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A further contribution to the knowledge of two inadequately known species of geophilid centipedes from the Andes of South-Central Chile, currently assigned to the genus *Plateurytion* Attems, 1909 (Chilopoda: Geophilomorpha)

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Abstract

Two poorly known species of geophilid centipedes from the Andes of South-Central Chile, *i.e., Plateurytion mundus* (Chamberlin, 1955) and *Plateurytion zapallar* (Chamberlin, 1955) (Myriapoda: Chilopoda: Geophilomorpha), are herein redescribed and illustrated after type specimens of both taxa and new material of the latter, rectifying the condition of the coxosternites of the second maxillae, which are medially joined through a narrow, hyaline and non-areolate membranous isthmus only (instead of "broadly fused as in *Pachymerium*", as stated by Chamberlin), this being consistent with the current generic assignment of these species under *Plateurytion* Attems, 1909. New data on many morphological features of specific value, until now unknown, are also given for both taxa. *Plateurytion zapallar* is reported for the first time from Coquimbo region, 11 Km N of Los Vilos (Elqui province), Valparaíso region, Quebrada Huaquén, Pichicuy (Petorca province), La Campana National Park (Quillota province), and Quebrada el Tigre, Cachagua (Valparíso province). A key for identification of the South American species currently included in *Plateurytion* is given.

Key words: Chilopoda, Geophilomorpha, Geophilidae, *Plateurytion*, Redescriptions, Chile, southwestern South America

Introduction

R.V. Chamberlin (1955) proposed the new genus *Chilerium* for the reception of two new species of geophilids from southwestern South America, that he named *Chilerium mundum* (type of the genus) and *Chilerium zapallar*. Subsequently, Crabill (1968) considered *Chilerium* to be a junior synonym of *Eurytion* Attems, 1903; while Bonato *et al.* (2007) recognized that the valid name for the centipede genus *Eurytion* is *Plateurytion* Attems, 1909, in which the previously mentioned two taxa are currently included.

The opportunity to examine the syntypical series of both species enabled me to reveal the true condition of the coxosternites of the second maxillae (stated by Chamberlin as "broadly fused as in *Pachymerium*") and to describe many other morphological characters of specific value omitted or erroneously given in the respective original descriptions.

Plateurytion can be distinguished from all other genera currently recognized in the family Geophilidae by the following particular combination of features. Cephalic plate evidently longer than wide; clypeus with a single, median, non-areolate area; coxosternite of second maxillae with a sclerotized rim surrounding each metameric pore, without antero-internal projections, and with a narrow, hyaline, non-areolate isthmus, medially; claw of second maxillae simple, not particularly elongate; forcipular tergite evidently narrower than subsequent tergite; forcipular coxosternite without chitin-lines; forcipular pleurocoxosternal sutures subparallel to the lateral margins of the pleurae; forcipules at the same level or overreaching the anterior margin of cephalic plate; sternal pores either arranged in a single area on the first metasternite and in two paired areas on all remaining metasternites, or in a single area on metasternites of the anterior part of the trunk, in two paired areas or absent on metasternites of the posterior part of the trunk; metasternite of the ultimate leg-bearing segment trapezoidal, wider than long or about as wide as long; coxal organs opening either into separate pores or through common pits, on the ventral side of each

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coxopleuron, sometimes also on lateral and dorsal sides; legs of the ultimate pair of seven articles, with a claw-like pretarsus.

In its present circumscription *Plateurytion* comprises twenty-four species and subspecies, of which fourteen occur in sub-Saharan Africa, and the remaining ten in South America. A key presented below will enable the identification of the latter taxa.

Material and methods

The type materials herein revised are currently deposited at the California Academy of Sciences, San Francisco, California, USA (CAS-Ent, Charles E. Griswold). Other, non-type specimens are deposited in the collections of the Museo Argentino de Ciencias Naturales "Bernardino Rivadavia", Buenos Aires, Argentina (MACN-My, Cristina L. Scioscia and Martín J. Ramírez).

Dissections were performed utilizing a stereomicroscope and standard dissecting tools. The specimens described herein were examined and illustrated in detail, using a compound microscope equipped with a drawing tube attachment (the latter was used to delineate the figures and also to draw scale bars at their sides with the aid of a glass stage-micrometer). Temporary mounts have been prepared by direct transfer of the specimens from the preservation liquid (70% ethanol) onto microscope slides, using undiluted 2-Phenoxyethanol (Chemical Abstracts Service Registry Number 122-99-6) as a clearing agent and mounting medium. No additional steps were carried out before mounting. The slides were temporarily stored in hermetic acrylic boxes to avoid evaporation of this fluid. Details of the preparation of microscope slides and dissection procedures are described in Pereira (2000), Foddai *et al*. (2002). All measurements are given in mm (taken at once as explained above). Terminology for external anatomy follows Bonato *et al*. (2010). The following abbreviations were used in the text, tables, and legends of the figures: a.a. = antennal article/articles; l.-b.s. = leg-bearing segments; b.l. = body length.

Results

Family Geophilidae

Genus *Plateurytion* Attems, 1909

Type species of the genus. *Geophilus* (*Eurytion*) *michaelseni* Attems, 1903, by original designation.

South American species currently assigned to *Plateurytion*.
P. gracilis (Gervais, 1849) (Argentina, Chile)
P. heurtaultae (Pereira, 2006) (Argentina, Uruguay)
P. lethifer (Crabill, 1968) (Peru)
P. mauryi Pereira, 2008 (Argentina)
P. metopias (Attems, 1903) (Chile)
P. michaelseni (Attems, 1903) (Chile)
P. mundus (Chamberlin, 1955) (Chile)
P. tenebrosus (Meinert, 1886) (Argentina, Uruguay)
P. yungarum (Pereira, 2005) (Argentina)
P. zapallar (Chamberlin, 1955) (Chile)

Remarks. For a list of all species from sub-Saharan Africa currently included in the taxon, see Bonato *et al*. (2007).

***Plateurytion mundus* (Chamberlin, 1955)**
(Figs. 1–53)

Chilerium mundum Chamberlin, 1955: 23, 24.
Eurytion mundum: Crabill, 1968:231; Foddai, Pereira & Minelli, 2000:75, 182.
Eurytion mundus: Pereira, 2006:167 (in key).
Plateurytion mundus: Bonato, Pereira & Minelli, 2007:6; Pereira, 2008:56.

Diagnosis. A species of *Plateurytion* characterized by having one cluster of coxal organs in each coxopleuron of the ultimate leg-bearing segment. Of the other South American species currently included in the genus, only the present species and *P. zapallar* (Chamberlin, 1955) share the same character. *Plateurytion mundus* can be confidently differentiated from *P. zapallar* by means of the following selected traits (the corresponding ones in the latter are given in parentheses): body length of female 35–45 mm (28 mm, female; 27 mm, male); female with 49, 51 leg-bearing segments (female with 47, 49, probably 51, 53; male with 47, 49, 51); dorsal side of a.a. XIII with *ca.* 14 type *b* and *ca.* 6 type *c* specialized sensilla, Fig. 4 (with *ca.* 3 type *b* and *ca.* 1 type *c*, Fig. 59); teeth of labrum mid-piece short, slightly sharp-pointed, Fig. 8 (similar to the long filaments of the side-pieces, but thinner and smaller, Figs. 63, 64); second article of telopodite of first maxillae with *ca.* 12–13 setae (with *ca*. 4–7); ventral pore-fields undivided on metasternite 1, divided in two areas on metasternites 2 to penultimate, Figs. 15–29, 45–51 (undivided on metasternites 1 to *ca.* 15, divided in two areas on remaining metasternites including penultimate, Figs. 73–85); with *ca.* 20–25 organs in each cluster of coxal organs in the coxopleura of the ultimate leg-bearing segment, Fig. 39 (with *ca*. 8–11 organs in each cluster, Figs. 96, 104).

Other morphological traits included in Table 1 differentiate *P. mundus* from *P. zapallar*.

Remarks. *P. mundus* can be separated from the other South American members of *Plateurytion* using the identification key below.

Type material examined. CHILE: 35 km E of Temuco, winter of 1951, M. G. Smith col., three syntypes here designated as lectotype ♀ with 49 l.-b.s., b.l. 45 mm (head capsule, dissected mouth parts, leg-bearing segments 44–49, and postpedal segments in an original permanent slide; forcipular segment, and leg-bearing segments 1–43 in alcohol); paralectotype A ♀ with 51 l.-b.s., b.l. 35 mm (in alcohol); paralectotype B ♀ with 51 l.-b.s., b.l. 37 mm (in alcohol). All specimens labeled as *Chilerium mundum* Chamberlin (CAS Entomology type No. 9173).

Remarks. Chamberlin (1955) stated that the syntypical series comprised four specimens, but actually comprises three (apparently one of these is now missing). Left forcipular telopodite, pretarsus of left ultimate leg, and last three apical articles of right ultimate leg, missing in lectotype ♀.

Depository of types. CAS.

Redescription. Female lectotype. Forty nine leg-bearing segments, body length 45 mm, maximum body width 1.9 mm. Maximum width of cephalic plate 1.08 mm, length of cephalic plate 1.74 mm, maximum width of forcipular coxosternite 1.70 mm. Color (of preserved specimen): head and forcipular segment light chestnut, rest of the body yellowish light orange.

Antennae. About 2.95 times as long as the cephalic plate, distally attenuate (Fig. 1). Ratio of width of a.a. II/ width of a.a. XIV *ca.* 2.08: 1, all a.a. longer than wide. Ventral chaetotaxy: setae on a.a. I–VI (VII) of various lengths and relatively few in number; those of remaining a.a. progressively shorter and more numerous towards the tip of the appendage (Fig. 1). Dorsal chaetotaxy: setae on a.a. I–VI (VII) similar to the ventral side, setae on remaining a.a. a little longer and slightly less numerous. A.a. XIV with *ca.* 29 claviform sensilla on the external margin and *ca.* 16 on the internal margin (Fig. 2: a); distal end of this a.a. with *ca.* 5–6 very small hyaline specialized sensilla, having about half the length of the claviform sensilla and not split apically (Fig. 2: b). Ventral and dorsal surface of a.a. II, V, IX and XIII (Figs. 3, 4) with very small specialized sensilla. On the ventral side these sensilla are restricted to an internal latero-apical area and are represented by two different types (*a* and *b*). Type *a* sensilla very thin and not split apically (Fig. 3: a), type *b* sensilla (Fig. 3: b) very similar to those of the apex of a.a. XIV. Specialized sensilla on dorsal side restricted to an external latero-apical area and are represented by three different types: *a* and *b* respectively similar to *a* and *b* of ventral side (Fig. 4: a, b) and type *c* sensilla, similar to type *b*, but a little bigger and darker (ochreous in color) (Fig. 4: c). Position of specialized sensilla on ventral and dorsal surface of a.a. XIII as in Figs. 3, 4 respectively. Number and distribution of specialized sensilla on ventral and dorsal sides of a.a. II, V, IX and XIII, as in Table 2.

TABLE 1. Comparative matrix of morphological traits for *Plateurytion mundus* (Chamberlin, 1955) and *P. zapallar* (Chamberlin, 1955). (Characters of *P. mundus* from lectotype female, paralectotype A female, and paralectotype B female; those of *P. zapallar* come from lectotype male, paralectotype female, and non-type specimens mentioned in "Other material examined").

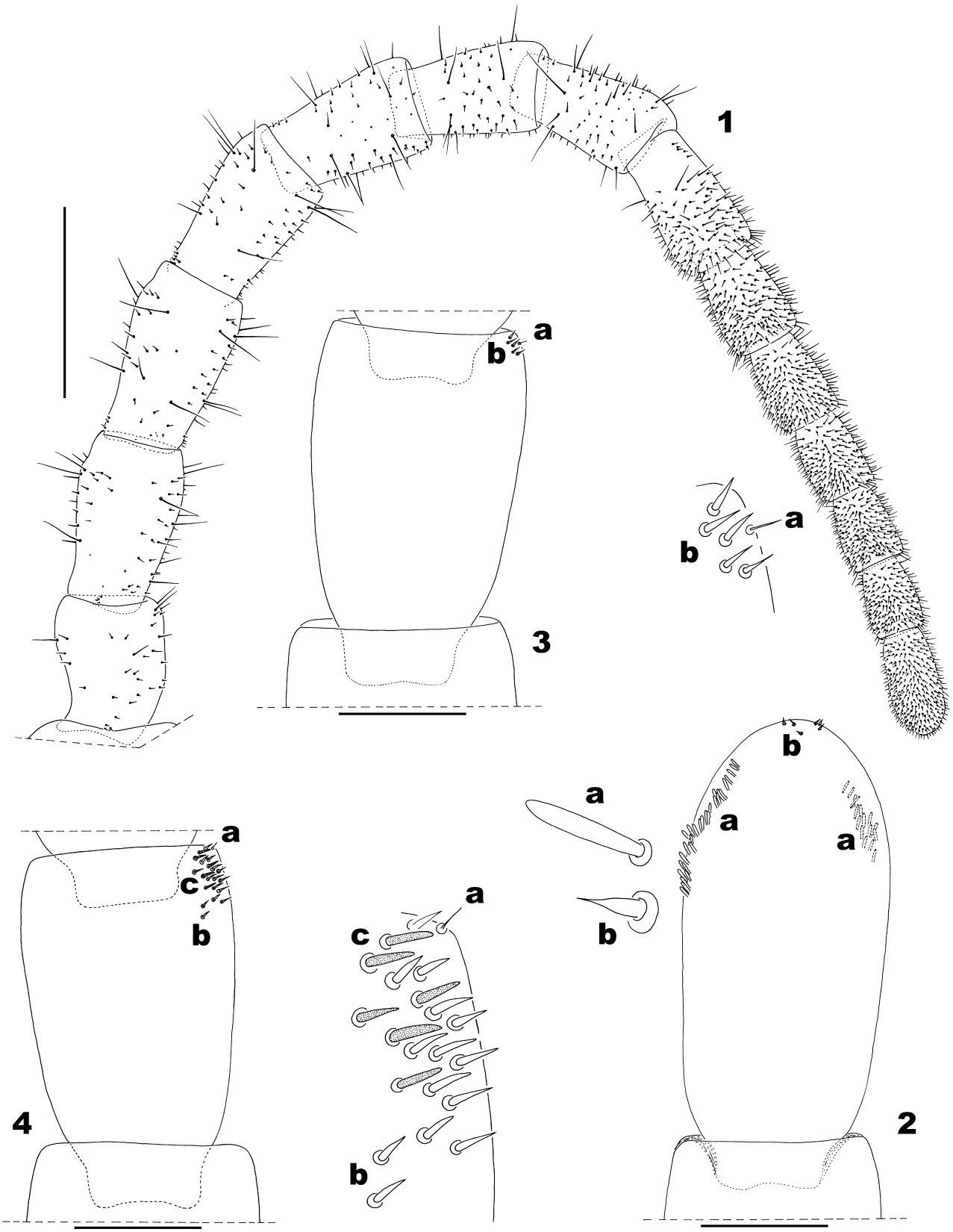
	P. mundus	*P. zapallar*
Number of leg-bearing segments	♀: 49, 51 ♂: ?	♀: 47, 49, (probably 51), 53 ♂: 47, 49, 51
Body length	35–45 mm (♀)	27 mm (♂) 28 mm (♀)
Maximum body width	*ca.* 1.9 mm (♀)	*ca.* 1.3 mm (♂)
Number of claviform sensilla on external border of a.a. XIV	*ca.* 29	*ca.* 13
Number of type *b* and *c* specialized sensilla on dorsal side of a.a. XIII	type *b*: *ca*. 14 type *c*: *ca.* 6	type *b*: *ca*. 3 type *c*: *ca.* 1
Teeth of labrum mid-piece	Short slightly sharp pointed (Fig. 8)	similar to the long filaments of the side-pieces (but thinner and smaller, Figs. 63, 64)
Number of ventral setae on second article of telopodites of first maxillae	*ca.* 12–13	*ca.* 4–7
Number of ventral setae on third article of telopodites of second maxillae	*ca.* 11–15	*ca*. 5–6
Middle part of anterior border of forcipular coxosternite conspicuously notched and strongly concave	no (slightly concave, Figs. 40, 42)	yes (Figs. 67, 69)
Ventral pore-fields	undivided on metasternite 1, divided in two areas on metasternites 2 to penultimate (Figs. 15–29, 45–51)	undivided on metasternites 1 to *ca.* 15, divided in two areas on remaining metasternites including the penultimate (Figs. 73–85)
Anterior accessory spines of claws of walking legs	pigmented (Figs. 35, 36: a)	unpigmented (Figs. 92, 93: a)
Number of organs in each cluster of coxal organs in the coxopleura of the ultimate leg-bearing segment	*ca.* 20–25 (Fig. 39)	*ca*. 8–11 (Figs. 96, 104, 109)

TABLE 2. Number of type *a, b and c* specialized sensilla on antennal articles II, V, IX and XIII in the female lectotype of *Plateurytion mundus* (Chamberlin, 1955) (ref. *Chilerium mundum* CAS 9173).

