



REVIEW OF THE GENUS *DORYSTHENES*, PART 1. TWO NEW SPECIES OF THE SUBGENUS *BALADEVA* FROM CHINA (CERAMBYCIDAE, PRIONINAE)

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Abstract: Species of the genus *Dorysthenes* Vigors, 1826 from subgenera *Dorysthenes* Vigors, 1826 and *Baladeva* Waterhouse, 1840 are studied, diagnosed and illustrated. Two new species, *Dorysthenes* (*Baladeva*) *drumonti* sp. nov. and *Dorysthenes* (*Baladeva*) *jendeki* sp. nov. are described from China.

Key words: new species, taxonomy, Palaearctic region, Oriental regions

INTRODUCTION

The longhorn beetle genus *Dorysthenes* Vigors, 1826 comprises seven subgenera: *Dorysthenes* Vigors, 1826; *Baladeva* Waterhouse, 1840; *Cyrtognathus* Dejean, 1835; *Dissosternus* Hope, 1833; *Lophosternus* Guérin-Méneville, 1844; *Paraphrus* Thomson, 1861 and *Prionomimus* Lameere, 1912 (DRUMONT & KOMIYA 2010; TAVAKILIAN & CHEVILLOTTE 2024). The species of the genus *Dorysthenes* are distributed in the Oriental and south-eastern part of the Palaearctic region.

The genus *Dorysthenes* was proposed by VIGORS (1826) and the subgenus *Baladeva* (as a genus) by WATERHOUSE (1840).

The subgenera *Dorysthenes* and *Baladeva* are characterised by an anteriorly and ventrally protruding prosternum (Figs 1C,D,G,J, 2B,F, 3A-F), while in other subgenera (*Lophosternus*, *Paraphrus*, *Cyrtognathus*, *Prionomimus* and *Dissosternus*) the prosternum is uniformly convex and not protruding anteriorly. Diagnostic characters of the subgenera *Dorysthenes* and *Baladeva* were cited in GRESSITT (1951) and GRESSITT & RONDON (1970).

The nominal subgenus *Dorysthenes* includes: *D. davidis* Fairmaire, 1886; *D. montanus* (Guérin-Méneville, 1840) and *D. rostratus* (Fabricius, 1793). The subgenus *Baladeva* includes: *D. sternalis* (Fairmaire, 1902); *D. walker* (Waterhouse, 1840) and two new species described here.

MATERIAL AND METHODS

The description is kept concise, characters evident from illustrations are omitted. The locality data of the examined specimens are quoted verbatim. Type specimens of newly described species are labelled with the red label with the status (holotype or paratype), the name of the species, its author and year, and with the inscription R. Hergovits det. 2024. Photographs of the habitus were taken by the author with the NIKON D700 camera. Photographs of the genitalia were taken by Ľubomír Vidlička with the Leica M205 C stereomicroscope and the Flexacam C3 camera. Peter Kurina provided detailed images of the elytral sculpture with the Panasoic Lumix GX8 camera.

Collection codens. **ADCB:** collection of Alain Drumont, Belgium; **RHCS:** collection of Roman Hergovits, Slovak Republic; **MNLI**BS Museum für Naturkunde - Leibniz Institute for Evolution and Biodiversity Science Berlin; **IRSNB:** Institut Royal des Sciences naturelles de Belgique Bruxelles; **MHNHP:** Muséum national d'histoire naturelle de Paris.

KEY TO THE SUBGENERA OF *DORYSTHENES* MALES

- 1 Prosternum flat, not protruding antero-ventrally
..... *Lophosternus, Paraphrus, Cyrtonathus, Prionomimus, Dissosternus*
- Prosternum protruding antero-ventrally (Figs 1C,D,G,J, 2B,F, 3A-F) 2
- 2 Anterior part of prosternum in male spiniform (Figs 1C,D,G,J, 3A,B)
..... *Dorysthenes*
- Anterior part of prosternum in male obtuse (Figs 2B,F, 3C-F) *Baladeva*

TAXONOMY

Genus *Dorysthenes* Vigors, 1826

genus type: *Prionus rostratus* Fabricius, 1793

Subgenus *Dorysthenes* Vigors, 1826

Dorysthenes davidis Fairmaire, 1886

(Figs 1F-H, 3A,B,G, 4A,B,F,G, 5A)

Dorysthenes Davidis Fairmaire, 1886

Material examined. MHNHP: Holotype ♂ (Figs 1D, 1E, 4A), type labels (Fig. 1F); IRSNB: ♂ (Figs 3A, 3B, 3G, 4B, 5A), label data (Fig. 4G); 62 ♂, 13 ♀ “Hang-Kia-Pin, alt. 1400 m, Ouest Yunnan”; 9 ♂ “Hang-Kia-Pin, alt. 1400 m, Ouest Yunnan, Coll. Le Moul”; 1 ♂ “Ma-

Chang, alt. 1400 m, Ouest Yunnan"; 14 ♂ "Ma-Chang, alt. 1000 m, Ouest Yunnan"; 2 ♂ "See-Tsong, alt. 2000 m, Est Yunnan"; 14 ♂ "Djo-Kou-La, alt. 1200 m, Nord Ouest Yunnan".

Distribution. China: Yunnan, Guizhou, Sichuan (adopted from TAVAKILIAN & CHEVILLOTTE 2024).

