The grassy balds of Horse Rock Ridge Research Natural Area (RNA) are found on ridges and south-facing slopes within the Douglas fir forest of the Coburg Hills. These natural grasslands in the foothills of the Cascades bordering the southern Willamette Valley have fascinated naturalists with their contrast to the surrounding forests. The RNA was established to protect these meadows which owe their existence to thin soils associated with rock outcroppings. Surrounding old growth forest adds to the value of the Natural Area.

The Bureau of Land Management (BLM) recognized the site's botanical, wildlife, and scenic values by establishing it as an RNA/ACEC in June 1995 (Eugene District Resource Management Plan 1995). It had previously been established as an Area of Critical Environmental Concern (ACEC) in 1984. Contrasting habitats of moist forests, dry meadows, and rock outcrops enhance species diversity. Many of the meadow species are more common in eastern Oregon. The meadows at the site represent three native communities defined by their dominant grass species: blue wildrye (*Elymus glaucus*), Oregon fescue (*Festuca roemeri*), and Lemmon's needlegrass (*Achnatherum lemmonii*)/hairy racomitrium moss (*Racomitrium canescens*) (Curtis 2003). Douglas fir (*Pseudotsuga menziesii*) and western hemlock (*Tsuga heterophylla*) dominate the forest, with an understory of Cascade Oregon grape (*Berberis nervosa*), salal (*Gaultheria shallon*), and creeping snowberry (*Symphoricarpos mollis*).

The 378-acre RNA is located in Linn County, Section 1 Township 15 South Range 2 West, on land administered by the BLM Eugene District. A portion of the meadow extends onto adjacent Weyerhaeuser private land. The Nature Conservancy has recently acquired a conservation easement on 45 acres of the Weyerhaeuser property, providing protection for the rocky bald and a buffer of adjacent forest. Meadows in Horse Rock Ridge RNA are accessed by hiking through old growth forest from BLM road number 15S-1W-18.2, parking at the quarry site in section 1, T15S R2W (see map). The area is accessed from the Shotgun Creek Road.
Plant Communities

With 83 acres of openings, Horse Rock Ridge ranks among the largest grass balds in the western Cascades. In addition to grassy openings, the RNA protects forest and rock outcrop communities.

Many species occur in the meadows that are more typical of eastern Oregon, such as prairie junegrass (Koeleria macrantha), Sandberg bluegrass (Poa secunda) eyelash flower (Blepharipappus scaber), and deltoid balsamroot (Balsamorhiza deltoidea). Of the three meadow types, the Oregon fescue community occurs on the deepest soils. It is found in moist concave areas, where the soil eroding from surrounding areas was deposited. The blue wildrye community grows on somewhat shallower soils, and is the most widespread type. Lemmon’s needlegrass/Racomitrium canescens communities occupy the shallowest, gravelly soils and rock outcrops. Racomitrium is a bryophyte common on rocky sites; the other species are native grasses. California oatgrass (Danthonia californica), prairie junegrass, and Sandberg bluegrass are also common native grasses in the meadows. Vernal pools, seeps, and springs in open areas support common monkeyflower (Mimulus guttatus), Nuttall’s quillwort (Isoetes nuttallii), and Kellogg’s rush (Juncus kelloggii). The pools are quite small, less than 7 feet in diameter. A succession of wildflowers begins in late April and runs through mid-July. Notable wildflowers include deltoid balsamroot, eyelash flower, hyacinth brodiaea (Triteleia hyacinthina), Clarkia, Collinsia, Menzies’ larkspur (Delphinium menziesii), dwarf mountain fleabane (Erigeron compositus var. glabratus), barestem buckwheat (Eriogonum nudum), Oregon sunshine (Eriophyllum lanatum), common blue cup (Githopsis specularioides), spring gold (Lomatium utriculatum), and dwarf lupine (Lupinus lepidus).

Rock outcrops support a great diversity of lichens and bryophytes, including species of Racomitrium and Umbilicaria. In addition, rock outcrops provide habitat for a variety of vascular plants: American parsley fern (Cryptogramma crispa), gold back fern (Pentagramma triangularis), licorice fern (Polypodium glycyrrhiza), Saxifraga, Sedum, and Wallace’s spikemoss (Selaginella wallacei).

