World-Class Biodiversity
Klamath Mountains Ecoregion

The 3.9 million acres of the Klamath Mountains Ecoregion in Oregon (most of the ecoregion lies in California) extend from the California border to the southern end of the Willamette Valley, and from the Cascade foothills to the Coast Range. They encompass what the International Union for the Conservation of Nature calls an area of “global botanical significance” and the World Wildlife Fund terms the “Galapagos of North America.” The region’s highest point, Mount Ashland, rises to 7,533 feet in the Siskiyou Mountains.

Defining the region’s geography can be as knotty as its geology and botany. The Siskiyou Mountains run generally east-west, roughly parallel to the Oregon-California border, which they cross three times. In the western portion of the region, the Siskiyou Mountains divide with one flank ranging northward along the Illinois Valley and the other southward to the Siskiyou Wilderness in California. In Oregon, the Siskiyou Mountains lie primarily within the Rogue River and Klamath National Forests, as well as the Medford District of the Bureau of Land Management. Only a small fraction of the Siskiyou Mountains is actually in the Siskiyou National Forest. Most of the Siskiyou National Forest is located in Oregon and is almost entirely composed of the Klamath Mountains. The Klamath Mountains, however, do not drain south into the Klamath River — most of which flows through California — but into the Chetco, Illinois, lower Rogue and other Oregon rivers and streams that flow into the Pacific Ocean.

The Klamath River itself begins in Oregon below Upper Klamath Lake, then cuts through the California portion of the Cascades Ecoregion, flowing from the east side of the Cascades through the Klamath Mountains and California’s Coast Range, before emptying into the Pacific Ocean. This confounded geography is why the region is often called the “Klamath Knot” — and why we appreciate maps.

Due to the great diversity and age of the underlying geology and soils, the Klamath Mountains Ecoregion is extremely diverse. The ecoregion was not shaped by volcanoes, but is made up of a jumble of igneous (mostly basalt), metamorphic (mostly granite) and sedimentary rock formations. Monadnock formations (an isolated rock mass above a plain) are also found here. The topography ranges — and often changes abruptly — from valley bottoms, to gentle foothills, to very steep, dissected and folded mountains. The varied topography is home to botanically rich forests, riparian zones, bogs, grasslands, savannas and alpine meadows.

Perhaps most interesting of the region’s geological features are the serpentine formations which are made up of “an unusual metamorphic rock rich in magnesium and some other minerals but deficient in calcium and others.” The serpentine soils found here are low in silica and high in heavy metals such as zinc, iron, chromium, nickel, magnesium and cobalt. Several unusual plant and insect species co-evolved with the unique chemistry of these lands.

The Klamath Mountains Ecoregion hosts some of the most diverse conifer forests in the world. Over thirty species of conifers are found here. The region is a botanic crossroads, hosting species common to the Sierra Nevada Mountains, Sacramento Valley, Cascade Mountains, Coast Ranges and the Great Basin. Of the 4,000 plant species found in Oregon, about half are found in the Klamath Mountains Ecoregion, including 115 at-risk plant and animal species. Many of these species are endemic to the region and are on official state or federal conservation lists.

Many of the Klamath Mountains roadless wildlands proposed for Wilderness protection have been identified by The Nature Conservancy as vital to the protection of the region’s biodiversity.

The region’s sub-humid climate is mild, but distinguished by an extended summer drought. Up to 140 inches of precipitation can fall in the mountains, but as little as 20 inches in the valleys, where temperatures in the summer can exceed 100 degrees.

All of the region’s habitats have been sculpted by fire, usually frequent low-level surface fires with the infrequent, high intensity, stand-replacing fires.

Major charismatic animal species include Roosevelt elk, mountain lion, coyote, black-tailed deer, coyote, ringtail cat, fisher, marten, river otter, eagles, hawks, osprey, peregrine falcon, ruffed grouse, numerous species and stocks of Pacific salmon (including some of the most productive runs outside of Alaska) and the well-known northern spotted owl.

The Klamath Mountains Ecoregion has been called a mollusk mecca. With 235 native species and subspecies, mollusks outnumber the numerous breeding bird species found in the region. Well over half these mollusks are endemic to the Klamath Mountains, meaning that they are found nowhere else on earth.

In addition to precipitation and elevation, the significant variables that determine forest types in the Klamath Mountains Ecoregion are soil and aspect. North-facing...
Ecoregions of Oregon's Klamath Mountains

This ecoregion encompasses the highly dissected ridges, foothills and valleys of the Klamath and Siskiyou mountains. It was unglaciated during the Pleistocene epoch, when it served as a refuge for northern plant species. Its mix of granitic, sedimentary, metamorphic and extrusive rocks contrasts with the predominantly volcanic rocks of the Cascades. The mild, subhumid climate of the Klamath Mountains is characterized by a lengthy summer drought. It supports a mosaic of both northern Californian and Pacific Northwestern conifers and hardwoods.

Scientists have further subdivided Oregon’s Klamath Mountains Level III Ecoregion into seven Level IV ecoregions:

The Rogue/Illinois Valleys ecoregion supports Oregon white oak and California black oak woodland, ponderosa pine and grassland. As in other highly developed valleys, little original vegetation remains. Remnants of oak savanna, prairie vegetation and seasonal ponds persist on the mesa tops of the Table Rocks north of Medford. Elsewhere, land uses include orchards, cropland and pastureland. Climate, vegetation and resulting land use are more similar to northern California’s inland valleys than to the Willamette Valley.

