

A new species and new records of *Geodromicus* Redtenbacher, 1857 (Coleoptera: Staphylinidae: Omaliinae: Anthophagini) from Pakistan

Новый вид и новые находки рода *Geodromicus* Redtenbacher, 1857 (Coleoptera: Staphylinidae: Omaliinae: Anthophagini) из Пакистана

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Key words: Coleoptera, Staphylinidae, Omaliinae, Palaearctic, Pakistan, *Geodromicus*, new species, new records.

Ключевые слова: Coleoptera, Staphylinidae, Omaliinae, Палеарктика, Пакистан, *Geodromicus*, новый вид, новые находки.

Abstract. *Geodromicus medvedevi* sp. n. from Pakistan is described. *Geodromicus trapezippennis* Coiffait, 1979 is recorded from Pakistan for the first time; its aedeagus is illustrated.

Резюме. Описан новый вид *Geodromicus medvedevi* sp. n. из Пакистана. *Geodromicus trapezippennis* Coiffait, 1979 впервые отмечен для Пакистана; его эдеагус проиллюстрирован.

Introduction

Only three species of the genus *Geodromicus* Redtenbacher, 1857 were hitherto known in the fauna of Pakistan: *G. brancuccii* Coiffait, 1984 described from "Sharan, 2400–2600 m" [Coiffait, 1984: 142], *G. pakistanus* Coiffait, 1984 described from "Murree-Abbottabad, 2200–2500 m" [Coiffait, 1984: 143] and *G. torrentis* Puthz, 1973 described from "Swat Region: Guhral Spring" [Puthz, 1973: 517].

One species, *G. longicornis* Coiffait, 1983, which was originally described from Kashmir (type locality: "Cachemire: Himachal Pradesh, Mari, 3500 m") [Coiffait, 1983: 278], was recorded for Pakistan by Smetana [2004: 244] erroneously.

In this study I describe a new species and record earlier described *Geodromicus trapezippennis* Coiffait, 1979 from Pakistan for the first time. As a result, now five species of the genus *Geodromicus* are known from Pakistan.

The following measurements and their respective abbreviations are used in this paper: WH – maximum width of head including eyes; WP – maximal width of pronotum; LA – length of antenna; LE – longitudinal length of eye; LT – length of temple (from posterior margin of eye to neck constriction); LPM/WPM (III, IV) – length/width ratio of segments III and IV of maxillar palpi; LH – length of head (from base of labrum to neck constriction along the head midline); LP – length of pronotum; LES – sutural length of elytra (length of elytra from apex of scutellum to posterior margin of sutural angle); WE – maximal width of elytra; WA – width of segment IV of abdomen; LHT – length of hind tarsus; LHT I–IV – combined length of segments I–IV of metatarsus; LHT V – length of segment V of metatarsus; LAE – length of aedeagus. All measurements are given in millimeters. The measurements of LA, LPM/WPM, LHT and LAE were made only for the holotype of the new

species. Length of the body was measured from the base of labrum to the apex of abdomen.

The examined material is deposited in the following institutions: DEI – Deutsches Entomologisches Institut, Müncheberg, Germany (L. Zerche), NMW – Naturhistorisches Museum Wien, Vienna, Austria (H. Schillhammer).

Geodromicus medvedevi sp. n.

(Fig. 1–2)

Type material. Holotype: NW Pakistan: ♂, 60 km ENE Chitral Shandur pass. ca. 4200 m, 16–17.07.1998, leg. Kaláb (NMW). Paratypes: same data as holotype, 2♂, 1♀ (NMW). Two paratypes (males) damaged: one without hind legs, one without right antennomere XI.

Description. Measurements (min-max; n=4): WH: 0.9; LH: 0.62–0.7; LA: 2.9; LE: 0.3; LT: 0.15; LPM/WPM (III: 0.2×0.1; IV: 0.1×0.05); LP: 1–1.1; WP: 1.2–1.3; LES: 1.8–1.9; WE: 1.8–1.9; WA: 1.7–1.9; LHT: 0.6 (LHT I–IV: 0.2; LHT V: 0.4); LAE: 1–1.1. Body length: 5.9–7.2 (holotype: 6.2).

Body brown; head, antennomeres IV–XI and pronotum dark brown; legs, antennomeres I–III, mouthparts, ocelli and paratergites yellowish brown. Body covered by sparse fine white setae.

