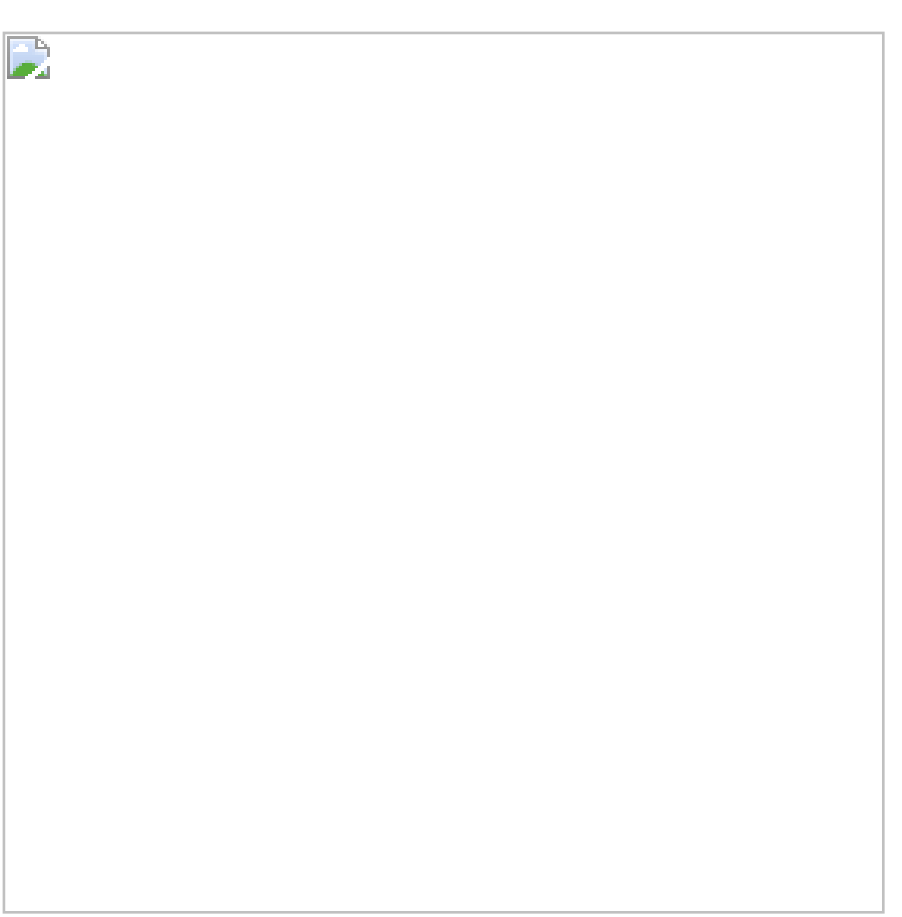

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The South American Goblin Spiders of the New Genera *Pseudodysderina* and *Tinadysderina* (Araneae, Oonopidae)

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ABSTRACT

A new genus, *Pseudodysderina*, is established for a group of species that resemble those of *Dysderina* Simon in having grooves connecting both the anterior and posterior spiracles. These spiders have transverse ridges on the sternum but lack the sternal excavations that characterize *Dysderina* and are instead united by the highly modified mouthparts of males: the labium is greatly enlarged, with a dorsoventrally flat, posterior portion that extends far posterior of the anterolateral corners of the sternum, and the endites are each deeply excavated, medially around the sides of the labium and laterally around the base of the palpal trochanter. *Dysderina desultrix* (Keyserling), from Peru, is transferred to *Pseudodysderina* and chosen as the type species; its male is described for the first time. This species has been taken by canopy fogging and beating foliage as well as in leaf litter, and appears to be widespread in the Amazonian portions of Colombia, Ecuador, Peru, and Brazil. Seven more narrowly distributed new species are described from Peru (*P. manu*), Bolivia (*P. yungas*, *P. beni*), Ecuador (*P. hermani*), Colombia (*P. suiza*, *P. dracula*), and Brazil (*P. utinga*). The six new species assigned to the new genus *Tinadysderina* resemble those of *Dysderina* and *Pseudodysderina*, but have a much smaller, simpler, weakly sclerotized embolus; they are known only from the western slopes of the Andes in Ecuador (*T. tinalandia*, *T. otonga*) and Colombia (*T. planada*, *T. gorgona*, *T. bremen*, *T. pereira*).

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INTRODUCTION

The complex of taxa closely related to the classical goblin spider genus *Dysderina* Simon is highly diverse, especially in the Andes. We describe here two new genera belonging to this complex. Only one of the species discussed below seems previously to have been described: *Oonops desultrix* Keyserling (1881) from Peru, which was subsequently transferred to *Dysderina* by Simon (1893). The species has not since been recognized or reported, no doubt in part because the only previously known specimen, the holotype female, appears to be lost. According to Keyserling (1881), it supposedly belongs to the collection of the University of Warsaw, Poland, but it is not currently in that collection (Dominika Mierzwa, in litt.).

Keyserling's illustration of the female genitalia leaves little doubt, however, about the identity of the species, which is one of the most commonly collected oonopids in Peru. Although members of this species resemble those of *Dysderina* in having grooves connecting both the anterior and posterior pairs of spiracles, and those of the *Dysderina principalis* species group in having three transverse ridges on the sternum, they lack the deep, paired excavations extending from the sides of the sternum toward the midline that are considered synapomorphic for that genus (Platnick et al., 2013b). Males can easily be recognized by the extensive modifications of the labium and endites. The labium is enlarged, and its posterior portion has become dorsoventrally flattened and extends far posterior of the anterolateral corners of the sternum (which is thus deeply invaginated in front, to accommodate the labial extension; figs. 11, 61). The endites each have two deep excavations, a median one around the side of the labium, and an anterolateral one around the base of the palpal trochanter (figs. 6, 68). Females show a similar, if less pronounced, posterior extension of the labium (fig. 41) but of course lack the endite modifications.

Although Keyserling's species, placed below in the new genus *Pseudodysderina*, has been taken in leaf litter, it has also been collected by beating foliage and even by canopy fogging. As with several other species living in the forest canopy, it appears to be much more widely distributed than are most ground-dwelling oonopid species. It is reported below from the Amazonian portions of Colombia, Ecuador, and Brazil as well as Peru, a distribution pattern that has also been found in canopy-dwelling oonopids belonging to other genera (see Platnick and Dupérré, 2011a, 2011b; Platnick et al., 2013a).

Four of the new species assigned below to *Pseudodysderina*, from Peru, Bolivia, and northeastern Brazil are very similar to *P. desultrix*, sharing a characteristic palpal morphology, with the embolus and conductor both being relatively small, and paralleling each other throughout their length. The remaining species have more elaborated palps, and one (*P. dracula*) shows remarkable modifications of the anterior face of the male chelicerae as well (fig. 125). The most aberrant of the species, however, is *P. suiza* from Colombia. In this species, the sternal surface is coarsely reticulate rather than smooth (fig. 135), the anterior margin of the labium is inflated, the distal portion of the male endite is massively hypertrophied (fig. 142), the palpal conductor is reduced to just a short spur (fig. 140), and the postepigastric scutum of females is not fused to the epigastric scutum (fig. 143). Despite all these differences, the species clearly shares the expanded labium, invaginated sternum, and excavated endites that are unique to the genus, and *P. suiza* may therefore represent the sister group of all its congeners.

The six species assigned below to the new genus *Tinadysderina* are known only from the western slopes of the Andes of Ecuador and Colombia, and are among the most unusual members of the *Dysderina* complex. Males can easily be recognized by their weakly sclerotized, bifid embolus (figs. 209, 233), which may be divided only distally (figs. 212, 236) or closer to its base (figs. 260, 272). The sternum appears, under light microscopy, to have three transverse ridges, but in at least the type species, that appearance is actually produced by deep lateral channels that do not meet at the midline (figs. 157, 187); in other species, the sternum may perhaps have both ridges and channels (fig. 231). The male endites are often bizarrely modified, suggesting that there may be three pairs of sister species. In the two species from Ecuador, the anterior projections on the endites are tube shaped (figs. 152, 214, 226); there may be glandular openings on the inner wall or base of the tube. Among the Colombian species, *T. planada* and *T. gorgona* have long anterior projections that appear entire (figs. 238, 250). In *T. bremen*, the anterior projections have wide, shallow invaginations at the tip (fig. 262), whereas in *T. pereira* the endites are hypertrophied, with numerous lobes and processes, but also show an oblique invagination (figs. 274). If the invaginations are plesiomorphic forms of the tube-shaped structures found in *T. tinalandia* and *T. otonga*, then these two Colombian species may be the sister group of that pair. Among the females, only those of *T. pereira* have the epigastric and postepigastric scuta separate (fig. 275); in the other females, as in all the males, those scuta are fused (figs. 215, 227). Although the spinneret scutum is present in the other species as a sizable, incomplete ring, in *T. pereira* that scutum is represented in females only by a slightly sclerotized rim (fig. 275), and has apparently been lost entirely in males.

Our methods follow those of Platnick and Dupérré (2009); only differences from the males (beyond the obvious lack of male endite modifications) are mentioned in the descriptions of females. Scans were sometimes taken from uncoated right male palps, in which case the images were flipped for consistency. All measurements are in mm; high-resolution versions of the images, many additional images, a sortable version of the geocoded locality data, and a distribution map for each species will be available on the goblin spider Planetary Biodiversity Inventory (PBI) project's website (http://research.amnh.org/oonopidae). Users should note that the relatively small published images are merely avatars for the actual image files on the website, which can each be enlarged several times before pixelating.

COLLECTIONS EXAMINED

AMNH	American Museum of Natural History, New York, NY
CAS	California Academy of Sciences, San Francisco, CA
CDU	Darrell Ubick collection, San Francisco, CA
FMNH	Field Museum of Natural History, Chicago, IL
IAVH	Instituto Alexander von Humboldt, Bogotá, Colombia
ICN	Instituto de Ciencias Naturales, Universidad Nacional, Bogotá, Colombia
KBIN	Koninklijk Belgisch Instituut voor Natuurwetenschappen, Brussels, Belgium
MACN	Museo Argentino de Ciencias Naturales, Buenos Aires, Argentina

MCZ	Museum of Comparative Zoology, Harvard University, Cambridge, MA
MELM	Museo de Entomología, Universidad Nacional Agraria, La Molina, Peru
MPEG	Museu Paraense Emílio Goeldi, Belém, Brazil
MUSM	Museo de Historia Natural, Universidad Nacional Mayor de San Marcos, Lima, Peru
QCAZ	Museum of Invertebrates, Pontificia Universidad Católica, Quito, Ecuador
USNM	National Museum of Natural History, Smithsonian Institution, Washington, DC

Pseudodysderina, new genus

Type Species: *Dysderina desultrix* (Keyserling).

Etymology: The generic name refers to the similarities to *Dysderina* and is feminine in gender.

Diagnosis: Members of this genus resemble those of *Dysderina* in having grooves connecting both the anterior and posterior spiracles, but lack the deep sternal excavations characteristic of that genus, and have highly modified mouthparts. In males (and, to a lesser extent, in females) the labium is greatly enlarged, with a flattened posterior portion that extends broadly posterior of the anterolateral margins of the sternum (figs. 11, 41, 61). In addition, the male endites are deeply excavated along their median and lateral margins (figs. 6, 68).

Description: Total length of males 1.6–2.9, of females 2.0–3.0. Carapace, sternum, mouthparts, abdominal scuta, legs orange-brown, without pattern; abdomen soft portions white, without pattern. **Cephalothorax:** Carapace broadly oval in dorsal view, anteriorly narrowed to 0.49 times its maximum width or less, pars cephalica strongly elevated in lateral view, anterolateral corners with strongly sclerotized, triangular extension, pars thoracica with rounded posterolateral corners, without depressions or radiating rows of pits, posterolateral edge without pits, posterior margin not bulging below posterior rim, posterolateral surface without spikes; surface of elevated portion of pars cephalica granulate (fig. 31), but granules often low (fig. 1), producing finely reticulate appearance under light microscopy, sides granulate (figs. 2, 32); fovea absent, lateral margin straight, rebordered; plumose setae near posterior margin of pars thoracica absent; marginal, nonmarginal pars cephalica, pars thoracica setae light, needlelike, scattered. Clypeus margin strongly rebordered, sinuous in front view (figs. 3, 33), vertical in lateral view, high, ALE separated from edge of carapace by their radius or more, median projection present, formed by fused small, triangular chilum; setae light, needlelike. Eyes six, well developed, ALE largest, oval, PME squared, PLE oval; posterior eye row recurved from above, procurved from front; ALE separated by more or less than their radius, ALE-PLE separated by less than ALE radius, PME touching throughout most of their length, PLE-PME separated by less than PME radius. Sternum wider than long, not fused to carapace, surface smooth (except in *P. suiza*, where coarsely reticulate), without pits, median concavity, hair tufts absent, radial furrows present between coxae I–II, II–III, III–IV, furrows smooth (except in *P. suiza*, where coarsely reticulate), radial furrow opposite coxae III absent, sickle-shaped structures absent, anterior margin with continuous transverse groove, excavated around extended base of labium (figs. 11, 41); posterior margin not extending posteriorly of coxae IV but with posterior hump (longitudinally divided in *P. suiza*), anterior corner unmodified, lateral margins with

infracoxal grooves bearing anterior, posterior openings, distance between coxae approximately equal, extensions of precoxal triangles absent, lateral margins with bridges to coxae; setae sparse, light, needlelike, densest laterally, originating from surface; three transverse ridges usually connected by meandering longitudinal ridge at midline, longitudinal ridge sometimes straight, weak, or absent; lateral and posterior margins with tuberculate setal bases, in *P. hermani* with additional transverse row of tuberculate setal bases just posterior of anterior transverse groove (fig. 130). Chelicerae slightly divergent, anterior face with swelling, median surface of paturon deeply excavated in *P. suiza* and *P. dracula*, excavated portions bearing bifid, anteriorly directed processes in *P. dracula* (fig. 125); promargin with one large tooth, retromargin without teeth (figs. 4, 5, 34, 35); fangs without toothlike projections, directed medially, shape normal, without prominent basal process, tip unmodified; setae dark, needlelike, densest medially; paturon inner margin with scattered setae, distal region, posterior surface both unmodified, promargin with row of flattened setae, inner margin unmodified, laminate groove absent. Labium triangular, not fused to sternum, anterior margin indented at middle, inflated in *P. suiza*, same as sternum in sclerotization; with six or more setae on anterior margin, most lateral seta on each side usually enlarged, subdistal portion with unmodified setae; with dorsoventrally flat posterior extension (figs. 36, 41), more pronounced in males (figs. 6, 11). Endites same as sternum in sclerotization, distally not excavated, serrula apparently absent (figs. 7, 37); male endites each with two deep excavations, one medially along sides of labium, one laterally along base of palpal trochanter (fig. 6), those of *P. suiza* and *P. dracula* with hypertrophied tip bearing two pincerlike projections; female endites with heavily sclerotized anterior margin in *P. desultrix* and *P. manu*. Female palp without claw or spines; tibia with three trichobothria (fig. 40), patella without posterior row of ridges, tarsus elongate (figs. 38, 39). **Abdomen:** Ovoid, without long posterior extension, rounded posteriorly, interscutal membrane without rows of small sclerotized platelets. Booklung covers large, ovoid, without setae, anterolateral edge unmodified; both posterior and anterior spiracles connected by groove, posterior groove continued beyond spiracles toward lateral edge of postepigastric scutum. Pedicel tube medium, ribbed, scutopedicel region unmodified, scutum extending far dorsal of pedicel, plumose hairs, matted setae on anterior ventral abdomen in pedicel area, cuticular outgrowths near pedicel all absent. Dorsal scutum strongly sclerotized, in males covering full length of abdomen, no soft tissue visible from above, not fused to epigastric scutum, in females sometimes covering less than full length, width of abdomen, sometimes fused to epigastric scutum, in both sexes middle surface smooth, sides smooth, anterior half without projecting denticles. Epigastric scutum strongly sclerotized, surrounding pedicel, not protruding, small lateral sclerites absent, without lateral joints in females. Postepigastric scutum strongly sclerotized, fused to epigastric scutum in males, separate or fused in females, anterior margin unmodified, with short, posteriorly directed lateral apodemes, in males extending to at least 3/4 of abdomen length, shorter in some females. Spinneret scutum present as incomplete ring with fringe of long setae; supraanal scutum absent. Abdominal setae light, needlelike, epigastric area setae not basally thickened; dense patch of setae anterior to spinnerets absent; interscutal membrane with setae. Colulus present, tiny, with pair of setae. Anterior lateral spinnerets bisegmented, basal segment without oblique membranous strip (figs. 12, 42), posterior medians unisegmented, posterior laterals

bisegmented; spigots scanned only in *P. desultrix*, anterior laterals with one major ampullate gland spigot and four piriform gland spigots in males (fig. 13), six in females (fig. 43), posterior medians of males with one long and three shorter spigots (fig. 14), of females with one short, medially situated spigot surrounded by at least 10 longer spigots, (fig. 44), posterior laterals of males with one long and four shorter spigots (fig. 15), of females with one short, medially situated spigot surrounded by at least 12 longer spigots (fig. 45). **Legs:** Femur IV not thickened, same size as femora I–III, patella plus tibia I shorter than carapace, tibia I unmodified, tibia IV specialized hairs on ventral apex, ventral scopula both absent, metatarsi I, II mesoapical comb absent, metatarsi III, IV weak ventral scopula absent. Leg spines present on anterior femora, tibiae, metatarsi. Tarsi without inferior claw. Superior claws scanned only in *P. desultrix*, usually with three or four large teeth situated basally on outer margins, one or two longer teeth distally on inner margins of males (figs. 17–24), three or four on inner margins of females (figs. 48–55). Trichobothrial base with one transverse ridge situated at edge of opening (fig. 25). Tarsal organs with three receptors on legs I, II, two on legs III, IV, palps (figs. 26–30, 56–60). **Genitalia:** Male epigastric region with sperm pore small, narrow, slitlike, situated between anterior and posterior spiracles, rebordered (fig. 16); furrow without Ω-shaped insertions, without specialized setae. Male palp of normal size, not strongly sclerotized, right and left palps mirror images, proximal segments, cymbium, bulb both yellow; embolus dark, prolateral excavation absent; trochanter of normal size, unmodified; femur dorsoventrally enlarged (fig. 9), two or more times as long as trochanter (fig. 8), without posteriorly rounded lateral dilation, attaching to patella basally; patella shorter than femur, not enlarged, without prolateral row of ridges, setae unmodified; tibia with three trichobothria (fig. 10); cymbium ovoid in dorsal view, completely fused with bulb, no seam visible, extending beyond distal tip of bulb, plumose setae, stout setae, distal patch of setae all absent; bulb shorter than cymbium, slender, elongated. Embolus situated retrolaterally to conductor, conductor varying from much smaller to larger than embolus. Female genitalia with distinct atrium (fig. 46), internally with long anterior process (lacking lateral extensions) and strong apodemes (fig. 47).

Distribution: Widespread in northern South America.

