



## TWO NEW SPECIES *DORYSTHENES* (*LOPHOSTERNUS*) FROM SE ASIA (CERAMBYCIDAE, PRIONINAE)

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**Abstract:** The taxonomic concept of *Dorysthenes* (*Lophosternus*) *beli* Lameere, 1911, (Coleoptera, Cerambycidae) based on the type study and examination of recently collected material is revised. A new species *Dorysthenes* (*Lophosternus*) *phupanensis* sp. nov. is described from Laos and new species *Dorysthenes* (*Lophosternus*) *beliformis* sp. nov. is described from Vietnam.

**Key words:** taxonomy, Laos, Vietnam, sp. nov., Oriental region

### INTRODUCTION

The genus *Lophosternus* was proposed by GUÉRIN-MÉNEVILLE (1844). LAMEERE (1911) downgraded it to a subgenus of the genus *Dorysthenes* Vigers, 1826 which comprises recently seven subgenera (DRUMONT & KOMIYA 2010). The subgenus *Lophosternus* is distinctive by the following combination of characters (LAMEERE 1919): a) disk of prosternal process convex, without protuberance; b) last maxillary palpomere not obviously dilated apically; c) lobes of tarsomere 3 not spinate on apex and d) antennae with sparsely distributed tubercles.

To date, the subgenus *Lophosternus* comprises 11 species and one subspecies (LANSBERGE 1884, GAHAN 1906, GRESSITT & RONDON 1970, DANILEVSKY 2019, TAVAKILIAN & CHEVILLOTTE 2018, HERGOVITS, 2019): *D.* (*L.*) *angulicollis* (Fairmaire, 1886), *D.* (*L.*) *beli* Lameere, 1911, *D.* (*L.*) *buquetii* Guérin-Méneville, 1844, *D.* (*L.*) *dentipes* (Fairmaire, 1902), *D.* (*L.*) *florentinii* (Fairmaire, 1895), *D.* (*L.*) *gracilipes* (Lameere, 1915), *D.* (*L.*) *huegelii* (Redtenbacher, 1848), *D.* (*L.*) *incognitus* Hergovits, 2019, *D.* (*L.*) *indicus* (Hope, 1831), *D.* (*L.*) *similis* Gahan, 1906, *D.* (*L.*) *zivetta* (Thomson, 1877) and *D.* (*L.*) *zivetta laosensis* Gressitt & Rondon, 1970. Species of this subgenus are distributed in Oriental and south-eastern part of Palaearctic region.

## MATERIAL AND METHODS

Locality data of examined specimens are cited verbatim in double quotes. Type specimens of a *D. (L.) phupanensis* **sp. nov.** are labeled with the red label with status (holotype or paratype), the name of the species, its author and year, and with the inscription R. Hergovits det. 2020. The description is kept concise; characters evident from illustrations are omitted. Locality data are cited verbatim and enclosed in double quotations marks.

**Collection codens.** **RHCS:** collection of Roman Hergovits, Slovak Republic. **MNHN** Muséum National d'Histoire Naturelle, Paris, France.

**Other abbreviations and symbols:** “ ” indicate verbatim text.

## TAXONOMY

### *Dorysthenes (Lophosternus) beli* Lameere, 1911

(Figs 1G-I, 2G-I, 3C)

**Type specimens.** *Dorysthenes beli* was described from an inexplicit number of syntypes from Mont Attopeu l' Annam (J. M. Bel, 1897), [Vietnam]. The single syntype is preserved in MNHN, Paris.

**Material examined.** 1 ♂ (RHCS): “Vietnam N, Ha Giang prov., Ha Giang env., 1500 m, V.-VI.2019, Lien Vu Van Igt. ”.

**Distribution.** Vietnam.

**Remarks.** I have studied the photo and measured the characters on pronotum, elythrae and antennae. *Dorysthenes beli* has been often incorrectly identified. Specimens from Laos are not conspecific with *D. beli* and represent a new species described below.

