

Description of two new Lepturinae species from China (Coleoptera: Cerambycidae)

Petr VIKTORA

Třebišovská 605, CZ-28401 Kutná Hora, Czech Republic
e-mail: viktora_print@centrum.cz

Taxonomy, new species, Coleoptera, Cerambycidae, Lepturinae, Encyclopini, Lepturini, *Encyclops*, *Pedostrangalia*, China

Abstract. *Encyclops gongshanus* sp. nov. (tribe Encyclopini) and *Pedostrangalia gongshana* sp. nov. (tribe Lepturini) from China (Yunnan) are described, illustrated and compared.

INTRODUCTION

The genus *Encyclops*, belonging to the tribe Encyclopini, was established with type species *Encyclops pallipes* Newman, 1838 (= *Leptura caerulea* Say, 1826) by Newman (1838). Species of the genus *Encyclops* are known from Nearctic Region (two known species - *E. caeruleus* (Say 1826) and *E. californicus* Van Dyke, 1920) and from Asia (seven known species - *E. concinnus* Holzschuh, 1991 from China (Sichuan), *E. hubeiensis* N. Ohbayashi & W. Wang, 2004 from China (Hubei), *E. luteoscelis* Chou & N. Ohbayashi, 2010 from Taiwan, *E. macilentus* (Kraatz 1879) from Russian Far East and South Korea, *E. obscurellus* Holzschuh, 2015 from China (Yunnan), *E. olivaceus* Bates, 1884 from Russian Far East (Kunashir I.) and Japan (Chen, Liu & Li 2019 also published from China (Hubei)), and *E. viridipennis* Makihara, 1978 from Taiwan) (Danilevsky 2020; Tavakilian & Chevillotte 2022).

The genus *Pedostrangalia*, belonging to the tribe Lepturini, was established with type species *Pedostrangalia kassjanowi* Sokolov, 1897 (= *Leptura imberbis* Ménériés, 1832) by Sokolov (1897). The genus *Pedostrangalia* is divided into two subgenera - *Pedostrangalia* (s. str.) Sokolov, 1897 and *Pedostrangalia (Neosphenalia)* Löbl, 2010. *Pedostrangalia* (s. str.) is known from Palaearctic Region and contains ten known species (*P.* (s. str.) *afghanistana* Satô & Ohbayashi, 1976 from Afghanistan, *P.* (s. str.) *bicolorata* Holzschuh, 2019 from China (Guangdong), *P.* (s. str.) *imberbis* (Ménériés, 1832) from Afghanistan, Azerbaijan, Iran and Turkmenistan, *P.* (s. str.) *quadriceps* Holzschuh, 2019 from India (Uttar Pradesh), *P.* (s. str.) *quadrimaculata* Chen & Chiang, 1996 from China (Sichuan), *P.* (s. str.) *revestita* (Linnaeus, 1767) - widespread European species, *P.* (s. str.) *signifera* Holzschuh, 1999 from China (Hubei), *P.* (s. str.) *tokatensis* Sama, 1996 from Georgia and Turkey, *P.* (s. str.) *tricolorata* Holzschuh, 1991 from China (Sichuan) (Vives, 2015 also published record of *P. tricolorata* from Vietnam (Cao Bang) based one female*) and *P.* (s. str.) *ulmi* Holzschuh, 1982 from Pakistan) (Danilevsky 2020; Tavakilian & Chevillotte 2022).

*Remark. Vives (2015) mentioned species *Pedostrangalia* (s. str.) *tricolorata* Holzschuh, 1991 from Cao Bang province of Vietnam based one female. Based a photo from Vives (2015)

paper, his identification of this specimen is questionable, the gender is also misidentified - depicted specimen is a male.

In the present paper, I describe new species of the genus *Encyclops* and *Pedostrangalia* from Yunnan province of China as *Encyclops gongshanus* sp. nov. and *Pedostrangalia gongshana* sp. nov. All the habitus and male genitalia are illustrated. The new species are compared to related species (*Encyclops concinnus* Holzschuh, 1991, *Encyclops obscurellus* Holzschuh, 2015, *Pedostrangalia bicolorata* Holzschuh, 2019 and *Pedostrangalia tricolorata* Holzschuh, 1991), which are also illustrated.

