

# Appendix F

## Mammals: Species List, Status, and Habitat

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This appendix lists species of mammals that are known to be present or are likely to occur on state forest lands in Klamath-Lake District. The information was compiled by the Oregon Natural Heritage Program (ONHP), for the Oregon Department of Forestry. Biologists from the Oregon Department of Fish and Wildlife reviewed the information.

The species list was generated from a combination of recognized sources, including ONHP's data information systems, the Oregon Department of Fish and Wildlife's OSIS database, the Oregon Department of Forestry's forest stands database for the Klamath-Lake District, and a literature search. A complete list of sources is included in ONHP's report to the Department of Forestry (Oregon Natural Heritage Program 1994). ONHP developed an initial, working list of species in Klamath County from their data information systems, including their EMAP database, which has statewide distribution information about vertebrate species; and their Vertebrate Characterization Abstracts (VCA) database. Next, ONHP identified habitat categories on state forest lands in Klamath-Lake District, using the district's forest stands database. They then revised the working list to include only those species found in habitat types that occurred on state forest lands in the district.

The common names of the mammals are given first, followed by the scientific name in italics. Three categories of information are provided for each species: protection status, breeding status and relative abundance in Klamath County, and habitat information. These categories are discussed briefly below.

### Protection Status

The "Status" column provides information about whether a species is listed as threatened, endangered, candidate, sensitive, or other special status. The column includes both federal and state status information. This column also notes if a species is classified as a game species in Oregon, and if it is an introduced species (not native to Oregon). The protection status information was taken from three sources: ONHP's publication "Rare, Threatened, and Endangered Plants and Animals of Oregon"; ONHP's species tracking database; and the Oregon Department of Fish and Wildlife's "Wildlife Diversity Plan."

The following protection status codes are used.

- FE Federally endangered, under the federal Endangered Species Act
- FT Federally threatened, under the federal Endangered Species Act
- FC Federal candidate, under the federal Endangered Species Act
  
- SE State endangered, under the Oregon Endangered Species Act
- ST State threatened, under the Oregon Endangered Species Act
- SC State critical — species for which listing as threatened or endangered is pending, or may be appropriate if immediate conservation actions are not taken.
- SV State vulnerable — species for which listing as threatened or endangered is not believed to be imminent, and can be avoided through continued or expanded protective measures and monitoring.
- SP State peripheral or naturally rare — species whose Oregon populations are on the edge of the range, or those species that have had historically low populations because of naturally occurring limiting factors.
- SU State unknown — state status is unclear. These species may be susceptible to population declines of sufficient magnitude that they could qualify for one of the state status categories above, but scientific study will be required before a judgment can be made.
  
- Species is known to occur on state forest lands in Klamath-Lake District, based on sightings or documentation by the Oregon Department of Fish and Wildlife, or information in ONHP’s databases, or letters from Craig Bienz of the Klamath Tribe (letters provided by the Oregon Department of Forestry).
- G State game animal
- I Introduced species (not native to Oregon)

## **Breeding Status and Abundance in Klamath County**

The “Breeding Status / Abundance” column provides information about the breeding status of the species in Klamath County, and also about the relative abundance of the species in Klamath County. The information for this column was generated from data contained in ONHP’s EMAP and VCA databases, and the Oregon Department of Fish and Wildlife’s OSIS database.

Breeding status is described with the following three terms.

- Confirmed breeder Breeding documented in Klamath County.
- Probable breeder Based on available habitat, the species probably breeds in Klamath County, though ONHP does not have documentation of it.
- Possible breeder Species may breed in Klamath County, but there is little available habitat, or the species is particularly rare in the county.

The description of abundance in Klamath County is based on a relative scale. Species were rated as abundant, common, uncommon, rare, or irregular. The “irregular” designation is used for species that are occasionally seen in the county, but are not considered part of the usual fauna. Specific documentation concerning the presence and/or abundance of a species on a specific tract of state forest land is not available, due to a lack of field surveys on those lands. However, a reader can make predictions by looking at the abundance of a species in Klamath County, and the presence on state forest lands of habitat types used by that species. For example, the long-toed salamander is abundant in Klamath County. It uses several forest types that are common on state forest lands in Klamath County. Based on this information, a person could predict that the long-toed salamander is abundant on state forest lands. The Cascade frog, on the other hand, is common in Klamath County, but uses wetland habitats. Since there are few wetlands on state forest lands in Klamath County, one would not expect the Cascade frog to be common on state forest lands. Similar predictions can be made for the mammal species in this appendix.

