

NEW SPECIES OF THE GENUS *CARPELIMUS* LEACH, 1819 FROM INDIA (COLEOPTERA: STAPHILINIDAE: OXYTELINAE)

M. Yu. Gildenkov

Department of Ecology and Chemistry, Smolensk State University, Smolensk, 214000, Russia. E-mail: mgildenkov@mail.ru

Summary. A new species *Carpelimus (Trogophloeus) mumbaiensis* sp. n. is described and illustrated from India. The new species belongs to the 'notumus' species group, which is recorded for India for the first time. By the punctuation of the head and elytra, weakly developed depressions on the pronotal disc, the new species is most similar to *C. irianensis* Gildenkov, 2020 from New Guinea. Reliably differs from it and all species of the 'notumus' species group in the structure of the aedeagus.

Key words: beetles, Coleoptera, Staphylinidae, taxonomy, new species, Asia.

М. Ю. Гильденков. Новый вид рода *Carpelimus* Leach, 1819 из Индии (Coleoptera: Staphilinidae: Oxytelinae) // Дальневосточный энтомолог. 2024. N 498. С. 16-19.

Резюме. Из Индии описан и проиллюстрирован новый вид *Carpelimus (Trogophloeus) mumbaiensis* sp. n., относящийся к группе 'notumus', представитель которой для Индии отмечается впервые. Характером пунктировки головы и надкрылий, слабо выраженными вдавлениями на диске переднеспинки, новый вид наиболее сходен с *C. irianensis* Gildenkov, 2020 с Новой Гвинеи. От него и всех представителей группы 'notumus' новый вид надежно отличается строением эдеагуса.

INTRODUCTION

The new species belong to a taxonomically complex species group close to *Carpelimus (Trogophloeus) notumus* Gildenkov, 2019. Currently, we include in the 'notumus' species group species that live in the Oriental and Australian Regions and have characteristic tooth-like structures in the internal sac of aedeagus: *C. (T.) notumus* and *C. (T.) plenus* Gildenkov, 2019 from the Philippines, *C. (T.) vilisus* Gildenkov, 2019 from Thailand, *C. (T.) ibelensis*, Gildenkov, 2020, *C. (T.) irianensis* Gildenkov, 2020, and *C. (T.) nabireensis* Gildenkov, 2023 from New Guinea (Indonesia, West Papua), and *C. (T.) kwauensis* Gildenkov, 2023 from New Guinea (Indonesia, West Papua and Papua New Guinea). (Gildenkov, 2019a, 2020a, 2023a).

The paper continues the author's series of works on the fauna of the genus *Carpelimus* Leach, 1819 of the Oriental Region and New Guinea (Gildenkov, 2015, 2018a, b, 2019a, b, c, d, e, f, 2020a, b, c, 2021a, b, 2022, 2023a, b).

The paper is based on the specimens deposited in the following collections: BNHM – British Natural History Museum (London, Great Britain); cMG – private collection of M. Gildenkov (Smolensk, Russia).

The dissections, measurements, and drawings were made using a MBS-10 microscope provided with an eyepiece-micrometer and a measuring grid. In the following description, the length to width ratio for the head, pronotum, and elytra is given using standard units: 7 standard units = 0.1 mm; thus 1 standard unit is about 0.0143 mm. The slides of the genitalia were treated with 10% KOH and fixed in euparal. Photographs were taken with a Canon EOS 5D Mark III camera and a Canon MP-E 65 mm objective using the extended focus technology.

TAXONOMY

Carpelimus (Trogophloeus) mumbaiensis Gildenkov, sp. n.

<https://zoobank.org/NomenclaturalActs/9237FECC-DF47-4E0F-AC33-91226431B935>

Figs 1–3

TYPE MATERIAL. Holotype – ♂, **India**: Maharashtra state, Matheran / India or. Biró 1902 / Matheran 800 m / *Trogophloeus* sp. det. Székessy / *granulatus rupicomis* / W. Steal Coll. B.M. 1969-552 / (BNHM). Paratypes: 1♂, 1♀, 'India or. Biró 1902, Matheran 800 m, W. Steal Coll. B.M. 1969-552' (♀ – BNHM; ♂ – cMG).

DESCRIPTION. MALE (holotype). Length 1.7 mm. Coloration brown. Head and abdomen dark brown; pronotum brown; elytra light brown; legs and antennae yellow-brown. Integument slightly shining, body with short, light-colored hairs.

