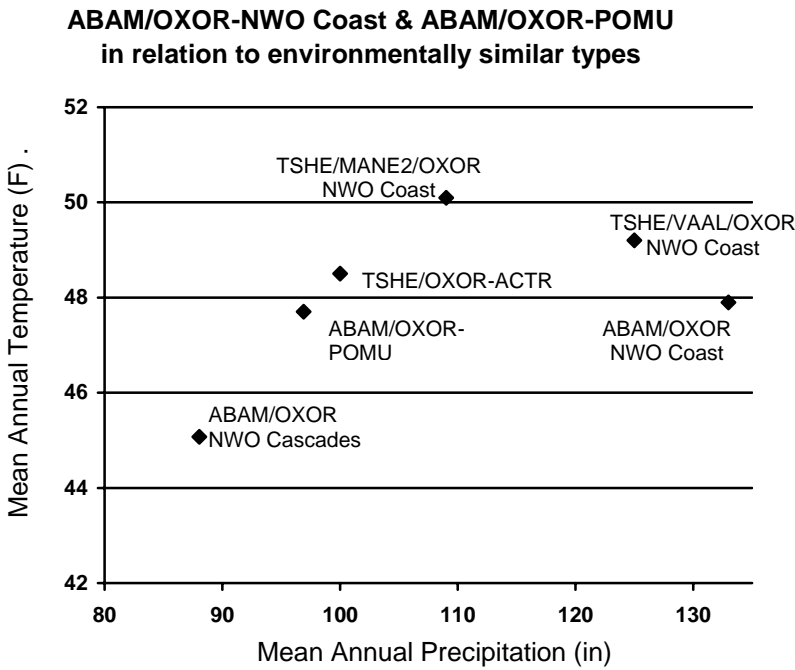


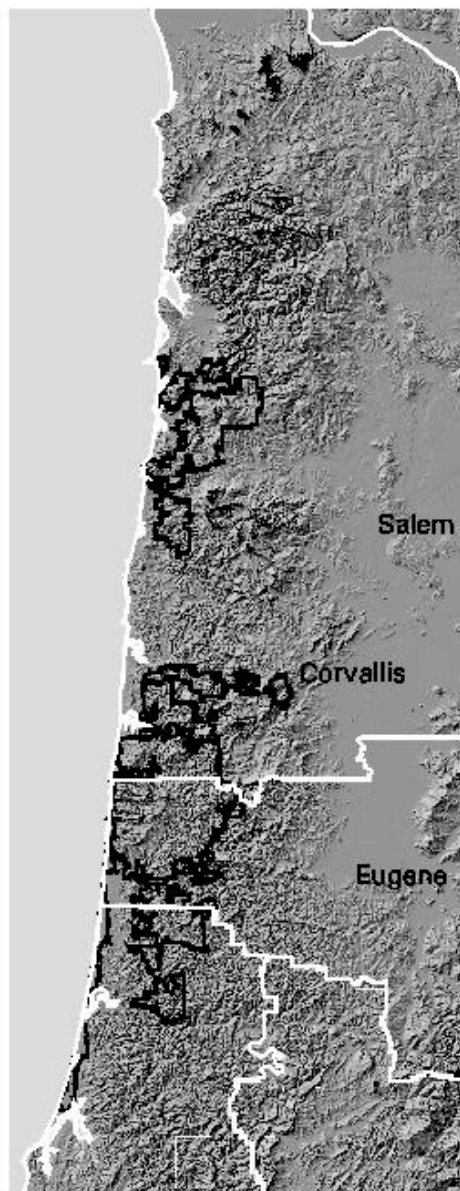
Introduction to the Pacific silver fir series

The ABAM/OXOR-NWO Coast and ABAM/OXOR-POMU types are the only plant associations in the Pacific silver fir series in this guide. Other communities in the series have been documented, but currently lack the sample size to be classified.

In the Pacific Northwest, the Pacific silver fir zone occurs at higher elevations than the western hemlock series. Growing seasons are shorter than in the western hemlock zone, and summer frosts more common. Winter snow is common, and snow packs can be persistent, especially in openings such as meadows or clearcuts.

The graph below shows the relative distribution of the plant association plot averages for mean annual temperature versus total annual precipitation (data from Oregon Climate Service’s statewide GIS layers).





Pacific silver fir series distribution

Series distribution (in black) from 2001 draft USFS R6 Potential Natural Vegetation model (Henderson, in prep).

