

Species	Ecoregion(s)		Special needs	Limiting factors	Data gaps	Conservation actions
American marten (<i>Martes Americana</i>)	BM CR EC WC		Often associated with late-successional mixed conifer habitats with multi-layer stands, but can use a variety of conifer forests as long as a high density of snags and logs are available for den sites and foraging	Low survival rates in fragmented forests	Estimated population densities; differences in habitat requirements by ecoregion and forest type; basic ecology well-understood in Blue Mountains but less so in other ecoregions	Minimize fragmentation in core habitat areas; provide travel corridors between habitat blocks; maintain and create snags; maintain downed wood
California myotis (bat) (<i>Myotis californicus</i>)	BM CR EC KM NBR	WC WV	Primarily forest-associated; uses large snags for day roosts; occasionally found night roosting under bridges	Reduction of large snags; patchy distribution; appears to have low populations	Seasonal movements, winter roost locations and their micro-climate conditions; distribution and trends; species distinction in relation to western small-footed bat	Maintain and create large snags during forest management activities; complete bridge replacement and maintenance when bats are absent
Columbian white-tailed deer (<i>Odocoileus virginianus leucurus</i>)	CR (Columbia River Distinct Population Segment [DPS]) KM (Umpqua population)		Columbia River DPS - Riparian habitat along the lower Columbia River. Umpqua population - Lower elevation oak woodland forests. Often found in riparian habitat.	Columbia River DPS - Limited to a few small separate populations. Habitat loss due to agricultural and residential development. Flooding impacts on island-dwelling and low-elevation mainland populations. Umpqua population - Disease. Collisions with vehicles. Habitat loss due to development.	Columbia River DPS - Predator-prey interactions with coyotes. Agricultural land use impacts on habitat. Both populations - Susceptibility to disease (e.g., Deer Hair Loss).	Columbia River DPS - Continue to implement Conservation actions identified in the Columbian white-tailed deer Recovery Plan. Umpqua population - Continue to monitor populations. Continue to manage habitat at North Bank Habitat Management Area. Evaluate transplant issues and priorities.
Fisher (<i>Martes pennanti</i>)	KM WC		Found in mature, closed canopy forests, often along riparian corridors. Uses hollow logs or brush piles for den sites. Preys on small mammals, including porcupines.	Large home range required. Low rate of reproduction. Specific habitat requirements for dens.	Are populations expanding and/or reestablishing in extirpated areas? Feasibility studies on re-introduction, if not expanding .	Maintain late successional habitats within the fishers range; improve habitat patch size and connectivity to provide for dispersal, genetic interchange, and expansion of populations. Use results of feasibility studies to guide specific conservation actions and management decisions for reintroductions.
Fringed myotis (bat) (<i>Myotis thysanodes</i>)	BM CR EC KM WC		Forest habitats; large snags and rock features for day, night, and maternity roosts (occasionally uses bridges for night roosting); caves and mines for hibernacula; beetles for prey.	Disturbance at roosts; patchy distribution and rarity; reduction of large snags	Seasonal movements; maternity & winter roost locations and characteristics; extent and effects of other limiting factors (e.g., habitat loss and degradation); distribution and trend	Use gates and seasonal closures to protect known hibernacula; maintain and create large-diameter hollow trees and large diameter, tall, newly dead snags during forest management activities
Hoary bat (<i>Lasiurus cinereus</i>)	BM CR EC KM	NBR WC	Forest habitats, including late successional conifer forests which are used for roosting	Habitats loss; migratory behavior increases vulnerability to habitat changes and mortality	Basic ecology, distribution, migration patterns, habitat use, impacts of wind facilities on migratory populations	Investigate data gaps and use results to guide management actions