Remarks. The holotype of *D. davidis* is a poorly developed specimen (Figs 1F,G, 4A).

I have examined a large series of specimens from IRSNB (see above), in which the pronotum commonly usually more complex (Fig. 4B) and prosternal spiniform protrusion more robust (Figs 3A,B).

Interestingly, *D. davidis* is hardly distinguishable dorsally from *D. sternalis* of the subgenus *Baladeva* apart from the elytral sculpture (in *D. sternalis* whit small, sparse punctures (Fig. 5A)) and more shiny pronotum with sparser punctuation (Figs 4A,B). The most reliable character to distinguish *D. davidis* from *D. sternalis* is the shape of prosternum (in male) which is spiniform anteriorly (lateral view) (Figs 1G, 3A,B).

***Dorysthenes montanus* (Guérin-Méneville, 1840)**

(Figs 1I-N)

Cyrtognathus montanus Guérin-Méneville, 1840

Material examined. MHNHP: 1 ♂ syntype (Figs 1I,J), type labels (1K); MHNHP: 1 ♂, 1 ♀ (Figs 1L,M), label data (Fig. 1N).

Distribution. India, Myanmar (adopted from TAVAKILIAN & CHEVILLOTTE 2024).

Remarks. "Mongolia" is given as the locality of non type specimens of *D. montanus* preserved in MHNHP which is very likely confusion (Fig. 1N).

***Dorysthenes rostratus* (Fabricius, 1793)**

(Figs 1A-E)

Prionus rostratus Fabricius, 1793

Material examined. MHNHP: 2 ♂ (Figs 1A-D), labels (Fig. 1E).

Distribution. Thailand, India, Sri Lanka, Pakistan (adopted from TAVAKILIAN & CHEVILLOTTE 2024).

Remarks. Three syntypes of *D. rostratus* are preserved in BMNH (TAVAKILIAN & CHEVILLOTTE 2024). Type specimens were not studied.

