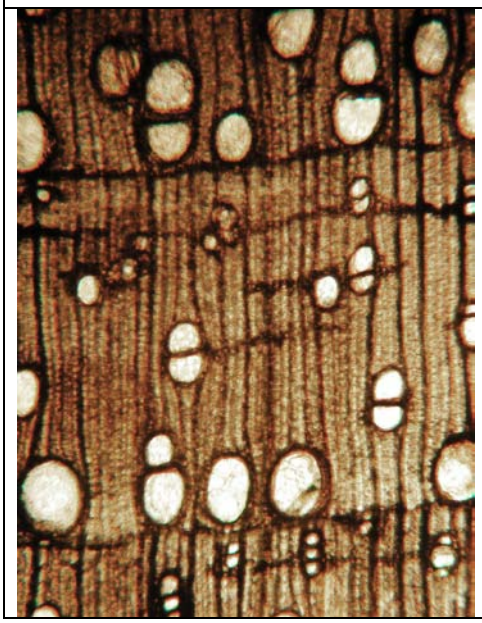
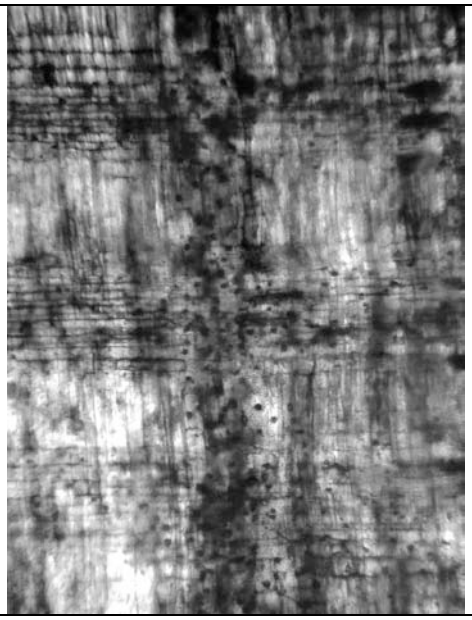
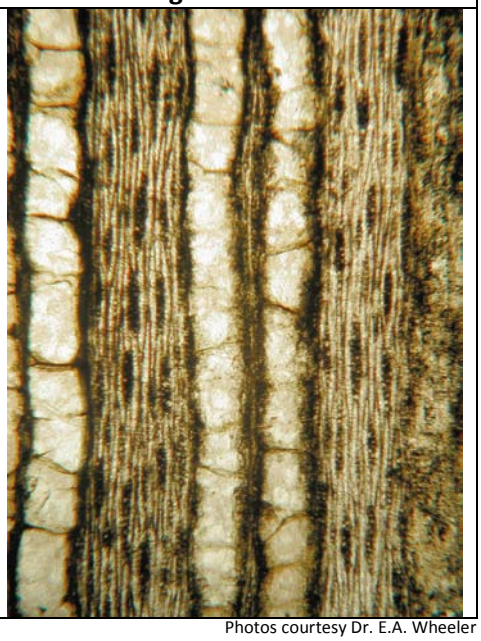
***Fraxinus washingtoniana* (ash)**

Family: Oleaceae

Synonym: *Diospyros washingtoniana* Prakash & Barghoorn

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

Other references: Prakash, U. & E.S. Barghoorn. 1961. Miocene fossil woods from the Columbia basalts of central Washington, I. Journal of the Arnold Arboretum XLII, 165-199

Transverse section	Radial section	Tangential section
		

Photos courtesy Dr. E.A. Wheeler

Diagnostic features: Growth rings distinct, semi-ring porous vessel arrangement. Vessels solitary and in short radial multiples, solitary vessels oval in outline. Some thin walled tyloses present. Earlywood vessels wide, averaging over 200 microns in tangential diameter. Vessel elements have simple perforation plates. Rays 1-2 seriate, mostly 2, homocellular. In tangential section, rays tend towards irregular storying in some areas. Axial parenchyma paratracheal, vasicentric, aliform to confluent.

Discussion: Prakash & Barghoorn originally described this wood type as *Diospyros* (persimmon) in the family Ebenaceae. Based on differences in the distribution of axial parenchyma, the wide vessels, and the presence of tyloses, Wheeler and Dillhoff reassigned the wood to the genus *Fraxinus*. It is still possible that persimmon will show up in the Columbia River Basalt woods since a fossil fruit of one has been found from the similarly aged Clarkia flora of western Idaho.

This is one of two ash species described from the Columbia River Basalts and is the one most often encountered. Beck (1945) reported the occurrence of ash from Yakima Canyon, Vantage, and Saddle Mountains. While it is not abundant from any of these deposits, the author has seen a number of specimens in public and private collections.