

UNITED STATES DEPARTMENT OF AGRICULTURE

**FOREST SERVICE**

Establishment Report for  
Wildcat Mountain  
Research Natural Area Addition  
Willamette National Forest  
Linn County, Oregon



**Signature Page for  
Wildcat Mountain Research Natural Area Addition  
Establishment Record**

Sweet Home Ranger District  
Willamette National Forest  
Linn County, Oregon

The undersigned certify that all applicable land management planning and environmental analysis requirements have been met and that boundaries are clearly identified in accordance with FSM 4063.21, Mapping and Recordation and FSM 4063.41 5.e (3) in arriving at this recommendation.

Prepared by: Alice C. Smith Date 4 Oct 1998  
Alice C. Smith, Botanist, Sweet Home Ranger District

Recommended by: Mike Rassbach Date OCT 17, 1998  
Mike Rassbach, District Ranger, Sweet Home Ranger District

Recommended by: Darrel Kenops Date November 16, 1998  
Darrel Kenops, Forest Supervisor, Willamette National Forest

In Concurrence: Thomas J. Mills Date 3/22/99  
for Thomas J. Mills, Station Director, Pacific Northwest Research Station

**Establishment Record  
for  
Wildcat Mountain Research Natural Area Addition  
within  
Willamette National Forest  
Linn County, Oregon**

**Introduction**

The Wildcat Mountain Research Natural Area (RNA) was established on March 18, 1968, to preserve prime examples of noble fir (*Abies procera*) stands as they occur on mountain ridges in the western Cascades of Oregon (Franklin and Dyrness 1972). The RNA is composed of 1003 acres along the ridge line of Wildcat Mountain. An addition to the RNA was proposed in the Willamette National Forest Land and Resource Management Plan (1990) to incorporate an area to the north of the established RNA in order to preserve an intact north facing basin with a third order stream (named Wildcat Creek throughout this document and currently proposed as such to the U.S. Board on Geographic Names). The proposed addition to the RNA is 525 acres in size and will increase the diversity of community types and species represented in the RNA. The area includes late-successional forests in the Pacific silver fir (*Abies amabilis*) series, as well as large areas dominated by Sitka alder (*Alnus sinuata*), cliffs, talus, rock gardens, wetlands, and mesic meadow communities. This Establishment Record documents the ecological and environmental conditions, resource values, and proposed management of the 525 acre addition to the established RNA.

**Justification for Expansion of the RNA Boundaries**

The addition to the established Wildcat Mountain RNA includes an intact third order stream basin in the Pacific silver fir series. This will fulfill a stated need in the Oregon Natural Heritage Plan (1993) for a first to third order stream system in the Pacific Silver Fir Zone. The addition also provides additional representation of Pacific silver fir / foamflower (*Tiarella trifoliata*) and Pacific silver fir / vine maple (*Acer circinatum*) / foamflower communities, also a stated need in the Oregon Natural Heritage Plan. Further, the addition is occupied by a reproductive pair of northern spotted owls, a species currently listed as threatened under the Endangered Species Act. The area also contains a population of *Castilleja rupicola*, a species on the Oregon Natural Heritage Program's Review List (ONHP 1995). Habitat for several threatened, endangered and sensitive species can be found in the addition, as well as habitat for many species on the survey and manage list (Table C-3, USDA, USDI 1994).

## Principle Distinguishing Features

The principle distinguishing features of the addition to the RNA are:

1. An intact 3rd order stream system supporting late successional forest in the Pacific Silver Fir Zone. Included are old-growth Douglas-fir (*Pseudotsuga menziesii*), western hemlock (*Tsuga heterophylla*), Pacific silver fir, and Pacific yew (*Taxus brevifolia*).
2. Sitka alder communities with scattered old-growth noble fir and Alaska yellow-cedar (*Chamaecyparis nootkatensis*).
3. Cliffs, talus, wetland, and rock garden communities supporting a wide diversity of plant species.

## Location

The Wildcat Mountain RNA straddles the boundary between the Sweet Home Ranger District and the McKenzie Ranger District, both on the Willamette National Forest. All of the acres in the addition are in the Sweet Home Ranger District, and are located on the north slope of Wildcat Mountain. There is no private land within or adjacent to the established RNA or the addition. The addition contains portions of T.14S., R.06E, Sections 15, 16, 17, 20, 21, and 22. The largest portion of the addition is at latitude 44° 20' 30" north and longitude 122° 05' 30" west. The general location of the RNA is shown on Map 1.

## Access

Access to the RNA addition is best achieved by using Roads 1598-212 and 216. From Sweet Home, take U.S. Highway 20 east 34 miles (55 km) and turn south on Deer Creek Road (Forest Service Road 15). To access the lower slopes of the addition, continue 3.2 miles (5.1 km) and turn east on Road 1598; continue 0.3 miles (0.5 km) to Road 1598-212. Continue approximately 3 miles (4.8 km) on Road 1598-212 to Wildcat Creek crossing. The lowest point in the RNA addition is found upstream from Rd. 1598-212 approximately 150 feet. Several spur roads off of the 1598-212 also offer access to the addition. These include Roads 1598-213, 215, and 216. Map 2 shows access routes to the RNA.

Deer Creek Road is a paved one lane road with turnouts; Roads 1598 and 1598-212 are one lane gravel roads that may be rough at times. These roads are closed by snow in the winter and usually are not plowed. They are generally free of snow by May.

## Elevation

Elevations in the addition range from 3300 feet (1006 m) where the RNA nearly meets Road 1598-212 in T.14S., R.06E., Sec 22 to 5050 feet (1540 m) at the point where the addition

boundary joins the established RNA boundary. The topography of the RNA addition is evident on Map 3.

### Boundary

The boundaries of the Wildcat Mountain RNA Addition are shown on Map 3; the legal boundary description is located in Appendix A.

### Maps and Photographs

The Sweet Home Ranger District topographical and road map shows the RNA boundary, including the addition, and roads accessing the RNA. The map is at a scale of 1" per mile and is available at that office. The USGS 7.5 minute quad map covering most of the RNA and all of the addition is Tamolitch Falls. The extreme western tip of the established RNA is covered by Carpenter Mountain. These maps are available through the USGS.

Aerial photographs of the addition at 1:12,000 scale are available at the Sweet Home Ranger District and Willamette National Forest Supervisor's Office. Thirty-five mm slides of the addition are on file at the Sweet Home Ranger District.

## **Physical and Climatic Conditions**

### Soils and Geology

The Wildcat Mountain RNA and the proposed addition are located within the Western Cascades physiographic province. The Western Cascades are geologically older than the High Cascades to the east. However, Walker and Duncan (1989) indicate that the strata of the area in which the RNA is located are lithologically similar to both Western and High Cascade deposits and range from four to ten million years old. This places the deposits in between the typical time frames of the Western and High Cascades (Shank, pers. comm.).

The addition to the Wildcat Mountain RNA is composed primarily of Landtypes 1, 3, 6, 610 and 710 (Legard and Meyer 1973, Shank, pers. comm.). These landtypes typically contain steep rocky sideslopes with numerous rock outcrops, cliffs and talus chutes. Sitka alder communities occupy several talus fields. Small benches and flats with deeper productive soils are also present. These areas are thought to represent areas of late Pleistocene glacial activity where small ice fields created cirque basins with small morainal deposits. Small upland meadows are often associated with the bottoms of these cirque areas, while the upper sideslopes exhibit steep rock scarps and cliffs.

The following landtype descriptions are from the Willamette National Forest Soil Resource Inventory, written in 1973 and last updated in 1990 (Legard and Meyer). Ten landtypes are

represented in the Wildcat Mountain RNA addition. Soil mapping units are composed of the following landtypes and are exhibited on Map 4:

Mapping unit 164 is composed of 60% landtype 16 and 40% landtype 44.

Mapping unit 194 is composed of 70% landtype 19 and 30% landtype 44.

Mapping unit 204A is composed of 40% landtype 21, 30% landtype 31, and 30% landtype 2.

Mapping unit 210 is composed of 60% landtype 21 and 40% landtype 2.

Mapping unit 214 is composed of 60% landtype 21 and 40% landtype 44.

Mapping unit 441A is composed of 60% landtype 44 and 40% landtype 21.

Mapping unit 602 is composed of 60% landtype 61 and 40% landtype 21.

Mapping unit 605 is composed of 40% landtype 61, 30% landtype 21, and 30% landtype 44.

Mapping unit 610 is composed of 60% landtype 61 and 40% landtype 1.

Mapping unit 710 is composed of 60% landtype 71 and 40% landtype 1.

Landtype 1 - Rock outcrop, andesites and basalts.

Hard, fresh andesite and basalt rock outcrops commonly forming cliffs and "rock knobs".

This mapping unit is usually associated with volcanic dikes, vents, and plugs. Minor amounts of various volcanic materials or sediments may be present.

Landtype 2 - Rock outcrop, volcanic breccias and tuffs.

Volcanic breccias, tuffs, agglomerates, conglomerates; clastic and pyroclastic sediments generally more easily weathered than landtype 1. Typically, outcrops are massive with few fractures.

Landtype 3 - Talus, rock outcrop, avalanche chutes, and low-site timber.

A complex of various kinds of rock outcrop, talus, and soils highly variable in depth, rock content, and moisture status. This mapping unit is generally found along upper sideslopes, ridgetops, and in areas of cirque topography.

Landtype 6 - Wet non-forest land.

Areas that have high water tables or become seasonally ponded. This mapping unit is highly variable in topographic position and is found in depressions, along streamside areas, and steep sideslopes. Boulder fields are often found within this unit on steep slopes. Vegetation consists of sedges, rushes, grasses, tag alder, devil's club, and willow.

Landtype 16 - Loamy-skeletal, acidic, Typic Dystrichrepts

Deep to very deep, nonplastic to slightly plastic landtype derived from colluvium, glacial till and alluvium. Surface soils are usually thin gravelly loams and sandy loams. Subsoils are usually thick gravelly cobbly loams. Bedrock materials are variable and consist of competent to moderately competent andesites, basalts, tuffs, and breccias. Depth to bedrock varies from six to greater than 12 feet. This landtype occurs on moderate to steep

midslopes, toeslopes, and valley bottoms with slopes ranging from 20 to 70 percent. Elevation ranges from 1500 feet (457 m) to 4500 feet (1372 m). Soils are well drained, and permeability is rapid in the surface soils and rapid to moderate in the subsoils.

**Landtype 19 - Loamy-skeletal, mixed Dystric Cryochrept**

Deep, nonplastic soils derived from glacial till and volcanic breccias. Surface soils are thin gravelly loams. Subsoils are thick gravelly or cobbly loams. Bedrock is composed of moderately competent volcanic breccias that may locally be weathered and soft. Depth to bedrock is usually greater than 10 feet (3.0 m). This landtype occurs on uneven to hummocky glacial benches and basins with slopes ranging up to 45 percent. Elevations range from 4000 feet (1219 m) to 4700 feet (1433 m). Soils are generally well drained but may be locally poorly drained causing ponding. Permeability is rapid to very rapid in the surface soils and rapid to slow in the subsoils.

**Landtype 21 - Loamy-skeletal, mixed Dystric Cryochrept**

Shallow, nonplastic to slightly plastic soils derived from residuum and colluvium. Surface soils are thin gravelly loams. Subsoils are thin gravelly loams or clay loams. Bedrock is moderately hard, competent to moderately competent, reddish volcanic breccias and tuffs. Depth to bedrock is usually less than three feet (0.9 m). This landtype occurs on steep, smooth to moderately dissected sideslopes and ridges with slopes ranging from 60 to greater than 90 percent. This landtype ranges in elevation from 3000 feet (914 m) to 5000 feet (1524 m). Soils are well to excessively drained. Permeability is rapid in the surface soils and rapid to very rapid in the subsoils.

**Landtype 31 -Loamy-skeletal, Typic Dystrochrepts**

Shallow, nonplastic to slightly plastic soils derived from residuum and colluvium. Surface soils are gravelly to very gravelly loams. Subsoils are thin gravelly to gravelly cobbly loams and clay loams. Bedrock is composed of competent to moderately competent, hard to moderately hard, green and greenish tinted tuffs and breccias. Depth to bedrock is usually less than 3 feet (0.9m). This landtype occurs on steep, smooth to moderately dissected sideslopes and ridges with slopes ranging from 60 to greater than 90 percent. This landtype ranges in elevation from 2500 feet (762 m) to 4500 feet (1372 m). Soils are excessively drained. Permeability is very rapid in the surface soils and rapid to very rapid in the subsoils.

**Landtype 44 - Loamy-skeletal, acidic, Typic Dystrochrepts**

Moderately deep, nonplastic soils derived from glacial till and colluvium. Surface soils are thin gravelly or shotty loams. Subsoils are thin to moderately thick gravelly or cobbly loams and sandy loams. Bedrock is composed of competent, hard to moderately hard, volcanic breccias. Depth to bedrock is 3-6 feet (0.9-1.8m). This landtype occurs on steep, smooth sideslopes of glacial origin with slopes ranging from 40-80 percent. Elevations range from 3500 feet (1067 m) to 5000 feet (1524 m). Soils are well drained, and permeability is moderate to very rapid in the surface soils and moderate to rapid in

the subsoils.