The Oak Savanna Foothills border the Rogue and Illinois river valleys ecoregion, sharing their Mediterranean-type climate. The driest area east of Medford is dominated by oak woodlands, grassland — savanna, ponderosa pine and Douglas-fir. The wetter foothills flanking the Illinois Valley support Douglas-fir, madrone and incense cedar. This ecoregion is lower and less dissected, with more oak woodland and less closed-canopied forest than the Inland Siskiyous.

Unlike the purely mountainous terrain of the Inland Siskiyous or the broader Rogue/Illinois Valleys, the Umpqua Interior Foothills ecoregion is a complex of foothills and narrow valleys containing fluvial terraces and floodplains. This ecoregion is drier than the foothills of the Willamette Valley partly because the summer Pacific high pressure system arrives earlier and remains longer than in ecoregions to the north. Summers are hot and dry, and soils have a xeric moisture regime in contrast to the udic soils of the Mid-Coastal Sedimentary ecoregion in the Coast Range to the west. Oregon white oak woodland, Douglas-fir, ponderosa pine, madrone and an understory chaparral community cover the slopes and intermingle with pastureland, vineyards, orchards and row crops.

The Serpentine Siskiyou ecoregion is lithologically distinct from the rest of the Klamath Mountains. Many plants have difficulty growing in its serpentine soils due to a shortage of calcium and high levels of magnesium, nickel and chromium. As a result, vegetation is often sparse and composed of specialist species. Jeffrey pine and endemic oak and ceanothus species have evolved to grow in the potentially toxic and nutrient-poor serpentine soils. Historic mines and associated water quality problems occur.

The forested Inland Siskiyou ecoregion is higher and more mountainous than neighboring foothill and valley ecoregions Rogue/Illinois Valleys, Oak Savanna Foothills and Umpqua Interior Foothills. This ecoregion has a higher fire frequency, less annual precipitation and longer summer droughts than the Coastal Siskiyou. Forest cover is a diverse and multi-layered mix of conifers, broadleaf evergreens, deciduous trees and shrubs in contrast to the predominantly coniferous forests that occur in the Coast Range or Cascades.

The Coastal Siskiyou ecoregion has a wetter and milder maritime climate than elsewhere in the Klamath Mountains. Productive forests composed of tanoak, Douglas-fir and some Port Orford cedar cover its mountainous landscape; tanoak is more common than elsewhere in Oregon. Broadleaf evergreens, such as tanoak and madrone, quickly colonize disturbed areas, making it difficult to regenerate conifer forest growth. Xeric soils derived from Siskiyou rock types are characteristic. Udic soils which support western hemlock and Sitka spruce are much less common than in the wetter Coast Range.

The Klamath River Ridges have a dry, continental climate. Vegetation varies with slope, aspect and elevation. Higher altitudes and north-facing slopes have Douglas-fir and white fir; lower elevations and south-facing slopes are covered in ponderosa pine and western juniper, species that are more drought resistant than other vegetation types found in the Klamath Mountains.

slopes are much wetter than south-facing ones, while certain soil types favor specific tree species.

The most common forest type in the ecoregion is the Siskiyou Mixed Conifer with its varying and abundant mixes of Douglas-fir, sugar pine, ponderosa pine, incense cedar and white fir. Bigleaf maple, Pacific madrone and western white pine are also common here. Western red cedar and western hemlock can be found in the area’s wetter sites. A variant of this forest type is the Siskiyou Mixed Conifer-High Elevation forest with more white fir and less Douglas-fir, sugar pine, ponderosa pine and western white pine. The lower-elevation variant is the Siskiyou Mixed Evergreen forest, which has more of Pacific madrone, tanoak and other broadleaf trees.

Oregon White Oak/Ponderosa, Oregon White Oak/Douglas-fir, Oregon White Oak/Juniper and Oregon White Oak/Pacific Madrone forests are found at the edges of the Rogue and Umpqua Valleys. The latter of these four forest types is also found in the drier parts of the Rogue and Chetco River drainages, where incense cedar may also be present.

Many species of trees cannot tolerate the serpentine soils that characterize the region’s Siskiyou Jeffrey Pine forests. On drier sites, the Jeffrey pines are widely spaced among sparse grass cover. On higher, wetter sites, Douglas-fir grows along with incense cedar and knobcone pine, sugar pine and western white pine.

Adding to the diversity of the Klamath Mountains Ecoregion forests are small pockets of Douglas-fir/Ponderosa/True Fir and Mountain Hemlock/Red Fir forest. The former is much more common east of the Cascade crest and the latter more commonly found in the Cascades Ecoregion, along with Douglas-fir/Western Hemlock forests. Widely scattered on drier sites are stands of Douglas-fir/Ponderosa/Incense Cedar and small stands of pure Ponderosa.

One of Oregon’s — and the world’s — rarest forest types is the Redwood forest. Redwoods are found primarily in California, but Oregon does have particularly rare and magnificent stands in the Coast Range Ecoregion (described here because the Oregon Redwood Units are in the proposed Kalmiopsis Wilderness Additions).

At some time in their existence, most forest communities will be set back to early successional forest and are classified as Cutover/Burned forest. This can occur naturally — from lightning-caused wildfires, native insect or disease events, or blowdown by wind — or unnaturally, by way of logging, human-caused fire, human-caused blowdown (due to unnatural and vulnerable forest edges caused by clearcuts), non-native disease and insects, or aggressive fire-fighting. Particularly troubling are “backburns,” where firefighters intentionally burn the forest in front of an oncoming wildfire. In many cases, the backburns are far more intense and destructive than the natural burn would have been.