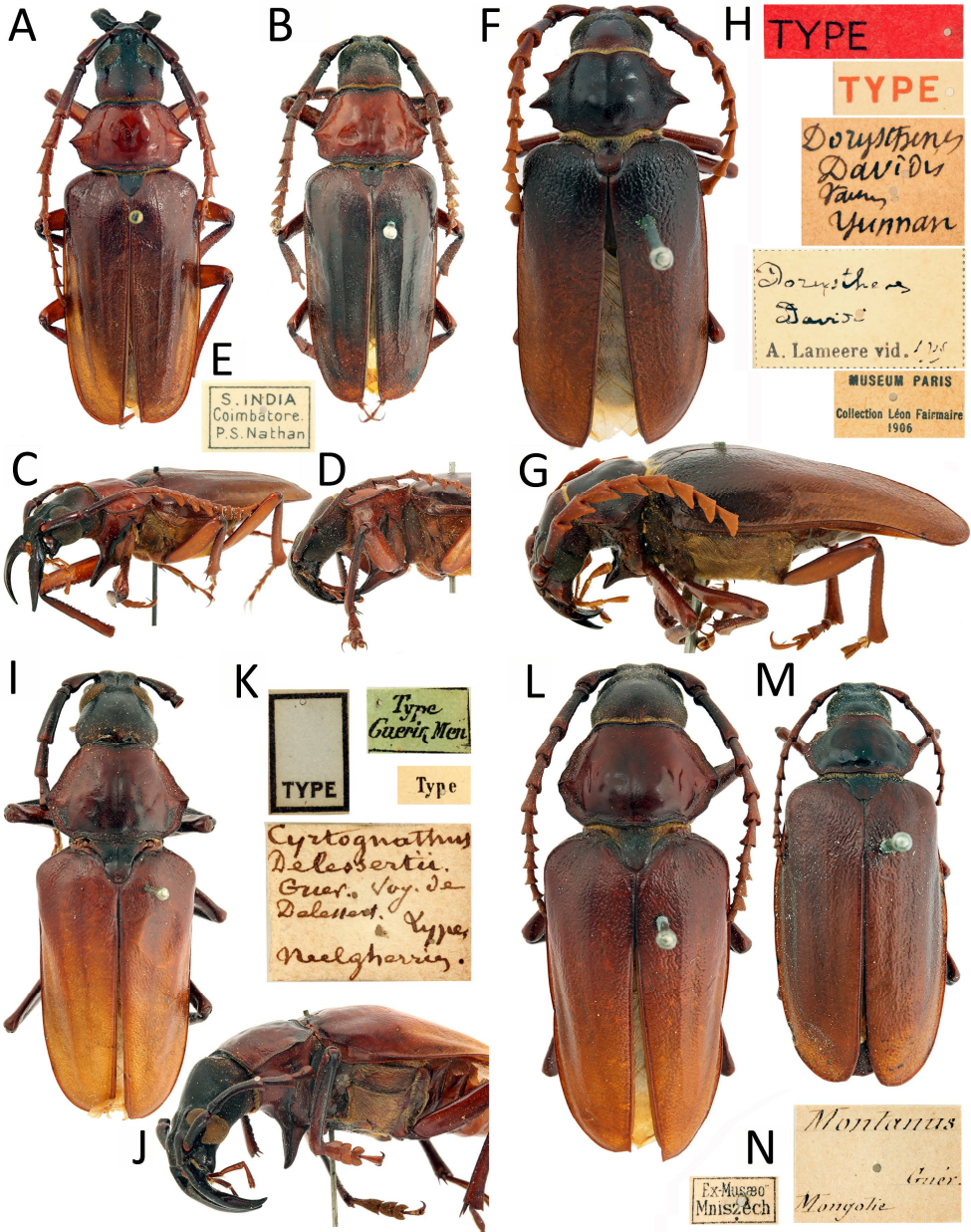


Fig. 1. *Dorysthenes* sp. (MHNHP). A, B, F, I, L, M) dorsal view; C, D, G, J) lateral view; E, H, K, N) original labels. A-D) ♂ *D. rostratus* (Fabricius, 1793), 41 resp. 39 mm; F-H) type ♂ *D. davidis* Fairmaire, 1886, 27.5 mm; I-K) type ♂ *D. montanus* (Guerin-Meneville, 1840); L-N) *D. montanus* (Guerin-Meneville, 1840); L) ♂ *D. montanus* (Guerin-Meneville, 1840), 37 mm; M) ♀ *D. montanus* (Guerin-Meneville, 1840), 28 mm.

Subgenus *Baladeva* Waterhouse, 1840

subgenus type: *Baladeva Walkeri* Waterhouse, 1840

***Dorysthenes (Baladeva) sternalis* (Fairmaire, 1902)**

(Figs 2E-I, 5B, 6A-C)

Cyrtognathus sternalis Fairmaire, 1902

Material examined. MHNHP: Holotype ♂ (Figs 2E, 2F) type label (Fig. 2G); MHNHP: 1 ♀ (Fig. 2H) label data (Fig. 2I); IRSNB: 8 ♂ “Koung Si Hien, alt 2100 m, Sud Est Yunnan”; 2 ♂, 1 ♀ “Kut-Sin-Fou, alt. 2000 m, Nord est Yunnan”; 18 ♂, 1 ♀ “See-Tsong, alt. 2000 m, Est Yunnan”; 33 ♂, 2 ♀ “Hang-Kia-Pin, alt. 1400 m, Ouest Yunnan”; 2 ♂ “Ma-Chang, alt. 1000 m, Ouest Yunnan”; 1 ♂ “Yunan Merio Yun. Pé, 1911, Baladeva sternalis Fairm.”; 16 ♂ “Sud Yunnan, Tche-Ping-Tcheou”; 1 ♀ “N Tali, Haut Yunnan”; 10 ♂, 2 ♀ “Yun Pe Yunnan Merid”; 1 ♂ “Pe Yen Tsing, Yunnan”; 26 ♂, 2 ♀ “Djo-Kou-La, alt. 1200 m, Nord Ouest Yunnan”; 1 ♀ “Yunnan”.

Distribution. China: Hebei, Henan, Hubei, Zhejiang, Sichuan, Yunnan; Nepal; Vietnam (adopted from TAVAKILIAN & CHEVILLOTTE 2024).

***Dorysthenes (Baladeva) walkeri* (Waterhouse, 1840)**

(Figs 2A-D)

Cyrtognathus siamensis Nonfried, 1892

Material examined. MHNHP: ♂ (Fig 2A,B); RHCS: 1 ♀ (Fig. 2C) “N THAILAND, Lampung Wang Nuea, June 2012, leg. loc. coll.”

Distribution. China, Vietnam, Laos, Myanmar, Thailand, India, Cambodge, Iran (adopted from TAVAKILIAN & CHEVILLOTTE 2024).

Remarks. Holotype male of *D. walkeri* is preserved in BMNH (TAVAKILIAN & CHEVILLOTTE 2024). Syntypes of *Cyrtognathus siamensis* are preserved in MNLIEBS (TAVAKILIAN & CHEVILLOTTE 2024). Types were not studied.

***Dorysthenes (Baladeva) drumonti* sp. nov.**

(Figs 2J,K, 3E,F,H, 4C,H, 5C,E,G,F)

Type locality. China, Yunnan, Huazhuliangzi, Menghai, altitude 2500 m.

Type specimens. Holotype ♂ (ADCB): “Huazhuliangzi, Menghai, 2500 m, S. Yunnan, CHINE, VII. 2000, leg TU”.

Description of holotype. Head, mandibles, pronotum, elytra, ventral side of body and legs black; antennae in proximal half dark-brown, in distal half dark-reddish; tarsi and maxillary palpi dark-reddish (Figs 3E,F,I). Pronotum on anterior and posterior margin with rim of yellow setae; mesosternum and metasternum with dense yellow pubescence. **Body** slender, subparallel, 35 mm long; 11.7 mm wide across humeri.

Head slender and distinctly prolonged, disc with coarser coalescent punctuation; head between eyes with deep medial sulcus and with distinct thickening around antennal joints; head weakly tapering anteriorly (lateral view) (Fig. 3I). **Eyes** bilobed, upper lobe narrow, lower lobe wide; anterior part of lower lobe arcuate (Fig. 3I). **Mandibles** narrow, sabre-like, elongated and shiny, sparsely punctate outside and at base with punctures of different sizes (Figs 3E,F,I); lower margin of mandibles with a small dent around the middle. **Palpi** long, last palpomeres enlarged apically. **Antennae** with 12 antennomeres, wide, each antennomere strongly enlarged apically, first two antennomeres apically closed, 3-11 apically open, shiny and moderately punctate; last 6 antennomeres gently rugose; ratio of relative lengths of antennomeres 1-12 is equal to: 0.9 : 0.25 : 1.00 : 0.85 : 0.75 : 0.7 : 0.65 : 0.6 : 0.6 : 0.65 : 0.65 : 0.55, with antennomere 3 being longest.