A fringe of bristly manzanita (Arctostaphylos columbiana) occurs at the transition where the forest meets the grassland. It is often joined by Oregon white oak (Quercus garryana) and Pacific madrone (Arbutus menziesii). The forest/meadow ecotone appears to be relatively stable, as it generally consists of old trees, although a few younger trees are invading the meadows. Trees appear unable to grow in the driest, rockiest areas. Shrubs common in the ecotonal area include oceanspray (Holodiscus discolor), tall Oregon grape (Berberis aquifolium), poison oak (Toxicodendron diversilobum), and serviceberry (Amelanchier alnifolia).

About 293 acres are forested by stands of Douglas fir, bigleaf maple (Acer macrophyllum), western hemlock and western red cedar (Thuja plicata), with hemlock and cedar mostly on the north-facing slopes. The dense understory of
sheds and ferns includes salal, Cascade Oregon grape, creeping snowberry, and western swordfern (*Polystichum munitum*). Old growth Douglas fir, probably to 300 years old, reaches 150 feet tall and 5 feet in diameter. Wind-thrown trees that extend into the southern edges of some meadows are thought to date from the 1962 Columbus Day Storm. Where wind-thrown trees were accessible, they were salvaged by logging soon after the storms. Areas clearcut within the RNA prior to its establishment, about 100 acres, are now densely stocked with trees 8 inches in diameter, 28 to 38 years old. The old growth preserved by the RNA is isolated from other old growth stands because the private land surrounding the RNA was clearcut relatively recently. Over the past century, most of the forest land has been harvested in the Coburg Hills, where the pattern of ownership forms a checkerboard of private, federal, and state ownership.

**Rare Species**

Four species located at the RNA are considered locally or regionally rare. Eyelash flower and common blue cup grow as widely scattered individuals in the meadows and rocky areas. These species are on the Lane County list C, meaning that they are of interest in Lane County for tracking or review purposes. (Although the RNA is in Linn County, it borders Lane County; hence the Lane County list was used to assess locally rare species). These two species are more common in eastern Oregon. The Lane County List of Rare and Endangered Vascular Plants, prepared by the Emerald Chapter of the Native Plant Society, indicates that these species are of limited occurrence in the county, and could be threatened by off road vehicle use. Eyelash flower is a small annual (to 16 inches) in the Asteraceae, with white flowers to ¾ inch across. The annual Campanulaceae, common blue cup, also grows to 16 inches tall, and has deep blue funnel shaped flowers that are about ½ inch long.

Vernally wet seeps or small pools within the balds support Kellogg's rush, a BLM Tracking species, Oregon Natural Heritage Program list 3. It is a small annual species, only 2 inches tall. It has thin stems topped by a small inflorescence, and basal, acicular leaves. Discovered in 1992, the few populations scattered across the RNA are small, most comprising fewer than 50 individuals each.

The crustose lichen *Lecidea dolodes* that grows on the trunks of open grown Douglas fir is currently a BLM Tracking species, and on the Oregon Natural Heritage Program list 3.

**Geology and Soils**

The Coburg Hills are a western extension of the Cascade foothills that rise from the east side of the Willamette Valley, bounded by the Calapooia River Valley on the north, and the Mohawk River Valley on the southeast. A main ridge divides the RNA so that about two thirds of the area, including the balds, faces southwest, while the rest faces northwest. Much of the RNA is steep and rocky, with elevations ranging from 1550 to 2864 feet.

The rocks consist of basalt and basaltic andesite dating from the Oligocene and early Miocene, about 24 million years ago. Vesicles formed by gases trapped in the lava were later filled by quartz and zeolite precipitated from water. Basalt with this feature is known as amygdaloidal. The amygdales can be found eroded from rock in the RNA. The prominent elongate rock outcrops in the RNA are the result of dikes of fine-grained basalt that formed in cracks in the amygdaloidal basalt. These dikes are more resistant to erosion than the surrounding rocks.
Erosion-resistant basalt dikes provide habitat for a variety of lichens, bryophytes, ferns, and native grasses. Photo by Cheshire Mayrsohn.

