

Description of eleven new species in the Scytodoidea group (Araneae: Drymusidae and Scytodidae) from mainland Ecuador

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Abstract. Eleven new species from the Scytodoidea group are described from mainland Ecuador: in the family Drymusidae, *Drymusa pristirana* sp. nov. (female) and in the family Scytodidae, *Scytodes amazonica* sp. nov. (male, female); *S. argelia* sp. nov. (female), *S. ayampe* sp. nov. (female), *S. choco* sp. nov. (male, female), *S. costa* sp. nov. (female), *S. jaguar* sp. nov. (male), *S. loja* sp. nov. (female), *S. minus* sp. nov. (male); *S. orellana* sp. nov. (male, female); and *S. tayos* sp. nov. (male). The new species *D. pristirana* sp. nov. presents a unique morphological character on the ventral surface of the female abdomen. The type specimens of *S. lineatipes* Taczanowski, 1874 from French Guiana and *S. luteola* Simon, 1893 from Venezuela are imaged for the first time, and *S. romitii* Caporiacco, 1947 is removed from synonymy with *S. lineatipes*.

Keywords: spider, type specimens, Andes, South America, diversity

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The ‘scytodoids’ are a group of Synspermiata (see, e.g., Michalik & Ramírez 2014; Ramírez et al. 2021) with a characteristic arrangement of six eyes grouped in three diads. The phylogenetic study of Wheeler et al. (2017) proposed the inclusion of five families within the scytodoid lineage, namely Ochyroceratidae, Sicariidae, Scytodidae, Drymusidae and Periegopidae. Their study indicated that the group is split basally and defines two monophyletic groups: Sicariidae and a group formed by Scytodidae, sister to Periegopidae plus Drymusidae. Members of the Scytodoidea are united by having bipectinate prolateral claws on tarsi I–II, one major ampullate spigot accompanied by a nubbin, and the posterior median spinnerets with a mesal field of spicules (Wheeler et al. 2017).

The monophyly of Drymusidae is debated and the placement of the family Periegopidae within or outside Drymusidae is still unresolved (Wheeler et al. 2017). The Drymusidae is a small family of haplogyne spiders that includes only 17 described species (WSC 2022). The family is found in South Africa, the Neotropical and the Andean regions of South America, Central America and the Caribbean (Labarque et al. 2018), but the bulk of the diversity (71%) is found in South America. Recently the genus *Izithunzi* Labarque, Pérez-González & Griswold, 2018 was erected to accommodate species from Africa previously described in the genus *Drymusa* Simon, 1892, and a further two new species were described (Labarque et al. 2018). The genus *Drymusa* is therefore endemic to the Americas, occurring from Costa Rica and the Caribbean (Cuba, Saint Vincent) to Chile, but no species was recorded from Ecuador. Specimens of *Drymusa* have been collected in different habitats, from dry to very humid forests, and in small caves under rocks. Most specimens were collected under rocks and tree trunks, in leaf litter or by pitfall traps, but some were also caught on low vegetation (Alayón 1981; Brescovit et al. 2004; Bonaldo et al. 2006; Rheims et al. 2008; Labarque & Ramírez 2007a, b).

The only Costa Rican drymusid species, *D. dinora* Valerio, 1971, presents unique morphological characteristics: the abdomen has five deep wrinkles, the genital groove has a heavily sclerotized lip, and there are additional abdominal chitinous plates (Valerio 1971: fig. 9). Herein we present the description of a new species

from the Ecuadorian Andes, *D. pristirana* sp. nov., that shares the unique characters found in the Costa Rican species.

The family Scytodidae is the most diverse of the group and comprises 240 species, of which 219 belong to the highly diverse genus *Scytodes* Latreille, 1804 (WSC 2023). *Scytodes* is found worldwide, with 36% of the diversity found in South America (Dupérré 2023a). Two species have been introduced to South America, *S. thoracica* (Latreille, 1802) and *S. univittata* Simon, 1882 (Belosludtsev & Gasilin 2018; Brescovit & Rheims 2000; Taucare-Rios & Bustamante 2015; Dupérré 2023a) while two species—*S. fusca* Walckenaer, 1837 and *S. longipes* Lucas, 1844—have been introduced from South America to other continents (Saaristo 1997; Brescovit & Rheims 2000; Paquin et al. 2008; Dankittipakul & Singtripop 2010; Šestáková et al. 2014; Dupérré 2023a).

Valerio (1981) presented a review of the Scytodidae from Central America while the South America fauna was mainly studied by Brescovit & Rheims (2000), Rheims & Brescovit (2000, 2001, 2004, 2006, 2009) and Rheims et al. (2008). Surprisingly, to this day no species have been recorded to occur in mainland Ecuador (WSC 2022) except for the widely distributed, and to some degree synanthropic species *S. fusca* and *S. longipes*.

In South America, *Scytodes* were collected in a variety of habitats from low elevation in semi-dry tropophilic forest, temperate forest, to high elevation (2,000 m) in the Venezuelan Paramó (González-Sponga 2004) and in tropical savannas, xeric shrubland, seasonal moist and dry broad-leaf tropical forests of Brazil, as well as urbanized environments (Rheims & Brescovit 2000, 2004, 2006, 2009).

This paper presents the description of eleven new species from the Scytodoidea group, as well as records of previously described species found in Ecuador. Furthermore, the type specimens of *S. lineatipes* Taczanowski, 1874, and *S. luteola* Simon, 1893 are imaged for the first time.

METHODS

Specimen imaging was achieved using a custom-made Passport II imaging system from BK Plus lab System by Dun, Inc.

with an integrated Canon camera, a 65 mm macro lens and Helicon stacking software. The digital photos were used to trace proportions, and the illustrations were detailed and shaded by referring back to the structure under the microscope. Female genitalia were excised using a sharp entomological needle, washed in distilled water, digested with Pancreatin solution following Álvarez-Padilla & Hormiga (2007) and illustrated as explained above. Specimens were prepared for SEM imaging by dehydration using ethanol solution from 70% to 100% and then transferring to hexamethyldisilazane (HMDS 99%) for three hours. Specimens were mounted on a SEM stub and imaged using a Hitachi tabletop Microscope TM4000 plus. All measurements are in millimeters and were made in Photoshop CS6 extended with all loaded pre-sets and measurement files. In the results, new species are described from North to South, starting in the coastal region, followed by the Andean and Amazonian regions.

Collection abbreviations are as follows: MNHN, Muséum National d'Histoire Naturelle Paris, France; MIZ, Museum and Institute of Zoology, Zoological Museum, Warszawa, Poland; MZUF, Museo Zoologico di Storia Naturale "La Specola", Università degli Studi di Firenze, Florence, Italy; QCAZ, Museum of Invertebrates, Pontificia Universidad Católica, Quito (Ecuador); ZMH, Zoological Museum Hamburg, Hamburg (Germany).

Scytodes female genitalic structures are defined as such (Valerio 1981): the positioning ridges are thickened longitudinal structures, while the fovea are depressed chitinous areas located laterally to the ridges (Fig. 7A); *Scytodes* male palp morphological terminology follows Rheims & Brescovit (2009).

Abbreviations in the text and figures are as follows: AbF, abdominal fold; AbH, abdominal hook; AbW, abdominal wrinkles; ALE, anterior lateral eyes; EpG, epigynal groove; Esc, epigastric sclerotizations; Fov, fovea; F3ent, fused third entapophyses; Gpo, glandular pores; Hp, hyaline pocket; Ltr, lateral trachea; PME, posterior median eyes; PLE, posterior lateral eyes; Pk, pro-lateral keel; Pri, positioning ridge; Po, pocket; Rk, retrolateral keel; S, spermathecae; ScP1, sclerotized plate 1; ScP2, sclerotized plate 2; Sp1, spermathecae pair 1; Sp2, spermathecae pair 2; Sm, sclerotized membrane; Spi, spiracle.

TAXONOMY

Family Drymusidae Simon, 1893

Genus *Drymusa* Simon, 1892

Drymusa Simon, 1892: 571.

Type species.—*Drymusa nubila* Simon, 1892.

Composition.—For a complete list of species see the World Spider Catalog (2023). New species described: *D. pristirana* sp. nov.

Distribution.—Cuba, Hispaniola, St. Vincent, Costa Rica, Ecuador, Brazil, Chile, and Argentina.

Drymusa pristirana sp. nov.

<http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:5605DDE1-B691-4F50-8AF8-A36A98AAD443>

(Figs. 1–5, 35)

Type material.—*Holotype female*. ECUADOR: *Cotopaxi Province*: Pristirana Natural Reserve (00.42414°S, 78.95719°W), 1480 m, 24 November 2019, hand collected, litter, E.E. Tapia, César & Carmen Tapia (QCAZ).

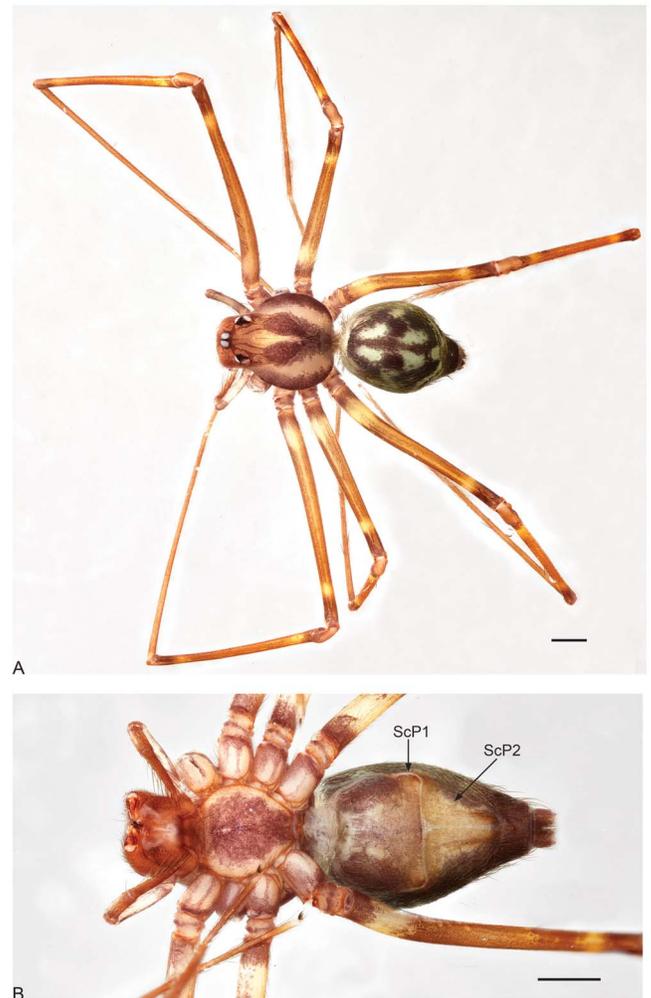


Figure 1.—*Drymusa pristirana* sp. nov., female holotype: A, habitus, dorsal view; B, carapace and abdomen, ventral view. Scale bars: 0.5 mm.

