

JEROMICANUS GEN. NOV. OF RICANIIDAE (HEMIPTERA: FULGOROMORPHA) FROM SOUTH EAST ASIA

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Abstract.— A new genus of ricaniid planthopper (Hemiptera: Fulgoromorpha: Ricaniidae), *Jeromicanus* gen. nov., is described to comprise three species – two species from Vietnam *Jeromicanus orientalis* sp. nov. (type species) and *J. vietnamensis* sp. nov. and one species from Laos – *L. laosensis* sp. nov. Habitus, male and female external and internal genital structures of the new species are illustrated.



Key words.— planthoppers, Fulgoroidea, Vietnam, Laos, taxonomy, morphology

INTRODUCTION

Ricaniidae Amyot et Audinet-Serville, 1843 is a family of sup-sucking planthoppers (Hemiptera: Fulgoromorpha) distributed in all warm temperate and tropical regions of the world. In total, 66 genera (2.7% of the Fulgoromorpha) and 434 species (3.2% of the Fulgoromorpha) of this family are recorded (Bourgoin 2020).

The biodiversity of Vietnam remains relatively underinvestigated despite strong evidence for its high regional species richness, especially for the insect fauna (Constant *et al.* 2018). As for Laos for which only one species, *Pochazia antica* (Gray, 1832) is currently recorded (Bourgoin 2020), vietnamense Ricaniidae are known by only 6 genera and 20 species (Pham and Cao 2009, Stroiński 2020, Stroiński and Pham 2019). However, in the frame of a larger work of revision of the Ricaniidae family (Stroiński, work in progress), it can be already assumed that biodiversity of South-East ricaniids is much higher than previously estimated. Here we describe a new genera with three new species, distributed in Vietnam and Laos.

MATERIAL AND METHODS

Dry pinned specimens were used for this study.

Label information of all specimens examined is provided verbatim with each line separated by a slash (/) and each label given in square brackets.

Terminology. The nomenclature of fore wing (tegmen) follows the interpretation proposed by Bourgoin *et al.* (2015) and Stroiński (2020). Antennal structures are named in accordance with Stroiński *et al.* (2011). The terminology of the genitalia follows Bourgoin (1988) and Bourgoin and Huang (1990) for the male, and Bourgoin (1993) for the female.

The abdomen of the specimen examined was cut off and cleared for 30 min in a warm (50°C) 10% KOH solution with a few drops of black chlorazol (CAS No. 1937-37-7) for staining the ectodermic genital structures, based on the method introduced by Carayon (1969). Dissections and cleaning of the genital structures were carried out in distilled water. Final observations were made in glycerol using an Olympus stereoscope microscope (SZH10). The photographs of the habitus and

internal structures were taken using a stereoscopic microscope Leica MZ 16 with IC3D camera. Final images were adjusted using the Helicon 5.0 software and Adobe Photoshop.

The SEM photographs of uncoated specimens were taken in the Laboratory of Scanning Microscopy, MIZ PAS (Warsaw), using a scanning electron microscope HITACHI S-3400N under low vacuum conditions.

Measurements and abbreviations. Measurements were made with an ocular micrometer. The following measurements, ratios and their abbreviations were used in this study:

Total length – measured (in dorsal view) from head apex to tegmina apex;

A/B – width of vertex measured at anterior margin / length of vertex measured at midline,

C/E – width of frons at upper margin / length of frons at midline,

D/E – maximum width of frons / length of frons at midline,

F/B – length of pronotum at midline / length of vertex at midline,

G/F – length of mesonotum / length of pronotum at midline,

G/B+F – length of mesonotum / cumulative length of vertex and pronotum at midline,

G/H – length of mesonotum at midline / width of mesonotum between lateral angles,

I/J – length of tegmen measured from the base to the apical margin in median portion / width of tegmen measured at the widest part.

The material studied is deposited in the following collections:

BPBM – Bernice P. Bishop Museum, Honolulu, Hawaii, USA;

MIZ – Museum and Institute of Zoology PAS, Warsaw, Poland;

RBINS – Royal Belgian Institute of Natural Sciences, Brussels, Belgium;

VNMN – Vietnam National Museum of Nature, Hanoi, Vietnam.

TAXONOMY

Jeromicanus gen. nov.

(Figs 1–102)

Etymology. The generic name is a combination derived from the name of Jérôme Constant, specialist on Fulgoromorpha (Hemiptera) and a curator of the Hemiptera collection of Royal Belgian Institute of Natural Sciences (Brussels, Belgium), a great explorer and insect collector, and the name of the family Ricaniidae. Gender: maculine.

Type species. *Jeromicanus orientalis* sp. nov.

Diagnosis. The new genus is similar to the genus *Hagneia* Stroiński, 2020 but differs by the following characters: 3 lines of transverse veinlets (*Hagneia* – 2 lines of transverse veinlets); aedeagus in median split open (*Hagneia* – aedeagus partly closed); posterior margin of the pregenital sternite with single process (*Hagneia* – posterior margin of the pregenital sternite with double process); posterior margin of the gonoplac with rows of small teeth (2–5 rows) (*Hagneia* – posterior margin of the gonoplac without teeth (smooth)).

Description. Head with compound eyes (in dorsal view, Figs 2, 50, 87–88) about as wide as mesonotum. Vertex (Figs 2, 8, 50–52, 87–88) transverse, distinctly wider than long at midline, with all margins well carinated and slightly elevated; lateral margins almost straight and parallel; anterior margin widely arcuate, posterior margin with major curvature than anterior one; disc of vertex with weakly present median carina.

Frons (Figs 3, 6–8, 52, 53–54, 89) with all margins well carinated; at upper margin longer than high at midline, widest at the level of compound eyes; upper margin straight, lateral margins weakly arcuate, covering base of pedicel, not incised near the level of ocelli, margins distinctly curved to frontoclypeal suture in lower part. Frontal disc (Figs 3, 6–8, 52, 53–54, 89) with 3 carinae separated basally; all carinae ending about the same level before frontoclypeal suture; median carina straight, in upper part partly melted, lateral carinae arcuate with breaking point about the middle of compound eyes; disc of frons delicately vertically rugose, near the frontoclypeal suture concave.

Compound eyes (Figs 1, 3, 9–10, 51–52, 55, 89–90), with very small callus at postero-ventral margin and posterior margin. Ocelli present.

Antenna (Figs 1, 3, 6–10, 51–52, 55–58, 89–90): pedicel elongated, cylindrical, with functional area (trichoid sensilla type 1 and antennal plate organs) at the top and on tip of frontal side surface. Frontoclypeal suture widely arcuate.

Clypeus (Figs 3, 6–7, 52–53, 89) distinctly narrower than frons, with incomplete median carina (visible in lower part).

Rostrum (Fig. 11) with apical segment a little shorter than subapical one, reaching mid coxae.

Thorax: pronotum (Figs 2, 6–10, 49–53, 86–90) distinctly longer than vertex at midline; disc of pronotum with median carina and two lateral impressions; anterior and posterior margins in median portion almost parallel.

Mesonotum (Figs 1–3, 8–10, 49–51, 86–88, 90) elongated, diamond shape, distinctly longer than combined length of vertex and pronotum at midline; median carina, lateral and antero-lateral carinae present; median carina and lateral carinae connected basally; median carina reaching scutellum, lateral carinae not reaching

posterior margin; anterolateral carina connected with lateral about the level of lateral angles or bit farther; lateral angles placed before midlength.

Vertex, disc of pronotum and disc of mesonotum in ascending, stepwise planes (Figs, 1, 9, 49, 51, 88, 90).

Tegmina (Figs 1–2, 12–17, 49–51, 59–62, 86–87) membranous, flattened, elongately-triangular with distinct venation and transverse veinlets. Costal margin weakly arcuate, apical angle broadly rounded, placed distad to claval angle, posterior margin arcuate, tornus absent. Costal area wider than costal cell, with dense transverse veinlets, ending before tip of clavus, wider in median portion, tapering apicad with wavy apex. Costal cell narrower than costal area, without or with weakly visible incomplete transverse veinlets at the upper side. Basal cell elongately oval, longer than wide (about 1.5 times). Longitudinal veins ScP+RA, MP and CuA leaving basal cell separated, veins ScP+RA and RP arising as short common stem from basal cell (vein forked just after leaving basal cell); ScP+RA forking distinctly after nodal line, RP fork at nodal line; MP leaving basal from one point (in several specimens a MP₁₊₂ and MP₃₊₄ shortly separated or partly fused basally), MP₁₊₂ forking before nodal line, MP₃₊₄ in nodal line. CuA vein multiforked, with protruded model of forking; first fork placed before nodal line and before the connection of claval veins Pcu+A₁. Tegmen of hyperpterism mode (Bourgoin *et al.* 2015) with 3 postnodal lines of transverse veinlets, apical and subapical lines complete, intermedian incompletely developed in median and upper part of tegmen; apical, subapical and postintermedian cells longer than wide, apical cell shorter than subapical one; nodal line present at basal half of tegmen, about the level of the connection of claval veins Pcu and A₁; nodal line distinctly arcuate, formed by longitudinal and transverse veinlets. Base of tegmen (before nodal line) with a few transverse veinlets between MP and ScRA veins; Sc vein alongside the apex of costal area slightly elevated. Cubital cell without transverse veinlets; *icu* veinlet present. Clavus closed; CuP ending at margin, claval veins Pcu and A₁ fused about the midlength of CuP vein; posterocubital cell (basal and posterior part) and postcubital cell with transverse veinlets.

Hind wing with elongate precostal cell present; ScP+RA and MP forking distinctly after midlength of wing, CuA forking distinctly before half of wing; 2 transverse veinlets present *rp-mp* (before first forks of RP and MP), *m-cua* (before first fork of MP).

Hind tibia (Figs 18–20, 63–64) partly flattened and distinctly widened at distal part; hind tibia with 2 lateral spines in distal part and row of apical teeth (6) forming line, median teeth scarcely arranged; basitarsomere about as long as cumulative length of second and hind tarsomere, with interrupted row of 6 teeth: 2 lateral teeth biggest and 4 small teeth only on

external side; median part of tarsomere with ovoid pad covered by long and massive hairs.

Male terminalia. Anal tube (in lateral view, Figs 24–25, 65–67) elongate, massive, surpassing posterior margin of pygofer; posterior part wider than basal one; anal opening placed before midlength, ventral margin almost straight. Anal tube (in dorsal view, Figs 26–27, 68) elongate, subrectangular, widest about midlength; anus placed before midlength, postero-ventral angle obtuse.

Pygofer (in lateral view, Figs 24–25, 65–67) higher than wide; dorsal posterior angle without process, sharp; dorsal and ventral part about the same width; ventral margin of the pygofer without concavity (Figs 28–29, 69).

Genital styles (in lateral view, Figs 24–25, 29–30, 65–66) longer than wide, with small and wide spine-like process at the end of dorsal margin; apical part distinctly wider than basal; ventral margin weakly sinuate; dorsal margin almost straight, without concavity; ventral margin with caudo-dorsal angle widely rounded and surpassing the posterior margin of process, hind margin shallowly convex.

Phallus complex. Perianthium (Figs 31–33) without any spinose processes, elongate, with long lateral split surpassing the half of its length, at lateral basal part smooth. Dorsal part of perianthium shorter than ventral one, not elevated membranous with spiniferous microsculptures; dorsal part trilobate with distinct splits between lobes, lateral lobes widened apically, median lobe bifurcate apically as long as lateral or bit shorter than lateral lobes of dorsal perianthium. Ventral part of perianthium distinctly longer than dorsal part with spiniferous microsculpture, apically with elongated shaft with bifurcate rounded apex (Figs 33, 70) ventral side of ventral perianthium with distinct median keel (Fig. 31).