About half — 52 percent to be exact — of Oregon’s Klamath Mountains Ecoregion is federally owned. The major federal holdings in this Ecoregion include most of the Siskiyou National Forest, a sizeable portion of the Rogue River National Forest, a small part of the Klamath National Forest that is in Oregon, the western part of the BLM Medford District and the eastern portion of the BLM Coos Bay District.

There are presently three Wilderness areas (Kalmiopsis, Wild Rogue and Red Buttes) comprising only 5.7 percent of the Oregon portion of this ecoregion.

Conservationists propose four additional multi-unit Wilderness areas: the Kalmiopsis Additions, Siskiyou Crest, Soda Mountain and Wild Rogue Additions. If designated, these areas would increase Wilderness protection to 23.9 percent of the ecoregion.
Proposed Kalmiopsis Wilderness Additions
Largest and Most Ecologically Diverse Wildland in Oregon

One of Oregon’s largest remaining wildlands, the proposed Kalmiopsis Wilderness Additions include lands in the Hunter Creek, Illinois, North Fork Smith, Chetco, Winchuck and Pistol River watersheds. (Segments of the Illinois, North Fork Smith and Chetco Rivers are part of the National Wild and Scenic Rivers System.) The rugged, steep and deep canyons and ridges are covered with dense old-growth forests, grassy prairies, serpentine barrens, serpentine fens (also called darlingtonia fens), talus, sparse open forests, savannas, sphagnum bogs and hardwood forests. These wildlands continue into California.

The proposed Wilderness additions, especially in the south, can appear both hostile and inviting. The ruggedness and occasionally sparse vegetation can be off-putting to some, but the region’s geologic and botanic wonderland is irresistibly enticing. The current Kalmiopsis Wilderness is named after *Kalmiopsis leachiana*, a tiny rhododendron-like flower that is one of the rarest plants in North America.

The area’s extraordinary botanical diversity stems from its geological diversity. Several major geologic formations dominate the landscape. Underneath the redrock rainforest are serpentine soils (created on the sea floor 200 million years ago), which form a unique substrate chemically unsuited for most plant species common to the ecoregion. In some places where standing water meets the serpentine, there are fens (alkaline bogs) that are characterized by the carnivorous darlingtonia plant. Interspersed with the peridotite serpentine is a granite-like rock, which gives a Sierra-like feel to the landscape. Nearby volcanic and sedimentary formations give rise to the area’s lush forests.

Precipitation here ranges from 90 to 140 inches annually. During summer droughts, temperatures can rise to over 100 degrees.

The region’s major tree species include Douglas-fir, Port Orford-cedar, Jeffrey pine, Oregon white oak, canyon live oak, knobcone pine, incense cedar, western white pine, white fir, Pacific madrone, bigleaf maple, western redcedar and the endemic Brewer’s spruce. The serpentine soils produce much stunted vegetation; however, Jeffrey pine and numerous endemic species can tolerate the soils’ unique chemistry that is toxic to other plants.

The rivers and streams within the proposed Wilderness are noted for their exceptional water quality. They clear quickly even after the heaviest storms. Coho, spring and fall chinook salmon, as well as winter steelhead are abundant here, as are Western azalea (*Rhododendron occidentale*) is but one of the multitude of wildflower species in the proposed additions to the Kalmiopsis Wilderness.
**Proposed Kalmiopsis Wilderness Additions**

Some of the units in the proposed Wilderness are highlighted below. The **Briggs Creek** units feature knobcone pine, Oregon white oak and canyon live oak interspersed with fens and forests. The serpentine soils here host such rare plants as Waldo or elegant gentian (*Gentiana setigera* [*bisetacea*]), large-flowered rush-lily (*Hastingia bracteosa*), western senecio or Siskiyou butterweed (*Senecio hesperius*), Oregon willow-herb (*Epilobium oreganum*) and Howell’s mariposa-lily (*Calochortus howellii*).

The **Lower Illinois River** unit is terrific for whitewater boating. It also includes Indigo, Silver and Lawson Creeks, which are refuges for endangered salmon stocks.

**Mount Emily** was the target of a lone Japanese incendiary bomb during World War II and now has a memorial trail to the summit with fine views of nearby mountains, the coast and ocean. Emily Creek has fall chinook salmon, winter steelhead, resident trout and coho salmon.

Although located at the northern edge of the species’ range, the **Oregon Redwoods** units include a *Sequoia sempervirens* that is 11-feet in diameter. These units also include Peavine Ridge, the only known location of Kellogg’s Lily (*Lilium kelloggii*) in Oregon, and are home to other sensitive species such as Andrew’s bead lily (*Clintonia andrewsiana*). Scientists suspect that Kurabayashi’s wake robin (*Trillium angustipetalum*) is also here.

The **Pistol River** units include several interesting plant species, as well as chinook salmon and steelhead runs.

The **Rancherie Creek** unit includes Pearsoll Peak (the highest point in the proposed Wilderness), where fourteen conifer species have been identified in one little pocket that sits among open ridges, springs and wetlands.

The **Redrock Rainforest** is named for its reddish peridotite soils. It also contains the world’s largest expanse of exposed serpentine rock and supports one of the world’s four most diverse types of temperate forest.