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Kit fox (<i>Vulpes macrotis</i>)	NBR	Salt desert scrub	Small population at northern end of range, naturally limited by habitat, may be locally impacted by predation by coyotes and by collisions with vehicles	Population densities, current species status	This species is difficult to census; a cost-effective method is needed to determine population size and trends
Long-legged myotis (bat) (<i>Myotis volans</i>)	BM CR EC KM NBR WC	Often associated with late successional conifer forests or other forested habitat with late successional components (especially snags); uses large snags and hollow trees primarily in riparian areas for day, night, and maternity roosts; may use bridges in forested habitat for night roosting; occasionally found night roosting and hibernating in caves or mines; forages in forest riparian and forest edge	Reduction of late successional conifer forests in some ecoregions; loss of hollow trees and large diameter, tall, newly dead snags; loss of healthy riparian habitat; untimely bridge replacement	Seasonal movements, winter roost locations and their microclimate conditions; baseline population data; trends	Maintain and create large-diameter hollow trees and large diameter, tall, newly dead snags in riparian and upland habitat; maintain and restore diverse riparian areas; complete bridge replacement and maintenance when bats are absent
Pallid bat (<i>Antrozous pallidus</i>)	BM CP EC KM NBR	Dry, open habitats; crevices in cliffs, caves, mines, or bridges (occasionally uses buildings) for day, night, or maternity roosts, or hibernacula; grassland, shrub-steppe and dry forest ecotones for foraging; open water sites within the landscape; snags as day roosts in some areas	Disturbance at roosts; patchy distribution; loss of pine snags; loss of native grassland, shrub-steppe habitats and open ponderosa pine woodlands	Maternity & winter roost locations and microclimate requirements, seasonal movements, statewide distribution and trends	Use gates and seasonal closures to protect known roost sites during sensitive times (raising young and hibernation). Maintain open water sources in dry landscapes. Manage rock features such as cliffs to avoid conflict with recreational use and rock removal. Complete bridge replacement and maintenance when bats are absent. Maintain large pine snags in shrub-steppe/forest ecotones. Maintain and restore native grassland, shrub-steppe and open ponderosa pine habitats.

Fisher

Fishers are medium-sized predators and are related to otters, weasels, and minks. Historically, the fisher occurred in forested habitats throughout western Oregon, Washington and northern California. By 1940, Oregon’s fisher populations were either greatly reduced or eliminated from many areas due to non-regulated trapping, accidental poisoning, and habitat loss. Fishers feed on porcupines, snowshoe hares, chipmunks and squirrels. The common name “fisher” is a misnomer because fishers do not eat fish at all. The origin of the name is not known, but may be due to confusion with the closely-related mink, which does

eat fish. Fishers are an important predator of porcupines, killing by biting the porcupine’s face while avoiding the sharp quills. Because of this hunting ability, fishers were reintroduced into Douglas County in the late 1970’s and early 1980’s. Foresters and biologists hoped that the fishers would reduce porcupine populations and the damage that porcupines cause to trees. Fishers currently occur in two small distinct populations in southwest Oregon. They favor late successional forests below 4,000 feet. From 1995 to 2002, a cooperative research project was conducted



by the USFS Pacific Northwest Research Station. The study examined the fisher’s genetics, food habitats, and habitat use, including natal and maternal den sites, rest sites, and effects of stand and landscape composition on habitat use and home range size. The study has provided management recommendations to maintain and restore Oregon’s fisher populations.

