

# Identifying Priority Plants & Animals and Their Habitats

*a guidebook for forest landowners*

A publication of The Oregon Forest Resources Institute



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*This manual is dedicated to Russ McKinley of Boise Cascade, a charter member and former chair of OFRI's board of directors, whose final term ended in 2005 after 14 years of service. Russ always has been interested in relationships between forest management and habitat, and it was his idea that OFRI develop and publish this manual to assist forest landowners in plant and wildlife conservation.*

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# INTRODUCTION

Protecting forest plants and animals is nothing new to forest landowners and operators in Oregon. But as the framework of state and federal environmental rules and voluntary guidelines continues to evolve, it is not always easy for forest landowners to keep track of priority species and their habitats to determine if they have any on their lands. This guidebook will assist owners and managers in making informed decisions and help optimize the time and resources invested in species and habitat conservation. Additionally, landowners seeking forest certification may benefit from utilizing this guidebook in developing their plans and actions.

This book is not a comprehensive listing of priority species; however, it does contain information on many of the species that are protected by state or federal listings or that are otherwise designated as “strategy” or “imperiled” species. This guidebook does not address fish or invertebrates other than butterflies, but readers may access more information on these and other animal species by consulting the Oregon Wildlife Explorer, a joint Web site of Oregon State University and the Oregon Department of Fish and Wildlife at <http://oregonexplorer.info/wildlife/>.

## *Note on thumbnail maps included with each species in this guidebook:*

The thumbnail maps shaded in red included in this book are not current habitat maps for each priority species. They represent potential range maps. As a guidebook for landowners, these maps can be handy for cross referencing their land with conservation objectives.

## Terms And Definitions

### *What are “priority species?”*

For the purpose of this guidebook, priority species are those for which care needs to be taken to ensure their viability.

### *Federal Endangered Species Act of 1973*

The US Fish and Wildlife Service and NOAA Fisheries share responsibility for protecting and recovering species of plants and animals native to the United States listed as “threatened,” or “endangered” under the Federal Endangered Species Act. This guidebook includes federally threatened and endangered species found in Oregon forests.

### *Oregon Endangered Species Act of 1987*

The Oregon Department of Fish and Wildlife is responsible for fish and wildlife that are protected under the state Endangered Species Act. The Oregon Department of Agriculture is responsible for protecting threatened and endangered plants listed by the state.

### *NatureServe - Oregon Natural Heritage Information Center (ORNHIC)*

NatureServe is an international consortium of the Natural Heritage Network programs and the Conservation Data Center that works with The Nature Conservancy to gather information on the conservation status of plants and animals around the world. NatureServe maps the population occurrences of those species at greatest risk of extinction. These “at risk” species, identified as G1 and G2 species, are addressed by the Sustainable Forestry Initiative and other forest management certification systems.

### *Oregon Conservation Strategy*

In 2006, the Oregon Department of Fish and Wildlife crafted a statewide strategy emphasizing voluntary, proactive conservation of declining species and habitats on all lands in Oregon. Successful implementation of the strategy should reduce the need for additional state and federal species listings. Many of these “strategy species” are found in Oregon’s privately owned forests.

## **Priority Species Terminology**

Priority species in this guidebook may have been classified at the state and/or federal level(s) as “Threatened,” “Endangered,” “Candidate” or “Species of Concern.” They also may be listed as G1 or G2 by NatureServe and as Strategy Species by the Oregon Conservation Strategy.

**Endangered species** are those which are listed as in danger of becoming extinct within the foreseeable future throughout all or a significant portion of their range.

**Threatened species** are those listed as likely to become endangered within the foreseeable future unless conservation measures are enacted.

**Candidate species** are those on which there is sufficient information to support a “threatened” or “endangered” listing proposal under state or federal law.

**Species of Concern** are those being reviewed for consideration as “Candidates Species.”

**G1 species** are those identified by NatureServe as being “Critically Imperiled” because they are extremely rare or because they are highly vulnerable to extinction.

**G2 species** are those identified by NatureServe as “Imperiled” because of rarity or because of factors making them vulnerable to extinction.

**Strategy species** are those identified in the Oregon Conservation Strategy as having small or declining populations or being otherwise at risk.

## CONTACTS FOR ADDITIONAL INFORMATION

### **Voluntary Conservation Tools and Programs**

The Biodiversity Partnership Website offers extensive resources to explore voluntary conservation tools and programs: <http://www.biodiversitypartners.org/bioplanning/tools/index.shtml>

### **Oregon Natural Heritage Information Center**

<http://oregonstate.edu/ornhic/>  
503-731-3070

The Oregon Natural Heritage Information Center can provide information on locations of priority species for a fee (typically about \$100, depending on complexity of the request). For further information contact Cliff Alton at [cliff.alton@oregonstate.edu](mailto:cliff.alton@oregonstate.edu).

### **Institute for Natural Resources**

<http://inr.oregonstate.edu>  
541-737-9918

### **Information on at-risk species:**

Oregon Rare and Endangered Plant Guide – <http://oregonstate.edu/ornhic/plants/index.html>

Oregon Threatened and Endangered Animal Guide –  
<http://oregonstate.edu/ornhic/animal/>

USFWS Species Information –  
<http://www.fws.gov/endangered/wildlife.html>

Center for Plant Conservation Species Accounts (scientific name listing of plant accounts):  
[http://www.centerforplantconservation.org/asp/cpc\\_nclist\\_quick.asp](http://www.centerforplantconservation.org/asp/cpc_nclist_quick.asp)  
NatureServe Explorer – <http://www.natureserve.org/explorer/>

### **Species accounts for birds**

Cornell Online Bird Guide:  
<http://www.birds.cornell.edu/AllAboutBirds/>

### **Species accounts for frogs and salamanders**

<http://www.amphibiaweb.org/aw/search/index.html>

## REFERENCE BOOKS

### **Birds**

Marshall, D.B., M.G. Hunter, and A.L. Contreras, Eds. 2003. *Birds of Oregon: A General Reference*. Oregon State University Press, Corvallis, Oregon. 768 pp.

### **Mammals**

Verts, B.J. and L.N. Carraway. 1998. *Land Mammals of Oregon*. University of California Press, Berkeley, California. 668 pp.

### **Amphibians and reptiles**

Nussbaum, R.A., E.D. Brodie, Jr., and R.M. Storm. 1983. *Amphibians and Reptiles of the Pacific Northwest*. University of Idaho Press. Moscow, Idaho. 332 pp.

*Reference books continued (Amphibians and Reptiles)*

St. John, A. D. 2002. Reptiles of the Northwest: California to Alaska – Rockies to the Coast. Lone Pine Press, Renton, Washington.

**Butterflies**

Pyle, R.M. 2002. *The Butterflies of Cascadia*. Seattle Audubon Society. Seattle, Washington.

*(For plants, see the individual descriptions in this book.)*

**FEDERAL AND STATE AGENCIES**

**U.S. Fish and Wildlife Service**

Paul Hanson, State Supervisor  
Oregon Fish and Wildlife Office  
2600 SE 98th Avenue  
Portland, OR 97266  
Phone: 503-231-6179  
Fax: 503-231-6195



**Oregon Department of Fish and Wildlife**

ODFW regional offices can provide contact information for your local biologist: <http://www.dfw.state.or.us/>.

**High Desert Region**

61374 Parrell Road  
Bend, OR 97702  
(541) 388-6363

**Southwest Region**

4192 North Umpqua Highway  
Roseburg, OR 97470  
(541) 440-3353

**Northwest Region**

17330 SE Evelyn Street  
Clackamas, OR 97015  
(503) 657-2000

**Northeast Region**

107 - 20th Street  
LaGrande, OR 97850  
(541) 963-2138

**Oregon Department of Forestry**

Landowners are encouraged to contact the ODF Stewardship Forester offices located throughout the state. For a list of offices and contact information, visit [http://oregon.gov/odf/private\\_forests/dfs.shtml](http://oregon.gov/odf/private_forests/dfs.shtml). Or call 503-945-7482.

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# Plants and Animals by Ecoregion



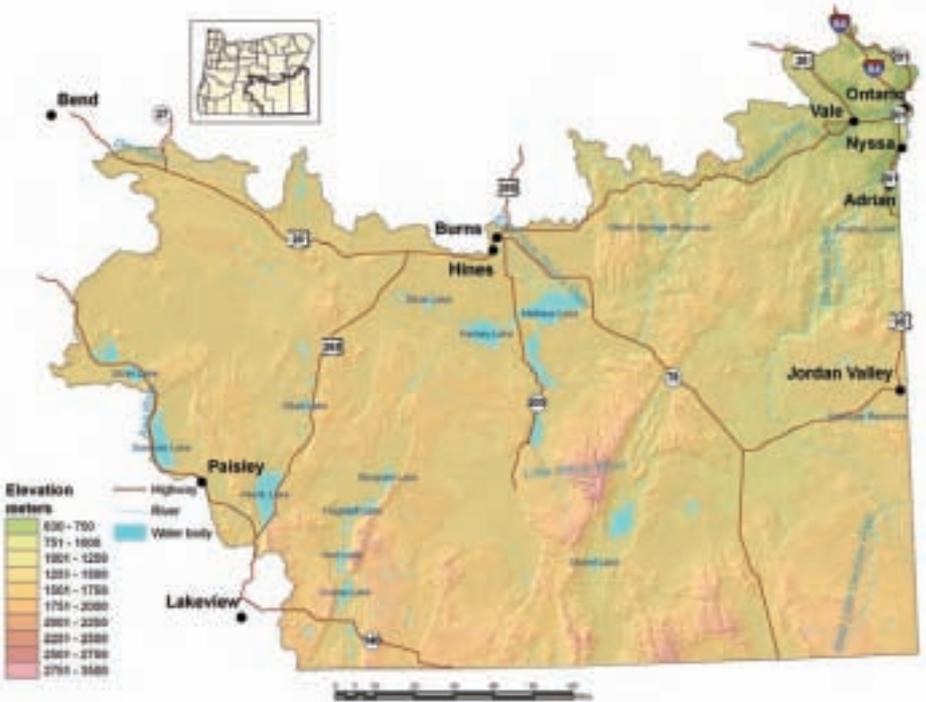
*(Note: Priority forest-associated plants generally are not found in the Basin and Range, Blue Mountains and Columbia Basin ecoregions. The range maps shown with the animal descriptions primarily show breeding ranges and may not include winter and migration ranges.)*



# BASIN AND RANGE Ecoregion

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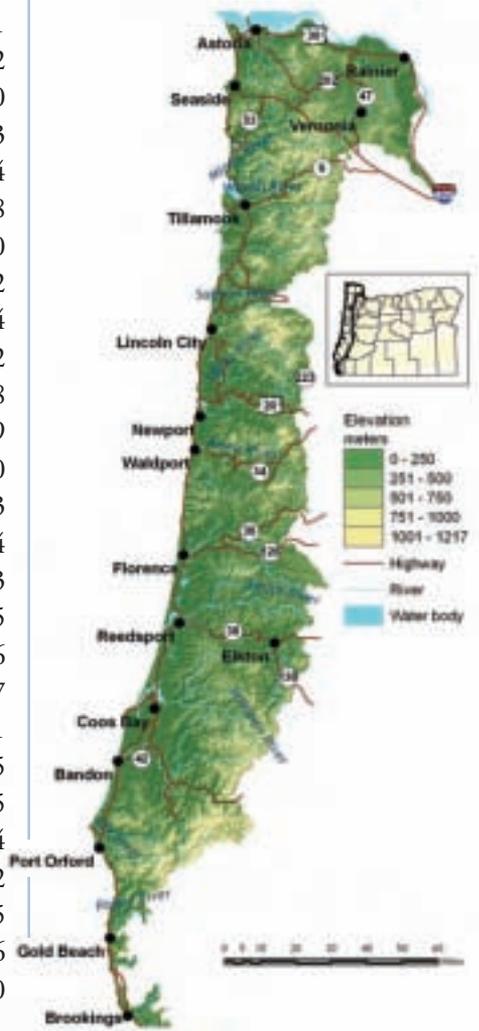
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 Bat, fringed ..... 43  
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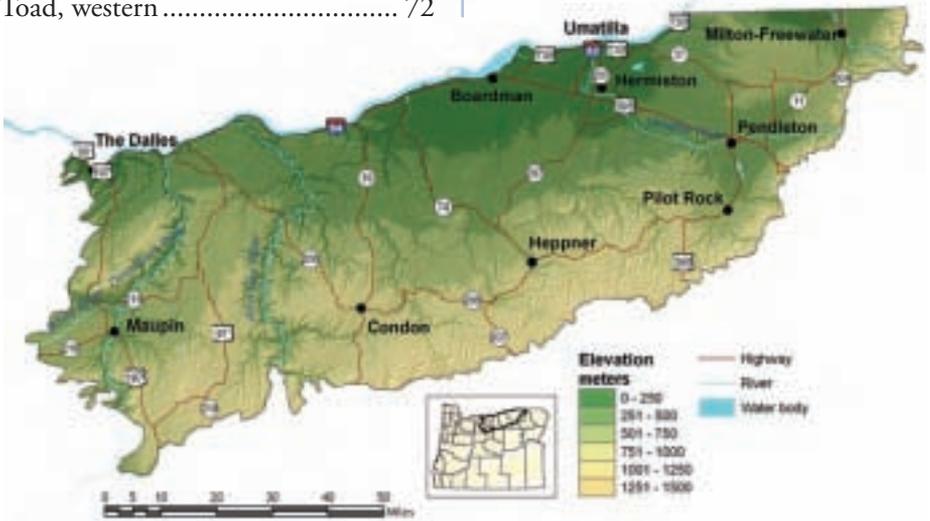
Bittercress, Saddle Mountain ..... 70  
 Checker-mallow, Nelson’s..... 83  
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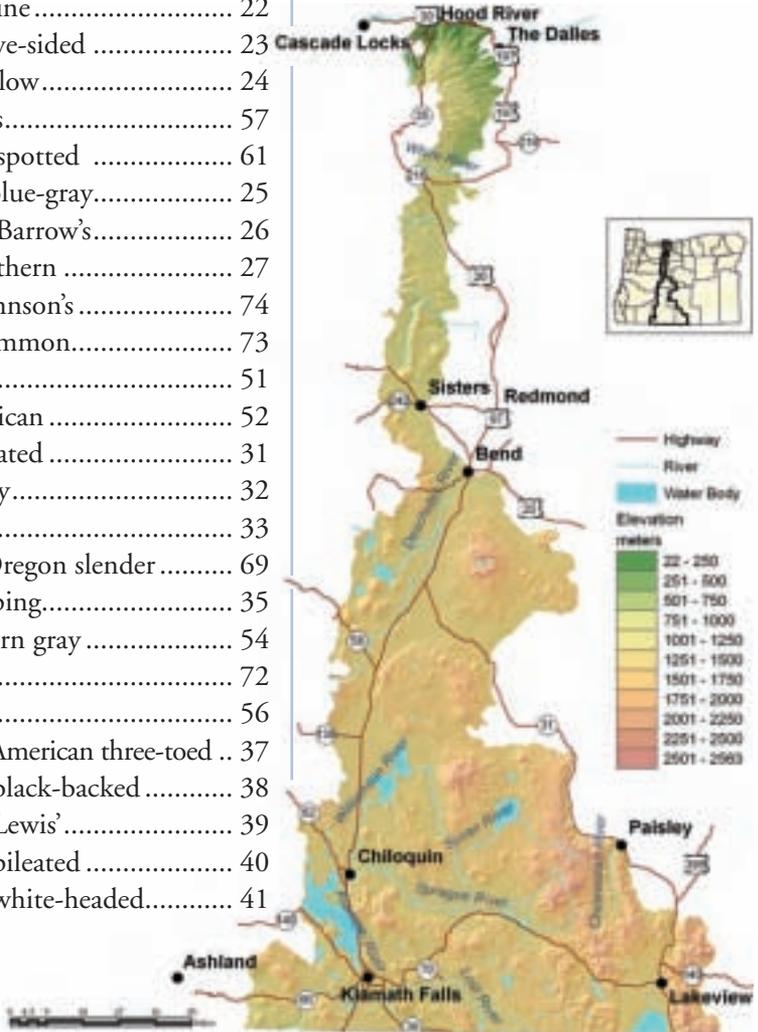
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Bat, hoary.....	44
Bat, long-legged .....	45
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Thistle, Ashland .....	99



# KLAMATH MOUNTAINS ECOREGION

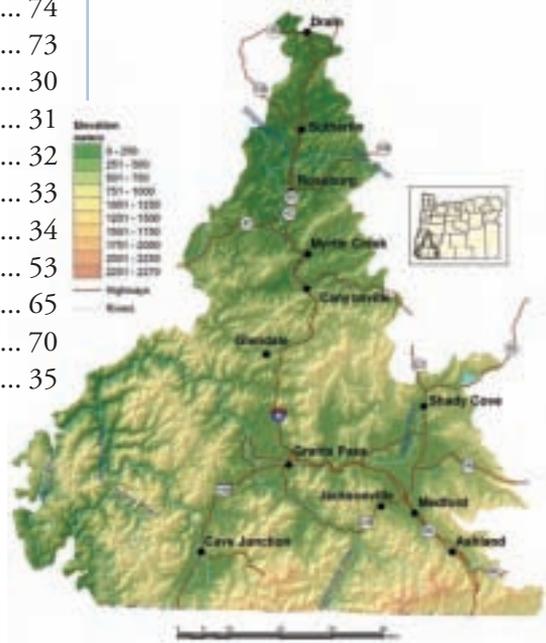
## Animals

Bat, California.....	42
Bat, fringed .....	43
Bat, hoary.....	44
Bat, long-legged .....	45
Bat, pallid.....	46
Bat, silver-haired .....	47
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Crane, greater sandhill.....	20
Deer, Columbian white-tailed .....	49
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Flycatcher, olive-sided .....	23
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Woodpecker, black-backed .....	38
Woodpecker, Lewis' .....	39
Woodpecker, pileated .....	40
Woodpecker, white-headed.....	41

## Plants

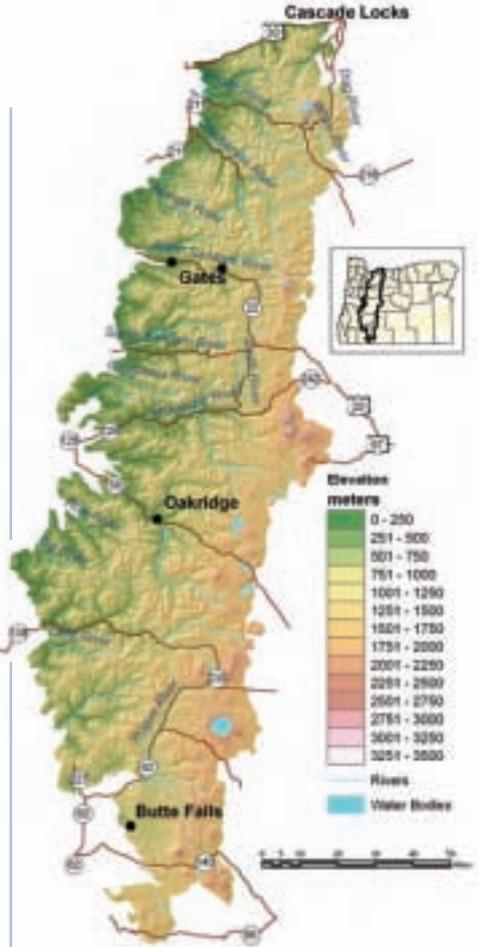
Aster, wayside.....	78
Buttercup, Southern Oregon .....	80
Camassia, Howell's.....	82
Fritillaria, Gentner's.....	85
Lomatium, Agate Desert .....	88
Lupine, Kincaid's.....	89
Mariposa-lily, Cox's .....	90
Mariposa-lily, Greene's.....	91
Mariposa-lily, Siskiyou .....	92
Mariposa-lily, Umpqua.....	93
Thistle, Ashland .....	99



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## Animals

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Bat, hoary.....	44
Bat, long-legged .....	45
Bat, pallid.....	46
Bat, silver-haired.....	47
Bat, Townsend's big-eared.....	48
Bluebird, western .....	18
Bufflehead .....	19
Crane, greater sandhill.....	20
Eagle, bald.....	21
Falcon, peregrine .....	22
Flycatcher, olive-sided .....	23
Flycatcher, willow.....	24
Frog, Cascades.....	57
Frog, coastal tailed.....	58
Frog, foothill yellow-legged .....	60
Frog Oregon spotted .....	61
Frog, red-legged.....	62
Goldeneye, Barrow's .....	26
Goshawk, northern .....	27
Hairstreak, Johnson's .....	74
Kingsnake, common.....	73
Lynx, Canada .....	51
Marten, American .....	52
Nuthatch, slender-billed.....	30
Owl, great gray.....	32
Owl, spotted .....	33
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Salamander, Cascade torrent.....	64
Salamander, clouded.....	65
Salamander, Cope's giant .....	67
Salamander, Larch Mountain .....	68
Salamander, southern torrent .....	71
Sparrow, chipping.....	35
Squirrel, western gray .....	54
Toad, western .....	72
Vole, red tree .....	55