Pronotum 11.5 mm wide, 6.5 mm long, pronotal disc with two sparsely punctate and shiny protuberances; lateral and posterior margins of pronotum with dense and coarse punctures or with coalescent punctures (Fig. 4C); lateral margins of pronotum tricuspidate; medial cusp longest with tip turned backwards (Fig. 4C). **Scutellum** oval, sparsely punctate (Fig. 4C). **Elytra** 20.3 mm long, widest in humeral part, subparallel in basal half; distinctly tapered in apical half; elytral disc with leathery sculpture and wrinkles (Figs 2J, 5C).

Legs. Femora and tibiae of all legs shiny and sparsely punctate from above, coarsely and densely punctate from below; lower edge of all tibiae denticulate (Fig. 3E).

Ventral side of body densely punctate, sometimes with rugose sculpture; abdominal sternites glabrous and shiny. Prosternum widest in proximal part, slightly protruding anteroventrally (Figs 3E,F).

Differential diagnosis. *Dorysthenes drumonti* resembles *D. jendeki*, from which it differs by the black ventral side of femora and tibiae; by smaller and less developed prosternum; by more convex pronotum with two prominent protuberances on disc (Figs 3E,F); by head weakly tapering anteriorly (lateral view) (Fig. 3I); by the arcuate anterior part of the lower eye lobe (Fig. 3I); by the wider parameres (Fig. 5E) and by the subpentagonal shape of the last visible sternite (Fig. 5G).

It differs from *D. sternalis* by the black colour; by the more convex pronotum; by the protrusion of the prosternum subangulate on tip (lateral view) (Fig. 3E); by wider parameres (Fig. 5E) and by the subpentagonal shape of the last visible sternite (Fig. 5G). In *D. sternalis* the pronotum is less convex; the protrusion of the prosternum is subarcuate at the apex (lateral view) (Fig. 2F); the parameres are narrow and the last visible sternite is semicircular (Figs 6A,C).

Etymology. The name is derived from the name of my friend Alain Drumont, an expert in the family Cerambycidae, subfamily Prioninae.

***Dorysthenes (Baladeva) jendeki* sp. nov.**

Type locality. China, Yunnan, 100 km W of Kunming, Diaolin Nature Reserve.

Type specimens. Holotype ♂ (RHCS): “Ch-Yunnan 13.-14.VI. 1995, 100 km W of KUNMING, DIAOLIN Nat. Reservation, E. Jendek & O. Šauša leg.”. **Paratypes:** 3 ♂ (RHCS): same locality and date as the holotype, 1 ♂ (IRSNB): “Sse - Tsong alt 2000 m. Est Yunnan”.

Description of holotype. Body dark-brown ventrally; head, mandibles, pronotum and elytra black; legs dark-brown; antennae dark-brown in basal half and reddish in apical half; tarsi and palpi dark-reddish (Fig. 2L). Pronotum on anterior and posterior margin with rim of yellow setae; mesosternum and metasternum with dense yellow pubescence. **Body** slender, subparallel, 42 mm long, 13 mm wide across humeri. **Head** slender and prolonged, disk with coarser coalescent punctuation between eyes and with sparse and fine punctuation posteromedially; head between eyes with deep medial sulcus and with significant thickening around antennal joints; head abruptly tapering anteriorly (lateral view) (Fig. 3H). **Eyes** bilobed, upper lobe narrow, lower lobe wide; anterior part of lower lobe straight (Fig. 3H). **Mandibles** narrow, saber-like, elongated and shiny, sparsely punctate outside and at base by punctures of different size (Figs 3C,D,H); lower margin of mandible around the middle with a small dent. **Palpi** long with last palpomeres enlarged apically.

Antennae with 12 antennomeres, wide, each antennomere strongly enlarged apically, first two antennomeres apically closed, 3-11 apically open, shiny and moderately punctate; last 6 antennomeres gently rugose; ratio of relative lengths of antennomeres 1-12 is equal to: 0.95 : 0.19 : 1.00 : 0.86 : 0.67 : 0.67 : 0.7 : 0.6 : 0.6 : 0.6 : 0.6 : 0.48, with antennomere 3 being longest.

Pronotum 12.6 mm width, 7.1 mm long, pronotal disk with single sparsely punctate and shiny protuberance; lateral and posterior margin of pronotum with dense and coarse punctures or with coalescent punctures (Fig. 2L); lateral margins of pronotum tricuspidate; medial cusp longest with tip turned backwards (Fig. 2L). **Scutellum** sparsely punctate, subpentagonal (Fig. 2L). **Elytra** 23.9 mm long, widest in humeral part, subparallel in basal half; distinctly tapering in apical half; elytral disk with leathery sculpture and wrinkles (Figs 2L, 5D).

Legs. Femora and tibiae of all legs shiny and sparsely punctate from above, coarsely and densely punctate from below; lower edge of all tibiae denticulate (Fig. 3C).

