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Review of the Himalayan genus *Hingstoniella* Jeannel, and description of *Besuchetaceus* gen. n. from Nepal (Coleoptera: Staphylinidae: Pselaphinae)

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Abstract: The Himalayan genus *Hingstoniella* Jeannel and its type species *H. lata* Jeannel are redescribed, and a new species, *H. trigona* sp. n., is described. *Besuchetaceus* gen. n. is established for a single species, *B. nepalensis* sp. n., from central Nepal. Both genera together with *Sinotrisus* Yin & Li are placed in the newly designated '*Hingstoniella* group'. Keys are provided to distinguish genera of *Hingstoniella* group and species of *Hingstoniella*, and the major diagnostic features of all included taxa are illustrated.

Keywords: Taxonomy - Batrisitae - *Hingstoniella* - *Besuchetaceus* - *Sinotrisus* - new genus - new species - Himalayan region.

INTRODUCTION

In his study of the northern Indian Pselaphinae, Jeannel (1960) created *Hingstoniella* Jeannel for a new species, *H. lata* Jeannel, on the basis of one male from Sikkim and one female from Yatung, Tibet (= Yadong, Xizang A. R.). Jeannel stated (1960: 410) that *Hingstoniella* was 'of uncertain affinity, but however appearing to be well related to Indo-Malaysian lineages'. Based on the additional material from Tibet, Yin *et al*. (2011) redescribed the genus and species, and reported its association with the ant genus *Myrmica* Latreille.

The discovery and a subsequent revision (Yin *et al*., 2010, 2012) of the genus *Sinotrisus* Yin & Li, with four species scattered in China and Vietnam, seemed to shed some light on the uncertain relationship of *Hingstoniella* in Batrisina. Despite the quite different shape of the pronotum, both genera share a modified vertex in male, and a considerably constricted base of the aedeagus – a type of aedeagus that is unique in Batrisitae, which is considered to be a possible synapomorphy of these two genera.

As part of our on-going study of the on loan MHNG material, in this paper we redescribe *Hingstoniella* and *H. lata*, document many new locality records for the type species in Nepal and neighboring area, and describe a new species, *H. trigona* sp. n., also from Nepal. In addition, a new genus and species, *Besuchetaceus nepalensis* gen. et sp. n., is described from Nepal. Since *Besuchetaceus* shares with *Hingstoniella* and *Sinotrisus* the modified male vertex and the unique type of aedeagus, these taxa are placed into a small group of genera here termed the '*Hingstoniella* group'. Identification keys to genera of *Hingstoniella* group as well as to species of *Hingstoniella* are provided, and diagnostic features of all included taxa are illustrated.

MATERIAL AND METHODS

Material used in this paper are housed in the following public institutions:

MHNG Muséum d'Histoire Naturelle, Geneva, Switzerland (Giulio Cuccodoro)

SNUC Insect Collection of the Shanghai Normal University, Shanghai, China (Zi-Wei Yin)

The collection data of the material are quoted verbatim. A slash (/) is used to separate different labels, authors' notes are included in square brackets ([]). The terminology follows Chandler (2001), except we use 'ventrite' instead of 'sternite' when describing meso- and metathoracic structures; the terms 'tergite' and 'sternite' are used when referring to abdominal segments.

The following abbreviations are applied: AL - length of the abdomen along the midline; AW - maximum width of the abdomen; EL - length of the elytra along the sutural line; EW - maximum width of the elytra; HL - length of the head from the anterior clypeal margin to the occipital constriction; HW - width of the head across eyes; PL - length of the pronotum along the midline; PW

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- maximum width of the pronotum. The total body length is a combination of HL + PL + EL + AL.

TAXONOMY

Hingstoniella group of genera

Definition: Members of the *Hingstoniella* group have a more-or-less-developed modified vertex in the male, and share a strongly constricted base of the aedeagus, this type of aedeagus seems to be unique in Batrisitae.

Included taxa: *Hingstoniella*, *Sinotrisus*, and *Besuchetaceus* gen. n.

Hingstoniella Jeannel, 1960

Figs 1-3

Hingstoniella Jeannel, 1960: 410. Type species: *Hingstoniella lata* Jeannel (original monotypy).

Hingstoniella: Newton & Chandler, 1989: 37 (catalog); Yin, Li & Zhao, 2011: 390 (diagnosis, redescription, illustrations).

Diagnosis: Head triangular; frontal rostrum low; with punctiform vertexal foveae; antennomeres XI elongate and conical. Pronotum transversely octagonal, with only punctiform lateral antebasal foveae; lacking antebasal spines. Elytra each with one large basal fovea and shallow discal stria. Abdomen with lateral margins of tergite IV edged by marginal carinae; tergite IV longest.

Redescription: General body form robust; Length 3.09-3.56 mm. Head triangular (Fig. 1A); with low frontal rostrum, antennal tubercles low; vertexal foveae small and punctiform, connected by indistinct U-shaped vertexal sulcus; antennae with 11 antennomeres, clubs formed by apical three antennomeres, antennomeres XI elongate and conical; ocular-mandibular carinae faint; eyes reniform (Fig. 1B); maxillary palpi with palpomeres III transverse and triangular, IV fusiform; with gular foveae merged into single opening (Fig. 1C). Pronotum (Fig. 1D) transversely octagonal; lateral antebasal foveae punctiform, lacking median antebasal fovea and antebasal spines; disc only slightly convex; lacking basolateral foveae; lacking paranotal carinae; lateral procoxal foveae (Fig. 1E) present. Each elytron (Fig. 1F) with one large basal fovea, discal striae shallow, sutural striae complete; lacking subhumeral foveae, marginal stria present from basal one-fourth toward posterior margin; lateroapical notch indistinct. Thorax (Fig. 2A) with small median and lateral mesoventral foveae; with lateral mesocoxal foveae; prepectal foveae present; lateral metaventral foveae punctiform, metacoxae narrowly separated; posterior margin with narrow median notch. Abdomen (Fig. 2B-D) has tergites IV-VI (first to third visible tergites) with marginal carinae extending through tergal length; tergite IV longest, V-VII slightly shorter and subequal in length; tergite IV with basolateral foveae at lateral ends of sulcus, lacking mediobasal foveae and discal carinae, V-VII each with one pair of basolateral foveae. Sternite IV (second visible ventrite) twice length of V at midlength, with one pair of mediobasal foveae and three pairs of basolateral foveae, lacking basal sulcus, V-VII lacking foveae. Legs short, second and third tarsomeres subequal in length.

Male (Fig. 3A-B) with vertex modified. Aedeagus with paramere fused to median lobe to form elongate ventral lobe; articulated dorsal lobe present; basal capsule with strongly constricted base.

Key to genera of *Hingstoniella* group

1 General form stouter (Fig. 3); pronotum distinctly transverse (Figs 1D, 1E, 3); each elytron with one basal fovea (Fig. 1F) ..... ***Hingstoniella* Jeannel**

– General form slenderer (Yin *et al*., 2010: fig. 2; Yin *et al*., 2012: figs 1, 4; Fig. 10); pronotum slightly transverse to slightly longer than wide; each elytron with three basal foveae (Yin *et al*., 2012: figs 2A, 3A, 5A, 6A; Figs 8F, 10) 2

2 Pronotum less transverse, lateral margins lacking spines or denticles (Yin *et al*., 2012: figs 2A, 3A, 5A, 6A); deep basal sulcus of tergite IV interrupted by discal carinae or ridges (Yin *et al*., 2012: figs 1, 4) .. ***Sinotrisus* Yin & Li**

– Pronotum more transverse, lateral margins spinose or dentate (Fig. 8D); basal sulcus of tergite IV shallow, lacking discal carinae or ridges (Figs 9C, 10) ..... ***Besuchetaceus* gen. n.**

Key to males of *Hingstoniella*

1 Vertexal modification composed of indistinct punctiform protuberance (Fig. 4A); each eye with more than 60 facets; protibiae with mesal margins angularly expanded near apex (Fig. 4C). Distribution: Nepal, Tibet, northern India (Fig. 12) ..... ***H. lata* Jeannel**

– Vertexal modification composed of distinct triangular bump (Fig. 7A); each eye with about 40 facets; protibiae with mesal margins less expanded (Fig. 7C). Distribution: Nepal (Fig. 12) ..... ***H. trigona*** sp. n.

Comparative notes: The genus up on which the *Hingstoniella* group is based. Members of the group share a modified vertex in the male, and a strongly constricted base of the aedeagal basal capsule. *Hingstoniella* can be quickly separated from *Sinotrisus* and *Besuchetaceus* gen. n. by the transversely octagonal pronotum, and each elytron with single basal fovea, while both latter genera have the pronotum slightly transverse or slightly longer than wide, and have three basal foveae on each elytron.