KEY TO SPECIES OF *PSEUDODYSDERINA*

1. Males (unknown in *P. hermani*).....2
– Females (unknown in *P. dracula*).....8
2. Chelicerae each with elaborate anterior process (fig. 125).....*dracula*
– Chelicerae without anterior process.....3
3. Conductor much shorter than embolus (fig. 140).....*suiza*
– Conductor longer.....4
4. Embolus relatively wide at point where terminal projection originates (fig. 66).....*desultrix*
– Embolus narrower at that point (as in fig. 78).....5
5. Lobe on retrolateral side of conductor relatively wide, conspicuous (figs. 78, 90).....6
– Lobe on retrolateral side of conductor slim or absent (figs. 102, 114).....7

6. Conductor distally bifid, with prolateral and retrolateral lobes (figs. 89, 90).....*yungas*
– Conductor entire, without retrolateral lobe (figs. 77, 78).....*manu*
7. Projection on prolateral side of conductor long, sharp (fig. 102).....*beni*
– Projection on prolateral side of conductor shorter (fig. 114).....*utinga*
8. Postepigastric scutum separated from epigastric scutum at its anterolateral corners (fig. 143) .....*suiza*
– Postepigastric scutum fused to epigastric scutum.....9
9. Anterior genitalic process greatly widened at tip (figs. 84, 96, 120) 10
– Tip of anterior genitalic process narrower (figs. 72, 108, 134).....12
10. Anterior genitalic process with triangular basal sclerotization (figs. 84, 96).....11
– Anterior genitalic process without distinct basal sclerotization (fig. 120).....*utinga*
11. Genital atrium relatively long (fig. 83).....*manu*
– Genital atrium relatively short (fig. 95).....*yungas*
12. Anterior margin of genital atrium heavily sclerotized (figs. 71, 133).....13
– Anterior margin of genital atrium weakly sclerotized (fig. 107).....*beni*
13. Posterior margin of genital atrium weakly sclerotized, apodemes relatively long (fig. 72)..... .....*desultrix*
– Posterior margin of genital atrium heavily sclerotized, apodemes relatively short (fig. 134). .....*hermani*

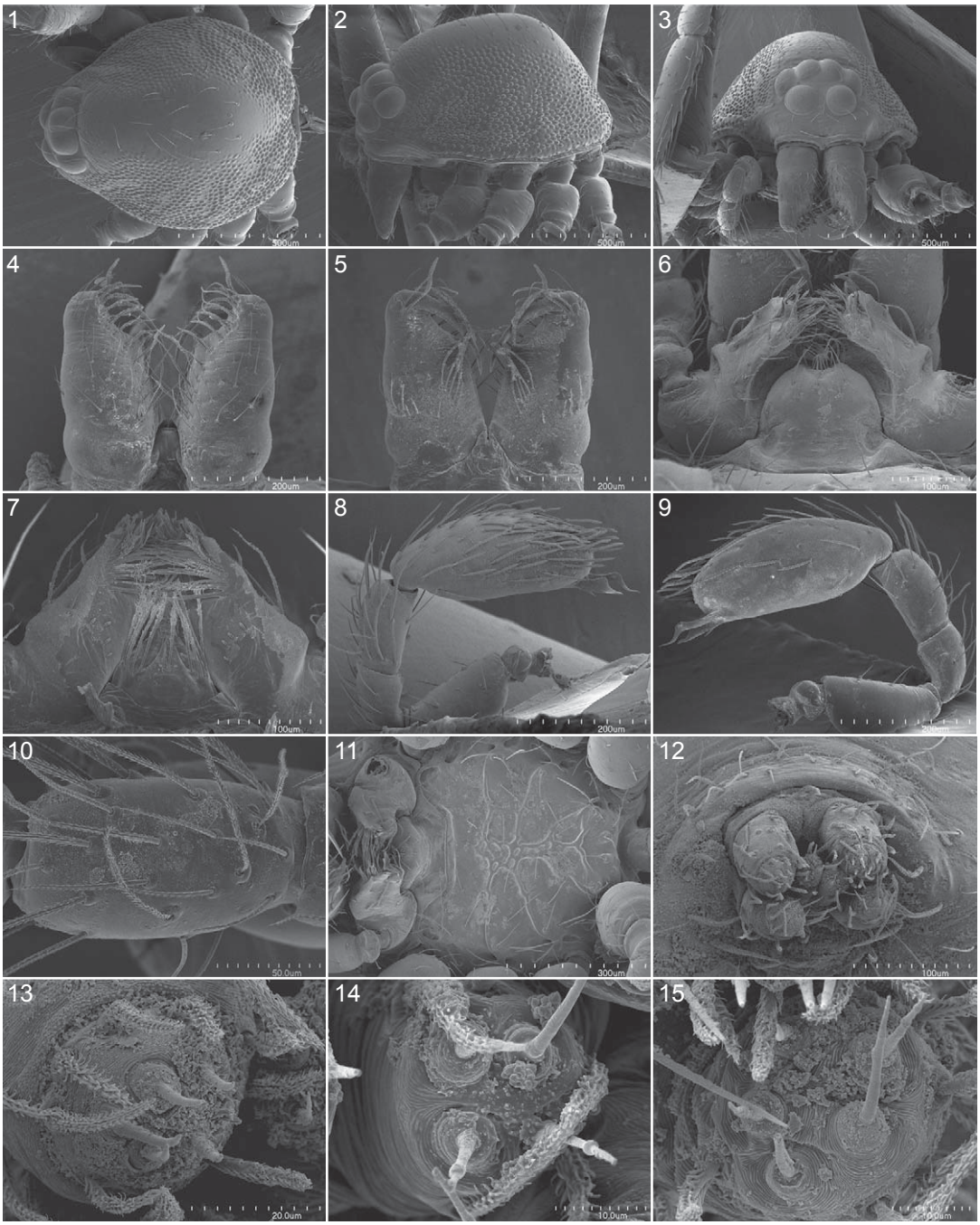
Pseudodysderina desultrix (Keyserling), new combination
Figures 1–72

Oonops desultrix Keyserling, 1881: 301, fig. 21 (female holotype from "Pumamaria" [presumably the famous archeological ruins at Pumamarca, Cusco], Peru, supposedly deposited in University of Warsaw collection, lost).
Dysderina desultrix: Simon, 1893: 304.

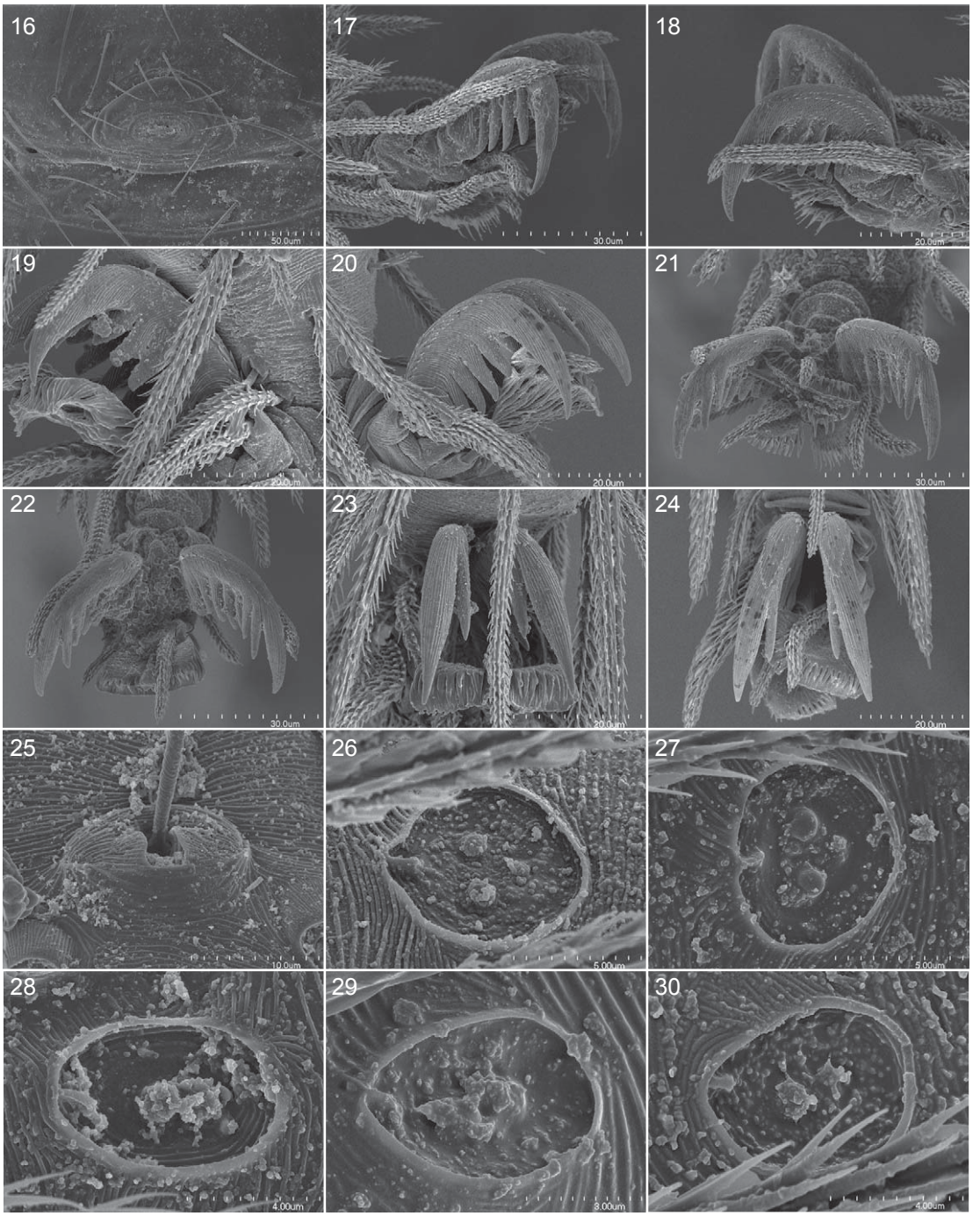
Diagnosis: Males resemble those of *P. yungas* and *P. manu* but differ from those of the former by lacking a dorsal lobe on the tip of the conductor and from those of both species by having a thicker embolus (figs. 65–67); females differ from those of both species by having a much less expanded tip on the anterior genitalic process (figs. 71, 72). Both sexes have submarginal denticles on the carapace (fig. 2) that are absent in *P. yungas*.

Male (PBI_OON 10053, figs. 1–30, 61–68): Total length 1.98. Surface of elevated portion of pars cephalica appearing finely reticulate; lateral margin with blunt denticles. ALE separated by less than their radius. Postepigastric scutum long, almost rectangular, extending to nearly full length of abdomen. Leg spination: femur I p0-0-2, r1-1-0; tibiae: I v4-4-2; II v4-4-0; metatarsi: I v2-1p-2; II v2-0-2. Embolus short, narrow, bent at about two-thirds its length, conductor with slight prolateral projection at base, wider retrolateral projection near tip.

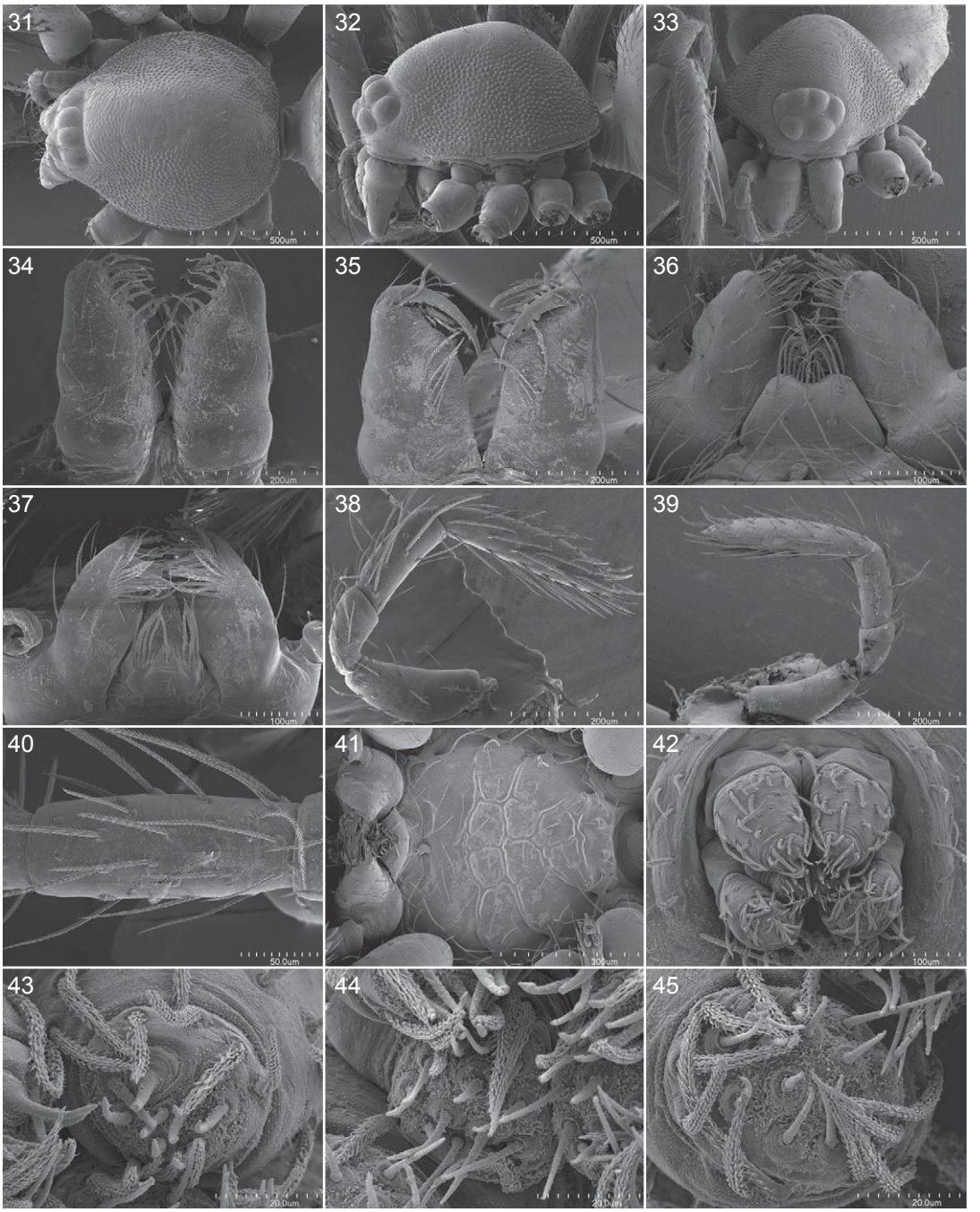
Female (PBI_OON 10053, figs. 31–60, 69–72): Total length 2.27. Dorsal scutum covering more than 3/4 of abdomen length, more than 1/2 to most of abdomen width, not fused to epigastric scutum. Postepigastric scutum almost semicircular, extending to about 3/4 of abdomen length, fused to epigastric scutum. Leg spination: femora I, II p0-0-2, r1-1-1; tibiae: I



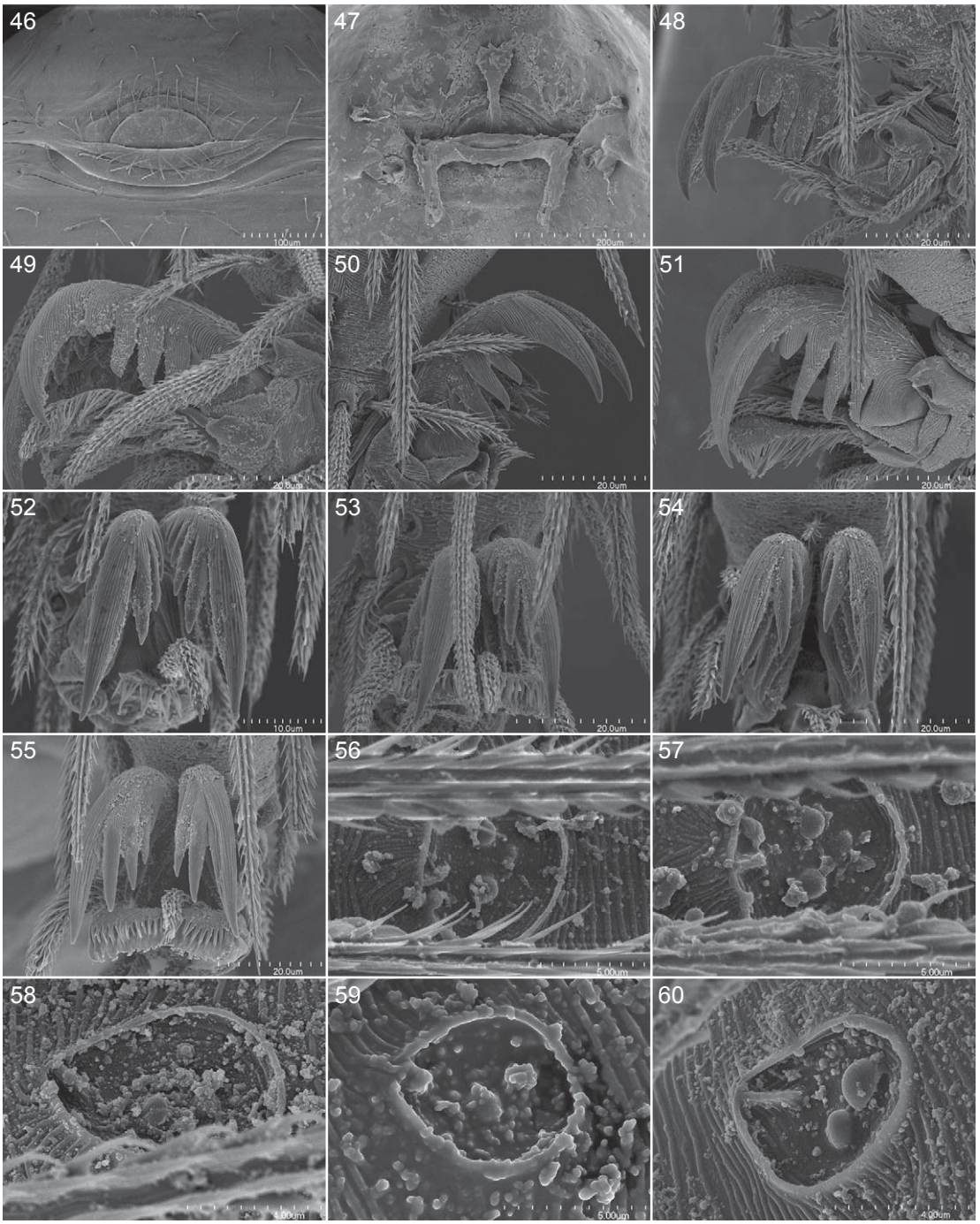
FIGURES 1–15. *Pseudodysderina desultrix* (Keyserling), male. **1.** Carapace, dorsal view. **2.** Same, lateral view. **3.** Same, anterior view. **4.** Chelicerae, anterior view. **5.** Same, posterior view. **6.** Labium and endites, ventral view. **7.** Labrum and endites, dorsal view. **8.** Palp, prolateral view. **9.** Palp, retrolateral view. **10.** Palpal tibia, dorsal view. **11.** Sternum, ventral view. **12.** Spinnerets, apical view. **13.** Anterior lateral spinneret, same. **14.** Posterior median spinneret, same. **15.** Posterior lateral spinneret, same.



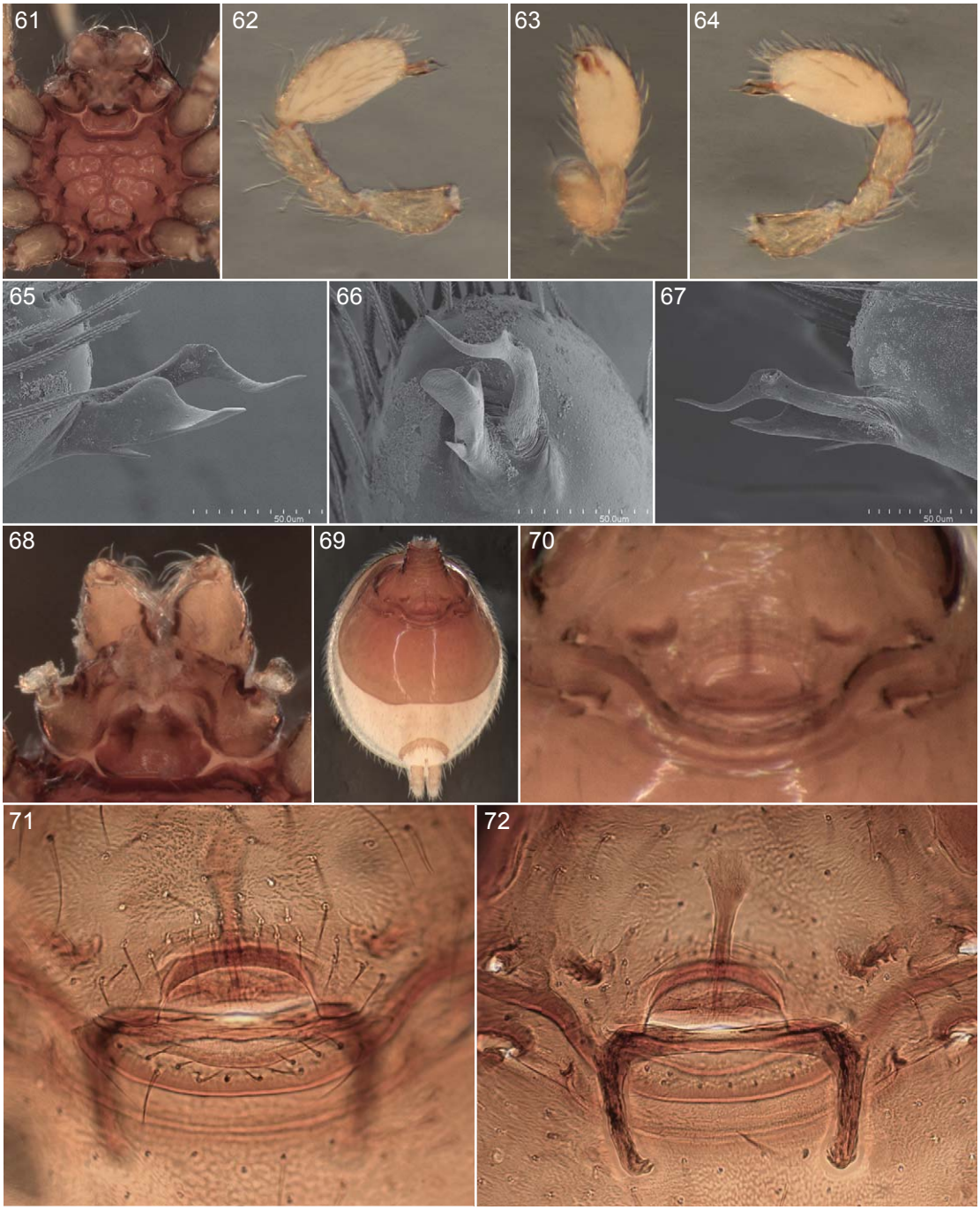
FIGURES 16–30. *Pseudodysderina desultrix* (Keyserling), male. **16.** Sperm pore, ventral view. **17.** Claws of leg I, lateral view. **18.** Same, leg II. **19.** Same, leg III. **20.** Same, leg IV. **21.** Claws of leg I, apical view. **22.** Same, leg II. **23.** Same, leg III. **24.** Same, leg IV. **25.** Trichobothrial base from metatarsus III, dorsal view. **26.** Tarsal organ from leg I, dorsal view. **27.** Same, leg II. **28.** Same, leg III. **29.** Same, leg IV. **30.** Same, palp.