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Pygmy rabbit (<i>Brachylagus idahoensis</i>)	NBR		Tall dense clumps of basin big sagebrush; deep, loose soils for digging burrows; native grasses for summer forage	Habitat loss; patchy distribution and susceptible to local declines; limited dispersal capabilities; dispersal impacted by roads and cleared areas	Distribution and abundance; population dynamics	Maintain basin big sagebrush habitats; provide habitat corridors between priority populations
Red tree vole (<i>Arborimus longicaudus</i>)	CR	KM WC	Found in dense, moist conifer forests; prefers large stand size; highly specialized diet of primarily Douglas-fir needles; requires large branches for protection of nests, which are typically at least 50 feet above ground	Very small home range. Poor dispersal ability. Low reproductive rate.	Reproductive success in young forests. Stand requirements for population maintenance (e.g., minimum number or size of conifer trees, connectivity). Population genetics. Home range, dipersal and migration. Clarification of subspecies status.	Continue to monitor populations in response to forest management activities. Note: a major food item for northern spotted owl
Ringtail (<i>Bassariscus astutus</i>)	KM	WC	Large-diameter snags and logs for dens. Associated with late successional forests but also uses riparian and rocky areas.	Habitat loss and fragmentation (rarely uses remnant snags in timber harvest units).	Survey techniques to detect this secretive, nocturnal species	Maintain late successional reserves; maintain large-diameter snags and logs when conducting thinning; create snags when management activities reduce snag availability across landscape
Silver-haired bat (<i>Lasionycteris noctivagans</i>)	BM	EC KM WC	Late-successional conifer forests; uses large snags and hollow trees for day, night, and maternity roosts; found in other habitats during migration	Reduction of late successional conifer forests; loss of hollow trees and large diameter, tall, newly dead snags; migratory behavior increases vulnerability to habitat changes and mortality	Distribution, migration patterns, habitat use, impacts of wind facilities on migratory populations	Maintain late successional conifer habitats; maintain and create large-diameter hollow trees and large diameter, tall, newly dead snags during forest management activities
Spotted bat (<i>Euderma maculatum</i>)	BM	NBR	Crevices in cliffs, caves, and canyon walls for day & night roosting; trees adjacent to meadows for night roosting; water source within landscape; meadows and shrub-steppe for foraging	Naturally rare; disturbance at roosts; loss of natural shrub-steppe habitat	Distribution within Oregon (baseline data needed); basic ecology; habitat relations; estimated population size and trend	Maintain open water sources in desert landscapes. Manage rock features such as cliffs to avoid conflict with recreational use and rock removal. Maintain and restore native shrub-steppe habitat
Townsend’s big-eared bat (<i>Corynorhinus townsendii</i>)	BM CP CR EC KM NBR	WC WV	Caves, mines, & isolated buildings for day, night, or maternity roosts, or hibernacula; occasionally uses hollow trees and bridges for day or night roosting; primarily feeds on moths	Highly sensitive to disturbance at roosts; highly specific roost requirements; reduction in prey base including from non-target pesticides (e.g., btk) used for controlling Lepidoptera	Winter roost locations; seasonal movements; effects of gypsy moth and other insect control on prey base	Use gates and seasonal closures to protect known roost sites during sensitive times (raising young and hibernation). Maintain buildings used as roosts. Maintain and create large-diameter hollow trees during forest management activities. Monitor roosts.
Washington ground squirrel (<i>Spermophilus washingtoni</i>)	CP		Shrub-steppe or grassland with deep, loose, sandy loam soils; high availability of forbs; patch size large enough to maintain a colony	Habitat loss and fragmentation	Colony site dynamics (landscape/metapopulation dynamics) to understand how and why colony sites appear and disappear; genetic variability across range (including similarities to Washington populations); soil requirements	Maintain habitat patches; restore habitat connectivity where possible

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Western grey squirrel (<i>Sciurus griseus</i>)	WV	Oak woodland and savanna; mixed oak-pine-fir woodlands; older trees with large limbs; continuous canopy for movements	Habitat loss and fragmentation; vegetation changes due to fire suppression; residential and urban development	Population locations and trends; general ecology; competition and other impacts from non- native squirrels; dispersal patterns and need for canopy travel corridors	Work with private landowners to maintain and restore oak and mixed oak/pine/fir woodlands, especially large patches; maintain continuous canopy within 200 feet of nest sites; maintain or plant mast species such as Oregon white oak and California hazel; maintain older trees with large limbs.
White-tailed jackrabbit (<i>Lepus townsendii</i>)	NBR	Bunchgrass grasslands	Distribution naturally limited by habitat; habitat loss and degradation (shrub encroachment)	Basic ecology; habitat relationships; distribution; population trends	Investigate species-specific habitat requirements and use these to guide management actions; develop methods to census (nocturnal species)