



Revision of *Longitarsus cyanipennis* species group, with description of eleven new species (Coleoptera: Chrysomelidae: Galerucinae: Alticitae)

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Abstract

Fifteen species belonging to the *Longitarsus cyanipennis* species group are revised. All species are described or redescribed, accompanied by images of external morphology and genitalia. A key to the species of the group is provided. Eleven new species are described: *L. bryanti* Liang & Konstantinov **sp. nov.**, *L. jinpingensis* Liang & Konstantinov **sp. nov.**, *L. lijiangensis* Liang & Konstantinov **sp. nov.**, *L. lodayi* Liang & Konstantinov **sp. nov.**, *L. mauliki* Liang & Konstantinov **sp. nov.**, *L. latipenis* Liang & Konstantinov **sp. nov.**, *L. medogensis* Liang & Konstantinov **sp. nov.**, *L. radialis* Liang & Konstantinov **sp. nov.**, *L. viridis* Liang & Konstantinov **sp. nov.**, *L. volkovitshi* Liang & Konstantinov **sp. nov.**, and *L. zhejiangensis* Liang & Konstantinov **sp. nov.** *Longitarsus warchalowskii* Scherer, 1969 is resurrected from synonymy with *L. indigonaceus* Lopatin, 1963, while *L. indigonaceus* Lopatin, 1963 **syn. nov.** is proposed as a junior synonym of *L. cyanipennis* Bryant, 1924. Amongst the species group, four species are recorded in Mèdog County, i.e., *L. warchalowskii*, *L. bryanti* **sp. nov.**, *L. latipenis* **sp. nov.**, and *L. medogensis* **sp. nov.**

Key words: *Longitarsus*, synonym, China, Himalaya-Hengduan Mountains, Boraginaceae

Introduction

The genus *Longitarsus* represents one of the most speciose groups within flea beetles (Chrysomelidae, Alticitae), exhibiting a cosmopolitan distribution with about 660 valid species (Konstantinov 2025). Members of this genus demonstrate distinct host specialization patterns, with most species being strictly monophagous or oligophagous, preferentially feeding on the same botanical families (Salvi *et al.* 2019).

Longitarsus feeds on plants of multiple angiosperm families, among which Boraginaceae stands out as a particularly favored host plant family. In the Mediterranean region, 26.4% of *Longitarsus* species are associated with Boraginaceae, including representatives of the *L. aeneus*, *L. anchlussae*, *L. exsoletus*, and *L. echii* species groups (Biondi & d'Alessandro 2008). This pattern extends to the Western Palearctic region, where 32.1% of *Longitarsus* species feed exclusively on Boraginaceae (Salvi *et al.* 2019). Recent studies further documented specialized Boraginaceae feeding habits in the *violentus* species group, exemplified by *L. pekingensis* Liang, Konstantinov & Ge and *L. xinjiangensis* Liang, Konstantinov & Ge (Liang *et al.* 2023). Interestingly, Boraginaceae are also favored by numerous species in Southwestern China and adjacent areas, including members of the *L. cyanipennis* species group.

Partitioning species-rich flea beetle genera into species groups is a useful strategy to facilitate their revision (Biondi 1996; Konstantinov 2005; Liang *et al.* 2023). Based on external morphological characters, we hereby propose a new species group for Oriental *Longitarsus*—*Longitarsus cyanipennis* species group. Species included in this group exhibit a variety of shapes of the median lobes of their aedeagi, which were used to define *Longitarsus* species groups in the past (Konstantinov & Dorr 2023). Species of *L. cyanipennis* group share the following characters: 1) dorsal and ventral surfaces black with the dorsal side exhibiting strong metallic blue, green, or purple reflection; 2) antennae long, at least equal to body length in males and more than 0.85 times body length in females; 3) surface of vertex smooth, without well-defined reticulation; 4) antennal calli hardly (e.g. Fig. 7C) or moderately (e.g. Fig. 16C) delimited from vertex; 5) pronotal surface between punctures smooth without well-defined reticulation; 6) hindwings well-developed; 7) median lobe of aedeagus normally stout; 8) tegmen strut with lamellar extension extending dorsad (Fig. 6G); 9) spermathecal duct normally forming two to three loose loops; 10) spermathecal pump basally constricted with a “neck”. In addition to *L. cyanipennis* Bryant, four more species could be assigned to this group: *L. chujoi* Csiki, 1937; *L. indigonaceus* Lopatin, 1963; *L. warchalowskii* Scherer, 1969 (as a synonym of *L. indigonaceus*); and *L. nodulus* Wang, 1992.

Our revisionary study of Chinese *Longitarsus* revealed a significantly underestimated diversity, with many historical specimens misidentified due to the similarity between species. In this work, we review the *cyanipennis* species group, treating 15 species assigned to it. All species are described or redescribed, with the illustrations of external morphology and genitalia.

Material and methods

Observation and dissection of the beetles were carried out mainly using a Leica S8AP0 stereomicroscope. Representatives of each species were dissected, and genitalia were immersed in a warm 10% KOH solution for several minutes to soften the muscles. After cleaning the muscles and other irrelevant tissue with insect pins and washing with 75% ethanol, the aedeagi were then mounted in a drop of glycerol or hyaluronan for examination and photographing. Images of external morphology and male genitalia were taken by Zeiss AXIO Zoom V16 microscope and Canon 5D Mark II digital camera with MP-E 65mm macro lens. Images of female genitalia were captured by an AXIO Zoom V16 microscope or a Zeiss AXIO Scope A1 microscope. Specimen observations of *L. lijiangensis* **sp. nov.**, *L. lodayi* **sp. nov.**, and *L. volkovitshi* **sp. nov.** were made with a Zeiss Stemi SV11 Apo microscope. Digital photographs of these specimens were taken with a Macropod Pro photomacrography system (Macroscopic Solutions, LLC, Tolland, CT, USA).

The classification adapted here follows Douglas *et al.* (2023) and the recent proposal (Bezděk & Konstantinov 2024) to treat tribes of Douglas *et al.* (2023) as supertribes, i.e., Alticitae, Galerucitae, and Serraticollitae, to prevent diminishing the tribal classification of galerucines in a strict sense.

The morphological terminology follows Liang *et al.* (2023). Labels written in Chinese are translated into English and cited verbatim, with location information in Chinese included within square brackets “[]”.

Abbreviations:

TD	Type Depository;
TL	Type Locality;
BMNH	The Natural History Museum, London, UK;
CAU	China Agricultural University, Beijing, China;
HNHM	Hungarian Natural History Museum, Budapest, Hungary;
IZCAS	Institute of Zoology, Chinese Academy of Sciences, Beijing, China;
NBCB	National Biodiversity Centre, Thimphu, Bhutan;
NKU	Nankai University, Tianjin, China;
NMB	Natural History Museum Basel, Basel, Switzerland;
SYSU	Sun Yat-sen University, Guangzhou, China;
SZPU	Plant Protection Research Center, Shenzhen Polytechnic University, Shenzhen, China;
TARI	Taiwan Agricultural Research Institute, Taichung, China;
USNM	National Museum of Natural History [formerly, United States National Museum], Washington DC, USA.

The holotypes of some new species described here, collected in China, are currently in the USNM and will be deposited at IZCAS.

Taxonomy

Longitarsus Latreille, 1829

Longitarsus Latreille, 1829: 155. Type species: *Chrysomela atricilla* Linnaeus, 1761, subsequently designated by Maulik 1926: 333.

Thyamis Stephens, 1831: 307. Type species: *Altica quadripustulata* Fabricius, 1775, subsequently designated by Konstantinov & Vandenberg 1996: 311. Synonymized by Wollaston 1862: 7.

Teinodactyla Chevrolat, 1833: 392. Type species: *Haltica echii* Koch, 1803, subsequently designated by Konstantinov & Vandenberg 1996: 311. Synonymized by Weise 1893: 922.

Inopelonia Broun, 1893: 1392. Type species: *Phyllotreta testacea* Broun, 1880, by original designation. Synonymized by Samuelson 1973: 56.

Testergus Weise, 1893: 1013, as subgenus of *Longitarsus*. Type species: *Longitarsus lederi* Weise, 1889, subsequently designated by Bechyné 1957: 2.

Truncatus Palij, 1970: 10. Type species: *Longitarsus zeravshanicus* Palij, 1970 (= *Longitarsus tmetopterus* Jacobson, 1893), by original designation. Synonymized with *Testergus* by Lopatin 1977: 210.

Key to species of *Longitarsus cyanipennis* group

The key relies primarily on external and genital characters of males, as some species are described from male specimens only, and male genitalia are critical for species delimitation. Males can be distinguished by a transverse postero-median projection on the margin of the last ventrite (Fig. 14H).

- | | | |
|----|--|----------------------------------|
| 1 | Tibae generally dark yellow or yellowish brown, distinctly paler than femura (e.g. Fig. 2A) | 2 |
| – | Tibae generally dark brown or black, not distinctly paler than femura (e.g. Fig. 6A). | 4 |
| 2 | Last abdominal ventrite of male with a large central depression, edge of depression with radiating ridges (Fig. 14H). | <i>L. radialis</i> sp. nov. |
| – | Last abdominal ventrite of male without central depression | 3 |
| 3 | Male protarsomere I greatly enlarged, wider than protibia (Fig. 8A); male with lower part of frons and base of mandibles about as wide as space between eyes (Fig. 8C). | <i>L. lijiangensis</i> sp. nov. |
| – | Male protarsomere I slender, narrower than protibia (Fig. 2A); male with lower part of frons and base of mandibles narrower than space between eyes (Fig. 2C). | <i>L. chujoi</i> |
| 4 | Median lobe of aedeagus constricted near base (e.g. Fig. 3D) | 5 |
| – | Median lobe of aedeagus not constricted near base (e.g. Fig. 1E). | 6 |
| 5 | Dorsal metallic sheen more or less greenish except for bluish tint (Fig. 17A–D); aedeagus widest subapically in ventral view, sides smoothly curved in lateral view (Fig. 17E–G) | <i>L. warchalowski</i> |
| – | Dorsal metallic sheen bluish or purplish, without greenish tint (Fig. 3A–C); aedeagus widest medially in ventral view; in lateral view of aedeagus with sides bent ventrad near basal 1/3, straight at apical 2/3, and slightly sinuate at apex (Fig. 3D–F). | <i>L. cyanipennis</i> |
| 6 | Antennal calli delimited from vertex by a narrow supracallinal sulci (Fig. 16C) | <i>L. volkovitshi</i> sp. nov. |
| – | Supracallinal sulci absent (e.g. Fig. 6C) | 7 |
| 7 | Vertex with shallow transverse depression above antennal calli (e.g. Fig. 1C). | 8 |
| – | Vertex without transverse depression above antennal calli (e.g. Fig. 6C). | 10 |
| 8 | Male protarsomere I narrowed basally, but slightly narrower than apex of protibia (e.g. Fig. 9A); aedeagus short and stout, medially slightly dilated (e.g. Fig. 9E). | 9 |
| – | Male protarsomere I not narrowed basally, distinctly narrower than apex of protibia (e.g. Fig. 1A); aedeagus slender and elongate, medially slightly constricted (e.g. Fig. 1E–F) | <i>L. bryanti</i> sp. nov. |
| 9 | Punctures on pronotum smaller (Fig. 9C); median lobe with blunter apex and ventral groove much wider before basal opening (Fig. 9E, G) | <i>L. lodayi</i> sp. nov. |
| – | Punctures on pronotum larger (Fig. 19D); median lobe with acute apex and ventral groove much narrower before basal opening (Fig. 19E) | <i>L. zhejiangensis</i> sp. nov. |
| 10 | Aedeagus with ventral groove narrow, closed basally, apical 2/5 tapered, ventral side of aedeagus sinuate at apical 2/3 in lateral view (Fig. 6E–G). | <i>L. jinpingensis</i> sp. nov. |
| – | Aedeagus with ventral groove open basally; apex not tapered, ventral side of aedeagus straight or evenly curved at apical 2/3 in lateral view (e.g. Fig. 12E–G) | 11 |

11	Apical part of aedeagus straight in lateral view (e.g. Fig. 12G)	12
–	Apical part of aedeagus curved in lateral view (e.g. Fig. 7G)	14
12	In ventral view, aedeagus short and stout, widest at base (e.g. Fig. 12E)	13
–	In ventral view, aedeagus slender and elongate, widest at mid-length (Fig. 15E)	<i>L. viridis</i> sp. nov.
13	Metatibial spur moderately developed, 0.78 times as long as maximum width of metatibia (Fig. 10A); aedeagus with parallel sides in ventral view (Fig. 10D)	<i>L. mauliki</i> sp. nov.
–	Metatibial spur weak, 0.40 times as long as maximum width of metatibia (Fig. 12A); lateral sides of aedeagus gradually narrowed towards apex (Fig. 12E)	<i>L. nodulus</i>
14	Aedeagus short and stout, apex with a short apical projection (Fig. 7E)	<i>L. latipennis</i> sp. nov.
–	Aedeagus slender and elongate, apex rounded, without apical projection (Fig. 11E)	<i>L. medogensis</i> sp. nov.

***Longitarsus bryanti* Liang & Konstantinov sp. nov.**

(Figs 1, 20)

Longitarsus cyanipennis (nec Bryant, 1924, misident.): Maulik 1926: 338 (part, India); Chen 1934b: 351 (Yunnan); Chen 1939: 86 (key); Gressitt & Kimoto 1963: 851, 855 (key); Warchalowski 1965: 556, fig. 1 (Vietnam, illustration of penis); Scherer 1969: 61, fig. 24b, 25b; Warchalowski 1970: 112, fig. 11.

Type material. HOLOTYPE: CHINA. Sichuan: ♂ (IZCAS) Sichuan, Garzê [四川甘孜], 3400 m, 1983.VI.29, leg. Zhang Xuezhong. **PARATYPES: CHINA. Sichuan:** 7♂♂ 15♀♀ (IZCAS, SZPU) same data as holotype; 13♂♂ 36♀♀ (IZCAS) Sichuan, Garzê [四川甘孜], 3400 m, 1983.VI.29, leg. Wang Shuyong; 1♂ (IZCAS) Sichuan, Garzê [四川甘孜], 3600 m, 1983.VI.28, leg. Wang Shuyong; 1♂ 1♀ (IZCAS) Sichuan, Garzê [四川甘孜], 3400 m, 1983.VI.24, leg. Chen Yuanqing; 1♂ 7♀♀ 5 exx. (IZCAS) Sichuan, Dêgê [四川德格], 3200 m, 1983.VII.6, leg. Niu Chunlai; 2♂♂ 1♀ (IZCAS) Sichuan, Dêgê [四川德格], 3200 m, 1983.VII.4, leg. Chen Yuanqing; 1♂ 2♀♀ (IZCAS) Sichuan, Dêgê [四川德格], 3200 m, 1983.VII.6, leg. Wang Shuyong; 1♂ (IZCAS) Sichuan, Dêgê [四川德格], 3300 m, 1983.VII.4, leg. Wang Shuyong; 1♂ (IZCAS) Sichuan, Dêgê, Keluodong [四川德格柯洛洞], 3600 m, 1983.VII.5, leg. Wang Shuyong; 20 exx. (IZCAS) Sichuan, Li County, Miyaluo [四川理县米亚罗], 2800 m, 1983.VIII.14, leg. Wang Shuyong; 22 exx. (IZCAS) Sichuan, Batang, Yidun [四川巴塘义敦], 3470 m, 1982.VIII.16, leg. Wang Shuyong; 3♀♀ (IZCAS) Sichuan, Luhuo, Zhuwowo [四川炉霍朱倭], 3300 m, 1983.VI.28, leg. Wang Shuyong; 70 exx. (IZCAS) Sichuan, Xiangcheng [四川乡城], 3200 m, 1982.VI.26, host plant: *Lithospermum* sp. [紫草], leg. Wang Shuyong; 1♂ (IZCAS) Sichuan, Xiangcheng [四川乡城], 2900–3200 m, 1982.VI.28, leg. Wang Shuyong; 1♂ 1♀ (IZCAS) Sichuan, Xiangcheng [四川乡城], 2900 m, 1982.VI.18, leg. Wang Shuyong; 3♀♀ (IZCAS) Sichuan, Xiangcheng, Chaiké [四川乡城柴柯], 3000 m, 1982.VI.21, leg. Wang Shuyong; 1♀ (IZCAS) Sichuan, Xiangcheng, Chaiké [四川乡城柴柯], 3000 m, 1982.VI.22, host plant: *Prunus davidiana* [山桃], leg. Wang Shuyong; 125 exx. (IZCAS) Sichuan, Kangding [四川康定], 3200 m, 1983.VI.24, leg. Wang Shuyong; 31 exx. (IZCAS) Sichuan, Kangding [四川康定], 4200 m, 1983.VI.24, leg. Wang Shuyong; 1♂ 1♀ (IZCAS) Sichuan, Kangding [四川康定], 3000 m, 1983.VII.12, leg. Wang Shuyong; 1♀ (IZCAS) Sichuan, Kangding [四川康定], 1650 m, 1990.VI.16, leg. Liu Jupeng; 1♀ (IZCAS) Sichuan, Litang [四川理塘], 3880 m, 1982.VIII.23, leg. Wang Shuyong; 1♂ 2♀♀ (IZCAS) Sichuan, Gongga Shan, Yanzi Gou [四川贡嘎山燕子沟], 2340 m, 1982.VI.5, leg. Wang Shuyong; 2 exx. (IZCAS) Sichuan, Yajiang Bingzhan [四川雅江兵站], 3200 m, 1982.VIII.27, leg. Wang Shuyong; 1♂ (IZCAS) Sichuan, Yajiang Bingzhan [四川雅江兵站], 3200 m, 1982.VIII.29, leg. Wang Shuyong; 1♂ 2♀♀ (IZCAS) Sichuan, Wenchuan, Wolong [四川汶川卧龙], 2000 m, 1983.VII.24, leg. Zhang Xuezhong; 1♀ (IZCAS) Sichuan, Wenchuan, Wolong [四川汶川卧龙], 1900 m, 1983.VII.27, leg. Wang Shuyong; 1♀ (IZCAS) Sichuan, Wenchuan, Wolong [四川汶川卧龙], 1920 m, 1983.VII.24, leg. Wang Shuyong; 1♀ (IZCAS) Sichuan, Mount Emei [四川峨眉山], 1955.VI.19, leg. Huang Keren & Jin Gentao. **Gansu:** 14♂♂ 12♀♀ (IZCAS) Gansu, Kang County, Heimaguan [甘肃康县黑马关], 1450–1550 m, 1998.VII.13, leg. Wang Shuyong; 1♀ (IZCAS) Gansu, Kang County, Heimaguan [甘肃康县黑马关], 1450–1550 m, 1998.VII.13, leg. Yao Jian; 1♀ (IZCAS) Gansu, Kang County, Douba [甘肃康县豆坝], 1050 m, 1999.VII.6, leg. Wang Hongjian; 3♀♀ (IZCAS) Gansu, Wen County, Qiujiaba [甘肃文县邱家坝], 2000 m, 1999.VI.20, leg. Wang Hongjian; 1♂ (IZCAS) Gansu, Wen County, Qiujiaba [甘肃文县邱家坝], 2200–2350 m, 1998.VI.29, leg. Wang Shuyong; 1♂ 1♀ (IZCAS) Gansu, Wen County, Bikou Bifenggou [甘肃文县碧口碧峰沟], 900–1450 m, 1998.VI.25, leg. Wang Shuyong; 1♀ (IZCAS) Gansu, Wen County, Liujiaping [甘肃文县刘家坪], 2100 m, 1998.VI.27, leg. Wang Shuyong. **Hunan:** 1♀ (IZCAS) Hunan, Sangzhi, Tianpingshan [湖南桑植天平山], 1400 m, 1988.VIII.12, leg. Wang Shuyong. **Qinghai:** 17 exx. (IZCAS) Qinghai, Yushu, Xiaosu Mang [青海玉树小苏莽], 3750 m, 1964.VII.4, leg. Wang Shuyong. **Yunnan:** 2♂♂ 2♀♀

(IZCAS) Yunnan, Yongsheng, Liude [云南永胜六德], 2250 m, 1984.VII.8, leg. Fan Jianguo; 1♀ (IZCAS) Yunnan, Yongsheng, Liude [云南永胜六德], 2300 m, 1984.VII.9, leg. Wang Shuyong; 1♂ 2♀♀ (IZCAS) Yunnan, Yongsheng, Liude [云南永胜六德], 2300 m, 1984.VII.10, leg. Wang Shuyong; 1♂ (IZCAS) Yunnan, Yongsheng, Liude [云南永胜六德], 2400 m, 1984.VII.13, leg. Wang Shuyong; 1♂ 3♀♀ (IZCAS) Yunnan, Yongsheng, Liude [云南永胜六德], 2400 m, 1984.VII.18, leg. Wang Shuyong; 5 exx. (IZCAS) Yunnan, Dali, Diancang Shan [云南大理点苍山], 2230 m, 1981.VII.2, leg. Wang Shuyong; 2 exx. (IZCAS) Yunnan, Dali, Diancang Shan [云南大理点苍山], 2850 m, 1981.VI.30, leg. Wang Shuyong; 2♀♀ (IZCAS) Yunnan, Dali [云南大理], 1933.VII.22; 2♂♂ 5♀♀ (USNM) Yunnan, env. Dali, Cangshan Mts., 2100 m, river valley, 07.VI.2002, N25°41'49", E100°08'07", leg. A. Konstantinov & M. Volkovitsh; 3♂♂ 2♀♀ (USNM) Yunnan, Dali-Lijiang Rd. 94km, valley, 2470 m, 05.VI.2002, N26°14'41", E100°10'19", leg. A. Konstantinov & M. Volkovitsh; 3♂♂ 2♀♀ (IZCAS) Yunnan, Zhongdian (Shangri-La City) [云南中甸 (香格里拉市)], 3200 m, 1981.VIII.3, host plant: *Lithospermum* sp. [紫草], leg. Wang Shuyong; 6♂♂ 5♀♀ (IZCAS) Yunnan, Zhongdian (Shangri-La City), Geza [云南中甸 (香格里拉市) 格咱], 3150 m, 1981.VIII.4, host plant: *Lithospermum* sp. [紫草], leg. Wang Shuyong; 2♂♂ (IZCAS) Yunnan, Zhongdian (Shangri-La City), Geza [云南中甸 (香格里拉市) 格咱], 3100 m, 1981.VIII.9, leg. Wang Shuyong; 4♂♂ 6♀♀ (IZCAS) Yunnan, Zhongdian (Shangri-La City), Wengshui [云南中甸 (香格里拉市) 翁水], 3000 m, 1982.VII.10, leg. Wang Shuyong; 3♂♂ 1♀ (IZCAS) Yunnan, Zhongdian (Shangri-La City), 25km W [云南中甸 (香格里拉市) 西25公里], 3400 m, 1982.VIII.23, host plant: *Lithospermum* sp. [紫草], leg. Wang Shuyong; 1♂ (IZCAS) Yunnan, Zhongdian (Shangri-La City), Chongjianghe [云南中甸 (香格里拉市) 冲江河], 2400 m, 1984.VIII.8, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Zhongdian (Shangri-La City), Daxue Shan [云南中甸 (香格里拉市) 大雪山], 4000 m, 1981.VIII.17, host plant: *Lithospermum* sp. [紫草], leg. Wang Shuyong; 1 ex. (IZCAS) Yunnan, Xiaozhongdian (Shangri-La City) [云南小中甸 (香格里拉市)], 3200 m, 1984.VIII.2, leg. Fan Jianguo; 1♀ (IZCAS) Yunnan, Xiaozhongdian (Shangri-La City) [云南小中甸 (香格里拉市)], 3200 m, 1984.VIII.5, leg. Wang Ruiqi; 1♂ 2♀♀ (IZCAS) Yunnan, Xiaozhongdian (Shangri-La City) [云南小中甸 (香格里拉市)], 3200 m, 1984.VII.31, leg. Wang Shuyong; 1♂ (IZCAS) Yunnan, Xiaozhongdian (Shangri-La City) [云南小中甸 (香格里拉市)], 3200 m, 1981.VIII.2, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Xiaozhongdian (Shangri-La City) [云南小中甸 (香格里拉市)], 3200 m, 1984.VIII.2, leg. Wang Shuyong; 4 exx. (IZCAS) Yunnan, Dêqên, Meili Xueshan [云南德钦梅里雪山], 3200–3500 m, 1982.VII.23, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Baoshan [云南保山], 1740 m, 1981.VI.16, leg. Wang Shuyong; 1♂ (IZCAS) Yunnan, near Baoshan, Lancangjiang Valley [云南保山附近澜沧江河谷], 1200 m, 1955.V.28, leg. Kryzhanovskij; 3♀♀ (IZCAS) Yunnan, Baoshan to Yongping [云南保山至永平], 1955.V.28, leg. B. Popov; 3 exx. (IZCAS) Yunnan, Weixi, Pantian'ge [云南维西攀天阁], 2920 m, 1981.VII.20, leg. Wang Shuyong; 3 exx. (IZCAS) Yunnan, Weixi, Pantian'ge [云南维西攀天阁], 2500 m, 1981.VII.24, leg. Wang Shuyong; 1♂ 5♀♀ (IZCAS) Yunnan, Weixi, Pantian'ge [云南维西攀天阁], 2400 m, 1981.VII.25, leg. Wang Shuyong; 3♂♂ 14♀♀ (IZCAS) Yunnan, Weixi, Pantian'ge [云南维西攀天阁], 2920 m, 1981.VII.17, leg. Wang Shuyong; 5♀♀ (IZCAS) Yunnan, Weixi, Pantian'ge [云南维西攀天阁], 2920 m, 1981.VII.18, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Weixi, Pantian'ge [云南维西攀天阁], 2920 m, 1981.VII.22, leg. Liao Subai; 1♀ (IZCAS) Yunnan, Weixi, Pantian'ge [云南维西攀天阁], 2500 m, 1981.VII.24, leg. Wang Shuyong; 2♀♀ (IZCAS) Yunnan, Weixi, Pantian'ge [云南维西攀天阁], 2500 m, 1981.VII.28, leg. Wang Shuyong; 2♂♂ (IZCAS) Yunnan, Weixi, Pantian'ge [云南维西攀天阁], 2900 m, 1981.VII.21, leg. Wang Shuyong; 2 exx. (IZCAS) Yunnan, Weixi, Lidi Ping [云南维西犁地坪], 3200 m, 1984.VIII.14, leg. Wang Shuyong; 1♂ 5♀♀ (IZCAS) Yunnan, Weixi, Lidi Ping [云南维西犁地坪], 3200 m, 1984.VIII.15, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Weixi, Lidi Ping [云南维西犁地坪], 3400 m, 1984.VIII.12, leg. Wang Shuyong; 2♂♂ (IZCAS) Yunnan, Weixi, Lidi Ping [云南维西犁地坪], 3200 m, 1984.VII.16, leg. Wang Shuyong; 1♂ 10♀♀ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 3200 m, 1984.VII.15, leg. Wang Shuyong; 1♂ 1♀ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 2850 m, 1984.VII.17, leg. Li Changfang; 3♀♀ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 3200 m, 1984.VII.17, leg. Fan Jianguo; 8♂♂ 11♀♀ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 3000 m, 1984.VII.19, leg. Wang Shuyong; 4♂♂ 4♀♀ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 3000 m, 1984.VII.19, leg. Wang Ruiqi; 1♂ 1♀ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 2800 m, 1984.VII.22, leg. Wang Shuyong; 1♂ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 2900 m, 1984.VII.24, leg. Wang Shuyong; 1♂ 3♀♀ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 1962.VII.8, leg. Song Shimei; 3♂♂ 6♀♀ (IZCAS) Yunnan, Lijiang [云南丽江], 3000 m, 1984.V.19, leg. Wang Ruiqi; 3♀♀ (IZCAS) Yunnan, Lijiang [云南丽江], 2400 m, 1981.VII.8, leg. Wang Shuyong; 1♂ (IZCAS) Yunnan, Lijiang [云南丽江], 3000 m, 1981.V.19, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Lijiang [云南丽江], 2400 m, 1981.VII.8, leg. Wang Shuyong; 1♂ (IZCAS) Yunnan,