FIGURES 31–45. *Pseudodysderina desultrix* (Keyserling), female. **31.** Carapace, dorsal view. **32.** Same, lateral view. **33.** Same, anterior view. **34.** Chelicerae, anterior view. **35.** Same, posterior view. **36.** Labium and endites, ventral view. **37.** Labrum and endites, dorsal view. **38.** Palp, prolateral view. **39.** Palp, retrolateral view. **40.** Palpal tibia, dorsal view. **41.** Sternum, ventral view. **42.** Spinnerets, apical view. **43.** Anterior lateral spinneret, same. **44.** Posterior median spinneret, same. **45.** Posterior lateral spinneret, same.



FIGURES 46–60. *Pseudodysderina desultrix* (Keyserling), female. **46.** Epigastric area, ventral view. **47.** Internal genitalia, dorsal view. **48.** Claws of leg I, lateral view. **49.** Same, leg II. **50.** Same, leg III. **51.** Same, leg IV. **52.** Claws of leg I, apical view. **53.** Same, leg II. **54.** Same, leg III. **55.** Same, leg IV. **56.** Tarsal organ from leg I, dorsal view. **57.** Same, leg II. **58.** Same, leg III. **59.** Same, leg IV. **60.** Same, palp.



FIGURES 61–72. *Pseudodysderina desultrix* (Keyserling), male (61–68) and female (69–72). **61.** Sternum, ventral view. **62.** Left palp, prolateral view. **63.** Same, ventral view. **64.** Same, retrolateral view. **65.** Left embolus, prolateral view. **66.** Same, ventral view. **67.** Same, retrolateral view. **68.** Labium and endites, ventral view. **69.** Abdomen, ventral view. **70, 71.** Female genitalia, ventral view. **72.** Same, dorsal view.

v4-4-2; II v4-4-1p; metatarsi I, II v2-1p-2. Genital atrium wide, semicircular, posterior portion with transverse sclerotization visible through cuticle.

Other Material Examined: **Brazil:** *Amazonas:* Base de Operações Geólogo Pedro de Moura, Porto Urucu, 04°45′48″S, 65°02′41″W, Coari, July 5, 2006 (S. Dias, L. Miglio, C. Santos, MPEG 19211, PBI_OON 40344), 1♀, 04°48′23″S, 65°02′05″W, Coari, July 8, 2006 (S. Dias, L. Miglio, C. Santos, MPEG 19212, PBI_OON 40343), 1♀, 04°50′30″S, 65°03′51″W, Coari, Sept. 4, 2006 (S. Dias, D. Candiani, N. Lo Man Hung, C. Santos, MPEG 19213, PBI_OON 40342), 1♀, 04°52′07.6″S, 65°15′53.6″W, Coari, Aug. 13, 2003 (A. Bonaldo, MPEG 10234, PBI_OON 43657), 1♀, same (J. Dias, MPEG 10246, PBI_OON 43658), 1♀. **Colombia:** *Amazonas:* Isla Mocagua, Nov. 7, 2004, elev. 75 m (L. Benavides, G. Giribet, ICN 4109, PBI_OON 49904), 1♂; Leticia, June 18, 1965, in dry cut grass (P. Craig, J. Robb, CAS 26327, PBI_OON 2734), 1♂. **Ecuador:** *Pastaza:* Mera, June 30, 1971, beaten from rotten foliage and debris, elev. 1200 m (B. Malkin, FMNH 56512, PBI_OON 10754), 1♂. *Zamora-Chinchipe:* Bombuscaro, Parque Nacional Podocarpus, El Mirador Trail, Feb. 26–Mar. 4, 2009, elev. 1000 m (M. Pollett, A. De Braekeleer, KBIN PBI_OON 49919), 1♂; Los Tayos, July 8, 1976 (T. de Vries, QCAZ PBI_OON 10779), 2♂; Reserva Biológica San Francisco, Atajo Trail, 3°58′30″S, 79°04′25″W, Feb. 18–25, 2009, elev. 2000 m (M. Pollett, A. De Braekeleer, KBIN PBI_OON 49917), 1♂, 1♀, same except Feb. 25–Mar. 3, 2009 (KBIN PBI_OON 49918), 1♀; Reserva Biológica San Francisco, Canal Trail, 3°58′30″S, 79°04′25″W, Feb. 13–18, 2009, elev. 2000 m (M. Pollett, A. De Braekeleer, KBIN PBI_OON 49908–49910), 4♂, 2♀, same except Feb. 18–25, 2009 (KBIN PBI_OON 49911–49914), 6♂, same except Feb. 25–Mar. 3, 2009 (KBIN PBI_OON 49916, 49917), 2♂. **Peru:** *Cajamarca:* Santuario Nacional Tabaconas-Namballe, Mar. 2008 (S. Castro, MELM PBI_OON 14913), 1♂. *Cusco:* Camisea Lote 58, Bajo Urubamba, Dec. 2006 (S. Castro, MELM PBI_OON 15052), 1♂, 1♀; Cashiari 2, Río Camisea, 11°51′51.3″S, 72°46′45.6″W, Sept. 2, 1997, pitfall trap, elev. 580 m (S. Córdova, MUSM 1461, PBI_OON 49894), 1♀; Consuelo, Manu Road, km 165, all collected by L. Watrous, G. Mazurek, Oct., 1, 1982, leaf litter (FMNH 33580, PBI_OON 10087), 1♂, litter under crown of felled tree (FMNH 33561, PBI_OON 10068), 2♂, litter under rotten palp (FMNH PBI_OON 38397), 1♂, litter at rotten logs (FMNH PBI_OON 38341), 1♂, Oct. 4, 1982, leaf litter (FMNH 33580, PBI_OON 10644), 1♀, Oct. 5, 1982, rotten palm (FMNH PBI_OON 38395), 2♂, Oct. 6, 1982, rotten palm (FMNH 33559, PBI_OON 10066), 1♀, Oct. 8, 1982, leaf litter (FMNH PBI_OON 38393), 2♂, Oct. 10, 1982, leaf litter (FMNH PBI_OON 38401), 1♂, 4♀, Oct. 12, 1982, leaf litter (FMNH PBI_OON 38392, 38400), 1♂, 3♀, same, rotten palm (FMNH 33546, PBI_OON 10053), 1♂, 1♀, Oct. 13, 1982, leaf litter (FMNH PBI_OON 10551, 38394), 2♂, 4♀; La Convención, 12°19′21.26″S, 73°02′44.08″W, Apr. 23, 2007, elev. 790 m (W. Paredes, MUSM 501285, PBI_OON 49901), 1♀; Mangoriari, Río Bajo Urubamba, 12°21′S, 73°02′W, Dec. 11, 2002, pitfall traps, elev. 1500 m (J. Grados, MUSM 501594, PBI_OON 49898), 2♀; Pagoreni, Río Camisea, 11°42′22.5″S, 72°54′10.7″W, May 7–28, 1998, pitfall traps, elev. 465 m (S. Córdova, MUSM 501431, PBI_OON 49895), 1♂, 1♀; Paratori, Oct. 25, 2002, pitfall trap (J. Grados, MUSM 500792, PBI_OON 49897), 1♀; Paucartambo, Wayquecha, 13°10′40.63″S, 71°35′20.64″W, Sept. 26–30, 2008, pitfall trap, elev. 2875 m (D. Silva, MUSM 501061, PBI_OON 49900), 1♀; Quebrada Mabe, Quispicanchis, Aug. 2008, montane forest (M. Vasquez, MELM PBI_OON 15051), 1♂; Reserva Communal Matsigenga, La Convención, 12°10′20.98″S, 73°02′32.48″W, Aug. 13, 2007, malaise trap, elev. 580 m (A. Asenjo, MUSM 501484, PBI_OON 49896), 1♀; Wayrapata, Río Apurimac, 12°51.3′S, 73°30.1′W, July 29–Aug. 11, 1998, pitfall trap, elev. 2320 m (J. Duarez, S. Córdova, MUSM 501451, PBI_OON 49899), 1♀. *Loreto:* Estirón, Río Ampiacu, Nov. 13–Dec. 9, 1961 (B. Malkin, AMNH PBI_OON 106, 114), 1♂, 2♀, May 15–22, 1966, beating dry foliage from trees (B. Malkin, AMNH PBI_OON 38072), 3♂; Pithecia, Río Samiria, 5°15′S, 74°40′W, May–June 1990, fogging, elev. 130 m (T. Erwin et al., MUSM PBI_OON 49926), 28♂, 54♀; near Pithecia, 5°11′S, 74°42′W, May–June 1990 (T. Erwin, D. Silva, MUSM PBI_OON 49920, 49922), 3♂, 18♀; Ramón Castilla, 5 km NW Leticia, Colombia, Feb. 23, 1972, Berlese, forest litter, edge of Río Amazonas (S., J. Peck, AMNH PBI_OON 1227), 1♂, 3♀; Río Samiria, Cocha Shinguito, 5°08′S, 74°45′W, May–June 1990, fogging, elev. ca. 100 m (T. Erwin et al., MUSM PBI_OON 49921), 1♂. *Madre de Dios:* Cuenca del Río Los Amigos, Manu, Aug. 31, 2005, floodable forest (M. Daza, MELM PBI_OON 14980), 1♂; Cuzco Amazonica, 12°36′48″S,

69°02′06″W, May 17, 1995, secondary forest, elev. 300 m (D. Agosti, AMNH PBI_OON 105), 2♂, 1♀; Reserva Nacional Tambopata, 12°50′S, 69°17′W, Oct. 24–25, 1982, rotten palm flowers (L. Watrous, G. Mazurek, FMNH PBI_OON 38404, 38405, 38411, 49923), 2♂, 5♀, Oct. 28, 1982, bamboo litter (L. Watrous, G. Mazurek, FMNH PBI_OON 10384), 5♂, 4♀, litter under crown of fallen tree (L. Watrous, G. Mazurek, FMNH PBI_OON 10606), 1♂, 2♀, June 7–9, 1988, elev. 290 m (J. Coddington, USNM PBI_OON 27865, 27867), 2♂, Oct. 29, 2000 (A. de la Cruz, MUSM 1479, PBI_OON 49924), 1♀; Zona Reservado de Manu, Quebrada El Pachira, ca. 5 mi upstream from Pakitza, 11°58′S, 71°18′W, Oct. 4, 1987 (D. Silva, J. Coddington, USNM PBI_OON 27866), 1♀.

Distribution: Widespread in the Amazonian portions of Colombia, Ecuador, Peru, and Brazil.

Pseudodysderina manu, new species

Figures 73–84

Types: Male holotype and three female paratypes taken from litter along stream at Pillahuata, Manu Road, km 128, Cusco, Peru (Sept. 26, 1982; L. Watrous, G. Mazurek), deposited in FMNH (33541, PBI_OON 10048).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of *P. desultrix* but have the embolus much narrower at the point at which it is bent (fig. 78); females have a wider tip on the anterior genitalic process, and also differ from those of *P. yungas* in having the genital atrium relatively long and narrow (figs. 83, 84).

Male (PBI_OON 10048, figs. 73–80): Total length 2.31. Surface of elevated portion of pars cephalica appearing finely reticulate; lateral margin with blunt denticles. ALE separated by less than their radius. Postepigastric scutum long, almost rectangular, extending to nearly full length of abdomen. Leg spination: femora: I p0-0-2, r1-1-1; II p0-0-2, r0-1-0; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-1p-2; II v3-0-2. Embolus relatively long, tip sinuous; conductor relatively narrow, with slight prolateral projection at base, tip recurved.

Female (PBI_OON 10048, figs. 81–84): Total length 2.49. ALE separated by their radius to diameter. Dorsal scutum covering full length of abdomen, no soft tissue visible from above, fused to epigastric scutum. Postepigastric scutum almost semicircular, fused to epigastric scutum. Leg spination: femora: I p0-0-2, r1-1-1; II p0-0-2, r2-1-1; tibiae I, II v4-4-2; metatarsi: I v2-1p-2; II v3-0-2. Genital atrium long, semicircular, posterior half occupied by sclerotization, anterior genitalic process relatively wide.

Other Material Examined: **Peru:** *Cusco:* Pillahuata, Manu Road km. 128, all collected by L. Watrous, G. Mazurek, Sept. 16, 1982, litter under ferns (FMNH PBI_OON 38389), 2♂, 1♀, Sept. 17, 1982, litter at seepage area (FMNH 33587, PBI_OON 10094), 1♂, Sept. 19, 1982, leaf litter after rain (FMNH 33589, PBI_OON 10096, 38390), 2♀, Sept. 20, 1982, litter under large ferns, litter in mossy forest (FMNH 33553, PBI_OON 10060, 10516), 1♂, 1♀, Sept. 21, 1982, leaf litter after rain (FMNH 33593, PBI_OON 10100), 3♀, Sept. 24, 1982, vine litter (FMNH PBI_OON 10529), 1♂, Sept. 25, 1982, leaf litter (FMNH 33550, PBI_OON 10057), 1♀, Sept. 26, 1982, moss and litter on xeric slope, vine litter, damp leaf litter, litter along gravel streambed (FMNH PBI_OON 10105, 10484, 10537, 38391), 1♂, 6♀, Sept. 27, 1982, vine litter, litter in runoff in mossy forest (FMNH PBI_OON 10104, 38342), 1♂, 3♀; Torentoy Canyon, base of Machupicchu, July 3, 1964, elev. 2000–2200 m (B. Malkin, AMNH PBI_OON 108), 1♂, 1♀.

Distribution: Peru (Cusco).

Pseudodysderina yungas, new species

Figures 85–96

Types: Male holotype and female allotype from lower yungas litter taken at an elevation of 2100 m at a site 82.0 km east of Cochabamba, Cochabamba, 17°11′50″S, 65°50′42″W, Bolivia (Feb. 6, 1999; R. Anderson), deposited in AMNH (PBI_OON 971).

Etymology: The specific name is a noun in apposition taken from the habitat data.

Diagnosis: Males resemble those of *P. beni* in lacking marginal denticles on the carapace, but have a broader palpal conductor (figs. 89–91); females have a much longer postepigastric scutum (fig. 93).

Male (PBI_OON 971, figs. 85–92): Total length 2.02. Surface of elevated portion of pars cephalica appearing finely reticulate; lateral margin without denticles. ALE separated by less than their radius. Postepigastric scutum long, almost rectangular, extending to nearly full length of abdomen. Leg spination: femur I p0-0-2, r1-1-0; tibiae I, II v4-4-1p; metatarsi: I v2-1p-2; II v3-0-2. Embolus long, abruptly bent at about half its length, slightly bent again near tip; conductor with large dorsal expansion.

Female (PBI_OON 971, figs. 93–96): Total length 2.28. Dorsal scutum covering full length of abdomen, no soft tissue visible from above, not fused to epigastric scutum. Postepigastric scutum almost semicircular, fused to epigastric scutum. Leg spination: femora: I p0-0-2, r1-1-1; II p0-0-2, r1-1-0; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-2-2; II v3-0-2. Genitalic atrium oval, wide, anterior genitalic process widened at about half of atrial length.

Other Material Examined: **Bolivia:** *Cochabamba:* all collected by R. Anderson: 72.0 km E Cochabamba, 17°10′23″S, 65°53′45″W, Feb. 3, 1999, wet yungas litter, elev. 2850 m (AMNH PBI_OON 973), 2♂; 78.8 E Cochabamba, 17°12′26″S, 65°51′47″W, Feb. 3, 1999, wet yungas litter, elev. 2450 m (AMNH PBI_OON 975), 1♀; 80.0 E Cochabamba at Río Vinto, 17°12′14″S, 65°51′28″W, Feb. 3, 1999, mixed alder litter, elev. 2300 m (AMNH PBI_OON 976), 2♀; 82.0 km E Cochabamba, 17°11′50″S, 65°50′42″W, Feb. 6, 1999, lower yungas litter, elev. 2100 m (AMNH PBI_OON 972), 3♂, 1♀; 8.4 km E Epizana, 4.0 km SW Sehuencas, 17°31′58″S, 65°16′13″W, Jan. 31, 1999, second growth yungas litter, elev. 2450 m (AMNH PBI_OON 974), 1♀. *Santa Cruz:* 32.8 km NW Comarapa, Kara Huasi, Yungas de la Siberia, 17°49′20″S, 64°42′31″W, Jan. 27, 1999, Berlese, yungas litter, elev. 2400 m (AMNH PBI_OON 977), 2♀.

Distribution: Bolivia (Cochabamba, Santa Cruz).

Pseudodysderina beni, new species

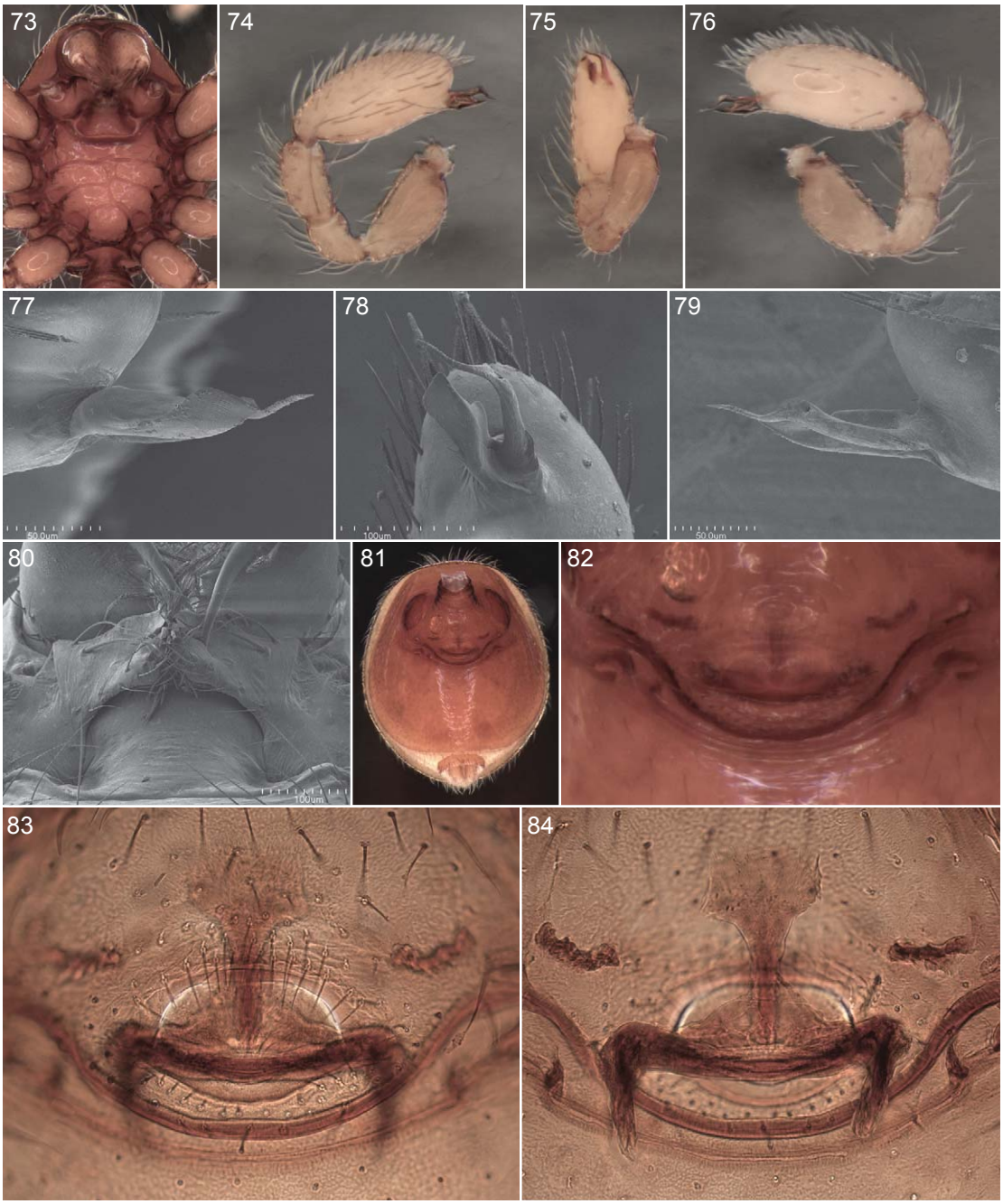
Figures 97–108

Types: Male holotype and female allotype taken in a flight intercept trap at a site 2 km northwest of Tumichuchua, Vaca Diez, 11°08.77′S, 66°09.91′W, Beni, Bolivia (Sept. 1, 1993; P. Parrillo, W. Rojas), deposited in FMNH (43140, PBI_OON 10683).