**Landtype 61 - Loamy-skeletal Entic Cryumbrept**

Shallow, nonplastic soils derived from residuum and colluvium. Surface soils are thin gravelly to very gravelly loams. Subsurface soils are thin gravelly or cobbly loams. Bedrock is composed of competent, hard, highly to moderately fractured andesites and basalts. Depth to bedrock is usually less than three feet (0.9 m). This landtype occurs on steep, smooth to moderately dissected sideslopes and ridges with slopes ranging from 60 to greater than 90 percent. This landtype ranges in elevation from 1000 feet (305 m) to 5000 feet (1524 m). The landtype is well to excessively drained. Permeability is very rapid in the surface soils and rapid in the subsoils.

**Landtype 64 - Loamy-skeletal, acidic, Typic Dystrochrepts**

Moderately deep, nonplastic soils derived from glacial till and colluvium. Surface soils are thin gravelly sandy loams and loams. Subsoils are thin to moderately thick, gravelly or cobbly sandy loams and loams. Bedrock is composed of competent, hard, fractured andesites and basalts. Depth to bedrock ranges from 3 feet (0.9 m) to 6 feet (1.8 m). This landtype occurs on moderate to steep, smooth sideslopes that have been glacially modified with slopes ranging from 40 to 80 percent. Elevations range from 3500 feet (1067 m) to 5000 feet (1524 m). The landtype is well to excessively drained. Permeability is very rapid in the surface soils and rapid in the subsoils.

**Landtype 71 - Loamy-skeletal Entic Cryumbrept**

Shallow, nonplastic soils derived from residuum and colluvium. Surface soils are thin sandy loams and loams. Subsoils are thin gravelly loams, fine sandy loams, and loams. Bedrock is composed of competent, hard andesites and basalts. Depth to bedrock is usually less than three feet (0.9 m). This landtype occurs on steep, smooth to uneven upper sideslopes and ridges with slopes ranging from 45 to 90 percent. This landtype ranges in elevation from 4400 feet (1341 m) to 6000 feet (1829 m). The landtype is well drained. Permeability is rapid in the surface soils and in the subsoils.

**Riparian Resources**

The addition to the Wildcat Mountain RNA includes first and second order streams and a third order stream (Wildcat Creek). The addition also includes four wetlands totaling approximately 20 acres (8 ha); three of these wetlands are located at the base of Sitka alder communities.

The National Wetland Inventory map (USF&WS 1995) designated Wildcat Creek as "Riverine, Upper Perennial, Unconsolidated Bottom, Permanently Flooded" and an additional unnamed creek as "Riverine, Intermittent, Streambed, Seasonally Flooded". Small, intermittent streams associated with steep Sitka alder communities are designated as "Palustrine, Scrub-Shrub, Seasonally Flooded", as is one of the wetlands. Two wetlands located at the base of Sitka alder



communities are designated as "Palustrine, Scrub-Shrub, Saturated".

One wetland was not mapped in the National Wetland Inventory. It is located at the base of a large glacial cirque adjacent to mapped intermittent streams. This wetland supports emergent vegetation interspersed with scrub-shrub. A plantation, located outside of the RNA boundary, borders the wetland on the north side. Two of the wetlands are surrounded by forest and one is nested in a Sitka alder community adjacent to a plantation.

### Climate

Dry summers and wet winters typify the maritime climate found on the west side of the Cascade Range. Most of the precipitation occurs from November through March, while June through August are generally dry. Much of the precipitation falls as snow at this elevation and accumulates in deep snowpacks. These snowpacks are slow to melt on the north-facing slopes of the RNA addition but have usually melted by late June. Temperatures remain generally cool throughout the year at the elevations found in the RNA.

The Santiam Junction weather station is located approximately 10 miles (16 km) northeast of the RNA at an elevation of 4748 feet (1447 m). Precipitation there averaged 86.15 inches (2188 mm) during the years 1961-1990. Climatic data from Santiam Junction is summarized in Appendix B and was provided by the Oregon Climate Service at Oregon State University in Corvallis, Oregon.

### **Vegetative Description and Cover Types**

Vegetation within the addition is a diverse mosaic of forest, shrub, and rock garden communities. Mountain hemlock and Pacific silver fir dominate the high ridgetops and give way to Douglas-fir and western hemlock on the lower slopes. The addition includes stands of old-growth Douglas-fir and western hemlock with abundant Pacific yew in the understory, indicating a long absence of fire. Pacific silver fir is present in the forest understory throughout most of the RNA addition. Large noble fir and Alaska yellow-cedar can be found scattered throughout the Sitka alder communities, and occasional Engelmann spruce (*Picea engelmannii*) and western white pine (*Pinus monticola*) are found in the lower forests. The addition includes steep glacial cirques dominated by Sitka alder and vine maple, as well as talus fields dominated by vine maple. A meadow complex including mesic and wet meadow communities is located at the base of a large glacial cirque. Ridgelines included in the addition contain rock garden communities that support a great diversity of plant species.

### Cover Types: Kuchler, Franklin & Dyrness, SAF, and Forest Series

The forested area of the RNA addition falls entirely within Kuchler's (1966) Type 3, Fir -

Hemlock forest (*Abies - Tsuga*), and the *Abies amabilis* Zone and *Tsuga mertensiana* Zone of Franklin and Dyrness (1973). Estimates of the Society of American Foresters (SAF) cover types (Eyre 1980) and forest series (Hemstrom et al. 1987) are presented in the following table. Additionally, forest series are shown on Map 5.

<b>Kuchler Cover Type</b>	<b>Acres</b>	<b>Hectares</b>
Fir-Hemlock	294	119
<b>SAF Cover Types</b>	<b>Acres</b>	<b>Hectares</b>
205 Mountain hemlock	25	10
226 Coastal true fir - hemlock	269	109
N Non-forested	231	94
<b>Forest Series</b>	<b>Acres</b>	<b>Hectares</b>
Mountain hemlock	25	10
Pacific silver fir	269	109
Non-forested communities	231	94

#### Plant Associations

A number of plant associations (Hemstrom et al. 1987) have been documented in the RNA addition; these associations are as follows:

##### **Plant Association**

*Tsuga heterophylla/Vaccinium alaskensis/Cornus canadensis*  
*Abies amabilis/Tiarella trifoliata*  
*Abies amabilis/Acer circinatum/Tiarella trifoliata*  
*Abies amabilis/Vaccinium membranaceum/Cornus canadensis*  
*Abies amabilis/Rhododendron macrophyllum-Berberis nervosa*  
*Abies amabilis/Rhododendron macrophyllum-Vaccinium alaskensis/Cornus canadensis*  
*Abies amabilis/Oplopanax horridum*  
*Tsuga mertensiana/Vaccinium membranaceum/Xerophyllum tenax*  
*Tsuga mertensiana/Rhododendron macrophyllum*  
*Acer circinatum* (rocky soil)  
*Acer circinatum* (talus)  
*Alnus sinuata* (rocky soil)  
*Eriophyllum lanatum-Phacelia heterophylla* (xeric)  
 Rock garden (steep, xeric)  
 Talus

## Plant List

Over 230 plant species have been documented in the Wildcat Mountain RNA and the addition. The following list of plants was compiled from visits to the RNA and the addition in August 1993, June, July, and August 1997. An asterisk following the name indicates that it is a non-native species. Nomenclature for shrubs and herbs follows Hitchcock and Cronquist 1973. Nomenclature for trees follows Little 1979.

### **Scientific Name**

### **Common Name**

#### **Trees**

<i>Abies amabilis</i>	Pacific silver fir
<i>Abies grandis</i>	grand fir
<i>Abies lasiocarpa</i>	subalpine fir
<i>Abies procera</i>	noble fir
<i>Acer circinatum</i>	vine maple
<i>Acer glabrum</i>	Rocky Mountain maple
<i>Alnus sinuata</i>	Sitka alder
<i>Calocedrus decurrens</i>	incense cedar
<i>Castanopsis chrysophylla</i>	golden chinquapin
<i>Chamaecyparis nootkatensis</i>	Alaska yellow-cedar
<i>Cornus nuttallii</i>	Pacific dogwood
<i>Picea engelmannii</i>	Engelmann spruce
<i>Pinus monticola</i>	western white pine
<i>Pseudotsuga menziesii</i>	Douglas-fir
<i>Taxus brevifolia</i>	Pacific yew
<i>Thuja plicata</i>	western redcedar
<i>Tsuga heterophylla</i>	western hemlock
<i>Tsuga mertensiana</i>	mountain hemlock

#### **Shrubs**

<i>Amelanchier alnifolia</i>	western serviceberry
<i>Arctostaphylos nevadensis</i>	pinemat manzanita
<i>Berberis aquifolium</i>	shining Oregongrape
<i>Berberis nervosa</i>	dull Oregongrape
<i>Ceanothus velutinus</i>	snowbrush, mountain balm
<i>Chimophila menziesii</i>	little pipsissewa
<i>Chimophila umbellata</i>	prince's-pine
<i>Corylus cornuta</i> var. <i>californica</i>	California hazel
<i>Holodiscus discolor</i>	creambush ocean-spray
<i>Juniperus communis</i> var. <i>montana</i>	common juniper
<i>Oplopanax horridum</i>	devil's-club
<i>Pachistima myrsinites</i>	Oregon boxwood

<i>Rhododendron macrophyllum</i>	Pacific rhododendron
<i>Ribes bracteosum</i>	stink currant
<i>Ribes lacustre</i>	swamp currant
<i>Ribes viscosissimum</i>	sticky currant
<i>Rosa gymnocarpa</i>	baldhip rose
<i>Rubus lasiococcus</i>	dwarf bramble
<i>Rubus leucodermis</i>	black raspberry
<i>Rubus nivalis</i>	snow bramble
<i>Rubus parviflorus</i>	thimbleberry
<i>Rubus ursinus</i>	Pacific blackberry
<i>Salix geyeriana</i> var. <i>meleiana</i>	Geyer willow
<i>Salix scouleriana</i>	Scouler's willow
<i>Salix sitchensis</i>	Sitka willow
<i>Sorbus scopulina</i> var. <i>cascadensis</i>	Cascade mountain-ash
<i>Sorbus sitchensis</i>	Sitka mountain-ash
<i>Symphoricarpos mollis</i>	creeping snowberry
<i>Vaccinium membranaceum</i>	big huckleberry
<i>Vaccinium ovalifolium</i>	oval-leaf huckleberry
<i>Vaccinium alaskense</i>	Alaska blueberry

### Forbs

<i>Achillea millefolium</i>	yarrow
<i>Achlys triphylla</i>	vanillaleaf
<i>Actaea rubra</i>	western red baneberry
<i>Adenocaulon bicolor</i>	pathfinder
<i>Agoseris aurantiaca</i>	orange agoseris
<i>Agoseris grandiflora</i>	large-flowered agoseris
<i>Allium crenulatum</i>	scalloped onion
<i>Anaphalis margaritacea</i>	pearly-everlasting
<i>Anemone deltoidea</i>	threeleaf anemone
<i>Anemone lyallii</i>	Lyall's anemone
<i>Angelica arguta</i>	sharptooth angelica
<i>Antennaria microphylla</i>	rosy pussy-toes
<i>Antennaria racemosa</i>	raceme pussy-toes
<i>Aquilegia formosa</i>	red columbine
<i>Arabis holboellii</i>	Holboell's rockcress
<i>Arenaria capillaris</i>	mountain sandwort
<i>Arenaria macrophylla</i>	bigleaf sandwort
<i>Arnica latifolia</i>	mountain arnica
<i>Artemisia ludoviciana</i>	western mugwort
<i>Aruncus sylvester</i>	goatsbeard
<i>Asarum caudatum</i>	wild ginger
<i>Aster ledophyllus</i>	Cascade aster

<i>Aster radulinus</i>	rough-leaved aster
<i>Calochortus tolmiei</i>	Tolmie's mariposa
<i>Campanula scouleri</i>	Scouler's harebell
<i>Cardamine pulcherrima</i>	slender toothwort
<i>Castilleja hispida</i>	harsh paintbrush
<i>Castilleja miniata</i>	common paintbrush
<i>Castilleja rupicola</i>	cliff paintbrush
<i>Cerastium arvense</i>	field chickweed
<i>Circaea alpina</i>	enchanter's nightshade
<i>Cirsium callilepis</i>	mountain thistle
<i>Clintonia uniflora</i>	queen's cup
<i>Collinsia parviflora</i>	small flowered blue-eyed Mary
<i>Collomia heterophylla</i>	varied-leaf collomia
<i>Commandra umbellata</i>	bastard toad-flax
<i>Corallorhiza maculata</i>	spotted coral-root
<i>Corallorhiza mertensiana</i>	western coral-root
<i>Cornus canadensis</i>	bunchberry
<i>Delphinium menziesii</i>	Menzies' larkspur
<i>Dicentra formosa</i>	Pacific bleedingheart
<i>Disporum smithii</i>	fairy lantern
<i>Epilobium angustifolium</i>	fireweed
<i>Epilobium glaberrimum</i>	smooth willow-herb
<i>Epilobium minutum</i>	small-flowered willow-herb
<i>Erigeron aliceae</i>	Alice's fleabane
<i>Erigeron foliosus</i>	leafy erigeron
<i>Eriogonum compositum</i>	northern buckwheat
<i>Eriogonum nudum</i>	barestem buckwheat
<i>Eriogonum umbellatum</i>	sulfurflower
<i>Eriophyllum lanatum</i>	woolly sunflower
<i>Erysimum asperum</i>	rough wallflower
<i>Erythronium montanum</i>	alpine fawn-lily
<i>Fragaria vesca</i>	woods strawberry
<i>Fragaria virginiana</i> var. <i>platypetala</i>	broadpetal strawberry
<i>Galium oreganum</i>	Oregon bedstraw
<i>Gilia capitata</i>	bluefield gilia
<i>Goodyera oblongifolia</i>	western rattlesnake-plantain
<i>Habenaria unalascensis</i>	Alaska rein-orchid
<i>Habenaria saccata</i>	slender bog-orchid
<i>Happlopappus hallii</i>	Hall's goldenweed
<i>Heracleum lanatum</i>	cow-parsnip
<i>Heuchera micrantha</i>	smallflowered alumroot
<i>Hieracium albiflorum</i>	white-flowered hawkweed
<i>Hieracium scouleri</i>	woolly-weed

