



Description of a new brachypterous species of *Phelotrupes* Jekel, 1866 from Xizang, China, with additional records of *Geotrupes* Latreille, 1797 (Coleoptera: Geotrupidae)

YI-PING LUO^{1,3}, YUAN-YUAN LU^{1,4} & DAVID KRÁL^{2*}

¹State Key Laboratory of Animal Biodiversity Conservation and Integrated Pest Management, Institute of Zoology, Chinese Academy of Sciences, 1 Beichen West Road, Chaoyang District, Beijing 100101, China

²Department of Zoology, Faculty of Science, Charles University, Viničná 7, CZ-128 00 Praha 2, Czech Republic

³✉ luoyyp2000@163.com; <https://orcid.org/0000-0002-9001-3571>

⁴✉ luyuanluan@ioz.ac.cn; <https://orcid.org/0000-0003-0648-5531>

*Corresponding author: ✉ kral@natur.cuni.cz; <https://orcid.org/0000-0002-1439-7892>

Abstract

Phelotrupes (s. str.) *brachypterus* **sp. nov.** is described from Zayü County, Xizang, China. The new species is notably similar to the also brachypterous species *P.* (s. str.) *imurai* (Masumoto, 1995). Diagnostic characters of the new species, including the male genitalia, are illustrated. The first provincial records of *Geotrupes* (s. str.) *corinthius* Fairmaire, 1886 from Shaanxi and Xizang, *G.* (*Glyptogeotrupes*) *castanipennis* (Reitter, 1887) from Xizang and *G.* (*Glyptogeotrupes*) *genestieri* (Boucomont, 1905) from Yunnan and Xizang are reported. An annotated checklist of the family Geotrupidae recorded from Xizang, China, is also provided.

Key words: Coleoptera, Geotrupidae, taxonomy, new species, new record, annotated checklist, China

Introduction

The geotrupid genus *Phelotrupes* Jekel, 1866 currently includes approximately 70 valid species and 21 subspecies (Schoolmeesters 2025). This genus is primarily distributed in the transition zone between the Palaearctic and Oriental zoogeographic regions, with the greatest species diversity occurring in eastern China and the Himalayan region (Král *et al.* 2001; Nikolajev *et al.* 2016). A comprehensive revision of the genus was published by Král *et al.* (2001), and several new species have been described since then (for a complete list, see Schoolmeesters 2025). To date, a total of 53 species and five subspecies of *Phelotrupes* have been recorded in China (Nikolajev *et al.* 2016; Schoolmeesters 2025), representing the majority of the genus's known diversity (e.g., Ochi *et al.* 2024).

The geotrupid genus *Geotrupes* Latreille, 1797 currently includes three subgenera and 28 species (Schoolmeesters 2025), and is mainly distributed in the Palaearctic and Neotropical regions (Bovo & Zunino 1983). To date, a total of two subgenera and nine species of *Geotrupes* have been recorded in China (Nikolajev *et al.* 2016; Schoolmeesters 2025). As the type genus of the family Geotrupidae, *Geotrupes* has undergone numerous revisions and was usually considered to comprise several subgenera since it was established (Jekel 1866; Reitter 1892; Boucomont 1902; Boucomont 1912). It was not until 1984 that Zunino conducted a comprehensive revision of the subfamily Geotrupinae, during which the genus *Geotrupes* was properly defined. Since then, only two new species have been described (Nikolajev 2004; Červenka 2005), one of which is *Geotrupes* (*Glyptogeotrupes*) *folwarcznyi* Červenka, 2005, currently the only *Geotrupes* species recorded from Xizang. The research on this genus has been relatively limited in recent years.

During our recent taxonomic study on material of *Phelotrupes* and *Geotrupes* collected from Xizang, one new species of *Phelotrupes* and several new provincial records of *Geotrupes* are discovered. In addition, a detailed species checklist of Geotrupidae recorded from Xizang is provided, which contribute to a better understanding of the diversity of the region.

Material and Methods

Material was examined with an Olympus SZ61 stereomicroscope. The habitus photographs were taken using a Canon EF-S 60 mm f/2.8 Macro USM lens attached to a Canon EOS 70D camera, or a Canon MP-E 65mm f/2.8 1-5X macro lens attached to a Canon EOS 5DS R digital camera was used. Partially focused images of each specimen were combined using Zerene Stacker (Zerene Systems LLC, Richland, USA) and Helicon Focus (v.7.0.2). All pictures were digitally enhanced using Adobe Photoshop CC.

Specimens of the newly described species are provided with one red printed label “Phelotrupes (Phelotrupes) | brachypterus sp. nov. | HOLOTYPE ♂ | Yi-Ping Luo, Yuan-Yuan Lu & David Král det. 2025”. Verbatim label data are cited for the type material, individual lines of every label are separated by a vertical bar (“|”), individual labels by a double vertical bar (“||”). Information in quotation marks (“ ”) indicates the original spelling. Our remarks and additional comments are found in brackets (“[]”), [p]—preceding data within quotation marks are printed, [hw]—the same but handwritten.

Morphological terminology used in the description of adults mainly follows Král *et al.* (2001) and Sommer *et al.* (2025).

Geographical names and regional attributions follow Chinese administrative and geographical usage. In this manuscript, the area referred to in India as “Arunachal Pradesh” is termed “South Xizang” (Zangnan) of China. This usage is adopted only for consistency of nomenclature.

The following acronyms identify the collections housing the material examined (curators names are in parenthesis):

- HBUM—Hebei University Museum, Baoding, Hebei, China (Xinglong Bai, Guodong Ren);
- IZCAS—Institute of Zoology, Chinese Academy of Sciences, Beijing, China (Ming Bai).

Taxonomy

Phelotrupes (s. str.) brachypterus Luo, Lu & Král, sp. nov.

(Fig. 1)

Type locality. Xizang, Zayü, Relage, Yuequ, Zhula, [=between Ngarchag Village and La’go Village (Liu & Bai 1982), ~ 29°08’22”N 96°49’56”E], 3400–4200 m a.s.l.

Type material. HOLOTYPE: CHINA: Xizang Autonomous Region: ♂: “西藏 [p] 察隅热拉格 [hw] | 越曲朱拉 [hw] | 3400–4200公尺 [hw] | 中国科学院 [p] [= Xizang, Zayü, Relage | Yuequ, Zhula | 3400–4200 m | Chinese Academy of Sciences] || 1973.VIII.12 [hw] | 采集者: [p] [= collector:] || IOZ (E) 2083633 [p] ” (IZCAS).

Description of holotype (♂). *Body.* Oblong, convex; whole surface black with slight, dark olive-green-blue metallic tinge, especially on ventral side; claws brownish, setation brownish to pale, dorsal surface shiny, not microsculptured.

Head. Labrum truncated anteriorly. Anterior clypeal margin almost semicircular, upturned; clypeal disc elevated, longitudinal keel absent, tubercle in posterior half remarkably weak (particularly evident in the frontal aspect). Area of frontoclypeal junction slightly depressed, T-shaped suture distinct. Eye tubercle very low but distinct, subacute, in lateral view obtusely angular; eye canthus with lateral margins regularly widely rounded. Clypeal surface finely rugose, vertex impunctate; eye canthus finely rugose.

Pronotum strongly convex, transversal, broadest approximately at posterior third, entirely bordered, except basal border narrowly interrupted laterally, lateral margin not crenulate, anterior marginal carina slightly elevated and slightly widened especially in middle section, anterior angles broadly rounded, sides straight in approximately anterior half, then arcuate to obtuse posterior angles, basal margin almost straight; anterior concavity hardly indicated, with several coarse, sparsely spaced punctures, lateral fovea deeply impressed, impunctate, shiny, posteromedial fovea absent, longitudinal midline absent, indicated with several coarsely and sparsely spaced punctures only. Punctuation simple, consisting of coarse punctures distributed only anteromedially and laterally, disc lacking punctures entirely.

Scutellar plate broadly triangular, slightly subparallel basally, except for basal margin slightly bordered, with narrow longitudinal depression, impunctate.

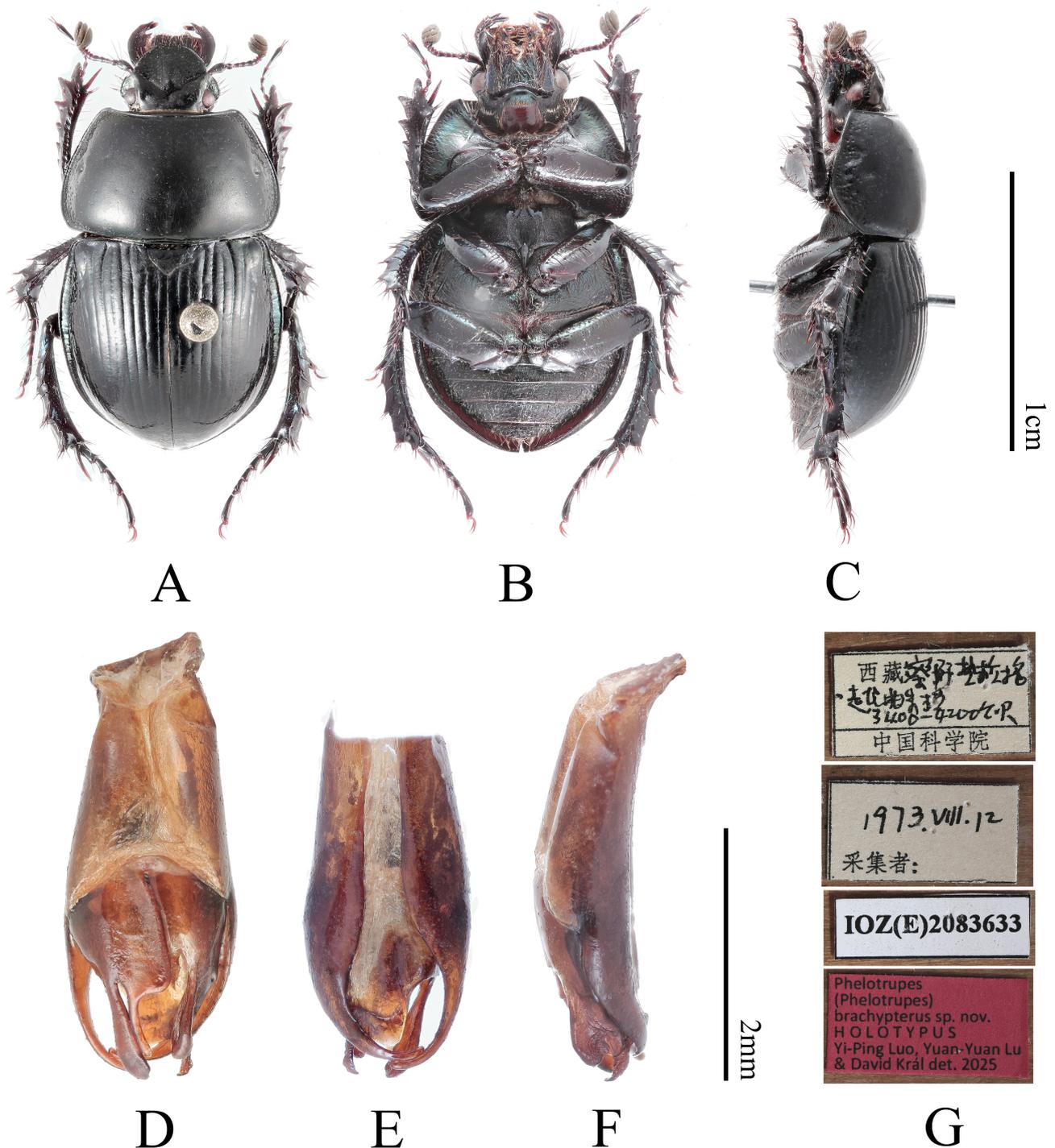


FIGURE 1. Male holotype of *Phelotrupes* (s. str.) *brachypterus* Luo, Lu & Král, **sp. nov.**, male. **A–C.** Habitus. **A.** Dorsal view. **B.** Ventral view. **C.** Lateral view. **D–F.** Aedeagus. **D.** Dorsal view **E.** Ventral view. **F.** Lateral view. **G.** Holotype label. Scale bars: A–C = 1 cm; D–F = 2 mm. Photographs taken by D.K.

Elytra with only weak humeral umbone, base distinctly narrower than pronotum; surface with 14 striae impressed along entire elytral length, except area of humeral umbone; area between suture and humerus with 7 striae, all striae deeply impressed, impunctate, slightly crenate; striae 8–14 vague, especially laterally and apically. Intervals convex, all of approximately same width, impunctate, distinctly crenate laterally.

Brachypteros.

Ventral side. Thoracal surface scabrous to rugopunctate, slightly shiny with weak blue tinge, setation relatively sparse, short, brownish-greyish. Meso-metaventral process prominent (reaching level of mesofemora in lateral

aspect), angulate in lateral aspect, slightly projected anteriorly, sharp apically. Meso-metaventral plate almost impunctate, longitudinal keel distinct, setation short and brownish. Abdominal ventrites slightly scabrous, dull shiny, with short, recumbent brownish setation.

Legs. Metatrochanter with angled denticle posteriorly. Femora glabrous and shiny; profemur not armed, but with distinct transversal edge; metafemur armed with prominent, angled denticle, situated in basal third of metafemur. Ventromedial edge of protibia with one distinctly prominent, acute denticle, situated at level of lateral protibial dent 4, and with 2 shorter denticles basally.

Aedeagus. Parameres as in Fig. 1D–F.

Female. Unknown.

Measurements. Total body length 14.5 mm.

Differential diagnosis. In the key to the nominotypical subgenus of the genus *Phelotrupes* (Král *et al.* 2001: 101), *P.* (s. str.) *brachypterus* **sp. nov.** will key to the couplet with *P.* (s. str.) *imurai* (Masumoto, 1995). For the differential diagnosis of these two species, see Table 1. Moreover, so far, no other formally described species of the nominotypical subgenus of the genus *Phelotrupes* is brachypterous (Král *et al.* 2001; Shokhin 2008; Červenka 2009; Ochi *et al.* 2010; Ochi & Kon 2015; Ochi *et al.* 2017a; 2017b; 2018a; 2019; 2020).

