

SHORT COMMUNICATION

A new species of the genus *Paratrichius* from northern Vietnam (Coleoptera: Scarabaeidae: Cetoniinae)

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Abstract. *Paratrichius pejchai* sp. nov. from the mountain region of Ha Giang province, northern Vietnam, is described and illustrated. The new species differs from all currently known species of the genus *Paratrichius* Janson, 1881 in the pronotum extensively covered with pale yellowish chalky material, and in the unique shape of the male genitalia with ‘wing-like’ protuberances on parameres. A list of *Paratrichius* Janson, 1881 species occurring in Vietnam is provided.

Key words. Coleoptera, Scarabaeidae, Cetoniinae, Trichiini, *Paratrichius*, taxonomy, new species, Vietnam, Oriental Region

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Introduction

The genus *Paratrichius* Janson, 1881 represents, with 67 currently known species, the most speciose genus of the tribe Trichiini in the Palearctic and Oriental Regions (RICCHIARDI 2018). The species of the genus are characterized by a high degree of endemism (KRAJČÍK 2010). According to KRAJČÍK (2010), the vast majority of species occurs in northeastern India, China, Japan, Taiwan, Thailand, Myanmar, Laos, and Vietnam, only one species inhabits the Malay Peninsula (*Paratrichius hatay* Miyake, 1989), one northern Borneo (*P. fujiokae* Iwase, 2005), and another one Sumatra (*P. meridionalis* Iwase, 1993). However, the delimitation of the genus is insufficient with respect to the species heterogeneity, and a comprehensive revision, including related genus-group taxa, is desirable (KRIKKEN 2009).

The detailed biology of most species is still poorly known. Adults live probably for a very short period of the year, they are active on sunny days, and can often be caught on flowering plants, sometimes even very abundantly. Many species are very similar to each other in external morphology, and their reliable identification is possible based on the shape of the male genitalia (parameres) only. Identification of single females is impossible in some cases (KRAJČÍK 2010).

There is no comprehensive study dealing with the genus *Paratrichius* of Vietnam. Descriptions of new species are

scattered in many papers and only a few authors have studied the group in detail: IWASE (2005), KRAJČÍK (2007, 2010) and RICCHIARDI (2018). An additional new species collected in Ha Giang province, northern Vietnam, is described in the present paper.

