New Beetles of the Family Cupedidae from the Mesozoic of Mongolia.
Ommatini, Mesocupedini, Priacmini

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Abstract—Thirteen new species of cupedid beetles assigned to six genera are described from seven Middle–Upper Jurassic and Lower Cretaceous localities. A new species of Cionocoleus based on a nearly complete specimen is described; the genus is redefined and transferred from the Schizocoleidae to the Cupedidae incertae sedis.

Subfamily Ommatinae Sharp et Muir, 1912
Tribe Ommatini Sharp et Muir, 1912
Genus Tetrephyalerus Waterhouse, 1901
Tetrephyalerus glabratus Ponomarenko, sp. nov.
Plate 6, figs. 1 and 2

Etymology. From Latin glabrus (smooth).

Holotype. PIN, no. 3791/3379, beetle lacking most legs (part and counterpart); Bakhar, outcrop 268; Middle or Upper Jurassic, Togo-Khuduk sequence.

Description (Fig. 1). Quite large, elongate, flattened beetle. Head slightly longer than wide, triangular, broadest at occiput. Genae slightly shorter than eyes, temples longer than eyes, occiput sloped, neck-like constriction not sharp, temples not projecting laterad. Vertex with two oval flat prominences, their posterior part broadened. Antenna setaceous, extending beyond anterior pronotal margin. Pronotum slightly wider than long, very weakly narrowing forwards and backwards, sides flattened. Pronotal disc with weak longitudinal elevation subdivided by two longitudinal depressions. Metasternum transverse, 1.5 times as broad as long. Elytron twice as long as broad, with tip not drawn out tail-like. Epiplura quite narrow. Veins very poorly traceable, almost invisible, cells indistinct. Last abdominal sternum 1.3 times as long as penultimate one. Body quite evenly covered with not very large tubercles.

Measurements (mm): total length 14–16, width 4.5–5.3, elytron length 10–11.

Comparison. Distinct from most species by the elytron almost lacking veins and cells; from T. aphaleratus Ponomarenko, 1969 and the beetle described as Tetrephyalerites oligocenicus Crowson, 1962, both similar in this character, distinguishable by the narrow epiplura and (from the first species) also by shorter head.
Material. Besides the holotype, from same locality (outcrop 275) the paratypes no. 3791/4700 (almost complete beetle) and no. 3791/4248 (abdomen).

Tetraphalerus collaris Ponomarenko, sp. nov.
Plate 6, fig. 3

Etymology. From Latin collum (neck).

Holotype. PIN, no. 3559/1629, beetle lacking most of abdomen and legs (part and counterpart); Bon-Tsagan, outcrop 45, bed 19; Lower Cretaceous, Khurilt sequence.

Description (Fig. 2). Quite large, elongate, flattened beetle. Head more than twice longer than broad, subrectangular, extended and somewhat broadened before antennal bases. Genae and temples longer than eyes, occiput truncate, neck-like constriction abrupt, temples protruding laterad. Vertex with two pairs of oblique carinae which are more raised posteriorly. Pronotum arcuately narrowed forwards, 1.5 times as long as broad at anterior margin; sides flattened; anterior margin 1.5 times shorter than posterior one. Pronotal disc with weak longitudinal depressions. Metasternum transverse, 1.5 times as broad as long. Epipleura narrow, broadening anteriorly from the middle of metasternum. Main veins of elytron barely distinguishable from intermediate ones; veins and cells poorly traceable. Fore femora thickened. Body quite evenly covered with large tubercles.

Measurements (mm): length as preserved 11, estimated total length about 20, width 7.0, elytron length about 12.


Material. Holotype.

Tetraphalerus bontsaganensis Ponomarenko, sp. nov.
Plate 6, figs. 4 and 5

Etymology. From the Bon-Tsagan locality.
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Plate 6
Fig. 3. *Tetraphalerus bontsaganensis* sp. nov.; holotype PIN, no. 3559/6051: (a) from above, (b) from below; paratypes: (c) PIN, no. 3559/1635, (d) PIN, no. 3559/1662, Bon-Tsagan, Lower Cretaceous; (e) PIN, no. 3790/278, Khurilt, Lower Cretaceous.

