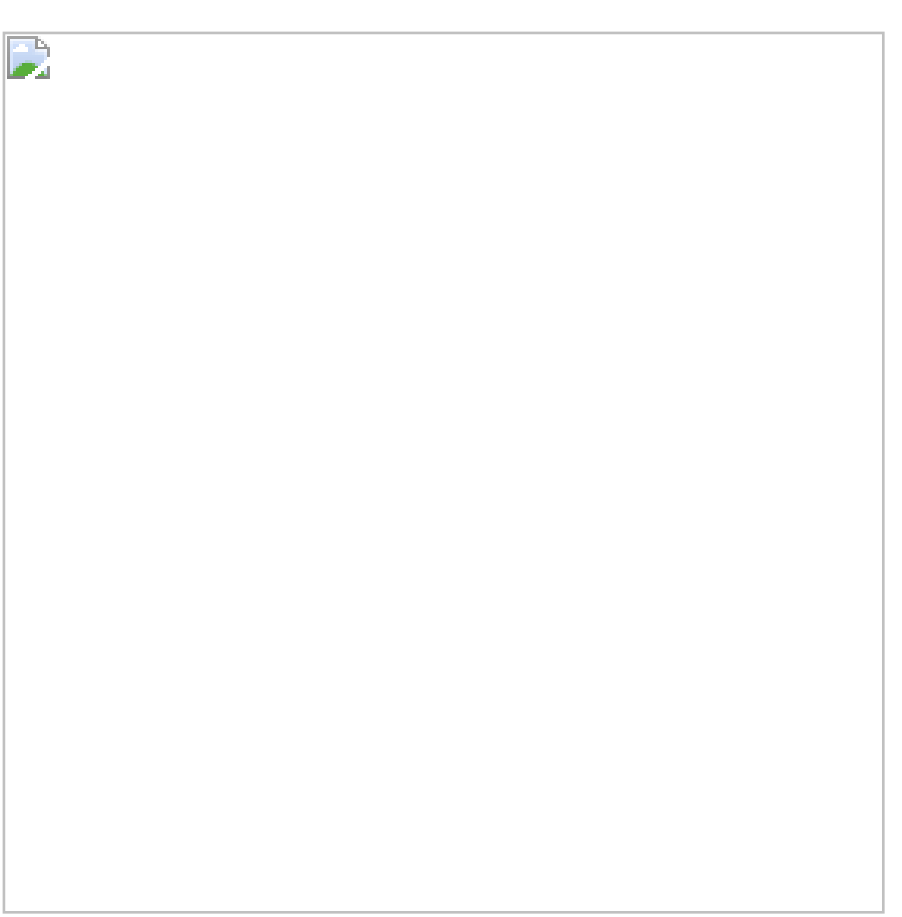

The South American Goblin Spider Genera Dysderina and Tridysderina (Araneae, Oonopidae)

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The South American goblin spider genera *Dysderina* and *Tridysderina* (Araneae, Oonopidae)

NORMAN I. PLATNICK,[1] LILY BERNIKER,[1] AND ALEXANDRE B. BONALDO[2]

ABSTRACT

The goblin spider genus *Dysderina* Simon is relimited to include only those members of the *Dysderina* complex that have three pairs of deep, steeply sided excavations extending from the sides of the sternum toward the midline; two species groups are recognized. The *principalis* group contains those species whose members have strong, transverse ridges connecting the posterior edges of each pair of sternal excavations, including the type species, *D. principalis* (Keyserling) from Colombia (the female of which is described for the first time), plus seven new species from Colombia (*D. sasaima*, *D. cunday*, *D. amaca*) and Ecuador (*D. sacha*, *D. erwini*, *D. baehrae*, *D. excavata*). The *tiputini* group contains species whose members lack transverse sternal ridges, and includes five new species from Ecuador (*D. tiputini*), Colombia (*D. ayo*, *D. matamata*, *D. craigi*), and Brazilian Amazonia (*D. urucu*). A new genus, *Tridysderina*, is established for a group of species whose members have a flat, smooth sternum with one or two transverse ridges at the level of coxae II and III, but without a transverse ridge at the level of coxa IV; the genus includes six new species from Ecuador (*T. yasuni*, *T. jatun*, *T. galeras*, *T. archidona*, *T. tena*, *T. bellavista*).

INTRODUCTION

The goblin spider genus *Dysderina* Simon has served as a dumping ground for a wide variety of scutate, heavily spined goblin spiders from widely scattered localities around the globe. As noted by Platnick and Dupérré (2011a), this assemblage of species is highly polyphy-

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letic, with the various Old World taxa being wildly misplaced. Many of the New World taxa formerly placed in *Dysderina* have already been transferred to other genera (see Platnick and Dupérré, 2011a, 2011b, 2011c; Abrahim et al., 2012; Platnick et al., 2013).

The type species, as designated by Simon (1891), is *Oonops principalis* Keyserling (1881) from Colombia. As indicated by Platnick and Dupérré (2011a), the specimens that Simon identified as *Dysderina principalis* were all from other countries, were all misidentified, and belong to several different genera, but little nomenclatural stability could be achieved by construing any of Simon's species as the type species instead. So the question we address here is: what species are actually closely related to *D. principalis*? That species has been known only from its male holotype, which is notable for having transverse ridges on the sternum (fig. 64). Such ridges are found in other genera, such as *Simonoonops* Harvey and *Costarina* Platnick and Dupérré, but in *D. principalis* the ridges are actually continuous with the posterior edges of deeply excavated grooves that extend from the lateral margins of the sternum inward toward the midline, at the levels of coxae II, III, and IV (figs. 11, 41, 75). We suggest that these sternal excavations are a synapomorphy uniting a group of 13 species known only from Colombia, Ecuador, and Brazilian Amazonia. Thus relimited, all other members of the genus are newly described here (i.e., not a single one of the almost 50 other species that have been assigned to *Dysderina* in the past are actually congeneric with its type species!).

Another unusual aspect of the morphology of the holotype male of *D. principalis* is the presence of grooves at the level of both the anterior and posterior spiracles (fig. 66). Many oonopids, including some other members of the *Dysderina* complex, have such grooves connecting the posterior pair of spiracles; the posterior grooves are present in the members of *Simonoonops* (see Platnick and Dupérré, 2011b), *Semidysderina* Platnick and Dupérré (see Platnick and Dupérré, 2011c), *Neoxyphinus* Birabén (see Abrahim et al., 2012), and three other genera (see Platnick et al., 2013), but are absent (perhaps informatively so) in the members of *Scaphidysderina* Platnick and Dupérré (see Platnick and Dupérré, 2011a), *Paradysderina* Platnick and Dupérré (see Platnick and Dupérré, 2011c), and *Costarina* (see Platnick and Dupérré, 2012). Interestingly, in all the taxa that have the posterior grooves, except for *Neoxyphinus*, those grooves do not merely connect the posterior spiracles; they also extend laterally, beyond the spiracle itself, often almost to the lateral edge of the postepigastric scutum (figs. 77, 78, 82, 83; see also, for example, Platnick and Dupérré, 2011b: figs. 73–76). The genera with the laterally extended posterior grooves may thus form a monophyletic group.

However, the anterior groove occurs not only in true *Dysderina* but also in the members of *Neoxyphinus* (see Abrahim et al., 2012: figs. 50, 102) and in at least one undescribed genus, so there is homoplasy in the distribution of either the anterior, or the laterally extended posterior, grooves. Interestingly, although all the males assigned to *Dysderina* below have both the anterior and posterior grooves (as in fig. 66), in some females the anterior groove is represented only by a pair of slits extending medially from the anterior spiracles (figs. 46, 78), or may be missing entirely (figs. 197, 208). In females of *D. erwini* (fig. 93), there is a pair of slits extending medially from the anterior spiracles, but there is also an additional transverse groove situated just behind those spiracles.

The members of the new genus *Tridysderina*, which are known only from Ecuador, show some distinctive features of both the carapace and sternum. In most members of the *Dysderina* complex, the sides of the carapace are heavily granulate (Platnick and Dupérré, 2011a: figs. 136–138, 2011b: figs. 31–33, 2011c: figs. 1–3, 742–744, 2012: 1–3; Abrahim et al., 2012: figs. 6, 153, 333; Platnick et al., 2013: figs. 1–3, 148–150, 590–592). In many cases, the elevated portion of the pars cephalica appears reticulate under light microscopy, but scanning electron micrographs show that granules are present there as well, although they are lower than the ones on the carapace sides. In *Tridysderina*, the entire carapace usually appears reticulate under light microscopy, but the reticulations are barely visible in scanning electron micrographs (figs. 242–244, 272–274). The sternum is also distinctive, devoid of microsculpture but with one or more transverse ridges, at the level of coxae II and III, but not at the level of coxa IV (figs. 302, 313). The "missing" ridges are represented by parentheses-shaped, i.e., ( ), elevations at the sides of the sternum (figs. 325, 341).

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 taken from uncoated right male palps, and the images were flipped for consistency. All measurements are in mm; high-resolution versions of the 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.

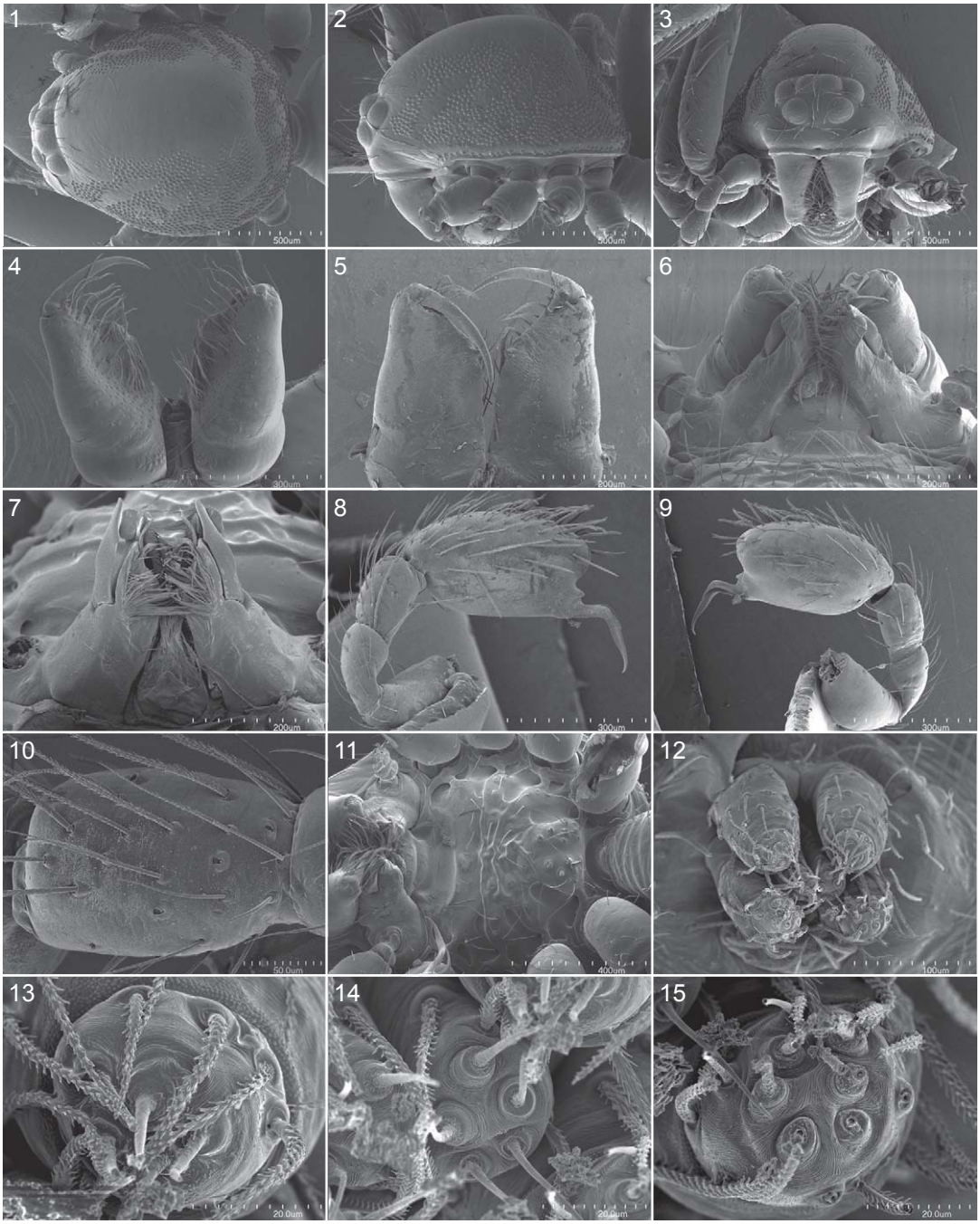
COLLECTIONS EXAMINED

AMNH	American Museum of Natural History, New York, NY
BMNH	Natural History Museum, London, England
CAS	California Academy of Sciences, 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
MPEG	Museu Paraense Emílio Goeldi, Belém, Brazil
QCAZ	Museum of Invertebrates, Pontificia Universidad Católica, Quito, Ecuador
USNM	National Museum of Natural History, Smithsonian Institution, Washington, DC

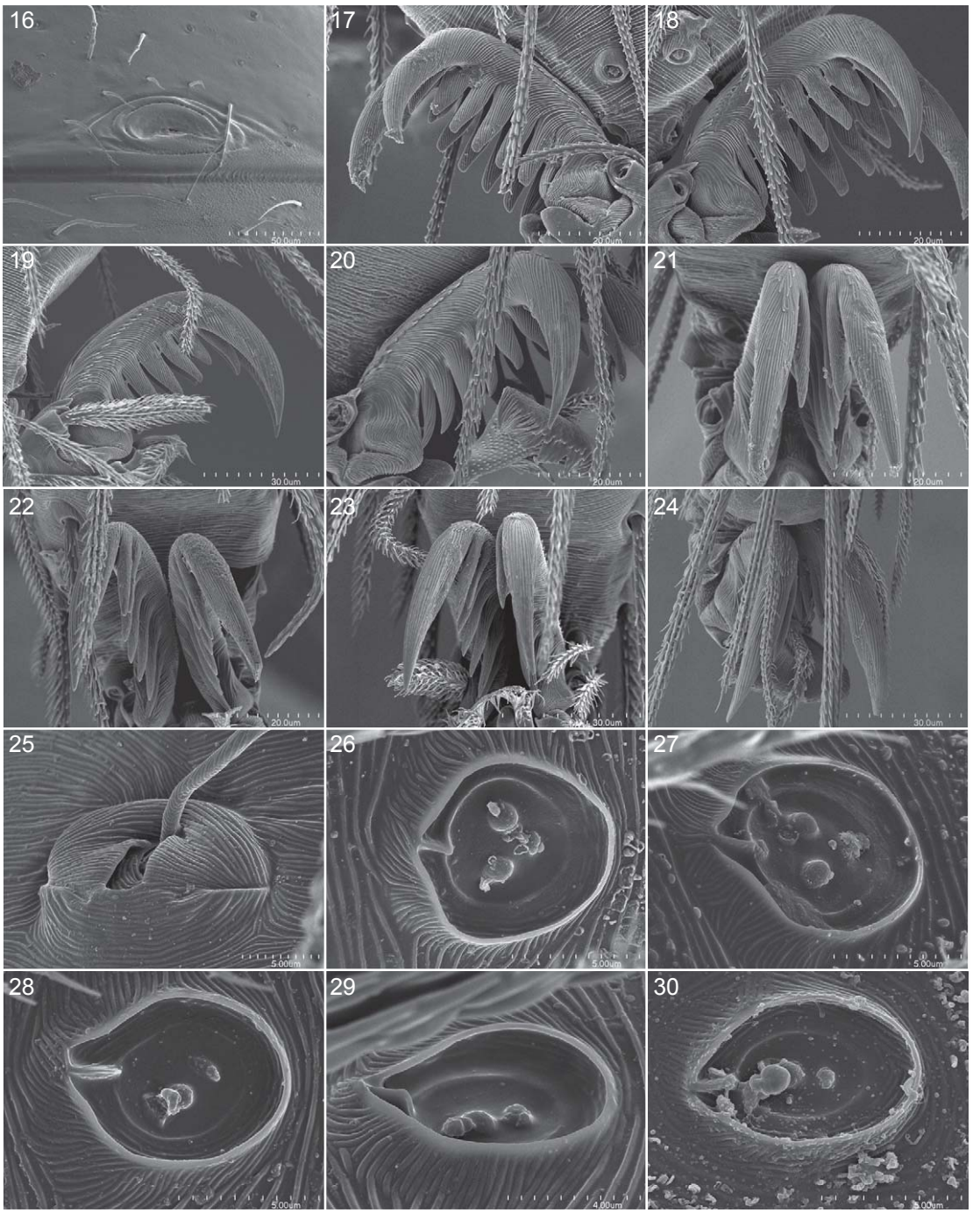
Dysderina Simon

Dysderina Simon, 1891: 556 (type species by original designation *Oonops principalis* Keyserling).

Diagnosis: Specimens belonging to this genus can be distinguished from all other members of the *Dysderina* complex by their distinctive sternal morphology: each side of the ster-



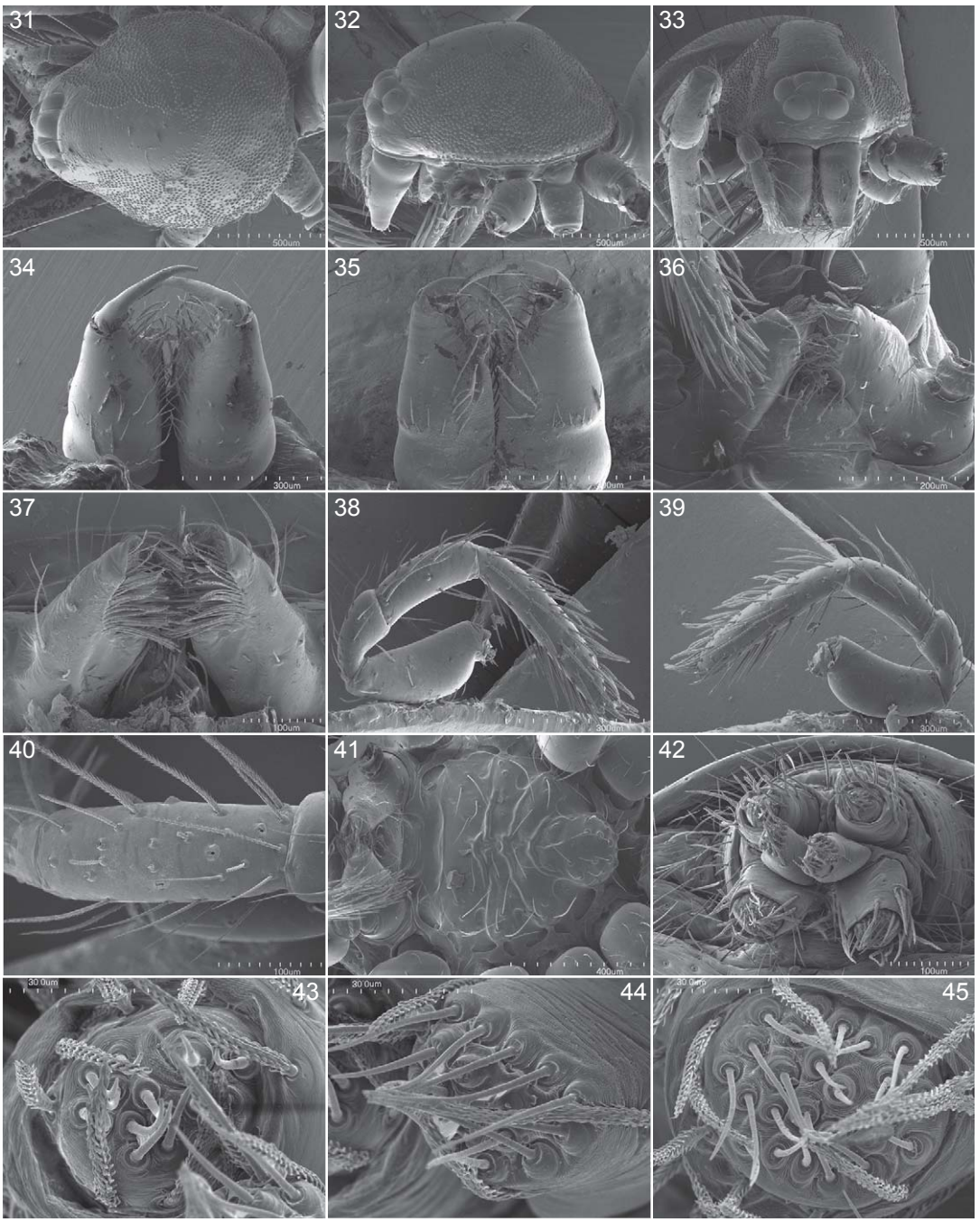
FIGURES 1–15. *Dysderina sasaima*, new species, male. **1.** Carapace, dorsal view. **2.** Same, lateral view. **3.** Same, anterior view. **4.** Chelicerae, anterior view. **5.** Same, posterior view. **6.** Labium and endites, ventral view. **7.** Labrum and endites, dorsal view. **8.** Palp, prolateral 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.



