



## A new species and two new records of Dimini click beetles (Coleoptera: Elateridae) from Xizang, China

LU QIU<sup>1,\*</sup> & YONG-YING RUAN<sup>2,3</sup><sup>1</sup>*School of Life Sciences (School of Ecological Forestry), Mianyang Teachers' College, Mianyang 621000, Sichuan, China*<sup>2</sup>*Plant Protection Research Center, Shenzhen Polytechnic University, Shenzhen 518055, China*<sup>3</sup>✉ [yongyingruan@hotmail.com](mailto:yongyingruan@hotmail.com); <https://orcid.org/0000-0002-5025-5592>\*Corresponding author: ✉ [123church@163.com](mailto:123church@163.com); <https://orcid.org/0000-0002-0946-1634>

### Abstract

A new species of Dimini, *Pseudocsikia xiaobini* sp. nov., is described from Mêdog, Xizang, China. It resembles the type species of the genus *Pseudocsikia rustica* Schimmel & Platia, 1991 in its small body size, reduced hind wings, and large yellow spots on the distal portion of elytra, but differs in brown antennae, longer pronotal hind angles, an M-shaped notch near each of the pronotal hind angles, sparser pronotal punctation, more elongate elytra, and a quadrate expansion of the metacoxal plate. *Penia foveolata* Schimmel, 1998 and *Penia imprimosa* Schimmel, 2001 are newly recorded from China (Xizang), and the former is transferred to genus *Megapenia* Qiu, Ruan, Prosvirov & Kunderata, 2025: *Megapenia foveolata* (Schimmel, 1998) **comb. nov.** Habitus and diagnostic characters of all three species are illustrated, and a checklist and key to the Dimini of Xizang are provided. Additionally, the issues concerning the relationship between *Paracsikia* Schimmel & Platia and *Pseudocsikia* Schimmel & Platia have also been discussed.

**Key words:** Elateroidea, flightlessness, Dendrometrinae, taxonomy, Qinghai-Xizang Plateau

### Introduction

Dimini is a well-defined tribe within the subfamily Dendrometrinae (Kunderata *et al.* 2018, 2019b; Douglas *et al.* 2021; Qiu *et al.* 2025a). At present, this group comprises 15 genera and nearly 320 described species, distributed from the Mediterranean region of Europe to the Himalayas and East and Southeast Asia (Kunderata *et al.* 2018; Qiu & Kunderata 2024; Qiu *et al.* 2025a, 2025b). Although revisions of this tribe were conducted as early as 1990s (Schimmel & Platia 1991; Schimmel 1996), studies in recent years have revealed that the tribe still harbors substantial undiscovered diversity (Mertlik *et al.* 2017, 2018; Kunderata & Sormova 2018; Qiu *et al.* 2018, 2025a, 2025b; Ruan *et al.* 2018; Kunderata & Németh 2019; Kunderata *et al.* 2019a, c; Qiu 2021a, 2021b, 2025; Qiu & Kunderata 2022a, 2022b, 2024; Arimoto 2023; Hoffmannova & Qiu 2023).

The Himalaya region represents one of the most species-rich areas for Dimini, with 7 genera and approximately 100 species recorded, mostly from India and Nepal (Kunderata *et al.* 2018). In contrast, the diversity of Dimini in the neighboring Xizang Autonomous Region, China, remains poorly explored. To date, only three genera and five species have been reported from this region (see checklist below), all documented very recently (Qiu & Kunderata 2022b; Platia & Pulvirenti 2024; Qiu *et al.* 2025b), highlighting the considerable potential for new findings in this largely unexplored area. In the present study, we report new findings of Dimini from Xizang, including one new species and two newly recorded species.

### Material and methods

Specimens were softened in hot water, and the genital segments were then excised and dissected following treatment in 10% KOH at 80°C for 5 minutes. Habitus and diagnostic characters were captured using a Canon EOS RP camera

with a Laowa Mini FFII 85mm F5.6 Macro 2× lens or a Laowa 25 mm F2.8 2.5–5× Ultra Macro Lens, pregenital characters and aedeagi were captured with the same camera in combination with a Mitutoyo M Plan Apo 10×/0.28 lens. The distribution map was generated from QGIS 3.40.1-Bratislava (map source: <https://www.tianditu.gov.cn/>). All figures were modified in Adobe Photoshop® CC 2019. Body length was measured from the anterior margin of the head to the elytra apices, body width at the broadest point (on the elytra); pronotal length was taken along the midline, pronotal width at the widest part of the pronotum. The generic concept of *Pseudocsikia* follows Schimmel (1996) and Qiu & Kundrata (2022a). The specimens studied or examined are stored in Invertebrate Collection of Mianyang Teachers' College, Mianyang, Sichuan, China (MYTC), and Natural History Museum, London, United Kingdom (NHMUK). For comparison purposes, the holotypes of *Pseudocsikia rustica* Schimmel & Platia, 1991 and *Paracsikia nigerrima* Schimmel & Platia, 1991, deposited in Staatliches Museum für Naturkunde, Stuttgart, Germany, were examined based on the photographs provided by Robin Kundrata (Palacky University, Olomouc, Czech Republic).

For the new species, collection data are originally in Chinese and provided here in English. For type specimens from NHMUK, original labels are transcribed verbatim and enclosed in quotation marks (“”), with commas (,) indicating different labels, and slashes (/) indicating different lines on the same labels. Chinese translations or supplementary notes are provided in square brackets ([]).

Since there are four genera herein that share the initial letter “P”, the genus abbreviations for these genera are as follows: *Pe.* for *Penia*, *Pa.* for *Parapenia*, *Pc.* for *Paracsikia*, and *Ps.* for *Pseudocsikia*.

## Taxonomy

### *Pseudocsikia xiaobini* sp. nov.

urn:lsid:zoobank.org:act:E910B50C-AAD6-421E-9FE8-3E782CF716BC

(Figs 1, 2, 4A, B, E)

**Type locality.** China: Xizang Autonomous Region: Nyingchi City, Mêdog County, Renqingbeng Temple.

**Type material** (2 exx.). **HOLOTYPE: CHINA:** male: Xizang Autonomous Region: Nyingchi City, Mêdog County, Renqingbeng Temple [中国西藏自治区林芝市墨脱县仁青崩寺], 95.355E, 29.302N, 2030 m, 6-7.VIII.2022, Xiao-Bin Song [宋晓彬] leg. (MYTC). **PARATYPE: CHINA:** 1 male, same data as holotype (MYTC).