**Rough and Ready Creek** is featured on page 104.

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**Level IV Ecoregions**

Coastal Siskiyou (40%), Serpentine Siskiyou (30%), Inland Siskiyou (10%), Rogue/Illinois Valley (<1%); Coast Range Level III Ecoregion: Redwood Zone (2%), Southern Oregon Coastal Mountains (<1%)

**Vegetation Types**

Siskiyou Mixed Conifer (51%), Siskiyou Jeffrey Pine (26%), Oregon White Oak/Ponderosa (10%), Douglas-fir/Western Hemlock (8%), Siskiyou Mixed Evergreen (2%), Siskiyou Mixed Conifer-High Elevation (1%), Cutover/Burned (<1%), Oregon White Oak/Douglas-fir (<1%), Oregon White Oak/Pacific Madrone (<1%), Redwood (<1%). These figures are pre-2002 burns. In most cases, especially where less than completely burned, the same vegetation type remains. In other cases, the fire reset certain lands to “cutover/burned.”

**Drainage Subbasins**

Chetco, Illinois, Smith, Winchuck

**Elevation Range**

200-5,034 feet

**Units**

Bear Ridge, Bravo Ransom Creek, Briggs Creek, Buck Creek, Dutchy Creek, Eagle Creek, East Fork Pistol River, Eight Dollar Mountain, Hog Mountain, Hunter Creek, Jack Creek, Josephine Creek, Kalmiopsis Additions (Redrock Rainforest, Lower Illinois River, Rancherie Creek), Mineral Rock Fork, Mount Emily, Myrtle Creek, North Fork Pistol River, North Fork Smith River, Peavine Ridge, Pebble Hill, Quail Prairie Creek, Quail Prairie Mountain, Signal Buttes, Six Mile Creek, Snow Camp Meadow, Soldier Creek, Sunrise Creek, Upper Wheeler Creek, Wheeler Creek

**Existing Wilderness Incorporated**

Kalmiopsis

**Size**

343,711 acres (537 square miles, not including 179,655 acres of currently protected Wilderness)

**Counties**

Curry, Josephine

**Federal Administrative Units**

Siskiyou National Forest; BLM Coos Bay and Medford Districts

**Congressional District**

4th

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**Klamath Mountains Ecoregion**

**Kalmiopsis Additions**
Rough and Ready Creek has been a tributary of the Illinois River since the lands rose from the ocean floor some forty million years ago. This untamed stream is of incomparable beauty as it bends and braids across a rugged and superficially stark landscape. The water’s clarity is an indication of the watershed’s integrity. Intact and uncompromised, Rough and Ready Creek is eligible for protection in the National Wild and Scenic Rivers System, as well as home to at-risk steelhead and cutthroat trout. Nearby springs feed surrounding wetlands that support lilies, orchids and carnivorous plants.

Only one-tenth of the watershed has been surveyed, but over 300 vascular plant species have been identified, of which at least 45 are considered rare. Of Oregon’s 1,400 watersheds, Rough and Ready Creek has the highest concentration of rare plant species. Along the creek, one can find phlox, paintbrush and rare willows. In the creek’s floodplain grow rock cress and Waldo buckwheat. Up slope, ancient and twisted Jeffrey pine and Port Orford-cedar forests are interspersed with openings of native bunch-grasses and western azalea. The rare Sadler oak (Quercus sadleriana) thrives here alongside the insectivorous pitcher plant (Darlingtonia californica). While the area qualifies as a rainforest that receives 60 to 100 inches of annual precipitation, the landscape also retains a desert-like character. In this portion of the Redrock Rainforest region are pockets of greenish serpentine soils, which are full of heavy metals that are toxic to many plants. However, some species can survive here, an adaptation that makes them both rare and tough!

Although the unit’s botanical and geologic importance has been recognized in a variety of administrative land classifications, the unit remains blanketed by mining claims. A large mining operation has been proposed to extract nickel, iron and other minerals from the red soils. It would require 25-ton ore trucks to rumble back and forth on fifteen miles of new or reconstructed roads — crossing the creek numerous times — up to 14,000 trips per year! A new, toxic smelter would also be constructed in the area. Rare plant colonies, Port Orford-cedar, spawning fish, all those who drink the local water and breathe the local air (not to mention human skinny-dippers) would be but a few of the victims of this greed.

The mining claimant wants to exercise a provision of the Mining Law of 1872 that would convert approximately 4,000 acres of public land into private property for $2.50/acre (a total of $10,000.00). Thus far, the mining corporation has been thwarted, but Wilderness designation and a public buyout of any valid claims are needed to prevent the inevitable and utter destruction of Rough and Ready Creek. With such protection, this rare community of life could continue to function naturally for at least another 40 million years.
sea-run cutthroat and coastal rainbow trout. Pacific lamprey, three-spined stickleback and assorted sculpin can also be found in the area’s streams. This wealth of aquatic life has led the American Fisheries Society to identify several aquatic diversity areas here.

Birds of particular interest in the area include the northern spotted owl, osprey, bald eagle and peregrine falcon. Major mammal species include black-tailed deer, Roosevelt elk, black bear and possibly even Bigfoot (a.k.a. Sasquatch). Amphibians of particular interest include the Del Norte and California slender salamanders.

The Oregon Biodiversity Project’s Upper Illinois River Conservation Opportunity Area, which includes Rough and Ready Creek, encompasses the southeast quadrant of the proposed Kalmiopsis Wilderness Additions. The area was designated to bring attention to a variety of unique plant communities and older forests, as well as over thirty “at-risk” species that live there.