MATERIAL AND METHODS

Photographs of type specimens of *Encyclops gongshanus* sp. nov. and *Pedostrangalia gongshana* sp. nov. including of the genitalia photographs were taken with a Canon MP-E 65mm/2.8 1-5× Macro lens on belows attached to a Canon EOS 550D camera. Each photograph was taken as several partially focused images and afterwards composed in the Helicon Focus 3.20.2 Pro software. The photographs were modified using Adobe Photoshop CC.

Specimens examined including type materials are deposited in the following collections:
CCH collection of Carolus Holzschuh, Villach, Austria;
CPV collection of Petr Viktora, Kutná Hora, Czech Republic;
CRH collection of Roman Hergovits, Bratislava, Slovakia.

Slash (/) separates data in different lines on locality and determination labels.

TAXONOMY

Subfamily Lepturinae Latreille, 1802

Tribe Encyclopiini LeConte, 1873

Genus *Encyclops* Newman, 1838

Type species. *Encyclops pallipes* Newman, 1838 (= *Leptura caerulea* Say, 1826).

Encyclops gongshanus sp. nov.

(Fig. 1)

Type locality. China, Yunnan, Gongshan County, Cikai Township, Galabo Village, Mount Biluoxueshan, 27°45'9.66" N, 98°47'13.30" E.

Type material. Holotype (♀): 'CHINA, Yunnan' / 'Mt. Biluoxueshan, Galabo Village' / 'Cikai Township, Gongshan County' / '3. vi. 2017, 2597m' / '27°45'9.66" N, 98°47'13.30" E' / 'coll. Yinghui LI', (CPV).

The type is provided with a printed red label: 'Encyclops gongshanus sp. nov.' / 'HOLOTYPUS' / 'P. Viktora det., 2022'.

Description. Habitus of female holotype as in Fig. 1. Body black (partly with metallic lustre), elongate, narrow, almost parallel, relatively flat, punctate, with pubescence. Body

length from head to elytral apex 9.15 mm, the widest at humeral part of elytra (1.78 mm), 5.14 times longer than wide.

Head black (partly with metallic lustre - mainly in anterior part), large, distinctly wider than pronotum, the widest through the eyes, strongly strangled near base, largely punctured by irregular, dense, relatively coarse small-sized reticulate punctation (antennal insertions and anterior part of head shiny, with irregular punctation and metallic lustre), partly covered by indistinct, sparse, recumbent goldenish pubescence and very long, erect pale setation. Frons perpendicular and straight, anterior part of head significantly prolonged anteriorly. Interspace between antennal insertions very narrow, antennal insertions distinctly elevated on inner side. Eyes large, convex, blackish, small-faceted, finely emarginate on inner side. Clypeus and labrum narrow, shiny, dirtly pale brown, partly with yellowish setae. Mandibles blackish with brown middle part and black tip, partly shiny, with goldenish pubescence and long pale setae in edges.

Maxillary palpus blackish (palpomeres narrowly brown in apical margin), widened apically, semi-gloss, punctured by indistinct small-sized punctation, covered by indistinct, sparse pale setation. Last palpomere the longest and the largest, distinctly axe-shaped with rounded apical angles.

Antennae with 11 antennomeres, narrow, elongate, filiform, antennomeres slightly widened apically, long, reaching more than nine tenths elytral length (as in Fig. 1). Antennomeres black, antennomeres 1-5 semi-gloss with metallic lustre, rest of antennomeres matte. Antennomeres 1-5 finely grooved (antennal scape with a few indistinct punctures), covered by sparse pale setation. Antennomeres 6-11 with dense, small-sized punctation, covered by short, distinctly denser pale setation. Antennomeres with rounded apex, without spines, antennomere 5 finely curved. Antennomere 2 the shortest, antennomere 5 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.71 : 0.16 : 1.00 : 0.80 : 1.31 : 1.12 : 1.04 : 0.86 : 0.78 : 0.67 : 0.69.

Pronotum black (partly with metallic lustre - mainly in anterior and posterior margin), distinctly narrower than elytra at humeri, distinctly strangled in thirds, base undulate, shape of pronotum as in Fig. 1. Pronotum the narrowest at anterior margin (1.58 times longer than wide at anterior margin), the widest at rounded lateral elevations before middle of pronotum from base to apex (1.16 times longer than wide at the widest point). Pronotal disc relatively flat, punctured by relatively coarse small-sized reticulate punctation (similarly to surface of head), partly covered by very long, recumbent goldenish pubescence and very long, erect, almost colorless setation (as in Fig. 1). Anterior margin distinctly grooved transversally.