Distribution. The species is currently known only from the type locality in southeastern Xizang, Zayü County (China).

Etymology. The specific epithet *brachypterus* is derived in reference to the shortened wings of the new species.

TABLE 1. Character matrix for separation of males of *Phelotrupes* (s. str.) *brachypterus* **sp. nov.** and *P.* (s. str.) *imurai* (Masumoto, 1995).

species character	<i>P.</i> (s. str.) <i>brachypterus</i> sp. nov.	<i>P.</i> (s. str.) <i>imurai</i> (Masumoto, 1995)
shape of clypeus	almost semicircular (Fig. 1A)	semicircular
surface of pronotum	dull shiny (Fig. 1A)	distinctly shiny (Masumoto 1995: fig. 2; Král <i>et al.</i> 2001: fig. 232)
basal margin of pronotum	straight (Fig. 1A)	weakly bisinuate (Král <i>et al.</i> 2001: fig. 232)
punctuation of elytral striae	impunctate (Fig. 1A, C)	regularly punctate (Král <i>et al.</i> 2001: fig. 232)
shape and punctuation of elytral intervals	distinctly convex, impunctate (Fig. 1A, C)	almost flat, microscopically punctate
ventromedial ridge of protibia	with one distinctly prominent, acute denticle, situated at level of lateral protibial dent 4, and with 2 shorter denticles basally (Fig. 1B)	with one distinctly prominent, acute denticle, situated at level of lateral protibial dent 5, and with 2 and 3 shorter denticles basally
parameres	right paramere in dorsal view with small denticle on inner side basally (Fig. 1D)	right paramere in dorsal view without denticle on inner side (Masumoto 1995: figs 10, 11)
geographic distribution	China: Xizang	China: Shaanxi

New provincial records

Geotrupes (s. str.) *corinthius* Fairmaire, 1886

(Fig. 2)

Diagnosis. Body length 20.0–21.1 mm. This species is classified to the nominotypical subgenus mainly by possessing anterior clypeal margin ogival (Fig. 2A), posterior tibiae with three transverse carinae (Fig. 2C). This species is similar to *G.* (s. str.) *jakowlewi* Semenov, 1891 due to ventral side of body with reddish-brown to golden setae, but it clearly differs mainly as follows: smaller size; mandibles with a single curve before the apex (Fig. 2A); lateral denticles of the anterior tibiae oblique; ventral side of male protibiae with three denticles; male metafemora with a very weak denticle posteriorly (Fig. 2B) (see also Boucomont 1905, for further details).

Material examined (60 specimens). **China: Yunnan:** 1 ♂, 2 ♀♀, Yunnan, Weixi, Pantiang, 2920 m, 22.vii.1981, Xue-Zhong Zhang lgt., IOZ (E) 2083651–IOZ (E) 2083653 (IZCAS); 1 ♂, 5 ♀♀, Yunnan, Weixi,

Pantiange, 2920 m, 21.vii.1981, Xue-Zhong Zhang lgt., IOZ (E) 2083654–IOZ (E) 2083659 (IZCAS); 1 ♂, Yunnan, Weixi, Pantiange, 2920 m, 22.vii.1981, Su-Bai Liao lgt., IOZ (E) 2083660 (IZCAS); 1 ♂, 1 ♀, Yunnan, Weixi, Pantiange, 2920 m, 21.vii.1981, Su-Bai Liao lgt., IOZ (E) 2083661–IOZ (E) 2083662 (IZCAS); 1 ♀, Yunnan, Weixi, Pantiange, 2920 m, 17.vii.1981, Su-Bai Liao lgt., IOZ (E) 2083663 (IZCAS); 1 ♀, Yunnan, Weixi, Pantiange, 2900 m, 21.vii.1981, Su-Bai Liao lgt., IOZ (E) 2083664 (IZCAS); 1 ♀, Yunnan, Zhongdian, Gezan, 3250 m, 6.viii.1981, Xue-Zhong Zhang lgt., IOZ (E) 2083665 (IZCAS); 1 ♀, Yunnan, Deqin, A-Dong, 2700 m, 4.ix.1981, Su-Bai Liao lgt., IOZ (E) 2083666 (IZCAS); 1 ♂, Yunnan, Lijiang, Yulong Snow Mountain, 3200 m, 15.vii.1984, Shu-Yong Wang lgt., IOZ (E) 2083667 (IZCAS); 1 ♀, Yunnan, Lijiang, Yulong Snow Mountain, 3400 m, 18.vii.1984, Shu-Yong Wang lgt., IOZ (E) 2083668 (IZCAS); 1 ♂, Yunnan, Lijiang, 3000 m, 19.v.1984, Rui-Qi Wang lgt., IOZ (E) 2083669 (IZCAS); 1 ♀, Yunnan, Xiaozhongdian, 3200 m, 2.viii.1984, Shu-Yong Wang lgt., IOZ (E) 2083670 (IZCAS); 1 ♂, Yunnan, Zhongdian, Chongjiang River, 2600 m, 7.viii.1984, Chang-Fang Li lgt., IOZ (E) 2083671 (IZCAS); 1 ♂, Qiaojia [= Yunnan, Qiaojia], 2900 m, [19]80.6.14, Yunnan Pine, insects-495, Hong-Lun Liu lgt., IOZ

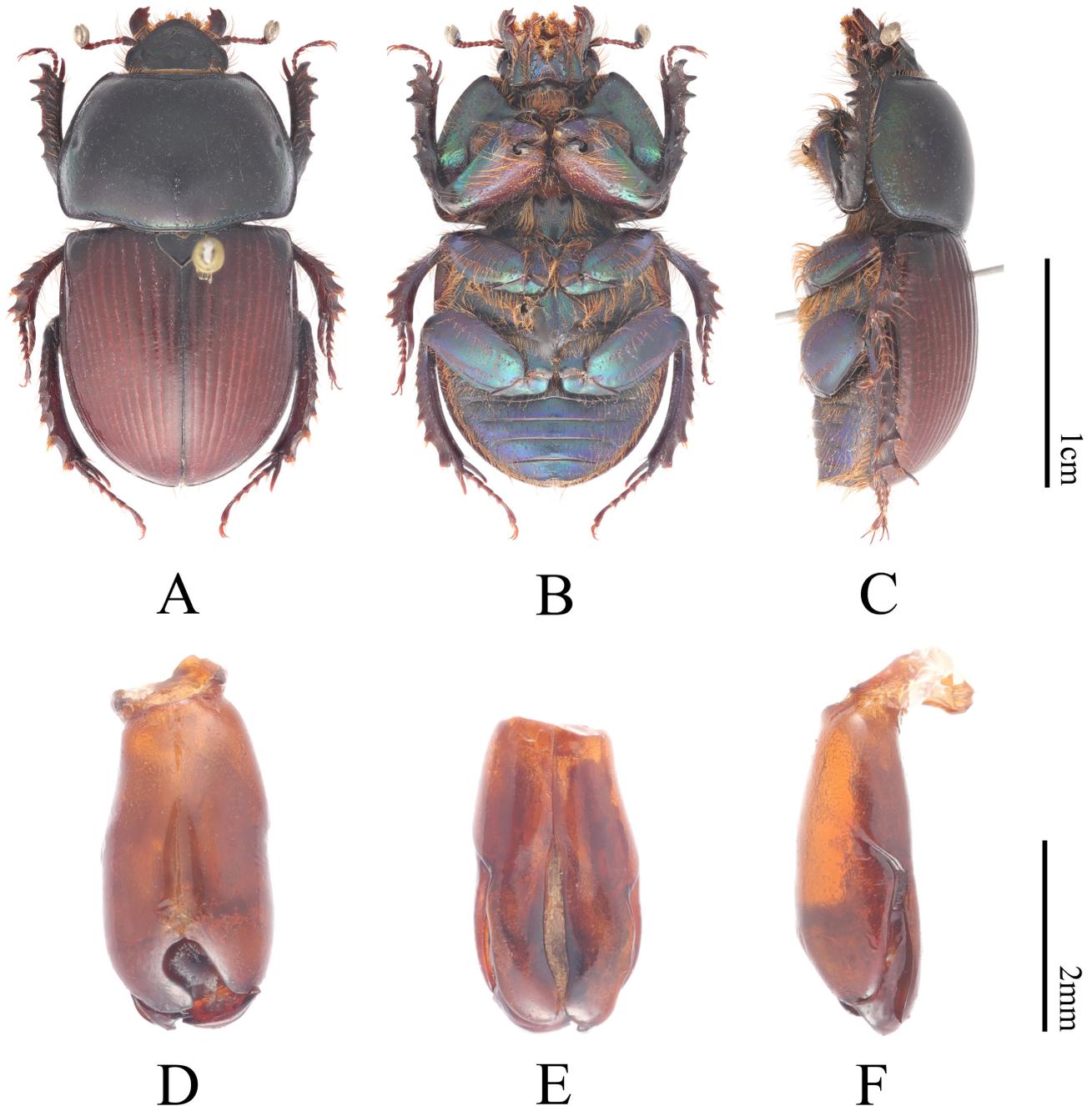


FIGURE 2. *Geotrupes* (s. str.) *corinthius* Fairmaire, 1886, male. (Yunnan, Weixi, Pantiange, 2920 m, 22.vii.1981) **A–C.** Habitus. **A.** Dorsal view. **B.** Ventral view. **C.** Lateral view. **D–F.** Aedeagus. **D.** Dorsal view. **E.** Ventral view. **F.** Lateral view. Scale bars: A–C = 1 cm; D–F = 2 mm. Photographs taken by Y.-P.L.

(E) 2083672 (IZCAS); 1 ♂, Xundian [= Yunnan, Xundian], Banqiao, 2860 m, [19]79.5.19, Quan-Zhang Li lgt., IOZ (E) 2083673 (IZCAS); 1 ♂, Yunnan, Lijiang, 30.vii.1982, Shi-Mei Song lgt., IOZ (E) 2083674 (IZCAS); **Sichuan**: 1 ♂, Sichuan, Yajiang, Decha, Fu-Ming Shi lgt. (HBUM); 4 ♂♂, Sichuan, Litang, 3600 m, 31.v.2009, Zhi-Liang Wang lgt., IOZ (E) 2083675–IOZ (E) 2083678 (IZCAS); 5 ♂♂, Sichuan, Litang, 4000 m, 23.viii.1982, Xue-Zhong Zhang lgt., IOZ (E) 2083679–IOZ (E) 2083683 (IZCAS); 1 ♀, Sichuan, Litang, 3900 m, 22.viii.1982, Xue-Zhong Zhang lgt., IOZ (E) 2083684 (IZCAS); 1 ♂, 1 ♀, Sichuan, Litang, 3800 m, 23.viii.1982, Shu-Yong Wang lgt., IOZ (E) 2083685–IOZ (E) 2083686 (IZCAS); 1 ♂, 4 ♀♀, Sichuan, Litang, 3880 m, 23.viii.1982, Shu-Yong Wang lgt., IOZ (E) 2083687–IOZ (E) 2083691 (IZCAS); 1 ♂, 1 ♀, Sichuan, Litang, 3900 m, 23.viii.1982, Huai-Cheng Chai lgt., IOZ (E) 2083692–IOZ (E) 2083693 (IZCAS); 2 ♂♂, Sichuan, Litang, Gemu, Tuer Mountain, 3656 m, cattle dung, 31.v.2009, Yu-Ling-Zi Zhou lgt., IOZ (E) 2083694–IOZ (E) 2083695 (IZCAS); 1 ♀, Sichuan, Ganzi, 3300 m, 30.vi.1983, Shu-Yong Wang lgt., IOZ (E) 2083696 (IZCAS); 1 ♀, Sichuan, Ganzi, 3300 m, 30.vii.1983, Huai-Cheng Chai lgt., IOZ (E) 2083697 (IZCAS); 1 ♂, Sichuan, Xiangcheng, 3800 m, 2.vii.1982, Xue-Zhong Zhang lgt., IOZ (E) 2083698 (IZCAS); 1 ♀, Sichuan, Xiangcheng, 3200–3500 m, 27.vi.1982, Huai-Cheng Chai lgt., IOZ (E) 2083699 (IZCAS); **Xizang**: 1 ♂, 1 ♀, Xizang, Gonjo, 3500 m, 3.viii.1976, Xue-Zhong Zhang lgt., IOZ (E) 2083700–IOZ (E) 2083701 (IZCAS); 1 ♀, Xizang, Riwoqê, Sangduo, 3750 m, 25.viii.1976, Xue-Zhong Zhang lgt., IOZ (E) 2083702 (IZCAS); 1 ♀, Xizang, Markam, Haitong, 3250 m, 11.viii.1982, Xue-Zhong Zhang lgt., IOZ (E) 2083703 (IZCAS); 2 ♀♀, Xizang, Markam, Haitong, 3250 m, 8.viii.1982, Huai-Cheng Chai lgt., IOZ (E) 2083704–IOZ (E) 2083705 (IZCAS); **Qinghai**: 1 ♀, Qinghai, Maixiu, 1991.7.29, IOZ (E) 2083706 (IZCAS); 1 ♀, Qinghai, Nangqian, 3900 m, 21.vii.2001, Wen-Zhu Li lgt., IOZ (E) 2083707 (IZCAS); **Shaanxi**: 1 ♀, Shaanxi, Liuba, Weituogou, 1600 m, 21.vii.1998, Xue-Zhong Zhang lgt., IOZ (E) 2083708 (IZCAS); 1 ♀, Shaanxi, Houzhenzi, Laoxiancheng, 1800 m, 13.viii.2007, Wen-Zhu Li lgt., IOZ (E) 1957843 (IZCAS).