Wolverine.....	56
Woodpecker, American three-toed.....	37
Woodpecker, black-backed .....	38
Woodpecker, pileated .....	40

## Plants

Buttercup, Southern Oregon .....	80
Grape-fern, pumice .....	86
Mariposa-lily, Umpqua.....	93
Thistle, Ashland .....	99

# WILLAMETTE VALLEY ECOREGION

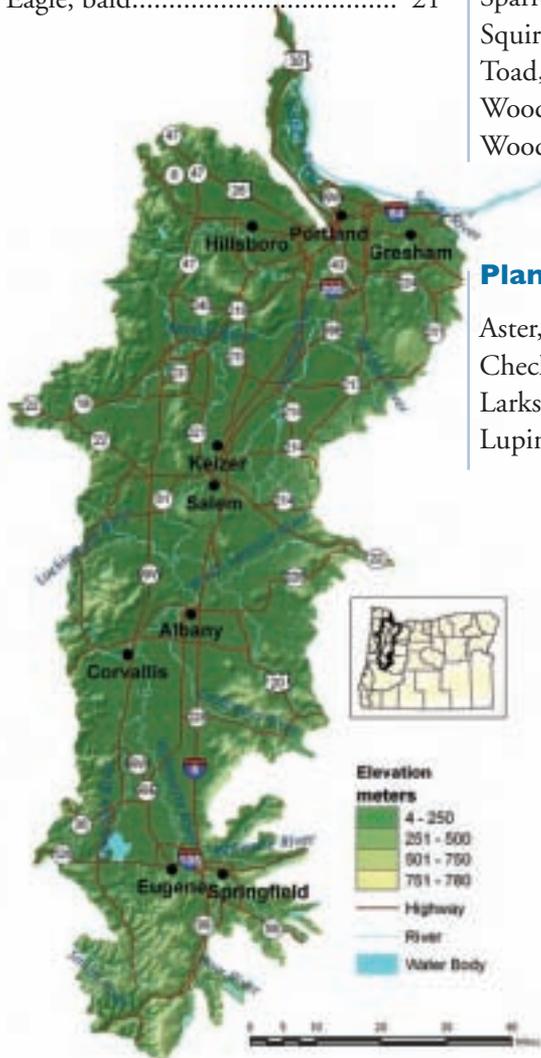
## Animals

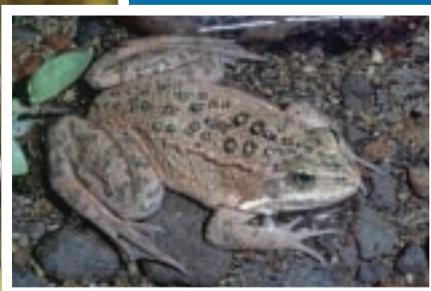
Bat, California.....	42
Bat, fringed .....	43
Bat, hoary.....	44
Bat, long-legged .....	45
Bat, pallid.....	46
Bat, silver-haired.....	47
Bat, Townsend's big-eared.....	48
Bluebird, western .....	18
Eagle, bald.....	21

Falcon, peregrine.....	22
Flycatcher, olive-sided .....	23
Flycatcher, willow.....	24
Frog, red-legged.....	62
Martin, purple.....	28
Nuthatch, slender-billed.....	30
Pigeon, band-tailed .....	34
Salamander, clouded.....	65
Sparrow, chipping.....	35
Squirrel, western gray .....	54
Toad, western .....	72
Woodpecker, acorn.....	36
Woodpecker, pileated .....	40

## Plants

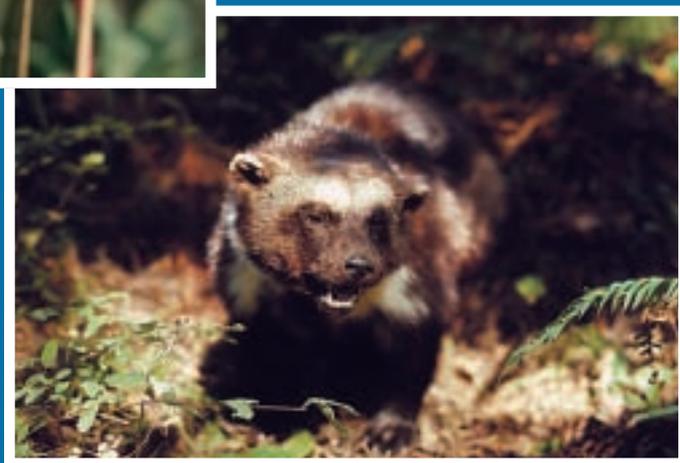
Aster, wayside.....	78
Checker-mallow, Nelson's.....	83
Larkspur, white rock.....	87
Lupine, Kincaid's.....	89





**ANIMAL**

**DESCRIPTIONS**



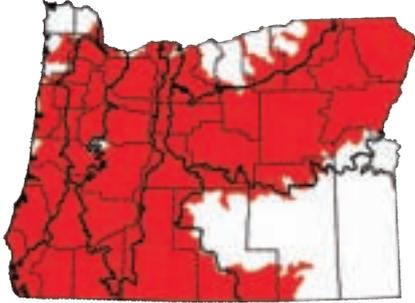


## Bluebird, western *(Sialia mexicana)*

*Status:* State (ODFW): Strategy species

*Range:* Coast Range, Willamette Valley, Klamath Mountains, West Cascades, East Cascades and Blue Mountains ecoregions. Rarely occurs in the Columbia Basin and the Basin and Range ecoregions.

*Description:* Small seven-inch bird. Males have a cobalt blue head, blue back, wings and tail with a rusty breast. Females and juveniles are more subdued with grayish heads and backs.



*Diet:* Primarily insectivores, eating crickets, grasshoppers, spiders, moths, butterflies and sowbugs. When available, fruits and berries including cascara and mistletoe berries.

*Habitat:* Nests in cavities created by decay or by other birds. Where natural cavities are unavailable, uses artificial nest boxes. Nests in young, open canopy forests, clearcuts with standing snags, meadows, riparian areas and savannahs. Home ranges vary from one to several acres.

*Principal predators/threats:* Cats, raccoons and snakes. Parasites can be a problem for both adults and young. House sparrows and European starlings compete for nest cavities and will evict bluebirds, destroy eggs and kill nestlings.

*Reproduction:* Begin breeding in April to May and lay four to six eggs. Chicks hatch in about two weeks and both parents care for the young until they fledge at about three weeks. Young birds are fed by the male while the female may start a second nest.

*Did you know...* This bluebird was once much more common in western Oregon than it is today.

# Bufflehead

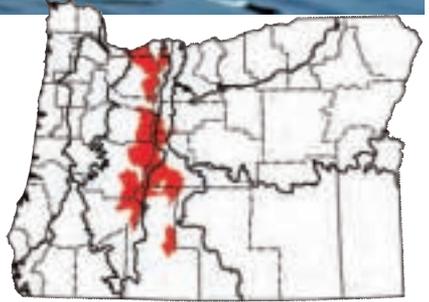
*(Bucephala albeola)*

**Status:** State (ODFW): Strategy species

**Range:** An uncommon breeder in the East and West Cascades ecoregions. During the nonbreeding season it can be found on water bodies statewide.



**Description:** About 14 inches long, males are striking black and white diving ducks with an iridescent black head and a conspicuous white patch from the eye to the back of the head. Females and juveniles are drabber, but still have a smaller white patch behind and below the eye.



**Diet:** Primarily invertebrates (aquatic insects and their larvae, snails) though plant material is also an important part of the diet.

**Habitat:** Cavities or nesting boxes around forested lakes in the Cascades; sometimes in old northern flicker nest cavities.

**Principal predators/threats:** This species is wary of humans, and recreational pressure around mountain lakes may impact populations. There may be a lack of suitable nesting cavities due to removal of dead trees.

**Reproduction:** Females lay approximately nine eggs and incubate for about 30 days. Males do not participate in incubation or brood rearing. About a day after hatching, the brood will jump out of the nest in rapid succession and join the female who leads them to the nearest water. The young fledge approximately 55 days after hatching. The female defends a territory around the brood.

**Did you know...** This duck is sometimes called the Butterball because it is so round and plump. One of the few ducks that keeps the same mate for several years.



## Crane, greater sandhill

*(Grus canadensis tabida)*

**Status:** State (ODFW): Strategy species

**Range:** East Cascades, Basin and Range and Blue Mountains ecoregions, as well as Jackson county. A few pairs nest in high montane meadows in the West Cascades ecoregion.

**Description:** A tall 44-inch wading bird with a gray body, red crown and white cheek patches. Flies with its neck extended and legs trailing behind.

**Diet:** Omnivorous, eating waste grain, seeds, berries, tubers and roots as well as animals caught in marshes and grasslands such as insects, reptiles, amphibians and bird eggs. Tends to eat more plant material than animal.

**Habitat:** Nests in shallow water of marshes and meadows or in drier grasslands and pastures that may occur within forests. Forage in adjacent marshes or agricultural fields. Breeding territories are defended and range from 3 to 168 acres.

**Principal predators/threats:** Eggs are taken by coyotes, common ravens and northern raccoons. Coyotes also take chicks. Eggs and young may also be destroyed when hay fields are mowed early in the breeding season. Threatened by loss of wetland habitat.

**Reproduction:** Arrive in Oregon in early March. Nests contain two eggs incubated by both sexes for about a month. Young leave the nest within a day of hatching, but stay with the parents for nine to ten months. Usually stay with the same mate for several years.

**Did you know...** This is Oregon's tallest bird. It is long-lived, with documented ages exceeding 34 years.

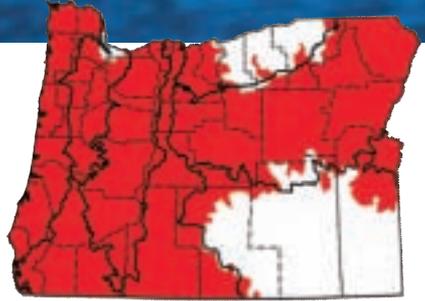
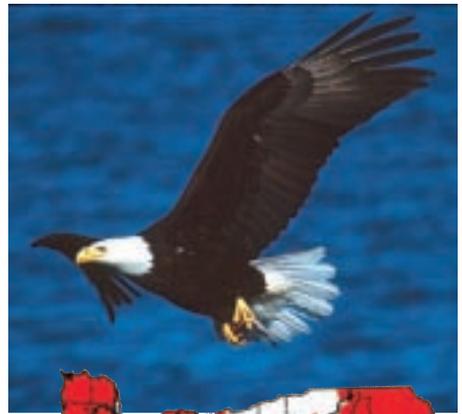
# Eagle, bald

*(Haliaeetus leucocephalus)*

**Status:** Federal (USFWS):  
Threatened  
State (ODFW): Threatened;  
Strategy species

**Range:** Breeds statewide except in Sherman, Gilliam, Morrow and Malheur counties.

**Description:** Large 36-inch dark brown bird with large talons and a yellow, hooked beak. The characteristic white head and tail is not present until the birds are mature, at about five years. Juvenile plumage is more mottled.



**Diet:** Opportunistic feeders, but primary food is fish. Also birds (especially waterfowl), carrion and small mammals. In winter, dead waterfowl are an important food item.

**Habitat:** Anywhere with a suitable prey base and tall trees for nesting. Usually found near water: along streams, the coast, lakes and marshes. During the nesting season, do not tolerate human disturbance well. During the breeding season, home ranges vary between two square miles and eight and a half square miles.

**Principal predators/threats:** Is at the top of the food chain and has few natural predators. Although Oregon's population has recovered from historic lows, populations continue to be susceptible to environmental contaminants, habitat loss and human harassment.

**Reproduction:** Bald eagles exhibit strong mate fidelity and return to the same nest to rear young year after year. Nests are built in large trees with an open structure and large limbs. Nests are a large stick platform and are added to each year as part of courtship; they can become quite heavy. Clutch size is usually two, and both parents incubate and participate in raising the young.

**Did you know...** Winter is the best time to see bald eagles in Oregon. Large numbers winter near Bear Valley in the Klamath Basin.

# Falcon, peregrine

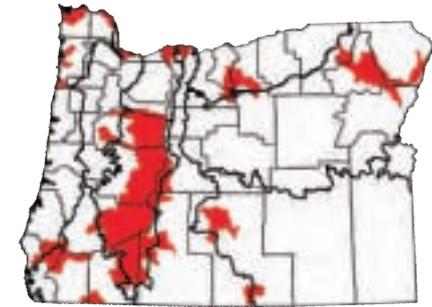
(*Falco peregrinus*)

**Status:** State (ODFW): Strategy species; Endangered

**Range:** Although rare, found statewide in appropriate habitat.

**Description:** About 18 inches long with a 45-inch wingspan. Plumage is variable, but generally a dark back and head and lighter plumage beneath. In flight, the pointy, swept back wing silhouette identifies them.

**Diet:** Mostly small to medium-sized birds, doves, pigeons, starlings, gulls and shorebirds, most often caught on the wing. Occasionally small mammals, insects or fish.



**Habitat:** Requires high cliff ledges to nest, but may be in a variety of habitats. Does not often nest in forest interiors, but rather on the edges of forests or other open areas that provide good hunting opportunities. Also nests on building ledges and bridges in cities.

**Principal predators/threats:** The great horned owl is one of few predators. Threatened in the past from pesticide accumulation that caused eggshell thinning, but populations seem to have recovered in recent years.

**Reproduction:** Engage in spectacular courtship flights. They begin nesting in March, when three or four eggs are laid. Eggs incubated for about a month, mainly by the female while the male brings her food. Young usually fledge 37 to 54 days after hatching, depending on elevation and weather.

**Did you know...** This falcon is one of the fastest animals on Earth, having been recorded reaching speeds of 240 miles per hour.

# Flycatcher, olive-sided

*(Contopus cooperi)*

**Status:** Federal (USFWS): Species of concern  
State (ODFW): Strategy species

**Range:** Coast Range, West Cascades, East Cascades, Willamette Valley, Klamath Mountains and Blue Mountains ecoregions.

**Description:** About seven and a half inches long with a relatively large head and short tail. Olive-gray overall except for a patch of white from the throat to the belly, giving the appearance of an unbuttoned vest.



**Diet:** Almost exclusively flying insects, especially bees and wasps. Like most flycatchers, flies out from a perch to catch its prey on the wing.

**Habitat:** Coniferous forests of all ages, particularly those with an uneven canopy and plenty of snags. Often associated with forest openings and edges (natural or man-made), burned areas and forests near bodies of water. Home range is believed to be about 25 to 50 acres.

**Principal predators/threats:** Populations are declining, although forest management over the last 50 years has increased forest openings and edge habitat. Increased predation may explain why the apparent increase in habitat is coupled with declining populations.

**Reproduction:** Arrive in May and lay three or four eggs in a nest cup, usually in a coniferous tree. Only the female incubates the eggs, though the male may bring food to the female. Both adults feed the nestlings, which fledge in August. Fledglings stay with parents on territory for a week or two after fledging. Will renest if predators take the eggs, but only raise one brood per season.

**Did You Know...** This bird is easily identified by its loud “quick-three beers!” whistle.

## **Flycatcher, willow** *(Empidonax trailii)*

**Status:** Federal (USFWS): Species of concern  
State (ODFW): Strategy species

**Range:** Statewide in appropriate habitat.

**Description:** Small six-inch long olive green to gray bird. Can be difficult to locate and is most often detected by its song – a snappy “fitz-bew.”

**Diet:** Flies out from a perch to catch almost exclusively flying insects on the wing. Occasionally gleans insects from branches.



**Habitat:** Breeds in dense shrubby areas such as willow thickets along streams, marshes and meadows. Uses young forests with an extensive shrub layer. Breeding territories are small; from three-tenths of an acre to about three acres.

**Principal predators/threats:** Snakes, hawks, owls and weasels. Loss of riparian habitat and cowbird parasitism has led to declines of this species in parts of the state. Cattle grazing in riparian areas can also affect this species negatively.

**Reproduction:** Build cup nests in shrubs within a few feet of the ground. Arrive in Oregon in late May to June and the peak nesting period is from late June to mid-July. Three to four eggs in a clutch, and only one brood is reared per season. Young usually fledge by mid-August. Cowbirds frequently lay their eggs in willow flycatcher's nests, reducing the flycatcher's nest success by about 50 percent.

**Did you know...** Abundance of this species varies throughout the state.

# Gnatcatcher, blue-gray

*(Poliophtila caerulea)*

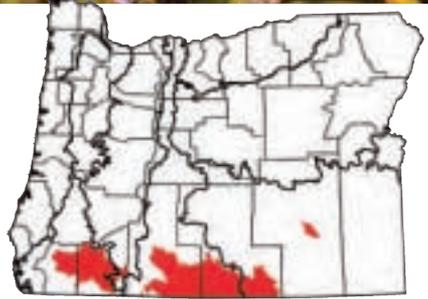


**Status:** State (ODFW): Strategy species

**Range:** Jackson, Josephine, Klamath, Lake and Harney counties. Isolated nesting attempts elsewhere in the state, including Lane County.

**Description:** A small, four and one-half inch, energetic blue-gray bird with a white eye-ring and long black tail with whitish edging.

**Diet:** Mainly small insects (beetles, flies, ants and gnats), insect eggs and spiders. Most food is gleaned from leaves and outer twigs.



**Habitat:** Variety of dry woodlands and brushy habitats, including chaparral-oak, mountain mahogany and juniper communities. Breeding territories range from two to seven acres.

**Principal predators/threats:** Often parasitized by the brown-headed cowbird. Loss or modification of chaparral-oak habitat is the greatest threat.

**Reproduction:** The breeding season begins in April. A cup nest is built in the fork of a tree limb and both parents incubate for about two weeks. Young are fledged in about two weeks, during which time both parents tend to them. The family unit stays together for an additional three weeks after fledging.

**Did you know...** Oregon is at the northern limit of the blue-gray gnatcatcher's range. Confirmed as a breeder in the state in 1962, it may be expanding its range in Oregon.

## Goldeneye, Barrow's (*Bucephala islandica*)

*Status:* State (ODFW): Strategy species

*Range:* East and West Cascades ecoregions. May also breed locally in Malheur, Umatilla and Wallowa counties.

*Description:* A medium-sized 22-inch diving duck. Males have a dark, glossy purple head with a white crescent between the eye and the bill, a black back and white underparts with white patches on the wings. Females have a brown head and body, and a small orange bill.



*Diet:* Mainly aquatic invertebrates, including insects and their larvae, mollusks and crustaceans. Some aquatic vegetation including tubers, seeds and submerged vegetation.

*Habitat:* Usually nests in cavities in medium to old forest stands around high mountain lakes, reservoirs and rivers with thick growths of emergent vegetation. Observed nesting in dense stands of cattail and bulrush in the high desert. On lakes, may have a home range of 40 to 60 yards of shoreline, though this can be extremely variable.

*Principal predators/threats:* Likely fewer than 500 breeding pairs in Oregon and thus susceptible to population fluctuations. Loss of dead wood and cavities for nesting could negatively affect this species.

*Reproduction:* Females have strong ties to their natal breeding areas and usually return there to nest. Nesting begins in May and females incubate a clutch of about 10 eggs for a month. After hatching, the females lead the young to the nearest body of water and protects the brood until fledging, usually in early to mid August.

*Did you know...* This is the only waterfowl species known to defend winter territories different from their summer territories.

# Goshawk, northern

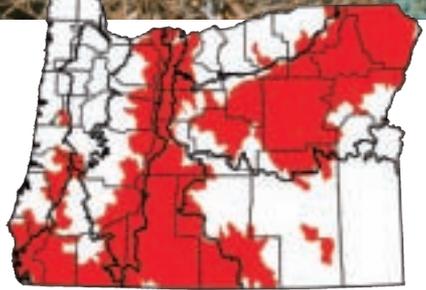
*(Accipiter gentilis)*



**Status:** Federal (USFWS): Species of concern  
State (ODFW): Strategy species

**Range:** Nests in the Klamath Mountains, Blue Mountains, and East and West Cascades ecoregions. More common east of the Cascades. During the nonbreeding season, goshawks can be seen statewide in forested habitats.