Scutellum black, triangular, punctured by coarse irregular punctation, semi-matt, almost without metallic lustre, with a few pale setae.

Elytra 6.53 mm long and 1.78 mm wide (3.66 times longer than wide); black with distinct green metallic lustre (apical margin narrowly with bluish lustre), elongate, slightly narrowing apically (strongly only at apical fifth), shiny, punctured by coarse large-sized punctation, interspaces between punctures finely grooved or with dense micropunctation. Elytra completely covered by sparse goldenish setation, setation more distinct in apical fifth. Elytral apex rounded (as in Fig. 1).

Pygidium black with metallic lustre, semi-gloss, with irregular micropunctation and sparse yellowish setation, apical angles rounded.



Fig. 1. *Encyclops gongshanus* sp. nov.: female holotype. Photo: Richard Sehnal.

Fig. 2. *Encyclops concinnus* Holzschuh, 1991: male holotype, (CCH). Photo: Luboš Dembický.

Fig. 3. *Encyclops obscurellus* Holzschuh, 2015: female holotype, (CCH). Photo: Luboš Dembický.

Legs long and very narrow, black, largely semi-gloss, finely grooved in combination with dense micropunctuation, covered by sparse, long pale setation (setation the densest in apical part of tibiae). Femora narrowly club-shaped, tibiae indistinctly widened apically. Tibiae shortly curved in base. Tarsi very long and very narrow, blackish with pale brown claws, punctured by dense micropunctuation, covered by long yellowish setation. Metatarsomere 1 1.6 times longer than metatarsomeres 2 and 3 together.

Ventral side of body black (almost without metallic lustre), punctured by irregular micropunctuation (partly with slightly larger punctures - for example on metepisternum), largely covered by long, sparse, goldenish and colorless setation. Elytral epipleura narrow, black with green metallic lustre, punctured by dense micropunctuation and a few larger punctures, covered by very sparse pale setation.

Male. Unknown.

Differential diagnosis. The most similar species are *Encyclops concinnus* Holzschuh, 1991 (Fig. 2), described from China (Sichuan) and *Encyclops obscurellus* Holzschuh, 2015 (Fig. 3), described from China (Yunnan).

Encyclops gongshanus sp. nov. differs from the similar species *E. concinnus* by more elongate pronotum of different shape (with more rounded lateral elevations before middle of pronotum from base to apex), by less pubescent scutellum, and mainly by different colour of legs and antennae (completely black in *E. gongshanus*, while completely orange yellow in *E. concinnus*) (as in Figs. 1 and 2).

Encyclops gongshanus sp. nov. (based on comparison of females) differs from the similar species *E. obscurellus* by distinctly more elongate body (5.14 times longer than wide in *E. gongshanus*, while 4.72 times longer than wide in *E. obscurellus*), by distinctly narrower head, by more elongate pronotum of different shape (1.16 times longer than wide at the widest point in *E. gongshanus*, while slightly wider than long at the widest point in *E. obscurellus*), by slightly longer antennae and by longer and narrower legs (including tarsi).

Etymology. Named after the type locality, Gongshan County.

Distribution. China (Yunnan).

Tribe Lepturini Latreille, 1802

Genus *Pedostrangalia* (s. str.) Sokolov, 1897

Type species. *Pedostrangalia kassjanowi* Sokolov, 1897 (= *Leptura imberbis* Ménétrés, 1832).

Pedostrangalia gongshana sp. nov.

(Figs. 4-6)

Type locality. China, Yunnan, Gongshan County, Cikai Township, Galabo Village, Mount Biluoxueshan, 27°45'9.66"N, 98°47'13.30"E.

Type material. Holotype (♂): 'Yunnan, CHINA' / 'Mt. Biluoxueshan, Galabo Village' / 'Gongshan County, 19-v-2017, 2597 m' / '27°45'9.66"N, 98°47'13.30"E' / 'Sweep Flower, coll. Yinghui LI', (CPV); Paratypes: (1 ♀): same data as holotype, (CPV); (1 ♀): 'CHINA, Yunnan' / 'Mt. Biluoxueshan, Galabo Village' / 'Cikai Township, Gongshan County' / '3. vi. 2017, 2597m' / '27°45'9.66"N, 98°47'13.30"E' / 'coll. Yinghui LI', (CPV); (1 ♀): '2021-6' / 'Yunnan' / 'Deqin' / 'Mt. Biluo', (CRH).