**Diagnosis.** Small, flightless species. Body brown, with apicolateral portions of elytra and legs yellow (Fig. 1A–C). Pronotum with lateral margins subparallel; widest at apical region of hind angles but not at the extreme apices. An M-shaped notch present near each hind angle (Fig. 2A). Elytra distinctly narrowed apically. Hind wings reduced, reaching only midlength of elytra.

**Comparison.** This species resembles the type species of the genus, *Ps. rustica*, in its small body, reduced hind wings, and large yellow spots at the distal portions of the elytra, as well as the less convex lateral margins of the pronotum (Schimmel & Platia 1991). However, it can be distinguished by its brown antennae (Fig. 1A–C) (vs. yellow in *Ps. rustica*), longer hind angles of the pronotum, anterior angles less produced anteriorly, an M-shaped notch near the hind angles (Fig. 2A) (vs. a simple large notch in *Ps. rustica*), sparser pronotal punctures with intervals 4–6 times the diameter of a puncture (Fig. 2A) (vs. denser punctures, intervals 1–2 times in *Ps. rustica*), more elongate elytra, 1.7 times longer than wide, with distinctly narrowed apical portion (vs. stouter elytra, 1.5 times longer than wide, with apical portion more convex in *Ps. rustica*), and the metacoxal plate with the abruptly narrowed portion forming a quadrate angle (Fig. 2E) (vs. rounded in *Ps. rustica*).

**Description (male holotype).** Body length 4.8 mm; width 1.8 mm (=elytra width); antenna length 3.6 mm; pronotum length 1.3 mm, pronotum width 1.7 mm; elytra length 3.0 mm.

Body elongate; pronotum more convex than elytra in lateral view (Fig. 1C). Dorsal surface with short, semi-erect setae. Head including labrum brown; antennae brown, scape reddish brown, antennomeres II–XI with apices reddish brown; maxillary palpi light brown. Pronotum brown, lateral margins and hind angles reddish brown. Scutellar shield brown. Elytra brown, lateral margins lighter, apicolateral portions yellowish brown (Fig. 1A). Underside brown, slightly yellowish brown laterally; abdomen yellowish brown at sides and apex. Legs yellow (Fig. 1B). Setae yellowish brown.

Head convex, with shallow median depression; punctures large, intervals 1–2 times puncture diameter (Fig. 2A, D). Maxillary palpus with palpomere III longer than wide, apically laterally truncate. Antennae long, reaching midlength of elytra and extending beyond hind angles of pronotum by about four apical antennomeres (Fig. 1A); relative lengths of antennomeres II–IV = 1.0:1.1:1.3; antennomeres III–X elongate, subequal in length; ultimate antennomere elongate, widened subapically, narrowed apically, apex blunt.

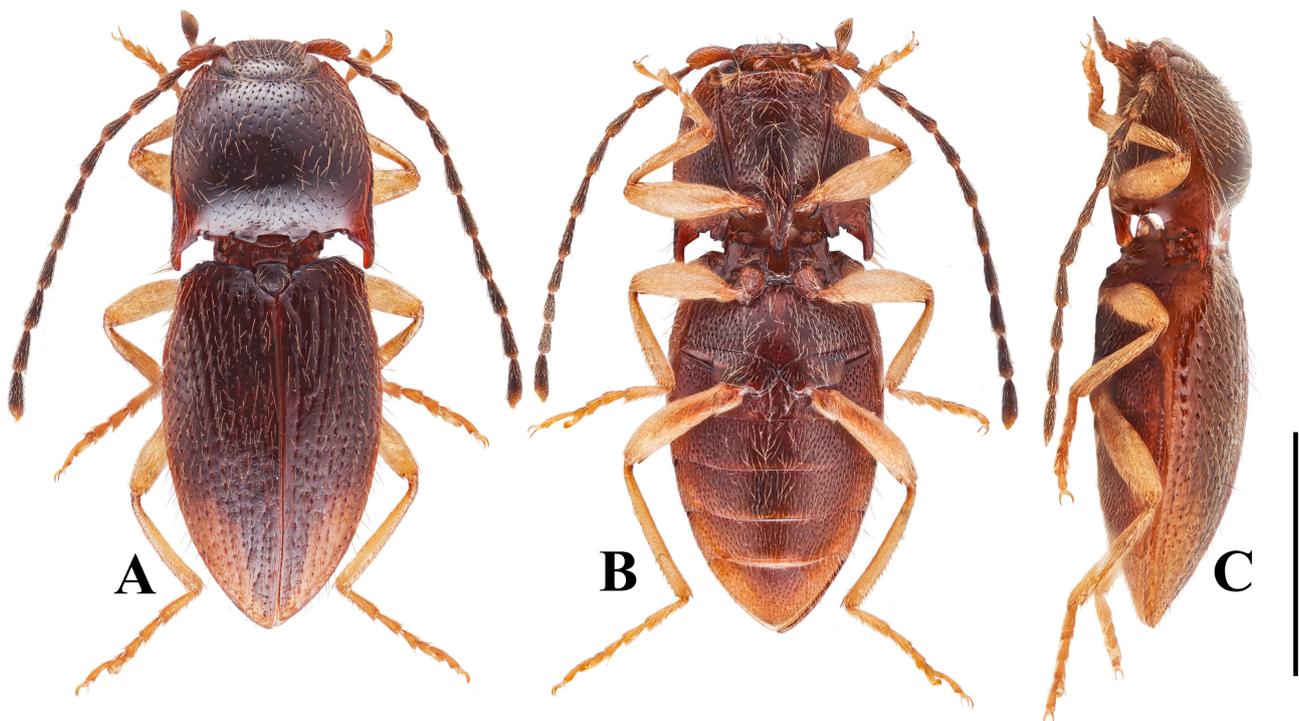
Pronotum wider than long, sides nearly subparallel, widest at subapical portions before hind angles; distance between apices of hind angles slightly narrower than both subapical width and width near midlength. Anterior margin concave; lateral margins nearly subparallel. Hind angles long, directed posterad, apices slightly incurved and rounded. One M-shaped notch present near hind angles. Punctures large, intervals equal to 4–6 diameters of one puncture; interstices flat and smooth (Fig. 2A). Prosternum with punctures similar to but denser than those on pronotum (Fig. 2B); prosternal process small, straight, ventroapical margin obliquely truncate (Fig. 2G). Hypomeron with oval punctures which are denser than those on prosternum (Fig. 2C). Scutellar shield with basal margin slightly concave, sides subparallel, apex rounded (Fig. 2F). Metacoxal plate enlarged mesally, abruptly narrowed laterally beyond middle (Fig. 2F).