Ventral side of body densely punctate with rugose structure, abdominal sternites glabrous and shiny. Prosternum widest in proximal part, slightly protruding anteroventrally and with medial sulcus anteriorly (Figs 3C,D).

Variability. Body length of male varies from 35 to 42 mm, complexity and convexity of pronotum increases with body size (Figs 2L, 4D,E).

Differential diagnosis. *Dorysthenes jendeki* sp. nov. differs from *D. sternalis* in having a black dorsal side (brown in *D. sternalis*); by the pronotum with a single medial protuberance (two in *D. sternalis*); by the protrusion of the prosternum subangulate on tip (lateral view) (Fig. 3C) (subarcuate in *D. sternalis* (Fig. 2F)); by wider parameres (Fig. 5I) and by the last visible sternite, slightly arcuately emarginate (Fig. 5K) (without emargination in *D. sternalis* (Fig. 6C)).

Etymology. The name is derived from the name of my friend and collector of this species, Eduard Jendek, an expert in the family Buprestidae.

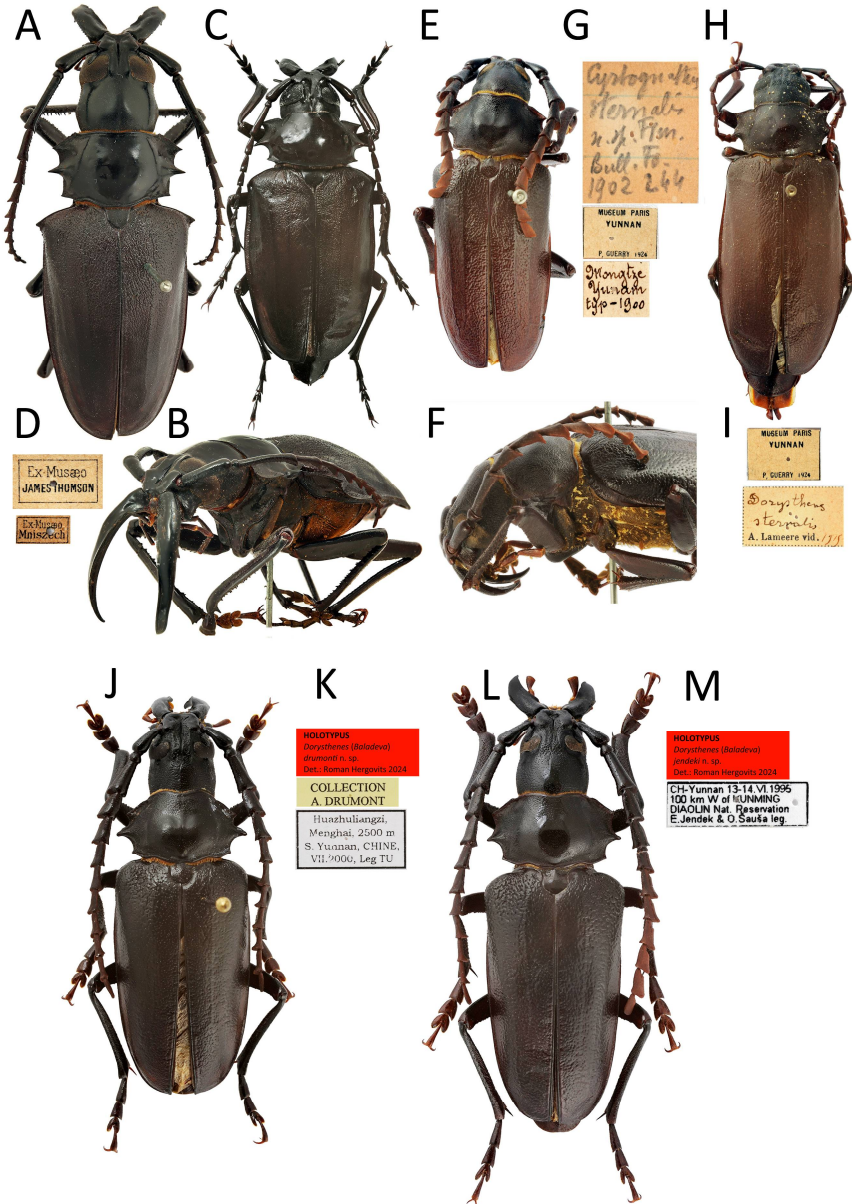


Fig. 2. *Dorysthenes* (*Baladeva*) sp. A, C, E, H, J, L) dorsal view; B, F) lateral view; D, G, I, K, M) original labels. A, B, D, E, F, G, H, I) (MHNHP); C, L, M) (RHCS); J, K) (ADCB). A, B, D) ♂ *Dorysthenes* (*Baladeva*) *walkeri* Waterhouse, 1840, 75 mm; C) ♀ *Dorysthenes* (*Baladeva*) *walkeri* Waterhouse, 1840, 55 mm; E, F, G) type ♂ *Dorysthenes* (*Baladeva*) *sternalis* (Fairmaire, 1902), 34 mm; H, I) ♀ *D. (B.) sternalis* (Fairmaire, 1902), 36 mm; J, K) holotype ♂ *Dorysthenes* (*Baladeva*) *drumonti* sp. nov., L, M) holotype ♂ *Dorysthenes* (*Baladeva*) *jendeki* sp. nov.

