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## A Mid Cretaceous representative of the modern scatopsid genus *Ectaetia* (Diptera: Scatopsidae: Ectaetiinae)

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### Abstract

*Ectaetia capdoliensis* **sp. n.**, first Cretaceous and oldest representative of the scatopsid subfamily Ectaetiinae, is described from the Late Albian / Early Cenomanian amber of southwestern France. This fossil demonstrates the remarkable morphological stability of these flies since at least the mid-Cretaceous. It suggests the presence of rotten wood under wet palaeoenvironment for the corresponding outcrop of Cadeuil.

**Key words:** Diptera, Psychodomorpha, Scatopsidae, Ectaetiinae, morphological stasis

### Introduction

The Scatopsidae are small to minute dark flies found worldwide, and together with the Canthyloscelidae and the Valeseguyidae, are constituent of the superfamily Scatopsoidea, or scavenger gnats. It is not until recently that the family Valeseguyidae was placed within the Scatopsoidea as the sister group to the Scatopsidae + Canthyloscelidae, after the discovery of *Cretoseguya* Amorim and Grimaldi, 2006, from mid-Cretaceous Burmese amber, which remains to date the only Mesozoic representative of the family Valeseguyidae (Amorim & Grimaldi 2006). The Scatopsoidea as a whole have an extremely scarce Mesozoic record: that of the Canthyloscelidae is restricted to the single species *Prohyperoscelis jurassicus* (Kovalev 1985), from the Middle Jurassic of Russia; and the only definitive Scatopsidae described to date is *Scatopse fasciola* Meunier, 1907 (in fact clearly in the genus *Ectaetia* Enderlein, 1912 according to Haenni, pers. comm.), from the Eocene Baltic amber. An unnamed taxon known by a compression fossil from the Early Cretaceous of Mongolia (Kovalev 1986) may also belong in the Scatopsinae (Amorim 1998). In addition, the two taxa *Protoscatopse jurassica* Rohdendorf, 1946 and *Mesoscatopse rohdendorfi*, Kovalev, 1985, known by compression fossils from the Jurassic of Kazakhstan and Siberia, respectively, are currently considered unplaced within the Scatopsoidea (Amorim 1998). Therefore, any new Mesozoic Scatopsoidea is of great value for the evolutionary history of the group. Several putative Scatopsidae are preserved in Cretaceous ambers from Canada, Lebanon, Siberia, and Myanmar, but still wait a formal description (Amorim 1998; Grimaldi *et al.* 2002; Nel & Prokop 2004). Here we describe the oldest representative of the modern scatopsid subfamily Ectaetiinae Enderlein, 1936 and genus *Ectaetia* Enderlein, 1912 from French Cretaceous amber of Charentes.

### Material and methods

This study is based on a single fossil specimen found in a small piece of turbid amber. It originates from the most amber-rich stratum of the Charentes region, i.e. the uppermost Albian – lowermost Cenomanian level A1s1-A (sensu Perrichot *et al.* 2010), and was collected in 2010 by Eric Dépré and Vincent Perrichot during an excavation