<i>Hydrophyllum fendleri</i>	Fendler's waterleaf
<i>Hydrophyllum tenuipes</i>	Pacific waterleaf
<i>Hypericum anagalloides</i>	bog St. John's-wort
<i>Hypochaeris radicata*</i>	spotted cats-ear
<i>Hypopitys monotropa</i>	pinemap
<i>Ipomopsis aggregata</i>	scarlet gilia
<i>Lactuca muralis*</i>	wall lettuce
<i>Lewisia triphylla</i>	threeleaf lewisia
<i>Ligusticum grayi</i>	Gray's lovage
<i>Lilium washingtonium</i>	Washington lily
<i>Linnaea borealis</i>	twinflower
<i>Listera caurina</i>	western twayblade
<i>Lomatium hallii</i>	Hall's desert parsley
<i>Lomatium martindalei</i>	Martindale's lomatium
<i>Lotus nevadensis</i>	Nevada deervetch
<i>Luina stricta</i>	tongue-leaf luina
<i>Lupinus latifolius</i>	broadleaf lupine
<i>Lupinus laxiflorus</i>	spurred lupine
<i>Lysichitum americanum</i>	skunk cabbage
<i>Mertensia paniculata</i>	tall bluebells
<i>Mimulus guttatus</i>	yellow monkeyflower
<i>Mimulus moschatus</i>	musk-flower
<i>Mitella breweri</i>	Brewer's mitrewort
<i>Mitella caulescens</i>	leafy mitrewort
<i>Mitella trifida</i>	three-tooth mitrewort
<i>Monardella odoratissima</i>	mountain monardella
<i>Montia parvifolia</i>	littleleaf montia
<i>Nothochelone nemorosus</i>	woodland beard's-tongue
<i>Oenanthe sarmentosa</i>	Pacific water-parsley
<i>Osmorhiza chilensis</i>	mountain sweet-cicely
<i>Osmorhiza occidentalis</i>	western sweet-cicely
<i>Orobanche uniflora</i>	naked broomrape
<i>Orthocarpus imbricatus</i>	mountain owl-clover
<i>Oxalis trilliifolia</i>	great oxalis
<i>Pedicularis bracteosa</i>	bracted lousewort
<i>Pedicularis racemosa</i>	leafy lousewort
<i>Penstemon cardwellii</i>	Cardwell's penstemon
<i>Penstemon procerus</i> var. <i>procerus</i>	small-flowered penstemon
<i>Penstemon rupicola</i>	rock penstemon
<i>Penstemon serrulatus</i>	Cascade penstemon
<i>Petasites frigidus</i>	sweet coltsfoot
<i>Phacelia heterophylla</i>	varileaf phacelia
<i>Phlox diffusa</i>	spreading phlox

<i>Polemonium carneum</i>	great polemonium
<i>Polygonum cascadense</i>	Cascadian knotweed
<i>Polygonum phytolaccaefolium</i>	alpine knotweed
<i>Pyrola asarifolia</i>	alpine pyrola
<i>Pyrola picta</i>	white-veined pyrola
<i>Pyrola secunda</i>	sidebells pyrola
<i>Ranunculus populago</i>	mountain buttercup
<i>Rudbeckia occidentalis</i>	coneflower
<i>Rumex acetosella*</i>	sheep sorrel
<i>Saxifraga bronchialis</i>	matted saxifrage
<i>Saxifraga caespitosa</i>	tufted saxifrage
<i>Saxifraga ferruginea</i>	rusty saxifrage
<i>Saxifraga lyallii</i>	red-stemmed saxifrage
<i>Saxifraga occidentalis</i>	western saxifrage
<i>Sedum divergens</i>	spreading stonecrop
<i>Sedum oregonum</i>	Oregon stonecrop
<i>Sedum oregonense</i>	creamy stonecrop
<i>Sedum spathulifolium</i>	spatula-leaf stonecrop
<i>Senecio triangularis</i>	arrowleaf groundsel
<i>Silene douglasii</i>	Douglas' silene
<i>Smilicina racemosa</i>	western solomon-plume
<i>Smilicina stellata</i>	starry solomon-plume
<i>Stachys cooleyae</i>	Cooley's hedge-nettle
<i>Stachys rigida</i>	rigid hedge-nettle
<i>Stellaria crispa</i>	crisped starwort
<i>Streptopus roseus</i>	rosy twisted-stalk
<i>Tellima grandiflora</i>	fringecup
<i>Tiarella trifoliata</i>	coolwort foamflower
<i>Tolmiea menziesii</i>	youth-on-age
<i>Trientalis latifolia</i>	western starflower
<i>Trillium ovatum</i>	western trillium
<i>Urtica dioica</i>	stinging nettle
<i>Valeriana scouleri</i>	Scouler's valerian
<i>Valeriana sitchensis</i>	Sitka valerian
<i>Veratrum viride</i>	American false hellebore
<i>Veronica americana</i>	American brooklime
<i>Viola glabella</i>	stream violet
<i>Viola orbiculata</i>	round-leaved violet
<i>Viola sempervirens</i>	evergreen violet
<i>Whipplea modesta</i>	whipplevine
<i>Xerophyllum tenax</i>	beargrass

### Grasses, Sedges, and Rushes

<i>Agrostis diegoensis</i>	thin bentgrass
<i>Agrostis tenuis*</i>	colonial bentgrass
<i>Bromus carinatus</i>	California brome
<i>Bromus vulgaris</i>	Columbia brome
<i>Carex hoodii</i>	Hood's sedge
<i>Carex jonesii</i>	Jones' sedge
<i>Carex laeviculmis</i>	smooth-stem sedge
<i>Carex mertensii</i>	Merten's sedge
<i>Carex multicosata</i>	many-ribbed sedge
<i>Carex pennsylvanica</i>	long stolon sedge
<i>Danthonia californica</i>	California danthonia
<i>Elymus glaucus</i>	blue wildrye
<i>Festuca idahoensis</i>	Idaho fescue
<i>Festuca rubra</i>	red fescue
<i>Glyceria elata</i>	tall mannagrass
<i>Hordeum jubatum</i>	squirrel-tail
<i>Juncus ensifolius</i>	dagger-leaf rush
<i>Luzula campestris</i>	field woodrush
<i>Luzula parviflora</i>	smallflowered woodrush
<i>Poa gracillima</i> var. <i>gracillima</i>	Pacific bluegrass

### Ferns and Fern Allies

<i>Adiantum pedatum</i>	northern maidenhair fern
<i>Aspidotis densa</i>	podfern
<i>Athyrium filix-femina</i>	lady fern
<i>Blechnum spicant</i>	deer-fern
<i>Cheilanthes gracillima</i>	lace lipfern
<i>Cryptogramma crista</i>	rock-brake
<i>Cystopteris fragilis</i>	brittle bladder-fern
<i>Dryopteris austriaca</i>	mountain wood-fern
<i>Gymnocarpium dryopteris</i>	oak-fern
<i>Lycopodium clavatum</i>	elk-moss
<i>Polypodium glycyrrhiza</i>	licorice-fern
<i>Polystichum andersonii</i>	Anderson's swordfern
<i>Polystichum lonchites</i>	mountain holly-fern
<i>Polystichum munitum</i>	common swordfern
<i>Pteridium aquilinum</i>	bracken
<i>Selaginella wallacei</i>	Wallace's selaginella



## **Fish and Wildlife Habitat**

The area within the addition to the Wildcat Mountain RNA provides habitat for many animal species. A tentative list of mammals likely to inhabit the RNA was published in Franklin and Dyrness (1972) and is included as Appendix C. Species lists for the Willamette National Forest, including birds, mammals, reptiles, amphibians and fishes are included as Appendix D.

A pair of northern spotted owls is located in the third order stream basin. This reproductive pair has used the area for several years and was last documented at the site in 1996. Other species related to late-successional forest may use the area, particularly those associated with high elevation forests. High cliffs are suitable nesting habitat for peregrine falcons, currently listed as endangered under the Endangered Species Act, however, aerial surveys in recent years have not located any active nests. Many bird species, including neotropical migrants, use Sitka alder communities for nesting and foraging. Black bear have been sighted repeatedly in the area, and deer and elk use the area extensively. Bobcat and mountain lion tracks have also been detected in the area, and pine marten, a rare forest carnivore, is likely found in the addition to the RNA (Morris, pers. comm.).

The lower reaches of Wildcat Creek were surveyed for fish in 1992; cutthroat trout were found in the creek near its intersection with Road 1598-212. A waterfall approximately ½ mile upstream may act as a fish barrier above that point.

## **Resource Issues**

### Timber Volume

The addition to the Wildcat Mountain RNA includes approximately 178 acres (72 ha) of forest suitable for timber management based on landtype. Some of the area suitable for timber production is within Riparian Reserves, special habitat buffers, and a 100 acre Late Successional Reserve (LSR) located around the core activity center of an established pair of northern spotted owls. Approximately 50 acres (20 ha) of suitable lands remain outside of the LSR, Riparian Reserves, and special habitat buffers. Potential annual timber production from these acres is 5600 cubic feet (156 cu m) per year, based on a WNF average of 112 cubic feet/acre/year (7.8 cu m/ha/yr). This may be an overestimate of productivity when forest series and soils are taken into account. Approximately 66% of the addition is unsuited for timber production and is composed of rock gardens and Sitka alder communities. Most of the area was not included in the timber producing base of the Willamette National Forest Land and Resource Management Plan (1990) because it was proposed as an RNA addition.

### Recreation

The addition to the Wildcat Mountain RNA has no established trails or recreation facilities. The

area likely receives light use during the hunting season, however, steep slopes and Sitka alder/devil's-club patches combine to make the much of the addition difficult to traverse. Recreation use of the area will not be affected by designation of this addition to the RNA (McGinley pers. comm.).

### Flora and Fauna

Designation of the addition to the RNA will provide undisturbed habitat for late-successional species and those that rely on rock gardens and Sitka alder communities. The addition contains a northern spotted owl pair that will benefit from the RNA designation.

### Lands and Minerals

There are no mining claims within the addition to the Wildcat Mountain RNA and no known mineral resources in or adjacent to the addition (Haberhorn pers. comm.).

### Heritage Resources

Culturally significant sites are not known to occur in the addition, however, most of the area has not been inventoried (Farque pers. comm.) The main ridgelines were likely used as travelways by native people.

### Watershed

The Wildcat Mountain RNA, with its addition, contains the headwaters of Wildcat Creek and several unnamed creeks that flow into Browder Creek, a tributary of Smith River, that flows into the McKenzie River. The McKenzie River is the source of drinking water for the Springfield/Eugene metropolitan area. Designation of these forested creeks and their headwaters as part of the RNA will protect water quality and channel stability downstream.

## **Management Prescription**

The objective of this and other RNAs is to provide long-term protection and recognition of diverse ecosystems represented within their boundaries. The addition will be managed in accordance with the management goals, desired future condition, and standards and guidelines set forth in the Willamette National Forest Land and Resource Management Plan (1990). These standards and guidelines are included in Appendix E and are summarized here along with additional recommendations.

\* A management plan and implementation schedule for gathering baseline data will be prepared.

- \*Recreational activity, including camping, hunting, trapping, will be discouraged.
- \*Interpretive facilities and recreational off road vehicle use will be prohibited.
- \*New trails or roads will not be constructed unless needed for research purposes.
- \*Introduction of exotic plants and animals will not be permitted.
- \*No programmed timber harvest will be scheduled. Hazard trees that require felling will be left in place.
- \*Removal of vegetation is prohibited, except for approved research purposes.
- \*Fire suppression activities will be limited to those which have minimal impacts to RNA values; chemical fire retardants will be avoided.
- \*No action will be taken against insects or diseases unless the outbreak threatens to drastically alter the natural ecological processes within the RNA, or threatens adjacent lands.
- \*The RNA will be recommended for withdrawal from locatable mineral exploration.
- \*The new boundaries should be posted with signs and all turning points monumented.
- \*Annual monitoring of the RNA should be done to detect obvious human influences, natural disturbances, such as patches of windthrow, and increases in non-native plants.

The addition to the Wildcat Mountain RNA contains prime examples of late-successional forests and Sitka alder communities. It should be managed to maintain these attributes. The cool and moist north slopes of the addition have a long fire return interval and are unlikely to support large wildfires. However, fire suppression should occur as necessary to maintain the late-successional characteristics. It is unlikely that prescribed fire will be necessary in the RNA addition. Noxious weeds and other invasive non-native plants have been found along roads and in plantations adjacent to the RNA. Annual monitoring should be done to detect and control these species if they are found within the RNA.

### **Administration Records and Protection**

The following principle contacts are responsible for the administration and protection of the Wildcat Mountain RNA.