The types are provided with a printed red label: '*Pedostrangalia gongshana* sp. nov.' / 'HOLOTYPUS [respective PARATYPUS]' / 'P. Viktora det., 2022'.

Description. Habitus of male holotype as in Fig. 4a. Body black, elongate, narrow, narrowing apically, slightly convex, punctate, with pubescence. Body length from head to elytral apex 10.83 mm, the widest at humeral part of elytra (2.78 mm), 3.9 times longer than wide.

Head black, large, narrower than pronotum at base, the widest through the eyes, strongly

strangled near base, largely punctured by small-sized punctation and micropunctation, semi-gloss posteriorly, semi-matt anteriorly, dorsal surface with distinct oval depression and narrow longitudinal furrow between eyes. Head partly covered by distinct, long goldenish pubescence and long, erect colorless setae. Frons beveled, anterior part of head significantly prolonged anteriorly. Interspace between antennal insertions narrow, antennal insertions distinctly elevated on inner side. Eyes large, convex, goldenish, small-faceted, emarginate on inner side. Clypeus and labrum narrow, shiny, straw yellow, partly with yellowish setation. Mandibles from blackish brown to black (largely black), partly shiny, with yellowish setation in edges.

Maxillary palpus blackish (palpomeres narrowly straw yellow in apical margin), widened apically, semi-matt, punctured by dense indistinct micropunctation, partly covered by sparse yellowish setation. Last palpomere the longest and the largest, cylindrical, slightly widened apically with rounded apex.

Antennae with 11 antennomeres, narrow, elongate, antennomeres only slightly widened apically, long, exceeding elytral apex (as in Fig. 4a). Antennomeres black, antennomeres 1-5 semi-gloss, rest of antennomeres semi-matt. Antennomeres punctured by dense small-sized punctation. Antennal scape partly covered by long goldenish pubescence, antennomeres 2-5 covered by relatively long dark shiny pubescence, antennomeres 6-11 covered by very short and dense shiny pubescence. Antennomeres 1-10 with tufts of longer setae in apex. Antennomeres without distinct rounding in apex, without spines, last antennomeres indistinctly curved. Antennal scape long and narrow, antennomere 2 the shortest, antennomere 3 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 0.73 : 0.14 : 1.00 : 0.79 : 0.92 : 0.80 : 0.72 : 0.69 : 0.65 : 0.60 : 0.79.

Pronotum black, bell-shaped, narrower than elytra at humeri, shape of pronotum as in Fig. 4a. Pronotum the narrowest at anterior margin (2.3 times longer than wide at anterior margin), the widest at base (1.17 times wider than long at the widest point). Pronotal disc slightly convex, semi-matt, punctured by relatively shallow small-sized punctation (interspaces between punctures with dense micropunctation), partly covered by long goldenish pubescence (the densest at basal and anterior angles) and long, erect colorless setae (in lateral margins of basal two thirds) (as in Fig. 4a). Anterior margin almost straight, base distinctly undulate with sharp basal angles.

Scutellum black, triangular, punctured by indistinct micropunctation, semi-matt, with a few pale setae.

Elytra 7.23 mm long and 2.78 mm wide (2.6 times longer than wide); straw yellow with black apex, elongate, distinctly narrowing apically, semi-matt in basal half, semi-gloss in apical part, punctured by sparse punctation, completely covered by sparse goldenish pubescence (similar densities as elytral punctation). Elytral apex obliquely cut, lateral angle rounded, elytral apex on inner side distinctly gradually rounded (as in Fig. 4a). Apical margin covered by long, dense and distinct setation.

Pygidium black, semi-gloss, with small-sized punctation and sparse goldenish pubescence, margins with long yellowish setation. Apex distinctly roundly excised (as in Fig. 4a).

Legs long and narrow, black, largely semi-gloss, punctured by dense, relatively shallow punctation (punctures larger in femora), covered by long goldenish pubescence and setation (setation the densest in apical part of tibiae). Femora partly bald and without punctation on



Fig. 4. *Podostrangalia gongshana* sp. nov.: a- male holotype; b- male genitalia. Photo: Richard Sehna.

inner side, tibiae widened apically. Tarsi long and narrow (metatarsi the narrowest), black with blackish brown claws, punctured by dense small-sized punctuation, covered by dense shiny pubescence and longer yellowish setation. Metatarsomere 1 1.67 times longer than metatarsomeres 2 and 3 together.