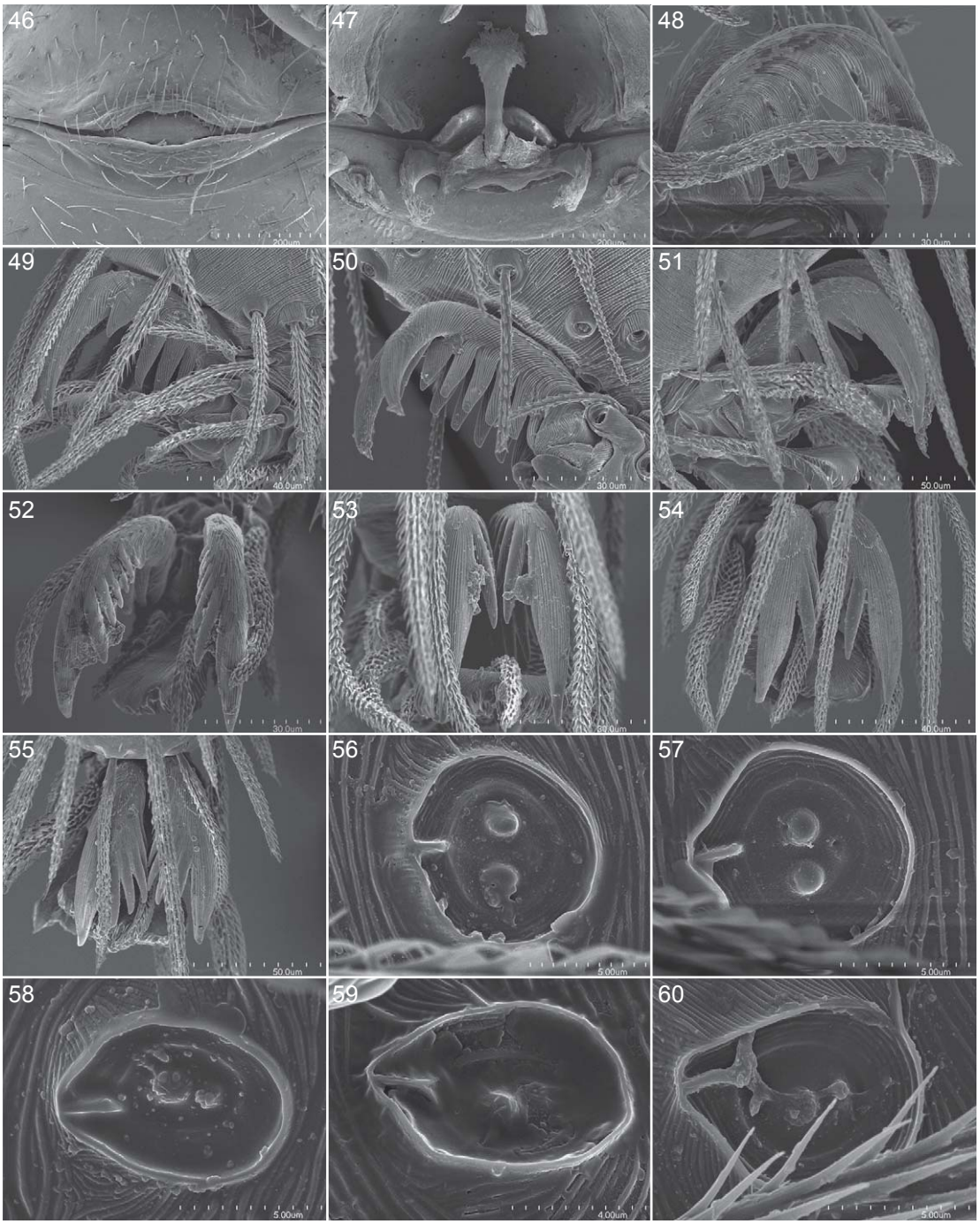
FIGURES 16–30. *Dysderina sasaima*, new species, male. **16.** Sperm pore, ventral view. **17.** Claws of leg I, lateral view. **18.** Same, leg II. **19.** Same, leg III. **20.** Same, leg IV. **21.** Claws of leg I, apical view. **22.** Same, leg II. **23.** Same, leg III. **24.** Same, leg IV. **25.** 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.

num bears three deep, steeply sided excavations extending from the sides of the sternum toward the midline (figs. 11, 41, 146, 176).

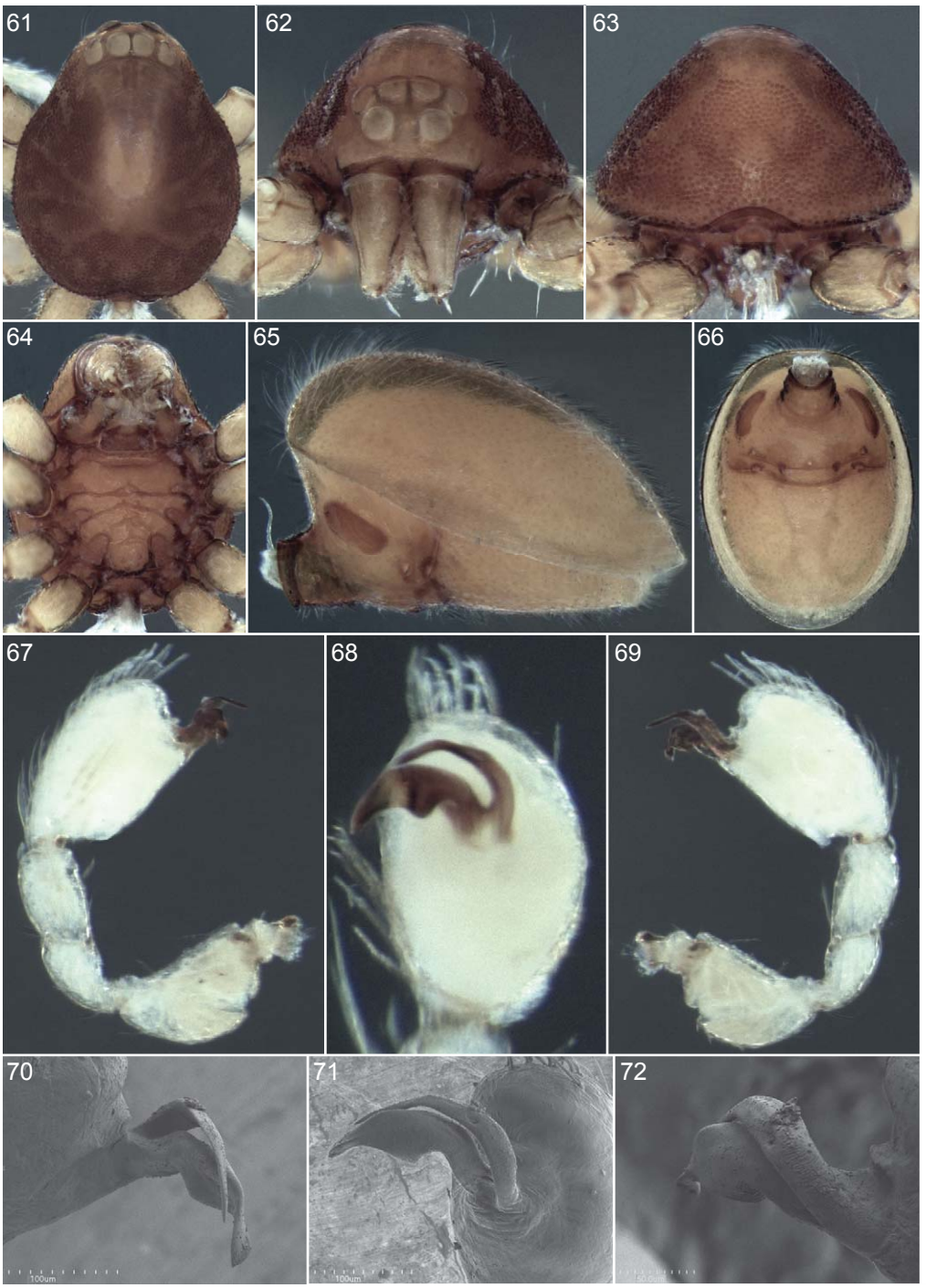
Description: Total length of males 1.6–2.3, of females 1.8–2.9. Carapace, sternum, mouthparts, abdominal scuta, legs orange-brown, without pattern; abdomen soft portions white, without pattern. **Cephalothorax:** Carapace broadly oval in dorsal view, anteriorly narrowed to 0.49 times its maximum width 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 smooth (fig. 1), reticulate (fig. 136), or with some low granules (figs. 31, 166), sides granulate (figs. 2, 32, 167), granules sometimes low (fig. 137); fovea absent, lateral margin straight, rebordered, with blunt denticles (except in *D. tiputini*, which has nearly smooth lateral margins with few, low denticles, fig. 167); 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, 138, 168), 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, without pits, median concavity, hair tufts absent, radial furrows between coxae I–II, II–III, III–IV enlarged into deep, smooth, steeply sided excavations (figs. 11, 41, 146, 176), posterior edges of excavations sometimes connected by transverse ridges (figs. 11, 41, 103, 114); radial furrow opposite coxae III absent, other microsculpture 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 excavated, 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, originating from surface, posterior and lateral margins with conspicuous, tuberculate setal bases. Chelicerae slightly divergent, anterior face with swelling; with one large tooth on promargin, without teeth on retromargin (figs. 4, 5, 34, 35, 139, 140, 169, 170); 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 unmodified, promargin with row of flattened setae, inner margin unmodified, laminate groove absent, inner margin slightly excavated in males of *D. sasaima*, more deeply excavated in males of *D. baehrae* and *D. excavata*, with thick brush of setae in males of *D. excavata*. Labium triangular, not fused to sternum, anterior margin not indented at middle, same as sternum in sclerotization; with six or more setae on anterior margin, most lateral seta on each side usually enlarged (figs. 36, 171), subdistal portion with unmodified setae. Endites same as sternum in sclerotization, serrula apparently absent (figs. 7, 37, 142, 172), anterior portion modi-



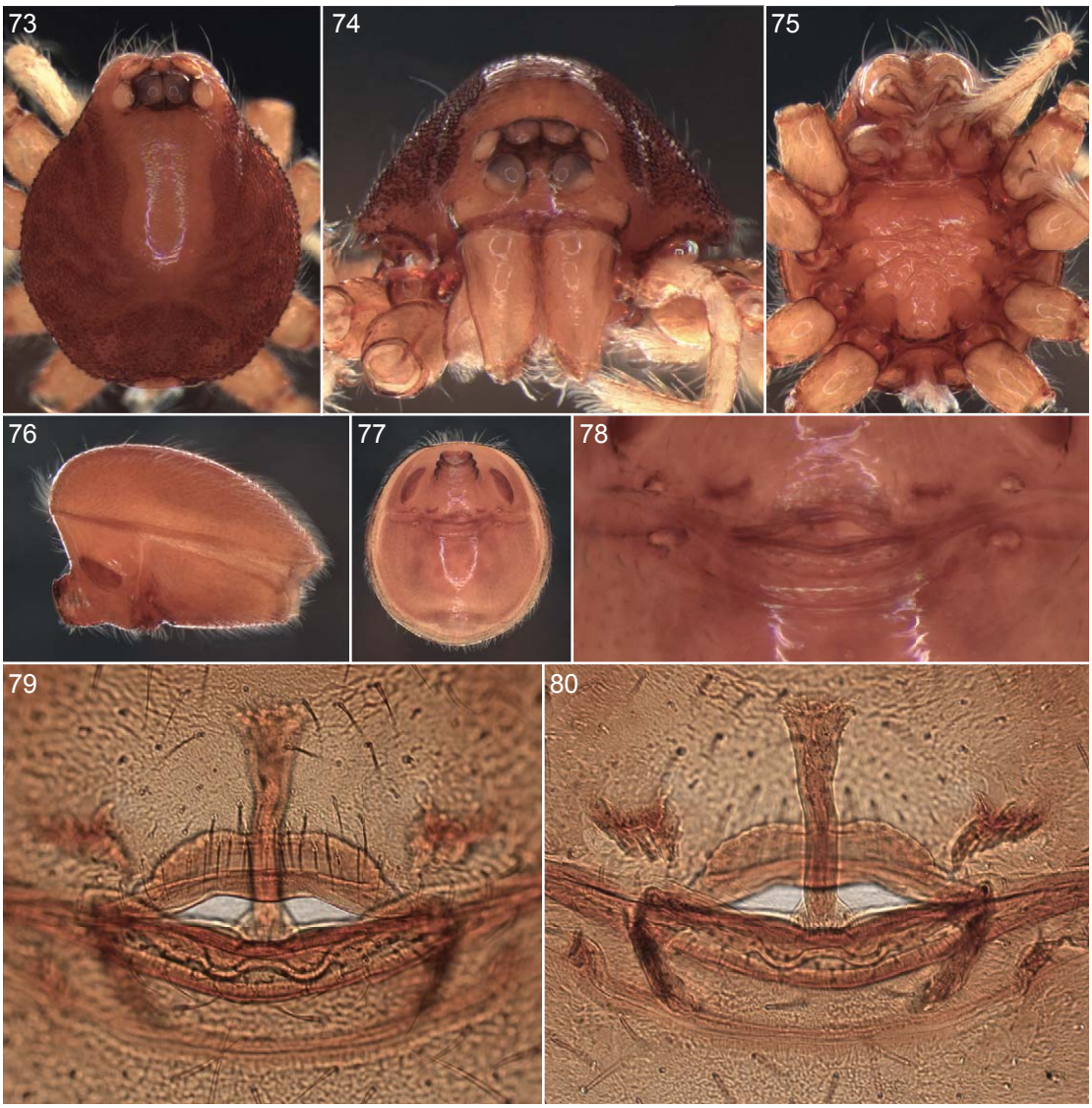
FIGURES 31–45. *Dysderina principalis* Keyserling, female. **31.** Carapace, dorsal view. **32.** Same, lateral view. **33.** Same, anterior view. **34.** Chelicerae, anterior view. **35.** Same, posterior view. **36.** Labium and endites, ventral view. **37.** Labrum and endites, dorsal view. **38.** 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.



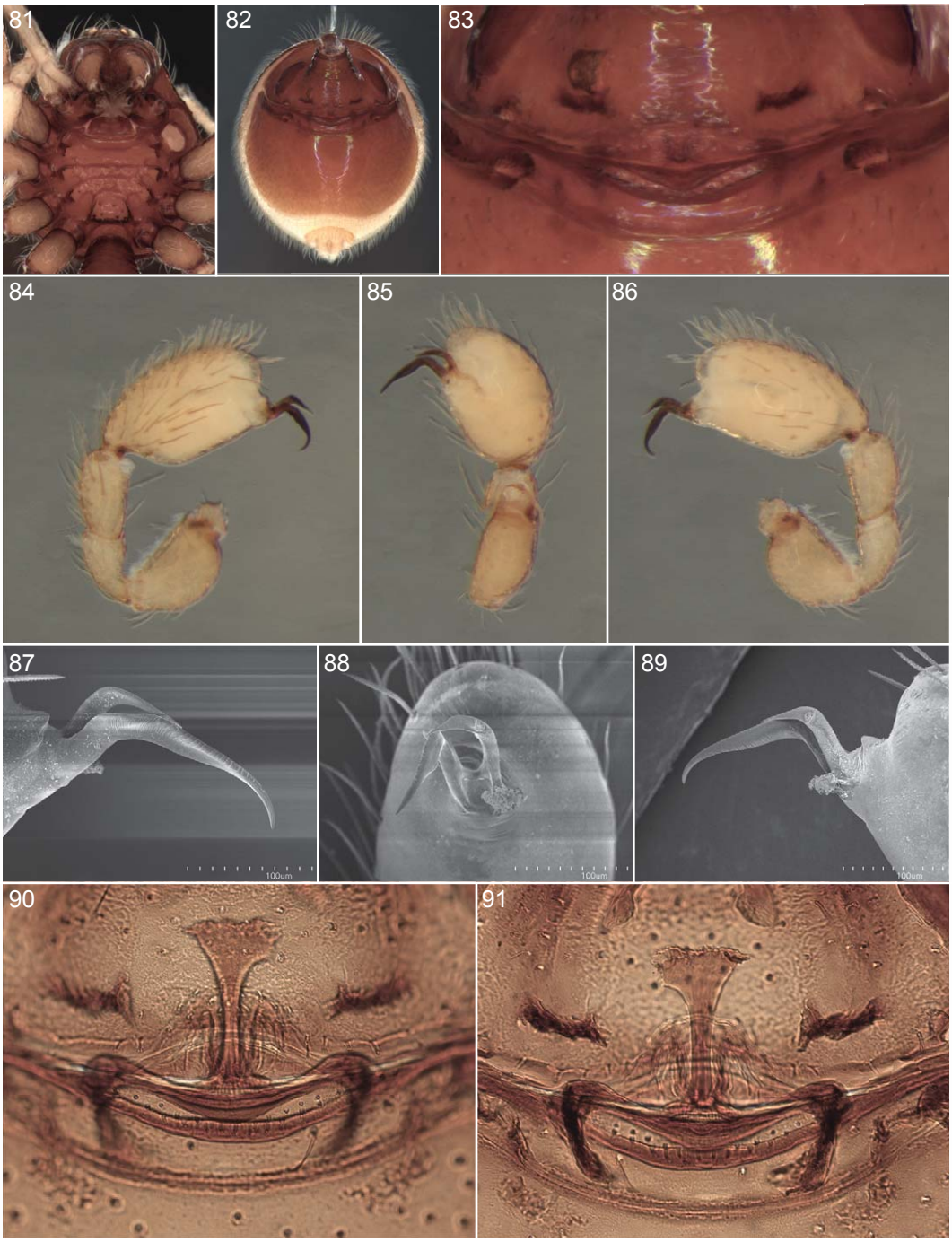
FIGURES 46–60. *Dysderina principalis* Keyserling, female. **46.** Epigastric area, ventral view. **47.** Internal genitalia, dorsal view. **48.** Claws of leg I, lateral view. **49.** Same, leg II. **50.** Same, leg III. **51.** Same, leg IV. **52.** Claws of leg I, apical view. **53.** Same, leg II. **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.



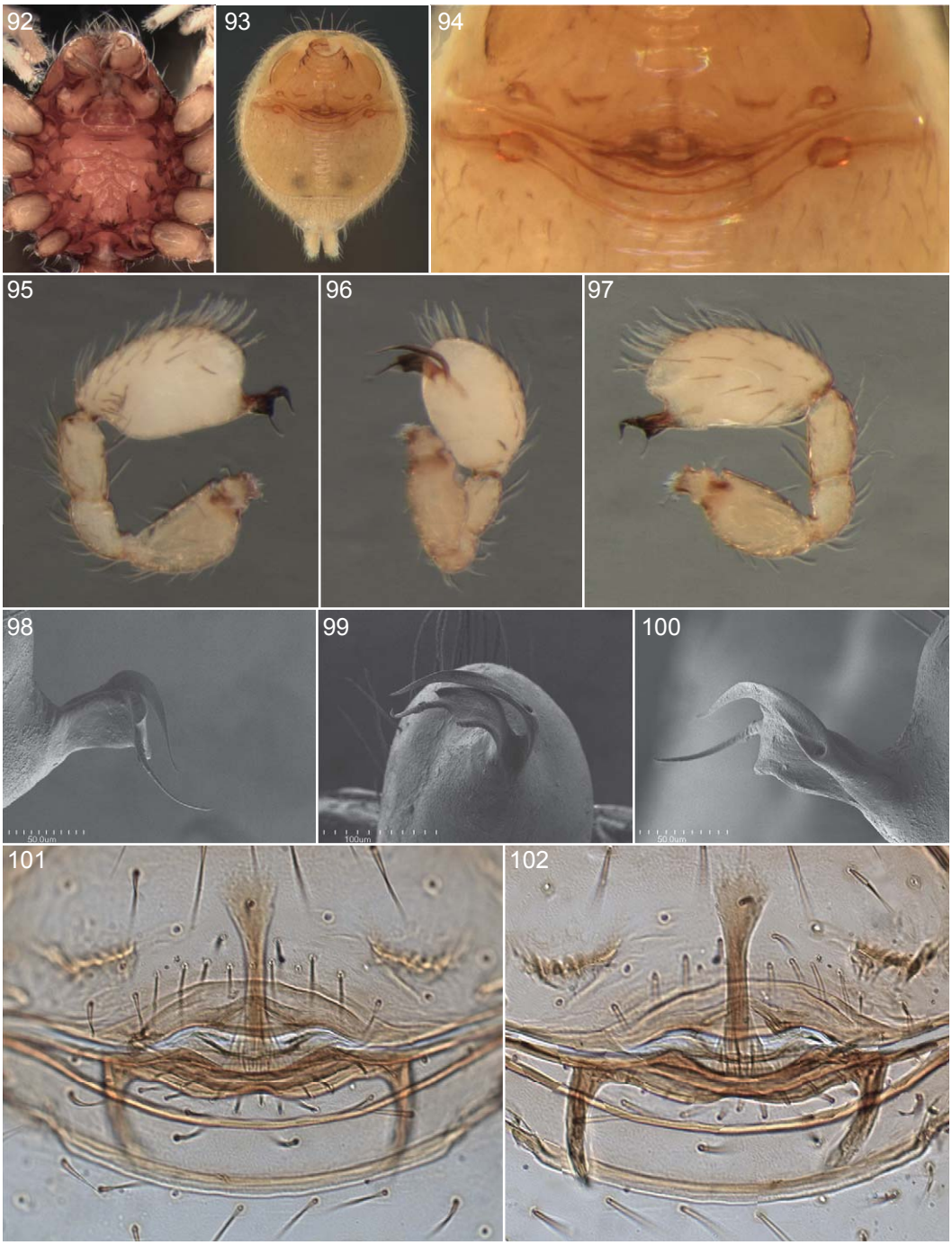
FIGURES 61–72. *Dysderina principalis* Keyserling, male. **61.** Carapace, dorsal view. **62.** Same, anterior view. **63.** Same, posterior view. **64.** Sternum, ventral view. **65.** Abdomen, lateral view. **66.** Same, ventral view. **67.** Left palp, prolateral view. **68.** Same, ventral view. **69.** Same, retrolateral view. **70.** Left embolus, prolateral view. **71.** Same, ventral view. **72.** Same, retrolateral view.