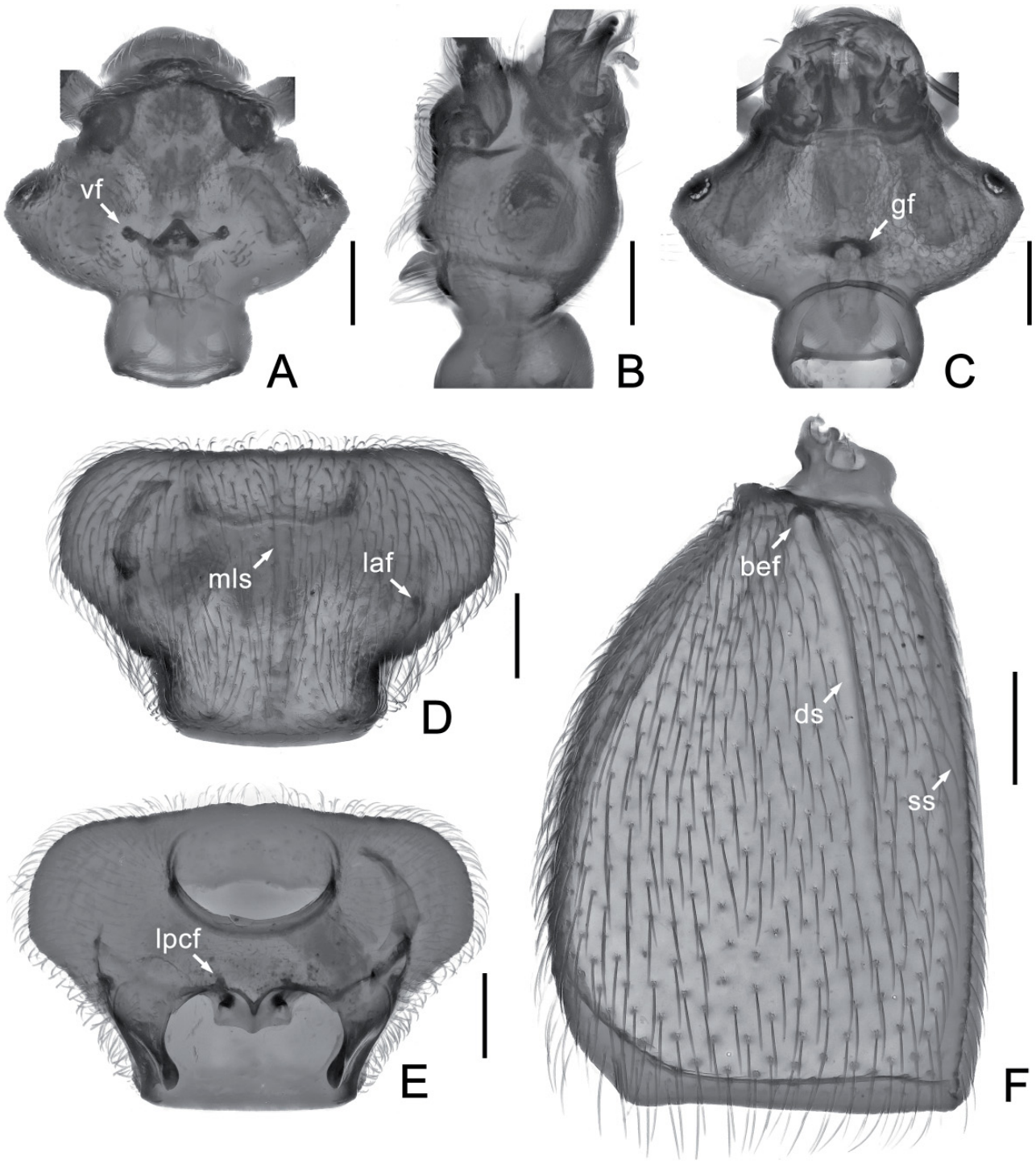

Fig. 1. Morphology of *Hingstoniella*. (A) Head, in dorsal view. (B) Same, in lateral view. (C) Same, in ventral view. (D) Pronotum. (E) Prosternite. (F) Left elytron. Abbreviations: bef - basal elytral fovea; ds - discal striae; gf - gular foveae; laf - lateral antebasal foveae; lpcf - lateral procoxal foveae; mls - median longitudinal sulcus; ss - sutural striae; vf - vertexal foveae. Scales: 0.2 mm.

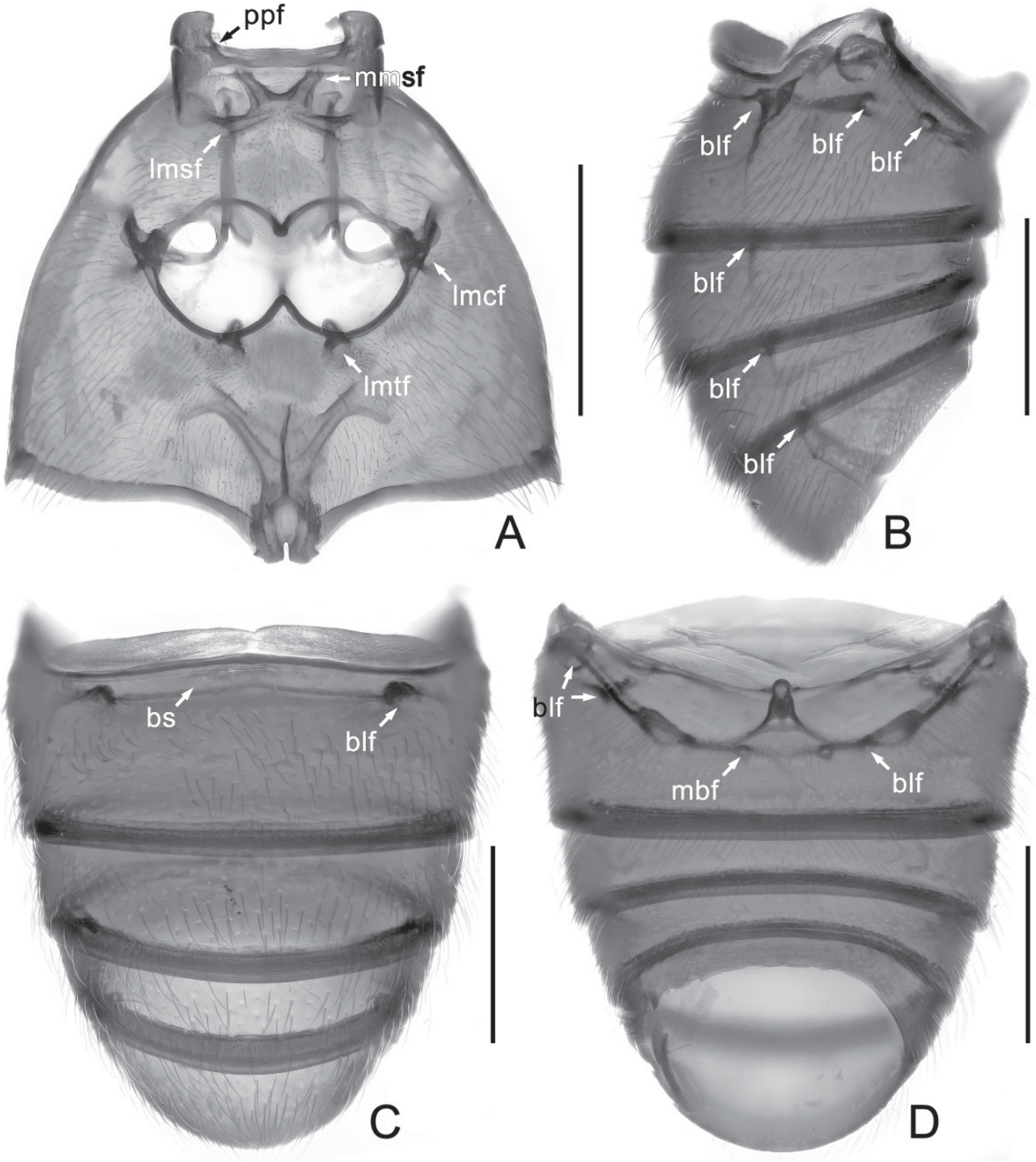

Fig. 2. Morphology of *Hingstoniella*. (A) Meso- and metaventrite. (B) Abdomen, in lateral view. (C) Same, in dorsal view. (D) Same, in ventral view. Abbreviations: blf - basolateral foveae; bs - basal sulcus; lmcf - lateral mesocoxal foveae; lmsf - lateral mesoventral foveae; lmtf - lateral metaventral foveae; mbf - mediobasal foveae; mmsf - median mesoventral foveae; ppf - prepectal foveae. Scales: 0.5 mm.

Hingstoniella lata Jeannel, 1960

Figs 3A, 4-6, 12

Hingstoniella lata Jeannel, 1960: 410. Type locality: Sikkim, Lachen, alt. 3000 m.

Hingstoniella lata. – Yin *et al.,* 2011: 395 (description, new locality, host record).