Lijiang [云南丽江], 3000 m, 1981.V.19, leg. Wang Shuyong; 10 exx. (IZCAS) Yunnan, Lijiang [云南丽江], 1979. VIII.14, leg. Liu Guoqing; 1♀ (IZCAS) Yunnan, Lijiang, Lameirong [云南丽江拉美荣], 1984.VIII.11, leg. Wang Shuyong; 1♂ (IZCAS) Yunnan, Lijiang, Shigu [云南丽江石鼓], 1900 m, 1984.VII.30, leg. Wang Shuyong; 2♀♀ (IZCAS) Yunnan, Lijiang, Yuhu [云南丽江玉湖], 2750 m, 1984.VII.21, leg. Li Changfang; 1♀ (IZCAS) Yunnan, Lijiang, Yuhu [云南丽江玉湖], 2750 m, 1984.VII.23, leg. Li Changfang; 1♂ 5♀♀ (USNM) Yunnan, env. of Lijiang, 3082 m, 28.V.2002, N27°12'30", E100°16'01", leg. A. Konstantinov & M. Volkovitsh; 1♂ 1♀ (USNM) Yunnan, env. of Lijiang, high Yak meadow, 3100 m, 27.V.2002, N27°10'00", E100°15'33", leg. A. Konstantinov & M. Volkovitsh; 3♂♂ (USNM) Yunnan, 30km N Lijiang, Black River, 2800 m, 02.VI.2002, N27°08'46", E100°15'03", leg. A. Konstantinov & M. Volkovitsh; 1♂ 1♀ (USNM) Yunnan, env. Lijiang, Nat. Park, WP-283, (St 4) N27°12.062', E100°16.311', 3210 m, 24.VII.2011, leg. A. Konstantinov / 1585; 2♂♂ 1♀ (USNM) Yunnan, Yulong Shan Nat. Park, WP-293(St1) N27°10.096', E100°14.631', alp mead., 3445 m, 27.VII.2011, leg. A. Konstantinov / 1639; 1♂ (IZCAS) Yunnan, Kunming, Xishan [云南昆明西山], 2200 m, 1981.V.10, leg. Wang Shuyong; 1♂ 3♀♀ (USNM) Yunnan, Kunming env. Xishan Park, 2300 m, 11.VI.2002, N24°57'04", E102°37'56", leg. A. Konstantinov & M. Volkovitsh; 2 exx. (IZCAS) Yunnan, Lanping, Jinding [云南兰坪金顶], 2400 m, 1984.VIII.18, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Lanping, Jinding [云南兰坪金顶], 2400 m, 1984.VIII.24, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Lanping [云南兰坪], 3000 m, 1984.VIII.22, leg. Wang Shuyong; 2♂♂ 3♀♀ (IZCAS) Yunnan, Lushui [云南泸水], 2500 m, 1981.VI.19, leg. Liao Subai; 1♂ (IZCAS) Yunnan, Lushui [云南泸水], 2230 m, 1981.VI.11, leg. Wang Shuyong; 1 ex. (IZCAS) Yunnan, Lushui [云南泸水], 2300 m, 1981.VI.27, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Lushui [云南泸水], 1810 m, 1981.VI.11, leg. Wang Shuyong; 1♂ 2♀♀ (IZCAS) Yunnan, Lushui [云南泸水], 1670 m, 1981.VI.25, host plant: *Lithospermum* sp. [紫草], leg. Wang Shuyong; 1 ex. (IZCAS) Yunnan, Lushui, Pianma [云南泸水片马], 1750 m, 1981.VI.27, leg. Liao Subai; 3♂♂ (IZCAS) Yunnan, Lushui, Pianma [云南泸水片马], 2300 m, 1981.V.26, leg. Liao Subai; 1♂ (IZCAS) Yunnan, Lushui [云南泸水], 1850 m, 1981.VI.10, leg. Wang Shuyong; 1♂ (IZCAS) Yunnan, Laowo [云南老窝], 1670 m, 1981.VI.25, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Dengchuan [邓川], host plant: soybean [大豆], 1938.VIII; 1♀ (IZCAS) Yunnan [云南], 1922; 2♀♀ (CAU) Yunnan, Diqing, Weixi County, Pantian'ge Township & Geji [中国云南: 迪庆维西县攀天阁乡及格吉], 27.34772°N, 99.260602°E, 2720 m, 2020.VII.5, leg. Huang Weidong; 2♂♂ 1♀ (CAU) Yunnan, Lijiang, Yulong County, Liming Township, Laojunshan [中国云南: 丽江玉龙县黎明乡老君山], 26.98508°N, 99.727147°E, 2669 m, 2020.VII.5, leg. Chen Yuxin; 1♂ 1♀ (CAU) Yunnan, Lijiang, Yulong County, Liming Township, Laojunshan [中国云南: 丽江玉龙县黎明乡老君山], 26.98453°N, 99.658424°E, 2339 m, 2020.VII.4, leg. Chen Zhuo; 1♀ (CAU) Yunnan, Lijiang, Yulong County, Liming Township, Laojunshan [中国云南: 丽江玉龙县黎明乡老君山], 26.9947°N, 99.724406°E, 2543 m, 2020.VII.6, leg. Wang Xuan; 1♀ (CAU) Yunnan, Lijiang, Yulong County, Liming Township, Laojunshan [中国云南: 丽江玉龙县黎明乡老君山], 26.98492°N, 99.727296°E, 2653 m, 2020.VII.5, leg. Wang Xuan; 3♂♂ 2♀♀ (CAU) Yunnan, Lijiang, Yulong County, Liming Township, Laojunshan [中国云南: 丽江玉龙县黎明乡老君山], 27.00511°N, 99.718388°E, 2422 m, 2020.VII.5, leg. Wang Xuan; 1♂ 2♀♀ (CAU) Yunnan, Lijiang, Yulong County, Liming Township, Laojunshan [中国云南: 丽江玉龙县黎明乡老君山], 26.99457°N, 99.724587°E, 2546 m, 2020.VII.5, leg. Wang Xuan; 2♀♀ (CAU) Yunnan, Lijiang, Yulong County, Baoshan Township, Laba [中国云南: 丽江玉龙县宝山乡拉巴], 27.33031°N, 100.363739°E, 3186 m, 2020.VII.6, leg. Liu Yingqi; 2♂♂ 2♀♀ (CAU) Yunnan, Lijiang, Yulong County, Mingyin Town, Jiazi Village [中国云南: 丽江玉龙县鸣音镇甲子村], 27.1373°N, 100.28215°E, 2754 m, 2020.VI.17, leg. Liu Yingqi; 1♂ 2♀♀ (CAU) Yunnan, Lijiang, Yulong County, Mingyin Town, Jiazi Village [中国云南: 丽江玉龙县鸣音镇甲子村], 27.12844°N, 100.26951°E, 2809 m, 2020.VI.17, leg. Liu Yingqi; 2♂♂ 1♀ (CAU) Yunnan, Lijiang, Yulong County, Baisha Town, Wenhai Village [中国云南: 丽江玉龙县白沙镇文海村], 26.95346°N, 100.18223°E, 2978 m, 2020.VI.16, leg. Huang Weidong; 1♀ (CAU) Yunnan, Lijiang, Yulong County, Baisha Town, Wenhai Village [中国云南: 丽江玉龙县白沙镇文海村], 26.96618°N, 100.16911°E, 3057 m, 2020.VI.16, leg. Huang Weidong; 15♂♂ 7♀♀ (CAU) Yunnan, Lijiang, Yulong County, Mingyin Township, Entuo [中国云南: 丽江玉龙县鸣音乡恩拖], 27.20994°N, 100.323262°E, 2947 m, 2020.VII.7, leg. Liu Yingqi; 4♀♀ (CAU) Yunnan, Lijiang, Yulong County, Mingyin Township, Entuo [中国云南: 丽江玉龙县鸣音乡恩拖], 27.20983°N, 100.322991°E, 2986 m, 2020.VII.7, leg. Liu Yingqi; 2♂♂ 1♀ (CAU) Yunnan, Lijiang, Yulong County, Yulongxueshan [中国云南: 丽江玉龙县玉龙雪山], 29.19141°N, 100.26236°E, 3121 m, 2020.VI.16, leg. Huang Weidong; 2♂♂ 2♀♀ (CAU) Yunnan, Lijiang, Yulong County, Yulongxueshan [中国云南: 丽江玉龙县玉龙雪山], 27.20237°N, 100.262404°E, 3199 m, 2020.VII.7, leg. Wang Xuan; 8♂♂ 9♀♀ (CAU) Yunnan, Lijiang, Yulong County, Yulongxueshan [中国云南: 丽江玉龙县玉龙雪山], 27.20064°N, 100.274087°E, 3204 m, 2020.VII.7, leg. Wang Xuan; 1♂ 1♀ (CAU) Yunnan, Lijiang, Yulong

County, Yulongxueshan [中国云南: 丽江玉龙县玉龙雪山], 27.15023°N, 100.30326°E, 2388 m, 2020.VI.17, leg. Liu Yingqi; 1♂ 3♀♀ (CAU) Yunnan, Lijiang, Yulong County, Yulongxueshan [中国云南: 丽江玉龙县玉龙雪山], 27.20111°N, 100.273°E, 3201 m, 2020.VII.7, leg. Wang Xuan; 1♂ 2♀♀ (CAU) Yunnan, Lijiang, Yulong County, Yulongxueshan [中国云南: 丽江玉龙县玉龙雪山], 26.9728°N, 100.23573°E, 2505 m, 2020.VI.17, leg. Liu Yingqi; 10♂♂ 18♀♀ (CAU) Yunnan, Lijiang, Yulong County, Mingyin Township, Zhongxialuo [中国云南: 丽江玉龙县鸣音乡中下落], 27.22946°N, 100.352841°E, 2753 m, 2020.VII.7, leg. Liu Yingqi; 5♂♂ 6♀♀ (CAU) Yunnan, Lijiang, Yulong County, Mingyin Township, Zhongxialuo [中国云南: 丽江玉龙县鸣音乡中下落], 27.23007°N, 100.352903°E, 2771 m, 2020.VII.7, leg. Liu Yingqi; 1♂ (CAU) Yunnan, Diqing, Weixi County, Badi Township, Luoma Village [中国云南: 迪庆维西县巴迪乡洛马村], 27.889547°N, 98.932659°E, 2046 m, 2020.VI.27, leg. Li Hu; 1♀ (CAU) Yunnan, Lijiang, Yulong County, Baoshan Township, Chang Songping [中国云南: 丽江玉龙县宝山乡长松平], 27.38375°N, 100.3497°E, 3241 m, 2020.VII.6, leg. Chen Zhuo; 1♂ 1♀ (BMNH) Yunnan (caetera data nulla); 1♂ 2♀♀ (NMB) N. Yunnan, Lijiang, 2600 m, 1990.V.30–VII.2, leg., L. & M. Bocak; 1♂ (NMB) Yunnan, Kunming (Western Hills), 1990.VII.9, leg., L. & M. Bocak; 2♂♂ 1♀ (NMB) Yunnan, Weibaoshan mts., 25.12°N, 100.24°E, 2800–3000 m, 1992.VI.29–30, leg., Vit Kuban; 1♂ 3♀♀ (NMB) Yunnan prov., Yulongshan mts., 27.08°N, 100.14°E, 2900–3500 m, 1990.VII.7–12, leg., Vit Kuban. **XIZANG:** 1♀ (IZCAS) Xizang, Mêdog, Gedang [西藏墨脱格当], 1890–2040 m, 1982.IX.24, leg. Han Yinheng; 20 exx. (SYSU) Xizang, Yadong [西藏亚东], 2650 m, 1986.VII.30, leg. Liang Keqiu; 1♀ (IZCAS) Xizang, Bomi, Yigong [西藏波密易贡], 2300 m, 1983.VII.14, leg. Lin Zai; 1♂ (IZCAS) Xizang, Bomi, Yigong [西藏波密易贡], 2700 m, 1983.VIII.27, leg. Lin Zai; 1♀ (IZCAS) Xizang, Bomi, Yigong [西藏波密易贡], 2300 m, 1983.VII.23, leg. Lin Zai; 1♀ (IZCAS) Xizang, Nyingchi, Bayi [西藏林芝八一], 1984.VII.27, leg. Qu Sang; 7♂♂ 9♀♀ (IZCAS) Xizang, Zhangmu, Friendship Bridge [西藏樟木友谊桥], 1680 m, 1975.VI.22, leg. Zhang Xuezhong; 2♂♂ 1♀ (IZCAS) Xizang, Nyalam, Friendship Bridge [西藏聂拉木友谊桥], 1680 m, 1974.V.6, leg. Zhang Xuezhong; 1♀ (IZCAS) Xizang, Nyalam, Friendship Bridge [西藏聂拉木友谊桥], 1668 m, 1974.IV.23, leg. Zhang Xuezhong; 1♀ (IZCAS) Xizang, Nyalam, Friendship Bridge to Zhangmu [西藏聂拉木友谊桥–樟木], 1680–2250 m, 1974.V.4, leg. Zhang Xuezhong; 1♀ (IZCAS) Xizang, Nyalam County, Zhangmu Town [西藏聂拉木县樟木镇], 27.9788°N, 85.9785°E, 2306 m, 2019.VII.31, by sweeping net, leg. Zhao Kaidong; 1♂ 1♀ (IZCAS) Xizang, Gyirong County, Gyirong District [西藏吉隆县吉隆区], 2800 m, 1975.VII.19, leg. Zhang Xuezhong; 1♂ 1♀ (IZCAS) Xizang, Gyirong County, Gyirong District [西藏吉隆县吉隆区], 2800 m, 1975.VII.23, leg. Zhang Xuezhong; 1♀ (IZCAS) Xizang, Gyirong County [西藏吉隆县], 2800 m, 1975.VII.29, leg. Zhang Xuezhong; 3♂♂ (IZCAS) Xizang, Gyirong County, Gyirong Town, Bangxing Village [西藏吉隆县吉隆镇帮兴村], 28.43492°N, 85.25699°E, 2921 m, 2019.VIII.5, by yellow pan trap, leg. Zhao Kaidong, Wu Qingtao *et al.*; 2♂♂ (IZCAS) Xizang, Gyirong County, Gyirong Town, Jipu Village [西藏吉隆县吉隆镇吉普村], 28.3790°N, 85.3254°E, 2744 m, 2019.VIII.7, by sweeping net, leg. Zhao Kaidong; 2♂♂ (IZCAS) Xizang, Gyirong County, Gyirong Town, Bangxing Village [西藏吉隆县吉隆镇帮兴村], 28.4349°N, 85.2569°E, 2921 m, 2019.VIII.5, by sweeping net, leg. Zhao Kaidong; 1♀ (IZCAS) Xizang, Zayü, Sangjiu [西藏察隅桑久], 3000 m, 1973.VI.25, leg. Huang Fusheng; 1♀ (IZCAS) Xizang, Riwoqê, Sangduo [西藏类乌齐桑多], 3750 m, 1976.VIII.25, leg. Zhang Xuezhong; 1♀ (IZCAS) Xizang, Zayü, Kongqiao [西藏察隅空桥], 3820 m, 1973.VIII.20, leg. Huang Fusheng; 3♂♂ 1♀ (IZCAS) Xizang, Zayü County, Xia Zayü, pine path beside hotel [西藏察隅县下察隅宾馆旁松树小路], 28.7193°N, 96.7809°E, 1948 m, 2019.VIII.06, leg. Liang Jingyu & Jiang Kun; 1♀ (IZCAS) Xizang, Zayü County, Xia Zayü, pine path beside hotel [西藏察隅县下察隅宾馆旁松树小路], 28.7193°N, 96.7809°E, 1948 m, 2019.VII.06, leg. Zhang Renjie; 1♂ (IZCAS) Xizang, Cuona County, Le Township, Le Village, Simu Zha Scenic Area [西藏错那县勒乡勒村斯木札景区], 27.8262°N, 91.7293°E, 2793 m, 2016.VI.1, leg. Liang Hongbin; 89 exx. (IZCAS) Xizang, Cuona County, Le Township, Xian Village [西藏错那县勒乡贤村], 27.8430°N, 91.7589°E, 2800 m, 2016.VI.3, leg. Liang Hongbin; 1♀ (IZCAS) Xizang, Cuona County, Le Township, Le Village [西藏错那县勒乡勒村], 27.81843°N, 91.75286°E, 2384 m, 2019.VIII.20, leg. Zhao Kaidong, Yang Xiaoliang *et al.*; 2♂♂ 4♀♀ (IZCAS) Xizang, Cuona County, Lhünzê Menba Nationality Township, Lhünzê Valley [西藏错那县勒门巴民族乡勒布沟], 27.8025°N, 91.7444°E, 2350 m, 2019.VIII.20, by yellow pan trap, leg. Zhang Yanzhou; 9 exx. (IZCAS) Xizang, Nyingchi City, Pailong Township [西藏林芝市排龙乡], 30.0201°N, 95.0220°E, 1972 m, 2016.VI.14, leg. Liang Hongbin; 1♂ 1♀ (IZCAS) Xizang, Nyingchi City, Gengzhang Menba Nationality Township [西藏林芝市更章门巴族乡], 29.7463°N, 94.0819°E, 3192 m, 2019.VIII.13, leg. Zhang Renjie. **INDIA.** 1♀ (BMNH) Nainital Div., Kumaon. U.P., India. H.G.C., 1953, leg., G.C. Champion; 2♂♂ 3♀♀ (NMB) Naini Tal, India, 1932 m, 1961.VII, leg., G. Scherer. **NEPAL.** 1♂ (NMB) O. Nepal, Solo, 2880 m, 1979.VI.22, leg., Bhakta B. Ch; 1♀ (NMB) E. Nepal, Mutidhangachitre, 2200–2400 m,

1985.V.28, leg., M. Brancucci; 1♀ (NMB) W. Nepal, Parbat Distr., Kusma-Karkineta, 900–1600 m, 1986.VII.2, leg., C. Holzschun. **BHUTAN.** 3♂♂ 1♀ (NMB) Thimphu, 1972.V.31, leg., Nat.-Hist. Museum Basel—Bhutan Expedition 1972; 3♂♂ 6♀♀ (USNM) Bhutan, env. of Ha, Chihal La pass, forest, N27°22.302, E89°19.345, 1.IX.2005, 3473 m, leg. A. Konstantinov, K. D. Prathapan, K. Mahat & P. Loday; 1♂ (USNM) Bhutan, env. Ha, N27°25.402, E89°11.956, 30.VIII.2005, 3116 m, leg. A. Konstantinov, K. D. Prathapan, K. Mahat & P. Loday. **PAKISTAN.** 1♀ (NMB) Pakistan, Murree, 2050 m, 1977.VI.12, leg., Wittmer, Brancucci; 1♀ (NMB) Pakistan, Nathia Gall, Hazara, 8200 m (?), 1974.VI.14, leg., C. Baroni Urbani. **PHILIPPINES.** 2♂♂ (BMNH) Philippines, Luzon [=Luzon] (caetera data nulla).

Description. Body elongate-oval, dorsum moderately convex. Female body length 2.35–3.22 mm, width 1.30–1.50 mm; male body length 2.20–2.65 mm, width 1.00–1.28 mm. Maximum width of elytra 1.58 times as that of pronotum; humeral width (measured at the level of humeral calli) 1.35 times basal width of pronotum. Dorsum black, smooth and shiny, with strong bluish metallic luster, pronotum more or less greenish. Antennae dark brown to black, apical part of antennomere I and antennomeres II–III brown. Legs dark brown to black, tarsi brown to dark brown (Fig. 1A). Ventral surface black with faint bluish metallic luster (Fig. 1D).

Head. Vertex impunctate, with a transverse depression above antennal calli; surface smooth, with well-developed supraorbital punctures near orbital sulcus. Antennal calli poorly developed, barely delimited from vertex, surface smooth; supraorbital and orbital grooves well-developed, extending from upper eye margin to antennal socket. Midfrontal and suprafrontal sulci absent. Frontal ridge strongly raised but not sharp (Fig. 1C). Antennae slender, female antennae 0.88–0.93 times as long as body, male 1.07 times; antennomere II short and stout, antennomere III slightly longer than II, antennomere IV distinctly longer than III.

Thorax (Fig. 1D). Pronotum transverse, 1.35 times as wide as long; anterior margin slightly convex, posterior margin broadly rounded, lateral margins slightly convex, with maximum width at mid-length; anterior angles obliquely truncate, edges slightly thickened. Anterolateral callosity well developed, strongly protruded. Lateral margin narrowly explanate. Posterolateral callosity strongly prominent. Punctures fine, dense. Interspaces smooth. Scutellum bluntly triangular, surface weakly shagreened.

Elytra. Each elytron 2.89 times as long as wide, with well-developed humeral callus; lateral margins sub-parallel, apex broadly rounded; maximum width at mid-length. Punctures confused, coarse and dense, distinctly larger than those on pronotum. Hind wings fully developed.

Legs. Protarsomere I barely dilated, narrower than tibia, narrowed basally. Metatibia slender, curved outwards; Metatarsomere I of male 0.55 times as long as metatibia, 1.08 times as long as metatarsomeres II–IV combined. Metatibial spur 0.47 times as long as maximum width of metatibia.

Male genitalia (Fig. 1E–G). Median lobe of aedeagus gradually narrowed from base to apex, apex rounded, without projection. Ventral side with wide groove that closes just above basal opening. Apical part dorsally with arrowhead-shaped membranous window. Nearly straight in lateral view; dorsal side straight, ventral side convex.

Female genitalia. Receptacle of spermatheca oval; spermathecal pump slender, apical part longer than width of receptacle, apex narrowly rounded, neck extremely elongated; spermathecal duct short, uncoiled (Fig. 1H). Tignum rather stout, straight, heavily sclerotized, anteriorly dilated (Fig. 1I). Vaginal palpi slender, straight apically, apex obliquely truncate (Fig. 1J).

Differential diagnosis. This species can be distinguished from other species of the *L. cyanipennis* group by the following combination of characters: 1) Vertex bearing a distinct transverse depression and a strongly raised frontal ridge (Fig. 1C); 2) Male protarsomere I barely dilated, narrower than the apex of the tibia, narrowed basally (Fig. 1A); 3) Median lobe of the aedeagus slender and elongate (Fig. 1E); 4) Spermathecal duct uncoiled (Fig. 1H).

Host plant. *Lithospermum* sp. (Boraginaceae).

Distribution. Widespread in Southwest China (Gansu, Qinghai, Hunan, Sichuan, Yunnan, Xizang), South Asia (India, Bhutan, Nepal, Pakistan), and Southeast Asia (Vietnam, Philippines).

Etymology. This species is named after the late entomologist, Gilbert Ernest Bryant, in honor of his contributions to the taxonomic study of *Longitarsus*.

Remark. Specimens of this species have frequently been misidentified as *L. cyanipennis*. However, after examination of the type specimens of *L. cyanipennis*, we conclude that these specimens represent a distinct, previously unrecognized species. The new species can be distinguished from *L. cyanipennis* by the following external and genitalia morphological features: 1) Protarsomere in male is not dilated, whereas in *L. cyanipennis*, it is distinctly dilated; 2) The median lobe of the aedeagus has sub-parallel sides, in contrast to that of *L. cyanipennis*, which is constricted medially; 3) The spermatheca is slender, compared to the subovate spermatheca of *L. cyanipennis*.

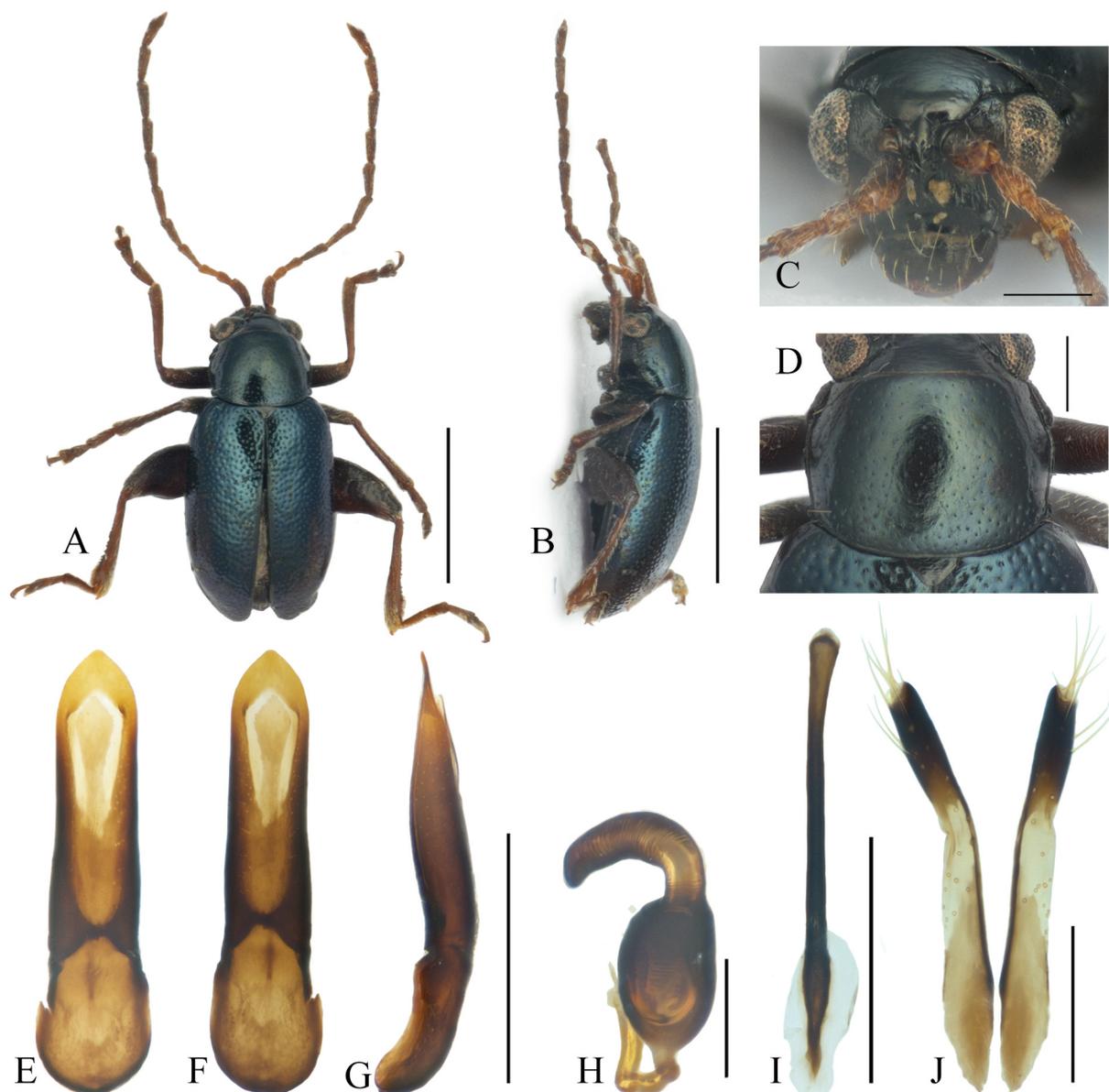


FIGURE 1. *Longitarsus bryanti* Liang & Konstantinov **sp. nov.** A–D. Holotype: **A.** Dorsal habitus. **B.** Lateral habitus. **C.** Head. **D.** Pronotum. E–J. Paratypes: **E.** Aedeagus, ventral view. **F.** Aedeagus, dorsal view. **G.** Aedeagus, lateral view. **H.** Spermatheca. **I.** Tignum. **J.** Vaginal palpi. Scale bars: 1 mm (A–B), 0.2 mm (C–D, J), 0.5 mm (E–G, I), 0.1 mm (H).

***Longitarsus chujoi* Csiki, 1939**

(Figs 2, 20)

Longitarsus flavicornis Chûjô, 1937: 97 (homonym, nec Stephens, 1831). TL: China (Taiwan); TD: TARI.

Longitarsus chujoi Csiki, 1939: 183 (replacement name for *Longitarsus flavicornis* Chûjô, 1937).

Type examined. Syntype: CHINA. Taiwan: (TARI) labels: 1) Arisan / 29.IV.1917 / Col. T. Shireki; 2) Cotype; 3) *Longitarsus flavicornis* CHÛJÔ / DET. M. CHÛJÔ (Fig. 2g–i).

Other material: CHINA. Taiwan: 1♂ (BMNH) Taiwan, Nantou County, Cingliou, 2016.IV.23, leg., E. Ruzzier, A. Serafin.

