

**Contributions to the knowledge of the Quediina (Coleoptera,
Staphylinidae, Staphylinini) of China.
Part 37. Genus *Quedius* Stephens, 1829.
Subgenus *Microsaurus* Dejean, 1833. Section 17**

Aleš SMETANA

Agriculture and Agri-Food Canada, Biodiversity, Central Experimental Farm,
K. W. Neatby Bldg., Ottawa, Ontario K1A 0C6, Canada
e-mail: ales.smetana@agr.gc.ca

Taxonomy, redescription, geographical distribution, Coleoptera, Staphylinidae, Staphylinini, Quediina, *Quedius*, China

Abstract. The paper is dealing with *Quedius (Microsaurus) bernhauerianus* Korge, 1971 (*reitteri* Bernhauer, 1933 (nec *reitteri* Gridelli, 1925)). Described by Bernhauer (l. c.) as a member of the subgenus *Sauridus*, the species was subsequently assigned to the subgenus *Raphirus*. Revision of type material puts the species in the subgenus *Microsaurus*, *Euryalus*-species group. The species is redescribed and illustrated.

INTRODUCTION

This is the 37 of a series of papers dealing with the Quediina of the People's Republic of China. It deals with *Quedius (Microsaurus) bernhauerianus* Korge, 1971 (*reitteri* Bernhauer, 1933 (nec *reitteri* Gridelli, 1925)). Bernhauer (1933a: 51) described the species as a member of the subgenus *Sauridus* Mulsant et Rey, 1876. The subgenus was subsequently synonymized with *Raphirus* Stephens, 1929 (Smetana, 1988: 181; 1993: 50) and the species was therefore listed as a member of *Raphirus* (Smetana, 2004: 664). The status of the species remained unclear, but its assignment to *Raphirus* was corroborated by the fact that Bernhauer himself was subsequently determining as "*reitteri*" Chinese specimens that belonged to a real *Raphirus* species from the *Muscicola*-group, that is new and is dealt with in another paper. The revision of the type material (see below) finally clarified the status of the species as a member of the *Euryalus*-group of the subgenus *Microsaurus* Dejean, 1833.

It should be mentioned here that Bernhauer in the same year 1933 described yet another species as *Quedius reitteri* (Bernhauer, 1933b: 39) from China. However, he realized the homonymy and introduced the replacement name *Quedius reitterianus* for it (Bernhauer, 1934: 12). This species is a peculiar member of the subgenus *Quedionuchus* Sharp, 1884 and is dealt with in another paper.

In the following, the full redescription of *Q. bernhauerianus* Korge, 1971, as well as the detailed information on the type material is given.

REDESCRIPTION

Quedius (Microsaurus) bernhauerianus Korge, 1971

(Figs 1-5)

bernhauerianus Korge, 1971: 56 (*Quedius*; replacement name for *reitteri*)

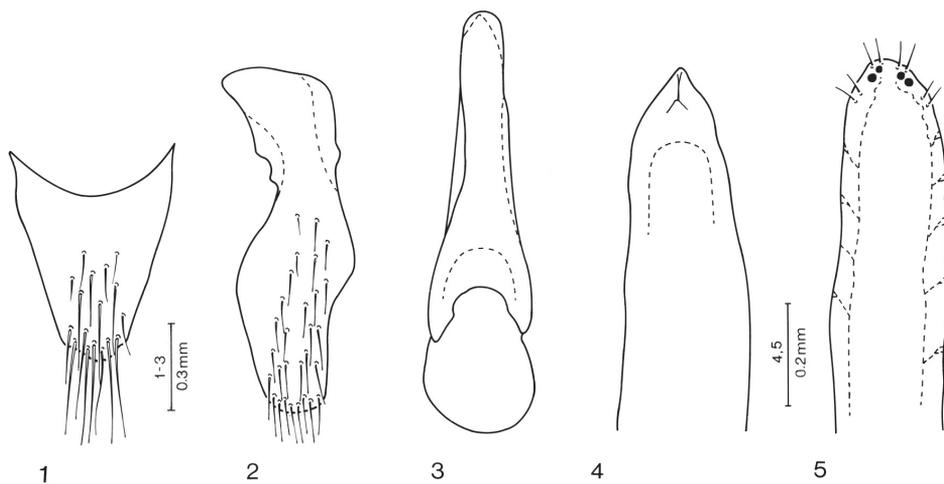
reitteri Bernhauer, 1933a: 51 (*Quedius*; subgenus *Sauridus*; homonym; nec *reitteri* Gridelli, 1925); Korge, 1971: 56 (*Quedius*; synonym of *bernhauerianus*)