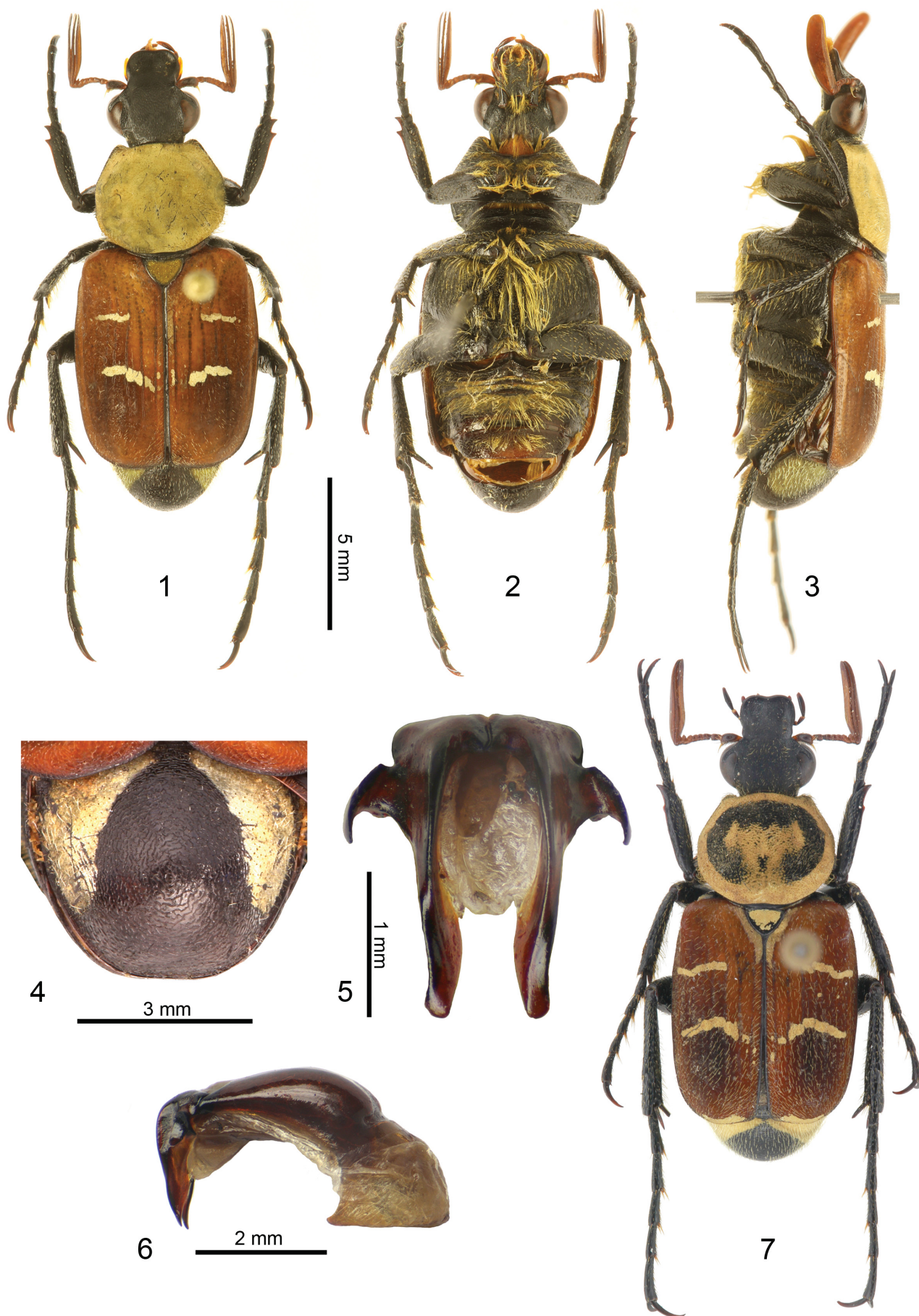
Material and methods

Body length was measured from the anterior margin of clypeus to the apex of pygidium. External morphological characters were examined using a stereoscopic microscope. The aedeagus was extracted through the abdominal apex, and was then cleared and softened in 5% KOH. Aedeagus was glued on a white tag pinned below the holotype specimen. Habitus and male genitalia illustrations were made with a Canon EOS 70D digital camera and Canon EF 100mm/2.8 Macro lens using Helicon Focus software v.6.8.0 for montage of images.

Morphological terminology used in the descriptions follows KRIKKEN (1984) and RICCHIARDI (2018).

Exact label data are cited for the material. Individual labels are separated by a double slash (//), different rows by a single slash (/). The material is deposited in the following collections: National Museum, Prague, Czech Republic (NMPC); Jian-Yue Qiu & Hao Xu private collection, Chongqing, China (QCCC).





Figs 1–7. *Paratrichius pejchai* sp. nov.: 1 – holotype ♂, habitus in dorsal view; 2 – same in ventral view; 3 – same in lateral view; 4 – pygidium; 5 – aedeagus, shape of parameres in frontal view; 6 – aedeagus, lateral view; 7 – habitus of paratype ♂.

Taxonomy

Paratrichius pejchai sp. nov.

(Figs 1–6)

Type locality. Vietnam, Northeast region, Ha Giang Province, Ha Giang env., 1500 m a.s.l.

Type material. HOLOTYPE: ♂, labelled: ‘Vietnam N, Ha Giang Prov. / Ha Giang env. 1500m / July 2012 / M. Pejcha leg. [printed] // HOLOTYPUS / *Paratrichius* / *pejchai* sp. nov. ♂ / P. Mückstein det. 2018’ [printed, red label] (NMPC). PARATYPE: ♂, labelled: ‘North Vietnam / Ha Giang, iv.2014, / native collector leg. [handwritten] // PARATYPE ♂ / *Paratrichius pejchai* / Mückstein, 2018’ [handwritten, yellow label] (QCCC).

Description of male holotype. Elongate species with slender legs. Body length 15.2 mm, maximum elytral width 6.0 mm. Body decorated with pale yellowish chalky material distributed as follows (Figs 1–3): pronotum completely covered; elytra with two narrow, sinuate transverse bands which do not reach elytral margins, bands situated anteriorly and posteriorly from elytral midlength; juxtascutellar area and narrow band reaching middle of juxtasutural margin (not exceeding posterior sinuate transverse band); scutellum completely covered; pygidium covered on sides only, narrowing at base (Fig. 4); abdominal ventrites III–V with transverse band, not reaching lateral margins; ventrite V covered only in anterior half.

Head black, without lustre. Clypeus somewhat wider than long, widest before midlength, slightly depressed behind anterior emarginated margin, sides arcuate, anterior angles broadly rounded. Frons and vertex without

yellowish chalky material; vertex, mentum and gula with sparse yellowish setation. Antennae brownish; scapus with yellow setation; antennal club composed of three apical antennomeres, ca. 1.5× as long as preceding antennomeres combined.

Thorax. Pronotum octagonal, with obtuse angles on sides and base; anterior margin emarginated, anterior angles protruding but rounded at tips, basal margin emarginate medially; finely and regularly punctate with short and erect yellowish setae. Anterior prosternal margin with brush of long yellow setae overlapping posterior third of gula.

Scutellum broadly triangular with apex obtuse, sides arcuate; surface sparsely punctate, with short, erect, whitish setae.