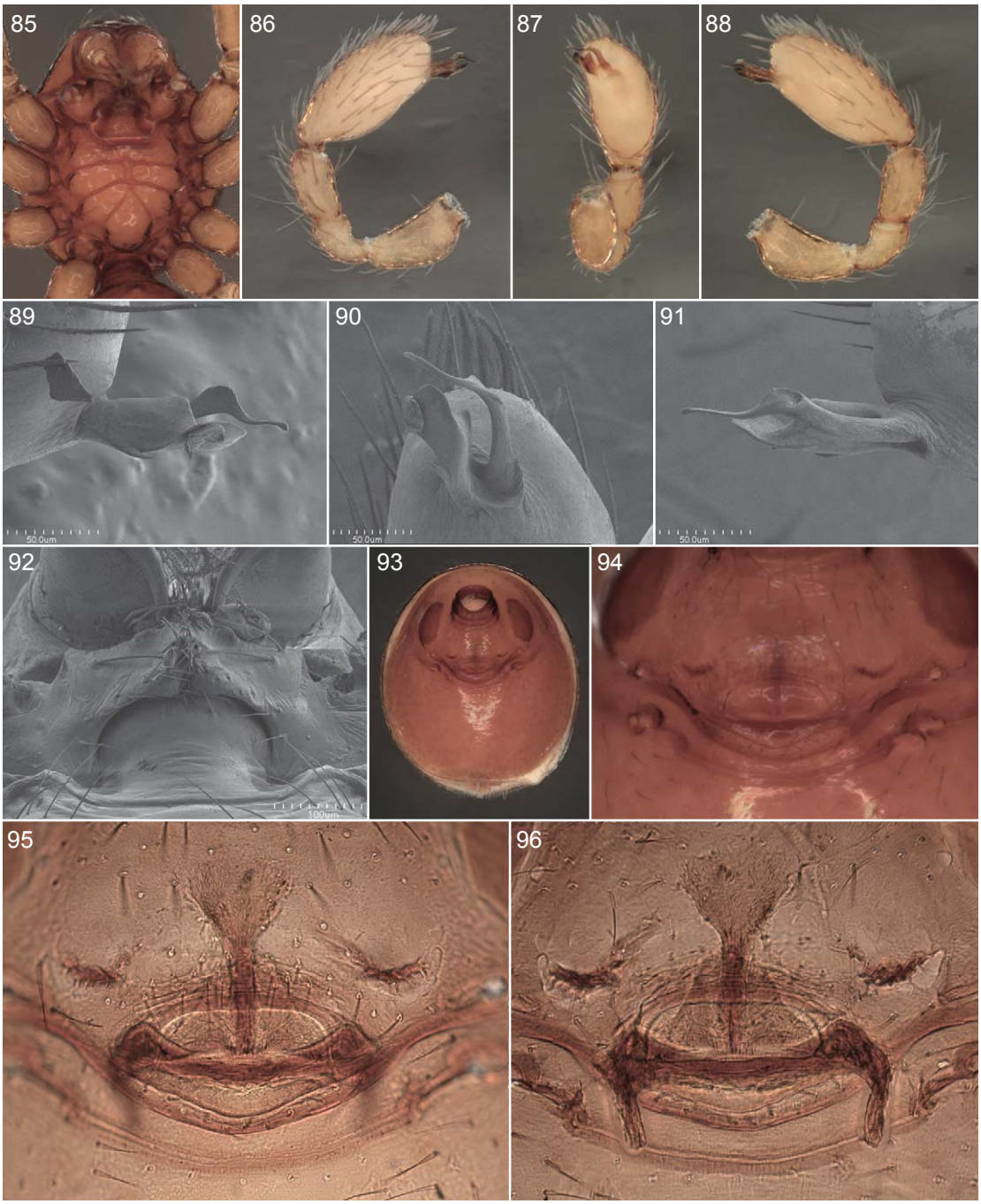
Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of *P. yungas* but the palpal conductor is narrower, especially at the level of its prolateral spur (figs. 101–103); females have a much shorter postepigastric scutum (fig. 105).

Male (PBI_OON 10683, figs. 97–104): Total length 1.69. Surface of elevated portion of pars cephalica appearing granulate; lateral margin without denticles. ALE separated by



FIGURES 73–84. *Pseudodysderina manu*, new species, male (73–80) and female (81–84). **73.** Sternum, ventral view. **74.** Left palp, prolateral view. **75.** Same, ventral view. **76.** Same, retrolateral view. **77.** Left embolus, prolateral view. **78.** Same, ventral view. **79.** Same, retrolateral view. **80.** Labium and endites, ventral view. **81.** Abdomen, ventral view. **82, 83.** Female genitalia, ventral view. **84.** Same, dorsal view.



FIGURES 85–96. *Pseudodysderina yungas*, new species, male (85–92) and female (93–96). **85.** Sternum, ventral view. **86.** Left palp, prolateral view. **87.** Same, ventral view. **88.** Same, retrolateral view. **89.** Left embolus, prolateral view. **90.** Same, ventral view. **91.** Same, retrolateral view. **92.** Labium and endites, ventral view. **93.** Abdomen, ventral view. **94, 95.** Female genitalia, ventral view. **96.** Same, dorsal view.

less than their radius. Postepigastric scutum almost semicircular, extending to about 3/4 of abdomen length. Leg spination: femur I p0-0-2, r1-1-0; tibiae: I v4-4-1p; II v4-4-0; metatarsi: I v2-1p-2; II v2-0-2. Embolus relatively short, weakly bent; conductor narrow throughout its length.

Female (PBI_OON 978, figs. 105–108): Total length 2.20. Dorsal scutum covering more than 3/4 of abdomen length, more than 1/2 to most of abdomen width, not fused to epigastric scutum. Postepigastric scutum extending to about 2/3 of abdomen length, fused to epigastric scutum. Leg spination: femora I, II p0-0-2, r1-1-1; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-2-2; II v3-0-2. Genitalic atrium semicircular.

Other Material Examined: **Bolivia:** *Beni:* 2 km NW Tumichuchua, Vaca Diez, 11°8.77′S, 66°9.91′W, Nov. 1–9, 1993, flight intercept trap in forest (P. Parillo, W. Rojas, FMNH PBI_OON 978), 2♀.

Distribution: Bolivia (Beni).

Pseudodysderina utinga, new species

Figures 109–120

Type: Male holotype from the Parque Estadual do Utinga, Belém, 01°25′29.29″S, 48°26′16.84″W, Pará, Brazil (Oct. 23–30, 2010; E. Costa et al.), deposited in MPEG (19219, PBI_OON 43648).

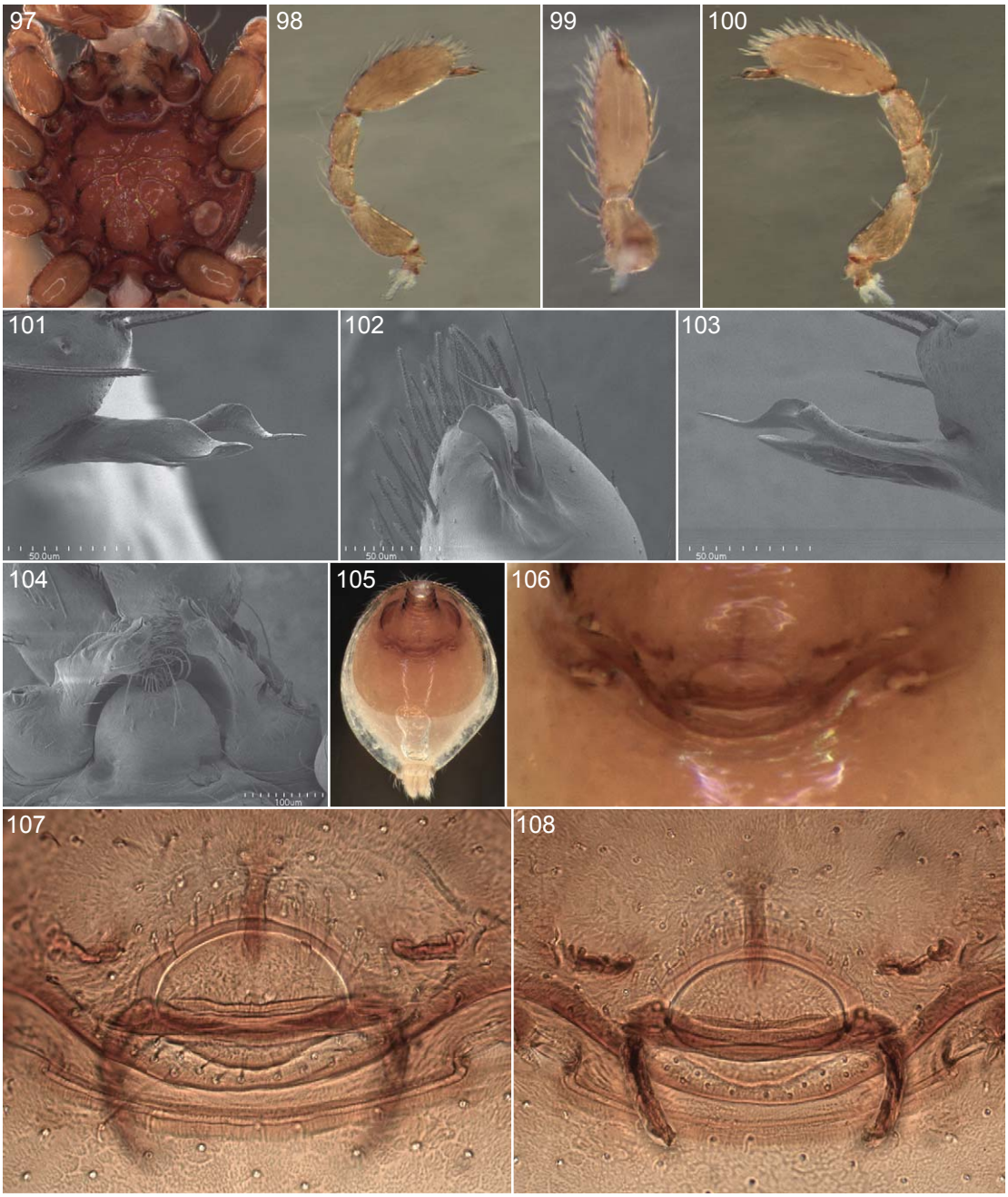
Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of *P. desultrix,* but the embolus is much narrower at its bend and the conductor has only tiny expansions on its prolateral and retrolateral sides (fig. 114); females have a wider tip on the anterior genitalic process (figs. 119, 120).

Male (PBI_OON 38073, figs. 109–116): Total length 1.80. Surface of elevated portion of pars cephalica appearing finely reticulate; lateral margin without denticles. ALE separated by less than their radius. Postepigastric scutum long, almost rectangular, extending to nearly full length of abdomen. Leg spination: femora: I p0-0-2, r1-1-1; II p0-0-2, r1-1-0; tibiae I, II v4-4-2; metatarsi: I v2-1p-2; II v2-0-2. Embolus relatively short, bent only near tip, closely paralleling conductor.

Female (PBI_OON 38065, figs. 117–120): Total length 2.15. Dorsal scutum covering more than 3/4 of abdomen length, more than 1/2 to most of abdomen width, not fused to epigastric scutum. Postepigastric scutum almost semicircular, extending to about 3/4 of abdomen length, fused to epigastric scutum. Leg spination: femora I, II p0-0-2, r1-1-1; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-2-2; II v3-0-2. Genital atrium semicircular, anterior genitalic process posteriorly narrow, with wide tip.

Other Material Examined: **Brazil:** *Pará:* Aldeia Aracu, Igarapé Gurupi-Uma, 50 km E Canindé, May 2–30, 1963 (B. Malkin, AMNH PBI_OON 38065), 2♀; Aldeia Corscei, Rio Gurupi, 12 km W Canindé, Apr. 16–26, 1963 (B. Malkin, AMNH PBI_OON 49927), 1♂; Estação Científica Ferreira Penna, FLONA Caxiuanã, 01°42′24″S, 51°27′34.3″W, Melgaço, Apr. 14, 2006 (C. Lopes, MPEG 19221, PBI_OON 40338), 1♂, 01°43′21.6″S, 51°25′51.2″W, Melgaço, Apr. 29, 2006 (J. Barreiros, MPEG 19228, PBI_OON 43652), 1♂, 01°43′43.2″S, 51°29′07″W, Melgaço, Apr. 26, 2006 (R. Lopes, MPEG 19226, PBI_OON 43650), 1♀, 01°44′15.5″S, 51°26′42.0″W, Melgaço, Mar. 12–15, 2003 (J. Barreiros, MPEG 10289, 10291, 10431, 10444, 10451, PBI_OON 40332, 40335, 40339, 40341, 40345), 3♂, 2♀, Aug. 11, 2003 (J. Barreiros, MPEG 10290, PBI_OON 40346), 1♀, Oct. 25, 2003 (J. Barreiros, MPEG 10330, PBI_OON 40348), 1♀, 01°44′18.02″S, 51°27′48.01″W, Melgaço, Oct. 21–24, 2003 (J. Barreiros, MPEG 19229, PBI_OON 40336), 1♂, Nov. 8–23, 2005 (J. Barreiros et al., MPEG 19220, 19222, 19223, PBI_OON 40333, 40340, 40347), 1♂, 2♀, Apr. 14–19,



FIGURES 97–108. *Pseudodysderina beni*, new species, male (97–104) and female (105–108). **97.** Sternum, ventral view. **98.** Left palp, prolateral view. **99.** Same, ventral view. **100.** Same, retrolateral view. **101.** Left embolus, prolateral view. **102.** Same, ventral view. **103.** Same, retrolateral view. **104.** Labium and endites, ventral view. **105.** Abdomen, ventral view. **106, 107.** Female genitalia, ventral view. **108.** Same, dorsal view.

2006 (J. Barreiros et al., MPEG 19224, PBI_OON 40337), 1♂, Apr. 23, 2006 (J. Barreiros, MPEG 19225, PBI_OON 43649), 1♀, 01°45′12.8″S, 51°31′14.7″W, Melgaço, Apr. 23, 2006 (R. Lopes, MPEG 19227, PBI_OON 43651), 1♂, 1♀; Fazenda Bom Retiro, 04°50′07.90″S, 49°14′12.77″W, Nova Ipixuana, Apr. 14, 2012 (M. Aguiar-Neto, MPEG 19233, 19234, PBI_OON 43655, 43656), 2♀; Fazenda Santa Marta, Tailândia, May 13–14, 2003 (MPEG 10680, PBI_OON 40364), 1♀; Mata do Lobão, Bragança, June 25–July 1, 2005 (J. Barreiros, MPEG 19230, PBI_OON 43654), 1♂; Parque Estadual do Utinga, 01°25′29.29″S, 48°26′16.84″W, Aug. 3–24, 1962 (W. Brown, AMNH PBI_OON 38073), 1♂, Oct. 23–30, 2010 (E. Costa et al., MPEG 19214–19218, PBI_OON 43643–43647), 5♀; Plot PPBio, Caixuanã, Portel, Jan. 30–Feb. 13, 2007 (M. Ribeiro, D. Arco, MPEG 19231, 19232, PBI_OON 40349, 43653), 2♂.

Distribution: Brazil (Pará).

Pseudodysderina hermani, new species

Figures 130–134

Type: Female holotype from litter taken at an elevation of 4700–4900 ft at a site on the old Quito–Santo Domingo road, 18–20 km NE of Alluriquín, Pichincha, Ecuador (Oct. 21, 1988; L. Herman), deposited in AMNH (PBI_OON 49905).

Etymology: The specific name is a patronym in honor of the collector, Lee Herman, of the AMNH.

Diagnosis: Females can easily be recognized by the unexpanded tip of the anterior genitalic process (figs. 133, 134).

Male: Unknown.

Female (PBI_OON 49905, figs. 130–134): Total length 2.07. Surface of elevated portion of pars cephalica appearing finely reticulate; lateral margin with blunt denticles. ALE separated by less than their radius. Dorsal scutum covering full length of abdomen, no soft tissue visible from above, not fused to epigastric scutum. Postepigastric scutum long, almost rectangular, extending to nearly full length of abdomen, fused to epigastric scutum. Leg spination: femora: I p0-0-2, r1-1-1; II p0-0-2, r1-1-0; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-1p-2; II v3-0-2. Genital atrium relatively narrow, triangular, with heavily sclerotized posterior margin.

Other Material Examined: **Ecuador:** *Pichincha:* Bellavista Cloud Forest Reserve, 12 km S of Nanegalito, Ridge Trail, 0°00′54″N, 78°40′56″W, Oct. 28, 1999, cloud forest litter, elev. 2250 m (R. Anderson, AMNH PBI_OON 49906), 1♀; Maquipucuna Reserve, 0°05′34″N, 78°37′37″W, Oct. 29, 1999, ridgetop montane forest litter, elev. 1620 m (R. Anderson, AMNH PBI_OON 49907), 1♀.

Distribution: Ecuador (Pichincha).

Pseudodysderina suiza, new species

Figures 135–146

Types: Male holotype, female allotype, plus three male and two female paratypes from a Berlese sample of secondary forest litter taken at an elevation of 1800 m in the Otún Quimbaya Flora and Fauna Sanctuary, La Suiza, Pereira, 4°44′N, 75°35′W, Risaralda, Colombia (June 10, 2005; A. Sabogal), deposited in ICN (4112, PBI_OON 49888).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males can easily be recognized by the palpal conductor, which is reduced to just a short spur (figs. 139, 140), females by the arched sclerotization in the genital atrium (figs. 144, 145).

Male (PBI_OON 49888, figs. 135–142): Total length 2.86. Surface of elevated portion of pars cephalica appearing granulate; lateral margin with blunt denticles. ALE separated by their radius to diameter. Postepigastric scutum long, almost rectangular, extending to nearly full length of abdomen. Leg spination: femora: I p0-0-2, r0-1-1; II p0-0-2, r0-1-0; tibiae I, II v4-4-2; metatarsi I, II v2-2-2. Embolus long, abruptly bent at tip, conductor reduced to tiny spur.

Female (PBI_OON 49888, figs. 143–146): Total length 2.99. Dorsal scutum covering full length of abdomen, no soft tissue visible from above, not fused to epigastric scutum. Postepigastric scutum not fused to epigastric scutum. Leg spination: femora I, II p0-0-2, r0-1-1; tibiae I, II v4-4-2; metatarsi: I v2-2-2; II v3-0-2. Genital atrium short, wide, with heavily rebordered anterior margin; anterior genitalic process wide, with wide, triangular anterior expansion.

Other Material Examined: None.

Distribution: Colombia (Risaralda).

Pseudodysderina dracula, new species

Figures 121–129

Type: Male holotype taken at an elevation of 600 m in a forest outlying a farm (Granja Scria Agricultura) at Santa Cecilia, Risaralda, Colombia (Oct. 1991), deposited in ICN (420, PBI_OON 49903).

Etymology: The specific name is a noun in apposition, referring to the fanglike anterior projections on the chelicerae.

Diagnosis: Males can easily be recognized by their highly modified chelicerae (fig. 125) and the greatly enlarged palpal conductor (figs. 126, 127).

Male (PBI_OON 49903, figs. 121–129): Total length 1.66. Elevated portion of pars cephalica appearing finely reticulate; lateral margin with blunt denticles. ALE separated by their radius to diameter. Postepigastric scutum long, almost rectangular, extending to nearly full length of abdomen. Leg spination: femur I p0-0-2, r1-1-0; tibiae I, II v4-4-0; metatarsi: I v2-1p-2; II v2-0-2. Embolus relatively short, straight; conductor greatly enlarged.

