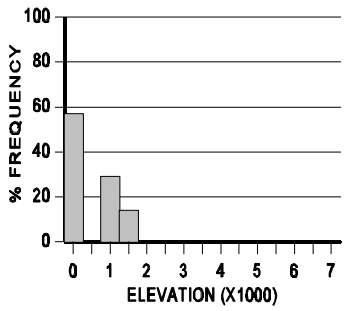
TSHE 14

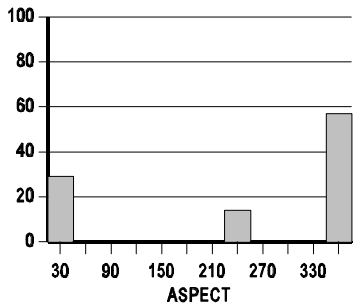
WESTERN HEMLOCK/SWORDFERN-SWO
Tsuga heterophylla/Polystichum munitum
TSHE/POMU-SWO (N=7; FS=7)

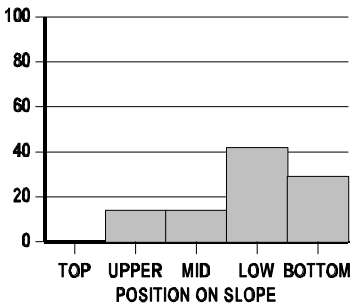
Distribution. The Western Hemlock/Western Sword-fern-SWO Association is found on the Powers and Gold Beach Ranger Districts, Siskiyou National Forest.

Distinguishing Characteristics. This Association occurs on sites that are wet and warm during the winter months, and humid during the summer. Big-leaf maple and Port-Orford-cedar are indicators of these environmental conditions.

Soils. Parent material is most commonly sandstone, with one occurrence each of breccia and schist. Based on three pits sampled, soils are moderately deep and well drained. Surface textures are loams with 30 to 65 percent rock fragments and 15 to 20 percent clay. Subsurface textures are loams and clay loams with 65 to 75 percent rock fragments and 25 to 30 percent clay. The soil moisture regime is probably udic and the soil temperature regime is probably frigid. These soils classify into the following great groups: Typic Haplumbrepts and Typic Dystochrepts.







Environment. Elevation averages 1210 feet in elevation and aspect is primarily north. Slope averages 42 percent and ranges between 11 and 80 percent. This Association occurs predominantly on lower slopes to valley bottoms.

Vegetation Composition and Structure. Total species richness is intermediate for the Series, averaging 28. The overstory is dominated by Douglas-fir, western hemlock is present, and white fir may have high cover in some areas. Port-Orford-cedar is frequent, though at low covers. In the understory, in addition to western hemlock, big-leaf maple, tanoak, and Port-Orford-cedar are frequent, while California-laurel is common. In some areas, vine maple may be dense, with up to 50 percent cover. Shrubs are a small component of this Association. Red huckleberry and dwarf Oregongrape are frequently encountered, but at low covers. Evergreen huckleberry and salmonberry are common. The herbaceous layer is diverse. Western sword-fern is the most dominant species, with up to 90 percent cover in some areas. Oregon oxalis is present with covers ranging from 1 to 40 percent. Fern diversity is high. Moss cover is intermediate for the Series, averaging 26 percent.

Upper layer tree cover is high for the Series, averaging 76 percent. Mid-layer and lower layer tree covers are intermediate, averaging 55 and 39 percent, respectively. Shrub cover is low, with high shrubs averaging 5 percent cover and low shrubs 10 percent cover. This Association has, by far, the highest total herb/grass cover for the Series, averaging 85 percent.

Common name	Code	Constancy	Cover	Avg. Richness
Overstory trees				4
Douglas-fir	PSME	100	38	
Western hemlock	TSHE	100	15	
Port-Orford-cedar	CHLA	86	5	
White fir	ABCO	43	23	
Understory trees				6
Western hemlock	TSHE	100	38	
Big-leaf maple	ACMA	86	9	
Tanoak	LIDE3	86	6	
Port-Orford-cedar	CHLA	86	4	
California-laurel	UMCA	71	9	
Shrubs				5
Red huckleberry	VAPA	100	2	
Dwarf Oregongrape	BENE	86	7	
Salmonberry	RUSP	57	7	
Evergreen huckleberry	VAOV2	57	3	
Herbs				16
Western sword-fern	POMU	100	70	
Oregon oxalis	OXOR	100	18	
Candyflower	MOSI	86	3	
White trillium	TROV2	71	2	
Round-leaved violet	VIOR	71	2	
Northern maidenhair	ADPE	71	1	
Deer-fern	BLSP	71	1	
White inside-out-flower	VAHE	71	1	