Paratypes: ECUADOR: *Santo Domingo de los Tsáchilas Province*: 1 ♀, Otonga Biological Reserve (00.39506°S, 78.98100°W), 1290 m, pitfall trap, 12–23 July 2014, E. Tapia, I. Tapia, N. Dupérré (ZMH-A0016062).

Other material examined.—ECUADOR: *Cotopaxi Province*: 1 juvenile, Otonga Biological Reserve (00.41994°S, 79.00623°W), 1997 m, sifting litter, Berlese, 13–15 November 2014, N. Dupérré, E. Tapia, C. Tapia (ZMH-A0016068); 1 juvenile, Pristirana Natural Reserve (00.42942°S, 78.95708°W), 1449 m, 30 May 2019, hand collected beating branches, E.E. Tapia, César & Carmen Tapia (ZMH-A0016067).

Etymology.—The specific name is a noun in apposition taken from the type locality, Pristirana Reserve.

Diagnosis.—Females are easily distinguished from most species by the presence of a sclerotized plate (ScP2) below the epigynal groove (Fig. 1B). From closely related species *D. dinora* Valerio, 1971 by the sclerotized plate (ScP2) with a longitudinal unsclerotized band centrally (Fig. 1B), entire in the latter species (see Valerio 1971: fig. 9). Males are unknown.

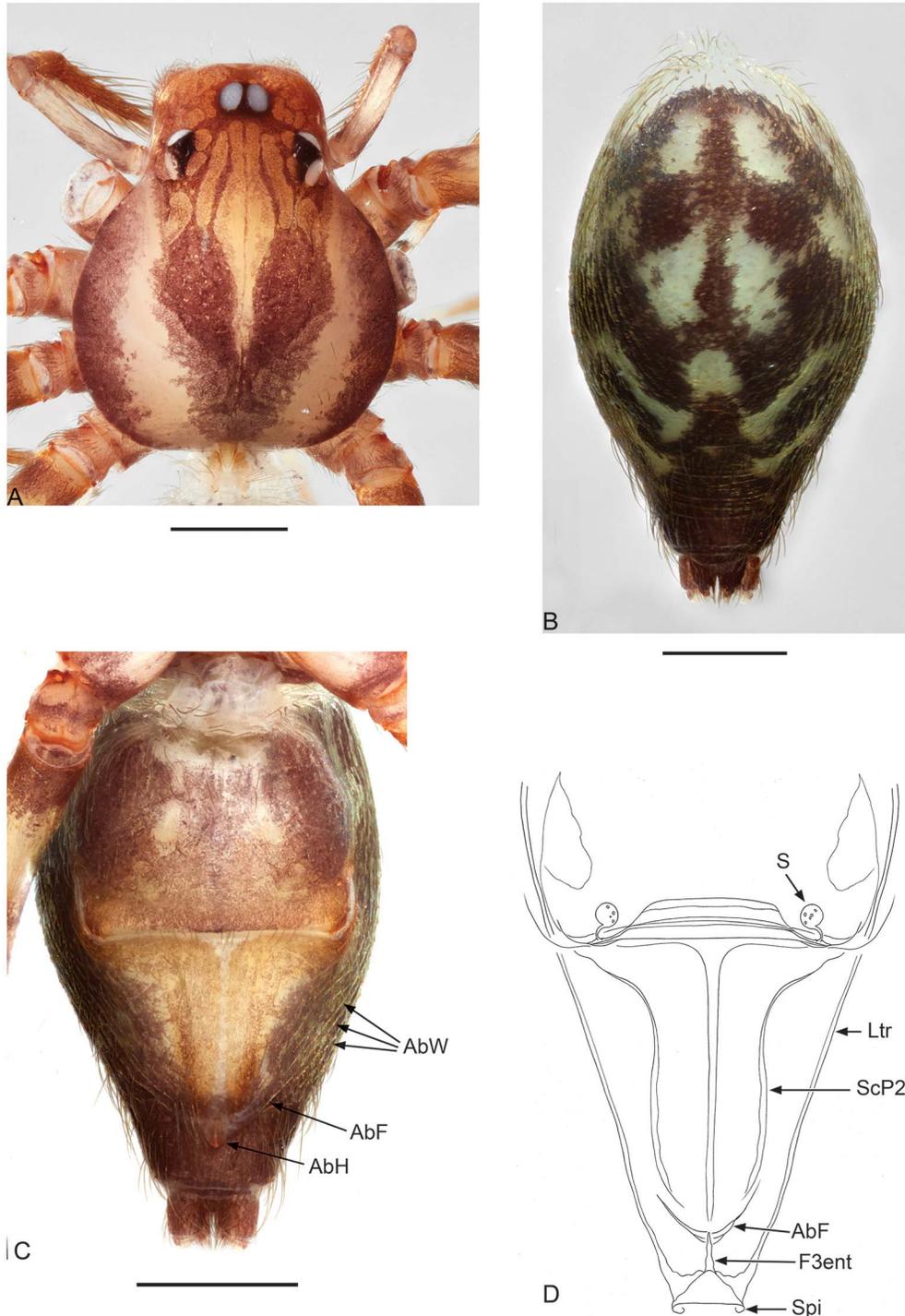


Figure 2.—*Drymusa pristirana* sp. nov., female holotype: A, carapace, dorsal view; B, abdomen, dorsal view; C, abdomen, ventral view; D, internal genital and tracheal system, ventral view. Scale bars: 0.5mm.

Description (female holotype).—Total length: 3.56; carapace length: 1.53; carapace width: 1.24; abdomen length: 2.03; abdomen height: 1.43. CEPHALOTHORAX: Carapace beige with purplish-brown lateral margins and purplish-brown median V-shaped pattern on posterior half (Figs. 1A, 2A). Chelicerae light orange lightly suffused purplish-brown; two small retromarginal teeth and promarginal carina. Labium and

endites beige lightly suffused purplish-brown. Sternum beige strongly suffused with a median, large purplish-brown mark (Fig. 1B). EYES: 6 eyes in three diads; PME longer than wide 0.13/0.09, ALE rounded 0.09/0.09; PLE slightly longer than wide 0.12/0.10; lateral eyes on a tubercle ringed by black (Fig. 2A). ABDOMEN: Oval; dorsally bluish-gray, with dark purplish transversal irregular bands; with lateral cuticular



Figure 3.—*Drymusa pristirana* sp. nov., female paratype: A, carapace and abdomen, dorsal view; B, carapace and abdomen, ventral view. Scale bars: 0.5mm.

wrinkles reaching ventrally (Figs. 2B, C); ventrally with two sclerotized plates, ScP1 between the lung area, transverse and rectangular; ScP2 between the genital groove and the abdominal hook, not sclerotized centrally, reaching the abdominal fold; abdominal fold (AbF) creating a pocket and bearing a hook (AbH) (Figs. 2C, 3B, 4A, B, 5A). Tracheal system with reduced third 3 opisthosomal entapophyses (F3ent); extremely long lateral trachea (LTr), reaching over the genital groove (Fig. 2D). LEGS: orange-brown with purplish-brown rings at femora bases, followed by light yellow bands; apical region of femora with light yellow band followed by purplish-brown rings; apical end of patella purplish-brown; tibia same pattern as femora; metatarsus and tarsus uniform orange-brown (Fig. 1A). Leg formula: 4123; legs measurements: I 10.90 (3.43/0.41/3.52/3.54/0.98); leg II 10.38 (2.90/0.46/3.09/3.04/0.89); III 7.36 (2.35/0.36/2.12/2.53/0.78); IV 12.26 (2.83/0.44/4.93/3.05/1.01). Tarsal claws bipectinate; inferior claw small. GENITALIA: Two widely separated, rounded spermathecae on short, curved ducts (Figs. 4C, D, 5C).

Distribution.—Known from Cotopaxi and Santo Domingo de los Tsáchilas Provinces, Ecuador.

Natural history.—Specimens were collected between 1290–1997 m in a low evergreen mountain forest (BsBn04) of the occidental Andean mountain range (Aguirre & Gálvez 2013) by pit-fall trap or sifting litter.

Remarks.—Except for the type material, all other specimens examined were juveniles. Even though the diagnostic morphological characters were not observed, based on distribution and coloration, the juveniles are considered here to belong to the same species.

Family Scytodidae Blackwall, 1864

Genus *Scytodes* Latreille, 1804

Scytodes Latreille, 1804: 249.

Type species.—*Scytodes thoracica* (Latreille, 1802).