Material examined: (23 ♂♂, 23 ♀♀). CHINA (in SNUC): 3 ♂♂, 1 ♀, labeled 'China: Xizang A. R., Neilamu Co., Quxiang (曲乡), alt. 3300 m, nest of *Myrmica* sp. under rock, 20.vii.2010, Wen-Xuan Bi leg. [1 ex *Myrmica* each pinned under two males]'. – 1 ♂, 1 ♀, labeled 'China: Xizang A. R., Yadong Co., Xiayadong (下亚东), alt., 3400 m, nest of *Myrmica* sp. under rock, 9.viii.2010, Wen-Xuan Bi leg. [1 ex *Myrmica* pinned under a male]'. – 2 ♂♂, 2 ♀♀, same locality, except 8.viii.2010, 2800 m [1 ex *Myrmica* pinned under a male]'. – NEPAL (in MHNG): 1 ♂, labeled 'Thodung via, Those 3100 m, 29.-31.5.1976 / Nepal, W. Wittmer, C. Baroni Urbani / comparé au type / *Hingstoniella lata* Jeann. Cl. Besuchet dét. XII. 1977'. – 1 ♀, labeled 'Pokhara 820 m, 15.-18.6.1976 / Nepal, W. Wittmer, C. Baroni Urbani / *Hingstoniella lata* Jeann. Cl. Besuchet dét. XII. 1977'. – 1 ♂, labeled 'NEPAL (Pro. Bagmati), Ridge betw. Mere Dara and Thare Pati, 3500 m, Löbl & Smetana, 9.IV.81 [2 ex. *Myrmica* pinned under specimen]'. – 1 ♂, labeled 'Umg, Alm Dugdinma, b. Lughla, 3000-4000 m, Khumbu, Nepal, lg. Franz [Pa263, overleaf] / *Hingstoniella*, det. D. S. Chandler'. – 5 ♀♀ [on three pins, each pin also with 2x *Myrmica*], labeled 'NEPAL (Prov. Bagmati), below Jangtang Ridge, NE Barahbise, 3150 m, Löbl & Smetana, 4.V.81 / *Hingstoniella*'. – 1 ♀, labeled 'NEPAL, Khumbu, Periche 4350 m, 29.vi.1963, leg. G. Ebert'. – 1 ♀, labeled 'NEPAL: Bagmati, Pokhare NE Barahbise, 2800 m, 3.5.81, Löbl - Smetana'. – 3 ♂♂, 2 ♀♀, labeled 'NEPAL, 9.x.84, Gairi, L. Deharveng' [according to pers. comm. with L. Deharveng, detail collection data of this material is as following: 'Nepal: Trekking of Namche Bazar from le Tomba-Kosi: Massif of Hanumante Danda above Jiri. Lieu-dit Gairi, 09/10/84, forest, litter, by hand, Louis Deharveng leg (NEP84-04)']. – 1 ♀, labeled 'Gufa-Gorza, 2800-2100 m, 4.VI.1985 / E-Nepal, Koshi, M. Brancucci'. – 1 ♀, labeled 'E-NEPAL, Dhankuta, Arun Valley, SE des Makalu, Tashigaon, 13.-14.6.1980, leg. C. Holzschuh, 2100 m / 195 '. – 3 ♂♂, labeled 'E Nepal, Koshi, Chauki, 2700 m, Holzschuh, 2.vi.85' [1 ex *Myrmica* each pinned under 2 males, 2 ex *Myrmica* under the other male]. – 2 ♂♂, 2 ♀♀, labeled '"Bakan" W of Tashigaon 3200 m, 6.IV.1982, A. & Z. Smetana / NEPAL, Khandbari District' [1 ex *Myrmica* each pinned under a male and a female]. – INDIA (in MHNG): 4 ♂♂, 4 ♀♀, labeled 'INDIA: Darjeeling distr., Tongli, 3100 m, 16.x.1978, I, Löbl, Bes., nr. 16a, under stones' [1 ex *Myrmica* each pinned under two males and one female]. – 2 ♂♂, 1 ♀, labeled 'INDIA - West Bengal Distr. Darjeeling, Tonglu, 16.X.78, Besuchet- Löbl'.

Each of the above specimens bears an identification label as '*Hingstoniella lata* Jeannel, 1960, det. Yin & Li, 2014'.

Description: Male (Fig. 3A). BL 3.20-3.41 mm. Body reddish brown; most part of dorsal surface densely hairy.

Head (Fig. 4A) distinctly transverse, HL 0.55-0.59 mm, HW 0.74-0.84 mm; vertex slightly convex, modification composed of indistinct punctiform protuberance, foveae located below level of posterior margins of eyes; each eye with about 65 small facets; antennal clubs formed by apical three enlarged antennomeres (Fig. 4B). Pronotum transversely octagonal, PL 0.65-0.74 mm, PW 1.02-1.09 mm, median longitudinal sulcus weakly developed. Elytra wider than long, EL 1.02-1.03 mm, EW 1.28-1.31 mm; shallow discal striae extending to 3/4 of elytral length. Metathoracic wings fully developed. Protibiae (Fig. 4C) triangularly projected at mesal margins near apices; mesotrochanters (Fig. 4D) with small protuberance at ventral margin; metatrochanters (Fig. 4E) with ventral margin protruding to form strong projection. Abdomen wider than long, AL 0.98-1.05 mm, AW 1.17-1.20 mm. Aedeagus (Fig. 4F-I) asymmetric, length 0.49-0.52 mm.

Female. Similar to male in general appearance, protibiae, mesotrochanters, and metatrochanters lacking protuberance or projection. Each eye with about 45 facets. Tergite VIII (Fig. 4J) and sternite VIII (Fig. 4K) transverse. Genital complex (Fig. 4L) transverse, width 0.37 mm. Measurements: BL 3.09-3.29 mm, HL 0.52-0.55 mm, HW 0.75-0.81 mm, PL 0.66-0.72 mm, PW 1.06-1.08 mm, EL 0.93-1.00 mm, EW 1.06-1.20 mm, AL 0.98-1.02 mm, AW 1.15-1.17 mm.

Differential diagnosis: *Hingstoniella lata* can be separated from *H. trigona* sp. n. described below only by the male vertexal modification with an indistinct punctiform protuberance; in contrast, the male of *H. trigona* has the vertexal modification represented by a much larger, triangular bump.

Intraspecific variation: While the male vertexal modification and other characters on legs are stable, the form of aedeagus of populations from different localities vary distinctly, especially the dorsal lobe in axial view. When available, at least one male from each locality was dissected to illustrate the intraspecific variation (Figs 4F-I, 5, 6).

Biology: Adults of this species were frequently collected from nests of *Myrmica* ants nesting under rocks.

Distribution: Nepal: Gandaki, Bagmati, Janakpur, Sagarmatha, Koshi; India: Sikkim, West Bengal; China: Xizang (Fig. 12).

***Hingstoniella trigona* sp. n.**
Figs 3B, 7, 12

Holotype: Holotype ♂, NEPAL: labeled 'Taksanggeb., b. Tukche, Takola [Pa327-327a, overleaf] / Zentral-Nepal, Sept.-Okt. 1971, lg. H. Franz / n. sp. / HOLOTYPE [red], ♂, *Hingstoniella trigona* sp. n., det. Yin & Li, 2014, MHNG'; in MHNG, without accession number.

Paratypes: NEPAL, 1 ♂, labeled 'NEPAL, Kali Gandaki, vall., Nilgiri Himal. upp., Titigaon vill., 3000-3200 m NN, 21.V.2002, leg. J. Schmidt'. – 1 ♀, labeled 'NEPAL, Annapurna Reg., Umg. Ghorepani, 2800 m, 28°24′15″N, 83°42′01″E, 22.IV.2000, leg. A. Weigel'. – 1 ♀, labeled 'Zentral - Nepal, Annapurna - SW, 16.4.82, 4500 m, Baum / COLL. PANKOW [1 ex *Myrmica* pinned under specimen]'; in MHNG, without accession number.

Each paratype bears a type label similar to that of holotype except 'Paratype [yellow], ♂ [or ♀]'.

Description: Male (Fig. 3B). BL 3.36-3.44 mm. Body reddish brown; most part of dorsal surface densely hairy.

Head (Fig. 7A) distinctly transverse, HL 0.58-0.60 mm, HW 0.85-0.86 mm; vertex slightly convex, modification composed of distinct triangular bump, foveae located below level of posterior margins of eyes; each eye with about 40 small facets; antennal clubs formed by apical three enlarged antennomeres (Fig. 7B). Pronotum transversely octagonal, PL 0.70-0.73 mm, PW 1.04-1.06 mm, median longitudinal sulcus moderately developed. Elytra wider than long, EL 1.02-1.04 mm, EW 1.26-1.30 mm; shallow discal striae extending to half of elytral length. Metathoracic wings fully developed. Protibiae (Fig. 7C) slightly projected at mesal margins near apices; mesotrochanters (Fig. 7D) with small