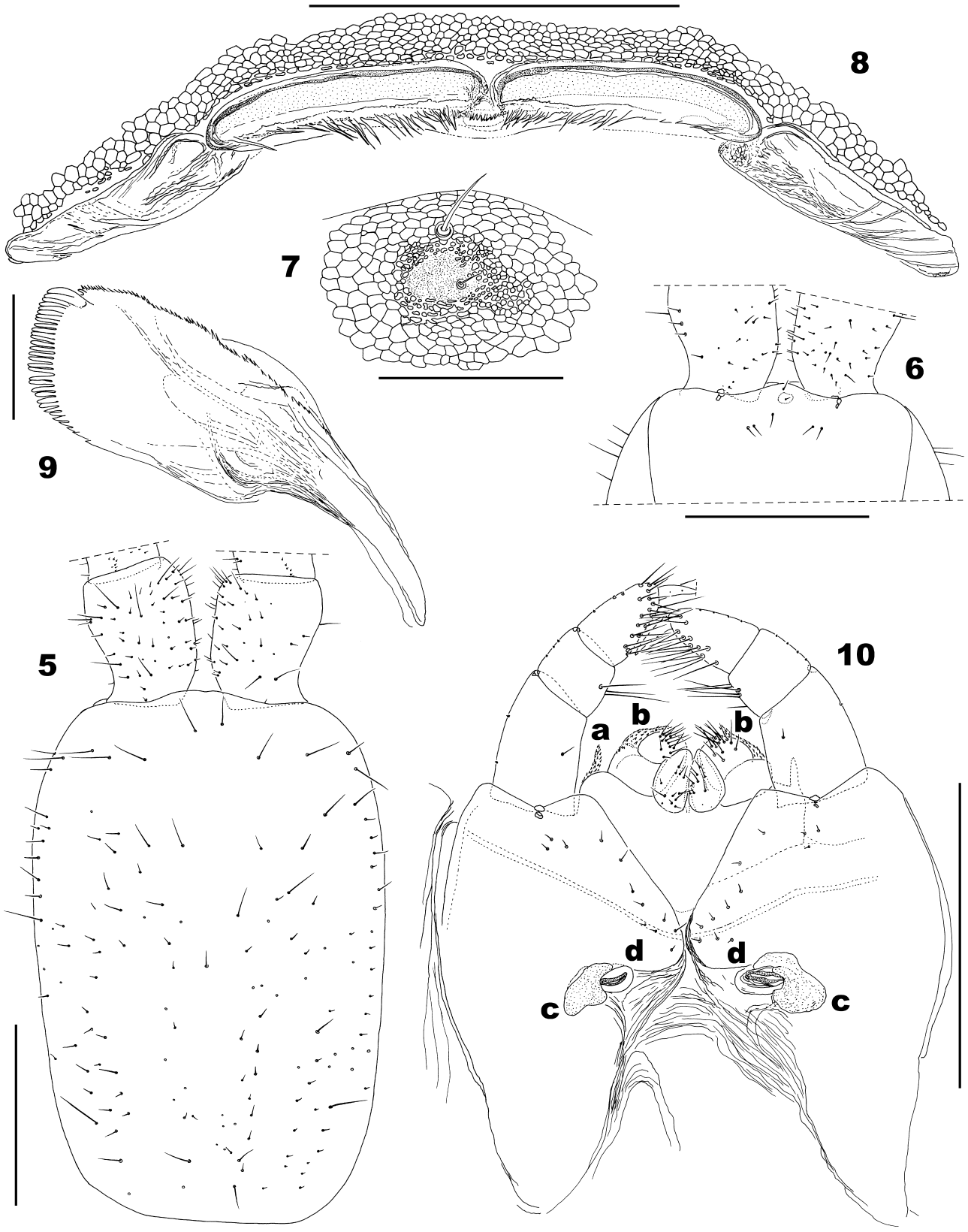
	Ventral		Dorsal			Figs.
	a	*b*	*a*	*b*	*c*	
II	–	2–3	–	2–4	–	
V	1	4	1	5–6	–	
IX	1	7	1	3	7	
XIII	1	5	1	14	6	3, 4

Cephalic plate. Distinctly longer than wide (length/width ratio *ca.* 1.53: 1), without a distinct frontal sulcus. Posterior region somewhat narrower than the anterior; sides nearly straight to slightly convex, curving in at the ends; anterior margin convex at middle, slightly concave at level of bases of the antennae; posterior margin straight. Shape and chaetotaxy as in Fig. 5.

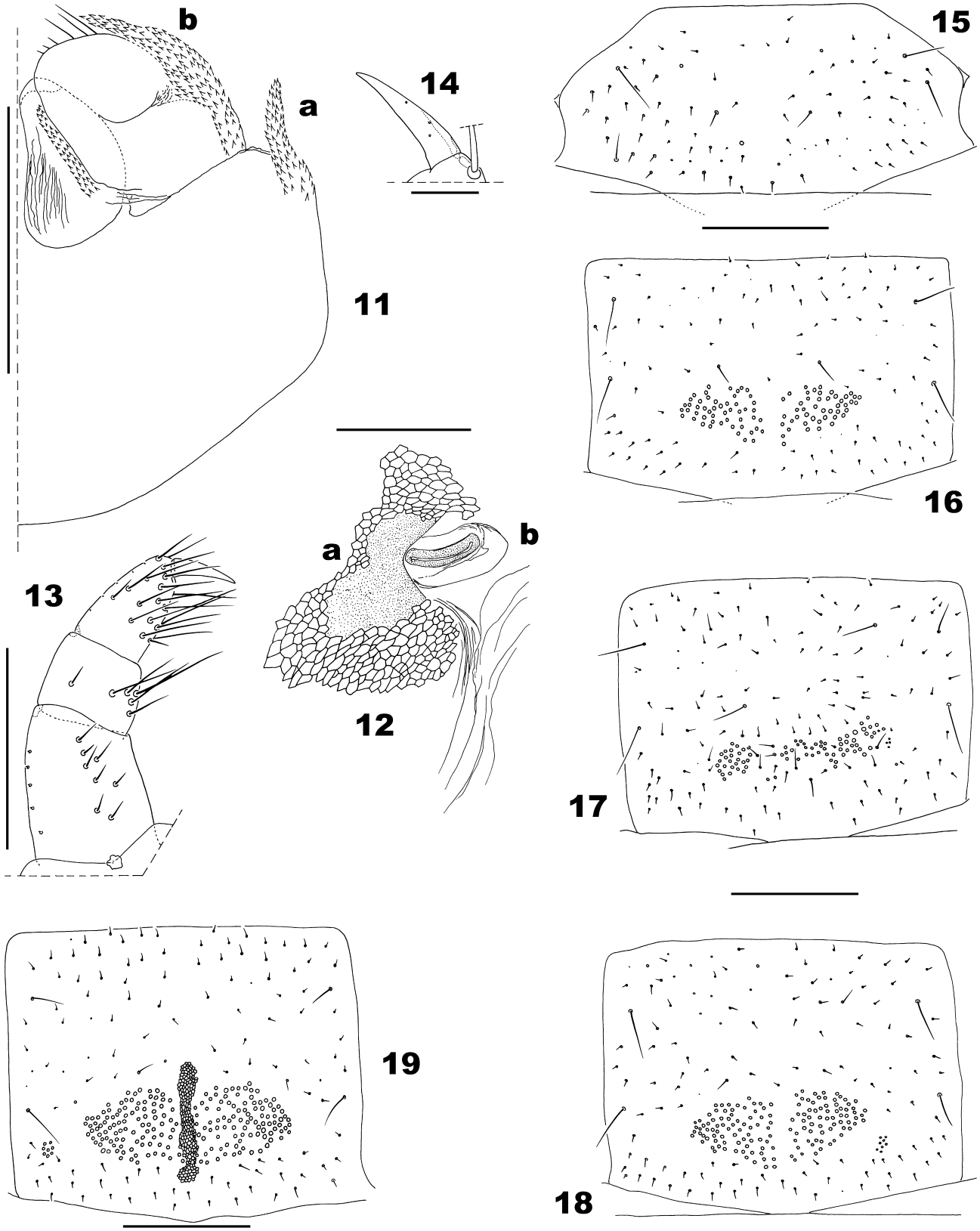
Clypeus. With one central seta in front of the clypeal area, one seta located on it (Fig. 7), and posterior to the latter 3 + 2 setae distributed at both sides of the middle line (Fig. 6). Clypeal area well developed with surface minutely punctuate or granulate, not areolate (Fig. 7).



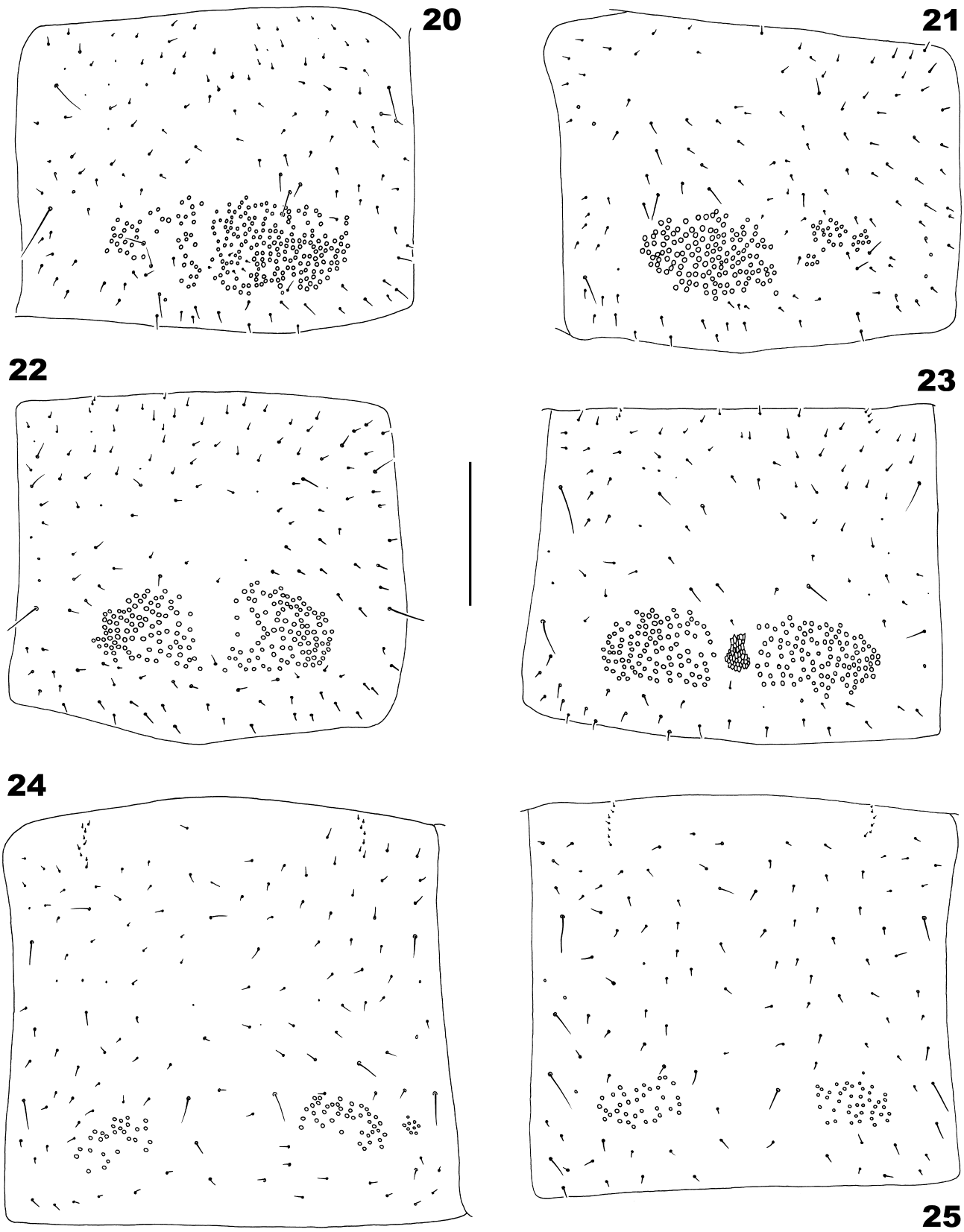
FIGURES 1–4. *Plateurytion mundus* (Chamberlin, 1955) (female lectotype (CAS 9173)): (1) Right antenna, ventral. (2) Right a.a. XIV, ventral (a: claviform sensilla; b: apical specialized sensilla). (3) Right a.a. XIII, ventral (a, b: *a, b* type sensilla). (4) Right a.a. XIII, dorsal (a, b, c: *a, b, c* type sensilla). Scale bars: 0.1 mm (2–4); 0.6 mm (1)