Composition.—For a complete list of species see the World Spider Catalog (2023). New species described: *S. amazonica* sp. nov., *S. argelia* sp. nov., *S. ayampe* sp. nov., *S. choco* sp. nov.,

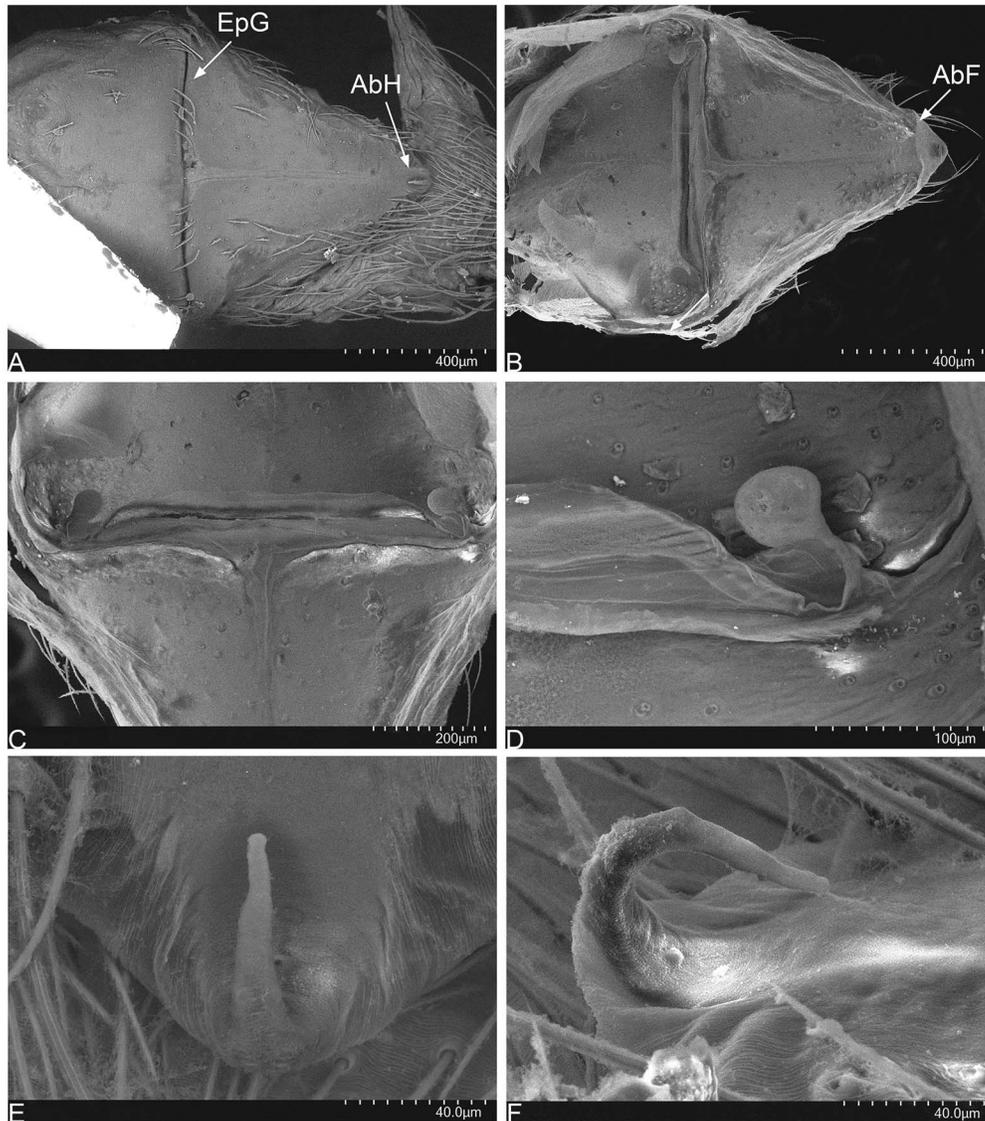


Figure 4.—*Drymusa pristirana* sp. nov., female holotype. Scanning Electron Micrograph images: A, abdomen, ventral view; B, abdomen digested, dorsal view; C, internal genitalia, dorsal view; D, right spermatheca, dorsal view; E, abdominal hook, ventral view; F, abdominal hook, lateral view.

S. costa sp. nov., *S. jaguar* sp. nov., *S. loja* sp. nov., *S. minus* sp. nov., *S. orellana* sp. nov. and *S. tayos* sp. nov.

Distribution.—Worldwide.

Scytodes costa sp. nov.

<http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:DED29BE7-E1FF-4839-8A28-70A94619E365>

(Figs. 6, 7, 35)

Type material.—*Holotype female*. ECUADOR: *El Oro Province*: Valle Hermoso (03.51520°S, 79.83190°W), 235 m, 17 July 2016, hand collected, E. Tapia, N. Dupérré (QCAZ).

Paratypes: ECUADOR: *Cañar Province*: 1 ♀, Manta Real (02.54263°S, 79.36391°W), 235 m, 17 July 2016, hand collected, E. Tapia, N. Dupérré (QCAZ); 1 ♀, *Esmeraldas Province*, Quinde, Laguna de Cube (00.456336°N, 79.588134°W), 350 m, 27 December 2016, hand collected, E. Tapia, A. Tapia (ZMH-A0015413).

Other material examined.—ECUADOR: *Esmeraldas Province*: 1 ♀, Palestina (01°03'N, 79°26'W), 22 November 1998, A. Pérez (QCAZ); *Guayas Province* (now Santa Elena): 1 ♀, LaRiconada 01°42'31"S, 80°47'32"W) 11 m, 11/2006, P. Teran (QCAZ). *Santo Domingo de los Tsáchilas*: 1 ♀, Sto. Domingo, Hcda. El Cortijo, km 8.5 via la Concordia, February 1997, M. Neira Plugo (QCAZ).

Etymology.—The specific name is a noun in apposition and refers to the region where the species is found.

Diagnosis.—Females can be distinguished from most species by their hyaline pocket oval and medially constricted (Fig. 7B); from similar species, *S. loja* sp. nov. by their internal genitalia with hyaline pocket not covering the spermathecae stalks, carapace strongly elevated and patellae I black (Figs. 6, 7); while *S. loja* sp. nov. has larger hyaline pocket covering the spermathecae stalks, carapace not so strongly elevated and patellae I brown (Figs. 16, 17).

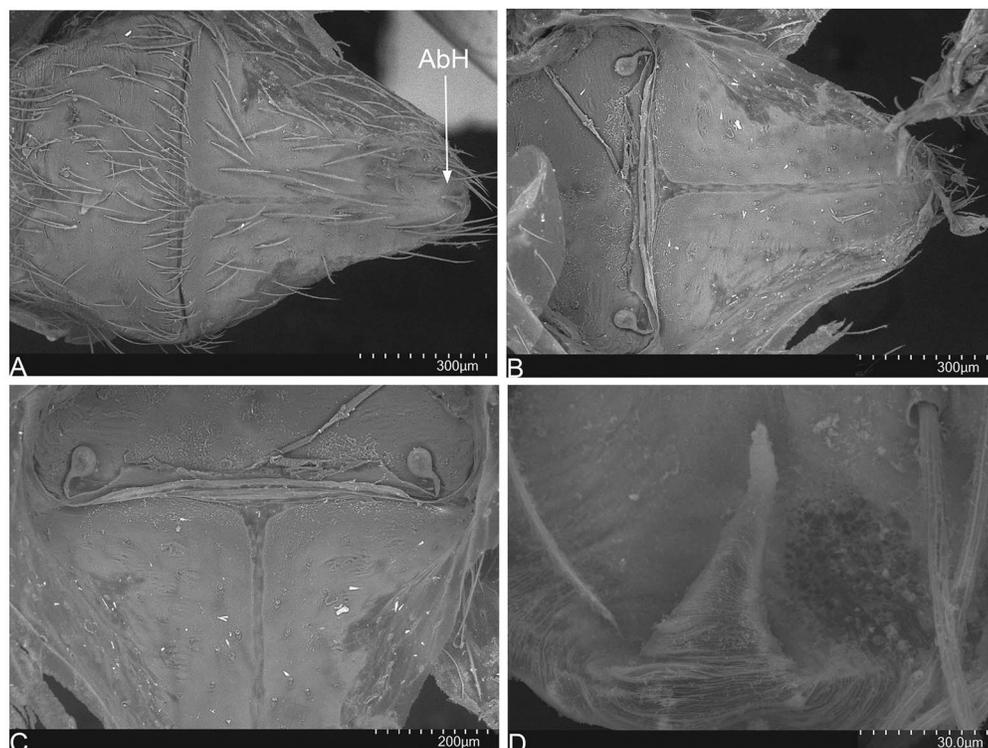


Figure 5.—*Drymusa pristirana* sp. nov., female paratype. Scanning Electron Micrograph images: A, abdomen, ventral view; B, abdomen digested, dorsal view. C, internal genitalia, dorsal view; D, abdominal hook, ventral view.

Description (female holotype).—Total length: 4.27; carapace length: 2.34; carapace width: 1.84; carapace height: 1.21; abdomen length: 1.93. **CEPHALOTHORAX:** Carapace pale yellow with dark brown and black pattern, strongly domed (Figs. 6A, B). Chelicerae pale yellow with longitudinal, wide brown stripe; chelicerae with subapical hyaline keel; stridulatory ridges inconspicuous. Labium beige, suffused with brown laterally. Endites uniformly pale yellow. Sternum pale yellow slightly sprinkled with dark brown; surface slightly undulated (Fig. 6C). **EYES:** 6 eyes in three diads; eyes diameter: PME 0.10, ALE 0.10, PLE 0.13; lateral eyes on a tubercle. **ABDOMEN:** Oval, cream color, with few, black irregular markings (Fig. 6A). **LEGS:** yellow; femur I–II with pair of ventrally, longitudinal, black stripes, prolaterally with row of black marks; femur III–IV with black spots; patella I black; patellae II–IV yellow; tibia I with black mark apically and basally, and longitudinal dorsal black line, reaching halfway; tibia II with black mark basally, and longitudinal dorsal black line, reaching halfway; tibia III with complete black longitudinal line dorsally; tibia IV with apical black mark; metatarsi I–IV with complete longitudinal black lines dorsally; tarsi uniformly yellow. Leg measurements: I 9.78 (2.56/0.50/2.75/3.49/0.48); II 7.06 (1.82/0.51/1.94/2.24/0.55); III 5.09 (1.54/0.51/1.23/1.32/0.49); IV 6.96 (2.15/0.51/1.96/1.86/0.48); Leg formula: 1243. **GENITALIA:** Epigastric region well sclerotized, with small c-shaped epigastric sclerotizations; positioning ridges angular, obtuse; 15x separated from each other separated from each other; fovea small, triangular (Fig. 7A). Internal genitalia with oval spermathecae on short stalks (1x spermathecae length) with large glandular pores broadly distributed; hyaline pocket oval, deeply

constricted, with large glandular pores concentrated medio-externally (Fig. 7B).