1. For administration and protection of the physical area:

District Ranger  
Sweet Home Ranger District  
3225 Highway 20  
Sweet Home, Oregon 97386

District Ranger  
McKenzie Ranger District  
McKenzie Bridge, Oregon 97413

2. For approval and coordination of research within the RNA, maintenance of the RNA databases and lists of herbarium and animal species samples collected in the RNA:

Director  
Pacific Northwest Research Station  
333 S. W. First Avenue  
P.O. Box 3890  
Portland, Oregon 97208

3. Records for the Wildcat Mountain RNA will be maintained in the following offices:

Regional Forester  
Pacific Northwest Region  
333 S. W. First Avenue  
P.O. Box 3890  
Portland, Oregon 97208

Director  
Pacific Northwest Research Station  
333 S. W. First Avenue  
P.O. Box 3890  
Portland, Oregon 97208

Forest Supervisor  
Willamette National Forest  
211 East 7th Avenue  
P.O. Box 10607  
Eugene, Oregon 97440

District Ranger  
Sweet Home Ranger District  
3225 Highway 20  
Sweet Home, Oregon 97386

USFS Region 6 RNA Database Coordinator  
Forest Service Data Bank  
Forestry Sciences Lab  
3200 Jefferson Way  
Corvallis, Oregon 97331

District Ranger  
McKenzie Ranger District  
McKenzie Bridge, Oregon 97413

### **Archiving**

The Pacific Northwest Research Station Director will establish and maintain a system for archiving data and reports from the RNA that will facilitate the exchange of information among Research Stations and scientists. Data from the RNA will be archived in the Forest Science Data Bank (FSDB) at the Forest Science Department, Oregon State University, Corvallis, Oregon under cooperative agreement between the FSDB and the Forest Service.

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### **Communication with Sweet Home R.D. Personnel**

Tony Farque	Archeologist
Katy Haberkorn	Special Uses
Brian McGinley	Recreation Planner
Virgil Morris	Wildlife Biologist
Bill Porter	Silviculturalist
Doug Shank	Geologist
Donna Short	Plans Forester
Wayne Somes	Fish Biologist

### **Maps and Appendices**

Map 1: Location  
Map 2: Road Access  
Map 3: Topography and Boundaries  
Map 4: Soil Mapping Units  
Map 5: Forest Series

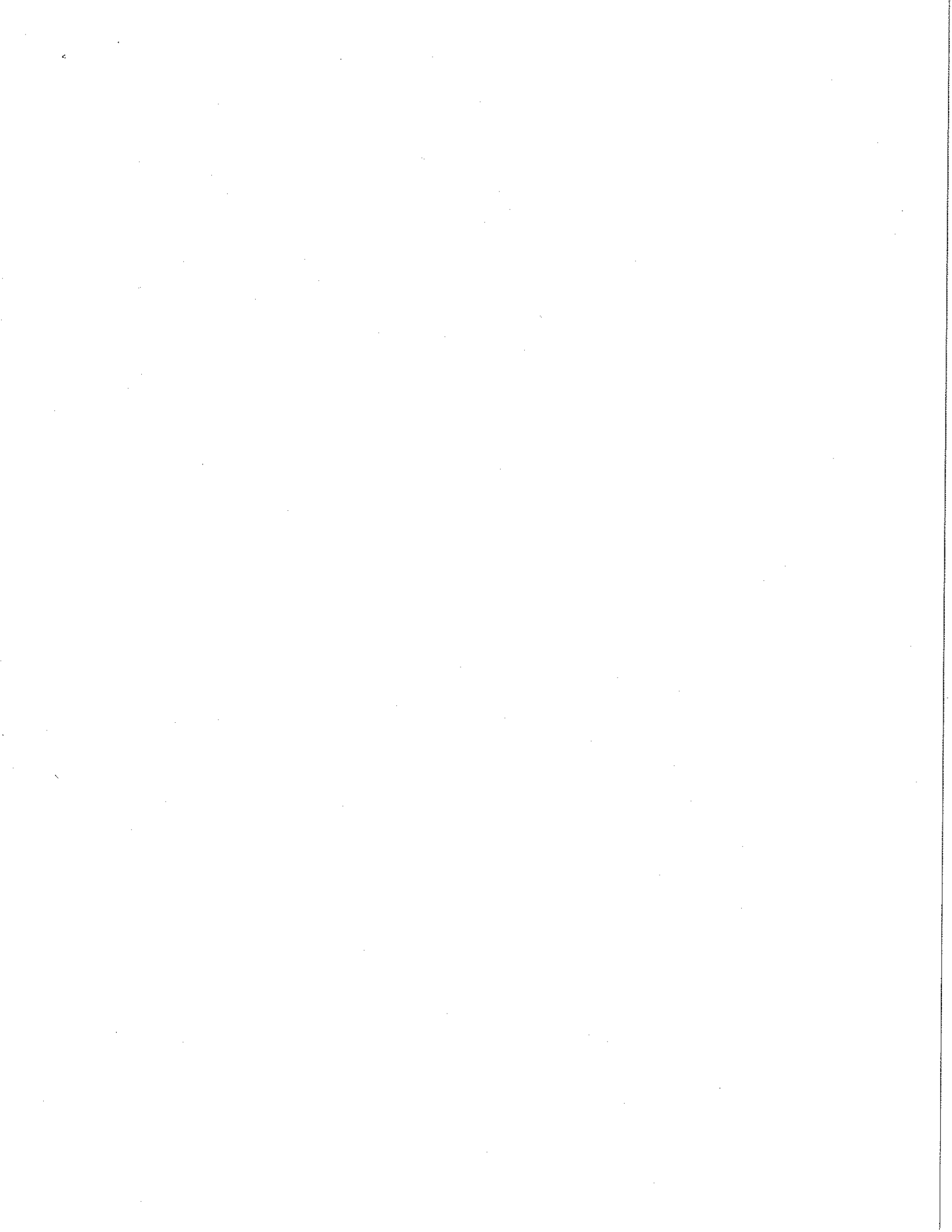
Appendix A: Legal Boundary Description

Appendix B: Summary of Climatic Data for Santiam Pass, 1969-1990, as summarized in the Three Creek RNA Establishment Record, 1991.

Appendix C: Tentative list of mammals for Wildcat Research Natural Area, Franklin and Dyrness 1972.

Appendix D: Fauna of the Willamette National Forest: Amphibians, Reptiles and Fishes; Birds of the Willamette National Forest; Mammals of the Willamette National Forest.

Appendix E: Land and Resource Management Plan, Management Area 4 (Research Natural Areas), pp 134-137, Willamette National Forest 1990.





## WILDCAT RESEARCH NATURAL AREA

QUAD SHEET NAME	ANGLE POINT	BEARING	DISTANCE FEET (METERS)	DESCRIPTION
Carpenter Mtn.				Commencing at section corner in 18 17 T14S R6E 19 20
				Ascend ridge true North.
	1			True point of beginning. A point 60 meters parallel with and perpendicular to the centerline of road 2654.
		N00/52/40.3E	961.52	Ascend ridge true North.
	2			A point on the top of a ridge true North of the Point of Beginning.
	3	N69/58/24.5E	121.23	
	4	N84/59/26.9E	45.76	
	5	N73/48/10.0E	379.54	
	6	N78/57/00.5E	138.06	Ascend along the top of the ridge.
	7	N82/57/17.3E	272.58	
	8	N83/57/13.7E	364.30	
	9	N71/34/27.5E	55.64	
		N60/53/44.8E	14.01	
Tamolitch Falls	10			A point where the ridge forms a junction with a ridge running to the North.
	11	N84/39/46.2E	93.79	Descend along the top of the North-South ridge to the lowest point in a series of rock gardens on the top of a ridge.
	12	N85/50/52.0E	22.62	
	13	N66/02/09.9E	82.97	
	14	N42/53/25.6E	90.37	
	15	N26/49/29.1E	141.70	

16	N13/59/31.1E	483.89	
17	N08/38/18.1E	205.11	
18	N07/19/42.1E	113.25	
19	N03/02/16.7E	495.02	Descend along the top of the North-South ridge to the lowest point in a series of rock gardens on the top of a ridge.
20	N15/49/44.5E	117.08	
21	N35/54/53.5E	299.38	
22	N35/47/05.3E	248.24	
	N33/03/37.5E	43.60	

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23			A point at the lowest point in a series of rockgardens on the top of the ridge, referenced by a monument: 5/8" rebar with an aluminum cap on top of the ridge. Bearing trees: 17" Fir bears S 72½W 7.3 feet 11" Fir bears S 39½E 17.5 feet. (Monument is approx. 110 meters SW of E)
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	S74/40/53.9E	1733.85	Descend
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24			A point in the thalweg of a small tributary to Browder Creek 120 meters upstream from the intersection of the thalweg of the tributary and the centerline of road 1598-212.
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25	S19/40/40.5W	118.68	
26	S25/57/40.3W	149.24	Ascend along the thalweg of the small tributary.
27	S16/17/00.7W	395.91	
	S07/34/47.0W	67.98	

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28			A point in the thalweg of the small tributary that is true west of a timber size class change to the east.
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29	S47/06/04.6E	90.44	
30	S71/37/01.8E	102.14	
31	S72/27/27.0E	93.86	
32	S78/48/52.5E	115.43	
33	S59/50/31.0E	220.63	Ascend to top of ridge along the edge of a timber size class change then descend along the edge of a timber size class change.
34	S43/12/25.7E	69.55	
35	S20/13/56.8E	218.37	
36	S42/33/02.4E	227.82	
37	S48/28/55.6E	82.66	
38	S27/08/10.9E	170.23	
39	S49/14/09.9E	76.61	
40	S72/18/48.4E	116.56	
41	N80/46/32.3E	94.10	
	N86/02/40.4E	27.61	
42			A point along the edge of a timber size class change that is 45 meters southwesterly of and perpendicular to the centerline of road 1598-216. (Near jct. of roads 1598-216 & 1598-215)
43	N75/07/26.3E	26.55	
44	S17/06/55.4W	52.19	
45	S02/34/23.8W	135.97	45 meters southerly from and parallel with the centerline of road 216.
46	S12/06/06.8E	123.00	
47	S28/55/09.9E	73.44	
48	S46/21/53.4E	50.73	
49	S70/23/54.7E	168.60	
	N81/16/31.5E	129.58	
50			A point 45 meters true south of the junction of the centerline road 216 and 215.

S29/08/50.8W 1010.56 Ascend hillside on a bearing determined by A monument: 5/8" rebar with an aluminum cap marked "Wildcat RNA LS 2519" (In a mild saddle.)

51 A point at a timber size class change (harvest unit). (Not all the way to the monument described above)

S57/58/29.3E 2071.04 Across sidehill

52 A point along the edge of a timber size class change at the most easterly and southerly edge of the timber size class change.

S54/01/58.6E 118.75 Continue along this bearing.

53 A point at the western edge of a wet meadow.

54 N62/58/25.7E 110.81

55 N50/39/57.0E 69.19

56 N70/07/04.8E 29.94

Along the west edge of the wet meadow.

57 N30/30/59.7E 142.47

58 N57/45/27.0E 178.84

59 N57/03/46.5E 227.06

N52/55/41.3E 58.47

60 A point where the wet meadow and the harvest unit intersect.

N89/53/51.9E 271.28 True east to the thalweg of an unnamed creek.

61 A point in the thalweg of an unnamed creek.

N75/35/57.4E 55.55 Descend along thalweg of an unnamed creek.

62

A point in the thalweg  
of a creek, 45 meters  
southerly of and  
perpendicular to the  
centerline of road 215.

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63	S81/45/41.4E	116.29	45 meters southerly from and parallel with the centerline of road 215.
64	N73/03/20.5E	80.99	
	N60/18/31.3E	98.47	

65

A point 45 meters  
southeasterly from and  
perpendicular to the  
centerline of road 215  
at a timber size class  
change.

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66	S49/16/57.4E	96.04	
67	S35/29/14.1E	140.59	
68	S23/00/14.8E	146.50	
69	S58/29/27.1E	51.25	Ascend along the edge of a timber size class change.
70	N83/40/33.0E	120.33	
71	N72/52/09.9E	190.52	
72	N80/18/48.6E	207.08	
73	N59/07/21.1E	132.22	
74	N47/57/05.8E	44.08	
	N32/04/50.8E	38.71	

75

A point at the most  
easterly edge of the  
timber size class change.

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	N88/59/42.3E	375.66	Ascend true east to the top of the ridge.
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76

A point on the top of  
the ridge.

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77	N32/51/39.9E	114.56	Descend along the top of the ridge.
78	N25/32/39.6E	73.46	
79	N42/49/26.4E	186.35	
80	N45/18/35.4E	94.56	
	N38/57/45.5E	96.88	

81	N50/23/41.5E	138.47	
82	N80/43/38.7E	67.92	
83	S88/14/10.7E	90.09	
84	N78/21/57.1E	393.73	Descend along the top of the ridge.
85	N85/46/34.5E	203.10	
86	N78/28/32.9E	137.73	
87	N88/21/32.5E	293.56	
88	N89/11/23.2E	254.65	
89	N79/28/23.5E	22.30	
90	N80/21/24.0E	16.70	
91			Low point in the saddle on top of the ridge.
	N80/22/08.8E	275.30	Ascend along the top of a ridge.
92			Top of a large rock outcrop on ridge.
	S28/19/11.1E	319.50	Descend
93			A monument: 5/8" rebar.
	S02/20/19.9W	788.45	Descend
94			A point in the thalweg of a creek, 45 meters Westerly from and perpendicular to the centerline of road 212.
	S21/21/53.5E	97.62	
95	S54/28/10.2E	126.75	45 meters southwesterly from and parallel with the centerline of road 212.
96	S71/08/28.5E	100.49	
97	S48/36/46.7E	37.45	
98			A point 45 meters southerly from and perpendicular to the centerline of road 1598-212 and in the thalweg of a small tributary creek.