Type material. Bernhauer (1933a: 51) described the species from the unknown number of specimens from "Tatsienlu-Kiulung". The Bernhauer collection at The Field Museum of Natural History, Chicago, Illinois, contains two male syntypes under the name *Q. reitteri*, labelled as follows: Spec. No. 1: "Tatsienlu China"/"- Kiulung Reitter"/"reitteri Brh. Typ." [handwritten]/"reitteri Brnh. Typus Sauridus." [handwritten] /"Chicago NHMus M. Bernhauer Collection". Spec. No. 2: "Tatsienlu China"/"- Kiulung Reitter"/"reitteri Brnh. Cotypus Sauridus" [handwritten]/"Chicago NHMus M. Bernhauer Collection".

Both specimens are in bad condition. Specimen 1 is missing entire right antenna and left antenna except segments one and two, the tarsus of left leg, entire left hind leg, and tibia and tarsus of right leg. Specimens 2 is missing entire right antenna and left antenna except segments one and two, tarsus of hind left leg, and entire right middle and hind leg.

Both specimens were dissected and the dissected parts were treated as follows: Spec. No. 1: tergite 10 and the genital segment were glued to the plate with the beetle, and the aedeagus was mounted into Canada balsam on a transparent plate and the plate was pinned under the plate with the beetle. Spec. No. 2: tergite 10 and sternite 9 of the genital segment were mounted into Canada balsam on a transparent plate, and the aedeagus (with the paramere separate) was mounted into Canada balsam on another transparent plate. Both plates were pinned under the plate with the beetle. In order to preserve the stability of the nomenclature of the group, I designate the specimen No. 1, bearing labels as above, as the lectotype of *Quedius reitteri* Bernhauer, 1933. The label "Lectotype *Quedius reitteri* Bernhauer, 1933, designated by A. Smetana 2010" has been attached to the specimen. The second specimen, bearing labels as above, is hereby designated as the paralectotype of *Quedius reitteri* Bernhauer, 1933. The label "Paralectotype *Quedius reitteri* Bernhauer, 1933, designated by Smetana (2010)" has been attached to the specimen.

Redescription. Piceous-black, elytral suture and apical margin, as well as apical margins of abdominal tergites narrowly paler, abdomen slightly iridescent; maxillary and labial palpi testaceous, first two antennal segments brunneous, legs rufobrunneous with paler tarsi, medial faces of middle and hind tibiae and femora darkened. Head of rounded quadrangular shape, slightly wider than long (ratio 1.11), posterior angles entirely rounded, obliterated; eyes large, moderately convex, tempora considerably shorter than eyes from above (ratio 0.40); no additional setiferous punctures between anterior frontal punctures, posterior frontal puncture situated close to posteromedial margin of eyes, separated from it by distance about same as diameter of puncture, two punctures between it and posterior margin of head; temporal puncture situated about midway between posterior margin of eye and posterior



Figs. 1-5. *Quedius bernhauerianus* Korge, 1971: 1- tergite 10 of male genital segment; 2- sternite 9 of male genital segment; 3- aedeagus, ventral view; 4- apical portion of median lobe, paramere removed; 5- apical portion of underside of paramere with sensory peg setae.

margin of head, small additional puncture at posterior margin of eye between it and posterior frontal puncture; tempora with fine setiferous punctures; surface of head with very fine, dense microsculpture of transverse and oblique waves. Pronotum slightly wider than long (ratio 1.14), widest at about posterior third, narrowed anteriorly, with lateral margins continuously arcuate with broadly rounded base, transversely convex, lateral portions not explanate; dorsal rows each with three punctures, sublateral rows each with three punctures, posterior puncture situated behind level of large lateral puncture; microsculpture of pronotum similar to that on head but slightly finer and denser. Scutellum impunctate, with dense, very fine microsculpture of transverse waves. Elytra relatively long, at base narrower than pronotum at widest point, scarcely widened posteriorly, at suture slightly (ratio 1.14), at sides distinctly (ratio 1.28) longer than pronotum at midline; punctation moderately fine, dense, transverse interspaces between punctures mostly slightly larger than diameters of punctures; pubescence piceous; surface between punctures with some microscopic irregularities. Wings probably fully developed. Abdomen with tergite 7 (fifth visible) with distinct whitish apical seam of palisade fringe; second tergite (in front of first visible tergite) impunctate; punctation of tergites finer than that on elytra, evenly covering each tergite; pubescence piceous; surface between punctures with excessively fine and dense microsculpture of transverse striae.