## Habitat Information

ONHP developed 9 habitat categories through an assessment and synthesis of various sources. First, they reviewed the forest associations in the Klamath-Lake District’s forest stands database. They then added additional habitat types that they expected to be present on the state forest lands, including wetland, riparian, talus/scree/outcrop. ONHP also reviewed the 140 vegetation types found statewide, listed in the Oregon Department of Fish and Wildlife’s OSIS database. These vegetation types are described in Kagan and Caicco (1992). After assessing these sources, plus using their own knowledge of state forest lands, ONHP then identified 27 habitat types that occur on state forest lands in Klamath County. Finally, they distilled these 27 types into 8 habitat categories, and added a ninth category for talus, cliffs, and rocky areas. Each category is described briefly below.

Snags, Litter, Duff	Recent timber harvest areas, snags, downed wood.
Talus, Cliffs, Rocky Areas	Caves, quarry operations, talus, scree, outcrops.
Wetland, Riparian Areas	Riparian zones, open water, rivers.
Sagebrush	Low shrub communities dominated by big sagebrush, low sagebrush, or mountain big sagebrush.
Chaparral	Tall shrub community with closed canopy dominated by serviceberry, bitterbrush, bittercherry, snowbrush, or mountain brush.
Pine Forest	Forests dominated by ponderosa or lodgepole pine.
Fir Forest	Fir-dominated forests.
Grasses, Forbs, Meadows	Areas of open grass or forbs.

Mixed forest

Montane forests with canopies ranging from open to closed, with numerous co-dominant conifers.

The habitat listings for each species are based on information from ONHP's VCA database, and the Oregon Department of Fish and Wildlife's OSIS database and Wildlife Diversity Plan. The codes used in the habitat listings are defined below.

- X Species breeds and feeds in this habitat.
- R Species reproduces in this habitat.
- F Species feeds in this habitat.
- C Species uses this habitat for cover.
- S This category is secondary habitat for this species.

Species	Status	Breeding Status and Abundance in Klamath County	Habitat Categories								
			Snags, Litter, Duff	Talus, Cliffs, Rocky Areas	Wetland, Riparian Areas	Sagebrush	Chaparral	Pine Forest	Fir Forest	Grasses, Forbs, Meadows	Mixed Forest
Vagrant shrew <i>Sorex vagrans</i>		Probable Breeder Present Year Round County Abundance: Common	X		X					X	
Dusky shrew <i>Sorex monticolus</i>		Probable Breeder Present Year Round County Abund: Uncommon			X				X	X	
Water shrew <i>Sorex palustris</i>		Probable Breeder Present Year Round County Abundance: Common			X			X	X		X
Pacific water shrew <i>Sorex bendirii</i>		Probable Breeder Present Year Round County Abundance: Common	X		X			X	X		X
Trowbridge's shrew <i>Sorex trowbridgii</i>		Probable Breeder Present Year Round County Abundance: Common							X		S
Merriam's shrew <i>Sorex merriami</i>		Probable Breeder Present Year Round County Abund: Uncommon	X		X			X			
Broad-footed mole <i>Scapanus latimanus</i>		Probable Breeder Present Year Round			X					X	

		County Abundance: Common										
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Species	Status	Breeding Status and Abundance in Klamath County	Habitat Categories								
			Snags, Litter, Duff	Talus, Cliffs, Rocky Areas	Wetland, Riparian Areas	Sagebrush	Chaparral	Pine Forest	Fir Forest	Grasses, Forbs, Meadows	Mixed Forest
Little brown myotis <i>Myotis lucifugus</i>	→	Confirmed Breeder Present Year Round County Abundance: Common	X	R	F	X	X	X	F	S	X
Yuma myotis <i>Myotis yumanensis</i>		Probable Breeder Present Year Round County Abund: Uncommon	X	R	X	X		F	X	F	X
Long-eared myotis <i>Myotis evotis</i>		Probable Breeder Present Year Round County Abundance: Common	X	C	X	X		F	X		X
Fringed myotis <i>Myotis thysanodes</i>	SV	Probable Breeder Seasonally Present County Abundance: Common	X	X				X	X		X
Long-legged myotis <i>Myotis volans</i>		Probable Breeder Present Year Round County Abundance: Common	X	C	X	X		X	X	F	X
California myotis <i>Myotis californicus</i>		Probable Breeder Present Year Round County Abundance: Common	C	X	X			X	F		F
Silver-haired bat <i>Lasionycteris</i>		Probable Breeder Present Year Round	X					X	F		R