	S48/36/50.2E	14.51
99	S26/57/47.1W	224.92
100	S21/59/54.7W	336.67
101	S16/08/50.7W	188.15
102	S12/21/04.8W	227.78
103	S12/22/42.6W	207.02
104	S08/22/22.4W	181.57
105	S02/19/40.9W	248.74
106	S09/12/37.3W	226.93
107	S19/57/54.5W	166.62
108	S28/22/20.5W	75.16

Ascend along the thalweg  
of the small tributary  
creek.

109

A point in the thalweg  
of the small tributary creek  
and at the most  
northerly point in a  
vinemaple/talus  
community.

S41/31/45.1E

552.68

Ascend true S 45½ E.

110

Point on the ridge

	N57/34/50.3E	108.24
111	N33/43/38.5E	195.71
112	N47/02/56.1E	50.54
113	N34/57/19.5E	148.54
114	N39/05/27.1E	112.50
115	N33/43/30.2E	21.74
116	N39/55/12.3E	53.40

Descend along the top of  
the ridge.

117

A point on the top of a  
ridge which bears  
S 52½ E from the following  
monument.

S60/35/18.8E

2580.05

Descend and ascend.

118

A point on the top of a ridge with a monument: 5/8" rebar with an aluminum cap marked: Wildcat RNA LS 2519. Marked: 30" Fir bears S 81½ W 23.1 feet. 36" Fir bears S 13½ W 25.4 feet.

---

S26/48/40.0E

510.64

Ascend along the top of the ridge.

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119

High point on the ridge.

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120 S01/28/32.1E 157.85

121 S11/13/58.0W 190.56

122 S16/12/01.8W 186.92

123 S30/59/29.0W 176.69

124 S45/13/57.3W 180.17

125 S63/25/27.3W 151.37 Descend along the top of the ridge.

126 S73/47/47.5W 212.90

127 S75/20/07.3W 163.93

128 S67/30/54.7W 221.82

129 S71/07/52.9W 142.22

130 S72/19/13.3W 238.91

131 S72/16/48.7W 142.52

S80/19/56.9W 206.88

---

132

Low point in the saddle on top of the ridge.

---

133 S83/35/00.8W 340.72

134 N85/52/06.8W 360.06

135 N82/58/38.6W 159.16

136 N83/31/48.7W 89.66 Ascend along the top of a ridge.

137 N68/23/24.0W 360.19

138 N65/15/51.2W 173.53

N67/36/07.1W 121.10



139	N81/03/29.6W	233.88	
140	N68/05/36.9W	169.62	
141	N69/37/14.1W	118.05	Ascend along the top of
142	S79/39/01.2W	58.06	a ridge.
-----			
143			A (locally) high point on the south end of a north-south ridge.
-----			
144	S79/38/46.7W	72.22	
145	S62/31/51.7W	197.37	
146	S45/33/04.2W	223.87	
147	S36/32/20.3W	147.10	Descend along the top of
148	S33/41/50.2W	221.77	a ridge bearing southwest.
149	S40/53/16.6W	48.68	
	S36/25/53.6W	53.65	
-----			
150			Low point in the saddle on the top of the ridge.
-----			
151	S36/25/54.8W	47.97	
152	S22/17/08.1W	104.54	
153	S15/01/25.8W	114.83	Ascend along the top of
154	S26/12/14.9W	358.34	a ridge.
155	S40/16/51.8W	211.14	
156	S29/12/05.4W	104.08	
	S14/32/38.8W	34.54	
-----			
157			High point on the ridge.
-----			
158	S38/57/53.2W	97.44	
159	S46/40/37.8W	133.15	Descend along the top of
	S63/49/12.3W	22.10	a ridge.
-----			
160			A point on the top of the ridge, which is 60 meters northeasterly from and perpendicular to USFS road 2655.

---

161	N43/33/48.0W	114.50	
162	N67/50/40.7W	192.58	
163	N76/37/32.7W	138.46	
164	N76/02/01.1W	92.35	
165	N66/40/48.2W	169.25	
166	N42/46/18.8W	323.20	
167	N40/35/25.7W	139.27	
168	N47/28/44.8W	249.45	
169	N49/28/13.4W	387.22	
170	N65/16/58.8W	190.95	
171	N60/23/28.5W	97.57	60 meters northerly from
172	N38/53/02.3W	228.78	and parallel with the
173	N33/14/49.9W	218.73	centerline of USFS
174	N45/35/01.5W	320.11	road 2655.
175	N50/02/10.7W	201.09	
176	N56/16/23.3W	256.59	
177	N67/21/29.7W	170.66	
178	N73/04/20.3W	116.96	
179	N63/06/31.5W	119.47	
180	N45/31/11.1W	149.00	
181	N36/53/06.2W	133.89	
182	N53/39/10.1W	126.69	
183	N66/56/10.2W	309.92	
184	N74/00/51.3W	186.67	
185	N89/02/13.6W	158.36	
186	S71/39/47.7W	142.66	
187	S70/13/06.8W	121.68	
188	S84/07/44.7W	247.99	
	N77/28/28.1W	183.73	

189	N66/06/51.6W	528.38	
190	N89/22/40.7W	68.51	
191	N69/57/54.3W	143.87	
192	N85/28/45.2W	112.97	
193	N38/28/18.2W	39.51	
194	N15/57/28.0W	167.45	
195	N02/14/36.9W	134.06	
196	N19/05/34.3E	166.47	60 meters northerly from and parallel with the centerline of USFS road 2655.
197	N10/35/19.9W	92.16	
198	N36/49/44.3W	75.66	
199	N67/32/14.1W	121.50	
200	N85/53/35.6W	199.47	
201	N84/27/06.2W	228.03	
202	N75/49/39.7W	183.92	
203	N58/22/58.6W	45.59	
204	N13/02/41.0W	48.31	
205	N22/05/54.7E	94.30	
206	N36/56/09.8E	276.27	
207	N43/15/18.6E	63.49	
208	N14/52/37.1E	68.70	
209	N05/06/02.1W	67.99	
210	N23/50/37.8W	100.00	
211	N47/39/59.9W	315.63	
212	N26/46/49.6W	104.93	
213	N14/21/44.5W	117.93	
214	N04/30/08.5W	140.72	
215	N10/33/50.4E	115.84	
216	N03/20/05.6W	112.98	
217	N27/21/20.6W	76.99	

218	N48/07/32.9W	140.57	
219	N44/09/47.3W	445.83	
220	N44/44/47.7W	255.23	
221	N56/37/44.0W	136.48	
222	N72/03/42.8W	141.47	
223	N88/27/14.5W	165.16	
224	N73/42/00.7W	76.37	
225	S85/04/41.2W	159.06	
226	S73/38/39.2W	95.95	
227	N87/10/34.1W	67.52	60 meters northerly from and parallel with the centerline of USFS road 2655.
228	N51/47/52.4W	95.25	
229	N44/57/50.5W	153.93	
230	N67/00/50.6W	48.50	
231	N86/19/43.5W	90.17	
232	S84/09/31.4W	90.78	
233	S88/51/46.8W	75.93	
234	S75/39/55.1W	206.89	
235	S78/42/16.9W	137.84	
236	S87/58/46.4W	112.80	
237	N72/30/56.5W	112.25	
238	N32/23/53.5W	126.76	
239	N33/30/40.1W	110.45	
240	N25/27/41.8W	176.54	
241	N32/28/24.5W	114.50	

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242

A point which is 60  
meters easterly from and  
perpendicular to the  
intersection of the  
centerlines of USFS road  
2655 and USFS road 2654.

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243	N08/58/04.0W	110.92	
244	N06/00/29.0E	113.69	
245	N03/52/54.9E	179.66	60 meters easterly from
246	N11/21/12.3W	300.00	and parallel with the
247	N23/05/41.6W	70.35	centerline of USFS
248	N38/21/01.6W	182.28	road 2654.
249	N49/31/38.5W	190.61	
250	N68/02/56.7W	47.97	
	N59/53/08.6W	110.84	

-----  
Carpenter  
Mtn.

1

Point of beginning.  
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I certify the enclosed boundary description of the Wildcat Mountain Research Natural Area was prepared under my direct supervision.

REGISTERED  
PROFESSIONAL  
LAND SURVEYOR

*Don Rowe*

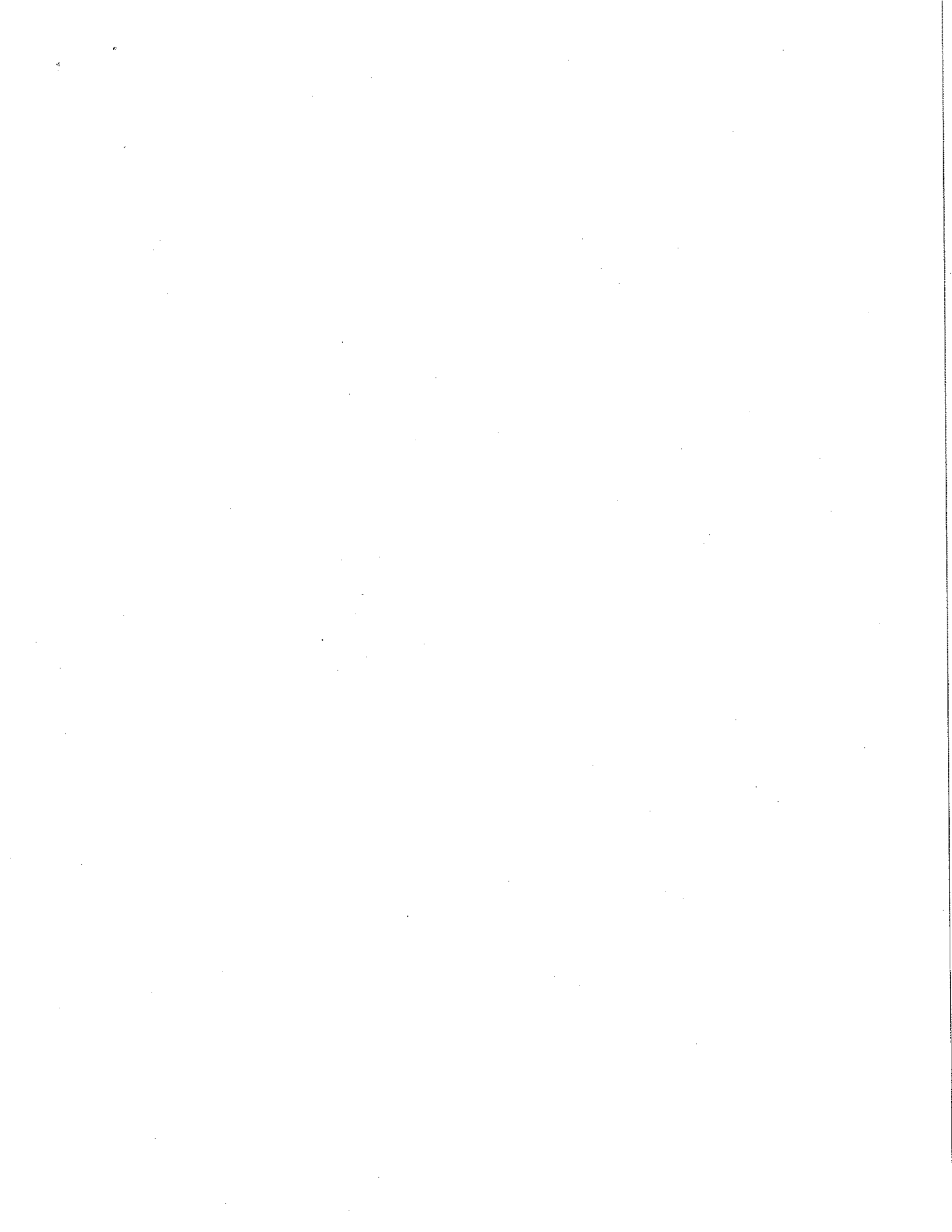
*8/5/98*

Acting Forest Land Surveyor

Date

*Don Rowe*  
OREGON  
JULY 25, 1981  
DONN ROWE  
2519

*EXP 12/98*



CLIMATE DATA FOR SANTIAM PASS, OREGON  
Elevation: 4748 feet (1447 m)

PRECIPITATION Average annual total = 86.15 inches (2188 mm)

Month	Mean		Maximum Total		Minimum Total		Record Length years
	in	mm	in	mm	in	mm	
January	14.15	359	24.55	624	0.36	9	22
February	9.62	244	17.25	438	3.20	81	22
March	8.95	227	15.00	381	2.32	59	22
April	5.65	144	10.53	267	0.78	20	24
May	3.73	95	7.01	178	0.99	25	24
June	3.33	85	9.41	239	0.98	25	23
July	1.12	28	5.90	150	0.00	0	25
August	1.79	45	6.05	154	0.00	0	25
September	3.61	92	7.42	188	0.00	0	24
October	6.18	157	12.67	322	1.34	34	24
November	12.28	312	28.01	711	3.54	90	24
December	15.74	400	34.72	882	2.40	61	22