Head transverse, with a wide base, ratio of its length (from posterior margin of head to anterior margin of clypeus) to maximum width about 19 : 25. Neck constriction prominent. Eyes large, convex. Temples well-developed, round, eye diameter in dorsal view barely exceeds temple length. Head width across eyes approximately equal to its width across temples (Fig. 1). Head surface with very delicate, very fine and dense punctation. Diameter of punctures about 3.5 times as small as eye facet. Distances between the points are less than their diameter. The surface of the head looks shagreened. Antennae rather short, antennal segments 1–2 elongate; segment 3 slightly elongate; segments 4–6 – about as long as wide; segments 7–10 transverse; segment 11 elongate, conical. Last 3 segments more massive than others and form loose club (Fig. 1).

Pronotum widest about 2/3 its length from base, then narrowed. Lateral margin smoothly rounded (Fig. 1). Ratio of pronotum length to its maximum width about 19:26. Surface of pronotum with very delicate, very fine and dense punctation. Diameter of punctures about 3.5 times as small as eye facet. Distances between points are less than their diameter. The surface looks shagreened. Punctation is less dense than on the head surface. Pronotal disc with one pair of less developed, symmetrical depressions at the base.

Ratio of length of elytra to their combined width approximately as 31:31. Scutellum with shallow, round depressions (Fig. 1). Elytra with quite distinctly, finely and dense punctation. Diameter of punctures approximately equal to diameter of eye facet. Distances between punctures approximately equal to their diameter, interspaces smooth, slightly shining.

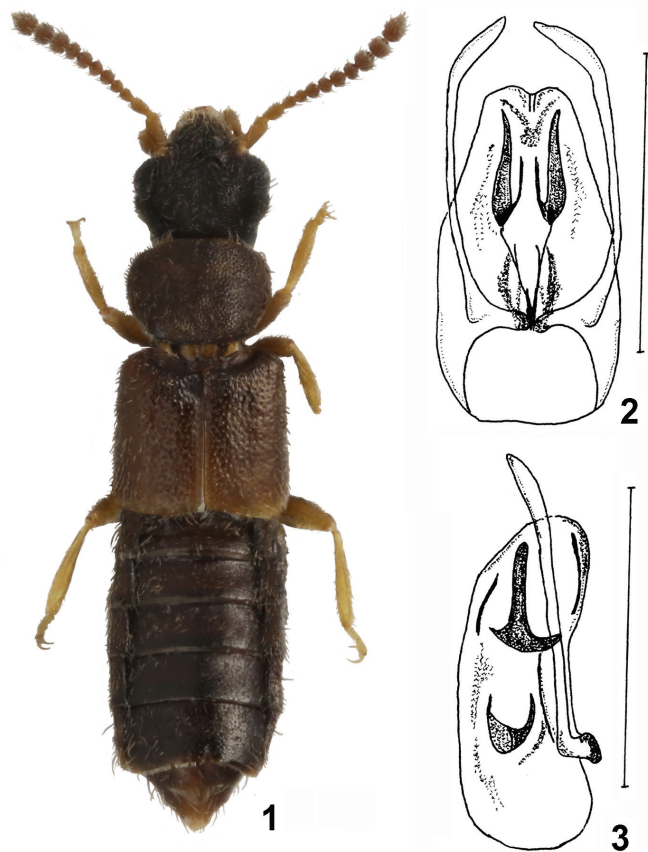
Abdomen delicately shagreened.

Aedeagus of characteristic structure (Figs 2, 3)

FEMALE. Sexual dimorphism absent, morphologically similar to male. Spermatheca could not be extracted and its structure is unknown.

DISTRIBUTION. India: Maharashtra state.

ETYMOLOGY. Named for its geographical distribution.



Figs. 1–3. *Carpelimus (Trogophloeus) mumbaiensis* sp. n., holotype, male: 1 – body, dorsal view, length – 1.7 mm; 2 – aedeagus in dorsal view; 3 – aedeagus in lateral view. Scale bars: 0.25 mm.

DIAGNOSIS. The new species belongs to the ‘*notumus*’ species group, which is recorded for India for the first time. By the punctuation of the head and elytra, weakly developed depressions on the pronotal disc, the new species is most similar to *C. irianensis* Gildenkov, 2020 from New Guinea in elongated tooth-like structures in the internal sac of the aedeagus, but differs in lighter coloration, larger punctuation of the elytra, and in the structure of the aedeagus (Figs. 2, 3 vs. Gildenkov, 2020a: figs 12, 13). Reliably differs from all species of the ‘*notumus*’ species group in the structure of the aedeagus (Figs. 2, 3).

ACKNOWLEDGEMENTS

The author wishes to thank Roger Booth (BNHM) for making material available for study. I also thank Kirill Makarov (Moscow Pedagogical State University, Russia) for taking the photographs.