Aedeagus (Figs 34–36) long and narrow, apically with 3–4 well sclerotized apical spinose processes; median split of aedeagus very deep and asymmetrical; dorsal side longer than ventral one. Apical process of aedeagus short, recurvate, oriented apically; the subapical process present or absent (variable character), if present, short, oriented dorsally; 2 postero-lateral processes; ventral processes longer than apical ones, oriented basally; ventral processes always longer than dorsal with a single apex; dorsal processes always bifurcate basally, external branch always shorter; internal branch apically, from single to trifurcate apex, sometimes one apical thin branch present.

Female terminalia. Pregenital sternite (Figs 42–44, 75–77, 81) with well developed, elongately-rounded and distinctly separated lateral lobes; anterior margin weakly concave, posterior margin medially with process.

Anal tube (in lateral view, Figs 40–41, 71–72, 82) elongate, not reaching the posterior margin of gonoplac;

anal tube (in dorsal view, Figs 37–39, 73–74, 83) elongately ovoid, tapering apicad, wider at basal part; anus placed a bit after midlength; anal style (paraproct) and anal segment (epiproct) short.

Gonoplac (37–48, 71, 73–, 75–76, 78–80, 93–96, 100) well developed, unilobate, laterally flattened; posterior margin of the gonoplac with 2–5 rows of small teeth; membranous parts of gonoplac well developed: first margin narrow, placed on lower part of posterior margin, second one large and rounded, placed ventrobasad part of the gonoplac.

Gonapophysis VIII (Fig. 84, 101) sabre-like, “v”-shape in cross section, with teeth at dorsal margin; endogonocoxal process tapering apicad, almost as long as gonapophysis VIII, with median sclerotized belt surrounded by membranous part.

Gonapophyses IX and gonospiculum bridge well developed as in Fig. 85.

Bursa copulatrix (Fig. 102) of two pouches connected with very short ductus; first pouch elongate, with cells and sclerotized ornamentation (except dorsal part); second pouch oval, shorter than first one with sclerotized plates.

Spermatheca (Fig. 102) well developed; *ductus receptaculi* elongate and narrow, ribbed; *diverticulum ductus* about as long as *ductus receptaculi*, with long narrow smooth ductus, apically with small, rounded and smooth bulla.

Distribution. Vietnam, Laos.

Key to identification of the species of *Jeromicanus* gen. nov.

1. Tegmen with a brown band at the level of a subapical line of transverse veinlets; tegmen with 3 brown patches – 2 in median part and one near the CuP (Figs 86, 87) *J. laosensis* sp. nov.
- Tegmen without transverse brown band and patches 2
2. Costal area and apical cells of tegmen with black band *J. orientalis* sp. nov.
- Costal area and apical cell of tegmen yellow *J. vietnamensis* sp. nov.

Jeromicanus orientalis sp. nov.

(Figs 1–48)

Etymology. The specific name, is derived from the Latin adjective “orientalis” meaning “of the east” and refers to the distribution of this species.

Diagnosis. *Jeromicanus orientalis* sp. nov. is similar to *J. vietnamesis* sp. nov. but differs by the coloration of the tegmen (see key to the identification of species) and male and female structures: posterior

margin of the pygofer distinctly concave in median portion (*J. vietnamensis* – posterior margin of the pygofer shallowly convex), pregenital sternite with median process of the posterior margin trapezoidal (*J. vietnamensis* – median process of the posterior margin conical).

Description. Total length 1.01–1.21 cm.

Vertex: proportion A/B = 9.64–13.33. Frons: proportion C/E = 1.17–1.22; proportion D/E = 1.35–1.43. Pronotum: proportion F/B = 2.00–3.66. Mesonotum: proportion G/F+B = 5.78–7.65, proportion G/F = 8.10–11.00, proportion G/H = 1.10–1.13. Tegmina: proportion I/J = 1.20–1.27.

Male terminalia: posterior margin of anal tube (in lateral view, Figs 24–26) almost straight; posterior margin (in dorsal view, Figs 26–27) medially concave; posterior margin of the pygofer shallowly concave (Figs 24–25).

Female terminalia: median process of pregenital sternite trapezoidal (Figs 42–44). Anal tube: apical margin medially (in dorsal view, Figs 37–39) distinctly concave; ventral margin (in lateral view, Figs 40–41) shallowly arcuate or almost straight. Posterior margin of the gonoplac (Figs 42–48) with 4–5 rows of small teeth. Gonapophysis VII elongate and massive.

Coloration (Figs 1–3). Head light brown, pronotum and mesonotum brown. Legs: light brown to brown. Tegmina hyaline, lightly yellowish; costal margin and costal area black; tegmen alongside posterior margin with black band (in some specimen lighter); costal cell yellow. Hind wing hyaline, yellowish. Abdomens of males and females with irregular pattern of coloration from yellow, light brown to dark brown; terminalia yellow.

Type materials. Holotype: ♂: [Coll. I.R.Sc.N.B. / Vietnam, Kon Tum prov. / Kon Plong, Mang Kanh / 14° 39'43",N, 108°15'45",E / 16-20.viii.2019, GTI Project, Leg. J. Constant & J. Bressel / I.G.: 34.048] – RBINS;

Paratypes: 2♂♂, 2♀♀: [Coll. I.R.Sc.N.B. / Vietnam, Kon Tum prov. / Kon Plong, Mang Kanh / 14°39'43",N, 108°15'45",E / 16-20.viii.2019, GTI Project, Leg. J. Constant & J. Bressel / I.G.: 34.048] – 1♂, 1♀ (MIZ), 1♀ (RBINS); [Coll. I.R.Sc.N.B. / Vietnam, Gia Lai prov. / Kon Ka Kinh N.P., 700–1500m / 6-13.vii.2018, 14°12'10"N / 108°18'40"E, GTI Project, / Leg. J. Constant, J. Bresseel & X. Vermeersch, I.G.: 33.769] – 1♂ (RBINS).

Distribution. Vietnam: Prov. Kon Tum, Gia Lai.

Note. Habitats from both locality are presented in Figs 4–5.

Jeromicanus vietnamensis sp. nov.

(Figs 49–85)

Etymology. The specific epithet refers to the country of origin – Vietnam, where the material was collected.

Diagnosis. *Jeromicanus vietnamensis* sp. nov. is similar to *J. orientalis* sp. nov. but differs by the characters: see diagnosis of *J. orientalis*.

Description. Total length 0.96–1.04 cm.

Vertex: proportion A/B = 12.66–14.00. Frons: proportion C/E = 1.18–1.27; proportion D/E = 1.30–1.42. Pronotum: proportion F/B = 3.00–3.33. Mesonotum: proportion G/F+B = 6.91–7.00, proportion G/F = 9.00–9.33, proportion G/H = 1.16–1.18. Tegmina: proportion I/J = 1.20–1.22.

Male terminalia: ventral margin of anal tube almost straight, posterior margin arcuate (in lateral view, Figs 65–67); posterior margin (in dorsal view, Fig. 68) medially almost straight or shallowly concave. Posterior margin of the pygofer distinctly concave (Figs 65–66).

Female terminalia: median process of pregenital sternite conical (Figs 75–77, 81). Anal tube: apical margin medially (in dorsal view, Figs 73–73, 83) distinctly concave; ventral margin (in lateral view, Figs 71–72, 82)) arcuate. Posterior margin of the gonoplac with 4–5 rows of small teeth (75–76, 79–80). Gonaphophys VII elongate and massive (Fig. 84).

Coloration (Figs 49–52). Head, pronotum, mesonotum and legs brownish. Tegmina hyaline, yellowish; costal margin, costal area and costal cell yellow. Hind wing hyaline, yellowish. Abdomen of males and females and terminalia yellow; anterior margin of the tergites medially with narrow, dark brown margin.

Type material. Holotype, ♂: [Vietnam, Phyc Binh National Park, Ninh Thuận Prov., / Bac Ai district, Phyc Binh / commune, 11/11/08 300 m / Collection VNMH] – VNMN.

Paratypes: 3♂♂, 1♀: [Vietnam, Phyc Binh National Park, Ninh Thuận Prov., / Bac Ai district, Phyc Binh / commune, 11/11/08 300 m / Collection VNMH] – 1♂ (MIZ); [Vietnam, Phyc Binh National Park, Ninh Thuận Prov., / Bac Ai district, Phyc Binh / commune, 12/11/08 300 m / Collection VNMH] – 1♂ (VNMN), 1♂ (MIZ); [VIET NAM 30km NE / DiLinh (Djiring) / 1200m, 22-28.IV.60], [B. Quate & / L. Quate / Collectors] – 1♀ (BPBM).

Distribution. Vietnam: Ninh Thuận Prov., Lâm Đồng Prov.

Jeromicanus laosensis sp. nov.

(Figs 86–102)

Etymology. The specific epithet refers to the Laos country where the species was recorded.

Diagnosis. *Jeromicanus laosensis* sp. nov. differs from other species of the genus by the colloration of the tegmen (see key to the identification of species) and female structures: median process of the pregenital sternite with shallowly convex process (in other two species median process trapezoidal or conical),

posterior margin of the gonoplac with 2 rows of small teeth (in other two species posterior margin of the gonoplac with 4–5 rows), gonaphophys VII elongate and narrow with sharp apex (in other 2 species gonaphophys VII elongate and massive).

Description. Total length 1.0–1.1 cm.

Vertex: proportion A/B = 13.03–14.33. Frons: proportion C/E = 1.26–1.44; proportion D/E = 1.23–1.4. Pronotum: proportion F/B = 3.33. Mesonotum: proportion G/F+B = 6.61–6.85, proportion G/F = 8.6–8.9, proportion G/H = 1.18–1.21. Tegmina: proportion I/J = 1.24–1.25.

Male: unknown.

Female terminalia: median process of pregenital sternite widely and shallowly convex (Figs 94, 97). Anal tube: apical margin medially almost straight (in dorsal view, 91–92, 99); ventral margin (in lateral view, Figs 93, 98) shallowly arcuate or almost straight. Posterior margin of gonoplac with 2 rows of small teeth (Figs 95–96). Gonaphophys VII elongate and narrow with sharp apex (Fig. 101). Female collected on 15.02.1967 with eggs in the abdomen.

Coloration (Figs 86–90). Head, pronotum, mesonotum brown; legs yellowish. Tegmina hyaline-yellowish; costal margin yellow, costal area black to dark brown; posterior part of tegmen alongside apical transverse veinlets with brown band; median part of tegmen with 2 brown rounded patches and additional small near the Peu vein. Hind wing hyaline, yellowish, alongside posterior margin with wide brown band.

Type material. Holotype, ♀: [LAOS: / Vientiane Prov. / Ban Van Eue / 15.X.1967], [Native Collector / RONDON BISHOP Mus. / COLLECTION] – BPBM.

Paratype, 1♀: [LAOS: / Vientiane Prov. / Ban Van Eue / 15.II.1967], [Native Collector / BISHOP MUSEUM] – BPBM.

Distribution. Laos: Vientiane Prov.

DISCUSSION

With three new species from Vietnam and Laos, this new genus is easily distinguishable from any other South-East ricaniid taxa. It indicates well how poorly investigated is the fauna of this part of the world. Moreover, its distribution, with huge gaps between the localities, clearly asks for the need of a further exploration of the region. It will allow a better understanding of the biodiversity and distribution of the species of Ricaniidae in the south-east Asia, where new taxa are still waiting to be discovered and described.