**Description:** A large – 23 inches long with a 33-inch wingspan – accipiter hawk with short rounded wings and a long striped tail. Adults are gray with a dark eye stripe. Young are brownish with a striped belly and may not have an eye stripe.



**Diet:** Birds and small mammals, up to the size of grouse and hares.

**Habitat:** Requires older age, usually coniferous forests though also nests in aspen groves. Nesting habitat is characterized by large stands of mature trees, high canopy closure, open understory and low to moderate slopes.

**Principal predators/threats:** Threatened by habitat loss because of reliance on old growth and mature forest. Fire suppression has led to a build up of brush in formerly open forests, possibly making nesting and foraging habitat unusable.

**Reproduction:** Large stick nest high in one of the tallest trees in a stand. Usually lays three or four eggs. The female incubates the eggs and the male brings food. Eggs hatch in approximately 31 days and the young fledge in approximately 45 days. Young are dependent on the adults into September.

**Did You Know...** The goshawk vigorously defends its nests from all perceived intruders – including humans.

# Martin, purple

*(Progne subis)*

**Status:** Federal (USFWS): Species of concern

State (ODFW): Strategy species

**Range:** Coast Range and Willamette Valley ecoregions where suitable habitat conditions exist.

**Description:** Large eight-inch swallow. Males are glossy bluish-purple, while females and young birds are dark gray with a lighter belly, forehead and nape of neck.

**Diet:** Flying insects caught on the wing.



**Habitat:** Requires open habitats such as water bodies, marshes, clearcuts or fields for foraging. Forages over the canopies of forests. Nest cavities must be in close proximity to these open habitats.

**Principal predators/threats:** Competes with European starlings and house sparrows for nest cavities. Removal of snags, especially around open areas, eliminates habitat for this species.

**Reproduction:** Cavity nesters, using holes in snags, pilings or nest boxes. Many nest sites are over water. May nest singly or in colonies with several other pairs. Clutch size is four to five, and the female incubates for two to three weeks. Young fledge about a month after hatching and return to the same colony to breed in successive years.

**Did you know...** Nest boxes began to be erected in Oregon around 1970. Since then populations seem to have increased.

# Murrelet, marbled

*(Brachyramphus marmoratus)*

**Status:** Federal (USFWS): Threatened  
State (ODFW): Threatened;  
Strategy species

**Range:** Coast Range ecoregion within  
50 miles of the coast.

**Description:** Cryptic, robin-sized,  
about 10 inches, with sooty  
brown to black plumage. In  
winter birds have a white belly.

**Diet:** Small fish and marine  
invertebrates in near-shore waters.

**Habitat:** Nests in old-growth  
coniferous forests within 30 miles  
of the coast (furthest inland nest  
record is 31 miles from the coast in Douglas County). Also found in trees  
65 to 200 years old in second growth forests in Tillamook and Clatsop  
counties.

**Principal predators/threats:** Loss and fragmentation of older forest habitat.  
Also susceptible to oil spills. Fragmentation of habitat makes murrelets  
more susceptible to predation. Primary predators are crows, ravens, owls  
and falcons.

**Reproduction:** Beginning in April and extending into July, lays a single egg on a  
moss-covered limb close to the trunk and high in the tree. Dwarf mistletoe  
creates suitable nesting platforms. Both adults incubate the egg, exchanging  
duties shortly before dawn each day. Chicks are brooded for a day or two  
and then the adults leave the nest to find food, returning to feed the chick  
several times per day. The young fledge by early September.

**Did you know...** The murrelet is notoriously hard to detect, but is best observed  
by listening and watching near dusk and dawn at nesting sites for adults  
returning to the nest.



## Nuthatch, slender-billed *(Sitta carolinensis aculeata)*

**Status:** State (ODFW): Strategy species

**Range:** Willamette Valley, Klamath Mountains, West Cascades and, rarely, in the Coast Range ecoregions.

**Description:** Easily recognized by its black cap, blue-gray back and white belly. Often seen clinging upside down on a tree trunk.

**Diet:** In spring and summer, eats mainly insects and spiders gleaned from tree trunks or pulled from

crevices. During the winter, eats acorns, pine nuts and other seeds. Known to cache food and sometimes use tools to forage.

**Habitat:** Strongly associated with large-diameter Oregon white oak in semi-open woodlands. Historically this habitat was maintained by periodic fire. Does not occur in dense, humid forests common in western Oregon.

**Principal predators/threats:** Declining in western Oregon, largely due to the loss of open stands of large oaks.

**Reproduction:** Use cavities excavated by woodpeckers or formed by decay for nesting and roosting. Nests are usually in live trees or nest boxes. Occupy the same territory year round, but only vigorously defends it during the breeding season. Average clutch size is about eight eggs incubated by the female. The male brings food to the incubating female and to the nestlings. Young fledge in about two weeks, but remain with the parents for another two weeks.

**Did you know...** This bird is a subspecies of the white-breasted nuthatch. Only the slender-billed subspecies is a Strategy species for ODFW.



# Owl, flammulated

*(Otus flammeolus)*

**Status:** State (ODFW): Strategy species

**Range:** Breeds in the East Cascades and Blue Mountains ecoregions as well as Jackson and Harney counties.

**Description:** Small seven-inch owl with dark eyes. Brownish all over with darker and reddish variegation and small ear tufts.

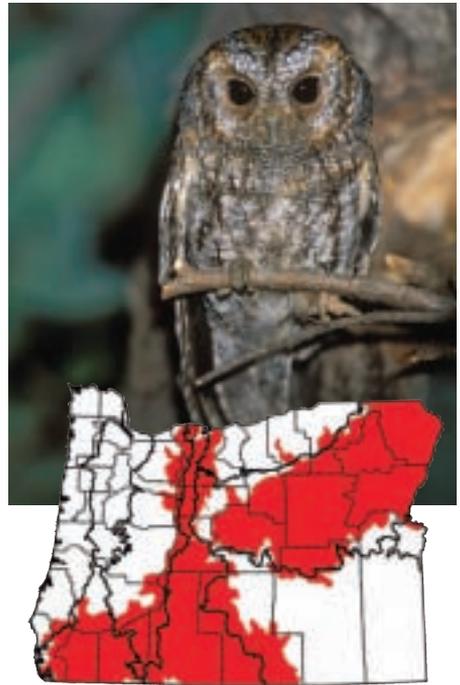
**Diet:** Preys almost exclusively on insects. Crickets are an important part of the diet. Moths and beetles are also taken.

**Habitat:** Nests in medium to older forests with moderate to high levels of canopy closure and an open understory or an open area adjacent to the forest. Closely associated with ponderosa pine forests, but also uses mixed forests with a ponderosa pine component.

**Principal predators/threats:** Falcons, great horned owls and red squirrels. May be threatened by its low reproductive rate and preference for older ponderosa pine forests. Little is known about the population status.

**Reproduction:** Cavity nesters. Use cavities in snags or live trees excavated by pileated woodpeckers and northern flickers. Arrive in May and migrate south by October. Females incubate three eggs for about three weeks and young fledge in three weeks. Male brings food to incubating female and nestlings.

**Did you know...** The ear tufts on this owl are not really ears at all, but feathers. An owl's ears are located on either side of its eyes.





## Owl, great gray (*Strix nebulosa*)

**Status:** State (ODFW): Strategy species

**Range:** East Cascades and Blue Mountains ecoregions. Also known from west of the Cascades in Jackson, Josephine, Marion, Linn and Lane counties.

**Description:** A large 27-inch gray-brown owl with a prominent facial disk and a series of concentric rings that surround yellow eyes. It has a wingspan of 54 to 60 inches.

**Diet:** Mostly small mammals, especially voles, moles and pocket gophers. Also mice, squirrels, chipmunks and birds.

**Habitat:** Nests in mature to old growth coniferous forests and forage over open meadows or clearings adjacent to those forests. Does not build their own nests, but relies on pre-existing sites such as snag tops, abandoned tree cavities or old raptor nests. Home ranges of 30 to 60 square miles have been recorded.

**Principal predators/threats:** Great horned owls. It is not clear if timber harvest practices benefit or harm this species. The creation of clearcuts may provide temporary foraging habitat, but cutting of older stands can reduce nesting habitat.

**Reproduction:** Prefer abandoned raptor nests, though nests of other large birds, squirrels or the tops of snags will be used. A clutch of three to five eggs is incubated by the female for about a month during which period the male brings food. After hatching, the male brings food for the young as well, but the female feeds them. Young leave the nest after about a month, but continue to be cared for by the parents until about four months.

**Did you know...** This owl is elusive and hard to study, so little is known about its population status.

# Owl, spotted

(*Strix occidentalis*)

**Status:** Federal (USFWS):  
Threatened  
State (ODFW): Threatened;  
Strategy species

**Range:** Coast Range, Klamath Mountains, West Cascades and East Cascades ecoregions.

**Description:** A large 18-inch dark brown owl with dark eyes and white spotting on the breast and abdomen. Looks similar to the barred owl and in some places occupy the same habitat. The barred owl has white vertical bars on the breast while the spotted owl has white spots.



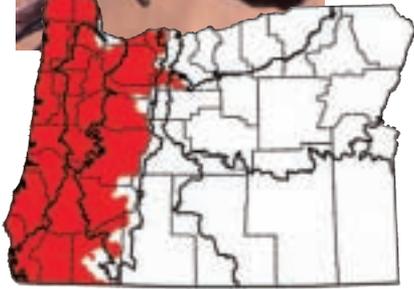
**Diet:** Mainly small forest mammals, especially flying squirrels, woodrats and red tree voles. Occasionally small birds and insects.

**Habitat:** All coniferous forest types at low to mid elevations in western Oregon. Most abundant in mature to old-growth forest habitat. In younger forests, often associated with remaining older patches. Home range from 3,000 to 4,500 acres.

**Principal predators/threats:** Great horned owls, northern goshawk and the barred owl. The larger barred owl is often more successful at competing for limited habitat. The barred owl may also hybridize with spotted owls. Loss of older forest habitat threatens this species.

**Reproduction:** A clutch of two to four eggs, usually two, is laid in a cavity or on a platform. The male brings food to the incubating female and the newly hatched young. Young leave the nest about five weeks after hatching, but remain on the parents' territory until September or October. Young may not breed for several years. Many adults do not breed every year.

**Did you know...** Spotted owls are particularly tame and will allow humans to approach within a few feet.



## Pigeon, band-tailed *(Patagioenas fasciata)*

**Status:** Federal (USFWS) Species of concern

State (ODFW): Strategy species

**Range:** Coast Range, Willamette Valley, Klamath Mountains ecoregions and low elevation forests of the West Cascades ecoregion.

**Description:** About 15 inches long, bluish-gray overall with a pale gray band on the end of the tail, bordered by a darker, narrower band above. Red eye-ring and adults have a white crescent on the nape of the neck.

**Diet:** Mainly nuts and berries (acorns, elderberries, cascara, huckleberries, blackberries), but also buds, flowers, seeds and grains.

**Habitat:** Low-elevation coniferous forests. Requires closed canopy forests for nesting and primarily uses Douglas-fir forests, though closed canopy conifer or mixed hardwood-conifer stands also may be used. Requires open canopy forests for foraging and access to mineral deposits.

**Principal predators/threats:** Regional population trends for this species are inconclusive. Past threats included hunting pressure and disease. Specific predators include the usual forest predators: falcons, common ravens, scrub jays. Peregrine falcons are the most commonly reported predator.

**Reproduction:** Believed to be monogamous, they stay with the same mate for multiple years. Arrive in Oregon in March; peak of nesting is from May to June. Nests are a loose platform of twigs placed in dense foliage near the trunk of a tree. One egg is laid per nest, but most pairs are able to initiate two nests per season. Both sexes incubate the egg and feed the young with “milk” regurgitated from the crop.

**Did you know...** This species is gregarious and may be seen in large aggregations around mineral deposits.

# Sparrow, chipping

*(Spizella passerina)*

**Status:** State (ODFW): Strategy species

**Range:** Occurs statewide in appropriate habitat, although rare to absent in parts of Harney and Malheur counties and along the north coast.

**Description:** Small five-inch bird. During the breeding season, adults have a chestnut colored crown, a black stripe through the eye and a white stripe above the eye. After the breeding season, this sparrow looks like many other sparrow species.



**Diet:** Seeds gleaned from the bare ground or from areas of short grass. Insects and larvae during the breeding season.

**Habitat:** Open habitats, open coniferous woodlands interspersed with grassy spaces or other low vegetation for foraging. It can also be found in meadows, clearcuts and other forest openings. Prefers thinned forests to old growth. Breeding territories range from three to seven acres.

**Principal predators/ threats:** Declining throughout the state in recent years, but especially in western Oregon. Once associated with oak woodlands in the Willamette Valley, the absence of fire from these areas has excluded this species. Susceptible to brood parasitism from brown-headed cowbirds and competition from non-native species such as house sparrows.

**Reproduction:** Begin breeding in late April. The female incubates four eggs in a cup nest on a tree branch for two weeks. Young fledge two weeks after hatching.

**Did you know...** This sparrow often lines its nest with animal hair, earning it the nickname “horse hair bird.”

## Woodpecker, acorn (*Melanerpes formicivorus*)

*Status:* Federal (USFWS): Species of concern

State (ODFW): Strategy species

*Range:* Lives where oaks grow. It is found in Curry County, the Klamath Mountains and the Willamette Valley ecoregions. A population near The Dalles has likely disappeared.

*Description:* A small nine and a half-inch black and white woodpecker with a red crown and white eye.

*Diet:* Mainly acorns, but also eats insects and sap. Acorns are stored

in granaries; dead trees or branches or living trees with softer wood. Each acorn is stored in a hole drilled just large enough for the acorn.

*Habitat:* Middle to older aged oak savannas and open oak-conifer woodlands. May also use forest stands adjacent to oaks. Average home range is 1.7 acres.

*Principal predators/threats:* Habitat loss. Large oak trees are not being replaced, and open oak habitats are declining because of clearing and invasion by Douglas-fir in response to fire suppression.

*Reproduction:* Live in communal groups with breeding birds and nonbreeding helpers. The colony defends a territory, which includes a cavity nest and granaries. Four to six young are raised by the colony per season – in good acorn years a second nest may be attempted.

*Did you know...* This woodpecker is unique in that it lives communally and stores acorns. Often noticed by its conspicuous 'waka' call and noisy drumming.



# Woodpecker, American three-toed (*Picoides dorsalis*)

**Status:** State (ODFW): Strategy species

**Range:** Higher elevations of the East Cascades, West Cascades and Blue Mountains ecoregions.

**Description:** A nine and a half-inch medium sized woodpecker with a black and white barred body and black and white face. Males have a yellow crown.

**Diet:** Mainly eats the larvae of bark beetles and wood-boring beetles. Also larvae, ants, fruits, mast and cambium.

**Habitat:** Medium to older age high-elevation forests, usually with a lodgepole pine component. Forest type may not be as important as the presence of bark beetles. Home range can vary from 100 acres to more than 700 acres.

**Principal predators/threats:** Little information on predators is available, though they likely include falcons and owls. Thinning of burned or diseased forests reduces habitat for this species.

**Reproduction:** Both adults share in nest excavation, incubation and feeding of young. Cavities are made in dead or diseased lodgepole pines. Clutches of four eggs are incubated for about two weeks and the young fledge at about 26 days old.

**Did you know...** This species is similar to the black-backed woodpecker, but tends to use higher elevation forests. Where they coexist, American three-toed woodpeckers forage higher on tree trunks and limbs than the black-backed woodpecker.





## Woodpecker, black-backed (*Picoides arcticus*)

**Status:** State (ODFW): Strategy species

**Range:** East Cascades, West Cascades, Klamath Mountains and Blue Mountains ecoregions.

**Description:** A medium sized nine and a half-inch woodpecker with a solid black back, barred flanks and a black and white face. Males have a yellow crown patch.

**Diet:** Mainly the larvae of wood-boring beetles, but also adult wood-boring beetles and bark-beetles. Also ants, spiders, fruit, acorns and cambium.

**Habitat:** Nests in a variety of coniferous forests, including lodgepole pine, ponderosa pine and mixed conifer forests. Most likely found in forests with a large proportion of dead trees, often from a fire or bark-beetle outbreak. Home ranges vary greatly depending on food availability.

**Principal predators/threats:** Forest falcons are known predators, but little information is available. Past threats have included habitat loss due to fire suppression and salvage logging, but the number of fires and the amount of dead standing timber has substantially increased in the past two decades.

**Reproduction:** Breeding begins in late April to early May, with excavation of a nest cavity in a dead or diseased tree. This species uses smaller trees than most other woodpeckers. Both adults share in nest excavation, incubation and feeding of young. Pairs occupy the same territory for successive years, but will excavate different cavities each year. Clutches of four eggs are incubated for about two weeks and young fledge at about 26 days old.

**Did you know...** This woodpecker is often detected by conspicuous drumming and “snarling” calls.

# Woodpecker, Lewis'

*(Melanerpes lewis)*

**Status:** Federal (USFWS): Species of concern  
State (ODFW): Strategy species

**Range:** Mainly in the East Cascades ecoregion, rare in the Klamath Mountains and Blue Mountains ecoregions and Harney County.

**Description:** Greenish-black back, a gray collar and breast and red patches on the face and belly.

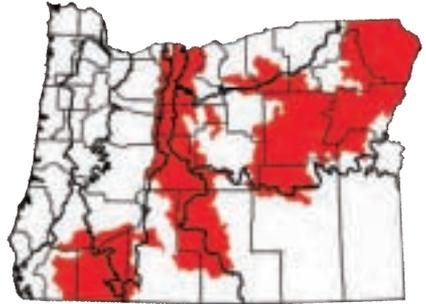
**Diet:** Catches insects by flycatching and gleaning in the spring and summer. In winter and fall, ripe fruit and acorns, which are shelled and stored for winter consumption in cracks in snags and bark crevices.

**Habitat:** Nests in open woodlands with large dead or dying trees. Most often found in oak, ponderosa pine and riparian woodlands. Defends nest areas during the breeding season and acorn storage trees during the fall and winter.

**Principal predators/threats:** Once common in Oregon, this bird has declined in number. Reasons for the decline include loss of lowland oak habitat and competition for nest cavities with European starlings.

**Reproduction:** Begin in April/May with conspicuous courtship calls. Prefer to nest in old woodpecker cavities, but can excavate their own. A clutch of six to seven eggs is incubated by both sexes for about two weeks. Young fledge about a month after hatching.

**Did you know...** This woodpecker is named for Meriwether Lewis who described it in 1805.



## Woodpecker, pileated (*Dryocopus pileatus*)

**Status:** State (ODFW): Strategy species

**Range:** Older forests in the Blue Mountains, East Cascades, West Cascades, Klamath Mountains, Willamette Valley and Coast Range ecoregions.

**Description:** Large, 18-inches long, black and white with a white head and red crest. Males have red “moustache” extending back from the bill.

**Diet:** Primarily carpenter ants, also other ants, beetles, termites and some fruits and nuts. Finds insects by making large rectangular excavations, usually in large diameter dead or downed trees or logs.

**Habitat:** Uses older dense mixed conifer forests or deciduous stands in valley bottoms. Requires large diameter snags or decaying live trees for nesting, foraging and roosting. A dense canopy protects them from predation. Home ranges 650 acres to more than 2,000 acres.

**Principal predators/threats:** Susceptible to predation from large forest hawks, snakes and squirrels. Habitat loss is significant threat in Oregon. Removal of large diameter trees and snags, downed woody material and canopy cover makes habitat unsuitable for this species and makes it more vulnerable to predation.

**Reproduction:** Both parents excavate a nest cavity and incubate a clutch of four eggs. The pair defends a territory year round.

**Did you know...** The cavities excavated by this woodpecker are used by other forest species for nesting and roosting.



# Woodpecker, white-headed

*(Picoides albolarvatus)*

**Status:** Federal (USFWS): Species of concern

State (ODFW): Strategy species

**Range:** Blue Mountains, East Cascades and Klamath Mountains ecoregions. Also in Douglas County.

**Description:** A striking medium-sized nine-inch woodpecker with a black body and white head. Males have a red patch at the nape of the neck. In flight, white wing patches show.

