

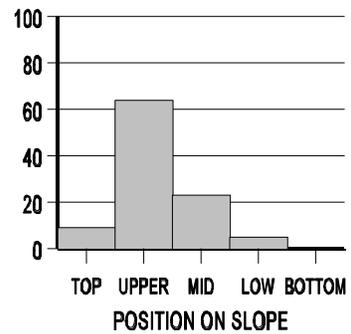
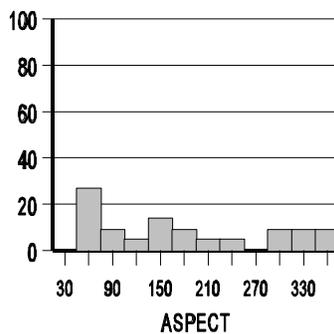
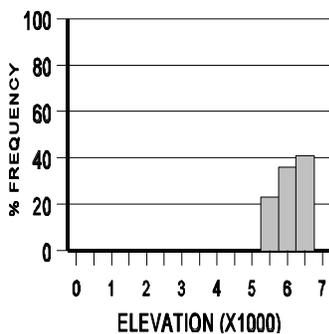
SHASTA RED FIR/MOUNTAIN SWEET-ROOT
Abies magnifica shastensis/Osmorhiza chilensis
 ABMAS/OSCH (N=22; FS=22)



Distribution. Shasta Red Fir/Mountain Sweet-root occurs in the Siskiyou Mountains on the Ashland and Applegate Ranger Districts, Rogue River National Forest. It may also occur on the Illinois Valley Ranger District, Siskiyou National Forest, and adjacent Bureau of Land Management lands.

Distinguishing Characteristics. Shasta Red Fir/Mountain Sweet-root is found at cool temperatures and low precipitation relative to other associations in the Series. Shasta red fir dominates both the overstory and understory, with white fir the only other commonly occurring tree species. The shrub layer is sparse, but the herb layer is rich with a wide variety of species, few having a constancy greater than 75 percent.

Soils. Parent material is mostly one of a variety of igneous materials - granite, granodiorite, diorite, or gabbro, with some slate or schist. Soils are mostly



ABMAS 9

moderately deep to deep, with an average depth of 39 inches. Average surface rock cover is 6 percent, with 10 percent gravel and 5 percent bare ground exposure.

Based on six plots sampled, surface texture is sandy loam or loamy sand, with 15 to 40 percent gravel or cobbles. Subsurface texture is loamy sand, sand, or sandy loam, with 25 to 50 percent gravel and cobbles.

Environment. Elevation averages 6360 feet. Shasta Red Fir/Mountain Sweet-root occurs on all aspects. Slope averages 30 percent and ranges from 1 to 45 percent. Upper and middle one-third slope positions predominate.

Vegetation Composition and Structure. Total species richness is intermediate for the Series, averaging 26 species. Overstory and understory are dominated by Shasta red fir, with white fir occurring occasionally in the overstory and commonly in the understory. The shrub layer is sparse, with creeping snowberry and mountain balm occurring commonly, and Siskiyou gooseberry, sticky currant, and greenleaf manzanita occurring occasionally, all at low covers. Herb/grass richness is very high for the Series, however, few species occur with regularity. White-flowered hawkweed and mountain sweet-root occur frequently, with bigleaf sandwort, whitevein pyrola, one-sided pyrola, stream violet, Sitka valerian, and starry false Solomon's-seal occurring commonly, all at low covers. Moss cover averages 1 percent.

Upper layer tree cover is high for the Series, averaging 64 percent. Mid-layer and lower layer tree covers are low, averaging 28 and 18 percent, respectively. High shrub cover is low, averaging 1 percent, as is low shrub cover, averaging 6 percent. Herb/grass cover is high for the Series, ranging from 1 to 90 percent, with an average of 38 percent.

Common name	Code	Constancy	Cover	Richness
<u>Overstory trees</u>				2
Shasta red fir	ABMAS	100	57	
White fir	ABCO	36	12	
<u>Understory trees</u>				2
Shasta red fir	ABMAS	100	28	
White fir	ABCO	50	7	
<u>Shrubs</u>				4
Creeping snowberry	SYMO	64	5	
Mountain balm	MOOD	50	2	
<u>Herbs</u>				18
White-flowered hawkweed	HIAL2	77	1	
Mountain sweet-root	OSCH	77	1	
Bigleaf sandwort	ARMA18	73	1	
Whitevein pyrola	PYPI2	64	1	
One-sided pyrola	PYSE	59	1	
Stream violet	VIGL	59	1	
Sitka valerian	VASI	55	1	
Starry false Solomon's-seal	SMST	55	2	
Leafy lousewort	PERA	45	2	
Skunk-leaved polemonium	POPU3	41	7	
Baneberry	ACRU2	41	2	
Scouler's harebell	CASC7	41	2	