Elytra elongate (Fig. 1A), sides arched, widest before middle, apical portion distinctly narrowed; length/width ratio 1.7:1. Anterior margin carinate in dorsal view, forming prominent angle near middle; lower area of shoulders forming small triangular protrusions facing anterolaterally (Fig. 2F). Apices blunt. Striae shallowly grooved, with large elongate punctures; interstriae elevated. Hind wings reduced, very narrow, and reaching only midlength of elytra.

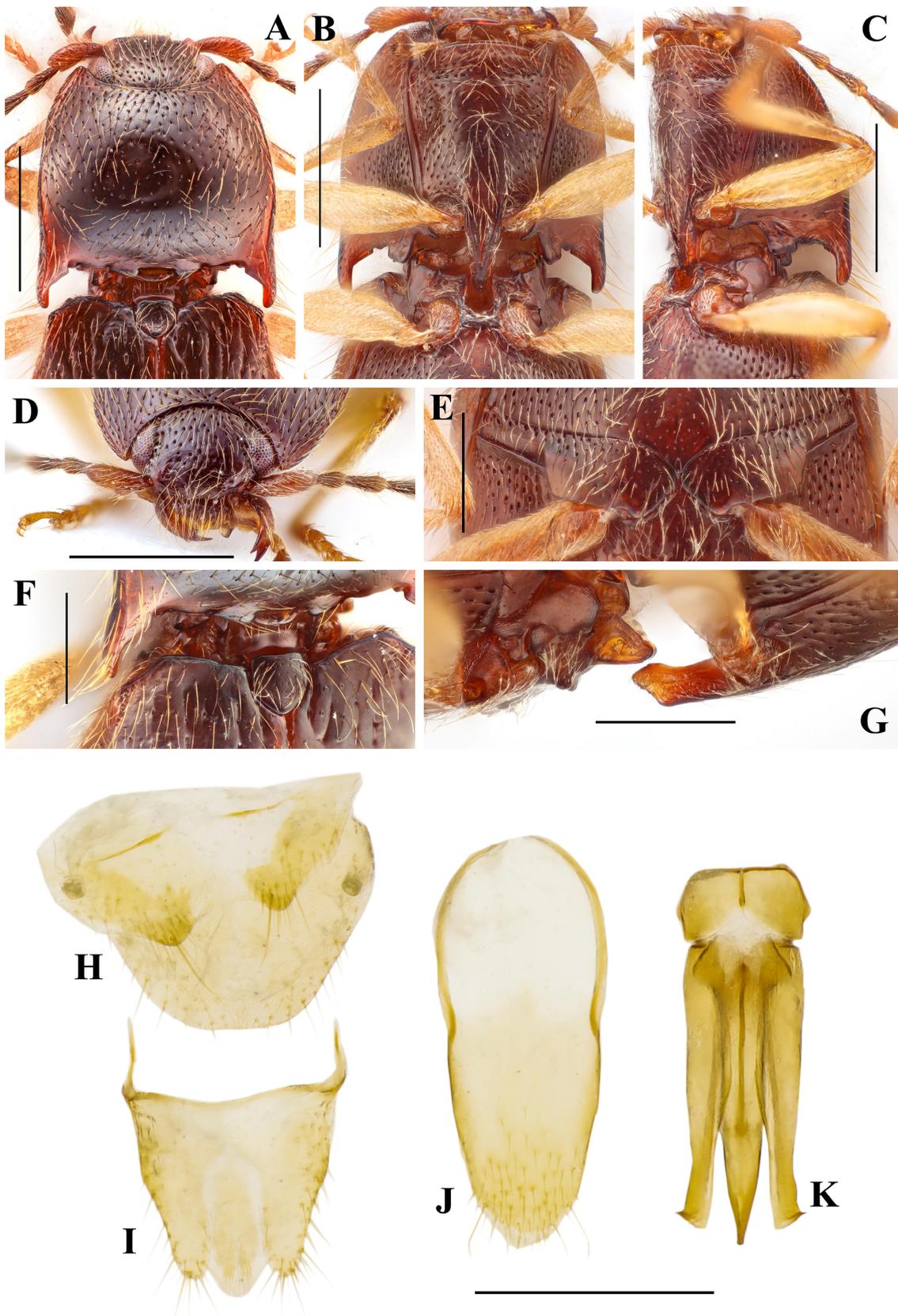
Tarsomeres 3 and 4 lobed; lobe of tarsomere 3 minute and indistinct, lobe of tarsomere 4 large, quadrate.

Tergite VIII (Fig. 2H) subtrapezoidal, with rounded anterior and posterior corners. Sternite VIII with two transverse dark lobes (Fig. 2H), bearing long setae medially, remaining portion membranous. Tergite IX with two elongate lobes, apices rounded, with long setae along lateral margins and apices (Fig. 2I); tergite X slightly surpassing apices of tergite IX, apex rounded (Fig. 2I). Sternite IX elongate, 2.5× as long as wide, apically rounded and setose (Fig. 2J).

Aedeagus with elongate median lobe and parameres. Median lobe slightly exceeds apices of parameres; basal half subparallel, distal half tapered, apex narrowly protruded, blunt. Parameres slightly bent outward in apical half; subapical process small and sharp, apex slightly protruded. Phallobase with basal portion straight (Fig. 2K).



**FIGURE 1.** *Pseudocsikia xiaobini* sp. nov., holotype, male from Mêdog, Xizang, China. **A.** Habitus, dorsal. **B.** Habitus, ventral. **C.** Habitus, lateral. Scale bar = 2 mm (for all).



