

**FESTUCA RUBRA – FESTUCA ROEMERI – ASPIDOTIS DENSA**

Red fescue – Roemer’s fescue – Indian’s dream

Abbreviated Name: FERU-FERO-ASDE

Synonym: *Festuca rubra* - *Festuca idahoensis* var. *roemeri* – *Aspidotis densa*

Sample size = 6 plots

**DISTRIBUTION:** This grassy bald association occurs on islands in western Skagit County.

**GLOBAL/STATE STATUS:** GNRS1. There are only 5 known occurrences. Threats include invasion and increase of non-native species, recreational use, and perhaps tree invasion with fire suppression.

**ID TIPS:** Typically co-dominated by a mix of red fescue (always >5% cover) and Roemer’s fescue (at least 1% cover). Slopes with shallow soils (rock outcrops usually present or adjacent). Indian’s dream present. Rocky Mountain juniper is usually present.

**ENVIRONMENT:** These sites are very dry. Occurs only on serpentine soils and usually near saltwater shorelines. Occurs on moderate to steep slopes, with southern to western aspects. Soils are shallow over serpentinite or peridotite. Rock outcrops (often covered with mosses) are typically present within or directly adjacent to the association. Soils are loam in texture, often with abundant coarse fragments. Occurs only in dry climatic areas.

Precipitation: 27-30 inches

Elevation: sea level to 570 feet (mean 149)

Aspect/slope: SE to WSW/47-68% slope

Slope position: mid, upper, lower

Soil series: lithic haploxerolls, rock outcrop, Guemes variant

Special: serpentine

**DISTURBANCE/SUCCESSION:** Historically, some of the balds where this association occurs (and probably this association also) were more extensive than currently due to indigenous human burning practices. Many sites where this association currently exists appear to be marginal for Douglas-fir establishment and growth to maturity due to extreme summer drought conditions, except at edges or moist microsites. Overall there is a possibility that some of these sites, in the absence of fire, could be eventually converted to coniferous woodlands or forest, especially small ones or ones with abundant moist microsites. Some of the islands where this association occurs have heavy deer browsing which limits growth of seedling/sapling Douglas-fir and may have other unknown effects.

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**Vegetation Composition Table (selected species):**

Con = constancy, the percent of plots within which each species was found;  
Cov = cover, the mean crown cover of the species in plots where it was found;  
+ = trace (< 0.5% cover).

Trees	Kartesz 2005 Name	Con	Cov
Douglas-fir	Pseudotsuga menziesii var. menziesii	83	6
Rocky Mountain juniper	Juniperus scopulorum	67	4
<b>Shrubs and Dwarf-shrubs</b>			
tall Oregongrape	Mahonia aquifolium	50	+
<b>Graminoids</b>			
red fescue	Festuca rubra	100	31
Roemer’s fescue	Festuca roemeri	100	20
prairie Junegrass	Koeleria macrantha	100	6
silver hairgrass	Aira caryophyllea	100	3
wood-rush	Luzula (comosa, multiflora ssp. multiflora)	100	2
early hairgrass	Aira praecox	100	1
blue wildrye	Elymus glaucus	67	5
California brome	Bromus carinatus	67	4
barren fescue	Vulpia bromoides	67	4
slender wheatgrass	Elymus trachycaulus ssp. trachycaulus	50	4
cheatgrass	Bromus tectorum	33	7
rat-tail fescue	Vulpia myuros	33	2
<b>Forbs and Ferns</b>			
Wallace’s selaginella	Selaginella wallacei	100	14
yarrow	Achillea millefolium var. occidentalis	100	12
Indian’s dream	Aspidotis densa	100	5
field chickweed	Cerastium arvense ssp. strictum	100	4
meadow death camas	Zigadenus venenosus var. venenosus	83	5
Hooker’s onion	Allium acuminatum	67	3
Oregon gumweed	Grindelia stricta var. stricta	67	2
small-flowered willow-herb	Epilobium minutum	67	+
western buttercup	Ranunculus occidentalis var. occidentalis	67	+
sheep sorrel	Rumex acetosella	50	+
Michaux’s stitchwort	Minuartia michauxii var. michauxii	33	2
bull thistle	Cirsium vulgare	33	2
clover	Trifolium spp	33	2
harvest brodiaea	Brodiaea coronaria ssp. coronaria	33	+
chocolate lily	Fritillaria affinis var. affinis	33	+
elegant rein-orchid	Piperia elegans ssp. elegans	33	+
lance-leaved stonecrop	Sedum lanceolatum ssp. nesioticum	33	+
tomcat clover	Trifolium willdenowii	33	+

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**VEGETATION:** This is a grassland. It is dominated or co-dominated by native red fescue (*Festuca rubra* var. *littoralis* Vasey ex Beal) and/or Roemer’s fescue, both of which are always present. The fern Indian’s dream is always present. Frequent native herbaceous species include yarrow, prairie Junegrass, wood-rush, field chickweed, meadow death-camas, blue wildrye, California brome, Oregon gumweed, small-flowered willow-herb, and western buttercup. Wallace’s selaginella (habit similar to a moss) is present and often prominent. Douglas-fir and Rocky Mountain juniper are usually present in small amounts. The evergreen shrub tall Oregongrape (<0.5 m tall in this association) occurs in half the plots. The most common non-native species are silver hairgrass, early hairgrass, barren fescue, and sheep sorrel.

**CLASSIFICATION NOTES:** This association has not been previously described in the literature. It is considered a variant of FERO-CEAR-KOMA by NatureServe (2005).

**MANAGEMENT NOTES:** Monitoring of Douglas-fir establishment and removal of Douglas-fir saplings is recommended in order to prevent gradual forest encroachment. Scot’s broom (*Cytisus scoparius*), a nitrogen fixing non-native shrub, is a potential severe threat that should be monitored and controlled. Native species composition is at least locally threatened by increase and expansion of non-native grasses. Recreational projects such as new trails should avoid high-quality examples of this association because of the potential for spread of non-native species and relatively fragile soils.

**BIODIVERSITY NOTES:** Some of the plant species found on serpentine soils may have developed unique physiological and/or genetic adaptations to the chemical and hydrologic stresses of those soils. The data indicate that there are three vascular plant species (Rocky Mountain juniper, Indian’s dream and slender wheatgrass) occurring in this association that are more common on these soils than elsewhere, and there may be other vascular or non-vascular species with a similar occurrence pattern. Many plant species that are likely to be declining are strongly associated with this plant association. Grassy balds are important habitat for many butterflies.

Chappell, C.B. 2006. Upland plant associations of the Puget Trough ecoregion, Washington. Washington Department of Natural Resources, Natural Heritage Program, Olympia, WA. [<http://www.dnr.wa.gov/nhp/refdesk/communities/pdf/intro.pdf>].