Recognizing Lauraceae in Cretaceous assemblages from Mexico

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Plant megafossils collected from different localities in Northern Mexico have yielded leaves and woods that have characteristics suggestive of Lauraceae affinity. A wood sample from an Upper Cretaceous sequence close to El Rosario, Baja California, has distinct growth rings, diffuse porosity, alternate vestured intervascular pits, simple perforation plates, vessel ray pits similar to intervascular ones, scares paratracheal and marginal parenchyma, septet fibres, heterocellular rays and oil/mucilage cells associated with rays. These anatomical features are today found in *Alseodaphne*. From the Upper Cretaceous Cabullona Group, Sonora, a notophyllous, trilobate leaf with entire margin, acute apex, palmate actinodromous venation and secondary brochydodromous venation resembles those of *Sassafras*. From the Campanian/Maastrichtian flora of Coahuila 3 different leaf types have Lauraceae characters. Trilobated mesophyll leaves similar to those of Sonora are a common type; a second type resemble leaves of *Cinnamomum* and *Neolitsea* in being oblong, nothophyllous, and having entire margin, obtuse apex, subparallel actinodromous primary venation, and eucamptodromous secondary venation that becomes brochydodromous distally; leaf type 3 is notophyllous, ovate, and has acute apex, entire margin, actinodromous venation and brochydodromous secondary venation, resembling those of *Ocotea*, *Neolitsea* and *Nectandra*. The described plants suggest the family was an important component of the paleovegetation in transitional or near coastal areas, and that the family reached important morphological/anatomical diversity early in their lineage history, but it is necessary to understand how this diversity defines taxa through whole plant reconstructions.