**FIGURE 2.** Diagnostic characters of *Pseudocsikia xiaobini* sp. nov., holotype, male from Mèdog, Xizang, China. **A.** Head and pronotum, dorsal. **B.** Pro- and mesothorax, ventral. **C.** Pro- and mesothorax, ventro-lateral. **D.** Head, frontal. **E.** Metacoxal plates, ventral. **F.** Hind angle of pronotum, anterior margin of elytron, and scutellar shield, dorso-lateral. **G.** Prosternal process, lateral. **H.** Abdominal sternite VIII and tergite VIII, ventral. **I.** Abdominal tergites IX–X, dorsal. **J.** Abdominal sternite IX, dorsal. **K.** Aedeagus, ventral. Scale bars: 1 mm for A–D; 0.5 mm for E–K.

**Intraspecific variability.** Male paratype is similar to the holotype; body length 4.9 mm.

**Female and immature stages.** Unknown.

**Bionomics.** All specimens were collected by flight interception traps in a forest near Renqingbeng Temple (Fig. 4A, B). The biology of this species remains unknown. However, based on its reduction of hind wings, its habits may resemble those of other flightless Dimini, living primarily on the ground or among shrub foliage (Qiu *et al.* 2025a).

**Distribution.** China: Xizang (Fig. 4E).

**Etymology.** The specific epithet is dedicated to Mr. Xiao-Bin Song (Shanghai, China), who kindly donated the specimens of the new species.

### ***Megapenia foveolata* (Schimmel, 1998) comb. nov.**

(Figs 3F–J, 4E)

*Penia foveolata* Schimmel, 1998a: 152 [original description]; Kundrata *et al.* 2018: 42 [catalogue].

**Type locality.** India: Meghalaya, Khasi Hills, Mawphlang, 1700 m.

**Type material** (examined through high-resolution picture). Holotype (male), “NE India, Meghalaya state/ Khasi Hills reg., MAWPHLANG vill./ GPS N25°26.7', E91°45.2' (WGS-84)/ 2-3.VI, 10.VI.1996, alt. 1700+-50 m/ E. Jendek & O. Šauša leg.”, “Holotypus ♂/ *Penia/ foveolata* n.sp./ det. Schimmel. 96”, “R. Schimmel coll./ BMNH-E-2018-157/ NHMUK013890954 [with a QR code]”.

**Other material examined** (2 exx.). CHINA: Xizang Autonomous Region: 1 male, Nyingchi City, Mêdog County, Gelin Village [中国西藏自治区林芝市墨脱县格林村], 1760 m, 17-20.VII.2025, Sheng-Tong Jin [金圣桐] leg. (MYTC); 1 male, Nyingchi City, Mêdog County, Bolonggong, 80K [中国西藏自治区林芝市墨脱县波隆贡80K], 2100 m, 14-18.VIII.2017, Jian-Yue Qiu [邱见玥] & Hao Xu [许浩] leg. (MYTC).

**Diagnosis.** Elongate, robust species (Fig. 3F, I). Body length 9.5–11.8 mm. Body overall black; antennomeres II–XI brown; tarsi brown. Dorsum densely covered with long yellow setae. Head and pronotum with large, dense umbilicate punctures, intervals equal to about one puncture diameter. Antennae reaching before midlength of elytra and surpassing hind angles of pronotum by about apical three antennomeres. Pronotum with long, curved hind angles directed posterad. Prosternal process with ventroapical margin strongly concave. Metacoxal plate medially enlarged, gradually narrowed laterally. Tarsomere 4 with two clusters of long, curved setae laterally. Elytral striae shallow, with large umbilicate punctures; interstriae slightly elevated. Aedeagus as in Fig. 3J.

**Remarks.** Although the female genitalia, which are one of the principal diagnostic character for *Megapenia* Qiu, Ruan, Prosvirov & Kundrata, 2025, were unavailable in this study, the long, curved hind angles of the pronotum, the setae along the lateral margin of apex of hind angle, the carinate anterior margins of elytra with slightly emarginate shoulders, and the long, curved clusters of setae on the 4th tarsomeres readily assigned this species to genus *Megapenia* (Qiu *et al.* 2025b). Thus *M. foveolata* (Schimmel, 1998) **comb. nov.** is proposed here.