Head distinctly smaller than pronotum, 1.2–1.4 times as wide as long; temples short, sharply rounded to neck constriction. Eyes large, convex, twice as long as temples. Punctuation irregular, sparse and coarse; interstices 1–1.3 times as broad as diameter of punctures, without visible microsculpture, glossy. Ocelli small, well visible, distance between ocelli approximately twice as long as distance between ocellus and posterior margin of eye. Maxillary palpi relatively long, segment III noticeably shorter than II, segment III twice as long as IV, segment IV twice as long as wide. Antennae long, reaching middle of elytra, with long setae on all antennomeres; antennomere I 2.3 times as long as wide, 2.6 times as long as antennomere II; antennomere III conical at base, apically widened; antennomeres III–X of similar proportions. Length/width ratio of antennomeres: I: 0.4×0.17; II: 0.15×0.08; III–X: 0.2×0.1; XI: 0.3×0.1.

Pronotum large, convex, 1.1–1.2 times as wide as long, 1.3–1.4 times as wide as head, widest at anterior third; posterior angles parallel-sided. Punctuation regular, deeper and denser than that of head; interstices between punctures 1–1.3 times as large as diameter of punctures, without microsculpture, glossy.

Scutellum relatively large, triangular, without punctuation and microsculpture.

Elytra slightly convex, as long as wide, dilated posteriorly

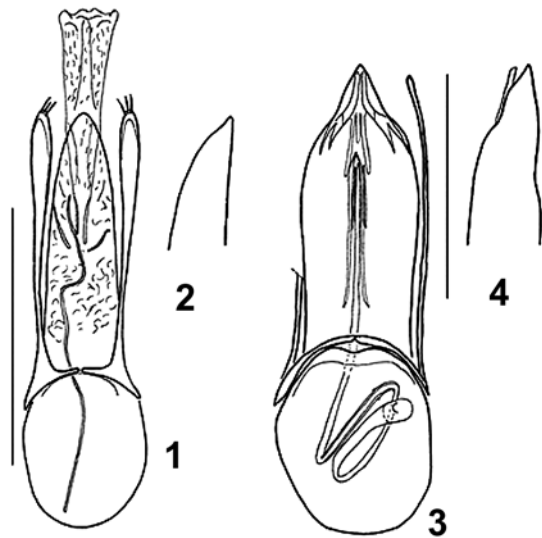


Fig. 1–4. *Geodromicus*.

1–2. *G. medvedevi* sp. n.; 3–4. – *G. trapezipennis* Coiffait, 1979; 1, 3 – aedeagus in ventral view; 2, 4 – apex of aedeagus in lateral view. Scale bar 0.5 mm.

Рис. 1–4. *Geodromicus*.

1–2. *Geodromicus medvedevi* sp. n.; 3–4 – *Geodromicus trapezipennis* Coiffait, 1979; 1, 3 – эдеагус вентрально; 2, 4 – вершина эдеагуса сбоку. Масштабная линейка: 0.5 мм.

and obtusely rounded apicad; 1.6–1.9 times as long and 1.4–1.6 times as wide as pronotum. Punctuation regular, coarser, deeper and denser than that of pronotum; interstices 1–1.3 times as broad as diameter of punctures, without microsculpture, glossy. Wings fully developed.

Abdomen weakly convex, slightly narrower than elytra; with two tomentose spots on tergite IV; tergites III–IV parallel-sided, weakly tapering from tergite V towards apex. Punctuation of tergites IV–VI regular, fine and dense, with well visible fine microsculpture at high magnification, tergites VII–VIII with sparser punctuation and coarser microsculpture.

Male. Protarsi with dilated tarsomeres, profemur widened; metatarsi enlarged. Pronotum larger, wider. Elytra narrower and shorter, abdomen narrower. Aedeagus (fig. 1) relatively large; median lobe apically narrow, apex rounded; basal part small. Apex of aedeagus laterally as in fig. 2. Internal sac with long flagellum bent in median part and reaching the anterior third of aedeagus. Endophallus tender, with parallel weakly sclerotized structures in subapical part of aedeagus. Paramerae slightly protruding over level of apex of aedeagus, gradually widened apically; each paramere with three short setae. Posterior margin of tergite VIII straight; sternite VIII without emargination, weakly prominent.

Female. Protarsi with less dilated tarsomeres. Profemur not widened, metatarsi not enlarged. Pronotum shorter. Tergite and sternite VIII without emargination, straight apically. Posterior margin of tergite VIII straight; sternite VIII weakly convex.

Intraspecific variation. Intraspecific variation of *G. medvedevi* sp. n. was observed particularly regarding body length, proportions of body parts such as head, pronotum, elytra and abdomen.

Comparative notes. *Geodromicus medvedevi* sp. n. differs from all other known species of the genus in the shape of aedeagus. Based on the length and coloration of the body, the new species is closely related to *G. cylindricus* Tronquet [1981: 74], from which it can be distinguished

by more widely separated ocelli, shorter temples, wider pronotum and elytra, as well as by the morphology of the aedeagus (different shape of the apex of aedeagus, longer parameres).

