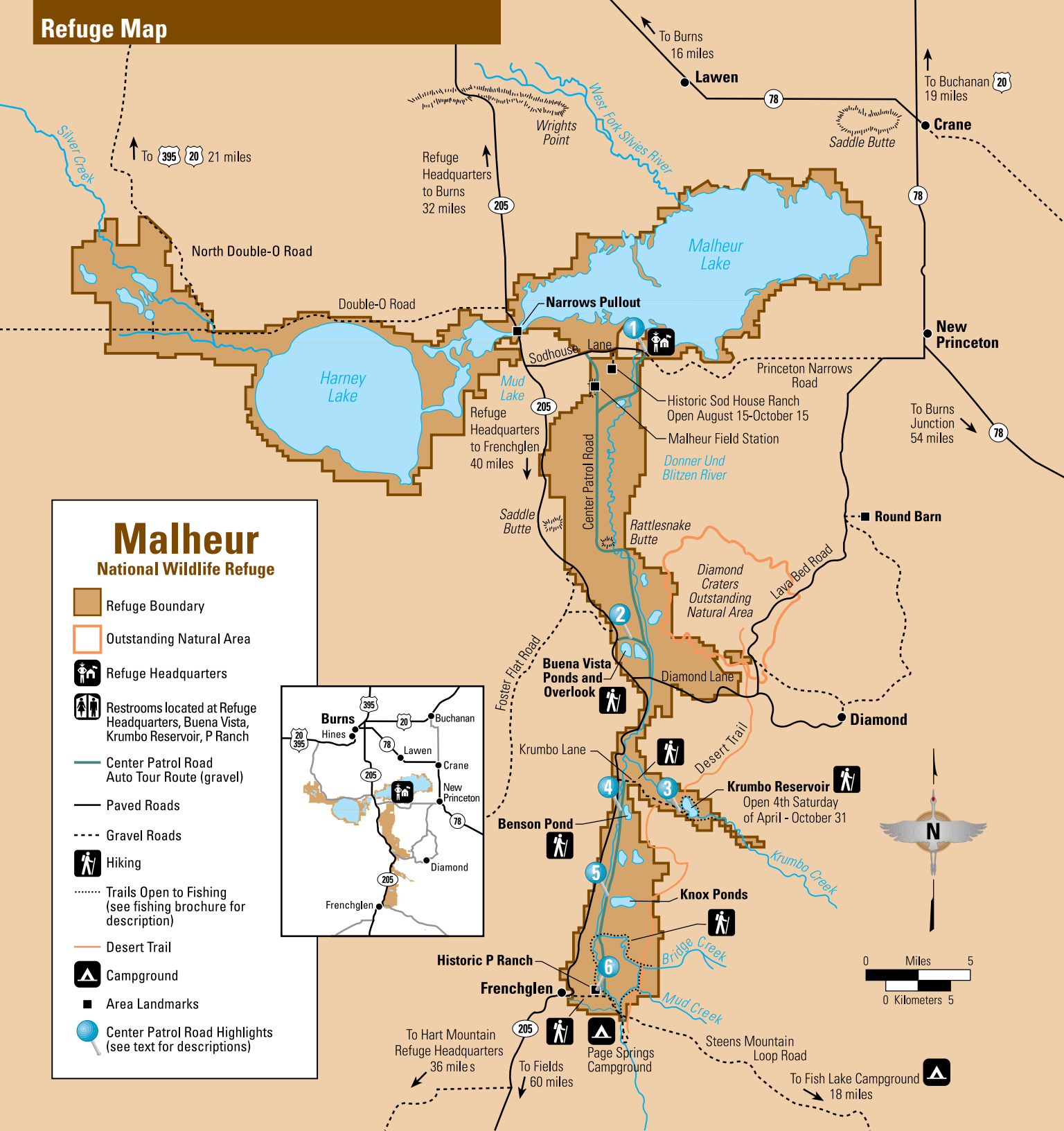
*Pronghorn antelope*
















*Least bittern*  
©Bird Photographers  
Inc.

