

A New Beetle Species of the Genus *Brochocoleus* (Coleoptera, Cupedidae) from the Turonian of Kazakhstan

A. G. Ponomarenko

Paleontological Institute, Russian Academy of Sciences, ul. Profsoyuznaya 123, Moscow, 117868 Russia

Received January 28, 1998

Abstract—*Brochocoleus rostratus* sp. nov. is described from the Kzyl-Dzhar locality. *Brochocoleus*, the second cupedid genus recorded for this locality, is known also from the Lower Cretaceous of China, Mongolia and England.

INTRODUCTION

Upper Cretaceous insects are still little known and much inferior to the Lower Cretaceous ones in the number of described species. The Kzyl-Dzhar locality (northern part of the Karatau Range; Turonian) is among the few to yield rather numerous insects, including beetles. One species of Cupedidae was described from Kzyl-Dzhar, *Notocupes caducus* Ponomarenko, 1969. The genus *Notocupes* is unusual for its family in having an extremely high number of species and for its long existence, from the Triassic to the terminal Cretaceous (and possibly even to the basal Paleocene). The genus *Brochocoleus* comprises a few species, including one described below. It was found in China, in deposits traditionally considered Upper Jurassic (Hong, 1982; Ren, 1995). However, the localities in Mongolia and Transbaikalia containing a comparable insect assemblage are dated as Early Neocomian. Representatives of this genus, not found in Transbaikalia, are described from the Aptian localities of Mongolia (Ponomarenko, 1994). Several isolated elytra corresponding to those of *Brochocoleus* in all the characters available, were found in the Wealden (Hauterivian–Barremian) of the Weald, England. Hence, to date the genus shows quite restricted stratigraphic occurrences, if it does not include the beetle described as *Tetraphalerites oligocenicus* Crowson, 1962 from the Oligocene of the Isle of Wight, England.

SYSTEMATIC PALEONTOLOGY

Family Cupedidae Laporte, 1836

Tribe Brochocoleini Hong, 1982

The genus *Brochocoleus* was established on an isolated elytron as representing a separate family Brochocoleidae (Hong, 1982), the family rank being based upon a misinterpreted elytral venation. Later further species of this genus known from complete specimens were described (Ponomarenko, 1994), the diagnosis of the Brochocoleidae was revised, and its rank lowered to

tribe in the subfamily Ommatinae of the family Cupedidae.

Genus *Brochocoleus* Hong, 1982

Brochocoleus rostratus Ponomarenko, sp. nov.

Etymology. From Latin *rostrum* (beak).

Holotype. PIN, no. 2383/94, almost complete beetle (part and counterpart); South Kazakhstan, Kzyl-Orda Region, Chiili District, northwestern spurs of the Karatau Range, Kzyl-Dzhar locality; Upper Cretaceous, Turonian.

Description (Figs. 1, 2). A small, oblong, depressed beetle. The head is nearly twice as long as wide, oval-shaped, elongate anterior to the antennal bases. The genae and the temples are longer than the eyes; the occiput is sloped; the neck-like constriction is

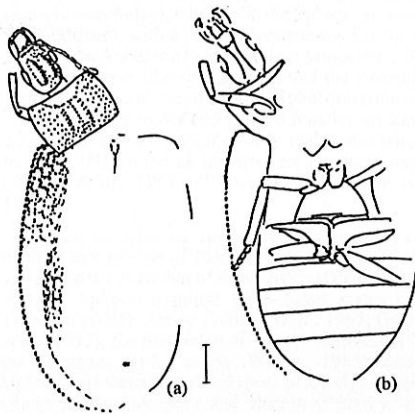


Fig. 1. *Brochocoleus rostratus* sp. nov., holotype PIN, no. 2383/94: (a) dorsal view, (b) ventral view.

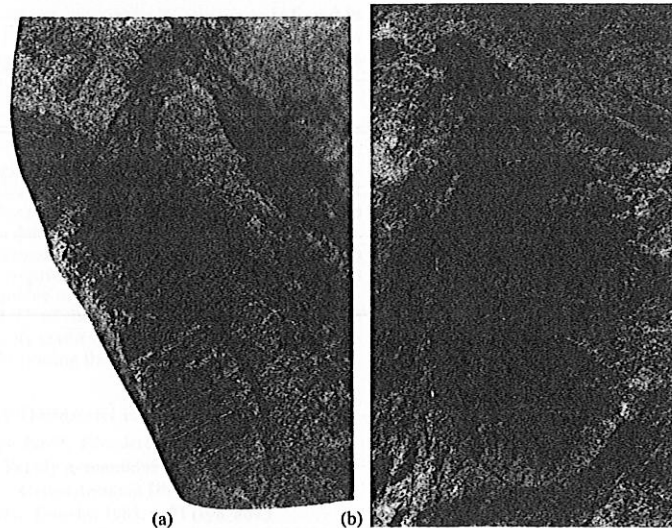


Fig. 2. *Brochocoleus rostratus* sp. nov., holotype PIN, no. 2383/94: (a) positive impression, (b) negative impression, x9.

not sharp; the temples do not projecting laterad. The vertex bears two flat oval prominences which are tapered and nearly acuminate posteriorly. The antenna is setaceous, reaching the anterior pronotal margin. The pronotum is nearly 1.5 times as wide as long, very slightly narrowed anteriorly, and flattened laterally. The pronotal disc bears a large longitudinal prominence divided by two deep longitudinal depressions. The metasternum is transverse, and twice as wide as long. The last sternite is 1.3 times longer than the penultimate one. The elytron is 2.5 times as long as wide, with the apex not narrowing into the "tail." The epipleural margin is very broad, in the anterior third with three cell rows, otherwise with two. The main elytral veins are hardly distinguishable from intermediate ones; the veins and cells are poorly traceable. The body is more or less evenly covered with quite large tubercles.

Measurements (mm): length of the beetle, 10.6; its width, 3.0; elytron length, 7.2.

Comparison. Distinct from the type species (known by the elytron only) in the smaller size, from the other species in the longer head, and in the different proportions and sharper relief of the pronotum.

Material. Holotype.

REFERENCES

- Hong, Y.-Ch., *Mesozoic Fossil Insects of Jiuquan Basin in Gansu Province*, Peking: Geol. Publ. House, 1982.
Ponomarenko, A.G., New Beetles of the Family Cupedidae from the Mesozoic of Mongolia. Brochocoleini and Notocupedini, *Paleontol. Zh.*, 1994, no. 3, pp. 83–93.
Ren, D., *Fauna and Stratigraphy of the Jurassic–Cretaceous in Beijing and Adjacent Area*, Beijing: Seismic Publ. House, 1995, pp. 47–121, 181–197.