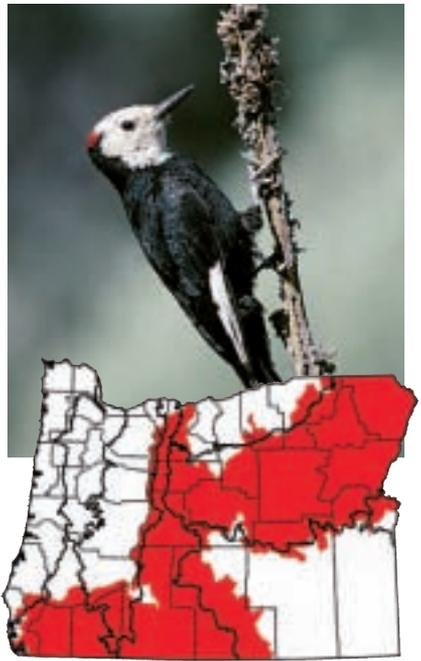
**Diet:** Relies heavily on the seeds of ponderosa pine, but will also eat sugar pine seeds, invertebrates and sap. Invertebrates taken include spruce budworm, larvae, ants, beetles, scale insects and cicadas.

**Habitat:** Closely associated with open ponderosa pine or mixed conifer forests dominated by ponderosa pine. Found in older forests that provide snags for nesting and large trees for foraging. Home ranges vary from 250 to 800 acres, depending on the level of habitat fragmentation, with smaller home ranges in contiguous habitat.

**Principal predators/threats:** Distribution is becoming patchier in Oregon because of loss or deterioration of mature ponderosa pine habitat. Population recruitment is not keeping pace with mortality, resulting in a declining species. Rodents eat eggs, and shrubby understories may provide rodents increased cover.

**Reproduction:** Breeding begins in May. Both adults share in nest excavation, incubation and feeding of young. Pairs occupy the same territory for successive years, but will excavate different cavities each year. Cavities are made in large snags, stumps or in the dead tops of live trees. Clutches of four to five eggs are incubated for about two weeks and young fledge at about 26 days old.

**Did you know...** This woodpecker's nest trees are often located at the edge of a clearing.



# Bat, California

*(Myotis californicus)*

*Status:* State (ODFW): Strategy species

*Range:* Appropriate habitat statewide, except it is absent from the Columbia Basin ecoregion.

*Description:* Small three-inch brown bat with small ears. Difficult for amateur naturalists to distinguish from other bats without making careful measurements.

*Diet:* In eastern Oregon, eats primarily moths and secondarily flies, beetles and leafhoppers. West of the Cascades flies are the most

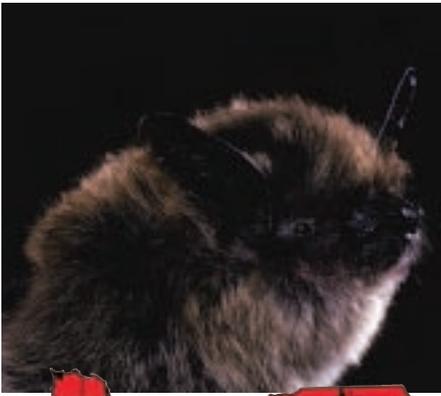
important food item, followed by moths, termites and caddisflies. This difference is likely related to the availability of prey in the two regions. Most food is taken on the wing.

*Habitat:* Variety of habitats near water. Riparian forest, clumps of trees near a water source and willows all provide good habitat. Requires crevices for roosting, which can be natural or man-made (buildings, mine tunnels, hollow trees, rock crevices). In drier habitats, forages along the margins of clumps of trees or around the edges of canopies. Forages over water when present.

*Principal predators/threats:* Occasionally taken by owls. Not much is known about its population size.

*Reproduction:* Breed in the fall and a single young is born in the spring. Females congregate in maternity colonies during the breeding season. Other than this, little is known about the reproductive habits.

*Did you know...* This bat will drink flying over water by dragging the lower jaw across the surface.



# Bat, fringed

*(Myotis thysanodes)*

**Status:** Federal (USFWS): Species of concern  
State (ODFW): Strategy species

**Range:** Blue Mountains, Willamette Valley, Klamath Mountains and Coast Range ecoregions. Most records in Oregon are from west of the Cascades.

**Description:** Small three and a half-inch bat with medium-sized ears. Wings are dark brown and body is covered with yellowish fur. Fringe of stiff hairs along the tail membrane gives it the name.



**Diet:** Unlike most bats, this species gleans its prey from the ground or from vegetation, sometimes while in flight. Also eats moths, spiders, beetles and flies.

**Habitat:** Variety of habitats but prefers forests or riparian areas. In the Coast Range, old growth forests are preferred to younger forests. Elsewhere, found in willow-bordered riparian areas in sagebrush, oak and pinyon habitats. Uses caves and buildings as roost sites.

**Principal predators/threats:** Loss of older forests and riparian areas threatens this bat. Like many bats, sensitive to disturbance.

**Reproduction:** Breed in the fall and a single young is born in June or July. Females congregate in large maternity colonies in caves, mines and buildings during the summer. Other than this, little is known about its reproductive habits.

**Did you know...** It is not known if the fringed myotis migrates south for the winter or hibernates in Oregon. Few individuals have been found in Oregon over the winter.

## Bat, hoary (*Lasiurus cinereus*)

**Status:** State (ODFW): Strategy species

**Range:** A migratory species, widely distributed throughout North America in appropriate habitat, but does not appear to be common in Oregon.

**Description:** At five and a half-inches, this uniquely colored bat is the largest in Oregon, with the hairs on its back giving a frosty appearance. Short round ears, long pointed wings and a fast direct flight with slow regular wingbeats.



**Diet:** Specializes in eating moths but eats other flying insects such as flies, mosquitoes, beetles, grasshoppers, wasps and dragonflies.

**Habitat:** Middle age to older mixed coniferous and deciduous forests for roosting and breeding. Forages along edges of riparian corridors and openings within forests. Studies have shown a level of fidelity to roost stands year-to-year.

**Principal predators/threats:** Hawks, owls, weasels and snakes. Potential concerns over the influences of wind turbines on mortality, particularly during migration and conservation issues surrounding this species in Oregon may be significant.

**Reproduction:** Normally mate in the fall and delays implantation until spring. Usually two young per litter are born from early June to early July.

**Did you know...** Females may carry young less than a week old when foraging.

# Bat, long-legged

*(Myotis volans)*

**Status** Federal (USFWS): Species of concern

State (ODFW): Strategy species

**Range:** Appropriate habitat statewide except in the Columbia Basin ecoregion.

**Description:** Medium-sized three and three-quarters-inch bat with short, round ears. West of the Cascades, a dark smoky brown, but on the east side a yellowish-buff color. The fur extends a bit onto the tail membrane of this species.



**Diet:** Moths are the most important, but also butterflies, especially in eastern Oregon, termites, spiders, beetles and leafhoppers. Prey is caught on the wing, often in the wing and tail membranes where they are temporarily immobilized before being eaten.

**Habitat:** Higher elevations than most of bat species. Montane coniferous forests, but also in lower-elevation coniferous forests, oak and mixed evergreen woodlands. In desert and riparian areas. Old to mature forests are preferred over young stands. Caves and mines used for hibernation and night roosting.

**Principal predators/threats:** Susceptible to human disturbance and vandalism because of its habit of hibernating and raising young in colonies.

**Reproduction:** Breed in the fall and a single young is born in spring or summer (little information is available). Maternity colonies are formed in buildings, hollow trees and rock crevices. The sexes are segregated during the spring and summer.

**Did you know...** This is one of the fastest bats, executing complex aerial maneuvers when foraging. Can live to be at least 21 years old.



## Bat, pallid (*Antrozous pallidus*)

**Status:** Federal (USFWS): Species of concern

State (ODFW): Strategy species

**Range:** Klamath Basin, Columbia Basin and Northern Basin and Range ecoregions. Willamette Valley ecoregion south of the Lane/Benton County line. Lower elevation portions of the Blue Mountains ecoregion.

**Description:** Large with large ears. Cream to light brown above and paler beneath.



**Diet:** Eats mostly beetles, Jerusalem crickets and moths by gleaning them from the ground. Also eats grasshoppers, lizards and mice.

**Habitat:** Associated with dry areas, but also open forest types such as ponderosa pine and oak woodlands. Typical habitat is in brushy, rocky terrain with grass, sagebrush and juniper. Narrow crevices in cliffs, mines, bridges or abandoned buildings are used as day roosts. Different, but close by, crevices serve as night roosts to rest between hunting periods or to consume prey. Little is known about winter roosts.

**Principal predators/threats:** Vulnerable to predation by snakes, hawks and owls because they feed on the ground. Intolerant of disturbance and will abandon roost sites if bothered.

**Reproduction:** Begin their breeding season in the fall and females typically bear two young in the spring or summer. Dates are highly variable and depend on temperature. Young are dependent on the female and are nursed for 30 to 50 days after birth. Young continue a loose association with the mother until about a year old.

# Bat, silver-haired

*(Lasionycteris noctivagans)*

**Status:** Federal (USFWS): Species of concern

State (ODFW): Strategy species

**Range:** Statewide except for the Columbia Basin ecoregion.

**Description:** Black wings and fur except for silver white tips of the hair on the back. The ears are short and rounded.

**Diet:** Opportunistic feeder; moths, termites and flies make up most of its diet.

**Habitat:** Older forests, especially Douglas-fir/western hemlock, though ponderosa pine and juniper woodlands are also used. Found in old growth forests more often than mature forests, perhaps because older forests have more crevices for roosting. Uses crevices in bark as summer day roosts. Uses mines, caves, rock crevices, trees and buildings for winter hibernation, but it is not clear if the species winters in Oregon.

**Principal predators/threats:** Peregrine falcons, but little other information exists on predators. Not as subject to human harassment as some other bat species because they are not colonial and do not use caves extensively. Loss of older Douglas-fir forests may threaten this species.

**Reproduction:** Mate in the fall and females usually give birth to two young in June or July. Rarely occur in groups although females may gather in small maternity colonies.



# Bat, Townsend's big-eared

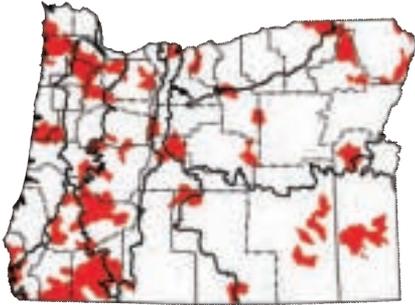
*(Corynorhinus townsendii)*



**Status:** Federal (USFWS): Species of concern  
State (ODFW): Strategy species

**Range:** Rare and local, but can occur virtually anywhere in the state. Has not been found in western portions of the Northern Basin and Range ecoregion, or in Morrow, Gilliam, Baker and Grant counties.

**Description:** Large four-inch bat with exceptionally long ears. The ears are connected at their bases across the forehead. Light to dark brown above and paler brown below.



**Diet:** Primarily feeds on moths taken on the wing. Also some beetles and true bugs. Occasionally gleans insects off leaves.

**Habitat:** Desert scrub habitat in eastern Oregon and coniferous forests in western Oregon. Caves or abandoned mine tunnels, which are used for hibernation, nursery colonies and roost sites are critical habitat. Also uses buildings as day roosts.

**Principal predators/threats:** Human disturbance and vandalism of roost and hibernation sites.

**Reproduction:** Breeding occurs in the late fall and winter and during hibernation. In the spring and summer, females assemble in nursery colonies and a single young is born in June or early July. Young bats are weaned at six to eight weeks.

**Did you know...** Extremely intolerant of human disturbance and will abandon hibernation sites and roosts if disturbed.

# Deer, Columbian white-tailed

*(Odocoileus virginianus leucurus)*



**Status:** Federal (USFWS): Endangered  
State (ODFW): Strategy species  
ORNHIC/NatureServe: G2

**Range:** Two distinct populations in Oregon. The population along the Columbia River in Clatsop and Columbia counties is endangered under the federal Endangered Species Act (ESA). A second population occurs along the Umpqua River in Douglas County. This population is no longer listed under the ESA.



**Description:** At approximately 60 inches high, the smallest deer in Oregon with a relatively large tail; brown above and white below.

**Diet:** Grazers. Grasses, forbs and agricultural crops are the main food item. To a lesser extent woody vegetation, though this may be more important during winter.

**Habitat:** Uses bottomland habitat along the Columbia River with vegetation tall enough to provide cover and open enough to allow a grass-shrub understory for grazing. In Douglas County, found in oak woodlands along the Umpqua River. Home range is about 100 acres.

**Principal predators/threats:** Coyote is the primary predator in Oregon. In the Columbia River population, foot rot (a bacterial infection) affects as many as 46 percent of the deer, making them more susceptible to predation and other diseases. In Douglas County, vehicular accidents and malnutrition are the major threats.

**Reproduction:** Breeding occurs in late fall and one or two fawns are born in June. Young are usually weaned by 10 weeks.

**Did you know...** Prior to European settlement this subspecies occurred from The Dalles to Astoria and south through the Willamette Valley to the Umpqua River.

# Fisher

(*Martes pennanti*)

**Status:** Status: Federal (USFWS):  
Candidate  
State (ODFW): Strategy species

**Range:** Once occupied western hemlock and sitka spruce forests in western Oregon. Today, probably limited to two distinct populations; one near Crater Lake and the other in the Siskiyou Mountains. Reports of fisher outside these areas have not been confirmed.

**Description:** Large 36-inch weasel with long body, long tail and short legs. The fur is dark brown on the back and black on the tail. The face, neck and shoulders are grizzled with lighter hairs.

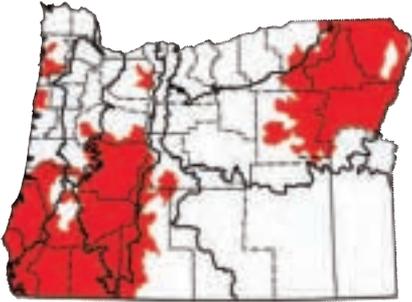
**Diet:** Small to medium-sized forest mammals, including porcupines, snowshoe hares, tree squirrels and mice. Opportunistically eats carrion and occasionally takes birds, bird eggs and amphibians.

**Habitat:** Variety of mature, closed canopy coniferous forests at low to mid elevations. Riparian corridors with continuous canopies, large stands, low levels of fragmentation and a high percentage of dead and downed timber are all favorable habitat characteristics. Average home range is from 24 to 32 square miles.

**Principal predators/threats:** Loss of mature forest habitat and fragmented populations of this extremely rare species in Oregon.

**Reproduction:** Breed in the spring and a litter of three young is born about a year later. Young are weaned by four months and are becoming independent by five months.

**Did you know...** Primary predator of the porcupine. Fishers do not flip porcupines to attack their bellies as is often reported. Rather, they repeatedly bite the porcupine's face, which has no quills.



# Lynx, Canada

*(Lynx canadensis)*

**Status:** Federal (USFWS): Threatened

**Range:** Rare in Oregon. Occasionally sighted in the Blue and Cascade Mountains, though these individuals may have dispersed from northern populations.

**Description:** Slightly larger than a bobcat, but long legs make it look larger. The ears have visible tufts on the ends and the tail has a black tip.

**Diet:** In most parts of its range, relies heavily on snowshoe hares. Hare populations are cyclical and lynx populations cycle along with the hares. When hares are scarce, the species eats squirrels, mice, voles and young deer or elk. Because of rarity in state, no specific food habits information for Oregon.

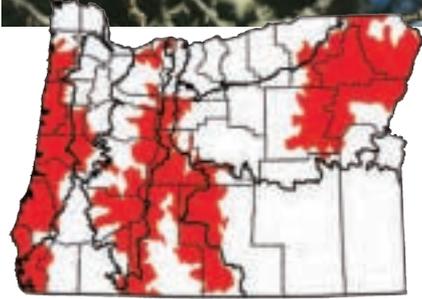
**Habitat:** Same as good snowshoe hare habitat—dense thickets of conifers broken up by small patches of herbaceous vegetation. Commonly occur at high elevations where there is a deep snowpack over the winter. Home ranges are usually 4,000 to 5,000 acres.

**Principal predators/threats:** Occasionally killed by gray wolves or wolverines. Requires large areas of habitat; human encroachment into this habitat may be a threat.

**Reproduction:** Breeding season begins in early spring and young are born about two months later. Age at first breeding and litter size (average is three) is dependent on food supply. Young remain with mother until the following spring.

**Did you know...** Although sighted from time to time, a breeding population apparently does not exist in Oregon at this time. It is not likely that a viable population has occurred in Oregon during the last 400 years.





## Marten, American (*Martes americana*)

**Status:** State (ODFW): Strategy species

**Range:** Mountainous portions of the Blue Mountains, the East and West Cascades ecoregions and the Coast Range south of Tillamook County.

**Description:** Medium sized 26-inch weasel with long body, long tail and short legs. The fur is rich brown on the back and lighter yellow on the chest area. The face is pointed with small dark “eyebrows” pointing directly up from the inside corners of the eyes.

**Diet:** Mainly small mammals (shrews, voles, woodrats, squirrels), but also some birds, insects and fruit.

**Habitat:** Variety of mature forests with closed canopies and downed timber. The forest structure is more important than the type of forest. Riparian forests provide good habitat. Snags, stumps and downed logs provide resting places and hunting perches. Occasionally use open areas in forests. Home range is about 2,500 acres.

**Principal predators/threats:** Extensive logging and forest fires make habitat unsuitable. Loss of mature forest habitat threatens marten populations in Oregon.

**Reproduction:** Breed in the summer and a litter of two to four young is born the following spring.

**Did you know...** Little is known about the marten in Oregon; it is a furbearer, though few individuals are taken.

# Ringtail

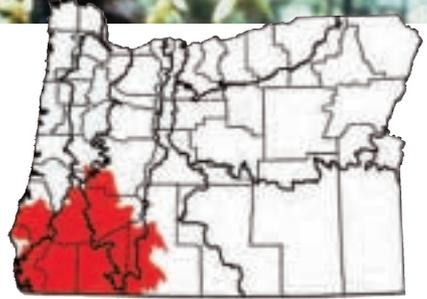
*(Bassariscus astutus)*

**Status:** State (ODFW): Strategy species

**Range:** Southwestern Oregon, in the Klamath Mountains ecoregion and Curry County. It may also edge into Klamath and Coos counties.

**Description:** A relative of the northern raccoon with a long, black and white banded tail and a white facial mask. Long body, similar to a marten.

**Diet:** Omnivorous, eating plants (berries, leaves, seeds) and animals (voles, beetles, birds and eggs).



**Habitat:** Variety of habitats. Recorded in older mixed-conifer forests. Prefers woodlands with a tanoak component containing rocky areas and close to water. Needs vertical structure in habitat, which can be provided by cliff faces, canyons or tall gallery forests along riparian corridors. Home range varies considerably, from 620 acres for females to 865 acres for males.

**Principal predators/threats:** Great horned owl, coyotes, bobcats and raccoons. Populations may be declining in Oregon. Threats include loss of riparian and oak habitat.

**Reproduction:** Have a litter of three to four young in May or June after a 51 to 54 day gestation period. Females care for the young, which can walk at about 37 days, eat meat at 7 weeks and are independent at about 19 weeks.

**Did you know...** This species is strongly nocturnal and is an excellent climber. Sometimes called “ringtail cats” and “civet cats,” although not members of the cat family.

## Squirrel, western gray (*Sciurus griseus*)

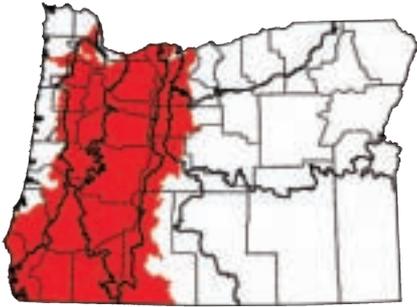


**Status:** State (ODFW): Strategy species

**Range:** Low to mid-elevation forests from the East Cascades west. It is not found in unforested portions of the Willamette Valley ecoregion or along the coast north of Coos County.

**Description:** At 22 inches, the largest tree squirrel in Oregon. Silvery-gray on the back and white underneath. No ear tufts.

**Diet:** Fungi, acorns and pine nuts are most important. Also conifer seeds, fruit, berries, green vegetation and insects.



**Habitat:** Primarily in mixed-forest communities dominated by Oregon white oak. Also riparian forests and mixed forests containing tanoak, maple, madrone and conifers. Usually a broadleaf component to the habitat. Home range varies from less than an acre to more than 40 acres.

**Principal predators/threats:** Loss of oak woodland habitats as well as competition from the introduced eastern fox squirrel and eastern gray squirrel. House cats, hawks, eagles and coyotes are predators.

**Reproduction:** Little information available on breeding strategy. Two or three young are born between February and May. Young born in tree-hole nest, but are believed to be moved to stick nests when the tree hole becomes too crowded or parasites become a problem.