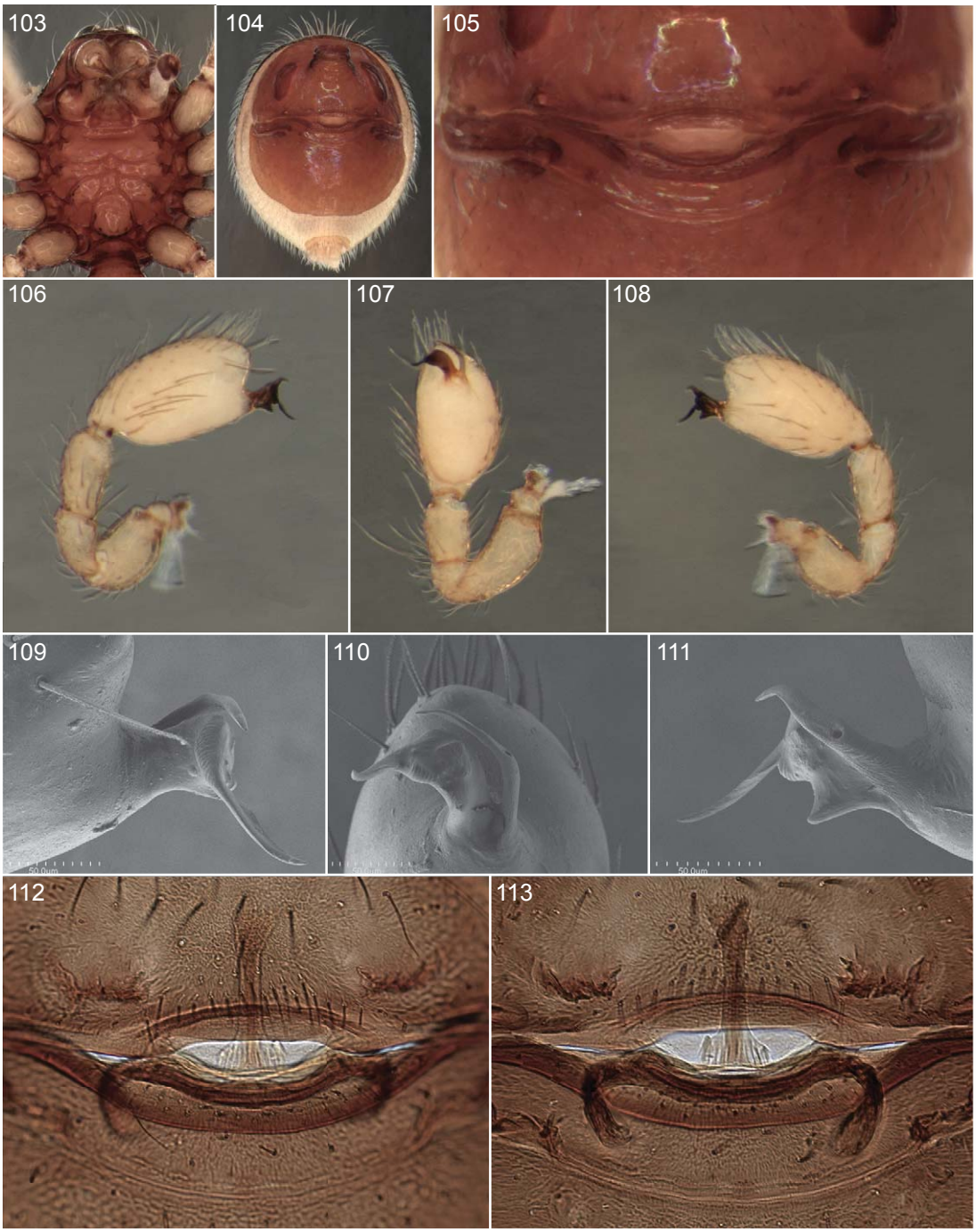
FIGURES 73–80. *Dysderina principalis* Keyserling, female. **73.** Carapace, dorsal view. **74.** Same, anterior view. **75.** Sternum, ventral view. **76.** Abdomen, lateral view. **77.** Same, ventral view. **78.** Epigastric region, ventral view. **79.** Genitalia, ventral view. **80.** Same, dorsal view.



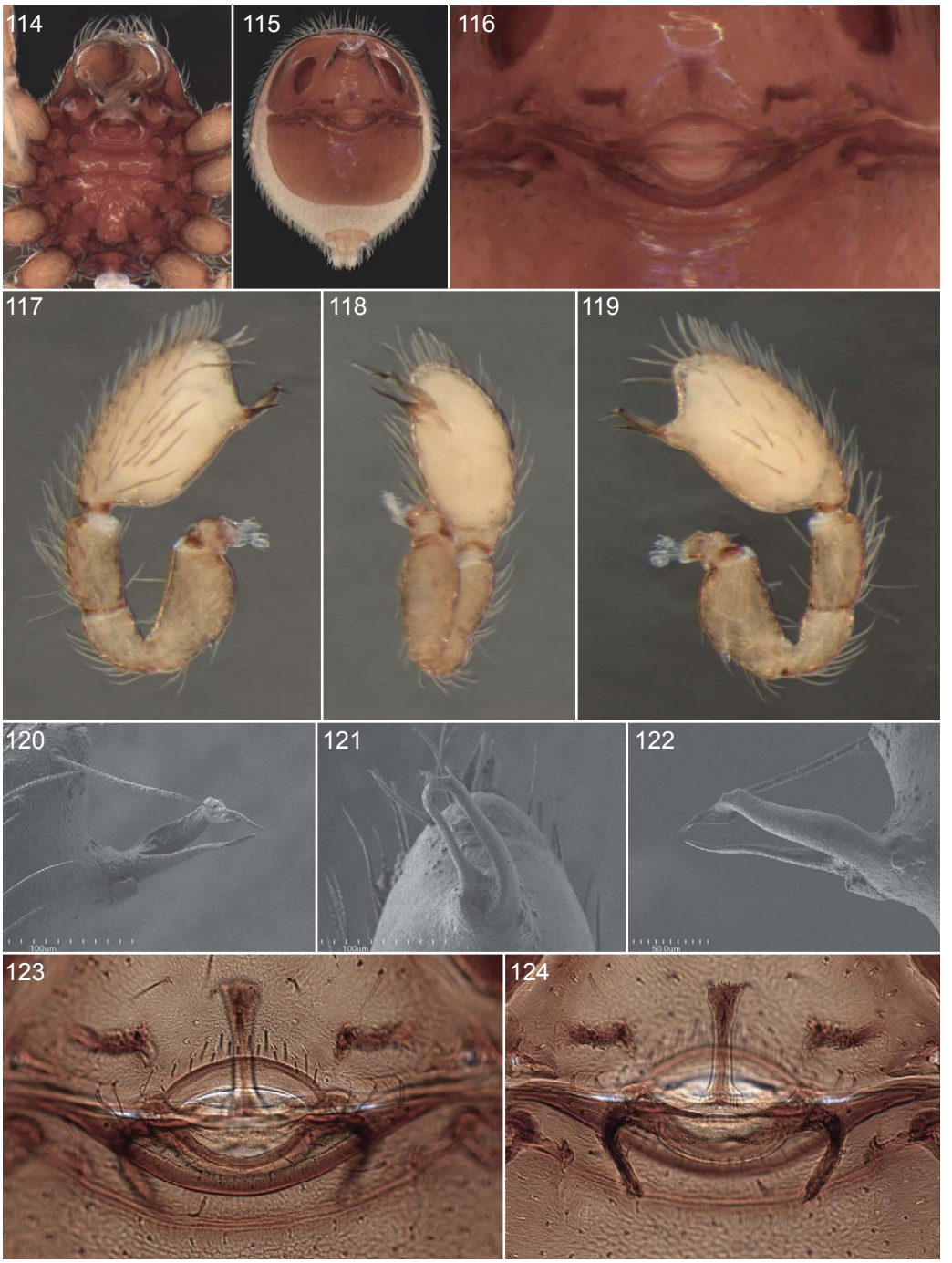
FIGURES 81–91. *Dysderina sasaima*, new species, male and female. **81.** Male sternum, ventral view. **82.** Female abdomen, ventral view. **83.** Female epigastric region, ventral view. **84.** Left male palp, prolateral view. **85.** Same, ventral view. **86.** Same, retrolateral view. **87.** Left embolus, prolateral view. **88.** Same, ventral view. **89.** Same, retrolateral view. **90.** Female genitalia, ventral view. **91.** Same, dorsal view.



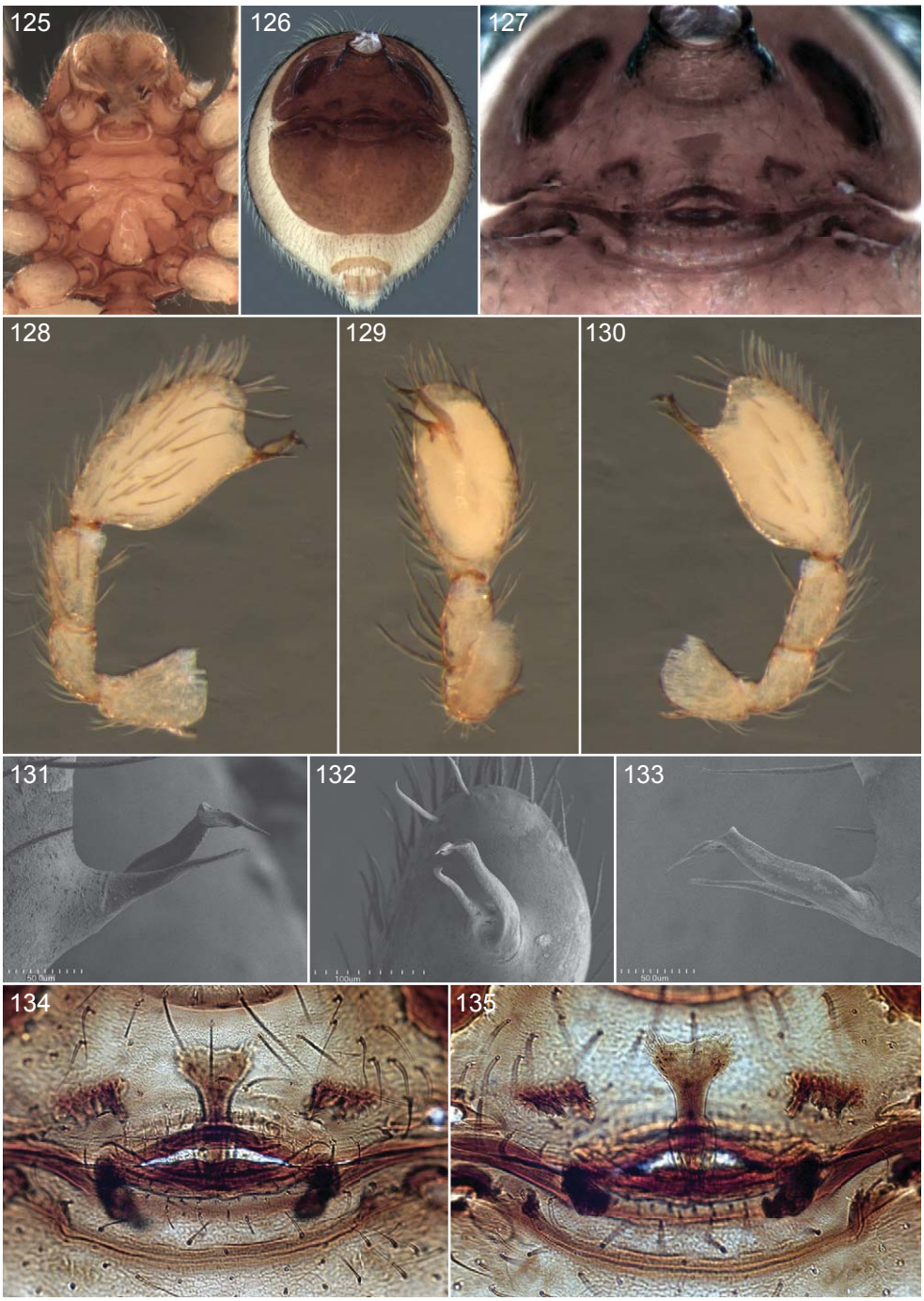
FIGURES 92–102. 92, 95–100. *Dysderina amaca*, new species, male. 93, 94, 101, 102. *Dysderina erwini*, new species, female. **92.** Sternum, ventral view. **93.** Abdomen, ventral view. **94.** Epigastric region, ventral view. **95.** Left palp, prolateral view. **96.** Same, ventral view. **97.** Same, retrolateral view. **98.** Left embolus, prolateral view. **99.** Same, ventral view. **100.** Same, retrolateral view. **101.** Genitalia, ventral view. **102.** Same, dorsal view.



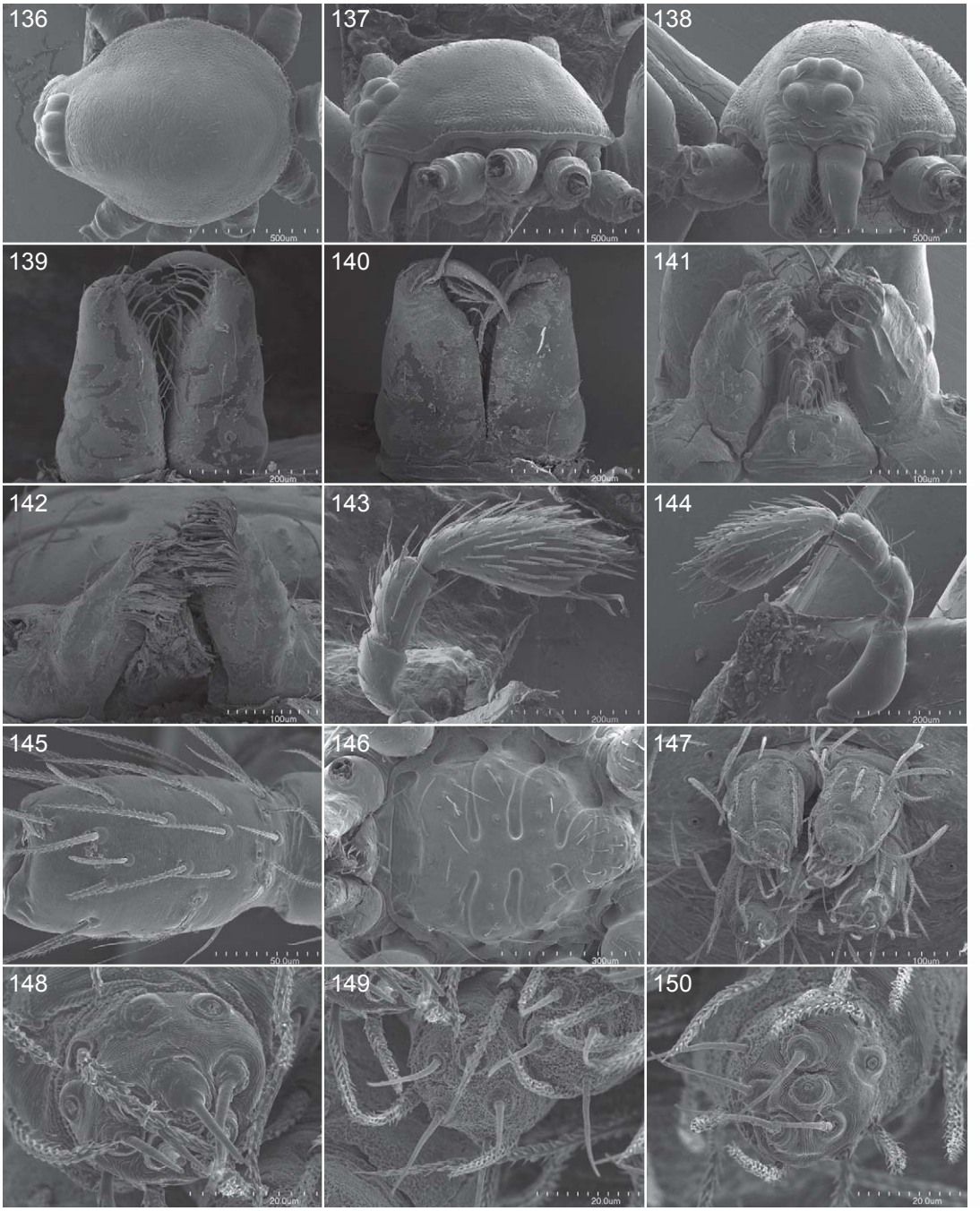
FIGURES 103–113. *Dysderina sacha*, new species, male and female. **103.** Male sternum, ventral view. **104.** Female abdomen, ventral view. **105.** Female epigastric region, ventral view. **106.** Left male palp, prolateral view. **107.** Same, ventral view. **108.** Same, retrolateral view. **109.** Left embolus, prolateral view. **110.** Same, ventral view. **111.** Same, retrolateral view. **112.** Female genitalia, ventral view. **113.** Same, dorsal view.



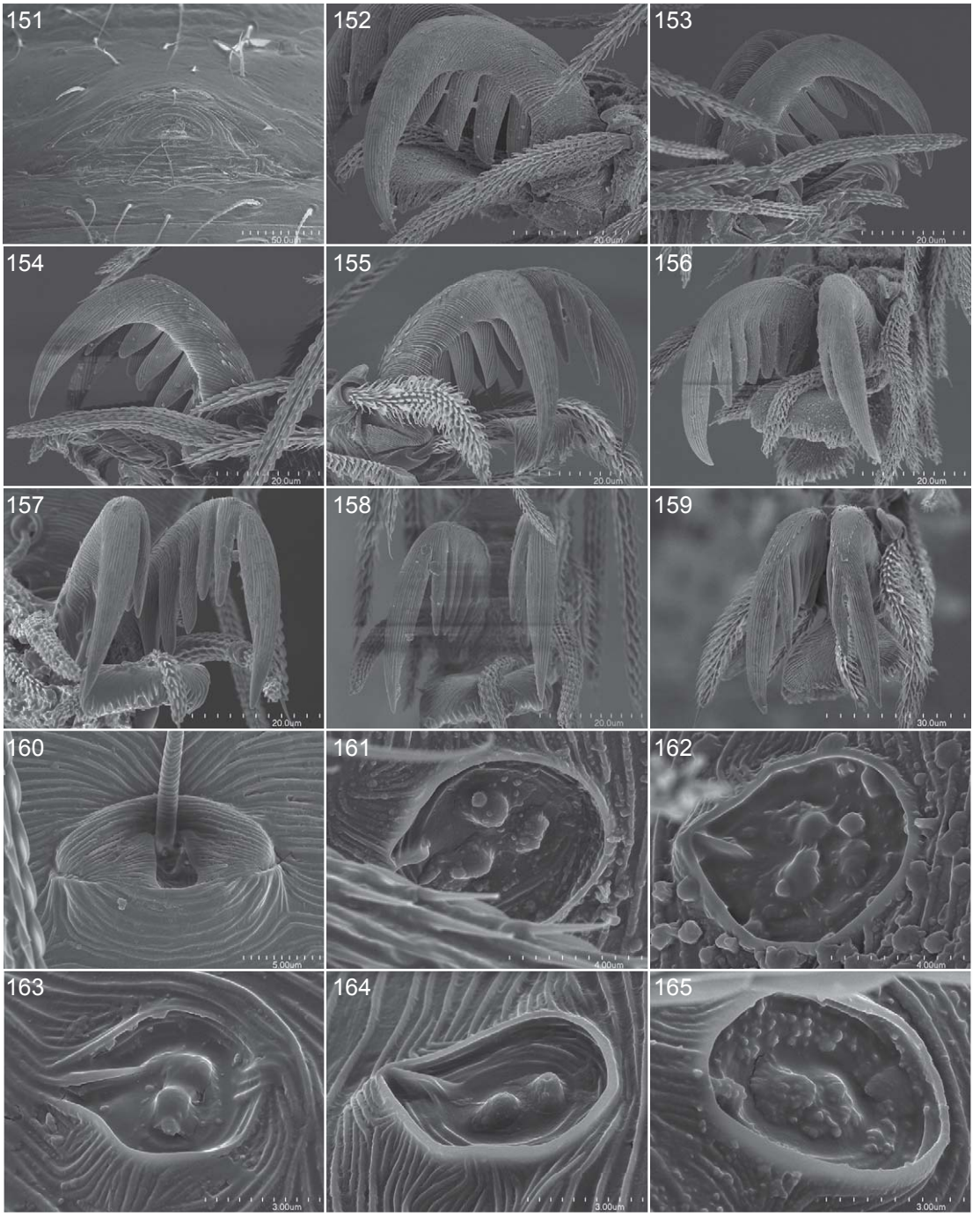
FIGURES 114–124. *Dysderina baehrae*, new species, male and female. **114.** Male sternum, ventral view. **115.** Female abdomen, ventral view. **116.** Female epigastric region, ventral view. **117.** Left male palp, prolateral view. **118.** Same, ventral view. **119.** Same, retrolateral view. **120.** Left embolus, prolateral view. **121.** Same, ventral view. **122.** Same, retrolateral view. **123.** Female genitalia, ventral view. **124.** Same, dorsal view.



