

Fossil Tingoidea (Heteroptera: Cimicomorpha) from French Cretaceous amber, including Tingidae and a new family, Ebboidae

VINCENT PERRICHOT¹, ANDRÉ NEL², ÉRIC GUILBERT² & DIDIER NÉRAUDEAU¹

¹CNRS UMR 6118, Géosciences Rennes, Université Rennes 1, 263 avenue du Général Leclerc, 35042 Rennes cedex, France

²CNRS UMR 5202, Muséum National d'Histoire Naturelle, Entomologie, 45 rue Buffon, 75005 Paris, France

Abstract

Two new genera and species of fossil lace bugs are reported from Albian and Cenomanian amber of France as *Ambarcader eugenei* and *Ebboa areolata*, these being the earliest fossil record of the family Tingidae and the type species of the new family Ebboidae, respectively. *Ambarcader* gen. nov. belongs to the tribe Phatnomatini within the subfamily Cantacaderinae. *Ebboa* gen. nov. differs from all the Recent and fossil taxa hitherto described in Tingoidea, suggesting an important past diversity and an earlier Mesozoic origin of this clade.

Key words: Insecta, Heteroptera, Cimicomorpha, Tingidae, Ebboidae fam. nov., French amber, mid-Cretaceous

Introduction

The phylogenetic relationships of the Tingoidea—or lace bugs—remain poorly established and are not agreed upon (Nel *et al.* 2004). Lis (1999) divided them into three families Vianaididae, Tingidae, and Cantacaderidae, whereas Froeschner (1996, 2001) and Golub (2001) divided them into Vianaididae and Tingidae only, the latter family being divided into Tinginae and Cantacaderinae. An additional, extinct family, Ignotingidae, was recently described from the Late Jurassic–Early Cretaceous of China (Zhang *et al.* 2005), and this represents the earliest fossil record of the superfamily Tingoidea. Wappler (2003) cataloged all described or figured fossil lace bugs, to which five tingid species from the