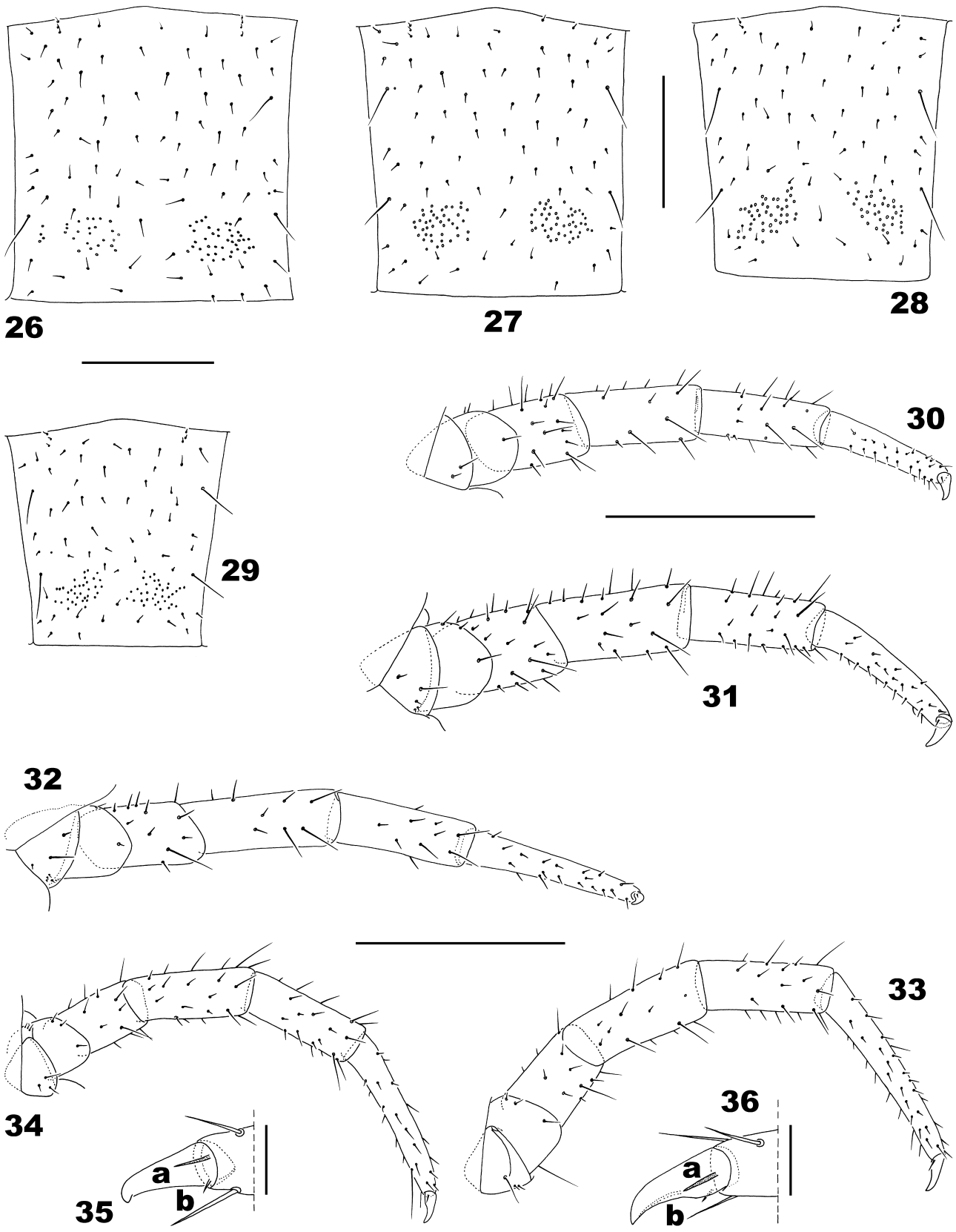
FIGURES 5–10. *Plateurytion mundus* (Chamberlin, 1955) (female lectotype (CAS 9173)): (5) Cephalic plate and bases of antennae. (6) Clypeus and bases of antennae. (7) Anterior central part of clypeus showing clypeal area. (8) Labrum. (9) Mandible. (10) First and second maxillae, ventral (a: lappets of coxosternite of first maxillae, b: lappets of telopodites; c: sclerotized rim of coxosternite of second maxillae, d: metameric pores). Scale bars: 0.1 mm (7, 9); 0.3 mm (8); 0.6 mm (5, 6, 10).



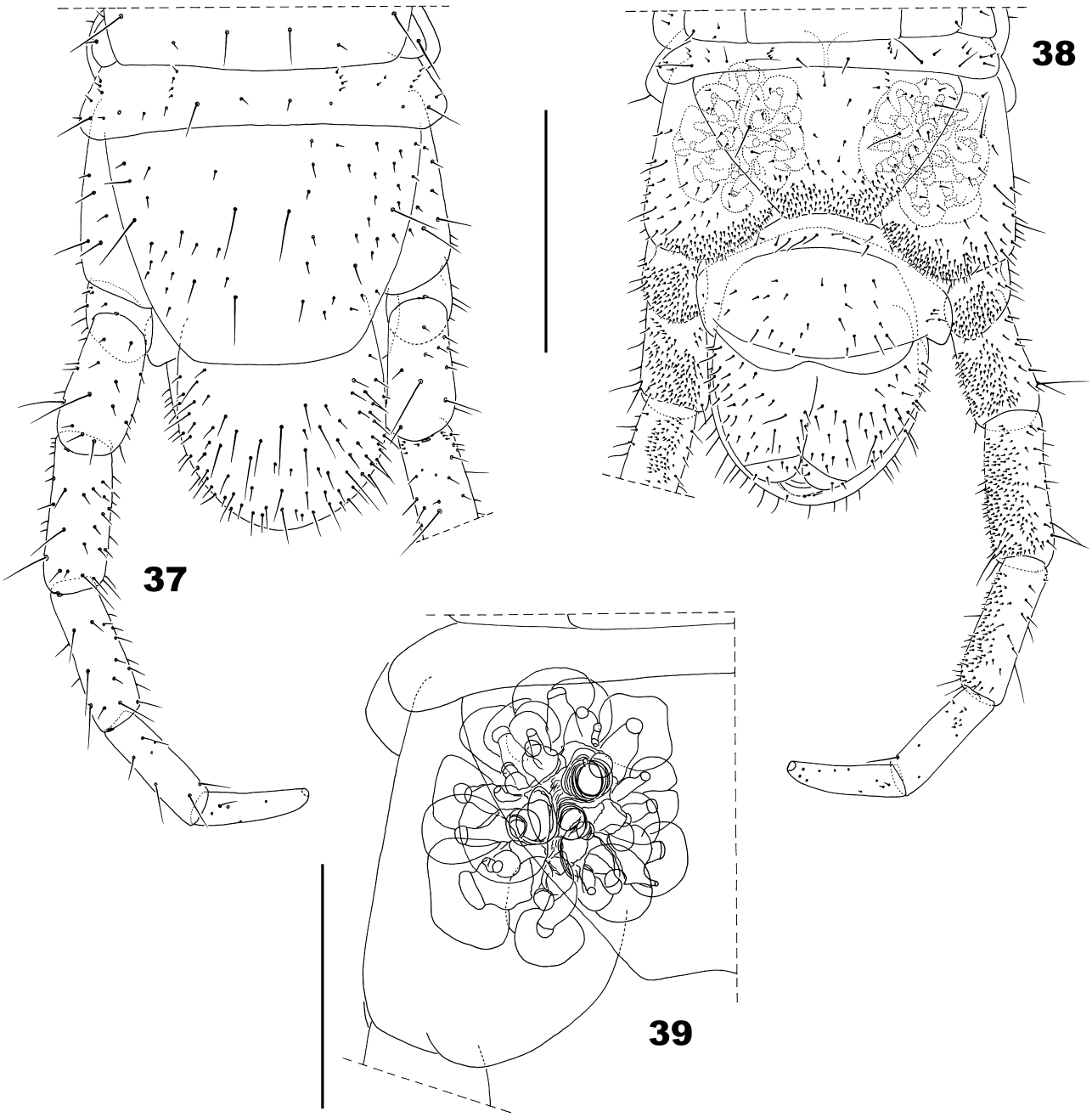
FIGURES 11–19. *Plateurytion mundus* (Chamberlin, 1955) (female lectotype (CAS 9173)): (11) Right side of first maxillae, dorsal (a: lappet of coxosternite, b: lappet of telopodite). (12) Sclerotized rim (a) in right coxosternite of second maxillae, ventral (b: metameric pore). (13) Left telopodite of second maxillae, dorsal. (14) Claw of left telopodite of second maxillae, ventral. (15) Metasternite 1. (16) Metasternite 2. (17) Metasternite 3. (18) Metasternite 4. (19) Metasternite 8. Scale bars: 0.05 mm (14); 0.1 mm (12); 0.2 mm (11); 0.3 mm (13, 15–19).



FIGURES 20–25. *Plateurytion mundus* (Chamberlin, 1955) (female lectotype (CAS 9173)): (20) Metasternite 9. (21) Metasternite 10. (22) Metasternite 11. (23) Metasternite 13. (24) Metasternite 25. (25) Metasternite 35. Scale bar: 0.3 mm.



FIGURES 26–36. *Plateurytion mundus* (Chamberlin, 1955) (female lectotype (CAS 9173)): (26) Metasternite 45. (27) Metasternite 46. (28) Metasternite 47. (29) Metasternite 48. (30) Left leg (pair 3), ventral. (31) Left leg (pair 10), anteroventral view. (32) Left leg (pair 34), ventral. (33) Left leg (pair 45), anteroventral view. (34) Left leg (pair 48), anteroventral view. (35) Claw of right leg (pair 45), anteroventral view (a: anterior spine, b: posterior spine). (36) Claw of right leg (pair 47), anteroventral view (a: anterior spine, b: posterior spine). Scale bars: 0.05 mm (35, 36); 0.3 mm (26–29); 0.6 mm (30–34).



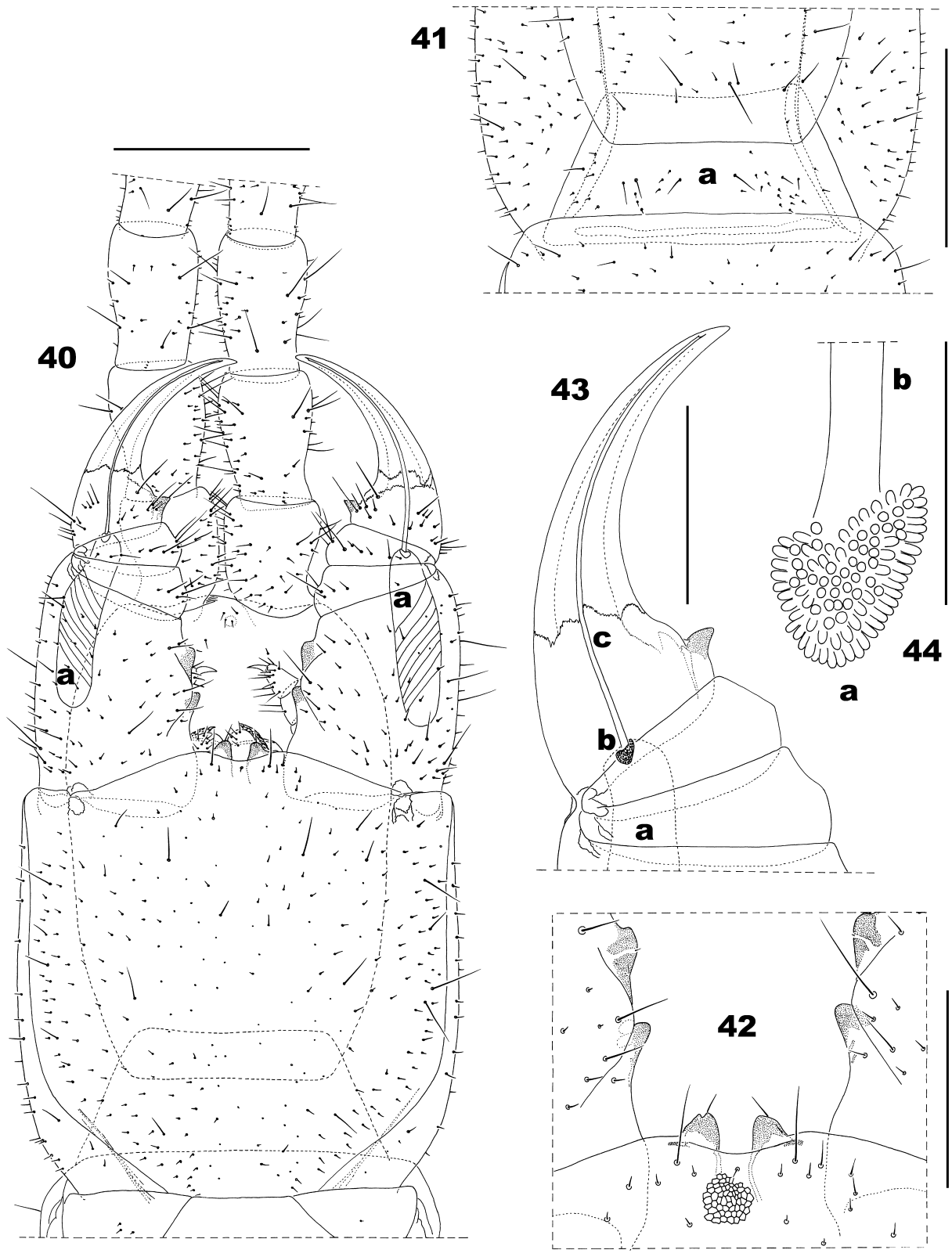
FIGURES 37–39. *Plateurytion mundus* (Chamberlin, 1955) (female lectotype (CAS 9173)): (37) Ultimate leg-bearing segment and postpedal segments, dorsal. (38) Ultimate leg-bearing segment and postpedal segments, ventral. (39) Right coxal organs, ventral. Scale bars: 0.3 mm (39); 0.6 mm (37, 38).

Labrum. Mid-piece unpigmented, small, with *ca.* 8 short slightly sharp pointed teeth; side-pieces with 21 + 20 hyaline filaments of variable sizes (Fig. 8).