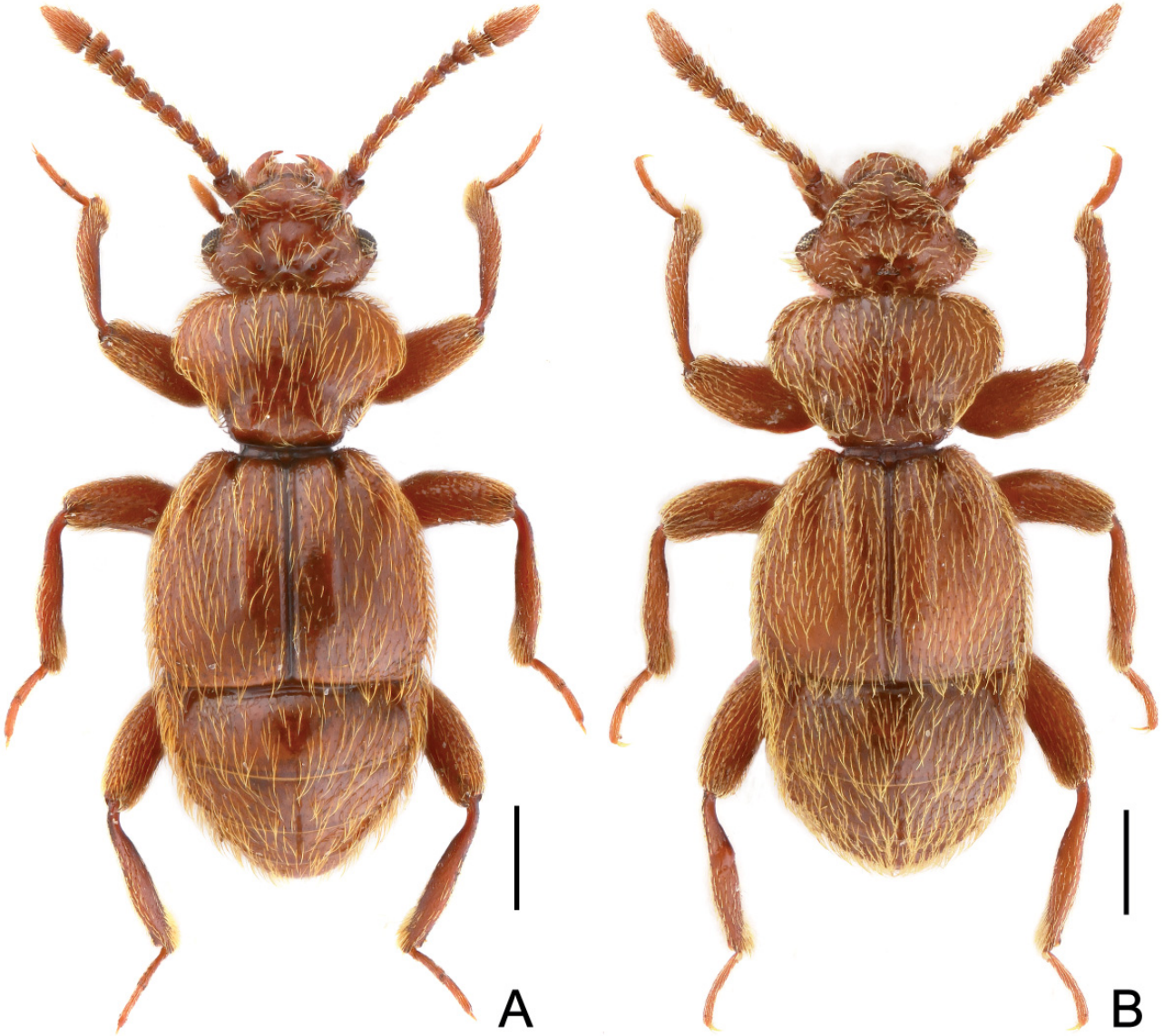

Fig. 3. Habitus of *Hingstoniella*. (A) *H. lata*. (B) *H. trigona* Scales: 0.5 mm.

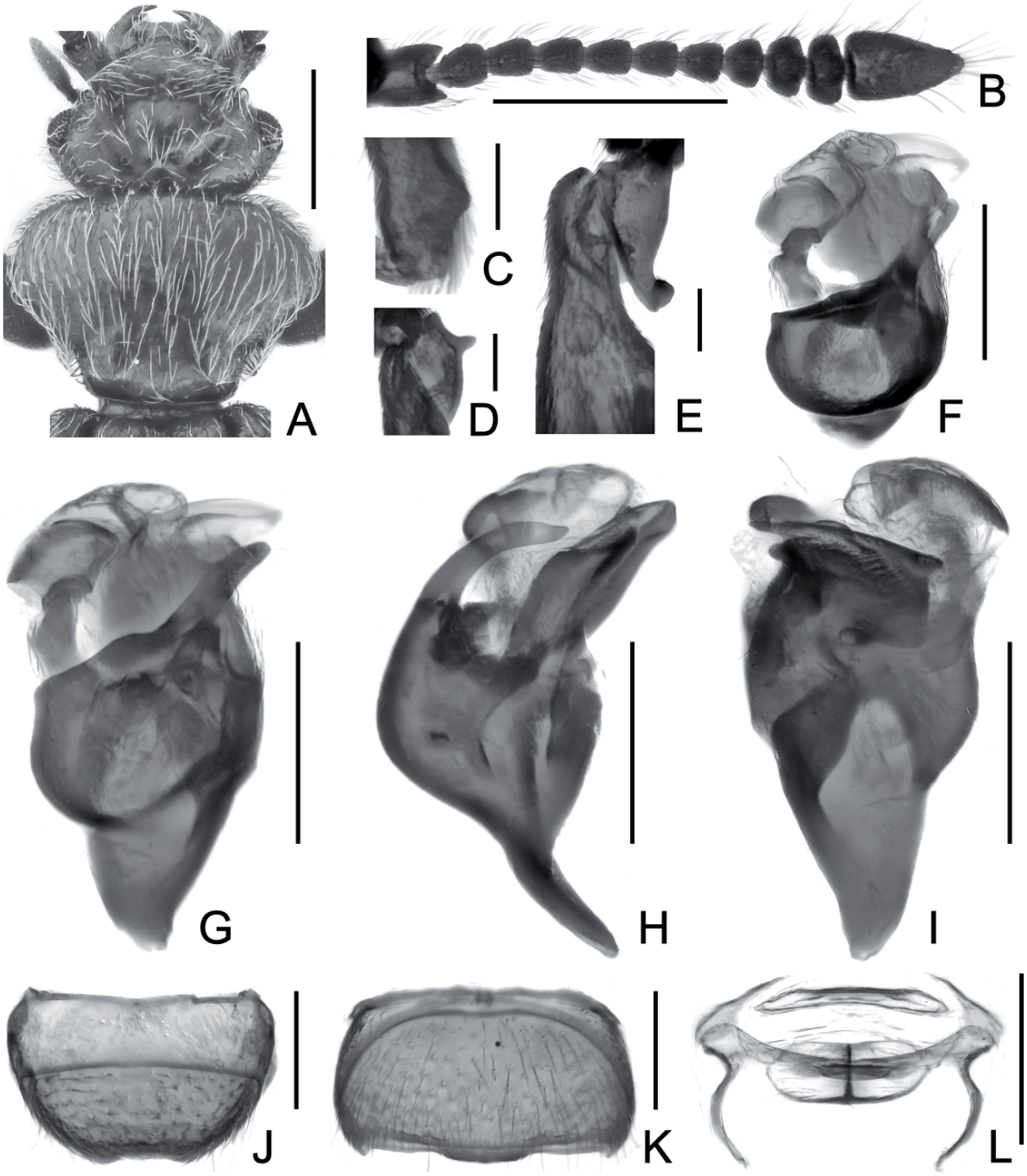

Fig. 4. Diagnostic characters of *Hingstoniella lata* (A-I Male, J-L Female.). (A) Head and pronotum. (B) Antenna. (C) Apical portion of protibia. (D) Mesotrochanter. (E) Metatrochanter. (F) Aedeagus of population from Xiayadong, Tibet, in axial view. (G) Same, in dorsal view. (H) Same, in lateral view. (I) Same, in ventral view. (J) Tergite VIII. (K) Sternite VIII. (L) Genital complex. Scales: A, B = 0.5 mm; F-L = 0.2 mm; C-E = 0.1 mm.

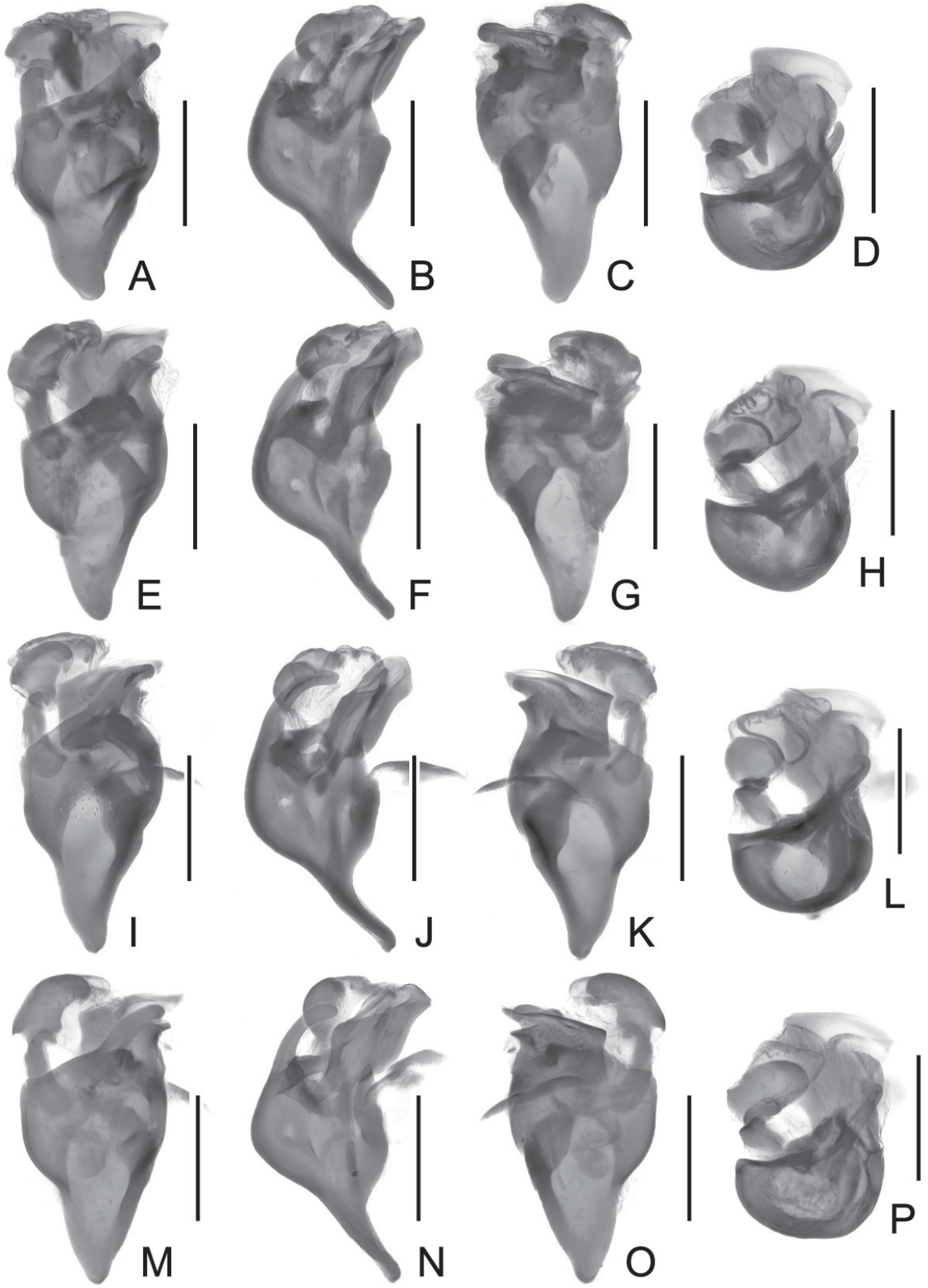

Fig. 5. Aedeagus of *Hingstoniella lata* in populations from various localities (A, E, I, M Dorsal view. B, F, J, N Lateral view. C, G, K, O Ventral view. D, H, L, P Axial view.). (A-D) Population from Tonglu, Darjeeling, India. (E-H) Population from "Bakan" W of Tashigaon, Nepal. (I-L) Population from Lughla, Khumbu, Nepal. (M-P) Population from Gairi, Nepal. Scales: 0.2 mm.