TEMPERATURE

Month	Mean		Maximum Mean		Minimum Mean		Record Length years
	°F	°C	°F	°C	°F	°C	
January	26.6	-3.0	34.3	1.3	14.4	-9.8	30
February	29.8	-1.2	39.1	3.9	25.0	-3.9	30
March	31.5	-0.3	36.3	2.4	27.4	-2.6	28
April	35.6	2.0	41.5	5.3	31.0	-0.6	29
May	42.5	5.9	47.9	8.8	38.5	3.6	26
June	49.9	10.0	55.0	12.8	45.7	7.6	18
July	58.0	14.5	63.2	17.3	51.6	10.9	23
August	57.2	14.0	63.8	17.7	53.1	11.7	24
September	50.4	10.2	57.1	13.9	45.0	7.2	25
October	41.9	5.5	46.8	8.2	36.7	2.6	26
November	33.3	0.7	39.2	4.0	27.7	-2.4	27
December	27.9	-2.3	35.3	1.8	20.5	-6.4	27



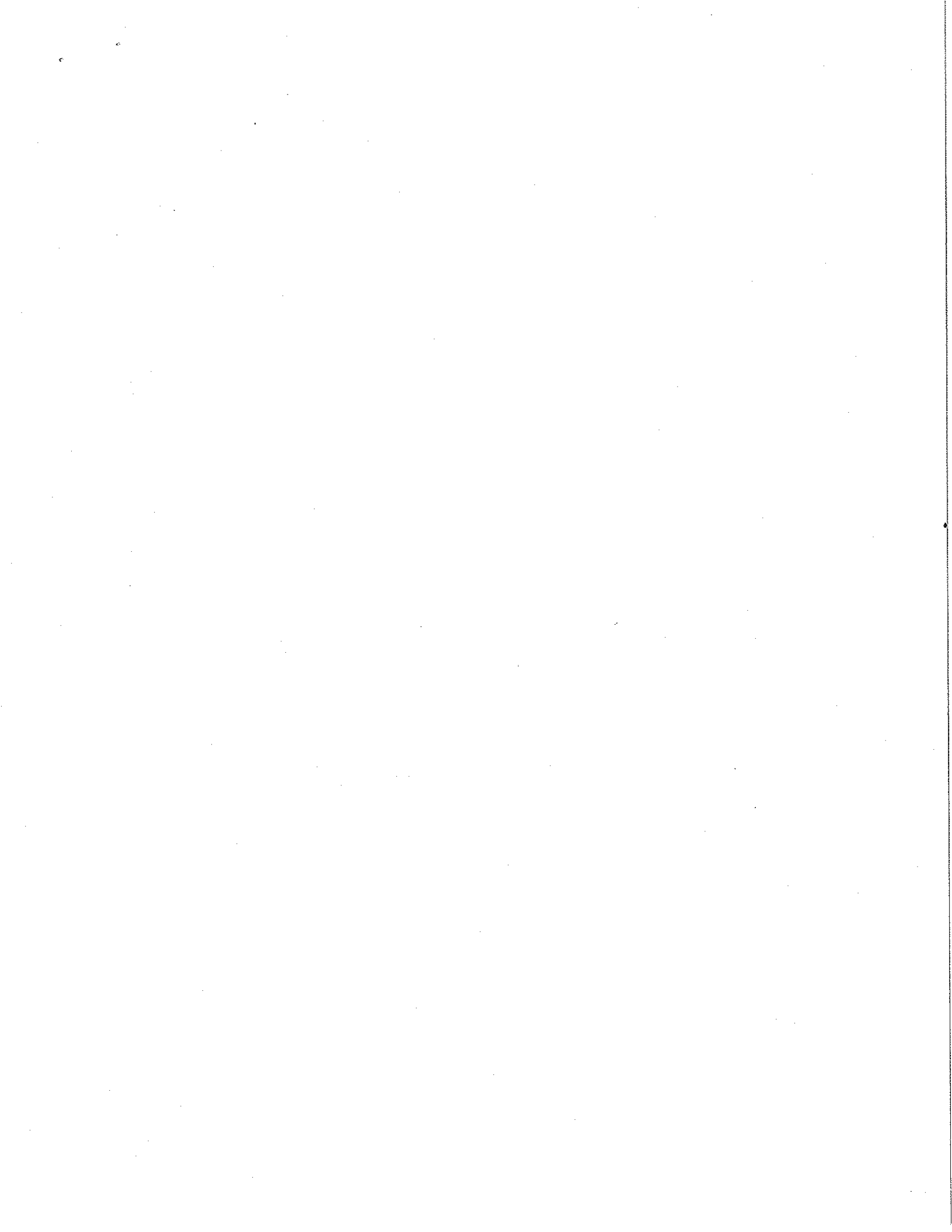
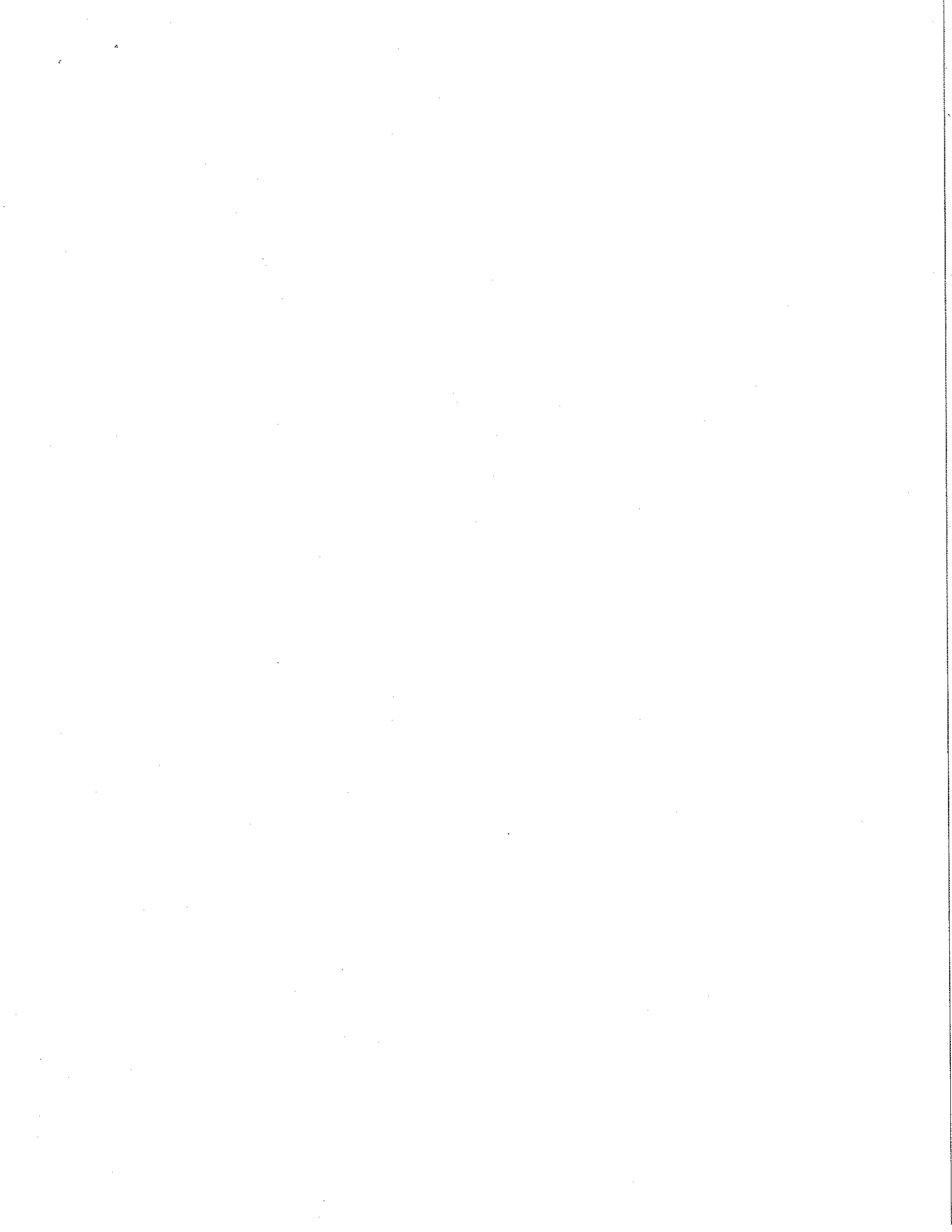


Table WM-2. — Tentative list of mammals for Wildcat Mountain Research Natural Area

Order	Scientific name	Common name	
Insectivora	<i>Neurotrichus gibbsi</i>	shrew mole	
	<i>Scapanus orarius</i>	coast mole	
	<i>Scapanus townsendi</i>	Townsend mole	
	<i>Sorex bendirii</i>	marsh shrew	
	<i>Sorex palustris</i>	northern water shrew	
	<i>Sorex trowbridgii</i>	Trowbridge shrew	
	<i>Sorex vagrans</i>	wandering shrew	
Chiroptera	<i>Eptesicus fuscus</i>	big brown bat	
	<i>Lasionycteris noctivagans</i>	silver-haired bat	
	<i>Lasiurus borealis</i>	red bat	
	<i>Lasiurus cinereus</i>	hoary bat	
	<i>Myotis californicus</i>	California myotis	
	<i>Myotis evotis</i>	long-eared myotis	
	<i>Myotis lucifugus</i>	little brown myotis	
	<i>Myotis thysanodes</i>	fringed myotis	
	<i>Myotis volans</i>	long-legged myotis	
	<i>Myotis yumanensis</i>	Yuma myotis	
	<i>Plecotus townsendi</i>	Townsend big-eared bat	
	Lagomorpha	<i>Lepus americanus</i>	snowshoe hare
		<i>Ochotona princeps</i>	pika
Rodentia		<i>Aplodontia rufa</i>	mountain beaver
	<i>Arborimus albipes</i>	white-footed vole	
	<i>Arborimus longicaudus</i>	red tree vole	
	<i>Clethrionomys californicus</i>	California red-backed vole	
	<i>Erethizon dorsatum</i>	porcupine	
	<i>Eutamias amoenus</i>	yellow-pine chipmunk	
	<i>Eutamias townsendi</i>	Townsend chipmunk	
	<i>Glaucomys sabrinus</i>	northern flying squirrel	
	<i>Microtus longicaudus</i>	long-tailed vole	
	<i>Microtus oregoni</i>	Oregon or creeping vole	
	<i>Microtus richardsoni</i>	Richardson vole	
	<i>Microtus townsendi</i>	Townsend vole	
	<i>Neotoma cinerea</i>	bushy-tailed wood rat	
	<i>Peromyscus maniculatus</i>	deer mouse	
	<i>Phenacomys intermedius</i>	heather vole	
	<i>Tamiasciurus douglasi</i>	chickaree	
	<i>Thomomys mazama</i>	Mazama pocket gopher	
	<i>Zapus trinotatus</i>	Pacific jumping mouse	
	Carnivora	<i>Canis latrans</i>	coyote
		<i>Canis lupus</i>	wolf
<i>Felis concolor</i>		mountain lion or cougar	
<i>Gulo luscus</i>		wolverine	
<i>Lynx rufus</i>		bobcat	
<i>Martes americana</i>		marten	
<i>Martes pennanti</i>		fisher	
<i>Mustela erminea</i>		short-tailed weasel or ermine	
<i>Mustela frenata</i>		long-tailed weasel	
<i>Mustela vison</i>		mink	
<i>Procyon lotor</i>		raccoon	
<i>Spilogale putorius</i>		spotted skunk or civet cat	
Artiodactyla	<i>Ursus americanus</i>	black bear	
	<i>Vulpes fulva</i>	red fox	
	<i>Cervus canadensis</i>	wapiti or elk	
	<i>Odocoileus h. hemionus</i>	mule deer	



FAUNA OF WILLAMETTE NATIONAL FOREST  
AMPHIBIANS, REPTILES AND FISHES

AMPHIBIANSSalamanders

\*Oregon slender salamander (Batrachoseps wrighti)  
 Rough-skinned newt (Taricha granulosa)  
 Pacific giant salamander (Dicamptodon ensatus)  
 Northwestern salamander (Ambystoma gracilis)  
 Olympic salamander (Rhyacotriton olympicus)  
 Dunn's salamander (Plethodon dunni)  
 Ensatina (Ensatina eschscholtzi)  
 Clouded salamander (Aneides ferreus)

Frogs and Toads

Yellow-legged frog (Rana boylei)  
 Cascade frog (Rana cascadae)  
 Red-legged frog (Rana aurora)  
 Western toad (Bufo boreas)  
 Pacific tree frog (Hylla regilla)  
 \*Tailed frog (Ascaphus truei)  
 Spotted frog (Rana pretiosa)  
 Bullfrog (Rana catesbeiana)

REPTILES

Western pond turtle (Clemmys marmorota)  
 Western fence lizard (Scelrororus occidentalis)  
 Western skink (Eumeces skiltonianus)  
 Short-horned lizard (Phrynosoma douglassi)  
 Northern alligator lizard (Gerrhonotus coeruleus)  
 Southern alligator lizard (Gerrhonotus multicarinatus)  
 Rubber boa (Charina bottae)  
 Western ringneck snake (Diadophis amabilis)  
 Sharp-tailed snake (Contia tenuis)  
 Racer (Coluber constrictor)  
 Common garter snake (Thamnophis sirtalis)  
 Northwestern garter snake (Thamnophis ordinoides)  
 Gopher snake (Pituophis melanoleucus)

Fishes

Spring chinook (Oncorhynchus tshawytscha)  
 Kokanee (Oncorhynchus nerka)  
 Coho (Oncorhynchus kisutch)  
 Rainbow trout (Oncorhynchus gairdneri)  
 Summer steelhead (Oncorhynchus gairdneri)  
 Winter steelhead (Oncorhynchus gairdneri)  
 Cutthroat trout (Oncorhynchus clarki)

AMPHIBIANS, REPTILES AND FISHES (CONT.)

