

FOSSIL AVOCADO LEAF

C. A. Schroeder

University of California, Los Angeles

The report of studies on fossil avocado leaves which have been found in California (Schroeder, 1968) indicated that these specimens appear in geological collections from many areas within the state. The association of fossil avocado leaves with those of other tropical and subtropical species provides evidence that much warmer, more humid environmental conditions probably existed in that prehistoric period, the Pleiocene, estimated as 10 to 15 million years ago, compared with the moderately arid climate characteristic of the major portion of present day California.

An attempt was made to revisit some of the collection sites from which fossil specimens had been taken in earlier years to provide additional data for the studies reported above. A particularly fine specimen of a *Persea* leaf was found at the Table Mountain site near Columbia, California in the Sonora pass area. Materials originally collected at this site were reported, described and determined by Condit (1944). These materials were found in debris from gold mining activities in a drift mine digging. The Buchanan Tunnel which was one of these drift mines that followed the tortuous windings of the gold bearing strata was active in gold production for several years after which it became uneconomical to operate. The mine tunnel has been utilized during the past few years as a storage depot for explosives. A bolted heavy steel gate now guards the mouth of the horizontal shaft. The Buchanan Tunnel mine is located on the property of Paul V. Bennett who graciously allowed me to visit the area to photograph the tunnel and to collect a few fossil specimens in August, 1968. The fossil materials were found in a light colored, fine sandstone strata which forms the roof of the mine entrance. An outcropping of the same strata exists in the hillside about 45 feet to the east of the tunnel.

The fossil materials from this particular site are not numerous compared with other locations (Axelrod, 1950). The specimen seen in Figure 1 was collected from a pile of rock debris at the mine entrance by my daughter, Gail Schroeder, who broke open the loose stratified rock to expose an almost perfect fossil specimen of *Persea*. This genus is quite readily identified by the general configuration and venation of the leaf. Fragments of other genera such as *Platanus* (sycamore), *Cercocarpus* (Red bud), and *Magnolia* were found in the same location. The particularly fine condition of the *Persea* leaf specimen, its relative completeness and its apparent rarity in that locality warrants mention of its unearthing at this time. Many fine fossil leaf specimens of *Umbellularia*, a botanical relative of avocado and of other *Persea* species are found in the paleobotanical collections in the geological museum at the University of California, Berkeley.

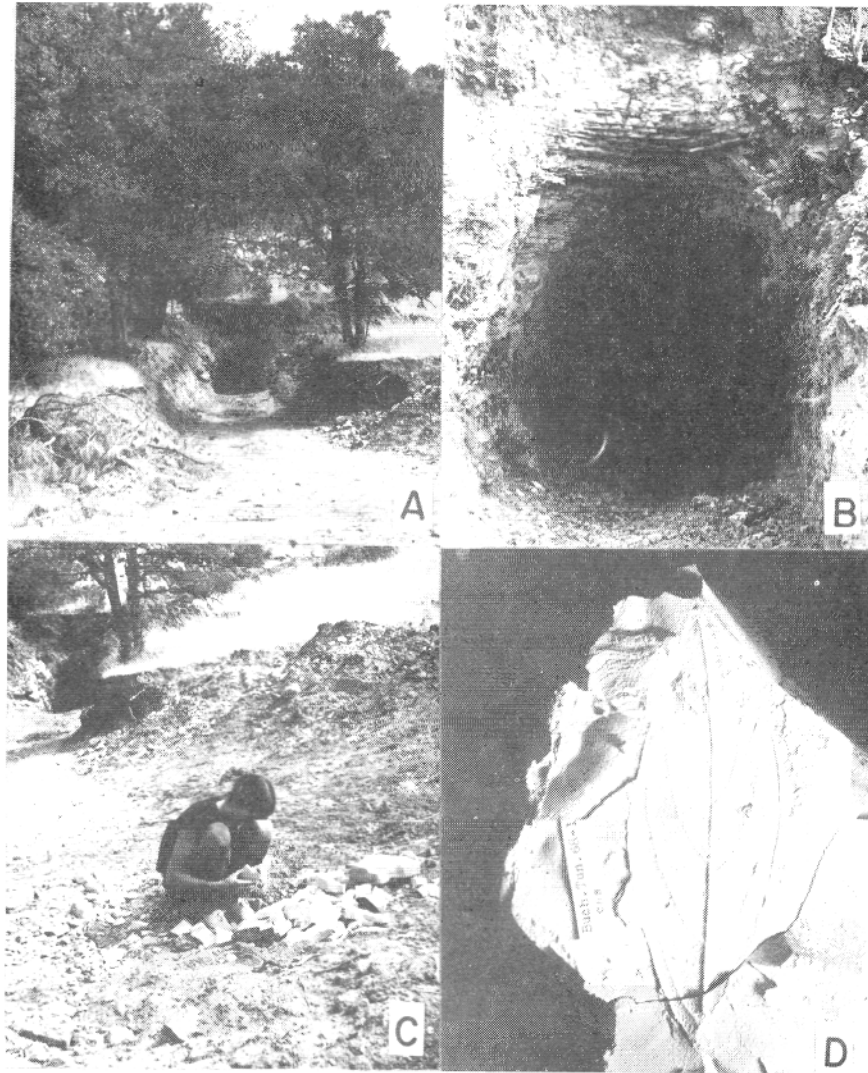


Figure 1. Site of Buchanan Tunnel mine in foothills of Sierra Nevada Mountains near Columbia, California. B. Entrance to mine shaft showing stratified roof in which plant fossils occur. C. Searching sedimentary rock for fossils. D. Impression of fossil *Persea* leaf from Buchanan Tunnel mine.

LITERATURE CITED

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