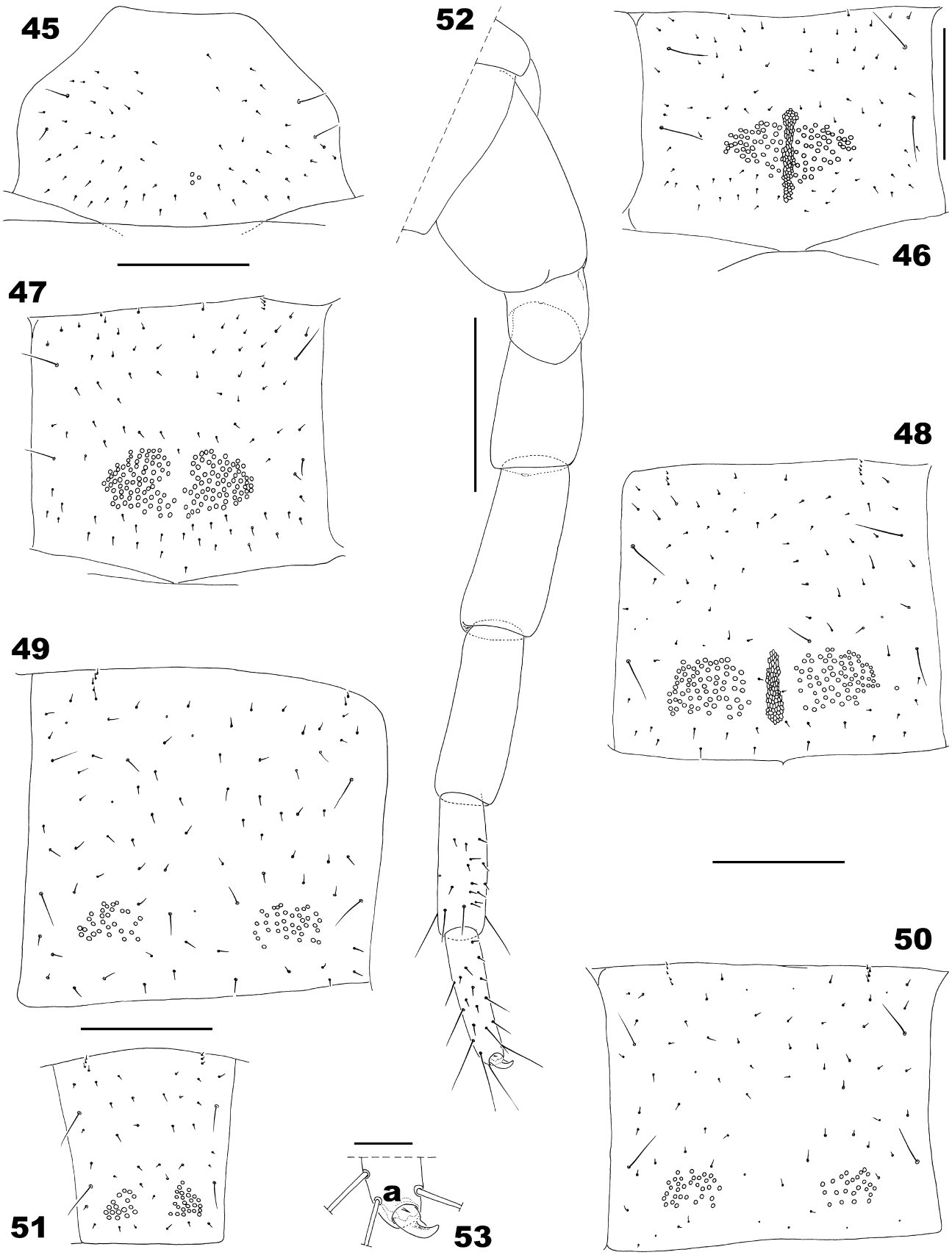
Mandible. With shape as in Fig. 9, pectinate lamella with *ca.* 31 hyaline teeth.

First maxillae. With well developed lappets on coxosternite and telopodites, relative size as in Figs. 10, 11. Coxosternite devoid of setae; coxal projections subtriangular, round tipped and provided with 11 + 8 setae (Fig. 10). Apical article of telopodites with 12 + 13 setae on ventral side (Fig. 10), and 2 + 2 small sensilla on dorsal side.

Second maxillae. Coxosternites medially joined through a narrow, hyaline and non-areolate membranous isthmus only (Fig. 10), provided with 12 + 12 setae distributed as in Fig. 10. Metameric pores accompanied by a sclerotized rim (Fig. 10: c; Fig. 12: a). Apical claw of telopodites well developed (Figs. 10, 13, 14). Chaetotaxy of coxosternites and telopodites as in Figs. 10, 13.



FIGURES 40–44. *Plateurytion mundus* (Chamberlin, 1955) (female paralectotype A (CAS 9173)): (40). Anterior region of the body showing proximal portion of first leg-bearing segment, forcipular segment, clypeus, apical part of first and second maxillae, and a.a. I–IV, ventral (a: poison glands). (41). Proximal part of first leg-bearing segment, forcipular segment and cephalic plate, dorsal (a: forcipular tergite). (42) Middle part of anterior border of forcipular coxosternite showing denticles, ventral. (43) Detail of poison gland (a), calyx (b), and duct (c) of venom apparatus in right forcipular telopodite, ventral. (44) Detail of calyx of poison gland (a) in right forcipular telopodite, ventral (b: duct). Scale bars: 0.05 mm (44); 0.3 mm (42, 43); 0.6 mm (40, 41).



FIGURES 45–53. *Plateurytion mundus* (Chamberlin, 1955) (female paralectotype A (CAS 9173)): (45) Metasternite 1. (46) Metasternite 2. (47) Metasternite 6. (48) Metasternite 14. (49) Metasternite 25. (50) Metasternite 37. (51) Metasternite 50. (52) Left ultimate leg, ventral (setae of coxopleuron, trochanter, prefemur, femur, and tibia, not drawn). (53) Claw of left ultimate leg, ventrointernal view (a: single internal spine). Scale bars: 0.05 mm (53); 0.3 mm (45–52).

Forcipular segment (similar to paralectotype A female). When extended the telopodites attaining the end of the a.a. II (Fig. 40). Forcipular tergite trapeziform, with anterior and posterior margins respectively covered by the cephalic plate and the tergite of the first leg-bearing segment (Fig. 41: a); chaetotaxy represented by 16 + 19 setae with relative size and distribution as sin Fig. 41. Coxosternite without chitin-lines, middle part of anterior border slightly concave, provided with 1 + 1 slightly pigmented denticles bearing one dorsal seta; aspect and relative size as in Figs. 40, 42. Telopodites: medial edge of trochanteroprefemur with two teeth, both deeply pigmented, the proximal one smaller than the distal (Figs. 40, 42). Femur and tibia without denticles. Tarsungulum basally with a well developed and deeply pigmented subtriangular tooth (Figs. 40, 43); medial edge of tarsungulum not serrate (Figs. 40, 43). Relative size of poison glands as in Fig. 40: a, calyx of poison gland subtriangular in shape (Fig. 43: b; Fig. 44: a). Chaetotaxy of coxosternite and telopodites as in Fig. 40.

Metasternites of leg-bearing segments 1 to penultimate. With a distinct median longitudinal sulcus along all the body length, areolation of its surface as in Figs. 19, 23. Pores present in an uninterrupted series from metasternite 1 to penultimate inclusive. Metasternite 1 with only one pore (Fig. 15); remaining metasternites with well developed pore-fields divided in two main areas, which are subsymmetrical on metasternites 2, 4–8, 11–48 (Figs. 16, 18, 19, 22–29), and asymmetrical on metasternites 3 (Fig. 17), 9 (Fig. 20), 10 (Fig. 21). Metasternites 4 (Fig. 18), and 25 (Fig. 24) with an additional small group of pores located on the posterior left side; metasternites 8 (Fig. 19), and 45 (Fig. 26) with a similar group of pores on the posterior right side. Number of pores on selected metasternites as follows: metasternite 1 (1); 2 (51 + 46); 3 (27 + 54); 4 (77 + 69); 8 (8 + 98 + 97); 9 (50 + 185); 10 (136 + 33); 11 (88 + 100); 13 (100 + 109); 25 (28 + 41 + 9); 35 (35 + 42); 45 (4 + 24 + 40); 46 (42 + 45); 47 (43 + 37); 48 (35 + 36). Chaetotaxy of metasternites, shape and relative size of pore-fields as in Figs. 15–29.

Legs (pair 1 to penultimate). First pair shorter than the second in the proportion *ca.* 0.88: 1. Chaetotaxy similar throughout the whole body length (Figs. 30–34). Each claw with an anterior and a posterior spine, the anterior (Figs. 35, 36: a) bigger and similar in color to the claw; posterior spine (Figs. 35, 36: b) minute and pale in color.

Ultimate leg-bearing segment. Intercalary pleurites absent at both sides of the ultimate pretergite; ultimate presternite not divided along the sagittal plane; length/width of metatergite 0.76: 1; length/width of metasternite 0.55: 1. Shape and chaetotaxy of metatergite and metasternite as in Figs. 37, 38. Coxopleura slightly protruding at distal-internal ventral ends, setae small and numerous distributed on the internal ventral area, the remaining coxopleural surface with few larger setae (Figs. 37, 38). Each coxopleuron with all coxal organs grouped in a cluster opening on the membrane between coxopleuron and metasternite, partially or totally covered by the latter (Figs. 38, 39). Each cluster with *ca.* 20–25 organs arranged as in Figs. 38, 39. Ultimate legs moderately inflated, telopodites composed of six articles. Ratio of length of telopodites of ultimate legs/length of metasternite *ca.* 4.65: 1. Shape and chaetotaxy of ultimate legs as in Figs. 37, 38. Ultimate pretarsus unguiform, relatively smaller than those of the preceding legs, bearing a single internal very small, and hyaline spine ventro-basally (similar to paralectotype A female, Fig. 53: a).

Postpedal segments. Intermediate tergite with posterior margin strongly convex, bearing numerous setae (Fig. 37); intermediate sternite distinct, with posterior border concave, posterior border of first genital sternite convex (Fig. 38). Gonopods uniarticulate, relatively small, not separated on the middle line (Fig. 38). Anal organs absent.

Male. Unknown.

Variation. Disposition of ventral pores in lectotype female and paralectotype A female reveals the following intraspecific variation (traits in the latter are given in parentheses): Metasternite of first leg-bearing segment with a single pore, Fig. 15 (with a group of three pores, Fig. 45); most of pore-fields on metasternites 2 to penultimate divided in two subsymmetrical areas, Figs. 16, 18, 19, 22–29, and a few divided in two asymmetrical areas, Figs. 17, 20, 21 (all divided in two subsymmetrical areas, Figs. 46–51); a few metasternites bearing an additional small group of pores located on their left or right posterior sides, Figs. 18, 19, 24, 26 (all metasternites devoid of additional groups of pores, Figs. 45–51). (Shape of divided pore-fields of paralectotype B female similar as to paralectotype A female).

All other characters without significant variation.

Remarks. *Plateurytion mundus* was inadequately described by Chamberlin. The original description does not refer to a specimen in particular, nor does it specify the sex of the studied specimens. It only includes three not accurate drawings (cephalic plate; first maxillae; coxopleura and metasternite of ultimate leg-bearing segment showing coxal organs); and completely lacks information on pilosity of the antennae; kind and number of specialized sensilla of a.a. II, V, IX and XIII; shape of mandibles; anterior and posterior limits of ventral pore-field series; shape and relative size of pore-fields; shape of postpedal segments; etc.

In his original description Chamberlin states “coxae of second maxillae broadly and completely united at middle”, but the coxosternites are medially joined through a narrow, hyaline and non-areolate membranous isthmus only (Fig. 10). About the labrum, the author says “median piece small, transversally subelliptic, without teeth on caudal margin”, but *ca.* 8 distinct short teeth are present.

The adult (and mated) condition of the three female type specimens is indicated by the presence of spermatozoa in both spermathecae, located at level of the antepenultimate leg-bearing segment.

In the preceding redescription, the forcipular segment is described after the paralectotype A female, because in the lectotype the left forcipular telopodite is missing. Both ultimate legs are incomplete in the lectotype, therefore an ultimate leg of the paralectotype A is illustrated including a detail of the claw-like ultimate pretarsus.

Type locality. CHILE: Region IX (Araucanía region): Cautín province: 35 km E of Temuco.

Known range. Only known from the type locality. (See Fig. 110).

Remarks. According to the biogeographical regionalization of the Andean Region proposed by Morrone (2015), the geographical distribution of this species corresponds to the "Maule province" (Sub-Antarctic sub-region).

Plateurytion zapallar (Chamberlin, 1955)

(Figs. 54–109)

Chilerium zapallar Chamberlin, 1955: 24, 25.
Eurytion zapallar: Foddai, Pereira & Minelli, 2000:75, 185.
Eurytion zapallar: Pereira, 2006:167 (in key).
Plateurytion zapallar: Bonato, Pereira & Minelli, 2007:6; Pereira, 2008:56.

Diagnosis. A species of *Plateurytion* characterized by having one cluster of coxal organs in each coxopleuron of the ultimate leg-bearing segment. Of the other South American species currently included in the genus, only the present species and *P. mundus* (Chamberlin, 1955) share the same character. *Plateurytion zapallar* can be confidently differentiated from *P. mundus* by means of the characters used in the preceding diagnosis of the latter.

Other morphological traits included in Table 1 differentiate *P. zapallar* from *P. mundus*.

Remarks. *P. zapallar* can be separated from the other South American members of *Plateurytion* using the identification key below.

Type material examined. CHILE: Aconcagua: Zapallar, 27 November, 1950 (collector?), two syntypes here designated as lectotype ♂ with 49 l.-b.s., (b.l. 28 mm?) (head capsule with mandibles, dissected first and second maxillae, leg-bearing segments 42-49 and postpedal segments, in an original permanent slide; 26 l.-b.s. of anterior region of the body, in two parts of 5 and 21 each, in alcohol); paralectotype ♀, subadult, with 49 l.-b.s., b.l. 17 mm (undissected, in alcohol). Both specimens labeled as *Chilerium zapallar* Chamberlin (CAS Entomology type Nº 9174).

Remarks. Chamberlin (1955) stated that the syntypical series comprised three specimens (all with 49 leg-bearing segments), but actually comprises two (apparently one of these is now missing); the author gives 28 mm as body length for the species, because the trunk of the lectotype is incomplete, it is not possible to determine if this length corresponds to it (or to the presumptive missing specimen of unknown sex). Lectotype male with forcipular segment and 15 leg-bearing segments of posterior region of the trunk, missing. Paralectotype female complete, showing ova and spermathecae without spermatozoa (located at level of leg-bearing segment 48).

Depository of types. CAS.

Other material examined. CHILE: Region IV (Coquimbo region): Elqui province: 11 km N of Los Vilos, 11 November 1987, E. Maury coll.: 1 ♀ with 47 l.-b.s., b.l. 26 mm (MACN-My 25).

Region V (Valparaíso region). Petorca province: Quebrada Huaquén, Pichicuy, 7 January 1984, E. Maury coll.: 1 ♂ with 47 l.-b.s., b.l. 22 mm (MACN-My 26). **Quillota province:** Parque Nacional La Campana, Palmas de Ocoa, 8–5 November 1987, E. Maury coll.: 1 ♀ with 53 l.-b.s., b.l. 28 mm (MACN-My 27); same locality and collector, 27–28 October 1988, 1 ♂ with 51 l.-b.s., b.l. 23 mm (MACN-My 28); same locality, 32º 57´40.4´´ S, 71º 03´34.0´´ W, 770 m a.s.l., 18 February, 2005, M. J. Ramírez & F. Labarque coll.: 1 ♂ with 51 l.-b.s., b.l. 25 mm (MACN-My 29). **Valparaíso province:** Quebrada el Tigre, Cachagua, 8 November 1988, E. Maury coll.: 1 ♂ with 47 l.-b.s., b.l. 27 mm (MACN-My 30).

Redescription. Male (specimen MACN-My 29). Fifty-one leg-bearing segments, body length 25 mm, maximum body width 1.32 mm. Maximum width of cephalic plate 0.73 mm, length of cephalic plate 1.12 mm, maximum width of forcipular coxosternite 1.00 mm. Ground color (of preserved specimen in alcohol) yellowish, forcipular segment darker (pale ochreous).