Elytra longer than wide, widest before middle. Brownish, somewhat darker around anteapical umbones. Elytral suture black, uniformly narrow throughout its length. Surface of elytra regularly covered with scarce yellowish setation. Elytron with six striae, five between suture and shoulder, one on lateral declivity; each stria with a row of horseshoe-shaped punctures, in apical third of elytra more or less merged. Humeral callus developed. Macropterous.

Pygidium shiny black, strongly convex, with rounded apex. Surface sculpture consisting of more or less concentric, rugulose striations. Disc of pygidium sparsely pubescent with short yellowish setae.

Ventrum shiny black. Metaventrums with narrow impression in middle part. Rugose punctation of metaventrums



Fig. 8. Habitat of *Paratrichius pejchai* sp. nov. view of the type locality with high rocky mountain, limestone formations and springs (Ha Giang env., Ha Giang Province, Northern Vietnam). Photo: M. Pejcha.

developed mainly in discal part, sides rather densely striolate. Dense yellow setation present on metaventrums; setae longer in middle part, shorter at sides. Abdominal ventrites with yellow setation, longer setae present in middle of ventrite V. Anal ventrite somewhat brownish in middle, without chalky material, but with dense yellow setation in middle; medially hollowed.

Legs. Femora, tarsi and tibiae black. Protibia bidentate, terminal spur absent; with row of dense yellow-golden setation on inner side. Mesotibia with sparse setation on dorsal side and brush of thicker and longer yellow-golden setation on inner side. Meso- and metatibia with transverse carina in apical half. Extensively prolonged metatarsi 1.5× as long as mesotarsi, both with yellowish setation ventrally.

Genitalia. Aedeagus with conspicuous ‘wing-shaped’ protuberances, laterally protruding from basal part of parameres (Figs 5–6).

Female. Unknown.

Variability. The male paratype differs from the holotype in deposition of the yellowish chalky material on dorsal surface: its presence on pronotum is reduced to circular band along margins, and a broad T-shaped spot on the disc (connected with basal margin of pronotum); while two transverse bands on elytra are laterally extended, and narrow crescent transverse band on the distal declivity (lining the apical umbone) of elytra is present (Fig. 7).

Differential diagnosis. The new species can be easily distinguished from all other known members of the genus *Paratrichius* by the pronotum extensively covered with pale yellowish chalky material. In addition, *P. pejchai* sp. nov. differs from other species of the genus in the shape of aedeagus, especially in presence of conspicuous ‘wing-shaped’ protuberances, laterally protruding from the basal part of parameres (Fig. 5). However, although the shape of the parameres is unique compared to other species of the genus, the newly described species shares typical characters for *Paratrichius*, namely: protibia lacking serration proximal to two distal-external denticles, terminal spur of protibia absent; antennal lamellae enlarged, much longer than antennomeres 2–7 combined, with proximal side of first lamella with distinct impression along superior edge; posterior margin of pronotum broadly emarginated medially.

Etymology. Named after my friend Michal Pejcha (Ostavačice, Czech Republic), an experienced entomologist and traveller in Vietnam, who kindly provided me with this interesting specimen. The name is a noun in the genitive case, standing in apposition.

Distribution. North Vietnam, Ha Giang province.

An updated checklist of *Paratrichius* species known from Vietnam

The following abbreviations are used: C – Central, N – Northern, S – Southern; TL – type locality.

Paratrichius alexisi Krajčák, 2007: 16. N Vietnam (TL: Hoang Lien Son [mts.], Sa Pa).

P. campagnei (Bourgoin, 1917): 232. N Vietnam (TL: Sa Pa).

P. coopertus Ricchiardi, 2018: 2. N Vietnam (TL: Lao Cai [province], Chapa [= Sa Pa]).

P. cruentus (Moser, 1902): 534. N Vietnam (TL: Montes Mauson).

P. dangngocvani Ricchiardi, 2018: 3. C Vietnam (TL: Kon Tum [province], Ngoc Linh Mt.).

P. elegantulus (Moser, 1902): 535. N Vietnam (TL: Montes Mauson).

P. flavipes (Moser, 1902): 535. N Vietnam (TL: Montes Mauson).

P. hajeki Krajčák, 2010: 3. N Vietnam (TL: Tam Dao).

P. marmoreus (Moser, 1902): 535. N Vietnam (TL: Tam Dao).

P. pauliani Tesař, 1941: 110. N Vietnam (TL: Mou-Pin).

P. pulchellus Iwase, 2005: 33. S Vietnam (TL: Bao Loc).

P. pullatus (Bourgoin, 1915): 88. N Vietnam (TL: Tonkin).

P. saucius (Moser, 1902): 536. N Vietnam (TL: Montes Mauson).

P. pejchai sp. nov.: N Vietnam (TL: Ha Giang).

P. versicolor (Moser, 1902): 537. N Vietnam (TL: Montes Mauson).

P. vicinus Bourgoin, 1915: 85. N Vietnam (TL: Lao Cai).

P. vitalisi Bourgoin, 1915: 85. N Vietnam (TL: Lao Cai).

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