Description. Body oval, dorsum moderately convex. Body length 2.35 mm, width 1.04 mm. Maximum width of elytra 1.48 times as that of pronotum; humeral width 1.21 times basal width of pronotum. Dorsum black with strong

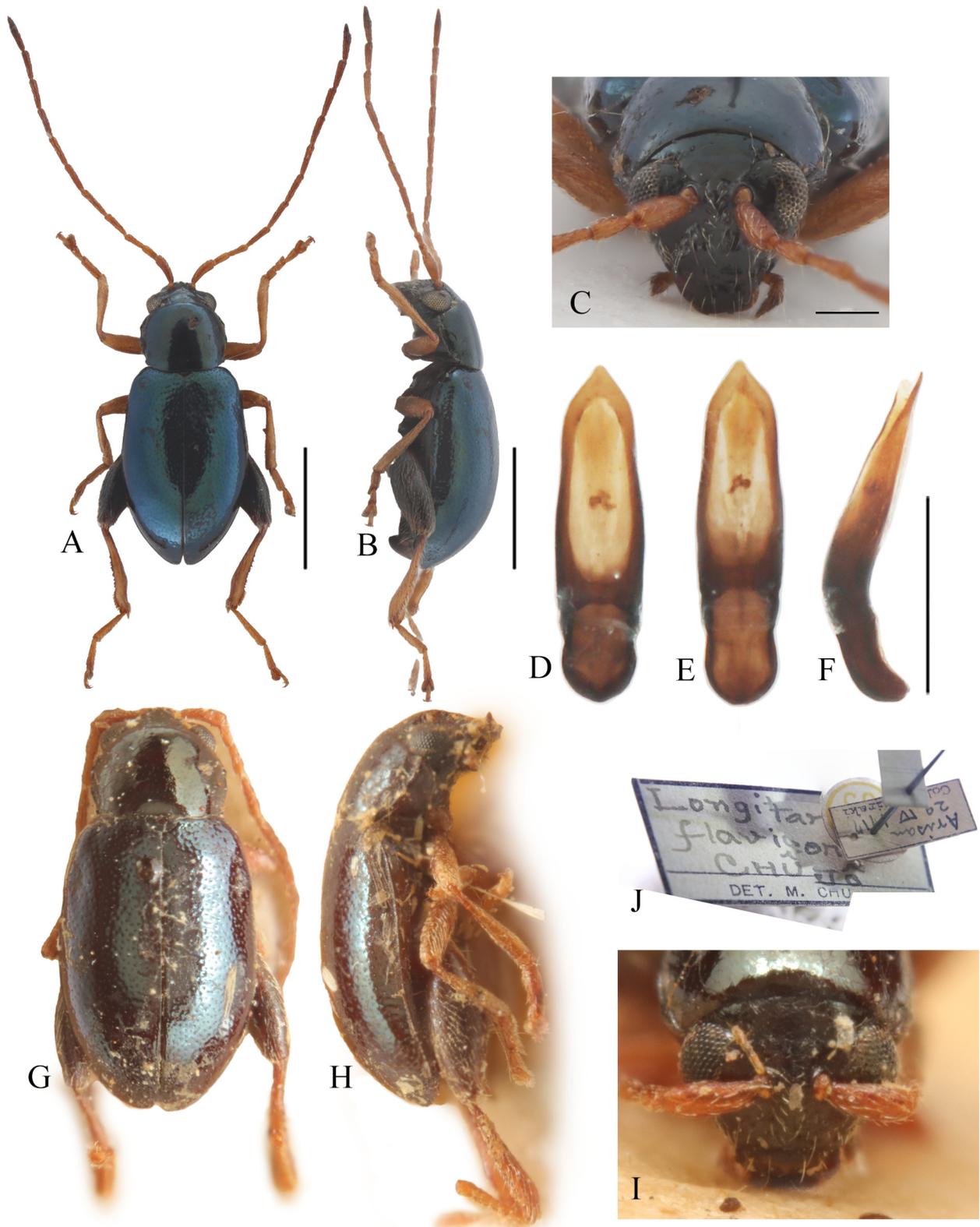


FIGURE 2. *Longitarsus chujoi* Csiki, 1937. **A.** Dorsal habitus. **B.** Lateral habitus. **C.** Head. **D.** Aedeagus, ventral view. **E.** Aedeagus, dorsal view. **F.** Aedeagus, lateral view. **G–I.** Syntype: **G.** Dorsal habitus. **H.** Lateral habitus. **I.** Head. **J.** Labels. Scale bars: 1 mm (A–B), 0.2 mm (C), 0.5 mm (D–F).

bluish metallic luster. Antennae brown, apical three or four antennomeres dark brown. Legs brown, metafemur dark brown (Fig. 2A, G). Ventral surface black (Fig. 2B, H).

Head. Vertex impunctate, surface smooth; antennal calli poorly developed, surface smooth; supraorbital and orbital grooves well-developed, extending from upper eye margin to antennal socket. Midfrontal sulcus absent. Frontal ridge raised but not sharp (Fig. 2C, I). Antennae slender, longer than body; antennomere II slightly shorter than III, antennomere IV longer than III.

Thorax. Pronotum sub-quadrate, 1.19 times as wide as long; anterior margin convex, posterior margin slightly convex, lateral margins rather straight; anterior angles obliquely truncate, edges slightly thickened. Anterolateral callosity moderately developed, not sharply protruding. Lateral margin narrowly explanate. Posterolateral callosity strongly prominent. Surface smooth, punctures fine and dense. Scutellum triangular, surface weakly shagreened.

Elytra. Elytron 3.13 times as long as wide, humeral callus prominent; lateral margins rounded. Punctures confused, fine and dense, distinctly larger than those on pronotum. Hind wings fully developed.

Legs. Protarsomere I not dilated, distinctly narrower than tibia. Metatibia slender, curved outwards. Metatarsomere I of male 0.56 times as long as metatibia, 1.08 times as long as metatarsomeres II–IV combined. Metatibial spur 0.61 times as long as maximum width of metatibia.

Male genitalia (Fig. 2D–F). Median lobe of aedeagus short and stout, slightly constricted medially, apex rounded with minute projection. Ventral groove wide, closed above basal opening. Straight, evenly narrowed from base to apex in lateral view.

Diagnosis. This species can be distinguished by the following combination of characters: 1) Antennae and legs, except for metafemur, largely brown, apical three or four antennomeres dark brown (Fig. 2A); 2) Pronotum sub-quadrate, 1.19 times as wide as long, surface smooth, punctures fine (Fig. 2A, C); 3) Male protarsomere I slender, narrower than protibia (Fig. 2A); 4) Median lobe of aedeagus robust, straight in lateral view (Fig. 2D–F).

Host plant. Unknown.

Distribution. China (Taiwan).

***Longitarsus cyanipennis* Bryant, 1924**

(Figs 3–5, 20)

Longitarsus cyanipennis Bryant, 1924: 249. TL: India (Punjab); TD: BMNH.

Longitarsus indigonaceus Lopatin, 1963: 366. TL: Afghanistan (Nuristan); TD: HNHM. **syn. nov.**

Type examined. *Longitarsus cyanipennis* Bryant, 1924: **HOLOTYPE:** INDIA. ♂ (BMNH) labels: 1) Type (red rounded label); 2) PUNJAB. Lahaul. / 1–9.viii.1922 / O.H. Walters.; 3) Pres. by Imp. Bur. Ent. Bris. Mus. / 1924-400; 4) *Longitarsus cyanipennis* Bryant / ♂ / Det. G. E. Bryant; 5) SYNTYPE (blue round label) (Fig. 4A, C, E, G, I–K). **PARATYPE:** INDIA. 1♀ (BMNH) labels: 1) Co-type (yellow rounded label); 2) PUNJAB. Lahaul. / 1–9.viii.1922 / O.H. Walters.; 3) Pres. by Imp. Bur. Ent. Bris. Mus. / 1924-400; 4) *Longitarsus cyanipennis* Bryant / ♀ / Det. G. E. Bryant; 5) SYNTYPE (blue round label) (Fig. 4B, D, F, H, L). (One paratype in NFIC, see Faisal & Singh 2018: 525, fig. 24).

***Longitarsus indigonaceus* Lopatin, 1963. PARATYPE: AFGHANISTAN.** ♂ (USNM) labels: 1) NO. Afghan. 1952 / J. Klapperich; 2) Nuristan Bashgultal; 3) Purstam / 1700 m, 19.VII; 4) *Longitarsus indigonaceus* m. / I. Lopatin det. 1969; 5) Paratypus; 6) 9403 (Fig. 5).

Other material: **BHUTAN.** 2♂♂ (NBCB, USNM) Bhutan, 25 km E Mongar, broad-leaved forest, N27°18.067, E91°19.745, 8.IX.2005, 2078 m, leg. A. Konstantinov, K. D. Prathapan, K. Mahat & P. Loday; 1♂ (USNM) Bhutan, env. of Thimphu, pine forest, swamp, 25.VIII.2005, N27 28.802, E89 36.102, 2723 m, leg. A. Konstantinov, K. D. Prathapan, K. Mahat & P. Loday; **INDIA.** 1♀ (BMNH) Sarju Valley, Kumaon, India. H.G.C., 1927, leg., G.C. Champion; 2♂♂ 1♀ (NMB) Jammu, Sarkandu-Inchan, 2350–2500 m, 1980.VII.18, leg., W. Wittmer; 1♀ (NMB) Kashmir, Lahinvan, 2600–3000 m, 1980.VII.21, leg., W. Wittmer; 4♂♂ 6♀♀ (NMB) Kashmir, Daksum, 2400–2700 m, 1976.VII.9–13, leg., W. Wittmer; 9♂♂ 10♀♀ (NMB) Kashmir, Sonamarg, 2600–2750 m, 1976.VII.17, leg., W. Wittmer; 1♀ (NMB) Kashmir, Yusmarg, 2300–2400 m, 1976.VII.5, leg., W. Wittmer.

Description. Body elongate-oval, dorsum moderately convex. Female body length 2.89 mm, width 1.48 mm; male body length 2.50 mm, width 1.16 mm. Maximum width of elytra 1.40 times as that of pronotum; humeral width 1.31 times basal width of pronotum. Dorsum black, smooth and shiny, with strong bluish metallic luster.

Antennae black, apical part of antennomere I and antennomeres II–III brown. Legs nearly black (Fig. 3A). Ventral surface black with faint bluish metallic luster (Fig. 3B).

Head. Vertex impunctate; surface smooth, with well-developed supraorbital punctures near orbital sulcus. Antennal calli poorly developed, barely delimited from vertex, surface smooth; supraorbital and orbital grooves well-developed, extending from upper eye margin to antennal socket. Midfrontal and suprafrontal sulci absent. Frontal ridge strongly raised but not sharp (Fig. 3C). Antennae slender, female antennae 0.86 times as long as body, male 1.02 times; antennomere III slightly longer than II, antennomere IV distinctly longer than III.

Thorax. Pronotum sub-quadrate, 1.27 times as wide as long; anterior margin slightly convex, posterior margin broadly rounded, lateral margins slightly convex, with maximum width at mid-length; anterior angles obliquely truncate, edges slightly thickened. Anterolateral callosity moderately developed, slightly protruded. Lateral margin narrowly explanate. Posterolateral callosity strongly prominent. Punctures fine and dense. Interspaces smooth. Scutellum bluntly triangular, surface smooth.

Elytra. Each elytron 2.92 times as long as wide, with well-developed humeral callus; lateral margins sub-parallel, apex broadly rounded; maximum width at mid-length. Punctures confused, coarse and dense, distinctly larger than those on pronotum. Hind wings fully developed.

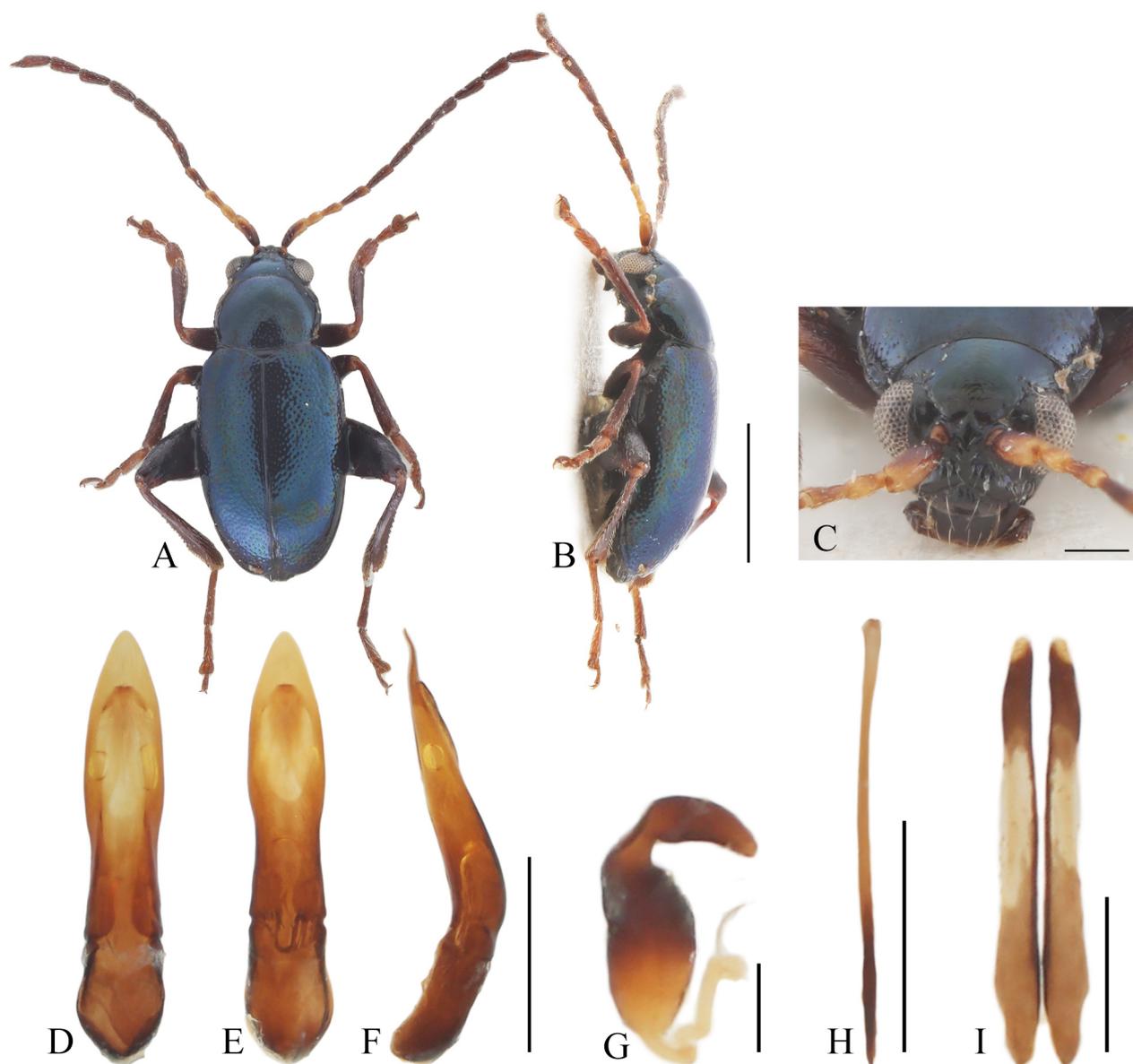


FIGURE 3. *Longitarsus cyanipennis* Bryant, 1924. **A.** Dorsal habitus. **B.** Lateral habitus. **C.** Head. **D.** Pronotum. **E.** Aedeagus, ventral view. **F.** Aedeagus, dorsal view. **G.** Aedeagus, lateral view. **H.** Spermatheca. **I.** Tignum. **J.** Vaginal palpi. Scale bars: 1 mm (A–B), 0.2 mm (C, I), 0.5 mm (D–F, H), 0.1 mm (H).

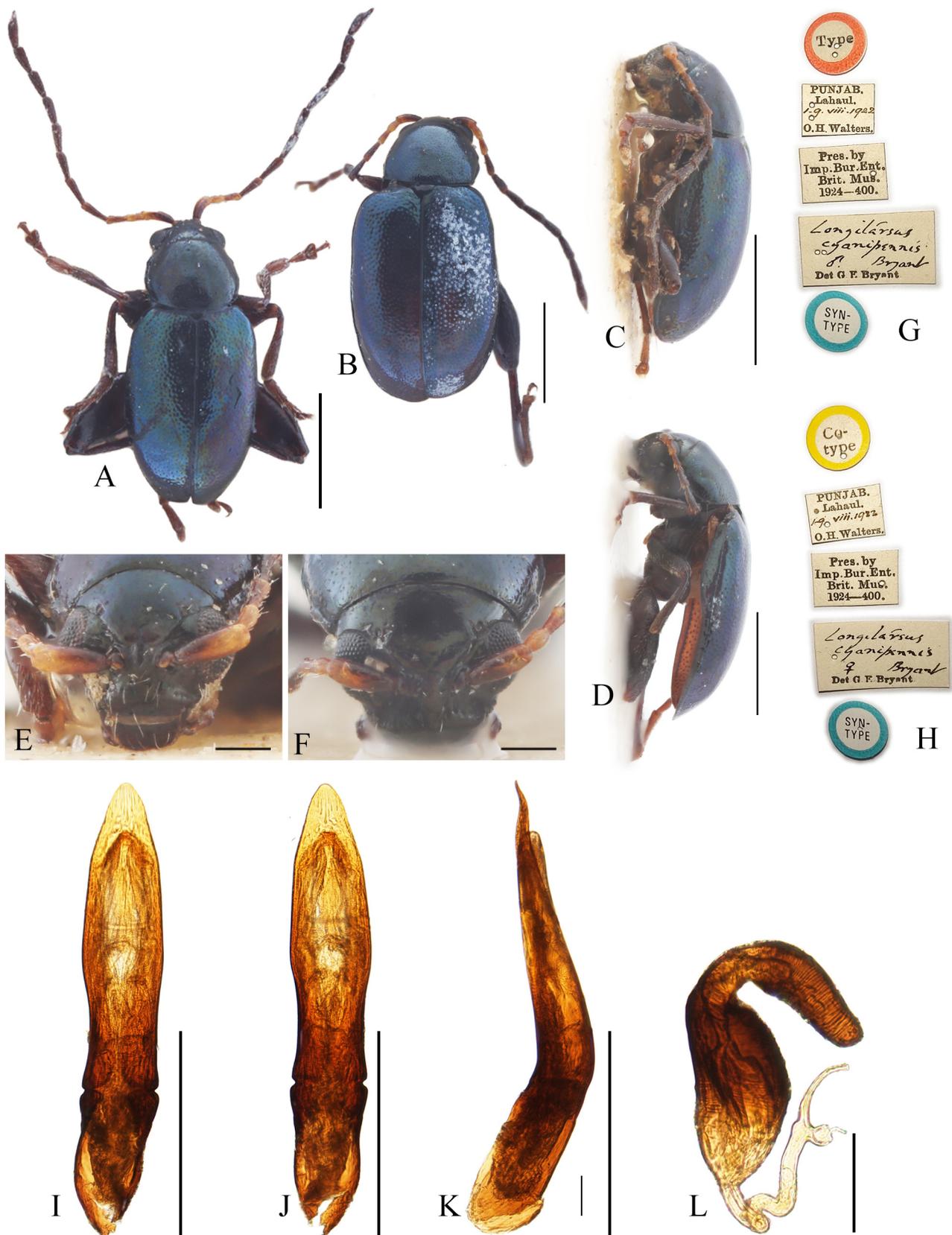


FIGURE 4. *Longitarsus cyanipennis* Bryant, 1924. **A.** Dorsal habitus, holotype. **B.** Dorsal habitus, paratype. **C.** Lateral habitus, holotype. **D.** Lateral habitus, paratype. **E.** Head, holotype. **F.** Head, paratype. **G.** Labels, holotype. **H.** Labels, paratype. **I–K.** Aedeagus, holotype: **I.** ventral view. **J.** dorsal view. **K.** lateral view. **L.** Spermatheca, paratype. Scale bars: 1 mm (A–D), 0.2 mm (E–F), 0.5 mm (I–K), 0.1 mm (L).

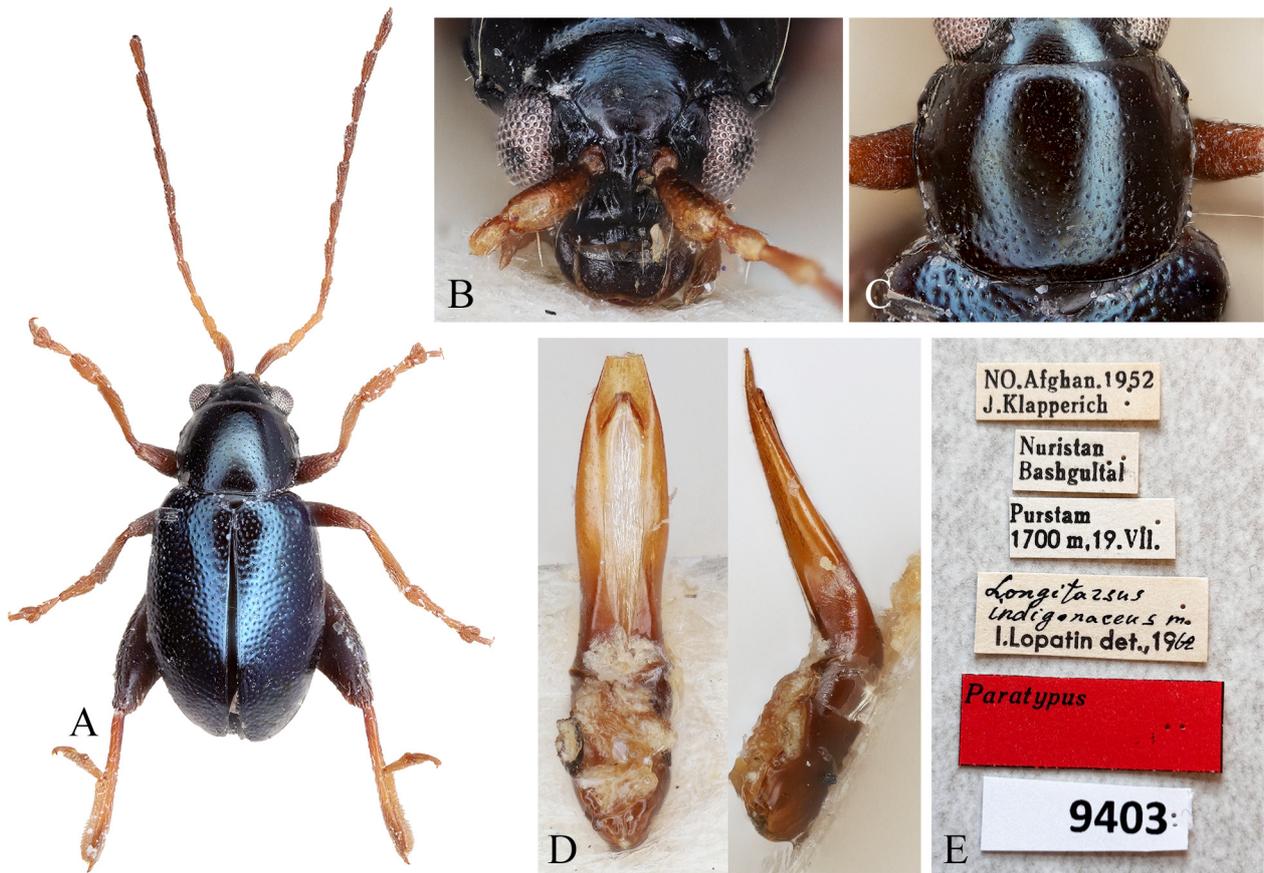


FIGURE 5. *Longitarsus indigonaceus* Lopatin, 1963 **syn. nov.**, paratype. **A.** Dorsal habitus. **B.** Head. **C.** Head. **D.** Aedeagus, ventral view and lateral view. **E.** Labels.

Legs. Protarsomere I strongly dilated, wider than protibia (Fig. 3A). Mesotarsomere I pyriform, base wider than mesotibia (Fig. 5A). Metatibia slender, slightly curved outwards. Metatarsomere I of male 0.55 times as long as metatibia, 1.31 times as long as metatarsomeres II–IV combined. Metatibial spur 0.57 times as long as maximum width of metatibia.

Male genitalia (Figs 3D–F, 4I–K). Median lobe of aedeagus slender, slightly constricted above basal opening, widest at mid-length, apex narrowly rounded, without apical projection. Ventral side with narrow groove that extends just above basal opening. Apical part dorsally with oval membranous window. Strongly curved just above basal opening in lateral view, other part nearly straight.

Female genitalia. Receptacle of spermatheca oval; spermathecal pump slender, apical part longer than width of receptacle, apex narrowly rounded, neck elongated; spermathecal duct with one or two coils (Figs 3G, 4L). Tignum slender, straight, apical part moderately sclerotized, anteriorly slightly dilated (Fig. 3H). Vaginal palpi slender, slightly curved inwards apically, apex narrowly rounded (Fig. 3H).

Diagnosis. This species can be distinguished by the following combination of characters: 1) Antennae and legs largely dark brown or black (Fig. 3A); 2) Pronotum sub-quadrate, 1.27 times as wide as long, punctures fine; 3) Male protarsomere I strongly dilated, wider than protibia, mesotarsomere I pyriform, base wider than mesotibia (Figs 3A, 5A); 4) Median lobe of aedeagus slender, strongly curved just above basal opening, other part nearly straight in lateral view (Fig. 3D–F).

Host plant. Unknown.

Distribution. Afghanistan, Bhutan, India.

Remark: Since its initial description, this species has been widely reported across China and adjacent countries. Unfortunately, most of these records are proven to be misidentifications of *L. bryanti* **sp. nov.** or *L. mauliki* **sp. nov.** (see nomenclatural synopses of the new species, *L. bryanti* **sp. nov.** and *L. mauliki* **sp. nov.**). However, some earlier

records could not be verified due to the lack of availability of relevant specimens and the brevity of documented information. For instance, Chen (1934a) and Chûjô (1937) reported this species from Taiwan. According to our study, the species is restricted to a narrow region along the southern slopes of the western Himalayas, which casts strong doubt on these earlier reports. The only reliably documented species of the *L. cyanipennis* group occurring in Taiwan is the endemic *L. chujoi*, which is easily distinguished from *L. cyanipennis* by its brown legs and antennae—a conspicuous difference that makes confusion between the two highly unlikely. Therefore, the Taiwan record may represent a misidentification of another known or yet undescribed species.

***Longitarsus jinpingensis* Liang & Konstantinov sp. nov.**

(Figs 6, 20)

Type material. HOLOTYPE: CHINA. Yunnan: ♂ (IZCAS) Yunnan, Jinping Hetouzhai [云南金平河寨], 1600–1700 m, 1956.V.12, leg. Huang Keren *et al.* **PARATYPE: CHINA. Yunnan:** 1♂ (IZCAS) Yunnan, Jinping Hetouzhai [云南金平河头寨], 2000 m, 1956.V.10, leg. Huang Keren *et al.*; 1♂ (USNM) Yunnan, Dali env. Cangshan Mts., river valley, 2200 m, 23.V.2002, N25°41'37", E100°07'45", leg. A. Konstantinov & M. Volkovitsh; 3♂♂ (USNM) Yunnan, Dali-Lijiang Rd. 94km, valley, 2470 m, 05.VI.2002, N26°14'41", E100°10'19", leg. A. Konstantinov & M. Volkovitsh.

Description. Body elongate-oval, dorsum moderately convex. Body length 1.75 mm, width 0.90 mm. Maximum width of elytra 1.56 times as that of pronotum; humeral width 1.29 times basal width of pronotum. Dorsum black, smooth and shiny, with strong bluish-purplish metallic luster. Scutellum pitch-black. Antennae dark brown, apical parts of antennomeres I–III slightly brown. Legs nearly black, tarsi brown to dark brown (Fig. 6A). Ventral surface black with faint bluish metallic luster (Fig. 6B).

Head. Vertex impunctate, surface with weak transverse wrinkles; antennal calli poorly developed, surface smooth; supraorbital and orbital grooves well-developed, extending from upper eye margin to antennal socket; supracallinal sulcus absent, boundary with vertex indistinct; frontal ridge slightly raised but not sharp; interantennal space slightly wider than antennal diameter (Fig. 6C). Antennae slender, 0.95 times as long as body; antennomere II as long as III, antennomere IV distinctly longer than III.

Thorax (Fig. 6D). Pronotum sub-quadrate, 1.27 times as wide as long; anterior margin slightly convex, posterior margin broadly rounded, lateral margins slightly convex; anterior angles obliquely truncate, edges slightly thickened. Anterolateral callosity well-developed, sharply protruded. Lateral margin narrowly explanate. Posterolateral callosity strongly prominent. Surface with fine and dense punctures, interspaces smooth. Scutellum linguiform, surface strongly shagreened.

Elytra. Each elytron 2.63 times as long as wide, with well-developed humeral callus; lateral margins slightly rounded, apex broadly rounded; maximum width at mid-length. Punctures confused, coarse and dense, distinctly larger than those on pronotum. Hind wings fully developed.

Legs. Protarsomere I of male slightly dilated, narrower than tibia. Mesotarsomere I narrower than mesotibia. Metatarsomere I of male 0.53 times as long as metatibia, 1.13 times as long as metatarsomeres II–IV combined. Metatibial spur 0.46 times as long as maximum width of metatibia.

Male genitalia (Fig. 6E–G). Median lobe of aedeagus rather slender, widest at mid-length, slightly narrowed towards both ends, apex narrowly rounded with minute projection. Ventral groove fusiform, narrow, closed above basal opening. Basal opening oval, widest at mid-length. Wide in lateral view, gradually narrowed towards apex, curved just above basal opening, ventral side sinuate, dorsal side rather straight.