**Did you know...** Where they coexist, acorn woodpeckers are known to drive western gray squirrels away from their acorn caches.

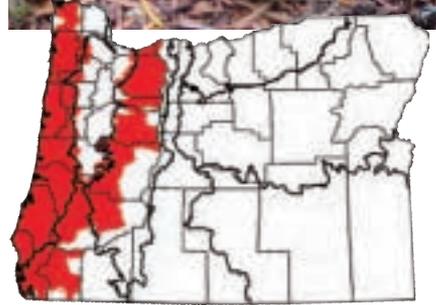
# Vole, red tree

*(Phenacomys longicaudus)*

**Status:** Federal (USFWS): Species of concern  
State (ODFW): Strategy species

**Range:** Western Oregon, including the Coast Range, West Cascades and Klamath Mountains ecoregions. Distribution is becoming increasingly discontinuous with the fragmentation of late-successional forests.

**Description:** This medium-sized vole is bright orange-red to cinnamon on top and silvery gray underneath. Its tail is generally more than 50 percent of the length of the body.



**Diet:** Feeds almost exclusively on Douglas-fir needles, but also eat needles of other conifer species and occasionally the bark or interior of twigs.

**Habitat:** Found in dense, moist coniferous forests that contain sufficient numbers of Douglas-fir trees. Some habitat requirements, including minimum patch size of suitable habitat to maintain colonies, are not currently known.

**Principal predators/threats:** Primarily owls and possibly other forest raptors. Much of its preferred habitat has been lost and continues to decline due to logging. Has disappeared from some local areas. The species disperses slowly and with limited capabilities. Early seral stage forests may be a barrier to dispersal.

**Reproduction:** Breed throughout year. Build nests of Douglas-fir needles about 50 feet above the ground. Relatively low reproductive rate, producing two or three young per litter.

**Did you know...** This species spends its entire life in the tree canopy and is a major prey item of the spotted owl in some areas. Darker forms of this species (sometimes called the dusky tree vole) occur in northwestern Oregon.



# Wolverine

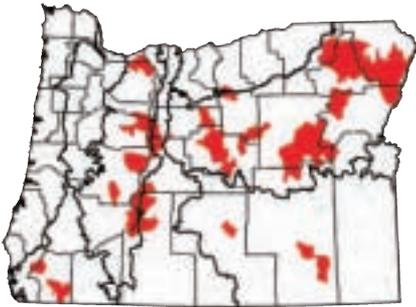
*(Gulo gulo)*

**Status:** Federal (USFWS): Species of concern

State (ODFW): Threatened

**Range:** Extremely rare in Oregon.

Only scattered records from mountains in Linn, Harney, Deschutes and Wheeler counties. Large home ranges and could be found in any of Oregon's more remote mountain areas.



**Description:** Large 36-inch mustelid of weasel family. Large broad head, short legs and a bushy tail. Blackish brown with a paler stripe along the sides of the body. Perhaps a whitish face mask. Large males can weigh more than 30 pounds.

**Diet:** Mostly small to medium-sized rodents, but also berries, roots, birds, rabbits, squirrels and porcupines. Known to eat carrion and may cache carrion and surplus prey beneath snow and ice.

**Habitat:** Variety of high-elevation wilderness habitat, including older open forests, but the key feature seems to be absence of human activity. Will cross open areas such as clearcuts, but these cannot be considered habitat. Home ranges are huge, averaging more than 100,000 acres for males and more than 95,000 acres for females.

**Principal predators/threats:** Little evidence that predation is a problem. Greatest threat is lack of suitably large, remote habitat.

**Reproduction:** Most do not breed until their second year. Breeding is in the late spring or early summer and implantation is delayed. Young (usually two) are born the following winter or spring.

**Did you know...** The wolverine is a powerful animal that can take down an elk in deep snow. Not clear that Oregon has a self-sustaining population.

# Frog, Cascades

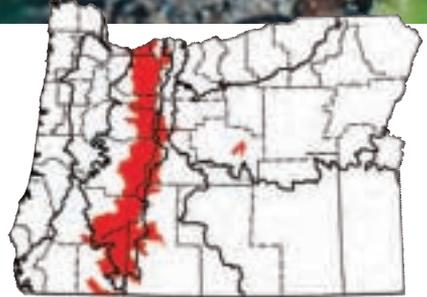
*(Rana cascadae)*

**Status:** Federal (USFWS): Species of concern

State (ODFW): Strategy species

**Range:** Cascade Mountains; rarely found at elevations below 2,600 feet and have been found at over 6,500 feet.

**Description:** Medium-sized, brown to olive green on back with well-defined black spots. Undersides are yellowish or cream. Adults range in size from two to three inches with females being the larger sex.



**Diet:** Variety of small invertebrates. Tadpoles eat algae, detritus, plant tissue and minute organisms in the water.

**Habitat:** Lakes, ponds, bogs and small streams in moist montane meadows and forests.

**Principal predators/threats:** Variety of mammals and birds, as well as garter snakes. Noted declines may be related to disease, habitat fragmentation, pesticide drift or the sensitivity of eggs to increased levels of ultraviolet radiation.

**Reproduction:** Breeding begins early, as soon as ice and snow have melted in early to mid-spring. Each female lays a mass of 300 to 500 eggs, often in aggregations in shallow water on barely submerged mosses or other short vegetation. Tadpoles commonly form schools of up to 100 individuals during the two-month larval period and metamorphose in August or September. Some may not transform until their second summer.

**Did you know...** This frog hibernates in mud or soil saturated by spring water, sometimes up to 250 feet from standing water.

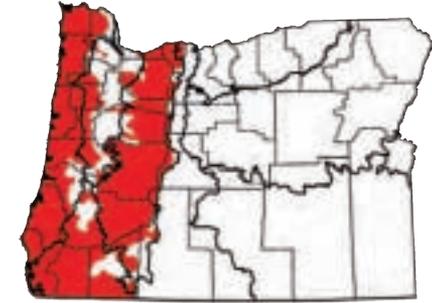
## Frog, coastal tailed (*Ascaphus truei*)

**Status:** Federal (USFW): Species of concern

State (ODFW): Strategy species

**Range:** Western Oregon in the Cascades and Coast Range. Distributed from sea level to near timberline.

**Description:** Brown, reddish-brown or gray, with yellow or gray mottling. Vertical pupil, no external ear. Males have a protruding tail-like extension of the cloaca. Tadpoles have a distinctively large, round mouth, modified for suction, which they use to cling to streamside rocks.



**Diet:** Adults eat a wide variety of insects and other small invertebrates. Larva feed primarily on diatoms, algae and pollen scraped from rocks in streams.

**Habitat:** Clear and cold, fast-flowing, permanent streams primarily in older forests. These streams have cobbled bottoms, sometimes with emergent boulders, and contain little silt. Adults emerge at night or wet weather to forage along these streams.

**Principal predators/threats:** Pacific and Cope's giant salamanders. Studies have found tadpole densities and the occurrence of larvae were significantly lower in streams with silted bottoms than in buffered or undisturbed streams.

**Reproduction:** Only amphibians in the region to have internal fertilization of the eggs, an adaptation to its environment. Mating occurs in the fall and an average of 50 to 60 eggs are laid the following summer. Larvae hatch six weeks later and tadpoles take one to four years to transform into adults.

**Did you know...** Sounds are not important to tailed frogs in their noisy stream environments and they lack the ability to produce vocalizations.

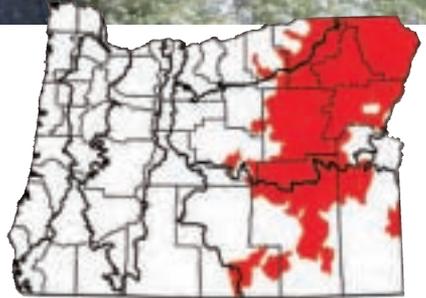
# Frog, Columbia spotted

*(Rana luteiventris)*

**Status:** Federal (USFWS): Candidate  
State (ODFW): Strategy species

**Range:** Eastern Oregon in the Blue Mountains and Basin and Range ecoregions.

**Description:** A medium-sized frog, it may be brown or gray above with a variable number of irregular-shaped black spots. Usually indistinct edges and light centers. Undersides are cream-colored with an orange or salmon-colored pigment present on the hind legs and lower abdomen.



**Diet:** Adults eat a wide variety of invertebrates, including earthworms, spiders, snails, beetles, ants, grasshoppers and other insects. Tadpoles eat algae, decaying organic matter and plant tissue.

**Habitat:** Highly aquatic, rarely found far from the edges of ponds, marshes, springs and slow streams where grasses and sedges may be plentiful.

**Principal predators/threats:** Variety of mammals, birds and fish. Introduction of exotic trout as well as cattle grazing appear to be the major negative influences. However, the decline of beaver ponds in many areas may also be contributing significantly to the loss of habitat.

**Reproduction:** Breeding begins in early spring, depending on snowmelt and water temperature. Strong tendency to lay eggs communally in large clusters in shallow water, usually on low vegetation. Tadpoles emerge within two to three weeks and metamorphose in late summer or fall.

**Did you know...** Although movements of up to four miles have been recorded, this frog generally stays in wetlands and along streams within approximately one mile of breeding pond.

# Frog, Foothill yellow-legged

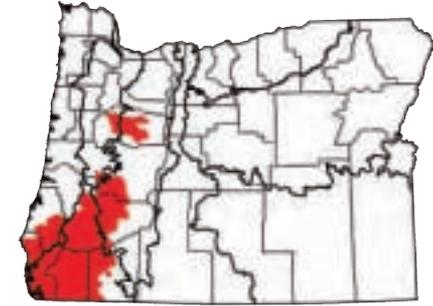
*(Rana boylei)*



**Status:** Federal (USFWS): Species of concern  
State (ODFW): Strategy species

**Range:** Central Cascade Mountains (Linn County), southwest through the West Cascade, Coast Range and Klamath Mountain ecoregions.

**Description:** Small to medium-sized frog usually gray, olive or brownish above. The skin color, along with a grainy or rough appearance, helps it camouflage with surrounding rocks. The lower abdomen and underside of legs are pale yellow.



**Diet:** Wide variety of aquatic and terrestrial invertebrates. Tadpoles feed on algae, organic detritus, diatoms and plant tissue.

**Habitat:** Permanent streams at low to moderate elevations in areas of chaparral, open deciduous woodlands and coniferous forests. Prefers streams partially shaded, with rocky bottoms and sloping banks. Seeks cover under rocks at the bottom of pools when startled.

**Principal predators/threats:** Garter snakes. Recent data show that it is absent from at least 55% of its historical localities with grazing and impoundments being the most detrimental factors. Also significantly less common where bullfrogs and exotic fish have invaded.

**Reproduction:** Breed after stream flow subsides from winter storms and runoff, usually from April into early June. Eggs are laid in clusters of about 1,000 eggs per mass, attached to rocks at the bottom in areas of low flows. They hatch in about five days and metamorphose in late summer.

**Did you know...** Sections of streams inhabited by this species may be reduced to a series of waterholes connected by trickles in summer.

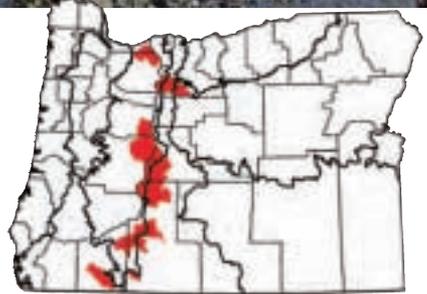
# Frog, Oregon spotted

*(Rana pretiosa)*

**Status:** Federal (USFWS): Candidate  
State (ODFW): Strategy species  
ORNHIC/NatureServe: G2

**Range:** Parts of the Cascade Range, primarily along the east slope. Formerly known from the Willamette Valley ecoregion, but now found only above 4,000 feet elevation.

**Description:** This medium-sized frog may be brown, reddish-brown or olive-green above with a variable number of black spots. The spots are usually irregular-shaped with indistinct edges and light centers. The undersides are usually colored by a reddish-orange or salmon-colored pigment.



**Diet:** Wide variety of insects as well as different mollusks, spiders, crustaceans and snails. Tadpoles eat algae, organic detritus and plant tissue.

**Habitat:** Highly aquatic. Found around the edges of lakes, marshes, springs and slow streams, usually where aquatic vegetation is plentiful.

**Principal predators/threats:** Variety of mammals, birds and fish. It has disappeared from at least 71 percent of its historical range in Oregon. Modification and destruction of wetland habitats, competition from the introduced bullfrog and decreased water quality all threaten the species.

**Reproduction:** Breeding begins in early spring, as early as the winter thaw allows. Females usually lay their egg masses of 600 to 1000 eggs in shallow water, usually on low vegetation. Tadpoles emerge in 3 to 21 days, depending on temperature. Metamorphosis may occur by fall, otherwise tadpoles overwinter and transform the following spring.

**Did you know...** These frogs are inactive in cold weather and retreat to well-oxygenated streams and springs to hibernate.

## Frog, red-legged (*Rana aurora*)

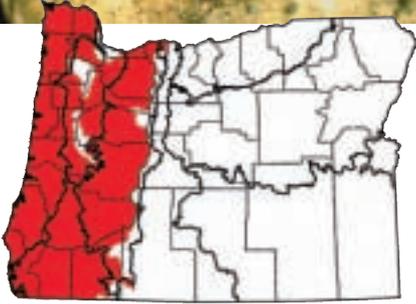


**Status:** Federal (USFWS): Species of concern

State (ODFW): Strategy species

**Range:** Throughout western Oregon in appropriate habitat.

**Description:** Medium-sized, brown or reddish-brown with irregular dark spotting on the back and sides. Adults are usually red on the lower abdomen and underside of legs. Their eyes are oriented to the sides. Range from two and a half to four inches long with females being significantly larger than males.



**Diet:** Adult eats beetles, caterpillars and various other small invertebrates. Tadpoles feed on algae, organic debris, plant tissue and other minute organisms.

**Habitat:** Cool quiet waters of streams, marshes or ponds, often near or within moist coniferous or deciduous forests. Favor areas with dense ground cover. Highly terrestrial when outside of the breeding season and may occur nearly a quarter-mile from water.

**Principal predators/threats:** Garter snakes, raccoons and various waterbirds. Has disappeared from most of the Willamette Valley where introduced warm water fishes and bullfrogs have invaded. Declines have also been attributed to global climate change, ultraviolet radiation, pesticides and disease.

**Reproduction:** Breed in winter and early spring for about one to two weeks. A clutch averaging 2,000 eggs is weakly attached to stems of emergent vegetation or submerged branches and hatch in about five to seven weeks. Tadpoles live in the warmer parts of ponds and metamorphose about four months later.

**Did you know...** This frog is extremely wary and will leap off quickly underneath the brush when frightened.

# Frog, Rocky Mountain tailed

*(Ascaphus montanus)*

**Status:** Federal (USFWS): Species of concern  
State (ODFW): Strategy species

**Range:** Northeast Oregon in the Blue Mountains ecoregion. They range to at least 7,000 feet elevation in the Willowa Mountains.

**Description:** Similar in appearance to coastal tailed frogs though may be less dark overall. Brown, reddish-brown or gray, with yellow or gray mottling. Males have a protruding cloacal “tail.” Tadpoles have a distinctively large, round mouth used to cling to streamside rocks.



**Diet:** Wide variety of insects and other small invertebrates. Larvae feed primarily on diatoms, algae and pollen scraped from rocks in streams.

**Habitat:** Clear, cold, swift-moving mountain streams with cobble and boulder substrates and little silt, primarily in older forests. Adults emerge at night or during wet weather to forage along these streams.

**Principal predators/threats:** Pacific giant salamanders prey on larvae where the two species co-occur. One study noted a downward trend as timber harvest increased, however there were not significant differences in the numbers of larvae or adults.

**Reproduction:** Only amphibians in the region to have internal fertilization of the eggs, an adaptation to its environment. Breeding takes place during the fall and eggs are laid the following summer. Larvae hatch six weeks later and remain as tadpoles for several years before metamorphosing.

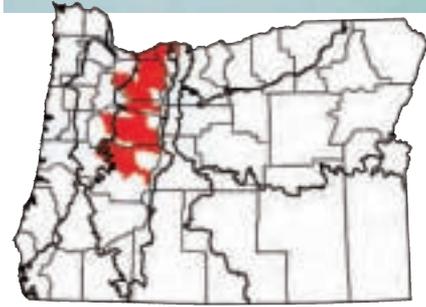
**Did you know...** The fingertips of tailed frogs are hardened like claws helping them crawl among rocks on the stream bottom.

# Salamander, Cascade torrent (*Rhyacotriton cascadae*)

*Status:* State (ODFW): Strategy species

*Range:* Western slopes of the Cascade Mountains from the vicinity of Mt. St. Helens, Washington, south to the McKenzie River, Lane County.

*Description:* Small to medium-sized, it is the most variable of the four torrent salamanders. The back and sides are brown and the underside is bright yellow. Usually heavily spotted, especially along the sides, but this is variable. Short rounded snout and relatively large prominent eyes.



*Diet:* Primarily aquatic and semi-aquatic invertebrates, including beetles, flies, stoneflies, mayflies, millipedes, spiders, snails and worms.

*Habitat:* In or near cold clear seeps, streams or waterfall splash zones within older coniferous forests. Seepages running through moss-covered talus provide ideal habitat. Larvae are often found in gravel or under stones. Most common in forests older than 25 years. Despite the presence of assumed suitable stream conditions, populations are found at very low levels in streams surrounded by younger forests. Populations increase in streams surrounded by mid-rotation forests.

*Principal predators/threats:* Natural predators have not been documented, but probably include Pacific giant salamanders and garter snakes. Sensitive to increased temperature and sedimentation, such as that resulting from logging or road construction.

*Reproduction:* An average clutch of eight eggs may be laid at any time of the year, but most often in late spring, deep in rock crevices. The larval period lasts four to five years and they become sexually mature one to two years after metamorphosis.

*Did you know...* Larvae may reach high densities in optimal habitat and rarely travel more than a few meters along a stream or seep.

# Salamander, clouded

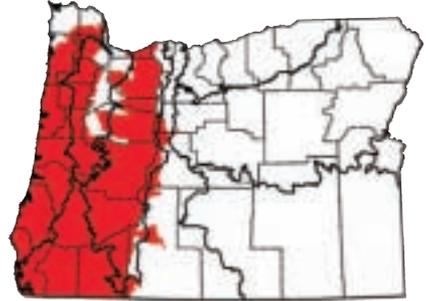
*(Aneides ferreus)*



**Status:** State (ODFW): Strategy species

**Range:** Patchily distributed in the West Cascades, Coast Range and Klamath Mountains ecoregions, as well as the foothills of the Willamette Valley. Individuals have been found at up to 5,000 feet in elevation.

**Description:** Slim and long-legged. Up to five inches in length. Brown or pale gray above, clouded with ash, greenish gray, pale gold or reddish; dusky below.



**Diet:** Small invertebrates, including ants, beetles, mites, spiders and springtails.

**Habitat:** Moist coniferous forests, at edges and clearings and recently cut or burned areas, in association with stumps or decaying logs with intact bark and large, coarse, woody debris, as well as rock outcrops or talus.

**Principal predators/threats:** Mammals, birds and snakes. May initially thrive after timber harvesting and other disturbance events. However, timber harvesting that does not maintain coarse woody debris will not sustain populations over time.

**Reproduction:** Lays clutch of 8 to 18 eggs during spring and early summer in rotten logs, rock crevices, under bark or among vegetation. Female probably guards eggs, but both sexes have been found at nest sites. Eggs hatch in about 60 days. Females probably lay eggs at two-year intervals.

**Did you know...** This salamander is an agile climber and has been found up to 20 feet above the ground in dead stumps.

## Salamander, Columbia torrent (*Rhyacotriton kezeri*)



**Status:** State (ODFW): Strategy species

**Range:** Coast Range from the area of the Nestucca River and Grande Ronde Valley in Polk, Yamhill and Tillamook counties, north to the Chehalis River in Washington.

**Description:** Small to medium-sized semi-aquatic salamander. Back and sides are green, brown or gray and without spots. Underside is bright yellow or orange. Short

rounded snout and relatively large bulging eyes. Adult reaches about four inches long.

**Diet:** Feeds primarily on aquatic and semi-aquatic invertebrates, including beetles, flies, stoneflies, mayflies, spiders, snails and worms.

**Habitat:** Found in or near very cold, clear streams, seeps or springs within coastal coniferous forests. Adult also inhabits streamsides under moss-covered rocks around splash zones. In a study of the effects of timber harvest, they were found only in 45 to 60-year old forested areas and not in adjacent areas clearcut two to five years previously.