Female: Unknown.

Other Material Examined: None.

Distribution: Colombia (Risaralda).

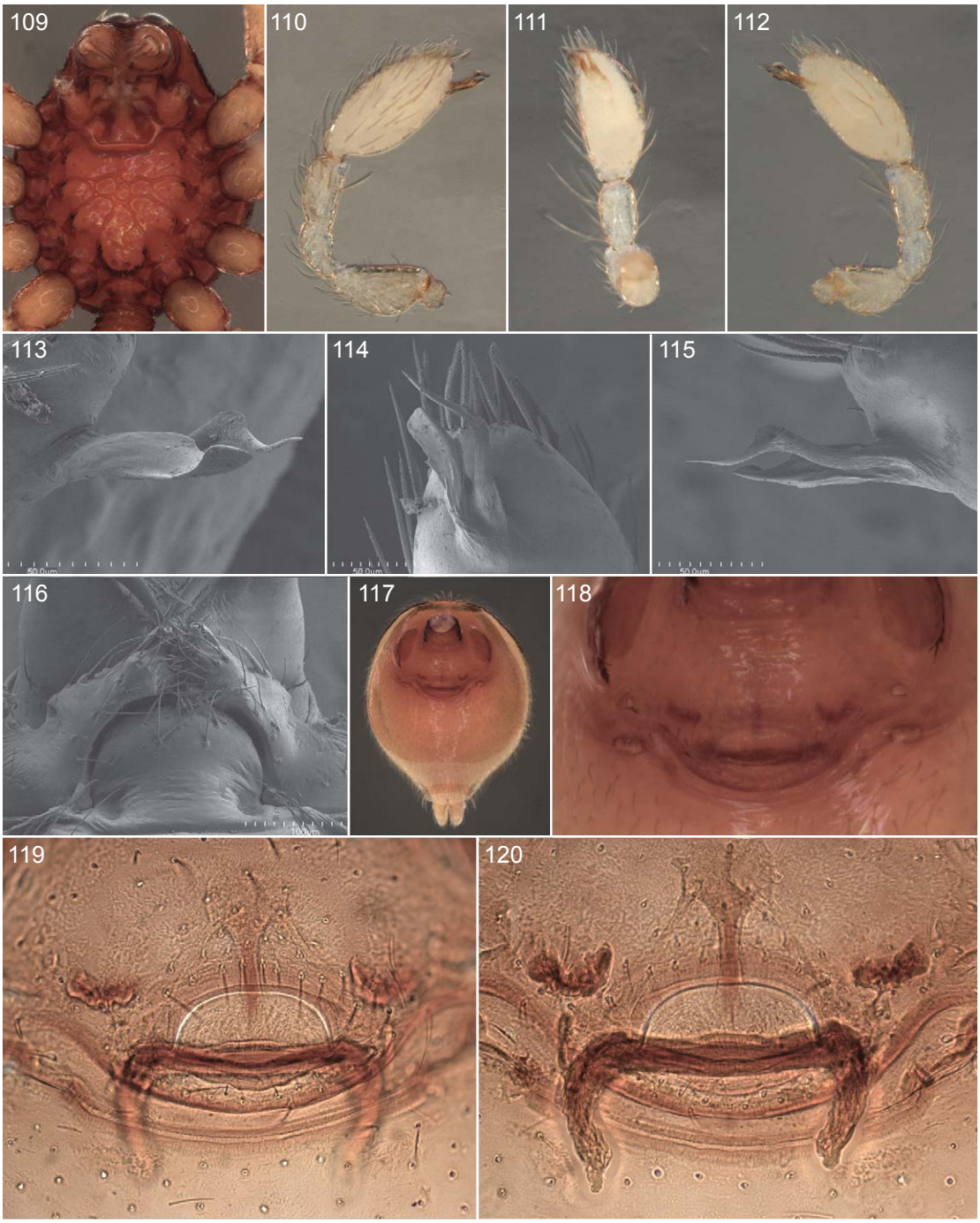
Tinadysderina, new genus

Type Species: *Tinadysderina tinalandia,* new species.

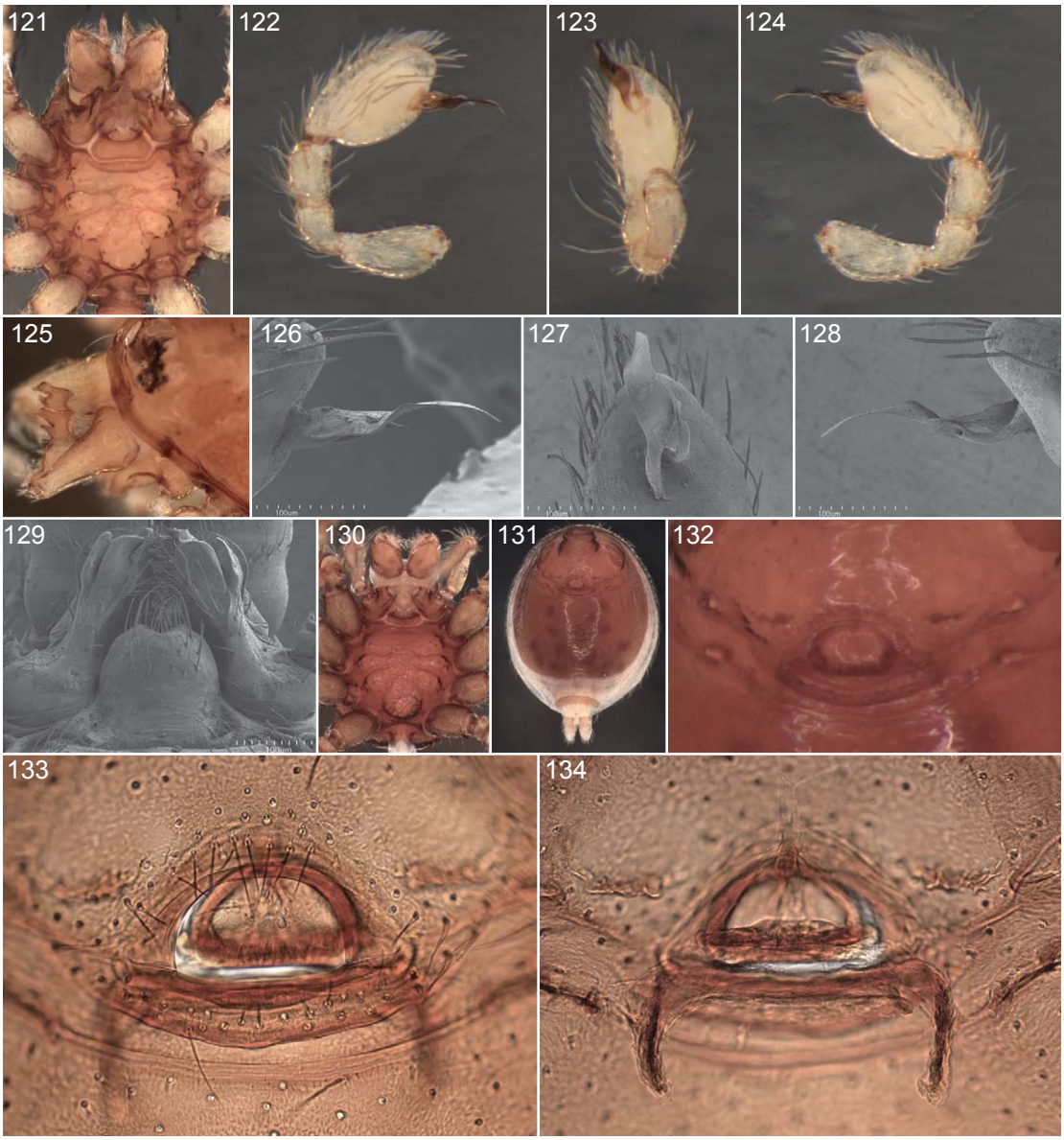
Etymology: The generic name is derived from Tinalandia (one of the localities at which the genus occurs), refers to the tiny, weakly sclerotized embolus and the similarities to *Dysderina*, and is feminine in gender.

Diagnosis: Members of this genus can easily be recognized by their unique palpal morphology, with a tiny, weakly sclerotized, bifid embolus; the female genitalia have a strong, transverse, internal sclerite.

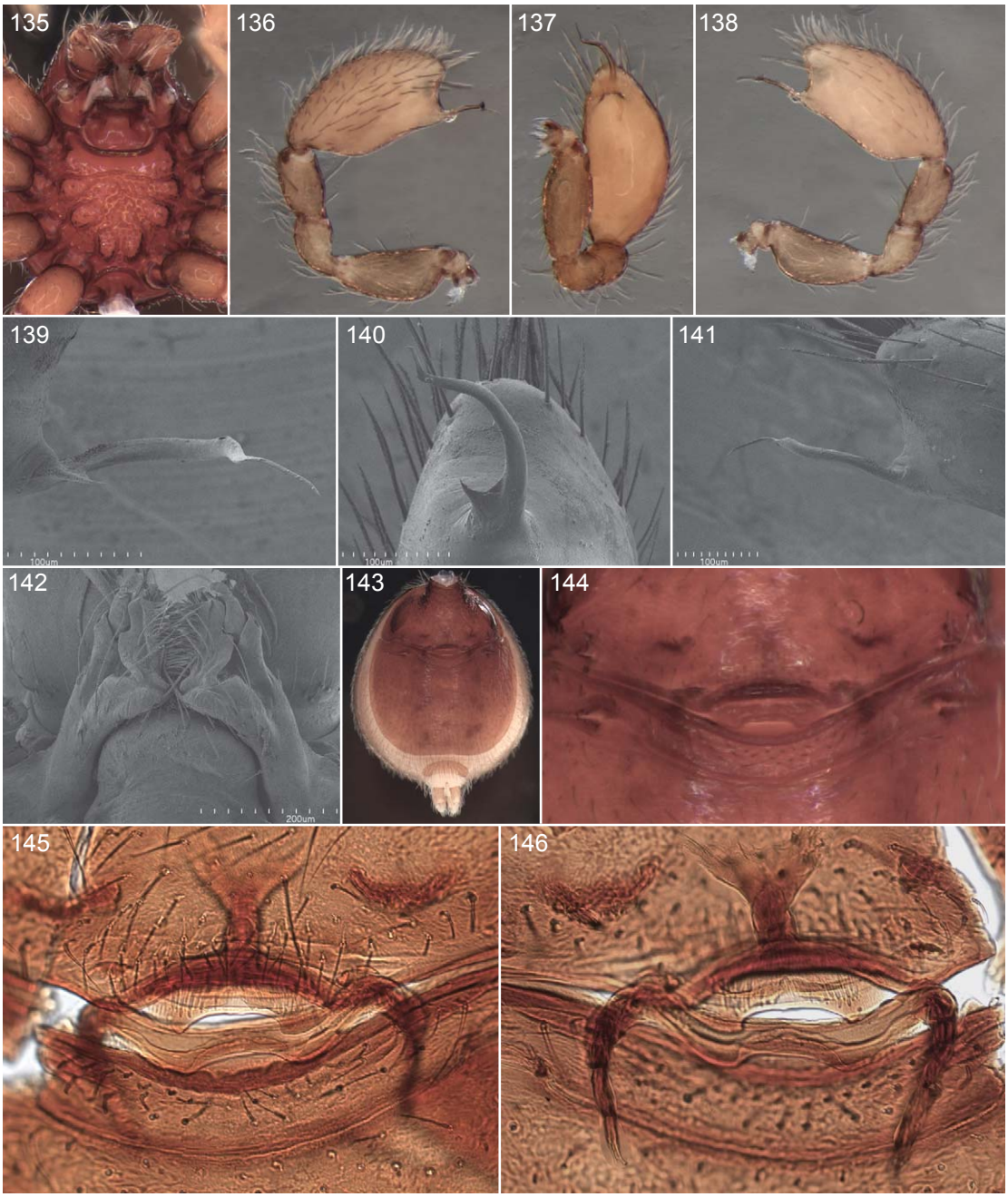
Description: Total length of males 1.6–2.4, of females 1.4–2.4. Carapace, sternum, mouthparts, abdominal scuta, legs orange-brown, without pattern; abdomen soft portions white,



FIGURES 109–120. *Pseudodysderina utinga*, new species, male (109–116) and female (117–120). **109.** Sternum, ventral view. **110.** Left palp, prolateral view. **111.** Same, ventral view. **112.** Same, retrolateral view. **113.** Left embolus, prolateral view. **114.** Same, ventral view. **115.** Same, retrolateral view. **116.** Labium and endites, ventral view. **117.** Abdomen, ventral view. **118, 119.** Female genitalia, ventral view. **120.** Same, dorsal view.



FIGURES 121–134. 121–129. *Pseudodysderina dracula*, new species, male. 130–134. *P. hermani,* new species, female. **121, 130.** Sternum, ventral view. **122.** Left palp, prolateral view. **123.** Same, ventral view. **124.** Same, retrolateral view. **125.** Chelicerae, oblique lateral view. **126.** Left embolus, prolateral view. **127.** Same, ventral view. **128.** Same, retrolateral view. **129.** Labium and endites, ventral view. **131.** Abdomen, ventral view. **132, 133.** Female genitalia, ventral view. **134.** Same, dorsal view.



FIGURES 135–146. *Pseudodysderina suiza*, new species, male (135–142) and female (143–146). **135.** Sternum, ventral view. **136.** Left palp, prolateral view. **137.** Same, ventral view. **138.** Same, retrolateral view. **139.** Left embolus, prolateral view. **140.** Same, ventral view. **141.** Same, retrolateral view. **142.** Labium and endites, ventral view. **143.** Abdomen, ventral view. **144, 145.** Female genitalia, ventral view. **146.** Same, dorsal view.

without pattern. **Cephalothorax:** Carapace broadly oval in dorsal view, anteriorly narrowed to 0.49 times its maximum width or less, pars cephalica strongly elevated in lateral view, anterolateral corners with strongly sclerotized, triangular extension, pars thoracica with rounded posterolateral corners, without depressions or radiating rows of pits, posterolateral edge without pits, posterior margin not bulging below posterior rim, posterolateral surface without spikes; surface of elevated portion of pars cephalica appearing slightly granulate because of elevated setal bases (fig. 147, 177), sides granulate (figs. 148, 178); fovea absent, lateral margin straight, rebordered, with blunt denticles; plumose setae near posterior margin of pars thoracica absent; marginal, nonmarginal pars cephalica, pars thoracica setae light, needlelike, scattered. Clypeus margin strongly rebordered, sinuous in front view (figs. 149, 179), vertical in lateral view, high, ALE separated from edge of carapace by their radius or more, median projection present, formed by fused small, triangular chilum; setae light, needlelike. Eyes six, well developed, ALE largest, oval, PME squared, PLE oval; posterior eye row recurved from above, procurved from front; ALE separated by more or less than their radius in males, by their radius to diameter in females, ALE-PLE separated by less than ALE radius, PME touching throughout most of their length, PLE-PME separated by less than PME radius. Sternum wider than long, not fused to carapace, surface coarsely reticulate, without pits, microsculpture present everywhere but front, median concavity, hair tufts both absent, radial furrows present between coxae I–II, II–III, III–IV, furrows smooth, radial furrow opposite coxae III absent, sickle-shaped structures absent, anterior margin with continuous transverse groove; posterior margin not extending posteriorly of coxae IV but with posterior hump, anterior corner unmodified, lateral margins with infracoxal grooves bearing anterior, posterior openings, distance between coxae approximately equal, extensions of precoxal triangles absent, lateral margins with bridges to coxae; setae sparse, dark, needlelike, densest laterally, usually originating from surface, but some originating from tuberculate bases; surface apparently with three transverse ridges, sometimes incomplete at middle, but at least in *T. tinalandia* ridges actually formed by deep channels (figs. 157, 187). Chelicerae slightly divergent, anterior face with swelling, promargin with one large tooth, retromargin without teeth but with scaly cuticle (figs. 150, 151, 180, 181); fangs without toothlike projections, directed medially, shape normal, without prominent basal process, tip unmodified; setae dark, needlelike, densest medially; paturon inner margin with scattered setae, distal region, posterior surface both unmodified, promargin with row of flattened setae, laminate groove absent. Labium triangular (widened in *T. pereira*), not fused to sternum, anterior margin indented at middle, same as sternum in sclerotization; with six or more setae on anterior margin, pair of larger setae situated near anterolateral corners (figs. 152, 182). Endites same as sternum in sclerotization, distally not excavated, serrula apparently absent (figs. 153, 183); male endites with anterior part highly modified, sometimes with possible glandular openings (figs. 152, 214, 226), posteromedian part unmodified. Female palp without claw or spines; tibia with three trichobothria (fig. 186), patella without posterior row of ridges, tarsus elongate (figs. 184, 185). **Abdomen:** Ovoid, without long posterior extension, rounded posteriorly, interscutal membrane without rows of small sclerotized platelets. Booklung covers large, ovoid, without setae, anterolateral edge unmodified; both posterior and anterior spiracles con-

nected by groove, posterior groove continued beyond spiracles toward lateral edge of postepigastric scutum. Pedicel tube medium, ribbed, scutopedicel region unmodified, scutum extending far dorsal of pedicel, plumose hairs, matted setae on anterior ventral abdomen in pedicel area, cuticular outgrowths near pedicel all absent. Dorsal scutum strongly sclerotized, in males covering full length of abdomen, no soft tissue visible from above, not fused to epigastric scutum, in females sometimes covering less than full length, width of abdomen, sometimes fused to epigastric scutum, in both sexes middle surface smooth, sides smooth, anterior half without projecting denticles. Epigastric scutum strongly sclerotized, surrounding pedicel, not protruding, small lateral sclerites absent, without lateral joints in females. Postepigastric scutum strongly sclerotized, fused to epigastric scutum in males, separate or fused in females, anterior margin unmodified, with short, posteriorly directed lateral apodemes, in males extending to nearly full length of abdomen, shorter in some females. Spinneret scutum usually present as sizable, incomplete ring with fringe of long setae (figs. 251, 263) but reduced or absent in *T. pereira* (fig. 275); supraanal scutum absent. Abdominal setae light, needlelike, epigastric area setae not basally thickened; dense patch of setae anterior to spinnerets absent; interscutal membrane with setae. Colulus present, tiny, with pair of setae. Anterior lateral spinnerets bisegmented, basal segment without oblique membranous strip (figs. 158, 188), posterior medians unisegmented, posterior laterals bisegmented; spigots scanned only in *T. tinalandia*, anterior laterals with one major ampullate gland spigot and four piriform gland spigots in males (fig. 159), six in females (fig. 189), posterior medians of males with one long and three shorter spigots (fig. 160), of females with three medially situated and eight laterally situated spigots (fig. 190), posterior laterals of males with five spigots (fig. 161), of females with three medially situated and eight laterally situated spigots (fig. 191). **Legs:** Femur IV not thickened, same size as femora I–III, patella plus tibia I shorter than carapace, tibia I unmodified, tibia IV specialized hairs on ventral apex, ventral scopula both absent, metatarsi I, II mesoapical comb absent, metatarsi III, IV weak ventral scopula absent. Leg spines present on anterior femora, tibiae, metatarsi. Tarsi without inferior claw. Superior claws scanned only in *T. tinalandia*, usually with three or four large teeth situated basally on outer margins, one or two longer teeth distally on inner margins of males (figs. 163–170), three or four on inner margins of females (figs. 194–201). Trichobothrial base with one transverse ridge situated at edge of opening (fig. 171). Tarsal organs (scanned only in adults of *T. tinalandia* and a juvenile of *T. bremen*) with three receptors on legs I, II, two on legs III, IV, palps (figs. 172–176, 202–206). **Genitalia:** Male epigastric region with sperm pore small, situated between anterior and posterior spiracles, rebordered (fig. 162); furrow without Ω-shaped insertions, without specialized setae. Male palp of normal size, not strongly sclerotized, right and left palps mirror images, proximal segments, cymbium, bulb yellow; embolus light, prolateral excavation absent; trochanter of normal size, unmodified; femur dorsoventrally enlarged, two or more times as long as trochanter (figs. 154, 155), without posteriorly rounded lateral dilation, attaching to patella basally; patella shorter than femur, not enlarged, without prolateral row of ridges, setae unmodified; tibia with three trichobothria (fig. 156); cymbium ovoid in dorsal view, completely fused with bulb, no seam visible, extending beyond distal tip of bulb, plumose setae, stout setae, distal patch of setae all absent; bulb shorter

than cymbium, slender, elongated. Embolus weakly sclerotized, bifid. Female genitalia with distinct atrium (fig. 192), internally with strong transverse sclerite (fig. 193), anterior genitalic process short, without lateral extensions.