### *Dorysthenes (Lophosternus) phupanensis* **sp. nov.**

(Figs 1A-C, 2A-C, 3A)

**Type locality.** Laos, Houaphan province, Mount Phu Pane, altitude 1200-1900 m, Ban Saluei village, 20°12'N; 103°59'E.

**Type specimens.** **Holotype** ♂ (RHCS): “N Laos, Huaphanne prov., Mt. Phu Pane, 1200-1900 m, Ban Saluei v. env, 3.-13.V.2019, 20°12'N; 103°59'E, R. & A. Hergovits leg.”. **Paratypes** (RHCS): **LAOS: Houaphan.** 5 ♂: same locality and date as the holotype.

**Description.** Smaller species from the subgenus *Lophosternus*. **Body** brown-red, 32.5 mm long, 11.5 mm wide across humeri; prolonged, robust, narrowing

to the end of elytra (Fig. 1A). The darkest among the species compared in this paper. Eyes, mandibles, base of antennae, fortification surrounding inner part of eyes, first 2-3 antennomeres and joints of legs from dark-brown to black in colour. **Head** brown-red, with thick dots (Figs 1A, B). Eyes wider, composed of two lobes, the bottom one larger, protuberance situated from inside part of eye. Mandibles strong, slightly shorter than head with two tubercles on outer edge in apical half, and with asymmetric dentation on inner edge. Last maxillary palpomere slightly dilated apically. Mandibles relatively small compared to other species within the genus *Dorysthenes*. Clypeus covered by long, yellow bristles. **Antennae** wide, their segments 1-3 slightly punctate, lustrous, 4-th segment dim from above, lustrous from below, segments 5-12 with protruding rough veined, dull. Antennae with 12 segments; not reaching end of elytra (Figs 1A, B). Lengths [mm] of antennomeres 1–12 equal to: 2.8 / 0.5 / 4.4 / 2.8 / 2.4 / 2.4 / 2.4 / 2.4 / 2.4 / 2.4 / 2.4 / 1.9. **Pronotum** (Fig. 1C) oval, finely punctate, glossy. Spikes at lateral margin short, minute. Length 5.6 mm, width 10 mm. Pronotum dentate from apical spike up to apical margin. Median spike short, slightly heading to bottom (Fig. 1C). Bottom spike creates slightly rounded ledge of obtuse angle (Fig.1C). Apical margin and posterior margin at connection with head and elytra covered by yellow-golden hairs. **Scutellum** oval, finely punctate like pronotum. **Elytra** punctate, dots connected by grooves, forming a leather structure, glossy, tapering to apex, their caudal end rounded (Figs 1A, 3A). Each elytra with two weakly indicated ribs that are connected at the end. Third, less visible rib situated below them. First quarter of elytra slightly squeezed (Fig. 3A). Ventral part of body brown, thickly punctate, with rugose structure. Ventral side of head, prosternum and abdominal sternites nude, glossy. Metasternum covered by contiguous yellow hairs. Genitalia as in figs 2A, B. Last sternite as in fig. 2C.

**Differential diagnosis.** *Dorysthenes* (*L.*) *phupanensis* sp. nov. is similar to *D.* (*L.*) *beli* with which was in Laos confused and misidentified. The table below provides major male characters for distinguishing both species.

**Etymology.** The specific name *phupanensis* reflect the name of Mt. Phu Phane in North Laos, which is a type locality.

**Distribution.** Laos: Houaphan.

**Remarks.** *Dorysthenes* (*L.*) *phupanensis* sp. nov. was collected in Laos, but its occurrence in neighbouring countries is possible.

***Dorysthenes (Lophosternus) beliformis* sp.nov.**

(Figs 1D-F, 2D-F, 3B)

**Type locality.** Vietnam N, Yen Bai Prov., Van Chan Distr., N. T. Lien Son env., 1300 m.

**Type specimens. Holotype** ♂ (RHCS): "Vietnam N, Yen Bai Prov., Van Chan Distr., N. T. Lien Son env., 1300 m, VI.2014, local coll."