Remark. Based on the morphology of the aedeagus, *G. medvedevi* sp. n. apparently belongs to the *major* species group, which was defined by Bordoni [1984].

Etymology. The new species is named in the memory of the Russian entomologist Professor Dr. Sci. Gleb Sergeevich Medvedev (21.01.1931–23.09.2009).

Distribution. Known only from the type locality.

Geodromicus trapezipennis Coiffait, 1979

(Fig. 3–4)

Geodromicus trapezipennis Coiffait, 1979: 563.

Material. Pakistan: 1♂, 2♀, Lawarai-Paß, 2700–3700 m, 28.06.1982, Erber, Heinz (DEL).

Distribution. Known from the Hindu-Kush mountain range (Afghanistan, Pakistan). This is a new record of this species from Pakistan.

Remark. Aedeagus as in fig. 3–4.

Acknowledgements

My thanks are extended to L. Zerche (Müncheberg, Germany) and H. Schillhammer (Vienna, Austria) for the material and for financial support during my visit to Germany in May 2009 (Deutsche Forschungsgemeinschaft (DFG) Förderverein des Deutschen Entomologischen Institut e.V.) and to Austria in April–May 2008 (Wiener Coleopterologenverein). I thank my colleague V. Assing (Hannover, Germany) and A. Solodovnikov (Copenhagen, Denmark) for the correction of the English text of the manuscript.

References

- Bordoni A. 1984. Appunti per una revisione dei *Geodromicus* Redt. delle regione Palearctica occidentale (Coleoptera, Staphylinidae) // *Redia*. 67: 19–59.
- Coiffait H. 1979. Staphylinides du Nouristan (Afghanistan) [Coleoptera] // *Annales de la Société Entomologique de France* (n. ser.). 14(4) (1978): 551–569.
- Coiffait H. 1983. Nouveaux staphylinides du Cachemire (Coleoptera) // *Annales de la Société Entomologique de France* (n. ser.). 19(3): 273–289.
- Coiffait H. 1984. Staphylinides (Col.) de la région himalayenne et de l'Inde. II. Tachyporinae, Oxytelinae et Aleocharinae // *Entomologica Basiliensia*. 9: 116–157.
- Puthz V. 1973. A new *Geodromicus* from Pakistan (Coleoptera, Staphylinidae) // *Revue suisse de Zoologie*. 80(2): 517–519.
- Smetana A. 2004. Staphylinidae, subfamilies Omaliinae – Dasysericinae, Phloeocharinae – Apateticinae, Piestinae – Staphylininae, p. 242–245 // *Catalogue of Palearctic Coleoptera* (L. Löbl, A. Smetana eds.). Vol. 2. Hydrophiloidea – Histeroidea – Staphyloidea. Stenstrup: Appolo Books. 942 p.
- Tronquet M. 1981. Staphylinidae d'Afghanistan (Coleoptera) // *Revue Française d'Entomologie*. 3(3): 69–83.

References

- Bordoni A. 1984. Appunti per una revisione dei *Geodromicus* Redt. delle regione Palearctica occidentale (Coleoptera, Staphylinidae). *Redia*. 67: 19–59.
- Coiffait H. 1979. Staphylinides du Nouristan (Afghanistan) [Coleoptera]. *Annales de la Societe Entomologique de France* (n. ser.). 1978. 14(4): 551–569.
- Coiffait H. 1983. Nouveaux staphylinides du Cachemire (Coleoptera). *Annales de la Societe Entomologique de France* (n. ser.). 19(3): 273–289.
- Coiffait H. 1984. Staphylinides (Col.) de la region himalayenne et de l'Inde. II. Tachyporinae, Oxytelinae et Aleocharinae. *Entomologica Basiliensia*. 9: 116–157.
- Puthz V. 1973. A new *Geodromicus* from Pakistan (Coleoptera, Staphylinidae). *Revue suisse de Zoologie*. 80(2): 517–519.
- Smetana A. 2004. Staphylinidae, subfamilies Omaliinae – Dasycerinae, Phloeocharinae – Apateticinae, Piestinae – Staphylininae. In: Catalogue of Palaearctic Coleoptera (I. Lobl, A. Smetana eds.). Vol. 2. Hydrophiloidea – Histeroidea – Staphylinoidea. Stenstrup: Appolo Books: 242–245.
- Tronquet M. 1981. Staphylinidae d'Afghanistan (Coleoptera). *Revue Francaise d'Entomologie*. 3(3): 69–83.