

New Species of the Tumbling Flower Beetle Genus *Glipostena* (Insecta: Coleoptera: Mordellidae) from Rovno Amber

V. K. Odnosum and E. E. Perkovsky

Schmalhausen Institute of Zoology, National Academy of Sciences of Ukraine,
ul. Bogdana Khmel'nitskogo 15, Kiev, 01601 Ukraine

e-mail: tatjana-vladimir@yandex.ru

e-mail: perkovsk@gmail.com

Received July 15, 2008

Abstract—A new fossil species of the tumbling flower beetle genus *Glipostena* is described from Rovno amber. It differs from its recent and fossil congeners in the shapes and proportions of the antennomeres, and the number and position of lateral ridges on the hind tibia.

DOI: 10.1134/S0031030109090093

Key words: Coleoptera, Mordellidae, *Glipostena*, amber, paleontology, Eocene, Ukraine.

INTRODUCTION

Until now, the genus *Glipostena* Ermisch, 1941 was represented by seven recent species, three Afrotropical (*G. congoana* Ermisch, 1952, *G. nemoralis* Franciscolo, 1962, and *G. medleri* Franciscolo, 1999; Nigeria, Congo, and Angola), three Oriental (*G. glipodoidea* (Blair, 1931), *G. dimorpha* Franciscolo, 1999, and *G. hogsbacki* Franciscolo, 1999; Sumatra, Sulawesi), and one Palearctic (*G. pelecotomoidea* (Pic, 1911); Japan, Taiwan), and a single fossil species, *G. sergeli* Ermisch (Ermisch, 1943), from the Late Eocene Baltic amber. The larvae of this genus are unknown; the adults feed on pollen and are active pollinators of entomophilous plants.

Glipostena differ from other tumbling flower beetles in the apical segments of the maxillary palpi large, wide, and almost equilateral, the eyes large and with large ommatidia, the antennae filiform and long, the scutellum small and triangular, the penultimate fore and middle tarsomeres apically notched, the hind tibiae with two to nine lateral ridges of variable length, the middle tibiae thin and longer than the tarsi, as well as in the presence of lateral ridges on the 1st to 3rd hind tarsomeres. Species of this genus differ from each other in the shapes and proportions of the head, eyes, antennae, pronotum, elytra, and pygidium, the number and location of the lateral ridges on the hind tibiae and tarsi, as well as the shapes of the male parameres, penis, and phallobase.

MATERIAL

The holotype of *Glipostena ponomarenkoi* sp. nov. is deposited at the Schmalhausen Institute of Zoology,

National Academy of Sciences of Ukraine, in Kiev (SIZK).

SYSTEMATIC PALEONTOLOGY

Family Mordellidae Latreille, 1802

Genus *Glipostena* Ermisch, 1941

Glipostena ponomarenkoi Odnosum et Perkovsky, sp. nov.

Etymology. In honor of the prominent Russian paleontologist Alexander Georgievich Ponomarenko.

Holotype. SIZK, no. K-5949, female; Klesov, Rovno amber; Late Eocene. Syninclusions: K-5948: a small Coleoptera larva, Diptera (Tipuloidea), Acari; K-5949: Acari; K-5950, a worker ant *Prenolepis henschei* Mayr, three Diptera (one Dolichopodidae, two Sciaridae), two Acari, Collembola.

Description (Figs. 1a, 1b). The body and appendages are uniformly dark brown, conspicuously shiny. The width of the head at the mid-eye level is 1.5 times its length measured from its posterior margin to the base of the clypeus. The eyes with the ommatidia large, almost protruding conically sidewise. Temples are not developed. The 1st and 2nd antennomeres cylindrical, of identical size and shape. The 3rd and 4th antennomeres are the smallest, of identical shape, slightly elongated, each 1.25–1.30 times shorter than the 2nd antennomere, almost quadrate, slightly expanded apically. The 5th to 10th flagellomeres are of identical size and shape, twice as long as wide, slightly expanded apically. The 11th flagellomere is the longest, narrowly lanceolate, almost 3 times longer than wide at the middle, approximately 1.5 times as long as the 6th to 10th flagellomeres. The pronotum is transverse, 1.7–1.8 times as wide as long medially, with its lateral sides

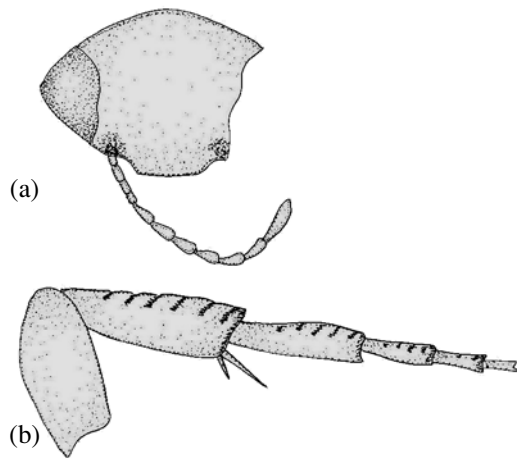


Fig. 1. *Glipostena ponomarenkoi* sp. nov., holotype SIZK, no. K-5949, female: (a) fragment of head in anterior view; (b) hind leg.

conspicuously convexly arcuate, the posterior corners rectangular, apically rounded; in lateral view the lateral margins of the pronotum are sinuate. The elytra are conspicuously arched in lateral view, their length exceeds the humeral width 2.0 times and the pronotum length 3.0–3.1 times. The pronotum and elytra are finely punctate. The pygidium is massive, rounded apically, twice as long as wide basally, 1.4 times as long as the pronotum, 2.25–2.3 times as the elytra, and 2.5 times as the anal sternite. The fore tibiae are thin, not expanding apically, straight, without setae on the inner surface. The hind tibiae with six short lateral ridges, of nearly equal length, occupying not more than

one-third of the tibia width and parallel to its apical margin. The 1st hind tarsomere with 5, the 2nd with 4, and the 3rd with 3 ridges.

Measurements (mm): Body length, from the head anterior margin to the pygidium apical margin, 5.5.

Comparison. The new species is most similar to *G. sergeli* from the Baltic amber, with which it shares in common the short lateral ridges taking not more than one-third of the hind tibia width and parallel to its apical margin. The same characters sharply differentiate the new species from the recent species, which have the ridges long, reaching the midwidth of the hind tibia, and not parallel to its apical margin. From *G. sergeli* it differs well in having six short lateral ridges on the hind tibia (nine in *G. sergeli*) and the 3rd antennomere short (in *G. sergeli* the 2nd and 3rd antennomeres are of equal lengths and widths).

Remarks. The holotype is in a 4.7-g piece (after some initial trimming) of transparent Rovno amber.

Material. Holotype.

ACKNOWLEDGMENTS

The authors thank G.M. Dlussky for identification of the ant syninclusion.

REFERENCES

1. K. Ermisch, "Eine neue Mordellide und Scraphiide aus baltischem Bernstein (Coleoptera: Mordellidae and Scraphiidae) (13. Beitrag zur Kenntnis der Mordelliden)," *Arb. Morphol. Taxon. Ent. Berlin-Dahlem* **10** (1), 64–68 (1943).