Antennae. Relatively short, *ca.* 2.64 times as long as the cephalic plate, distally attenuate (Fig. 54). Ratio of width of a.a. II/width of a.a. XIV *ca.* 2.04: 1; all a.a. longer than wide. Ventral chaetotaxy: setae on a.a. I–VI of various lengths and relatively few in number, those of a.a. VII–XIV progressively shorter and more numerous towards the tip of the appendage (Fig. 54). Dorsal chaetotaxy: setae on a.a. I–VI similar to the ventral side, setae on remaining a.a. a little longer and slightly less numerous. A.a. XIV with *ca.* 13 claviform sensilla on the external margin and *ca.* 9 on the internal margin (Fig. 55: a); distal end of this a.a. with *ca.* 4–5 very small hyaline specialized sensilla not split apically (Fig. 55: b). Ventral and dorsal surface of a.a. II, V, IX and XIII with very small specialized sensilla. On the ventral side these sensilla are placed in the internal latero-apical area and are represented by two different types: *a* and *b*. Type *a* sensilla are very thin and not split apically (Fig. 58: a); type *b* sensilla (Fig. 58: b) are very similar to those on the apex of a.a. XIV but having two diminutive apical branches. Specialized sensilla on dorsal side restricted to a middle and external latero-apical areas and are represented by three different types: type *a*, similar to type *a* of ventral side (Fig. 59: a), type *b* sensilla not split apically and similar to those on the apex of a.a. XIV (Fig. 59: b), and type *c* sensilla similar in shape to the latter, a little larger, not divided apically and slightly darker (pale brownish-ochreous in color) (Fig. 59: c). Number and distribution of specialized sensilla on ventral and dorsal sides of a.a. II, V, IX and XIII, as in Table 3.

TABLE 3. Number of type *a, b and c* specialized sensilla on antennal articles II, V, IX and XIII in the male of *Plateurytion zapallar* (Chamberlin, 1955) from Chile: Valparaíso region: Quillota province, La Campana National Park (MACN-My 29).

	Ventral		Dorsal			Figs.
	a	*b*	*a*	*b*	*c*	
II	–	1	–	1	–	
V	1	1	1	1	–	
IX	1	1	1	1	1	56, 57
XIII	1	1	1	3	1	58, 59

Cephalic plate. Distinctly longer than wide (length/width ratio *ca.* 1.48: 1). Middle part of lateral margins convergent towards the posterior region; anterior margin convex at middle, slightly concave at level of the bases of the antennae; posterior margin nearly straight; anterior and posterior sides, curved. Shape and chaetotaxy as in Fig. 60.

Clypeus. With 1 + 1 setae adjacent to the anterior margin of the clypeal area, two setae located on it (Fig. 62), posterior to the latter 2 + 2 setae distributed at both sides of the middle line (Fig. 61). Clypeal area well developed with surface minutely punctuate or granulate, not areolate (Fig. 62).

Labrum. Mid-piece well developed, subtriangular in shape, slightly pigmented and provided with 13 hyaline and thin filaments (Figs. 63, 64). Side pieces with 17 + 17 hyaline filaments of different sizes (Fig. 63).

Mandible. With shape as in Fig. 65, pectinate lamella with *ca.* 22 hyaline teeth.

First maxillae. Coxosternite and telopodites with very well developed lappets (Fig. 66). Coxosternite devoid of setae; coxal projections subtriangular, round-tipped and provided with 6 + 6 setae and 2 + 2 very small sensilla (Fig. 66). Article II of telopodites with 7 + 5 large setae on ventral side (Fig. 66), and 1 + 1 small sensilla on dorsal side.

Second maxillae. Coxites medially joined through a narrow, hyaline and non-areolate membranous isthmus only and provided with 8 + 8 setae near the internal and antero-internal borders and 2 + 2 setae near the external borders (Fig. 66). Metameric pores accompanied by a sclerotized rim with shape as in Fig. 66: c. Apical claw of telopodites well developed (Fig. 66). Chaetotaxy of coxosternites and telopodites as in Fig. 66.

Forcipular segment. When extended the telopodites attaining the middle part of the a.a. II. Forcipular tergite trapeziform (Fig. 62: a), with anterior and posterior margins respectively covered by the cephalic plate and the tergite of the first leg-bearing segment; chaetotaxy represented by 1 + 1 large setae and *ca.* 17 + 17 very small setae with relative size and distribution as in Fig. 68. Coxosternite without chitin-lines, middle part of anterior border

conspicuously notched and strongly concave, provided with 1 + 1 slightly pigmented denticles, the left one bearing a dorsal seta; aspect and relative size as in Figs. 67, 69. Telopodites: medial edge of trochanteroprefemur with a proximal and a distal tooth, both deeply pigmented (Figs. 67, 69). Femur and tibia without denticles. Tarsungulum basally with a well developed and deeply pigmented subtriangular tooth (Figs. 67, 70); ventral medial edge of tarsungulum not serrate (Figs. 67, 70). Relative size of poison gland as in Fig. 70, calyx of poison gland subtriangular in shape (Figs. 70–72). Chaetotaxy of coxosternites and telopodites as in Figs. 67, 69.

Metasternites of leg-bearing segments 1 to penultimate. With a median shallow longitudinal sulcus all along the body length. Pore-fields present in an uninterrupted series from metasternite 1 to penultimate inclusive; fields undivided on metasternites 1–15 (Figs. 73–79), divided in two subsymmetrical areas on metasternites 16–50 (Figs. 80–85). Metasternites 4 (Fig. 75); 6; 7 (Fig. 76); 8; 9; 10 (Fig. 77); 11; 12 (Fig. 78); 13 (Fig. 79); 14; 15; 16 (Fig. 80); 17; 18 (Fig. 81); 19–24; 26; 34; 37–43; 45; 46 (Fig. 83); and 47 with *ca.* 1–5 additional dispersed pores near one or both lateral margins. Number of pores on selected metasternites as follows: metasternite 1 (6); 2 (53); 4 (1 + 71 + 0); 7 (2 + 99 + 0); 10 (2 + 97 + 3); 12 (2 + 106 + 5); 13 (2 + 99 + 3); 16 (4 + 41 + 44 + 4); 18 (3 + 31 + 34 + 3); 32 (11 + 11); 46 (1 + 15 + 14 + 0); 49 (10 + 16); 50 (9 + 6). Chaetotaxy of metasternites, shape and relative size of pore-fields as in Figs. 73–85.

Legs (pair 1 to penultimate). Ratio of length of first pair/length of second pair *ca.* 0.80: 1 (relative size as in Figs. 86, 87). Chaetotaxy similar throughout the whole body length; distribution, number and relative size of setae as in Figs. 86–91. Claws with two thin and pale accessory spines ventrobasally, the anterior (Figs. 92, 93: a) bigger than the posterior (Figs. 92, 93: b).

Ultimate leg-bearing segment. Intercalary pleurites absent at both sides of the ultimate pretergite (Fig. 94); ultimate presternite not divided along the sagittal plane (Fig. 95). Length/width ratio of metatergite, *ca.* 0.87: 1; length/width ratio of metasternite, *ca.* 0.79: 1. Shape and chaetotaxy of metatergite and metasternite as in Figs. 94, 95. Coxopleura strongly protruding at their distal-internal ventral ends, setae small and numerous on the internal ventral area, the remaining coxopleural surface with much less numerous setae of different lengths (Figs. 94, 95). Each coxopleuron with all coxal organs grouped in a cluster opening on the membrane between coxopleuron and metasternite, partially or totally covered by the latter (Figs. 95, 96). Right cluster with 11 organs; left cluster with 10 organs; arrangement of organs in each cluster as in Fig. 96. Telopodites of ultimate legs composed of six conspicuously inflated articles. Ratio of length of telopodites of ultimate legs/length of metasternite *ca.* 3.98: 1. Shape and chaetotaxy of ultimate legs as in Figs. 94, 95. Ultimate pretarsus unguiform, relatively smaller than those of the preceding legs, bearing a single very small and hyaline internal spine ventrobasally.

Postpedal segments. Intermediate tergite with posterior margin strongly convex (Fig. 94), intermediate sternite with posterior margin nearly straight (Fig. 95). Posterior margin of first genital sternite concave (Fig. 95). Gonopods apparently uniarticulate (suture between the presumptive basal and distal articles not evident), bearing *ca.* 25 setae (Fig. 97); penis dorsally with 3 + 3 apical setae (Fig. 98). Anal organs absent.

Female (specimen MACN-My 25). Forty-seven leg-bearing segments, body length 26 mm, maximum body width *ca.* 1.25 mm. Features similar to those in the male, except for the shape and pilosity of the ultimate leg-bearing segment and postpedal segments.

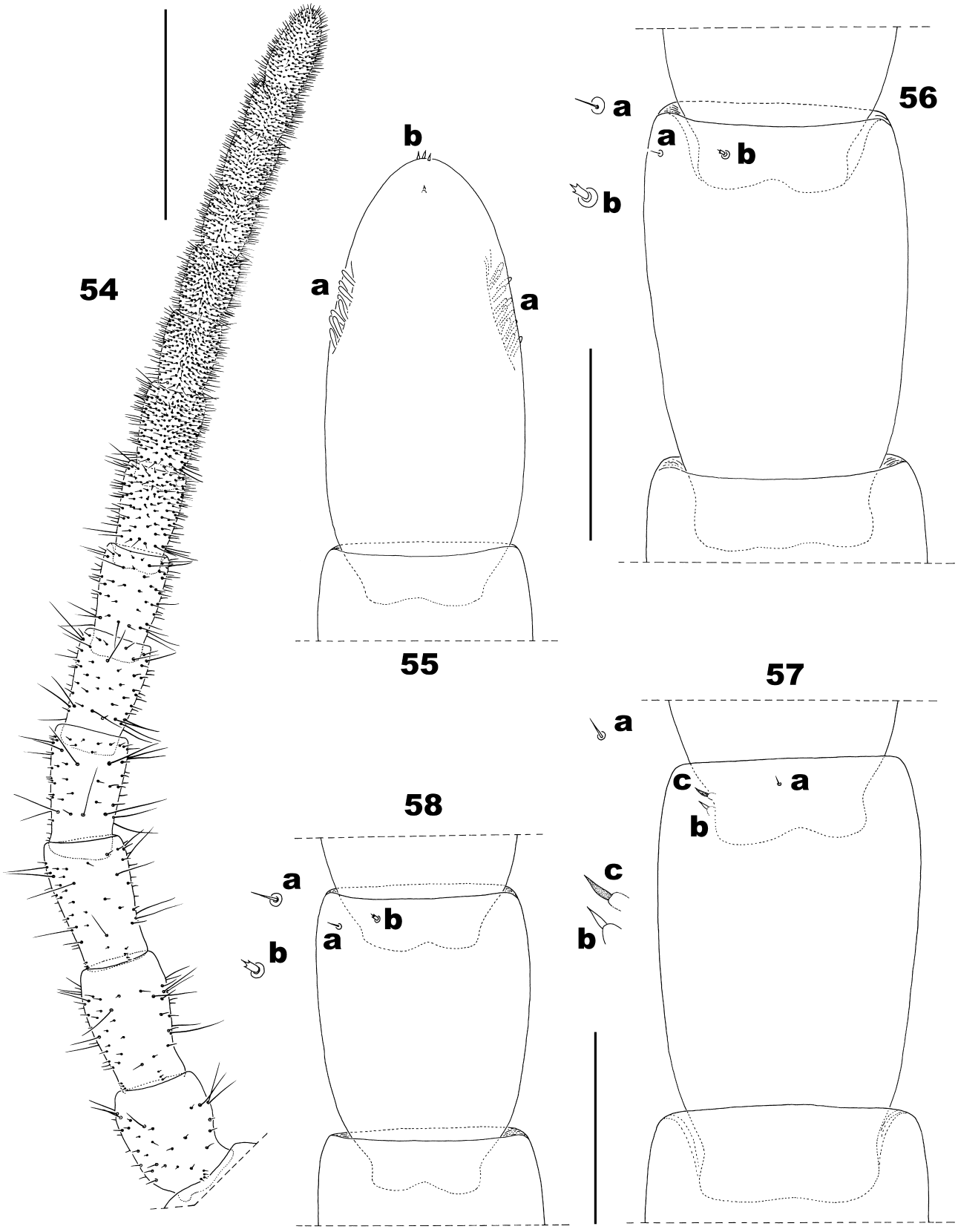
Ultimate leg-bearing segment. Length/width ratio of metatergite 0.65: 1; length/width ratio of metasternite 0.72: 1. Shape and chaetotaxy of metatergite and metasternite as in Figs. 108, 109. Coxopleura conspicuously protruding at their distal-internal ventral area, setae small and numerous on the internal ventral area, the remaining coxopleural surface with much less numerous setae of different lengths (Figs. 108, 109). Right and left cluster of coxal organs with *ca.* 11 organs (Fig. 109). Articles of ultimate legs inflated. Ratio of length of telopodites of ultimate legs/length of metasternite *ca.* 4.23: 1. Shape and chaetotaxy as in Figs. 108, 109.

Postpedal segments. Intermediate tergite with posterior margin convex (Fig. 108); intermediate sternite with posterior margin slightly concave, (Fig. 109); posterior border of first genital sternite very slightly convex (Fig. 109). Gonopods uniarticulate, not separated on the middle (Fig. 109). Anal organs absent.

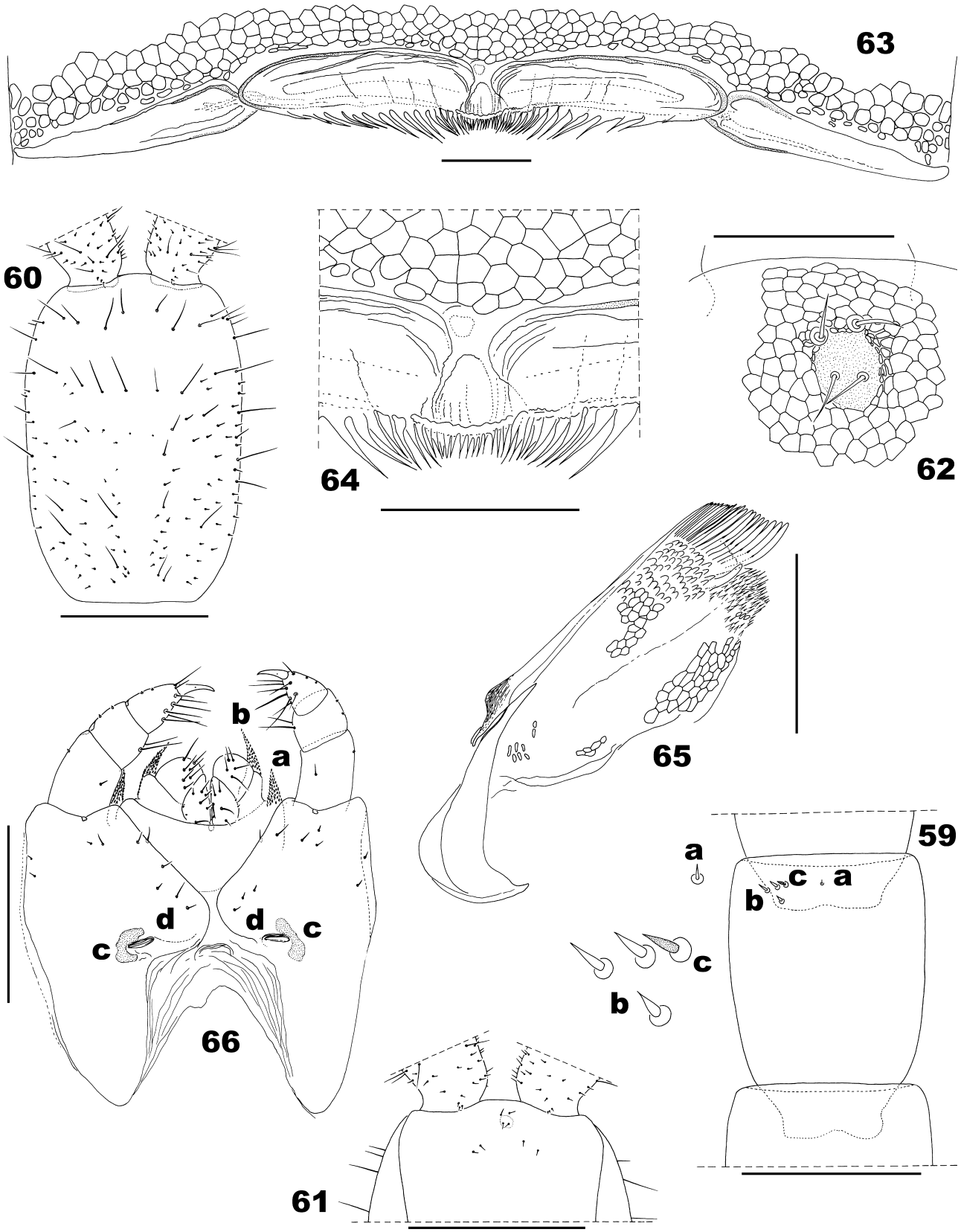
Variation. Females with 47, 49, (probably 51), 53 leg-bearing segments; males with 47, 49, 51.