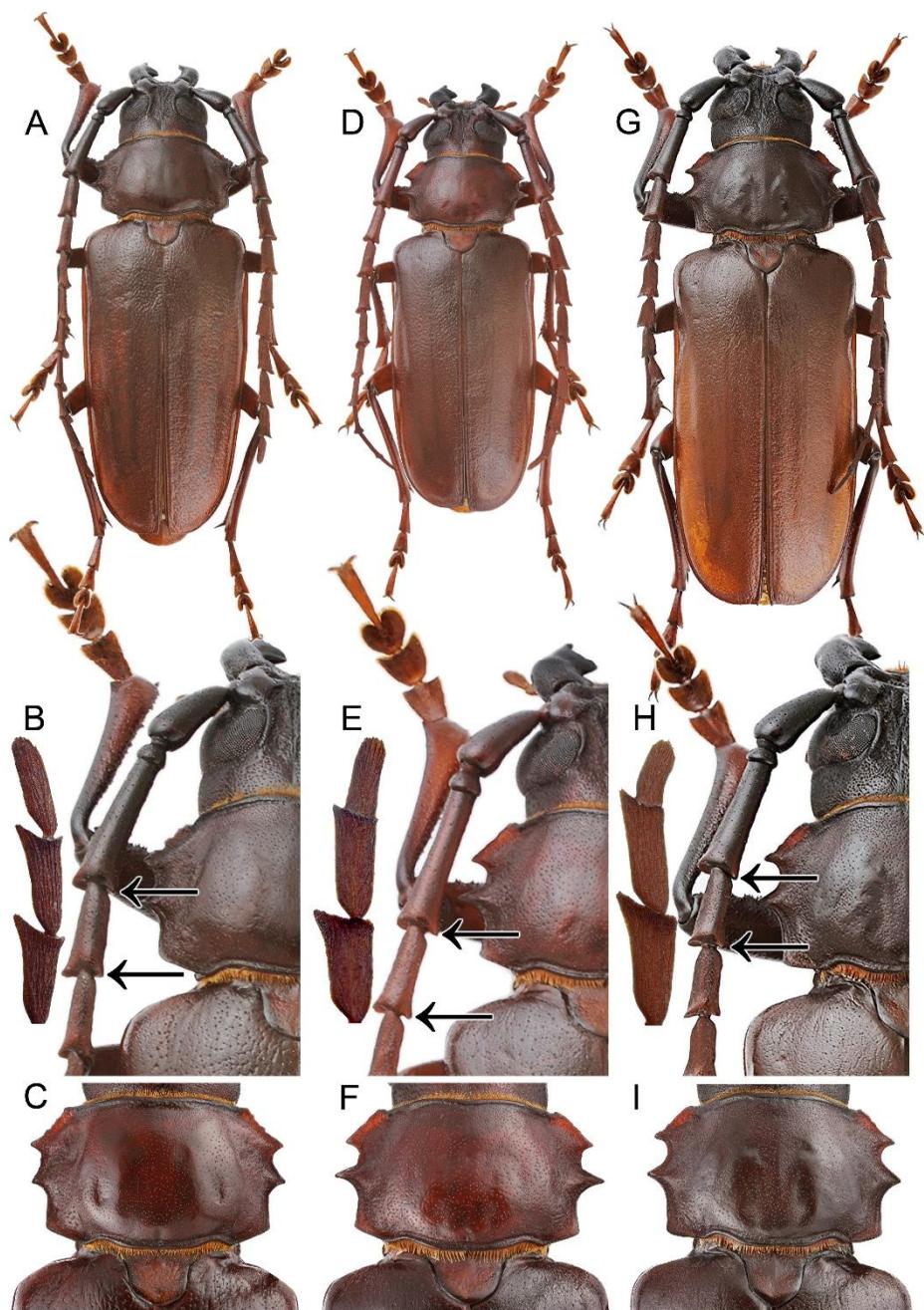
**Description.** Small species. **Body** 31 mm long, 11 mm wide across humeri (Fig. 1D). Head, palps, antennae, legs, scutellum, ventral body and elytra brown-red. Base of antennae, front of head and joints of legs dark. Mandibles black-brown. **Head** finely punctate with indicated central line, protuberance surrounding eyes low. Clypeus covered by yellow bristles. Palps widened, covered by yellow hairs. Mandibles finely punctate, lustrous from inner side, without holes, asymmetrical. From outer side, a dens is indicated in its bottom third. Eyes wide, composed of two lobes, bottom one is bigger. **Antennae** long, reaching nearly to the end of elytra, sparsely punctate, 6-11 with distinct veined, dull. Segments 1-10 expanded, 11-th long with indicated 12-th segment (Fig. 1E). Segments 1-2 rounded at end, 3-10 very wide, protruded into spikes at the end. Lengths [mm] of antennomeres 1–11 equal to: 3.2/0.7/ 4.7/ 3.0/ 2.5/ 2.7/ 2.5/ 2.5/ 2.5/ 2.2/ 4.2. Legs punctate, on inner side of femurs and tibiae of the 1-th and 2-nd pairs expressive spikes; covered by minute, sparsely distributed hairs. **Pronotum** wide, a little narrower as elytra, with protruding spikes at lateral margins, sparsely punctate, glossy (Fig. 1F); length 5.7 mm, width 10.3 mm. Upper spike protruded into a flat ledge reaching up to apical margin. Medial spike long, vertical to scutellum. Bottom spike creating ledge with straight sides with obtuse angle (Fig. 1F). Both apical and posterior margins near the connection with head and elytra covered by golden-yellow hairs. **Scutellum** oval, finely punctate, like head and pronotum. **Elytra** finely punctate, with rugose structure, glossy, parallel, rounded at the end (Figs 1D, 3B). Each elytra with two weakly indicated ribs, which are connected to the end. Elytra at their first fifth, just behind shoulders, remarkably squeezed laterally (Fig. 3B). Ventral side of body densely punctate with rugose structure. Ventral side of head, prosternum and abdominal sternites nude, glossy. Metasternum covered by contiguous yellow hairs.