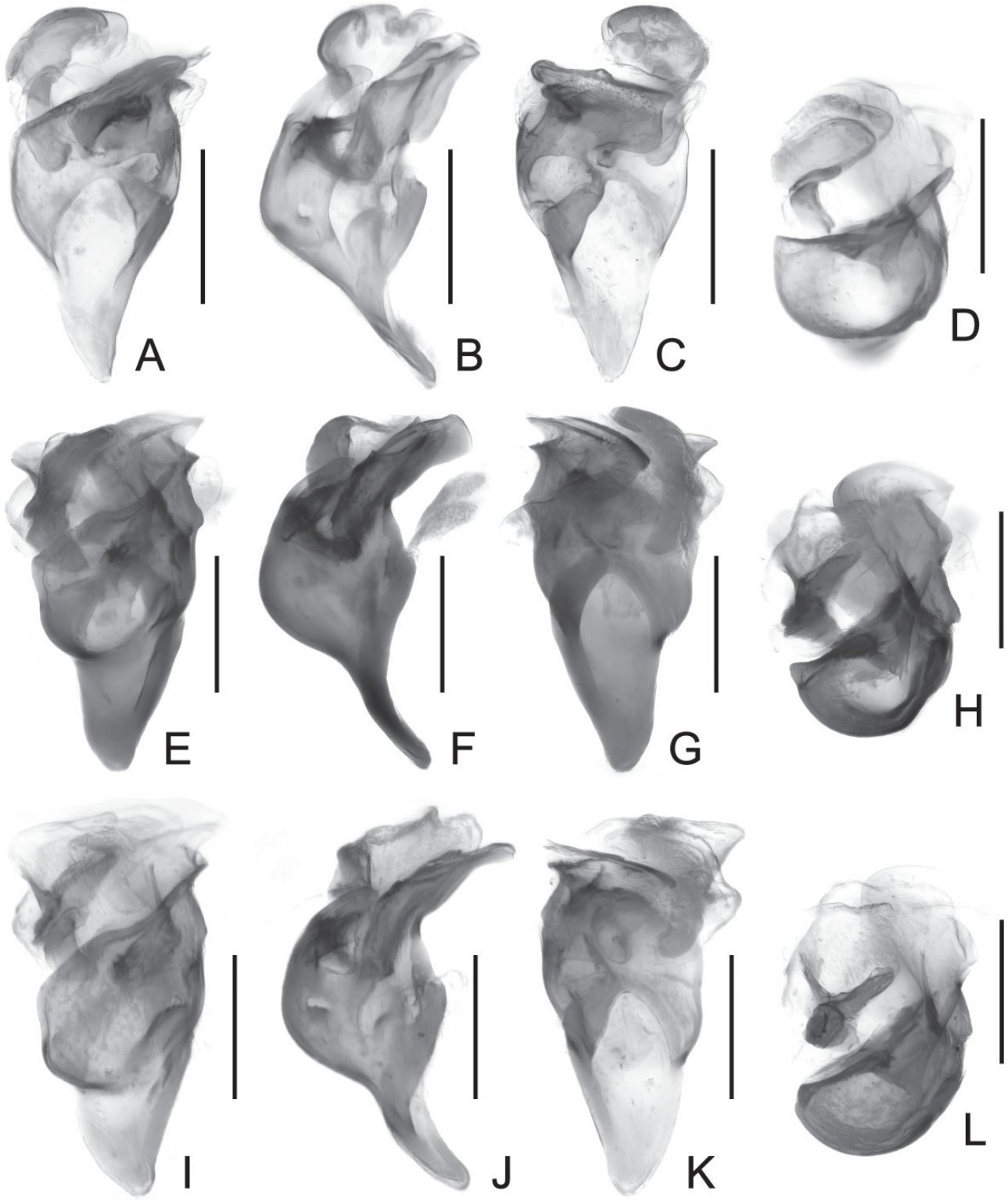

Fig. 6. Aedeagus of *Hingstoniella lata* in populations from various localities (A, E, I Dorsal view. B, F, J Lateral view. C, G, K Ventral view. D, H, L Axial view.). (A-D) Population from Thodung via Those. (E-H) Population from Quxiang, Tibet. (I-L) Population from Ridge between Mere Dara and Thare Pati, Nepal. Scales: 0.2 mm.

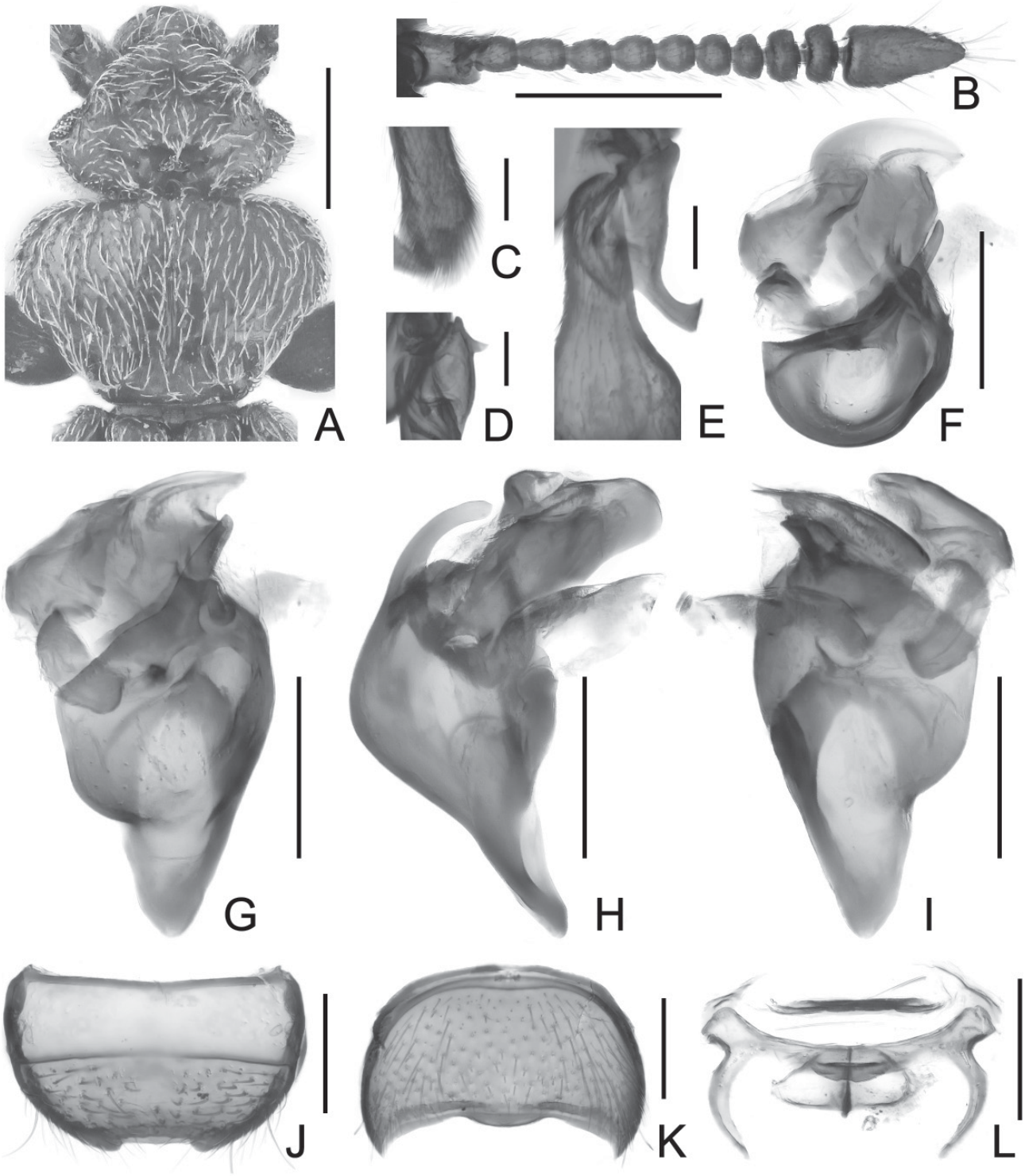

Fig. 7. Diagnostic characters of *Hingstoniella trigona* (A-I Male. J-L Female.). (A) Head and pronotum. (B) Antenna. (C) Apical portion of protibia. (D) Mesotrochanter. (E) Metatrochanter. (F) Aedeagus, in axial view. (G) Same, in dorsal view. (H) Same, in lateral view. (I) Same, in ventral view. (J) Tergite VIII. (K) Sternite VIII. (L) Genital complex. Scales: A, B = 0.5 mm; F-L = 0.2 mm; C-E = 0.1 mm.

denticle at ventral margin; metatrochanters (Fig. 7E) with ventral margin protruding to form long projection. Abdomen wider than long, AL 1.04-1.09 mm, AW 1.17-1.18 mm. Aedeagus (Fig. 7F-I) asymmetric, length 0.50-0.51 mm.