Distribution. China (Shaanxi, Gansu, Qinghai, Xinjiang, Sichuan, Yunnan, Xizang). **New provincial record for Shaanxi and Xizang.**

Geotrupes (Glyptogeotrupes) castanipennis (Reitter, 1887)

(Fig. 3)

Diagnosis. Body length 17.8–18.5 mm. This species is classified in the subgenus *Glyptogeotrupes* Nikolajev, 1979 mainly by possessing anterior clypeal margin semicircular (Fig. 3A), posterior tibiae with two transverse carinae (Fig. 3C). This species is similar to *G. (G.) genestieri* (Boucomont, 1905), but it clearly differs as follows: elytra usually smooth, non-striate, often chestnut-colored; protibiae in male with a gradually increasing lateral denticulation (Fig. 3A); ventromedial longitudinal edge in male protibiae with a single denticle; metafemora in male with an obsolete denticle posteriorly only (Fig. 3B).

Material examined (234 specimens). **China**: **Xizang**: 2 ♂♂, Xizang, Baxoi, Bangda, Nyila Mountain, 4658 m, 28.vii.2011, Guo-Dong Ren *et al.* lgt. (HBUM); 1 ♂, 1 ♀, Xizang, Baxoi, Nyila Mountain, 4700 m, 15.vii.2008, Guo-Dong Ren *et al.* lgt. (HBUM); 2 ♂♂, 1 ♀, Xizang, Riwoqê, 6.vii.2008, 3900 m, Guo-Dong Ren *et al.* lgt. (HBUM); 5 ♀♀, Xizang, Cona, 25.vi.2004, Yi-Bin Ba, Ai-Min Shi lgt. (HBUM); 1 ♀, Xizang, Bowo, Tangmai, 26.ix.2007, Fu-Ming Shi lgt. (HBUM); 3 ♀♀, Xizang, Gyilung, Latuola Pass, N28°22'58.70", E85°24'54.04", 4015 m, 3.viii.2023, Xing-Long Bai, Quan-Yu Ji, Jian Song lgt. (HBUM); 2 ♀♀, Xizang, Zogang County, Lugba Town, 9.viii.2015, 29°35.735'N, 98°10.112'E, 3808 m, Guo-Dong Ren, Xing-Long Bai, Jun-Sheng Shan lgt. (HBUM); 1 ♀, Xizang, Zhiru County, Dagtang Town, 13.viii.2015, 31°33.517'N, 93°06.262'E, 4148 m, Guo-Dong Ren, Xing-Long Bai, Jun-Sheng Shan lgt. (HBUM); 1 ♀, Xizang, Zogang County, Dungda Mountain, 11.viii.2016, 29°43.964'N, 97°57.334'E, 4621 m, Xiu-Min Li, Xing-Long Bai, Run-Yang Zhang, Xian-Lei Shao lgt. (HBUM); 15 ♂♂, 10 ♀♀, Xizang, Baxoi County, Nyila Mountain Pass, 30.15768°N, 97.31297°E, 4652 m, 20.vii.2012, Ye Liu lgt., IOZ (E) 2083709–IOZ (E) 2083733 (IZCAS); 1 ♀, Xizang, Cona County, 2 km along Z808 Road, 8.vi.2016, 4497 m, 27.9580°N, 91.8963°E, Hong-Bin Liang lgt., IOZ (E) 2083734 (IZCAS); 2 ♀♀, Xizang, Cona County, Bola Mountain Pass, 4460 m, 31.v.2016, 27.9580°N, 91.8963°E, Hong-Bin Liang, A-Qu lgt., IOZ (E) 2083735–IOZ (E) 2083736 (IZCAS); 3 ♀♀, Xizang, G317, 6–9.viii.2012, Hong-Bin Liang *et al.* lgt., IOZ (E) 2083737–IOZ (E) 2083739 (IZCAS); 1 ♀, Xizang, Baxoi, Rawog, 4250 m, 14.viii.1973, Fu-Sheng Huang lgt., IOZ (E) 2083740 (IZCAS); 1 ♀, Xizang, Nyingchi, Sêrgyêmla Mountain Pass, 4571 m, 3.viii.2012, 29.61057°N, 94.65175°E, Ye Liu, Hong-Liang Shi lgt., IOZ (E) 2083741 (IZCAS); 1 ♀, Xizang, Qabdo, Tuoba, 3900 m, 8.viii.1976, Yin-Heng Han

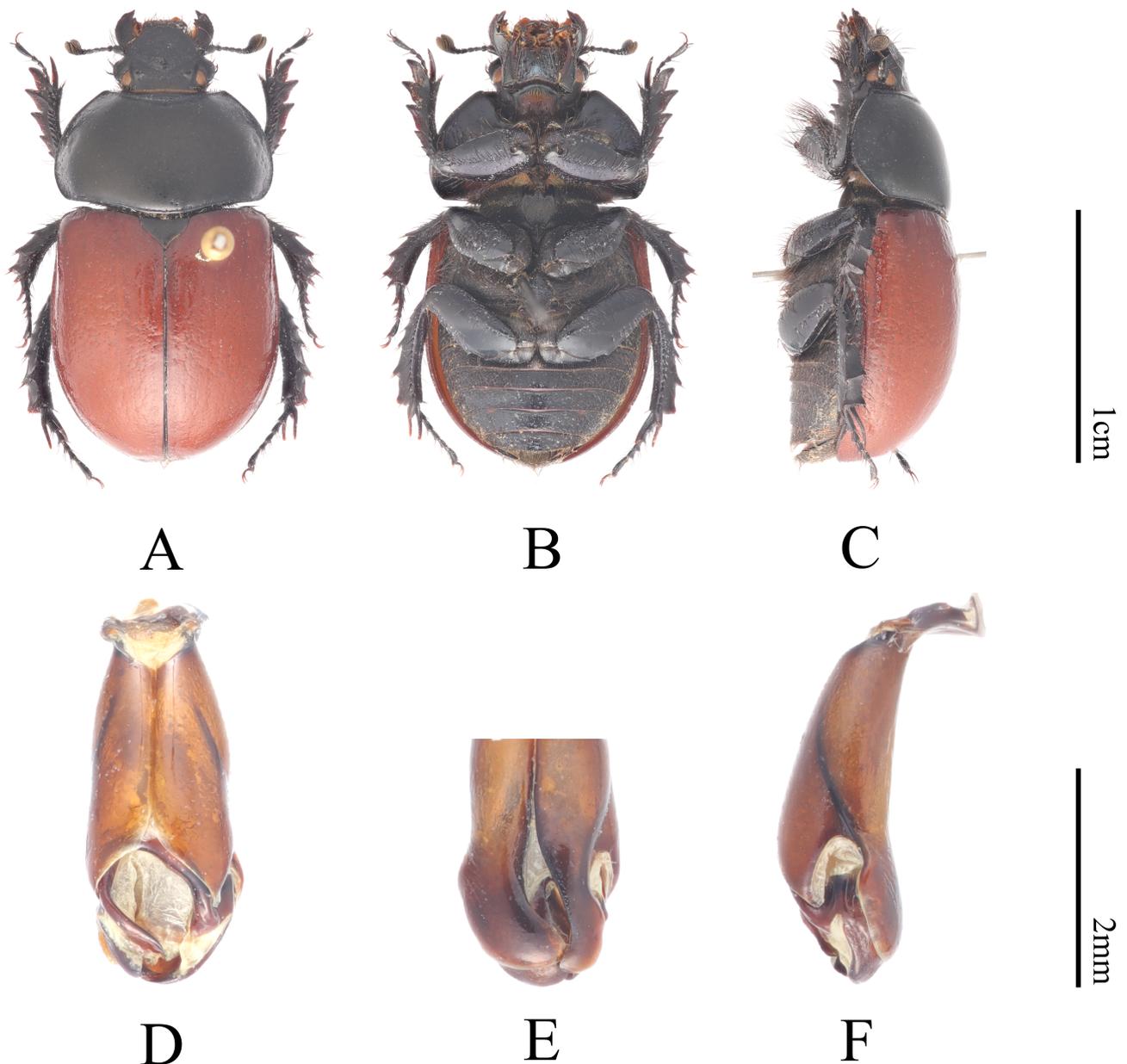


FIGURE 3. *Geotrupes (Glyptogeotrupes) castanipennis* (Reitter, 1887), male. (Xizang, Baxoi County, Nyila Mountain Pass, 30.15768°N, 97.31297°E, 4652 m, 20.vii.2012). **A–C.** Habitus. **A.** Dorsal view. **B.** Ventral view. **C.** Lateral view. **D–F.** Aedeagus. **D.** Dorsal view **E.** Ventral view. **F.** Lateral view. Scale bars: A–C = 1 cm; D–F = 2 mm. Photographs taken by Y.-P.L.

lgt., IOZ (E) 2083742 (IZCAS); 1 ♀, Xizang, Markam, Haizi Mountain, 4350 m, 20.viii.1982, Huai-Cheng Chai lgt., IOZ (E) 2083743 (IZCAS); 2 ♀♀, Xizang, Garlung La, 4100 m, 16.viii.1982, Yin-Heng Han lgt., IOZ (E) 2083744–IOZ (E) 2083745 (IZCAS); 1 ♀, Xizang, Chagyab, Gytang, 3600–4400 m, 18.viii.1976, Yin-Heng Han lgt., IOZ (E) 2083746 (IZCAS); **Qinghai:** 1 ♂, 2 ♀♀, Qinghai, Maqu, 11.vii.2009, Ren, Ba, Zhou lgt. (HBUM); 1 ♂, Qinghai, Banma, 12.vii.2009, Ren, Ba, Zhou lgt. (HBUM); 1 ♀, Qinghai, Banma, Make River, 26–29.vi.2013, Fu-Ming Shi, Guang-Lin Xie lgt. (HBUM); 2 ♂♂, 5 ♀♀, Qinghai, Maqin, Langri Valley, 9.vii.2013, Fu-Ming Shi, Guang-Lin Xie lgt. (HBUM); 1 ♂, Qinghai, Maqin, Qiemuqu Forest Farm, 7.vii.2013, Fu-Ming Shi, Guang-Lin Xie lgt. (HBUM); 3 ♀♀, Qinghai, Maduo, Xiewu, 20.vii.2012, N33°12.060', E97°28.157', 4458 m, Guo-Dong Ren *et al.* lgt. (HBUM); 1 ♀, Qinghai, Chengduo, Zhaduo, 4400 m, 2.vii.2008, Guo-Dong Ren *et al.* lgt. (HBUM); 1 ♀, Qinghai, Anla Pass, 4223 m, 14.vii.2009, Guo-Dong Ren *et al.* lgt. (HBUM); 6 ♂♂, 10 ♀♀, Qinghai, Yushu, Xiaosumang, 4500–4700 m, 21.vii.1964, Shu-Yong Wang lgt., IOZ (E) 2083747–IOZ (E) 2083762 (IZCAS); 2 ♂♂, 1 ♀, Qinghai, Yushu, Batang, 4100 m, 19.vi.1964, Shu-Yong Wang lgt., IOZ (E) 2083763–IOZ (E) 2083765