**Differential diagnosis.** *Dorysthenes (L.) beliformis* sp. nov. is similar to *D. (L.) beli* with which it was confused in the past and subsequently misidentified. The table below provides major male characters for distinguishing both species.

**Etymology.** The name *beliformis* indicates the similarity with another known species *D. (L.) beli*.

**Distribution.** Vietnam: Yen Bai Prov.

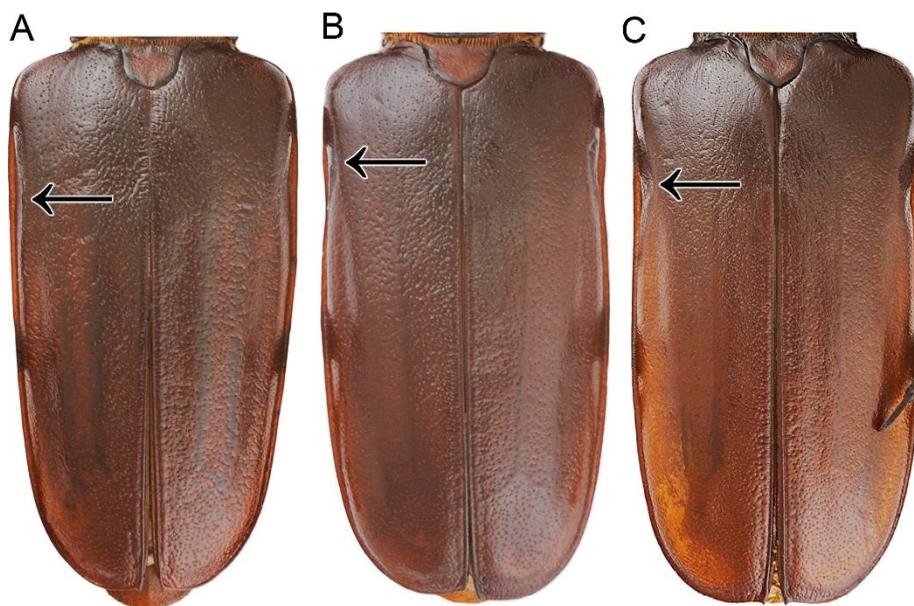
	<i>D. phupanensis</i> sp. nov.	<i>D. beliformis</i> sp. nov.	<i>D. beli</i>
Body	Smaller (32.5 mm), tapering to end of elytra, brown-red (Fig. 1A)	Smaller (31 mm), parallel, whole body red-brown (Fig. 1D)	Larger (38 mm), parallel, brown (Fig. 1G)
Antennae	12 segments, fourth segment overstepping pronotum (Fig. 1B)	11 segments, fourth segment overstepping shoulders of elytra (Fig. 1E)	11 segments, fourth segment reach end of pronotum (Fig. 1H)
Pronotum	With minute spikes on lateral sides (Fig. 1C). Pronotal side between anterior margin and first spine dentate.  Middle tooth on pronotal margin directed to bottom (Figs 1A-B holotype, 1C paratype)	Wide, with long spikes on lateral sides (Fig. 1F). Pronotal side between anterior margin and first spine without dens, strongly pronounced. Middle tooth on scutal margin long and directed laterally, vertical to pronotum (Fig. 1F holotype).	Tall, with short spikes on lateral sides (Fig. 1I). Pronotal side between anterior margin and first spine without dens, weekly pronounced. Middle tooth on scutal margin short and directed laterally, vertical to pronotum (Fig. 1I).
Elytra	Tapering down, slightly squeezed at first quarter (Fig. 3A).	Parallel, first fifth laterally remarkably squeezed (Fig. 3B).	Parallel, first quarter laterally remarkably squeezed (Fig. 3C).
Aedeagus	Figs 2A-B	Figs 2D-E	Figs 2G-H
Last sternite	Shape distinct from Fig. 2C	Shape distinct from Fig. 2F	Shape distinct from Fig. 2I
Range	Laos	Vietnam	Vietnam