Distribution: Known only from the western slopes of the Andes of Colombia and Ecuador.

KEY TO SPECIES OF *TINADYSDERINA*

1. Males....2
– Females....7
2. Embolus bifid for most of its length (figs. 260, 272)....3
– Only distal half of embolus bifid....4
3. Embolus relatively short, wide (fig. 260)....*bremen*
– Embolus relatively long, narrow (fig. 272)....*pereira*
4. Prolateral branch of embolus much shorter than retrolateral branch (fig. 248)....*gorgona*
– Prolateral and retrolateral branches of embolus subequal in length....5
5. Tip of retrolateral branch of embolus narrow, not much wider than tip of prolateral branch (fig. 236)....*planada*
– Tip of retrolateral branch of embolus wider (figs. 212, 224)....6
6. Embolar branches approximate at their base (fig. 212)....*tinalandia*
– Embolar branches well separated at their base (fig. 224)....*otonga*
7. Anterior genitalic process T-shaped (fig. 278)....*pereira*
– Anterior genitalic process otherwise....8
8. Apodemes very short (fig. 242)....*planada*
– Apodemes longer....9
9. Postepigastric scutum extending only to about two-thirds of abdomen length (fig. 263)....*bremen*
– Postepigastric scutum extending to near spinnerets....10
10. Anterior genitalic process short, confined to atrial area (fig. 254)....*gorgona*
– Anterior genitalic process extending anterior of genital atrium....11
11. Genital atrium with posterolateral bulges (figs. 229, 230)....*otonga*
– Genital atrium without such bulges (figs. 217, 218)....*tinalandia*

Tinadysderina tinalandia, new species

Figures 147–218

Types: Male holotype and female allotype from a Malaise-flight intercept trap set in rainforest at an elevation of 680 m at Tinalandia, 16 km east of Santo Domingo, Santo Domingo de Los Tsáchilas, Ecuador (May 4–July 25, 1985; S., J. Peck), deposited in AMNH (PBI_OON 70).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of *T. otonga*, but have a smaller palpal bulb with a shorter embolus (figs. 208–213); females have a less heavily sclerotized posterior margin of the genital atrium and a longer anterior genitalic process (figs. 217, 218).

Male (PBI_OON 70, figs. 147–176, 207–214): Total length 1.62. ALE separated by their radius to diameter. Sternum with transverse ridge at front of coxa II almost complete, central portion sinuous; ridge at front of coxa III straight, incomplete at middle; ridge at front of coxae IV complete, forming triangle. Anterior portion of endites with long, narrow, tube-shaped extension, extension very weakly sclerotized except at tip, where heavily sclerotized. Spinneret scutum present, incomplete ring. Leg spination: femur I p0-0-2, r1-1-0; tibiae: I v4-4-1p; II v4-4-0; metatarsi: I v2-1p-2; II v1p-1r-2. Sperm pore circular. Embolus short; bulb slender, relatively small.

Female (PBI_OON 70, figs. 177–206, 215–218): Total length 1.85. Dorsal scutum covering full length of abdomen, no soft tissue visible from above, not fused to epigastric scutum. Post-epigastric scutum long, almost rectangular, extending to nearly full length of abdomen, fused to epigastric scutum. Leg spination: femora: I p0-0-2, r1-1-1; II p0-0-2, r1-1-0; tibiae: I v4-4-2; II v4-4-0; metatarsi: I v2-2-2; II v3-0-2. Genital atrium situated anterior of groove connecting anterior spiracles, triangular, with rebordered posterior margin.

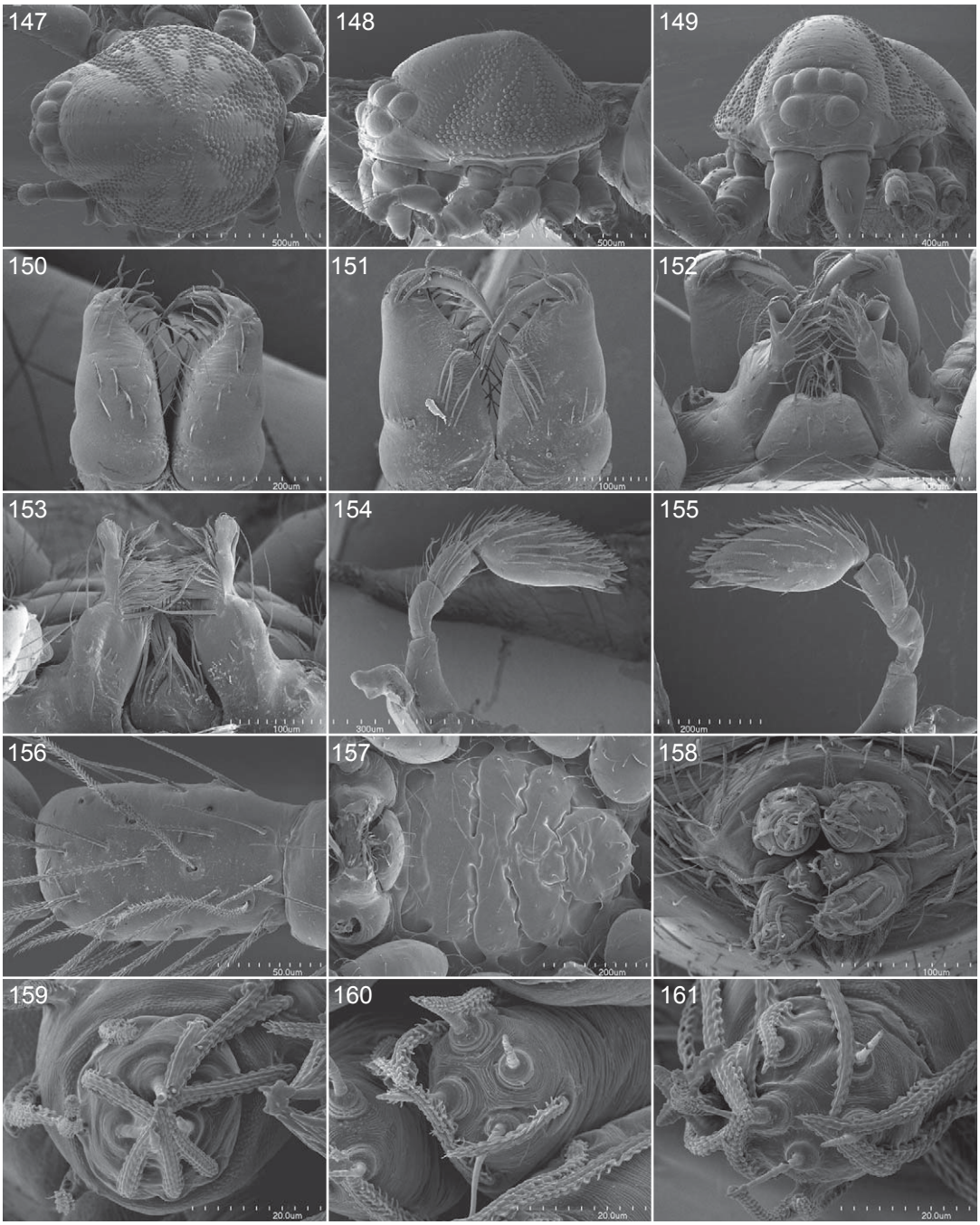
Other Material Examined: **Ecuador:** *El Oro:* Buena Vista, 25 km SE Machala, Oct. 24, 1942 (R. Walls, CAS PBI_OON 2732), 1♀. *Los Ríos:* Centro Cientifico Río Palenque, 0°54′S, 79°00′W, June 18–30, 1975, Berlese, forest litter, elev. 700 ft (S., J. Peck, FMNH PBI_OON 10554), 8♂, 1♀, Feb. 21–24, 1976, Berlese, leaf litter with palm fruits, elev. 260 m (S. Peck, FMNH 33730, PBI_OON 10232), 2♂, Sept. 1976, primary forest (T. de Vries, QCAZ PBI_OON 49555), 2♀, Dec. 21, 1980, closed primary forest (S. Sandoval, QCAZ PBI_OON 10735), 1♀, Jan. 10, 1981, open secondary forest (S. Sandoval, KBIN PBI_OON 16630), 1♀, May 5–July 25, 1985, Malaise-flight intercept trap, rainforest, elev. 250 m (S., J. Peck, AMNH PBI_OON 27509), 1♂. *Manabí:* 78 km NE Chone, 85 km W Santo Domingo, June 9, 1976, Berlese, forest litter, elev. 450 m (S., J. Peck, FMNH 33729, PBI_OON 10230), 1♂, 1♀, June 12, 1976, Berlese, forest litter, elev. 300 m (S., J. Peck, FMNH PBI_OON 37837), 1♂, 5♀. *Santo Domingo de Los Tsáchilas:* W Alluriquín, 3.3–5.3 km SW road to Cooperative Bolivar, near Tinalandia, May 20, 1993, litter near stream, elev. 3100–3500 ft (L. Herman, AMNH PBI_OON 65), 1♀; Santo Domingo, Apr. 1965, litter, elev. 600 m (J., N. Leleup, KBIN PBI_OON 16632), 1♂, 4♀; 4 km E Santo Domingo, June 22, 1975, Berlese, rainforest litter, elev. 1700 ft (S. Peck, FMNH 33696, PBI_OON 10198, 37835), 3♂, 1♀, June 8, 1976, Berlese, termite nest in rotten log, elev. 500 m (S. Peck, FMNH 33717, PBI_OON 10219), 3♂, 2♀; Tinalandia, 16 km NE Santo Domingo, June 5, 1975, Berlese, forest litter, elev. 700 m (S. Peck, FMNH 33714, PBI_OON 10216), 2♂, 4♀, June 15, 1975, Berlese, leaf litter and soil, elev. 680 m (S. Peck, FMNH 33713, PBI_OON 10215), 6♀, 0°17′56″S, 79°03′09″W, Dec. 6, 2009, Berlese, forest litter, elev. 720 m (N. Dupérré, E. Tapia, Niarchos Exped., AMNH PBI_OON 49556), 1♂, 3♀; Tinalandia Lodge, km 85 on Aloaj–Santo Domingo Road, 0°19.262′S, 78°57.095′W, Dec. 7, 2009, Berlese, handsorting litter, elev. 760 m (M. Ramírez et al., Niarchos Exped., MACN PBI_OON 30557, 30560, 30617, 30638), 2♂, 10♀.

Distribution: Ecuador (western slopes of the Andes, at relatively low elevations, ca. 250–1000 m).

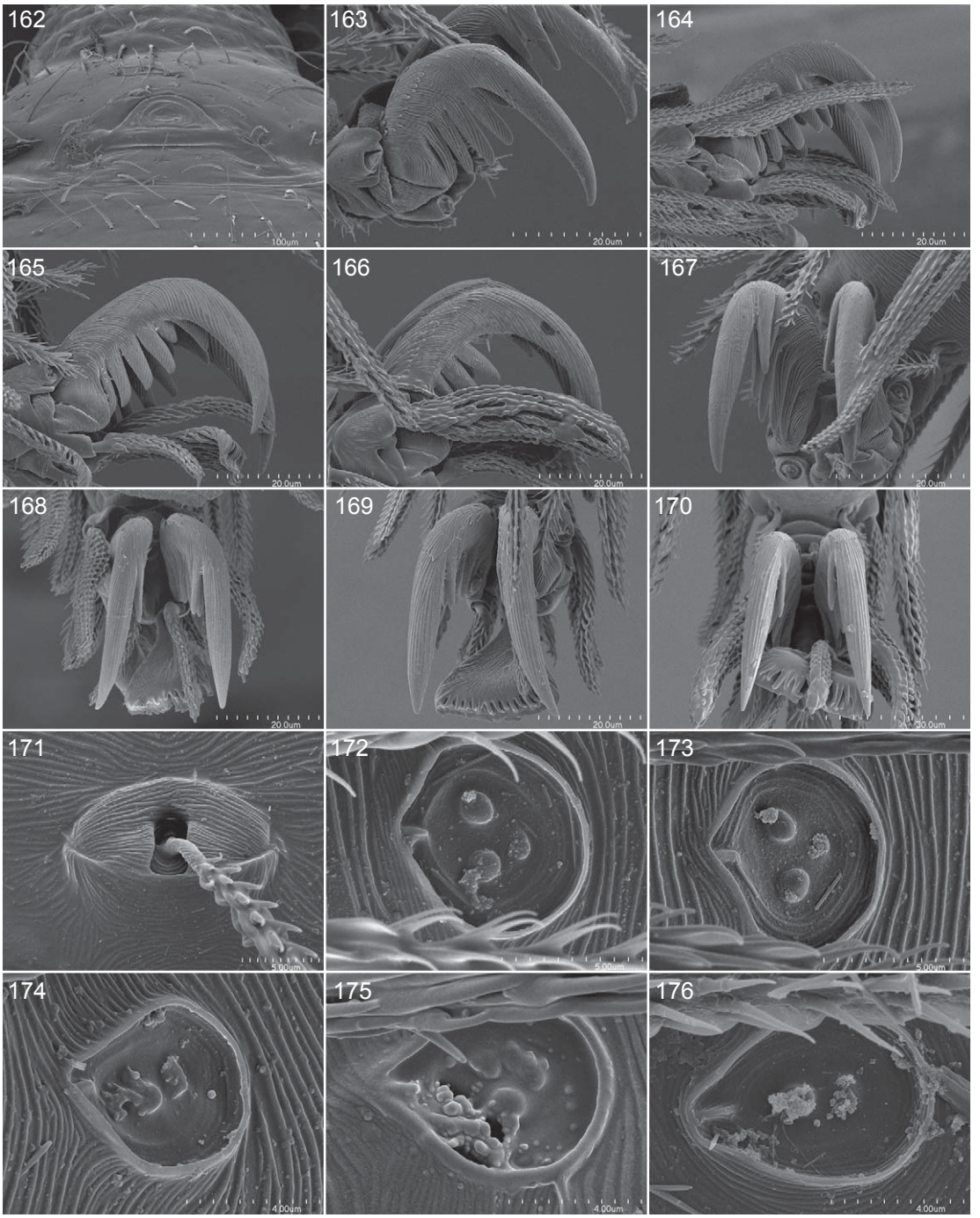
Tinadysderina otonga, new species

Figures 219–230

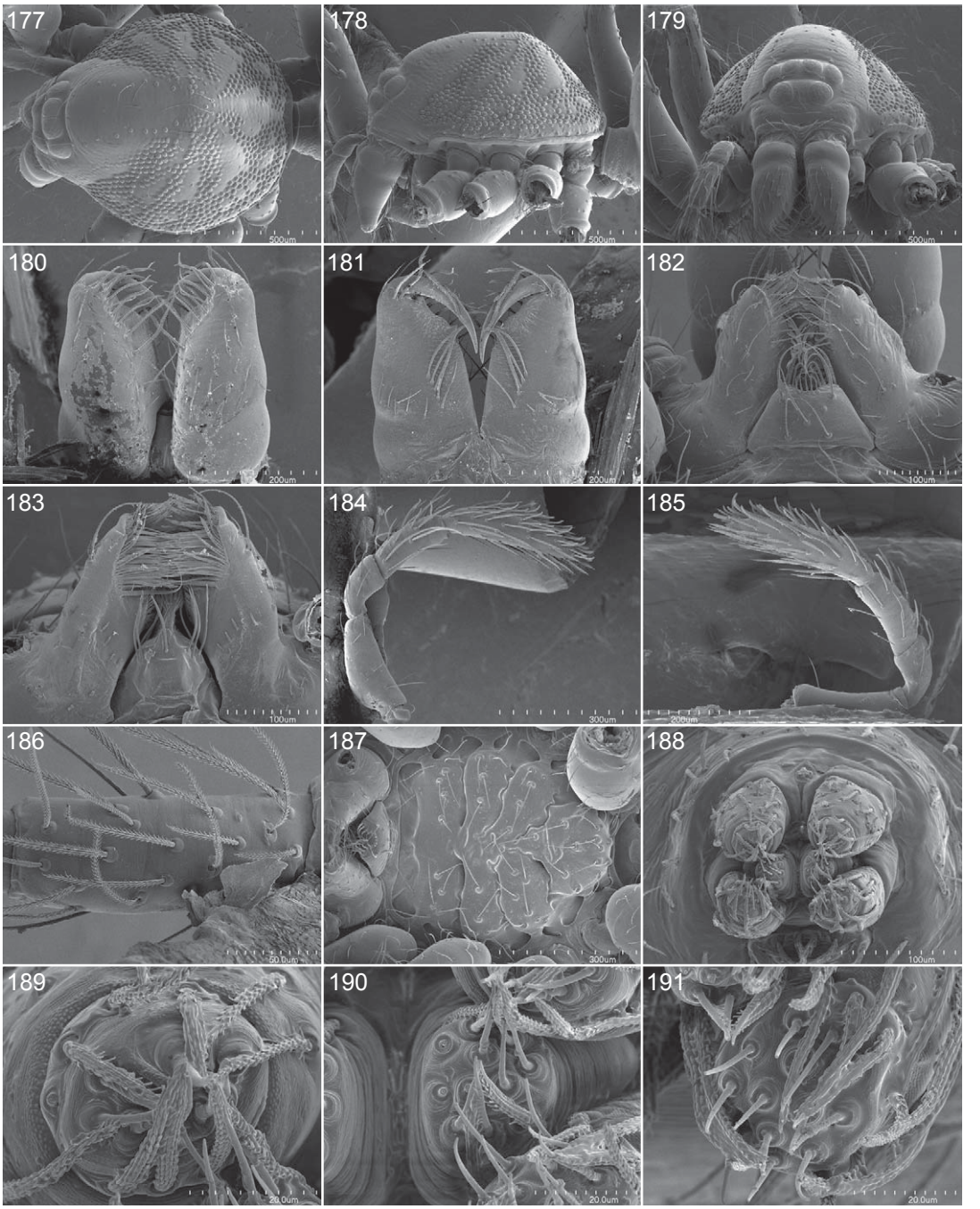
Types: Male holotype and female allotype from ridgetop montane forest litter taken at an elevation of 1600 m at the Maquipucuna Cloud Forest Reserve, 0°05′34″N, 78°37′37″W, Pichincha, Ecuador (Oct. 29, 1999; R. Anderson), deposited in AMNH (PBI_OON 49557).



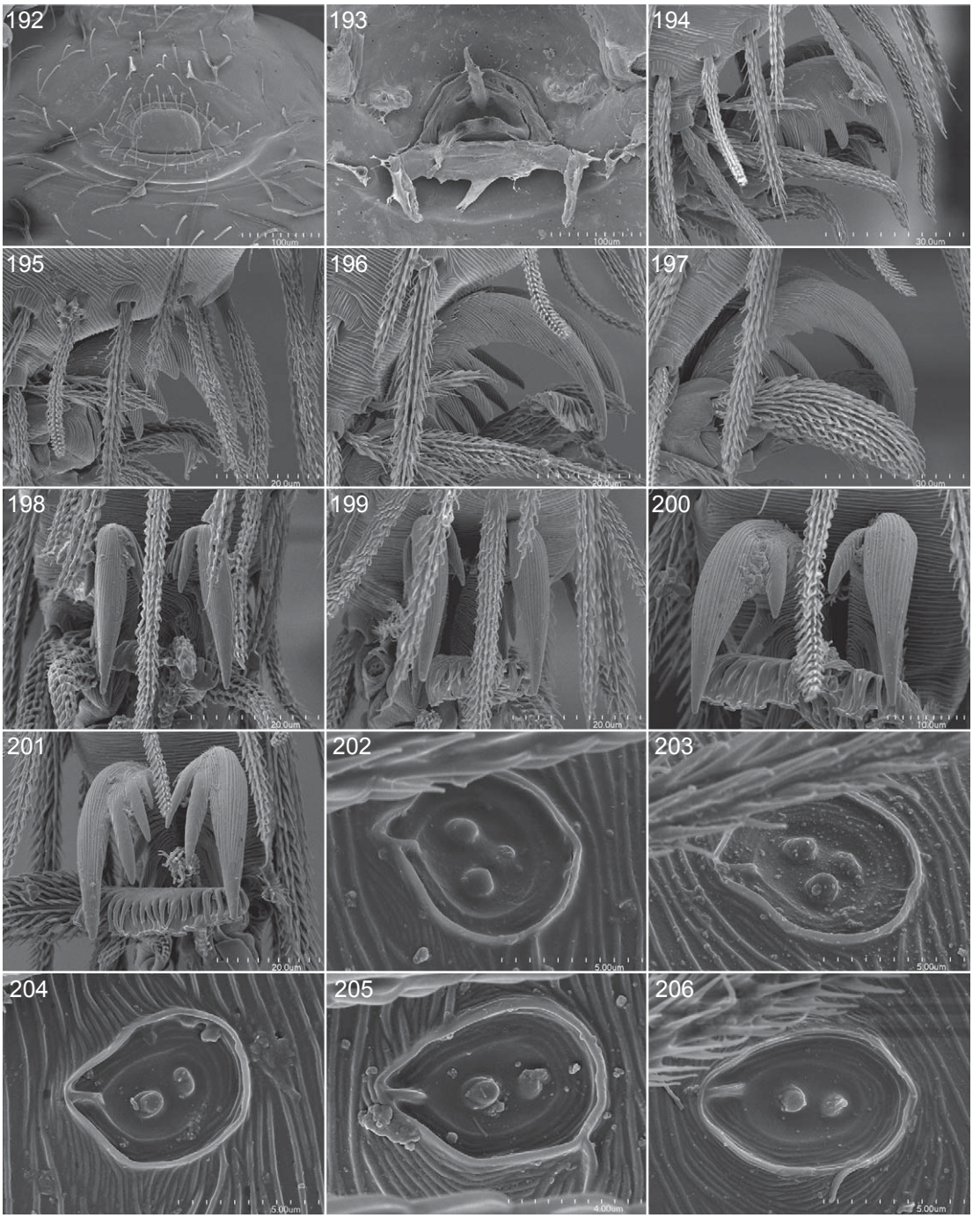
FIGURES 147–161. *Tinadysderina tinalandia*, new species, male. **147.** Carapace, dorsal view. **148.** Same, lateral view. **149.** Same, anterior view. **150.** Chelicerae, anterior view. **151.** Same, posterior view. **152.** Labium and endites, ventral view. **153.** Labrum and endites, dorsal view. **154.** Palp, prolateral view. **155.** Palp, retrolateral view. **156.** Palpal tibia, dorsal view. **157.** Sternum, ventral view. **158.** Spinnerets, apical view. **159.** Anterior lateral spinneret, same. **160.** Posterior median spinneret, same. **161.** Posterior lateral spinneret, same.