Female unknown.

Differential diagnosis. This species closely resembles *L. nodulus*, but can be distinguished by its smaller body size and slightly shorter antennae (slightly shorter than body) (Fig. 6A). The median lobe of aedeagus is similar in general form, but differs in being widest at mid-length, gradually narrowing in the apical half to form an arrowhead-shaped apex (Fig. 6E–G), whereas in *L. nodulus*, it is widest near the base, and the apex is less acute (Fig. 12E–G). Additionally, the ventral groove is closed at the base, and the aedeagus appears broader in lateral view.

Host plant. Unknown.

Distribution. China (Yunnan).

Etymology. This species is named after its type locality, Jinping County, Yunnan, China.

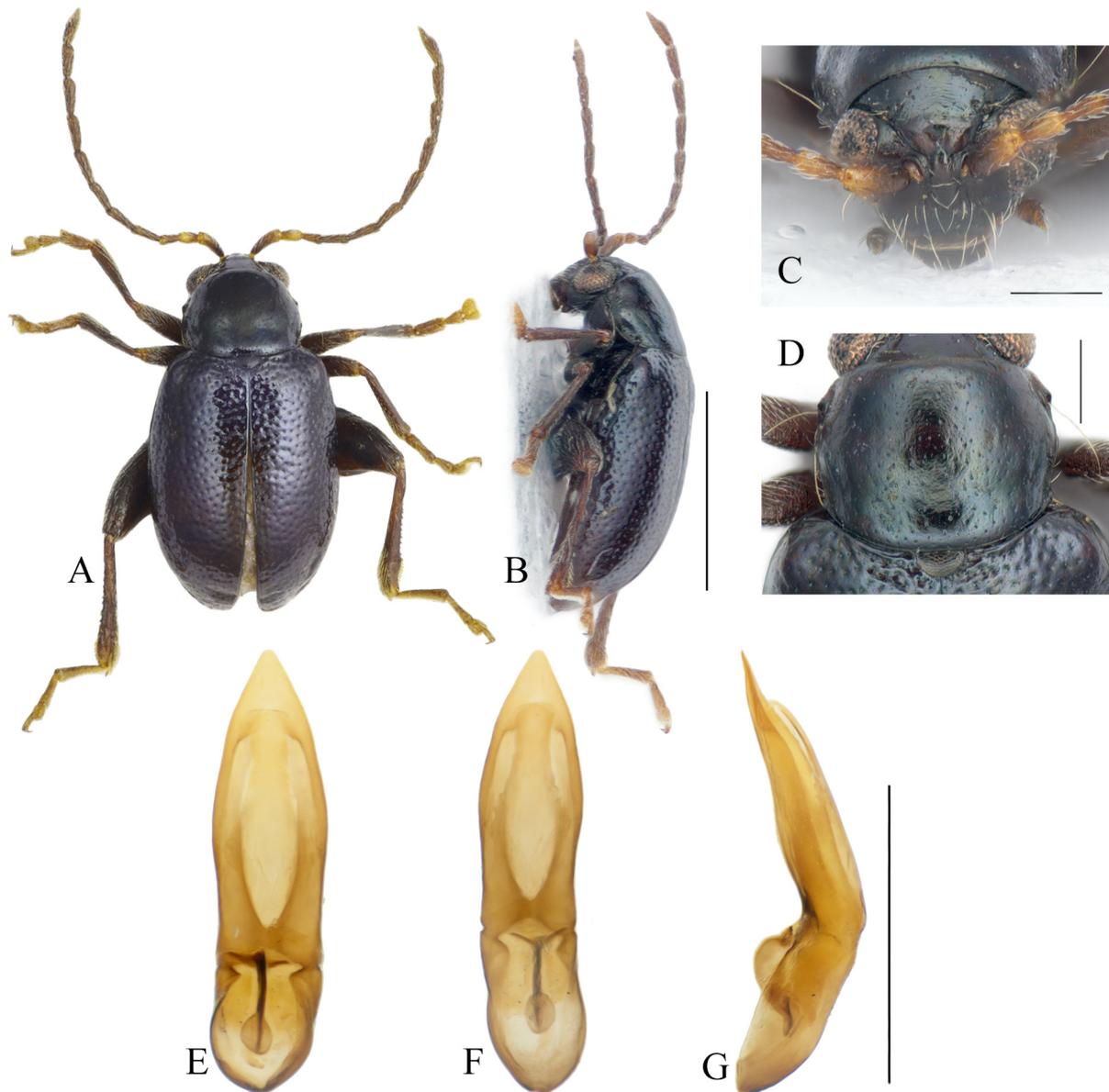


FIGURE 6. *Longitarsus jinpingensis* Liang & Konstantinov **sp. nov.**, holotype. **A.** Dorsal habitus. **B.** Lateral habitus. **C.** Head. **D.** Pronotum. **E.** Aedeagus, ventral view. **F.** Aedeagus, dorsal view. **G.** Aedeagus, lateral view. Scale bars: 1 mm (A–B), 0.2 mm (C–D), 0.5 mm (E–G).

Longitarsus latipenis* Liang & Konstantinov **sp. nov.*

(Figs 7, 20)

Type material. HOLOTYPE: CHINA. Xizang: ♂ (IZCAS) Xizang, Mêdog, Gelin [西藏墨脱格林], 1550–1900 m, 1983.V.24, leg. Lin Zai. **PARATYPES:** CHINA. Xizang: 3♂♂ 5♀♀ (IZCAS) same data as holotype; 3♂♂ (IZCAS) Xizang, Mêdog, Gelin [西藏墨脱格林], 1500–1900 m, 1983.V.25, leg. Lin Zai; 8♂♂ 12♀♀ (IZCAS) Xizang, Mêdog, Beibeng [西藏墨脱背崩], 850 m, 1983.III.11, leg. Han Yinheng; 2♂♂ 5♀♀ (IZCAS) Xizang, Mêdog, Beibeng [西藏墨脱背崩], 800–1000 m, 1983.III.28, leg. Lin Zai; 1♀ (IZCAS) Xizang, Mêdog, Beibeng [西藏墨脱背崩], 800–900 m, 1983.V.15, leg. Han Yinheng; 2♀♀ (IZCAS) Xizang, Mêdog, Maniweng [西藏墨脱马尼翁], 800–1020 m, 1983.VI.17, leg. Lin Zai; 2♀♀ (IZCAS) Xizang, Mêdog, Didong [西藏墨脱地东], 950–1000 m, 1983.VI.4, leg. Lin Zai; 1♀ (IZCAS) Xizang, Mêdog, Jialasa [西藏墨脱加拉萨], 950–1000 m, 1983.VI.4, leg. Lin Zai; 1♂ (IZCAS) Xizang, Mêdog [西藏墨脱], 1100 m, 1982.I.21, leg. Han Yinheng; 1♀ (IZCAS) Xizang, Mêdog [西藏墨脱], 800–1100 m, 1983.I.7–9, leg. Han Yinheng; 1♂ (IZCAS) Xizang, Mêdog [西藏墨脱],

1000–1200 m, 1983.I.14, leg. Han Yinheng; 1♀ (IZCAS) Xizang, Mêdog [西藏墨脱], 1000–1500 m, 1983.I.21, leg. Lin Zai; 2♀♀ (IZCAS) Xizang, Mêdog [西藏墨脱], 1000–1150 m, 1983.IV.28, leg. Lin Zai; 10 exx. (IZCAS) Xizang, Mêdog County, 4km S of 80K [西藏墨脱县80K南4公里], 29.6204°N, 95.4812°E, 1668 m, 2016.VI.16, leg. Liang Hongbin; 13 exx. (IZCAS) Xizang, Bomi County, Yigong Township, 13km on highway [西藏波密易贡乡公路13公里处], 30.1533°N, 94.9912°E, 2206 m, 2016.VI.14, leg. Liang Hongbin.

Description. Body elongate-oval, dorsum moderately convex. Male body length 1.95–2.1 mm, width 0.9–1.0 mm; female body length 2.1–2.5 mm, width 1.05–1.2 mm. Maximum width of elytra 1.51 times as that of pronotum; humeral width 1.38 times basal width of pronotum. Dorsum black, smooth and shiny, with strong blue metallic luster. Scutellum pitch black. Antennae and legs black (Fig. 7A). Ventral surface black with faint blue metallic luster (Fig. 7B).

Head. Vertex impunctate, surface smooth; antennal calli poorly developed, barely delimited from vertex, surface smooth; supraorbital and orbital grooves well-developed, extending from upper eye margin to antennal socket; supracallinal sulcus absent. Frontal ridge slightly raised, interantennal space 1.80 times as wide as antennal socket (Fig. 7C). Antennae very slender, female antennae 0.97 times as long as body, male 1.08 times; antennomere II as long as III, antennomere IV distinctly longer than III.

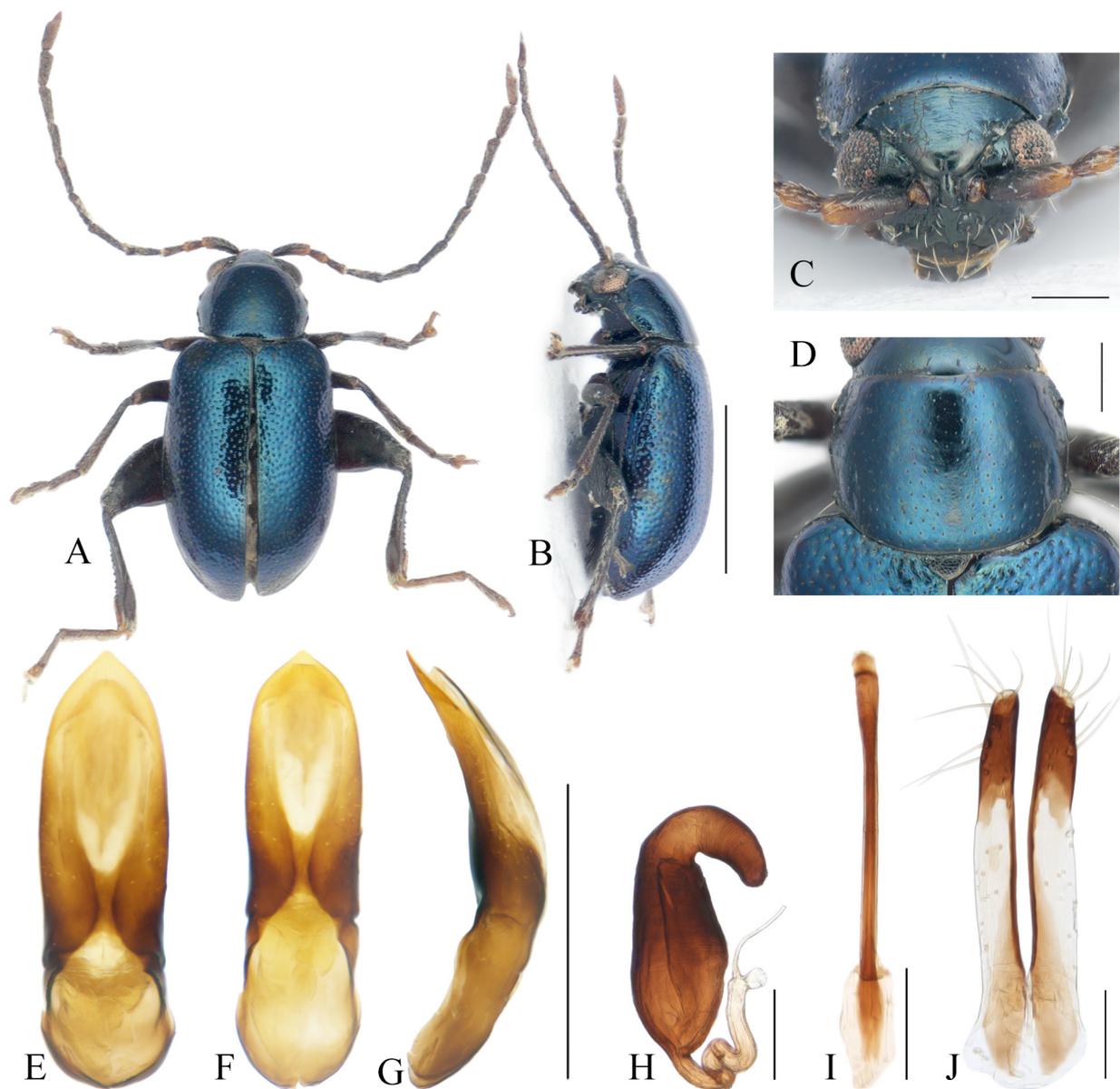


FIGURE 7. *Longitarsus latipenis* Liang & Konstantinov sp. nov., holotype. **A.** Dorsal habitus. **B.** Lateral habitus. **C.** Head. **D.** Pronotum. **E.** Aedeagus, ventral view. **F.** Aedeagus, dorsal view. **G.** Aedeagus, lateral view. **H.** Spermatheca. **I.** Tignum. **J.** Vaginal palpi. Scale bars: 1 mm (A–B), 0.2 mm (C–D, I), 0.5 mm (E–G), 0.1 mm (H, J).

Thorax (Fig. 7D). Pronotum transverse, 1.34 times as wide as long; anterior margin straight, posterior margin broadly rounded, lateral margins slightly convex, with maximum width at mid-length. Anterior angles obliquely truncate, edges slightly thickened. Anterolateral callosity poorly developed, not protruded. Lateral margin narrowly explanate. Posterolateral callosity strongly prominent. Punctures fine and dense. Interspaces smooth. Scutellum triangular, surface strongly shagreened.

Elytra. Each elytron 3.05 times as long as wide, lateral margins sub-parallel, maximum width slightly behind mid-length; with well-developed humeral callus. Punctures confused, coarse and dense, distinctly larger than those on pronotum. Hind wings fully developed.

Legs. Protarsomere I and mesotarsomere I of male slightly dilated, slightly narrower than tibia. Metatibia rather slender, slightly curved. Metatarsomere I 0.51 times as long as metatibia, 1.25 times as long as metatarsomeres II–IV combined. Metatibial spur short, 0.48 times as long as maximum width of metatibia.

Abdomen. Last abdominal ventrite of male with a central pit subapically.

Male genitalia (Fig. 7E–G). Median lobe short and stout, widest at mid-length, sides sub-parallel, apex rounded with a minute apical projection. Ventral groove rather wide apically, narrowed at base, almost closed. Basal opening nearly circular, widest at mid-length. Lateral view rather wide, strongly and evenly curved, gradually narrowed from mid-length to apex.

Female genitalia. Receptacle of spermatheca rather slender; spermathecal pump not well-developed, apical part curved, shorter than width of receptacle, apex narrowly rounded, neck short and indistinct; spermathecal duct with two to three spiral coils at middle (Fig. 7H). Tignum rather slender, straight, anteriorly slightly dilated (Fig. 7I). Vaginal palpi rather slender, straight apically, apex obliquely truncate (Fig. 7J).

Differential diagnosis. This species closely resembles *Longitarsus bryanti* sp. nov., but can be distinguished by its smaller body size and the interantennal space, which is only slightly raised and does not form a sharp ridge (Fig. 7C). Additionally, the median lobe is considerably shorter and stouter, strongly curved in lateral view (Fig. 7E–G); the spermathecal receptacle is more slender; and the spermathecal pump is shorter than that of *L. bryanti*, with the neck less distinct (Fig. 7H).

Host plant. Unknown.

Distribution. China (Xizang: Mêdog and Bomi).

Etymology. The specific name is derived from the Latin words "latus" (wide) and "penis" (aedeagus), referring to its short and stout median lobe of aedeagus.

Longitarsus lijiangensis Liang & Konstantinov sp. nov.

(Figs 8, 20)

Type material. HOLOTYPE: CHINA. Yunnan: ♂ (IZCAS) Yunnan, rd N. Lijiang to Shangrila, WP-298 (St1), N27°14.698, E100°01.419, 2088 m, 29.VII.2011, leg. A. Konstantinov/ 1676. PARATYPES: CHINA. Yunnan: 1♂ 1♀ (IZCAS, USNM) the same label as the holotype.

Description. Body elongate, dorsum moderately convex. Male body length 1.94–2.10 mm, width 0.91–1.00 mm; female body length 2.21 mm, width 1.13 mm. Maximum width of elytra in male 1.38 times as that of pronotum; humeral width 1.36 times basal width of pronotum. Dorsum black, smooth and shiny, with blue metallic luster. Scutellum black. Base of antennomere I brown. Antennomere II light brown, following antennomeres gradually darker. Pro- and mesofemora dark brown. Metafemur black. Tibiae and tarsi light brown to dark yellow with middle of pro- and mesotibiae slightly darker (Fig. 8A). Ventral surface black with faint blue metallic luster (Fig. 8B).

Head. Vertex impunctate, surface smooth; antennal calli poorly developed, barely delimited from vertex, surface smooth; supraorbital and orbital grooves well-developed, extending from upper eye margin to antennal socket; supracallinal sulcus absent. Frontal ridge raised, interantennal space 1.25 times as wide as antennal socket. Male lower part of frons and base of mandibles about as wide as space between eyes (Fig. 8C). Antennae slender, female antennae 1.07 times as long as body, male 1.08 times; male antennomeres III to V much wider apically than basally in dorsal view; male antennomeres VIII to X asymmetrical with inner surface much more convex than outer in dorsal view; antennomere II as long as III, antennomere IV distinctly longer than III (Fig. 8A).

Thorax (Fig. 8D). Pronotum slightly transverse, in male 1.3 times as wide as long; anterior margin straight, posterior margin rounded, lateral margins slightly convex, with maximum width slightly before mid-length. Anterior angles obliquely truncate, edges slightly thickened. Anterolateral callosity poorly developed, not protruded. Lateral

margin narrowly explanate. Posterolateral callosity strongly prominent. Punctures fine and sparse. Interspaces smooth. Scutellum triangular, surface strongly shagreened.

Elytra. Each male elytron 3.38 times as long as wide, lateral margins slightly curved, maximum width slightly behind mid-length; humeral callus absent. Punctures confused, coarse and dense, distinctly larger than those on pronotum. Hind wings fully absent.

Legs. Male protarsomere I strongly enlarged; mesotarsomere I of male pyriform, at base as wide as mesotibia (Fig. 8A). Metatibia rather slender, slightly curved. Metatarsomere I 0.54 times as long as metatibia, 1.05 times as long as metatarsomeres II–IV combined. Metatibial spur short, 0.42 times as long as maximum width of metatibia.

Abdomen. Last abdominal ventrite of male with a shiny elongate central depression lacking setae.

Male genitalia (Fig. 8E–G). Median lobe short and stout, widest at mid-length, gradually narrowing towards apex, apex rounded without differentiated apical projection. Basal part strongly constricted above basal opening. Ventral groove short, narrowing basally and apically, almost closed. In lateral view, much wider basally than apically; apex slightly bent dorsally.

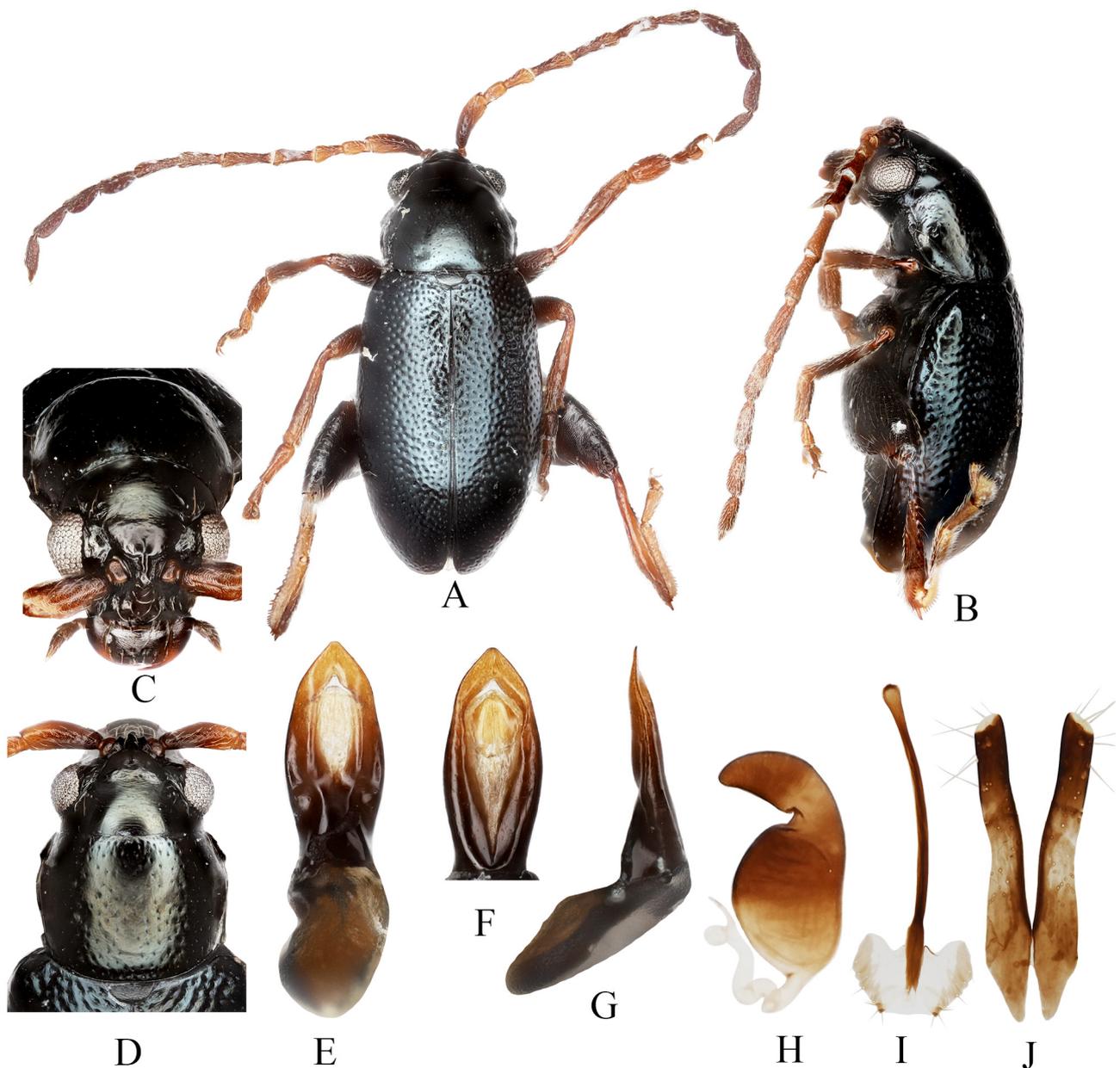


FIGURE 8. *Longitarsus lijiangensis* Liang & Konstantinov **sp. nov.** A–G. Holotype: A. Dorsal habitus. B. Lateral habitus. C. Head. D. Pronotum. E. Aedeagus, ventral view. F. Aedeagus, dorsal view. G. Aedeagus, lateral view. H–J. Paratype: H. Spermatheca. I. Tignum. J. Vaginal palpi.

Female genitalia. Receptacle of spermatheca rather robust; spermathecal pump short, apical part slightly curved, shorter than width of receptacle, apex narrowly rounded, neck short; spermathecal duct with two to three coils near base (Fig. 8H). Tignum rather slender, curved, anteriorly slightly dilated (Fig. 8I). Vaginal palpi slender, straight and nearly parallel apically, apex obliquely truncate (Fig. 8J).

Differential diagnosis. This species closely resembles *L. radialis* **sp. nov.**, especially in the shape of the median lobe of the aedeagus (Figs 8E–G, 14E–G) and male mesotarsomeres I. It can be distinguished by its bluish body and male lower part of the frons and base of mandibles about as wide as space between eyes (Fig. 8C). Additionally, the median lobe is considerably narrower apically in lateral view (Fig. 8G); the spermathecal receptacle is more slender; the spermathecal pump is shorter than that of *L. bryanti* **sp. nov.**, with the neck less distinct (Fig. 8H). *Longitarsus lijiangensis* **sp. nov.** is also similar to *L. jinpingensis* **sp. nov.** based on the similar general shape of the median lobe of the aedeagus (Fig. 6E–G) and male mesotarsomere I (Fig. 6A). It can be differentiated from it by male lower part of the frons and base of mandibles about as wide as space between eyes, and by the shape of the median lobe of the aedeagus with much shorter ventral groove. Additionally, base of pronotum of *L. jinpingensis* **sp. nov.** has a shallow transverse groove (Fig. 6A, D).

Host plant. Unknown.

Distribution. China (Yunnan).

Etymology. This species is named after its type locality, north of Lijiang, Yunnan, China.

Longitarsus lodayi Liang & Konstantinov **sp. nov.**

(Figs 9, 20)

Type material. HOLOTYPE: BHUTAN. ♂ (NBCB) Bhutan, Tongsa dist. W Tongsa, dark valley, N27°28.624 E90°28.802, 11.IX.2005, 2285 m, A. Konstantinov, K. D. Prathapan, K. Mahat & P. Loday. **PARATYPES: BHUTAN.** 3 ♂♂ 2 ♀♀ (NBCB, USNM) the same label as the holotype.

Description. Body elongate-oval, dorsum moderately convex. Male body length 1.72–2.00 mm, width 0.91–0.97 mm. Female body length 2.00 mm, width 1.02 mm. Maximum width of male elytra 1.66 times width of pronotum; humeral width 1.52 times basal width of pronotum. Dorsum black, shiny, with bluish-green metallic luster. Elytra more bluish than blackish pronotum. Vertex greenish. Scutellum black. Antennae and legs dark brown, with antennomeres II and III and tarsi much lighter (Fig. 9A). Venter black with faint bluish metallic luster (Fig. 9B).

Head. Vertex smooth with a few sharp punctures. Antennal calli barely developed, delimited from vertex by shallow invagination of surface above them; surface smooth; supraorbital and orbital sulci well-developed, extending from upper part of eye to upper part of antenna; supracallinal sulcus absent. Frontal ridge raised (Fig. 9D). Antennae relatively stout; 0.95 times as long as body in both sexes; antennomere II about as long as III; antennomere IV distinctly longer than III.

Thorax (Fig. 9C). Pronotum subquadrate, 1.3 times as wide as long; anterior margin straight, posterior margin rounded, lateral margins convex. Anterior angles obliquely truncate, edges slightly thickened. Anterolateral callosity moderately developed, slightly protruding laterally. Lateral margin narrowly explanate. Posterolateral callosity prominent. Surface with fine, sparse punctures, interspaces smooth. Scutellum linguiform, surface shagreened.

Elytra. Each elytron 2.52 times as long as wide, with well-developed humeral callus; lateral margins slightly convex, apex broadly rounded; maximum width near mid-length. Punctures confused, clear and dense, distinctly larger than those on pronotum. Hind wings fully developed.

Legs. Protarsomere I of male dilated, slightly narrower than protibia; mesotarsomere I slightly dilated, pyriform, narrower than mesotibia. Metatibia relatively slender, straight. Metatarsomere I of male 0.57 times as long as metatibia, 1.35 times as long as metatarsomeres II–IV combined. Metatibial spur 0.40 times as long as maximum width of metatibia.

Abdomen. Last abdominal ventrite in male medially with rough surface.

Male genitalia (Fig. 9E–H). Median lobe short and stout, widest at mid-length and gradually narrowing to base and apex; apex spearhead-shaped, without apical projection. Ventral groove relatively wide, base distinctly constricted and closed. Basal opening oval, widest at mid-length. Strongly curved above basal opening in lateral view, rest curved ventrally above basal opening.