**Principal predators/threats:** Pacific giant salamanders. Sensitive to increased temperature and sedimentation.

**Reproduction:** Breed mostly in spring and early summer. Two nests have been documented for this species. In one, 32 eggs were found in cracks deep in rocks in a seepage. Based on estimates of the average clutch size, about 11, this was likely the reproductive effort of at least three females.

**Did you know...** This salamander does not interbreed with southern torrent salamanders where their ranges overlap.

# Salamander, Cope's giant

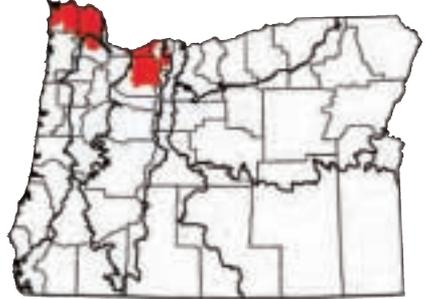
*(Dicamptodon copei)*



**Status:** State (ODFW): Strategy species

**Range:** Mountainous areas along the lower Columbia River in the extreme northwest corner of the state, parts of the Columbia Gorge and around the east side of Mt. Hood.

**Description:** Large, usually aquatic salamander. Most individuals never metamorphose and thus retain their gills throughout life. Drab brown on the back and sides, often with yellowish tan patches, short bushy gills and a low tail fin that extends onto the body in front of the hind limbs. May grow to eight inches long.



**Diet:** Almost all available aquatic organisms small enough to be eaten, including a variety of aquatic invertebrates, small fish and fish eggs, eggs and tadpoles of tailed frogs and smaller larvae of their own kind.

**Habitat:** Most often found in clear, cold streams and seeps in moist coniferous forests with streambeds of large gravel, small boulders and some large logs. Avoids areas that have been filled by sedimentation.

**Principal predators/threats:** Garter snakes, water shrews and Pacific giant salamanders. Increased stream temperatures and siltation from disturbances along streams and seeps are the biggest threat.

**Reproduction:** Apparently lays eggs from spring through fall under rocks or large, woody debris underwater. Clutch sizes range from 25 to 115. Females attend the eggs until hatching and will aggressively defend against predators.

**Did you know...** Fewer than five metamorphosed terrestrial adults have ever been documented in the wild.

# Salamander, Larch Mountain

*(Plethodon larselli)*

**Status:** Federal (USFWS): Species of concern

State (ODFW): Strategy species

**Range:** Only in the immediate vicinity of the Columbia River Gorge in the West Cascades ecoregion.

**Description:** A small terrestrial salamander usually less than four inches long. Black or dark brown on the sides and an uneven reddish-brown stripe on its back that runs from head to tail.



**Diet:** Variety of invertebrates, including mites and springtails. Larger individuals also include snails and earthworms in their diets.

**Habitat:** Steep, forested slopes in talus or other rocky areas where spaces exist between the rock and soil. Usually found away from streams and sometimes occupy north-facing rocky areas that have a dominant groundcover of moss.

**Principal predators/threats:** Any ground-disturbing activity or land use that changes the moisture regime and permeability of inhabited rocky substrates may threaten populations.

**Reproduction:** Mating occurs in both spring and fall, though females may breed only every two to three years. No nests have been found, but they likely occur within talus with the females tending the eggs until hatching. The average clutch size is about seven eggs.

**Did you know...** Most of this salamander's life is spent underground. It is active on the surface only about 20 to 90 days a year, depending on location and conditions.

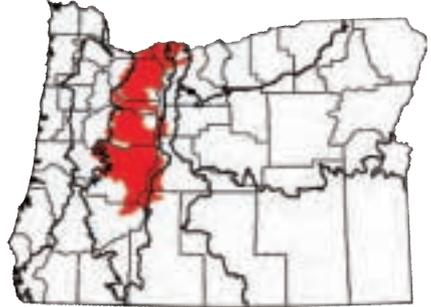
# Salamander, Oregon slender

*(Batrachoseps wrightorum)*



**Status:** Federal (USFWS): Species of concern  
State (ODFW): Strategy species  
ORNHIC/NatureServe: G2

**Range:** West Cascades from the Columbia River south to southern Lane County. More recent records from the East Cascades in western Wasco County



**Description:** A small slender long-tailed species, less than four inches long. Black or blackish-brown with an uneven-edged, reddish-brown stripe on its back.

**Diet:** Small invertebrates, such as spiders, mites, springtails, beetles, centipedes, snails and earthworms.

**Habitat:** Most commonly found under bark or moss in stable, mature second-growth and old-growth forests with many large old logs and snags. Also in talus and lava fields with abundant woody debris. Late-successional forests support approximately twice as many individuals as young forests.

**Principal predators/threats:** Mammals, birds and snakes. Can disappear after clear-cutting or thinning. Forests intensively managed on short harvest rotations without many large logs and snags may not support self-sustaining populations.

**Reproduction:** A clutch averaging six eggs is laid in spring hidden under bark or in rotten logs. The female guards the eggs until they hatch in about four months.

**Did you know...** When uncovered, this salamander often coils into a tight spiral and, if further disturbed, may flip about suddenly by uncoiling.

# Salamander, Siskiyou Mountains

*(Plethodon stormi)*



**Status:** Federal (USFWS): Species of concern

State (ODFW): Strategy species  
ORNHIC/NatureServe: G2

**Range:** Found only in the Siskiyou Mountains along the Oregon-California border in Jackson and Josephine counties.

**Description:** A short-limbed, long-bodied salamander reaching about five and a half-inches long. Adult has a brownish ground color and a light brown stripe down the back, extending to the middle portion

of the tail. The body is mostly covered with a scattering of small, lightly colored speckles.

**Diet:** Small invertebrates, such as mites, spiders, springtails, ants and beetles.

**Habitat:** Highly associated with north-facing talus deposits and fractured rock outcrops, particularly in mature and late-seral forests. During the wettest weather also found under woody debris near talus slopes.

**Principal predators/threats:** Gradual elimination of overstory vegetation in areas of rock outcrops and talus slopes, which eliminates the required moist microhabitat.

**Reproduction:** Limited information suggests that the female lays eggs every other spring, likely in deep cavities within talus slopes and broods them during the summer. Fully formed young hatch in fall and may not come to the surface until the following spring. Average clutch size is nine eggs.

**Did you know...** This salamander is known to emerge at night, even in dry summer weather, to forage at the surface, of talus or on the forest floor.

# Salamander, southern torrent (*Rhyacotriton variegatus*)



**Status:** Federal (USFWS): Species of concern  
State (ODFW): Strategy species

**Range:** Coast Range from southern Tillamook County to the California border in Oregon. An isolated population occurs in the West Cascades in eastern Douglas County.

**Description:** A small to medium-sized salamander, measuring three and a half to four and a half-inches long. The back and sides are brown to greenish-brown and the underside is bright yellow. Variable degree of black speckling throughout. Short rounded snout and relatively large, bulging eyes.

**Diet:** Aquatic and semi-aquatic invertebrates, including beetles, flies, stoneflies, mayflies, millipedes, spiders, snails, wasps and worms.

**Habitat:** Cold clear springs, seeps, headwater streams and waterfall splash zones within humid, coniferous forests. Typically occur in older forests, but young, managed forests may be occupied as long as the required microhabitats are present.

**Principal predators/threats:** Pacific giant salamanders are probably important, but no predators have been documented. Localized disappearance and population reductions are evident due both to natural processes and past forest management activities.

**Reproduction:** Breeding may occur year-round, but most eggs are laid in late spring in rock crevices. The average clutch of ten eggs takes five to six months to hatch and adults apparently do not attend to the developing eggs.

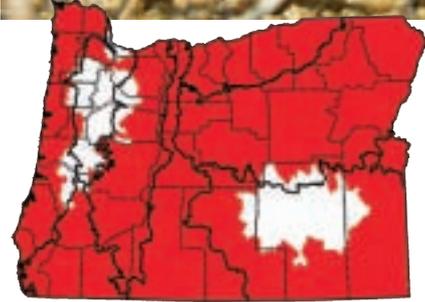
**Did you know...** When threatened, they coil their bodies and wave their tails, which contain poison glands.

## Toad, western (*Bufo boreas*)

*Status:* State (ODFW): Strategy species

*Range:* Statewide with the exception of much of the northern Coast Range and Willamette Valley ecoregions and northern Harney County. Known from sea level to more than 7,000 feet.

*Description:* Relatively large toad four to five inches long with skin that appears dry and warty. Varies in body color above, typically being shades of green or brown and usually a white or light yellow stripe down the middle of the back.



*Diet:* Adult feeds on a variety of invertebrates including worms, spiders, ants and other insects. Tadpoles feed on algae and organic detritus.

*Habitat:* Adult lives in a variety of habitats from forests to more arid, shrubby areas and move to shallow lakes, ponds, marshes and wet meadows to breed. Adapted to irrigated agricultural areas and even suburbs. Tadpoles live in the warmest, shallowest water available.

*Principal predators/threats:* Garter snakes, coyotes, raccoons, as well as crows and ravens. Well-documented population trends continue to show steep reductions in numbers in major portions of its range. Habitat degradation, disease and increased levels of ultraviolet radiation may all be contributing to these declines.

*Reproduction:* Breed from February to July, depending on elevation. Females deposit an average of 12,000 eggs in two long strings on the bottom in shallow water. They hatch in three to ten days, depending on temperature, and metamorphosed toadlets emerge in late summer or early fall.

*Did You know...* When threatened, this toad may secrete a bitter, white poison from glands behind the eyes to deter predators.

# Kingsnake, common

*(Lampropeltis getula)*

**Status:** Federal (USFWS): Species of concern

State (ODFW): Strategy species

**Range:** Southern West Cascades and Klamath Mountains ecoregions in the Rogue and Umpqua basins. It is also reported from canyons in the southern East Cascades ecoregion.

**Description:** Easily identified by alternating black and white rings that completely encircle the body.

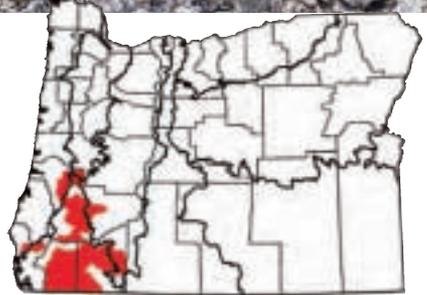
**Diet:** Eats other snakes and adults can kill a snake as large as themselves, but also lizards, small turtles, birds, eggs, frogs and small mammals. It kills its prey by constriction. A good climber, it will climb to eat birds' eggs.

**Habitat:** Oak woodland, chaparral, mixed pine-oak woodlands, vegetation along waterways and the edges of farmland. East of the Cascades, drier habitats close to water, including canyons, greasewood and shadscale. In all habitat types, found close to water.

**Principal predators/threats:** Because of its striking coloration, this rare snake is prized and threatened by reptile collectors.

**Reproduction:** No information is available on reproductive behavior in Oregon. In other parts of its range, it lays about nine eggs in loose soil during July. Eggs hatch in late August or early September.

**Did you know...** The name "Kingsnake" refers to the fact that it is immune to the venom of rattlesnakes and are thus one of the rattler's few natural predators.



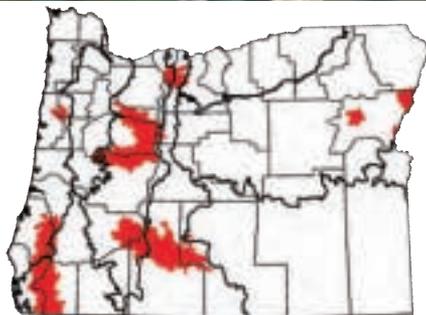


## Hairstreak, Johnson's (*Callophrys johnsoni*)

**Status:** State (ODFW): Strategy species  
ORNHIC/NatureServe: G2

**Range:** Rare and local in the East and West Cascades, the Coast Range, Klamath Mountains and Blue Mountains ecoregions.

**Description:** A medium-sized butterfly, the undersides of the wings are a chestnut color with a prominent white line following the curve of the wing about halfway out. In males, the tops of the wings are brown and in females, more reddish.



**Diet:** Caterpillar feeds on dwarf mistletoe on mature western hemlock, grand fir, ponderosa pine and perhaps Douglas-fir. Adults has been observed feeding on roadside roses, Oregon grape, other flower species and at mud puddles.

**Habitat:** Require mid to low-elevation old growth forests, requirements quite similar to the spotted owl. Adult spends much of its time in the canopy, making this species difficult to study.

**Principal predators/threats:** Loss of old growth habitat. The spraying of *Bacillus thuringiensis* (Bt) to control tussock moths and budworms also kills them.

**Reproduction:** Little information is available. One brood annually in June or July depending on elevation. Eggs are laid directly on dwarf mistletoe, a parasitic flowering plant.

**Did you know...** This is the only butterfly that requires old growth coniferous forest.

# Silverspot, Oregon

(*Speyeria zerene hippolyta*)

**Status:** Federal (USFWS): Threatened  
State (ODFW): Strategy species  
ORNHIC/NatureServe: G1

**Range:** Coast Range ecoregion with the only well-established populations in Lane and Tillamook counties.

**Description:** This small—less than two and a half-inches—dark orange butterfly has prominent silverspots on the undersides of the wings.

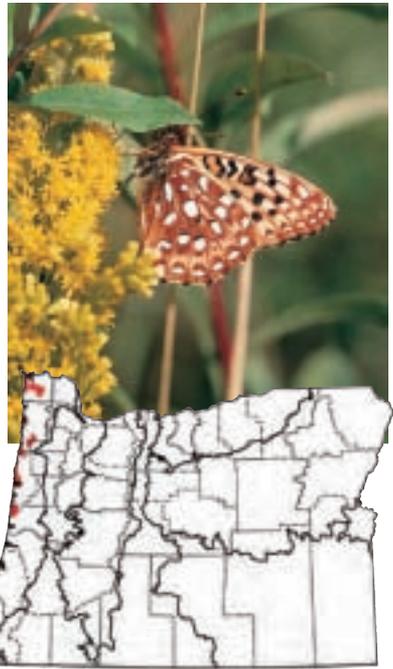
**Diet:** Caterpillars feed primarily on early blue violets, which grow in open, low growing grasslands. Occasionally feeds on other violets. Adult uses flowers in the aster (composite) family as nectar sources. Travels relatively long distances for nectar, often into forest edges.

**Habitat:** Early successional grassland habitat along the coast, stabilized dunes or montane grasslands. These habitats support the caterpillar's host plant as well as adult nectar plants. The harsh coastal or montane environment suppresses encroaching trees and shrubs, helping to maintain habitat for this butterfly. Adjacent wooded areas are needed for nectaring and breeding.

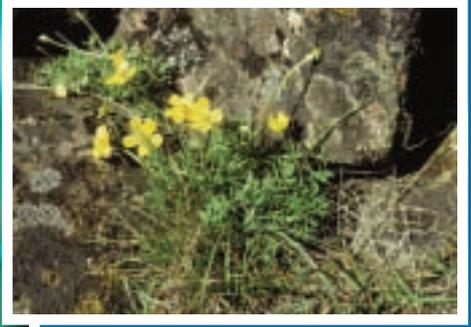
**Principal predators/threats:** Habitat succession, which has increased because of fire suppression or lack of grazing pressure, is the chief threat. Also threatened by invasion of exotic species, pesticides, off-road vehicles and butterfly collectors. Additionally, land development along the coast has led to habitat loss.

**Reproduction:** Eggs are laid on early blue violet plants and caterpillars feed on these plants until they pupate in the summer. Adults emerge from July to September.

**Did you know...** This is one of the most studied butterflies in Oregon. It is only through intensive conservation efforts that it still exists in the state.







**PLANT**

**DESCRIPTIONS**

## Aster, wayside

(*Aster vialis*)



**Status:** Federal (USFWS): Species of Concern

State (ODA): Threatened

ODFW: Strategy species

**Range:** Klamath Mountain and Willamette Valley ecoregions, just barely entering the West Cascade ecoregion in Lane and Douglas counties. Also Linn, Jackson and Josephine counties.

**Description:** Perennial, erect herb, about 2 to 5 feet tall. **Flowers** yellow, small and tube-like, packed in a dense head, several heads per plant, heads about 3/8 to 5/8 inches wide. **Stems** several

but many arising from underground creeping stem. **Leaves** sessile (without stalks), all on flower stem, small and scalelike on the lower portion. Mid-stem leaves 1-3/8 to 3-1/2 inches, 5/8 to 1-1/4 inches wide, sparsely hairy or smooth on top, glandular below. Upper stem leaves reduced in size.

**Lookalikes:** Brickelbush aster (*Aster brickellioides*) in the southern part of the state tends to be smaller in stature (1 to 3-1/4 feet tall) with pale purple flowers (if present) and smaller head size, less than 3/8 inches in width.

**What to look for:** Tall, not very showy, yellow-flowered plant.

**Habitat:** Along edges and openings in woodlands and in open woods of mixed oak-Douglas-fir-madrone, Douglas-fir forests and mixed conifer forests.

**Elevation:** In Linn, Lane and Douglas counties, predominantly 500 to 2,000 feet. In Jackson and Josephine counties, 1,850 to 6,680 feet.

**Best survey time:** While in flower, July through August.

**Notes:** Can be a difficult plant to identify. Another name for the species is *Eucephalis vialis*.

**Reference for technical description:** Cronquist, Arthur. 1955. Vascular plants of the Pacific Northwest Part 5 Compositae. University of Washington Press, Seattle, Washington.

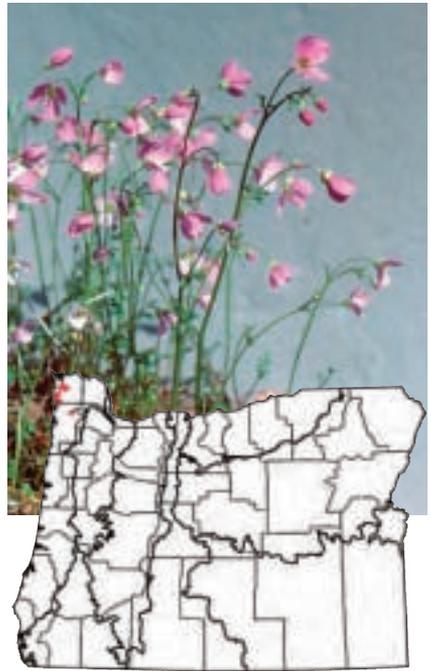
# Bittercress, Saddle Mountain

(*Cardamine pattersonii*)

**Status:** Federal (USFWS): Species of concern  
State (ODA): Candidate  
ORNHIC/NatureServe: G2

**Range:** Coast Range ecoregion;  
Clatsop and Tillamook counties

**Description:** Annual herb, with taproot (may possibly become a perennial under certain conditions), about 3 to 8 inches tall. **Flowers** rose or pale pink color, 1/5 to 1/3 inches long, borne at the top of stems. **Stems** several, growing laxly from a basal rosette of leaves (encircle the base). **Leaves** at base, pinnate (paired leaflets arranged across a midrib), 3 to 5 leaflets, with terminal leaflet oval-shaped and three-lobed. Stem leaves similar but becoming smaller in size near the top of the plant. Fruit slender pointed, peapod shaped, about 1-inch long, very thin, and with tiny seeds.



**Lookalikes:** Little western bittercress (*Cardamine oligosperma*), other bittercress species (*Cardamine* spp.). Little western bittercress and other bittercress species generally have white flowers. Basal leaves of little western bittercress generally have more leaflets.

**What to look for:** Flowers that are pale pink with four petals; leaves in a basal rosette with paired leaflets.

**Habitat:** Grassy balds, moist cliffs, rock crevices and gravelly streambanks.

**Elevation:** 800 to 3,300 feet.

**Best survey time:** While in flower, April to June.

**Reference for technical description:** Hitchcock, C.L., A. Cronquist, M. Ownbey and J.W. Thomspon. 1964. Vascular Plants of the Pacific Northwest Part 2 Salicaceae to Saxifragaceae. University of Washington Press, Seattle

## Buttercup, southern Oregon

(*Ranunculus austrooreganus*)



**Status:** State (ODA): Candidate  
ORNHC/NatureServe: G2

**Range:** Klamath Mountain ecoregion with a few occurrences just over the boundary in the West Cascade Ecoregion. Central and southern Jackson County.