Pacific silver fir/Oregon oxalis-NWO Coast

Abies amabilis/*Oxalis oregana*-NWO Coast

ABAM/OXOR-NWO Coast

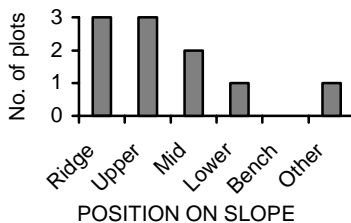
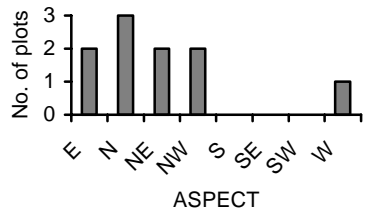
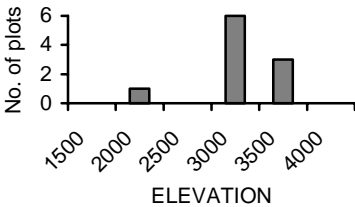
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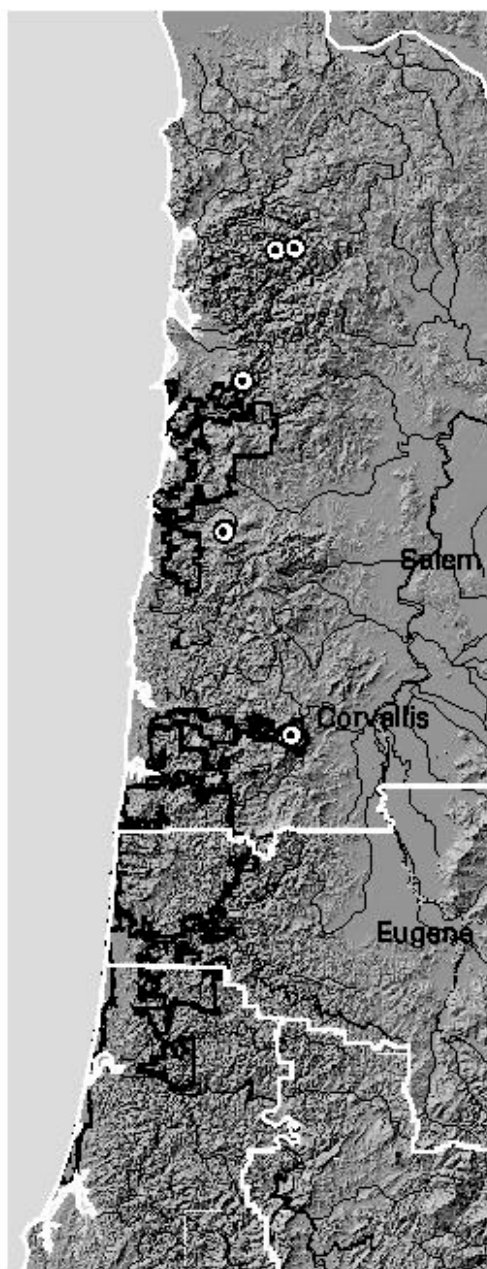
N=10 (SIU=5; SBLM=3; ODF=2)

Environment and Distribution

ABAM/OXOR-NWO Coast is found on upper slopes in very high precipitation areas. Plots are located on gentle to moderately steep slopes averaging 43% (range 15-60%) on cool north to east aspects. Elevations average 3,387 feet (range 3,060-3,720 feet), which is found in the highest peaks of the North Coast Range. Mean annual temperatures are significantly cooler than the coolest of the western hemlock association.

Soils are deep, moderately stony and moist but well drained. Parent material is usually colluvium. Average total soil depth is 55 inches (range 18-96 inches), and average effective depth is 38 inches (range 11-77 inches). Soils data is based on the Siuslaw NF and BLM plots.





ABAM/OXOR-NWO Coast

Vegetation Composition, Structure, and Diversity

The overstory in the ABAM/OXOR-NWO Coast association is dominated by noble fir, often with a large component of western hemlock. Canopy closure of mature trees averages 78%. Cover of tree regeneration averages 6%. There is a very poorly developed shrub layer, with tall shrubs and low shrubs averaging 10% and 4% cover, respectively. Salmonberry, red huckleberry and prickly currant are the most common shrubs. Herbaceous cover averages 55%. Oregon oxalis dominates the herb layer, with a minor component of sword fern. Average moss cover is 9%.