**Figure 1.** *Dorysthenes* spp. **A, D, G:** Habitus (dorsal view); **B, E, H:** Antenna (dorsal view); **C, F, I:** Pronotum (dorsal view). **A-C:** *Dorysthenes (Lophosternus) phupanensis* sp. nov., Holotype ♂; **D-F:** *Dorysthenes (Lophosternus) beliformis* sp. nov., Holotype ♂; **G-I:** *Dorysthenes (Lophosternus) beli* Lameere, 1911, ♂.  
Photo: Roman Hergovits (A-I); Peter Kurina (last segment of antennae on B, E, H).



**Figure 2.** *Dorysthenes* spp. A-B, D-E, G-H: Aedeagus; C, F, I: Last sternit; A-C: *Dorysthenes* (*Lophosternus*) *phupanensis* sp. nov., Holotype ♂; D-F: *Dorysthenes* (*Lophosternus*) *beliformis* sp. nov., Holotype ♂; G-I: *Dorysthenes* (*Lophosternus*) *beli* Lameere, 1911, ♂. Photo: Peter Kurina (A-I).



D

4. *Dorysthenes Beli* nova species.

Mont Attopeu dans l'Annam (J. M. Bel, 1897), un mâle du Museum de Paris.

Long de 38 millimètres, d'un brun rouge avec les élytres, les antennes et les tarse d'un brun chocolat.

Diffère du *D. Hügelii*, outre la coloration, 1° par les pattes plus courtes et plus robustes, à tarse notablement plus larges, les lobes du 3° article des tarse postérieurs étant remarquablement élargis et le dernier article particulièrement court;

2° par les antennes robustes, n'atteignant que le quart postérieur des élytres, les derniers articles offrant des stries flexueuses très prononcées, le 5° étant déjà presque entièrement couvert par le système porifère et le 6° l'étant complètement;

3° par le pronotum n'offrant qu'une fine ponctuation très éparse;

4° par l'arrière de la tête à ponctuation fine et éparse.

**Figure 3.** *Dorysthenes* spp. **A-C:** Elytra (dorsal view); **D:** original description of *Dorysthenes Beli* (LAMEERE 1911). **A:** *Dorysthenes (Lophosternus) phupanensis* sp. nov., Holotype ♂; **B:** *Dorysthenes (Lophosternus) beliformis* sp. nov., Holotype ♂; **C:** *Dorysthenes (Lophosternus) beli* Lameere, 1911, ♂.

Photo: Roman Hergovits (A-C).

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