Distribution.—El Oro, Esmeraldas, Santa Elena, Cañar Provinces and Santo Domingo de los Tsáchilas provinces, Ecuador.

Natural history.—The holotype female was collected at 235 m in a deciduous lowland forest (BdTc01) (Santiago et al. 2013) in El Oro Province. One specimen was collected in Cañar Province in an evergreen seasonal foothill forest (BePn01) (Morales 2013) of the occidental Andean mountain range, and the other female was collected in Santo Domingo de los Tsáchilas in a seasonal lowland evergreen forest of the Chocó (BeTc01) (Josse et al. 2013). The holotype female was carrying an egg sac with 22 eggs.

Scytodes ayampe sp. nov.

<http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:7C777DB6-A229-4A7F-A322-7D2D1B118D8A>

(Figs. 8, 9, 35)

Type material.—*Holotype female.* ECUADOR: *Manabi Province:* Ayampe, entrance to hotel Atamari (01.693965°S, 80.803549°W), 80 m, secondary humid forest with *Phytelephas*, sifting litter, 9.IX.2021, N. Dupérré, E. E. Tapia, A. A. Tapia (QCAZ).

Paratypes: ECUADOR: *Manabi Province:* 4 ♀, 5 juv., same data as holotype (QCAZ, ZMH-A00016070, ZMH-A00016071).

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

Diagnosis.—Females are distinguished from most species by their brown coloration and short legs (Figs. 8A, B) from similar species *S. armata* Brescovit & Rheims, 2001 and *S. itzana*

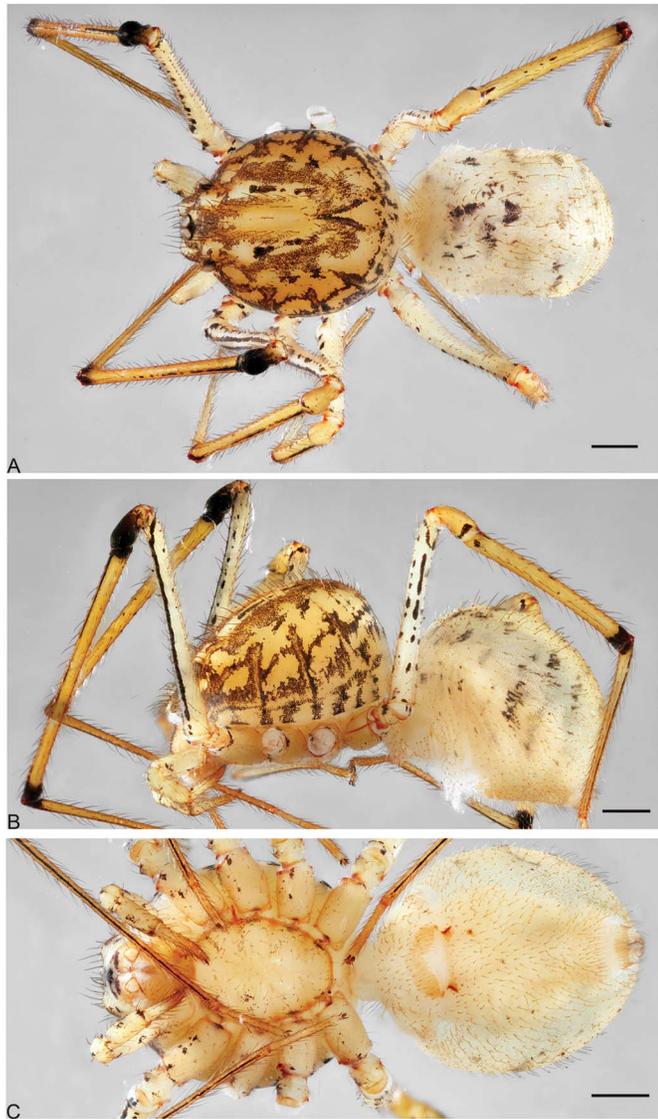


Figure 6.—*Scytodes costa* sp. nov., female holotype: A, habitus, dorsal view; B, habitus, lateral view; C, habitus, ventral view. Scale bars: 0.5mm.

Chamberlin & Ivie, 1938 by the presence of a basal globular extension on the hyaline pocket (Fig. 9B, arrow) absent in both species (Rheims & Brescovit 2001, fig. 61; Rheims et al. 2007, fig. 63).

Description (female holotype).—Total length: 4.53; carapace length: 2.10; carapace width: 1.04; carapace height: 0.66; abdomen length: 0.97. Carapace mostly dark brown, with few yellowish spot laterally and a longitudinal line medially, strongly domed, covered with spatulated setae (Figs. 8A, B). Chelicerae yellow with wide horizontal brown stripe; chelicerae with subapical hyaline keel; ~ 6 to 9 stridulatory ridges. Labium mostly suffused with brown. Endites uniformly beige slightly suffused at base. Sternum beige with brown markings; surface strongly undulated (Fig. 8C). EYES: 6 eyes in three diads; eyes diameter: PME 0.06, ALE 0.05, PLE 0.07; lateral eyes on a tubercle. ABDOMEN: Oval, mostly brown, covered with spatulated setae (Fig. 8A). LEGS: yellow; femur I–IV with brown bands basally,

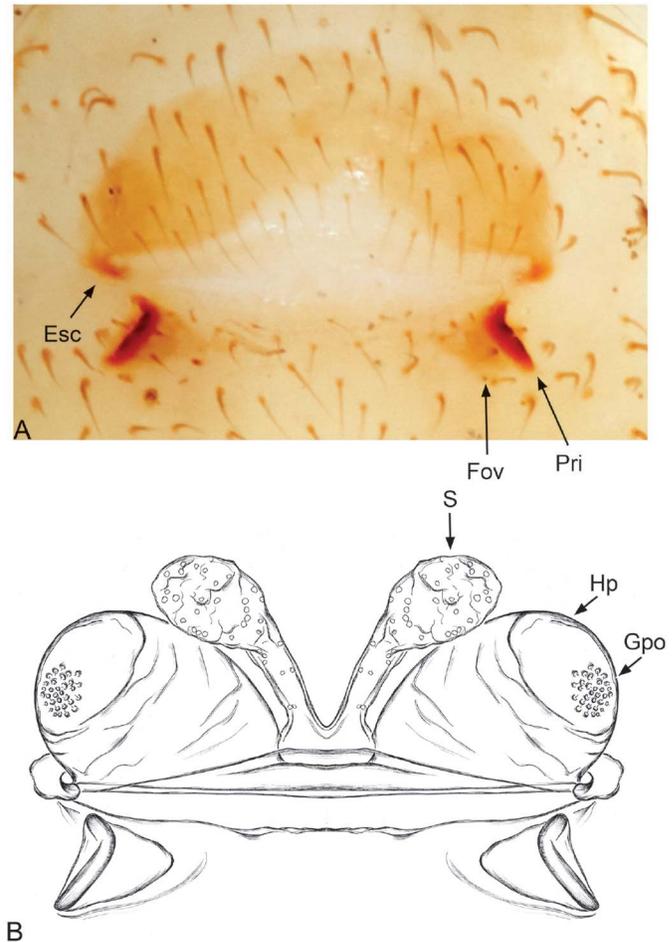


Figure 7.—*Scytodes costa* sp. nov., female holotype: A, epigastric region, ventral view; B, internal genitalia digested, dorsal view.

medially and apically; patella I–IV yellow; tibia I–IV with brown band basally; metatarsi I–IV with diffuse brown band ventro-basally; tarsi I–IV yellow. Leg measurements: I 3.09 (0.76/0.23/0.97/0.79/0.33); II 2.62 (0.69/0.22/0.82/0.62/0.27); III 2.04 (0.58/0.23/0.55/0.45/0.23); IV 2.76 (0.80/0.24/0.69/0.76/0.27); Leg formula: 1423. GENITALIA: Epigastric region not strongly sclerotized, with small c-shaped epigastric sclerotizations; ridges small, curved; widely separated from each other (20x separated from each other); fovea small, curved (Fig. 9A). Internal genitalia with small, oval spermathecae on long stalks (2x spermathecae length); hyaline pocket large, covering the spermathecae stalks, with basal globular extension bearing small glandular pores (Fig. 9B).

Distribution.—Manabi province, Ecuador.

Natural history.—Specimens were collected by sifting litter in a semi-deciduous lowland forest of the Jama-Zapotillo sector (BmTc01) (Chincherro et al. 2013).

Scytodes choco sp. nov.