(IZCAS); 1 ♂, Qinghai, Yushu, Batang, 4200 m, 18.vi.1964, Shu-Yong Wang lgt., IOZ (E) 2083766 (IZCAS); 1 ♂, Qinghai, Yushu, Batang, 4200 m, 16.vi.1964, Shu-Yong Wang lgt., IOZ (E) 2083767 (IZCAS); 1 ♂, Qinghai, Yushu, Batang, 4100 m, 22.vi.1964, Shu-Yong Wang lgt., IOZ (E) 2083768 (IZCAS); 1 ♂, Qinghai, Yushu, Batang, 3900–4300 m, 21.vi.1964, Shu-Yong Wang lgt., IOZ (E) 2083769 (IZCAS); 1 ♂, 1 ♀, Qinghai, Yushu, Batang, 4700 m, 20.vi.1964, Shu-Yong Wang lgt., IOZ (E) 2083770–IOZ (E) 2083771 (IZCAS); 1 ♂, Qinghai, Yushu, Batang, 3950 m, 25.vi.1964, Shu-Yong Wang lgt., IOZ (E) 2083772 (IZCAS); 1 ♂, Qinghai, Yushu, Batang, 4200–4500 m, 26.vi.1964, Shu-Yong Wang lgt., IOZ (E) 2083773 (IZCAS); 1 ♂, 1 ♀, Qinghai, Yushu, Batang, 4200–4500 m, 15.vi.1964, Shu-Yong Wang lgt., IOZ (E) 2083774–IOZ (E) 2083775 (IZCAS); 1 ♂, Qinghai, Yushu, Batang, 4300 m, 27.vii.1964, Shu-Yong Wang lgt., IOZ (E) 2083776 (IZCAS); 1 ♂, 1 ♀, Qinghai, Yushu, Batang, 20.viii.1977, Shan-Gan Zhang lgt., IOZ (E) 2083777–IOZ (E) 2083778 (IZCAS); 2 ♀♀, 1 ♂, Qinghai, Yushu, Gelong, 4520 m, 9.vii.1964, Shu-Yong Wang lgt., IOZ (E) 2083779–IOZ (E) 2083781 (IZCAS); 1 ♀, Qinghai, Yushu, Gelong, 4480 m, 13.vii.1964, Shu-Yong Wang lgt., IOZ (E) 2083782 (IZCAS); 1 ♀, Qinghai, Yushu, 4200–4500 m, 25.viii.1964, Shu-Yong Wang lgt., IOZ (E) 2083783 (IZCAS); 1 ♂, Qinghai, Yushu, Cuoge, Songduo, 3750 m, 4.vii.1964, Shu-Yong Wang lgt., IOZ (E) 2083784 (IZCAS); 1 ♀, Qinghai, Yushu, Zado, Angsai, 4.vii.2014, IOZ (E) 2083785 (IZCAS); 1 ♀, Qinghai, Nangqian, Jinisai, 4300–4500 m, 18.vii.1965, Shu-Yong Wang lgt., IOZ (E) 2083786 (IZCAS); 1 ♂, Qinghai, Guinan, 3400–3600 m, 16.vi.1957, Yi-Ran Zhang lgt., IOZ (E) 2083787 (IZCAS); 4 ♂♂, 2 ♀♀, Qinghai, Yushu, 4400 m, 16.vii.1979, Tai-Lu Chen lgt., IOZ (E) 2083788–IOZ (E) 2083793 (IZCAS); 1 ♂, Qinghai, Yushu, Longbao, 4200–4400 m, 9.viii.1964, Shu-Yong Wang lgt., IOZ (E) 2083794 (IZCAS); **Sichuan:** 1 ♀, Sichuan, Litang, Heni Town, 13.viii.2016, 30°12.029'N, 99°55.687'E, 4114 m, Xiu-Min Li, Xing-Long Bai, Run-Yang Zhang, Xian-Lei Shao lgt. (HBUM); 6 ♂♂, 10 ♀♀, Sichuan, Hongyuan, 26.vii.1999, Guo-Dong Ren lgt. (HBUM); 1 ♂, 1 ♀, Sichuan, Hongyuan, 25.vii.1999, 3380 m, Ren, Li, Dong lgt. (HBUM); 2 ♀♀, Sichuan, Xinlong, Yinduo, 5.viii.2016, 31°20.820'N, 99°54.684'E, 4300 m, Xiu-Min Li, Xing-Long Bai, Run-Yang Zhang, Xian-Lei Shao lgt. (HBUM); 2 ♀♀, Sichuan, Batang, Haizi Mountain, 13.viii.2016, 30°17.086'N, 99°35.759'E, 4566 m, Xiu-Min Li, Xing-Long Bai, Run-Yang Zhang, Xian-Lei Shao lgt. (HBUM); 1 ♂, Sichuan, Danba, Bianer, 3–5.viii.2009, Zheng-Hua Gao, Yi-Ping Niu lgt. (HBUM); 1 ♀, Sichuan, Daocheng, Sangdui, 3900 m, 16–17.viii.2008, Zheng-Hua Gao, Yong Zhou lgt. (HBUM); 1 ♂, Sichuan, Litang, 3900 m, 23.viii.1982, Huai-Cheng Chai lgt., IOZ (E) 2083795 (IZCAS); 3 ♂♂, Sichuan, Litang, 3880 m, 23.viii.1982, Shu-Yong Wang lgt., IOZ (E) 2083796–IOZ (E) 2083798 (IZCAS); 2 ♂♂, 1 ♀, Sichuan, Litang, 3800 m, 23.viii.1982, Shu-Yong Wang lgt., IOZ (E) 2083799–IOZ (E) 2083801 (IZCAS); 1 ♀, Sichuan, Litang, 3900 m, 22.viii.1982, Xue-Zhong Zhang lgt., IOZ (E) 2083802 (IZCAS); 1 ♀, Sichuan, Litang, 4000 m, 23.viii.1982, Xue-Zhong Zhang lgt., IOZ (E) 2083803 (IZCAS); 1 ♀, Sichuan, Litang, Haizi Mountain Pass, 4700 m, 31.v.2009, Zhi-Liang Wang lgt., IOZ (E) 2083804 (IZCAS); 1 ♀, Sichuan, Haizi Mountain Pass, 16.vii.2012, Hong-Liang Shi, Ye Liu lgt., IOZ (E) 2083805 (IZCAS); 1 ♂, Sichuan, Litang, Tuoluola Pass, 4315 m, 14.vii.2012, 30.00993°N, 100.31113°E, Pitfall trap, Hong-Bin Liang *et al.* lgt., IOZ (E) 2083806 (IZCAS); 2 ♀♀, Sichuan, Gongga Mountain, 2500 m, 7.vi.1983, Yuan-Qing Chen lgt., IOZ (E) 2083807–IOZ (E) 2083808 (IZCAS); 1 ♂, 1 ♀, Sichuan, Muli County, Kangwu Pass, 3773 m, 5.vi.2012, 28.1263°N, 101.15987°E, Hong-Liang Shi, Ye Liu, Gan-Yan Yang lgt., IOZ (E) 2083809–IOZ (E) 2083810 (IZCAS); 1 ♀, Sichuan, Daocheng, Haizi Mountain, 4150 m, 10.vi.1982, Xue-Zhong Zhang lgt., IOZ (E) 2083811 (IZCAS); 3 ♂♂, 3 ♀♀, Sichuan, Xiangcheng, 4100 m, 7.vii.1982, Shu-Yong Wang lgt., IOZ (E) 2083812–IOZ (E) 2083817 (IZCAS); 1 ♀, Sichuan, Xiangcheng, 4100 m, 7.vii.1982, Xue-Zhong Zhang lgt., IOZ (E) 2083818 (IZCAS); 1 ♀, Sichuan, from Yanyuan County to Muli County, Mianbu Pass, 3244 m, 7.vi.2012, 27.68638°N, 101.22335°E, Hong-Liang Shi, Ye Liu lgt., IOZ (E) 2083819 (IZCAS); 1 ♂, 1 ♀, Sichuan, Kangding, Lhakang, 3900 m, Ming Bai lgt., 3.viii.2005, IOZ (E) 2083820–IOZ (E) 2083821 (IZCAS); 1 ♀, Sichuan, Zoigê, 3450 m, 31.viii.1983, Xue-Zhong Zhang lgt., IOZ (E) 2083822 (IZCAS); 2 ♂♂, 1 ♀, Sichuan, Zoigê, 3500 m, 30.viii.1983, Huai-Cheng Chai lgt., IOZ (E) 2083823–IOZ (E) 2083825 (IZCAS); 1 ♀, Sichuan, Zoigê, 3550 m, 1.ix.1983, Xue-Zhong Zhang lgt., IOZ (E) 2083826 (IZCAS); 1 ♂, 2 ♀♀, Sichuan, Zoigê, 3400 m, 1.ix.1983, Shu-Yong Wang lgt., IOZ (E) 2083827–IOZ (E) 2083829 (IZCAS); 1 ♂, Sichuan, Zoigê, 3400 m, 31.viii.1983, Shu-Yong Wang lgt., IOZ (E) 2083830 (IZCAS); 1 ♂, Sichuan, Jiulong County, southwest, 4135 m, alpine dwarf rhododendron scrub, Pitfall trap, 10–13.vii.2001, Xiao-Dong Yu, Hong-Zhang Zhou lgt., IOZ (E) 1967745 (IZCAS); 1 ♂, Sichuan, Li County, Zhegu Mountain, 2.viii.1990, IOZ (E) 2083831 (IZCAS); 1 ♀, Sichuan, Li County, Zhegu Mountain, 4050 m, 16.viii.1983, Shu-Yong Wang lgt., IOZ (E) 2083832 (IZCAS); 1 ♂, 1 ♀, Sichuan, Hongyuan, 3500–3600 m, 28.viii.1983, Rui-Qi Wang lgt., IOZ (E) 2083833–IOZ (E) 2083834 (IZCAS); 1 ♀, Sichuan, Hongyuan, 3500 m, 27.viii.1983, Chun-Lai Niu lgt., IOZ (E) 2083835 (IZCAS); 2 ♂♂, 3 ♀♀, Sichuan, Hongyuan, 3500 m, 28.viii.1983, Xue-Zhong Zhang lgt., IOZ

(E) 2083836–IOZ (E) 2083840 (IZCAS); 2 ♂♂, 3 ♀♀, Sichuan, Hongyuan, 3500 m, 28.viii.1983, Shu-Yong Wang lgt., IOZ (E) 2083841–IOZ (E) 2083845 (IZCAS); 4 ♀♀, Sichuan, Hongyuan, 3500 m, 25.viii.1983, Rui-Qi Wang lgt., IOZ (E) 2083846–IOZ (E) 2083849 (IZCAS); 6 ♂♂, 11 ♀♀, Sichuan, Hongyuan, Longriba, 3700 m, 25.viii.1983, Chun-Lai Niu lgt., IOZ (E) 2083850–IOZ (E) 2083866 (IZCAS); 1 ♀, Sichuan, Hongyuan, Longriba, 3500 m, 24.viii.1983, Xue-Zhong Zhang lgt., IOZ (E) 2083867 (IZCAS); 2 ♂♂, 1 ♀, Sichuan, Li County, 3600 m, 16.viii.1983, Shu-Yong Wang lgt., IOZ (E) 2083868–IOZ (E) 2083870 (IZCAS); 1 ♀, Sichuan, Wolong, Sansheng Valley, 2500 m, 6.viii.1983, Xue-Zhong Zhang lgt., IOZ (E) 2083871 (IZCAS); 1 ♀, Sichuan, Dege, Manigange, 3900 m, 10.vii.1983, Xue-Zhong Zhang lgt., IOZ (E) 2083872 (IZCAS); 1 ♀, Sichuan, Maerkang, 4000 m, 19.viii.1983, Rui-Qi Wang lgt., IOZ (E) 2083873 (IZCAS); 1 ♂, 1 ♀, Sichuan, Songlinkou, 3900 m, 27.vi.1983, Shu-Yong Wang lgt., IOZ (E) 2083874–IOZ (E) 2083875 (IZCAS); **Gansu:** 1 ♂, 1 ♀, Gansu, Zhang County, 24.viii.2021, 34°28'5.06"N, 104°40'12.16"E, 2828 m, Shu-Qin Huo lgt. (HBUM); 1 ♂, Gansu, Zhugqu, Shatan Forest Farm, 2350 m, 5.vii.1998, Jun Chen lgt., IOZ (E) 2083876 (IZCAS).

Distribution. China (Gansu, Qinghai, Sichuan, Xizang), Bhutan. **New provincial record for Xizang.**

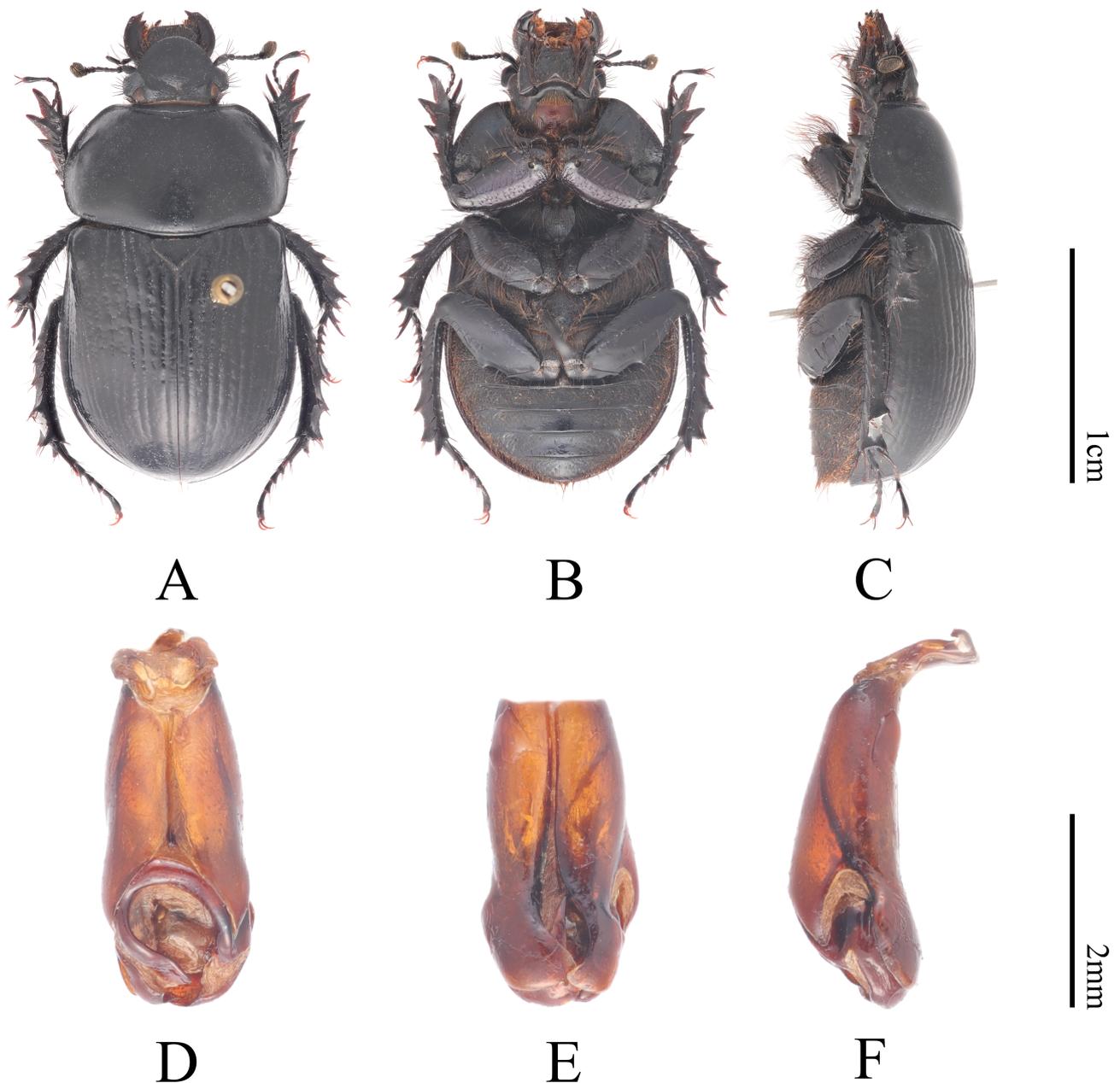


FIGURE 4. *Geotrupes (Glyptogeotrupes) genestieri* (Boucomont, 1905), male. (Xizang, Mêdog, 4100 m, 16.viii.1982). A–C. Habitus. A. Dorsal view. B. Ventral view. C. Lateral view. D–F. Aedeagus. D. Dorsal view. E. Ventral view. F. Lateral view. Scale bars: A–C = 1 cm; D–F = 2 mm. Photographs taken by Y.-P.L.