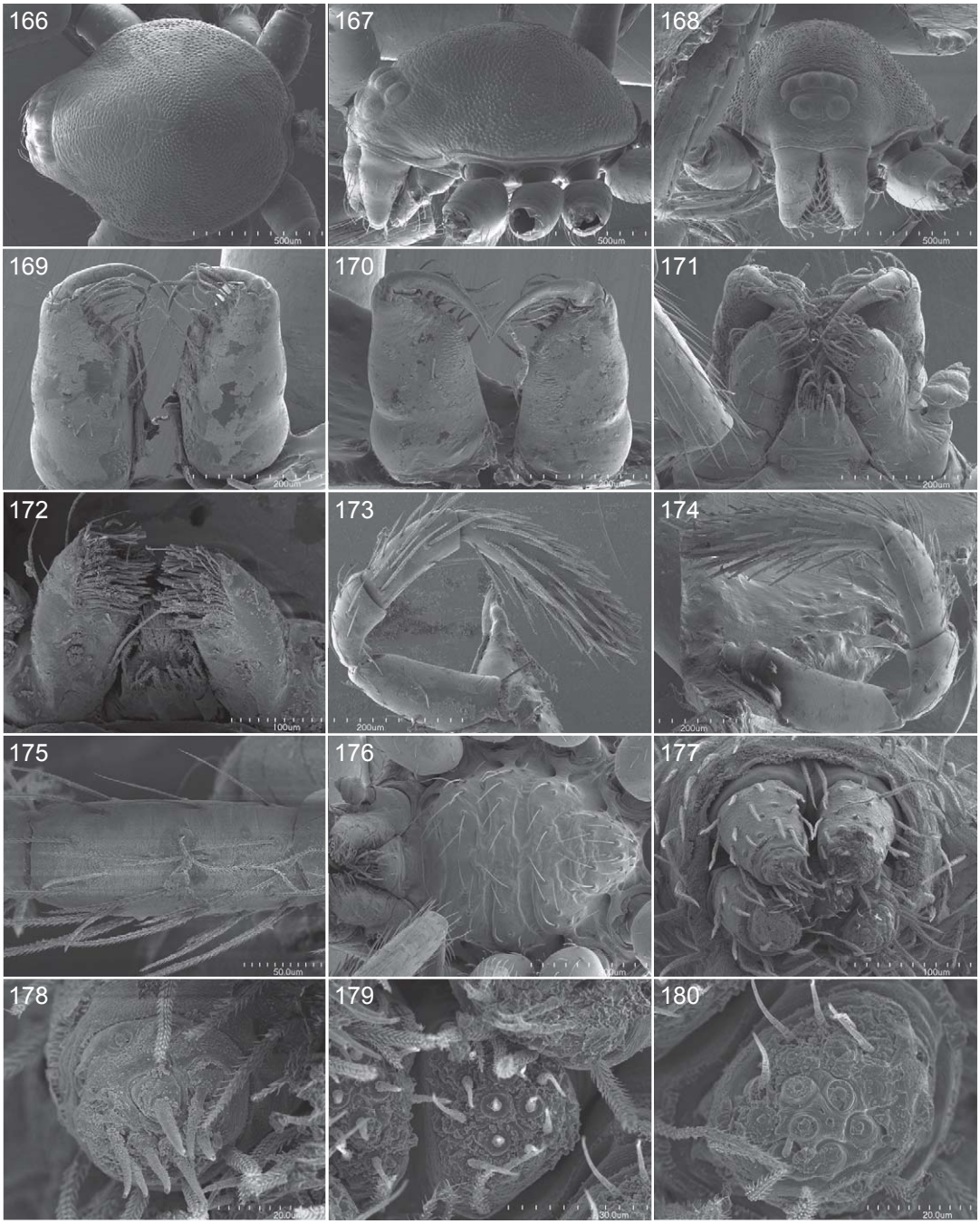
FIGURES 125–135. *Dysderina excavata*, new species, male and female. **125.** Male sternum, ventral view. **126.** Female abdomen, ventral view. **127.** Female epigastric region, ventral view. **128.** Left male palp, prolateral view. **129.** Same, ventral view. **130.** Same, retrolateral view. **131.** Left embolus, prolateral view. **132.** Same, ventral view. **133.** Same, retrolateral view. **134.** Female genitalia, ventral view. **135.** Same, dorsal view.



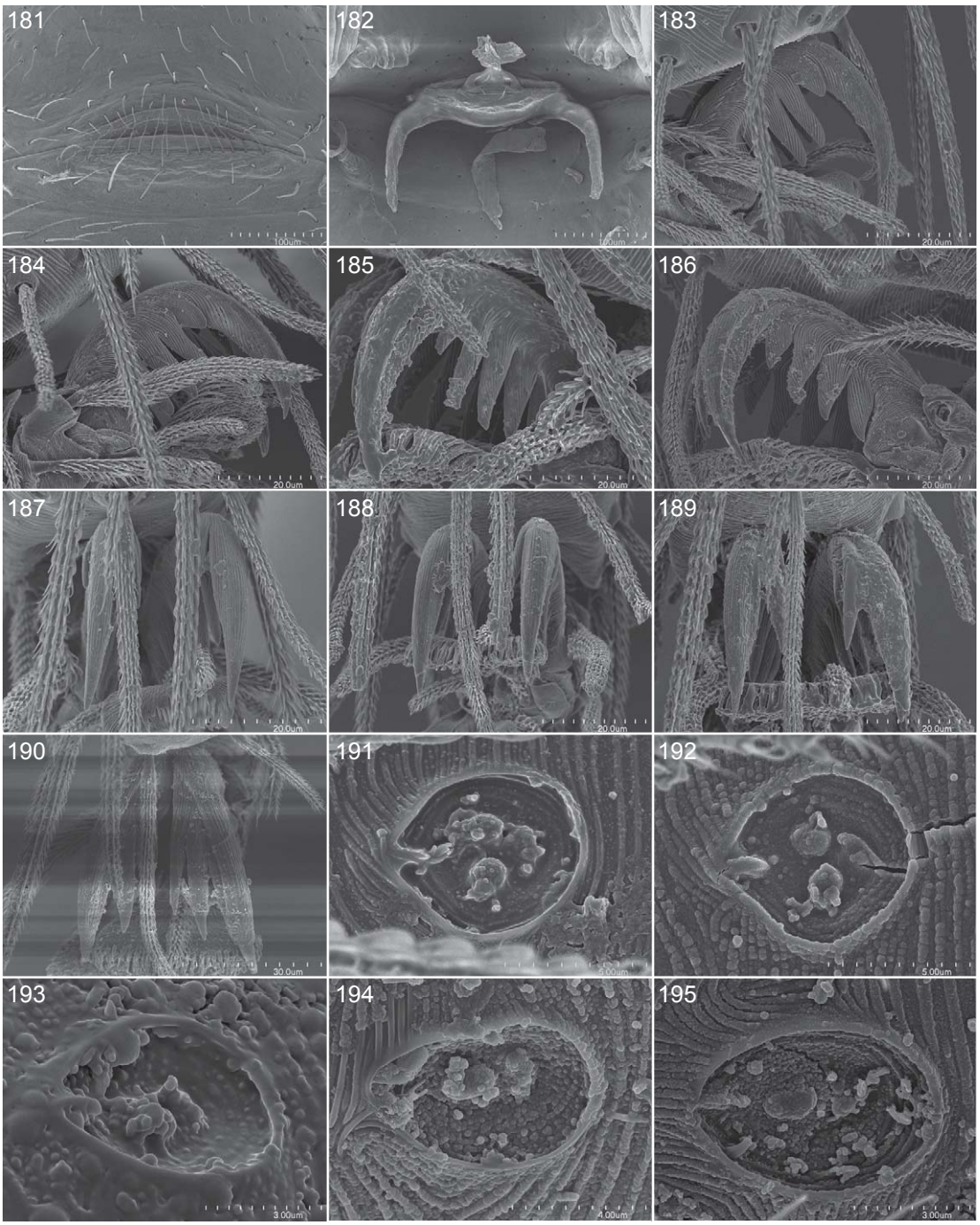
FIGURES 136–150. *Dysderina tiputini*, new species, male. **136.** Carapace, dorsal view. **137.** Same, lateral view. **138.** Same, anterior view. **139.** Chelicerae, anterior view. **140.** Same, posterior view. **141.** Labium and endites, ventral view. **142.** Labrum and endites, dorsal view. **143.** Palp, prolateral view. **144.** Palp, retrolateral view. **145.** Palpal tibia, dorsal view. **146.** Sternum, ventral view. **147.** Spinnerets, apical view. **148.** Anterior lateral spinneret, same. **149.** Posterior median spinneret, same. **150.** Posterior lateral spinneret, same.



FIGURES 151–165. *Dysderina tiputini*, new species, male. **151.** Sperm pore, ventral view. **152.** Claws of leg I, lateral view. **153.** Same, leg II. **154.** Same, leg III. **155.** Same, leg IV. **156.** Claws of leg I, apical view. **157.** Same, leg II. **158.** Same, leg III. **159.** Same, leg IV. **160.** Trichobothrial base from metatarsus III, dorsal view. **161.** Tarsal organ from leg I, dorsal view. **162.** Same, leg II. **163.** Same, leg III. **164.** Same, leg IV. **165.** Same, palp.



FIGURES 166–180. *Dysderina tiputini*, new species, female. **166.** Carapace, dorsal view. **167.** Same, lateral view. **168.** Same, anterior view. **169.** Chelicerae, anterior view. **170.** Same, posterior view. **171.** Labium and endites, ventral view. **172.** Labrum and endites, dorsal view. **173.** Palp, prolateral view. **174.** Palp, retrolateral view. **175.** Palpal tibia, dorsal view. **176.** Sternum, ventral view. **177.** Spinnerets, apical view. **178.** Anterior lateral spinneret, same. **179.** Posterior median spinneret, same. **180.** Posterior lateral spinneret, same.



FIGURES 181–195. *Dysderina tiputini*, new species, female. **181.** Epigastric area, ventral view. **182.** Internal genitalia, dorsal view. **183.** Claws of leg I, lateral view. **184.** Same, leg II. **185.** Same, leg III. **186.** Same, leg IV. **187.** Claws of leg I, apical view. **188.** Same, leg II. **189.** Same, leg III. **190.** Same, leg IV. **191.** Tarsal organ from leg I, dorsal view. **192.** Same, leg II. **193.** Same, leg III. **194.** Same, leg IV. **195.** Same, palp.

fied in males (figs. 6, 141), distally excavated in males of *D. principalis* and *D. urucu*, posteromedian part unmodified, females often with heavily rebordered anteromedian margins. Female palp without claw or spines (figs. 38, 39, 173, 174); tibia with three trichobothria (figs. 40, 175), patella without prolateral row of ridges, tarsus elongate. **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 usually connected by grooves, but anterior groove represented only by medially extended slits in some females, apparently absent in females of *D. excavata* and *D. ayo*; posterior groove continued beyond spiracles almost to lateral edge of postepigastric scutum (figs. 66, 93). 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, covering full length of abdomen, no soft tissue visible from above, not fused to epigastric scutum, 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, anterior margin unmodified, with short posteriorly directed lateral apodemes, in males covering nearly full length of abdomen, semicircular or almost rectangular, fused to epigastric scutum, in females almost as long, not fused to epigastric scutum. Spinneret scutum reduced or absent in males (fig. 235), present as incomplete ring with fringe of long setae in females (fig. 82); 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, 147, 177), posterior medians unisegmented, posterior laterals bisegmented; spigots scanned only in three species, anterior laterals of males with one major ampullate gland spigot and four piriform gland spigots (figs. 13, 148), of females with one major ampullate gland spigots and 6–13 piriform gland spigots (figs. 43, 178), posterior medians of males with two or three minor ampullate gland spigots with convex bases and two or three aciniform gland spigots with excavated bases (figs. 14, 149), of females with three minor ampullate gland spigots with convex bases and 6–13 aciniform gland spigots with excavated bases (figs. 44, 179), posterior laterals of males with five or six minor ampullate gland spigots with convex bases and two aciniform gland spigots with excavated bases (figs. 15, 150), of females with six minor ampullate gland spigots with convex bases and 6–17 aciniform gland spigots with excavated bases (figs. 45, 180). **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 absent, metatarsi I, II mesoapical comb absent, metatarsi III, IV weak ventral scopula absent. Leg spines present on anterior femora, tibiae, metatarsi; femoral spines strong, tibial, metatarsal spines long, spines absent on posterior legs. Tarsi without inferior claw. Superior claws, scanned only in three species, usually with four, five, or six stout teeth on outer row, five or six longer teeth on inner row (figs. 17–24, 48–55, 183–190), but outer row of teeth missing in at least males of *D. tiputini* (figs. 152–159). Trichobothrial base with rectangular aperture (figs. 25, 160). Tarsal organs with three receptors on legs I, II, two on legs

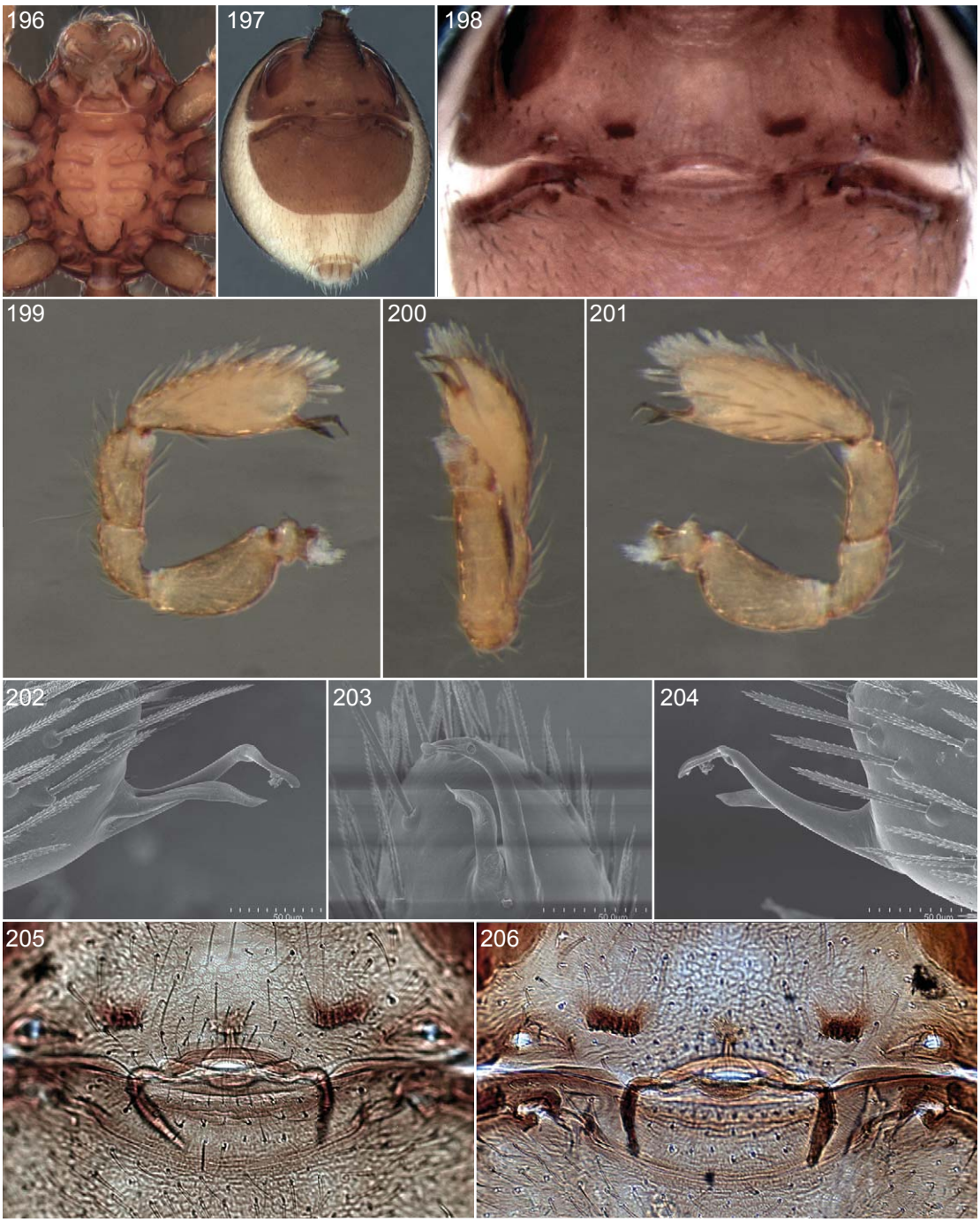
III, IV, palps (figs. 26–30, 56–60, 161–165, 191–195). **Genitalia:** Male epigastric region with sperm pore small, situated between anterior and posterior spiracles, rebordered (figs. 16, 151); furrow without Ω-shaped insertions, without specialized setae. Male palp of normal size, not strongly sclerotized, right and left palps symmetrical, proximal segments, cymbium yellow; embolus dark, prolateral excavation absent; trochanter of normal size, unmodified; femur dorsoventrally enlarged (figs. 9, 144), two or more times as long as trochanter (figs. 8, 143), 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 (figs. 10, 145); 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 to stout, elongated. Sclerotized embolus (distal prong) and sclerotized conductor (proximal prong) originating from same base but separate for most of their length (figs. 68, 214). Female genitalia externally with small but distinct atrium bearing rebordered anterior and posterior margins (figs. 46, 181), internally with anterior genitalic process (figs. 47, 182), process typically widened at base, apodemes short.

Distribution: Known only from Colombia, Ecuador, and Brazilian Amazonia; none of the many taxa that have been assigned to the genus in the past are actually congeneric with the type species.

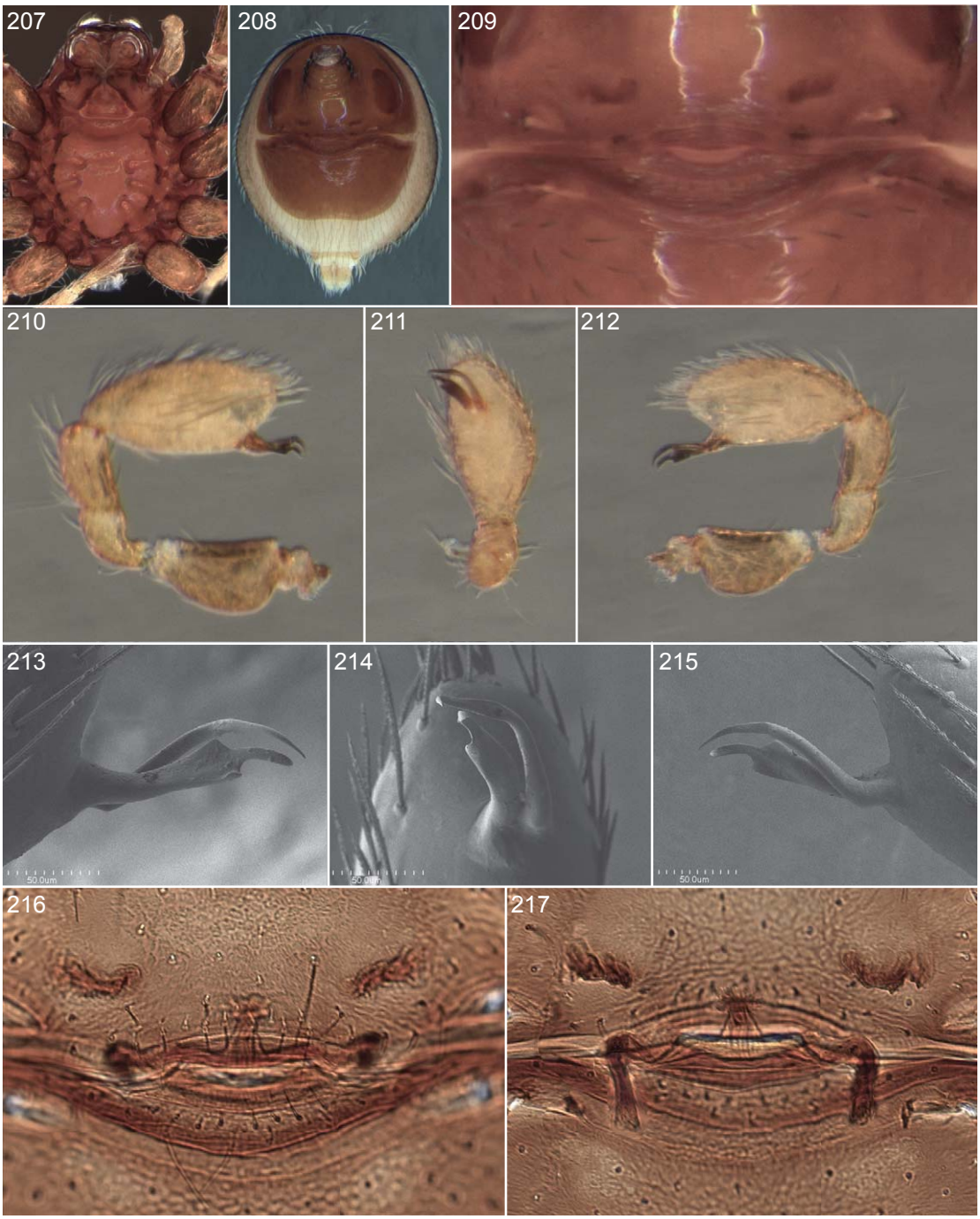
Species Groups: Two informal species groups are recognized. The *principalis* group includes those species in which the posterior edges of each of the three pairs of sternal excavations on each side of the sternum are connected by strong, transverse ridges (figs. 11, 64). The *tiputini* group includes those species in which the sternum has no transverse ridges (figs. 146, 196).

Key to Species of *Dysderina*

1. Sternum with transverse ridges (figs. 11, 64).....*principalis* group, 2
– Sternum without transverse ridges (figs. 146, 196).....*tiputini* group, 15
2. Males (unknown in *D. erwini*).....3
– Females (unknown in *D. amaca*).....9
3. Conductor much wider at middle than at tip (figs. 71, 99, 110).....4
– Conductor relatively uniform in width (figs. 88, 121, 132, 363).....6
4. Conductor abruptly narrowed at about half its length (fig. 99).....*amaca*
– Conductor gradually narrowing toward tip (figs. 71, 110).....5
5. Conductor with bulge on proximal side (fig. 71).....*principalis*
– Conductor with bulge on distal side (fig. 110).....*sacha*
6. Conductor much longer than embolus (fig. 88, 89).....*sasaima*
– Conductor otherwise (figs. 121, 122, 132, 133, 363, 364).....7
7. Conductor much shorter than embolus (figs. 363, 364).....*cunday*
– Conductor otherwise (figs. 121, 122, 132, 133.....8
8. Embolus relatively short, with notched tip (figs. 129, 132).....*excavata*
– Embolus longer, with sinuous tip (figs. 118, 121).....*baehrae*



FIGURES 196–206. *Dysderina tiputini*, new species, male and female. **196.** Male sternum, ventral view. **197.** Female abdomen, ventral view. **198.** Female epigastric region, ventral view. **199.** Left male palp, prolateral view. **200.** Same, ventral view. **201.** Same, retrolateral view. **202.** Left embolus, prolateral view. **203.** Same, ventral view. **204.** Same, retrolateral view. **205.** Female genitalia, ventral view. **206.** Same, dorsal view.