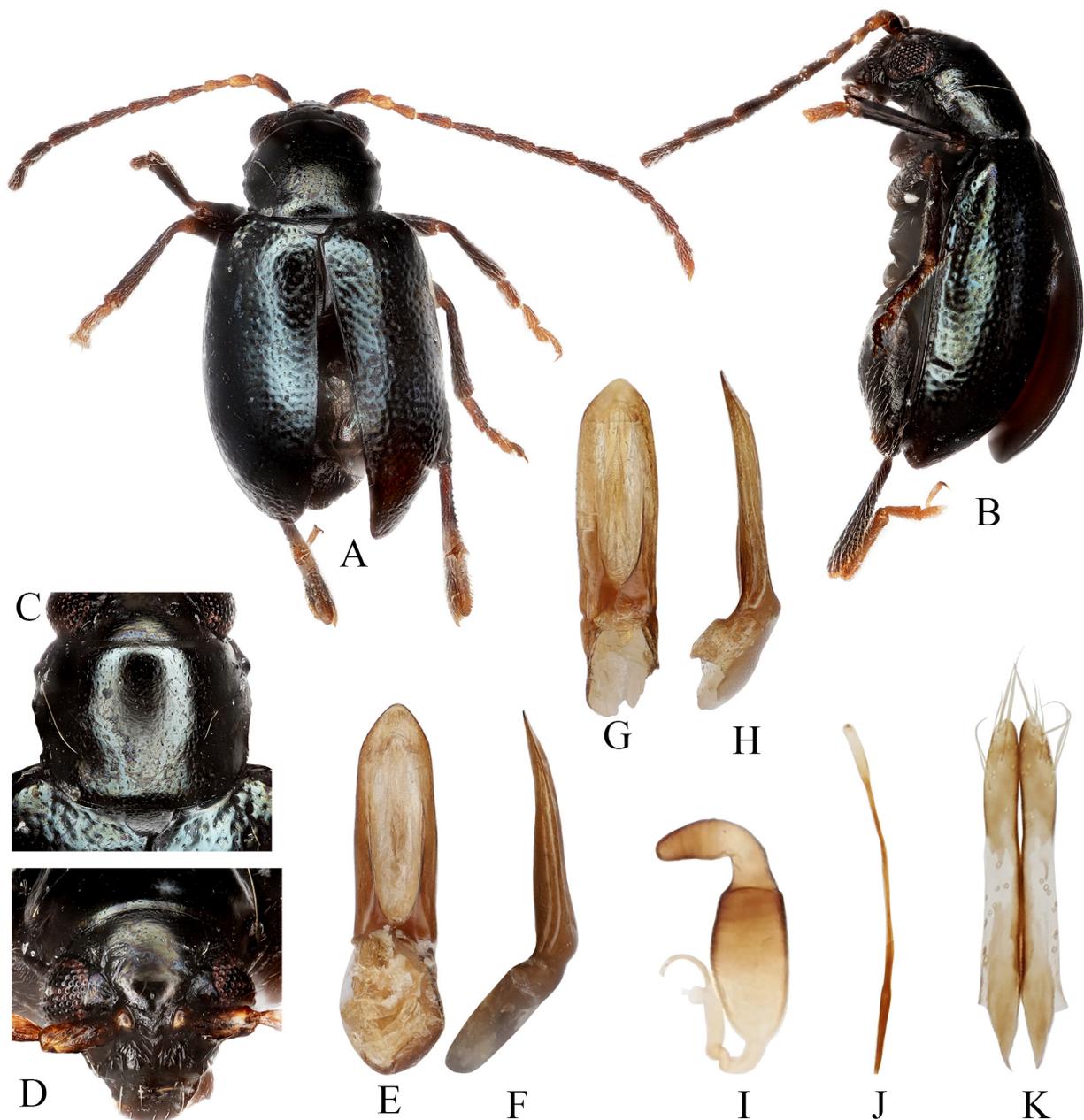


FIGURE 9. *Longitarsus lodayi* Liang & Konstantinov **sp. nov.** A–F. Holotype: **A.** Dorsal habitus. **B.** Lateral habitus. **C.** Pronotum. **D.** Head. **E.** Aedeagus, ventral view. **F.** Aedeagus, lateral view. **G–K.** Paratypes: **G.** Aedeagus, ventral view. **H.** Aedeagus, lateral view. **I.** Spermatheca. **J.** Tignum. **K.** Vaginal palpi.

Female genitalia. Receptacle and pump of spermatheca slender; pump longer than width of receptacle, apex rounded; spermathecal duct with one or two spiral coils at middle (Fig. 9I). Tignum slender, curved, anterior end narrow (Fig. 9J). Vaginal palpi relatively slender, apex slightly curved inward, tip obliquely truncate (Fig. 9K).

Differential diagnosis. This species closely resembles *L. nodulus*, *L. viridis* **sp. nov.**, and *L. zhejiangensis* **sp. nov.** by the shape of the median lobe (Figs 12E–G, 15E–G, 19E–G). *Longitarsus lodayi* **sp. nov.** may be differentiated from *L. nodulus* based on the following characters: greenish color of dorsum; slightly different color of pronotum and elytra; lighter color of antennae and tarsi; smaller punctures on pronotum; and basally closed ventral groove of the median lobe. From *L. viridis* **sp. nov.**, it may be separated based on the following: vertex lacking transverse wrinkles; smaller punctures on pronotum; median lobe with blunter apex and basally closed ventral groove. From *L. zhejiangensis* **sp. nov.**, it may be differentiated based on the following features: smaller pronotal punctures; and median lobe with blunter apex and ventral groove much wider before basal opening.

Etymology. This species is named in honor of the late Phuntsho Loday, a Bhutanese entomologist who traveled with us in 2005.

Host plant. Unknown.

Distribution. Bhutan.

***Longitarsus mauliki* Liang & Konstantinov sp. nov.**

(Figs 10, 20)

Longitarsus cyanipennis (nec Bryant, 1924, misident.): Maulik 1926: 338 (part, India).

Type material. HOLOTYPE: INDIA. ♂ (BMNH) labels: 1) W. Almora, Rumaon, India. H.G.C.; 2) *Longitarsus cyanipennis* Bryant, 1924. Det. S. Maulik. 1925; 3) B. M. 1927-92 / G. C. Champion; 4) *Longitarsus mauliki* sp. nov. / 毛氏长跗跳甲 / Det. Z-L, Liang 2024; HOLOTYPE (red label). **PARATYPE: INDIA.** 1♂ (BMNH) same data as holotype.

Description. Body elongate-oval, dorsum moderately convex. Body length 2.0–2.1 mm, width 1.0 mm. Maximum width of elytra 1.65 times as that of pronotum; humeral width 1.47 times basal width of pronotum. Dorsum black, smooth and shiny, with strong purplish metallic luster. Antennae black, with apical part of antennomere I and antennomere II–III brown. Legs black (Fig. 10A). Ventral surface black with faint bluish metallic luster (Fig. 10B).

Head. Vertex impunctate; surface smooth, with well-developed supraorbital punctures near orbital sulcus. Antennal calli poorly developed, poorly delimited from vertex, surface smooth; supraorbital and orbital grooves well-developed, extending from upper eye margin to antennal socket. Midfrontal and suprafrontal sulci absent. Frontal ridge strongly raised but not sharp. Interantennal space 1.21 times as wide as antennal socket (Fig. 10C). Antennae slender, as long as body; antennomere III slightly longer than II, antennomere IV distinctly longer than III.

Thorax. Pronotum rather transverse, 1.31 times as wide as long; anterior margin slightly convex, posterior margin broadly rounded, lateral margins convex, with maximum width slightly behind mid-length; anterior angles obliquely truncate, edges slightly thickened. Anterior angles obliquely truncate, edges slightly thickened. Anterolateral callosity moderately developed, slightly protruded. Lateral margin narrowly explanate. Posterolateral callosity strongly prominent. Punctures barely visible. Interspaces smooth. Scutellum bluntly triangular, surface weakly shagreened.

Elytra. Each elytron 2.86 times as long as wide, with well-developed humeral callus; lateral margins sub-parallel, apex broadly rounded; maximum width at mid-length. Punctures confused, coarse and dense, distinctly larger than those on pronotum. Hind wings fully developed.

Legs. Protarsomere I not dilated, narrower than tibia. Metatibia slender, curved outwards. Metatarsomere I of male 0.59 times as long as metatibia, 1.20 times as long as metatarsomeres II–IV combined. Metatibial spur 0.78 times as long as maximum width of metatibia.

Male genitalia (Fig. 10D–F). Median lobe of aedeagus short and stout, sides parallel, apex rounded, with a minute projection. Ventral side with wide groove that closes above basal opening. Strongly bent just above basal opening in lateral view, rest nearly straight.

Female unknown.

Differential diagnosis. This species is similar to *L. nodulus* and *L. chujoi* in having similar short and stout aedeagi (Figs 2D–F, 12E–G), especially in lateral view. It can be recognized by the large metatibial spur and the parallel-sided median lobe (Fig. 10A, D). Besides, the legs and antennae are largely black in this species, while brown in *L. chujoi* (Fig. 2A).

Etymology. This species is named after the late entomologist S. Maulik, who authored the monograph “The Fauna of British India, including Ceylon and Burma, Coleoptera. Chrysomelidae (Chrysomelinae and Halticinae)”, in honor of his contributions to the taxonomic study of Chrysomelidae.

Host plant. Unknown.

Distribution. India (W. Almora).

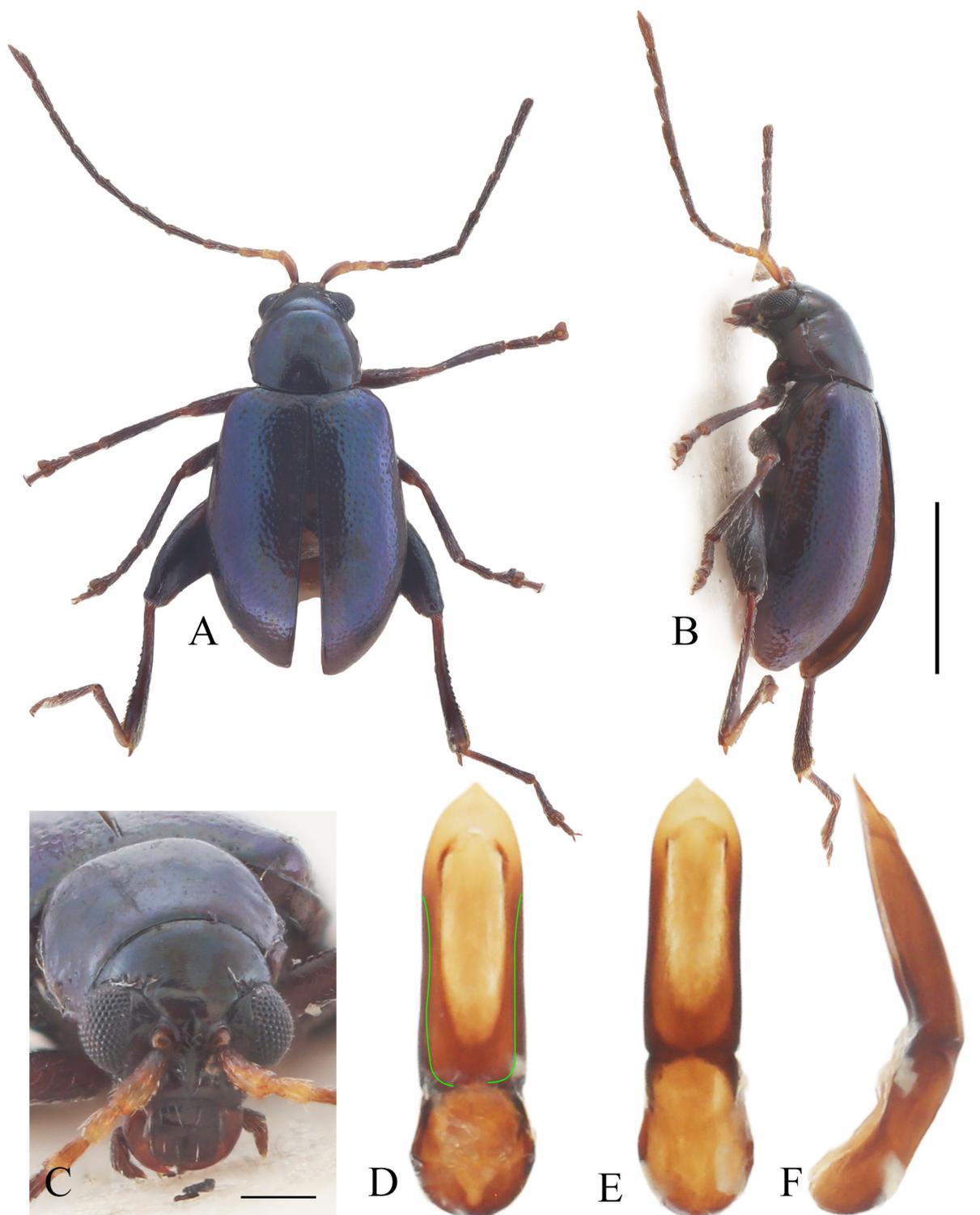


FIGURE 10. *Longitarsus mauliki* Liang & Konstantinov **sp. nov.**, holotype. **A.** Dorsal habitus. **B.** Lateral habitus. **C.** Head. **D.** Aedeagus, ventral view. **E.** Aedeagus, dorsal view. **F.** Aedeagus, lateral view. The green lines in *d* indicate the lateral borders of the ventral groove of aedeagus. Scale bars: 1 mm (A–B), 0.2 mm (C), 0.5 mm (D–F).

Longitarsus medogensis* Liang & Konstantinov **sp. nov.*

(Figs 11, 20)

Type material. HOLOTYPE: CHINA. Xizang: ♂ (IZCAS) Xizang, Mêdog, Bangxin [西藏墨脱邦辛], 1200 m, 1982.XI.29, leg. Han Yinheng.

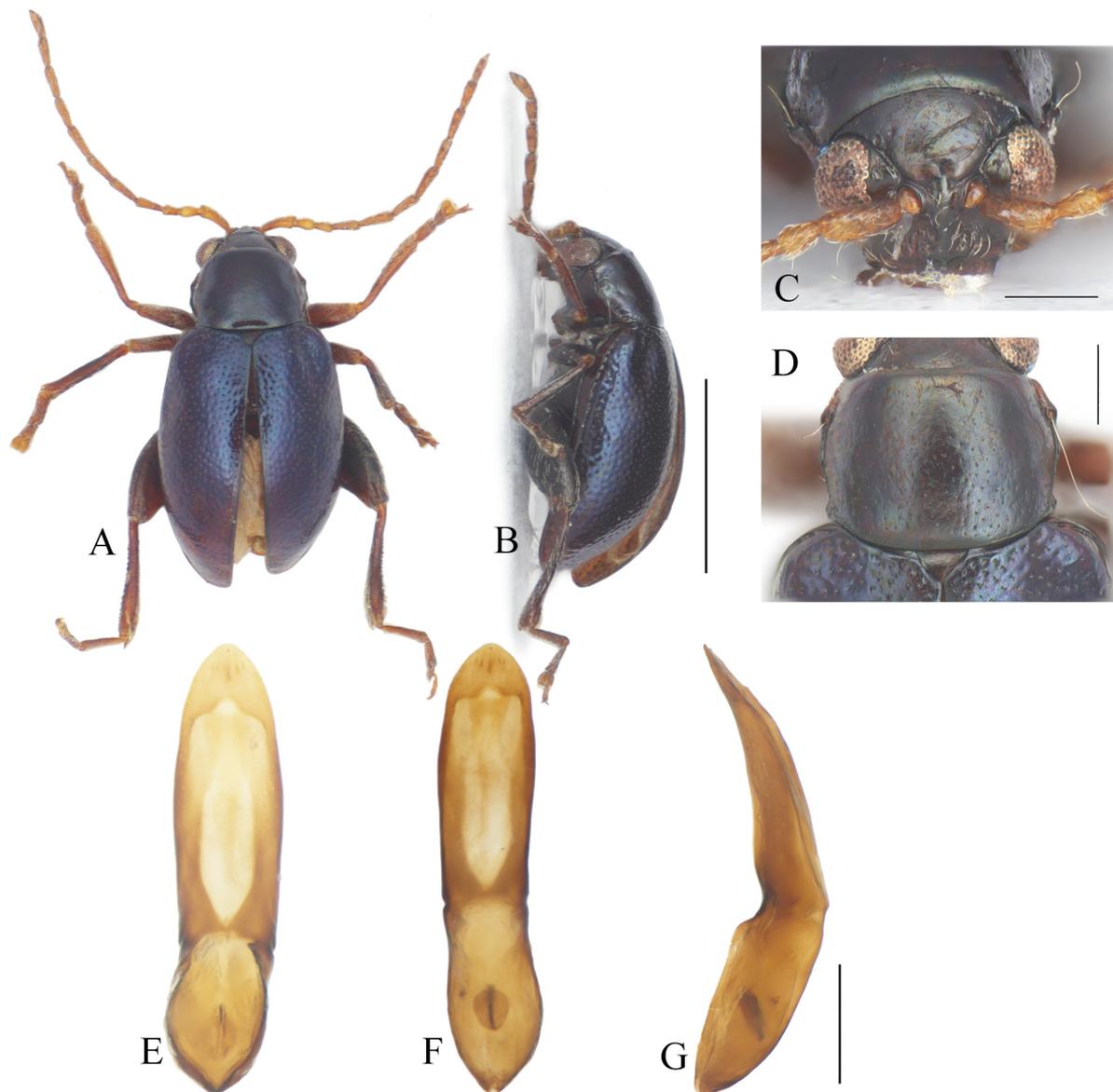


FIGURE 11. *Longitarsus medogensis* Liang & Konstantinov **sp. nov.**, holotype. **A.** Dorsal habitus. **B.** Lateral habitus. **C.** Head. **D.** Pronotum. **E.** Aedeagus, ventral view. **F.** Aedeagus, dorsal view. **G.** Aedeagus, lateral view. Scale bars: 1 mm (A–B), 0.2 mm (C–D, J), 0.5 mm (E–G).

Description. Body elongate-oval, dorsum convex. Body length 1.80 mm, width 0.88 mm. Maximum width of elytra 1.65 times as that of pronotum; humeral width 1.31 times basal width of pronotum. Dorsum black, smooth and shiny, with strong bluish metallic luster, head and pronotum somewhat greenish. Scutellum pitch black. Antennae yellowish brown, apical part of basal three antennomeres slightly paler. Profemur, mesofemur and tibiae dark brown, metafemur black, tarsi brown to dark brown (Fig. 11A). Ventral surface black with faint bluish metallic luster (Fig. 11B).

Head. Vertex impunctate, surface smooth; antennal calli very poorly developed, hardly delimited from vertex, surface smooth; supraorbital and orbital grooves well-developed, extending from upper eye margin to antennal socket; supracallinal sulcus absent. Frontal ridge slightly raised, distance between antennae 1.57 times as wide as antennal diameter (Fig. 11C). Antennae slightly shorter than body, 0.93 times as long as body; antennomere II as long as III, antennomere IV distinctly longer than III.

Thorax (Fig. 11D). Pronotum slightly transverse, 1.31 times as wide as long; anterior and posterior margins slightly convex, lateral margins rounded, with maximum width at mid-length. Anterior angles obliquely truncate,

edges slightly thickened. Anterior angles obliquely truncate, edges slightly thickened. Anterolateral callosity moderately developed, not protruded. Lateral margin narrowly explanate. Posterolateral callosity strongly prominent. Punctures fine and dense. Interspaces smooth. Scutellum linguiform, surface shagreened.

Elytra. Each elytron 2.97 times as long as wide, lateral margins slightly rounded, maximum width slightly before mid-length. Humeral callus strongly developed, with a depression along inner side of humeral callus. Punctures confused, coarse and dense, distinctly larger than those on pronotum. Hind wings fully developed.

Legs. Protarsomere I and mesotarsomere I of male slightly dilated, narrower than tibia (Fig. 11A). Metatibia short and straight; Metatarsomere I of male 0.50 times as long as metatibia, 1.07 times as long as metatarsomeres II–IV combined. Metatibial spur extremely short, 0.37 times as long as maximum width of metatibia.

Male genitalia (Fig. 11E–G). Median lobe short and stout, widest at mid-length, slightly narrowed towards both ends, apex narrowly rounded, without apical projection. Ventral groove rather wide apically, narrower at base, closed just above basal opening. Basal opening oval, widest at mid-length. Very wide at basal opening in lateral view, distinctly wider than remaining part, gradually narrowed towards apex, evenly curved, ventral side strongly notched above basal opening.

Female unknown.

Differential diagnosis. This species closely resembles *L. nodulus* (Fig. 12) but can be distinguished by its smaller body size, shorter antennae, and paler coloration of legs and antennae. Furthermore, the aedeagus is more slender, widest at mid-length, appears very stout in lateral view, and exhibits a notch on the ventral side above the basal opening (Fig. 11E–G). In contrast, *L. nodulus* possesses more prominent humeral calli, each with an associated depression along its inner margin (Fig. 12D). The aedeagus of this species is generally similar in shape to that of *L. zhejiangensis* **sp. nov.** (Fig. 19E–G). However, it can be recognized by its smaller body size, paler leg and antennal coloration, and the absence of a shallow depression on the basal pronotum. Additionally, the median lobe of the aedeagus lacks an apical projection compared to that of *L. zhejiangensis* **sp. nov.**, and its ventral side is not sinuate in lateral view.

Host plant. Unknown.

Distribution. China (Xizang: Mêdog).

Etymology. The specific name is derived from the type locality, Mêdog, Xizang, China.

Longitarsus nodulus Wang, 1992

(Figs 12–13, 20)

Longitarsus nodulus Wang, 1992: 718. TL: China (Yunnan); TD: IZCAS.

Longitarsus nodulus: Döberl 2010: 529.

Type examined. HOLOTYPE: CHINA. Yunnan: ♂ (IZCAS) Yunnan, Lushui County, Yaojiaping [云南泸水姚家坪], 2500 m, secondary valley forest, 1981.VI.4, leg. Wang Shuyong (Fig. 13A–D, I). **PARATYPES: CHINA. Yunnan:** 26♂♂ 1♀ (IZCAS) same data as holotype; 13♂♂ 1♀ (IZCAS) (IZCAS) Yunnan, Lushui County, Pianma [云南泸水片马], 2300 m, 1981.V.27, leg. Wang Shuyong (Fig. 13E–H, J).

Other material. CHINA. Gansu: 6♂♂ 2♀♀ (IZCAS) Gansu, Kangxian County, Qinghe Forest Farm [甘肃康县清河林场], 1400 m, 1998.VII.14, leg. Wang Shuyong; 1♀ (IZCAS) Gansu, Kangxian County, Baiyunshan [甘肃康县白云山], 1250–1750 m, 1998.VII.12, leg. Wang Shuyong; 1♂ (IZCAS) Gansu, Zhouqu County, Shatan Forest Farm [甘肃舟曲沙滩林场], 2350 m, 1998.VII.4, leg. Wang Shuyong. **Sichuan:** 1♂ 1♀ (IZCAS) Sichuan, Xiangcheng [四川乡城], 3200 m, host plant: *Lithospermum* sp. [紫草], 1982.VI.26, leg. Wang Shuyong; 1♂ (IZCAS) Sichuan, Luding [四川泸定], 2100 m, 1983.VI.15, leg. Chen Yuanqing. **Guangxi:** 1♂ (IZCAS) Guangxi, Napo County, Defu [广西那坡德孚], 1350 m, 2000.VI.19, leg. Yao Jian; 1♀ (IZCAS) Guangxi, Napo County, Beidou [广西那坡北斗], 550 m, 2000.VI.22, leg. Yao Jian; 1♂ 2♀♀ (SYSU) Guangxi, Xing'an County, Mao'ershan [广西兴安猫儿山], 2010.V.26, leg. Zhao Shuangcai. **Yunnan:** 3♀♀ (IZCAS) same data as holotype; 3♂♂ 16♀♀ (IZCAS) same data as allotype; 1♀ (IZCAS) Yunnan, Lushui [云南泸水], 1900 m, 1981.VI.8, leg. Liao Subai; 1♀ (IZCAS) Yunnan, Lushui [云南泸水], 1900 m, 1981.V.26, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Lushui [云南泸水], 1900 m, 1981.VI.10, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Lushui County, Pianma [云南泸水片马], 2300 m, 1981.V.26, leg. Wang Shuyong; 3♂♂ 2♀♀ (IZCAS) Yunnan, Yunlong County, Zhibenshan [云南云龙志奔山], 2430 m, 1981.VI.20, leg. Wang Shuyong; 7 exx. (IZCAS) Yunnan, Weixi County, Baijixun [云南维

西白济汛], 2250 m, 1981.VII.13, leg. Wang Shuyong; 3 exx. (IZCAS) Yunnan, Weixi County, Baijixun [云南维西白济汛], 1981.VII.26, leg. Liao Subai; 1 ex. (IZCAS) Yunnan, Weixi County, Pantian'ge [云南维西攀天阁], 1981.VII.17, leg. Wang Shuyong; 1 ex. (IZCAS) Yunnan, Liuku [云南六库], 2500 m, 1981.V.23, leg. Liao Subai; 2♂♂ (IZCAS) Yunnan, Jinping County, Hetouzhai [云南金平河头寨], 1600–1700 m, 1956.V.12, leg. Huang Keren *et al.*; 1 ex. (IZCAS) Yunnan, Ruili, Nongsheng Township [云南瑞丽弄圣乡], 1450 m, 1956.VI.7, leg. Zhou Benshou; 1 ex. (IZCAS) Yunnan, Menghai County, Menglong, Xishuangbanna [云南勐海勐龙西双版纳], 1600 m, 1958.IV.22, leg. Pu Fuji; 1♀ (IZCAS) Yunnan, Xishuangbanna, Damenglong [云南西双版纳大勐龙], 650 m, 1958.V.3, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Xishuangbanna, Menghun [云南西双版纳勐混], 1200–1400 m, 1958.V.18, leg. Hong Chunpei; 4♂♂ 2♀♀ (IZCAS) Yunnan, Xishuangbanna, Menghun [云南西双版纳勐混], 1200–1400 m, 1958.V.19, leg. Hong Chunpei; 2♀♀ (IZCAS) Yunnan, Xishuangbanna, Menghun [云南西双版纳勐混], 1200 m, 1958.V.23, leg. Meng Xuwu; 5♂♂ 4♀♀ (IZCAS) Yunnan, Xishuangbanna, Menghun [云南西双版纳勐混], 1200–1400 m, 1958.V.23, leg. Zhang Yiran; 1♂ (IZCAS) Yunnan, Xishuangbanna, Menghun [云南西双版纳勐混], 1200–1400 m, 1958.V.24, leg. Zhang Yiran; 1♂ (IZCAS) Yunnan, Xishuangbanna, Mengsong [云南西双版纳勐宋], 1600 m, 1958.IV.22, leg. Pu Fuji; 1♂ (IZCAS) Yunnan, Gongshan County [云南贡山], 1983.V.15, leg. Tian & Hu; 1♀ (IZCAS) Yunnan, Xiaguan [云南下关], 2050 m, 1955.V.30, leg. B. Popov; 1♀ (IZCAS) Yunnan, Kunming suburbs [云南昆明近郊], 1900 m, 1955.V.15, leg. Hu Taocheng; 1♂ 2♀♀ (IZCAS) Yunnan Prov., Gongshan County, Heiwadi, on new road to Dulongjiang, 27°47'39"N, 98°35'13"E, 2020 m, 2002.IV.20, leg. Liang H. B., Ba Weidong, Yang Guodong, Li X. Q. **XIZANG**: 12♂♂ 42♀♀ (IZCAS) Xizang, Nyalam County, Friendship Bridge [西藏聂拉木友谊桥], 1680 m, 1974.V.6, leg. Zhang Xuezhong; 1♂ 4♀♀ (IZCAS) Xizang, Nyalam County, Friendship Bridge [西藏聂拉木友谊桥], 1800 m, 1966.V.6, leg. Wang Shuyong; 1♂ 2♀♀ (IZCAS) Xizang, Nyalam County, Friendship Bridge to Zhangmu [西藏聂拉木友谊桥—樟木], 1680–2250 m, 1974.V.4, leg. Zhang Xuezhong; 1♂ 1♀ (IZCAS) Xizang, Nyalam County, Friendship Bridge [西藏聂拉木友谊桥], 1668 m, 1974.IV.23, leg. Zhang Xuezhong; 25 exx. (IZCAS) Xizang, Cuona County, Le Township, Xian Village [西藏错那县勒乡贤村], 27.8430°N, 91.7589°E, 2800 m, 2016.VI.3, leg. Liang Hongbin; 7 exx. (IZCAS) Xizang, Nyingchi City, Pailong Township [西藏林芝市排龙乡], 30.0201°N, 95.0220°E, 1972 m, 2016.VI.14, leg. Liang Hongbin; 1♀ (IZCAS) Xizang, Cuona County, Le Township, 4.5km on Border Defense Company 6 Road [西藏错那县勒乡边防六连公路4.5km处], 27.8202°N, 91.7576°E, 2670 m, 2016.VI.7, leg. Liang Hongbin. **BHUTAN**. 13♂♂ 16♀♀ (NMB) Chimakothi, 1900–2300 m, 1972.V.22, leg., Nat.-Hist. Museum Basel—Bhutan Expedition 1972; 2♀♀ (NMB) Changra, 18 km S Tongsa, 1900 m, 1972.VI.22, leg., Nat.-Hist. Museum Basel—Bhutan Expedition 1972; 4♂♂ 2♀♀ (NMB) km 87 von Phuntsholing, 1972.V.22, leg., Nat.-Hist. Museum Basel—Bhutan Expedition 1972; 2♀♀ (NMB) Thimphu, 1972.IV.27, leg., Nat.-Hist. Museum Basel—Bhutan Expedition 1972; 1♂ 6♀♀ (NMB) Thimphu River, 1972.IV.29, leg., Nat.-Hist. Museum Basel—Bhutan Expedition 1972; 1♀ (NMB) Gidaphu, 2300 m, 1972.VI.2, leg., Nat.-Hist. Museum Basel—Bhutan Expedition 1972; 3♂♂ (NMB) Dorjula, 3100 m, S Thimphu, 1972.V.28, leg., Nat.-Hist. Museum Basel—Bhutan Expedition 1972. **NEPAL**. 1♂ (NMB) O Nepal, Bhakta B. Ch., 2160 m, 1979.V.30, leg., Neentale; 1♂ (NMB) Nepal, Langtang Nat. P, Ghora Tabela, 3000 m, 1988.V.13, leg., S. Bily.