All other characters without significant variation.

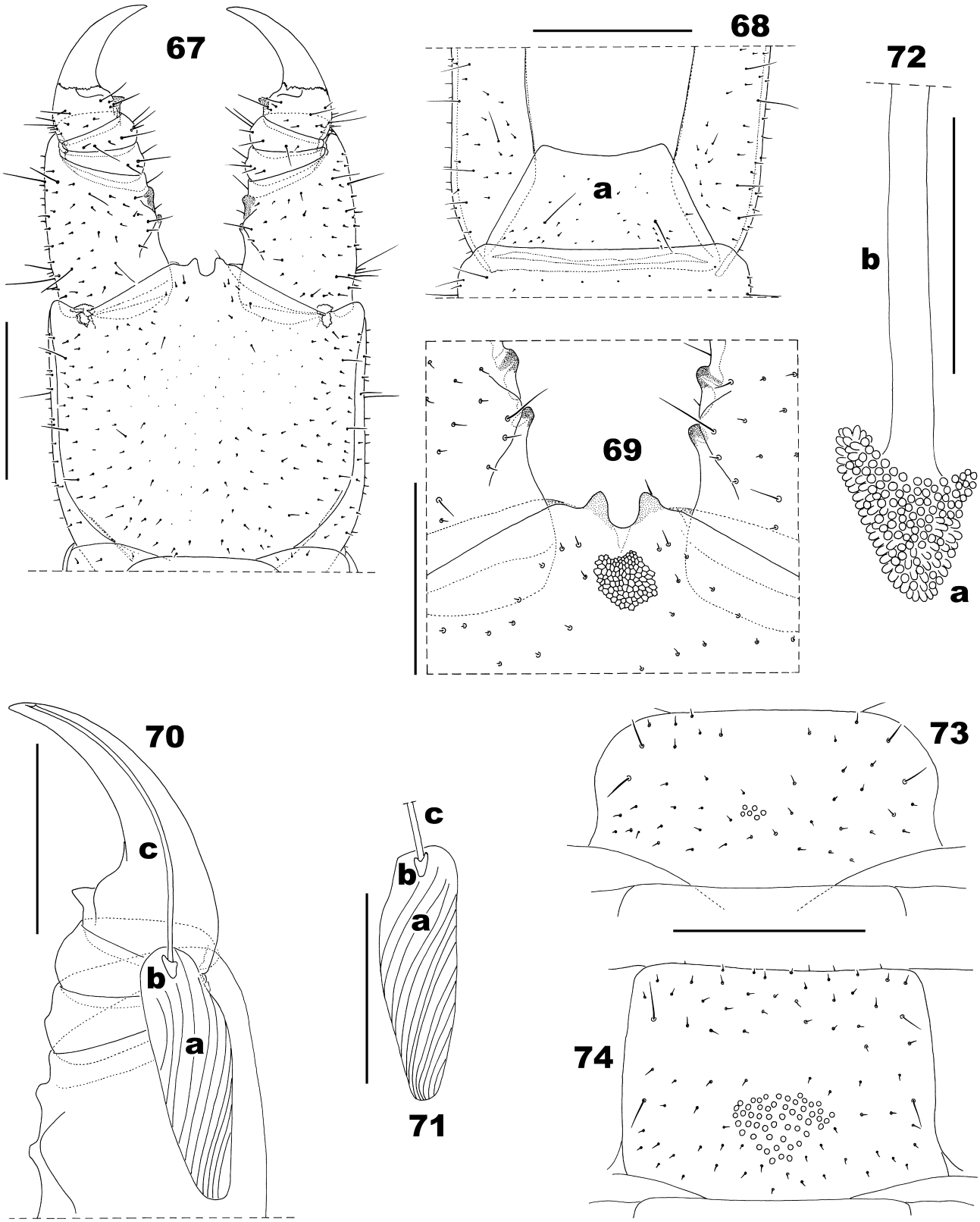
Remarks. An accurate comparison of the characters of specific value in the lectotype male (Figs. 99–104) and paralectotype female (Figs. 105–107), with those of the specimens cited in "Other material examined" (Figs. 54–98, 108, 109) leave no doubts as to the conspecificity of all of them. The precedent redescription of *P. zapallar*



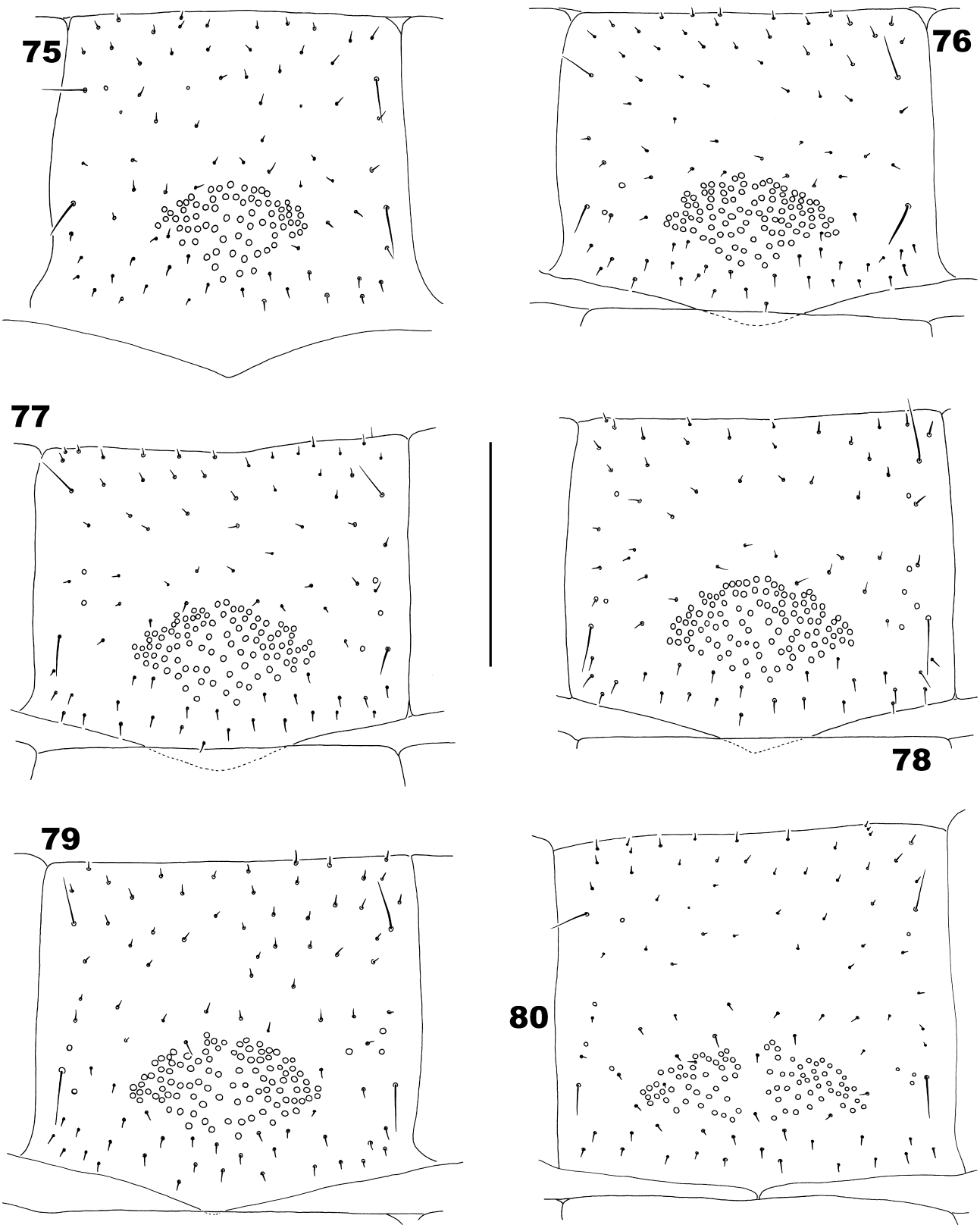
FIGURES 54–58. *Plateurytion zapallar* (Chamberlin, 1955) (male (MACN-My 29)): (54) Left antenna, ventral. (55) Left a.a. XIV, ventral (a: claviform sensilla; b: apical specialized sensilla). (56) Left a.a. IX, ventral (a, b: *a, b* type sensilla). (57) Left a.a. IX, dorsal (a, b, c: *a, b, c* type sensilla). (58) Left a.a. XIII, ventral (a, b: *a, b* type sensilla). Scale bars: 0.1 mm (55–58); 0.5 mm (54).



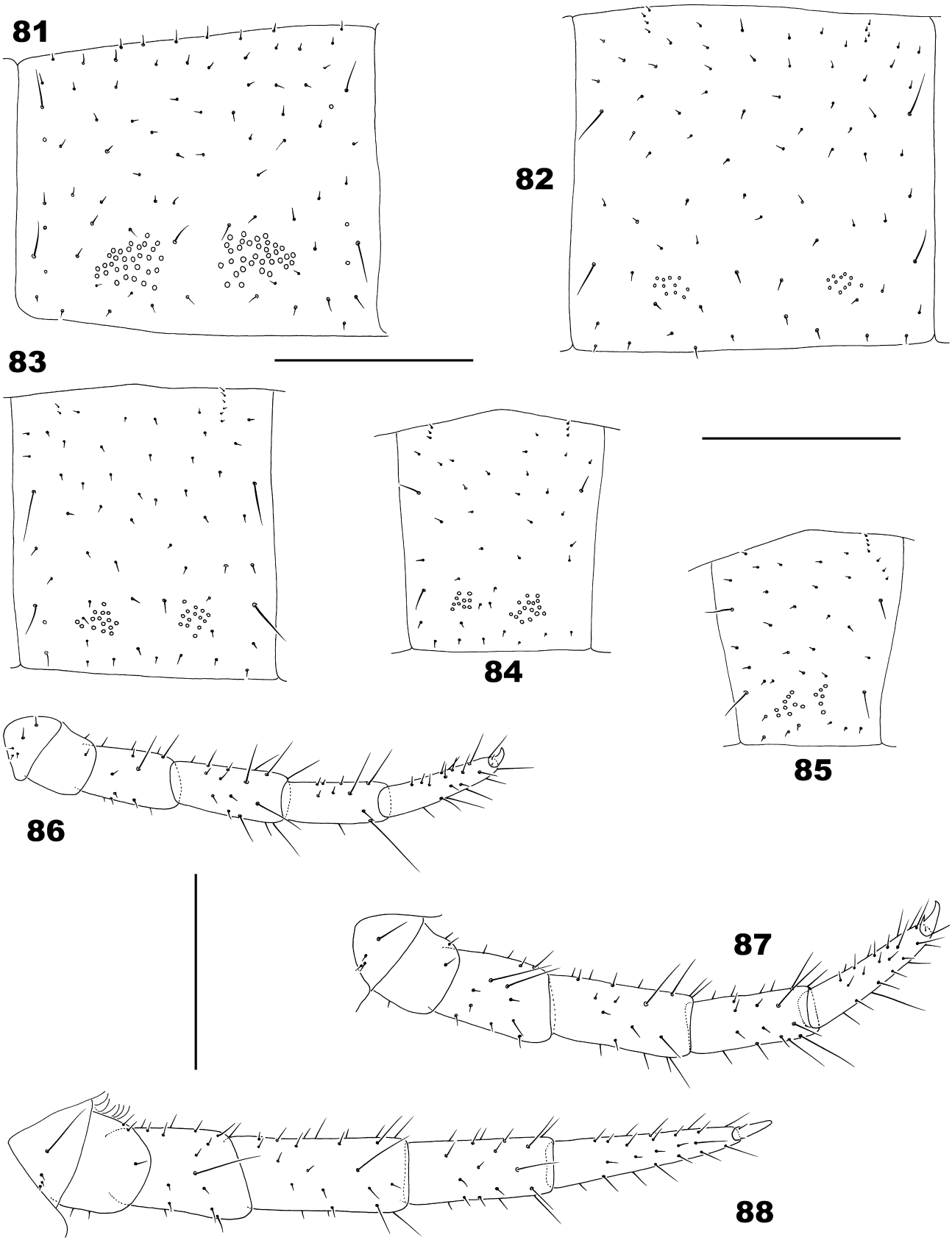
FIGURES 59–66. *Plateurytion zapallar* (Chamberlin, 1955) (male (MACN-My 29)): (59) Left a.a. XIII, dorsal (a, b, c: *a, b, c* type sensilla). (60) Cephalic plate and bases of antennae. (61) Clypeus and bases of antennae. (62) Anterior central part of clypeus showing clypeal area. (63) Labrum. (64) Detail of central part of labrum showing teeth of mid-piece and most internal teeth of side-pieces. (65) Right mandible. (66) First and second maxillae, ventral (a: lappets of coxosternite of first maxillae, b: lappets of telopodites; c: sclerotized rim of coxosternite of second maxillae; d: metameric pore). Scale bars: 0.05 mm (63, 64); 0.1 mm (59, 62, 65); 0.3 (66); 0.5 mm (60, 61).