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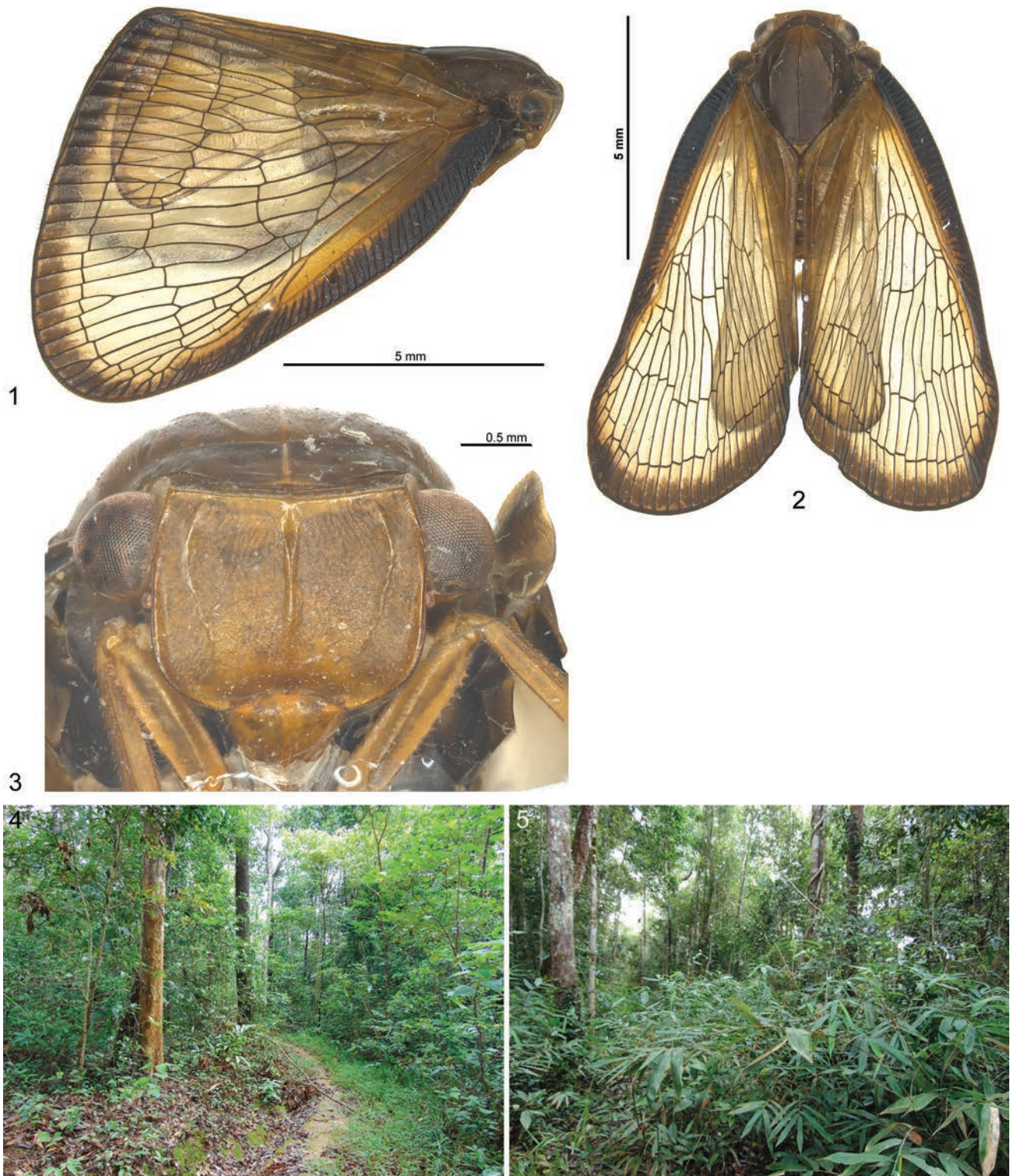
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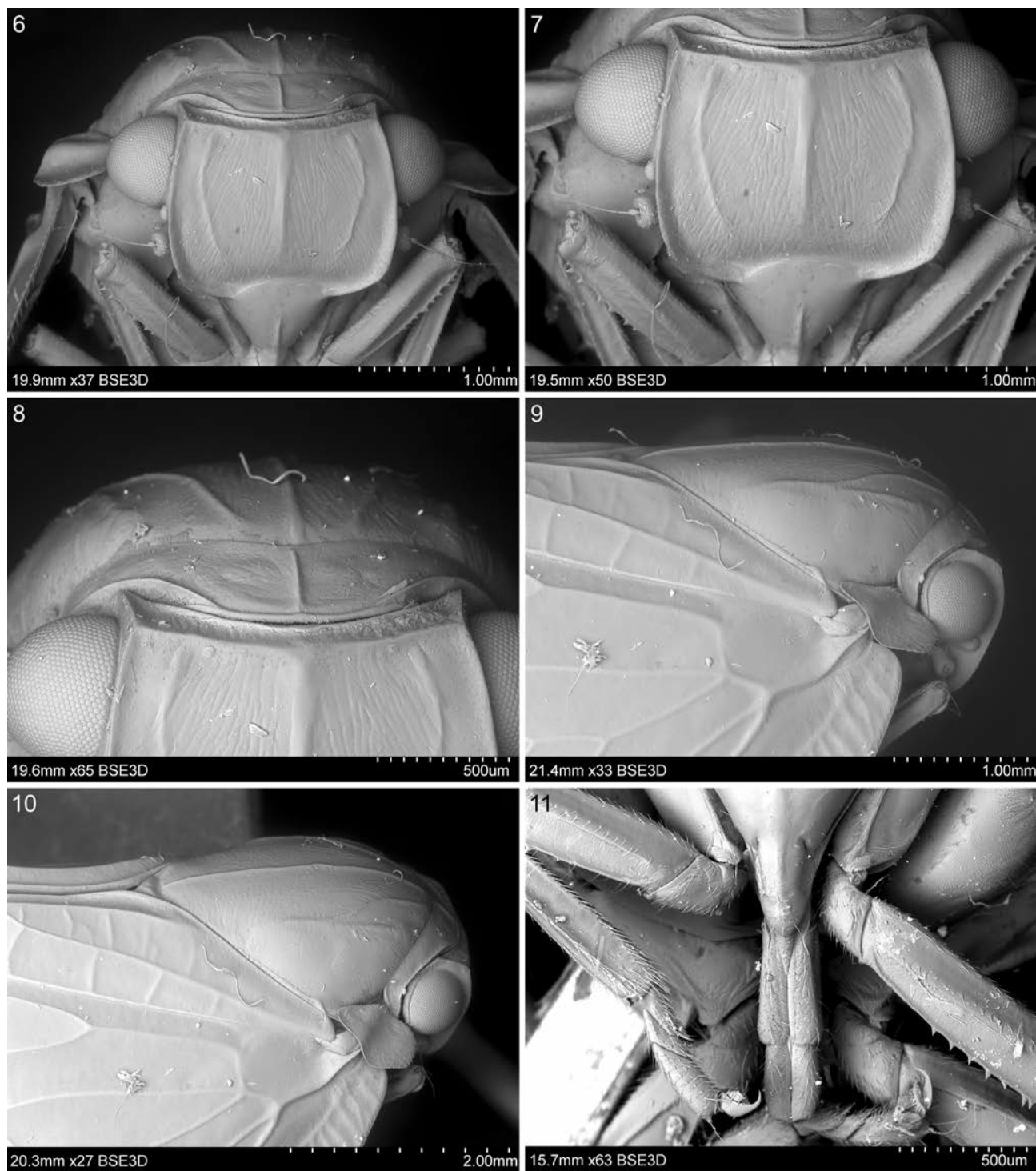
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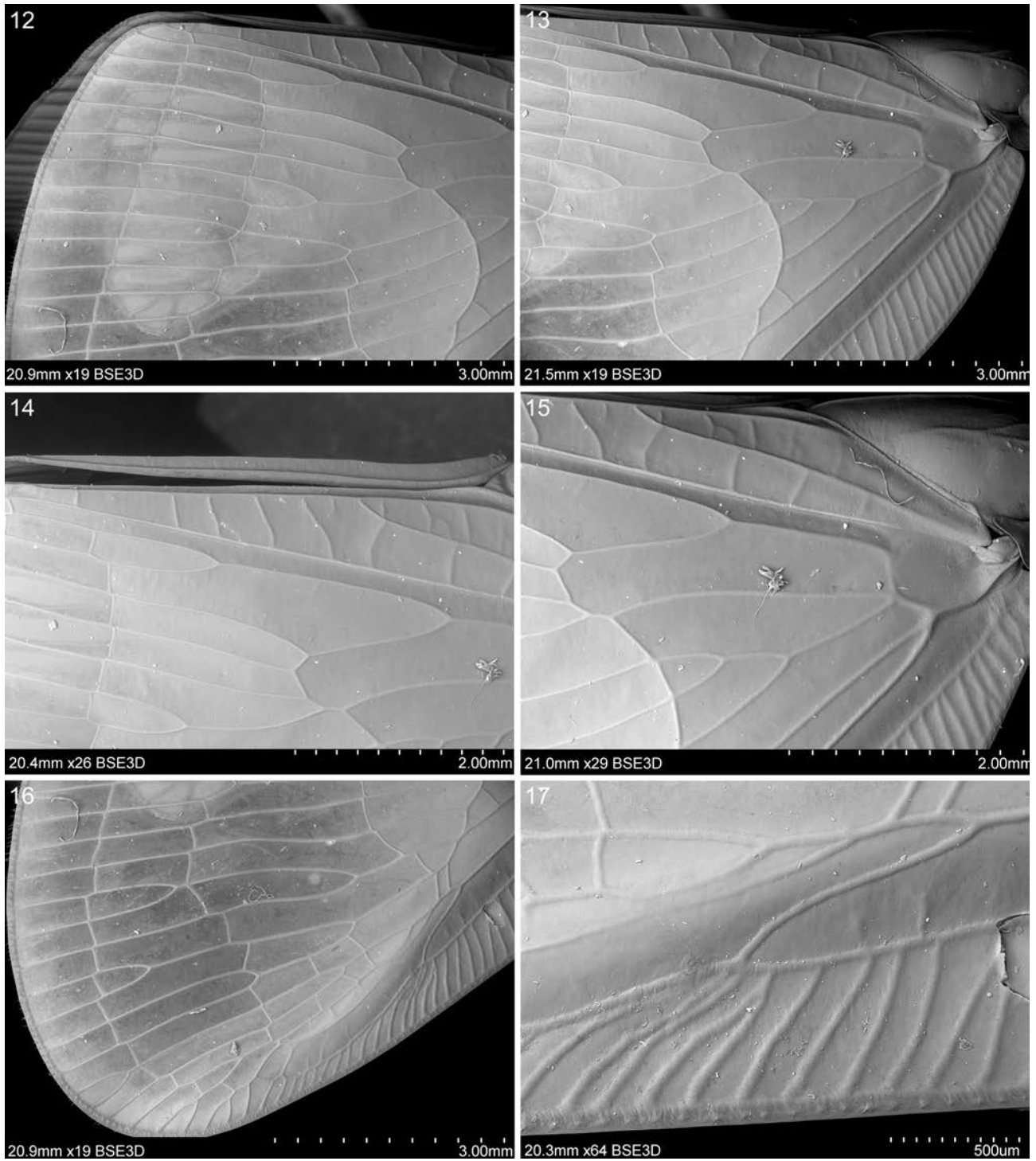
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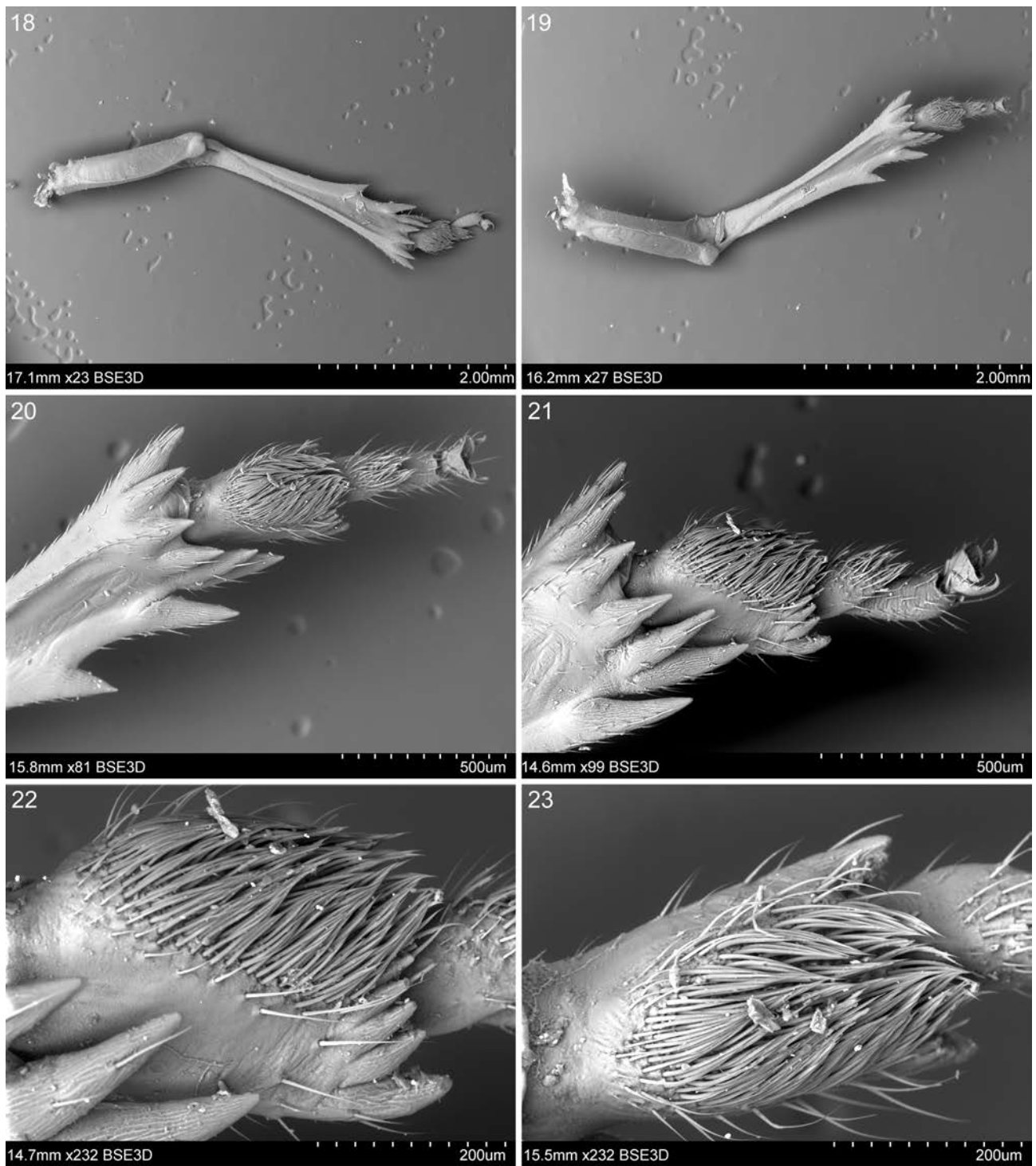
Figures 1–5. *Jeromicanus orientalis* gen. et sp. nov. (1) Habitus, lateral view; (2) same, frontal view; (3) anterior part of body, dorsal view; (4) habitat in Kon Ka Kinh; (5) habitat in Kon Plong. Photos of the habitats (4–5) by Jérôme Constant.