FIGURES 207–217. *Dysderina ayo*, new species, male and female. **207.** Male sternum, ventral view. **208.** Female abdomen, ventral view. **209.** Female epigastric region, ventral view. **210.** Left male palp, prolateral view. **211.** Same, ventral view. **212.** Same, retrolateral view. **213.** Left embolus, prolateral view. **214.** Same, ventral view. **215.** Same, retrolateral view. **216.** Female genitalia, ventral view. **217.** Same, dorsal view.

9. Genitalic atrium relatively long, narrow, U-shaped (fig. 366); apodemes very long (fig. 367) .....*cunday*
– Genitalic atrium relatively short, wide (as in figs. 112, 134); apodemes shorter (as in figs. 91, 113).....10
10. Anterior genitalic process greatly widened at tip (figs. 91, 135).....11
– Anterior genitalic process otherwise (figs. 80, 102, 113, 124).....12
11. Anterior genitalic process widened at base (fig. 135).....*excavata*
– Anterior genitalic process not widened at base (fig. 91).....*sasaima*
12. Anterior genitalic process gradually widened at base (fig. 102).....*erwini*
– Anterior genitalic process abruptly widened at base (figs. 80, 113, 124).....13
13. Apodemes relatively short (figs. 112, 113).....*sacha*
– Apodemes relatively long (figs. 80, 124).....14
14. Posterior margin of transverse bar connecting apodemes sinuous (fig. 80).....*principalis*
– Posterior margin of transverse bar connecting apodemes rounded (fig. 124).....*baehrae*
15. Males.....16
– Females (unknown in *D. matamata*, *D. craigi*, and *D. urucu*).....20
16. Conductor abruptly narrowed near tip (figs. 213, 227, 239).....17
– Conductor gradually narrowed near tip (figs. 202, 221).....19
17. Narrowed tip of conductor originating near distal edge of conductor (fig. 239).....*urucu*
– Narrowed tip of conductor originating near middle of conductor (figs. 213, 227).....18
18. Conductor angular where narrowed, tip not subdistally widened (figs. 213, 215).....*ayo*
– Conductor rounded where narrowed, tip subdistally widened (figs. 227, 229).....*craigi*
19. Conductor much wider at middle than at tip (fig. 221).....*matamata*
– Conductor otherwise (fig. 202).....*tiputini*
20. Anterior genitalic process abruptly narrowed at middle of its length (fig. 206).....*tiputini*
– Anterior genitalic process gradually narrowed (fig. 217).....*ayo*

The *principalis* Group

In addition to having strong, transverse ridges on the sternum, males of these species have the dorsal process on the anterior tip of the endites elongated and heavily sclerotized (figs. 6, 7, 114).

Dysderina principalis (Keyserling)

Figures 31–80

Oonops principalis Keyserling, 1881: 296, fig. 16 (male holotype from "Neu-Granada," no specific locality, in BMNH; examined).

Dysderina principalis: Simon, 1891: 557 (misidentified). – Chickering, 1968: 25, figs. 55, 56. – Platnick and Dupérré, 2011a: 2, figs. 1–12.

Note: Males and females have not been collected together. Although Keyserling (1881) provided no specific type locality, the types of *Oonops similis* Keyserling and *Oonops propinquus* Keyserling, the descriptions of which immediately follow that of *O. principalis,* and which also

have only "Neu-Granada" as their type locality, were apparently taken in montane areas near Bogotá, Colombia (see Platnick et al., 2013). The females here associated with the male holotype are also from elevations of 2000–2200 m in Cundinamarca department, and are a good match to that specimen in sternal morphology.

Diagnosis: Males resemble those of *D. sasaima* but have a wider conductor (figs. 67–72); females have a wide genital atrium with a sinuous posterior margin (figs. 78–80).

Male (PBI_OON 569, figs. 61–72): Total length 1.65. Carapace lateral margin with blunt denticles. ALE separated by their radius to diameter. Endites distally excavated, ventral and dorsal projections each with long, narrow, heavily sclerotized extension. Leg spination (right and left leg I both missing, but Keyserling reported four or five pairs on tibia, three on metatarsus): tibia II v4-4-0; metatarsus II v2-2-0. Sperm pore circular. Embolus evenly curved for two-thirds its length, then straight, narrowed; conductor greatly widened at about half its length; bulb stout.

Female (PBI_OON 49891, figs. 31–60, 73–80): Total length 2.83. Postepigastric scutum extending to nearly full length of abdomen. Leg spination: femora: I p0-0-2, r1-1-1; II p0-0-2, r0-1-1; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-2-2; II v2-1p-2. Genital atrium wide, anterior and posterior margins sinuous.

Material Examined: **Colombia:** no specific locality (BMNH PBI_OON 569), 1♂ (holotype). *Cundinamarca:* Bosque El Ermitaño, Vereda La Máquina, San Antonio del Tequendama, Dec. 1997–Jan. 1998, pitfall traps, low vegetation, secondary forest, elev. 2000 m (S. Forero, ICN PBI_OON 49890), 4♀; farm of Padre Luna, Municipio Albán, Oct. 18, 2001, elev. 2200 m (A. Gómez, ICN 767, PBI_OON 49891), 1♀.

Distribution: Colombia (Cundinamarca).

Dysderina sasaima, new species

Figures 1–30, 81–91

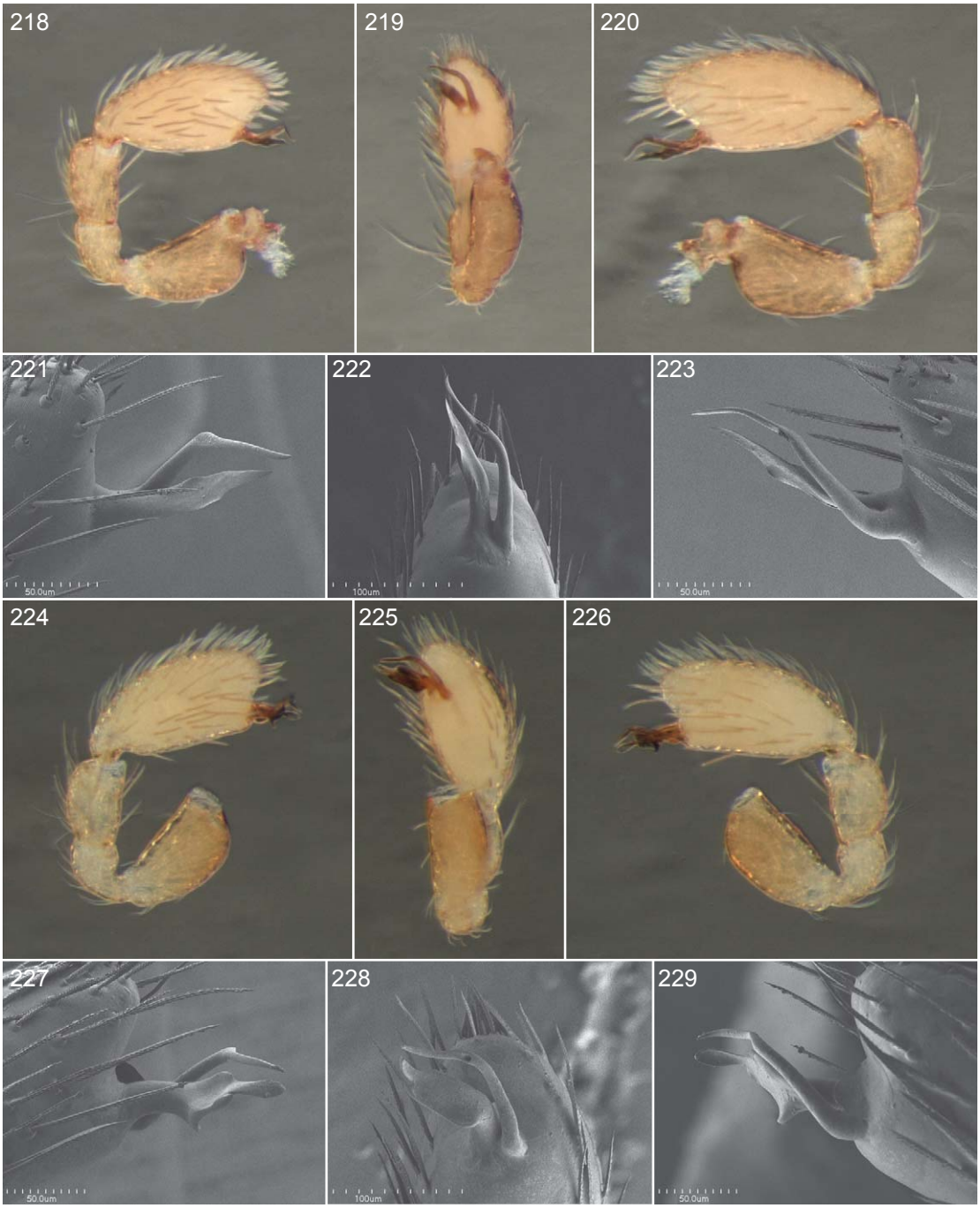
Type: Male holotype collected under damp leaves and rocks at Finca Bella Vista, near Sasaima, Cundinamarca, Colombia (Apr. 8, 1965; P., D. Craig), deposited in CAS (26312, PBI_OON 2604).

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

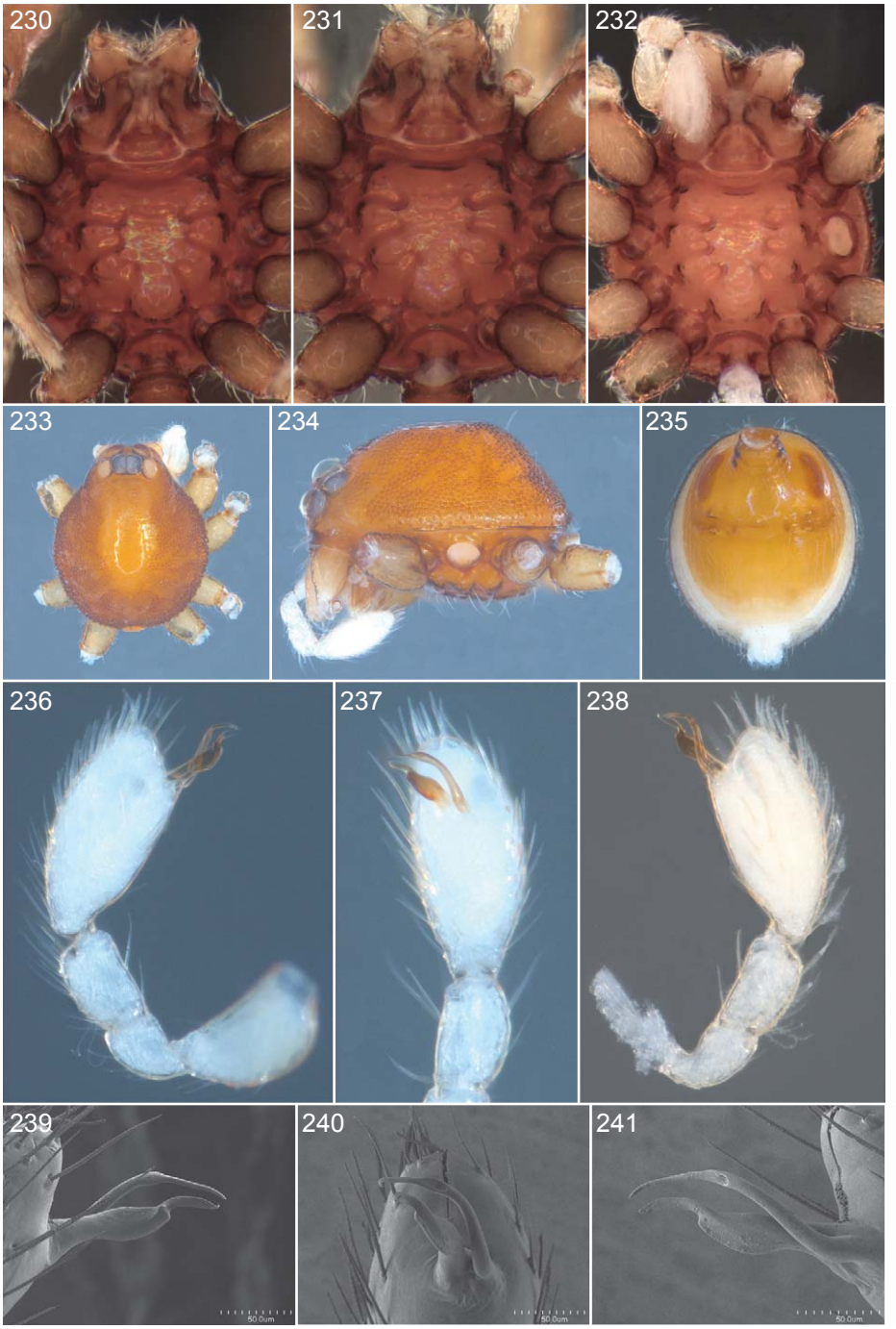
Diagnosis: Males resemble those of *D. principalis* but have a longer, narrower conductor (figs. 84–89); females have a narrower genital atrium with a more heavily sclerotized posterior margin (figs. 83, 90, 91).

Male (PBI_OON 2604, figs. 1–30, 81, 84–89): Total length 2.27. Carapace lateral margin with blunt denticles. ALE separated by their radius to diameter. Endites distally not excavated, ventral process short, narrow, dorsal process greatly elongated, with distinct articulation. 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. Sperm pore circular. Embolus short, narrow, bent at half its length; conductor much longer, narrow, bent at about half its length; bulb stout.

Female (PBI_OON 2594, figs. 82, 83, 90, 91): Total length 2.61. Postepigastric scutum extending to nearly full length of abdomen. Leg spination: femora: I p0-0-2, r1-1-1; II p0-0-2, r1-1-0;



FIGURES 218–229. 218–223. *Dysderina matamata*, new species, male. 224–229. *D. craigi*, new species, male. **218, 224.** Left male palp, prolateral view. **219, 225.** Same, ventral view. **220, 226.** Same, retrolateral view. **221, 227.** Left embolus, prolateral view. **222, 228.** Same, ventral view. **223, 229.** Same, retrolateral view.



FIGURES 230–241. 230. *Dysderina matamata*, new species, male. 231. *D. craigi*, new species, male. 232–241. *D. urucu*, new species, male. **230–232.** Sternum, ventral view. **233.** Carapace, dorsal view. **234.** Same, lateral view. **235.** Abdomen, ventral view. **236.** Left male palp, prolateral view. **237.** Same, ventral view. **238.** Same, retrolateral view. **239.** Left embolus, prolateral view. **240.** Same, ventral view. **241.** Same, retrolateral view.

tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-1p-2; II v3-0-2. Genital atrium reduced to narrow slit, anterior and posterior margins heavily rebordered, anterior margin enlarged near midline.

Other Material Examined: **Colombia:** *Cundinamarca:* Finca Bella Vista, near Sasaima, Apr. 9, 1965, under rocks and leaves (P., D. Craig, CAS 26303, PBI_OON 2594), 1♀, Apr. 10, 1965 (P., D. Craig, CAS 26304, PBI_OON 2595), 1♂, Apr. 21, 1965, damp leaf mold by creek (P. Craig, CAS 26328, PBI_OON 2735), 5♂, 1♀, June 4, 1965, under plant cover in root-soil leaf mold (P. Craig, CAS 26305, PBI_OON 2596), 1♂, June 5, 1965 (P. Craig, CAS 26321, PBI_OON 2753), 2♂.

Distribution: Colombia (Cundinamarca).

Dysderina cunday, new species

Figures 357–367

Types: Male holotype and female allotype taken at an elevation of 650 m outside the Cueva El Eden, 4.01196°N, 74.75515W°, Vereda La Camelia, Cunday, Tolima, Colombia (Feb. 6, 2010; A. Perez, L. Benavides, D. Luna), deposited in ICN (6484, PBI_OON 50765).

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

Diagnosis: Males have a distinctively short conductor (figs. 363, 365); females have a distinctively long, narrow, U-shaped genitalic atrium (figs. 366, 367).

Male (PBI_OON 50765, figs. 357, 360–365): Total length 1.83. Carapace lateral margin with blunt denticles. ALE separated by more than their radius. Endites distally excavated, ventral process enlarged, with anteriorly directed tip; dorsal process narrow. Leg spination: femur I p0-0-2, r0-1-1; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-1p-2; II v2-1p-0. Sperm pore narrow, slitlike. Embolus sinuous, with beaklike tip; conductor much shorter than embolus.

Female (PBI_OON 50765, figs. 358, 359, 366, 367): Total length 2.27. ALE separated by less than their radius. Leg spination: femora I, II p0-0-2, r0-1-1; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-2-2; II v3-0-2. Genitalic atrium relatively long, narrow, U-shaped; apodemes extremely long.

Other Material Examined: None.

Distribution: Colombia (Tolima).

Dysderina amaca, new species

Figures 92, 95–100

Type: Male holotype from Winkler sample of litter taken at an elevation of 150 m at Matamata, Parque Nacional Natural Amacayacu, 3°23′S, 70°06′W, Amazonas, Colombia (June 9–11, 2000; A. Parente), deposited in IAVH (108111, PBI_OON 49892).

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

Diagnosis: Males have a complex, bent conductor that is basally flat and wide but is abruptly narrowed at about half its length (figs. 95–100).

Male (PBI_OON 49892, figs. 92, 95–100): Total length 1.87. Carapace lateral margin with blunt denticles. ALE separated by less than their radius. Endites distally not excavated, ventral process narrow, triangular, dorsal process short, heavily sclerotized. Leg spination: femur I

p0-0-2, r0-1-0; tibiae: I v4-4-1p; II v4-4-0; metatarsi: I v2-1p-2; II v3-0-2. Sperm pore narrow, slitlike. Embolus narrow, long, strongly arched; conductor complex, abruptly narrowed on both sides at about half its length; bulb stout.

Female: Unknown.

Other Material Examined: **Colombia:** *Amazonas:* track to Calderón, off km 22 N Leticia, 4°02′44″S, 69°59′25″W, Nov. 6, 2004, elev. 85 m (L. Benavides, G. Giribet, R. Mesa, ICN 2221, PBI_OON 49893) 1♂.

Distribution: Colombia (Amazonas).

Dysderina sacha, new species

Figures 103–113

Type: Male holotype taken at an elevation of 410 m in the Estación Biológica Jatun Sacha, 1°03′57.5″S, 77°37′00.2″W, Napo, Ecuador (Dec. 2, 2009; Niarchos Expedition), deposited in QCAZ (PBI_OON 49902).

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

Diagnosis: Males have a distinctively shaped palpal conductor (figs. 106–111); females have a relatively large genital atrium with a heavily rebordered anterior margin (figs. 112, 113).

Male (PBI_OON 49902, figs. 103, 106–111): Total length 2.00. Carapace lateral margin with blunt denticles. ALE separated by less than their radius. Endites distally not excavated, ventral process heavily sclerotized at base, dorsal process heavily sclerotized at tip. Leg spination: femur I p0-0-2, r0-1-0; tibiae: I v4-4-1p; II v4-4-0; metatarsi: I v2-1p-2; II v2-0-2. Sperm pore narrow, slitlike. Embolus bent at about half its length, conductor dorsally widened at about half its length; bulb stout.

Female (PBI_OON 30572, figs. 104, 105, 112, 113): Total length 2.39. Postepigastric scutum extending to about 3/4 of abdomen length. Leg spination: femora I, II p0-0-2, r0-1-1; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-2-2; II v3-0-2. Genital atrium relatively large, anterior and posterior margins rebordered.

Other Material Examined: **Ecuador:** *Napo:* Estación Biológica Jatun Sacha, 1°03′57.5″S, 77°37′00.2″W, Dec. 1–5, 2009, humid forest litter, elev. 410 m (C. Grismado, F. Labarque, Niarchos Expedition, MACN PBI_OON 30572), 1♀.

Distribution: Ecuador (Napo).