Male. First four segments of front tarsus markedly dilated, sub-bilobed, each densely covered with modified pale setae ventrally, segment 2 slightly wider than apex of tibia (ratio 1.18), segment 4 narrower than preceding segments. Sternite 8 with three long setae on each side, with moderately wide, shallow, almost arcuate medioapical emargination, triangular area before emargination flattened and smooth, general setation of sternite short. Genital segment

with tergite 10 rather small, markedly narrowed toward slightly differentiated apical portion, setose as in Fig. 1; sternite 9 of characteristic shape, with robust basal portion, apical portion of markedly asymmetrical shape and characteristic setation (Fig. 2). Aedeagus (Figs. 3-5) small, narrow; median lobe parallelsided in middle portion, anteriorly narrowed into slightly asymmetrical apical portion with short, acute apex, on face adjacent to paramere with three fine carinae in form of inverted ypsilon below apex (paramere removed). Paramere elongate, slightly asymmetrical in shape, covering most of median lobe, with apex reaching apex of median lobe; four minute setae at apex, two similar setae at each lateral margin below apex; underside of paramere with two small sensory peg setae at each side close to apex. Internal sac without larger sclerotized structures.

Female. Not known.

Length 7.5- 7.8 mm.

Geographical distribution. *Quedius bernhauerianus* is at present known only from the type locality in central Sichuan. Tatsienlu is now Kangding.

Bionomics. Nothing is known about the collecting circumstance of the specimens of the original series.

Recognition and comments. *Quedius bernhauerianus* is well characterized among the species of the *Euryalus*- group by the shape of the aedeagus, in combination with the characteristic shape of sternite 9 of the male genital segment (Fig. 2).

The additional puncture between the posterior frontal puncture and the temporal puncture on the head, characteristic of the *Euryalus*- group, is smaller than usual, but it is clearly detectable.

ACKNOWLEDGMENTS. I thank Alfred F. Newton and Jim Boone (The Field Museum of Natural History, Chicago, Illinois) for making the types of *Quedius reitteri* available to me. I thank Mr. Go Sato, Agriculture and Agri-Food Canada, Ottawa, for carefully finishing the line drawings.

REFERENCES

- BERNHAUER M. 1933a: Neues aus der Staphylinidenfauna China's. *Entomologisches Nachrichtenblatt*, Troppau 7: 39-54.
- BERNHAUER M. 1933b: Neuheiten der chinesischen Staphylinidenfauna. *Wiener Entomologische Zeitung* 50: 25-48.
- BERNHAUER M. 1934: Siebenter Beitrag zur Staphylinidenfauna Chinas. *Entomologisches Nachrichtenblatt*, Troppau 8: 1-20.
- DEJEAN P. F. M. A. 1833: *Catalogue des Coléoptères de la collection de M. Le Baron Dejean*. Ed. 2, fasc.1-2, Paris: Méquignon-Marvis, pp. 1-176.
- GRIDELLI E. 1925: Studi sul genere *Quedius* Steph. (Col. Staph.). Secondo contributo. Specie della regione paleartica. *Memorie della Società Entomologica Italiana* 3: 113-180.
- KORGE H. 1971: Beiträge zur Kenntnis der Koleopterenfauna Kleinasiens. *Annotationes Zoologicae et Botanicae* 67: 1-68.
- MULSANT E. & C. REY 1876: Tribu des brevipedes. [Staphyliniens]. *Annales de la Société d'Agriculture Histoire naturelle et Arts utiles de Lyon* (4) 8 [1875]: 145-856.

- SHARP D. S. [Staphylinidae, in part], pp. 313- 392. In: *Biologia Centrali-Americana. Insecta. Coleoptera. Vol. 1. Part 2*. London: Taylor & Francis, xvi + 824 pp., 19 pls. [1882- 1887].
- SMETANA A. 1988: Revision of the tribes Quediini and Atanygnathini. Part II. The Himalayan region (Coleoptera: Staphylinidae). *Quaestiones Entomologicae* 24: 163-464.
- SMETANA A. 1993: Staphylinidae. Pp. 47-50. In: JELÍNEK J. (ed.): Checklist of Czechoslovak Insects IV (Coleoptera). *Folia Heyrovskyana. Supplementum* 1: 1-172.
- SMETANA A. 2004: Subtribe Quediina, pp. 653-671. In: LÖBL, I & A. SMETANA (ed.): *Catalogue of Palaearctic Coleoptera, Vol. 2*. Stenstrup: Apollo Books, 942 pp.
- STEPHENS J. F. 1829: *The Nomenclature of British Insects; being a compendious list of such species as are contained in the Systematic Catalogue of British Insects, and forming a guide to their classification*. 68 columns. London: Baldwin & Cradock.

Received: 19.5.2010

Accepted: 30.5.2010

