

**PSEUDOTSUGA MENZIESII / ROSA GYMNOCARPA -  
HOLODISCUS DISCOLOR**

Douglas-fir / baldhip rose - oceanspray  
Abbreviated Name: PSME/ROGY-HODI

Sample size = 26 plots

**DISTRIBUTION:** Occurs in the Olympic Mountains rainshadow, including San Juan, and portions of Skagit, Whatcom, and Clallam counties. Also occurs in southwestern BC and in the northeastern Olympic Mountains.

**GLOBAL/STATE STATUS:** G2G3S2. Restricted natural range and relatively specific environmental range. Few occurrences of relatively good quality remain (12 are known in WA, though there are undoubtedly more in the Olympic Mountains). Most examples have been altered by past timber harvest.

**ID TIPS:** Dominated by Douglas-fir with little to no western hemlock, western redcedar, or grand fir present. Understory dominated by baldhip rose, oceanspray, dwarf Oregongrape and/or western fescue. Sword fern, salal, and common snowberry, if present, less than 5% cover.

**ENVIRONMENT:** These sites are very dry and appear to be relatively poor to medium in nutrient status: they are some of the driest sites that support forest in the ecoregion. The vast majority of sites have soils that are shallow to residual bedrock, with outcrops usually visible on the plot. Other parent materials include glacial till and colluvium. Aspects are more commonly south to west, but include the entire spectrum. Occurs exclusively in dry climatic areas (Olympic rainshadow). The majority of these sites are located at elevations greater than 600 feet.

**Precipitation:** 24-45 inches (mean 35)

**Elevation:** 90-1800 feet

**Aspect/slope:** all/ 5-112% slope (mean 51)

**Slope position:** upper, mid, ridgetop, lower

**Soil series:** rock outcrop, Pickett, Roche, Guemes, andic xerochrepts, lithic haploxerolls, rockland

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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	100	76
western hemlock	Tsuga heterophylla	35	2
lodgepole pine	Pinus contorta var. contorta	27	8
Pacific madrone	Arbutus menziesii	23	2
grand fir	Abies grandis	19	2
<b>Shrubs and Dwarf-shrubs</b>			
baldhip rose	Rosa gymnocarpa	100	6
oceanspray	Holodiscus discolor	81	16
dwarf Oregongrape	Mahonia nervosa	69	15
tall Oregongrape	Mahonia aquifolium	50	3
common snowberry	Symphoricarpos albus var. laevigatus	50	2
trailing blackberry	Rubus ursinus ssp. macropetalus	46	1
hairy honeysuckle	Lonicera hispidula	27	3
<b>Graminoids</b>			
western fescue	Festuca occidentalis	88	8
Columbia brome	Bromus vulgaris	73	3
Alaska oniongrass	Melica subulata	65	4
Coast Range fescue	Festuca subuliflora	50	3
blue wildrye	Elymus glaucus	46	3
red fescue	Festuca rubra	12	5
<b>Forbs and Ferns</b>			
western starflower	Trientalis borealis ssp. latifolia	77	2
cleavers	Galium aparine	65	1
licorice fern	Polypodium glycyrrhiza	58	+
bracken fern	Pteridium aquilinum var. pubescens	54	3
big-leaved sandwort	Moehringia macrophylla	54	3
sword fern	Polystichum munitum	50	3
wall lettuce	Mycelis muralis	46	1
woods strawberry	Fragaria vesca ssp. bracteata	38	1
white-flowered hawkweed	Hieracium albiflorum	31	+
broad-leaved stonecrop	Sedum spathulifolium ssp. spathulifolium	23	4
Scouler's bellflower	Campanula scouleri	23	3

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Chris Chappell photo



Plot locations  
of PSME/ROGY-HODI  
in the Puget Trough

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**DISTURBANCE/SUCCESSION:** In the pre-Western settlement landscape, a moderate-severity fire regime likely prevailed (variable severity, intermediate frequency) resulting in more open stands. Some of these sites may have been savannas prior to 1850. Douglas-fir regeneration occurs under many conditions and is especially abundant after fires. More shade-tolerant conifers are largely absent and do not appear capable of becoming important in late-seral stands under present conditions. If a lodgepole pine seed source is available after a high-severity fire, lodgepole pine may become locally dominant. Heavy deer browsing on many sites results in reduction or elimination of oceanspray and apparently an increase in grass cover.

**VEGETATION:** Forest or woodland dominated by Douglas-fir. Western hemlock is occasionally present in small amounts, mainly as regeneration. Lodgepole pine is also occasionally present to prominent. Baldhip rose is always present and often prominent in the understory. Oceanspray and dwarf Oregongrape are often prominent to dominant. Western fescue is usually prominent to co-dominant in the herb layer. Other common herbs include Columbia brome, Alaska oniongrass, Coast Range fescue, western starflower, cleavers, licorice fern, bracken fern, and big-leaved sandwort.

**CLASSIFICATION NOTES:** Chappell (1997) split this association into two closely related associations, PSME/ROGY/FEOC and PSME/HODI/MESU. This association also occurs on the Olympic National Forest (Henderson et al. 1989). In the near future, NatureServe name will become PSME/HODI-ROGY/FEOC.

**MANAGEMENT NOTES:** Stands that have not been previously harvested, especially mature and old-growth, should be considered for conservation status. Timber productivity is very low on these sites.

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>].