**Description:** Perennial, erect herb, 7-1/2 to 16 inches tall. **Flowers** light yellow on the front facing side of the petal and purplish red, distinctly to faintly so, on the under or back side. Petals, mostly five or six in number, oblong in

shape, 5/16 to 6/16 inch long. **Stem** single or few, hairy. **Leaves** arise from base, hairs on upper part of leaf appressed (laying on the surface); hairs under are long and soft. Fruit cluster of achenes (one-seeded and flattened).

**Lookalikes:** Western buttercup (*Ranunculus occidentalis*), California buttercup (*Ranunculus californicus*). Western buttercup has entirely yellow petals (no purple on the outside). California buttercup has mostly seven to ten petals.

**What to look for:** Two-tone yellow petal.

**Habitat:** Oak savannas, or meadows near oak woodlands.

**Elevation:** 1,240 to 3,400 feet.

**Best survey time:** While in flower, mid April to late May.

**Reference for technical description:** Peck, M.E. 1961. A manual of the higher plants of Oregon. Binford & Mort, Portland, Oregon.

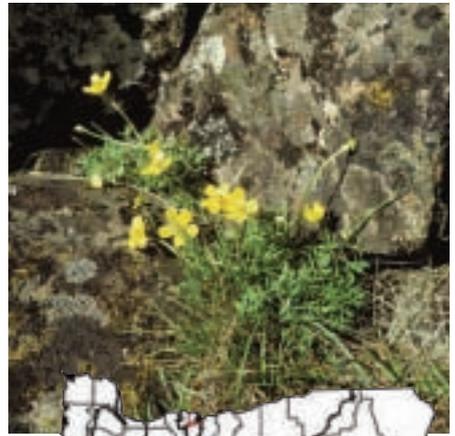
# Buttercup, Dalles Mountain

(*Ranunculus reconditus*)

**Status:** Federal (USFWS): Species of concern  
State (ODA): Endangered  
ORNHIC/NatureServe: G2

**Range:** East Cascade ecoregion;  
Northern Wasco County.

**Description:** Perennial, erect, mostly unhairly, low-growing herb, 2 to 8 inches tall. **Flowers** bright yellow, generally with five petals, on nearly naked stalks. **Stems** several. **Leaves** finely divided into three parts, final segments linear, outline of leaves rounded triangular, 1 to 1-1/2 inches long, 1 to 3 inches wide. Stem leaves similar to the basal leaves. Fruit small and numerous.



**Lookalikes:** Other buttercup species (*Ranunculus* sp.). Other buttercups will differ in flower color (pink or white), stature (usually taller), leaf division (not divided), leaf type (all basal) and habitat (wet areas).

**What to look for:** Yellow in drier habitats with finely divided leaves.

**Habitat:** Oak woodlands, crevices on rocky outcrops in mixed woodlands of oak, Douglas-fir and pine.

**Elevation:** 2,200 to 2,800 feet.

**Best survey time:** When in flower, March.

**Reference for technical description:** Hitchcock, C.L., A. Cronquist, M. Ownbey, and J.W. Thompson. 1964. Vascular Plants of the Pacific Northwest: Part 2 Salicaceae to Saxifragaceae. University of Washington Press, Seattle.



## Camas, Howell's (*Camassia howellii*)

**Status:** State (ODA): Candidate  
ORNHIC/NatureServe: G2

**Range:** Klamath Mountain ecoregion; Josephine County, with one occurrence just over the county border in Jackson County.

**Description:** Perennial, erect herb, 1 to 2 feet tall. **Flowers** deep blue violet, with six petal-like segments, 1/2 to a little over 3/4 inches long, which twist or bend together after flowering then fall off. Flowers are many and densely clustered toward the top. **Flower stem** single, without leaves except

for a few modified leaf-like structures above the middle. **Leaves** arise from the base, linear. Fruit round, smooth, shiny green 3/8 inches or less in diameter, 2 to 3 per chamber.

**Lookalikes:** Large camas (*Camassia leichtlinii*), small camas (*Camassia quamash*). Small camas flowers look slightly irregular (the lower petal segment droops slightly making it appear longer), floral segments not twisted or bent together after flowering and have four to six fruits per chamber. Howell's camas (*C. howellii*) looks most like large camas although usually much smaller in height (12 to 24 inches) versus large camas' 16 to 32 inches. Its floral segments are twisted or bent together, but longer in length, 1 to 1-1/2 inches, and fruits are oval-shaped, dull green. Howell's camas flowers one to two weeks later than large camas.

**What to look for:** Plant with deep blue flowers arranged in spike.

**Habitat:** Open areas of seasonally wet, shallow, rocky serpentine-derived soil near edges of Douglas-fir or oak woodlands.

**Elevation:** Mainly 1,200 to 3,200 feet. Low of 800 to a high of 4,400 feet.

**Best survey time:** While in flower, May and June.

**Reference for technical description:** Ranker, T.A and T. Hogan. 2003. Flora of North America. Volume 26 Camassia. Oxford University Press, New York.

# Checker-mallow, Nelson's

(*Sidalcea nelsoniana*)

**Status:** Federal (USFWS):

Threatened

State (ODA): Threatened

ODFW: Strategy Species

ORNHIC/NatureServe: G2

**Range:** Coast Range and Willamette Valley ecoregions. Benton, Clackamas, Columbia, Linn, Marion, Polk, Tillamook, Washington and Yamhill counties.

**Description:** Perennial, erect, tall herb, up to 16 to 40 inches tall. **Flowers** rose-colored, five petals, 3/16 to 5/8 inches long, many clustered

at the end of a tall spike. The calyx (green structure at the base of the flower petals that encloses the floral bud) purple tinged, nearly smooth sometimes with stellate hairs (star-like, with radiating branches). **Stems** several in number, short straight hairs at base (may be absent). **Leaves** at base, roundish with lobed margins. Leaves on stem with deeply divided segments.

**Lookalikes:** Dwarf sidalcea (*Sidalcea virgata*) has larger flowers (petals 1 to 1 3/16 inches long) and calyx with uniformly stellate hairs. Meadow sidalcea (*S. campestris*) has white to pale pink flowers (petals about 1-inch long).

**What to look for:** Showy, rose-colored flowers on elongated spike.

**Habitat:** Moist grassy areas from valley bottomlands to mid-elevation, open meadows within Douglas-fir, hemlock-type forested communities.

**Elevation:** 145 to 480 feet (Willamette Valley), 1,600 to 1,960 feet (Coast Range).

**Best survey time:** When in flower, May to July.

**Reference for technical description:** Hitchcock, C.L., A. Cronquist, M. Ownbey, and J.W. Thompson. 1961. Vascular Plants of the Pacific Northwest: Part 3 Saxifragaceae to Ericaceae. University of Washington Press, Seattle, WA.

**Additional information:** Halse, R., B.A Rottink, and R. Mishaga. 1989. Studies in *Sidalcea* taxonomy. Northwest Science 63(4): 154-161.



# Fawn lily, Coast Range

(*Erythronium elegans*)

**Status:** Federal (USFWS): Species of concern  
State (ODA): Threatened  
ODFW: Strategy Species  
ORNHC/NatureServe: G1

**Range:** Coast Range ecoregion; Lincoln, Polk, Tillamook and Yamhill counties.

**Description:** Perennial, slender erect herb, about 6 to 12 inches tall. **Flowers** pinkish-white, nodding, one to two, sometimes four in number, petals reflexed (bent

backward) in bright sunshine to only spreading in shadier lighting. Petals with bright narrow, yellow stripe around base, often reddish on the back of the petal. **Leaves** of flowering plants two in number, lying prone on the ground, 3 to 5 inches sometimes 6 inches long, 3/4 to 2 inches, sometimes 3 inches, wide, usually uniformly deep green or mottled with a few pale lines.

**Lookalikes:** White avalanche lily (*Erythronium montanum*) is very similar but is found in the Cascade Mountains. Giant white fawn lily (*E. oregonum*) has white-cream colored flowers, pronounced brown spots on the leaves and is normally found at lower elevations. Mahogany fawn lily (*E. revolutum*) also has brown leaf spotting and is usually at low elevations and has deep pink colored flowers. Yellow avalanche lily (*E. grandiflorum*) can grow with Coast Range fawn lily but has blue-green leaves.

**What to look for:** White with uniform green leaves at high elevations in the Coast Range.

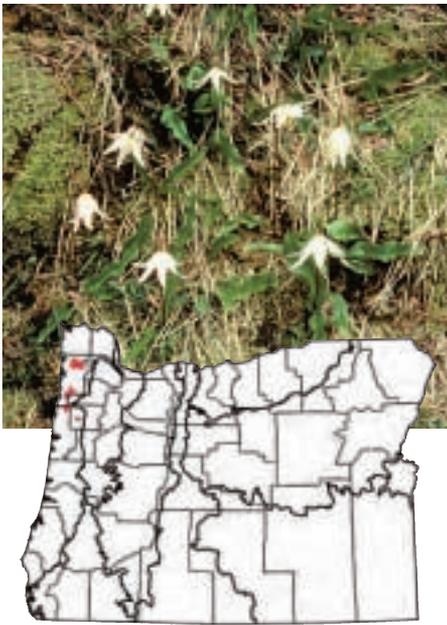
**Habitat:** Meadows, rocky cliffs, brushlands and open coniferous forests.

**Elevation:** 2,700 – 3,400 feet.

**Best survey time:** When in flower, May – June.

**Notes:** Plants within individual populations can vary in flower color and leaf mottling characteristics.

**Reference for technical description:** Hammond, P.C. and K.L. Chambers. 1985. A new species of *Erythronium* (Liliaceae) from the Oregon Coast Range of Oregon. Madrono 32(1): 49-56.



# Fritillaria, Gentner's

*(Fritillaria gentneri)*

**Status:** Federal (USFWS):

Endangered

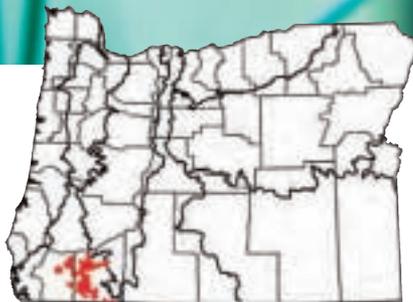
State (ODA): Endangered

ODFW: Strategy species

ORNHIC/NatureServe: G1

**Range:** Klamath Mountain ecoregion; Southwestern Oregon, Jackson and Josephine counties.

**Description:** Perennial, erect herb, 20 to 38 inches tall. **Flowers** mostly purple red with some light yellow mottling, one to five in number, nodding, 1 3/8 to 2 inches long. Individual flower petals spreading at the tip but not generally curled backward. **Stem** single, green to purple, red below ground. Leaves whorled (attached from the same site on the stem), three to five per whorl, linear to lance-like, 2.75 to 6 inches long. Fruit capsule, broadly winged, 3/4 to 1 inch long, 1 to 1 3/8 inches wide



**Lookalikes:** Scarlet fritillaria (*Fritillaria recurva*), checker lily (*F. affinis*). Scarlet fritillaria flowers are scarlet red with yellow spots, smaller in length, 1 to 1 3/8", have deeply recurved petal tips (bent backwards) and leaves usually in whorls of two. Checker lily has brown-purple to yellow-green flowers.

**What to look for:** Flower color and shape, and its tall stature.

**Habitat:** Openings in oak woodlands, mixed conifer-deciduous or conifer forests.

**Elevation:** 600 to 4,880 feet.

**Best survey time:** While in flower, April to June.

**Notes:** Where found, plant numbers are usually low, often less than 10.

**Reference for technical description:** Peck, M.E. 1961. A manual of the higher plants of Oregon. Binford & Mort, Portland, Oregon.

**Additional information:** U.S. Fish and Wildlife Service. 2003. Recovery Plan for *Fritillaria gentneri* (Gentner's fritillary). U.S. Fish and Wildlife Service, Portland, Oregon. vii + 89 pp.

## Grape-fern, pumice (*Botrychium pumicola*)



**Status:** State (ODA): Threatened  
ODFW: Strategy species

**Range:** East and West Cascades ecoregion. Deschutes, Klamath and Lake counties.

**Description:** Perennial, erect herb, about 3 to 4 inches tall, comprised of two distinct parts, a leafy non-reproductive blade and a spore-bearing segment with small, ball-like spore cases (sporangia). **Leafy blade** leathery with a whitish-grayish appearance, without a stalk or nearly so, usually one, but sometimes two, 3/4 to 2 inches long, 3/8 to 1-1/4

inches wide. The blade is deeply divided into threes, the central one being the largest, making the plant appear to have more than one leaf blade.

**Spore-bearing segment** much branched with spore cases, about the size of mustard seeds, arranged on two sides and appearing clustered. The entire segment the same length or barely topping the leafy blade.

**Lookalikes:** Little grapefern (*Botrychium simplex*) has a blade stalk, usually longer than 3/8 inches, lacks the whitish-gray cast, and the stalk of the spore-bearing segment of a mature plant is longer than the leafy blade.

**What to look for:** Small, whitish-gray leafy blade

**Habitat:** Pumice-derived soils in lodgepole pine-bitterbrush communities. Also on open ridgetops in raw pumice.

**Elevation:** 4,200 to 6,300 feet; open ridgetop habitat, 6,800 to 8,100 feet

**Best survey time:** Anytime when stalks are visible, mid-May to mid-October.

**Notes:** Can be difficult to spot because its whitish cast can blend in with the pumicy substrate.

**Reference for technical description:** Wagner, W.H. and F. Wagner. 1993. Flora of North America. Volume 2 Ophioglossaceae. Oxford University Press, New York. Pages 85-109.

# Larkspur, white rock

*(Delphinium leucophaeum)*

**Status:** Federal (USFWS): Species of concern  
State (ODA): Endangered  
ODFW: Strategy Species  
ORNHIC/NatureServe: G2

**Range:** Northern Willamette Valley ecoregion; Clackamas, Marion, Multnomah, Washington and Yamhill counties.

**Description:** Perennial, slender erect herb, 8 to 24 inches, sometimes up to 40 inches tall. **Flowers** mainly white to cream with a blue upper petal, many flowers per plant. Prominent spur extending from the upper back. Lower petals hairy throughout. Stems single, usually with fine, crisp hairs. **Leaves** numerous, distributed evenly on the stem. Lower leaves, palm-shaped (from a central point) and with deeply divided, linear segments. **Fruit** segments spreading at maturity, 5/16 to 1/2 inch long.



**Lookalikes:** Peacock larkspur (*Delphinium pavonaceum*), another rare species, is found mainly in grasslands of central and southern Willamette Valley. Peacock larkspur has hairs on the lower petals limited to the base, and flowers arranged wider at the base forming a more pyramid shape. White rock larkspur (*D. leucophaeum*) flowers are arranged narrowly closer to the stem.

**What to look for:** Showy, white flower which can be hidden among grasses or shrubs.

**Habitat:** Openings in or edges of oak woodlands, also on cliffs and rocky areas.

**Elevation:** 100 to 1,100 feet.

**Best survey time:** May – June.

**Reference for technical description:** Hitchcock, C.L., A. Cronquist, M. Ownbey and J.W. Thomspon. Vascular plants of the Pacific Northwest: Part 2. University of Washington Press, Seattle.

# Lomatium, Agate Desert

(*Lomatium cookii*)

**Status:** Federal (USFWS):

Endangered

State (ODA): Endangered

ODFW: Strategy Species

ORNHIC/NatureServe: G1

**Range:** Klamath Mountain ecoregion;  
Jackson and Josephine counties

**Description:** Perennial, slender erect, non-hairy herb, about 6 to 20 inches tall. **Flowers** pale yellow, clustered in two to five groupings, on stems extending above the leaves. **Leaves** arising from the base, 5 to 16 inches long, highly



dissected with linear segments, green in color. **Fruits** oblong, 3/8 to 1/2 inch long, flattened with corky wings, which are almost as wide as the body.

**Lookalike:** Bigseed biscuitroot (*L. macrocarpum*) has sparse to dense hairs and grayish-bluish leaves which encircle the base. Common lomatium (*L. utriculatum*) has bright yellow flowers and a distinct stem with leaves and flowers branching from it. The bracts (small leaf-like structures just below the flowering heads) of common lomatium are roundish with one ragged side. The Agate Desert lomatium has narrow bracts. Barestem biscuitroot (*L. nudicaule*) and nineleaf biscuitroot (*L. triternatum*) leaves are not dissected.

**What to look for:** Pale yellow flowers.

**Habitat:** Wet meadows at edges of dry serpentine pine forest in Josephine County, and margins and bottoms of vernal ponds in Jackson County.

**Elevation:** 1,200 to 1,400 feet in Jackson County and 1,300 to 1,500 feet in Josephine County.

**Best survey time:** When in flower, March to May, occasionally June. Can be difficult to spot even while in bloom.

**Notes:** This species is one of the first *Lomatiums* to flower in the season.

**Reference for technical description:** Kagan, J.S. A new species of *Lomatium* (Apiaceae) from southwestern Oregon. Madrono 33(1): 71-75.

# Lupine, Kincaid's

(*Lupinus sulphureus* ssp.  
*kincaidii*)

**Status:** Federal (USFWS):

Threatened

State (ODA): Threatened

ODFW: Strategy Species

**Range:** Willamette Valley and Klamath Mountain ecoregions. Benton, Douglas, Lane, Linn, Marion, Polk, Washington and Yamhill counties.

**Description:** Perennial, erect herb, 12 to 40 inches tall. **Flowers** mainly purple or blue, often yellowish cream on some parts, arranged on a spike, 4 to 7 inches long, extending above the leaves. The upper petal (banner) ruffled.

**Stems** one or more, not branched.

**Leaves** palmate (radiating from the same point), seven to twelve leaflets, with upper surface smooth, long hairs on the under side. Stalks of the basal leaves three to five times longer than the blade and much longer than those of upper leaves. Basal leaves present at flowering. Fruit pods, about 1-inch long.

**Lookalikes:** Longspur lupine (*L. arbustus* (= *L. laxiflorus*)) has a bump (spur) at the upper part of the outer base of the flower (best seen when viewing the flower from the side).

**What to look for:** Blue, pea-flowered with palmate shaped leaves.

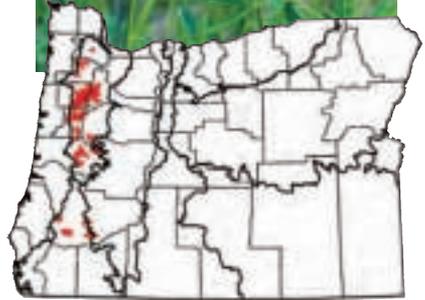
**Habitat:** Open grassy prairies and meadow edges often near oak. In Douglas County, this lupine also grows in Douglas-fir and madrone woodlands.

**Elevation:** 200 to 2,750 feet.

**Best survey time:** When in flower, May and June.

**Notes:** Primary larval host for the rare Fenders' blue butterfly.

**Reference for technical description:** Hitchcock, C.L., A. Cronquist, M. Ownbey, and J.W. Thompson. 1961. Vascular Plants of the Pacific Northwest: Part 3 Saxifragaceae to Ericaceae. University of Washington Press, Seattle.



# Mariposa lily, Cox's

(*Calochortus coxii*)



**Status:** Federal (USFWS): Species of concern

State (ODA): Endangered

ODFW: Strategy Species

ORNHIC/NatureServe: G1

**Range:** Klamath Mountain ecoregion, Douglas County

**Description:** Perennial, erect herb, 6 to 9 inches tall. **Flowers** deeply cup-shaped, white to cream colored typically with a tinge of pink at the inner base, one to four per plant, 1-1/2 to 3 inches in diameter. Band of white hairs immediately above the pink tinge followed by another band of pink with yellow hairs that

grade to white at the petals edges. **Leaf** dark green and smooth on one side, fine hairs in a row on the other, about a foot long and a quarter inch wide, arising from the base. **Fruit** capsule, hanging, 1 to 2 inches long.

**Lookalikes:** Umpqua mariposa lily (*C. umpquaensis*), other mariposa lily (*Calochortus*) species. In southwestern Oregon, only this species and Howell's mariposa lily (*C. howellii*) and Umpqua mariposa lily (*C. umpquaensis*) have leaves that are hairy on one side and smooth on the other. All are rare and restricted to serpentine soils. Howell's mariposa lily is only known from Josephine County. The flowers of Umpqua mariposa lily are not as deeply cupped or densely hairy and lack the yellow hairs.

**What to look for:** Showy, densely hairy, whitish colored flowers that look yellow due to the dense yellow hairs.

**Habitat:** Restricted to serpentine soils, grasslands, openings in and edges of mixed woodlands, often comprised of Jeffrey pine, Douglas-fir, incense cedar or madrone.