REFERENCES

- Gildenkov, M.Yu. 2015. Fauna *Carpelimus* of the Old World (Coleoptera: Staphylinidae). SmolSU, Smolensk. 414 pp. [In Russian with English summary]
- Gildenkov, M.Yu. 2018a. Five new species of the genus *Carpelimus* Leach, 1819, from the Oriental region (Coleoptera: Staphylinidae: Oxytelinae). *Russian Entomological Journal*, 27(2): 135–142. DOI: 10.15298/rusentj.27.2.03
- Gildenkov, M.Yu. 2018b. A new species of the subgenus *Troginus* Mulsant et Rey 1878 (Coleoptera: Staphylinidae: Oxytelinae: *Carpelimus*) from Borneo. *Zootaxa*, 4444(3): 347–350. DOI: 10.11646/zootaxa.4444.3.10.
- Gildenkov, M.Yu. 2019a. Five new species of the Genus *Carpelimus* Leach, 1819 from Thailand and the Philippines (Coleoptera: Staphylinidae: Oxytelinae). *Russian Entomological Journal*, 28(1): 30–35. DOI: 10.15298/rusentj.28.1.05.
- Gildenkov, M.Yu. 2019b. Three new species of the Genus *Carpelimus* Leach, 1819 (Coleoptera: Staphylinidae: Oxytelinae), similar to *Carpelimus* (s. str.) *planicollis* (Bernhauer, 1902). *Amurian Zoological Journal*, 11(1): 21–27. DOI: 10.33910/1999-4079-2019-11-1-21-27.
- Gildenkov, M.Yu. 2019c. Seven new species of the genus *Carpelimus* Leach, 1819 from the “*taprobanae*” group (Coleoptera: Staphylinidae: Oxytelinae). *Russian Entomological Journal*, 28(2): 138–145. DOI: 10.15298/rusentj.28.2.04.
- Gildenkov, M.Yu. 2019d. Two new species of the Genus *Carpelimus* Leach, 1819 from Malaysia (Coleoptera: Staphylinidae: Oxytelinae). *Russian Entomological Journal*, 28(4): 370–372. DOI: 10.15298/rusentj.28.4.04.
- Gildenkov, M.Yu. 2020a. Eight new species of the genus *Carpelimus* Leach, 1819 from Indonesia (Coleoptera: Staphylinidae: Oxytelinae). *Russian Entomological Journal*, 29(1): 53–60. DOI: 10.15298/rusentj.29.1.07.
- Gildenkov, M.Yu. 2020b. Two new species of the Genus *Carpelimus* Leach, 1819 (Coleoptera: Staphylinidae: Oxytelinae) from Vietnam. *Far Eastern Entomologist*, 407: 1–7. DOI: 10.25221/fee.407.1.
- Gildenkov, M.Yu. 2020c. New data on the New Guinea fauna of *Carpelimus* Leach, 1819 (Coleoptera: Staphylinidae: Oxytelinae). *Amurian Zoological Journal*, 12(3): 369–377. DOI: 10.33910/2686-9519-2020-12-3-369-377.
- Gildenkov, M.Yu. 2021a. A new species of the *simplex* group of the genus *Carpelimus* Leach, 1819 (Coleoptera: Staphylinidae: Oxytelinae) from Thailand. *Zootaxa*, 4926(4): 573–576. DOI: 10.11646/zootaxa.4926.4.7.
- Gildenkov, M.Yu. 2021b. New data (for 2020) on the distribution of species from the genus *Carpelimus* Leach, 1819 (Coleoptera: Staphylinidae: Oxytelinae) in the Oriental Region. *Samara Journal of Science*, 10(1): 51–56. DOI: 10.17816/snv2021101107.
- Gildenkov, M.Yu. 2022. A new species of the subgenus *Troginus* Mulsant et Rey 1878 (Coleoptera: Staphylinidae: Oxytelinae: *Carpelimus*) from China. *Zootaxa*, 5169(5): 481–484. DOI: 10.11646/zootaxa.5169.5.6.
- Gildenkov, M.Yu. 2023a. Two new species of the genus *Carpelimus* Leach, 1819 from New Guinea, related to *Carpelimus* (*Trogophloeus*) *notumus* Gildenkov, 2019 (Coleoptera: Staphylinidae: Oxytelinae). *Russian Entomological Journal*, 32(1): 40–43. DOI: 10.15298/rusentj.32.1.04
- Gildenkov, M.Yu. 2023b. New species of the genus *Carpelimus* Leach, 1819 from Moluccas (Coleoptera: Staphylinidae: Oxytelinae). *Far Eastern Entomologist*, 474: 1–6. DOI: 10.25221/fee.474.1