Recreation here includes fishing, hunting, hiking, camping, horseback riding, whitewater boating, photography, botanizing, birding, sightseeing and swimming — not to mention gazing in wonderment at the ecological diversity.

Over 310,000 acres of the proposed Wilderness additions are nominally off-limits to logging, but that could change under the current or future administrations. Other threats include off-road vehicle abuse and mining. Where there is serpentine soil, there is nickel, chromite and cobalt. Gold and copper are also present in the area and miners enjoy dredging the streams for gold, an activity extremely harmful to salmonid fish species. A high percentage of the area is actively unstable and prone to landslides.

**Proposed Siskiyou Crest Wilderness**

Ecological Land Bridge between the Klamath and Cascades Mountains

The high mountain wildflower meadows, lakes that lie at the base of craggy peaks, magnificent and mossy old-growth forests, and streams and waterfalls on the slopes of the Siskiyou Mountains all offer outstanding opportunities for human recreation and solitude. For wildlife species, the Siskiyou Mountains crest is a land bridge between the mountains of the Coast and Cascade ranges.

The Siskiyou Mountains crest’s eastern terminus is Soda Mountain in the Cascade-Siskiyou National Monument. Soda Mountain is actually in the Cascades Ecoregion. The north slope of the main Siskiyou Mountains crest drains into the Bear Creek, Applegate River and Illinois River watersheds, all of which flow into the Rogue River. The south slope drains into the Klamath River. Sixty-two miles west as the crest turns, the Siskiyou Mountains divide near the California border where the headwaters of the Klamath, Applegate and Illinois rivers begin. One flank ranges north 22 miles, past Oregon Caves National Monument and peters out at Roundtop Mountain. The other flank of the Siskiyou ranges southwest another 22 miles to Youngs Peak in the Siskiyou Wilderness in California, where it dead-ends at the north-south Coast Range. Youngs Peak is a triple watershed divide. Its western side drains into the Smith River Basin, its south side drains into the Klamath River Basin and its north side flows into the Rogue River Basin.

Interstate 5 crosses the Siskiyou Mountains at Siskiyou Pass (4,310’). A few miles west is Mount Ashland (7,533’), the highest point along the crest. The crest continues into California, staying mostly above 7,000-feet in elevation until Condrey Mountain (7,112’). From there it descends gradually through several peaks to Sucker Creek Gap (back in Oregon) that is just over one mile high. The northern crest rises again to over 7,000 feet at Grayback Mountain (7,055’) and then declines gently to Roundtop Mountain (4,693’).

The Siskiyou Mountains crest crosses the Oregon-California border three times. A sizable portion of the proposed Wilderness is in California and won’t be dealt with further here. Most of the crest has a great trail along the top of it, including part of the Pacific Crest National Scenic Trail.

The crest is made up of distinctly-colored meta-sedimentary, metavolcanic rocks, granite (Grayback Mountain) and peridotite (Red Butte). At 425 million years old, the rocks comprising the Siskiyou Mountains are estimated to be Oregon’s oldest. The climate, the underlying geology, soils, slopes and aspects together create a botanical wonderland that includes numerous species found here and nowhere else. Due to the habitat diversity, overall species diversity, especially butterflies, is very high.

The crest and its slopes are important habitat for cougar, fisher, wolverine, marten, black bear, elk, fox, bobcat and coyote. The gray wolf, grizzly bear and
Some of the units of the proposed Wilderness are highlighted below. Dakutubede is featured on page 107.

The Greater Enchanted Forest includes a unique riparian area dominated by old-growth Douglas-fir and numerous ancient bigleaf maples. Along with spotted owls, another species of concern here is the northern goshawk.

The Illinois-Applegate Divide ranges northward from the existing Red Buttes Wilderness and includes a portion of Oregon Caves National Monument.

Kinney Mountain has an old “bigfoot trap” — mute testimony to the hope that the species exists. Local wildlife that no one doubts the existence of include grouse, quail, deer and bear.

Little Grayback Mountain has steep slopes of mixed conifer forests and open grassy slopes that are favored by bears and bear hunters.

Mudusa Flat is geologically interesting and has several caves, as well as meadows and old-growth sugar pine.

Wagner Butte includes the headwaters of the city of Ashland’s watershed and has spotted owls in mixed stands of ponderosa pine, Douglas-fir and white fir. It contains the only Engelmann spruce stands in the Klamath Mountains and one of three local stands of quaking aspen. The higher elevations include Shasta red fir and sugar pine. A rare flower, the Henderson’s horkelia (Horkelia hendersonii) is found here, as is the rare and endemic Mount Ashland lupine (Lupinus aridus) that is now threatened by ski area expansion.

Wellington Mountain is located within the Applegate Watershed, but away from the high Siskiyou Mountains crest. It contains a very rare low-elevation (1,800-3,000’) old-growth forest and is home to the northern spotted owl and a rare lily, the Gentner’s fritillary (Fritillaria gentneri). It also contains spawning habitat for steelhead.
Meadows, oak woodlands and white-leaf manzanita, ceanothus and birch-leaf mountain mahogany cover the steep ridges. Deciduous hardwood species here include red-osier dogwood, western madrone, Oregon white and California black oak, Oregon ash, bigleaf maple and Pacific willow. Coniferous softwood species include Douglas-fir, Pacific yew, knobcone and ponderosa pine and incense cedar.