**Elevation:** 1,000 to 2,100 feet.

**Best survey time:** When in flower, June to July.

**Notes:** See page on Umpqua mariposa lily (*Calochortus umpquaensis*). The leaf hairs are on the adaxial surface (upper or the side closest to the main axis of the plant) but in the wild the leaf twists so that the upper surface becomes the lower surface of the leaf.

**Reference for technical description:** Fiedler, P.L. and R.L. Zebell. 1993. Flora of North America. Volume 26 Calochortus. Oxford University Press, New York.

# Mariposa lily, Greene's (*Calochortus greenei*)

**Status:** Federal (USFWS): Species of concern  
State (ODA): Candidate  
ORNHIC/NatureServe: G2

**Range:** Klamath Mountain Ecoregion. Mostly southern Jackson County and nearby areas in East Cascades of Klamath County

**Description:** Perennial, erect herb, about 5 to 13 inches tall. **Flowers** bell shaped, held erect, one to five in number, lavender with yellow at base, hairy inside, petals about 1-1/4 to 1-1/2 inches long. Band of purple, chevron shaped on outer, lower part of petals. **Stem** generally branched, stoutish, 4 to 12 inches long. **Leaves** on stem, one to two in number, small. Solitary leaf arising from the base, about 8 inches long, 1/2-inch wide. Fruit erect, winged, 3/4 to 1 inch long.



**Lookalikes:** Other mariposa lily species (*Calochortus* spp.). Another rare mariposa lily, Siskiyou mariposa lily (*C. persistens*) is shorter (about 4 inches tall) with a single stem and nodding fruit. Longbeard mariposa lily (*C. longebarbatus*) has bulblets at the base of the stem and a purple crescent-chevron seen inside the flower near the base. Naked mariposa lily (*C. nudus*) does not have a purple band and is found in moist to wet grassy areas.

**What to look for:** Showy, lavender colored flower with yellow base and purple chevron

**Habitat:** Openings in and edges of oak woodlands

**Elevation:** 3,200 to 5,200 feet.

**Best survey time:** When in flower, June to July.

**Reference for technical description:** Hickman, James C. (ed.). 1993. The Jepson Manual, higher plants of California. University of California Press, Berkeley and Los Angeles, CA. 1400 pp.



## Mariposa lily, Siskiyou (*Calochortus persistens*)

**Status:** Federal (USFWS): Candidate  
ORNHIC/NatureServe: G1

**Range:** Klamath Mountain ecoregion;  
Jackson County.

**Description:** Perennial, erect herb,  
about 4 inches tall. **Flowers**  
bell-shaped, held erect, two in  
number, pink to purple, petals  
3, 1 3/8 to 1 5/8 inches long.  
Yellow fringe of hair on lower  
third of petals. Hairs also on  
petal margins. **Stem** single, not  
branched, 2 to 3 inches long.  
**Leaf** single from base, not quite 8  
inches long. **Fruit** nodding, about  
3/8 inches, winged.

**Lookalikes:** Other mariposa lily species (*Calochortus* spp.) may appear similar but differ in hairiness (some are hairy throughout the petals, some hairless), petal color (yellow instead of pinkish-purplish), or coloration within the floral bell (purple appearance instead of yellow).

**What to look for:** Showy, pinkish-purplish bell-shaped flower with yellow at base, small stature, and one long base leaf (longer than the flowering stem).

**Habitat:** Open areas near mixed conifer-deciduous forests.

**Elevation:** 5,600 feet.

**Best survey time:** While in flower, June to July.

**Notes:** In Oregon known only from one location.

**Reference for technical description:** Hickman, James C. (ed.). 1993. The Jepson Manual, higher plants of California. University of California Press, Berkeley and Los Angeles, CA. 1400 pp.

# Mariposa lily, Umpqua

*(Calochortus umpquaensis)*

**Status:** Federal (USFWS): Species of concern

State (ODA): Endangered

ODFW: Strategy Species

ORNHIC/NatureServe: G1

**Range:** Klamath Mountain ecoregion; barely in West Cascades, Douglas and northern Josephine and Jackson counties.

**Description:** Perennial, erect herb, 8 to 12 inches tall. **Flowers** shallow cup-shaped, white to cream colored with a noticeable dark purple-black spot at the inner bases of the petals, one to several per plant, about 1-1/2 inches long. Inner petal surface hairy, dense and purple-colored near base, sparser and white on upper portion. **Leaf** solitary, thin, smooth on one side, fine hairs in a row on the other, arising from the base. **Fruit** capsule, hanging, about 1 to 2 inches long.



**Lookalikes:** Cox's mariposa lily (*C. coxii*), other mariposa lily species (*Calochortus* spp.). In southwestern Oregon, only this species, Howell's mariposa lily (*C. howellii*) and Cox's mariposa lily have leaves that are hairy on one side and smooth on the other. All are rare and restricted to serpentine soils. Howell's mariposa lily is only known from southern Josephine County. Cox's mariposa lily flowers are deeply cupped with a band of yellow hairs and no dark spot at the base.

**What to look for:** Showy, whitish colored flower with dark spot, purple and white hairs on the inner surface, and stripes of hairs along the back of the single leaf.

**Habitat:** Restricted to serpentine soils, in grasslands, under open canopy and edges of mixed woodlands, often comprised of Jeffrey pine, Douglas-fir, incense cedar or madrone

**Elevation:** 1,000 to 2,700 feet.

**Best survey time:** When in flower, June to July.

**Notes:** See page on Cox's mariposa lily (*Calochortus coxii*). The leaf hairs are on the adaxial surface (upper or the side closest to the main axis of the plant) but in the wild the leaf twists so that the upper surface becomes the lower surface of the leaf.

**Reference for technical description:** Fiedler, P.L. and R.L. Zebell. 1993. Flora of North America Volume 26: Calochortus. Oxford University Press, New York.

## Paintbrush, Chambers' *(Castilleja chambersii)*

**Status:** Federal (USFWS): Species of concern  
ORNHIC/NatureServe: G1

**Range:** Coast Range ecoregion;  
Clatsop County

**Description:** Perennial, erect herb from a woody base, 6 to 14 inches tall. **Flowers** (includes colored segments) bright scarlet red to pale reddish orange, often fading to pale yellowish-orange with age, in dense spike. Part of flower (beak) extending well beyond other floral segments. **Stems** few to many, erect but sometimes horizontal before ascending, usually branched from near the base. Sparse silky hair among the flowers, none below the flower spike. **Leaves** deeply lobed and mostly smooth, without hairs.



**Lookalikes:** Other paintbrush species (*Castilleja* spp.). Giant red Indian paintbrush (*C. miniata*) leaves are not lobed. Mountain Indian paintbrush (*C. parviflora*) flower colors whitish to salmon-colored. Harsh Indian paintbrush (*C. hispida*) lobes on the colored floral segments rounded and floral beak does not extend above the rest. Cliff Indian paintbrush (*C. rupicola*) has short fine hairs on stems and leaves.

**What to look for:** Showy, red Indian paintbrush.

**Habitat:** Grassy areas in open rock outcrops in conifer forests.

**Elevation:** 2,200 to 3,200 feet.

**Best survey time:** While in flower, mid June to early August.

**Notes:** Newly described species only known from isolated peaks of the Coast Range.

**Reference for technical description:** Egger, M. and R.J. Meinke. 1999. *Castilleja chambersii* (Scropulariaceae), a new rare species from the northern Coast Range of Oregon. *Brittonia* 51(4): 445-451.

# Queen-of-the-forest

*(Filipendula occidentalis)*

**Status:** Federal (USFWS): Species of Concern  
State (ODA): Candidate  
ORNHIC/NatureServe: G2

**Range:** Coast Range ecoregion; Northwestern Oregon, Clatsop, Lincoln, Polk and Tillamook counties.

**Description:** Perennial, erect herb, up to 6 feet tall. **Flowers** white, with five petals, numerous, grouped in such a manner to form a flat-topped shape. **Stems** one or more, not usually branched. Terminal leaflet most apparent, 3 to 8 inches wide and nearly as long, palmate shaped (segments arising from the same point), with five to seven, sometimes 3, lobes. One to four paired, small leaflets below the terminal leaflet. **Fruit** strongly hairy with a slender tip, flattened, a little over 1/8 inches long.

**Lookalikes:** Some currants (*Ribes* sp.) and blackberries (*Rubus* sp.) have similar size and leaf shape, but do not have the paired, small leaflets or the flat top floral arrangement.

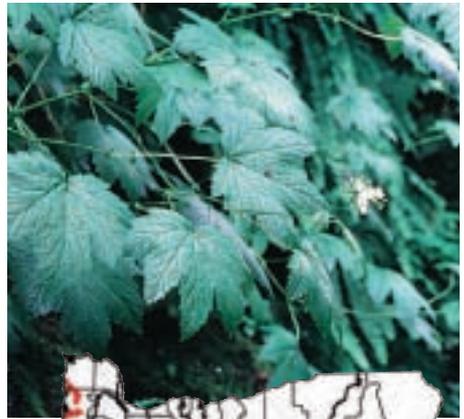
**What to look for:** White flowers in a flat top arrangement and palmate leaves.

**Habitat:** Riparian zones, shady areas above high-water level; seepy areas; steep ravines.

**Elevation:** 100 to 3,800 feet

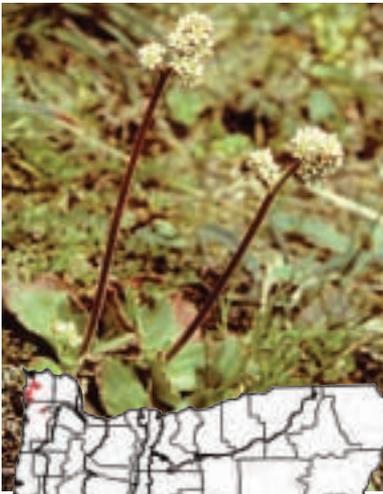
**Best survey time:** When in flower, June to August

**Reference for technical description:** Hitchcock, C.L., A. Cronquist, M. Ownbey, and J.W. Thompson. 1961. Vascular Plants of the Pacific Northwest: Part 3. University of Washington Press, Seattle.



# Saxifrage, Saddle Mountain

(*Saxifraga hitchcockiana*)



**Status:** Federal (USFWS): Species of concern

State (ODA): Candidate

ORNHIC/NatureServe: G1

**Range:** Coast Range ecoregion; Clatsop and Tillamook counties

**Description:** Perennial herb, erect, 4 to 8-1/2 inches tall. **Flowers** white and tiny, 75 to 100 or 200 clustered on flower stems, flowers face up.

**Flower stems** covered with whitish, sticky hairs, 4 to 6 inches long, branched and without large stem leaves. **Leaves** 2 inches long, fleshy,

with pronounced tooth-like outer margins, wider at the top than at the bottom, arranged in a basal rosette, and covered on both surfaces with dense white hairs. Leaf stalks are short and thick.

**Lookalikes:** Oregon saxifrage (*Saxifraga oregana*), rustyhair saxifrage (*S. rufidula*).

Oregon saxifrage grows in a different habitat, in deeper soils along streams, bogs or wet meadows. Its leaf edges are generally not so prominently toothed and leaves are sometimes not so hairy. Rustyhair saxifrage has leaves which contract abruptly to a narrow leaf stalk giving the whole leaf the shape of a shovel.

**What to look for:** Many white flowers clustered on a long flower stalk, very hairy leaves with sharply toothed margins arranged in a basal rosette.

**Habitat:** Grassy balds, thin rocky soils, rock crevices and ledges on mountain tops and ridges.

**Elevation:** 2,800 to 3,500 feet.

**Best survey time:** While in flower, May to July.

**Notes:** The old name for the species is *Saxifraga occidentalis* var. *latipetiolata* under which it is found in some floras.

**Reference for technical description:** Elvander, P.E. 1984. The taxonomy of *Saxifraga* (Saxifragaceae) Section Boraphila Subsection Integrifoliae in Western North America. Systematic Botany Monographs. 3: 34-36.

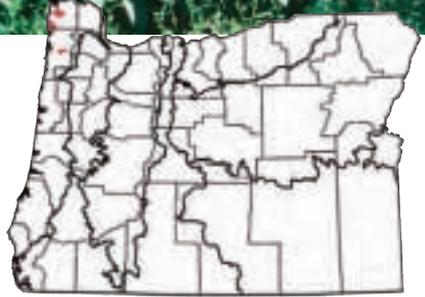
# Shootingstar, frigid (*Dodecatheon austrofrigidum*)

**Status:** Federal (USFWS): Species of concern  
ORNHIC/NatureServe: G2

**Range:** Coast Range ecoregion;  
Clatsop and Tillamook counties.

**Description:** Perennial, slender erect herb, about 6 to 10 inches tall.

**Flowers** magenta, tubular, with petals so swept back that flowers appear inverted, yellow at the base. Stamens (pollen producers) opposite side of the petals and forming a short beak. **Flowering stems** without leaves. **Leaves** all arising from the base, often with toothed margins, not hairy, leaf stalks narrow to abruptly forming blade, stalk length almost as long as the blade



**Lookalikes:** The mosquito bills (*D. hendersonii*) have round leaves, with smooth, untoothed margins and is generally found in the Willamette Valley and the Cascades ecoregions. Darkthroat shootingstar (*D. pulchellum* ssp. *pulchellum*) has yellow at the base of the stamens.

**What to look for:** Pretty, showy plant with magenta flowers.

**Habitat:** Wet seepy areas, open or shaded, from high rocky peaks to edges of river banks.

**Elevation:** 350 to 3,100 feet.

**Best survey time:** May – June.

**Notes:** Shooting stars are easy to spot; identifying to species can be difficult.

## **Sidalcea, bristly-stemmed** *(Sidalcea hirtipes)*

**Status:** Federal (USFWS): Species of concern

State (ODA): Candidate

ORNHIC/NatureServe: G2

**Range:** Coast Range ecoregion; Northwestern Oregon, Clatsop, Lincoln and Tillamook counties.

**Description:** Perennial, erect, tall herb, up to 2 to 4 feet tall. **Flowers** pink to purple-lavender, large, densely clustered at the end of a tall spike. **Stems** several from an underground, creeping stem

(rhizome), with long stiff hairs. **Leaves** palmate (segments arising from the same point), five to seven deeply divided segments which are again further divided into shorter lobes, with long stiff hairs. Basal leaves more shallowly lobed than those leaves further up the stem.

**Lookalikes:** In Oregon, the only *Sidalcea* that grows in the same range is Henderson's sidalcea (*S. hendersonii*), which is found only in the upper portions of saltmarsh flats.

**What to look for:** Showy, pink-flowered, hairy, palmate-leaved plant growing near the coast.

**Habitat:** Open meadows, on coastal bluffs, within conifer forests, areas receiving marine influence.

**Elevation:** 10 to 3,200 feet.

**Best survey time:** When in flower, late April to early August.

**Reference for technical description:** Hitchcock, C.L., A. Cronquist, M. Ownbey, and J.W. Thompson. 1961. Vascular Plants of the Pacific Northwest: Part 3 Saxifragaceae to Ericaceae. University of Washington Press, Seattle, WA.



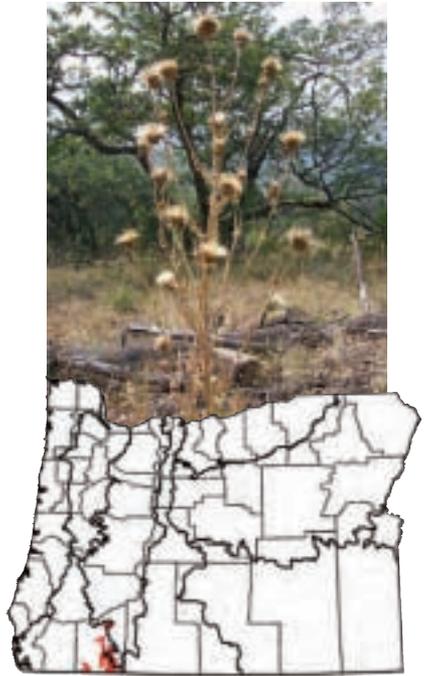
# Thistle, Ashland

(*Cirsium ciliolatum*)

**Status:** ORNHIC/NatureServe: G2

**Range:** Klamath Mountain (mostly), West Cascade and East Cascade ecoregions. Jackson County.

**Description:** Perennial, erect herb, 2 to 6-1/2 feet tall. **Flowers** dull white to lavender; clustered in heads, less than 1-3/4 inches long, few to many per plant. Stiff spines arise under the heads. **Stems** with hairs, cobwebby to densely thick, interwoven and generally matted. **Leaves** few from base, the lower stem leaves up to 10 inches long and 4 inches wide, stalked, pinnately lobed (structured like a feather with two rows arising from a central axis), small weak spines at the tip of each leaf division. Upper stem leaves not stalked and smaller than lower ones. All leaves similarly hairy as stems.



**Lookalikes:** Peregrine thistle (*Cirsium cymosum*). Peregrine thistle has two different types of hairs, one similar to Ashland thistle (*C. ciliolatum*) and additional jointed, multi-cellular hairs that are found especially along the mid vein of the leaf.

**What to look for:** Tall, very hairy and spiny thistle with whitish flowers.

**Habitat:** Open woodlands, oak and mixed conifer.

**Elevation:** 2,500 to 5,100 feet.

**Best survey time:** While in flower, June to August.

**Notes:** Thistles are easy to identify but difficult to differentiate among species; Ashland thistle (*C. ciliolatum*) especially so from the common peregrine thistle (*C. cymosum*).

**Reference for technical description:** Hickman, James C. (ed.). 1993. The Jepson Manual, higher plants of California. University of California Press, Berkeley and Los Angeles. 1400 pp.



## PHOTO CREDITS

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### ANIMALS

#### Bat Conservation International

Merlin D. Tuttle – Hoary bat, pallid bat, silver-haired bat, Townsend's big-eared bat, California bat, fringed bat, long-legged bat

#### Bureau of Land Management Image Library

– Western bluebird

**Charlotte Corkran** – Cascade torrent salamander, Columbia torrent salamander, Cope's giant salamander, southern torrent salamander, Rocky Mountain tailed frog, Cascade frog

#### Cornell Lab of Ornithology

Steve Kress – Barrow's goldeneye  
Rick Kline – Northern goshawk  
William Newton – Great gray owl  
Helen Cruickshank – Lewis' woodpecker  
Denny Mallory – White-headed woodpecker  
Betty Darling Cottrille – Willow flycatcher  
Greg W. Lashley – Blue-gray gnatcatcher

**John Deal** – Marbled murrelet

**Stephen Dowlan** – Oregon slender salamander, pileated woodpecker

**Don Getty** – Bald eagle

**Photodisc Blue/Getty Images** - Fisher

**Kevin T. Karlson** – Bufflehead, greater sandhill crane, peregrine falcon, purple martin, American three-toed woodpecker

**Worth Matthewson** – Band-tailed pigeon

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**Oregon Department of Fish and Wildlife** – Ringtail, wolverine

**Brian E. Small** – Flammulated owl, black-backed woodpecker, slender-billed nuthatch, olive-sided flycatcher

**Alan St. John** – Clouded salamander, Larch Mountain salamander, Siskiyou salamander, common kingsnake, Columbia spotted frog, foothill yellow-legged frog, Oregon spotted frog

**Jim Swingle** – Red tree vole

**U.S. Fish and Wildlife Service Image Library** – Spotted owl, red-legged frog

**U.S. Fish and Wildlife Service** – Columbian white-tailed deer, Canada lynx, American marten, chipping sparrow, acorn woodpecker, western toad, Oregon silverspot butterfly

### PLANTS

**Stephen Anderson** – Coast Range fawn-lily

**Don Eastman** – Saddle Mountain saxifrage

**Norman Jensen** – Siskiyou mariposa-lily

**Jimmy Kagan** – Agate Desert lomatium

**Scot Loring** – Southern Oregon buttercup, Ashland thistle, Howell's camassia

#### The Oregon Flora Project

**Ken Chambers** – Saddle Mountain bittercress, frigid shootingstar

**Mark Egger** – Chambers' paintbrush

**Tom Kaye** – Kincaid's lupine

**Mildred Thiele** – Cox's mariposa-lily

#### Oregon Natural Heritage Information

**Center** – White rock larkspur, Nelson's sidalcea

**Phil Phillips** – Greene's mariposa-lily

**Jean Siddall** – Bristly-stemmed sidalcea

**Mary Douglass Stovall** – Umpqua mariposa-lily

**Rich and Buskirk** – Oregon silverspot butterfly

**Belinda Vos** – Gentner's fritillaria

**Sue Vrilakas** – Dalles Mountain buttercup, pumice grape-fern

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