**Explanation of Plate 6**

Figs. 1, 2. *Tetraphalerus glabratus* sp. nov.: (1) holotype PIN, no. 3791/3379, ×3.8, (2) paratype PIN, no. 3791/4700, ×3.6; Bakhar, Middle or Upper Jurassic.

Figs. 3. *Tetraphalerus collaris* sp. nov.: holotype PIN, no. 3559/1629, ×5.8; Bon-Tsagan, Lower Cretaceous.

Figs. 4, 5. *Tetraphalerus bontsaganensis* sp. nov.: (4) holotype PIN, no. 3559/6051, ×4.6, (5) paratype PIN, no. 3559/1635, ×4.3; Bon-Tsagan, Lower Cretaceous.

Figs. 6. *Tetraphalerus longicolliis* sp. nov.: holotype PIN, no. 3559/1578, ×7.6; Bon-Tsagan, Lower Cretaceous.

Figs. 7. *Tetraphalerus notatus* sp. nov.: holotype PIN, no. 3559/6053, ×9.0; Bon-Tsagan, Lower Cretaceous.

Figs. 8. *Omma gobiense* sp. nov.: holotype PIN, no. 3688/1173, ×3.0: (a) head and prothorax, (b) thorax and abdomen; Khoutiin-Khotgor, Upper Jurassic.

Figs. 9. *Omma altajense* sp. nov.: holotype PIN, no. 3791/4716, ×2.8; Bakhar, Middle or Upper Jurassic.

Figs. 10. *Omma antennatum* sp. nov.: holotype PIN, no. 3559/6048, ×5.4; Bon-Tsagan, Lower Cretaceous.

Figs. 11, 12. *Anaglyphites mongolicus* sp. nov.: (11) holotype PIN, no. 3559/1608, ×10, Bon-Tsagan, Lower Cretaceous; (12) paratype PIN, no. 3790/277, ×8, Khurilt, Lower Cretaceous.

Figs. 13. *Priacmopsis minimus* sp. nov.: holotype PIN, no. 3559/6052, ×7.0; Bon-Tsagan, Lower Cretaceous.

Figs. 14. *Priacma oculata* sp. nov.: holotype PIN, no. 4271/182, ×5.0; Shar-Tologoi, Lower Cretaceous.

Figs. 15. *Priacma longicapitis* sp. nov.: paratype PIN, no. 4271/175, ×4.0; Shar-Tologoi, Lower Cretaceous.

Figs. 16. *Cionocoleus ommamimus* sp. nov.: holotype PIN, no. 467/74, ×2.6; Anda-Khuduk, Lower Cretaceous, Anda-Khuduk Formation.

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**Holotype.** PIN, no. 3559/6051, almost complete beetle (part and counterpart); Bon-Tsagan, outcrop 87, bed 8; Lower Cretaceous, Khurilt sequence.

**Description** (Fig. 3). Not large, flattened beetle. Head 1.5 times as long as wide, distinctly narrowed forwards. Genae and temples not longer than eyes; occiput truncate. Neck-like constriction not sharp; temples not projecting laterad. Vertex with two oval flat prominences which are narrowed posteriorly. Antenna weakly moniliform, reaching beyond anterior pronotal margin; its first and third segments much longer than others, apical one swollen. Pronotum nearly as wide as long, weakly broadened forwards; sides of pronotum with a sharp groove. Metasternum transverse, 1.7 times as wide as long. Elytron 2.5 times as long as wide, with tip not drawn out tail-like. Epipleura with broad rim bearing a row of cells. Main veins of elytron barely distinguishable from intermediate ones, cells distinct. Last sternum 1.3 times longer than penultimate one; abdomen narrowing from the base of third sternum. Body densely, evenly covered with tubercles which are largest on the ventral head surface and metasternum.

**Measurements** (mm): total length 8–10, width 3.3–3.6, elytron length 5.0–6.6.

**Comparison.** In proportions of the head and pronotum similar to *T. verrucosus* Ponomarenko, 1966 and *T. ochotensis* Ponomarenko, 1993, being distinct from them in the head less elongate, and pronotum broadened forwards.