

WESTERN HEMLOCK/SALAL/WESTERN SWORD-FERN-SWO

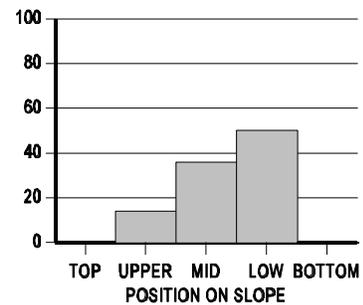
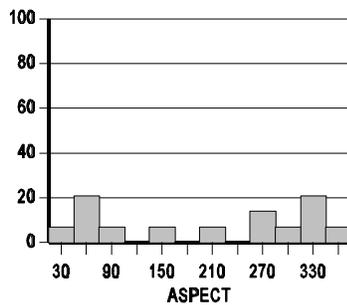
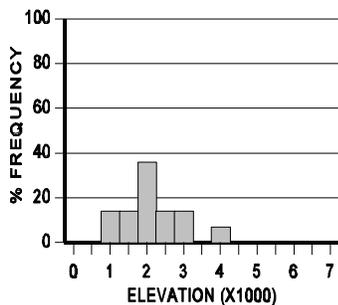
*Tsuga heterophylla/Gaultheria shallon/Polystichum munitum*

TSHE/GASH/POMU-SWO (N=14; FS=14)



Distribution. This Association occurs predominantly on the Cottage Grove and North Umpqua Ranger Districts, and occasionally on the Tiller Ranger District, Umpqua National Forest. It is likely to occur on the Swiftwater Resource Area of the Roseburg District, Bureau of Land Management.

Distinguishing Characteristics. The Western Hemlock/Salal/Western Sword-fern-SWO Association is present at moderately low elevations. It occurs on warm sites that are often adjacent to streams and moist most of the year. Western redcedar is frequent in the overstory. It is also present, and often abundant, in the understory. Pacific yew, also an indicator of humid conditions, is often present along with several fern species. This Association is similar to the Western Hemlock/Dwarf Oregongrape and the Western Hemlock/Oregon Oxalis Plant Associations on the Willamette National Forest (Hemstrom, et. al. 1987).



Soils. Parent material is most commonly andesite and basalt, and occasionally breccia, sandstone, or tephra. Based on eight plots sampled, soils are moderately deep to deep and well drained. Surface textures are loams with 5 to 65 percent rock fragments and 15 to 25 percent clay. Subsurface textures are loams, clay loams, and some clays, with 5 to 80 percent rock fragments. The soil moisture regime may be either udic or xeric and the soil temperature regime is probably mesic. Soils classify into the following subgroups: Typic Hapludalfs, Typic Haploxeralfs, and Typic Haplumbrepts.

Environment. This Association averages 2430 feet in elevation, and aspect is highly variable. Slope averages 52 percent and ranges from 12 to 80 percent. This Association occurs predominantly on lower slopes.

Vegetation Composition and Structure. Total species richness is high for the Series, averaging 30 species. The overstory layer is dominated by Douglas-fir, with western hemlock occurring frequently. Western redcedar is common. All species in the overstory are reproducing in the understory. Additional understory species include Pacific yew and the hardwoods big-leaf maple, red alder, golden chinquapin, and Pacific dogwood. Vine maple is frequently encountered in the shrub layer and is sometimes abundant. Salal and dwarf Oregongrape are also frequent. Western sword-fern is the only herb consistently present. Moss cover is high for the Series, averaging 34 percent.

Upper layer tree cover averages 71 percent. Middle and lower layer tree covers were the highest for the Series, averaging 65 and 56 percent cover, respectively. Shrub cover was low with only 8 percent high shrub cover and 24 percent low shrub cover. Herb/grass cover averages 36 percent.

Common name	Code	Constancy	Cover	Avg. Richness
<u>Overstory trees</u>				3
Douglas-fir	PSME	100	47	
Western hemlock	TSHE	86	17	
Western redcedar	THPL	71	8	
<u>Understory trees</u>				6
Western hemlock	TSHE	100	50	
Western redcedar	THPL	100	14	
Golden chinquapin	CACH6	93	4	
Pacific yew	TABR2	86	4	
<u>Shrubs</u>				9
Salal	GASH	100	13	
Vine maple	ACCI	93	18	
Dwarf Oregongrape	BENE2	93	10	
Pacific blackberry	RUUR	93	1	
Red huckleberry	VAPA	79	4	
Snow bramble	RUNI2	79	2	
<u>Herbs</u>				15
Western sword-fern	POMU	100	14	
Western twinflower	LIBOL	86	8	
White trillium	TROV2	79	1	
Oregon oxalis	OXOR	71	10	