<http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:DF44E4F2-52F7-4F02-BF47-F1D31C3799A4>

(Figs. 10–13, 35)

Type material.—*Holotype male*. ECUADOR: *Cotopaxi Province*: Bosque Integral OTONGA (00°25'09"S, 79°00'11"W),

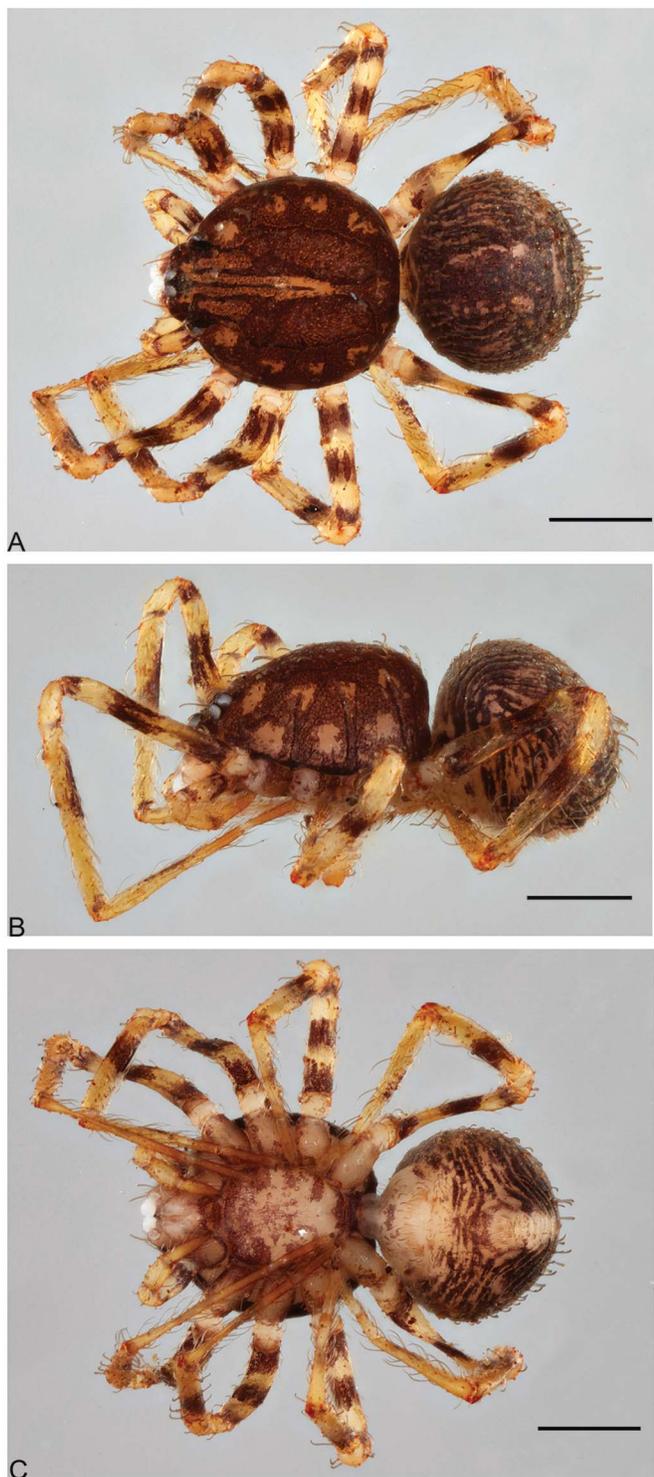


Figure 8.—*Scytodes ayampe* sp. nov., female holotype: A. habitus, dorsal view; B. habitus, lateral view; C. habitus, ventral view. Scale bars: 0.5mm.

1924 m, 2 June 2017, Malaise trap, M. Huben (QCAZ). Female allotype from Pichincha Province, La Unión del Toachi, Otongachi Reserve (00.321295°S, 78.95163°W), 900 m, 2012, hand collecting, N. Dupérré, E. Tapia (QCAZ).

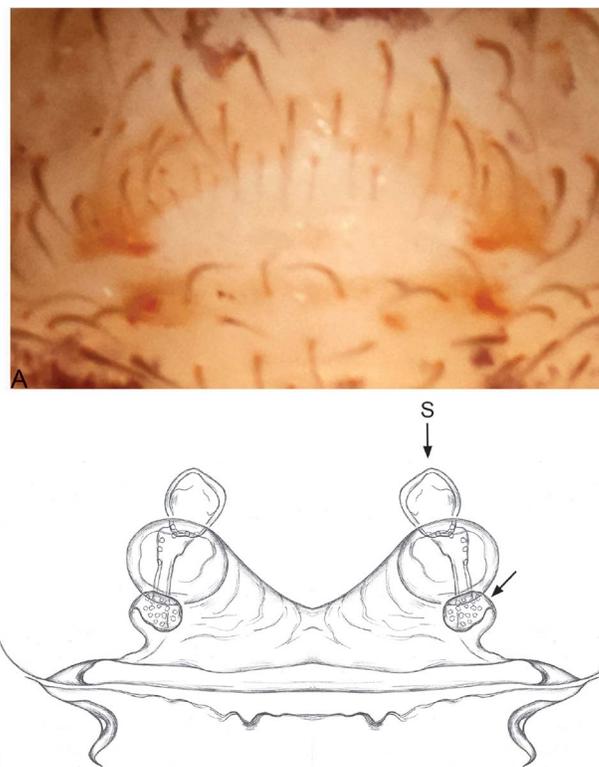


Figure 9.—*Scytodes ayampe* sp. nov., female paratype: A, epigastric region, ventral view; B, internal genitalia digested, dorsal view (arrow points to basal globular extension).

Etymology.—The specific name is a noun in apposition pertaining to the Chocó hotspot corridor running from Panama to Peru where the species was first discovered.

Diagnosis.—Males of *S. choco* sp. nov. are distinguished from most species by their palpal bulb distal region with a long and deep prolateral keel (Fig. 11C), from similar species *S. adisi* Rheims & Brescovit, 2009 and *S. jaguar* sp. nov. by the presence on the male palp of a longer, prolateral upper keel (Fig. 11C) while short and basal keel present in *S. adisi* (Rheims & Brescovit 2009; fig. 39); from *S. jaguar* sp. nov. by the presence of a basal pocket (Fig. 11D) absent in the latter (Fig. 15D). Females are separated from most species by their hyaline pocket constricted medially (Fig. 13B), from resembling species *S. costa* sp. nov. by their spermathecae stalks with marked constrictions, apical part strongly sclerotized and smaller hyaline pocket (Fig. 13B) while *S. costa* sp. nov. spermathecae stalks are without constrictions, uniformly sclerotized and hyaline pocket are significantly larger (Fig. 7B).

Description (male holotype).—Total length: 3.78; carapace length: 1.96; carapace width: 1.67; carapace height: 1.19; abdomen length: 1.82. CEPHALOTHORAX: Carapace pale yellow with brown pattern, strongly domed, covered with strong erected setae (Figs. 10A, B). Chelicerae pale yellow with longitudinal, wide brown stripe; chelicerae with subapical hyaline keel; stridulatory ridges inconspicuous. Labium beige, suffused with brown basally. Endites uniformly beige. Sternum pale yellow with black markings along margins; surface slightly undulated (Fig. 10C). EYES: 6 eyes in three diads; eyes diameter: PME 0.11, ALE 0.09, PLE 0.13; lateral eyes on a tubercle. ABDOMEN: Oval,

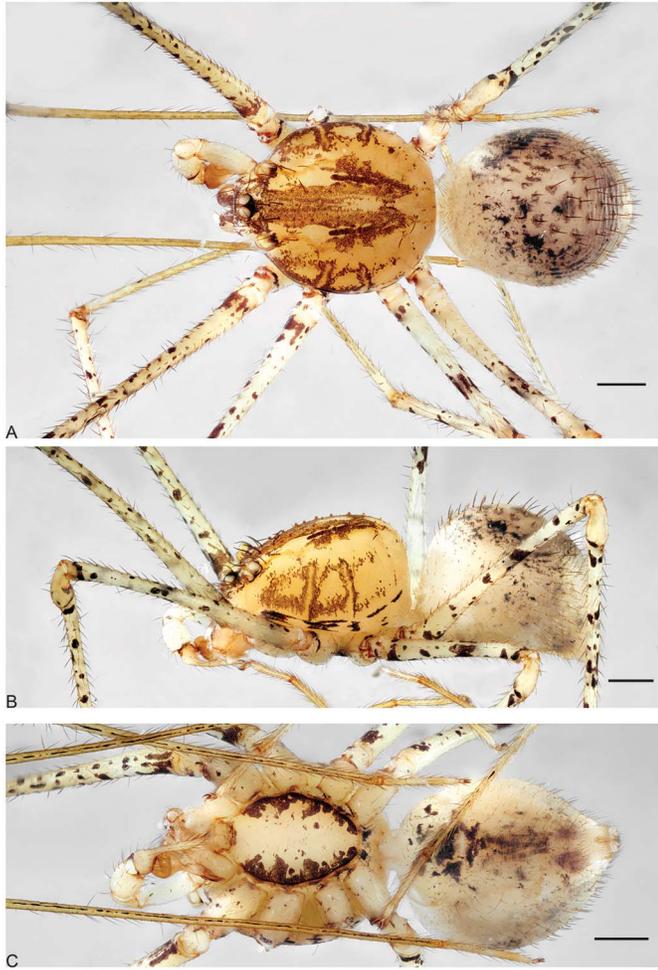


Figure 10.—*Scytodes choco* sp. nov., male holotype: A, habitus, dorsal view; B, habitus, lateral view; C, habitus, ventral view. Scale bars: 0.5mm.

cream color, with black irregular markings, covered with strong erected setae (Fig. 10A). LEGS: yellow; femur with black spots, I–II with broken black bands basally; patella I black; tibia I–IV with black spots, tibia I–IV with black band apically; metatarsi I–II with broken longitudinal black lines, III–IV with obsolete black lines. Leg measurements: I 15.26 (4.25/0.49/4.50/5.19/0.83); II 9.28 (2.54/0.47/2.39/3.19/0.69); III 5.64 (1.37/0.45/1.56/1.70/0.56); IV 8.62 (2.29/0.49/2.51/2.64/0.69); Leg formula: 1243. GENITALIA: Palpal femur with basal stridulatory pick. Cymbium with two distal spines; bulb long, medio-apically constricted; distal region with long and deep prolateral keel and retrolateral pocket (Figs. 11A–D).

Description (female allotype).—Total length: 4.53; carapace length: 2.11; carapace width: 1.65; carapace height: 1.25; abdomen length: 2.42. Carapace yellow with brown pattern, strongly domed covered with strong erected setae (Figs. 12A, B). Chelicerae yellow with longitudinal, wide brown stripe; chelicerae with subapical hyaline keel; stridulatory ridges inconspicuous. Labium beige with brown markings. Endites uniformly beige. Sternum yellow strong with black markings; surface slightly undulated (Fig. 12C). EYES: 6 eyes in three diads; eyes diameter: PME

0.14, ALE 0.13, PLE 0.12; lateral eyes on a tubercle. ABDOMEN: Oval, cream color, with black irregular markings, covered with strong erected setae (Fig. 12A). LEGS: yellow; femur with black spots, I–III with basal black bands; patella I black; tibia I–IV with black spots, tibia I–IV with black band apically; metatarsi I–IV with black longitudinal lines, incomplete on metatarsus III. Leg measurements: I 8.80 (2.46/0.47/2.63/2.68/0.56); II 6.67 (1.89/0.42/1.86/1.94/0.56); III 4.43 (1.24/0.37/1.09/1.27/0.46); IV 6.35 (1.89/0.43/1.66/1.81/0.56); Leg formula: 1243. GENITALIA: Epigastric region well sclerotized, with wide c-shaped epigastric sclerotizations; positioning ridges obtuse, angular; widely separated (15x separated from each other); fovea deep, (Fig. 13A). Internal genital with oval spermathecae on short, constricted stalks, basally not strongly sclerotized; hyaline pocket elongated, constricted medially, with small glandular pores concentrated medio-externally (Fig. 13B).