Description. Body elongate-oval, dorsum moderately convex. Length 2.02–2.17 mm, width 1.03–1.11 mm. Maximum width of elytra 1.57 times width of pronotum; humeral width 1.34 times basal width of pronotum. Dorsum black, smooth and shiny, with strong bluish-green or bluish-purple metallic luster; in a very few specimens, color fades to black with slight metallic luster. Vertex bluish-green; rest of head black. Scutellum pitchy black. Antennae black, apex of basal three antennomeres slightly paler, reddish-brown to dark reddish-brown. Legs black; tarsi reddish-brown to dark reddish-brown (Fig. 12A). Venter black with faint bluish metallic luster (Fig. 12B).

Head. Vertex impunctate, surface smooth; Antennal calli barely developed, barely delimited from vertex, surface smooth; supraorbital and orbital sulci well-developed, extending from upper part of eye to upper part of antenna; supracallinal sulcus absent. Frontal ridge slightly raised (Fig. 12C). Antennae relatively stout; in female 0.85 times as long as body, in male 1.02 times; antennomere II shorter than III; antennomere IV distinctly longer than III.

Thorax (Fig. 12D). Pronotum subquadrate, 1.27 times as wide as long; anterior margin slightly convex, posterior margin broadly rounded, lateral margins convex. Anterior angles obliquely truncate, edges slightly thickened. Anterior angles obliquely truncate, edges slightly thickened. Anterolateral callosity moderately developed, not protruded. Lateral margin narrowly explanate. Posterolateral callosity strongly prominent. Surface with fine and dense punctures, interspaces smooth. Scutellum linguiform, surface shagreened.

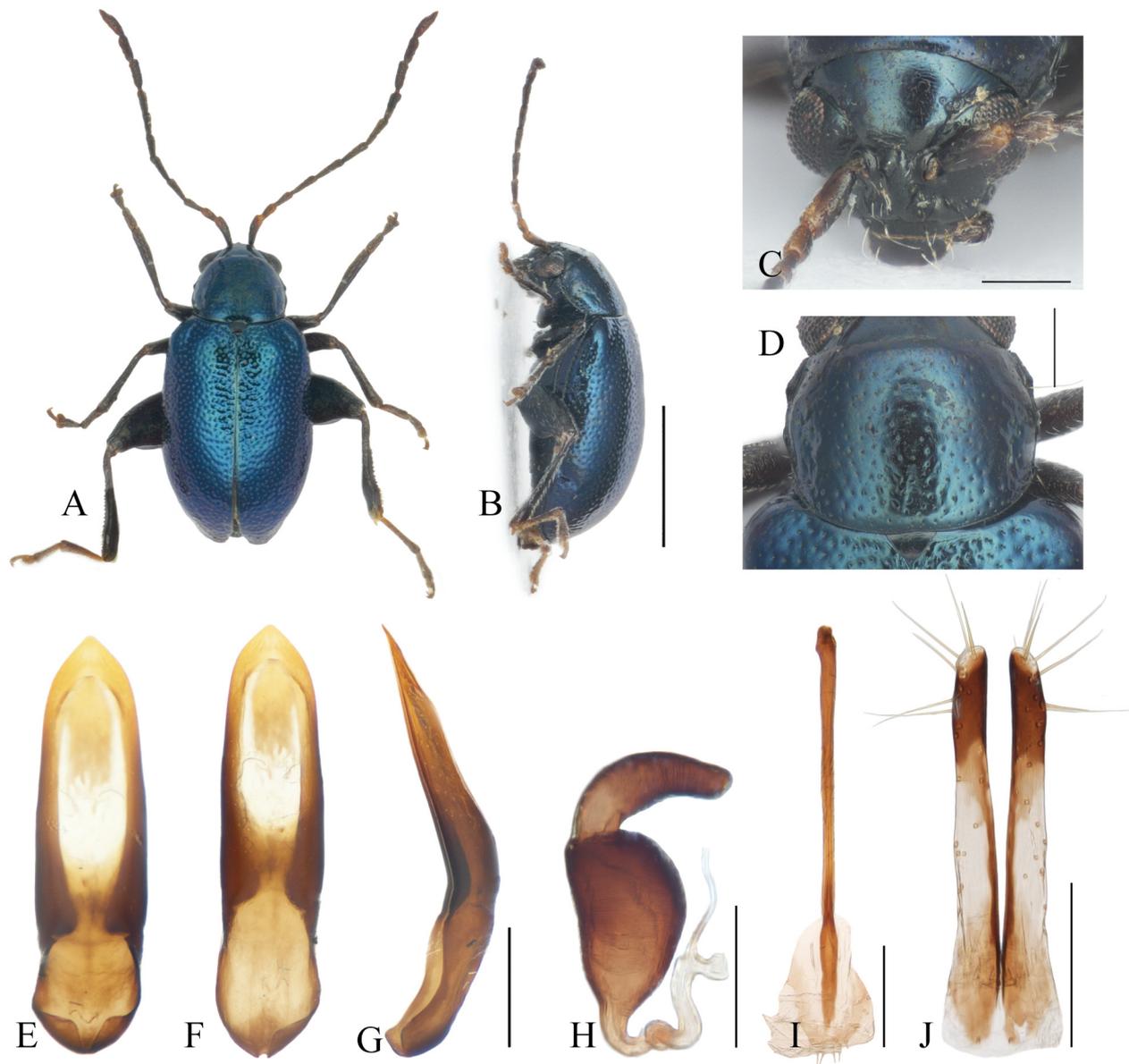


FIGURE 12. *Longitarsus nodulus* Wang, 1992. **A.** Dorsal habitus. **B.** Lateral habitus. **C.** Head. **D.** Pronotum. **E.** Aedeagus, ventral view. **F.** Aedeagus, dorsal view. **G.** Aedeagus, lateral view. **H.** Spermatheca. **I.** Tignum. **J.** Vaginal palpi. Scale bars: 1 mm (A–B), 0.2 mm (C–D, I–J), 0.5 mm (E–G, I), 0.1 mm (H).

Elytra. Each elytron 2.94 times as long as wide, with well-developed humeral callus, each with an associated depression along its inner margin; lateral margins sub-parallel, apex broadly rounded; maximum width at mid-length. Punctures confused, coarse and dense, distinctly larger than those on pronotum. Hind wings fully developed.

Legs. Protarsomere I of male dilated, slightly narrower than protibia; mesotarsomere I slightly dilated, pyriform, narrower than mesotibia. Metatibia relatively slender, straight; Metatarsomere I of male 0.52 times as long as metatibia, 1.07 times as long as metatarsomeres II–IV combined. Metatibial spur 0.40 times as long as maximum width of metatibia.

Abdomen. Last abdominal ventrite in male medially with rough surface, sometimes with a shiny tubercle.

Male genitalia (Fig. 12E–G). Median lobe short and stout, gradually narrowed from base towards apex; apex spearhead-shaped, without apical projection. Ventral groove relatively wide, base constricted but not closed. Basal opening oval, widest at mid-length. Strongly curved above basal opening in lateral view, rest straight.

Female genitalia. Receptacle of spermatheca relatively short and stout; spermathecal pump slender, longer than width of receptacle, apex narrowly rounded; spermathecal duct with one or two spiral coils at middle (Fig. 12H). Tignum relatively short and stout, straight, anterior end dilated (Fig. 12I). Vaginal palpi relatively slender, apex slightly curved outward, tip obliquely truncate (Fig. 12J).

Diagnosis. This species can be distinguished by the following combination of characters: 1) Dorsum black, with strong bluish-green or bluish-purple metallic luster, legs and antennae largely black; 2) Antennae relatively stout; in female 0.85 times as body length, in male 1.02 times; 3) Humeral callus well-developed, each with an depression along its inner margin; 4) Punctures coarse on elytra; 5) Median lobe of aedeagus stout, widest near base, apical part straight in lateral view.

Host plant. *Lithospermum* sp. (Boraginaceae).

Distribution. China (Gansu, Guangxi, Sichuan, Yunnan, Xizang); Bhutan, Nepal. Newly recorded from Gansu, Guangxi, Sichuan, Xizang, Bhutan, and Nepal.

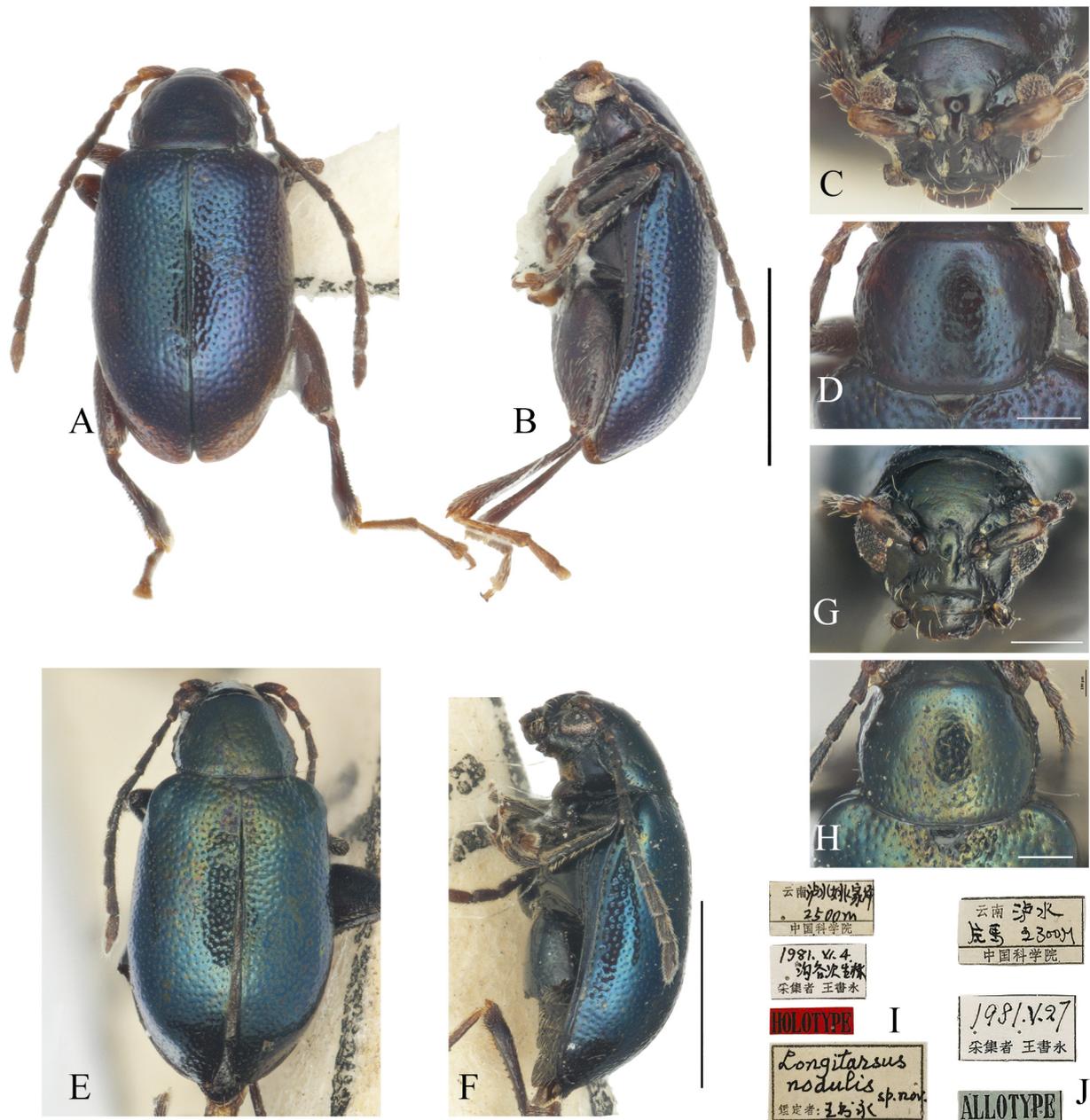


FIGURE 13. *Longitarsus nodulus* Wang, 1992. **A–D.** Holotype: **A.** Dorsal habitus. **B.** Lateral habitus. **C.** Head. **D.** Pronotum. **E–H.** Paratype, female: **E.** Dorsal habitus. **F.** Lateral habitus. **G.** Head. **H.** Pronotum. **I.** Labels, holotype. **J.** Labels, paratype. Scale bars: 1 mm (A–B, E–F), 0.2 mm (C–D, G–H).

Longitarsus radialis Liang & Konstantinov sp. nov.

(Figs 14, 20)

Type material. HOLOTYPE: CHINA. Xizang: ♂ (IZCAS) Xizang, Markam, Haitong [西藏芒康海通], 3250 m, 1982.VIII.10, leg. Wang Shuyong; **PARATYPES:** CHINA. Xizang: 2♂♂ 1♀ (IZCAS) same data as holotype.

Description. Body elongate-oval, dorsum moderately convex. Male body length 2.0–2.2 mm, width 0.9–1.0 mm; female body length 2.05 mm, width 1.0 mm. Maximum width of elytra 1.46 times as that of pronotum; humeral width 1.25 times basal width of pronotum. Dorsum black, smooth and shiny, with strong bluish to greenish metallic luster. Antennomeres II–III pale yellow apically, remaining antennomeres light brown. Femora of legs brown to dark brown, tibiae and tarsi light brown (Fig. 14A). Ventral surface black with faint green metallic luster (Fig. 14B).

Head. Vertex impunctate, surface smooth; antennal calli poorly developed, barely delimited from vertex, surface smooth; supraorbital and orbital grooves well-developed, extending from upper eye margin to antennal socket. Midfrontal and suprafrontal sulci absent. Frontal ridge raised but not sharp, distance between antennae greater than diameter of antennal socket (Fig. 14C). Antennae slender, female antennae 0.96 times as long as body, male 1.02 times; antennomere II slightly shorter than III, antennomere IV distinctly longer than III.

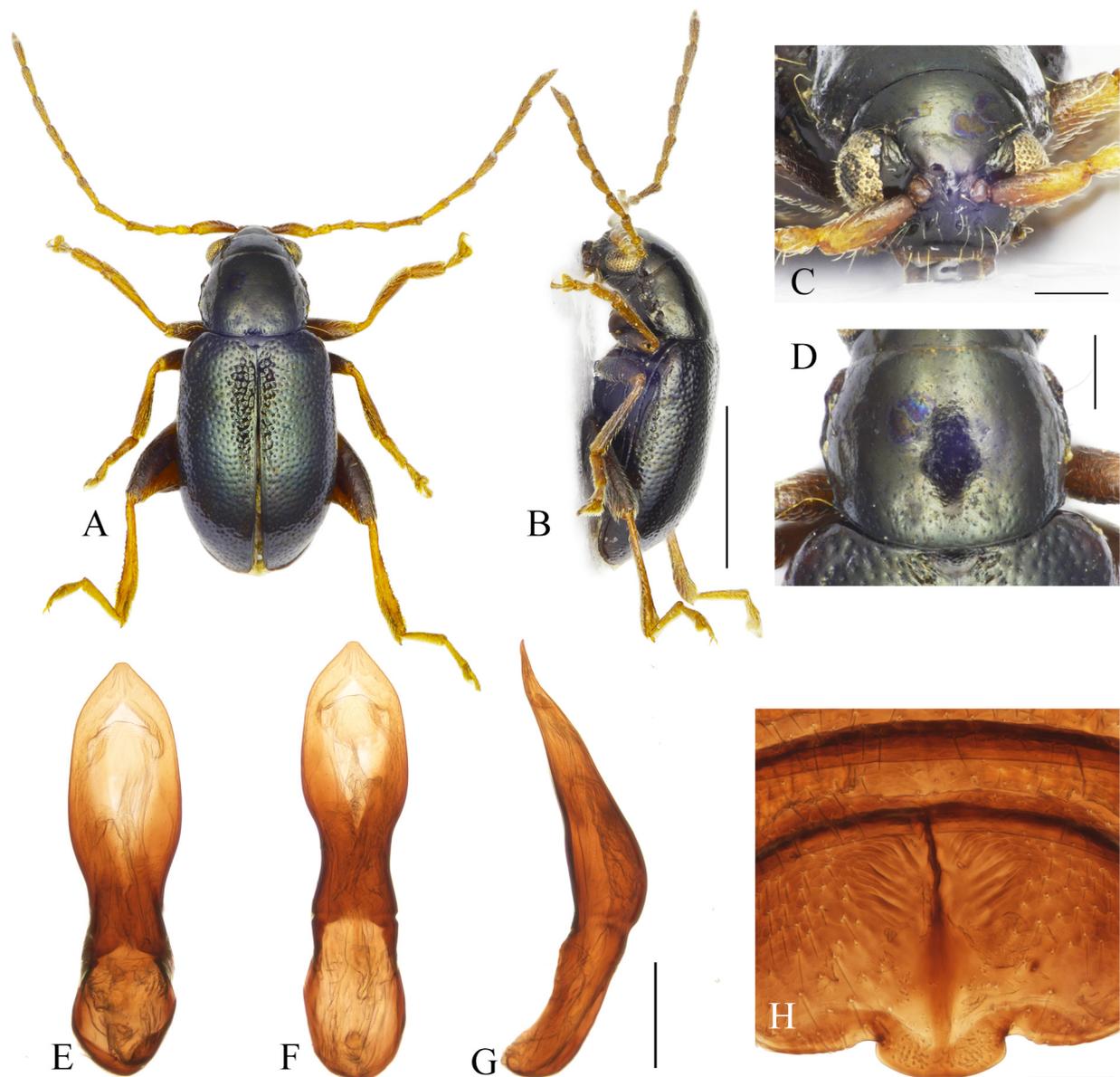


FIGURE 14. *Longitarsus radialis* Liang & Konstantinov sp. nov., holotype. **A.** Dorsal habitus. **B.** Lateral habitus. **C.** Head. **D.** Pronotum. **E.** Aedeagus, ventral view. **F.** Aedeagus, dorsal view. **G.** Aedeagus, lateral view. **H.** Last abdominal ventrite of male. Scale bars: 1 mm (A–B), 0.2 mm (C–H).

Thorax (Fig. 14D). Pronotum subquadrate, 1.24 times as wide as long; anterior and posterior margins slightly convex, lateral margins rounded, with maximum width at mid-length; anterior angles obliquely truncate, edges slightly thickened. Anterolateral callosity moderately developed, slightly protruded. Lateral margin narrowly explanate. Posterolateral callosity strongly prominent. Punctures fine and sparse. Interspaces smooth. Scutellum triangular, surface shagreened.

Elytra. Elytron 2.92 times as long as wide, lateral margins nearly parallel, apex broadly rounded; with well-developed humeral callus; maximum width at mid-length. Punctures confused, coarse and dense, medially rugose, distinctly larger than those on pronotum. Hind wings fully developed.

Legs. Protarsomere I of male dilated, elongate-oval, nearly as wide as protibia; mesotarsomere I of male dilated, pyriform, basally nearly as wide as tibia, apex narrower. Metatibia slender, curved outwards; metatarsomere I of male 0.56 times as long as metatibia, 1.09 times as long as metatarsomeres II–IV combined. Metatibial spur 0.39 times as long as maximum width of metatibia.

Abdomen. Last abdominal ventrite of male with a tubercle on each side, forming a central depression, with radial wrinkles along margin of depression (Fig. 14H).

Male genitalia (Fig. 14E–G). Median lobe of aedeagus short and stout, widest at mid-length, strongly constricted near base, apex narrowly rounded with minute projection. Ventral groove absent. Basal opening broadly oval, widest apically. Strongly curved in lateral view, widest above basal opening, evenly narrowed towards apex.

Female unknown.

Differential diagnosis. This species can be distinguished by the presence of a large depression with radially arranged wrinkles along the margin on the male last abdominal ventrite (Fig. 14H), and by the median lobe, which is strongly constricted near the base (Fig. 14E–F). It is similar to *L. warchalowskii* (Fig. 17) but differs in its more slender male protarsomeres, longer antennae, and paler coloration of legs and antennae. It closely resembles *L. lijiangensis* **sp. nov.** (Fig. 8), especially in the shape of the median lobe of the aedeagus and male mesotarsomeres I. The differences between the two see differential diagnosis of *L. lijiangensis* **sp. nov.**

Host plant. Unknown.

Distribution. China (Xizang).

Etymology. The specific name is derived from the Latin word "radiatus", meaning radial, referring to the radial wrinkles along the margin of depression on the male last abdominal ventrite.

***Longitarsus viridis* Liang & Konstantinov sp. nov.**

(Figs 15, 20)

Longitarsus hsienweni (nec Chen, 1939, misident.): Gressitt & Kimoto 1963: 856, fig. 229b (Hubei); Warchalowski 1965: 558, figs 2–3 (Vietnam); Warchalowski 1970: 120, fig. 17 (Vietnam, India).

Type material. HOLOTYPE: CHINA. Sichuan: ♂ (IZCAS) Sichuan, Gongga Mountain, Yanzigou [四川贡嘎山燕子沟], 2340 m, 1983.VI.5, leg. Wang Shuyong. **PARATYPES: CHINA. Sichuan:** 1♂ 2♀♀ (IZCAS) same data as holotype; **Yunnan:** 1♂ (CAU) Yunnan, Diqing, Weixi County, Tacheng Town, Ahailuo [中国云南: 迪庆维西县塔城镇阿海洛], 27.59972°N, 99.474862°E, 2734 m, 2020.VII.5, leg. Huang Weidong; 1♀ (CAU) Yunnan, Diqing, Weixi County, Tacheng Town, Damo Temple [中国云南: 迪庆维西县塔城镇达摩寺], 27.60476°N, 99.491381°E, 2843 m, 2020.VII.5, leg. Huang Weidong; 1♀ (CAU) Yunnan, Lijiang, Yulong County, Yulong Snow Mountain [中国云南: 丽江玉龙县玉龙雪山], 27.15023°N, 100.30326°E, 2388 m, 2020.VI.17, leg. Liu Yingqi; 1♀ (CAU) Yunnan, Lijiang, Yulong County, Baisha Town, Wenhai Village [中国云南: 丽江玉龙县白沙镇文海村], 26.95346°N, 100.18223°E, 2978 m, 2020.VI.16, leg. Huang Weidong; 16♂♂ 37♀♀ (USNM) Yunnan, Lijiang-Tiger Leaping Gorge, 2000 m, 25.V.2002, N27°04'53", E100°04'31", leg. A. Konstantinov & M. Volkovitch. **VIETNAM.** 1♂ 1♀ (BMNH) Vietnam, Cha-Pa, 1962.IV.16, leg. A. Warchalowski; 15 exx. (BMNH) Vietnam, Sa-Pa, 1962.IV.16, leg. A. Warchalowski. **INDIA.** 1♂ (BMNH) Assam, Khasi Hills, Charrapunii, 1300 m, 1961.V, leg. G. Scherer.

Description. Body elongate-oval, dorsum moderately convex. Male body length 2.1 mm, width 1.05 mm; female body length 2.3–2.4 mm, width 1.2–1.25 mm. Maximum width of elytra 1.56 times as that of pronotum; humeral width 1.30 times basal width of pronotum. Dorsum black, smooth and shiny, with strong green metallic luster. Antennae largely black, with apical part of antennomeres I–III dark brown. Legs black, tarsi dark brown (Fig. 15A). Ventral surface black with faint bluish metallic luster (Fig. 15B).

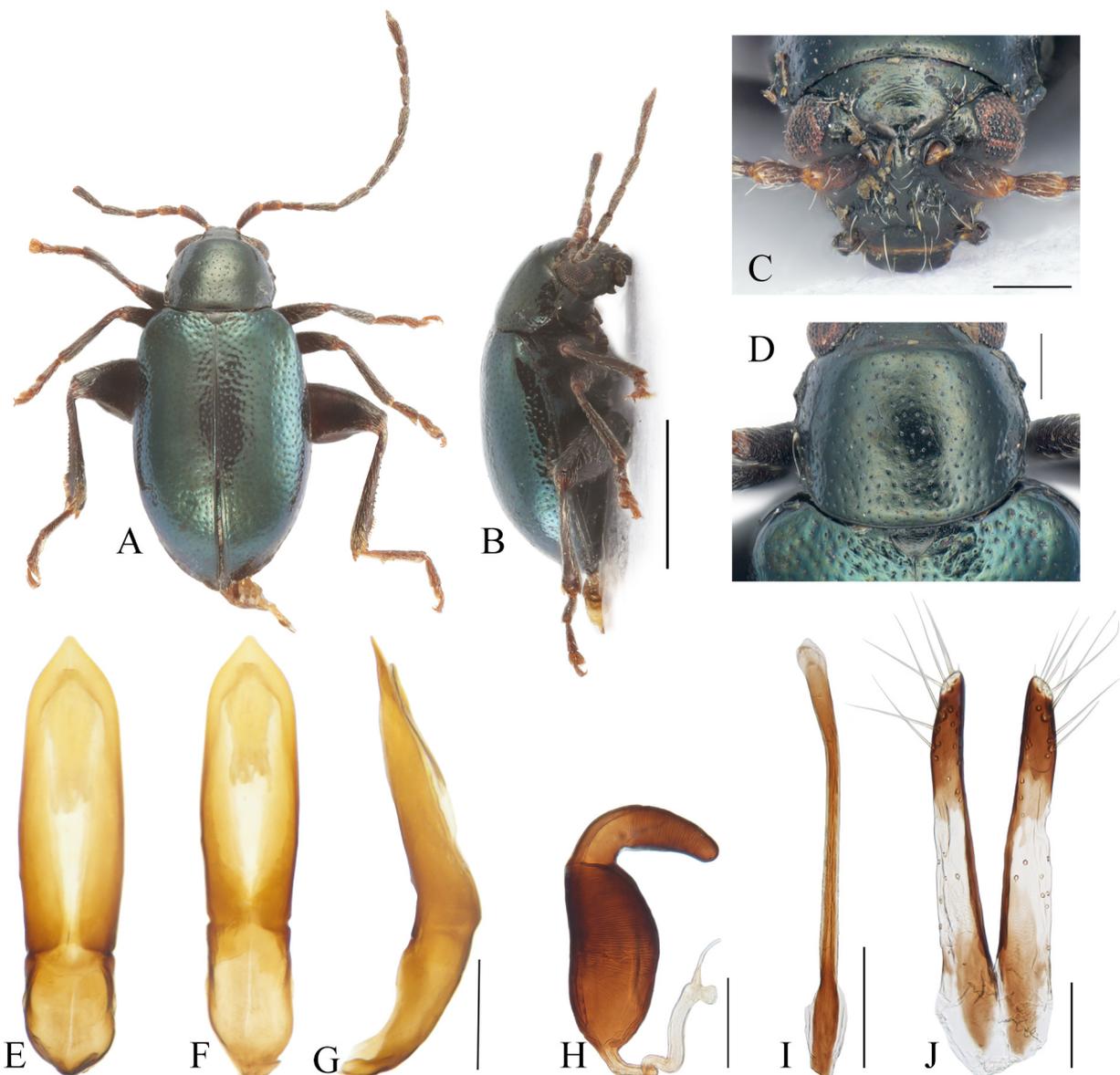


FIGURE 15. *Longitarsus viridis* Liang & Konstantinov **sp. nov.** **A–D.** Holotype: **A.** Dorsal habitus. **B.** Lateral habitus. **C.** Head. **D.** Pronotum. **E–J.** Paratypes: **E.** Aedeagus, ventral view. **F.** Aedeagus, dorsal view. **G.** Aedeagus, lateral view. **H.** Spermatheca. **I.** Tignum. **J.** Vaginal palpi. Scale bars: 1 mm (A–B), 0.2 mm (C–G, I), 0.1 mm (H, J).

Head. Vertex impunctate, surface with distinct transverse wrinkles; antennal calli poorly developed, surface smooth; supraorbital and orbital grooves well-developed, extending from upper eye margin to antennal socket; supracallinal sulcus vague, barely delimited from vertex; frontal ridge raised but not sharp (Fig. 15C). Antennae slender, about 0.93 times as long as body; antennomere II slightly shorter than III, antennomere IV distinctly longer than III.

Thorax (Fig. 15D). Pronotum subquadrate, 1.26 times as wide as long; anterior margin slightly convex, posterior margin broadly rounded, lateral margins rounded, with maximum width at mid-length. Anterior angles obliquely truncate, edges slightly thickened. Anterolateral callosity well-developed, sharply protruded. Lateral margin narrowly explanate. Posterolateral callosity strongly prominent. Surface with fine and dense punctures, interspaces weakly shagreened. Scutellum triangular, surface distinctly shagreened.