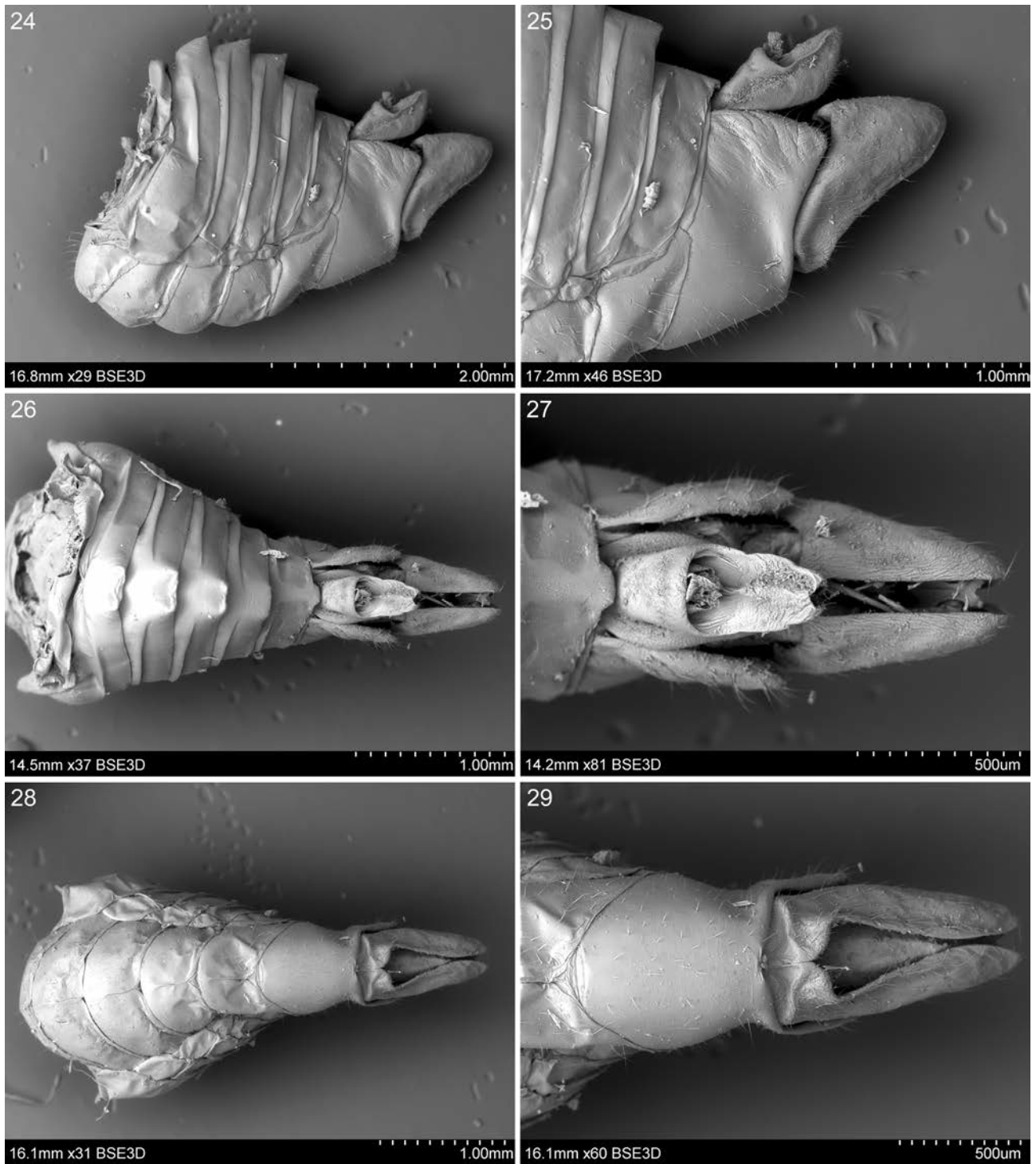
Figures 6–11. *Jeromicanus orientalis* gen. et sp. nov., SEM photographs. (6) Anterior part of body, anterior view; (7) frons and clypeus, frontal view; (8) vertex, pronotum and mesonotum, fronto-dorsal view; (9) anterior part of body lateral view; (10) same, dorso-lateral; (11) anticylpeus and rostrum, ventral view.



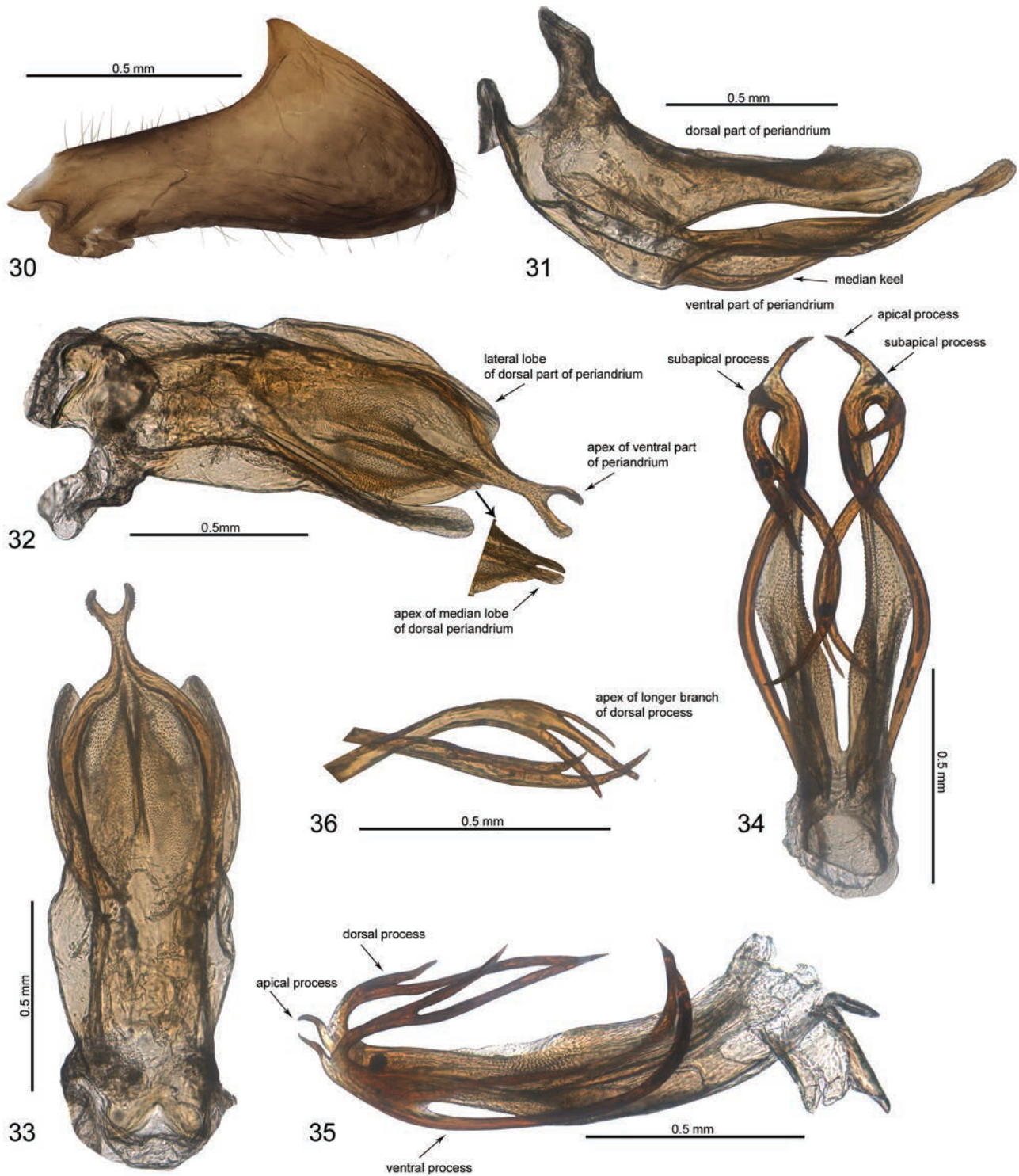
Figures 12–17. *Jeromicanus orientalis* gen. et sp. nov., SEM photographs. (12–17) Tegmen: (12) apico-ventral part; (13, 15) basal part; (14) medio-ventral part; (16) apico-dorsal part; (17) end of costal area.