Distribution.—Cotopaxi and Pichincha provinces, Ecuador.

Natural history.—Specimens were collected between 900–1924 m in the Chocó region of Ecuador, in an evergreen low and a foothill mountain forest (BsBn04, BsPn01) (Aguirre & Gálvez 2013; Guevara & Morales 2013) of the occidental Andean mountain range.

Remarks.—The male and female are from two different localities (12 km apart) but were matched based on overall size, coloration and leg coloration (patella I black), and carapace strongly domed.

Scytodes jaguar sp. nov.

<http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:0282AF4B-EA43-4439-8CA4-A734F92103E1>

(Figs. 14, 15, 35)

Type material.—*Holotype male*. ECUADOR: Cotopaxi Province: Pristirana Reserve (00.42492°S, 78.95708°W), 1449 m, 30 May 2019, litter from epiphytes based, hand collecting, E. Tapia, César Tapia & Carmen Caisaguano (QCAZ).

Etymology.—The specific name is a noun in apposition and refers to the spotted pattern of the legs similar to a jaguar coloration pattern.

Diagnosis.—Male are differentiated from most species by their deeply constricted palpal bulb (Fig. 15C), from similar species *S. choco* sp. nov. and *S. guapiassu* Rheims & Brescovit, 2009 by the absence of a palpal basal pocket (Fig. 15D) present in *S. choco* sp. nov. (Fig. 11D); from *S. guapiassu* by the absence of a subdistal lamina (Figs. 15C, D) present in the latter (Rheims & Brescovit 2009; figs. 33, 34). Females are unknown.

Description (male holotype).—Total length: 3.25; carapace length: 1.85; carapace width: 1.55; carapace height: 1.04; abdomen length: 1.40. CEPHALOTHORAX: Carapace pale yellow with dark blackish-brown pattern, not strongly domed (Figs. 14A, B). Chelicerae pale yellow with longitudinal, brown stripe; chelicerae with subapical hyaline keel; stridulatory ridges inconspicuous. Labium beige, suffused with brown basally and laterally. Endites uniformly creamed color. Sternum pale yellow with black markings along margins extending medially; surface strongly undulated (Fig. 14C). EYES: 6 eyes in three diads; eyes diameter: PME 0.10, ALE 0.11, PLE 0.10; lateral eyes on a tubercle. ABDOMEN: Oval, grayish color, with black irregular markings (Fig. 14A). LEGS (leg I missing): yellow; femur with black spots, II with basal black band; tibia II–IV with black spots, tibia IV with black band apically; metatarsus II with black longitudinal lines, broken and

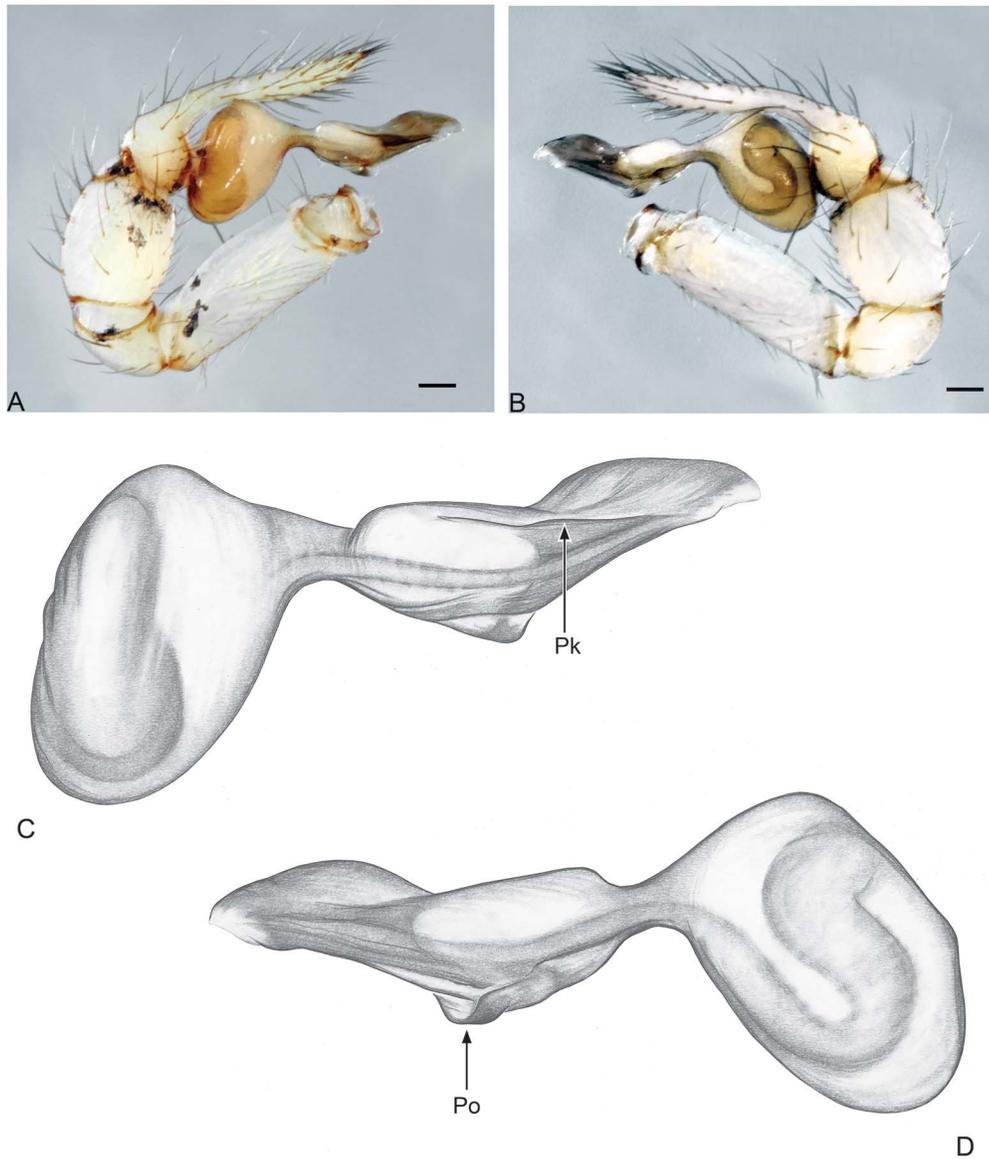


Figure 11.—*Scytodes choco* sp. nov., male holotype: A, palp, prolateral view; B, palp, retrolateral view; C, bulb, prolateral view; D, bulb, prolateral view. Scale bars: 0.1mm.

incomplete on metatarsi III, IV. Leg measurements: I missing; II 8.81 (2.49/0.46/2.53/2.70/0.63); III 5.19 (1.48/0.45/1.19/1.53/0.54); IV 7.85 (2.29/0.46/2.18/2.26/0.66); Leg formula: 243. GENITALIA: Palpal femur with basal stridulatory pick present. Cymbium with two distal spines; bulb long, medio-basally constricted; distal region with long retrolateral keel (Figs. 15A–D).

Distribution.—Only found at the type locality, Cotopaxi province, Ecuador.

Natural history.—The only specimen was collected between 1449 m in an evergreen low mountain forest (BsBn04) of the occidental Andean mountains (Aguirre & Gálvez 2013).

Scytodes loja sp. nov.

<http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:E465C426-96B4-4C5E-9E3D-C2DACF18FF26>
(Figs. 16, 17, 35)

Type material.—*Holotype female*. ECUADOR: Loja Province: Oña (3.46653°S, 79.16294°W), 2241 m, 5 March 2020, hand collected, E. Tapia, N. Dupérré, A. Tapia (QCAZ).

Etymology.—The specific name is a noun in apposition taken from the province in which the type specimen was collected.

Diagnosis.—Females are distinguished from most species by their straight spermathecae stalks (Fig. 17B) from similar species *S. costa* sp. nov. by their hyaline pocket less constricted medially, with small pores and spermathecae stalks straight (Fig. 17B); while in *S. costa* sp. nov. the hyaline pocket is deeply constricted, with large pores, and spermathecae stalks oblique (Fig. 7B). Males are unknown.