In the open areas, soils consist of rock outcrop and entisols, which are relatively young, poorly developed soils (i.e., lack well-defined diagnostic horizons). These entisols are shallow, generally 7 to 14 inches deep (up to 3 feet in partially forested areas), and contain a high proportion of gravel and cobble. In the forested area, most of the soils are in the Kinney Series (Curtis 2003). These soils derive from tuffaceous colluvium and consist of a 15-inch surface layer of cobbly loam over a subsoil of about 20 inches of cobbly clay loam. Depth to bedrock averages 4.5 feet.

**Wildlife**

Few wildlife surveys have occurred in the area, but a resident black bear, sometimes with cubs, has been sighted over a series of years. Sandhill cranes can be very numerous overhead during their migrations; they migrate along the foothills rather than over the central Willamette Valley. A spotted owl occurs within a mile of the RNA, which is within foraging range of the owl. Golden eagles have been reported near the RNA. It is likely that many other wildlife species use or travel through this area.

**Human History**

Native Americans of the Kalapuya tribes are thought to have frequented this site for vision quests, as high ridges with a view were generally preferred for these activities.

The meadow area is thought to have been heavily grazed by sheep early in the 20th century, but no grazing has occurred since at least the early 1960s. Evidence of grazing includes the abundance of introduced grasses, such as hedgehog dogtailgrass (*Cynosurus echinatus*), European silver hairgrass (*Aira caryophyllaea*), soft brome (*Bromus hordeaceus*), ripgut brome (*B. rigidus*), and medusahead wildrye (*Taeniatherum caput-medusae*). Thirty-four introduced species have invaded the RNA, including the state-listed noxious weeds bull thistle (*Cirsium vulgare*), tansy ragwort (*Senecio jacobaea*), and St. John’s wort (*Hypericum perforatum*). Much of the area previously occupied by a blue wildrye community is now dominated by introduced annual grasses. There have been no attempts to control non-native species in the RNA.

As mentioned previously, evidence of harvest activities are visible in portions of the RNA that were clearcut and replanted between 1960 and 1982. A trail created by hikers along the ridge receives occasional use. The RNA has been the destination for botany field
trips by individuals and classes since the 1970s. A radio tower complex sits atop Horse Rock, in a young forest plantation, on land leased to the Bonneville Power Administration in the northwest corner of the RNA. In 2000, the BLM established permanent transects across the meadow/forest ecotone to monitor vegetation changes. Air quality is also being monitored by chemical analysis of lichens in the area.

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References


Vascular Plant Species List

Nomenclature for the vascular plants follows the Oregon Flora, a sans-serif type. Lists for nonvascular plants, fungi and lichens are available on the NPSO website, http://www.npsoregon.org/lists/plantlists/horse_rock_ridge.htm

FERNS AND THEIR ALLIES

DENNSTAEIDIACAE (Bracken Family)
Peridium aquilinum (L.) Kuhn var. pubescens Underw. (western brackenfern)

DROOPHYTIDACEAE (Wood Fern Family)
Asplenium ceterach (Sm.) D.D. Keck (slender wood fern)
Cystopteris entubulata (Sm.) Hill (thread lip fern)

ISOETACEAE (Quillwort Family)
Isoetes nuttallii A. Br. (Nuttall’s quillwort)

POLYPODIACEAE (Polypody Family)
Polypodium glycyrrhiza D.C. Eaton (licorice fern)

PERTIDACEAE (Brake Family)
Adiantum aleuticum (Rupr.) C.A. Paris (Aleutian maidenhair)
Aspidotis densa (Brack.) Lellinger (podfern)
Cheilanthes gracillima D.C. Eaton (lace lipfern)
Cryptogramma acrostichoides R. Br. (American parsley fern)