**Bionomics.** Unknown.

**Distribution.** China (Xizang) [new record for China]; India (Meghalaya) (Fig. 4E).

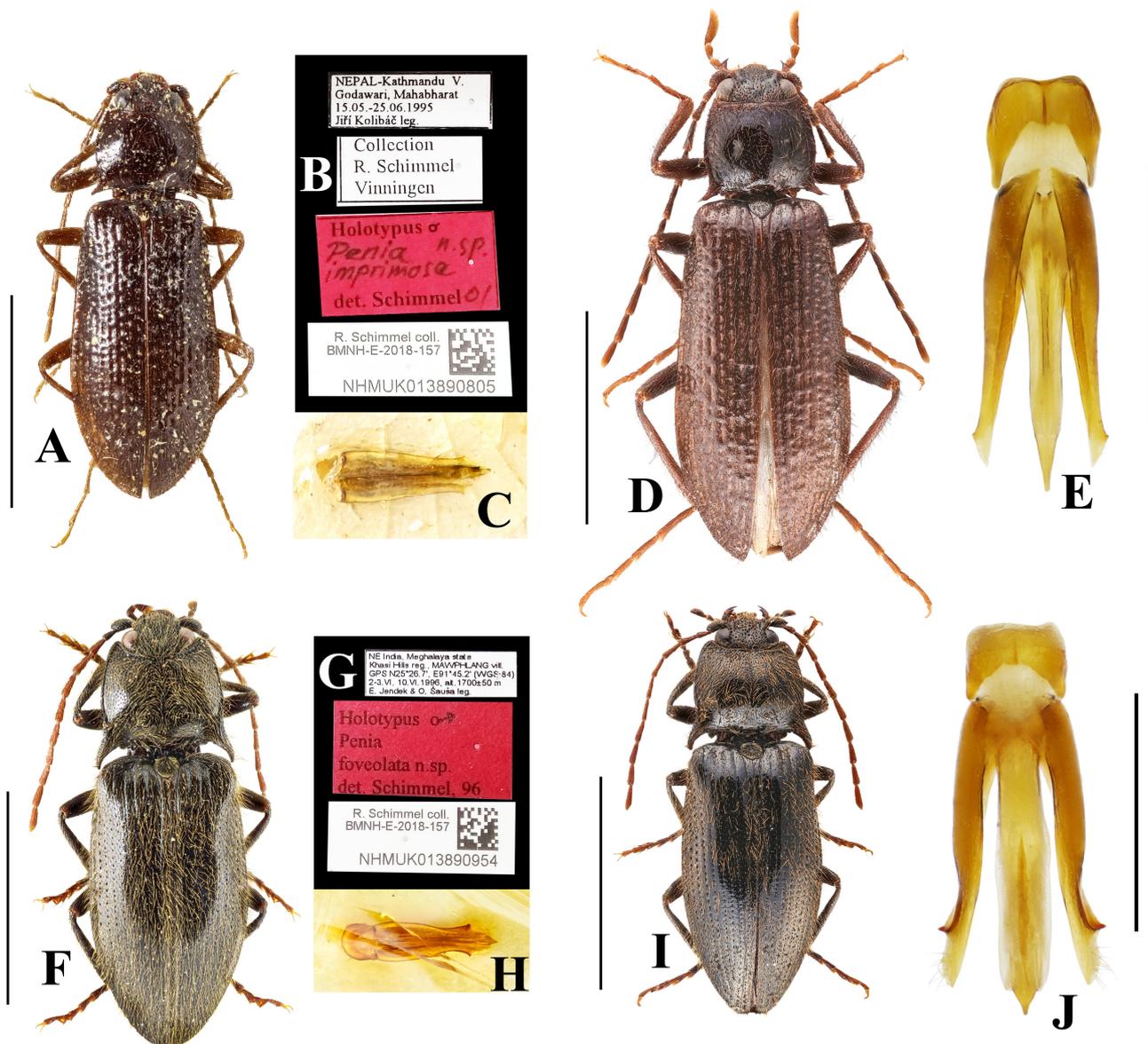
### ***Penia imprimos* Schimmel, 2001**

(Fig. 3A–E)

*Penia imprimos* Schimmel, 2001: 221 [original description]; Cate 2007: 185 [catalogue]; Kundrata *et al.* 2018: 45 [catalogue].

**Type locality.** Nepal: Kathmandu Valley, Godawari, Mahabharat.

**Type material** (examined through high-resolution picture). Holotype (male), “NEPAL-Kathmandu V./ Godawari, Mahabharat/ 15.05.-25.06.1995/ Jiri Kolibác leg.”, “Collection/ R. Schimmel/ Vinningen”, “Holotypus ♂/ *Penia/ imprimos*/ n.sp./ det. Schimmel 01”, “R. Schimmel coll./ BMNH-E-2018-157/ NHMUK013890805 [with a QR code]”.



**FIGURE 3.** *Penia* and *Megapenia* species from China, India, and Nepal. **A–E.** *Penia imprimosa* Schimmel, 2001. **A.** Holotype, male from Nepal, dorsal. **B.** Labels of holotype. **C.** Aedeagus of holotype. **D.** Male from Gyirong, Xizang, China, dorsal. **E.** Aedeagus of the same specimen as in D, ventral. **F–J.** *Megapenia foveolata* (Schimmel, 1998) **comb. nov.** **F.** Holotype, male from India, dorsal. **G.** Labels of holotype. **H.** Aedeagus of holotype. **I.** Male from Mêdog, Xizang, China, dorsal. **J.** Aedeagus of the same specimen as in I, ventral. Scale bars: 5 mm for A, D, F, I; 1 mm for E, J; B, G not to scale. A–C, F–H. Photographed by Keita Matsumoto, copyright NHMUK.

**Other material examined** (30 exx.). CHINA: Xizang Autonomous Region: 18 males and 12 females, Xigaze City, Gyirong County, Gyirong Town [中国西藏自治区日喀则市吉隆县吉隆镇], 2790 m, N 28°23'38.46", E 85°19'39.31", 12.VII.2022, Guo-Dong Ren [任国栋], Yi-Ping Niu [牛一平], Xing-Long Bai [白兴龙], and Kai-Xuan Liu [刘凯璇] leg. (MYTC).

**Diagnosis.** Elongate, flattened species with long legs and antennae (Fig. 3A, D). Sexual dimorphism indistinct. Body length 9.5–14.2 mm. Body overall brown; apices of antennomeres, maxillary papi, and tarsi lighter. Dorsum covered with straight, brown setae. Body shiny; head depressed apically, with large punctures, intervals asymmetrically distributed apically, becoming denser and evenly spaced at base, intervals about one puncture diameter. Apical segment of maxillary papi elongate. Antennae reaching slightly beyond middle of elytra and surpassing hind angles of pronotum by apical six antennomeres. pronotum with small, sparse punctures, intervals equal to about 3–5 times puncture diameter.



**FIGURE 4.** Environment, habitat, and distribution map of Dimini species from Xizang (type localities outside China also included). **A.** Type locality of *Pseudocsikia xiaobini* sp. nov.: Renqingbeng Temple. **B.** Type locality of *Pseudocsikia xiaobini* sp. nov.: forest near Renqingbeng Temple, with a FIT set by Xiao-Bin Song. **C.** A live *Penia imprimosa* found on a tree in Gyirong, Xizang. **D.** Environment near Gyirong Town, seen from a high vantage point overlooking the river valley. **E.** Distribution map of Dimini species from Xizang, China, and adjacent countries, with black dots indicating type localities. A, B. Photographed by Xiao-Bin Song; C, D. Photographed by Xing-Long Bai. Map source: <https://www.tianditu.gov.cn/>.

Pronotum with small, divergent hind angles, directed almost laterally. Prosternal process slightly curved ventrally. Metacoxal plate enlarged medially, gradually narrowed laterally. 4th tarsomeres laterally without long setae. Elytral striae formed by interrupted short grooves; interstriae and interruptions between grooves elevated. Aedeagus as in Fig. 3E. Female with bursa copulatrix lacking sclerotization.