Other species of note include both tall and dwarf Oregon grape, rabbitbrush (a staple of eastern Oregon landscapes), elderberry, serviceberry, creeping snowberry, osoberry, blackberry, Klamath plum, hazel, black hawthorn, buckbrush, rose, cascara and — last, but not least — poison oak, a species that many people do not notice until it’s too late.

The westernmost stands of western juniper are found here, as is the only known Oregon population of the endemic Siskiyou water birch. The area is also home to Gentner’s fritillary (Frilillaria gentneri), a gorgeous red lily that is extremely rare and found only in Jackson and Josephine Counties, and the Applegate stonecrop (Sedum oblanceolatum), which is only found in the Applegate drainage. Many species living here along the Siskiyou Mountains crest are at the edge of their respective ranges.

The Muddy Gulch drainage has excellent examples of rare tufa and travertine geomorphological formations (also called “limestone” benches), which create several large, flat bottoms in otherwise steep V-shaped canyons.

Originally built to divert water for mining, the historic Sterling Ditch traverses Dakubetede. But the scar is healing well and now serves as the backbone of a good walking trail system.
California bighorn sheep have been extirpated from the area, but could be reintroduced. A population of white-headed woodpeckers, more common in eastside forests, is found southwest of Mount Ashland.

The rarest amphibian in western North America, the Siskiyou Mountains salamander (*Plethodon stormi*), lives only in the Upper Applegate and Seiad Creek drainages. Three subspecies have been identified, one north and two south of the crest. Unlike most salamanders that are aquatic by nature, this species lives in mossy talus (large rocks with lots of sheltering spaces in-between) shaded by thick forests. The crest is also the northern edge of the black salamander’s range.

Over three-quarters of the 35 known species of coniferous tree species in the Klamath Mountains Ecoregion of Oregon and California are found in the proposed Siskiyou Crest Wilderness. Species more common to the Cascade Range but found along the Siskiyou Mountains crest include Engelmann spruce, Pacific silver fir, Alaska yellow cedar, subalpine fir and quaking aspen. Other species found here include Douglas-fir, ponderosa pine, madrone, manzanita, California black and Oregon white oak, bigleaf maple, ash and mountain mahogany. The last major tree species to be identified by science in the United States, the weeping or Brewer’s spruce is endemic to the region, as are the Baker cypress and Sadler oak. One will also find lots of ponderosa, Jeffrey and knobcone pines, incense cedar, mountain hemlock and Shasta red fir.

The Applegate gooseberry (*Ribes marshallii*), which grows only on the slopes of the Applegate Valley, is one example of a variety of rare and unique species found along the Siskiyou Mountains crest.

The Oregon Biodiversity Project’s (OBP) Upper Illinois River Conservation Opportunity Area encompasses the northern extension of the Siskiyou Mountains crest. The area was designated to bring attention to a variety of unique plant communities and old forests, as well as over 30 “at-risk” species that live here. OBP’s Upper Applegate Conservation Opportunity Area, which also encompasses a portion of the proposed Wilderness, is recognized for its critical aquatic habitats. It also includes rare inland Port Orford-cedar habitats.

The American Fisheries Society has identified several aquatic diversity areas within the proposed Wilderness because of their importance to coho salmon, spring and fall chinook salmon, as well as summer and winter steelhead runs.

Recreation opportunities in the proposed Wilderness include hiking, backpacking, hunting, fishing, botanizing and amphibianizing.

Nearly 50,000 acres of the proposed Siskiyou Crest Wilderness are outside the currently programmed timber base, but that doesn’t guarantee a stump-free future. Other serious threats include livestock grazing, ski area expansion, road building, off-road vehicles and wildfire suppression.
**Proposed Soda Mountain Wilderness**

**Ecological Crossroads**

Ecologically, the Soda Mountain area is the nexus in Oregon where east meets west meets north meets south.

The western limits of the arid and sunny Oregon desert mingle here with the towering temperate forests of the west Cascades and Siskiyou ranges, the eastern limits of vegetation dependent on the moist and cool Pacific Ocean and the northern limits of the drier, sunnier California chaparral.

Depending on the aspect, elevation and soil-type (as determined by the underlying geology), one may find oneself in a true fir forest, a montane wildflower meadow, a pine-oak/fescue grassland, a maple-black oak riparian forest, an Oregon white oak savanna, a juniper-cedar/bunchgrass bald or a chaparral brushland — and several of these diverse ecological communities are often within a few steps of each other. The Oregon white oak/ponderosa pine plant community is uncommon and little of it is currently included in Oregon’s Wilderness areas.

Ten rare, threatened or endangered species have been identified in this mosaic of habitats. Roosevelt elk, mountain quail, cougar, black bear, bobcat, golden eagle, goshawk, bald eagle and prairie falcon are also found here. The lower elevations are critical black-tailed deer winter range. The diversity of butterflies is one of the highest in North America; over 120 species have been identified in the vicinity. The mollusk diversity is astounding as well, with as many as twenty new species recently described, including nine endemic to the area within the 53,000-acre Cascade-Siskiyou National Monument.

The monument includes all of the proposed 23,138-acre Soda Mountain Wilderness in Oregon. An additional 9,000 acres of roadless lands in California are also proposed for Wilderness protection.

The desert influence is obvious here: big sagebrush, low sagebrush, Idaho fescue, bluebunch wheatgrass, western juniper, rabbitbrush, desert parsley, Indian paintbrush and wild rose occur in the area.