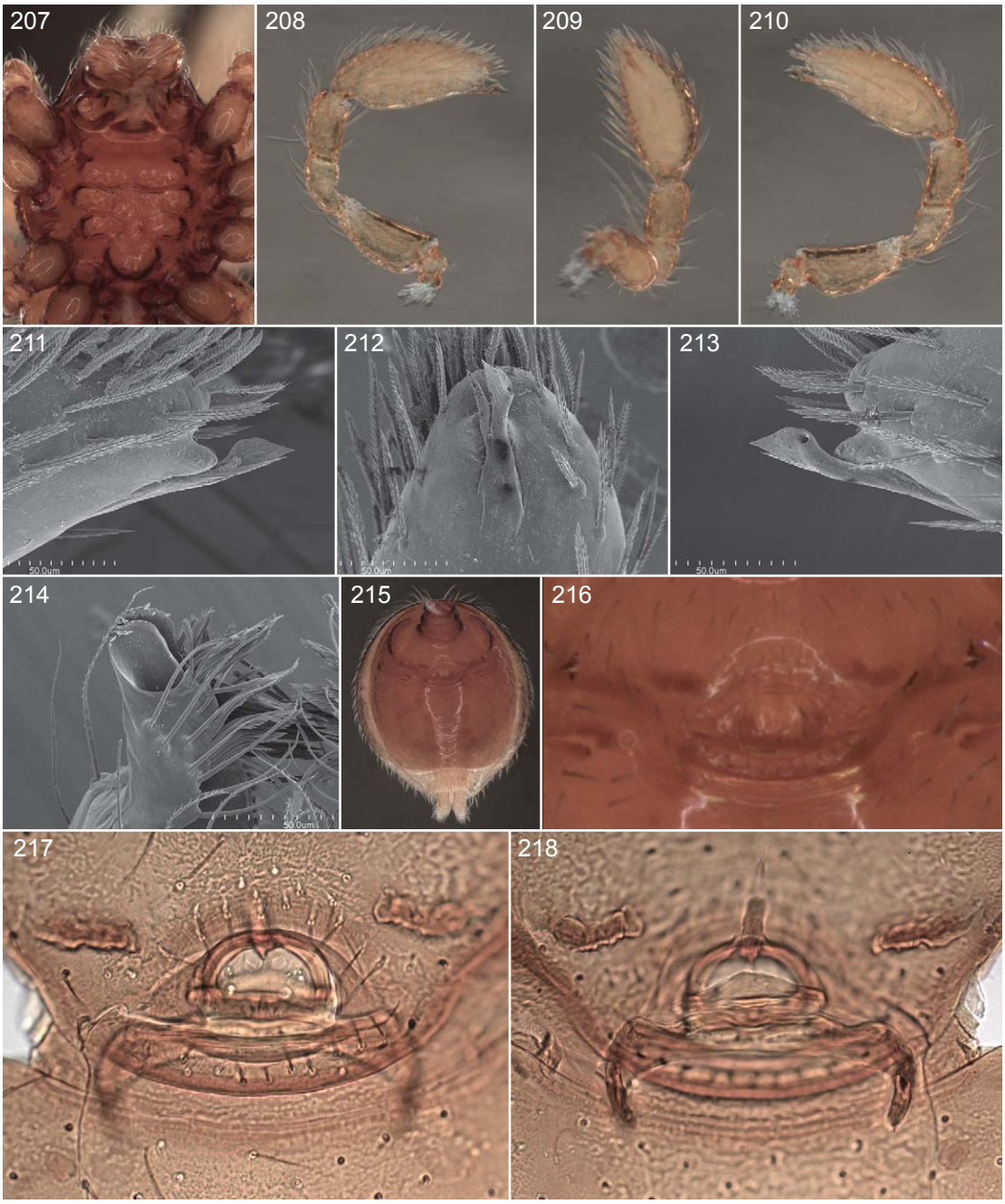
FIGURES 162–176. *Tinadysderina tinalandia*, new species, male. **162.** Sperm pore, ventral view. **163.** Claws of leg I, lateral view. **164.** Same, leg II. **165.** Same, leg III. **166.** Same, leg IV. **167.** Claws of leg I, apical view. **168.** Same, leg II. **169.** Same, leg III. **170.** Same, leg IV. **171.** Trichobothrial base from metatarsus III, dorsal view. **172.** Tarsal organ from leg I, dorsal view. **173.** Same, leg II. **174.** Same, leg III. **175.** Same, leg IV. **176.** Same, palp.



FIGURES 177–191. *Tinadysderina tinalandia*, new species, female. **177.** Carapace, dorsal view. **178.** Same, lateral view. **179.** Same, anterior view. **180.** Chelicerae, anterior view. **181.** Same, posterior view. **182.** Labium and endites, ventral view. **183.** Labrum and endites, dorsal view. **184.** Palp, prolateral view. **185.** Palp, retrolateral view. **186.** Palpal tibia, dorsal view. **187.** Sternum, ventral view. **188.** Spinnerets, apical view. **189.** Anterior lateral spinneret, same. **190.** Posterior median spinneret, same. **191.** Posterior lateral spinneret, same.



FIGURES 192–206. *Tinadysderina tinalandia*, new species, female. **192.** Epigastric area, ventral view. **193.** Internal genitalia, dorsal view. **194.** Claws of leg I, lateral view. **195.** Same, leg II. **196.** Same, leg III. **197.** Same, leg IV. **198.** Claws of leg I, apical view. **199.** Same, leg II. **200.** Same, leg III. **201.** Same, leg IV. **202.** Tarsal organ from leg I, dorsal view. **203.** Same, leg II. **204.** Same, leg III. **205.** Same, leg IV. **206.** Same, palp.



FIGURES 207–218. *Tinadysderina tinalandia*, new species, male (207–214) and female (215–218). **207.** Sternum, ventral view. **208.** Left palp, prolateral view. **209.** Same, ventral view. **210.** Same, retrolateral view. **211.** Left embolus, prolateral view. **212.** Same, ventral view. **213.** Same, retrolateral view. **214.** Tip of endite, ventral view. **215.** Abdomen, ventral view. **216, 217.** Female genitalia, ventral view. **218.** Same, dorsal view.

Etymology: The specific name is a noun in apposition taken from one of the localities at which the species occurs.

Diagnosis: Males resemble those of *T. tinalandia*, but have a larger palpal bulb with a longer embolus (figs. 220–225); females have a more heavily sclerotized posterior margin of the genital atrium and a shorter anterior genitalic process (figs. 229, 230).

Male (PBI_OON 49557, figs. 219–226): Total length 1.83. ALE separated by less than their radius. Sternum with all three transverse ridges complete, sinuous around midline. Anterior portion of endites with long, distally rounded, tube-shaped extension, tip of extension heavily sclerotized. Spinneret scutum present, incomplete ring. Leg spination: femur I p0-0-2, r0-1-1; tibiae: I v4-4-1p; II v4-4-0; metatarsi: I v2-1p-2; II v2-0-2. Sperm pore circular. Embolus with prolaterally directed prong at about half its length, sinuous distal to that prong; bulb slender, relatively small.

Female (PBI_OON 49557, figs. 227–230): Total length 2.11. Dorsal scutum covering full length of abdomen, no soft tissue visible from above, fused to epigastric scutum. Postepigastric scutum long, almost rectangular, extending to about 3/4 of abdominal length, fused to epigastric scutum. Leg spination: femora: I p0-0-2, r1-1-1; II p0-0-1, r1-1-0; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-2-2; II v2-1p-2. Genital atrium triangular, with posterolateral bulges, posterior margin heavily sclerotized, anterior margin with rectangular, posteriorly directed projection at midline.

Other Material Examined: **Ecuador:** *Pichincha:* Bellavista Cloud Forest Reserve, 12 km S Nanegalito, ridge trail, 0°00′54″N, 78°40′56″W, Oct. 26, 1999, cloud forest litter, elev. 2250 m (R. Anderson, AMNH PBI_OON 49561), 1♂, 7♀; same reserve, 0°00′32″N, 78°41′08″W, Oct. 30, 1999, cloud forest litter, elev. 2150 m (R. Anderson, AMNH PBI_OON 49562), 2♂, 2♀; Maquipucuna Cloud Forest Reserve, 0°06′25″N, 78°37′18″W, Oct. 27, 1999, montane evergreen forest litter, elev. 1480 m (R. Anderson, AMNH PBI_OON 49558), 3♂, 1♀; 15 km E Tandapi, June 7, 1976, Berlese, moss, forest litter, elev. 2300 m (S. Peck, FMNH 33706, PBI_OON 10208), 2♂, 1♀. *Santo Domingo de Los Tsáchilas:* Otonga, 0°25′11″S, 78°59′41″W, Dec. 8, 2009, forest litter, elev. 1625 m (B. Baehr, Niarchos Exped., AMNH PBI_OON 49559), 3♀ (including E. Gaublomme DNA sequencing voucher), same, elev. 1705 m (N. Dupérré, E. Tapia, Niarchos Exped., AMNH PBI_OON 49560), 1♀, same, litter (P. Michalik vouchers, AMNH PBI_OON 43145, 43146), 2♂.

Distribution: Ecuador (western slopes of the Andes, at relatively high elevations, ca. 1480–2250 m).

Tinadysderina planada, new species

Figures 231–242

Type: Male holotype from Winkler sample of litter taken at an elevation of 1930 m at Vía Hondon, Reserva Natural La Planada, 1°15′N, 78°15′W, Nariño, Colombia (Oct. 20–21, 2000; G. Oliva), deposited in IAVH (108088, PBI_OON 49563).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males resemble those of *T. otonga* but have a distally narrower retrolateral embolar branch (figs. 232–237); females have an arched, rebordered anterior margin on the genital atrium and a globular sclerotization near the tip of the anterior genitalic process (figs. 241, 242).

Male (PBI_OON 49563, figs. 231–238): Total length 2.01. ALE separated by their radius to diameter. Sternum with all three transverse ridges complete, sinuous around midline. Ante-

rior portion of endites with long, narrow, laterally convex, lightly sclerotized extension. Spinneret scutum present, incomplete ring. Leg spination: femur I p0-0-2, r0-1-1; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I, II v2-1p-2. Sperm pore oval. Embolus with retrolateral branch long, wider than prolateral branch; bulb stout.

Female (PBI_OON 49564, figs. 239–242): Total length 2.30. Dorsal scutum covering full length of abdomen, no soft tissue visible from above, not fused to epigastric scutum. Postepigastric scutum long, semicircular, extending to nearly full length of abdomen, fused to epigastric scutum. Leg spination: femora: I p0-0-2, r1-1-1; II p0-0-1, r1-1-0; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-2-2; II v3-0-2. Genitalic atrium with arched, heavily sclerotized anterior margin, globular sclerotization situated near tip of anterior genitalic process.

Other Material Examined: **Colombia:** *Nariño:* Parcela Olga, Reserva Natural La Planada, 1°15′N, 78°15′W, Feb. 20–22, 2001, Winkler, elev. 1850 m (G. Oliva, IAVH 108089, PBI_OON 49564), 1♀; Parcela Permanente, Reserva Natural La Planada, 1°15′N, 78°15′W, Dec. 2–6, 2001, Winkler, elev. 1855 m (G. Oliva, IAVH 49565), 1♂.

Distribution: Colombia (Nariño).

Tinadysderina gorgona, new species

Figures 243–254

Type: Male holotype from Winkler sample of litter taken at an elevation of 130 m at El Roble, Parque Nacional Natural Gorgona, 2°58′N, 78°11′W, Cauca, Colombia (Mar. 22–25, 2001; R. Duque (IAVH 108082, PBI_OON 49566).

Etymology: The specific name is a noun in apposition taken from the type locality.

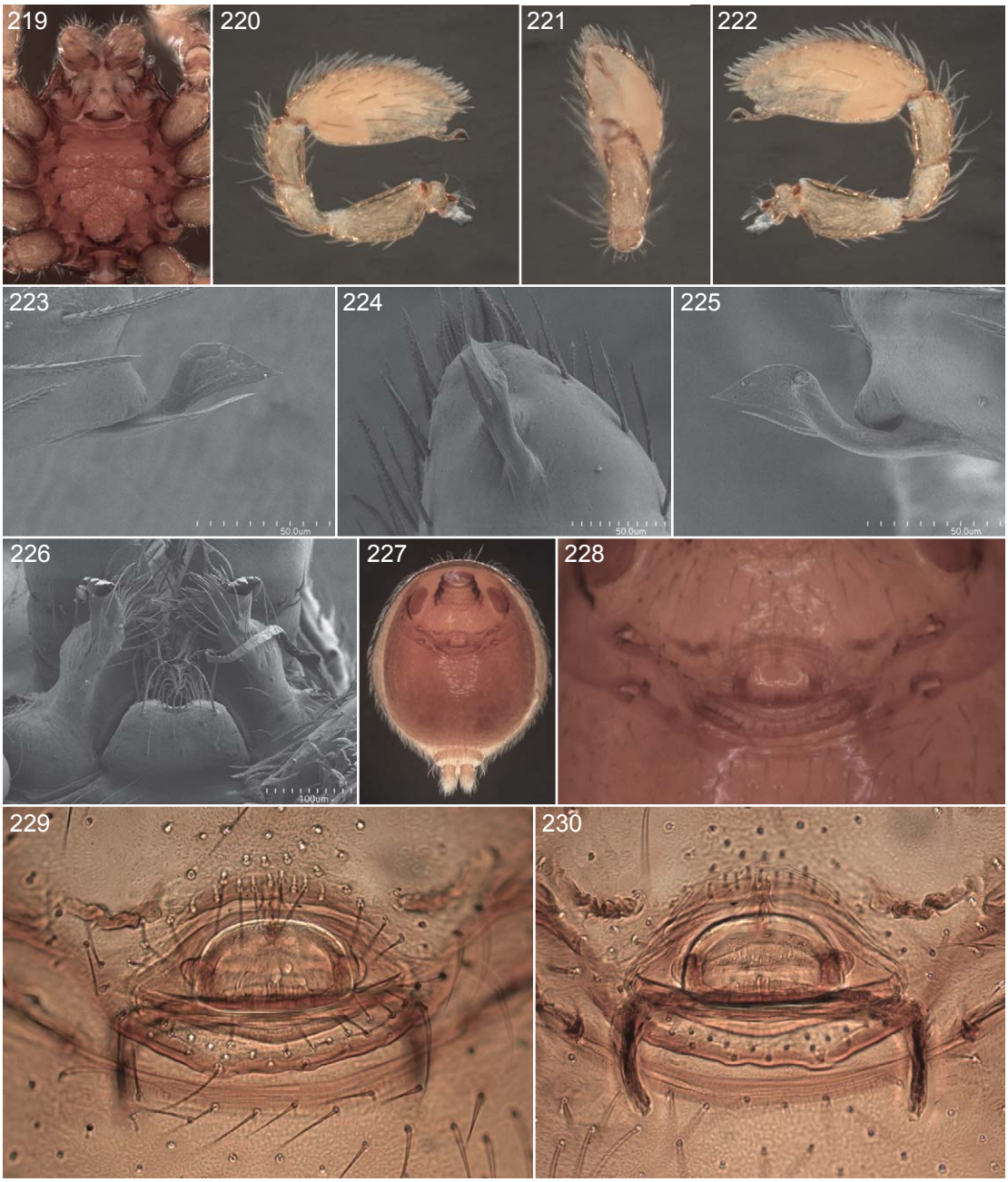
Diagnosis: Males have the retrolateral embolar branch much longer than the prolateral branch (figs. 244–249); females have an ovoid genital atrium containing a short anterior genitalic process (figs. 253, 254).

Male (PBI_OON 49566, figs. 243–250): Total length 1.69. ALE separated by less than their radius. Sternum with all three transverse ridges complete, sinuous near midline. Anterior portion of endites with conspicuous, longitudinal, unsclerotized strip separating large ventral and small dorsal extensions. Spinneret scutum present, incomplete ring. Leg spination: femora: I p0-0-2, r1-1-0; II p0-0-1, r0-1-0; tibiae: I v4-4-2; II v4-4-0; metatarsi: I v2-2-2; II v3-0-2. Sperm pore oval. Embolus with retrolateral branch abruptly narrowed near tip, longer than prolateral branch; bulb stout.

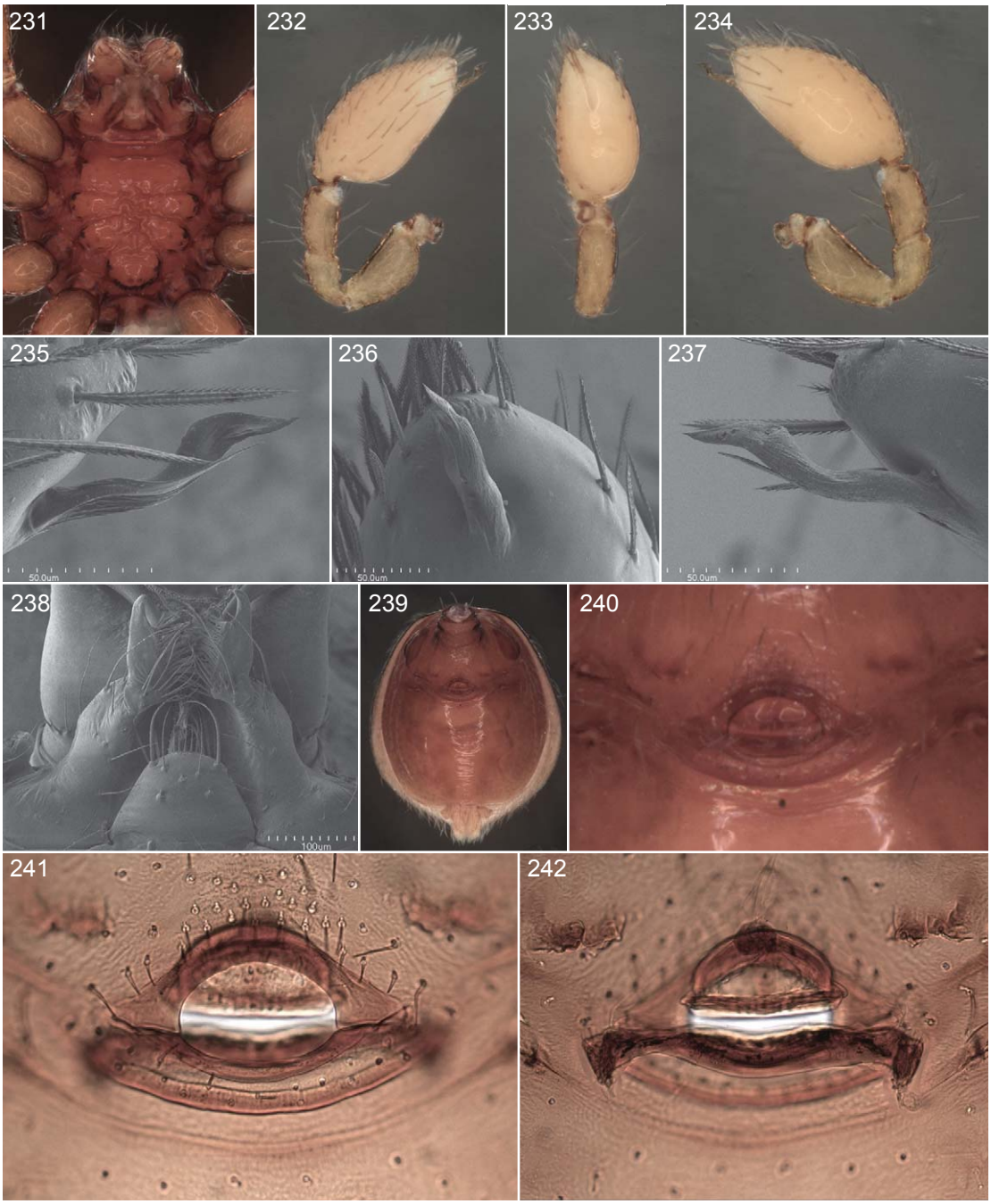
Female (PBI_OON 49567, figs. 251–254): Total length 1.47. Sternum with all three transverse ridges complete, but weak, sinuous near midline. Dorsal scutum covering full length of abdomen, no soft tissue visible from above, not fused to epigastric scutum. Postepigastric scutum long, almost rectangular, extending to nearly full length of abdomen, fused to epigastric scutum. Leg spination: femora: I p0-0-2, r1-1-1; II p0-0-1; tibiae: I v4-4-2; II v4-4-0; metatarsi: I v2-2-2; II v2-0-2. Genitalic atrium short, wide, oval, anterior genitalic process short, not extending anterior of anterior atrial margin.

