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Cretevania bechlyi sp. nov., from Cretaceous Burmese amber (Hymenoptera: Evaniidae)

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Abstract

The fossil evaniid wasp *Cretevania bechlyi* sp. nov., is described based on a well preserved female specimen from Cretaceous Burmese amber. The new species is placed in the genus *Cretevania* Rasnitsyn, 1975 based on the elongation of the mid and hind trochantellus, the fore wing venation (e.g. first marginal cell triangular and broad, 2m-cu absent, second submarginal cell separated from first discal cell), the shape of the petiole (subcylindrical with distal extension) and other distinct morphological features. *Cretevania bechlyi* sp. nov. differs from all previously described species in having just 10 flagellomeres (11 in other members of the genus) and in the presence of notauli (absent in other species). The new species represents the first species of *Cretevania* from Burmese amber and significantly expands the known morphological diversity of Mesozoic Evaniidae.

Key words: fossil, Myanmar, systematic palaeontology, Evanioidea

Introduction

Ensign or hatchet wasps (family Evaniidae) are distinctive solitary predators on cockroach eggs in oothecae (e.g., Deans 2005). They have a uniquely shaped metasoma with a tubular petiole and a shortened, laterally compressed gaster (*sensu* abdominal segments posterior to abdominal segment 2—URI: http://purl.obolibrary.org/obo/HAO_0000369). The world fauna comprises about 650 species in 22 extant and 12 fossil genera (Deans 2005; Deans *et al.* 2012; Jennings *et al.* 2012). Several fossil species have been described from Mesozoic ambers ranging from the Early to Late Cretaceous (e.g., Rasnitsyn 1975; Basibuyuk *et al.* 2000a, 2000b, 2002; Deans *et al.* 2004; Engel 2006; Pérez-de la Fuente *et al.* 2012), in addition to relatively derived species in Tertiary ambers (e.g., Brues 1933; Nel *et al.* 2002a, 2002b; Sawoniewicz & Kupryjanowicz 2003; Jennings *et al.* 2012 and summary therein). Several other evaniids have been described from non-amber deposits, mostly Early to Late Cretaceous as summarized in Jennings *et al.* (2012).

The dating of Burmese amber has been reviewed most recently by Shi *et al.* (2012), who concluded a late Albian—early Cenomanian age. Two evaniid species have been described from Burmese amber: *Sorellevania deansi* Engel 2006, and *Mesevania swinhoei* Basibuyuk & Rasnitsyn 2000 (in Basibuyuk *et al.* 2000b).

The most species-diverse fossil evaniid genus is *Cretevania* Rasnitsyn, 1975, which is mainly characterized by its fore wing venation and the shape of the hind legs and petiole (Pérez-de la Fuente *et al.* 2012). To date, 14 species of this genus have been recorded from different Cretaceous deposits of amber and compression rocks from Eurasia and the Middle East, the highest diversity being known from Spain (Peñalver *et al.* 2010, Pérez-de la Fuente *et al.* 2012).

Herein we provide the description of a new species of *Cretevania* from Lower Cretaceous (late Albian—early Cenomanian) Burmese amber, thus significantly expanding the known paleogeographic range of this extinct fossil evaniid genus.