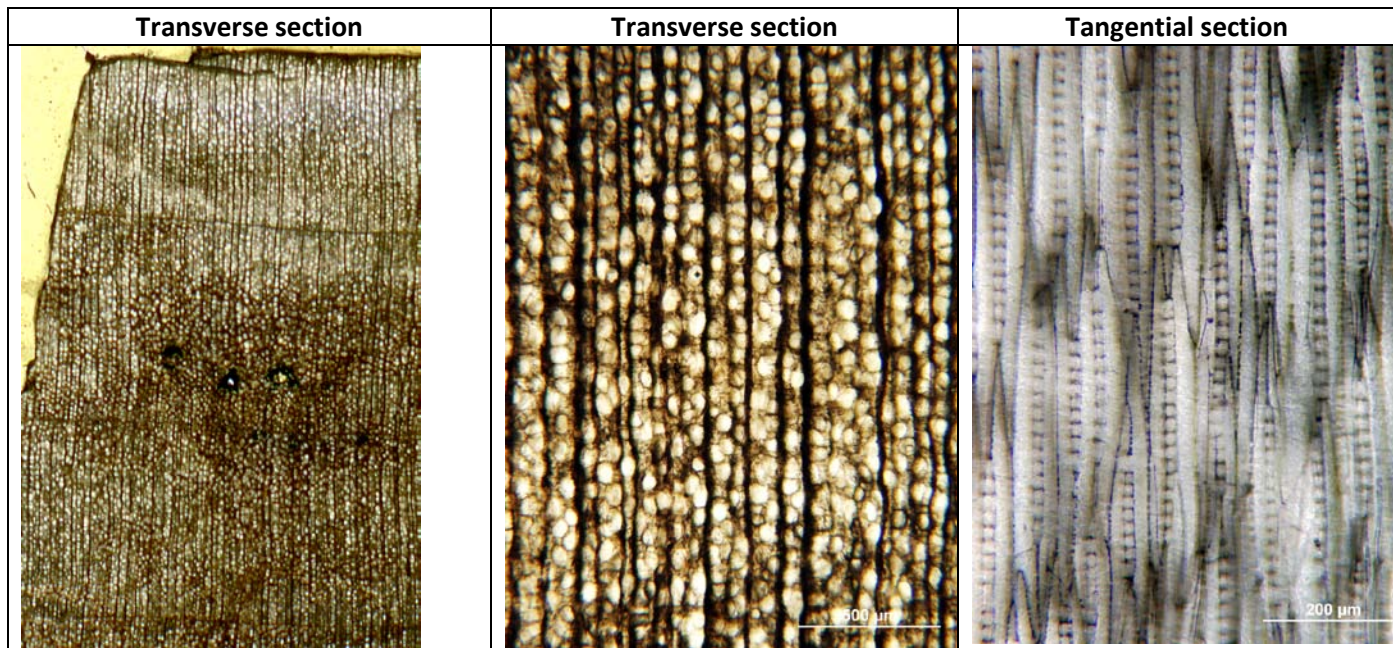


***Aesculus hankinsii* (buckeye, yellow buckeye, horse chestnut)**

Family: Sapindaceae

Naming reference: Prakash, U. & E.S. Barghoorn. 1961. Miocene fossil woods from the Columbia basalts of central Washington, II. Journal of the Arnold Arboretum XLII, 347-361.

Other reference: Wheeler, E.A. & T.A. Dillhoff. 2009. The Middle Miocene wood flora of Vantage, Washington, USA. IAWA Journal, Supplement 7. 101p.



Diagnostic features: Growth ring boundaries distinct, diffuse porous vessel arrangement. Vessels solitary and in radial multiples of 2-5 (mostly 2-3). Solitary vessels generally oval in outline. Perforation plates simple, with helical thickenings present throughout the body of vessel elements. Rays are exclusively uniseriate, 2-32 cells high (mostly 8-15) and homocellular. Axial parenchyma rare, some parenchyma strands may contain crystals.

Discussion: This wood is often labeled as 'buckeye' or 'yellow buckeye' when it appears in public or private collections. It is another of the diffuse porous hardwoods that cannot be reliably identified by cross section alone. In radial and tangential sections, this wood can be separated from other diffuse porous woods based on its simple perforation plates, helical thickenings in the vessel elements, and exclusively uniseriate rays. Rays and fibers in this wood also tend towards a storied structure in places, giving it a patchy appearance as seen in the tangential section above.

This is the only known occurrence of fossil *Aesculus* wood from North America. Beck (1945) reports it as a common element in the Vantage and Squaw Creek assemblages, and rare in the Umtanum Creek deposit. This author has also seen specimens from the Sunnyside area which are likely *Aesculus*, although this has not yet been confirmed by examination of thin sections. Characteristic leaves and fruits of the genus are found in the Pacific Northwest from the Paleocene onwards, and modern *Aesculus* is found in North America, eastern Asia, and one species in southeastern Europe.



Fossil *Aesculus* leaf from the Eocene of British Columbia