Geotrupes (Glyptogeotrupes) genestieri (Boucomont, 1905)

(Fig. 4)

Diagnosis. Body length 17.7–18.9 mm. This species is classified in the subgenus *Glyptogeotrupes* mainly by possessing anterior clypeal margin semicircular (Fig. 4A), posterior tibiae with two transverse carinae (Fig. 4C). This species is similar to *G. (G.) castanipennis*, but it clearly differs as follows: elytra usually finely rugose, striate, never brown-colored, protibiae in male with three strong lateral denticles on the apical half and two very weak denticles near the base (Fig. 4A); ventromedial longitudinal edge in male protibiae with a single denticle; metafemora in male with a distinct denticle (Fig. 4B).

Material examined (22 specimens). **China: Xizang:** 1 ♂, Xizang, Mêdog, 4100 m, 16.viii.1982, Zai Lin lgt., IOZ (E) 2083877 (IZCAS); **Yunnan:** 1 ♂, Yunnan, Deqin, Meili Snow Mountain, 4000 m, 31.vii.1982, Xue-Zhong Zhang lgt., IOZ (E) 2083878 (IZCAS); 3 ♀♀, Yunnan, Deqin, Meili Snow Mountain, 4150 m, 29.vii.1982, Xue-Zhong Zhang lgt., IOZ (E) 2083879–IOZ (E) 2083881 (IZCAS); 1 ♂, 1 ♀, Yunnan, Deqin, Meili Snow Mountain, 27.vii.1982, Xue-Zhong Zhang lgt., IOZ (E) 2083882–IOZ (E) 2083883 (IZCAS); 2 ♂♂, Yunnan, Deqin, the eastern slope of Meili Snow Mountain, 4100 m, 27.vii.1982, Huai-Cheng Chai lgt., IOZ (E) 2083884–IOZ (E) 2083885 (IZCAS); 2 ♂♂, Yunnan, Deqin, the eastern slope of Meili Snow Mountain, 4100 m, 30.vii.1982, Huai-Cheng Chai lgt., IOZ (E) 2083886–IOZ (E) 2083887 (IZCAS); 1 ♀, Yunnan, Deqin, Meili Snow Mountain, 4200 m, 30.vii.1982, Shu-Yong Wang lgt., IOZ (E) 2083888 (IZCAS); 3 ♀♀, Yunnan, Meili Snow Mountain, 4200 m, 31.vii.1982, Shu-Yong Wang lgt., IOZ (E) 2083889–IOZ (E) 2083891 (IZCAS); 1 ♀, Yunnan, Deqin, Meili Snow Mountain, 3700 m, 29.vii.1982, Shu-Yong Wang lgt., IOZ (E) 2083892 (IZCAS); 1 ♂, Yunnan, Deqin, Baimang Snow Mountain [= Baima Snow Mountain], 4400 m, 30.viii.1981, Shu-Yong Wang lgt., IOZ (E) 2083893 (IZCAS); 1 ♂, Yunnan, Zhongdian, Daxueshan Pass, 4000 m, 15.viii.1981, Su-Bai Liao lgt., IOZ (E) 2083894 (IZCAS); 1 ♀, Yunnan, Weixi, Lidiping, 3400 m, 13.viii.1984, Shu-Yong Wang lgt., IOZ (E) 2083895 (IZCAS); 1 ♀, Yunnan, Weixi, Lidiping, 3200 m, 15.viii.1984, Shu-Yong Wang lgt., IOZ (E) 2083896 (IZCAS); 1 ♂, Yunnan, Xiaozhongdian, 3800 m, 1.viii.1984, Shu-Yong Wang lgt., IOZ (E) 2083897 (IZCAS); 1 ♂, Gongshan [= Yunnan, Gongshan], Dulongjiang Pass, 3500, [19]79.7.5, IOZ (E) 2083898 (IZCAS).

Distribution. China (Sichuan, Yunnan, Xizang). **New provincial record for Yunnan and Xizang.**

Annotated checklist of Geotrupidae species from Xizang

Family Geotrupidae Latreille, 1802

Subfamily Athyreinae Lynch Arribálzaga, 1878

Genus *Pseudoathyreus* Howden & Martínez, 1963 [拟毛粪金龟属]

Pseudoathyreus Howden & Martínez, 1963: 348. Type species: *Athyreus porcatus* Laporte, 1840 (by original designation).

Distribution. Afrotropical, Oriental and Palaearctic regions.

Pseudoathyreus orientalis (Laporte, 1840) [东方拟毛粪金龟]

Athyreus orientalis Laporte, 1840: 103 (original description).

Pseudoathyreus orientalis: Carpaneto *et al.* 2000: 240.

Type locality. “Bengale [= Erstwhile Bengal Presidency and present-day West Bengal and Bangladesh (Kalawate 2025)]”.

Published records. Klug (1843): Bengalen; Boucomont (1912): Indien; Janikova (1998): Oman; Carpaneto *et al.* (2000): India; Gillett & Gillett (2005): United Arab Emirates; Král *et al.* (2006): China (Xizang); Král & Batelka (2017): Iran (Busher and Hormozgan Prov.), Nepal; Sommer *et al.* (2020): China (Xizang), India, Iran, Nepal, Oman, United Arab Emirates, Pakistan; Kalawate (2025): India (Haryana: Kurukshetra, Maharashtra, Rajasthan, West Bengal), Pakistan.

Distribution. China (Xizang), India, Nepal, Pakistan, Iran, United Arab Emirates*, Oman*.

***Note.** The occurrence in the United Arab Emirates and Oman is doubtful (Carpaneto & Romiti 2020).

Subfamily Bolboceratinae Mulsant, 1842

Tribe Eubolbitini Nikolajev, 1996

Genus *Bolboceratops* Krikken, 1978 [突粪金龟属]

Mimobolbus (*Bolboceratops*) Krikken, 1978: 72. Type species: *Bolboceras indicus* Westwood, 1848 (by original designation).

Bolboceratops: Krikken 1984: 39.

Distribution. Afrotropical, Oriental and Palearctic regions.

Bolboceratops indicus (Westwood, 1848) [印度突粪金龟]

Bolboceras indicus Westwood, 1848: 356 (original description).

Bolboceras bidentatus Boucomont 1923: 99 (original description) (Type locality: “Guiba: Lugh; Bulesa; Margherita; Soudan égyptien: Fachoda). Synonymized by Boucomont 1932: 53.

Mimobolbus (*Bolboceratops*) *indicus*: Krikken 1978: 40.

Bolboceratops indicus: Krikken 1984: 74.

Type locality. “Indiâ orientali centrali”.

Published Records. Krikken (1978): India (type-loc. Central India), Thibet, northeastern Africa to Senegal; Král *et al.* (2006): China (Xizang), India, Pakistan; Nikolajev *et al.* (2016): Pakistan, India (Sikkim, Darjeeling District), China (Xizang).

Distribution. China (Xizang), India, Pakistan.

Subfamily Geotrupinae Latreille, 1802

Tribe Enoplotrupini Paulian, 1945

Genus *Enoplotrupes* P. Lucas, 1869 [武粪金龟属]

Enoplotrupes Lucas 1869: 13. Type species: *Enoplotrupes sinensis* Lucas, 1869 (by monotypy).

Distribution. Oriental and Palearctic regions.

Subgenus *Enoplotrupes* P. Lucas, 1869

Enoplotrupes Lucas, 1869: 13. Type species: *Enoplotrupes sinensis* Lucas, 1869 (by monotypy).

Enoplotrypes Fairmaire, 1886: 320. Type species: *Enoplotrupes sinensis* Lucas, 1869 [incorrect original spelling].

Distribution. Oriental and Palearctic regions.

Enoplotrupes (s. str.) *apatani* Král, Jákl & Manjunatha, 2020 [塔尼武粪金龟]

Enoplotrupes (s. str.) *apatani* Král, Jákl & Manjunatha, 2020: 24, figs 1–8 (original description).

Type locality. “India, Arunachal Pradesh, Pange-Tale National Reserve, Pange valley, 1800–2000 m a. s. l.” [= Zangnan, or South of Xizang, China].

Distribution. China (Xizang).

***Enoplotrupes (s. str.) rhinoceros* Král, Malý & Schneider, 2012 [犀角武粪金龟]**

Enoplotrupes (s. str.) rhinoceros Král, Malý & Schneider, 2012: 3, figs 1, 3 (original description).

Type locality. “N. Myanmar, Kachin province, Putao, 27°19′N 97°25′E”.

Published records. Král *et al.* (2012): India (Arunachal Pradesh state), Myanmar (Kachin province); Nikolajev *et al.* (2016): India (Arunachal Pradesh) [= Zangnan, or South of Xizang, China].

Distribution. China (Xizang), Myanmar.

***Enoplotrupes (s. str.) sinensis* Lucas, 1869 [中华武粪金龟]**

Enoplotrupes sinensis Lucas, 1869: 13 (original description).

Enoplotrupes (s. str.) kumei Masumoto 1991: 179, figs 1, 2, 10–11 (original description) (Type locality: “Xinhe, Sichuan, China”). Synonymized by Löbl *et al.* 2006: 84.

Type locality. “Sé-Tchouen (province de Chine)”.

Published records. Zhang & Su (1997): Hubei, Hunan, Sichuan, Xizang; Zhang & Luo (2002): Fujian (Wuyishan), Hubei, Hunan, Sichuan, Xizang; Löbl *et al.* (2006): Gansu, Hunan, Sichuan, Shaanxi, Yunnan, “Thibet”; Nikolajev *et al.* (2016): Chongqing, Gansu, Hunan, Sichuan, Shaanxi, Yunnan, “Thibet”; Bai & Yang (2018): Shaanxi (Foping), Gansu, Hunan, Sichuan, Yunan; Bai *et al.* (2018): Zhejiang (Tianmu Mountain), Hubei, Hunan, Sichuan, Yunnan, Xizang, Shaanxi, Gansu; Lu & Bai (2024): Zhejiang (Hangzhou), Shaanxi, Gansu, Hubei, Hunan, Sichuan, Yunnan, Xizang. (The record from Hubei Province actually refer to specimens of *E. crassicornis* Boucomont, 1905 and the record from Fujian (Wuyishan) actually refer to specimens of *E. chaslii* Fairmaire, 1886 (see Král *et al.* 2020b)).

Distribution. China (Shaanxi, Gansu, Zhejiang, Hunan, Chongqing, Sichuan, Yunnan, Xizang).

***Enoplotrupes (s. str.) tawangensis* Gupta, Chandra & Král, 2019 [达旺武粪金龟]**

Enoplotrupes (s. str.) tawangensis Gupta, Chandra & Král, 2019: 302, figs 1–4 (original description, key).

Type locality. “India, Arunachal Pradesh, district Tawang, Lumla, 27.53722N 91.71964E, 2427 m” [= Zangnan, or South of Xizang, China].

Published records. Gupta *et al.* (2019): India (Arunachal Pradesh), Bhutan.

Distribution. China (Xizang), Bhutan.

Subgenus *Gynoplotrupes* R. Oberthür, 1883

Enoplotrupes (Gynoplotrupes) R. Oberthür, 1883: 55. Type species: *Enoplotrupes bieti* R. Oberthür, 1883 (by monotypy).
Gynaecoplotrupes: Boucomont 1912: 19 [unjustified emendation].

Distribution. Palaearctic Region.

***Enoplotrupes (Gynoplotrupes) bieti bieti* R. Oberthür, 1883 [毕氏武粪金龟指名亚种]**

Gynoplotrupes bieti R. Oberthür, 1883: 56 (original description).

Geotrupes (Ceratotrupes?) serricornis Bates 1891: 73 (original description) (Type locality: “Sze-chuen”). Synonymized by Boucomont 1905: 210.

Enoplotrupes potanini Semenov 1889: 401 (original description) (Type locality: “Chinae prov. Gan-ssu: Katapu (haud procul ab urbe Min-tscheu)” [= Min Mountain]. Synonymized by Boucomont 1912: 19.
Enoplotrupes (Gynoplotrupes) bieti: Boucomont 1905: 210.

Type locality. “Tatsienlou” [= Kangding].

Published records. Zhang (1992): China (Sichuan, Xizang); Zhang (2005): China (Gansu, Sichuan); Löbl *et al.* (2006); Nikolajev *et al.* (2016): China (Sichuan, Shanxi, Yunnan, Xizang), India (Sikkim, Darjeeling District, Uttarakhand), Bhutan.

Distribution. China (Shanxi, Gansu, Sichuan, Yunnan, Xizang), India, Bhutan.

***Enoplotrupes (Gynoplotrupes) mishmi* Král, Malý & Schneider, 2019 [米山武粪金龟]**

Enoplotrupes (Gynoplotrupes) mishmi Král, Malý & Schneider, 2019: 163, figs 9–12, 25–27 (original description).

Type locality. “Assam, Mishmi Hills, Delai valley, Taton” [= Zangnan, or South of Xizang, China].

Distribution. China (Xizang).

***Enoplotrupes (Gynoplotrupes) xizangensis* Ochi, Kon & Bai, 2022 [西藏武粪金龟]**

Enoplotrupes (Gynoplotrupes) xizangensis Ochi, Kon & Bai, 2022: 422, figs 2, 4, 10–12 (original description).

Type locality. “China, Xizang, Bomi, Zhamu”.

Distribution. China (Xizang).

Genus *Phelotrupes* Jekel, 1866 [齿粪金龟属]

Geotrupes (Phelotrupes) Jekel, 1866: 575. Type species: *Geotrupes orientalis* Westwood, 1839 (by original designation).
Phelotrupes: Zunino 1984: 39.

Distribution. Oriental and Palearctic regions.

Subgenus *Eogeotrupes* Bovo & Zunino, 1983

Eogeotrupes Bovo & Zunino, 1983: 407. Type species: *Geotrupes laevistriatus* Motschulsky, 1857.

Distribution. Oriental and Palearctic regions.

