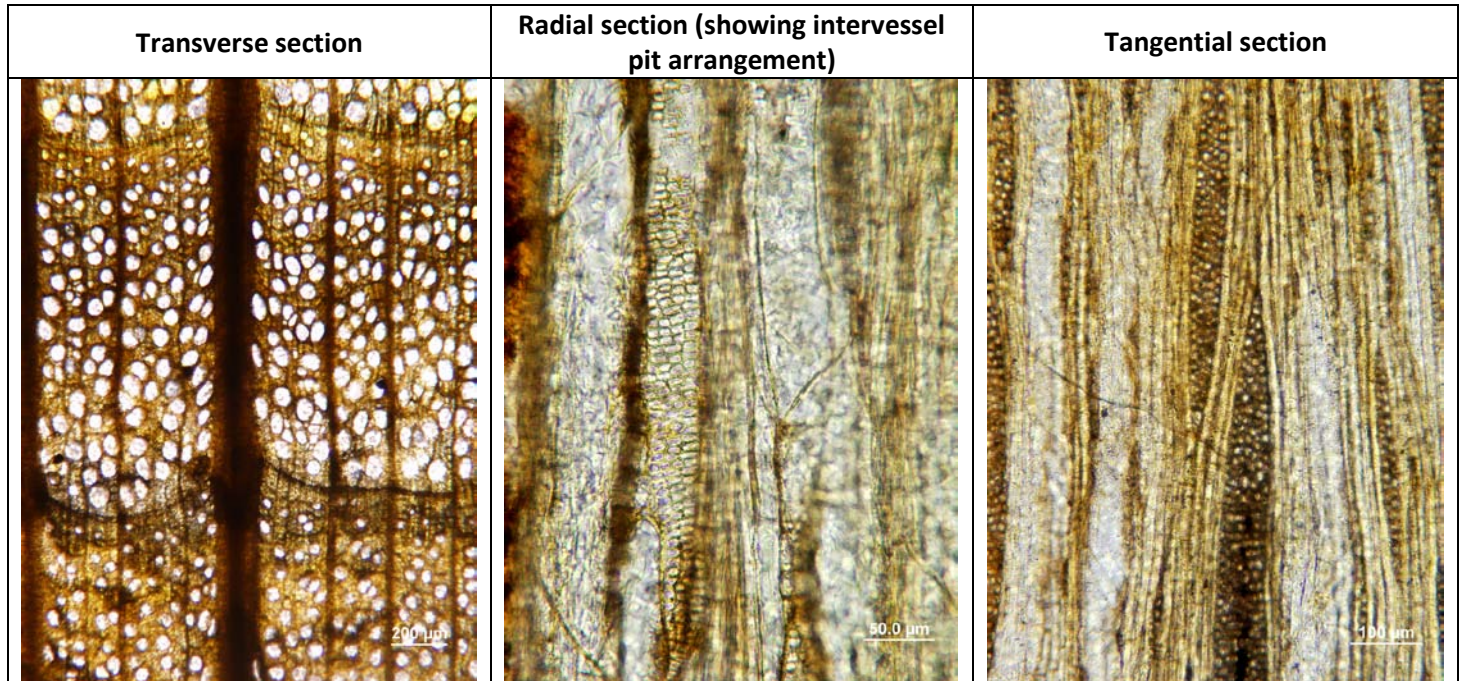


Fagus manosii (beech)

Family: Fagaceae

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



Photos courtesy Dr. E.A. Wheeler

Diagnostic features: Distinct growth rings, vessels diffuse porous, tending to semi-ring porous. Vessels solitary and in small multiples, angular in outline. Rays uniseriate and multiseriate. 3-6 seriate rays common, some up to 16 cells wide. Rays homocellular to heterocellular. Heterocellular rays have 1-3 marginal rows of square to upright cells. Perforation plates mostly simple, some scalariform with fewer than ten bars in narrow latewood vessels. Axial parenchyma diffuse, uncommon, strands have 5-8 cells.

Discussion: Relatively rare from the Columbia River Basalts; at present it is known only from the Vantage assemblage. The wood was mentioned by Beck in his 1945 paper, but it was not formally described until the 2009 paper referenced above.

This wood type is sometimes misidentified as oak or sycamore. Superficially, they are similar with wide rays visible to the naked eye. These woods aren't too difficult to separate with a hand lens, however; oak is ring porous with an abrupt transition to the latewood while sycamore has rays that fall into two fairly distinct size classes, with more closely spaced large rays. In contrast to sycamore, the wide rays in beech are generally spaced farther apart and the ray sizes are more uneven in distribution.

Fagus is another genus that was widely distributed in northwestern North America from the Eocene epoch through at least the Miocene. It is found in the 50 million year old floras of the Okanogan Highlands, the Oligocene Bridge Creek flora, and in a number of Miocene floras. Modern beech is most diverse in Europe and eastern Asia; there is also one species native to eastern North America.



Fossil beech leaf from the Oligocene Bridge Creek flora of Oregon