<i>noctivagans</i>		County Abundance: Common										
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Species	Status	Breeding Status and Abundance in Klamath County	Habitat Categories								
			Snags, Litter, Duff	Talus, Cliffs, Rocky Areas	Wetland, Riparian Areas	Sagebrush	Chaparral	Pine Forest	Fir Forest	Grasses, Forbs, Meadows	Mixed Forest
Big brown bat <i>Eptesicus fuscus</i>		Probable Breeder Present Year Round County Abundance: Common	X	X	F			F	F	F	F
Hoary bat <i>Lasiurus cinereus</i>		Probable Breeder Seasonally Present County Abundance: Common			X			X	X		X
Pacific W. big-eared bat <i>Plecotus townsendii</i>	FC, SC	Confirmed Breeder Present Year Round County Abundance: Rare		X		X		X	X		X
Pacific pallid bat <i>Antrozous pallidus pacificus</i>	SV	Confirmed Breeder Present Year Round County Abund: Uncommon	C	X	X	X					
Brazilian free-tailed bat <i>Tadarida brasiliensis</i>		Possible Breeder Present Year Round County Abund: Uncommon		F		X		X	X		
Pika <i>Ochotona princeps</i>		Probable Breeder Present Year Round County Abund.: Uncommon		X				X	X		
Nuttall's cottontail <i>Sylvilagus nuttalli</i>	→	Probable Breeder Present Year Round		R	F	X	X	X		F	

		County Abundance: Common										
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Species	Status	Breeding Status and Abundance in Klamath County	Habitat Categories								
			Snags, Litter, Duff	Talus, Cliffs, Rocky Areas	Wetland, Riparian Areas	Sage- brush	Cha- parral	Pine Forest	Fir Forest	Grasses, Forbs, Meadows	Mixed Forest
Snowshoe hare <i>Lepus americanus</i>		Probable Breeder Present Year Round County Abundance: Common					X	X	X		X
White-tailed jackrabbit <i>Lepus townsendii</i>	SV	Possible Breeder Present Year Round County Abund: Rare				X	F			F	
Black-tailed jackrabbit <i>Lepus californicus</i>	→	Confirmed Breeder Present Year Round County Abund: Common				X	X	F		F	
Mountain beaver <i>Aplodontia rufa</i>		Confirmed Breeder Present Year Round County Abund: Uncommon		R					X		X
Least chipmunk <i>Tamias minimus</i>	→	Confirmed Breeder Present Year Round County Abund: Common		C		X		S		F	
Yellow-pine chipmunk <i>Tamias amoenus</i>	→	Confirmed Breeder Present Year Round County Abundance: Common		X			X	X		F	S
Allen's chipmunk <i>Tamias senex</i>		Possible Breeder Present Year Round						X			

		County Abund: Uncommon										
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Species	Status	Breeding Status and Abundance in Klamath County	Habitat Categories									
			Snags, Litter, Duff	Talus, Cliffs, Rocky Areas	Wetland, Riparian Areas	Sagebrush	Chaparral	Pine Forest	Fir Forest	Grasses, Forbs, Meadows	Mixed Forest	
Yellow-bellied marmot <i>Marmota flaviventris</i>	→	Confirmed Breeder Present Year Round County Abundance: Common		X					X	X	F	
Belding's ground squirrel <i>Spermophilus beldingi</i>		Confirmed Breeder Present Year Round County Abund: Common	X		X						X	
California ground squirrel <i>Spermophilus beecheyi</i>	→	Confirmed Breeder Present Year Round County Abund: Common				X					X	
Golden-mantled ground squirrel <i>Spermophilus lateralis</i>	→	Confirmed Breeder Present Year Round County Abundance: Common	C	X	X	X	X	X	X	X		X
Western gray squirrel <i>Sciurus griseus</i>	→ G	Confirmed Breeder Present Year Round County Abundance: Common							X			
Douglas' squirrel <i>Tamiasciurus douglasii</i>	→	Confirmed Breeder Present Year Round County Abundance: Abundant	X						X	X	F	X
Northern flying squirrel <i>Glaucomys sabrinus</i>	→	Confirmed Breeder Present Year Round	X		X				X	X	F	X