Common name	Code	Constancy	Cover
Overstory			
Noble fir	ABPR	90	53
Western hemlock	TSHE	60	31
Douglas-fir	PSME	30	25
Understory			
Western hemlock	TSHE	80	2
Noble fir	ABPR	50	8
Shrubs			
Salmonberry	RUSP	60	2
Red huckleberry	VAPA	40	1
Prickly currant	RILA	40	1
Big huckleberry	VAME	30	15
Herbaceous			
Oregon oxalis	OXOR	100	39
Swordfern	POMU	100	2
Starry false Solomon's seal	MAST4	70	3
Sweet cicely	OSCH	70	1
Streambank violet	VIGL	60	1
Goldthread	COLA	60	1
Starflower	TRBO2	50	1
Coolwort foamflower	TITR	50	2
Miner's lettuce	CLSI2	50	7
Woodrush	LUZUL	50	1
Pacific bleedingheart	DIFO	50	1
Vanilla leaf	ACTR	50	6

ABAM/OXOR-NWO Coast plots average 165 years (range 80-279 years), based on data from 5 plots. Stands are well stocked, with an average live basal area of 400 ft²/acre (range 320-560 ft²/acre).

Management Implications

Noble fir, western hemlock and Pacific silver fir are the major canopy species. Very large Douglas-fir and noble fir trees are common in older stands. Given the ridge and upper slope positions in high precipitation areas and high elevations, wind throw may be expected to be a major disturbance agent in ABAM/OXOR-NWO Coast stands (Magee 1985).

Douglas-fir has an average site index of 127.

	Site Index ABAM	Site Index ABPR	Site Index PSME	Site Index TSHE
Mean	98	116	127	107
SE	3	7	7	8
Range	83-115	87-159	99-152	79-170
Age	139	127	105	189
n	11	9	7	14

This uncommon plant association indicates wet, relatively warm conditions for the Pacific silver fir series in NW Oregon. Summer frosts are infrequent and tree growth rates are among the highest in the Pacific silver fir zone. Competing vegetation should be the only major obstacle to successful regeneration.

Moist, easily compacted soils may require careful falling and yarding.

Pacific silver fir/Oregon oxalis-swordfern

Abies amabilis/*Oxalis oregana*-*Polystichum munitum*

ABAM/OXOR-POMU

CFF613

N=7 (ODF=7)

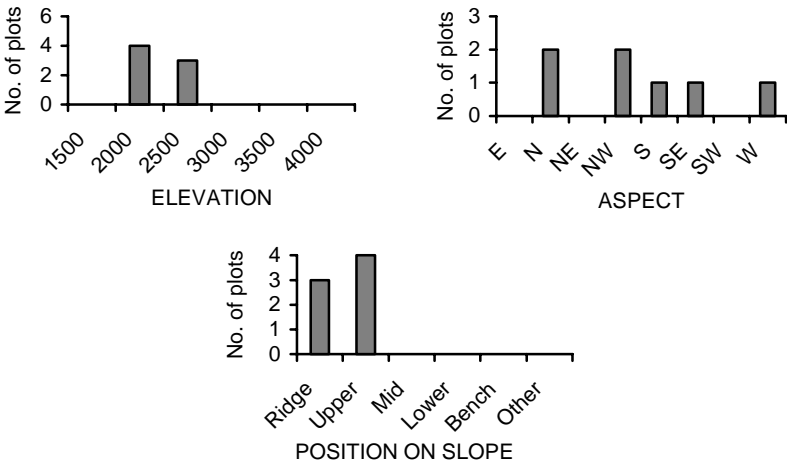
Environment and Distribution

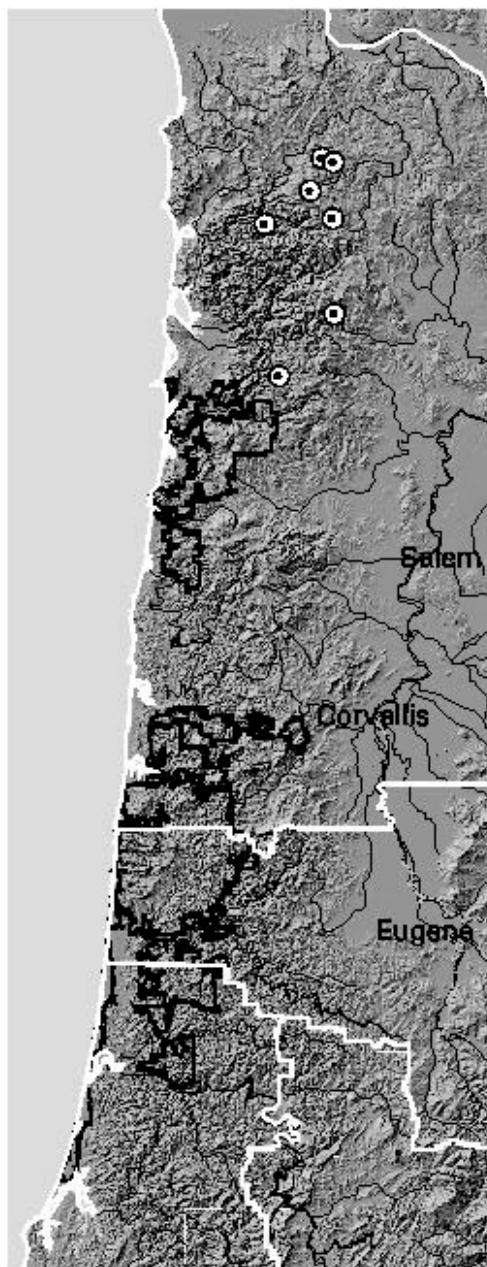
ABAM/OXOR-POMU is found on ridges and upper slopes to the north or on the Willamette Valley side of the Coast Range. Plot slopes are gentle, averaging 18% (range 0-31%). Aspects vary. Elevations average 2,459 feet (range 2,084-2,807 feet).