Prominent wildflower species include lavender calypso orchid, purple larkspur, golden tower butterweed, blue flax, Tolmie’s cat’s ear, Klamath fawn-lily, western trillium, Indian paintbrush, several species of lomatium, Pursh’s milk-vetch, Shelton’s violet, western buttercup, Sierra snakeroot and the phantom orchid.

Plant species of special concern include the Ashland thistle (*Cirsium ciliolatum*), pygmy monkey flower (*Mimulus pygmaeus*), clustered lady’s slipper (*Cypripedium fasciculatum*), green-flowered wild ginger (*Asarum Wagneri*) and the Siskiyou fritillary (*Fritillaria glauca*). In spring and summer, clouds of butterflies visit these wildflower meadows.

The American Fisheries Society has identified several aquatic diversity areas...
FLANDERS RAN

Jenny Creek in the unit of the same name in the proposed Soda Mountain Wilderness.

FEATURED UNIT
Jenny Creek

“I like those kind of places where I can lie in my bunk and dream of the days gone by, and listen to the breezes making music in the treetops. The sounds of the forest bring peace to the soul and I like to hear the owls calling to one another, the barking of a coyote on some far off hill, the scream of a cougar along with the noisy tale of a rattlesnake singing its war song. I would not trade a place like that for any of the things that can be found in the cities with all their bright lights and glare.”

—George Wright (lifelong local resident) 3

The Jenny Creek Unit is located on the eastern side of the proposed Wilderness and is dominated by Keene Creek Ridge. Plant communities here include a relatively rare mixed conifer forest with a sugar pine overstory. Incense cedar and Douglas-fir are common. Western juniper/Oregon white oak, Oregon white oak/wedgeleaf ceanothus and mixed conifer/California black oak are other interesting plant communities in the unit. Other major tree species include Douglas hawthorn, bigleaf maple, shining and arroyo willows, Douglas spirea, mock-orange, Oregon ash, white alder, black cottonwood, birch leaf mountain mahogany and quaking aspen.

Jenny Creek provides important habitat for aquatic species, including the Jenny Creek redband trout and Jenny Creek sucker, which are found nowhere else. Other rare species include the speckled dace and Klamath small-scale sucker.

The unit is important deer and elk winter range, as well as home to at least six species of bats, the western pond turtle, the yellow-legged frog and at least 43 species of butterflies.

Rare plant species here include Greene’s mariposa lily (Calochortus greenei), Howell’s yampa or false-caraway (Perideridia howellii) and Bellinger meadow-foam (Limnanthes floccosa ssp. bellingeriana) which is often associated with Biscuit Scablands, a rare mound and swale topography with patterned ground and vernal pools. The unit contains the Oregon Gulch Research Natural Area, designated to allow for the continued scientific study of two ecological communities: (1) a mixed conifer forest dominated by Douglas-fir and ponderosa pine with large scattered sugar pine and incense cedar prominent in the overstory and (2) a manzanita-wedgeleaf ceanothus/bunchgrass chaparral both at the eastern boundary of the Klamath River Ridges of the Klamath Mountains Ecoregion.

At Agate Flat are deposits of petrified wood and many colors of agate.

Numerous archaeological sites have been found in the area.

Many unmarked trails provide outstanding hiking and horseback riding throughout the unit.
within the proposed Wilderness.

There are many trails here, but most are unmarked, except for the Pacific Crest National Scenic Trail. Views of Mount Shasta can be seen throughout the area. In addition to hiking, recreational opportunities here include hunting, fishing, horseback riding, botanizing and lepidopterizing.

In June 2000, President Bill Clinton designated 52,947 acres of federal land as the Cascade-Siskiyou National Monument, which included all of the proposed Wilderness. All monument lands are withdrawn from mineral exploitation and most logging is prohibited (though the level of protection depends on definitions to be included in the final management plan). Clinton proclaimed the national monument to protect the area’s unparalleled biological diversity. However, this extraordinary landscape is still threatened by livestock grazing and off-road vehicles.

**Proposed Wild Rogue Wilderness Additions**

**The Wildest Stretch of the Wild Rogue River**

From its confluence with Grave Creek to its confluence with Quosatana Creek, the incomparable lower Rogue River defines the proposed additions to the Wild Rogue Wilderness. In 1968 Congress first recognised the ecological and recreational importance of the Lower Rogue when it designated the free-flowing segment from the confluence with the Applegate River downstream to the Lobster Creek Bridge as one of the original segments of the National Wild and Scenic Rivers System.

The Rogue River rises near Crater Lake in Oregon’s Cascade Range (see the proposed Rogue-Umpqua Wilderness). After leaving the Cascades, the Rogue flows through the pastoral Rogue Valley before entering deep, forested canyons of the Klamath Mountains. Finally, 215 river miles from its source, the Rogue River meets the Pacific Ocean at Gold Beach.

The 33.6-mile stretch of the Rogue that flows from the confluence of Grave Creek to Illahe is classified as “wild” under the Wild and Scenic Rivers Act. The classification is the most protective under the law. The Rogue River is famous for its steelhead and salmon fishing, outstanding whitewater boating and wildlife viewing. (It’s very likely that one will see at least one black bear if one floats or walks the Rogue River.)