***Phelotrupes (Eogeotrupes) cambeforti* Král, Malý & Schneider, 2001 [坎氏齿粪金龟]**

Phelotrupes (Eogeotrupes) cambeforti Král, Malý & Schneider, 2001: 89, figs 107, 108, 222 (original description, key).

Type locality. “British Bootan Padong” [= Bhutan].

Published records. Král *et al.* (2001): Bhutan, China (Xizang); India (Sikkim, West Bengal: Darjeeling), Nepal; Löbl *et al.* (2006); Nikolajev *et al.* (2016): Bhutan, Nepal, India (Sikkim, Darjeeling District), China (Xizang).

Distribution. China (Xizang), India, Nepal, Bhutan.

***Phelotrupes (Eogeotrupes) linzhiensis* Ochi, Kon & Bai, 2021 [林芝齿粪金龟]**

Phelotrupes (Eogeotrupes) linzhiensis Ochi, Kon & Bai, 2021: 138, figs 4, 14, 15 (original description).

Type locality. “China, Xizang, Linzhi, 2000 m alt.”.

Distribution. China (Xizang).

Subgenus *Phelotrupes* Jekel, 1866

Geotrupes (*Phelotrupes*) Jekel, 1866: 575. Type species: *Geotrupes orientalis* Westwood, 1839 (by original designation).

Distribution. Oriental and Palaearctic regions.

Phelotrupes (s. str.) *businskyorum businskyorum* Král, Malý & Schneider, 2001 [疏刻齿粪金龟指名亚种]

Phelotrupes (s. str.) *businskyorum* Král, Malý & Schneider, 2001: 100, figs 119, 120, 229 (original description, key).

Type locality. “CHINA E–TIBET 2050-2400 m N of BRAHMAPUTRA great bend”.

Published records. Löbl *et al.* (2006); Nikolajev *et al.* (2016): Xizang.

Distribution. China (Xizang).

Phelotrupes (s. str.) *lama* Červenka, 2009 [突唇齿粪金龟]

Phelotrupes (s. str.) *lama* Červenka, 2009: 20, fig. 1a–c (original description).

Type locality. “China, E Xizang, Tsongo (Basum Tso), 90 km W of Gyamda, 3,502 m”.

Published records. Nikolajev *et al.* (2016): Xizang.

Distribution. China (Xizang).

Phelotrupes (s. str.) *motuoensis* Ochi, Kon & Bai, 2020 [墨脱齿粪金龟]

Phelotrupes (s. str.) *motuoensis* Ochi, Kon & Bai, 2020: 898, figs 2, 4, 7, 8 (original description).

Type locality. “China, Xizang, Motuo, ca. 2000 m alt.”.

Distribution. China (Xizang).

Phelotrupes (s. str.) *orientalis* (Westwood, 1839) [东方齿粪金龟]

Geotrupes orientalis Westwood, 1839: 54, tab. 9, fig. 2 (original description)

Geotrupes (*Phelotrupes*) *orientalis* Jekel, 1866: 576.

Geotrupes (*Phelotrupes*) *henrici* Jekel, 1866: 579 (original description) (Type locality: “India, orientalis” [= Northern India]).

Synonymized by Boucomont 1905: 251.

Geotrupes (*Phelotrupes*) *sylheticus* Jekel, 1866: 580 (original description) (Type locality: “Sylhet, Indiae, orient.” [= Eastern India]). Synonymized by Boucomont 1905: 251.

Phelotrupes (s. str.) *orientalis*: Jacobsohn 1892: 252.

Phelotrupes orientalis: Zunino 1984: 39, figs 12A–H, 13A, B, tab. 1E.

Type locality. “India (probably from a high elevation of the Himalayan mountains)”.

Published records. Jekel (1866): “India or. sept. (Nepaul, Himalaya, Sylhet)”; Král *et al.* (2001): “Bangladesh (Sylhet) [doubtful], Bhutan, China (Xizang), India (Assam, Himachal Pradesh, Jammu & Kashmir, Sikkim, Uttar Pradesh, West Bengal: Darjeeling district), Nepal, Pakistan; record from China (Sichuan) by Zhang (1992) seems to be doubtful.”; Löbl *et al.* (2006); Nikolajev *et al.* (2016): Bhutan, India (Himachal Pradesh, Kashmir, Sikkim, Darjeeling District, Uttarakhand), Nepal, Pakistan, China (Xizang).

Distribution. China (Xizang), India, Nepal, Bhutan, Pakistan.

***Phelotrupes* (s. str.) *wrzecionkoi* Král, Malý & Schneider, 2001 [浅细齿粪金龟]**

Phelotrupes (s. str.) *wrzecionkoi* Král, Malý & Schneider, 2001: 118, figs 135–136, 143, 238 (original description, key).

Type locality. “CHINA – E. Tibet, Basum Tso, 3800 m, 90 km W. of Gyamda”.

Published records. Löbl *et al.* (2006): Xizang; Nikolajev *et al.* (2016): Xizang.

Distribution. China (Xizang).

Tribe Geotrupini Lareille, 1797

Genus *Ceratophyus* Fischer von Waldheim, 1824 [角粪金龟属]

Ceratophyus Fischer von Waldheim, 1824: 143. Type species: *Scarabaeus dispar* Fabricius, 1781 (= *Scarabaeus polyceros* Pallas, 1771).

Distribution. Palaearctic-, Oriental- and Nearctic regions.

***Ceratophyus sulcicornis* (Fairmaire, 1887) [沟纹角粪金龟]**

Geotrypes (*Ceratophyus*) *sulcicornis* Fairmaire, 1887b: 192 (original description).

Ceratophyus sulcicornis: Boucomont 1902: 11.

Type locality. “Sikkim (Inde septentr.)” [= Northern India].

Published records. Boucomont (1902); Boucomont (1912): Sikkim; Löbl *et al.* (2006): Nepal, India (Sikkim, Darjeeling District); Nikolajev *et al.* (2016): India (Arunachal Pradesh [= Zangnan, or South of Xizang, China], Sikkim, Darjeeling District), Nepal.

Distribution. China (Xizang), India, Nepal.

Genus *Geotrupes* Latreille, 1797 [粪金龟属]

Geotrupes Latreille, 1797: 6. Type species: *Scarabaeus stercorarius* Linnaeus, 1758.

Geotrypes Agassiz, 1846: 161 [unjustified emendation]. Type species: *Scarabaeus stercorarius* Linnaeus, 1758.

Distribution. Nearctic and Palaearctic regions.

Subgenus *Geotrupes* Latreille, 1797

Geotrupes Latreille, 1797: 6. Type species: *Scarabaeus stercorarius* Linnaeus, 1758.

Geotrypes Agassiz, 1846: 161 [unjustified emendation]. Type species: *Scarabaeus stercorarius* Linnaeus, 1758.

Distribution. Nearctic and Palaearctic regions.

***Geotrupes* (s. str.) *corinthius* Fairmaire, 1886 [柱式粪金龟]**

Geotrupes corinthius Fairmaire, 1886: 322 (original description).

Geotrupes (*Anoplotrupes*) *semicupreus* Reitter, 1892: 136 (original description, key) (Type locality: “Thibet: Tàtsienloù” [= Sichuan, Kangding]). Synonymized by Fairmaire 1895: 229.

Type locality. “Yunnan”.

Published records. Löbl *et al.* (2006); Nikolajev *et al.* (2016): China (Gansu, Sichuan, Qinghai, Xinjiang, Yunnan).

Material examined. See above.

Distribution. China (Shaanxi, Gansu, Qinghai, Xinjiang, Sichuan, Yunnan, Xizang). **New provincial record for Shaanxi and Xizang.**

Subgenus *Glyptogeotrupes* Nikolajev, 1979

Glyptogeotrupes Nikolajev, 1979: 190. Type species: *Geotrupes impressus* Gebler, 1841 (by original designation).
Epigeotrupes Bovo & Zunino, 1983: 410. Type species: *Geotrupes kuluensis* Bates, 1891. Synonymized by Nikolajev 2004: 99.

Distribution. Palaearctic Region.

Geotrupes (Glyptogeotrupes) castanipennis (Reitter, 1887) [栗翅粪金龟]

Geotrupes (Anoplotrupes) castanipennis Reitter, 1887: 228 (original description).
Geotrupes infraopacus Fairmaire, 1901: 267 (original description) (Type locality: “des montagnes de Sikkim”). Synonymized by Bovo & Zunino 1983: 415.

Type locality. “An den Flüssen Tala-tchu ud By-tchu”.

Published records. Isida (1982): Bhutan; Löbl *et al.* (2006); Nikolajev *et al.* (2016): China (Gansu, Sichuan, Qinghai).

Material examined. See above.

Distribution. China (Gansu, Qinghai, Sichuan, Xizang), Bhutan. **New provincial record for Xizang.**

Geotrupes (Glyptogeotrupes) folwarcznyi Červenka, 2005 [福氏粪金龟]

Geotrupes folwarcznyi Červenka, 2005: 21, fig. 2a, b (original description).

Type locality. “CHINA-E TIBET, LENANG - 3250 m, 30 km W of TOME”.

Published records. Nikolajev *et al.* (2016): China (Xizang).

Distribution. China: (Xizang).

Geotrupes (Glyptogeotrupes) genestieri (Boucomont, 1905) [吉氏粪金龟]

Geotrupes genestieri Boucomont, 1905: 220 (original description, key).

Type locality. “Lou-Tsé-Kiang” [Sichuan].

Published records. Löbl *et al.* (2006); Nikolajev *et al.* (2016): China (Sichuan).

Material examined. See above.

Distribution. China (Sichuan, Yunnan, Xizang). **New provincial record for Yunnan and Xizang.**

Genus *Odontotrupes* Fairmaire, 1887 [奥粪金龟属]

Odontotrupes Fairmaire, 1887a: 102. Type species: *Geotrypes impressiusculus* Fairmaire, 1887.

Distribution. Palaearctic Region.

Subgenus *Odontotrupes* Boucomont, 1905

Odontotrupes Boucomont, 1905: 234. Type species: *Geotrupes orichalceus* Fairmaire, 1895.

Bootrupes Boucomont, 1911: 349. Type species: *Geotrupes orichalceus* Fairmaire, 1895. Synonymized by Nikolajev 1977: 377.

Distribution. Palaearctic Region.

Odontotrupes (Odontotrupes) tawangensis Gupta, Chandra & Hillert, 2016 [达旺奥粪金龟]

Odontotrupes (Odontotrupes) tawangensis Gupta, Chandra & Hillert, 2016: 560, fig. 1–19 (original description).

Type locality. “India, Arunachal Pradesh state, Tawang district” [= Zangnan, or South of Xizang, China].

Distribution. China (Xizang).

Subgenus *Odontotrupes* Fairmaire, 1887

Odontotrupes Fairmaire, 1887a: 102. Type species: *Geotrupes impressiusculus* Fairmaire, 1887.

Distribution. Palaearctic Region.

Odontotrupes (s. str.) balthasari (Mikšić, 1958) [疏刻奥粪金龟]

Geotrupes (Bootrupes) semiscribrosus balthasari Mikšić, 1958: 3, fig. without No. (original description).

Odontotrupes balthasari: Král *et al.* 2001: 11.

Type locality. “Nepal Manangbhot, 28°40′ n. Br. und 84°1′ ö. L. / Chulu Tal /, 4.300 m Seehöhe”.

Published records. Mikšić (1961): “S. E. Tibet: Tsangpo Valley, Nyima La, 14000 and Zayul”; Král *et al.* (2001): China (Xizang), India (Sikkim), Nepal; Löbl *et al.* (2006); Nikolajev *et al.* (2016): China (Xizang), Nepal.

Distribution. China (Xizang), India, Nepal.

Odontotrupes (s. str.) bimaculatus Červenka, 2005 [二斑奥粪金龟]

Odontotrupes bimaculatus Červenka, 2005: 20, fig. 1a, b (original description).

Type locality. “CHINA-C TIBET, CHAKLA- 5000 m, 100 km of LHASA-A”.

Published records. Nikolajev *et al.* (2016): China (Xizang).

Distribution. China (Xizang).

Odontotrupes (s. str.) hayekae adamiki Červenka, 2007 [哈氏奥粪金龟哑光亚种]

Odontotrupes hayekae adamiki Červenka, 2007: 22, fig. 1a–c (original description).

Type locality. “China-C Tibet, Shugela Pass -4920 m, 40 km E of Yanbajing”.

Published records. Nikolajev *et al.* (2016): China (Xizang).

Distribution. China (Xizang).

***Odontotrypes* (s. str.) *hayekae hayekae* (Mikšić, 1961) [哈氏奥粪金龟指名亚种]**

Geotrypes (*Bootrupes*) *hayeki* Mikšić, 1961: 271, figs 1, 2A, B (original description).
Odontotrypes hayeki: Zunino 1984: 55.

Type locality. “Tingri [= Dingri], 15 000 ft, Tibet”.

Published records. Král *et al.* (2006); Nikolajev *et al.* (2016): China (Xizang); Nepal.

Distribution. China (Xizang), Nepal.

***Odontotrypes* (s. str.) *howdeni* Král, Malý & Schneider, 2001 [横纹奥粪金龟]**

Odontotrypes howdeni Král, Malý & Schneider, 2001: 21, figs 13, 14, 171, 267 (original description, key).

Type locality. “CHINA, SE – TIBET, ZAYU Co., Salween – Irrawaddy divide and TARON River (Irraw.) E branch valley 3400-4300 m, 28.27-35N, 98.00-15E”.

Published records. Král *et al.* (2006); Nikolajev *et al.* (2016): China (Xizang).

Distribution. China (Xizang).

***Odontotrypes* (s. str.) *medogensis* Ochi, Kon & Bai, 2018 [墨脱奥粪金龟]**

Odontotrypes (s. str.) *medogensis* Ochi, Kon & Bai, 2018b: 377, figs 3, 11 (original description).

Odontotrypes duoxiongla Boilly, 2018: 295, figs 1, 2 (original description) (Type locality: “Chine, Xizang, Motuo, Duoxiongla (3 500 m)”). Synonymized by Ochi *et al.* 2020: 899.