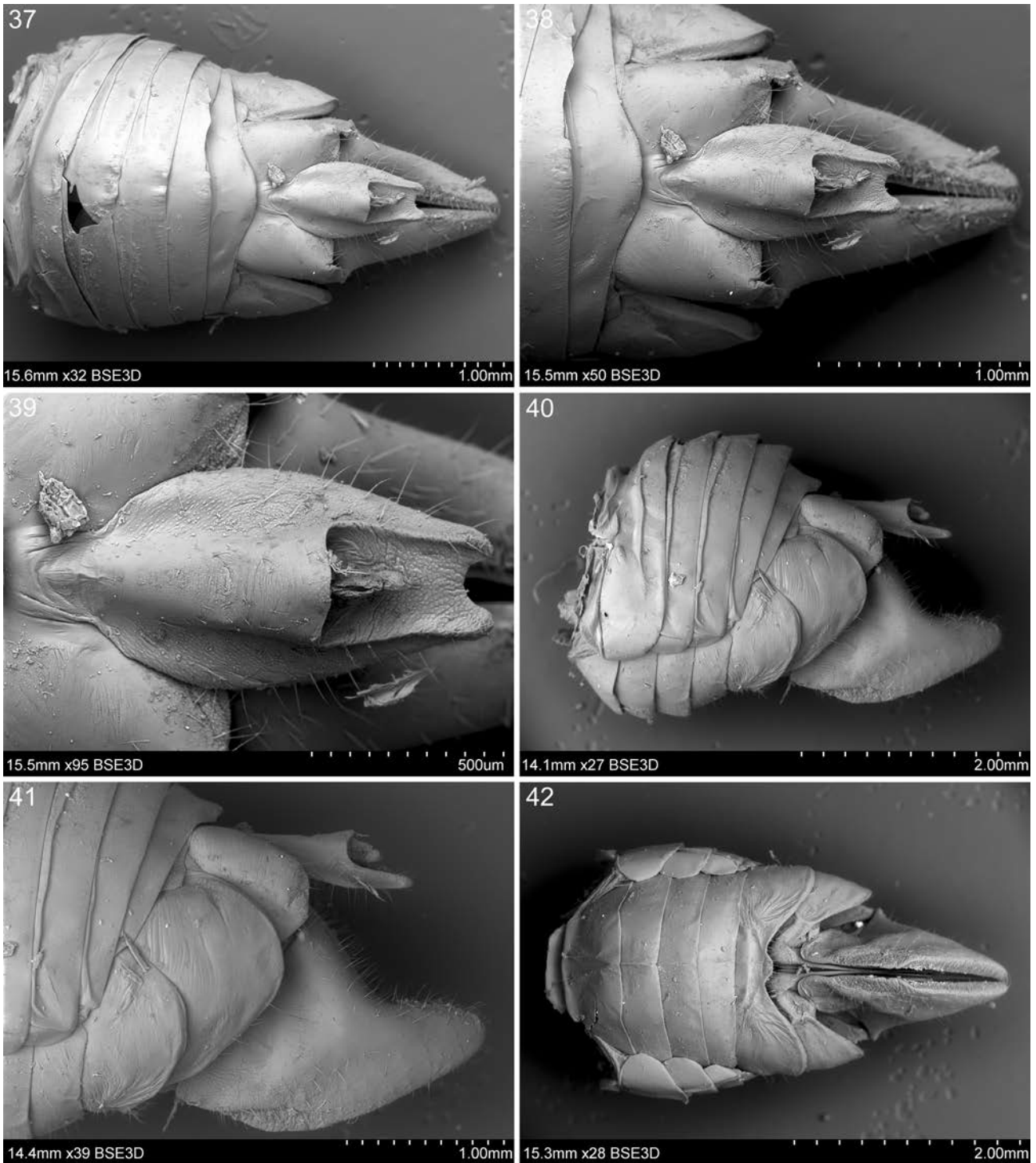
Figures 18–23. *Jeromicanus orientalis* gen. et sp. nov., SEM photographs. (18–19) hind legs, ventral view; (20–21) apical part of tibia end tarsus, latero-ventral view; (22–23) first hind tarsomere.



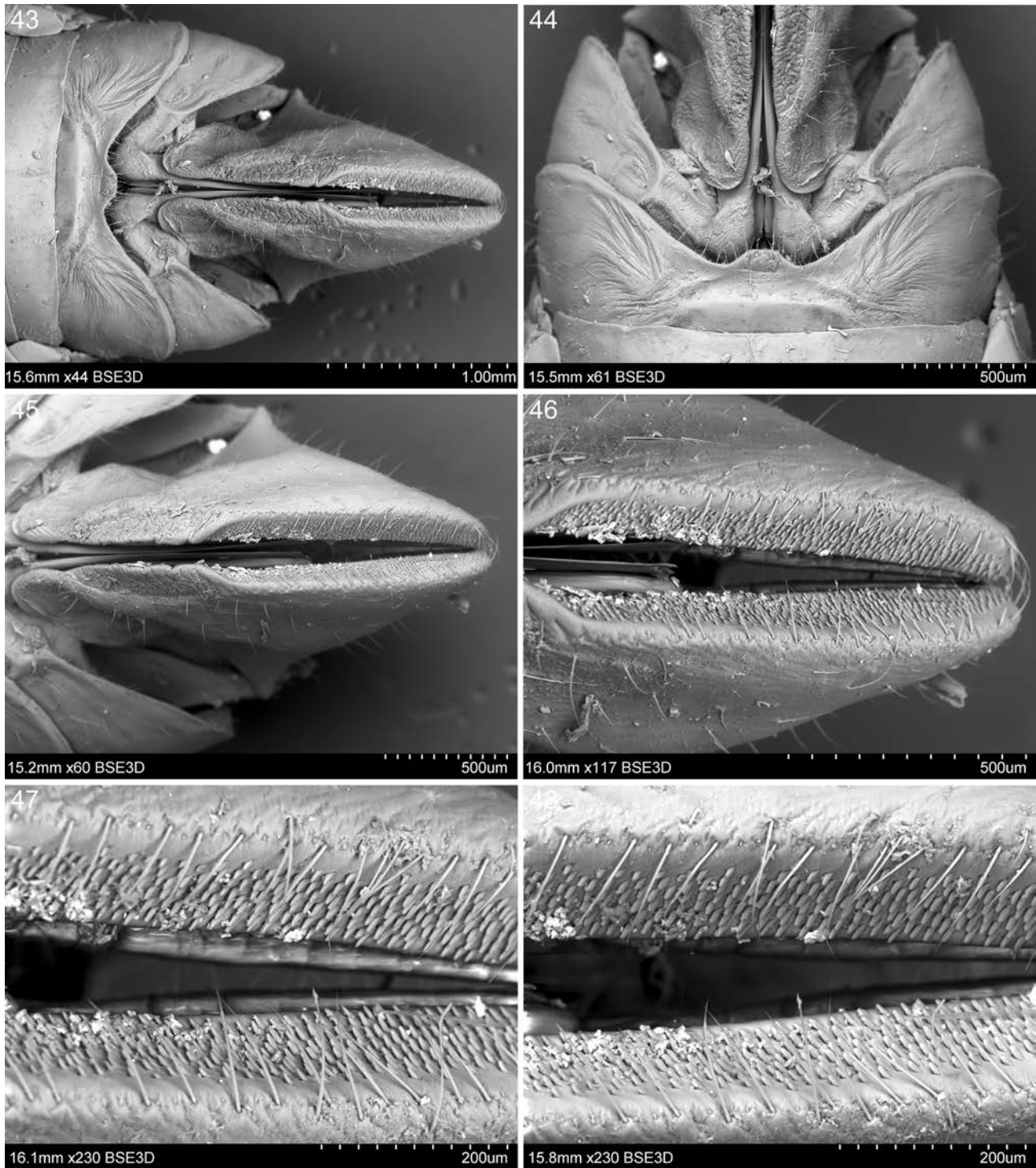
Figures 24–29. *Jeromicanus orientalis* gen. et sp. nov., SEM photographs, male. (24) Abdomen and terminalia, lateral view; (25) terminalia, lateral view; (26) abdomen and terminalia, dorsal view; (27) terminalia, dorsal view; (28) abdomen and terminalia, ventral view; (29) terminalia, ventral view.



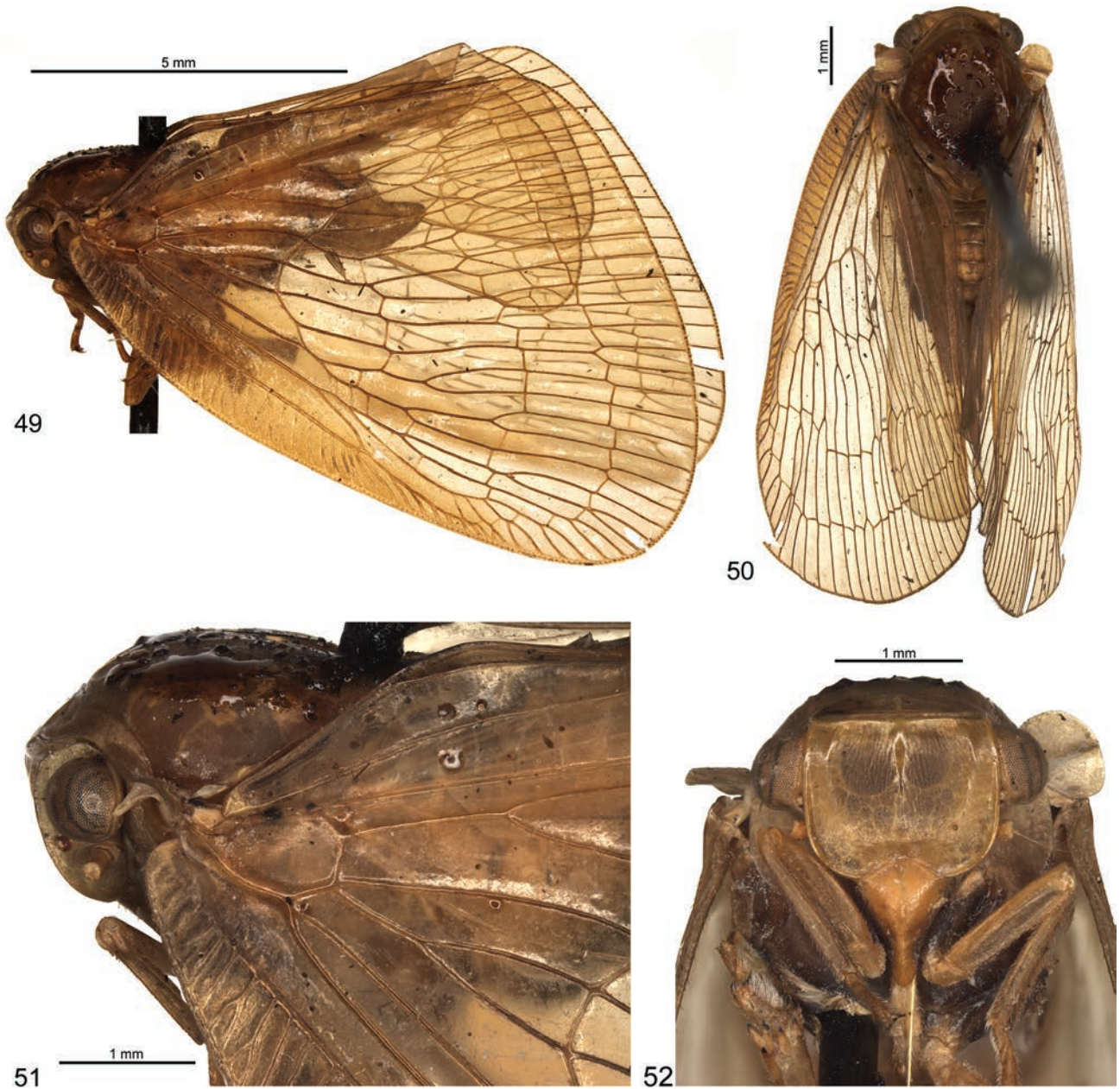
Figures 30–36. *Jeromicanus orientalis* gen. et sp. nov., male. (30) genital style, lateral view; (31) periandrium lateral view; (32) same, dorso-lateral view; (33) same, ventral view; (34) aedeagus dorsal view; (35) same, lateral view; (36) apical part of dorsal processes of aedeagus.



