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THE TREE-RING BULLETIN

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A SUPERIOR SEQUOIA RING RECORD

A. E. DOUGLASS

Herein are photographs of a superior sequoia record*. It is planned to present this ring series back to its beginning about 289 B.C. in other issues of the Bulletin. This particular specimen was selected for display because it played an important part in building a properly dated sequoia chronology, for it was highly representative of the average sequoia ring variation in the cut-over areas near the old General Grant Park, at Enterprise Mill site south of Sequoia National Park, and other places. It therefore is an illustration of the better-than-average sequoia sensitivity.

For comparison purposes a portion of the ring record in Douglas fir specimen IF-20, from near Durango, is presented above the first photograph of the sequoia series. Here the sensitivity and dating qualities are at the maximum. One could describe it as having three or four "dating checks" in every decade; in fact, nearly every ring is a dating check. The value of this is evident when one realizes that such sensitivity gives a measure of its precipitation recording as well as its mere crossdating quality.

But in accurate crossdating and construction of chronologies the length of the sequoia record compensates for the lack of sensitivity. Even two dating checks a century have given assurance of accurate dating. And many sequoias of little if any climatic excellence can be dated for 2,000 years.

Climatic excellence is dependent on general factors like latitude, type of climate, forest borders, etc., and on local factors like depth and slope and composition of soil, nearness of other trees, and so forth.

The small photo herewith shows the stump from which this record came. The picture was made in 1918, three years after the tree was cut. The denuded land is conspicuous, though now it is grown over with brush hard to make one's way through. The view is across the small local valley with D-2, identified by the lower arrow, on the left on a rocky inner ridge. D-4, identified by the upper arrow, is beyond an occasional trickle of water that comes from melting snow, and D-3, on the same level, appears through the middle branches of the large tree in the foreground. I remember that it was difficult to find a point from which all three could be seen. D-1 of that

*Made some twelve years ago by Mr. H. Faurest Davis and reproduced in microfilm on American Documentation Institute Document 1298, 1939. See, also, the discussion in Bulletin 11 (4) and the ring photographs of sequoia D-5 in Bulletin 12 (2).

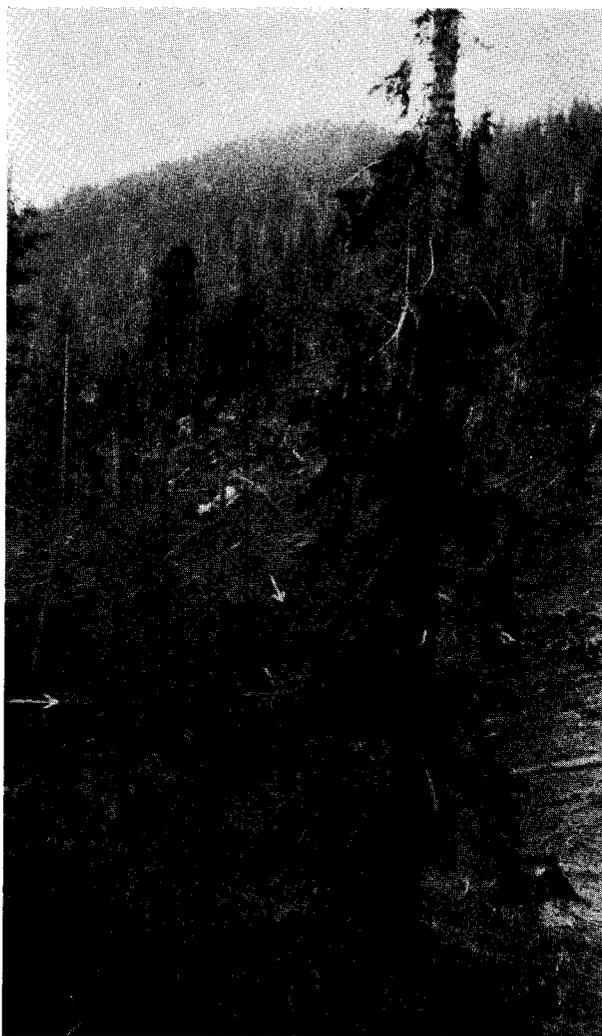


FIGURE 1. The site of sequoia D-2.

series was uphill behind the photographer, and D-5 is some distance outside on the left. The picture and these details are here presented so that one could find these stumps through the heavy growth now obscuring them. Each stump, of course, has the groove where the heavy V-cut was secured and has a number chipped into the stump top.