\*\*\*Hackleman cutthroat trout (Oncorhynchus clarki hackelmanii)  
Brown trout (Salmo Trutta)  
Atlantic salmon (Salmo salar)  
Brook trout (Salvelinus fontinalis)  
Bull trout (Salvelinus confluentus)  
Mountain whitefish (Prosopium williamsoni)  
Large-mouth bass (Micropterus salmoides)  
brown bullhead (Ictalurus nebulosus)  
White crappie (Pomoxis annularis)  
Black crappie (Pomoxis nigromaculatus)  
Oregon chub (Oregonichthys crameri)  
Largescale sucker (Catostomus macrocheilus)  
Mountain sucker (Catostomus platyrhynchus)  
Trout-perch (Percopsis transmontanus)  
Northern squawfish (Ptychocheilus oregonensis)  
Chiselmouth (Acrocheilus alutaceus)  
Redside shiner (Richardsonius balteatus)  
Cottids (Cottus sp.)  
Speckled dace (Rhinichthys osculus)  
Blackside dace (Rhinichthys osculus nubilus)  
Longnose dace (Rhinichthys cataractae dulcis)  
Leopard dace (Rhinichthys falcatus)  
Prickly sculpin (Cottus asper)  
Torrent sculpin (Cottus confusus)  
Reticulate sculpin (Cottus rhotheus)  
Piute sculpin (Cottus beldingi)  
Western brook lamprey (Lampetra richardsoni)  
Pacific lamprey (Lampetra tridentatus)

\*Species listed as "unique" on Forest Service Region 6 list of Endangered, Threatened or Unique Species.

\*\*Species or subspecies listed as "Threatened" on Forest Service Region 6 list of Endangered, Threatened or Unique Species.

\*\*\*The Hackleman cutthroat trout is not on the R-6 list but is considered "unique" on the Forest, because it has been isolated for 10,000 years and may have developed into a distinct race.

Nomenclature of reptiles and amphibians are based on "A Field Guide to Western Reptiles and Amphibians", Robert C. Stebbins, published by Houghton Mifflin Co. 1966.

## BIRDS OF THE WILLAMETTE NATIONAL FOREST

### SPECIES

Common loon (Gavia immer)  
Pacific loon (Gavia pacifica)  
Western grebe (Aechmophorus occidentalis)  
Horned grebe (Podiceps auritus)  
Pied-billed grebe (Podilymbus podiceps)  
Leach's storm-petrel (Oceanodroma leucorhoa) (Accidental)  
Double-crested cormorant (Phalacrocorax auritus)  
Tundra swan (Cygnus columbianus)  
Trumpeter swan (Cygnus buccinator) (accidental)  
Canada goose (Branta canadensis)  
Greater white-fronted goose (Anser albifrons)  
Snow goose (Chen caerulescens)  
Mallard (Anas platyrhynchos)  
Pintail (Anas acuta)  
Gadwell (Anas strepera)  
Eurasian widgeon (Anas penelope)  
American widgeon (Anas americana)  
Northern shoveller (Anas clypeata)  
Green-winged teal (Anas crecca)  
Cinnamon teal (Anas cyanoptera)  
Blue-winged teal (Anas discors)  
Wood duck (Aix sponsa)  
Redhead (Aythya americana)  
Canvasback (Aythya valisineria)  
Ring-necked duck (Aythya collaris)  
Greater scaup (Aythya marila)  
Lesser scaup (Aythya affinis)  
Common goldeneye (Bucephala clangula)  
Barrow's goldeneye (Bucephala islandica)  
Bufflehead (Bucephala albeola)  
\*Harlequin duck (Histrionicus histrionicus)  
Oldsquaw (Clangula hyemalis) (Accidental)  
White-winged scoter (Melanitta fusca) (Accidental)  
Surf scoter (Melanitta perspicillata)  
Common merganser (Mergus merganser)  
Hooded merganser (Lophodytes cucullatus)  
Ruddy duck (Oxyura jamaicensis)  
Turkey vulture (Cathartes aura)  
Goshawk (Accipiter gentilis)  
Cooper's hawk (Accipiter cooperi)  
Sharp-shinned hawk (Accipiter striatus)  
Northern harrier (Circus cyaneus)  
Rough-legged hawk (Buteo lagopus)  
Ferruginous hawk (Buteo regalis)  
Red-tailed hawk (Buteo jamaicensis)  
Swainson's hawk (Buteo swainsoni)  
Golden eagle (Aquila chrysaetos)  
\*\*Northern bald eagle (Haliaeetus leucocephalus alascanus)

BIRDS OF THE WILLAMETTE (CONT.)

\*Osprey (Pandion haliaetus)  
Prairie falcon (Falco mexicanus)  
\*\*Peregrine falcon (Falco peregrinus)  
Merlin (Falco columbarius)  
American kestrel (Falco sparverius)  
Turkey (Meleagris gallopavo) (introduced)  
Blue grouse (Dendragapus obscurus)  
Ruffed grouse (Bonasa umbellus)  
California quail (Callipepla californicus)  
Mountain quail (Oreotyx pictus)  
Ring-necked pheasant (Phasianus colchicus)  
Common egret (Casmerodius albus)  
Cattle egret (Bubulcus ibis) (Accidental)  
Great blue heron (Ardea herodias)  
Green-backed heron (Butorides striatus)  
American bittern (Botaurus lentiginosus)  
White-faced ibis (Eudocimus albus) (Accidental)  
Sandhill crane (Grus canadensis)  
American coot (Fulica americana)  
Semipalmated plover (Charadrius semipalmatus)  
Killdeer (Charadrius vociferus)  
Greater yellowlegs (Tringa melanoleucus)  
Lesser yellowlegs (Tringa flavipes)  
Solitary sandpiper (Tringa solitaria)  
Spotted sandpiper (Actitis macularia)  
Long-billed dowitcher (Limnodromus scolopaceus)  
Red phalarope (Phalaropus fulicarius) (Accidental)  
Red-necked phalarope (Phalaropus lobatus) (Accidental)  
Common snipe (Gallinago gallinago)  
Pectoral sandpiper (Calidris melanotos)  
Dunlin (Calidris alpina)  
Least sandpiper (Calidris minutilla)  
Glaucous-winged gull (Larus glaucescens)  
California gull (Larus californicus)  
Ring-billed gull (Larus delawarensis)  
Bonaparte's gull (Larus philadelphus) (Accidental)  
Caspian tern (Sterna caspia)  
Band-tailed pigeon (Columba fasciata)  
Rock dove (Columba livia) (Introduced)  
Mourning dove (Zenaida macroura)  
Western screech owl (Otus kennicottii)  
Great horned owl (Bubo virginianus)  
Long-eared owl (Asio otus)  
Barn owl (Tyto alba)  
Barred Owl (Strix varia)  
\*\*Northern spotted owl (Strix occidentalis caurina)  
Great grey owl (Strix nebulosa)  
Boreal owl (Aegolius funereus)  
Northern saw-whet owl (Aegolius acadicus)  
Flammulated owl (Otus flammeolus)  
Northern pygmy owl (Glaucidium gnoma)  
Common nighthawk (Chordeiles minor)

BIRDS OF THE WILLAMETTE (CONT.)

Black swift (Cypseloides niger)  
Vaux's swift (Chaetura vauxi)  
Calliope hummingbird (Stellula calliope)  
Anna's hummingbird (Calypte anna)  
Rufous hummingbird (Selasphorus rufus)  
Belted kingfisher (Ceryle alcyon)  
Northern flicker (Colaptes auratus)  
Pileated woodpecker (Dryocopus pileatus)  
White-headed woodpecker (Picoides albolarvatus)  
Lewis woodpecker (Melanerpes lewis)  
Red-naped sapsucker (Sphyrapicus ?)  
Red-breasted sapsucker (Sphyrapicus ruber)  
Williamson's sapsucker (Sphyrapicus thyroideus)  
Hairy woodpecker (Picoides villosus)  
Downy woodpecker (Picoides pubescens)  
Black-backed woodpecker (Picoides arctus)  
Three-toed woodpecker (Picoides tridactylus)  
Western kingbird (Tyrannus verticalis)  
Willow flycatcher (Empidonax traillii)  
Hammond's flycatcher (Empidonax hammondii)  
Dusky flycatcher (Empidonax oberholseri)  
Gray flycatcher (Empidonax wrightii)  
Western flycatcher (Empidonax difficilis)  
Western wood pewee (Contopus sordidulus)  
Olive-sided flycatcher (Contopus borealis)  
Horned lark (Eremophila alpestris)  
Barn swallow (Hirundo rusticus)  
Cliff swallow (Hirundo pyrrhonota)  
Violet-green swallow (Tachycineta thalassina)  
Tree swallow (Tachycineta bicolor)  
Bank swallow (Riparia riparia)  
Rough-winged swallow (Stelgidopteryx serripennis)  
Purple martin (Progne subis)  
Steller's jay (Cyanocitta stelleri)  
Scrub jay (Aphelocoma coerulescens)  
Gray jay (Perisoreus canadensis)  
Black-billed magpie (Pica pica)  
Clark's nutcracker (Nucifraga columbiana)  
Common raven (Corvus corax)  
American crow (Corvus brachyrhynchos)  
Black-capped chickadee (Parus atricapillus)  
Mountain chickadee (Parus gambeli)  
Chestnut-backed chickadee (Parus rufescens)  
Bushtit (Psaltriparus minimus)  
Wrentit (Chamaea fasciata)  
Dipper (Cinclus mexicanus)  
White-breasted nuthatch (Sitta carolinensis)  
Red-breasted nuthatch (Sitta canadensis)  
Brown creeper (Certhia americana)  
House wren (Troglodytes aedon)  
Winter wren (Troglodytes troglodytes)  
Bewick's wren (Thryomanes bewickii)



BIRDS OF THE WILLAMETTE (CONT.)

Rock wren (Salpinctes obsoletus)  
Marsh wren (Cistothorus palustris)  
Mockingbird (Mimus polygottos)  
American robin (Turdus migratorius)  
Varied thrush (Ixoreus naevius)  
Townsend's solitaire (Myadestes townsendii)  
Hermit thrush (Catharus guttatus)  
Swainson's thrush (Catharus ustulatus)  
Western bluebird (Sialia mexicana)  
Mountain bluebird (Sialia currucoides)  
Golden-crowned kinglet (Regulus satrapa)  
Ruby-crowned kinglet (Regulus calendula)  
American pipit (Anthus spinoletta)  
Bohemian waxwing (Bombycilla garrulus) (Accidental)  
Cedar waxwing (Bombycilla cedrorum)  
Northern shrike (Lanius excubitor)  
Starling (Sturnus vulgaris)  
Solitary vireo (Vireo solitarius)  
Hutton's vireo (Vireo huttoni)  
Red-eyed vireo (Vireo olivaceus)  
Warbling vireo (Vireo gilvus)  
Tennessee warbler (Vermivora peregrina) (Accidental)  
Orange-crowned warbler (Vermivora celata)  
Nashville warbler (Vermivora ruficapilla)  
Yellow warbler (Dendroica petechia)  
Yellow-rumped warbler (Dendroica coronata)  
Townsend's warbler (Dendroica townsendi)  
Hermit warbler (Dendroica occidentalis)  
Black-throated gray warbler (Dendroica nigrescens)  
Northern waterthrush (Seiurus noveboracensis)  
Common yellow-throat (Geothlypis trichas)  
Yellow-breasted chat (Icteria virens)  
MacGillivray's warbler (Oporornis tolmiei)  
Wilson's warbler (Wilsonia pusilla)  
American redstart (Setophaga ruticilla)  
House sparrow (Passer domesticus)  
Western meadowlark (Sturnella neglecta)  
Yellow-headed blackbird (Xanthocephalus xanthocephalus)  
Red-winged blackbird (Agelaius phoeniceus)  
Brewer's blackbird (Euphagus cyanocephalus)  
Brown-headed cowbird (Molothrus ater)  
Northern oriole (Icterus galbula bullockii)  
Western tanager (Piranga ludoviciana)  
Black-headed grosbeak (Pheucticus melanocephalus)  
Evening grosbeak (Coccothraustes vespertina)  
Lazuli bunting (Passerina amoena)  
Purple finch (Carpodacus purpureus)  
Cassin's finch (Carpodacus cassinii)  
House finch (Carpodacus mexicanus)  
Pine grosbeak (Pinicola enucleator)  
Rosy finch (Leucosticte arctoa)  
Pine siskin (Carduelis pinus)

BIRDS OF THE WILLAMETTE (CONT.)

American goldfinch (Carduelis tristis)  
Lesser goldfinch (Carduelis psaltria)  
Red crossbill (Loxia curvirostra)  
White-winged crossbill (Loxia leucoptera)  
Green-tailed towhee (Pipilo chlorurus)  
Rufous-sided towhee (Pipilo erythrophthalmus)  
Savannah sparrow (Passerculus sandwichensis)  
Vesper sparrow (Pooecetes gramineus)  
Lark sparrow (Chondestes grammacus)  
Dark-eyed junco (Junco hyemalis oregonus)  
Chipping sparrow (Spizella passerina)  
Brewer's sparrow (Spizella breweri)  
White-crowned sparrow (Zonotrichia leucophrys)  
Golden-crowned sparrow (Zonotrichia atricapilla)  
White-throated sparrow (Zonotrichia albicollis)  
Fox sparrow (Passerella iliaca)  
Lincoln's sparrow (Melospiza lincolni)  
Song sparrow (Melospiza melodia)

\*Species or subspecies listed as "Unique" on Forest Service Region 6 list of Endangered, Threatened or Unique Species.