Species	Status	Breeding Status and Abundance in Klamath County	Habitat Categories									
			Snags, Litter, Duff	Talus, Cliffs, Rocky Areas	Wetland, Riparian Areas	Sagebrush	Chaparral	Pine Forest	Fir Forest	Grasses, Forbs, Meadows	Mixed Forest	
Botta's pocket gopher <i>Thomomys bottae</i>		Probable Breeder Present Year Round County Abund: Uncommon			X						F	
Northern pocket gopher <i>Thomomys talpoides</i>	→	Confirmed Breeder Present Year Round County Abundance: Abundant	X		X	X	X	X	X	X	X	X
Western pocket gopher <i>Thomomys mazama</i>		Probable Breeder Present Year Round County Abundance: Common	X		X						X	
Great Basin pocket mouse <i>Perognathus parvus</i>		Probable Breeder Present Year Round County Abund: Uncommon		X		X	X				X	
Heermann's kangaroo rat <i>Dipodomys heermanni</i>		Possible Breeder Present Year Round County Abund: Rare				X	X					
Beaver <i>Castor canadensis</i>	→ G	Confirmed Breeder Present Year Round County Abundance: Abundant	S		X			X	X	X	X	X
Western harvest mouse <i>Reithrodontomys</i>		Probable Breeder Present Year Round			X						X	

<i>megalotis</i>		County Abundance: Common										
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Species	Status	Breeding Status and Abundance in Klamath County	Habitat Categories									
			Snags, Litter, Duff	Talus, Cliffs, Rocky Areas	Wetland, Riparian Areas	Sagebrush	Chaparral	Pine Forest	Fir Forest	Grasses, Forbs, Meadows	Mixed Forest	
Deer mouse <i>Peromyscus maniculatus</i>	→	Confirmed Breeder Present Year Round County Abundance: Abundant	X	X	X	X	X	X	X	X	X	X
Pinon mouse <i>Peromyscus truei</i>		Probable Breeder Present Year Round County Abundance: Common	X	X		X	X	X				X
Northern grasshopper mouse <i>Onychomys leucogaster</i>		Probable Breeder Present Year Round County Abundance: Common				X	X				X	
Dusky-footed woodrat <i>Neotoma fuscipes</i>	→	Confirmed Breeder Present Year Round County Abund: Common		X	X		X	X	X	X	X	X
Bushy-tailed woodrat <i>Neotoma cinerea</i>		Confirmed Breeder Present Year Round County Abundance: Common		X	X	X	S	X	X			X
Western red-backed vole <i>Clethrionomys californicus</i>		Probable Breeder Present Year Round County Abund: Common							X	X		X
Heather vole <i>Phenacomys</i>		Probable Breeder Present Year Round	C						X	X	X	

<i>intermedius</i>		County Abund: Uncommon										
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Species	Status	Breeding Status and Abundance in Klamath County	Habitat Categories									
			Snags, Litter, Duff	Talus, Cliffs, Rocky Areas	Wetland, Riparian Areas	Sagebrush	Chaparral	Pine Forest	Fir Forest	Grasses, Forbs, Meadows	Mixed Forest	
Montane vole <i>Microtus montanus</i>		Probable Breeder Present Year Round County Abundance: Abundant		R	X						X	
Long-tailed vole <i>Microtus longicaudus</i>		Probable Breeder Present Year Round County Abundance: Common	X		X		X	X	S	X	S	
Creeping vole <i>Microtus oregoni</i>		Probable Breeder Present Year Round County Abundance: Common	X		X				X		X	
Water vole <i>Microtus richardsoni</i>		Probable Breeder Present Year Round County Abundance: Abundant			X						X	
Muskrat <i>Ondatra zibethicus</i>	G	Confirmed Breeder Present Year Round County Abundance: Abundant			X						X	
Western jumping mouse <i>Zapus princeps</i>		Probable Breeder Present Year Round County Abundance: Abundant	X		X						X	
Pacific jumping mouse <i>Zapus trinotatus</i>		Probable Breeder Present Year Round	X		X			X	X	X	X	