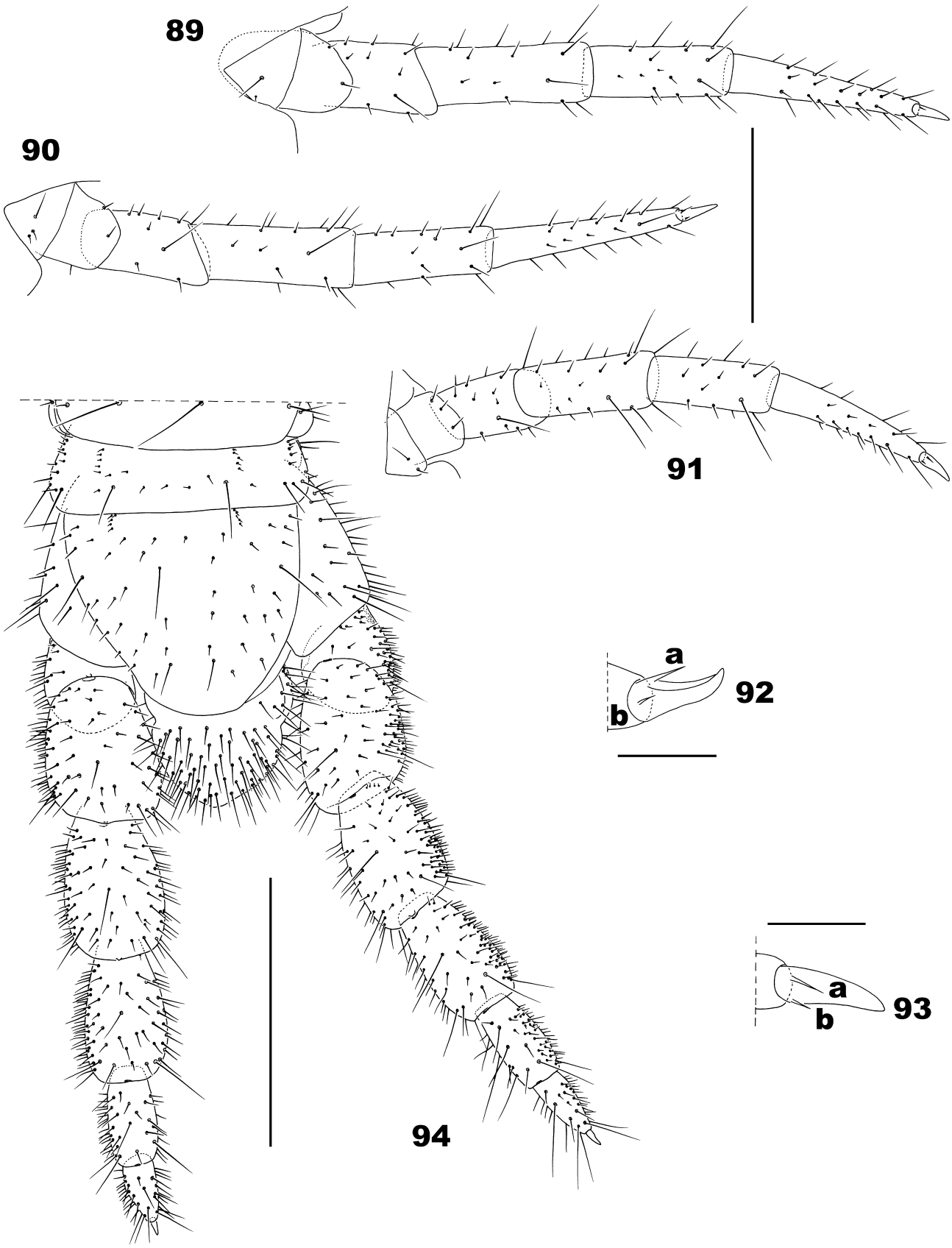
FIGURES 67–74. *Plateurytion zapallar* (Chamberlin, 1955) (male (MACN-My 29)): (67) Forcipular segment, ventral. (68). Proximal part of first leg-bearing segment and forcipular segment, dorsal (a: forcipular tergite). (69) Middle part of anterior border of forcipular coxosternite showing denticles, ventral. (70) Detail of poison gland (a), calyx (b), and duct (c) of venom apparatus in left forcipular telopodite, ventral. (71) Detail of poison gland (a) in left forcipular telopodite, dorsal (b: calyx, c: duct). (72) Detail of calyx of poison gland (a) in left forcipular telopodite, ventral (b: duct). (73) Metasternite 1. (74) Metasternite 2. Scale bars: 0.05 mm (72); 0.3 mm (69–71, 73, 74); 0.5 mm (67, 68).



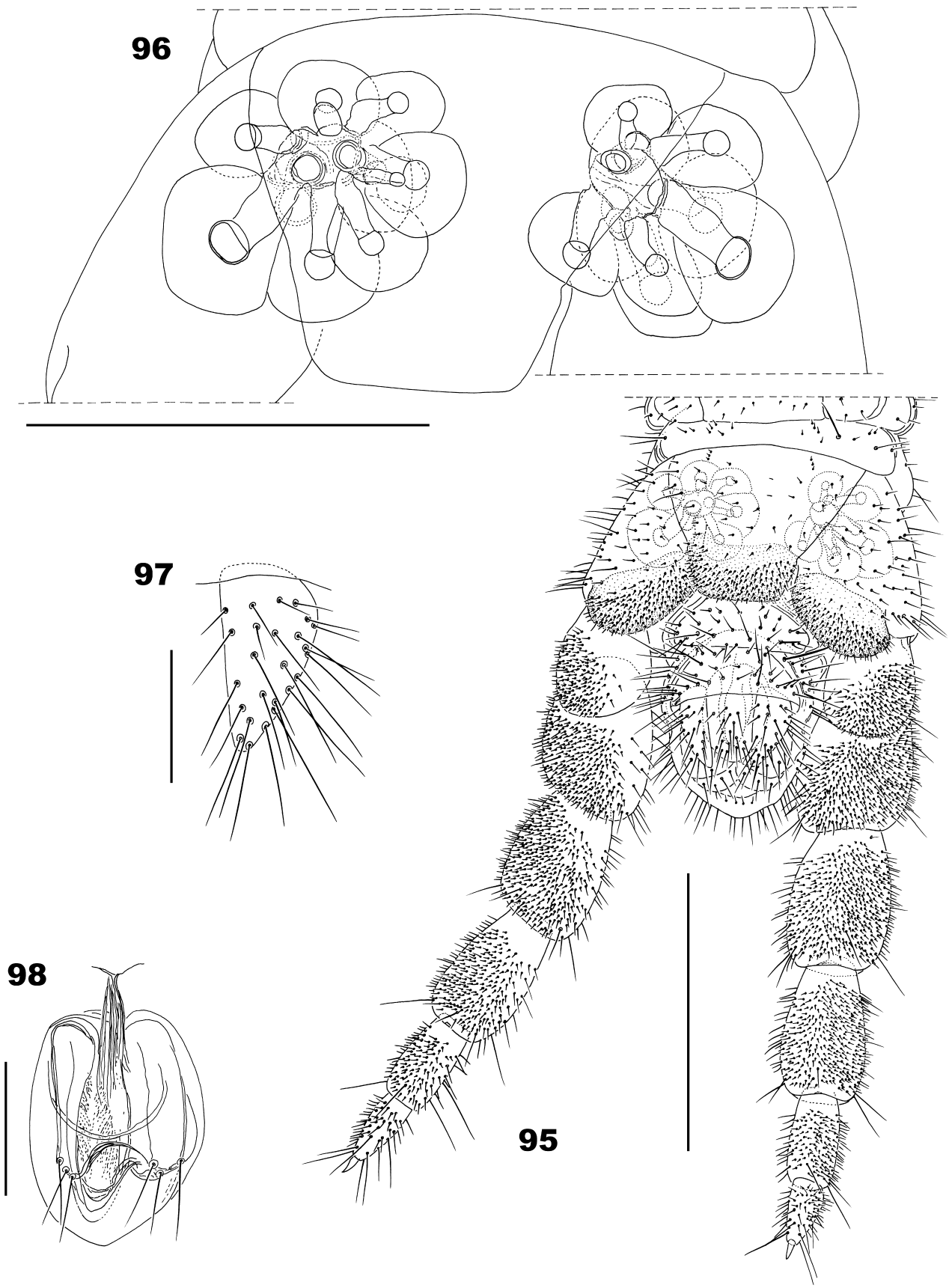
FIGURES 75–80. *Plateurytion zapallar* (Chamberlin, 1955) (male (MACN-My 29)): (75) Metasternite 4. (76) Metasternite 7. (77) Metasternite 10. (78) Metasternite 12. (79) Metasternite 13. (80) Metasternite 16. Scale bar: 0.3 mm.



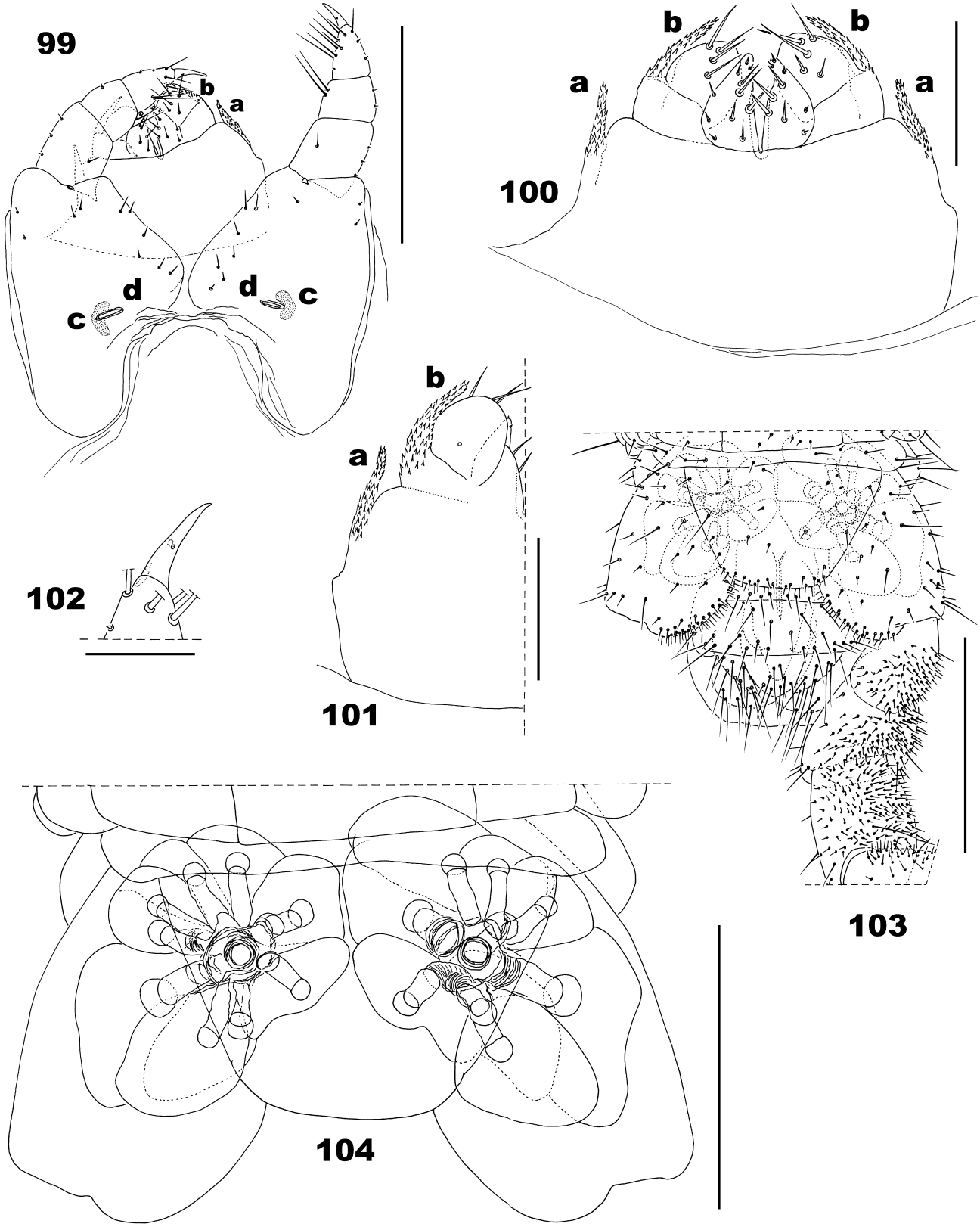
FIGURES 81–88. *Plateurytion zapallar* (Chamberlin, 1955) (male (MACN-My 29)): (81) Metasternite 18. (82) Metasternite 32. (83) Metasternite 46. (84) Metasternite 49. (85) Metasternite 50. (86) Left leg (pair 1), ventral. (87) Left leg (pair 2), ventral. (88) Left leg (pair 12), ventral. Scale bar: 0.3 mm.



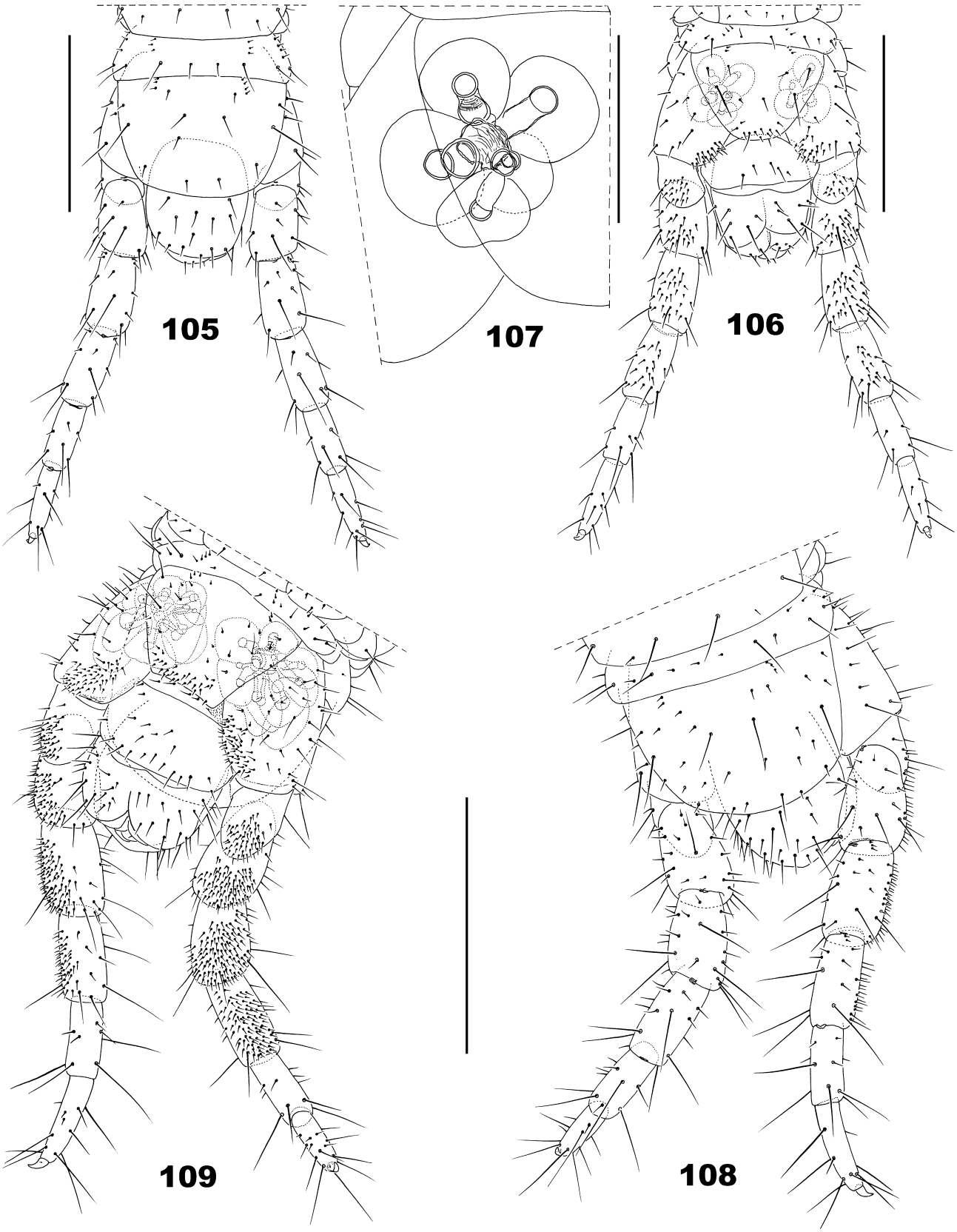
FIGURES 89–94. *Plateurytion zapallar* (Chamberlin, 1955) (male (MACN-My 29)): (89) Left leg (pair 33), ventral. (90) Left leg (pair 43), ventral. (91) Left leg (pair 50), ventral. (92) Claw of left leg (pair 2), posterolateral view (a: anterior spine, b: posterior spine). (93) Claw of left leg (pair 50), anterolateral view (a: anterior spine, b: posterior spine). (94) Ultimate leg-bearing segment and postpedal segments, dorsal. Scale bars: 0.05 mm (92, 93); 0.3 mm (89–91); 0.5 mm (94).