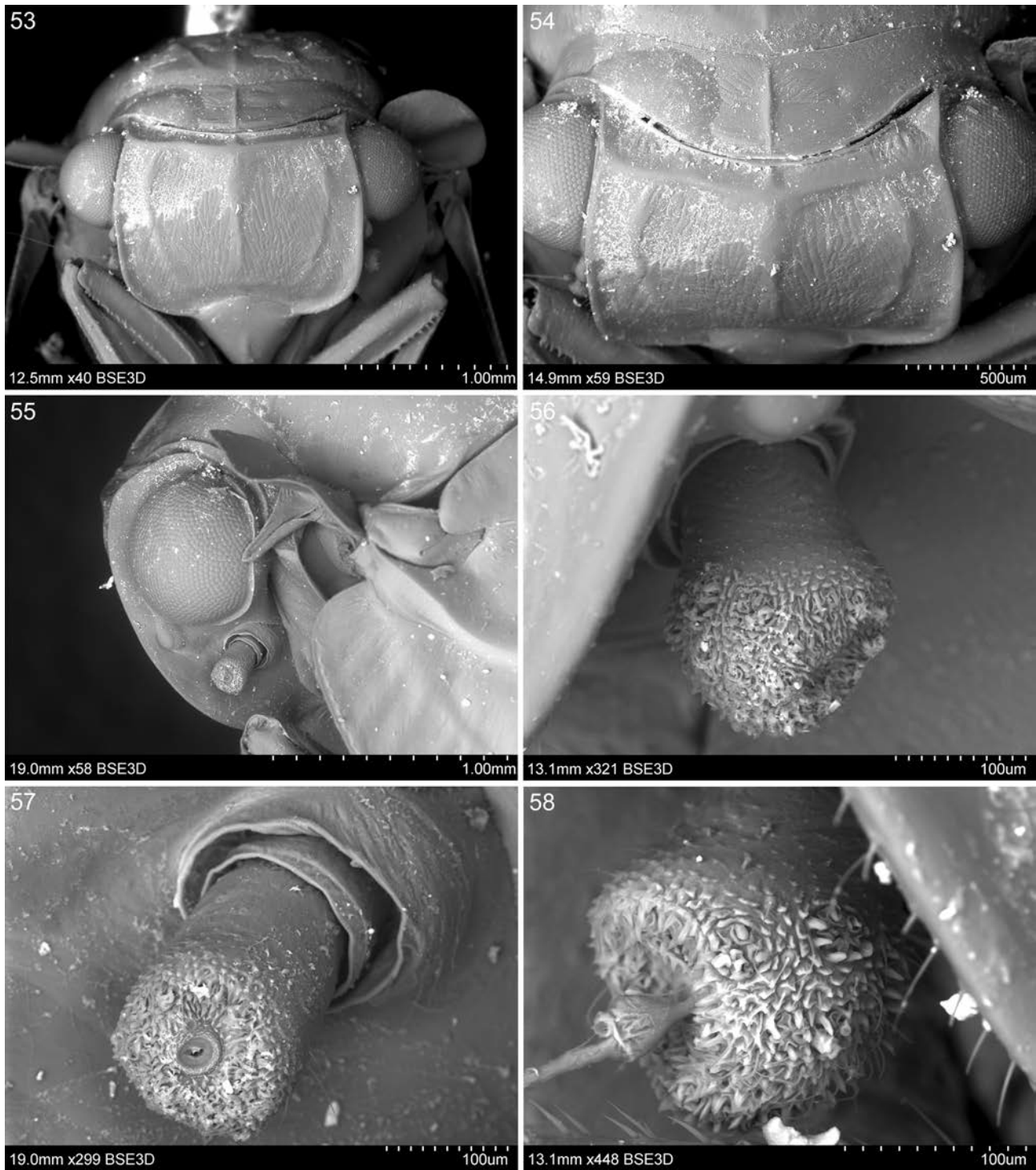
Figures 37–42. *Jeromicanus orientalis* gen. et sp. nov., SEM photographs, female. (37) abdomen and terminalia, dorsal view; (38) terminalia, dorsal view; (39) anal tube, dorsal view; (40) abdomen and terminalia, lateral view; (41) terminalia, lateral view; (42) abdomen and terminalia, ventral view.



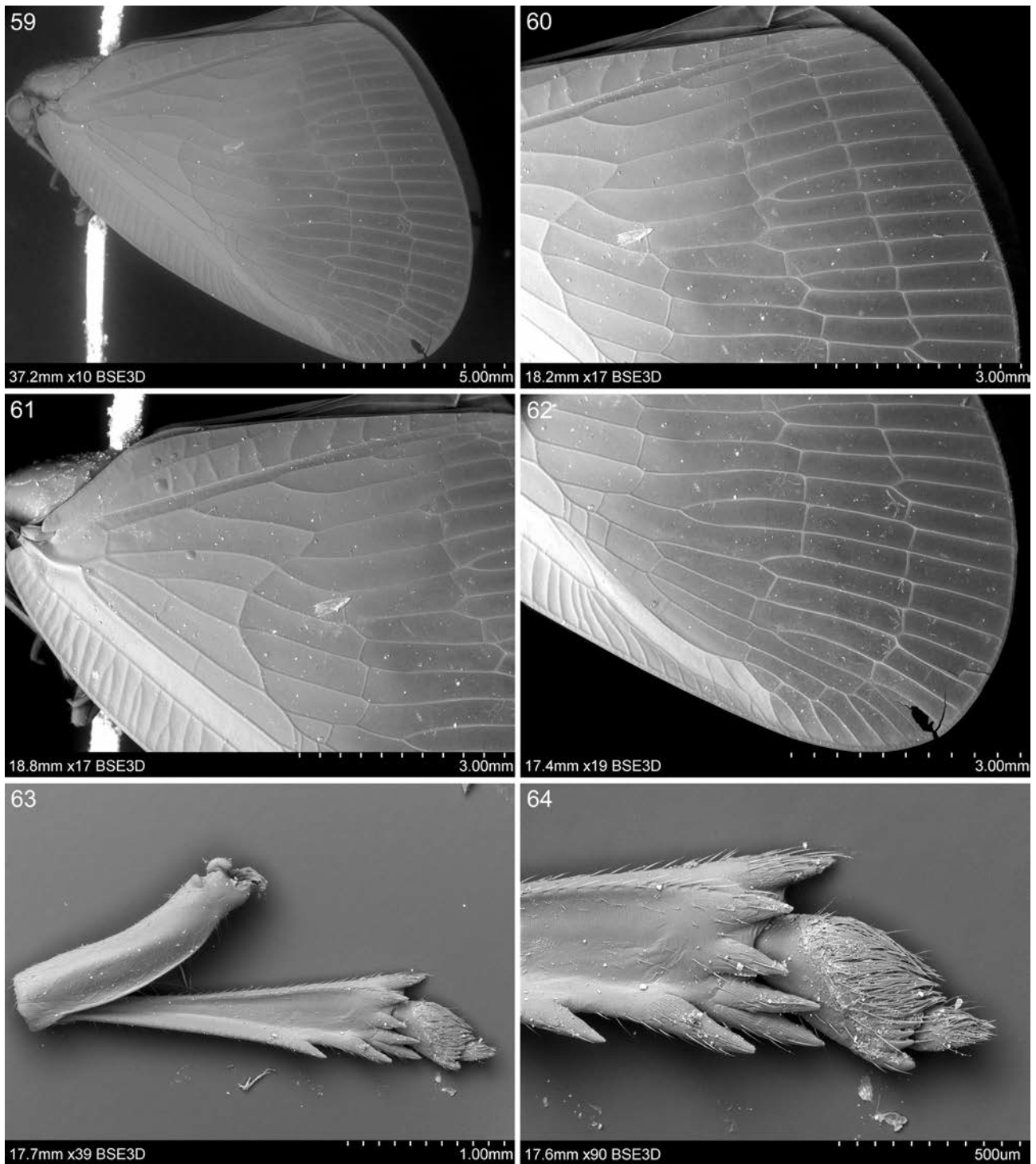
Figures 43–48. *Jeromicanus orientalis* gen. et sp. nov., SEM photographs, female. (43–44) Terminalia, ventral view; (45–48) posterior margin of the gonopla, ventral view.



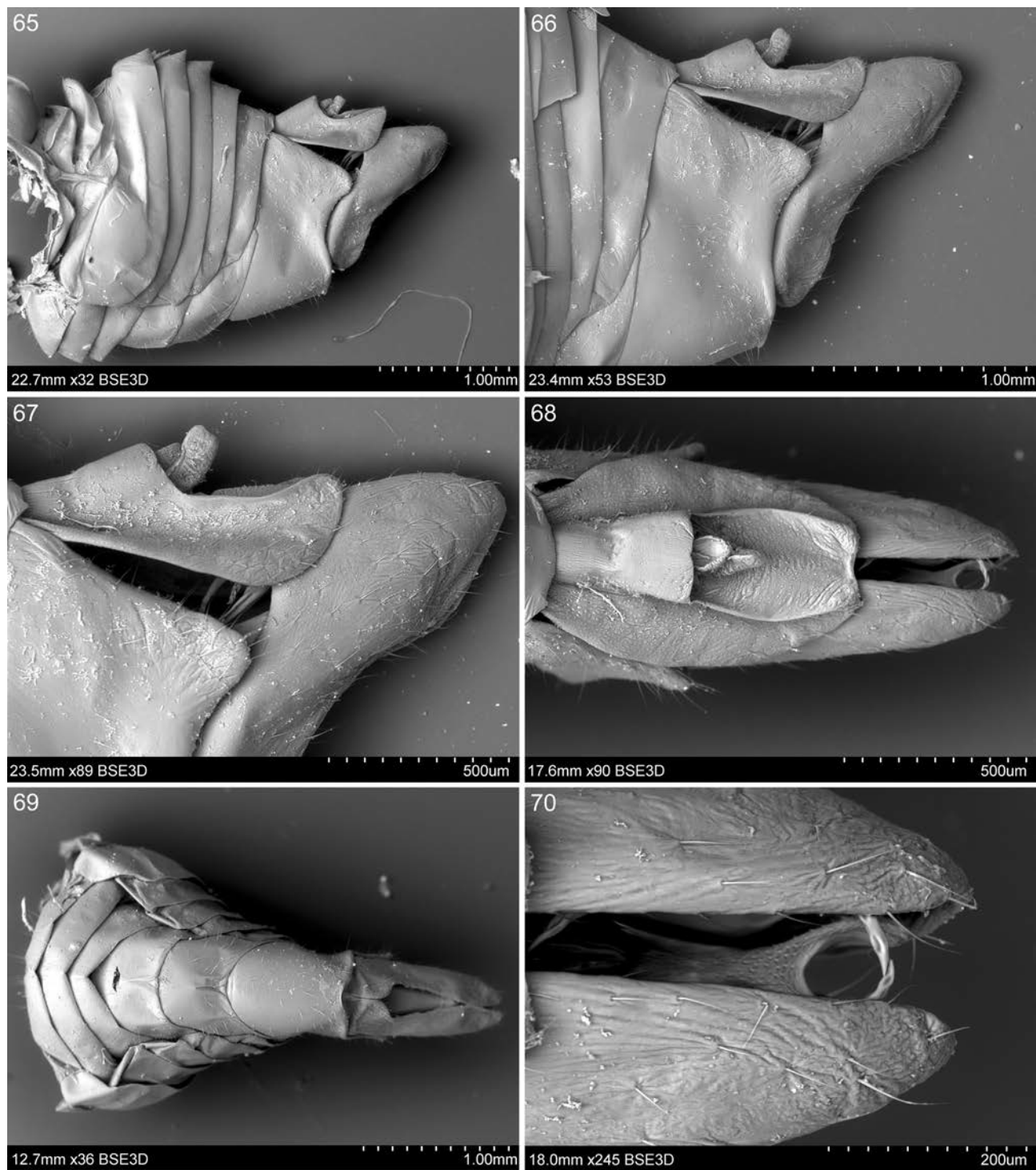
Figures 49–52. *Jeromicanus vietnamensis* gen. et sp. nov. (49) Habitus, lateral view; (50) same, dorsal view; (51) anterior part of body, lateral view; (52) same, frontal view.