Female. Similar to male in general appearance, protibiae, mesotrochanters, and metatrochanters lacking protuberance or projection. Each eye with about 35 facets. Tergite VIII (Fig. 7J) and sternite VIII (Fig. 7K) transverse. Genital complex (Fig. 7L) transverse, width 0.40 mm. Measurements: BL 3.48-3.56 mm, HL 0.58-0.59 mm, HW 0.87-0.88 mm, PL 0.76-0.77 mm, PW 1.14-1.15 mm, EL 1.03-1.07 mm, EW 1.33-1.35 mm, AL 1.07-1.17 mm, AW 1.20-1.26 mm.

Differential diagnosis: The new species can be separated from *H. lata* by the male possessing a different form of the vertexal modification, as well as the less projected apical portion of the protibiae, and the longer ventral projection of the metatrochanters.

Biology: One *Myrmica* ant is pinned under the female paratype from Annapurna, indicating that the new species probably represents a similar myrmecophily as *H. lata*.

Distribution: Nepal: Daulagiri (Fig. 12).

***Besuchetaceus* gen. n.**

Figs 8-9

Type species: *Besuchetaceus nepalensis* sp. n.

Diagnosis: Head nearly triangular; frontal rostrum low; with distinct vertexal foveae; antennomeres XI elongate and conical. Pronotum transverse, with big lateral antebasal foveae; antebasal spines present; lateral margins spinose. Each elytron with three basal foveae, shallow and short discal striae present. Abdomen with lateral margins of tergite IV edged by marginal carinae; tergite IV longest.

Description: General body form elongate; Length 3.74-3.93 mm. Head nearly triangular (Fig. 8A); with low frontal rostrum, antennal tubercles slightly prominent; large vertexal foveae connected by broad U-shaped vertexal sulcus; antennae with 11 antennomeres, clubs loosely formed by apical three antennomeres, antennomeres XI elongate and conical; ocular-mandibular carinae distinct; eyes reniform (Fig. 8B); maxillary palpi with palpomeres III transverse and triangular, IV fusiform; with gular foveae merged into single opening (Fig. 8C). Pronotum (Fig. 8D) transverse; lateral antebasal foveae distinct, lateral margins spinose, lacking median antebasal fovea, with median and lateral longitudinal sulci, antebasal spines present; disc moderately convex; lacking basolateral foveae; lacking paranotal carinae; lateral procoxal foveae (Fig. 8E) present. Each elytron (Fig. 8F) with three distinct basal foveae, discal striae short and shallow, sutural striae complete; with subhumeral foveae, marginal stria present from fovea toward posterior margin; lateroapical notch small. Thorax (Fig. 9A) with small median and lateral mesoventral foveae; with lateral mesocoxal foveae; lacking prepectal foveae; lateral metaventral foveae small, metacoxae narrowly separated; posterior margin with narrow median notch. Abdomen (Fig. 9B-D) with tergites IV (first visible tergite), V, and VII bearing marginal carinae extending through whole tergal length; tergite IV longest, V-VII successively shorter; tergite IV with basolateral foveae at lateral ends of sulcus, lacking mediobasal foveae and discal carinae, V-VII each with one pair of basolateral foveae. Sternite IV (second visible ventrite) twice length of V at midlength, with one pair of mediobasal foveae and three pairs of basolateral foveae, basal sulcus between each mediobasal fovea and first pair of basolateral fovea, sternites V-VII lacking fovea. Legs slender, second and third tarsomeres subequal in length.

Male with vertex modified. Aedeagus with paramere fused to median lobe to form elongate ventral lobe; articulated dorsal lobe present; basal capsule with strongly constricted base.

Comparative notes: This new genus is placed as a member of the *Hingstoniella* group by the shared modified male vertex and the unique type of aedeagus. *Besuchetaceus* is most close to *Sinotrisus* by the similar general appearance, and each elytron possessing three basal foveae. The two genera can be separated by the spinose pronotal lateral margins, the shallow, complete basal sulcus, and the lack of discal carinae on tergite IV in *Besuchetaceus*, and the pronotum is generally more transverse. *Sinotrisus* has the pronotal lateral margins lacking spines or denticles, the pronotum is much less transverse, and tergite VI bears a deep basal sulcus interrupted by discal carinae or ridges. *Besuchetaceus* can be separated from *Hingstoniella* by the less robust habitus, the quite different shape of the pronotum, and the presence of three basal foveae on each elytron.

Etymology: The new genus is named after Claude Besuchet (Geneva, Switzerland), who firstly recognized this as a new genus placed near *Hingstoniella*, and added an identification label. Gender is masculine.

***Besuchetaceus nepalensis* sp. n.**

Figs 10-12

Holotype: ♂, NEPAL: labeled 'Ost-Nepal, Rolwaling Himal / oberh. Simigaon, 2700-2800 m, 31.05.2000, leg. A. Kleeberg / gen. n. aff. *Hingstoniella*, Cl. Besuchet dét 2005 / HOLOTYPE [red], ♂, *Besuchetaceus nepalensis* sp. n., det. Yin & Li, 2014, MHNG'; in MHNG, without accession number.

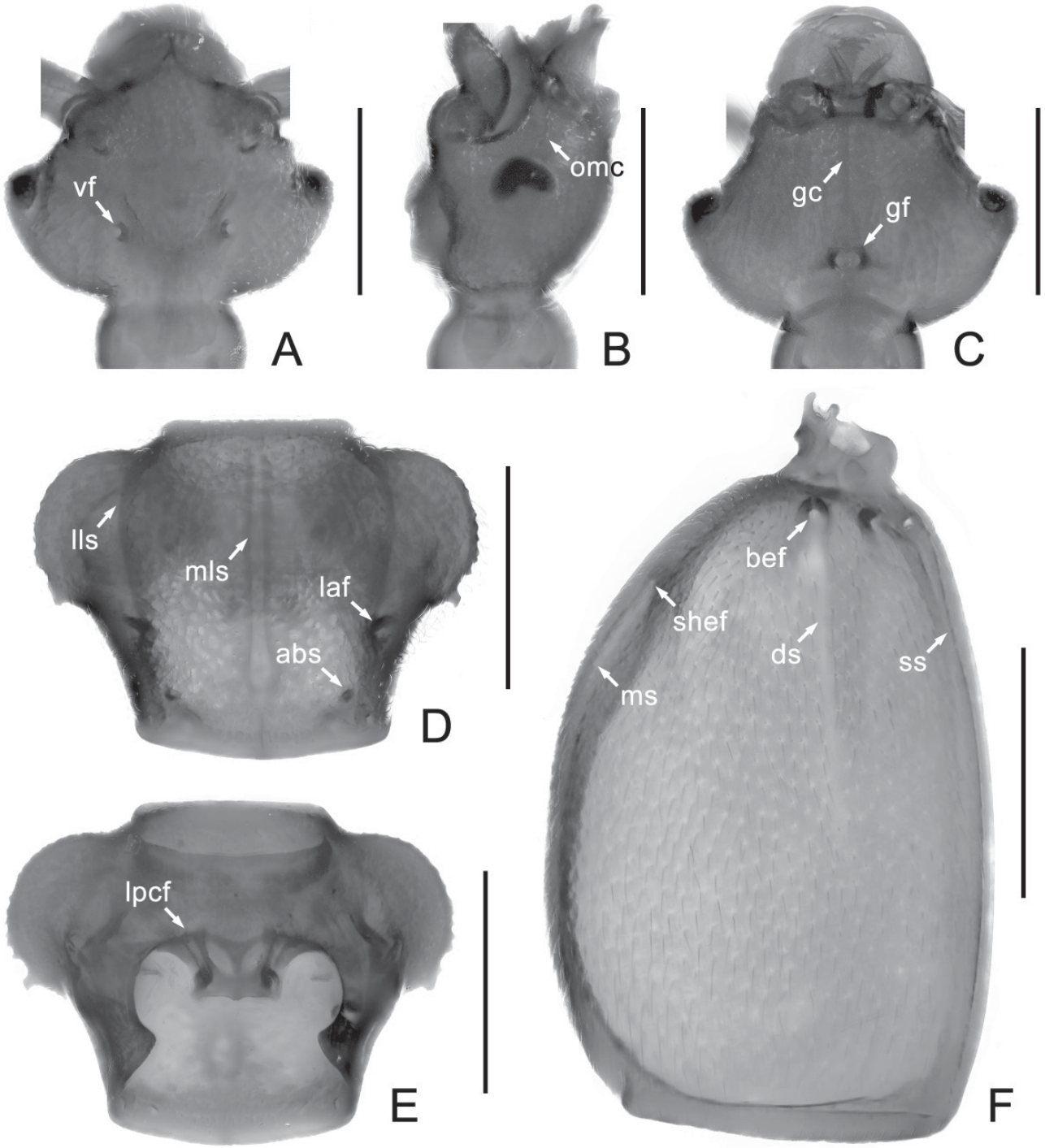

Fig. 8. Morphology of *Besuchetaceus*. (A) Head, in dorsal view. (B) Same, in lateral view. (C) Same, in ventral view. (D) Pronotum. (E) Prosternite. (F) Left elytron. Abbreviations: abs - antebasal spine; bef - basal elytral fovea; ds - discal striae; gc - gular carina; gf - gular foveae; laf - lateral antebasal foveae; lls - lateral longitudinal sulci; lpcf - lateral procoxal fovea; mls - median longitudinal sulcus; ms - marginal stria; omc - ocular-mandibular carinae; shef - subhumeral elytral foveae; ss - sutural striae; vf - vertexal foveae. Scales: 0.2 mm.