Description (female holotype).—Total length: 5.41; carapace length: 3.07; carapace width: 2.52; carapace height: 1.74; abdomen length: 2.34. CEPHALOTHORAX: Carapace yellow with brown pattern, strongly domed (Figs. 16A, B). Chelicerae pale yellow

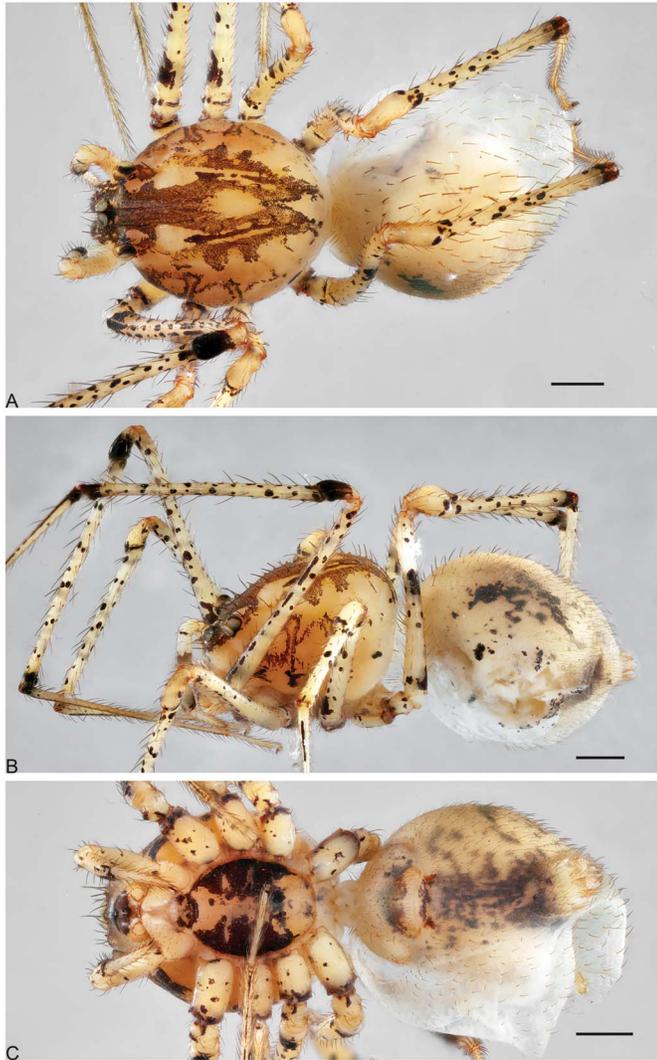


Figure 12.—*Scytodes choco* sp. nov., female allotype: A, habitus, dorsal view; B, habitus, lateral view; C, habitus, ventral view. Scale bars: 0.5mm.

with longitudinal, wide brown stripe; chelicerae with subapical hyaline keel, stridulatory ridges inconspicuous. Labium pale yellow, suffused with brown laterally. Endites pale yellow suffused with brown laterally. Sternum pale yellow slightly suffused with black along margins and medially, with pair of diagonal line between endites and coxae I; surface slightly undulated (Fig. 16C). EYES: 6 eyes in three diads; eyes diameter: PME 0.12, ALE 0.12, PLE 0.12; lateral eyes on a tubercle. ABDOMEN: Oval, grayish with few black irregular markings (Fig. 16A). LEGS: yellow; femur I–II with two interrupted longitudinal brown lines ventrally; laterally with brown irregular markings; femur III–IV with brown irregular markings; patellae I–IV suffused with dark brown stronger on leg I–II; tibia I–IV with brown bands apically, medially and apically; metatarsi I–IV with brown band apically; tarsi uniformly yellow. Leg measurements: I (2.79/0.63/2.99/3.76/missing); II 8.09 (2.12/0.60/2.40/2.48/0.49); III 6.25 (1.80/0.51/1.69/1.80/0.45); IV 8.18 (2.32/0.57/2.11/2.60/0.58); leg formula: 243. GENITALIA: Epigastric region well sclerotized, with wide

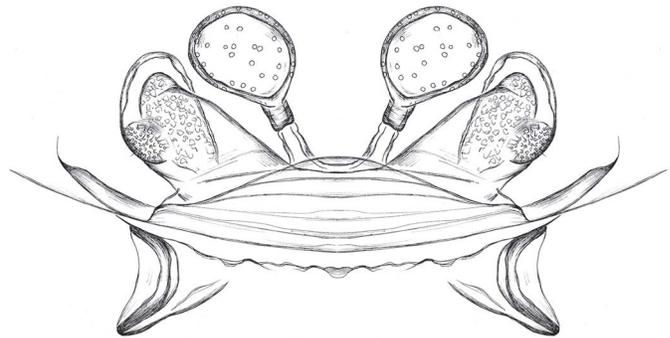
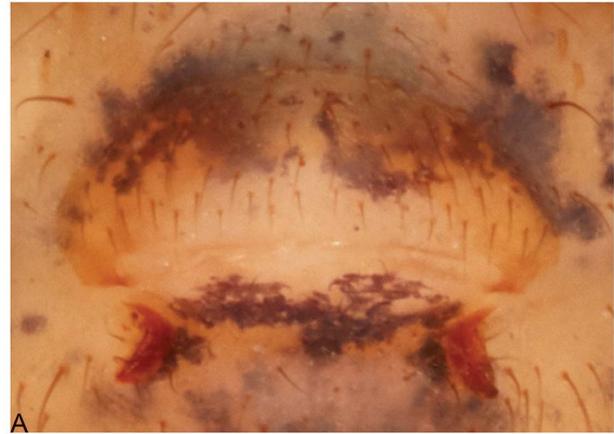


Figure 13.—*Scytodes choco* sp. nov., female allotype: A, epigastric region, ventral view; B, internal genitalia cleared, dorsal view.

c-shaped epigastric sclerotizations; positioning ridges slightly curved; widely separated (15x separated from each other) (Fig. 17A); fovea deep, triangular (Figs. 17A, B). Internal genitalia with oval spermathecae with evenly distributed glandular pores, on short (1x spermathecae length), straight stalks; hyaline pocket elongated oval, constricted medially with small glandular pores concentrated medio-externally (Fig. 17B).

Distribution.—Only found at the type locality, Loja Province, Ecuador.

Natural history.—The only female specimen was collected in a semi-deciduous dry shrub forest of the Andes (AmMn01) (Aguirre et al. 2013b).

Scytodes argelia sp. nov.

<http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:F0EB006A-8C4F-4D8E-935B-A53E301FFD03>

(Figs. 18, 19, 35)

Type material.—*Holotype female*. ECUADOR: *Loja Province*: Barrio La Argelia, Laguna pequeña (4.04194°S, 79.203840°W), 2212 m, 4 March 2020, beating, N. Dupérré, A. Tapia. E. Tapia (ECFN 7286).

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

Diagnosis.—Female are separated from most species by their unique rectangularly shaped hyaline pocket, from similar species *S. turvo* Rheims & Brescovit, 2009 by the smooth positioning ridges and spermathecae longer than the hyaline pocket

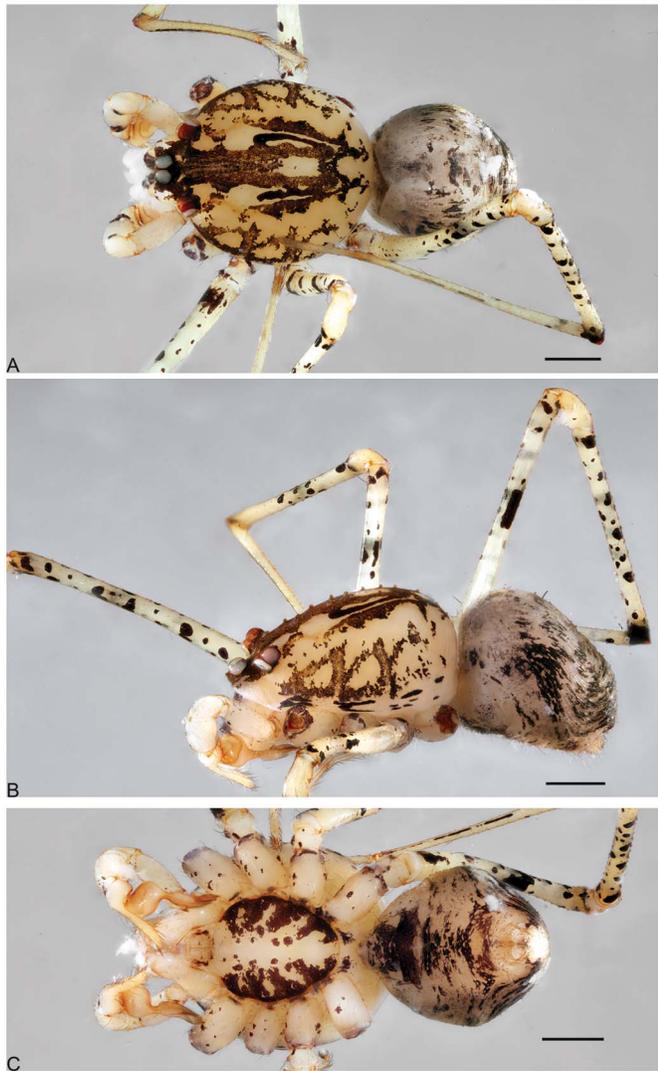


Figure 14.—*Scytodes jaguar* sp. nov., male holotype: A, habitus, dorsal view; B, habitus, lateral view; C, habitus, ventral view. Scale bars: 0.5mm.

(Figs. 19A, B); whilst in *S. turvo* epigastric region with striated positioning ridges and spermathecae shorter than hyaline pocket (Rheims & Brescovit 2009; figs. 158, 159). Males are unknown.

Description (female holotype).—Total length: 4.83; carapace length: 2.47; carapace width: 2.00; carapace height: 1.37; abdomen length: 2.36. **CEPHALOTHORAX:** Carapace pale yellow with black pattern, strongly domed (Figs. 18A, B). Chelicerae pale yellow with black diagonal line; chelicerae with subapical hyaline keel; stridulatory ridges inconspicuous. Labium beige, suffused with black basally and laterally. Endites uniformly creamed color. Sternum pale yellow with black markings along margins and rows of black pairs spots medially; surface strongly undulated (Fig. 18C). **EYES:** 6 eyes in three diads; eyes diameter: PME 0.13, ALE 0.12, PLE 0.12; lateral eyes on a tubercle. **ABDOMEN:** Oval, pointed apically; beige, with brown irregular markings (Fig. 18A). **LEGS:** yellow; femur I–II with black spots laterally and two longitudinal lines ventrally; III–IV with black spots laterally and broken

longitudinal lines ventrally; patellae I–II with black markings apically; tibia I–II with black mark basally, medially and apically; tibia III with dorsal longitudinal line and spots laterally, tibia IV with half black longitudinal line dorsally, black marking medially and apically; metatarsi I–II with black broken longitudinal lines, apically brown band; metatarsi III–IV with black half longitudinal lines, apically brown band; tarsi uniformly yellow. Palp with basal stridulatory pick. Leg measurements: I 12.20 (3.07/0.53/3.53/4.34/0.73); II (2.61/0.51/2.61/2.81/missing); III 5.98 (1.73/0.51/1.51/1.74/0.49); IV 8.16 (2.44/0.52/1.96/2.57/0.62); leg formula: 143. **GENITALIA:** Epigastric region slightly sclerotized, with wide sinuous-shaped epigastric sclerotizations; positioning ridges strongly curved; not widely separated (10x separated from each other); fovea deep (Figs. 19A, B). Internal genitalia with oval spermathecae on short stalks (1x spermathecae length), with large glandular pores; hyaline pocket internally positioned, rectangular with large glandular pores concentrated at apico-externally (Fig. 19B).