In recognition that the narrow management corridor along the river cannot fully protect the values for which the Lower Rogue River was designated a Wild and Scenic River, Congress acted further in 1978 to designate the Wild Rogue Wilderness, which
Some of the units of the proposed Wilderness are highlighted below. The Forks of Lobster Creek units don’t have lobster, but they do have crayfish, crawfish or crawdads, however you call them. While not lobster, they’re not bad.

Potato Illahe Mountain varies from rolling, hummocky terrain to steep slopes and deeply incised drainages where hardwood stands and conifers are interspersed with meadows, prairies and cliffs. It also includes several miles of trail along the river, which is part of the greater Rogue River Trail system.

Quosatana Creek is a copious producer of salmon and a study area for macroinvertebrates. It is also nesting habitat for endangered marbled murrelets. The natural openings that occur in the forest here increase the diversity of wildlife habitat.

Shasta Costa Creek flows through an area of transition between the Klamath Mountains and the Coast Range ecoregions. Both chinook salmon and steelhead spawn in the creek.

Zane Grey is featured on page 113.
The largest roadless wildland along the Rogue River is named after the American writer of western novels who owned a miner’s cabin at Winkle Bar where he came to fish and write. The unit includes 24 miles of the Rogue, as well as numerous tributaries including Howard, Windy, Bunker, Kelsey and Whisky Creeks. An aural and visual testimony to the steep terrain, waterfalls abound here, especially during spring run-off. Because most visitors are focused on the mainstem of the Rogue, these tributary streams are rarely visited. Those who do visit can see waterfalls cascading into mossy green pools and other displays of stunning beauty. The surrounding hillsides are either thickly forested with old growth conifers or canyon live oak, or are covered with rocky talus.

A rare species of stonecrop (*Sedum moranii*), a hearty wildflower that appears to grow right out of the rock, can be spotted here.

The wildest part of the Rogue River Trail and the wildest section of the Rogue Wild and Scenic River traverse the unit. If one doesn’t want to rough it overnight in this Wilderness, one can stay in lodges along the way, located just outside of the proposed Wilderness. The river is a challenge for boaters (which is why they flock to the Rogue every summer), but hikers find the Rogue River Trail generally easy going.

A short trail to Rainie Falls along the south bank of the Rogue is used by fishermen and those who come to observe migrating salmon and steelhead and the numerous founderings and floundering of watercrafts that fail to properly negotiate Rainie Falls.

This unit is visited by hordes of people, mostly by boat. Boating is increasingly regulated to maintain both a wild recreational experience for visitors and a wild home for the area’s permanent residents — fish and wildlife.

After several days of floating the very wild Rogue River a visitor may eventually encounter an infamous Rogue River “Mail” boat, loaded with tourists and propelled by a very powerful and loud motor. Motorized craft are currently allowed too far upstream into the wild section of the river. A common reaction of many rafters — still on a wilderness high — has been spontaneous (and First Amendment-protected) mooning of the noisy power craft. If done in close enough proximity — and deep enough water — the boat pilot invariably feigns an attempt to ram the boatload of mooners. No one gets hurt, but the mooners often get wet from the wake and spray.
includes the river from its confluence with Mule Creek to near Illahe. It also includes many of the side canyons and ridges of the river canyon that provide important habitat for fish and wildlife. The Wild Rogue included the first Bureau of Land Management holdings in Oregon to be designated Wilderness.

The proposed Wild Rogue Wilderness Additions include all the remaining wildlands in the Lower Rogue Canyon and its tributaries, which are vital to keeping the Wild Rogue wild. Spring and fall runs of chinook salmon, as well as winter and summer steelhead spawn in the tributaries and also linger in the cooler water found at the mouths of these creeks when the mainstem of the Rogue is too warm for salmonids. Other aquatic species found here include sea-run cutthroat trout, lamprey, sculpin, stickleback, dace, sturgeon, coastal rainbow trout and western pond turtle. The Lower Rogue is known for the “half-pounders,” immature summer steelhead that return to the river after less than a year at sea.

Wildlife here includes water ouzel, cliff swallow, kingfisher, great blue heron, osprey, beaver, ringtail, cougar, Roosevelt elk, black-tailed deer, peregrine falcon, bald eagle and the northern spotted owl. The Rogue River canyon is an essential wildlife migration corridor between inland and coastal habitats. One may also encounter poison oak that grows to human height here, along with yellowjackets and ticks. (No Eden is perfect.)

Most of the rain that falls here (up to 110 inches) does so between September and May. As one descends the Lower Rogue, moving from east to west, the vegetation changes to reflect the increased precipitation. Major tree species include Douglas-fir, sugar and ponderosa pine, incense cedar, white fir, bigleaf maple, madrone, myrtlewood, western white pine, western hemlock, tanoak, Oregon white oak, red alder and grand fir. Divergent species sometimes occur in close proximity as the microclimates in this diverse landscape can change dramatically.

Most recreation in the proposed Wilderness is associated with either whitewater rafting or walking the Rogue River Trail.

Nearly 109,000 acres of the proposed Wilderness additions are not currently slated for logging. Unfortunately, the rest of the acreage is at risk and the other 109,000 acres could be if administrative policies change. Off-road vehicles, roading and mining are the other major threats to this landscape.

Notes

2 Text adapted with permission of the publisher of Oregon Desert Guide: 70 Hikes, by Andy Kerr, The Mountaineers Books, Seattle, WA. © 2000 by The Larch Company, LLC.

While an original unit of the National Wild and Scenic Rivers System, the wildness of the Lower Rogue River extends far beyond what is protected in the narrow Wild and Scenic corridor.