

MAP UNIT	PERCENT OF GROUND COVERED BY TREES	PRINCIPAL TREES (in order of abundance)	SHRUBS	REMARKS
Dense coniferous forest	More than 75	Douglas fir (<i>Pseudotsuga menziesii</i>) Ponderosa pine (<i>Pinus ponderosa</i>) Lodgepole pine (<i>Pinus contorta</i>) locally at higher elevations	Sparse or absent	Generally confined to cool moist north-facing slopes
Open coniferous forest	25 to 75	Ponderosa pine	Sparse. Chiefly: Mountain mahogany (<i>Cercocarpus montanus</i>) Wild currant (<i>Ribes</i> sp.) Skunkbrush (<i>Rhus trilobata</i>) Common juniper (<i>Juniperus communis</i>)	Commonly on gentle slopes, and on ridge crests. Overprint indicates more than 50% of area is rock outcrop
Scattered coniferous trees	5 to 25	Ponderosa pine Rocky Mountain juniper (<i>Juniperus virginiana</i>)	Sparse or absent	Commonly on gentle sunny slopes; ground cover chiefly grass
Scattered coniferous trees and shrubs	5 to 25	Ponderosa pine Rocky Mountain juniper	Abundant, generally covering 50 percent or more of the ground. Principal species: Mountain mahogany Skunkbrush Wild currant Yucca (<i>Yucca glauca</i>)	Commonly on steep south-facing slopes
Rocks with scattered coniferous trees and shrubs	5 to 25	Ponderosa pine Rocky Mountain juniper	Mountain mahogany Skunkbrush Wild currant Yucca	Commonly on steep south-facing slopes; more than 50 percent of area is rock outcrop
Deciduous forest	More than 75	Aspen (<i>Populus tremuloides</i>)	Sparse or absent	Very restricted; chiefly in moist valley bottoms
Mixed coniferous and deciduous forest	25 to 75	Aspen Ponderosa pine	Sparse or absent	Locally on gentle north-facing slopes
Flood-plain vegetation	Highly variable	Narrow-leaf cottonwood (<i>Populus angustifolia</i>) Blue spruce (<i>Picea pungens</i>)	Willow (<i>Salix</i> sp.) Alder (<i>Alnus tenuifolia</i>) Mountain maple (<i>Acer glabrum</i>)	On moist valley bottoms along major streams, commonly in areas flooded every few years. Scattered large trees are interspersed with dense thickets of shrubs and small grassy meadows. Larger meadows are mapped with the grassland unit
Shrubs	Less than 5	Rocky Mountain juniper Ponderosa pine	Mountain mahogany Skunkbrush Yucca	Commonly on steep to moderate sunny slopes. Shrubs generally form dense to moderately open stands 2 to 4 feet high
Grassland	Less than 5	Ponderosa pine	Sparse or absent	Generally on gentle well-drained slopes and in valley bottoms; ground cover chiefly grass Principal species on well-drained slopes: Mountain molly grass (<i>Muhlenbergia montana</i>) Blue grama grass (<i>Bouteloua gracilis</i>) Needle-and-thread grass (<i>Stipa comata</i>) Principal species in valley bottoms: Western wheatgrass (<i>Agropyron smithii</i>) Wild-rye (<i>Elymus canadensis</i>) Kentucky bluegrass (<i>Poa pratensis</i>) June-grass (<i>Koeleria gracilis</i>)
Rock	Less than 5	Rocky Mountain juniper Ponderosa pine Douglas fir	Sparse or absent	Cliffs, knobs, and canyon walls where more than 75 percent of area is rock outcrop. Shrubs, grass, and a few coniferous trees occur locally on ledges and in fissures and gullies
Shrubs and rock	Less than 5	Rocky Mountain juniper Ponderosa pine Douglas fir	Mountain mahogany Skunkbrush Yucca	Steep slopes and ridges with 25 to 75 percent bare rock exposed. Remainder covered by shrubs
Artificially cleared areas	Less than 5		Sparse or absent	Includes urban areas and powerline and highway rights-of-way. Not mapped along roads less than four lanes wide

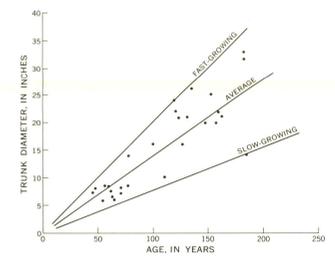


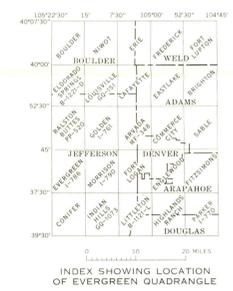
FIGURE 1—AGES AND DIAMETERS OF 30 PONDEROSA PINE TREES IN THE EVERGREEN QUADRANGLE. AGES WERE DETERMINED BY COUNTING TREE RINGS IN RECENTLY CUT STUMPS OR CORES OF LIVING TREES. LINES SHOW APPROXIMATE GROWTH RATES FOR FAST-GROWING, SLOW-GROWING, AND AVERAGE TREES

VEGETATION

Most of the forests in the Evergreen quadrangle are second-growth stands which developed following extensive logging that took place late in the 19th century. At that time the Evergreen area and other nearby parts of the Front Range were the source of much of the lumber used in construction in Denver.

Though a few ponderosa pines and Douglas firs as old as 250 years are found, most of the forest trees are less than 80 years old. The distribution of trees and their rates of growth (fig. 1) are strongly influenced by slope of the ground and direction of exposure. Dense stands of closely spaced Douglas fir and ponderosa pine are confined to steep north-facing slopes where snow lingers longest and where evaporation losses are least. Open pine forests cover gentle well-drained sunny slopes, whereas shrubs with only scattered trees, chiefly Rocky Mountain juniper, cover steep dry south-facing slopes.

Other factors that also influence tree distribution are altitude, which controls the occurrence of lodgepole pine in the dense coniferous forest unit, and soil type, which controls the distribution of grasslands in the upland valleys. The absence of trees in these valleys is apparently due to the lush growth of grass on the fine-grained soils, which prevents establishment of tree seedlings. Where the grass cover has been disturbed, as by overgrazing or construction, for example, tree seedlings commonly appear within a few years. No other examples of control of vegetation by soil type have been noted in the quadrangle, and influence of bedrock geology on distribution of the major vegetation units is apparent only where the geology influences the topography, which in turn influences the vegetation.



INDEX SHOWING LOCATION OF EVERGREEN QUADRANGLE

Base from U.S. Geological Survey, 1965
Photorevised in 1972
10,000-foot grid based on Colorado coordinate system, central zone
1000-meter Universal Transverse Mercator grid ticks, zone 13, shown in blue

SCALE 1:24,000
CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

Vegetation mapped by J. C. Reed, Jr. from vertical aerial photographs taken in August, 1971 and oblique color aerial photographs taken in September, 1971

VEGETATION MAP OF THE EVERGREEN QUADRANGLE, JEFFERSON COUNTY, COLORADO

By
John C. Reed, Jr., and John R. Keith
1972