ABAM/OXOR-POMU occurs at lower elevations and lower mean annual precipitation than the ABAM/OXOR-NWO Coast.

There are no soils data for this plant association.

There is a similar association in the Olympic National Forest called ABAM/POMU-OXOR (CFF612). Although there are differences in species composition, the overall similarities in community point out common environmental conditions between the northern end of the Oregon Coast Range and portions of the Olympic Peninsula.





ABAM/OXOR-POMU

Vegetation Composition, Structure, and Diversity

The overstory in the ABAM/OXOR-POMU association is dominated by noble fir, often with a large component of western hemlock. Canopy closure of mature trees averages 70%. Cover of tree regeneration averages 11%. Tall shrubs and low shrubs average 11% and 6% cover, respectively. Salmonberry, red huckleberry and prickly currant are the most common shrubs.

Common name	Code	Constancy	Cover
Overstory			
Noble fir	ABPR	100	19
Douglas-fir	PSME	100	40
Western hemlock	TSHE	86	20
Red alder	ALRU	43	2
Understory			
Western hemlock	TSHE	86	10
Noble fir	ABPR	57	2
Douglas-fir	PSME	57	1
Shrubs			
Red huckleberry	VAPA	100	4
Trailing blackberry	RUUR	86	4
Baldhip rose	ROGY	71	1
Prickly currant	RILA	57	1
Salal	GASH	57	Tr
Oval-leaf huckleberry	VAOV	43	4
Salmonberry	RUSP	43	2
Fool's huckleberry	MEFE	43	Tr
Dwarf Oregon grape	MANE2	43	1
Vine maple	ACCI	43	6
Herbaceous			
Oregon oxalis	OXOR	100	23
Swordfern	POMU	100	27
Evergreen violet	WISE	100	10
White insideout flower	VAHE	100	3
False lily of the valley	MADI	100	2
Woodrush	LUZUL	100	1
Deer fern	BLSP	100	Tr
Vanilla leaf	ACTR	100	5

Common name	Code	Constancy	Cover
Herbaceous, continued			
Pacific trillium	TROV2	86	1
Sweet cicely	OSCH	86	Tr
Sweetscented bedstraw	GATR3	86	1
Festuca sp.	FESTU	86	1
Fairybells	DIHO3	86	1
Scouler's bluebell	CACS7	86	2
Columbian brome	BRVU	86	1
Starry false Solomon's seal	MAST4	71	3
Woodland buttercup	RAUN	71	Tr
Houndstongue hawkweed	HICY	71	2
Goldthread	COLA3	71	1
Three-leaved anemone	ANDE	71	1
Starflower	TRBO2	57	Tr
Western brackenfern	PTAQ	57	3
Miner's lettuce	CLSI2	57	Tr
Queencup beadlely	CLUN2	57	Tr
Red baneberry	ACRU2	57	Tr

Average herbaceous cover for these plots is 65%. Oregon oxalis dominates the herb layer, with a major component of sword fern and evergreen violet. Average moss cover is 34%

Management Implications

Douglas-fir, noble fir and western hemlock are the major overstory species and western hemlock is the major regenerating tree species.

	Site Index ABPR	Site Index PSME	Site Index TSHE
Mean	163	184	153
SE	28	2	33
Range	93-190	182-187	109-188
Age	47	40	58
n	8	3	3

This uncommon plant association indicates wet, relatively warm conditions for the Pacific silver fir series in NW Oregon. Competing vegetation should be the only major obstacle to successful regeneration.