

## Tarsal morphology of the pleuraspidotheriid mammal *Hilalia* from the middle Eocene of Turkey

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Pleuraspidotheriids are a group of primitive ungulate mammals that, until recently, were thought to be restricted to the late Paleocene of Western Europe. It has been hypothesized that this family actually survived in Central Anatolia until at least the middle Eocene. However, these anachronistically young Anatolian “survivors”, including the genus *Hilalia*, were previously documented mainly by dental remains. Here, we describe the previously unknown astragalus of *Hilalia saribeya*, which confirms the pleuraspidotheriid affinities of the genus, and supports phylogenetic reconstructions that place *Hilalia* as the sister group of *Pleuraspidotherium*. The morphology of the astragalus suggests sub-cursorial plantigrade locomotion for *H. saribeya*, although its tarsal morphology remains generalized enough that scansorial capabilities cannot be ruled out. The evolution of *Hilalia* is addressed in the context of the apparent geographic isolation of Central Anatolia during the Eocene. The endemic character of the mammalian fauna of Central Anatolia during the middle Eocene emphasizes how the complex paleogeography of the northern margin of Neotethys impacted local biotas in a region situated at the crossroads of very distinctive biogeographic zones.

**Key words:** Mammalia, Pleuraspidotheriidae, paleogeography, Eocene, Turkey, Anatolia.

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