

ANCIENT YELLOW-CEDAR GROVES IN THE OLYMPIC MOUNTAINS, WASHINGTON

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Yellow-cedar (*Callitropsis nootkatensis*) grows throughout the Olympic Mountains, Washington at elevations of 500-2200 m. Recent surveys have found ancient yellow-cedar in this area range in size from a 365-cm diameter giant to shrubby krummholz at timberline. Eight groves of ancient yellow-cedar have been found on the windward side of the Olympic Mountains at elevations of 800 to 1000 m where precipitation is high and fire frequency is low (Fig. 1). These groves have not burned for more than 1000 years and contain the oldest trees in Washington. Large yellow-cedar in the groves range in diameter at breast height from 150 to 365 cm. The actual age of the largest trees cannot be determined because of rotten centers and their large size. The 365-cm diameter tree, the largest yellow-cedar in the United States, has been estimated to be more than 2000 years old. Growth of these yellow-cedars is slow. Snow accumulation in the groves is often greater than 3 m per year and growth is affected by the short snow-free growing season. Large decadent trees continue to live and grow for a long time and paper-thin growth rings are common. A tree 180 cm in diameter had 922 annual growth rings on the outer 30 cm of its radius. Photographs from these ancient groves show the physical characteristics of the trees including large burls, rotten, hollow living trees, standing dead hollow trees, and dead trees that fall to the ground and leave a 3 to 5 m high hollow stump. The groves are accessible by road or trail, but most of the groves are not well known. Some visitors may not realize the significance of the large, old yellow-cedar or perhaps mistake them for western redcedar (*Thuja plicata*). The groves have a mystic aura of great antiquity and have important scientific and recreational value. This paper includes geographic coordinates for the eight major groves known to the author.

KEYWORDS: Yellow-cedar, old-growth, ancient groves, Olympic Mountains, Washington.

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Table 1 -- Locations of ancient yellow-cedar stands visited on the Olympic Peninsula, Washington.

Site name	Lat. (N)	Long. (W)	Elev. (m)
Pine Mountain, Olympic NP	47.946	123.971	1000
3 - Lakes, Olympic NP	47.604	123.729	970
Big Creek Meadows, Olympic NP	47.602	123.692	800
3 - Peaks, Olympic NF	47.492	123.548	960
West Fork Humptulips River, Olympic NF	47.479	123.629	820
Quinault Ridge, Olympic NF	47.475	123.750	910
Matheny Ridge, Olympic NF	47.579	123.833	880
Matheny Ponds, Olympic NF	47.564	123.858	850



Figure 1 -- Photographs of trees & locations of ancient yellow-cedar groves in the Olympic Mountains, WA.

Pine Mountain

Creek Meadow

Munsy Ridge

Skunk Hump Ridge

Quinalt Ridge

Skunk Hump Ridge