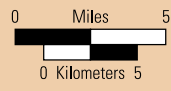
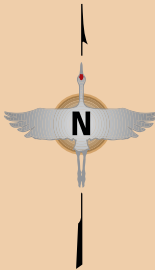
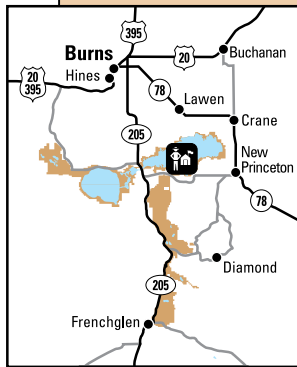


# Refuge Map



## Malheur National Wildlife Refuge

-  Refuge Boundary
-  Outstanding Natural Area
-  Refuge Headquarters
-  Restrooms located at Refuge Headquarters, Buena Vista, Krumbo Reservoir, P Ranch
-  Center Patrol Road Auto Tour Route (gravel)
-  Paved Roads
-  Gravel Roads
-  Hiking
-  Trails Open to Fishing (see fishing brochure for description)
-  Desert Trail
-  Campground
-  Area Landmarks
-  Center Patrol Road Highlights (see text for descriptions)



Refuge Headquarters to Burns 32 miles

To 395 20 21 miles

To Burns 16 miles

To Buchanan 19 miles

To Burns Junction 54 miles

To Hart Mountain Refuge Headquarters 36 miles

To Fields 60 miles

To Fish Lake Campground 18 miles

Refuge Headquarters to Frenchglen 40 miles

Historic Sod House Ranch Open August 15-October 15

Malheur Field Station

Krumbo Reservoir Open 4th Saturday of April - October 31

Historic P Ranch

Frenchglen

Page Springs Campground

Steens Mountain Loop Road

North Double-O Road

Double-O Road

Narrows Pullout

Sodhouse Lane

Princeton Narrows Road

Saddle Butte

Rattlesnake Butte

Diamond Craters Outstanding Natural Area

Lava Bed Road

Buena Vista Ponds and Overlook

Diamond Lane

Foster Flat Road

Krumbo Lane

Desert Trail

Benson Pond

Knox Ponds

Bridge Creek

Mud Creek

Page Springs Campground

Steens Mountain Loop Road

To Fish Lake Campground 18 miles

Page Springs Campground

Steens Mountain Loop Road

To Fish Lake Campground 18 miles

## Refuge Recreational Activities

### Center Patrol Road Auto Tour Highlights

The auto tour along Center Patrol Road highlights the six best sites for viewing wildlife on the refuge.

### Vehicle Travel

Motorized vehicles and all-terrain-vehicles (ATV) are permitted only on the roads shown on the map. All vehicles, including ATVs, must be operated by licensed drivers. All other roads are closed to the public.

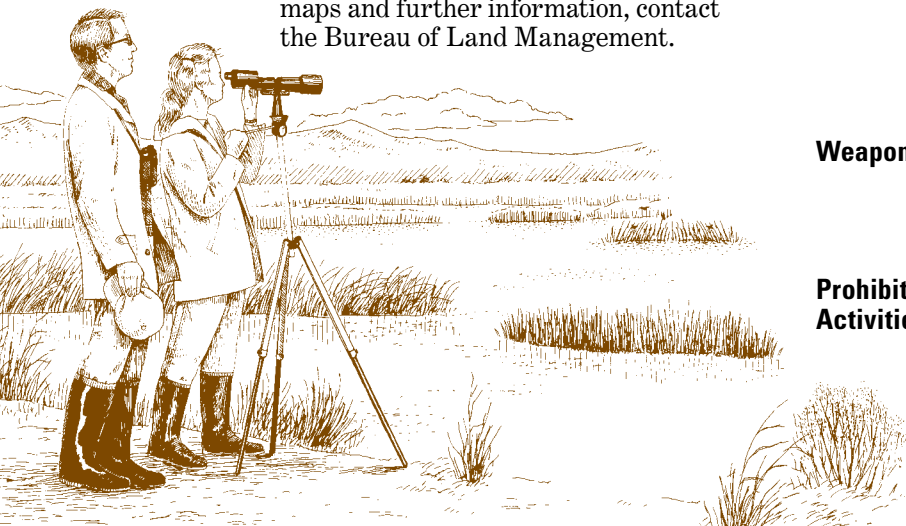
### Bicycles and Horseback Riding

Bicycles and horseback riding are permitted on roads that are open to motorized vehicles.

### Hiking

Year round hiking is permitted only on roads open to motorized vehicles and the following trails. Two short paths – one at Buena Vista and one at headquarters – lead to overlooks. Additional trails are the Barnes Springs Foot Path near Frenchglen, 5 mile between mileposts 53:54, and the public fishing loop near P Ranch. Hiking is also permitted along the banks of Krumbo Reservoir. No other refuge lands are open to hiking. Be prepared – you may encounter wet areas, thorny vegetation, and rough ground. Please stay on designated trails.

The Desert Trail, part of the proposed National Scenic Desert Trail, enters the refuge from Page Springs on Steens Mountain. For maps and further information, contact the Bureau of Land Management.