PENTAGRAMMIDACEAE (Spike-moss Family)
Selaginella wallacei Hieron. (Wallace’s spikemoss)
Corylus cornuta Marshall var. californica (A. D.C.) W.M. Sharp
  (California hazelnut)
BORAGINACEAE (Borage Family)
Cryptantha intermedia (A. Gray) Greene (common cryptantha)
Myosotis discolor Pers. (yellow and blue scorpion grass)
Plagiobothrys scouleri (Hook. & Arn.) I.M. Johnst. var. scouleri
  (Scouler's poppy)
BRASSICACEAE (Mustard Family)
Arabidopsis thaliana L. Bernh. (tower mustard)
Arctotis spinulosa (Hook.) Greene (sandweed)
Barbara canescens Ledeb. (American wintercress)
Brassica rapa L. (field mustard)
Cardamine oleracea Nutt. (little western bittercress)
Cardamine palustris Greene var. tenella (Pursh) C.L. Hitchc.
  (slender toothwort)
Draba verna L. (spring whitlowgrass)
Thysanocarpus curvipes Hook. (sand fringepod)
CALLITRICHACEAE (Water-starwort Family)
Callitriche heterophylla Pursh var. bolanderi (Hegelm.) Fassett
  (Bolander's water starwort)
Callitriche verna L. (spring starwort)
CAMPANULACEAE (Bellflower Family)
Campanula scouleri Hook. ex A. DC. (scouleri's harebell)
Githopsis specularis Nutt. (common blue cup)
Heterodon rafaelorum Nutt. (heterodon)
CAPRIFOLIACEAE (Honeysuckle Family)
Linnaea borealis L. var. longiflora Torr. (western twinflower)
Lonicera ciliosa (Pursh) Poir. ex DC. (orange honeysuckle)
Lonicera hispidula (L.) S.F. Blake (common snowberry)
  (Creeping honeysuckle)
Lonicera hirsuta (L.) S.F. Blake (thyme leaf sandwort)
Symphoricarpos albus (L.) Bernh. (white snowberry)
Symphoricarpos mollis (Michx.) Raf. (bog cranberry)
Symphoricarpos mollis Nutt. (creeping snowberry)
Viburnum edule (Michx.) Raf. (highbush cranberry)
CARYOPHYLLACEAE (Pink Family)
Arenaria serpyllifolia L. (thyme leaf sandwort)
Carpetania nutans Raf. (nodding chickweed)
Centaurium autumnale L. (chamomile)
Chorispora tenella (Nutt.) Mattf. (slender sandwort)
Moenhlingia macrophylla (Hook.) Fassett (bigleaf sandwort)
Silene gallica L. (windmill pink)
Stellaria nitens Nutt. (shining chickweed)
CELASTRACEAE (Staff-tree Family)
Paxistima myrsinites (Pursh) Raf. (Oregon boxwood)
CORNACEAE (Dogwood Family)
Cornus nuttallii Audubon ex Torr. & A. Gray (Pacific dogwood)
CUCURBITACEAE (Gourd Family)
Matthaea baccata (Torr. & A. Gray) Howell (old man in the ground)
CRASSULACEAE (Stonecrop Family)
Sedum lanceolatum Torr. (lanceleaf stonecrop)
Sedum oreganum Nutt. (Oregon stonecrop)
Sedum spathulifolium Hook. (Pacific stonecrop)
ERICACEAE (Heath Family)
Arbutus menziesii Pursh (Pacific madrone)
Arctostaphylos columbiana Piper (bristy manzanita)
Chimaphila menziesii (R. Br.) Spreng. (little prince's pine)