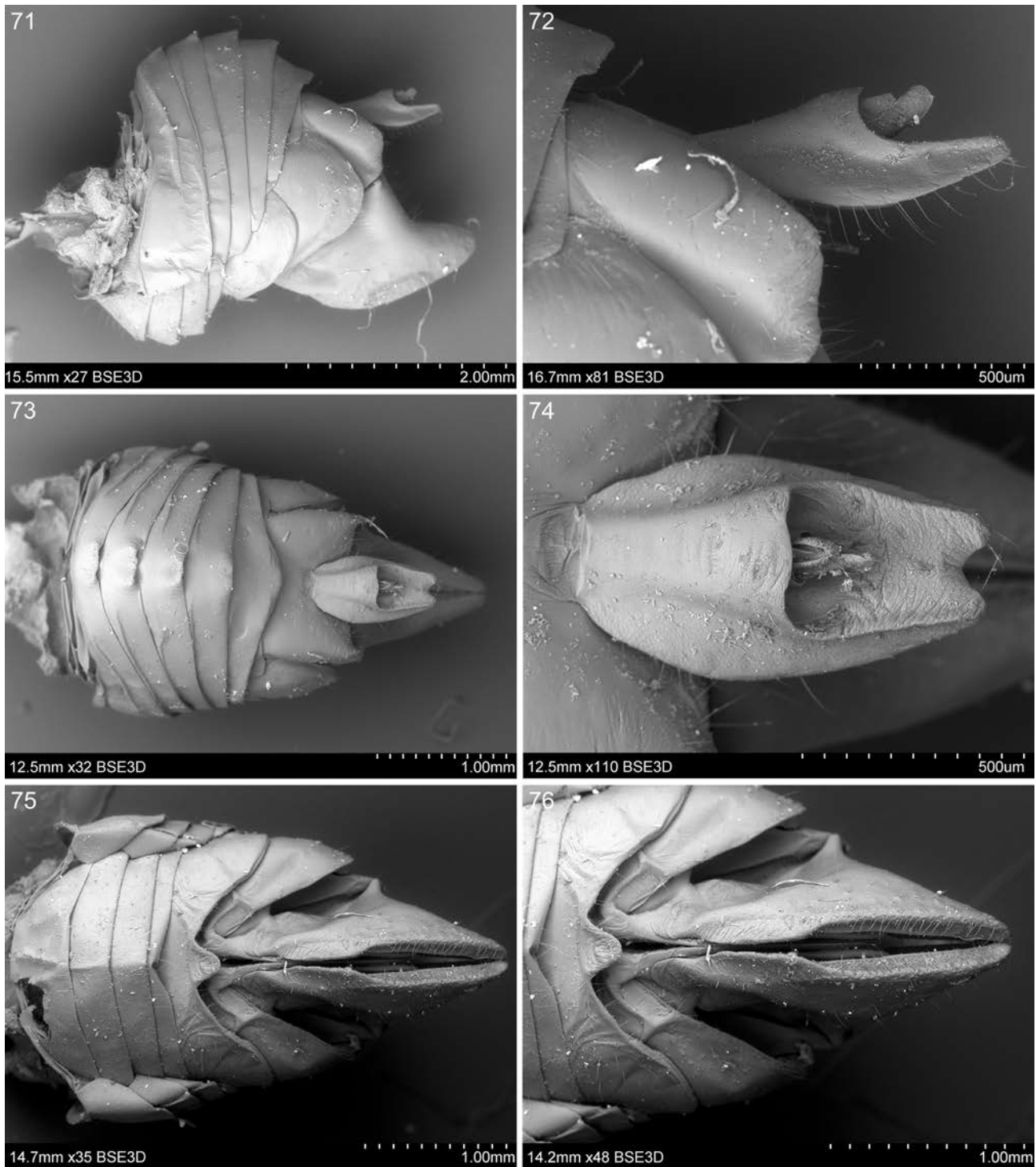
Figures 53–58. *Jeromicanus vietnamensis* gen. et sp. nov. (53) Anterior part of body, frontal view; (54) same, antero-dorsal view; (55) anterior part of body, lateral view; (56) antenna, anterior view; (57) same, dorso-posterior view; (58) antenna, anterior view.



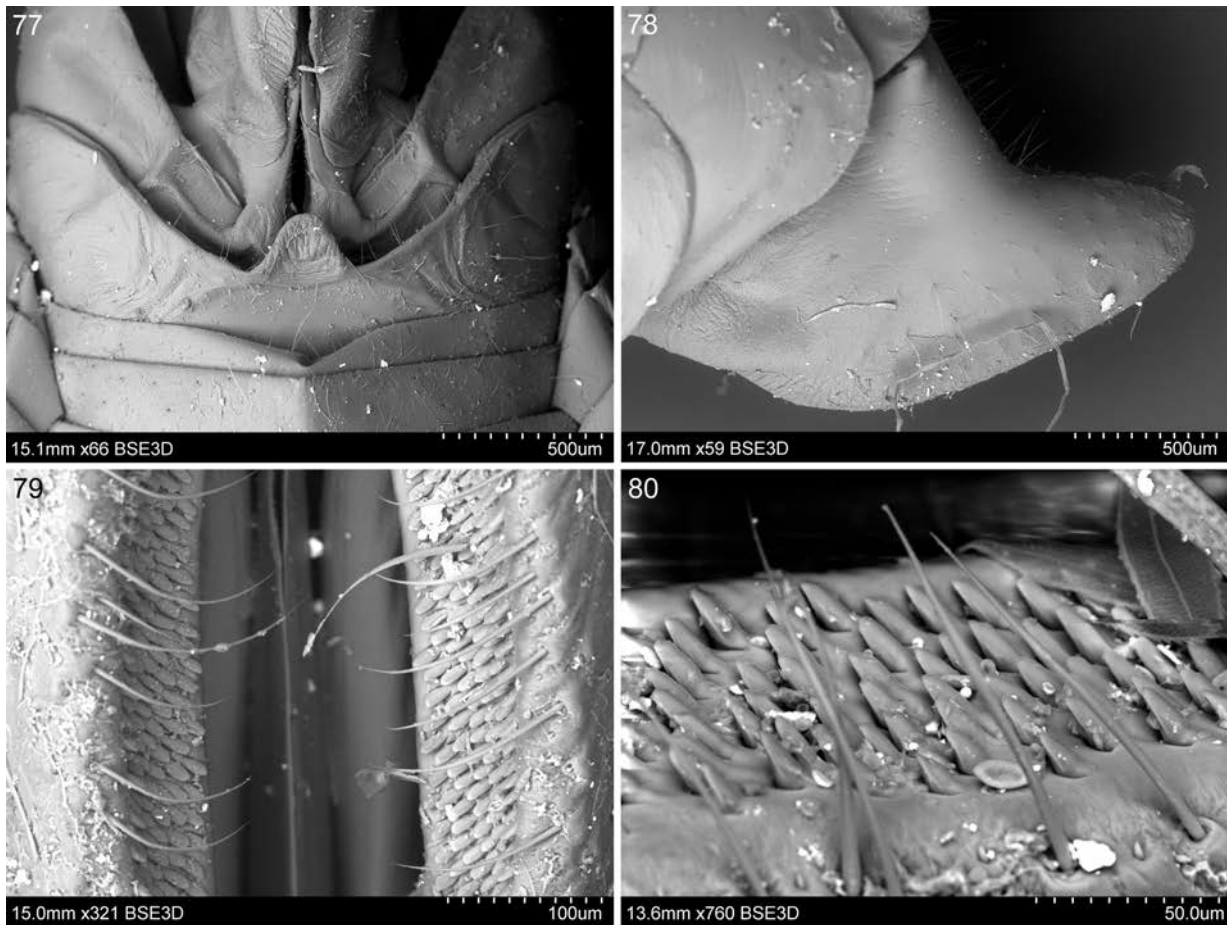
Figures 59–64. *Jeromicanus vietnamensis* gen. et sp. nov. (59) Tegmen, lateral view; (60) same, postero-apical part; (61) same, anterior part; (62) postero-apical part; (63) hind leg, ventral view; (64) apical part of metatibia and metatarsus, ventral view.



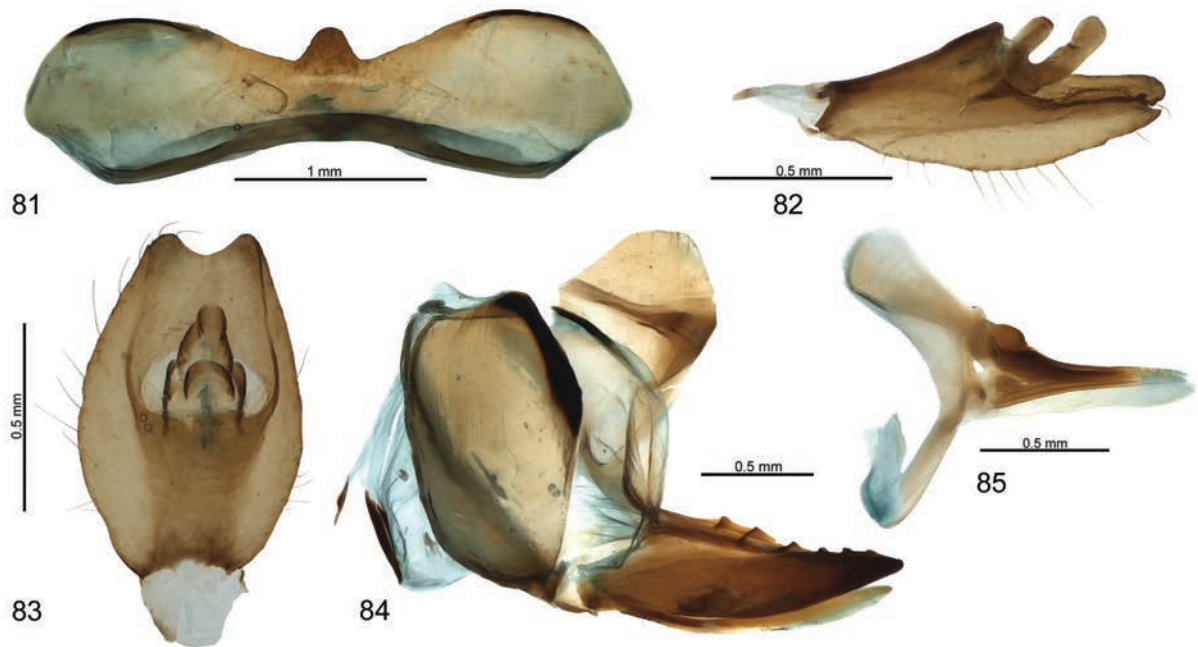
Figures 65–70. *Jeromicanus vietnamensis* gen. et sp. nov., male. (65) Abdomen and terminalia, lateral view; (66) terminalia, lateral view; (67) anal tube and dorsal part of pygofer; (68) anal tube, dorsal view; (69) abdomen and terminalia, ventral view; (70) apical part of aedeagus, dorsal view.