**Bionomics.** All specimens of this species from Gyirong Town were collected at night from street trees (broad-leaved, possibly *Ulmus* sp.) in the town (Fig. 4C, D) (Xing-Long Bai, pers. obs.).

**Distribution.** China (Xizang) [new record for China]; Nepal (Fig. 4E).

## Checklist of tribe Dimini from Xizang, China

### Genus *Megapenia* Qiu, Ruan, Prosvirov & Kunderata, 2025

- (1) *Megapenia foveolata* (Schimmel, 1998a) **comb. nov.** [Xizang: Mêdog; India]

### Genus *Neocsikia* Ôhira & Becker, 1972

- (2) *Neocsikia nepalensis* Ôhira & Becker, 1972 [Xizang: Nyalam; Nepal]  
 (3) *Neocsikia xuhaoi* Qiu & Kunderata, 2022b [Xizang: Mêdog]

### Genus *Parapenia* Suzuki, 1982

- (4) *Parapenia sausai* Schimmel, 1998b [Xizang: Zayü, Mêdog; India]  
 (5) *Parapenia zhengi* Qiu, Ruan, Prosvirov & Kunderata, 2025 [Xizang: Zayü]

### Genus *Penia* Laporte, 1838

- (6) *Penia imprimosa* Schimmel, 2001 [Xizang: Gyirong; Nepal]  
 (7) *Penia rufostriata* Platia & Pulvirenti, 2024 [Xizang: Cuona]

### Genus *Pseudocsikia* Schimmel & Platia, 1991

- (8) *Pseudocsikia xiaobini* **sp. nov.** [Xizang: Mêdog]

## Identification key to Dimini genera and species from Xizang, China

- 1 Body small, less than 5 mm; hind wings reduced, extending only to midlength of elytra, flightless ..... *Pseudocsikia: Ps. xiaobini* **sp. nov.**  
 – Body larger, 7.5–14.2 mm; hind wings fully developed, capable of flying ..... 2  
 2 Pronotum with anterior angles narrowly produced, forming a small process; hind angles bidentate ..... 3. *Parapenia*  
 – Pronotum with anterior angles not narrowly produced; hind angles not bidentate ..... 4  
 3 Head black; pronotum and elytra bicolored, reddish-brown with black margins; elytral apices with spinous projections ..  
 ..... *Pa. zhengi*  
 – Head and pronotum dark brown to black; elytra yellow; elytral apices weakly pointed ..... *Pa. sausai*  
 4 Body yellow; hind angles of pronotum elongate, directed straight posteriorly; one large notch present near each hind  
 angle ..... 5. *Neocsikia*  
 – Body brown to black; hind angles of pronotum short or elongate, directed latero-posteriorly or curved posteriorly; one small  
 notch present near each hind angle ..... 6  
 5 Maxillary palpus 3-segmented; elytra unicolored yellow ..... *N. nepalensis*  
 – Maxillary palpus 4-segmented; each elytron laterally with a black strip, apical portion with a black spot ..... *N. xuhaoi*  
 6 Hind angles of pronotum elongate, curved posteriorly; elytra with emarginate shoulders; 4th tarsomeres laterally with  
 clusters of long, curved setae ..... *Megapenia: M. foveolata*  
 – Hind angles of pronotum short, straight or slightly extending latero-posterad; elytra with shoulders not emarginate; 4th  
 tarsomeres lacking clusters of long, curved setae ..... 7. *Penia*  
 7 Elytra bicolored, black, with a yellow area between striae 1–4 basally, the yellow area gradually . narrowing from base to  
 apex; elytra striae formed by normal depressed punctures ..... *Pe. rufostriata*  
 – Elytra uniformly colored, brown; elytra striae formed by large, unevenly interrupted grooves ..... *Pe. imprimosa*

## Discussion

Tribe Dimini is morphologically distinctive within Elateridae, characterized by its stout, hairy bodies and the ventral lobes on the third and fourth tarsomeres (Schimmel & Platia 1991; Schimmel 1996; Kundrata *et al.* 2019a; Qiu *et al.* 2025a, 2025b). The only reported exception is *Paracsikia* Schimmel & Platia, 1991, described as having lobes solely on the fourth tarsomeres (Schimmel & Platia 1991).

Although we place the new species *Ps. xiaobini* sp. nov. within *Pseudocsikia*, it exhibits strong resemblance to *Paracsikia*. The two genera share the characteristics of a small body size, yellow legs, elongate and posteriorly oriented hind angles of the pronotum, a carinate anterior margin of the elytra with distinctly emarginate shoulders, reduction of hind wings (not all species), and an abruptly narrowed lateral portion of the metacoxal plate. These features are particularly evident in the type species of both genera (*Ps. rustica* and *Pc. nigerrima*, respectively), suggesting a possible close phylogenetic relationship between these two genera. Alternatively, they may represent a single lineage.

The distinction based on the absence of a lobe on the 3rd tarsomeres in *Paracsikia* remains problematic, because this character is difficult to measure and compare with precision. In Dimini, the 3rd tarsomere lobe is usually minute, fragile, and often concealed by dense setae in dried specimens. In the new species, *Ps. xiaobini* sp. nov., for example, the lobe is extremely small and is barely perceptible (only visible from a lateral perspective under high magnification). If not examined carefully, the species may easily be regarded as lacking a lobe on the tarsomere 3. This strongly suggests that the “absence” of lobe in tarsomere 3 in *Paracsikia* reported by Schimmel & Platia (1991) may have resulted from its inconspicuous nature rather than an actual structural difference.

To date, *Paracsikia* has not been revised; many of its species are documented solely through obscure descriptions, often accompanied by line drawings (Schimmel & Platia 1991; Schimmel 1996) or low-quality figures (Schimmel 1995, 2001). Although we compared photographs of the type species of *Paracsikia* and *Pseudocsikia* provided by R. Kundrata, the available images, not taken specifically for that purpose, were insufficient to reveal the fine morphology of tarsomere 3. The presence or absence of a lobe on the 3rd tarsomeres in *Paracsikia*, and the taxonomic significance of this character, remain uncertain. Resolving these questions in the future is crucial for understanding the relationship between *Paracsikia* and *Pseudocsikia*.