Chimaphila umbellata (L.) W. Bartram (prince's pine)
Gaultheria shallon Pursh (salal)
Vaccinium parvifolium Sm. (red huckleberry)
EUPHORBIAEAE (Spurge Family)
Euphorbia peplus L. (petty spurge)
FABACEAE (Legume Family)
Lathyrus polyphyllus Nutt. (leafy pea)
Lotus micranthus Benth. (field lotus)
Lupinus bicolor Lindl. (miniature lupine)
Lupinus hispidus Douglas ex Lindl. (dwarf lupine)
Rapertia physisodes (Hook.) J.W. Grimes (scurf pea)
Trifolium microcephalum Pursh (woolly clover)
Trifolium microdon Hook. & Arn. (thimble clover)
Trifolium repens L. (white clover)
Trifolium subterraneum L. (subterranean clover)
Trifolium variegatum Nutt. (white clover)
Trifolium wildenovii Spreng. (tomcat clover)
Trifolium wormskaugii Lehmann (springbank clover)
Vicia americana Muhl. ex Willd. (American vetch)
Vicia nigricans Hook. & Arn. var. gigantea (Hook.) S.L. Broich
  (giant vetch)
FAGACEAE (Oak Family)
Chrysolepis chrysophylla (Douglas ex Hook.) Hjelmq. (chinquapin)
Quercus garryana Douglas ex Hook. (Oregon white oak)
FUMARIACEAE (Fumitory Family)
Dicentra formosa (Andrews) Walp. (bleeding heart)
GENTIANACEAE (Gentian Family)
Centaurium balsameum (Gris.) W. Right ex Piper (Monterey
centaury)
GERANIACEAE (Geranium Family)
Erodium cicutarium (L.) L'Hér. ex Aiton (redstem filaree)
Geranium dissectum L. (cutleaf geranium)
Geranium molle L. (dovefoot geranium)
GROSSULARIACEAE (Gooseberry Family)
Ribes sanguineum Pursh (red flowering currant)
HYDRANGEACEAE (Hydrangea Family)
Philadelphus Lewisii Pursh (syringa)
Whipplea modesta Torr. (yerba de selva)
HYDROPHYLACEAE (Waterleaf Family)
Nemophila parviflora Douglas ex Bentham (small flowered nemophila)
Phacelia linearis (Pursh) Holz. (threadleaf phacelia)
Phacelia nemoralis Greene (woodland phacelia)
Phacelia sericea (Graham) A. Gray var. ciliata (Rydberg) J.M. Gillett
  (blue alpine phacelia)
HYPERICACEAE (St. John's Wort Family)
Hypericum perforatum L. (Kalmia heed)
LAMIACEAE (Mint Family)
Prunella vulgaris L. (self heal)
Satureja douglasii (Benth.) Briq. (yerba buena)
Stachys cooleyae A. Heller (great betony)
Trichostema lanceolatum Bentham. (vinegar weed)
LINACEAE (Flax Family)
Linum usitatissimum L. (linseed)
MALVACEAE (Mallow Family)
Sidalcea virgata Howell (rose checkermallow)
ONAGRACEAE (Evening Primrose Family)
Circaea autumnalis L. (enchanter's nightshade)
Clarkia amoena (Lehm.) A. Nelson & J.F. Macbr. (farewell to spring)
Clarkia gracilis (Piper) A. Nelson & J.F. Macbr. (slender godetia)
Clarkia purpurea (Curtis) A. Nelson & J.F. Macbr. (winecup fairyfan)
Epilobium brachycarpum C. Presl (tall annual willowherb)
Epilobium minutum Lindl. (small flowered willowherb)

