

FOREST DESCRIPTION OF THE REDWOOD BELT

U. S. Forest Service

General: Wm. C. Hodge Jr. 1906.

Lumbering in the Redwood Belt: Clinton G. Smith.

Forest Description of Sonoma County: A.E.Cohoon. 1904.

Forest Description of Mendocino County: Clinton G. Smith. 1903.

Forest Description of Humboldt County. Clinton G. Smith. 1902.

Forest Description of Del Norte County. Clinton G. Smith. 1904.

From the Original in the files of the
U.S. Forest Service. The original
contains, in addition, descriptions
by townships.

them. In such situations the redwood is found growing pure, or with an insignificant admixture of spruce, Port Orford cedar, hemlock, or lowland fir. On the slopes the trees are not so large and the proportion of other species in mixture is greater, though it seldom exceeds 25 per cent, and is ordinarily much less.

The growth on the flats is quite distinct from that on the slopes, and although their aggregate area is less than 30,000 acres they are of great importance. Typical redwood flats occur along the Eel River, and in Del Norte County. They decrease in number and size southward, until in Mendocino County they form an insignificant part of the stand. At their best they contain no other tree but redwood, and very little undergrowth. The trees are the tallest and largest representatives of the species and the density is such that yields of more than a million board feet have been obtained from a single acre of this type of forest. The great height of the trees and the density of the stand allow so little light to reach the ground that the general effect is not unlike that of the interior of a cathedral, the illusion being further carried out by the columns of the redwood themselves. Moss, oxalis, and bracken fern form the usual undergrowth, the last growing in patches where the light sunlight strikes.

On the slopes the redwood is still the predominant tree, but is associated constantly with Douglas fir, hemlock,

cedar, tan oak, or other less important species. The mixture varies according to the locality, Douglas fir and tan oak being characteristic associates on the upper slopes and hemlock on the lower. There is usually a dense undergrowth of Oregon grape salal and berries; and soil and humus conditions are good in spite of the steepness of the slopes.

The stand of timber ranges from 10,000 to 15,000 feet per acre up to 75,000 feet. Exceptional redwood slopes have yielded as much as 400,000 feet per acre, but the yield is much less than that of the flats.

The following tables, showing the number of trees per acre of different diameters, and of all species for different localities, are inserted from Bulletin 38 of the Forest Service:

FOREST DESCRIPTION

OF

MENDOCINO COUNTY,

CALIFORNIA.

By

CLINTON G. SMITH

Forest Assistant, Bureau of Forestry.

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Location and Area

Mendocino County borders the Pacific. It lies about midway between San Francisco Bay and the states line between California and Oregon.

In shape, it is roughly rectangular, being 88 miles long and averaging 48 miles broad. The county contains 3,626 square miles.

Topography

The county contains two divides with a north and south trend. The Coast Range on the east marks the county line. A second main ridge traverses the central part of the county parallel to the Coast Range. Between this ridge and the coast the streams are short, numerous, and flow directly west into the ocean. In the interior basin, Eel River flowing north drains a major portion of this area, and Russian River drains the southern portion.

The main ridges are usually continuous and with moderately broad crests. The lateral ridges are short, steep,

and broken. The altitudes ~~are~~ usually moderate with a few points in the Coast Range above 6,000 feet. The usual range in altitude is from 1,000 to 2,500 feet. The rainfall is from 30 to 60 inches, being heaviest on the coast, especially in the extreme northern part of the county. Irrigation is not practiced to any extent.

Forest Description

This county is timbered throughout. Only 25 per cent is open country.

The redwood belt.--In the counties traversed by the redwood belt this county contains the largest area of standing timber. The belt follows the coast line closely, separated from it by a narrow strip of open grazing country. Its eastern border is defined by South Fork of Eel River to the north-central portion of the county, where the belt widens and climbs the central ridge before mentioned. A few stands are found on the interior valley. The redwood belt is its widest here, attaining a width of 25 miles. The original area of standing timber is 747,000 acres. Redwood is not at its best development here; while individual trees and acres may compare favorably with those of the counties north, the average stand is decidedly inferior, especially in the southern part of the county.

The coast fogs seem to limit the distribution of the

trees toward the interior. The altitudinal range attained is probably not over 2,500 feet. North and east slopes bear the best stands, while the ridge and unfavorable slopes may be timbered with inferior species or even brush. This is especially true toward the eastern limits of the belt. The best stands are found on the narrow creek bottoms and small flats, but so limited is this type in relative area that it is scarcely worth mentioning. The trees on the higher slopes and ridges become decidedly inferior in point of clear length and merchantable condition. Redwood sprouts readily after lumbering, but repeated burnings will kill the sprouting capacity of the stump. Little reproduction from seed occurs. While redwood often forms pure stands it usually has associates as follows: Grand fir, Douglas fir near the coast, and madrone, tanbark oak, chinquapin, and hemlock farther in the interior. The two latter are comparatively rare. The undergrowth near the coast is salal, ferns, salmonberries, and blue blossoms. Owing to frequent fires on the higher ridges the forest is usually open.

The usual average for a township is 20,000 to 40,000 feet B. M. per acre, while a stand of 1,431,530 feet was reported from a single acre near Guerneville (Sonoma Co.).

The total stand of redwood for the county is estimated as 21,340,755,000 feet B. M.

Cut-over lands (redwood).--The redwood belt of Mendocino County has been lumbered throughout its length from the coast, which affords several open harbors. The cut-over lands

now cover 164,000 acres, or 22 per cent of the original area of standing timber. The condition of these lands is generally satisfactory, and a complete restocking by sprouts under favorable circumstances seems assured. The chief factors which militate against the future of those lands are the use of the lands for pasturing, with the attending fires and cutting back the sprouts, severe fires in lumbering, and the invasion of chaparral, (Ceanothus thyrsiflorus and C. velutinus). Sprout lands are now being extensively cut over for railroad ties.

The Douglas fir type is important in the internal development of the county as it is well adapted to local uses. It extends associated with the redwood throughout the belt, and from thence in broken stands of small area across the county, occurring usually along the north and east slopes. Its reproduction is abundant and aggressive in extending the area of present distribution. Its important associates are tanbark and black oak, madrone, with considerable yellow pine on the moderate elevations, and a few bodies of merchantable sugar pine on the higher slopes of the Coast Range.

The usual merchantable stand per acre is from 5,000 to 10,000 feet B. M. Stands of over 25,000 feet B. M. per acre occasionally occur, over small areas however.

The total stand for the county is 4,312,000,000 feet B. M., covering 213,000 acres.

Woodland occurs along the coast, with California