Elytra. Each elytron 3.29 times as long as wide, with well-developed humeral callus; lateral margins sub-parallel, apex broadly rounded; punctures coarse, dense and confused, slightly larger than those on pronotum. Hind wings fully developed.

Legs. Protarsomere I of male slightly dilated, distinctly narrower than tibia. Metatibia slender, straight. Metatarsomere I of male 0.53 times as long as metatibia, 1.21 times as long as metatarsomeres II–IV combined. Metatibial spur 0.57 times as long as maximum width of metatibia.

Male genitalia (Fig. 15E–G). Median lobe rather short and stout, sides sub-parallel, slightly wider at mid-length, gradually narrowed towards apex, apex with a minute projection. Ventral groove narrow, basal part almost closed but extending to basal opening. Curved above basal opening in lateral view, rest straight, gradually narrowed towards apex.

Female genitalia. Receptacle of spermatheca rather slender; spermathecal pump slender, distinctly narrower than receptacle, apex narrowly rounded, neck rather long; spermathecal duct with two coils (Fig. 15H). Tignum rather slender, slightly curved, anteriorly distinctly dilated (Fig. 15I). Vaginal palpi slender, straight apically, apex obliquely truncate (Fig. 15J).

Differential diagnosis. This species is similar to *L. nodulus*, *L. medogensis* **sp. nov.**, and *L. lodayi* **sp. nov.** in sharing comparatively short antennae and similar aedeagi (Figs 9, 11, 12). It can be distinguished from them by its greenish metallic luster, vertex with transverse wrinkles, and weakly shagreened pronotum (Fig. 15A–D). The median lobe of the aedeagus is slender and widest at its mid-length (Fig. 15E–F), whereas in *L. nodulus*, it is stout and widest basally (Fig. 12E–F). In lateral view, the median lobe is straight apically in this species, unlike in *L. medogensis* **sp. nov.**, where it curves ventrally. Furthermore, the ventral groove of the median lobe extends to the basal opening in this species, but is closed in *L. lodayi* **sp. nov.** (Fig. 9E, G).

Host plant. Unknown.

Distribution. China (Hubei (Gressitt & Kimoto 1963), Sichuan, Yunnan); Vietnam, India.

Etymology. The specific name is derived from the Latin word "*viridis*" (green), referring to the strong green luster on the dorsum.

Remark: Gressitt & Kimoto (1963) and Warchalowski (1965, 1970) reported *L. hsienweni* from Hubei, Vietnam, and India, accompanied by illustrations of the aedeagus. However, after examination of the type material of *L. hsienweni*, we conclude that these earlier records represent misidentifications of a previously unrecognized species. Moreover, *L. hsienweni* is not included in this species group due to its short and robust antennae, which place it outside the morphological boundaries of the group.

***Longitarsus volkovitshi* Liang & Konstantinov sp. nov.**

(Figs 16, 20)

Type material. HOLOTYPE: CHINA. Yunnan: ♂ (IZCAS) Yunnan, Dali-Lijiang Rd. 72 km, bushes, 2500 m, 05.VI.2002, N26°09'41", E100°10'14", leg. A. Konstantinov & M. Volkovitsh; **PARATYPE: CHINA. Yunnan:** 1♀ (USNM), the same label as the holotype.

Description. Body elongate-oval, dorsum moderately convex. Female body length 2.27 mm, width 1.24 mm; male body length 2.37 mm, width 1.13 mm. Maximum width of male elytra 1.61 times as that of pronotum; humeral width 1.5 times basal width of pronotum. Dorsum black, shiny, with strong dark bluish metallic luster, pronotum lighter bluish to greenish. Antennae and legs dark brown except apex of antennomere I, antennomeres II and III and tarsi light brown (Fig. 16A). Ventral surface black with faint bluish metallic luster (Fig. 16B).

Head. Vertex with a few sharp punctures, and transverse depression above antennal calli; surface smooth, with well-developed supraorbital punctures near orbital sulcus. Antennal calli delimited from vertex by supracallinal sulci; supraorbital and orbital sulci well-developed, extending from upper eye margin to antennal socket. Midfrontal and suprafrontal sulci absent. Frontal ridge sharp (Fig. 16C). Antennae slender, female antennae 0.97 times as long as body, male 1.2 times; antennomere II stout, antennomere III slightly longer than II, antennomere IV distinctly longer than III.

Thorax (Fig. 16D). Pronotum transverse, 1.26 times as wide as long; anterior margin straight, posterior margin broadly rounded, lateral margins slightly convex, with maximum width near mid-length; anterior angles obliquely truncate, edges slightly thickened. Anterolateral callosity well developed, strongly protruded. Lateral margin narrowly explanate. Posterolateral callosity prominent. Punctures fine and sparse. Interspaces smooth. Scutellum bluntly triangular, surface weakly shagreened.

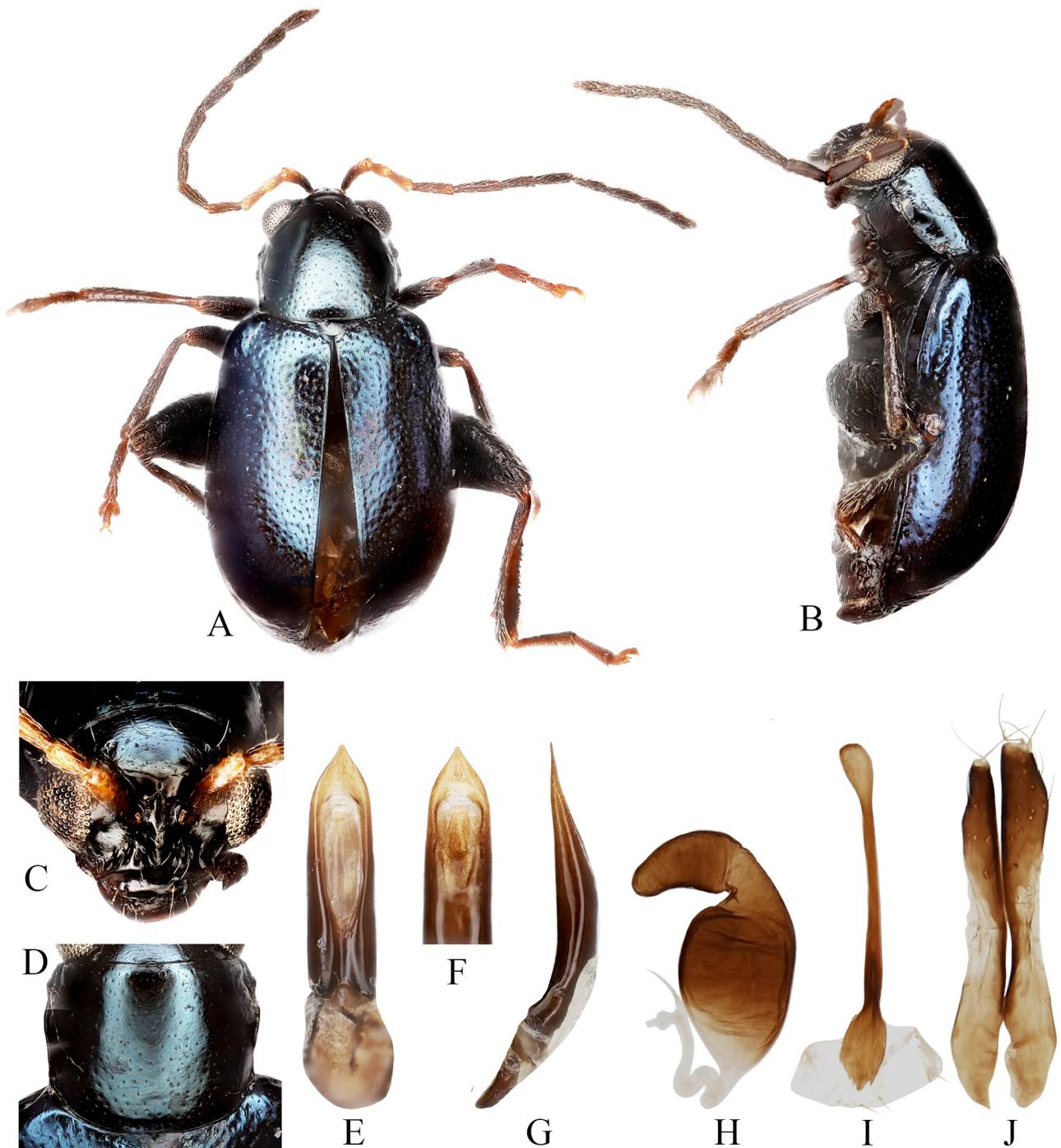


FIGURE 16. *Longitarsus volkovitshi* Liang & Konstantinov sp. nov. A–G. Holotype: A. Dorsal habitus. B. Lateral habitus. C. Head. D. Pronotum. E. Aedeagus, ventral view. F. Aedeagus, dorsal view. G. Aedeagus, lateral view. H–J. paratypes: H. Spermatheca. I. Tignum. J. Vaginal palpi.

Elytra. Each male elytron 3.84 times as long as wide, with well-developed humeral callus; lateral margins slightly curved, apex broadly rounded; maximum width near mid-length. Punctures confused, coarse and dense, distinctly larger than those on pronotum. Hind wings fully developed.

Legs. Protarsomere I barely dilated, narrower than protibia. Metatibia slender, curved outwards. Metatarsomere I of male 0.56 times as long as metatibia, 1.23 times as long as metatarsomeres II–IV combined. Metatibial spur 0.5 times as long as maximum width of metatibia.

Male genitalia (Fig. 16E–G). Median lobes of aedeagus parallel sided, abruptly narrowing before apex bearing narrow projection. Ventral side with wide groove that closes way before basal opening. Apical part of ventral groove broadly rounded anteriorly. Ventral side straight in lateral view.

Female genitalia. Receptacle of spermatheca oval; spermathecal pump wide at base, apical part shorter than width of receptacle, apex narrowly rounded, neck short; spermathecal duct short, with two to three coils (Fig. 16H). Tignum rather stout, straight, heavily sclerotized, anteriorly dilated (Fig. 16I). Vaginal palpi seems teratological with left palpus shorter and distorted, apex obliquely truncate (Fig. 16J).

Differential diagnosis. *Longitarsus volkovitshi* **sp. nov.** is similar to *L. bryanti* **sp. nov.** in the shape of the median lobe of the aedeagus (Fig. 1E–G) and the relatively narrow male protarsomere I (Fig. 1A). It can be distinguished from *L. bryanti* **sp. nov.** by the following combination of characters: well-developed supracallinal sulci (Fig. 16C), and a number of features of the median lobe (ventral groove closing well before basal opening; apical part of ventral groove broadly rounded anteriorly; ventral side straight in lateral view) (Fig. 16 E–G).

Host plant. Unknown.

Distribution. China (Yunnan).

Etymology. This species is named after Dr Mark Volkovitsh, a colleague, longtime friend, and companion on the collecting trip to China in 2002.

***Longitarsus warchalowskii* Scherer, 1969, status restored** (Figs 17–18, 20)

Longitarsus warchalowskii Scherer, 1969: 60. TL: India. TD: NMB. Synonymized with *Longitarsus indigonaceus* Lopatin, 1963 by Lopatin 1984: 337. **Status restored herein.**

Type examined. PARATYPE: INDIA. 1♀ (NMB) labels: 1) Darjeeling W.B. / 2180 m, VI. 1961 / leg. G. Scherer; 2) PARATYPUS / *Longitarsus warchalowskii* n. sp. / det. Dr. G. Scherer, 1968 (Fig. 18). (Holotype not found)

Other material. CHINA. Sichuan: 4♂♂ 2♀♀ (IZCAS) Sichuan, Luding, Moxi [四川泸定磨西], riverside, 1500 m, 1982.IX.14, leg. Wang Shuyong; 11♂♂ 6♀♀ (IZCAS) Sichuan, Mount Emei [四川峨眉山], 1942.X.2; 1♂ (IZCAS) Sichuan, Chengdu [四川成都], 500 m, 1955.VI.16, leg. Kryzhanovskij; 1♀ (NKU) Sichuan, Ya'an [四川雅安], 500–900 m, 1963.VII.4, leg. Zou Huanguang; **Yunnan:** 53♂♂ 12♀♀ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 3000 m, 1984.VII.19, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 3200 m, 1984.VII.15, leg. Wang Shuyong; 1♂ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 2800 m, 1984.VII.22, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 2800 m, 1984.VII.24, leg. Wang Shuyong; 5♂♂ 6♀♀ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 3000 m, 1984.VII.19, leg. Wang Ruiqi; 6♂♂ 2♀♀ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 2800 m, 1984.VII.21, leg. Wang Ruiqi; 7♂♂ 3♀♀ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 2850 m, 1984.VII.17, leg. Li Changfang; 1♂ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 3200 m, 1984.VII.17, leg. Fan Jianguo; 1♂ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 3500 m, 1984.VII.15, leg. Fan Jianguo; 4♂♂ 4♀♀ (IZCAS) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 1962.VII.8, leg. Song Shimei; 1♂ (NKU) Yunnan, Lijiang, Yulongshan [云南丽江玉龙山], 1979.VIII.14, leg. Ling Zuopei; 7♂♂ 23♀♀ (CAU) Yunnan, Lijiang, Yulong County, Mingyin Township, Entuo [中国云南: 丽江玉龙县鸣音乡恩拖], 27.20994°N, 100.323262°E, 2947 m, 2020.VII.7, leg. Liu Yingqi; 1♂ 1♀ (CAU) Yunnan, Lijiang, Yulong County, Mingyin Township, Entuo [中国云南: 丽江玉龙县鸣音乡恩拖], 27.20983°N, 100.322991°E, 2986 m, 2020.VII.7, leg. Liu Yingqi; 3♂♂ 3♀♀ (CAU) Yunnan, Lijiang, Yulong County, Yulongxueshan [中国云南: 丽江玉龙县玉龙雪山], 26.9728°N, 100.23573°E, 2505 m, 2020.VI.17, leg. Liu Yingqi; 2♀♀ (CAU) Yunnan, Lijiang, Yulong County, Yulongxueshan [中国云南: 丽江玉龙县玉龙雪山], 27.20111°N, 100.273°E, 3201 m, 2020.VII.7, leg. Wang Xuan; 3♀♀ (CAU) Yunnan, Lijiang, Yulong County, Yulongxueshan [中国云南: 丽江玉龙县玉龙雪山], 27.20064°N, 100.274087°E, 3204 m, 2020.VII.7, leg. Wang Xuan; 1♀ (CAU) Yunnan, Lijiang, Yulong County, Yulongxueshan [中国云南: 丽江玉龙县玉龙雪山], 27.20237°N, 100.262404°E, 3199 m, 2020.VII.7, leg. Wang Xuan; 1♂ 1♀ (CAU) Yunnan, Lijiang, Yulong County, Baoshan Township, Laba [中国云南: 丽江玉龙县宝山乡拉巴], 27.33031°N, 100.363739°E, 3186 m, 2020.VII.6, leg. Liu Yingqi; 1♂ (CAU) Yunnan, Lijiang, Yulong County, Baoshan Township, Laba [中国云南: 丽江玉龙县宝山乡拉巴], 27.33042°N, 100.3637°E, 3166 m, 2020.VII.6, leg. Liu Yingqi; 1♂ (CAU) Yunnan, Lijiang, Yulong County, Liming Township, Laojunshan [中国云南: 丽

江玉龙县黎明乡老君山], 26.99457°N, 99.724587°E, 2546 m, 2020.VII.5, leg. Wang Xuan; 10♂♂ 1♀ (CAU) Yunnan, Lijiang, Yulong County, Mingyin Township, Zhongxialuo [中国云南: 丽江玉龙县鸣音乡中下落], 27.23007°N, 100.352903°E, 2771 m, 2020.VII.7, leg. Liu Yingqi; 10♂♂ 3♀♀ (CAU) Yunnan, Lijiang, Yulong County, Mingyin Township, Zhongxialuo [中国云南: 丽江玉龙县鸣音乡中下落], 27.22946°N, 100.352841°E, 2753 m, 2020.VII.7, leg. Liu Yingqi; 1♂ (CAU) Yunnan, Lijiang, Yulong County, Dadong Township, Anpiding [中国云南: 丽江玉龙县大东乡按皮丁], 27.05905°N, 100.412229°E, 2769 m, 2020.VII.6, leg. Chen Yuxin; 2♂♂ (IZCAS) Yunnan, Lijiang, Yuhu [云南丽江玉湖], 2800 m, 1984.VII.24, leg. Wang Shuyong; 2♂♂ 1♀ (IZCAS) Yunnan, Lijiang, Yuhu [云南丽江玉湖], 2750 m, 1984.VII.24, leg. Wang Ruiqi; 10♂♂ 4♀♀ (IZCAS) Yunnan, Lijiang, Lameirong [云南丽江拉美蓉], 2800 m, 1984.VIII.11, leg. Wang Shuyong; 1♂ 3♀♀ (IZCAS) Yunnan, Lijiang, Ludian [云南丽江鲁甸], 2800 m, 1984.VIII.10, leg. Wang Shuyong; 2♂♂ 4♀♀ (IZCAS) Yunnan, Lijiang [云南丽江], 3000 m, 1984.VI.19, leg. Wang Ruiqi; 9♂♂ 1♀ (NKU) Yunnan, Lijiang [云南丽江], 1979.VIII.14, leg. Liu Guoqing; 1♂ (NKU) Yunnan, Lijiang, Xiangshan [云南丽江象山], 1979.VIII.3, leg. Zheng Leyi; 3♂♂ 1♀ (NKU) Yunnan, Lijiang, Xiangshan [云南丽江象山], 1979.VIII.4, leg. Cui Jianxin; 1♀ (NKU) Yunnan, Lijiang, Xiangshan Ding [云南丽江象山顶], 1979.VIII.5, leg. Cui Jianxin; 1♀ (NKU) Yunnan, Lijiang, county town [云南丽江县城], 1979.VIII.4, leg. Zheng Leyi; 1♀ (NKU) Yunnan, Lijiang, Yufeng Temple [云南丽江玉峰寺], 1979.VIII.13, leg. Liu Guoqing; 3♂♂ 1♀ (NKU) Yunnan, Lijiang [云南丽江], 1979.VIII.13, leg. Liu Guoqing; 9♂♂ 1♀ (NKU) Yunnan, Lijiang [云南丽江], 1979.VIII.14, leg. Liu Guoqing; 50♂♂ 20♀♀ (IZCAS) Yunnan, Zhongdian (Shangri-La City), Geza [云南中甸 (香格里拉市) 格咱], 3150 m, 1981.VIII.4, host plant: *Lithospermum* sp. [紫草], leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Zhongdian (Shangri-La City), Geza [云南中甸 (香格里拉市) 格咱], 3150 m, 1981.VIII.6, leg. Wang Shuyong; 8♂♂ 7♀♀ (IZCAS) Yunnan, Zhongdian (Shangri-La City), Geza [云南中甸 (香格里拉市) 格咱], 3100 m, 1981.VIII.9, leg. Wang Shuyong; 41♂♂ 18♀♀ (IZCAS) Yunnan, Zhongdian (Shangri-La City), 25km W [云南中甸 (香格里拉市) 西25公里], 3400 m, 1984.VIII.23, host plant: *Lithospermum* sp. [紫草], leg. Wang Shuyong; 3♂♂ 5♀♀ (IZCAS) Yunnan, Zhongdian (Shangri-La City) [云南中甸 (香格里拉市)], 3200 m, 1981.VIII.3, leg. Wang Shuyong; 2♂♂ (IZCAS) Yunnan, Zhongdian (Shangri-La City), Chongjianghe [云南中甸 (香格里拉市) 冲江河], 2800 m, 1984.VII.21, leg. Wang Ruiqi; 2♂♂ (IZCAS) Yunnan, Zhongdian (Shangri-La City), W. Chongjianghe [云南中甸 (香格里拉市) 西冲江河], 2300 m, 1984.VIII.5, leg. Wang Shuyong; 1♂ (IZCAS) Yunnan, Zhongdian (Shangri-La City), W. Chongjianghe [云南中甸 (香格里拉市) 西冲江河], 1800 m, 1984.VIII.6, leg. Fan Jianguo; 1♂ (IZCAS) Yunnan, Zhongdian (Shangri-La City), W. Chongjianghe [云南中甸 (香格里拉市) 西冲江河], 2400 m, 1984.VIII.8, leg. Wang Shuyong; 1♂ (IZCAS) Yunnan, Zhongdian (Shangri-La City), W. Chongjianghe [云南中甸 (香格里拉市) 西冲江河], 2400 m, 1984.VIII.8, leg. Wang Ruiqi; 12♂♂ 9♀♀ (IZCAS) Yunnan, Xiaozhongdian (Shangri-La City) [云南小中甸 (香格里拉市)], 3200 m, 1984.VII.31, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Xiaozhongdian (Shangri-La City) [云南小中甸 (香格里拉市)], 3600 m, 1984.VIII.1, leg. Wang Shuyong; 1♂ 1♀ (IZCAS) Yunnan, Xiaozhongdian (Shangri-La City) [云南小中甸 (香格里拉市)], 3200 m, 1984.VIII.2, leg. Wang Ruiqi; 1♂ (IZCAS) Yunnan, Xiaozhongdian [云南小中甸], 2500 m, 1984.VIII.5, leg. Wang Ruiqi; 1♀ (IZCAS) Yunnan, Xiaozhongdian [云南小中甸], 2900 m, 1984.VIII.7, leg. Wang Ruiqi; 1♂ 1♀ (IZCAS) Yunnan, Xiaozhongdian [云南小中甸], 2900 m, 1984.VIII.7, leg. Wang Shuyong; 6♂♂ 1♀ (IZCAS) Yunnan, Xiaozhongdian [云南小中甸], 3200 m, 1984.VIII.2, leg. Fan Jianguo; 4♂♂ (IZCAS) Yunnan, Zhongdian (Shangri-La City), Xiaozhongdian [云南中甸 (香格里拉市) 小中甸], 3250 m, 1984.VIII.2, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Lanping, Jinding [云南兰坪金顶], 2400 m, 1984.VIII.24, leg. Wang Shuyong; 2♂♂ (IZCAS) Yunnan, Lanping, Jinding [云南兰坪金顶], 2350 m, 1984.VIII.25, leg. Wang Ruiqi; 1♂ (IZCAS) Yunnan, Lanping [云南兰坪], 2400 m, 1984.VIII.26, leg. Wang Shuyong; 1♂ (IZCAS) Yunnan, Yongsheng, Liude [云南永胜六德], 2300 m, 1984.VII.10, leg. Li Changfang; 1♂ (IZCAS) Yunnan, Yongsheng, Liude [云南永胜六德], 2400 m, 1984.VII.18, leg. Wang Shuyong; 2♂♂ 2♀♀ (IZCAS) Yunnan, Weixi, Pantian'ge [云南维西攀天阁], 2920 m, 1981.VII.18, leg. Wang Shuyong; 1♂ (IZCAS) Yunnan, Weixi, Pantian'ge [云南维西攀天阁], 2920 m, 1981.VII.19, leg. Wang Shuyong; 2♂♂ (IZCAS) Yunnan, Weixi, Pantian'ge [云南维西攀天阁], 2500 m, 1981.VII.24, leg. Wang Shuyong; 1♂ (IZCAS) Yunnan, Weixi, Pantian'ge [云南维西攀天阁], 2500 m, 1981.VII.28, leg. Liao Subai; 1♀ (IZCAS) Yunnan, Weixi, Lidi Ping [云南维西犁地坪], 3200 m, 1984.VIII.16, leg. Wang Ruiqi; 3♂♂ (IZCAS) Yunnan, Weixi, Lidi Ping [云南维西犁地坪], 3400 m, 1984.VIII.13, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Lushui [云南泸水], 2230 m, 1981.VII.11, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Lushui, Yaojiaping [云南泸水姚家坪], valley secondary forest, 2500 m, 1981.VI.4, leg. Wang Shuyong; 2♀♀ (IZCAS) Yunnan, Lushui, Yaojiaping [云南泸水姚家坪], valley secondary forest, 2500 m, 1981.VI.5, leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Lushui, Yaojiaping [云南泸水姚家坪], 2500 m, 1981.VI.6, host plant: *Lithospermum* sp. [紫

草], leg. Wang Shuyong; 1♀ (IZCAS) Yunnan, Yunlong, Zhibenshan [云南云龙志奔山], 2430 m, 1981.VI.20, leg. Wang Shuyong; 1♂ (IZCAS) Yunnan, Deqin, Benzilan [云南德钦奔子栏], 2180 m, 1981.VIII.23, leg. Wang Shuyong; 1♂ (IZCAS) Yunnan, Xiaomengyang [云南小勐养], 850 m, 1957.IV.2, leg. Wang Shuyong; 1♂ (IZCAS) Yunnan, Jinghong, Menghai County, Bannahe Reserve, Guomenshan (paddy field) [云南景洪勐海县版纳河保护区过门山(稻田)], Malaise trap, 22.24527°N, 100.60380°E, 1110 m, 2008.XI.10, leg. Meng Lingzeng; 1♂ (IZCAS) Yunnan, Jinghong, Menghai County, Bannahe Reserve, Mengsong Township, Benggang Xinzhai Plantation (rubber forest) [云南景洪勐海县版纳河保护区勐宋乡蚌岗新寨种植场(橡胶林)], flight interception trap, 22.18418°N, 100.64986°E, 797 m, 2008.XI.20, leg. Meng Lingzeng; 2♀♀ (IZCAS) Yunnan, Baoshan to Yongping [云南保山至永平], 1955.V.28, leg. B. Popov; 1♂ (CAU) Yunnan, Dali, Eryuan County, Sanying Town, Ma'er Shan [中国云南:大理洱源县三营镇马耳山], 26.12577°N, 100.106555°E, 3133 m, 2020.VII.7, leg. Fan Mingyuan; 8 exx. (NMB) N. Yunnan, Lijiang, 2600 m, 1990.V.30–VII.2, leg. L. & M. Bocak; 2♂♂ (NMB) Yunnan, Weishan mts., 25.10°N, 100.21°E, 1800–2500 m, 1992.VI.22–25, leg. Vit Kuban; 1♀ (NMB) Yunnan, Weibaoshan mts., 25.11°N, 100.24°E, 2000–2800 m, 1992.VI.25–28, leg. Vit Kuban; 5♂♂ 3♀♀ (NMB) Yunnan, Yulongshan mts., 27.08°N, 100.14°E, 2900–3500 m, 1990.VII.7–12, leg. Vit Kuban; 1♂ (NMB) N. Yunnan, Yulongshan mts., Ganhaizi/Lijiang road, N, E, 2500–2800 m, 1990.VII.24–26, leg. D. Kral; 2♀♀ (NMB) N. Yunnan, Yulongshan mts., Baishui village, N, E, 2900–3500 m, 1990.VII.7–12, leg. D. Kral; **Xizang**: 2♂♂ (IZCAS) Xizang, Mêdog, Gedang [西藏墨脱格当], 1700 m, 1982.IX.24, leg. Han Yinheng; 1♀ (IZCAS) Xizang, Mêdog, Gelin [西藏墨脱格林], 1500–1900 m, 1983.V.25, leg. Lin Zai; 1♀ (IZCAS) Xizang, Mêdog, Maniweng [西藏墨脱马尼翁], 800–1020 m, 1983.VI.17, leg. Lin Zai; 1♀ (IZCAS) Xizang, Nyalam, Friendship Bridge [西藏聂拉木友谊桥], 1800 m, 1966.V.6, leg. Wang Shuyong; 3♂♂ 1♀ (IZCAS) Xizang, Zayü County, Shang Zayü [西藏察隅县上察隅], 28.43°N, 96.47°E, 1960 m, 2005.VIII.21, leg. Chen Xiaolin; 1♀ (IZCAS) Xizang, Zayü County, Shang Zayü [西藏察隅县上察隅], 28.48°N, 96.43°E, 1900 m, 2005.VIII.22–23, leg. Song Zhishun; 1♂ 2♀♀ (IZCAS) Xizang, Zayü County, Shang Zayü Town [西藏察隅县上察隅镇], 28.43°N, 96.47°E, 1960 m, 2005.VIII.24, leg. Chen Xiaolin; 1♂ (IZCAS) Xizang, Zayü County, between Shang Zayü and Xia Zayü [西藏察隅县上察隅至下察隅途中], 28.48°N, 96.43°E, 1500 m, 2005.VIII.25, leg. Chen Xiaolin; 1♂ (IZCAS) Xizang, Zayü County, Shang Zayü [西藏察隅县上察隅], 28.43°N, 96.47°E, 1960 m, 2005.VIII.21, light trap, leg. Song Zhishun & Yin Chengrui; 2♂♂ (IZCAS) Xizang, Zayü County, Xia Zayü, pine path beside hotel [西藏察隅县下察隅宾馆旁松树小路], 28.7193°N, 96.7809°E, 1948 m, 2019.VIII.6, leg. Liang Jingyu & Jiang Kun; 2♂♂ (IZCAS) Xizang, Zayü County, Xia Zayü, pine path beside hotel [西藏察隅县下察隅宾馆旁松树小路], 28.7193°N, 96.7809°E, 1948 m, 2019.VIII.6, leg. Zhang Renjie; 1♂ (IZCAS) Xizang, Nyingchi, Cibagou Nature Reserve [西藏林芝慈巴沟自然保护区], 28.35°N, 96.56°E, 1540–2014 m, 2005.VIII.25, leg. Zhang Dong; 1♂ (IZCAS) Xizang, Bomi County, Yigong Township, Yigong Tea Plantation campsite graffiti area [西藏波密县易贡乡易贡茶场露营地涂鸦区], 30.1340°N, 95.0192°E, 2077 m, 2017.VIII.05, light trap, leg. Zhao Kaidong. **NEPAL**. 1♂ 1♀ (NMB) E. Nepal, Hill, 1988.IV.28, leg., S. Bílý.