Other Material Examined: **Colombia:** *Cauca:* Alto el Mirador, Parque Nacional Natural Gorgona, 2°58′N, 78°11′W, Jan. 3–8, 2001, Winkler, elev. 180 m (H. Torres, IAVH 108085, PBI_OON 49567), 1♀.

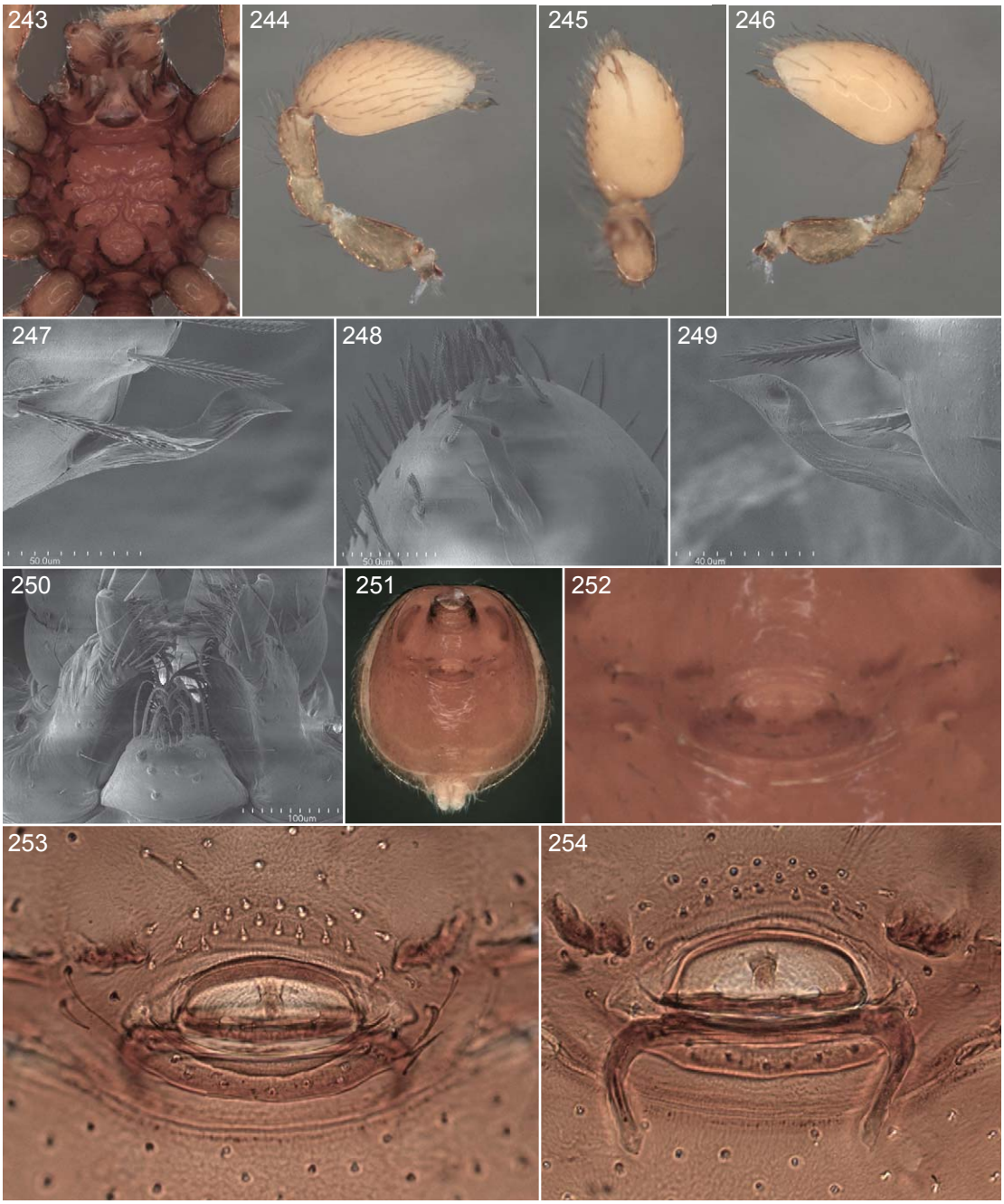
Distribution: Colombia (Cauca).



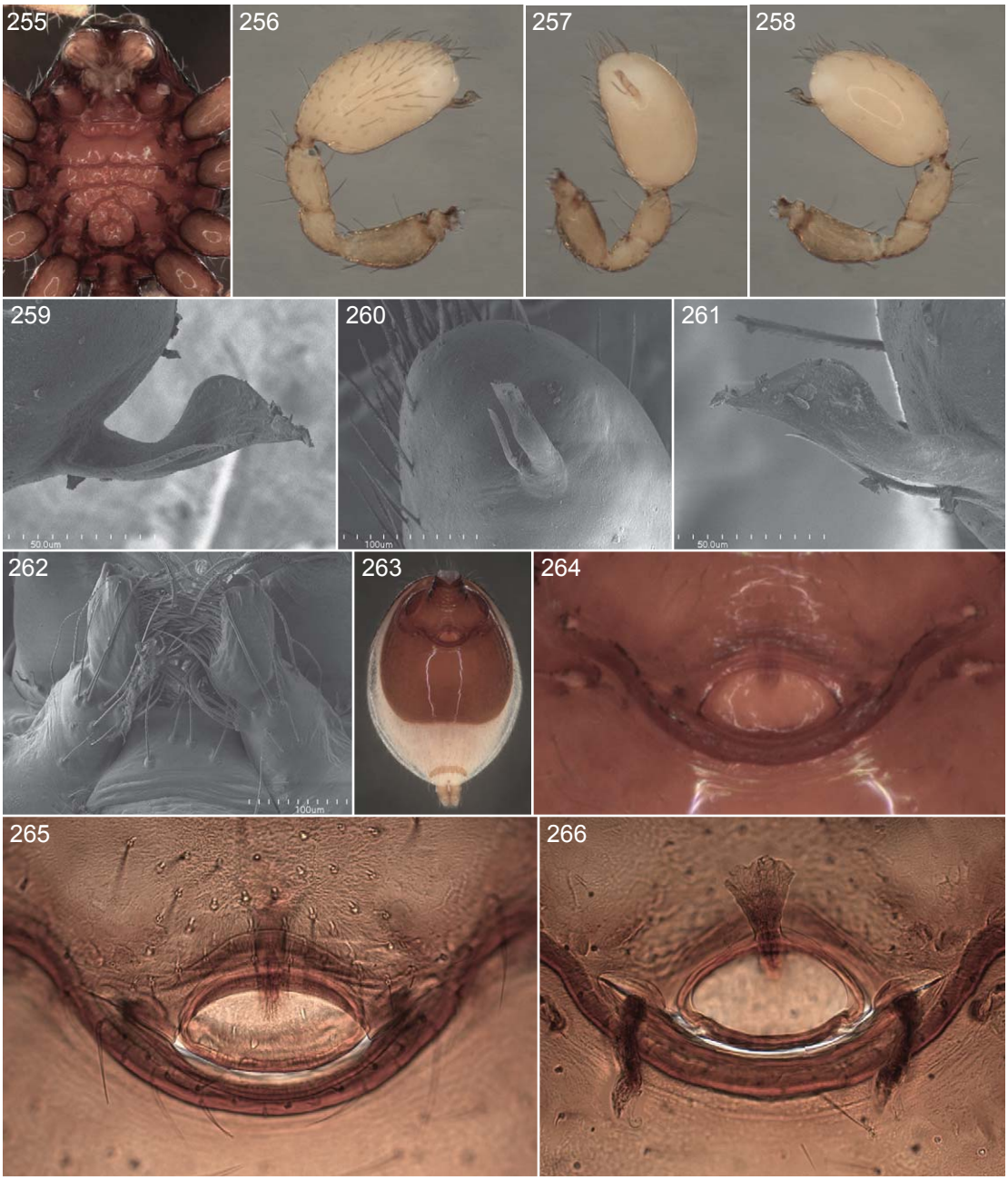
FIGURES 219–230. *Tinadysderina otonga*, new species, male (219–226) and female (227–230). **219.** Sternum, ventral view. **220.** Left palp, prolateral view. **221.** Same, ventral view. **222.** Same, retrolateral view. **223.** Left embolus, prolateral view. **224.** Same, ventral view. **225.** Same, retrolateral view. **226.** Labium and endites, ventral view. **227.** Abdomen, ventral view. **228, 229.** Female genitalia, ventral view. **230.** Same, dorsal view.



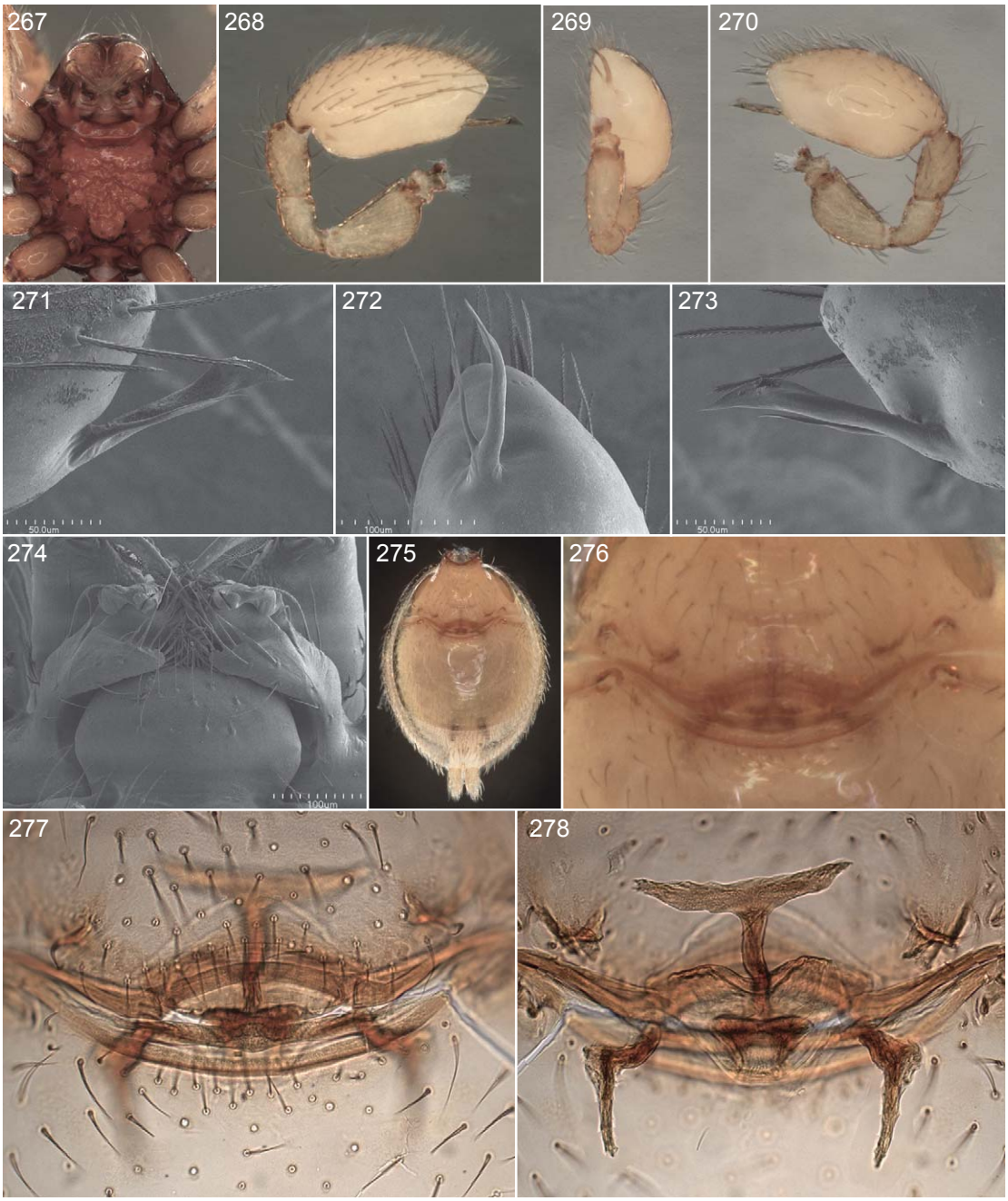
FIGURES 231–242. *Tinadysderina planada*, new species, male (231–238) and female (239–242). **231.** Sternum, ventral view. **232.** Left palp, prolateral view. **233.** Same, ventral view. **234.** Same, retrolateral view. **235.** Left embolus, prolateral view. **236.** Same, ventral view. **237.** Same, retrolateral view. **238.** Labium and endites, ventral view. **239.** Abdomen, ventral view. **240, 241.** Female genitalia, ventral view. **242.** Same, dorsal view.



FIGURES 243–254. *Tinadysderina gorgona*, new species, male (243–250) and female (251–254). **243.** Sternum, ventral view. **244.** Left palp, prolateral view. **245.** Same, ventral view. **246.** Same, retrolateral view. **247.** Left embolus, prolateral view. **248.** Same, ventral view. **249.** Same, retrolateral view. **250.** Labium and endites, ventral view. **251.** Abdomen, ventral view. **252, 253.** Female genitalia, ventral view. **254.** Same, dorsal view.



FIGURES 255–266. *Tinadysderina bremen*, new species, male (255–262) and female (263–266). **255.** Sternum, ventral view. **256.** Left palp, prolateral view. **257.** Same, ventral view. **258.** Same, retrolateral view. **259.** Left embolus, prolateral view. **260.** Same, ventral view. **261.** Same, retrolateral view. **262.** Labium and endites, ventral view. **263.** Abdomen, ventral view. **264, 265.** Female genitalia, ventral view. **266.** Same, dorsal view.



FIGURES 267–278. *Tinadysderina pereira*, new species, male (267–274) and female (275–278). **267.** Sternum, ventral view. **268.** Left palp, prolateral view. **269.** Same, ventral view. **270.** Same, retrolateral view. **271.** Left embolus, prolateral view. **272.** Same, ventral view. **273.** Same, retrolateral view. **274.** Labium and endites, ventral view. **275.** Abdomen, ventral view. **276, 277.** Female genitalia, ventral view. **278.** Same, dorsal view.

Tinadysderina bremen, new species

Figures 255–266

Type: Male holotype taken by canopy fogging at an elevation of 1945 m in the Reserva Forestal Bremen, Filandia, 4°41.143′N, 75°37.645′W, Quindío, Colombia (Feb. 22, 2005; M. Pimienta, IAVH PBI_OON 49568).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males have a fully inflated palpal bulb, a relatively wide retrolateral embolar branch, and an extremely narrow prolateral branch (figs. 256–261); females have an ovoid genital atrium with the anterior genitalic process situated far from the posterior atrial margin (figs. 265, 266).

Male (PBI_OON 49568, figs. 255–262): Total length 2.34. ALE separated by less than their radius. Sternum with all three transverse ridges strong, complete. Anterior portion of endites with very long extension, extension sclerotized only along slightly convex lateral margin. Spinneret scutum present, incomplete ring. Leg spination: femur I p0-0-2, r1-1-0; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-1p-2; II v2-0-2. Sperm pore oval. Embolus with retrolateral branch distally narrowed, prolateral branch narrow throughout its length; bulb stout.

Female (PBI_OON 49569, figs. 263–266): Total length 2.35. Sternal ridges sinuous at middle. Dorsal scutum covering more than 3/4 of abdomen length, more than 1/2 to most of abdomen width, not fused to epigastric scutum. Postepigastric scutum long, almost rectangular, extending to about 3/4 of abdomen length, fused to epigastric scutum. Leg spination: femora I, II p0-0-2; r1-1-1; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-2-2; II v2-0-2. Genitalic atrium triangular, with anterior genitalic process situated far from posterior atrial margin.

Other Material Examined: **Colombia:** *Quindío:* 1 km S Calarca, Mar. 8–10, 1974, elev. 5000 ft (S., J. Peck, MCZ PBI_OON 38064), 1♀; Cañón del Río Barbas, Filandia, 4°42.331′N, 75°38.724′W, Mar. 10, 2005, canopy fogging (M. Pimienta, IAVH 108153, 108159, PBI_OON 49571, 49572), 2♂, 2♀; Finca Agroforestal Bengala, Filandia, 4°41.123′N, 75°36.263′W, Feb. 23, 2005, canopy fogging (M. Pimienta, IAVH 108152, PBI_OON 49573), 2♀; Reserva Forestal Bremen, Filandia, 4°40.973′N, 75°37.667′W, Feb. 22, 2005, canopy fogging, elev. 1870 m (M. Pimienta, IAVH PBI_OON 49570), 1♂, 14°80.850′N, 75°38.095′W, Feb. 20, 2005, canopy fogging, elev. 1850 m (M. Pimienta, IAVH PBI_OON 49569), 1♀. *Valle del Cauca:* Pichendé, Aug. 28, 1967, elev. 1700 m (P., B. Wygodzinsky, AMNH PBI_OON 57), 1♀.

Distribution: Colombia (Valle del Cauca, Quindío).

Tinadysderina pereira, new species

Figures 267–278

Types: Male holotype and female allotype from a Berlese sample of early secondary forest litter taken at an elevation of 1800 m in the Otún Quimbaya Flora and Fauna Sanctuary, La Suiza, Pereira, 4°44′N, 75°35′W, Risaralda, Colombia (June 10, 2005; A. Sabogal), deposited in ICN (PBI_OON 49574).

Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males have a widened embolus (fig. 274), a moderately inflated palpal bulb, a relatively narrow retrolateral embolar branch, and an extremely narrow prolateral branch (figs. 268–273); females have a rectangular genital atrium containing a large, T-shaped anterior genitalic process (figs. 277, 278).

Male (PBI_OON 49574, figs. 267–274): Total length 2.14. ALE separated by less than their radius. Sternum with three complete transverse ridges, ridges sinuous at midline. Anterior portion of endites with small, medially situated plus large, laterally situated processes, both very heavily sclerotized, lateral process much wider than medial one. Spinneret scutum absent. Leg spination: femur I p0-0-2, r1-1-0; tibiae I, II v4-4-0; metatarsi: I v2-2-1p; II v2-2-0. Sperm pore circular. Embolus with retrolateral branch narrow, long, bent, prolateral branch very narrow, short, straight; bulb slender, moderately inflated.

Female (PBI_OON 49574, figs. 275–278): Total length 2.20. Dorsal scutum covering full length of abdomen, no soft tissue visible from above, not fused to epigastric scutum. Postepigastric scutum long, almost rectangular, extending to about 3/4 of abdomen length, not fused to epigastric scutum. Spinneret scutum represented only by slightly sclerotized rim. Leg spination: femora I, II p0-0-2, r1-1-1; tibiae I, II v4-4-2; metatarsi: I v2-2-2; II v3-0-2. Genital atrium short, wide, anterior genitalic process large, T-shaped.

Other Material Examined: Five males and two females taken with the types (ICN PBI_OON 49886).

Distribution: Colombia (Risaralda).

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