## Acknowledgements

We thank Xiao-Bin Song (Shanghai), Sheng-Tong Jin (Jiangsu), Jian-Yue Qiu, Hao Xu (MYTC), Xing-Long Bai (Hebei University) for providing the specimens of Xizang Dimini. We also thank Keita Matsumoto and Michael Geiser (NHMUK) for providing the photographs of the holotypes of *Pe. foveolata* and *Pe. imprinosa*, and to Robin Kundrata (Palacky University, Olomouc, Czech Republic) for providing the photographs of the holotypes of *Ps. rustica* and *Pc. nigerrima*. We are grateful to Robin Kundrata, Alexander Prosvirov (Moscow State University, Moscow, Russia), and the handling editor for their critical remarks on the manuscript. This research was supported by the Mianyang Normal University (grant no. QD2020A07) and the National Natural Science Foundation of China (grant no. 32270483).

## References

- Arimoto, K. (2023) Taxonomic revision of the genus *Penia* Laporte (Coleoptera, Elateridae, Dendrometrinae) from Taiwan. *Zootaxa*, 5375 (3), 301–335.  
<https://doi.org/10.11646/zootaxa.5375.3.1>
- Douglas, H.B., Kundrata, R., Brunke, A.J., Escalona, H.E., Chapados, J.T., Eyres, J., Richter, R., Savard, K., Ślipiński, A., McKenna, D. & Dettman, J.R. (2021) Anchored phylogenomics, evolution and systematics of Elateridae: are all bioluminescent Elateroidea derived click beetles? *Biology*, 10 (6), 451.  
<https://doi.org/10.3390/biology10060451>
- Cate, P. (2007) Elateridae. In: Löbl, I. & Smetana, A. (Eds.), *Catalogue of Palaearctic Coleoptera. Vol. 4*. Apollo Books, Stenstrup, pp. 94–209.
- Hoffmannova, J. & Qiu, L. (2023) Description of a new species of *Pseudocsikia* Schimmel and Platia, 1991 (Coleoptera: Elateridae: Dimini) from Taiwan Island. *The Coleopterists Bulletin*, 77 (2), 265–271.

- <https://doi.org/10.1649/0010-065X-77.2.265>
- Kundrata, R. & Németh, T. (2019) Description of *Penia mantillerii* sp. nov. (Coleoptera: Elateridae: Dimini), with a key to *Penia* species from Vietnam and nearby areas. *Zootaxa*, 4612 (2), 275–281.  
<https://doi.org/10.11646/zootaxa.4612.2.10>
- Kundrata, R. & Sormova, E. (2018) *Platiana cechovskyi* sp. nov. from Malaysia, a remarkable new member of Dimini (Elateridae: Dendrometrinae) with strongly serrate antennae. *Zootaxa*, 4524 (1), 132–138.  
<https://doi.org/10.11646/zootaxa.4524.1.10>
- Kundrata, R., Musalkova, M. & Kubaczkova, M. (2018) Annotated catalogue of the click-beetle tribe Dimini (Coleoptera: Elateridae: Dendrometrinae). *Zootaxa*, 4412 (1), 1–75.  
<https://doi.org/10.11646/zootaxa.4412.1.1>
- Kundrata, R., Sormova, E. & Qiu, L. (2019a) *Sinodima jensis* gen. et sp. nov., a new wingless click-beetle from the mountains of Hunan, China (Elateridae: Dendrometrinae: Dimini). *Journal of Asia-Pacific Entomology*, 22 (1), 15–18.  
<https://doi.org/10.1016/j.aspen.2018.11.016>
- Kundrata, R., Prosvirov, A.S., Vondracek, D., Sormova, E. (2019b) Congruence between molecular data and morphology: phylogenetic position of Senodoniini (Coleoptera: Elateridae). *Insects*, 10 (8), 1–17.  
<https://doi.org/10.3390/insects10080231>
- Kundrata, R., Sormova, E., Qiu, L. & Prosvirov, A.S. (2019c) Revision of the flightless click-beetle genus *Neodima* Schimmel & Platia (Elateridae: Dimini) endemic to China, with comments on its systematic position. *Zootaxa*, 4604 (1), 42–58.  
<https://doi.org/10.11646/zootaxa.4604.1.2>
- Laporte, F.L.N.C. (1838) Études entomologiques, ou descriptions d’insectes nouveaux et observations sur la synonymie. *Revue Entomologique*, 4, 5–60.
- Mertlik, J., Németh, T. & Kundrata, R. (2017) Revision of the flightless click-beetle genus *Dima* Charpentier, 1825 (Coleoptera: Elateridae: Dimini) in the Balkan Peninsula. *Zootaxa*, 4220 (1), 1–63.  
<https://doi.org/10.11646/zootaxa.4220.1.1>
- Mertlik, J., Németh, T. & Kundrata, R. (2018) Additions to the revision of *Dima* Charpentier, 1825 (Coleoptera: Elateridae: Dimini) in the Balkan Peninsula, with the descriptions of five new species. *Zootaxa*, 4433 (2), 325–351.  
<https://doi.org/10.11646/zootaxa.4433.2.5>
- Ôhira, H. & Becker, E.C. (1972) Elateridae (Coleoptera) from the Canadian Nepal Expedition (1967). 3. Descriptions of new species and records of *Dima*, *Penia* and *Neocsikia* new genus. *Oriental Insects*, 6, 531–537.  
<https://doi.org/10.1080/00305316.1972.10434193>
- Platia, G. & Pulvirenti, E. (2024) On some click beetles collected in Arunachal Pradesh (India) [actually Southern Xizang, China] with an updated catalogue (Insecta: Coleoptera: Elateridae). In: Hartmann, M., Barclay, M.V.L. & Weipert, J. (Eds.), *Biodiversität und Naturlausstattung im Himalaya. Vol. VIII*. Verein der Freunde & Förderer des Naturkundemuseums Erfurt, Erfurt, pp. 411–424.
- Qiu, L. (2021a) A new *Neodima* species (Coleoptera: Elateridae: Dimini), with notes on the distribution and morphology of the genus. *Zootaxa*, 5067 (1), 115–121.  
<https://doi.org/10.11646/zootaxa.5067.1.7>
- Qiu, L. (2021b) A remarkable new *Penia* species (Coleoptera: Elateridae: Dimini) from Guizhou, China. *Faunitaxys*, 9 (37), 1–4.
- Qiu, L. (2025) *Neodima mianyangensis* Qiu (Coleoptera: Elateridae: Dimini), a new flightless click-beetle from Sichuan, China. *The Coleopterists Bulletin*, 79 (2), 263–267.  
<https://doi.org/10.1649/0010-065X-79.2.263>
- Qiu, L. & Kundrata, R. (2022a) Descriptions of two new flightless species of *Pseudocsikia* Schimmel & Platia (Coleoptera, Elateridae, Dimini) from Taiwan Island, China, with a definition of the *formosana* species-group. *ZooKeys*, 1103, 123–138.  
<https://doi.org/10.3897/zookeys.1103.84015>
- Qiu, L. & Kundrata, R. (2022b) The first record of genus *Neocsikia* Ôhira & Becker (Coleoptera, Elateridae, Dimini) in China, with the description of a new species. *Journal of Asia-Pacific Entomology*, 25, 101965.  
<https://doi.org/10.1016/j.aspen.2022.101965>
- Qiu, L. & Kundrata, R. (2024) New species of *Sinodima* Kundrata, Sormova & Qiu, 2019 reveal the first case of strong sexual dimorphism in Dimini (Coleoptera: Elateridae). *Journal of Asia-Pacific Entomology*, 27 (3), 102289.  
<https://doi.org/10.1016/j.aspen.2024.102289>
- Qiu, L., Sormova, E., Ruan, Y. & Kundrata, R. (2018) A new species of *Dima* (Coleoptera: Elateridae: Dimini), with a checklist and identification key to the Chinese species. *Annales Zoologici*, 68 (3), 441–450.  
<https://doi.org/10.3161/00034541ANZ2018.68.3.006>
- Qiu, L., Jetelina, D., Chen, K.-D. & Kundrata, R. (2025a) Taxonomic review of the tribe Dimini from Guangxi, China (Coleoptera, Elateridae), with descriptions of 12 new species. *The Coleopterists Bulletin*, 79 (4), 1–26.  
<https://doi.org/10.1649/0010-065X-79.2.263>
- Qiu, L., Ruan, Y., Prosvirov, A.S. & Kundrata, R. (2025b) Sclerites of bursa copulatrix reveal hidden generic diversity in Dimini (Coleoptera, Elateridae): revision of *Parapenia* species from China, with the establishment of three new genera. *Insects*, 16 (10), 1003.