Type locality. “China, Tibet, Medog (2,000 m alt.)”.

Distribution. China (Xizang).

***Odontotrypes* (s. str.) *paulusi* Král, Malý & Schneider, 2001 [褐胫奥粪金龟]**

Odontotrypes paulusi Král, Malý & Schneider, 2001: 35, figs 35, 36, 183, 294 (original description, key).

Type locality. “CHINA – E. TIBET Mila, 4600-4800 m 15 km S. of Bangda”.

Published records. Král *et al.* (2006); Nikolajev *et al.* (2016): China (Xizang).

Distribution. China (Xizang).

***Odontotrypes* (s. str.) *satanas* Král, Malý & Schneider, 2001 [撒旦奥粪金龟]**

Odontotrypes satanas Král, Malý & Schneider, 2001: 46, figs 51, 52, 192, 281 (original description, key).

Type locality. “CHINA, E TIBET, MARKAM env., 3800-4000 m, 29°40'-42', 98°35'E”.

Published records. Löbl *et al.* (2006); Nikolajev *et al.* (2016): China (Sichuan)*.

Distribution. China (Xizang).

Note. The distribution in Sichuan reported by Löbl *et al.* (2006) and Nikolajev *et al.* (2016) is an error; it should correctly refer to Xizang.

***Odontotrypes* (s. str.) *xizangensis* Ochi, Kon & Bai, 2019 [西藏奥粪金龟]**

Odontotrypes (s. str.) *xizangensis* Ochi, Kon & Bai, 2019: 449, figs 2, 8, 9 (original description).

Type locality. “China, Xizang, Linzhi, Shapu (3700 m alt.)”.

Distribution. China (Xizang).

Subgenus *Thorectomimus* Nikolajev, 2009

Thorectomimus Nikolajev, 2009: 58. Type species: *Geotrupes semenowi* Reitter, 1887 (by original designation).

Distribution. Palaearctic Region.

***Odontotrypes (Thorectomimus) tryznai* Král, Malý & Schneider, 2001 [特氏奥粪金龟]**

Odontotrypes tryznai Král, Malý & Schneider, 2001: 76, figs 93, 94, 214, 302 (original description, key).

Type locality. “SE Tibet, “Zhong La Shan” pass 5 km E of Markam, alpine meadow, ca 4100 m”.

Published records. Löbl *et al.* (2006); Nikolajev *et al.* (2016): China (Xizang).

Distribution. China (Xizang).

***Odontotrypes (Thorectomimus) opacipennis* Ochi, Kon & Bai, 2021 [暗翅奥粪金龟]**

Odontotrypes (Thorectomimus) opacipennis Ochi, Kon & Bai, 2021: 137, figs 3, 7, 12, 13 (original description).

Type locality. “China, Xizang, Motuo”.

Distribution. China (Xizang).

Acknowledgments

The authors wish to express their sincere gratitude to Guo-Dong Ren, Xing-Long Bai (both HBUM), Ming Bai and Kui-Yan Zhang (both IZCAS) for the opportunity to examine the material in respective collections. Moreover, we also grateful to Aleš Bezděk (Biology Centre, Czech Academy of Sciences, České Budějovice, Czechia) for his kind providing literary references from his private archive, and to Xuan Zhou (College of Agriculture, Yangtze University, Hubei, China) for her assistance in identifying the place names. We thank Oliver Hillert (Schöneiche bei Berlin, Germany) and the handling editor for their valuable comments on the draft manuscript which improved the paper. This work was supported by the Biological Resources Program, Chinese Academy of Sciences and the Second Tibetan Plateau Scientific Expedition and Research Program (grant no. 2024QZKK0200).

References

- Agassiz, L. (1846) Nomenclatoris zoologici index universalis continens nomina systematica classium, ordinum, familiarum et generum animalium omnium, tam viventium quam fossilium, secundum ordinem alphabeticum unicum disposita, adjectis homonymiis plantarum, nec non variis adnotationibus et emendationibus. In: Agassiz, L. (Ed.), *Nomenclator Zoologicus, Continens Nomina Systematica Generum Animalium tam Viventium quam Fossilium, Secundum Ordinem Alphabeticum Disposita, Adjectis Auctoribus, Libris, in Quibus Reperiuntur, Anno Editionis, Etymologia et Familiis, ad Quas Pertinent, in Singulis Classibus. Fasc. 12.* Jent et Gassmann, Soloduri, pp. 1–393.
<https://doi.org/10.5962/bhl.title.15763>
- Bai, M., Král, D., Lu, Y.-Y. & Yang, X.-K. (2018) Scarabaeoidea: Geotrupidae. In: Yang, X.-K. (Ed.), *Fauna of Tianmu Mountain. Vol. VI. Insecta. Coleoptera – Adephaga. Gyrinidae, Carabidae, Dytiscidae. Coleoptera – Polyphaga. Hydrophiloidea, Staphyloidea, Scarabaeoidea, Dascilloidea, Buprestoidea, Elateroidea, Cleroidea, Cucujoidea.* Zhejiang University Press, Hangzhou, pp. 108–109. [in Chinese, English title]
- Bai, M. & Yang, X.-K. (2018) III. Scarabaeoidea. 11 Geotrupidae. In: Yang, X.-K. (Ed.), *Insect Fauna of the Qingling Mountains. Coleoptera (1).* World Publishing Corporation, Xi'an, pp. 334–339.

- Bates, H.W. (1891) Coleoptera collected by Mr. Pratt on the Upper Yang-tsze, and on the borders of Thibet. Second notice. Journey of 1890. *The Entomologist's Supplement*, 24, 69–80.
- Boilly, O. (2018) Description d'un nouveau *Odontotrypes* de Chine (Coleoptera Scarabaeoidea Geotrupidae). *L'Entomologiste*, 74, 295–296.
- Boucumont, A. (1902) Coleoptera Lamellicornia. Fam. Geotrupidae. In: Wytsman, P. (Ed.), *Genera Insectorum*. Wytsman P, Bruxelles, pp. 1–20.
- Boucumont, A. (1905) Etude sur les *Enoplotrupes* et *Geotrupes* d'Asie. *Revue d'Entomologie*, 23, 209–252.
- Boucumont, A. (1911) Contribution à la classification des Geotrypidae (Col.). *Annales de la Société Entomologique de France*, 79, 333–350. [1910–1911]
<https://doi.org/10.1080/21686351.1910.12279478>
- Boucumont, A. (1912) Scarabaeidae: Taurocerastinae, Geotrupinae. In: Junk, W. & Schenkling, S. (Eds.), *Coleopterorum Catalogus. Vol. 46*. W. Junk, Berlin, pp. 1–47.
- Boucumont, A. (1923) Scarabéides recueillis par le Marquis S.Patrizi dans l'Afrique Orientale Tropicale. *Annali Del Museo Civico Di Storia Naturale Giacomo Doria*, 51, 86–100.
- Boucumont, A. (1932) Coprophaga Africana 6e Note. *Revue De Zoologie Africaine*, 22 (1), 46–53.
- Bovo, B. & Zunino, M. (1983) Nuovi generi di Geotrupini (Coleoptera, Scarabaeoidea: Geotrupidae) asiatici. *Bollettino Del Museo Regionale Di Scienze naturali*, 1 (2), 397–416.
- Carpaneto, G.M., Mignani, R. & Piattella, E. (2000) A taxonomic overview of the genus *Pseudoathyreus*, and redescription of two related species from southern Africa (Coleoptera: Geotrupidae: Bolboceratinae). *The Coleopterists Bulletin*, 54, 239–247.
[https://doi.org/10.1649/0010-065X\(2000\)054\[0239:ATOOTG\]2.0.CO;2](https://doi.org/10.1649/0010-065X(2000)054[0239:ATOOTG]2.0.CO;2)
- Carpaneto, G.M. & Romiti, F. (2020) Species delimitation by a geometric morphometric analysis within the genus *Pseudoathyreus* and description of a new species (Coleoptera: Scarabaeoidea: Bolboceratidae). *Fragmenta Entomologica*, 52 (1), 11–18.
<https://doi.org/10.4081/fe.2020.399>
- Červenka, R. (2005) Contribution to knowledge of the Geotrupidae. I. New species *Geotrupes folwarcznyi* sp. n. and *Odontotrypes bimaculatus* sp. n. from China (Xizang) (Coleoptera, Scarabaeoidea, Geotrupidae). *Animma.x*, 9, 14–25.
- Červenka, R. (2007) Contribution to knowledge of Geotrupidae. II. *Odontotrypes hayeki adamiki* ssp.n. from China (Xizang) (Coleoptera, Scarabaeoidea, Geotrupidae). *Animma.x*, 22, 21–26.
- Červenka, R. (2009) Contribution to knowledge of Geotrupidae. III. *Phelotrupes lama* sp. nov. from China, Xizang (Coleoptera, Scarabaeoidea, Geotrupidae). *Animma.x*, 28, 19–24.
- Fairmaire, L. (1886) Descriptions de Coléoptères de l'intérieur de la Chine. *Annales De La Société Entomologique De France*, 6 (6), 303–356.
- Fairmaire, L. (1887a) Coléoptères de l'intérieur de la Chine (3e partie). *Annales De La Société Entomologique De Belgique*, 31, 87–136.
- Fairmaire, L. (1887b) Descriptions de deux nouvelles espèces de Coléoptères. *Bulletin Des Séances Et Bulletin Bibliographique De La Société Entomologique De France*, 1887, 192–193.
- Fairmaire, L. (1895) Descriptions de plusieurs Coléoptères exotiques. Additions et rectifications à la note sur le genre *Pseudinca*. *Bulletin De La Société Entomologique De France*, 1895, 226–229 + 256–257.
- Fairmaire, L. (1901) Descriptions de Coléoptères des montagnes de Sikkim. *Bulletin De La Société Entomologique De France*, 6 (15), 265–268.
<https://doi.org/10.3406/bsef.1901.22898>
- Fischer von Waldheim, G. (1823) *Entomographia Imperii Russici; Genera Insectorum Systematice Exposita et Analysis Iconographica Instructa. Tome 2 (1823–1824)*. Augusti Semen, Moscow, 262 pp., pls. 143–152. [pp. 189–218].
- Gillett, M.P.T. & Gillett, C.P.D.T. (2005) Insects & other arthropods; Species checklist. In: Aspinnall, S. & Hellyer, P. (Eds.), *The Emirates. A Natural History*. Trident Press, London, pp. 168–194; 352–356.
- Gupta, D., Chandra, K. & Hillert, O. (2016) *Odontotrypes (Odontotrupes) tawangensis* new species (Coleoptera: Geotrupidae) from Arunachal Pradesh, India. *Zootaxa*, 4154 (5), 559–566.
<https://doi.org/10.11646/zootaxa.4154.5.4>
- Gupta, D., Chandra, K., Král, D. & Ghosh, J. (2019) *Enoplotrupes (Enoplotrupes) tawangensis* sp. nov. (Coleoptera: Geotrupidae) from Arunachal Pradesh (India) and Bhutan, along with a key to its relatives. *Oriental Insects*, 54 (3), 299–307.
<https://doi.org/10.1080/00305316.2019.1624219>
- Howden, H.F. & Martinez, A. (1963) The New Tribe Athyreini and its included genera (Coleoptera: Scarabaeidae: Geotrupinae). *The Canadian Entomologist*, 95, 345–352.
<https://doi.org/10.4039/Ent95345-4>
- Isida, M. (1982) A list of Scarabaeoidea from Bhutan collected by Mr. Haruzō Kanmuri (Coleoptera). *Kitakyushu no Kontyu*, 29, 175–184 (in Japanese, English title).
- Jacobsohn, G.G. (1892) Beitrag zur Systematik der Geotrypini. *Horae Societatis Entomologicae Rossicae*, 26, 245–257.
- Janikova, M. (1998) *Coleoptera. Beetles Checklist*. Sultanate of Oman, Ministry of Heritage and Culture, Natural History Museum, Muscat, 39 pp.
- Jekel, H. (1866) Essai sur la classification naturelle des *Geotrupes* Latreille et descriptions d'espèces nouvelles. *Annales de la Société Entomologique de France*, 5, 513–618.

