

## First record of fossil *Priacma* (Coleoptera: Archostemata: Cupedidae) from the Jehol Biota of western Liaoning, China

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### Abstract

Four new fossil species of the genus *Priacma*, *P. latidentata* **sp. nov.**, *P. tuberculosa* **sp. nov.**, *P. clavata* **sp. nov.** and *P. renaria* **sp. nov.**, are described from the Yixian Formation of western Liaoning, China. This finding documents the first record of fossil *Priacma* in China and extends the geographical distribution of this genus.

**Key words:** Cupedidae, *Priacma*, new species, Yixian Formation, China

### Introduction

The Cupedidae is regarded as probably the most archaic family of recent Coleoptera (Crowson 1962). During the last century the systematic position of the family has been the subject of much controversy (e. g. Sharp & Muir 1912; Forbes 1926; Atkins 1963). It is currently placed in the suborder, Archostemata which includes Cupedidae, Ommatidae, Micromalthidae and Crowsoniellidae (Lawrence & Newton 1995) and 11 extinct families (Carpenter 1992).

Nowadays, the extant species of Cupedidae are rare, including only nine extant genera and thirty three extant species (Grebennikov 2004; Ge & Young 2004). However, the cupedids were more diverse in the geological past, and particularly in the Mesozoic Era, than today.

Recently we recovered several well-preserved fossil cupedids from the Yixian Formation near Chaomidian Village, Beipiao City, Liaoning Province. These fossils can be assigned to the extant genus *Priacma* Leconte, 1874 of the family Cupedidae.

The Yixian Formation comprises mainly lacustrine sediments intercalated with volcanoclastics (Ren *et al.* 1995). The age of this Formation remains controversial. Three different opinions about the age (Late Jurassic, Late Jurassic-Early Cretaceous and Early