\*\*Species or subspecies listed as "Threatened" or "Endangered" on Forest Service Region 6 list of Endangered, Threatened or Unique Species.

Nomenclature of Birds is based on "A Guide to Field Identification, Birds of North America", Robbins, Bruun, Zim and Singer published by Golden Press, New York, 1983; and "Checklist of North American Birds", American Ornithologists' Union, 1974.

## MAMMALS OF THE WILLAMETTE NATIONAL FOREST

### SPECIES

Opposum (Didelphus virginiana), (Introduced)  
Dusky shrew (Sorex obscurus)  
Vagrant shrew (Sorex vagrans)  
Water shrew (Sorex palustris)  
Trowbridge shrew (Sorex trowbridgii)  
Coast mole (Scapanus orarius)  
Shrew mole (Neurotrichus gibbsii)  
Little brown myotis (Myotis lucifugus)  
California myotis (Myotis californicus)  
Long-eared myotis (Myotis evotis)  
Yuma myotis (Myotis yumanensis)  
\*\*\*Townsend's big-eared bat (Plecotus townsendii)  
Big brown bat (Eptesicus fuscus)  
Pika (Ochotona princeps)  
Snowshoe hare (Lepus americanus)  
Brush rabbit (Sylvilagus bachmani)  
\*Mountain beaver (Aplodontia rufus)  
Beechey ground squirrel (Ostospermophilus beecheyi)  
Sierra Nevada golden-mantled ground squirrel (Callospermophilus lateralis)  
Yellow pine chipmunk (Eutamias amoenus)  
Townsend chipmunk (Eutamias townsendii)  
Western gray squirrel (Sciurus griseus)  
Douglas squirrel (Tamiasciurus douglasii)  
Northern flying squirrel (Glaucomys sabrinus)  
Mazama pocket gopher (Thomomys mazama)  
Beaver (Castor canadensis)  
Deer mouse (Peromyscus maniculatus)  
Bushy-tailed woodrat (Neotoma cinerea)  
Red tree mouse (Phenacomys longicaudus)  
Western red-backed mouse (Clethrionomys occidentalis)  
Oregon meadow mouse (Microtus oregonia)  
White-footed vole (Microtus albipes)  
Water rat (Microtus richardsoni)  
Porcupine (Erethizon dorsatum)  
Red Fox (Vulpes fulva)  
Coyote (Canis latrans)  
Black bear (Euarctos americanus)  
Ring-tailed cat (Bassariscus astutus)  
Raccoon (Procyon lotor)  
Marten (Martes americana)  
\*Fisher (Martes pennanti)  
Ermine (Mustela erminea)  
Long-tailed weasel (Mustela frenata)  
Mink (Mustela vison)  
\*Wolverine (Gulo luscus)  
Spotted skunk (Spilogale putorius)  
Striped skunk (Mephitis mephitis)  
River otter (Lutra canadensis)

MAMMALS OF THE WILLAMETTEE (CONT.)

Mountain lion (Felis concolor)

Bobcat (Lynx rufus)

Roosevelt elk (Cervus canadensis roosevelti)

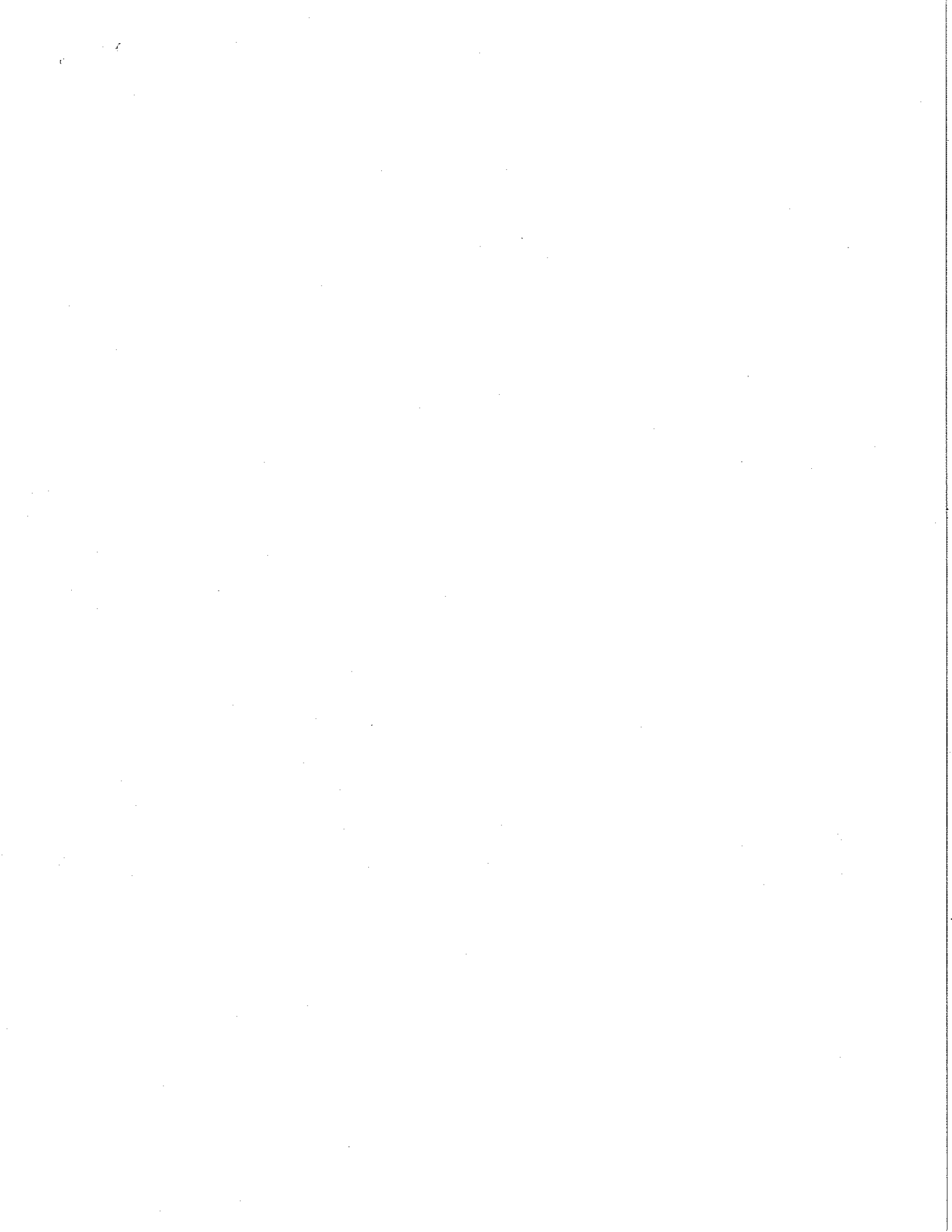
Black-tailed deer (Odocoileus hemionus columbianus)

Mule deer (Odocoileus hemionus hemionus)

Yellow bellied marmot (Marmota flaviventris)

\*Species or subspecies listed as "Unique" on Forest Service Region 6 list of Endangered, Threatened or Unique Species.

Nomenclature of Mammals based on "Mammals of the Pacific States" by F. Ingles, Stanford University Press, 1965.



## MANAGEMENT AREA 4

**MANAGEMENT AREA 4****Emphasis:** Research Natural Areas**Management Goals**

The goals of this management area are to preserve naturally occurring physical and biological units where natural conditions are maintained insofar as possible for the purposes of:

- Comparison with those lands influenced by man.
- Provision of educational and research areas for ecological and environmental studies.
- Preservation of gene pools for typical as well as rare and endangered plants and animals.

**Desired Future Condition**

Research Natural Areas (RNAs) will be managed to provide for naturally occurring physical and biological processes without undue human intervention. Plant and animal communities native to an area will be allowed to evolve unaltered, serving as a gene pool source and as a baseline for measuring long-term ecological change. RNAs will provide for nonmanipulative environmental research, observation and study. They will serve as control areas for comparing results from manipulative research, and for monitoring effects of resource management techniques and practices. Areas will preserve a wide spectrum of pristine values or natural settings that have unique educational and scientific interest. No programmed timber harvest will occur. Access will be limited to trails and roads that do not compromise the objectives of the RNA.

**Description**

This prescription applies to existing RNAs and areas recommended for inclusion during the life of this Plan. The sites designated as Research Natural Areas include:

Area Name	Acres	District	Date Established
Ollalie Ridge	720	McKenzie	1963
Gold Lake Bog	463	Oakridge	1965
Wildcat Mountain	1,000	Sweet Home	1968
Middle Santiam	1,145	Sweet Home	1979
Hagan Block	1,280	Blue River	1990
McKenzie Pass	1,195	McKenzie	1990
Rigdon Point	300	Rigdon	1990
Three Creeks	661	Sweet Home	1990
Torrey-Charlton	2,154	Oakridge	1990
Wildcat Mtn Addition	384	Sweet Home	1990

Site-specific resource values and management activities will be prescribed in individual Establishment Records. The Regional Forester and Pacific Northwest Station Director will prepare an Establishment Report for each recommended area; this document will describe features, objectives for establishment, and specific management direction.

## Standards and Guidelines

### PLANNING

- MA-4-01 A management plan shall be prepared for each RNA to fulfill objectives of the Establishment Report.
- MA-4-02 An implementation schedule for baseline data collection and periodic remeasurement shall be prepared for each RNA. The baseline data will serve as a benchmark for research needs as well as for long-term assessments of changes in the forest ecosystem.
- MA-4-03 Ecological responses to management activities or natural disturbances on or adjacent to RNAs should be measured when appropriate. Studies may be prioritized based on the significance of the potential impact.

### RECREATION MANAGEMENT

- MA-4-04 Area management practices should result in a physical setting that meets or exceeds the ROS class of Roded Natural.
- MA-4-05 Recreation activities and uses within RNAs shall be discouraged. This includes overnight camping; recreation use within 200 feet of lakes, ponds and streams; and pack and saddle stock use.
- MA-4-06 All recreation ORV use shall be prohibited.
- MA-4-07 Hunting and trapping shall be discouraged.
- MA-4-08 If other recreation use threatens research or education values, closures or permits should be instituted.
- MA-4-09 Educational use of an RNA should generally be directed toward the graduate level, but may be approved for any educational level.
- MA-4-10 On-site interpretive or demonstrative facilities shall be prohibited.
- MA-4-11 Publicity that would attract the general public to the RNA shall be avoided.

### FOREST TRAIL SYSTEM

- MA-4-12 New trails shall not be constructed unless they are needed for research purposes. Existing trails may be allowed to remain as long as the RNA objectives are not compromised.

## MANAGEMENT AREA 4

### WILDERNESS

- MA-4-13 If an RNA is established within wilderness, wilderness management direction shall take precedence.

### SCENIC RESOURCES

- MA-4-14 All design and implementation practices should be modified as necessary to meet the VQO of Preservation.

### WILDLIFE MANAGEMENT

- MA-4-15 Introduction of exotic plant and animal species shall not be permitted. Reintroduction of former native species, including fish stocking, may be permitted if the objectives of the RNA are met.
- MA-4-16 Control of excessive animal populations should be evaluated and control activities may be implemented where such populations threaten the RNA objectives.

Habitat improvement projects may be approved if they meet the objectives of the RNA.

### TIMBER MANAGEMENT

- MA-4-17 No programmed harvest shall be scheduled.
- MA-4-18 Cutting and removal of all vegetation, including firewood, shall be prohibited, except as part of approved scientific investigation.
- MA-4-19 Felled trees shall remain in place, unless lying across trail or road. Trees shall not be removed. Hazard tree felling may be permitted along boundary trails or roads for safety.

### FIRE MANAGEMENT

- MA-4-20 If fire is used to perpetuate a sere, it should mimic a natural fire, but with prudent measures to avoid catastrophe. Managed or naturally occurring fire may be used to perpetuate the sere and thus the cell that the RNA is meant to represent.
- MA-4-21 Suppression strategies, practices and activities shall be limited to those which have minimal impacts to RNA values.
- MA-4-22 Chemical fire retardants shall be avoided.
- MA-4-23 Fuels normally should be allowed to accumulate at natural rates unless they threaten the objectives of the RNA.



**INTEGRATED PEST MANAGEMENT**

- MA-4-24** No action shall be taken against insects or diseases unless the outbreak threatens to drastically alter the natural ecological processes within the RNA or is an immediate threat to adjacent lands.

**LANDS**

- MA-4-25** Rights-of-way easements, including utility corridors, existing before RNA establishment shall be honored. Upgrading that would compromise the objectives of the RNA should be discouraged.
- MA-4-26** FERC licenses or permits that compromise the objectives of the RNA shall not be recommended.
- MA-4-27** All lands shall be retained and private inholdings acquired.

**MINERALS AND ENERGY**

- MA-4-28** RNAs shall be recommended for withdrawal from locatable mineral exploration.
- MA-4-29** RNAs may be recommended for lease issuance with a no surface occupancy stipulation.

**FACILITIES**

- MA-4-30** New trail or road construction should not occur, except to enhance RNA values.
- MA-4-31** Construction of new facilities shall be prohibited. Existing facilities may be allowed to deteriorate without replacement. Temporary research facilities and installations may be approved under permit.