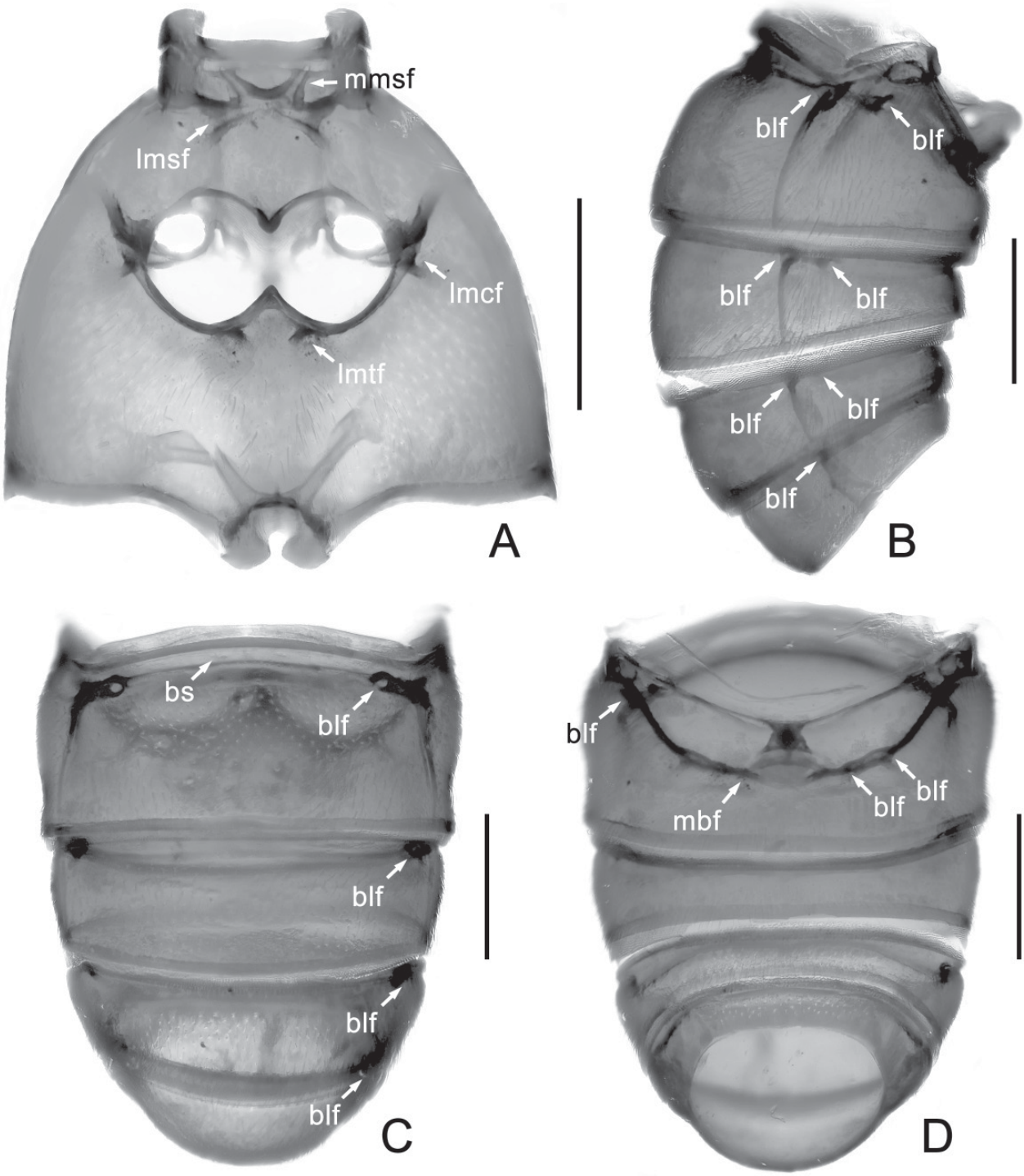

Fig. 9. Morphology of *Besuchetaceus*. (A) Meso- and metaventrite. (B) Abdomen, in lateral view. (C) Same, in dorsal view. (D) Same, in ventral view. Abbreviations: blf - basolateral foveae; bs - basal sulcus; lmcf - lateral mesocoxal foveae; lmsf - lateral mesoventral foveae; lmtf - lateral metaventral foveae; mbf - mediobasal foveae; mmsf - median mesoventral foveae. Scales: 0.5 mm.

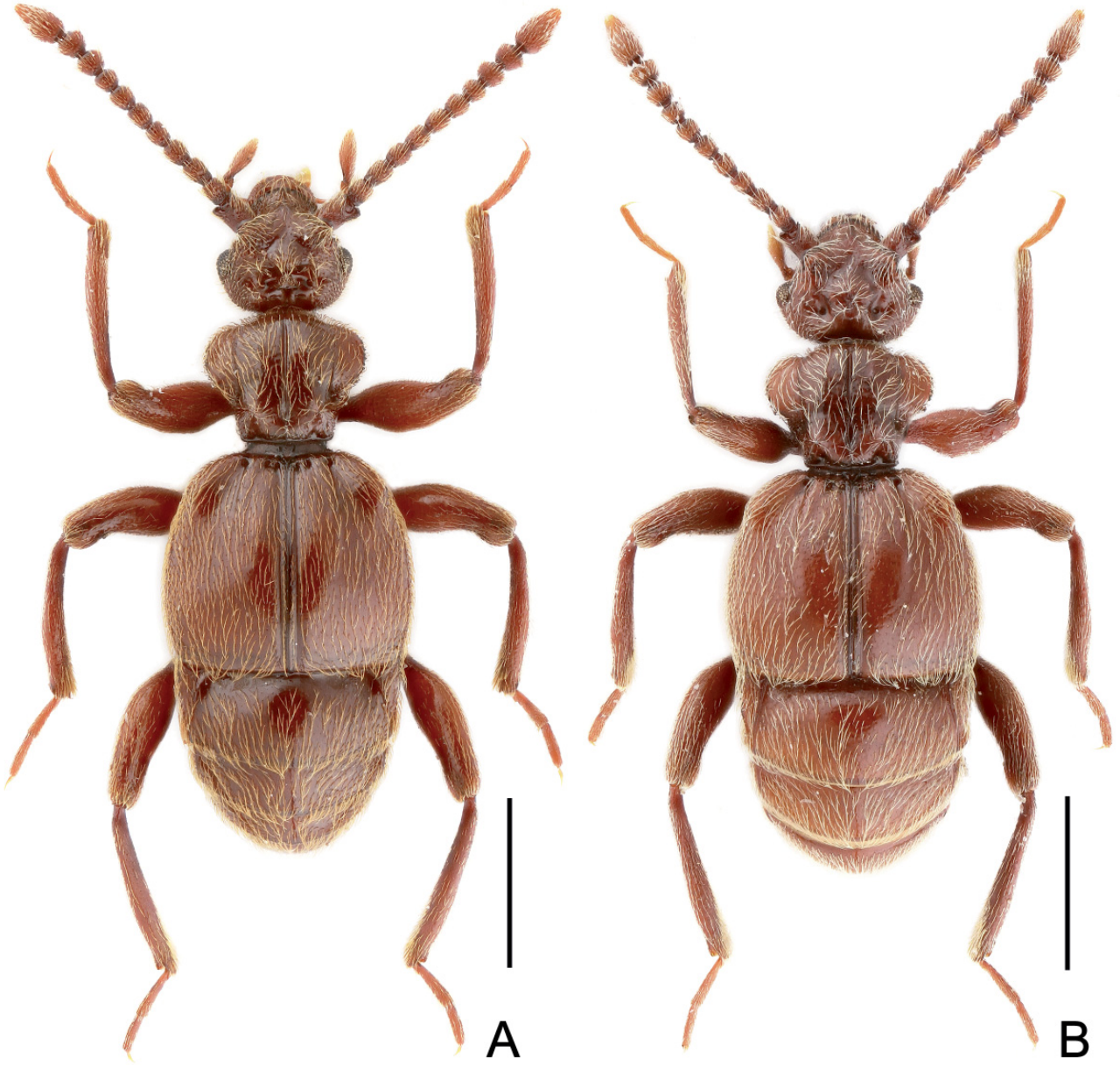

Fig. 10. Habitus of *Besuchetaceus nepalensis*. (A) Male. (B) Female. Scales: 1.0 mm.

Paratype: 1 ♀, labeled 'Zentral-Nepal, Sept.-Okt. 1971, lg. H. Franz [Pa160, overleaf; according to Franz's dairy, the detailed collection data related to this number is: Thare-Pati, low *Rhododendron-Juniperus* forest, 8.10.1971, small sifting sample from litter, moss and humus (Schillhammer, per. comm.)] / Tare-Pati / PARATYPE [yellow], ♀, *Besuchetaceus nepalensis* sp. n., det. Yin & Li, 2014, MHNG'; in MHNG, without accession number.