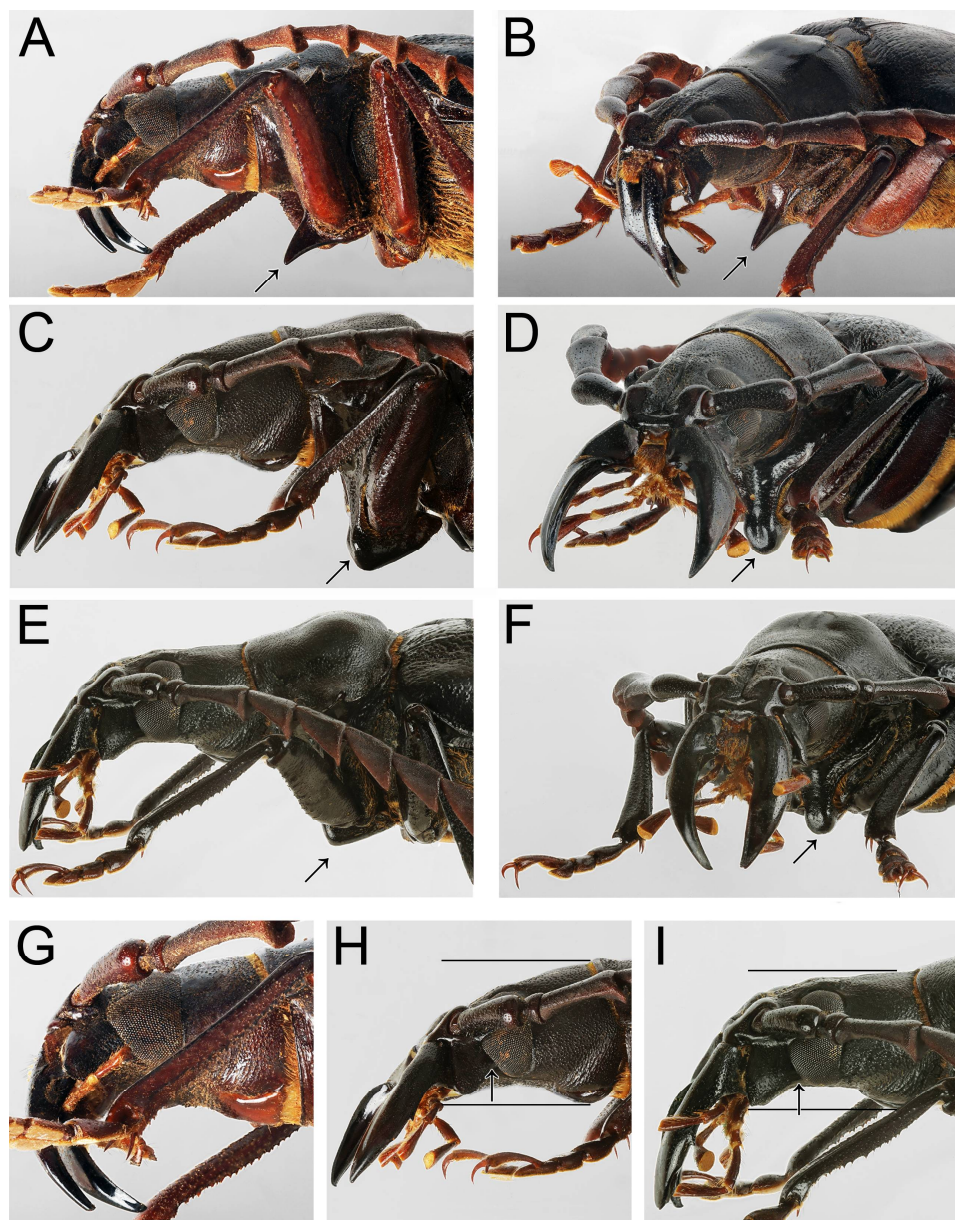


Fig. 3. *Dorysthenes* sp., lateral and antero-lateral view. **A, B, G** *Dorysthenes davidis* (IRSNB); **C, D, H** holotype ♂ *Dorysthenes (Baladeva) jendeki* sp. nov. (RHCS); **E, F, I** holotype ♂ *Dorysthenes (Baladeva) drumonti* sp. nov. (ADCB).