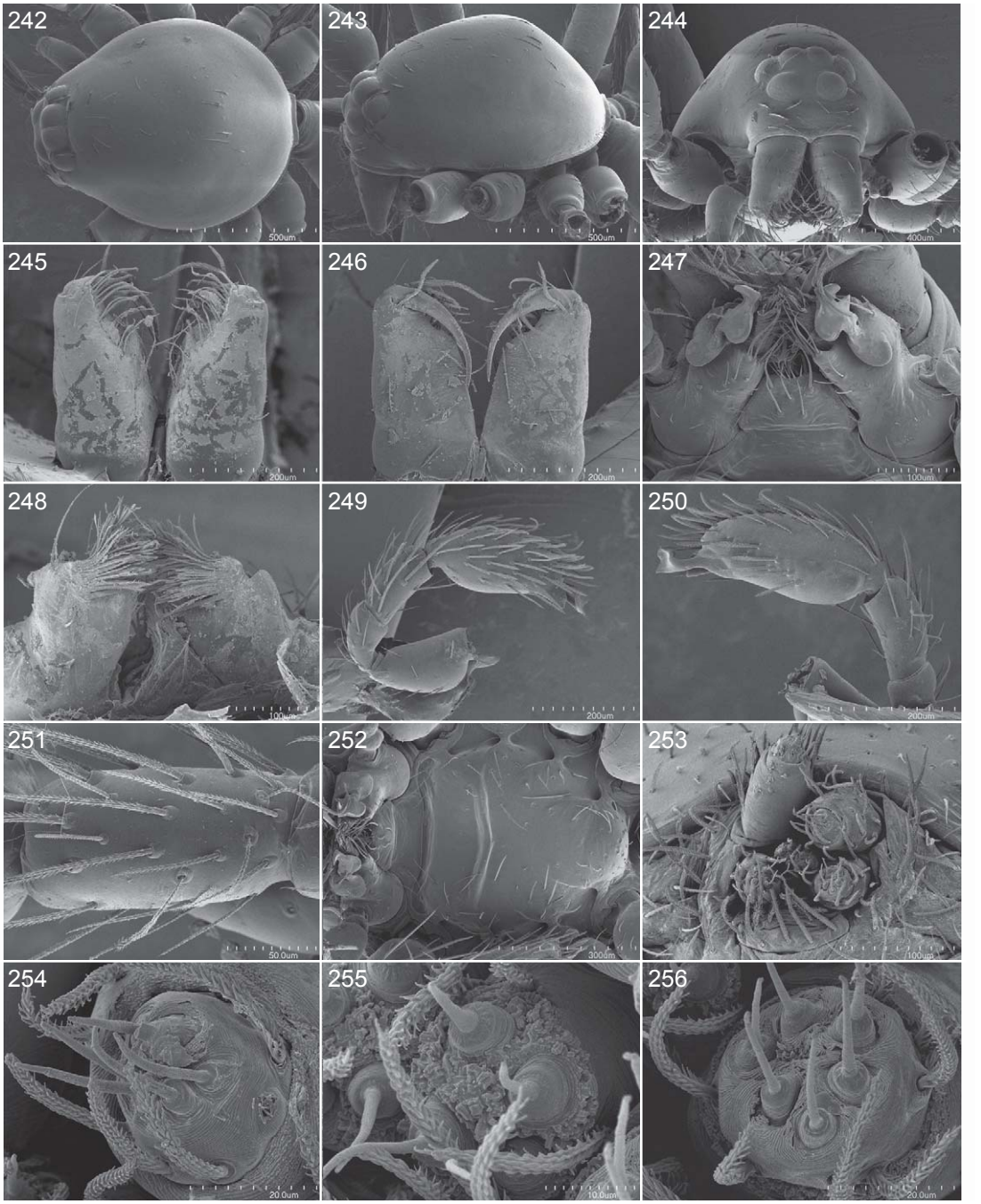
Dysderina erwini, new species

Figures 93, 94, 101, 102

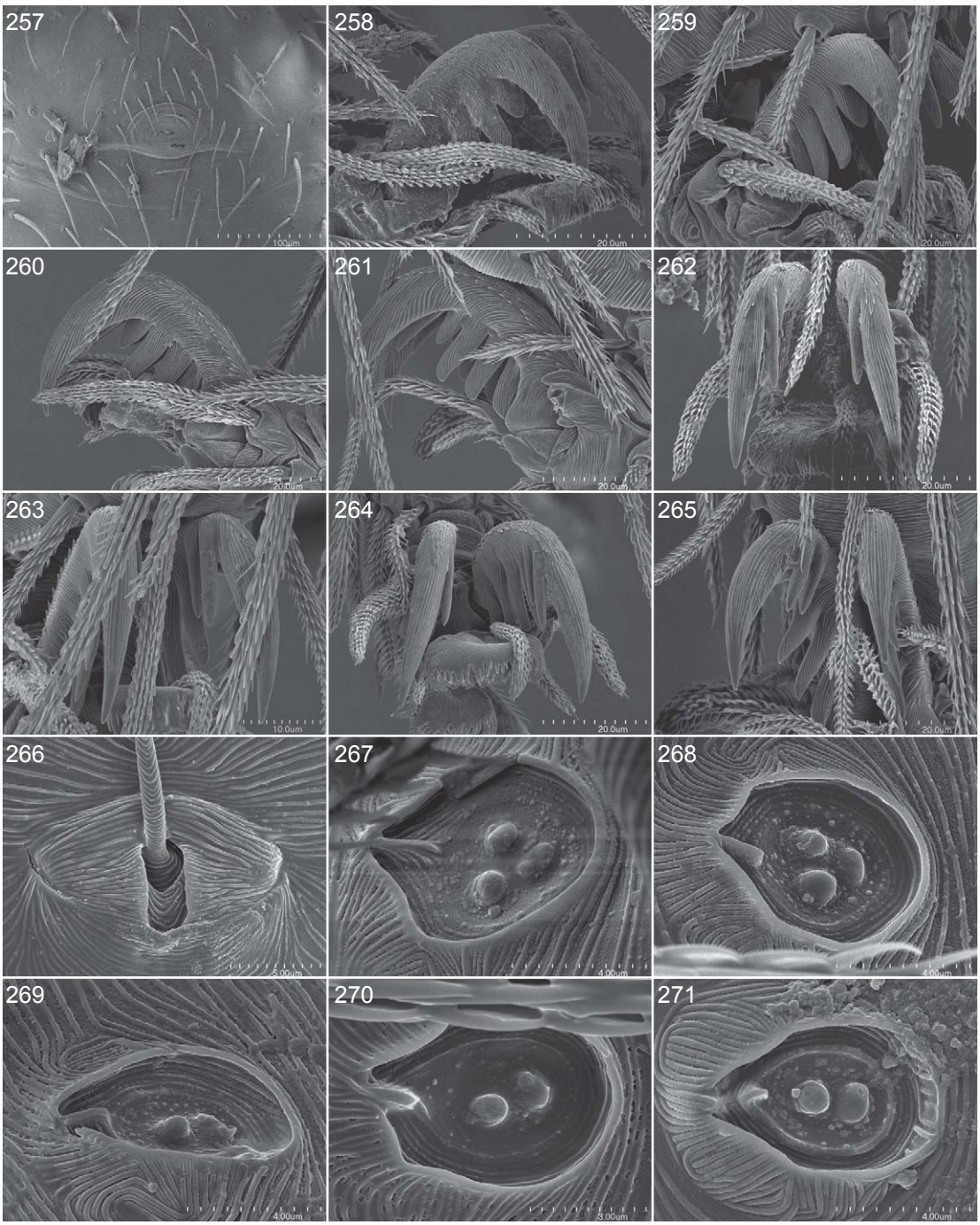
Type: Female holotype taken at an elevation of 220–250 m in the Estación de Biodiversidad Tiputini, near the Parque Nacional Yasuni, 0°37′55″S, 76°08′39″W, Orellana, Ecuador (July 1, 1998; T. Erwin et al.), deposited in USNM (PBI_OON 49550).

Etymology: The specific name is a patronym in honor of the collector of the type, Terry Erwin of the Smithsonian Institution.

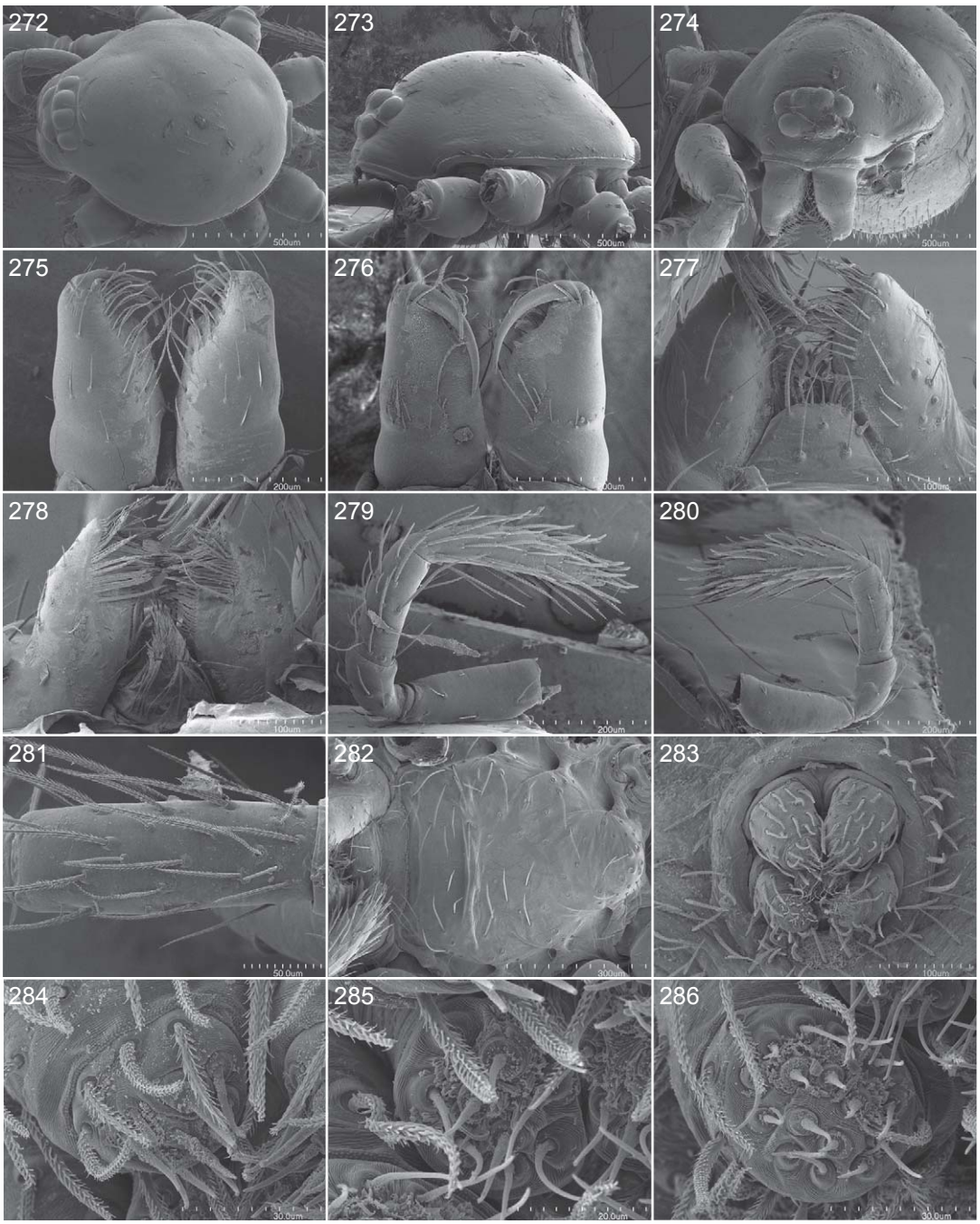
Diagnosis: Females resemble those of *D. excavata* but have a much narrower genital atrium and a much narrower anterior genitalic process (figs. 101, 102).



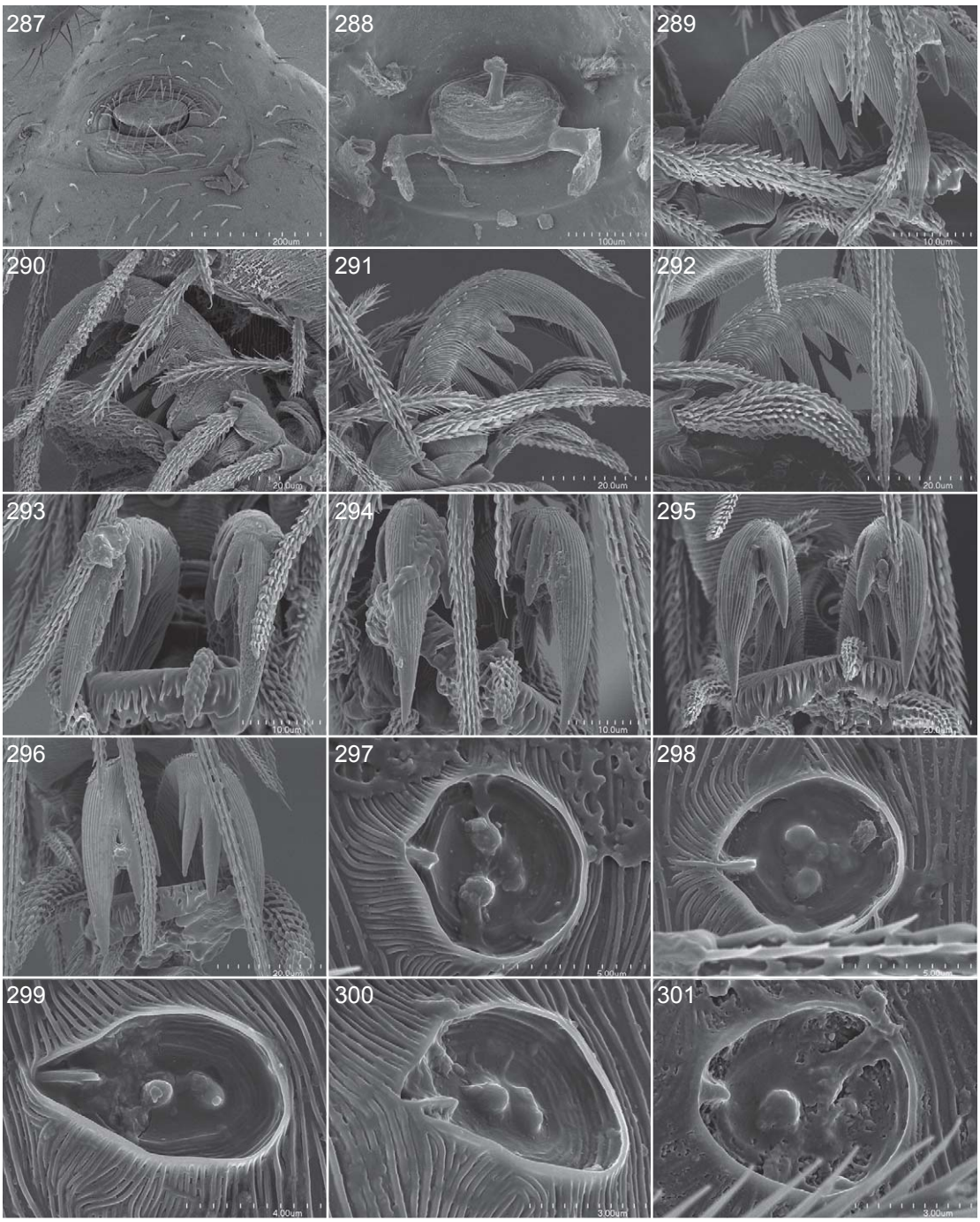
FIGURES 242–256. *Tridysderina yasuni*, new species, male. **242.** Carapace, dorsal view. **243.** Same, lateral view. **244.** Same, anterior view. **245.** Chelicerae, anterior view. **246.** Same, posterior view. **247.** Labium and endites, ventral view. **248.** Labrum and endites, dorsal view. **249.** Palp, prolateral view. **250.** Palp, retrolateral view. **251.** Palpal tibia, dorsal view. **252.** Sternum, ventral view. **253.** Spinnerets, apical view. **254.** Anterior lateral spinneret, same. **255.** Posterior median spinneret, same. **256.** Posterior lateral spinneret, same.



FIGURES 257–271. *Tridysderina yasuni*, new species, male. **257.** Sperm pore, ventral view. **258.** Claws of leg I, lateral view. **259.** Same, leg II. **260.** Same, leg III. **261.** Same, leg IV. **262.** Claws of leg I, apical view. **263.** Same, leg II. **264.** Same, leg III. **265.** Same, leg IV. **266.** Trichobothrial base from metatarsus II, dorsal view. **267.** Tarsal organ from leg I, dorsal view. **268.** Same, leg II. **269.** Same, leg III. **270.** Same, leg IV. **271.** Same, palp.



FIGURES 272–286. *Tridysderina yasuni*, new species, female. **272.** Carapace, dorsal view. **273.** Same, lateral view. **274.** Same, anterior view. **275.** Chelicerae, anterior view. **276.** Same, posterior view. **277.** Labium and endites, ventral view. **278.** Labrum and endites, dorsal view. **279.** Palp, prolateral view. **280.** Palp, retrolateral view. **281.** Palpal tibia, dorsal view. **282.** Sternum, ventral view. **283.** Spinnerets, apical view. **284.** Anterior lateral spinneret, same. **285.** Posterior median spinneret, same. **286.** Posterior lateral spinneret, same.



FIGURES 287–301. *Tridysderina yasuni*, new species, female. **287.** Epigastric area, ventral view. **288.** Internal genitalia, dorsal view. **289.** Claws of leg I, lateral view. **290.** Same, leg II. **291.** Same, leg III. **292.** Same, leg IV. **293.** Claws of leg I, apical view. **294.** Same, leg II. **295.** Same, leg III. **296.** Same, leg IV. **297.** Tarsal organ from leg I, dorsal view. **298.** Same, leg II. **299.** Same, leg III. **300.** Same, leg IV. **301.** Same, palp.

FIGURES 302–312. *Tridysderina yasuni*, new species, male and female. **302.** Male sternum, ventral view. **303.** Female abdomen, ventral view. **304.** Female epigastric region, ventral view. **305.** Left male palp, prolateral view. **306.** Same, ventral view. **307.** Same, retrolateral view. **308.** Left embolus, prolateral view. **309.** Same, ventral view. **310.** Same, retrolateral view. **311.** Female genitalia, ventral view. **312.** Same, dorsal view.

Male: Unknown.

Female (PBI_OON 49550, figs. 93, 94, 101, 102): Total length 1.91. Carapace lateral margin with blunt denticles. ALE separated by their radius to diameter. Postepigastric scutum extending to about 3/4 of abdomen length. Leg spination: femora I, II p0-0-2, r0-1-1; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-2-2; II v3-0-2. Genital atrium small, with heavily sclerotized lateral margins; anterior genitalic process only slightly widened anteriorly.

Other Material Examined: None.

Distribution: Ecuador (Orellana).

Dysderina baehrae, new species

Figures 114–124

Types: Male holotype and female allotype from pitfall trap set at an elevation of 230 m in the Parque Nacional Yasuni, 0°40′16″S, 76°24′18″W, Orellana, Ecuador (Dec. 1–5, 2009; B. Baehr, Niarchos Expedition), deposited in QCAZ (PBI_OON 49548).

Etymology: The specific name is a patronym in honor of the collector of the types, Barbara Baehr of the Queensland Museum.

Diagnosis: Both sexes resemble those of *D. excavata* in having the anterior sternal ridge deflected anteriorly at the midline (fig. 114), and the males of both species have medially excavated chelicerae and a long, highly sclerotized dorsal process on the endites (fig. 114). In *D. baehrae*, the embolus is longer and has a more complex tip (figs. 117–122), and the female genital atrium is much larger (figs. 123, 124).

Male (PBI_OON 49548, figs. 114, 117–122): Total length 2.13. Carapace lateral margin with blunt denticles. ALE separated by their radius to diameter. Endites distally not excavated, dorsal prong long, heavily sclerotized. Leg spination: femur I p0-0-2, r0-1-1; tibiae: I v4-4-2; II v4-3-0; metatarsi: I v2-1p-2; II v2-0-2. Sperm pore narrow, slitlike. Embolus elaborately twisted below tip; conductor long, tip bent anteriorly; bulb slender.

Female (PBI_OON 49548, figs. 115, 116, 123, 124): Total length 2.23. Postepigastric scutum extending to about 3/4 of abdomen length. Leg spination: femora I, II p0-0-2, r0-1-1; tibiae I, II v4-4-2; metatarsi: I v2-1p-2; II v3-0-2. Genital atrium large, ovoid, with rebordered anterior and posterior margins; anterior genitalic process gradually expanded toward tip.

Other Material Examined: None.

Distribution: Ecuador (Orellana).

Dysderina excavata, new species

Figures 125–135

Types: Male holotype and female allotype from Berlese sample of humid forest litter taken at an elevation of 295 m at the Estación Científica Yasuni, Río Tiputini, 0.67428°S, 76.39764°W, Orellana, Ecuador (Dec. 1–5, 2009; M. Ramírez, Niarchos Expedition), deposited in QCAZ (PBI_OON 30585).

Etymology: The specific name refers to the excavated male chelicerae.

Diagnosis: Both sexes resemble those of *D. baehrae* in having irregular ridges connecting the sternal grooves (fig. 125), and the males of both species have medially excavated chelicerae and a long, highly sclerotized dorsal process on the endites (fig. 125). In *D. excavata*, the embolus is shorter and has a differently shaped tip (figs. 128–133), and the female genital atrium is much smaller (figs. 134, 135).

Male (PBI_OON 30585, figs. 125, 128–133): Total length 2.05. Carapace lateral margin with blunt denticles. ALE separated by their radius to diameter. Endites distally not excavated, dorsal prong long, very heavily sclerotized. Leg spination: femora: I p0-0-2, r0-1-1; II p0-0-2, r0-1-0; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-1p-2; II v1p-2-2. Sperm pore narrow, slitlike. Embolus with slightly curved middle portion, bent just before tip, tip twisted; conductor abruptly narrowed just beyond base, straight for most of its length, with slightly bent tip; bulb slender.

Female (PBI_OON 30585, figs. 126, 127, 134, 135): Total length 2.19. Postepigastric scutum extending to about 3/4 of abdomen length. 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 followed anteriorly by two elevated ridges, more posterior ridge strongly sclerotized; anterior genitalic process with narrow expansion around base, tip wide, triangular.

Other Material Examined: **Ecuador:** *Orellana:* Estación Científica Yasuni, Río Tiputini, 0.67428°S, 76.39764°W, Dec. 1–5, 2009, rainforest litter, elev. 295 m (M. Ramírez, Niarchos Expedition, MACN PBI_OON 30602), 1♂, same, Berlese (MACN PBI_OON 30576), 2♀.

Distribution: Ecuador (Orellana).

The *tiputini* Group

Members of this group lack transverse ridges connecting the posterior edges of the anterior pair of sternal excavations (figs. 146, 196). The dorsal process on the tip of the male endites is neither elongated nor heavily sclerotized.