Genitalia as in Fig. 4b.

Female. Habitus of female paratypes as in Figs. 5-6. Body length from head to elytral apex (female paratypes) from 12.6 to 13.5 mm. Body distinctly more robust than in male, pronotum and head orange yellow (black in male), ventral side largely orange yellow, black mainly in metepisternum and metasternum, ventrites orange yellow with black spots (ventral side completely black in male), profemora largely orange yellow from both sides (completely black in male), antennae shorter than in male (distinctly not reaching elytral apex), tarsi narrower, metatarsi distinctly shorter than in male.

Differential diagnosis. The most similar species are *Podostrangalia bicolorata* Holzschuh, 2019 (Fig. 7), described from China (Guangdong), and *Podostrangalia tricolorata* Holzschuh, 1991 (Fig. 8), described from China (Sichuan).

Podostrangalia gongshana sp. nov. (based on comparison of males) differs from the similar



Fig. 5. *Pedostrangalia gongshana* sp. nov.: female paratype. Photo: Richard Sehnal.



Fig. 6. *Pedostrangalia gongshana* sp. nov.: female paratype. Photo: Richard Sehnal.

species *P. bicolorata* by narrower, more elongate body (3.9 times longer than wide in *P. gongshana*, while 3.6 times longer than wide in *P. bicolorata*), by pronotal disc semi-matt, covered by distinct, long goldenish pubescence (pronotal disc glossy, covered by distinctly sparser pubescence in *P. bicolorata*), by distinctly more elongate elytra (2.6 times longer than wide in *P. gongshana*, while 2.35 times longer than wide in *P. bicolorata*), by less glossy elytra, by narrower profemora, by less long scutellum and by different shape of elytral apex (as in Figs. 4a and 7).

Pedostrangalia gongshana sp. nov. (based on comparison of males) differs from the similar species *P. tricolorata* by different colour (head and pronotum black, elytra straw yellow with larger black part of elytral apex in *P. gongshana*, while head black with reddish spots, pronotum completely reddish and elytra yellowish with smaller black part of elytral apex in *P. tricolorata*), by distinctly narrower and more elongate body (3.9 times longer than wide in *P. gongshana*, while 3.35 times longer than wide in *P. tricolorata*), by distinctly narrower pronotum of different shape and distinctly more elongate elytra (as in Figs. 4a and 8).

Etymology. Named after the type locality, Gongshan County.

Distribution. China (Yunnan).



Fig. 7. *Pedostrangalia bicolorata* Holzschuh, 2019: male holotype, (CCH). Photo: Bruno Brudermann.



Fig. 8. *Pedostrangalia tricolorata* Holzschuh, 1991: male holotype, (CCH). Photo: Luboš Dembický.

ACKNOWLEDGEMENTS. My sincere thanks are due to Richard Sehnal (Czech University of Life Sciences Prague, FAPPZ, Praha, Czech Republic) for his help with taking pictures of new species and Luboš Dembický (Brno, Czech Republic) for providing me with photos of type material from Holzschuh collection.

REFERENCES

- DANILEVSKY M. L. (Ed.) 2020: *Catalogue of Palaearctic Coleoptera. Volume 6/1. Chrysomeloidea I (Vesperidae, Disteniidae, Cerambycidae). Updated and Revised Second Edition*. Leiden & Boston: Brill, xxvii + 712 pp.
- LÖBL I. 2010: New acts and comments. In: LÖBL I. & SMETANA A. (eds.): *Catalogue of Palaearctic Coleoptera, Vol. 6. Chrysomeloidea*. Stenstrup: Apollo Books, 924 pp.
- TAVAKILIAN G. (Author) & CHEVILLOTTE H. (Software) 2022: Base de données Titan sur les Cerambycides ou Longicornes. [access: 05.2022]. [<http://titan.gbif.fr/index.html>].
- VIVES E. 2015: Cerambycoides nuevos o interesantes de Vietnam. (Coleoptera, Cerambycidae). (Pars II). *Lambillionea* 115(3): 195-200.

Received: 30.5.2022

Accepted: 20.6.2022

Printed: 5.10.2022