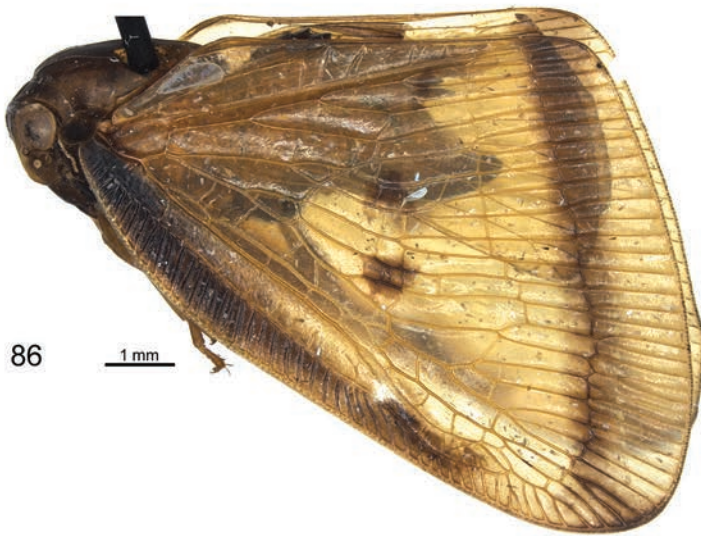
Figures 71–76. *Jeromicanus vietnamensis* gen. et sp. nov., female. (71) Abdomen and terminalia, lateral view; (72) anal tube, lateral view; (73) abdomen and terminalia, dorsal view; (74) anal tube, dorsal view; (75) abdomen and terminalia, ventral view; (76) terminalia, ventral view.



Figures 77–80. *Jeromicanus vietnamensis* gen. et sp. nov., female. (77) pregenital sternite, ventral view; (78) gonoplac, lateral view; (79–80) posterior margin of the gonoplac.



Figures 81–85. *Jeromicanus vietnamensis* gen. et sp. nov., female. (81) pregenital sternite, ventral view; (82) anal tube, lateral view; (83) same, dorsal view; (84) gonapophysis VIII, lateral view, external side; (85) gonapophyses IX and gonospiculum bridge, lateral view.



86

1 mm



88

1 mm



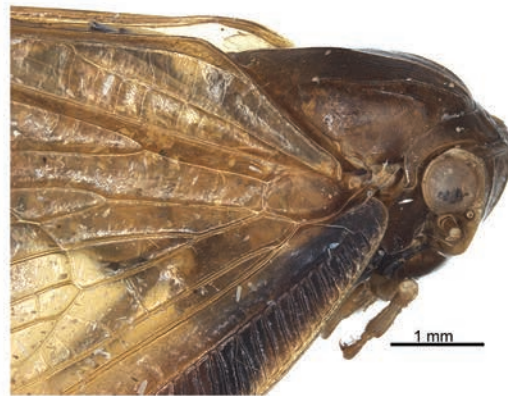
87

1 mm



89

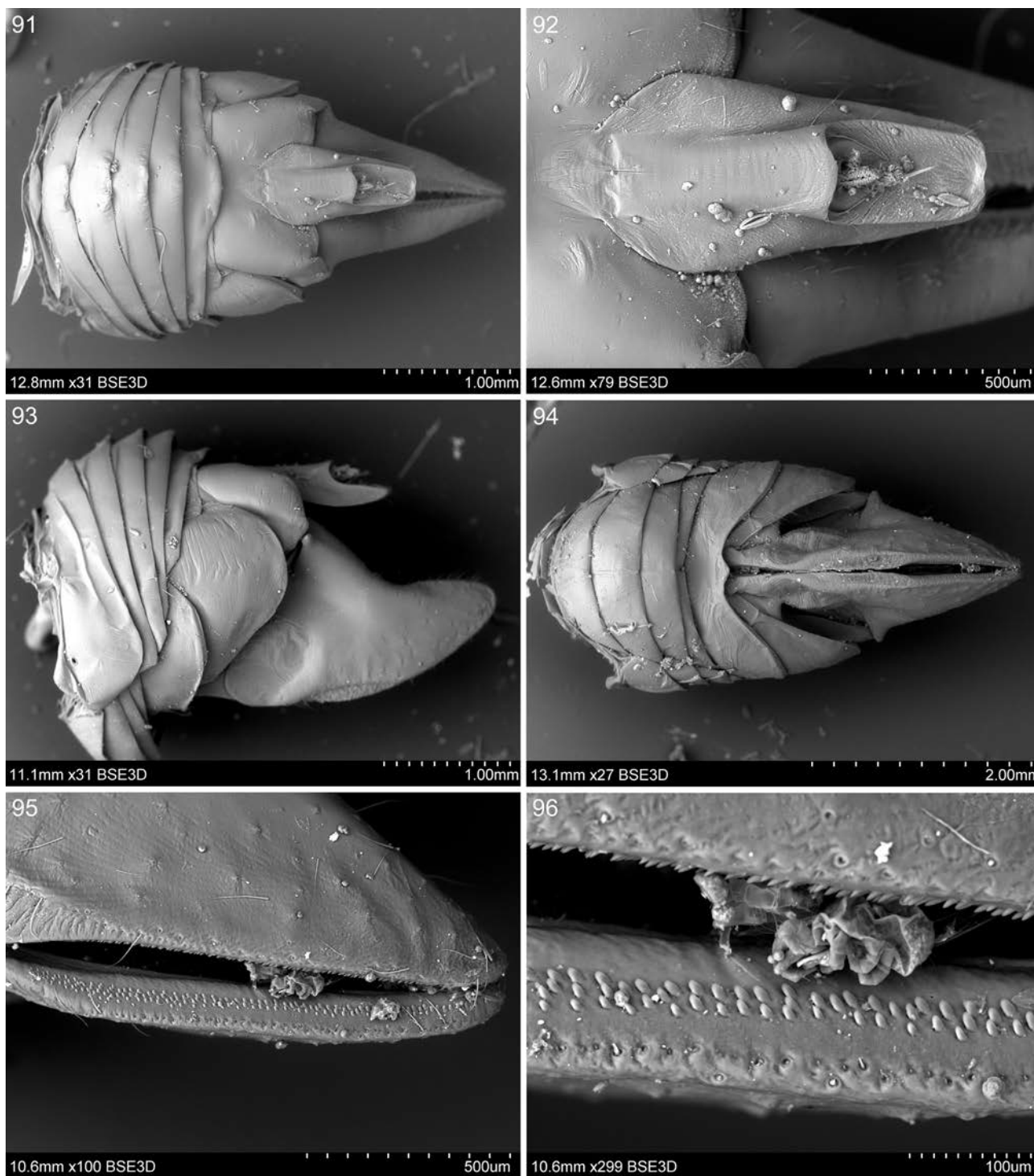
1 mm



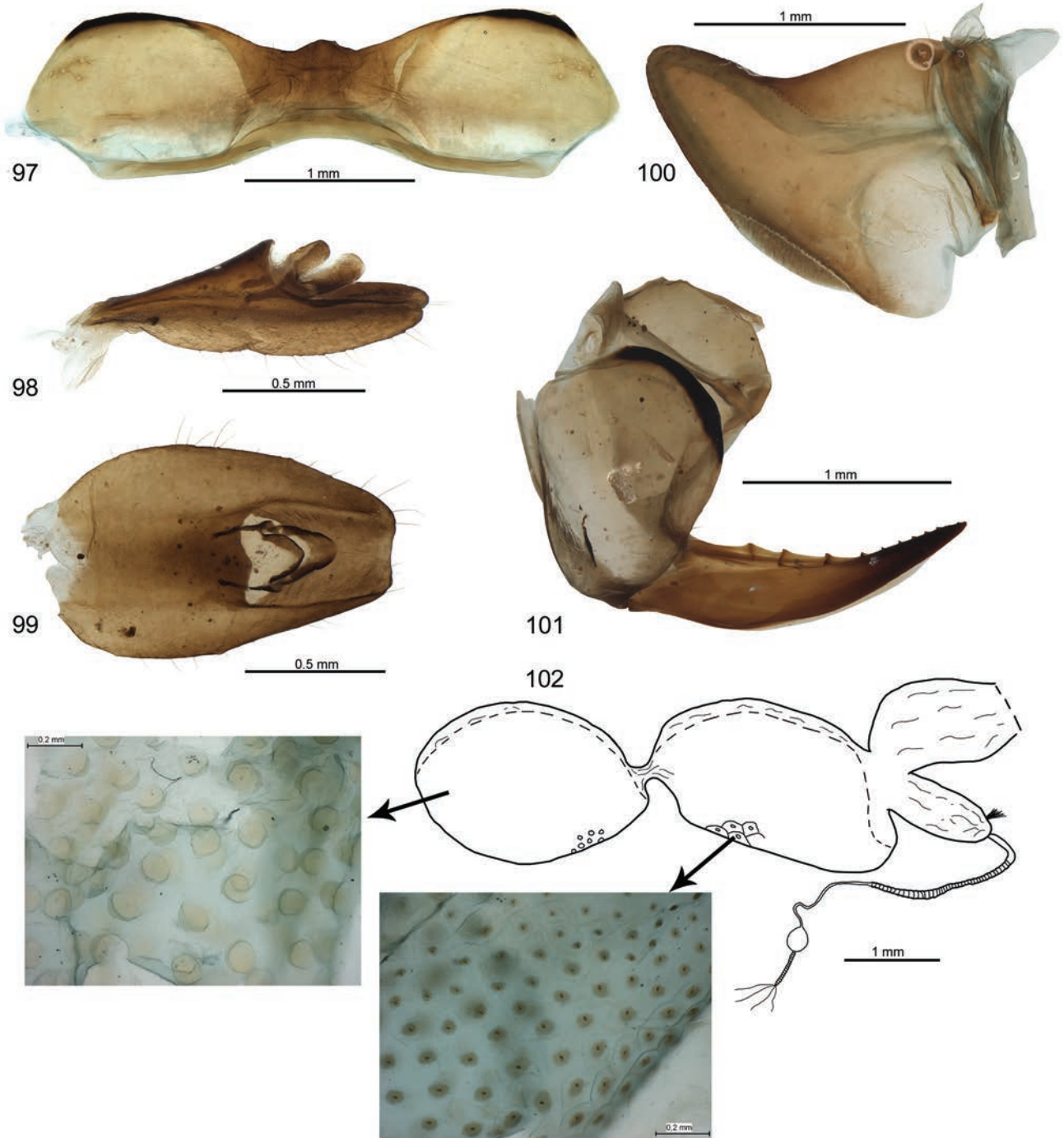
90

1 mm

Figures 86–90. *Jeromicanus laosensis* gen. et sp. nov. (86) Habitus, lateral view; (87) same, dorsal view; (88) anterior part of body, dorsal view; (89) same, frontal view; (90) same, lateral view.



Figures 91–96. *Jeromicanus laosensis* gen. et sp. nov., female, SEM photographs. (91) Abdomen and terminalia, dorsal view; (92) anal tube, dorsal view; (93) abdomen and terminalia, lateral view; (94) same, ventral view; (95–96) posterior margin of the gonoplac.



Figures 97–102. *Jeromicanus laosensis* gen. et sp. nov., female. (97) Pregenital sternite, ventral view; (98) anal tube, lateral view; (99) same, dorsal view; (100) gonoplac, lateral view; (101) gonapophysis VIII, lateral view, external side; (102) bursa copulatrix with ornamentation of the wall and spermatheca.