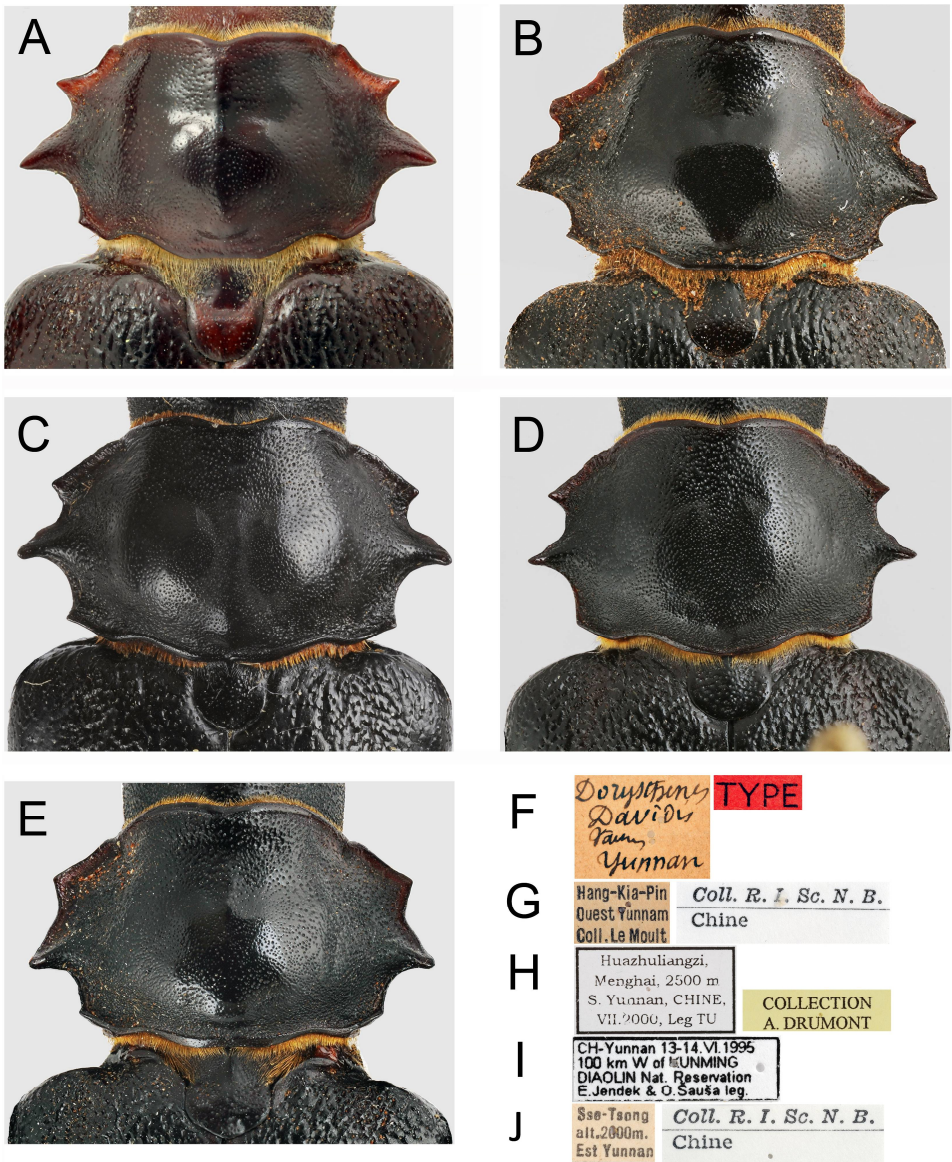


Fig. 4. *Dorysthenes* sp. **A-E**) dorsal view of pronotum; **F-J**) original labels. **A, F**) holotype ♂ *Dorysthenes davidis* Fairmaire, 1886 (MHNHP); **B, G**) *D. davidis* Fairmaire, 1886 (IRSNB); **C, H**) holotype ♂ *Dorysthenes (Baladeva) drumonti* sp. nov. (ADCB); **D, I**) ♂ paratype *Dorysthenes (Baladeva) jendeki* sp. nov. (RHCS); **E, J**) ♂ paratype *Dorysthenes (Baladeva) jendeki* sp. nov. (IRSNB).