Orobanchaceae (Broom-rape Family)
Orobanchus fasciculatus Nutt. (clustered broomrape)
Orobanchus uniflorus L. var. minuta (Suksd.) Beck (naked broomrape)
Orobanchus uniflorus L. var. purpurea (A. Heller) Achey (purple broomrape)

Oxalidaceae (Oxalis Family)
Oxalis oregana Nutt. ex Torr. & A. Gray (Oregon wood sorrel)

Plantaginaceae (Plantain Family)
Plantago lanceolata L. (English plantain)

Polémoniaceae (Phlox Family)
Collomia heterophylla Hook. (varied leaf collomia)

Gilia capitata Sims (bluefield gilia)

Linanthus bicolor (Nutt.) Greene (bicolored linanthus)

Phlox adungens Torr. (woodland phlox)

Phlox gracilis (Hook.) Greene (slender phlox)

Polygonaceae (Buckthorn Family)

Eriogonum nudum Douglas ex Benth. (barestem buckwheat)

Rumex acetosella L. (curly dock)

Rumex acetosella L. (broad petal strawberry)

Rumex crispus L. (broad petal strawberry)

Ranunculaceae (Buttercup Family)

Bacopa nervosa (Douglas ex Lindl. var. nervosa (crevice alumroot))

Lithophragma parviflorum (Hook.) Nutt. ex Torr. & A. Gray (small-flowered fringedcup)

Saxifraga cespitosa L. (tufted alpine saxifrage)

Saxifraga integerrima Hook. (common western saxifrage)

Saxifraga nuttallii Small (Nuttall's saxifrage)

Saxifraga occidentalis S. Watson (western mountain saxifrage)

Primulaceae (Primrose Family)

Dodecatheon hendersonii A. Gray (Henderson's shooting star)

Dodecatheon pulchellum (Raf.) Merr. var. pulchellum (yellowthroat shooting star)

Trientalis latifolia Hook. (western starflower)

Ranunculaceae (Buttercup Family)

Anemone deltoidea Hook. (threleaf anemone)

Aquilegia formosa Fisch. ex DC. (red columbine)

Delphinium menziesii DC. (Menzies’ larkspur)

Ranunculus occidentalis Nutt. var. occidentalis (western buttercup)

Thalictrum occidentale A. Gray (western meadowrue)

Rosaceae (Rose Family)

Prunus emarginata (Douglas ex Hook.) Walp. (bitter cherry)

Amelanchier alnifolia (Nutt.) Nutt. ex M. Roem. (serviceberry)

Craepeus monogynus Jacq. (English hawthorn)

Fragaria vesca L. var. crinita (Rydb.) C.L. Hitchc. (hairy woodland strawberry)

Fragaria virginiana Duchesne var. platypetala (Rydb.) H.M. Hall (broad petal strawberry)

Holodiscus discolor (Pursh) Maxim. (creambrush oseanpray)

Physocarpus capitatus (Pursh) Kuntze (Pacific ninebark)

Potentilla glandulosa Lindl. var. glandulosa (sticky cinquefoil)

Rosa gymnocarpa Nutt. (little wild rose)

Rubus lecudermis Douglas ex Torr. & A. Gray (western black raspberry)

Rubus parviflorus Nutt. (thimbleberry)

Rubus ussinus Cham. & Schltdl. (Pacific dewberry)

Rhamnaceae (Buckthorn Family)

Rhamnus purshiana DC. (cascara)

Ceanothus sanguineus Pursh (redstem ceanothus)

Ceanothus velutinus Douglas ex Hook. (tobacco brush)

Rubiaceae (Madder Family)

Galium arborescens Britton (Oregon bedstraw)

Galium aparine L. (cleavers)

Galium triflorum Michx. (scented bedstraw)

Kelloggia galioides Torr. (kelloggia)

Sherardia arvensis L. (blue fieldmaddar)

Salicaceae (Willow Family)

Salix geyeriana Andersson (Geyer’s willow)

Salix scouleriana Barratt ex Hook. (Scouler’s willow)

Salix sitchensis S. Watson (Sitka willow)

Saxifragaceae (Saxifrage Family)

Heuchera micrantha Douglas ex Lindl.var. micrantha (crevice alumroot)

Lithophragma parviflorum (Hook.) Nutt. ex Torr. & A. Gray (small-flowered fringedcup)

Saxifraga cespitosa L. (tufted alpine saxifrage)

Saxifraga integerrima Hook. (common western saxifrage)

Saxifraga nuttallii Small (Nuttall’s saxifrage)

Saxifraga occidentalis S. Watson (western mountain saxifrage)

Scrophulariaceae (Figwort Family)

Castilleja attenuata (A. Gray) T.I. Chuang & Heckard (narrowleaf paintbrush)

Castilleja hispida Benth. var. hispida (harsh paintbrush)

Castilleja tenuis (A. Heller) T.I. Chuang & Heckard (haired owl clover)

Collinsia grandiflora Douglas ex Lindl. (large flowered blue eyed Mary)

Collinsia parishii Douglas ex Lindl. (small flowered blue eyed Mary)

Digitalis purpurea L. (foxglove)

Gratiola ebracteata Benth. ex A. DC. (bractless hyssop)

Mimulus alsinoides Douglas ex Benth. (chickweed monkeyflower)

Mimulus guttatus DC. (common monkeyflower)

Nothochelone nemorosa (Douglas ex Lindl.)(woodland beartongue)