Description. Body elongate-oval, dorsum moderately convex. Female body length 2.45–3.00 mm, width 1.15–1.45 mm; male body length 2.20–2.80 mm, width 0.90–1.25 mm. Maximum width of elytra 1.62 times as that of pronotum; humeral width 1.38 times basal width of pronotum. Dorsum black, smooth and shiny, with strong green to bluish metallic luster. Antennae black, apex of antennomere I–III brown. Legs black, tarsi dark brown to black (Fig. 17A). Ventral surface black with faint bluish metallic luster (Fig. 17B).

Head. Vertex impunctate, with weak transverse wrinkles; surface smooth. Antennal calli poorly developed, barely delimited from vertex, surface smooth; supraorbital and orbital grooves well-developed, extending from upper eye margin to antennal socket. Midfrontal and suprafrontal sulci absent. Frontal ridge strongly raised but not sharp (Fig. 17C). Antennae slender, female antennae 0.89 times as long as body, male 0.96 times; antennomere II nearly as long as III, antennomere IV distinctly longer than III.

Thorax (Fig. 17D). Pronotum slightly transverse, 1.29 times as wide as long; anterior margin slightly convex, posterior margin broadly rounded, lateral margins slightly convex, with maximum width at mid-length; anterior angles obliquely truncate, edges slightly thickened. Anterolateral callosity poorly developed, slightly protruded. Lateral margin narrowly explanate. Posterolateral callosity strongly prominent. Punctures fine and dense. Interspaces smooth. Scutellum semicircular, surface weakly shagreened.

Elytra. Each elytron 3.11 times as long as wide, lateral margins nearly parallel, apex broadly rounded; with well-developed humeral callus; maximum width at mid-length. Punctures confused, coarse and dense, distinctly larger than those on pronotum. Hind wings fully developed.

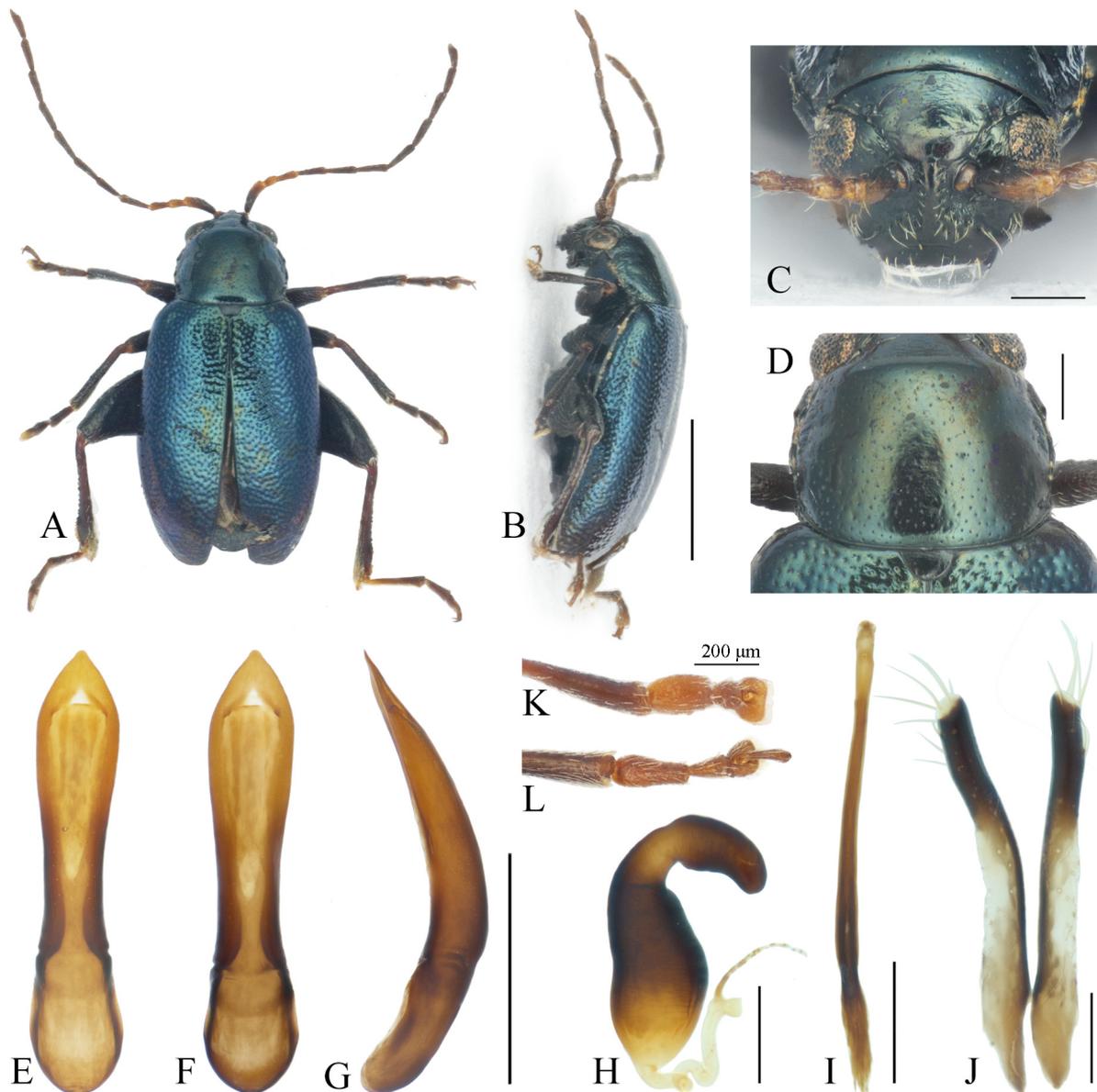


FIGURE 17. *Longitarsus warchalowskii* Scherer, 1969. **A.** Dorsal habitus. **B.** Lateral habitus. **C.** Head. **D.** Pronotum. **E.** Aedeagus, ventral view. **F.** Aedeagus, dorsal view. **G.** Aedeagus, lateral view. **H.** Spermatheca. **I.** Tignum. **J.** Vaginal palpi. **K.** Protarsus. **L.** midtarsus. Scale bars: 1 mm (A–B), 0.2 mm (C–D, I, K–L), 0.5 mm (E–G), 0.1 mm (H, J).

Legs. Protarsomere I strongly dilated, oval, broader than protibia (Fig. 17K); mesotarsomere I strongly dilated, pyriform, basally nearly as wide as tibia, apically narrower (Fig. 17L). Metatibia slender, curved outwards; Metatarsomere I of male 0.53 times as long as metatibia, 1.18 times as long as metatarsomeres II–IV combined. Metatibial spur 0.56 times as long as maximum width of metatibia.

Male genitalia (Fig. 17E–G). Median lobe of aedeagus narrow at base, widest at subapex, apex spearhead-shaped with minute projection. Ventral groove narrow, narrowed at base but extending to basal opening. Basal opening broadly oval, widest at mid-length. Evenly curved in lateral view, evenly narrowed from base to apex.

Female genitalia. Receptacle of spermatheca rather slender; spermathecal pump small, apex narrowly rounded, neck long; spermathecal duct short, with two coils (Fig. 17H). Tignum rather slender, straight, heavily sclerotized, anteriorly barely dilated (Fig. 17I). Vaginal palpi slender, slightly curved inwards apically, apex rounded (Fig. 17J).

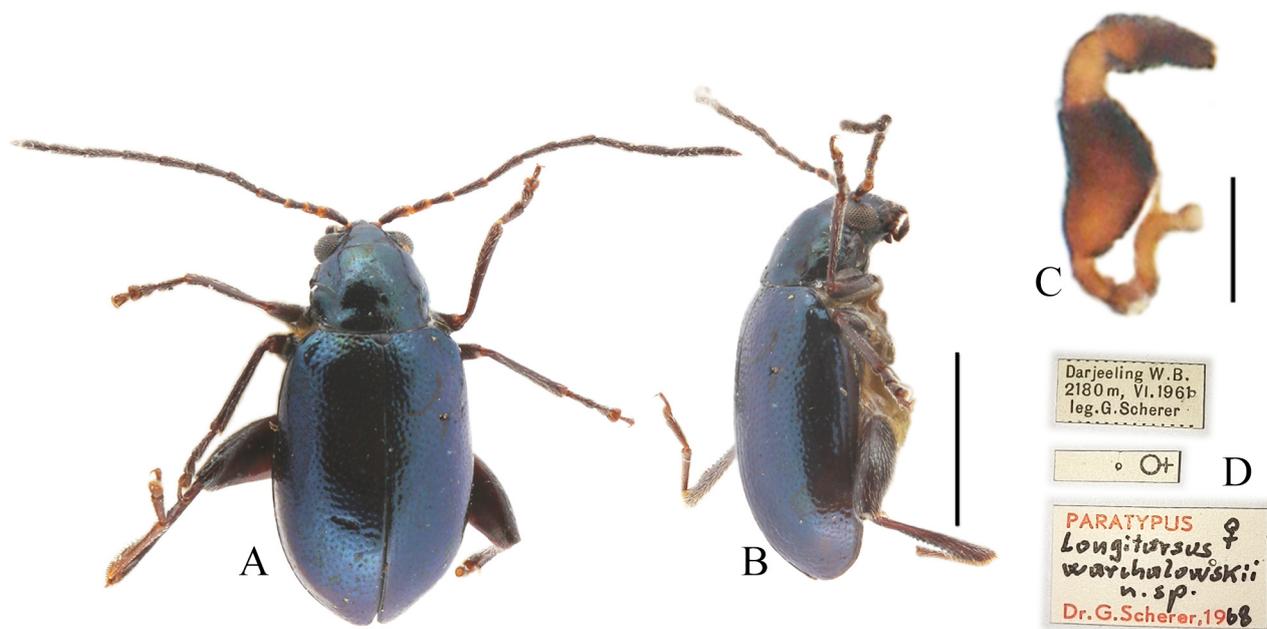


FIGURE 18. *Longitarsus warchalowskii* Scherer, 1969, paratype. **A.** Dorsal habitus. **B.** Lateral habitus. **C.** Spermatheca. **D.** Labels. Scale bars: 1 mm (A–B), 0.1 mm (C).

Diagnosis. This species can be distinguished by the following combination of characters: 1) Dorsum black, with strong bluish-green metallic luster, legs and antennae largely black (Fig. 17A–D); 2) Protarsomere I strongly dilated, oval, wider than protibia; mesotarsomere I strongly pyriform, basally nearly as wide as mesotibia, apically narrower (Fig. 17K–L); 3) Punctures coarse on elytra; 4) Median lobe of aedeagus constricted at mid-length, widest subapically, evenly curved in lateral view (Fig. 17E–G).

Host plant. *Lithospermum* sp. (Boraginaceae).

Distribution. China (Sichuan, Yunnan, Xizang); India, Nepal.

Remark. Although Lopatin (1984) synonymized this species with *L. indigonaceus* Lopatin, 1963, our comparison of aedeagus images from the original descriptions and non-type specimens revealed significant morphological differences. Specifically, in ventral view, the aedeagus of *L. warchalowskii* is widest near the apex (Fig. 17E; Scherer 1969: abb. 24c), whereas that of *L. indigonaceus* is widest near mid-length (Fig. 5D; Lopatin 1963: fig. 12). In lateral view, the aedeagus of *L. warchalowskii* is evenly curved (Fig. 17G; Scherer 1969: abb. 25c), while that of *L. indigonaceus* is distinctly bent just above the basal opening and straight throughout the remainder of its length (Fig. 5D; Lopatin 1963: fig. 12). These morphological disparities indicate that the previous synonymization is unjustified. Therefore, we propose the reinstatement of *Longitarsus warchalowskii* Scherer, 1969 as a distinct species. Furthermore, our examination indicates that *L. indigonaceus* is a junior synonym of *L. cyanipennis* (see above).

***Longitarsus zhejiangensis* Liang & Konstantinov sp. nov.**

(Figs 19, 20)

Type material. HOLOTYPE: CHINA. Zhejiang: ♂ (IZCAS) Zhejiang, Tianmushan [浙江天目山], 700 m, 1998. IX.26, leg. Zhao Mingshui.

Description. Body elongate-oval, dorsum convex. Body length 2.06 mm, width 1.06 mm. Maximum width of elytra 1.50 times as that of pronotum; humeral width 1.39 times basal width of pronotum. Dorsum black, smooth and shiny, with strong bluish metallic luster. Head black, vertex with strong green metallic luster. Scutellum pitch black. Antennae dark brown, apical part of basal three antennomeres slightly paler. Legs dark brown, tarsi brown to dark brown, metafemur black (Fig. 19A). Ventral surface black with faint bluish metallic luster (Fig. 19B).

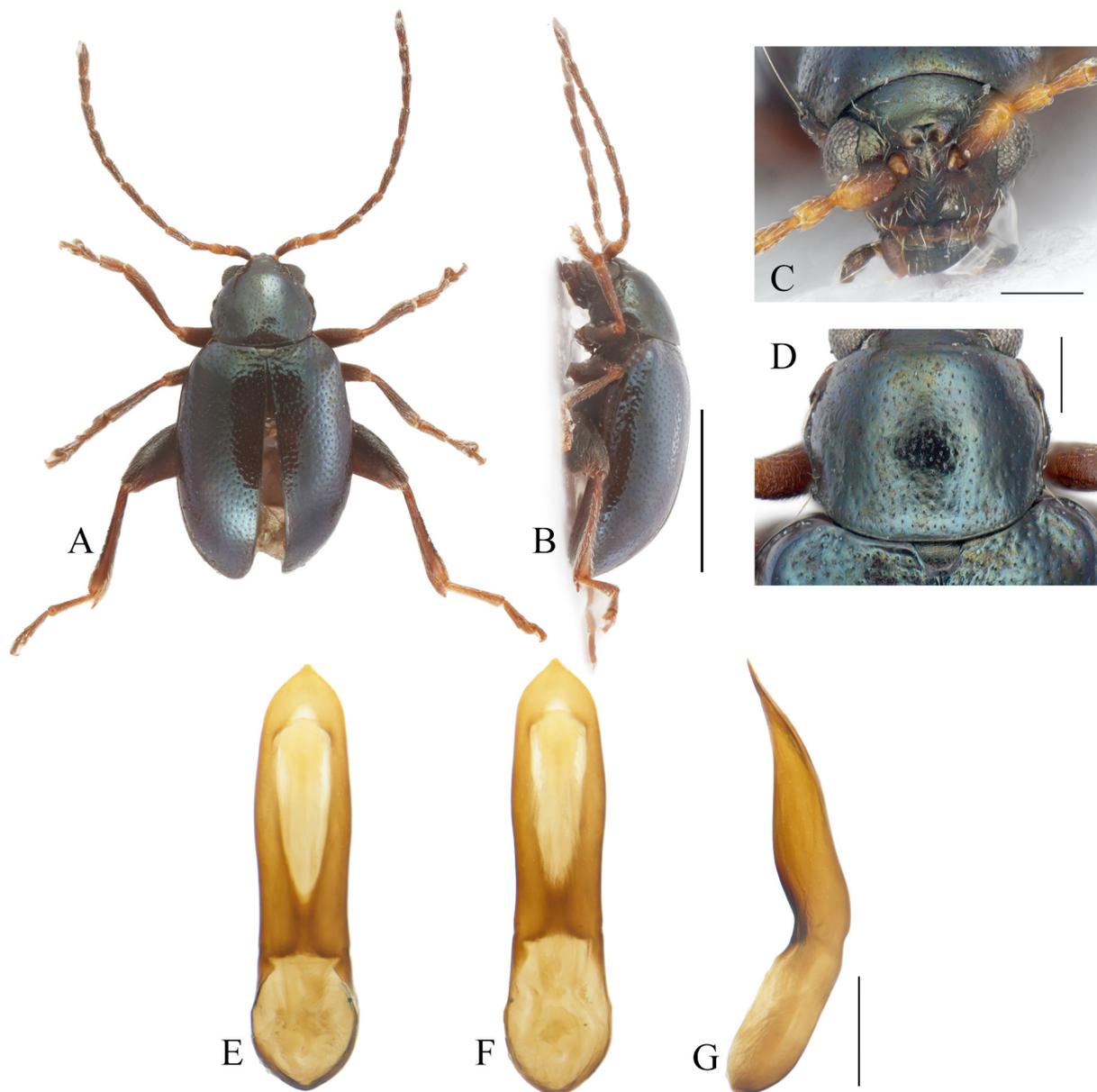


FIGURE 19. *Longitarsus zhejiangensis* Liang & Konstantinov **sp. nov.**, holotype. **A.** Dorsal habitus. **B.** Lateral habitus. **C.** Head. **D.** Pronotum. **E.** Aedeagus, ventral view. **F.** Aedeagus, dorsal view. **G.** Aedeagus, lateral view. Scale bars: 0.5 mm (A–B), 0.2 mm (C–G).

Head. Vertex impunctate, surface smooth, with a shallow transverse depression above antennal calli; antennal calli poorly developed, surface smooth; supraorbital and orbital grooves well-developed, extending from upper eye margin to antennal socket; postcallinal sulcus poorly developed, barely delimited from vertex; with a star-shaped pit between inner posterior margin of antennal calli and vertex; frontal ridge slightly raised but not sharp, distance between antennae wider than antennal diameter (Fig. 19C). Antennae as long as body; antennomere II as long as III, antennomere IV distinctly longer than III.

Thorax (Fig. 19D). Pronotum subquadrate, 1.25 times as wide as long; anterior and posterior margins slightly convex, lateral margins rounded, with maximum width at mid-length; anterior angles obliquely truncate, edges slightly thickened. Anterolateral callosity moderately developed, moderately protruded. Lateral margin moderately explanate. Posterolateral callosity strongly prominent. Punctures fine, dense. Interspaces smooth. Scutellum linguiform, surface strongly shagreened.

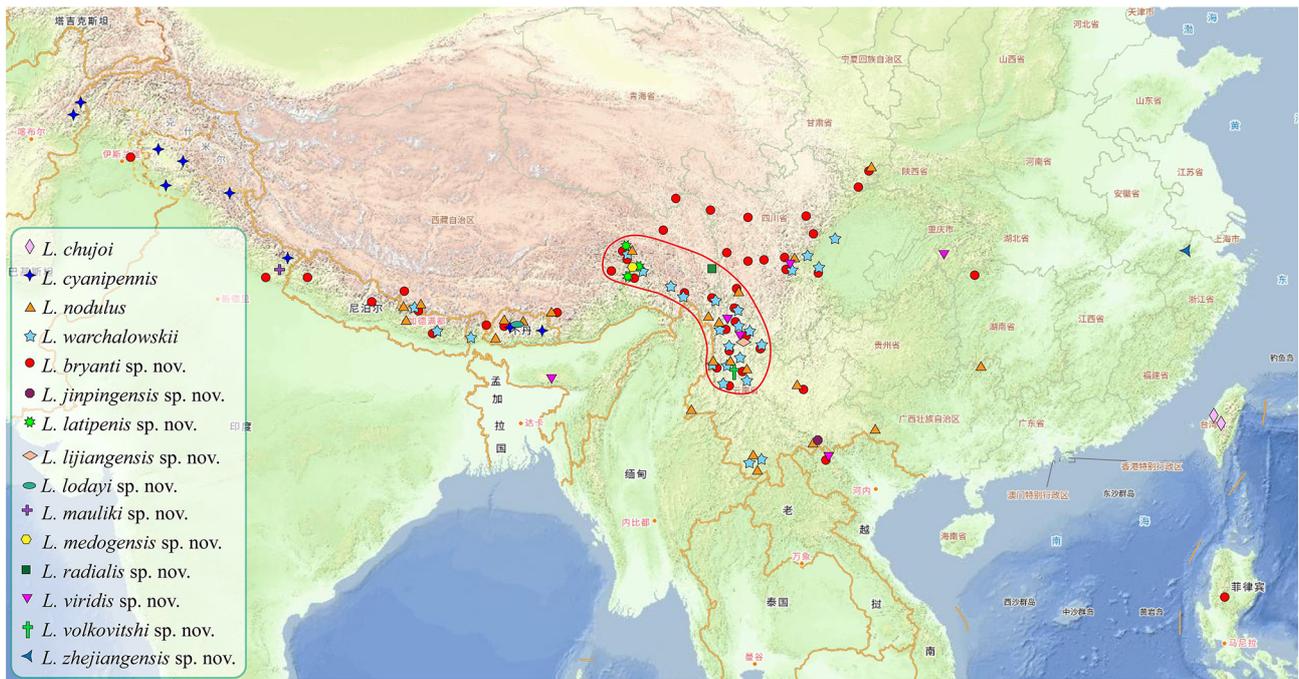


FIGURE 20. Distribution of species of *Longitarsus cyanipennis* species group. The red line delineates the key biodiversity hotspot for this species group. The map was downloaded from <https://map.tianditu.gov.cn/>.

Elytra. Each elytron 2.65 times as long as wide, lateral margins nearly parallel, maximum width at mid-length; with strongly developed humeral callus, with a depression along inner side of humeral callus; punctures confused, coarse and dense, distinctly larger than those on pronotum. Hind wings fully developed.

Legs. Protarsomere I and mesotarsomere I of male slightly dilated, slightly narrower than protibia. Metatibia rather slender, straight. Metatarsomere I of male 0.59 times as long as metatibia, 1.22 times as long as metatarsomeres II–IV combined. Metatibial spur 0.65 times as long as maximum width of metatibia.

Male genitalia (Fig. 19E–G). Median lobe of aedeagus rather slender, widest at mid-length, slightly narrowed towards both ends, apex narrowly rounded with minute projection. Ventral groove fusiform, narrow, closed above basal opening. Basal opening oval, widest at mid-length. Wide in lateral view, curved above basal opening; ventral side sinuate, dorsal side slightly convex, gradually narrowed towards apex, apex curved ventrally.

Female unknown.

Differential diagnosis. This species closely resembles *L. nodulus* but can be distinguished by its paler antennae and legs, and its less transverse pronotum (Fig. 19A, D). Additionally, the median lobe of the aedeagus is more slender, the ventral groove is closed at the base, and the aedeagus appears broader in lateral view (Fig. 19E–G). It is also similar to *L. viridis* sp. nov. in sharing sub-quadrate pronota and similar aedeagi. Compared to *L. viridis* sp. nov., this species is characterized by a shallow transverse depression above antennal calli and short elytra (length-to-width ratio 2.65 vs. 3.29). The ventral groove closes above basal opening, while open in *L. viridis* sp. nov.; the ventral side is sinuate rather than straight in lateral view.

Etymology. The specific name is derived from the type locality, Zhejiang Province, China.

Host plant. Unknown.

Distribution. China (Zhejiang).

Discussion

Prior to this study, only five species within the *Longitarsus cyanipennis* group had been formally described. With the new species proposed herein, the group now includes a total of 15 recognized species. The high degree of morphological uniformity among these beetles, together with a historical lack of genital dissection and examination of type specimens, has long impeded reliable species identification. For instance, most specimens previously

recognized as *L. cyanipennis* are now shown to represent a previously undescribed species, which we name here as *L. bryanti* **sp. nov.** Furthermore, specimens identified by Maulik (1926) as *L. cyanipennis* were found to comprise three distinct species, i.e., *L. cyanipennis* sensu stricto, *L. bryanti* **sp. nov.**, and *L. mauliki* **sp. nov.** Additionally, after the revision, *L. warchalowskii* is restored as a valid species; it was previously treated as a synonym of *L. indigonaceus*, which itself is now confirmed to be a junior synonym of *L. cyanipennis*. These findings highlight the essential role of reevaluating and dissecting type specimens to ensure taxonomic precision.

Species in the *Longitarsus cyanipennis* group are primarily associated with Boraginaceae as host plants. Interestingly, species from several other species groups within *Longitarsus* that also feed on Boraginaceae exhibit a similar dark body coloration. These include the Central Asian-dominated subgenus *Testergus*, along with the *violentus* and *asperifoliarum* species group, as well as Mediterranean lineages such as *aeneus*, *anchusae*, *exoletus*, and *echii* species group (Biondi & d'Alessandro 2008; Konstantinov 2005; Konstantinov & Lopatin 2000; Liang *et al.* 2023). The correlated evolution of specialized host association and convergent dark coloration raises the possibility that these taxa may constitute a distinct monophyletic lineage within *Longitarsus*. Thorough phylogenetic analysis is required to further test this hypothesis.

Distribution records reveal that the *L. cyanipennis* species group occurs predominantly in the Himalaya-Hengduan Mountains, a well-recognized biodiversity hotspot, with particularly high concentrations in a belt extending from southeastern Xizang to northwestern Yunnan, with nine species found within this narrow area (Fig. 20, marked with red line). This distribution pattern suggests that this area likely served as the center of diversification for the group. The complex topography and dynamic climatic history of the Himalaya-Hengduan Mountains have provided ideal conditions for speciation (Luo *et al.* 2016), thereby promoting the diversification and dispersal into surrounding areas.

Médog is a small county located in southeastern Tibet, situated in the middle and lower reaches of the Yarlung Tsangpo River. Its habitats span from tropical rainforests at just over 100 m to snow-capped peaks exceeding 7,000 m, resulting in a pronounced vertical zonation of vegetation (Fu *et al.* 2015). Such distinctive geographical and climatic conditions designate Médog as a globally important region for conservation within the Eastern Himalayan biodiversity hotspot (Li *et al.* 2021), sustaining an exceptional level of biodiversity. To date, a total of 10 species of *Longitarsus* have been recorded in Médog, half of which are newly described (Peng *et al.* 2026). Four of them are members of the *cyanipennis* species group, which appears to be a dominant component of the local *Longitarsus* fauna.

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蓝长跗跳甲 *Longitarsus cyanipennis* 种团分类修订及十一新种记述 (鞘翅目: 叶甲科: 萤叶甲亚科: 跳甲超族)

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摘要: 对蓝长跗跳甲 *Longitarsus cyanipennis* 种团15个物种分类进行修订; 描述或重描述所有物种并附外部形态和外生殖器图; 提供了该种团种检索表。共记述11个新种: 布氏长跗跳甲 *L. bryanti* Liang & Konstantinov **sp. nov.**、金平长跗跳甲 *L. jinpingensis* Liang & Konstantinov **sp. nov.**、丽江长跗跳甲 *L. lijiangensis* Liang & Konstantinov **sp. nov.**、罗戴长跗跳甲 *L. lodayi* Liang & Konstantinov **sp. nov.**、毛氏长跗跳甲 *L. mauliki* Liang & Konstantinov **sp. nov.**、宽茎长跗跳甲 *L. latipenis* Liang & Konstantinov **sp. nov.**、墨脱长跗跳甲 *L. medogensis* Liang & Konstantinov **sp. nov.**、辐尾长跗跳甲 *L. radialis* Liang & Konstantinov **sp. nov.**、绿光长跗跳甲 *L. viridis* Liang & Konstantinov **sp. nov.**、沃氏长跗跳甲 *L. volkovitshi* Liang & Konstantinov **sp. nov.** 和浙江长跗跳甲 *L. zhejiangensis* Liang & Konstantinov **sp. nov.**; 恢复了金绿长跗跳甲 *L. warchalowskii* Scherer, 1969有效种地位 (原归为靛蓝长跗跳甲 *L. indigonaceus* Lopatin, 1963次异名), 提出靛蓝长跗跳甲为蓝长跗跳甲 *L. cyanipennis* Bryant, 1924次异名。墨脱县分布该种团4种, 即金绿长跗跳甲、布氏长跗跳甲、宽茎长跗跳甲和墨脱长跗跳甲。

关键词: 长跗跳甲属; 同物异名; 中国; 喜马拉雅-横断山区; 紫草科