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The first ibis fly in mid-Cretaceous amber of France (Diptera: Athericidae)

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Abstract

A new genus and species of ibis fly is described from an isolated wing in amber from the Late Albian–Early Cenomanian of Charentes, southwestern France. *Galloatherix incompletus* **gen. et sp. n.**, is the first Athericidae fossilized in Cretaceous amber, and only the eighth Mesozoic species. It adds to the diverse aquatic and semiaquatic paleobiota already identified from Charentese amber.

Key words: Athericidae, Cretaceous, Charentese amber, taxonomy, palaeodiversity

Introduction

The Athericidae is a relatively small family of tabanomorph flies comprising nine modern and four extinct genera. The fossil record is sparse even in the Cenozoic, with only four species reported: *Atherix saunieri* Théobald, 1937 (Late Eocene, Célas, Gard, France; type specimen was stored at the Musée de Nimes but is apparently lost), *Atrichops hesperius* Cockerell, 1914 (Oligocene, Florissant, USA), *Succinatherix avita* Stuckenberg, 1974 and *Succinatherix setifera* Stuckenberg, 1974 (both from Eocene Baltic amber) (Cockerell 1914, Théobald 1937, Stuckenberg 1974). Stuckenberg (1974) considered that the Baltic amber "*Atherix exigua* Meunier, 1910" is probably not an Athericidae (Meunier 1910). The family is also represented in the Mesozoic by three extinct genera and a few more species, all compression fossils, viz., *Athericites* Mostovski *et al*., 2003 (Early Cretaceous of England and Siberia, with five species: *A. finchi* Mostovski *et al*., 2003, *A. gordoni* Mostovski *et al*., 2003, *A. kensmithi* Mostovski *et al*., 2003, *A. sellwoodi* Mostovski *et al*., 2003, and *A. zazicola* Mostovski *et al*., 2003), *Palaepangonius eupterus* Ren, 1998 (Yixian formation, Early Cretaceous, Liaoning, China), and *Sinocretomyia minuscula* Zhang, 2012 (Laiyang formation, Early Cretaceous, Shangdong, China) (Ren 1998, Mostovski *et al*. 2003, Zhang 2012).

Here we present the first fossil Athericidae from Cretaceous amber, based on an isolated wing preserved in Albian—Cenomanian amber from Charentes, southwestern France.

Material and methods

The amber piece containing the specimen originates from the Font-de-Benon quarry near Archingeay, and more specifically from the lithological unit A1sl2 (= A1sl-A sensu Perrichot *et al*. 2010) which is the most fossiliferous of all amber-bearing strata in Charentes and is dated as latest Albian or earliest Cenomanian (Néraudeau *et al*. 2002). Four dolichopodid flies (Microphorinae: *Microphorites deploegi* Nel *et al*., 2004), one undetermined Diptera, and >100 dinoflagellates (Peridiniaceae: *Succiniperidinium inopinatum* Masure, Dejax & De Ploëg, 2013) are also contained in the same amber piece. Details on the geology, paleobiota, and paleoenvironment of the Charentese amber deposits are provided by Perrichot *et al*. (2010), i.e., a warm temperate to subtropical forest in a mosaic of estuarine and "mangrove" environments.

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