		County Abundance: Common										
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Species	Status	Breeding Status and Abundance in Klamath County	Habitat Categories									
			Snags, Litter, Duff	Talus, Cliffs, Rocky Areas	Wetland, Riparian Areas	Sage- brush	Cha- parral	Pine Forest	Fir Forest	Grasses, Forbs, Meadows	Mixed Forest	
Porcupine <i>Erethizon dorsatum</i>	→	Confirmed Breeder Present Year Round County Abundance: Abundant	X		X	X	X	X	X	X	F	X
Coyote <i>Canis latrans</i>	→	Confirmed Breeder Present Year Round County Abundance: Abundant	X	X	F	X	X	X	X	X	X	X
Red fox <i>Vulpes vulpes</i>	→ G	Confirmed Breeder Present Year Round County Abund: Uncommon	X	X	X			X	S	X	X	
Gray fox <i>Urocyon cinereoargenteus</i>	→ G	Confirmed Breeder Present Year Round County Abund: Uncommon	X	X	X		X	X				
Black bear <i>Ursus americanus</i>	→ G	Confirmed Breeder Present Year Round County Abundance: Common	X	X	X		X	X	X	X	X	X
Ringtail <i>Bassariscus astutus</i>	SU	Confirmed Breeder Present Year Round County Abund: Uncommon		X	X		X	X	X			X
Raccoon <i>Procyon lotor</i>	→ G	Confirmed Breeder Present Year Round	X	R	X						F	

		County Abundance: Common										
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Species	Status	Breeding Status and Abundance in Klamath County	Habitat Categories								
			Snags, Litter, Duff	Talus, Cliffs, Rocky Areas	Wetland, Riparian Areas	Sagebrush	Chaparral	Pine Forest	Fir Forest	Grasses, Forbs, Meadows	Mixed Forest
Marten <i>Martes americana</i>	→ SC, G	Confirmed Breeder Present Year Round County Abund: Common	X	X				X	X		X
Pacific fisher <i>Martes pennanti pacifica</i>	FC, SC, G	Probable Breeder Present Year Round County Abund: Rare	X	X				X	X		X
Ermine <i>Mustela erminea</i>	→	Confirmed Breeder Present Year Round County Abundance: Common		X	X			X	X	X	X
Long-tailed weasel <i>Mustela frenata</i>	→	Confirmed Breeder Present Year Round County Abundance: Common	F	X	X	X	X	X	X	X	X
Mink <i>Mustela vison</i>	→ G	Confirmed Breeder Present Year Round County Abundance: Common	X	X	X			X	S	F	S
California wolverine <i>Gulo gulo luteus</i>	FC, ST	Confirmed Breeder Present Year Round County Abundance: Rare		X				X	X		X
Badger <i>Taxidea taxus</i>	→	Confirmed Breeder Present Year Round	X	X	X	X	S	X		X	

		County Abundance: Common										
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Species	Status	Breeding Status and Abundance in Klamath County	Habitat Categories								
			Snags, Litter, Duff	Talus, Cliffs, Rocky Areas	Wetland, Riparian Areas	Sage- brush	Cha- parral	Pine Forest	Fir Forest	Grasses, Forbs, Meadows	Mixed Forest
Western spotted skunk <i>Spilogale gracilis</i>		Confirmed Breeder Present Year Round County Abund: Uncommon	X	X	X			X	X	X	X
Striped skunk <i>Mephitis mephitis</i>	→	Confirmed Breeder Present Year Round County Abundance: Common	X	R	X		X			X	
River otter <i>Lutra canadensis</i>	G	Confirmed Breeder Present Year Round County Abundance: Common			X			X	S		S
Bobcat <i>Felis rufus</i>	→ G	Confirmed Breeder Present Year Round County Abundance: Common	X	X	X	X	X	X	X	X	X
Mountain lion <i>Felis concolor</i>	→ G	Confirmed Breeder Present Year Round County Abund.: Uncommon		X	X			X	X		X

Species	Status	Breeding Status and Abundance in Klamath County	Habitat Categories								
			Snags, Litter, Duff	Talus, Cliffs, Rocky Areas	Wetland, Riparian Areas	Sagebrush	Chaparral	Pine Forest	Fir Forest	Grasses, Forbs, Meadows	Mixed Forest
Elk <i>Cervus elaphus</i>	→ G	Confirmed Breeder Present Year Round County Abundance: Common	X		X			X	F	X	X
Black-tailed deer <i>Odocoileus hemionus hemionus</i>	→ G	Confirmed Breeder Present Year Round County Abundance: Abundant	X		X	X	X	X	X	X	X
Mule deer <i>Odocoileus hemionus</i>	→ G	Confirmed Breeder Present Year Round County Abundance: Abundant	X		X	X	X	X	X	X	X
Pronghorn <i>Antilocapra americana</i>	→ G	Confirmed Breeder Present Year Round County Abundance: Common				X					