Dysderina tiputini, new species

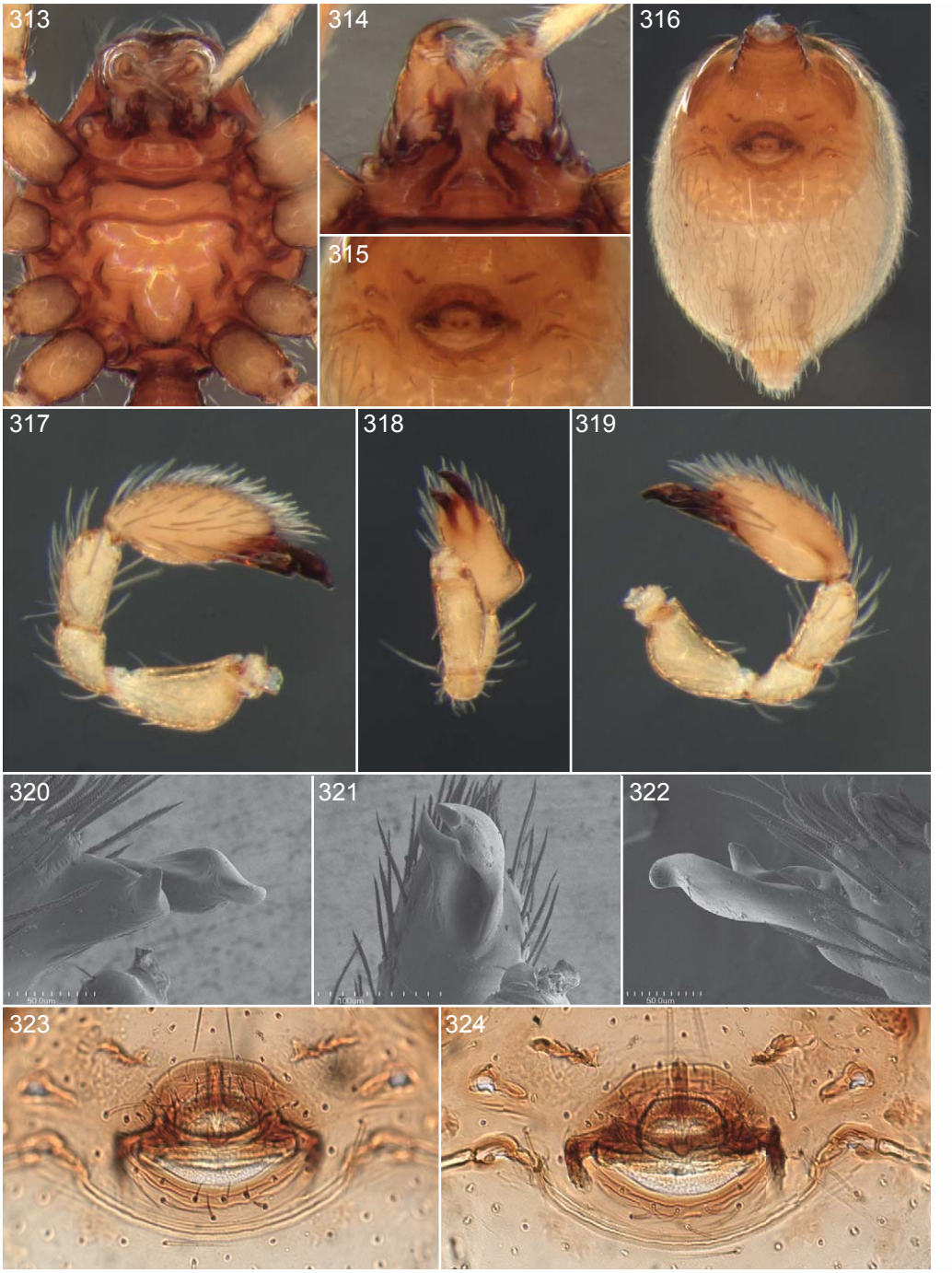
Figures 136–206

Type: Male holotype from Berlese sample of humid forest litter taken at an elevation of 295 m at the Estación Científica Yasuni, Río Tiputini, 0.67428°S, 76.39764°W, Orellana, Ecuador (Dec. 1–5, 2009; M. Ramírez, Niarchos Expedition), deposited in QCAZ (PBI_OON 49546).

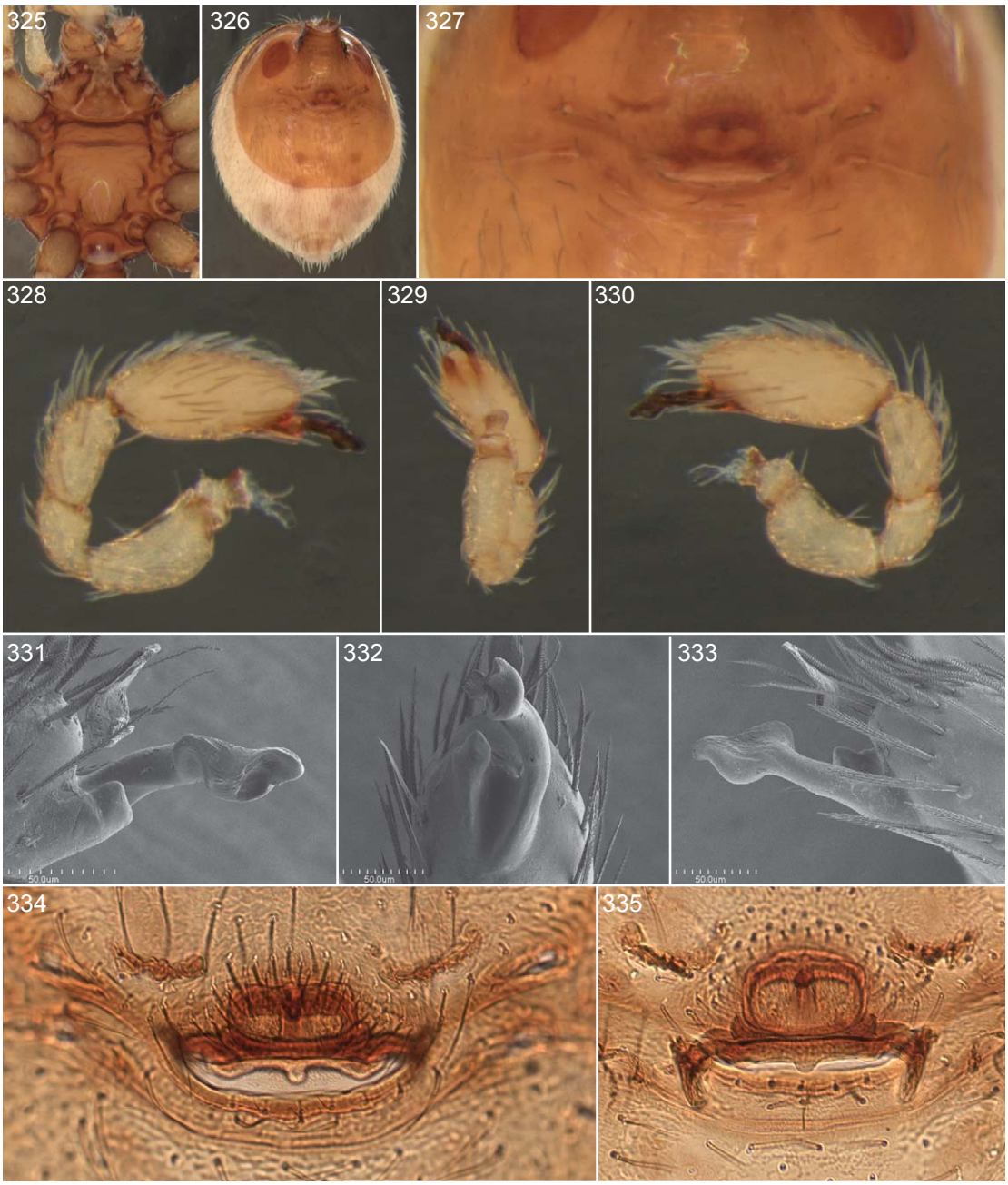
Etymology: The specific name is a noun in apposition taken from the type locality.

Diagnosis: Males can easily be distinguished from the sympatric species *D. excavata* by the relatively unmodified endites (figs. 141, 196) and the smaller palpal bulb (figs. 199–201), females by the much shorter anterior genitalic projection (figs. 205, 206).

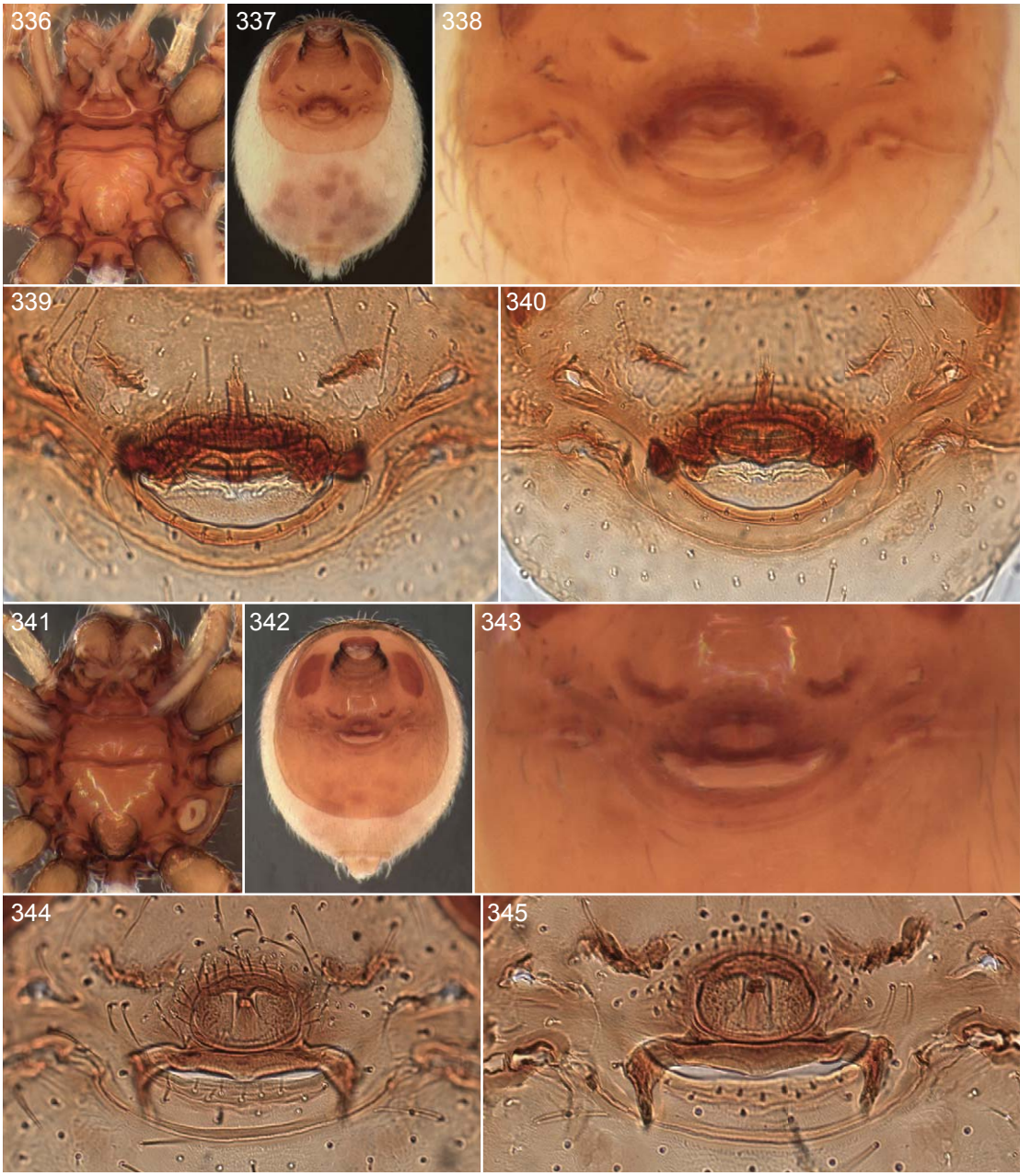
Male (PBI_OON 49546, figs. 136–165, 196, 199–204): Total length 1.84. Carapace lateral margin without denticles. ALE separated by less than their radius. Endites distally not excavated, dorsal and ventral processes small, triangular, subequal in size. Leg spination: femur I p0-0-2, r1-1-1; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-1p-2; II v3-0-2. Sperm pore narrow, slitlike. Embolus bent at about two-thirds its length, tip bent anteriorly; conductor shorter, tapering at tip; bulb slender.



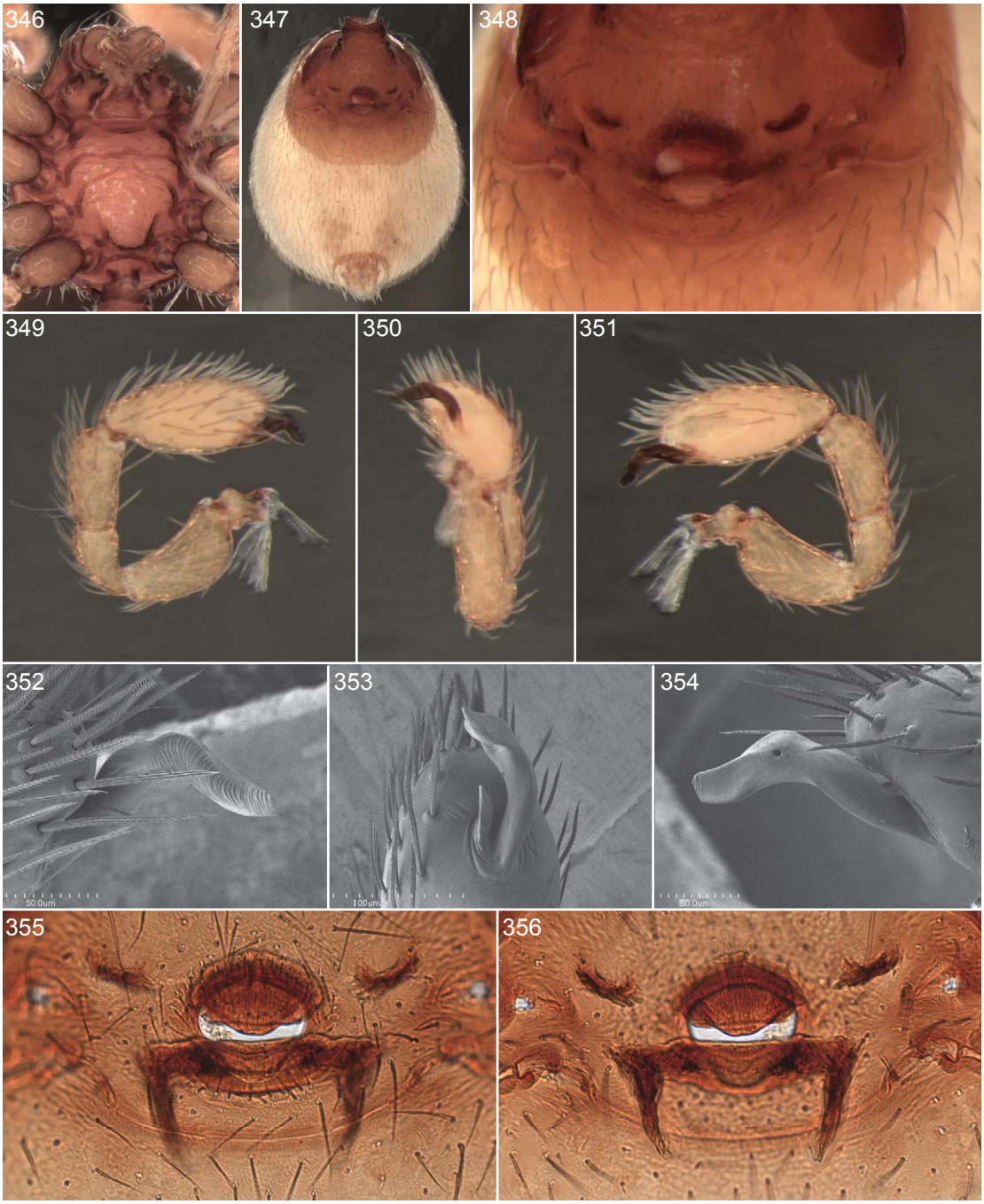
FIGURES 313–324. *Tridysderina jatun*, new species, male and female. **313.** Male sternum, ventral view. **314.** Male labium and endites, ventral view. **315.** Female epigastric region, ventral view. **316.** Female abdomen, ventral view. **317.** Left male palp, prolateral view. **318.** Same, ventral view. **319.** Same, retrolateral view. **320.** Left embolus, prolateral view. **321.** Same, ventral view. **322.** Same, retrolateral view. **323.** Female genitalia, ventral view. **324.** Same, dorsal view.



FIGURES 325–335. *Tridysderina galeras*, new species, male and female. **325.** Male sternum, ventral view. **326.** Female abdomen, ventral view. **327.** Female epigastric region, ventral view. **328.** Left male palp, prolateral view. **329.** Same, ventral view. **330.** Same, retrolateral view. **331.** Left embolus, prolateral view. **332.** Same, ventral view. **333.** Same, retrolateral view. **334.** Female genitalia, ventral view. **335.** Same, dorsal view.



FIGURES 336–345. 336–340. *Tridysderina archidona*, new species, female. 341–345. *T. tena*, new species, female. **336, 341.** Sternum, ventral view. **337, 342.** Abdomen, ventral view. **338, 343.** Epigastric region, ventral view. **339, 344.** Genitalia, ventral view. **340, 345.** Same, dorsal view.



FIGURES 346–356. *Tridysderina bellavista*, new species, male and female. **346.** Male sternum, ventral view. **347.** Female abdomen, ventral view. **348.** Female epigastric region, ventral view. **349.** Left male palp, prolateral view. **350.** Same, ventral view. **351.** Same, retrolateral view. **352.** Left embolus, prolateral view. **353.** Same, ventral view. **354.** Same, retrolateral view. **355.** Female genitalia, ventral view. **356.** Same, dorsal view.

FIGURES 357–367. *Dysderina cunday*, new species, male and female. **357.** Male sternum, ventral view. **358.** Female abdomen, ventral view. **359.** Female epigastric region, ventral view. **360.** Left male palp, prolateral view. **361.** Same, ventral view. **362.** Same, retrolateral view. **363.** Left embolus, prolateral view. **364.** Same, ventral view. **365.** Same, retrolateral view. **366.** Female genitalia, ventral view. **367.** Same, dorsal view.

Female (PBI_OON 30580, figs. 166–195, 197, 198, 205, 206): Total length 1.83. Postepigastric scutum extending to about 3/4 of abdomen length. 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 v2-1p-2; II v3-0-2. Genital atrium very short, wide, followed anteriorly by two transverse, sclerotized ridges; anterior genitalic process with greatly widened, semicircular base.

Other Material Examined: **Ecuador:** *Napo:* Estación Biológica Jatun Sacha, 1°03′57.5″S, 77°37′00.2″W, Dec. 1–5, 2009, Berlese, humid litter, elev. 410 m (C. Grismado, F. Labarque, Niarchos Expedition, MACN PBI_OON 30571), 1♂, Dec. 2, 2009 (Niarchos Expedition, AMNH PBI_OON 49551), 1♀. *Orellana:* Estación Científica Yasuni, Río Tiputini, 0.67428°S, 76.39764°W, Dec. 1–5, 2009, rainforest litter, elev. 295 m (M. Ramírez, Niarchos Expedition, MACN PBI_OON 15091), 1♂ (E. Gaublomme DNA sequencing voucher), same, Berlese (MACN PBI_OON 30580), 2♀, same, litter, elev. 230 m (B. Baehr, Niarchos Expedition, AMNH PBI_OON 49547), 1♂, 1♀.

Distribution: Ecuador (Napo, Orellana).

Dysderina ayo, new species

Figures 207–217

Types: Male holotype and female allotype from the Quebrada El Ayo, La Pedrera, 1°35′S, 69°31′W, Amazonas, Colombia (May 2002; J. Pinzon), deposited in ICN (PBI_OON 49552).

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

Diagnosis: Males resemble those of *D. craigi* and *D. urucu* in having an abruptly narrowed tip on the conductor, but the widened portion is much more angular (figs. 210–215); females have laterally enlarged tips of the spinneret scutum (fig. 208) and a recurved anterior margin of the small genital atrium (figs. 209, 216, 217).

Male (PBI_OON 49552, figs. 207, 210–215): Total length 1.76. Carapace lateral margin with blunt denticles. ALE separated by less than their radius. Endites distally not excavated, dorsal and ventral processes small, triangular, subequal in size. Leg spination: femur I p0-0-2, r1-1-1; tibiae: I v4-4-2; II v4-4-0; metatarsi: I v2-1p-2; II v3-0-2. Sperm pore narrow, slitlike. Embolus long, sinuous; conductor abruptly narrowed at tip, narrowed portion arched; bulb slender.

Female (PBI_OON 49552, figs. 208, 209, 216, 217): Total length 1.91. Postepigastric scutum extending to about 3/4 of abdomen length. 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 very short, with rebordered anterior margin.

Other Material Examined: None.

Distribution: Colombia (Amazonas).

Dysderina matamata, new species

Figures 218–223, 230

Type: Male holotype from Winkler sample of litter taken at an elevation of 150 m at Matamata, Parque Nacional Natural Amacayacu, 3°23′S, 70°06′W, Amazonas, Colombia (Sept. 2000; A. Parente), deposited in IAVH (108110, PBI_OON 49554).

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

Diagnosis: Males resemble those of *D. tiputini* but have a longer, nearly straight conductor (figs. 218–223).

Male (PBI_OON 49554, figs. 218–223, 230): Total length 1.77. Carapace lateral margin with blunt denticles. ALE separated by less than their radius. Endites distally not excavated, ventral and dorsal processes triangular, subequal in size. Leg spination: femur I p0-0-2, r1-1-1; tibiae: I v4-4-2; II v4-4-0; metatarsi: I v2-1p-2; II v3-0-2. Sperm pore narrow, slitlike. Embolus long, sinuous; conductor relatively long, nearly straight, blade shaped; bulb slender.