Finally, it is instructive to check over the dating on the photographs and assure oneself of the count. Each individual ring is marked on the margin. Four absences in the 2,200 years or so are marked by carets.

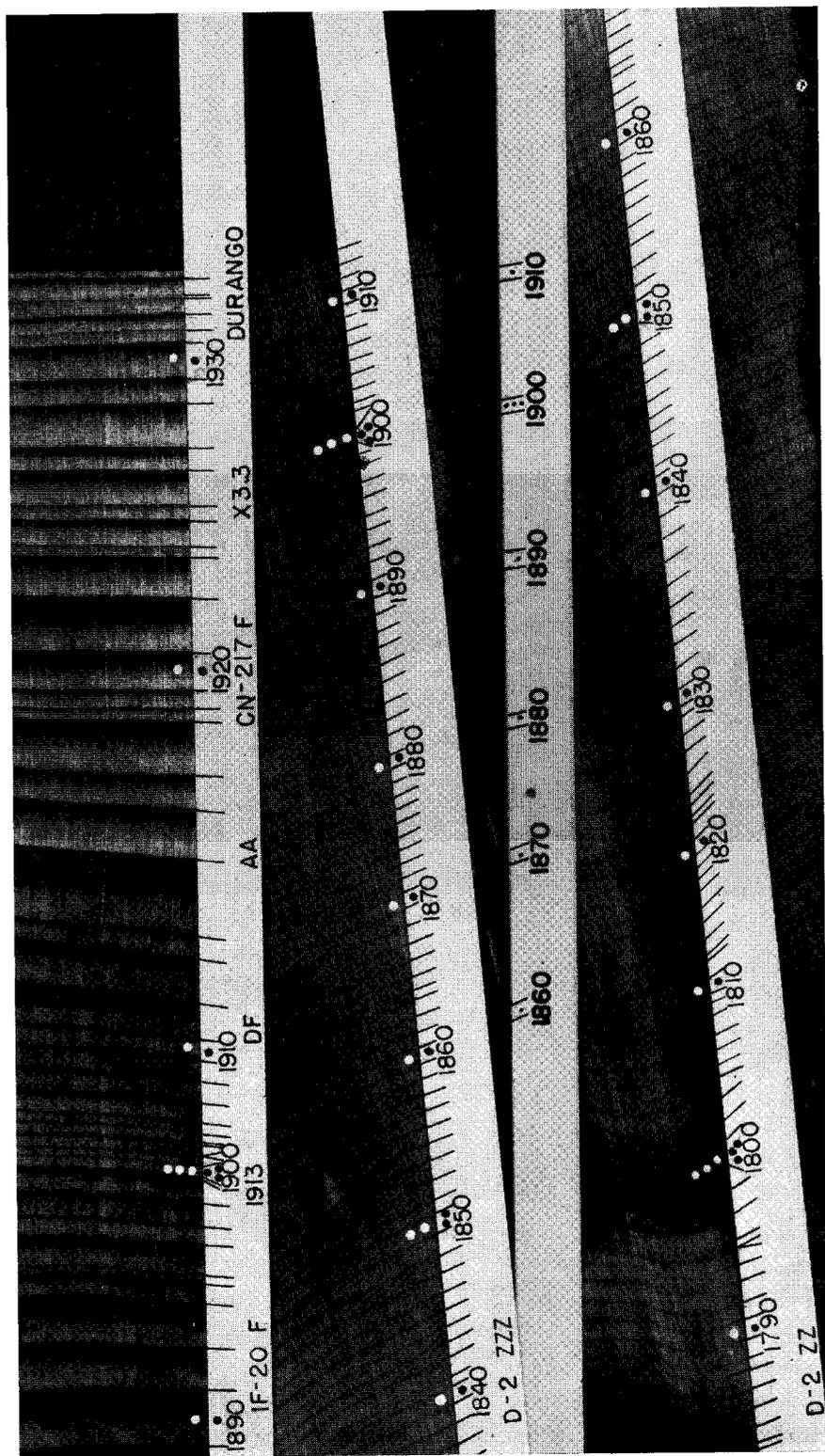


FIGURE 2. The ring record, A.D. 1890-1935, scale x3.3, in Douglas fir IF-20 from Durango, Colorado, is followed by eight overlapping photos covering the interval A.D. 1160-1914, scale x2.4, in sequoia D2.

