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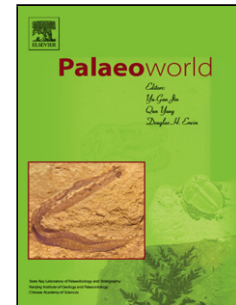
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Evolutionary trends in leaf morphology and biogeography of Altingiaceae based on fossil evidence

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Abstract

The extant woody family Altingiaceae, consisting of only one genus *Liquidambar* L. with ca. 15 species, demonstrates a typical disjunctive distribution among East Asia, North America, and the Mediterranean. However, the fossil record throughout the Cenozoic indicates that Altingiaceae was once widespread in the Northern Hemisphere. After studying the abundant Altingiaceae fossil leaf collections, we revised the easily-confused fossil leaves and corrected the misidentifications.

Consequently, we proposed an evolutionary history of Altingiaceae leaf morphology in consulting the modern leaf characteristics. It is revealed that the trilobated leaf morphology is the ancestral character state, whereas both the pentalobated and the undivided, pinnate-veined lineages evolved separately. The latter diverged from the trilobated ancestor in South China in Eocene. The lobed and undivided lineages

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