Female: Unknown.

Other Material Examined: **Colombia:** *Amazonas:* Matamata, Parque Nacional Natural Amacayacu, 3°23′S, 70°06′W, June 9–11, 2000, Winkler, elev. 150 m (A. Parente, IAVH 108111, PBI_OON 49889), 1♂.

Distribution: Colombia (Amazonas).

Dysderina craigi, new species

Figures 224–229, 231

Type: Male holotype from Leticia, Amazonas, Colombia (June 19, 1965; P. Craig, J. Robb), deposited in CAS (PBI_OON 49553).

Etymology: The specific name is a patronym in honor of one of the collectors of the type, Pat Craig.

Diagnosis: Males resemble those of *D. ayo* and *D. urucu* in having the conductor abruptly narrowed near its tip, but can easily be recognized by the rounded tip of the conductor (figs. 224–229).

Male (PBI_OON 49553, figs. 224–229, 231): Total length 1.82. Carapace lateral margin with blunt denticles. ALE separated by less than their radius. Endites distally not excavated, ventral prong triangular, tip bent dorsally, producing clawlike appearance with dorsal prong. Leg spination: femur I p0-0-2, r1-1-1; tibiae: I v4-4-2; II v4-4-0; metatarsi: I v2-1p-2; II v3-0-2. Sperm pore narrow, slitlike. Embolus long, distally sinuous; conductor widened; bulb slender.

Female: Unknown.

Other Material Examined: None.

Distribution: Colombia (Amazonas).

Dysderina urucu, new species

Figures 232–241

Type: Male holotype from Base de Operações Geólogo Pedro de Moura, Porto Urucu, Coari, 4°51′54″S, 65°20′02″W, Amazonas, Brazil (Oct. 25, 2006; S. Dias, D. Candiani, N. Lo-Man-Hung), deposited in MPEG (19210, PBI_OON 43642).

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

Diagnosis: Males resemble those of *D. ayo* but have the tip of the conductor originating more dorsally, rather than from near the middle of the conductor (figs. 236–241).

Male (PBI_OON 43642, figs. 232–241): Total length 1.74. Carapace lateral margin with blunt denticles. ALE separated by less than their radius. Endites distally excavated, dorsal and ventral processes small, triangular, forming clawlike configuration. Leg spination: femur I p0-0-2, r1-1-1; tibiae: I v4-4-2; II v4-4-0; metatarsi: I v2-1p-2; II v2-0-2. Sperm pore narrow, slitlike. Embolus long, sinuous; conductor abruptly narrowed at tip, narrowed portion slightly arched, originating on dorsal edge of conductor; bulb slender.

Female: Unknown.

Other Material Examined: Two males taken with the holotype (MPEG 19208, 19209, PBI_OON 43640, 43641).

Distribution: Brazil (Amazonas).

Tridysderina, new genus

Type Species: *Tridysderina yasuni,* new species.

Etymology: The generic name refers to the curious, tripartite sternal morphology of these species and the similarities to *Dysderina*, and is feminine in gender.

Diagnosis: Members of this genus can easily be recognized by the unique morphology of their sternum, which shows at least three regions: the continuous, transverse anterior depression, sometimes emphasized by a transverse ridge along its posterior edge, plus at least two more posterior regions delimited by transverse ridges (figs. 252, 302).

Description: Total length of males 1.6–2.2, of females 1.9–2.6. 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 and sides appearing finely reticulate under light microscopy but actually smooth or with very low granules (at least in *T. yasuni*, figs. 242, 243, 272, 273); fovea absent, lateral margin straight, rebordered, without 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. 244, 274), 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, ALE oval, PME squared, PLE oval; posterior eye row recurved from above, procurved from front; ALE separated by 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, with at least one transverse ridge (figs. 252, 282), without pits, other microsculpture absent, median concavity, hair tufts absent, with radial furrows 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 excavated, lateral margin with infracoxal grooves bearing anterior and posterior openings, distance between coxae approximately equal, extensions of precoxal triangles absent, lateral margins with bridges to coxae; setae sparse, dark, needlelike, densest laterally, originating from surface. Chelicerae slightly divergent, anterior face unmodified; with one tooth on promargin (scanned only in *T. yasuni*, figs. 245, 246, 275, 276), without teeth on retromargin; 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 unmodified, promargin with row of flattened setae, inner margin unmodified, laminate groove absent. Labium triangular, not fused to sternum, anterior margin not indented at middle (fig. 277) or only slightly so (figs. 247, 314), same as sternum in sclerotization; with six or more setae on anterior margin, subdistal portion with unmodified setae. Endites of males distally excavated, anteriorly elaborately modified in males (fig. 247), posteriorly unmodified, same as sternum in sclerotization; serrula apparently absent in both sexes (scanned only in *T. yasuni*, figs. 248, 278). Female palp without claw or spines (figs. 279, 280); tibia with three trichobothria (fig. 281), patella without prolateral row of ridges, tarsus elongate. **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; posterior spiracles connected by groove, groove continued beyond spiracles almost to lateral edge of postepigastric scutum; anterior spiracles not connected. 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 (smaller in females but still covering at least half of abdomen width), not fused to epigastric scutum in males, sometimes fused in females; 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, orange-brown, in males long, almost rectangular, covering nearly full length of abdomen, fused to epigastric scutum, anterior margin unmodified, with short posteriorly directed lateral apodemes; in females almost semicircular. Spinneret scutum of males reduced to thin rim (in *T. yasuni*) or absent, of females 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. 253, 283), posterior medians unisegmented, posterior laterals bisegmented; spigots scanned only in *T. yasuni*, anterior laterals with single major ampullate gland spigot and five piriform gland spigots in both sexes (figs. 254, 284), posterior medians with one long and two short spigots in males (fig. 255), with five long and three short spigots in females (fig. 285), posterior laterals with six long spigots in males (fig. 256), three short and 12 long spigots in females (fig. 286). **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 absent, metatarsi I, II mesoapical comb absent, metatarsi III, IV ventral scopula absent. Leg spines present on anterior femora, tibiae, metatarsi, absent on posterior legs. Tarsi without inferior claw. Superior claws (scanned only in *T. yasuni*) of males with two distal teeth on inner surface, four teeth on outer surface, most distal tooth smaller than others (figs. 258–265), of females with two, three, or four teeth on inner surface, four teeth on outer surface, most distal tooth longest on inner surface, shortest on outer surface (figs. 289–296). Trichobothrial base with rectangular opening (fig. 266). Tarsal organs with three receptors on legs I, II, two on legs III, IV, palps (figs. 267–271, 297–301). **Genitalia:** Male epigastric region with sperm pore small, narrow, slitlike, situated between anterior and posterior spiracles, rebordered (fig. 257); furrow without Ω-shaped insertions, without specialized setae. Male palp of normal size, not strongly sclerotized, right and left palps symmetrical, proximal segments, cymbium, bulb yellow; embolus dark, prolateral excavation absent; trochanter of normal size, unmodified; femur of normal length but dorsally expanded, two or more times as long as trochanter (figs. 249, 250), 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. 251); 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 yellow; bulb shorter than cymbium, slender, elongated. Sclerotized embolus (distal prong) and sclerotized conductor (proximal prong) wide at base, originating from continuous rim (figs. 309, 321). Female genitalia with distinct, filled atrium (fig. 287); anterior process originating from base with pores (fig. 288).

Distribution: Known only from Ecuador.

Key to Species of *Tridysderina*

1. Sternum with second transverse ridge at level of coxa III (fig. 346).....*bellavista*
– Sternum with single transverse ridge at level of coxa II (fig. 302).....2
2. Males (those of *T. archidona* and *T. tena* unknown).....3
– Females.....5
3. Embolus widest at tip (fig. 310).....*yasuni*
– Embolus widest before tip.....4
4. Tip of conductor reaching to near tip of embolus (fig. 321).....*jatun*
– Tip of conductor not reaching to near tip of embolus (fig. 332).....*galeras*

5. Apodemes long (fig. 312).....*yasuni*
– Apodemes much shorter.....6
6. Anterior genitalic projection protruding anterior of anterior margin of genitalic atrium (figs. 339, 340).....*archidona*
– Anterior genitalic projection shorter.....7
7. Anterior margin of genitalic atrium rounded (figs. 323, 324).....*jatun*
– Anterior margin of genitalic atrium squared (figs. 335, 345).....8
8. Posterior margin of transverse bar connecting apodemes prolonged along midline (fig. 335).....*galeras*
– Posterior margin of transverse bar connecting apodemes not prolonged along midline (fig. 345).....*tena*

Tridysderina yasuni, new species
Figures 242–312

Type: Male holotype from Berlese sample of humid forest litter taken at an elevation of 295 m at the Estación Científica Yasuni, Río Tiputini, 0.67428°S, 76.39764°W, Orellana, Ecuador (Dec. 1–5, 2009; M. Ramírez, Niarchos Expedition), deposited in QCAZ (PBI_OON 30556).

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

Diagnosis: Males have a distinctive, subdistal dorsoventral expansion on the embolus (figs. 305–310); females have a distinctive ovoid sclerotization that nearly fills the genital atrium (figs. 304, 311, 312).

Male (PBI_OON 30556, figs. 242–271, 302, 305–310): Total length 1.80. Sternum with single transverse, procurved ridge opposite front of coxae II, other ridges represented only by paired, parentheses-shaped elevations at sides opposite coxae III and IV. Endites with ventral process long, triangular; dorsal process hypertrophied, with anterolaterally directed spur at tip. Leg spination: femur I p0-0-2, r1-1-1; tibiae: I v4-4-2; II v4-4-0; metatarsi: I v2-1p-2; II v2-0-2. Embolus long, distally widened into fan-shaped tip, bent prolaterally at about half its length; conductor large, flattened on both sides.

Female (PBI_OON 30598, figs. 272–301, 303, 304, 311, 312): Total length 2.05. Dorsal scutum covering more than 3/4 of abdomen length, not fused to epigastric scutum. Postepigastric scutum extending to about 2/3 of abdomen length. Leg spination: femora I, II p0-0-2, r1-1-1; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I v2-1p-2; II v2-0-2. Genital atrium large, anterior half mostly filled with large, ovoid sclerotization.

Other Material Examined: **Ecuador:** *Napo:* trail to San Jorge de Yanayacu, 0.58813°S, 77.88428°W, Nov. 25–30, 2009, Berlese, elev. 2140 m (M. Ramírez et al., Niarchos Expedition, MACN PBI_OON 30575), 1♂. *Orellana:* Estación Científica Yasuni, Río Tiputini, 0.67111°S, 76.4002°W, Dec. 1, 2009, leaf litter, elev. 200 m (Niarchos Expedition, AMNH PBI_OON 49885), 1♂, 0.67428°S, 76.39764°W, Dec. 1–5, 2009, Berlese, humid forest, elev. 295 m (M. Ramírez, Niarchos Expedition, MACN PBI_OON 30555, 30577), 3♂, same, hand-collected (M. Ramírez, Niarchos Expedition, MACN PBI_OON 15105, 30598), 5♂, 4♀ (including E. Gaublomme DNA sequencing voucher); 1 km S Onkone Gare Camp, 0°39′25.7″S, 76°27′10.8″W, Reserva Etnica

Waorani, Oct. 6, 1994, elev. 215 m (T. Erwin et al., USNM PBI_OON 49884), 1♀; Parque Nacional Yasuni, 0°40′16″S, 76°24′18″W, Dec. 1–5, 2009, in litter, elev. 230 m (B. Baehr, Niarchos Expedition, AMNH PBI_OON 49883), 1♂. *Sucumbíos:* Limoncocha, June 18, 1976, Berlese, *Ficus* litter with fruits, elev. 250 m (S. Peck, FMNH 33732, PBI_OON 10234), 1♂.

Distribution: Northeastern Ecuador (Napo, Sucumbíos, Orellana).

Tridysderina jatun, new species

Figures 313–324

Type: Male holotype from humid forest litter taken at an elevation of 410 m at the Estación Biológica Jatun Sacha, 1°03′57.5″S, 77°37′00.2″W, Napo, Ecuador (Dec. 1–5, 2009; C. Grismado, F. Labarque, Niarchos Expedition), deposited in QCAZ (PBI_OON 30588).

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

Diagnosis: Males have an embolus that is straighter and a conductor that is distally narrower than in *T. yasuni* (figs. 317–322); females have angular anterolateral margins on the genital atrium (figs. 323, 324).

Male (PBI_OON 30588, figs. 313, 314, 317–322): Total length 1.69. Sternum with single transverse, procurved ridge opposite front of coxae II, other ridges represented only by paired, parentheses-shaped elevations at sides opposite coxae III and IV. Endites with ventral process long, distally very narrow; dorsal process hypertrophied, with pair of distal projections. Leg spination: femur I p0-0-2, r1-1-1; tibiae: I v4-4-2; II v4-4-0; metatarsi: I v2-1p-2; II v2-0-2. Embolus long, distally narrowed, with sinuous tip; conductor long, tip bent prolaterally.

Female (PBI_OON 30565, figs. 315, 316, 323, 324): Total length 2.01. Dorsal scutum covering more than 3/4 of abdomen length, not fused to epigastric scutum. Postepigastric scutum extending to about 1/2 of abdomen length. Leg spination: femora I, II p0-0-2, r1-1-1; tibiae: I v4-4-2; II v4-4-1p; metatarsi: I, II v2-1p-2. Genital atrium with angular lateral margins, anterior half occupied by T-shaped sclerite.

Other Material Examined: **Ecuador:** *Napo:* Estación Biológica Jatun Sacha, 1°03′57.5″S, 77°37′00.2″W, Dec. 1–5, 2009, humid forest litter, elev. 410 m (C. Grismado, F. Labarque, Niarchos Expedition, MACN PBI_OON 30565, 30581), 3♀, same, Berlese (C. Grismado, F. Labarque, Niarchos Expedition, MACN PBI_OON 30578), 1♀, Dec. 2, 2009, elev. 410 m (Niarchos Expedition, AMNH PBI_OON 49526), 3♂, 1♀, Dec. 3, 2009, humid forest litter, elev. 410 m (F. Labarque, Niarchos Expedition, MACN PBI_OON 30834), 1♀ (E. Gaublomme DNA sequencing voucher), same, Berlese (C. Grismado, F. Labarque, Niarchos Expedition, MACN PBI_OON 30591), 1♂.

Distribution: Ecuador (Napo).

Tridysderina galeras, new species

Figures 325–335

Type: Male holotype from Winkler sample of litter taken at an elevation of 1105 m in the Parque Nacional Napo-Galeras, 0°44′00″S, 77°28′07″W, Napo, Ecuador (Nov. 27, 2009; B. Baehr, Niarchos Expedition), deposited in QCAZ (PBI_OON 30634).

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

Diagnosis: Males resemble those of *T. yasuni*, but have the tip of the embolus longer and differently shaped (figs. 328–333); females have a distinctively M-shaped anterior sclerotization in the genital atrium (figs. 334, 335).

Male (PBI_OON 49536, figs. 325, 328–333): Total length 1.72. Sternum with single transverse, procurved ridge opposite front of coxae II, other ridges represented only by paired, parentheses-shaped elevations at sides opposite coxae III and IV. Endites with ventral process short, with tip directed toward base of dorsal process; dorsal process bifid. Leg spination: femur I p0-0-2, r1-1-1; tibiae: I v4-4-2; II v4-4-0; metatarsi: I v2-1p-2; II v2-0-2. Embolus long, with clearly demarcated, semicircular tip; conductor relatively short, narrow.

Female (PBI_OON 49536, figs. 326, 327, 334, 335): Total length 2.05. Dorsal scutum covering more than 3/4 of abdomen length, not fused to epigastric scutum. Postepigastric scutum extending to about 2/3 of abdomen length. 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 v2-1p-2; II v3-0-2. Genital atrium rectangular, with M-shaped anterior sclerotization.

Other Material Examined: **Ecuador:** *Napo:* Parque Nacional Napo-Galeras, 0°44′00″S, 77°28′07″W, Nov. 27, 2009, elev. 1005 m (Niarchos Expedition, AMNH PBI_OON 49537), 1♂, same, 0°44′37″S, 77°35′29″W, Nov. 27, 2009, elev. 1065 m (Niarchos Expedition, AMNH PBI_OON 49536), 3♂, 1♀ (including E. Gaublomme DNA sequencing voucher); Sacha Wagra Lodge, Río Hollín, 0°57′18″S, 77°44′51″W, Nov. 29, 2009, Berlese, elev. 655 m (Niarchos Expedition, AMNH PBI_OON 49538), 2♂, 0°57′18″S, 77°41′51.3″W, Nov. 29, 2009, Berlese, humid forest, karst formations, elev. 750 m (M. Ramírez et al., Niarchos Expedition, MACN PBI_OON 30558), 1♀.

Distribution: Ecuador (Napo).

Tridysderina archidona, new species

Figures 336–340

Types: Female holotype and two female paratypes from tropical forest litter taken at an elevation of 750 m at Archidona, Napo, Ecuador (Apr. 1965; J., N. Leleup), deposited in KBIN (PBI_OON 16672).

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

Diagnosis: Females resemble those of *T. yasuni* but have a much shorter postepigastric scutum and a wider genital atrium (figs. 337–340).

Male: Unknown.

Female (PBI_OON 16672, figs. 336–340): Total length 2.09. Sternum with single transverse, procurved ridge opposite front of coxae II, other ridges represented only by paired, parentheses-shaped elevations at sides opposite coxae III and IV. Dorsal scutum covering 1/2 to 3/4 of abdomen length, not fused to epigastric scutum. Postepigastric scutum extending to about 1/2 of abdomen length. 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 v2-2-1p; II v3-0-2. Genital atrium wide, anterior half with sclerotization arched on each side, apodemes greatly reduced.

Other Material Examined: None.

Distribution: Ecuador (Napo).

Tridysderina tena, new species

Figures 341–345

Type: Female holotype from litter taken near a stream at an elevation of 2000 ft at a site 25 km W of Tena, on the road between Tena and Talag Grande, Napo, Ecuador (May 23, 1993; L. Herman), deposited in AMNH (PBI_OON 69).

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

Diagnosis: Females resemble those of *T. galeras* but have a longer anterior sclerotization in the genital atrium (figs. 344, 345).

Male: Unknown.

Female (PBI_OON 69, figs. 341–345): Total length 1.98. Sternum with single transverse, procurved ridge opposite front of coxae II, other ridges represented only by paired, parentheses-shaped elevations at sides opposite coxae III and IV. Dorsal scutum covering more than 3/4 of abdomen length, not fused to epigastric scutum. Postepigastric scutum extending to about 2/3 of abdomen length. 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 rectangular, with median sclerotization extending almost full length of atrium.

Other Material Examined: None.

Distribution: Ecuador (Napo).

Tridysderina bellavista, new species

Figures 346–356

Types: Male holotype and female allotype from cloud forest litter taken at an elevation of 2250 m on the ridge trail in the Bellavista Cloud Forest Reserve, 2 km S of Nanegalito, 0°00′54″N, 78°40′56″W, Pichincha, Ecuador (Oct. 26, 1999; R. Anderson), deposited in AMNH (PBI_OON 49539).

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

Diagnosis: Members of this species can easily be recognized by the presence of a second, weak transverse ridge on the sternum (fig. 346); males have a distinctively reduced conductor (figs. 349–354) and females have a distinctively filled genital atrium (figs. 355, 356).

Male (PBI_OON 49539, figs. 346, 349–354): Total length 2.16. Sternum with single transverse, procurved ridge opposite front of coxae II, other ridges represented only by paired, parentheses-shaped elevations at sides opposite coxae III and IV, those opposite coxae III almost connected by weak, recurved, ridge. Endites with ventral prong with median edge curved, tip directed toward medially directed tip of dorsal prong. 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 very long, bent twice, conductor greatly reduced.

Female (PBI_OON 49539, figs. 347, 348, 355, 356): Total length 2.54. Dorsal scutum covering 1/2 to 3/4 of abdomen length, fused to epigastric scutum. Postepigastric scutum extend-

ing to about 1/2 of abdomen length. 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 v3-0-2. Anterior portion of genitalic atrium completely filled with oval sclerotization.

Other Material Examined: **Ecuador:** *Pichincha:* 18–20 km NE Alluriquín, old Quito-Santo Domingo road, Oct. 21, 1988, litter, elev. 4700–4900 ft (L. Herman, AMNH PBI_OON 49543), 1♀; Bellavista Cloud Forest Reserve, 2 km S 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 49541), 2♂; same reserve, 12 km S Nanegalito, 0°00′32″N, 78°41′08″W, Oct. 30, 1999, cloud forest litter, elev. 2150 m (R. Anderson, AMNH PBI_OON 49540), 2♂, 1♀; 7 km S Nanegalito, 0°00′23″S, 78°40′36″W, Oct. 28, 1999, riparian montane evergreen forest litter, elev. 1500 m (R. Anderson, AMNH PBI_OON 49542), 1♀; Tandapi, 2 km from main road to Quito, 0°23′17″S, 77°49′04″W, Dec. 7, 2009, cloud forest litter with palm, elev. 1490 m (N. Dupérré, E. Tapia, Niarchos Expedition, AMNH PBI_OON 49544), 1♀ (E. Gaublomme DNA sequencing voucher); 15 km E Tandapi, June 7, 1976, Berlese, forest litter and moss, elev. 2300 m (S. Peck, FMNH PBI_OON 10568), 1♀; 21 km N Tandapi, main road from Tandapi to Quito, 0°27′20.3″S, 77°45′15.5″W, Dec. 7, 2009, Berlese, cloud forest litter, elev. 2150 m (N. Dupérré, E. Tapia, Niarchos Expedition, AMNH PBI_OON 49545), 1♀.

Distribution: Ecuador (Pichincha).

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