<https://doi.org/10.3390/insects16101003>

- Ruan, Y., Kundrata, R., Sormova, E., Qiu, L., Zhang, M. & Jiang, S. (2018) Description of two new species of *Dima* Charpentier, 1825 from China (Coleoptera: Elateridae: Dendrometrinae). *Zootaxa*, 4526 (4), 589–599.  
<https://doi.org/10.11646/zootaxa.4526.4.10>
- Schimmel, R. (1995) Neue Elateriden aus Zypern und aus Südostasien (Insecta: Coleoptera: Elateridae). *Reichenbachia*, 31, 49–56.
- Schimmel, R. (1996) Das Monophylum Diminae Candèze, 1863 (Insecta: Coleoptera: Elateridae). *Pollichia-Buch*, 33, 1–370.
- Schimmel, R. (1998a) Neue und wenig bekannte Schnellkäfer aus Südostasien (Coleoptera: Elateridae). *Entomological Problems*, 29, 149–155.
- Schimmel, R. (1998b) Neue Schnellkäfer-Arten aus Südostasien (Coleoptera, Elateridae). *Entomologische Blätter*, 94, 101–109.
- Schimmel, R. (2001) Neue und wenig bekannte Diminae-Arten aus China, Indien, Laos, Myanmar, Nepal und Vietnam (Insecta, Coleoptera: Elateridae). *Mitteilungen der Pollichia*, 88, 205–231.
- Schimmel, R. & Platia, G. (1991) Revision der Subtribus Dimina Candèze, 1863 aus dem Himalaya, mit Bestimmungstabellen der Gattungen und Arten (Coleoptera: Elateridae). *Entomologica Basiliensia*, 14, 261–382.
- Suzuki, W. (1982) A new denticolline genus, *Parapenia*, from the Indo-chinese subregion (Coleoptera: Elateridae). *Transactions of the Shikoku Entomological Society*, 16 (1–2), 83–94.

## 西藏自治区迪叩甲族Dimini一新种及二新纪录种记述 (鞘翅目: 叩甲科)

邱鹭<sup>1,\*</sup>, 阮用颖<sup>2,3</sup>

<sup>1</sup>绵阳师范学院, 生命科学学院 (生态林业学院), 绵阳 621000, 四川, 中国

<sup>2</sup>深圳职业技术大学, 植物保护研究中心, 深圳, 518055, 广东, 中国

<sup>3</sup>✉ [yongyingruan@hotmail.com](mailto:yongyingruan@hotmail.com); <https://orcid.org/0000-0002-5025-5592>

\*通讯作者: ✉ [123church@163.com](mailto:123church@163.com); <https://orcid.org/0000-0002-0946-1634>

**摘要:** 报导西藏迪叩甲族Dimini一新种——晓彬伪斯叩甲*Pseudocsikia xiaobini* sp. nov.。新种与模式种粗伪斯叩甲*Ps. rustica*近似: 两者后翅均缩短, 具较小体型, 且鞘翅末端具大黄斑。新种触角褐色, 前胸背板刻点较稀疏, 后侧角较长, 后缘近后侧角处具M形缺刻, 鞘翅狭长, 且后足基片呈方形扩展, 可据此与模式种区别。另外, 还首次记录了刻点硕薄叩甲*Megapenia foveolata* (comb. nov.) 和凹纹薄叩甲*Penia imprimosa*在中国 (西藏) 的分布。提供了上述三种叩甲新种或新纪录种的虫体及特征图, 整理和制作了西藏迪叩甲族物种名录和检索表, 并讨论了副斯叩甲属*Paracsikia*和伪斯叩甲属*Pseudocsikia*间的分类问题。

**关键词:** 叩甲总科; 缺翅昆虫; 山叩甲亚科; 分类学; 青藏高原