Synthyris reniformis (Douglas ex Benth.) Benth. (snow queen)

Triphysaria pusilla (Benth.) T.I. Chuang & Heckard (dwarf snowdrop)

Veronica arvensis L. (common speedwell)

Valerianaceae (Valerian Family)

Plectritis congesta (Lindl.) DC. (sea blush)

Valeriana sitchensis Bong. (mountain heliotrope)

Violaceae (Violet Family)

Viola sempervirens Greene (evergreen violet)

Monocotyledons

Cyperaceae (Sedge Family)

Carex rossii W. Boott (Ross sedge)

Iridaceae (Iris Family)

Iris cristata Abel Howell (slender tubed iris)

Iris tenax Douglas ex Lindl. (Oregon iris)

Juncaceae (Rush Family)

Juncus rossii W. Boott (Ross sedge)

Juncus reptans (Pers.) S. Watson (common western saxifrage)

Liliaceae (Lily Family)

Allium acuminatum Hook. (tapertip onion)

Allium amputatum Torr. (slim leaf onion)

Allium crenulatum Wiegod (scalloped onion)

Brodiaea coronaria (Salish) Eng. (crow brodiaea)

Calochortus tolmiei Hook. & Arn. (Tolmie’s mariposa)

Camassia leichtlinii (Baker) S. Watson (large camas)
Dichelostemma congestum (Sm.) Kunth (ookow)
Erythronium oreganum Applegate (Oregon fawnlily)
Fritillaria affinis (Schult.) Sealy (checker lily)
Maianthemum stellatum (L.) Link (starry false Solomon's seal)
Prosartes smithii (Hook.) Utech, Shinwari & Kawano
(largeflower fairybells)
Trillium ovatum Pursh (western wakerobin)
Triteleia hyacinthina (Lindl.) Greene (hyacinth brodiaea)
Zigadenus venenosus S. Watson var. venenosus (meadow deathcamas)

POACEAE (Grass Family)
Achnatherum lemmoni (Vasey) Barkworth (Lemmon's needlegrass)
Agrostis capillaris L. (colonial bentgrass)
Agrostis exarata Trin. (spike bentgrass)
Aira caryophyllea L. (European silver hairgrass)
Aira praecox L. (little hairgrass)
Bromus hordeaceus L. ssp. hordeaceus (soft brome)
Bromus orcuttianus Vasey (Orcutt's brome)
Bromus pacificus Shear (Pacific brome)
Bromus rigidus Roth (ripgut brome)
Cynosurus echinatus L. (hedgehog dogtailgrass)
Danthonia californica Bol. (California oatgrass)
Elymus glaucus Buckley (blue wildrye)
Festuca occidentalis Hook. (western fescue)
Festuca roemeri Yu.E. Alexeev (Oregon fescue)
Festuca subulata Trin. (nodding fescue)
Holcus lanatus L. (common velvetgrass)
Hordeum marinum Huds. ssp. gussonianum (Parl.) Thell. (Mediterranean barley)
Koeleria macrantha (Ledeb.) Schult. (junegrass)
Melica subulata (Griseb.) Scribn. (Alaska oniongrass)
Poa pratensis L. (Kentucky bluegrass)
Poa secunda J. Presl (Sandberg bluegrass)
Trisetum canescens Buckley (tall trisetum)
Vulpia microstachys (Nutt.) Munro ex Benth. (small fescue)
Vulpia myuros (L.) C.C. Gmel. (foxtail fescue)

ORCHIDACEAE (Orchid Family)
Calypso bulbosa (L.) Oakes (fairyslipper orchid)
Corallorhiza maculata (Raf.) Raf. (spotted coralroot)
Goodyera oblongifolia Raf. (rattlesnake plantain)
Piperia elegans (Lindl.) Rydb. (elegant rein orchid)
Spiranthes romanzoffiana Cham. (hooded ladies tresses)

Douglas Goldenberg is a botanist currently working with the Eugene District BLM. He has worked since 1989 as a botanist, with work in Oregon, California, Washington and Brazil. He completed biology and botany degrees at Humboldt State University (BS) and Oregon State University (MS).

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