Description: Male (Fig. 10A). BL 3.93 mm. Body reddish brown; most part of dorsal surface densely hairy.

Head (Fig. 11A) transverse, HL 0.69 mm, HW 0.79 mm; vertex convex at middle, modification composed of triangular bump covered with dense setae, foveae below level of posterior margins of eyes; each eye with about 60 small facets; antennal clubs formed by apical three enlarged antennomeres (Fig. 11B). Pronotum transverse, PL 0.76 mm, PW 0.93 mm, median longitudinal sulcus deep, lateral longitudinal sulci less developed. Elytra wider than long, EL 1.22 mm, EW 1.42 mm; shallow discal striae extending to basal 1/4 of elytral length. Metathoracic wings fully developed. Protibiae simple; mesotrochanters (Fig. 11C) with small, sharp spine at ventral margin, mesotibiae (Fig. 11D) with small apical spine; metatrochanters (Fig. 11E) with ventral margin protruding to form broad projection. Abdomen wider than long, AL 1.26 mm, AW 1.28 mm. Aedeagus (Fig. 11F-I) asymmetric, length 0.50 mm.

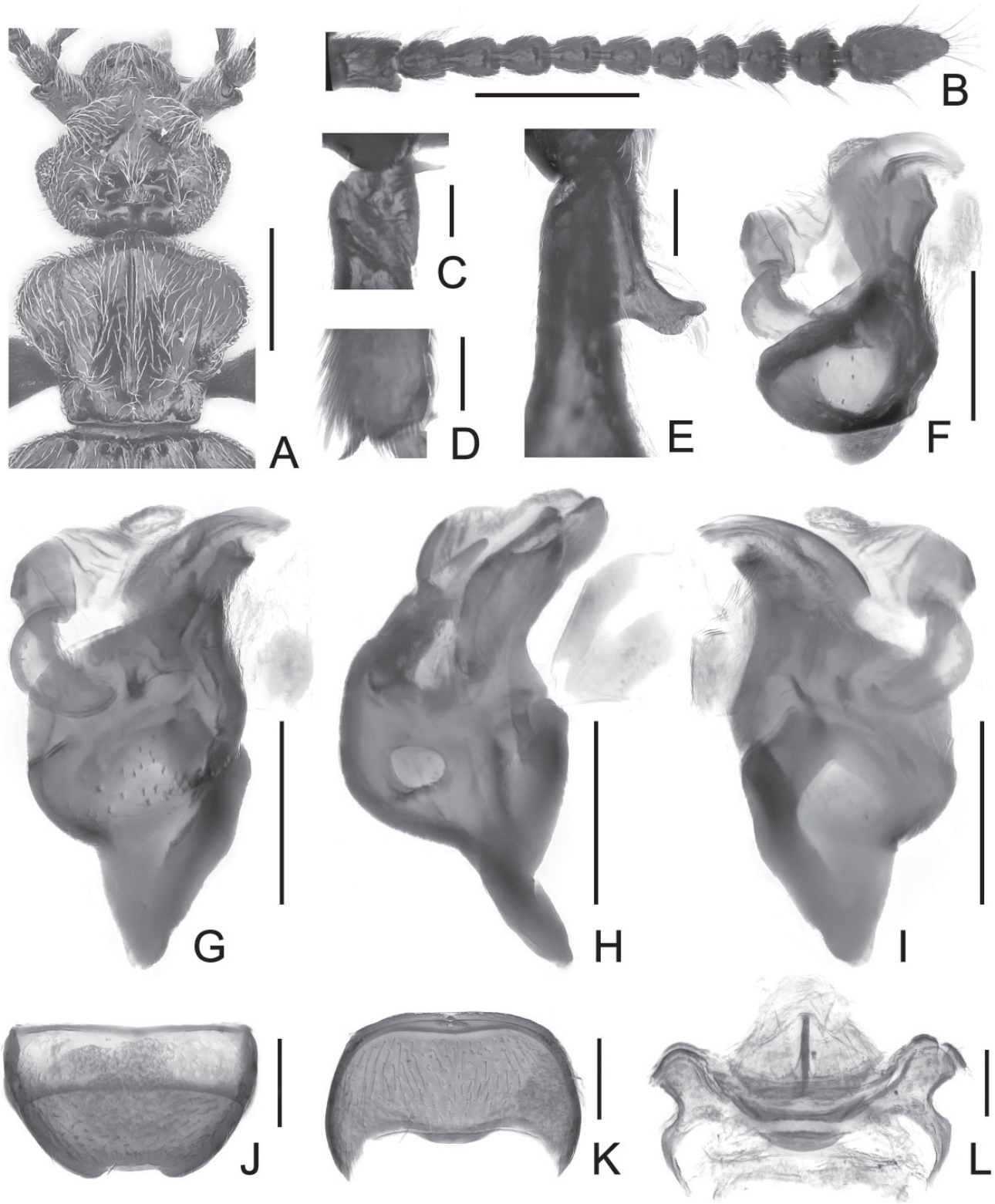

Fig. 11. Diagnostic characters of *Besuchetaceus nepalensis* (A-I Male, J-L Female.). (A) Head and pronotum. (B) Antenna. (C) Mesotrochanter. (D) Apical portion of mesotibia. (E) Metatrochanter. (F) Aedeagus, in axial view. (G) Same, in dorsal view. (H) Same, in lateral view. (I) Same, in ventral view. (J) Tergite VIII. (K) Sternite VIII. (L) Genital complex. Scales: A, B = 0.5 mm; F-L = 0.2 mm; C-E = 0.1 mm.

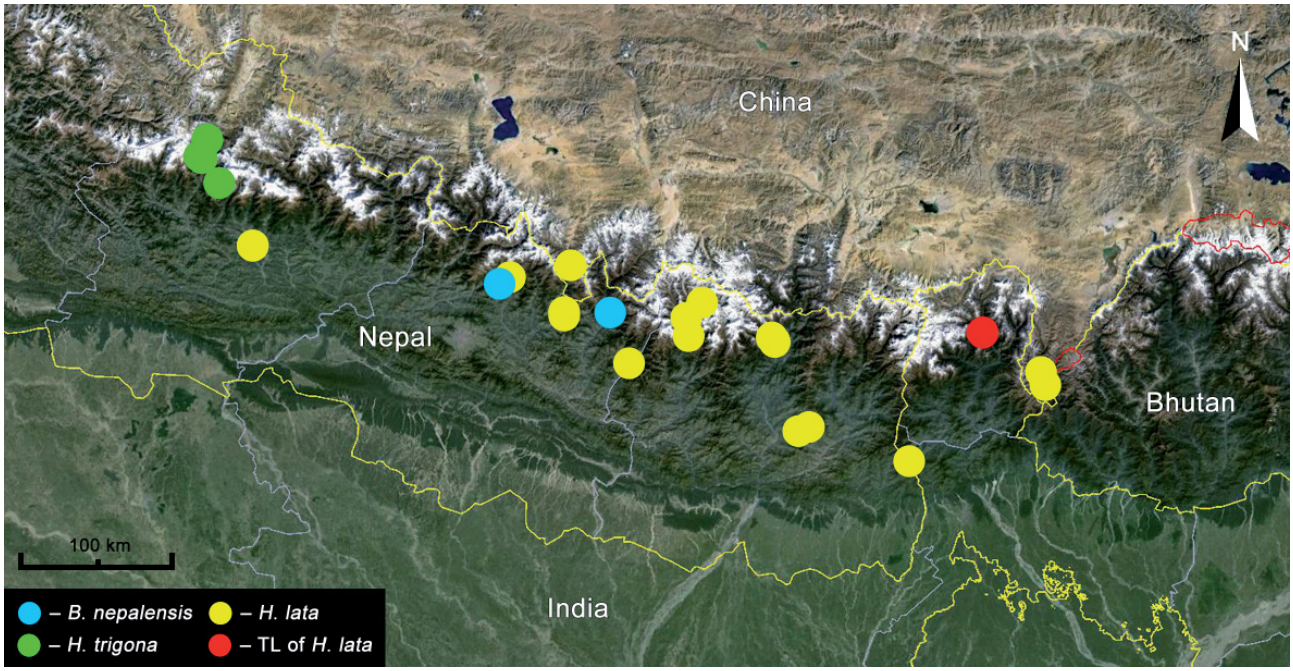

Fig. 12. Distribution of *Hingstoniella lata*, *H. trigona*, and *Besuchetaceus nepalensis*. Abbreviation: TL - type locality.

Female (Fig. 10B). Similar to male in general appearance, mesotrochanters, mesotibiae, and metatrochanters lacking protuberance or projection. Each eye with about 45 facets. Tergite VIII (Fig. 11J) and sternite VIII (Fig. 11K) transverse. Genital complex (Fig. 11L) transverse, width 0.45 mm. Measurements: BL 3.74 mm, HL 0.63 mm, HW 0.74 mm, PL 0.65 mm, PW 0.84 mm, EL 1.11 mm, EW 1.44 mm, AL 1.35 mm, AW 1.31 mm.

Differential diagnosis: Same as the genus, when combined with the form of the male modified vertex and leg characters, *Besuchetaceus nepalensis* can be readily separated from all other batrisine species.

Biology: The female paratype was sifted from a litter, moss and humus sample in a low *Rhododendron-Juniperus* forest on 10th October.

Distribution: Nepal: Bagmati, Janakpur (Fig. 12).

Etymology: The specific epithet refers to Nepal, the country where the type locality of the new species lies.

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