## Refuge Recreational Activities

### Wildlife Observation and Photography

With more than 320 species of birds and 58 species of mammals, the refuge offers prime wildlife viewing. Bird and mammal lists are available at refuge headquarters.

### Environmental Education

The refuge offers opportunities and guidance to teachers and educational groups for outdoor classroom activities. Call for information.

### Disabled Visitors

Access varies by area. Contact the refuge for suggestions to use the area safely.

### Fishing and Hunting

Fishing and hunting are permitted with restrictions; see fishing and hunting brochure. Dogs are encouraged for hunting.

### Boating

Boats with electric motors are permitted on Krumbo Reservoir during the fishing season, and on Malheur Lake during the hunting season. All other refuge waters are closed to boating.

### Pets

Pets must be kept leashed while on the refuge.

### Accidents

Call 911 for emergencies. Also report injuries or accidents to refuge headquarters immediately.

### Gasoline and Food

Gasoline, supermarkets, and restaurants are located in Burns, and Hines. Gasoline and limited groceries are available in Crane, Fields, and Frenchglen. Gasoline is available at the Narrows and Diamond.

### Weapons

Firearms, archery bows, and weapons that are dismantled, unloaded, and cased may be transported through the refuge on public roads.

### Prohibited Activities

Fires, swimming, camping, and collecting natural objects such as plants, animals, minerals, antlers, and objects of antiquity (including Indian artifacts) are prohibited.







## Center Patrol Road Highlight 1

### Refuge Headquarters

This is a good starting point for your visit. The refuge office, visitor center, and George Benson Memorial Museum are located at headquarters. Refuge brochures, maps, and information on road conditions, recent sightings, and birding “hot spots” are available. The museum



houses interpretive exhibits about the refuge and nearly 200 mounted specimens of birds.

The great variety of trees and shrubs at headquarters attracts many birds, making it one of the best places in Oregon to see migrating songbirds. The pond is an excellent spot to see waterfowl. View Malheur Lake from the overlook just above headquarters.

### Common Species

Yellow-rumped warbler  
Belding’s ground squirrel  
Cliff and tree swallows  
Common goldeneye (winter)  
Common nighthawk  
Cottontail rabbit  
Gadwall  
Great blue heron  
Great horned owl  
Lesser scaup  
Mallard  
Mule deer  
Red-tailed Hawk

*California quail are common near headquarters.*



©Bill Mullins



## Center Patrol Road Highlight 2

### Buena Vista Ponds and Overlook

Take a short walk from the lower parking area or drive to Buena Vista Overlook, just off Highway 205. From there you can see Steens Mountain, whose snowmelt provides most of the water for the Blitzen Valley.



For a closer look, drive by the Buena Vista ponds – a source of year-round water for wildlife. During spring and fall, these ponds are a key staging area for migrating waterfowl.

### Common Species

*Nesting Species:*  
Canada geese  
Cinnamon teal  
Gadwall  
Mallard  
Northern shoveler  
Red-winged blackbird  
Ruddy duck  
Yellow-headed blackbird

*Summer Residents:*  
Black-crowned night-heron  
Cliff swallow  
Great blue heron  
Great egret  
Mink  
Muskrat  
Rock wren  
Sagebrush lizard

*Cinnamon teal nest at Buena Vista ponds.*



©David Pitkin



## Center Patrol Road Highlight 3

### Krumbo Reservoir

Krumbo Reservoir was created in 1949 to improve refuge habitats and angling in Harney County. By storing water in the reservoir, the refuge is able to maintain a fishery and also use the water for irrigation.



A favorite spot for families, Krumbo is equipped with a boat ramp, dock, and fishing platform. Only non-motorized or electric motor boats are allowed.

For fishing seasons, bait restrictions, and limits see the Oregon State Regulations.

Krumbo Reservoir gate opens on the 4<sup>th</sup> Saturday of April and closes on November 1.

### Common Species

American coot  
Bufflehead  
Canada geese  
Mule deer  
Muskrat  
Red-winged blackbird  
Western grebe



*Western white butterfly*



*Western grebe*



## Center Patrol Road Highlight 4

*Trumpeter swan on nest.*



### Benson Pond

Tall cottonwood trees and willows dominate the riparian habitat here.



Together with the water, they create a cool oasis in the desert. The variety of vegetation attracts many different species of wildlife.

In addition to viewing waterfowl on the pond,

scan the cottonwood trees for various songbirds, great horned owls, and porcupine.