- Kalawate, A.S. (2025) An unusual new record of *Pseudoathyreus orientalis* (Laporte, 1840) (Coleoptera, Bolboceratidae, Athyreinae), an eremian species from the Deccan Peninsula, India and designation of its neotype. *Entomon*, 50 (2), 215–218.
<https://doi.org/10.33307/entomon.v50i2.1471>
- Klug, J.C.F. (1843) Die Coleopteren-Gattungen: *Athyreus* und *Bolboceras*, dargestellt nach den in der Sammlung der hiesiger Königlich Universität davon vorhandenen Arten. *Abhandlungen der Königlich-Preussischen Akademie der Wissenschaften*, 1843, 21–57.
- Král, D. & Batelka, J. (2017) Order Coleoptera, superfamily Scarabaeoidea. In: van Harten, A. (Ed.), *Arthropod Fauna of the UAE. Vol. 6*. Dar Al Ummah, Abu Dhabi, pp. 78–168.
- Král, D., Jákl, S. & Manjunatha, H.B. (2020a) *Enoplotrupes* (*Enoplotrupes*) *apatani* sp. nov. (Coleoptera: Geotrupidae) from Arunachal Pradesh, India. *Acta Societatis Zoologicae Bohemicae*, 84, 23–27.
- Král, D., Löbl, I. & Nikolajev, G.V. (2006) family Bolboceratidae Mulsant, 1842. In: Löbl, I. & Smetana, A. (Eds.), *Catalogue of Palaearctic Coleoptera. Vol. 3. Scarabaeoidea–Scirtoidea–Dasciloidea–Buprestoidea–Byrrhoidea*. Apollo Books, Stenstrup, pp. 82–84.
- Král, D., Lu, Y.-Y. & Bai, M. (2020b) Geotrupidae Latreille, 1802. In: Bai, M. (Ed.), *The Scarabaeoidea of Wuyi Mountain*. China Agricultural Science and Technology Press, Beijing, pp. 31–37.
- Král, D., Malý, V. & Schneider, J. (2001) Revision of the genera *Odontotrupes* and *Phelotrupes* (Coleoptera: Geotrupidae). *Folia Heyrovskyana, Supplementum*, 8, 1–178.
- Král, D., Malý, V. & Schneider, J. (2012) *Enoplotrupes* (*E.*) *rhinoceros* sp. nov. and *E.* (*Tyrannotrupes*) *tyrannus* subgen.nov., sp.nov. from India and Myanmar (Coleoptera: Geotrupidae). *Les Cahiers Magellanes*, Hors Série, 34, 1–11.
- Král, D., Malý, V. & Schneider, J. (2019) Descriptions of three new *Enoplotrupes* species from China and Himalaya (Coleoptera: Geotrupidae). *Acta Societatis Zoologicae Bohemicae*, 82 (3–4), 151–164.
- Krikken, J. (1978) Taxonomic notes on *Bolboceras indicum* Westwood and its relatives (Coleoptera: Geotrupidae). *Entomologische Berichten Amsterdam*, 38, 72–77.
- Krikken, J. (1984) A generic reclassification of the Afrotropical Bolboceratini (Coleoptera: Geotrupidae). *Zoologische Mededeelingen Leyden*, 58, 23–45.
- Laporte, F.L. (1840) *Histoire Naturelle des Insectes Coléoptères. Tome deuxième*. P. Duménil, Paris, 564 pp.
- Latreille, P.A. (1797) *Précis des Caractères Génériques des Insectes, Disposés dans un Ordre Naturel*. F. Boudreaux, Brive, 201 pp.
<https://doi.org/10.5962/bhl.title.58411>
- Liu, Y.-Q. & Bai, J.-W. (1982) Lepidoptera: Microlepidoptera. In: Tibetan Plateau Comprehensive Research Team, CAS (Eds.), *Insects of Xizang. Vol. 2*. Science Press, Beijing, pp. 142.
- Löbl, I., Nikolajev, G.V. & Král, D. (2006) subfamily Geotrupinae Latreille, 1802. In: Löbl, I. & Smetana, A. (Eds.), *Catalogue of Palaearctic Coleoptera. Vol. 3. Scarabaeoidea–Scirtoidea–Dasciloidea–Buprestoidea–Byrrhoidea*. Apollo Books, Stenstrup, pp. 84–92.
- Lu, Y.-Y. & Bai, M. (2024) Geotrupidae. In: Li, L.-Z. & Bai, M. (Eds.), *Fauna of Insects of Zhejiang Province of China. Vol. 5. Coleoptera I*. Science Press, Beijing, pp. 549–553.
- Lucas, H. (1869) Séances. *Annales de la Société entomologique de France*, 4 (9), 13.
- Masumoto, K. (1991) A new species of the genus *Enoplotrupes* (s. str.) (Coleoptera, Geotrupidae) from China. *Elytra*, 19 (2), 179–183.
- Masumoto, K. (1995) New or little-known Geotrupine species from Central and Western China. *Special Bulletin of the Japanese Society of Coleopterology*, 4, 381–387.
- Mikšić, R. (1958) Beschreibung neuer und Bemerkungen ueber Bekannte Scarabaeiden aus Europa Asien und Afrika (Coleoptera-Lamellicornia) (27. Beitrag zur Kenntnis der Scarabaeiden). *Bollettino dell'Associazione Romana Di Entomologia*, 13 (1–2), 1–9.
- Mikšić, R. (1961) Beitrag zur Kenntniss der asiatischen *Geotrupes*-Arten (36. Beitrag zur Kenntnis der Scarabaeiden). *Zoologischer Anzeiger*, 167, 271–274.
- Nikolajev, G.V. (2009) On the taxonomic structure of the genus *Odontotrupes* Fairmaire, 1887 (Coleoptera: Geotrupidae) according to geographical distribution of species. *Caucasian Entomological Bulletin*, 5 (1), 53–62.
<https://doi.org/10.23885/1814-3326-2009-5-1-53-62>
- Nikolajev, G.V. (1977) Materialy k izucheniyu plastichatousykh zhukov podroda *Odontotrupes* Fairm. Roda *Geotrupes* Latr. (Coleoptera, Scarabaeidae). *Entomologicheskoe Obozrenie*, 56, 375–382.
- Nikolajev, G.V. (1979) Neue Gattungen und Undergattungen der Blatthornkäfer (Coleoptera, Scarabaeidae). *Reichenbachia, Zeitschrift Für Taxonomische Entomologie Des Staatliches Museum Für Tierkunde in Dresden*, 17 (23), 189–191.
- Nikolajev, G.V. (2004) Novyie vidyi plastinchatousykh zhukov (Coleoptera, Scarabaeoidea) iz Azii. *Vestnik Kazakhskogo Nacionalnogo Universiteta, Seryia Biologicheskaya Almaty*, 1 (22), 98–99.
- Nikolajev, G.V., Král, D. & Bezděk, A. (2016) Geotrupidae. In: Löbl, I. & Löbl, D. (Eds.), *Catalogue of Palaearctic Coleoptera. Vol. 3. Scarabaeoidea, Scirtoidea, Dascilloidea, Buprestoidea and Byrrhoidea. Revised and Updated Edition*. Brill, Leiden & Boston, Massachusetts, pp. 33–52.
https://doi.org/10.1163/9789004309142_003
- Oberthür, R. (1883) Description d'un genre nouveau et de deux espèces nouvelles de Géotrupides. *Coleopterorum Novitates*, 55–58.

- Ochi, T. & Kon, M. (2015) Three new species of the genus *Phelotrupes* Jekel (Coleoptera: Geotrupidae) from Myanmar. *Giornale Italiano Di Entomologia*, 14 (60), 191–200.
- Ochi, T., Kon, M. & Bai, M. (2017a) Two new species of the genera *Odontotrypes* and *Phelotrupes* (Coleoptera: Geotrupidae) from Shaanxi, China. *Giornale Italiano Di Entomologia*, 14 (62), 723–728.
- Ochi, T., Kon, M. & Bai, M. (2017b) Nine New Taxa of the Genera *Odontotrypes* and *Phelotrupes* (Coleoptera: Geotrupidae) from China. *Elytra, Tokyo, New Series*, 7 (1), 85–104.
- Ochi, T., Kon, M. & Bai, M. (2018a) Eight New Taxa of the genera *Odontotrypes* and *Phelotrupes* (Coleoptera: Geotrupidae) from China. *Giornale Italiano Di Entomologia*, 15 (63), 181–196.
- Ochi, T., Kon, M. & Bai, M. (2018b) Three New Taxa of the Genus *Odontotrypes* (Coleoptera, Geotrupidae) from China. *Elytra, Tokyo, New Series*, 8, 373–379.
- Ochi, T., Kon, M. & Bai, M. (2019) Four new species of the genera *Odontotrypes* and *Phelotrupes* (Coleoptera: Geotrupidae) from China. *Giornale Italiano Di Entomologia*, 15 (64), 447–456.
- Ochi, T., Kon, M. & Bai, M. (2020) Two New Species of the Genera *Odontotrypes* and *Phelotrupes* (Coleoptera, Geotrupidae) from China. *Giornale Italiano Di Entomologia*, 15 (64), 895–900.
- Ochi, T., Kon, M. & Bai, M. (2021) Four new species of the genera *Odontotrypes* and *Phelotrupes* from China (Coleoptera, Scarabaeoidea, Geotrupidae). *Giornale Italiano Di Entomologia*, 16 (66), 133–142.
- Ochi, T., Kon, M. & Bai, M. (2022) Two new horned species of *Enoplotrupes* Lucas, 1869 from Yunnan and Xizang, China (Coleoptera, Geotrupidae). *Giornale Italiano Di Entomologia*, 16 (67), 419–426.
- Ochi, T., Kon, M. & Bai, M. (2024) Two new species of the genus *Phelotrupes* Jekel from China (Coleoptera, Geotrupidae). *Giornale Italiano Di Entomologia*, 17 (69), 101–106.
- Ochi, T., Kon, M. & Kawahara, M. (2010) Four new species of the genera *Odontotrypes* and *Phelotrupes* (Coleoptera, Geotrupidae) from Kachin, Myanmar. *Kogane, Tokyo*, 11, 101–109.
- Reitter, E. (1887) Insecta in itinere cl.N.Przewalskii in Asia centrali novissime lecta. VI. Clavicornia, Lamellicornia et Serricornia. *Horae Societatis Entomologicae Rossicae*, 21, 201–234.
- Reitter, E. (1892) *Bestimmungs-Tabelle der Lucaniden und coprophagen Lamellicornen des palaearctischen Faunengebietes*. Separate Publication, Brunn, 230 pp.
- Schoolmeesters, P. (2025) World Scarabaeidae Database (version 2025-06-24). In: Bánki, O., Roskov, Y., Döring, M., Ower, G., Hernández Robles, D.R., Plata Corredor, C.A., Stjernegaard Jeppesen, T., Örn, A., Pape, T., Hobern, D., Garnett, S., Little, H., DeWalt, R.E., Miller, J., Orrell, T., Aalbu, R., Abbott, J., Aedo, C., Aesch, E., *et al.*, *Catalogue of Life* (accessed October 2, 2025).
<https://doi.org/10.48580/dgrrq-38g>
- Shokhin, I.V. (2008) Description of new species from the genera *Odontotrypes* Fairmaire, 1887 and *Phelotrupes* Jekel, 1866 (Coleoptera: Scarabaeoidea: Geotrupidae). *Caucasian Entomological Bulletin*, 4 (3), 287–289.
<https://doi.org/10.23885/1814-3326-2008-4-3-287-289>
- Semenov, A.P. (1889) Diagnoses coleopterorum novorum ex Asia centrali et orientali. *Horae Societatis Entomologicae Rossicae*, Moscov 23, 348–403. [401]
- Sommer, D., Hrušová, L. & Král, D. (2020) First country record of *Pseudoathyreus orientalis* (Coleoptera: Bolboceratidae: Athyreinae) from Pakistan. *Journal of Insect Biodiversity*, 15 (1), 22–25.
<https://doi.org/10.12976/jib/2020.15.1.4>
- Sommer, D., Hillert, O. & Král, D. (2025) Taxonomic revision of the genus *Jekelius* López-Colón, 1989 (Coleoptera: Geotrupidae) in the Levant region. *Zootaxa*, 5594 (3), 452–484.
<https://doi.org/10.11646/zootaxa.5594.3.2>
- Westwood, J.O. (1839) Descriptions of insects figured in plate 9 and 10. In: Royle, J.F. (Ed.), *Illustration of the Botany and other Branches of the Natural History of the Himalayan Mountains and of the Flora of Cashmere*. I. W. H. Allen and Company, Limited, London, pp. 53–55.
- Westwood, J.O. (1848) Descriptions of some new or imperfectly known species of *Bolboceras*. *The Annals and Magazine of Natural History, Including Zoology, Botany and Geology*, 2 (2), 353–356.
- Zhang, Y.-W. (1992) Coleoptera: Geotrupidae. In: Tibetan Plateau Comprehensive Research Team, CAS (Eds.), *Insects of the Hengduan Mountains Region. Vol. 1*. Science Press, Beijing, pp. 488–489.
- Zhang, Y.-W. (2005) Coleoptera: Scarabaeoidea: Geotrupidae. In: Yang, X.-K. (Ed.), *Insect Fauna of Middle-West Qinling Range and South Mountains of Gansu Province*. Science Press, Beijing, pp. 406–407.
- Zhang, Y.-W. & Luo, X.-N. (2002) Geotrupidae. In: Huang, B.-K. (Ed.), *Fauna of Insects of Fujian Province of China. Vol. 6*. Fujian Science & Technology Press, Fuzhou, pp. 427–428.
- Zhang, Y.-W. & Su, Y.-Q. (1997) Coleoptera: Geotrupidae. In: Yang, X.-K. (Ed.), *Insects of the Three Gorge Reservoir Area of Yangtze River. Part I*. Chongqing Publishing House, Chongqing, pp. 754–755.
- Zunino, M. (1984) Sistematica generica dei Geotrupinae filogenesi della sottofamiglia e considerazioni biogeografiche (Coleoptera, Scarabaeoidea: Geotrupidae). *Bollettino Del Museo Regionale di Scienze Naturali, Torino*, 2 (1), 9–162.

西藏齿粪金龟属*Phelotrupes*—短翅新种及粪金龟属*Geotrupes*新纪录（鞘翅目：粪金龟科）

罗一平^{1,3}, 路园园^{1,4}, DAVID KRÁL^{2*}

¹中国科学院动物研究所, 动物多样性保护与有害动物防控全国重点实验室, 北京100101, 中国

²查理大学理学院动物学系, 布拉格2区Viničná 7 CZ-12800, 捷克共和国

³✉ luoyp2000@163.com;  <https://orcid.org/0000-0002-9001-3571>

⁴✉ luyuan@ioz.ac.cn;  <https://orcid.org/0000-0003-0648-5531>

*Corresponding author: ✉ kral@natur.cuni.cz;  <https://orcid.org/0000-0002-1439-7892>

摘要：描述西藏察隅齿粪金龟属*Phelotrupes*一新种，即短翅齿粪金龟*P. (s. str.) brachypterus sp. nov.*。新种与同为短后翅的窄肩齿粪金龟*P. (s. str.) imurai*近缘；图示说明包括雄性外生殖器在内的鉴别特征；此外，首次从陕西和西藏报道柱式粪金龟*Geotrupes (s. str.) corinthius*，从西藏报道栗翅粪金龟*G. (Glyptogeotrupes) castanipennis*，以及从云南和西藏报道吉氏粪金龟*G. (Glyptogeotrupes) genestieri*分布；提供西藏自治区粪金龟科物种名录。

关键词：鞘翅目；粪金龟科；分类学；新种；新纪录；名录；中国