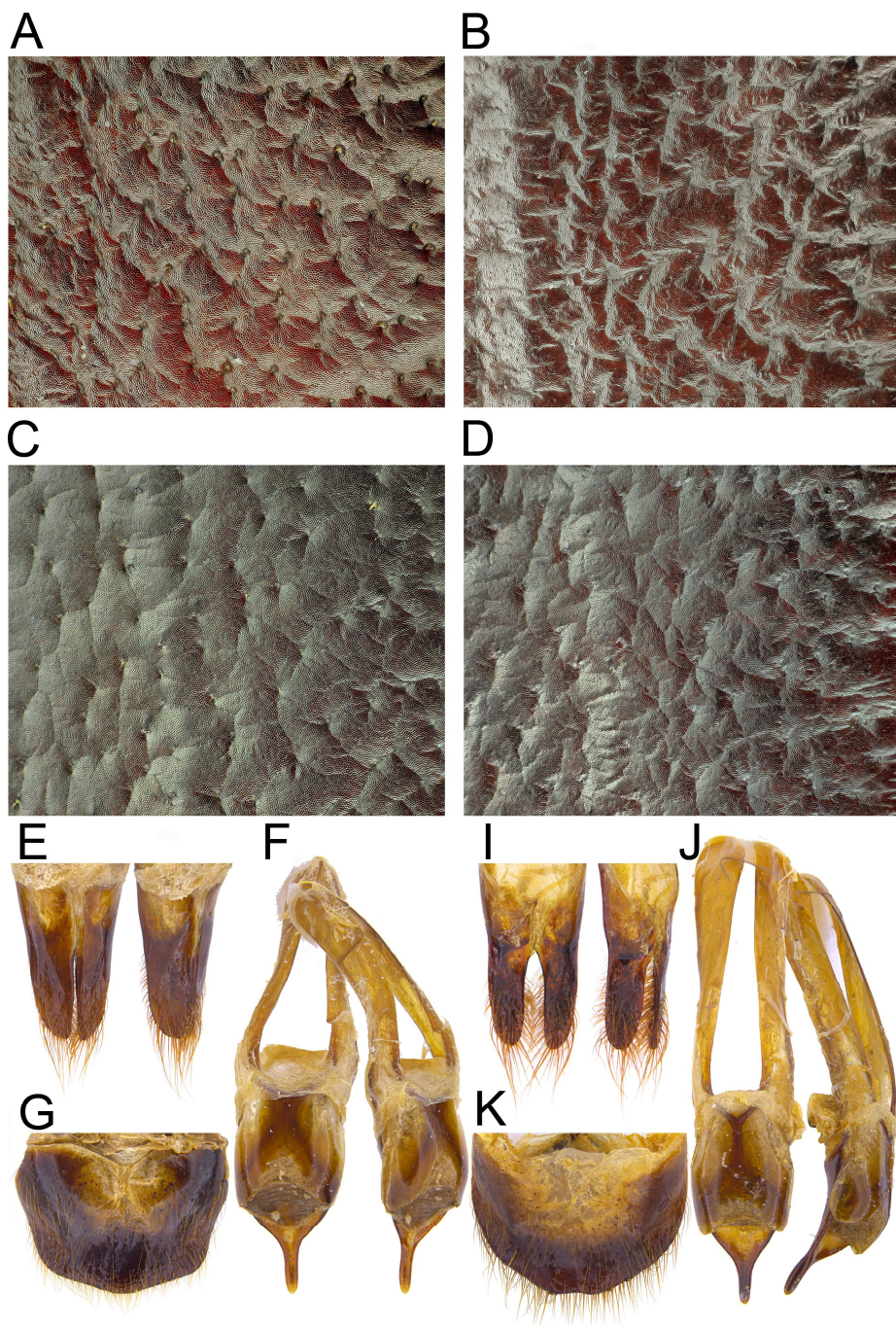


Fig. 5. *Dorysthenes* sp. **A-D)** sculpture of elytra; **E, F, I, J)** aedeagus; **G, K)** last sternit. **A)** *Dorysthenes* (*Baladeva*) *sternalis*; **B)** *Dorysthenes* *davidis*; **C, E, F, G)** ♂ holotype *Dorysthenes* (*Baladeva*) *drumonti* sp. nov.; **D, I, J, K)** ♂ holotype *Dorysthenes* (*Baladeva*) *jendeki* sp. nov.

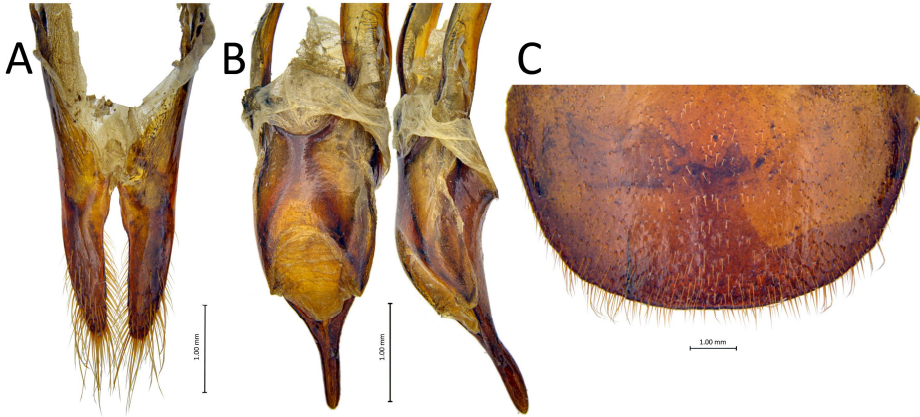


Fig. 6. *Dorysthenes (Baladeva) sternalis*. **A)** paramere; **B)** aedeagus; **C)** last sternit.

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REFERENCES

- DRUMONT, A. & KOMIYA, Z. 2010. Subfamily Prioninae Latreille, 1802. In: LÖBL, I. & SMETANA, A. (Eds) *Catalogue of Palaearctic Coleoptera*, Vol. 6. Stenstrup, Apollo Books, 924 pp.
- GRESSITT, J.L. 1951. Longicorn beetles of China. In: LECHEVALIER, P. (Ed.) *Longicornia, Études et notes sur les Longicornes publiées sous la direction de P. Lepesme*, Vol. 2. Paul Lechevalier, Paris, 667 pp, 22 pls.
- GRESSITT, J.L. & RONDON, J.A. 1970. Cerambycids of Laos (Disteniidae, Prioninae, Philiinae, Aseminae, Lepturinae, Cerambycinae). *Pacific Insects Monographies* 24: 1-314.
- Prioninae of the world <https://www.prioninae.eu/taxonomy/prionini/> (10.10.2024).
- TAVAKILIAN, G.L. & CHEVILLOTTE, H. 2024. *Base de données Titan sur les Cerambycides ou Longicornes*. <http://titan.gbif.fr/index.html> (10.10.2024).
- VIGORS, N. A., 1826, Descriptions of some rare, interesting, or hitherto uncharacterized subjects of zoology. *The Zoological Journal* 2: 510-516, 1 pl.
- WATERHOUSE, G.R. 1840. XLV. Descriptions of two new Coleopterous Insects, from the Collection of Sir Patrick Walker. *The Transactions of the Entomological Society of London* 2(4): 225-229.