### Common Species

Cinnamon teal  
Coyote  
Deer mice  
Gadwall  
Garter snake  
Great egret  
Great horned owl  
Long-eared owl  
Mallard  
Mule deer  
Northern oriole  
Northern shoveler  
Pied-billed grebe  
Porcupine  
Trumpeter swan



## Center Patrol Road Highlight 5

### Knox Ponds

Located three miles south of Benson Pond, Knox Ponds provide essential habitat for nesting birds. Occasionally one pond is left dry and used to grow grain for migrating sandhill cranes. In the evenings, cranes often roost in the shallow areas of the pond.



### Common Species

Canada geese  
Eared grebe  
Gadwall  
Horned grebe  
Northern pintail  
Redhead  
Sandhill crane  
Trumpeter swan  
Tundra swan (fall)  
Western grebe  
White-faced ibis

*Horned grebe*



## Center Patrol Road Highlight 6

### Historic P Ranch

The Long Barn, beef wheel, and willow corrals, built in the 1880s, are all that remain of the historic P Ranch. Walk through the Long Barn to see French's innovative construction techniques.

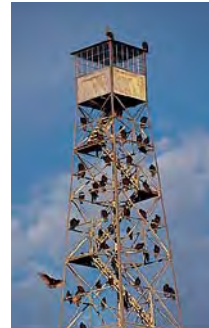


This area is noted for its combination of meadow and riparian habitats. A walk along the dike provides excellent opportunities to see species that use the willow habitat.

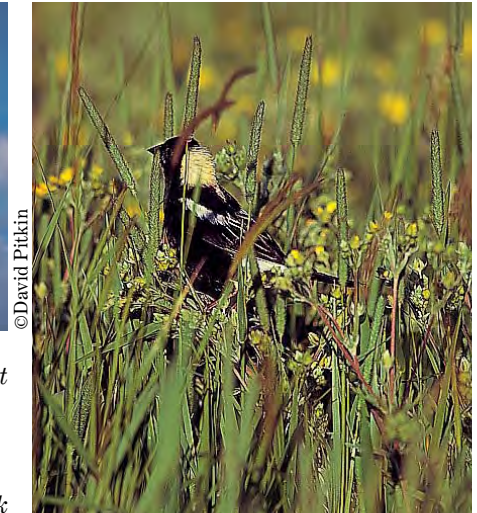
Here you can also see the CCC-built lookout tower. Although the tower itself is not open to the public, it is a popular place for roosting turkey vultures in the summer.

### Common Species

Bald eagle (winter)  
Barn swallow  
Black-headed grosbeak  
Bobolink  
Mule deer  
Porcupine  
Turkey vulture (summer)  
Yellow-breasted chat  
Yellow-headed blackbird



*Turkey vultures roosting on lookout tower.*



*Bobolink*



## For More Information

### Refuge Hours

The refuge and the museum are open daily from dawn to dusk. The office is open Monday through Thursday, 7:00 am to 4:30 pm and Friday, 7:00 am to 3:30 pm. The visitor center is open Monday through Friday, 8:00 am to 4:00 pm. With the help of volunteers, the visitor center is open most weekends during spring and summer.

### Malheur Field Station

Malheur Field Station, which is independent from the refuge, offers natural science courses for college credit during the summer. Other groups may also use these facilities. For further information contact:

Malheur Field Station  
34848 Sodhouse Lane  
Princeton, OR 97721  
541/493 2629

### Campgrounds

For information on Page Springs, Fish Lake, Jackson Park, South Steens, or Steens Mountain campgrounds, contact:

U.S. Bureau of Land Management  
28910 Highway 20 West  
Hines, OR 97738  
541/573 4400

For information on camping in Malheur National Forest and Ochoco Forest, contact:

U.S. Forest Service Campgrounds  
530 N Hwy 20  
Hines, OR 97738  
541/573 4300

### Other Overnight Accommodations

For information on accommodations, recreation, and visitor services in Harney County, contact:

Harney County Chamber of Commerce  
76 East Washington Street  
Burns, OR 97720  
541/573 2636

*Great  
horned owl*

Equal opportunity to participate in and benefit from programs and activities of the U.S. Fish and 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

**Malheur National Wildlife Refuge**  
36391 Sodhouse Lane  
Princeton, OR 97721  
541/493 2612

**U.S. Fish & Wildlife Service**  
[Pacific.fws.gov](http://Pacific.fws.gov)

**Nationwide refuge information**  
1-800-344-WILD

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

**Oregon Relay Service**  
TTY 1 800/735 2900  
Voice 1 800/735 1232

**November 2011**