FIGURES 95–98. *Plateurytion zapallar* (Chamberlin, 1955) (male (MACN-My 29)): (95) Ultimate leg-bearing segment and postpedal segments, ventral. (96) Coxal organs, ventral. (97) Left gonopod, ventral. (98) Penis, dorsal. Scale bars: 0.1 mm (97, 98); 0.3 mm (96); 0.5 mm (95).



FIGURES 99–104. *Plateurytion zapallar* (Chamberlin, 1955) (male lectotype (CAS 9174)): (99) First and second maxillae, ventral (a: lappets of coxosternite of first maxillae, b: lappets of telopodites; c: sclerotized rim of coxosternite of second maxillae, d: metameric pores). (100) First maxillae, ventral (a: lappets of coxosternite, b: lappets of telopodites). (101) Left side of first maxillae, dorsal (a: lappet of coxosternite, b: lappet of telopodite). (102) Claw of right telopodite of second maxillae, ventral. (103) Ultimate leg-bearing segment and postpedal segments, ventral (right ultimate leg; tibia, tasus 1 and tarsus 2 of left ultimate leg, not drawn). (104) Coxal organs, ventral. Scale bars: 0.05 mm (102); 0.1 mm (100, 101); 0.2 mm (104); 0.3 mm (99, 103).



FIGURES 105–109. (105–107). *Plateurytion zapallar* (Chamberlin, 1955) (female paralectotype (CAS 9174)): (105) Ultimate leg-bearing segment and postpedal segments, dorsal. (106) Ultimate leg-bearing segment and postpedal segments, ventral. (107) Right coxal organs, ventral. (108–109). *Plateurytion zapallar* (Chamberlin, 1955) (female (MACN-My 25)): (108) Ultimate leg-bearing segment and postpedal segments, dorsal. (109) Ultimate leg-bearing segment and postpedal segments, ventral. Scale bars: 0.1 mm (107); 0.3 mm (105, 106); 0.5 mm (108, 109).

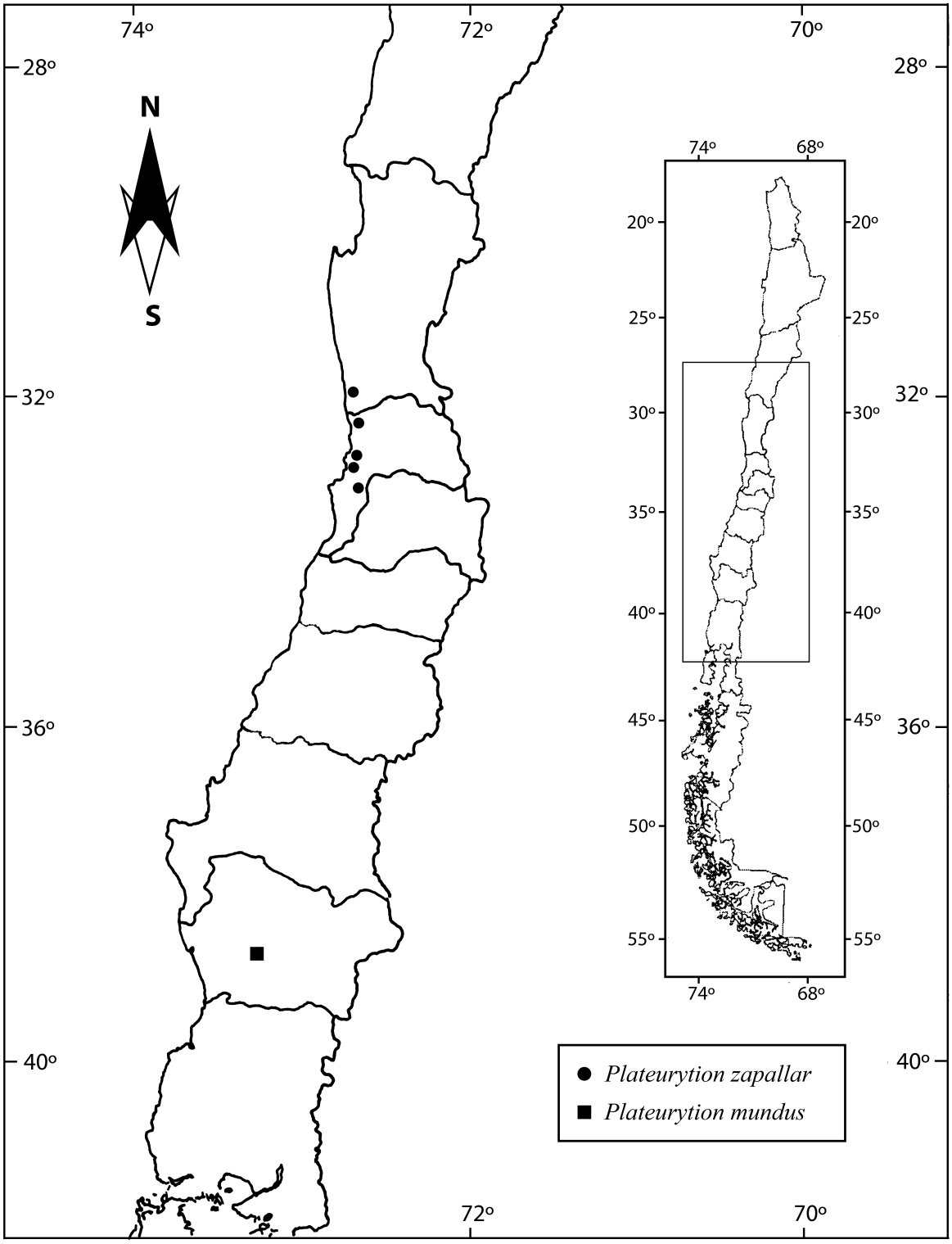


FIGURE 110. Geographical distribution of *Plateurytion mundus* (Chamberlin, 1955) *and Plateurytion zapallar* (Chamberlin, 1955).

is based on the non-type specimens, because the lectotype male is incomplete and the paralectotype female shows a sub-adult condition, indicated by the relatively small body size, empty spermathecae (located at level of the penultimate leg-bearing segment), low number of organs in each cluster of coxal organs and reduced pilosity on the articles of ultimate legs.

Plateurytion zapallar was inadequately described by Chamberlin; his original description does not refer to a specimen in particular, nor does it specify the sex of the studied specimens. It only includes a single inaccurate figure of the cephalic plate, and completely lacks information on pilosity of the antennae; kind and number of specialized sensilla of a.a. II, V, IX and XIII; shape of mandibles; anterior and posterior limits of ventral pore-fields; shape of postpedal segments; etc.

In his description Chamberlin states "First joint of telopodite of first maxillae bearing a sensory lappet, the syncoxite with none", but the coxosternite of the first maxillae actually bears lappets (Figs. 99–101: a). About the ventral pores, the author says "Ventral pores present in a circular area in front of caudal margin of sternite", this is correct for the metasternites of the anterior region of the body, but in those of the posterior region, the pore-fields are divided in two subsymmetrical areas.

Type locality. CHILE: Aconcagua: Zapallar. (According to the current Chilean territorial organization, Zapallar belongs to Petorca province).

Known range. CHILE: Region IV (Coquimbo region): Elqui province: 11 Km N of Los Vilos. Region V (Valparaíso region). Petorca province: Zapallar; Quebrada Huaquén, Pichicuy. Quilota province: La Campana National Park. Valparaíso province: Quebrada el Tigre, Cachagua. (See Fig. 110).

Remarks. According to the biogeographical regionalization of the Andean Region proposed by Morrone (2015), the geographical distribution of this species corresponds to the "Coquimban province" and "Santiagan province" (Central Chilean sub-region).

Key to the South American species of *Plateurytion*

1. Coxopleura of the ultimate leg-bearing segment with all coxal organs grouped in one or two clusters ("composite organs"), each opening thought a common pore. . . . 2
- Coxopleura of the ultimate leg-bearing segment with coxal organs all distinct and opening separately; or some organs distinct opening separately and the remaining arranged in *ca.* one to six irregular groups formed by the fusion of *ca.* 2–4 organs ("vague rosettes", *sensu* Crabill 1968) . . . 6
2. Coxal organs grouped in 1 + 1 clusters . . . 3
- Coxal organs grouped in 2 + 2 clusters . . . 4
3. Body length 35–45 mm (female); 49, 51 leg-bearing segments (female); dorsal side of a.a. XIII with *ca.* 14 type *b* and *ca.* 6 type *c* specialized sensilla (Fig. 4); teeth of labrum mid-piece short slightly sharp pointed (Fig. 8); second article of telopodite of first maxillae with *ca.* 12–13 setae (Fig. 10); ventral pore-fields undivided on metasternite 1, divided in two areas on metasternites 2 to penultimate (Figs. 15–29, 45–51); with *ca.* 20–25 organs in each cluster of coxal organs in the coxopleura of the ultimate leg-bearing segment (Fig. 39) . . . ***P. mundus*** (Chamberlin, 1955)
- Body length 28 mm (female), 27 mm (male); 47, 49, (probably 51), 53 leg-bearing segments (female), 47, 49, 51 (male); dorsal side of a.a. XIII with *ca.* 3 type *b* and *ca.* 1 type *c* specialized sensilla (Fig. 59); teeth of labrum mid-piece similar to the long filaments of side-pieces (but thinner and shorter, Figs. 63, 64); second article of telopodite of first maxillae with *ca.* 4–7 setae (Figs. 66, 99); ventral pore-fields undivided on metasternites 1 to *ca.* 15, divided in two areas on remaining metasternites including penultimate (Figs. 73–85); with *ca.* 8–11 organs in each cluster of coxal organs in the coxopleura of the ultimate leg-bearing segment (Figs. 96, 104). . . . ***P. zapallar*** (Chamberlin, 1955)
4. Coxosternite of first maxillae devoid of lappets . . . ***P. lethifer*** (Crabill, 1968)
- Coxostermite of first maxillae bearing lappets . . . 5
5. Female with 63 leg-bearing segments; body length 30 mm (female); anterior accessory spines of the claws of the walking legs robust, similar in color to the claws, their length in leg pairs 1 to *ca.* 40 equivalent to about three quarters the length of the claws; single pore-fields of anterior region of the body all subcircular in shape; anterior clusters of coxal organs with *ca.* 8–9 organs, posterior clusters with *ca.* 15–17 organs . . . ***P. mauryi*** Pereira, 2008
- Female with 53 leg-bearing segments, male with 49; body length 24 mm (female); anterior accessory spines of the claws of the walking legs thin, pale in color, their length in leg pairs 1 to *ca.* 6 equivalent to *ca*. half of the length of the claws; single pore-fields of anterior region of the body subcircular on metasternites 2 to *ca.* 10, subelliptical on remaining anterior metasternites; anterior clusters of coxal organs with *ca.* 4–5 organs, posterior clusters with *ca.* 4–7 organs . . . ***P. yungarum*** (Pereira, 2005)
6. Ventral pore-fields present on anterior region of the body only . . . ***E. metopias*** (Attems, 1903)
- Ventral pore-fields present all along the body. . . . 7
7. Coxopleura of the ultimate leg-bearing segment with coxal pores distributed on ventral, lateral and dorsal surface . . . ***E. michaelseni*** (Attems, 1903)
- Coxopleura of the ultimate leg-bearing segment with coxal pores on ventral surface only (distributed along the border of the metasternite) . . . 8
8. Female with 67 leg-bearing segments; coxosternite of first maxillae devoid of lappets; sclerotized pore rim of coxosternite of second maxillae not elongated . . . ***E. gracilis*** (Gervais, 1849)
- Female with 49 to 63 leg-bearing segments; coxosternite of first maxillae bearing lappets; sclerotized pore rim of coxosternite of second maxillae elongated . . . 9

9. Female with 55, 57, 59, 61 or 63 leg-bearing segments, male with 53, 55 or 57; maximum body length 52 mm; maximum body width 1.70 mm; dorsal side of a.a. IX and XIII with *ca.* 5–6 type *c* specialized sensilla; sclerotized pore rim of coxosternite of second maxillae notably elongated with posterior portion (in respect to the metameric pore) longer than the anterior portion; each coxopleuron of the ultimate leg-bearing segment with a maximum of *ca.* 25 organs, either all distinct open separately, or some organs distinct opening separately and the remaining arranged in *ca*. one to six irregular groups of *ca.* 2–4 organs each . . . . . ***P. tenebrosus*** (Meinert, 1886)

- Female with 49, 51, or 53 leg-bearing segments, male with 45, 47, 49, or 51; maximum body length 30 mm; maximum body width 0.80 mm; dorsal side of a.a. IX and XIII with *ca.* 1–3 type *c* specialized sensilla; sclerotized pore rim of coxosternite of second maxillae slightly elongated with anterior and posterior portions subequal in size; each coxopleuron of the ultimate leg-bearing segment with a maximum of *ca.* 8 organs, all distinct open separately . . . . . ***P. heurtaultae*** (Pereira, 2006)

Discussion

Crabill (1968) recognized *Chilerium* Chamberlin, 1955 as identical to *Eurytion* Attems, 1903 (currently *Plateurytion* Attems, 1909, see Bonato *et al.* 2007). Crabill´s opinion was implicitly based on the posture that diverse modalities of arrangement of coxal organs in the coxopleura of the ultimate leg-bearing segment do not represent differences of generic importance. But strikingly, he failed to mention that Chamberlin stated in the diagnosis of *Chilerium* "Coxae of second maxillae broadly fused as in *Pachymerium*", while in the original description of *Chilerium mundum* (type of the genus) he says "coxae of second maxillae broadly and completely united at middle", a trait that does not fit into *Plateurytion*. Nevertheless, the present study reveals that Chamberlin was wrong in this respect; as a matter of fact, in *P. mundus* (Fig. 10) and in *P. zapallar* (Fig. 99) the coxosternites of the second maxillae are medially joined through a narrow, hyaline and non-areolate membranous isthmus only (instead of broadly fused on the middle), which is consistent with the current allocation of both taxa in the genus *Plateurytion.*

A critical analysis of patterns of coxal organs in diverse species of *Plateurytion* shows that the importance of this character as separating putative genera is flawed (see Bonato *et al*., 2007).

The current assignment of *P. mundus* to *Plateurytion* requires some change in the diagnosis of the genus, as to the presence of sternal pores arranged in a single area on the first metasternite of the series, and in two paired areas on all remaining metasternites. However, the generic importance of this character needs further investigation.

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