Distribution.—Only found at the type locality, Loja Province, Ecuador.

Natural history.—The only specimen was collected in a disturbed mountain evergreen shrub of the Andes (AsMn02) (Aguirre et al. 2013a). The female was carrying an egg sac with about 15 eggs.

Scytodes amazonica sp. nov.

<http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:267ABAFC-06E7-47B1-9BCF-C098B781A993>

(Figs. 20–22, 35)

Type material.—*Holotype female.* ECUADOR: *Napo Province:* Misahualli via Arajuno (01.093758°S, 77.545784°W), 458 m, 20 May 2019, hand collected next to Lycosidae web, E. Tapia (QCAZ).

Paratypes: ECUADOR: *Sucumbios Province:* 1 ♂, 1 ♀, Lumbacui, via las Antenas (00.036226°S, 77.308526°W), 825 m, 22 May 2019, hand collected, E. Tapia (ZMH-A0014072); 2 ♀, Lumbacui, via las Antenas (00.036226°S, 77.308526°W), 825 m, 22 May 2019, hand collected, E. Tapia (QCAZ). *Napo Province:* 1 ♂, Misahualli via Arajuno (01.093758°S, 77.545784°W), 458 m, 20 May 2019, hand collected next to Lycosidae web, E. Tapia (QCAZ).

Etymology.—The specific name is a noun in apposition and refers to the region where the species is found.

Diagnosis.—Females are distinguished from most species by the absence of a hyaline pocket (Figs. 22B, C) from similar species *S. janauari* Brescovit & Höfer, 1999 by the presence of a second pair of spermathecae (Figs. 22B, C) while the latter lacks the second pair of spermathecae (Brescovit & Höfer 1999; fig. 20c). Males are separated from most species by their palpal bulb medio-apically constricted (Fig. 22 F) from similar species *S. championi* by the palpal dorsal fin pronounced and the absence of a retrolateral pocket (Figs. 22F, G) while the latter presents a lower dorsal fin and a retrolateral pocket (Brescovit & Rheims 2001; fig 15).

Description (female holotype).—Total length: 5.57; carapace length: 2.60; carapace width: 2.04; carapace height: 1.44; abdomen length: 2.97. **CEPHALOTHORAX:** Carapace yellow with brown pattern; strongly domed (Figs. 20A, B). Chelicerae yellow with dorsal, longitudinal, brown stripe wider apically; with subapical hyaline keel; stridulatory ridges inconspicuous. Labium pale yellow, suffused with brown basally. Endites pale yellow

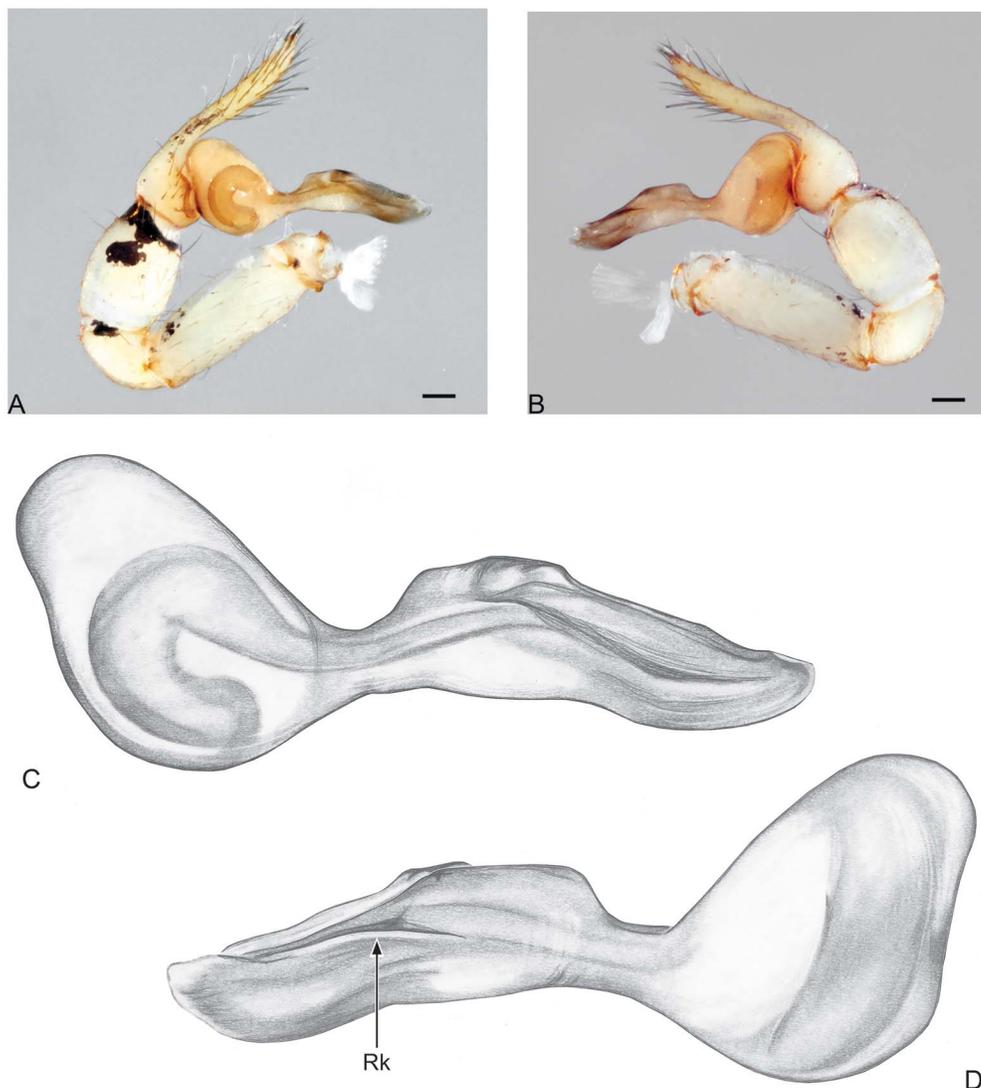


Figure 15.—*Scytodes jaguar* sp. nov., male holotype: A, palp, prolateral view; B, palp, retrolateral view; C, bulb, prolateral view; D, bulb, retrolateral view. Scale bar: 0.1mm.

slightly suffused with brown internally. Sternum pale yellow suffused with brown in coxae grooves I–III; slightly undulate (Fig. 20C). EYES: 6 eyes in three diads; eyes diameter: PME 0.13, ALE 0.10, PLE 0.18; lateral eyes on a tubercle. ABDOMEN: Oval; grayish-beige, with some irregular dark markings (Fig. 20A). LEGS: yellow; femur I–IV with dark brown, elongated spots markings; patella I–II completely apically black, patellae III–IV with black marking apically; tibia I–II with black bands basally and apically, and dark brown, elongated spots markings; tibia III–IV with black bands basally, apically and medially and dark brown spots; metatarsi I–IV with dorsal interrupted black longitudinal line; tarsi uniformly yellow. Papal femur with basal stridulator pick. Leg measurements: I 10.76 (2.93/0.56/3.12/3.45/0.70); II 7.72 (2.12/0.56/2.18/2.3/0.56); III 5.40 (1.61/0.58/1.4/1.31/0.5); IV 7.62 (2.26/0.54/2.14/2.03/0.65); Leg formula: 1243. GENITALIA: Epigastric region slightly sclerotized, with wide c-shaped epigastric sclerotizations; positioning ridges slightly curved; widely separated (20x separated from each other); fovea shallow (Figs. 22A,

B). Internal genitalia with two pairs of spermathecae, oval to elongated on wide stalks; hyaline pocket absent (Fig. 22B).

Description (male paratype from Napo).—Total length: 3.89; carapace length: 2.14; carapace width: 1.78; carapace height: 1.22; abdomen length: 1.75. CEPHALOTHORAX: Carapace pale yellow with brown pattern; carapace strongly domed (Figs. 21A, B). Chelicerae as in female. Labium and endites as in female. Sternum pale yellow suffused with brown in coxae grooves I–IV; slightly undulate (Fig. 21C). EYES: 6 eyes in three diads; eyes diameter: PME 0.11, ALE 0.09, PLE 0.14; Lateral eyes on a tubercle. ABDOMEN: Oval, pointed apically; beige, with black irregular markings (Fig. 21A). LEGS: as in female. Leg measurements: I 16.95 (4.27/0.53/4.98/6.36/0.81); II 10.77 (2.79/0.51/3.18/3.71/0.58); III 6.06 (1.57/0.48/1.51/2.06/0.44); IV 8.33 (2.40/0.44/1.83/3.08/0.58); Leg formula: 1243. GENITALIA: Papal femur with basal stridulator pick. Cymbium with two distal spines; bulb long, medio-apically constricted; distal region with elevated dorsal fin and prolateral apical keel and retrolateral basal lobes (Figs. 22D–G).



Figure 16.—*Scytodes loja* sp. nov., female holotype: A, habitus, dorsal view; B, habitus, lateral view; C, habitus, ventral view. Scale bars: 0.5mm.

Distribution.—Napo and Sucumbios provinces, Ecuador.

Natural history.—Specimens were collected in evergreen lowland forest of the Napo-Curaray region from Rio Aguarico (BsTa02) (Guevara et al. 2013a) to Rio Pastaza (BsTa03) (Guevara et al. 2013b) and in evergreen foothill forest of the Oriental mountain range (BsPn03) (Guevara et al. 2013c).

Variation.—Males and females were collected together at two different localities. While males present no obvious variation in the genitalia, the female internal genitalia presented some variations. In the holotype female, the first pair of spermathecae is smaller and the second pair is oval to sub-oval while in the paratype female (Fig. 22C), the first pair of spermathecae is larger and second pair is elongated. The second pair of spermathecae is different from a hyaline pocket found in other species by the presence of an internal thickened wall.

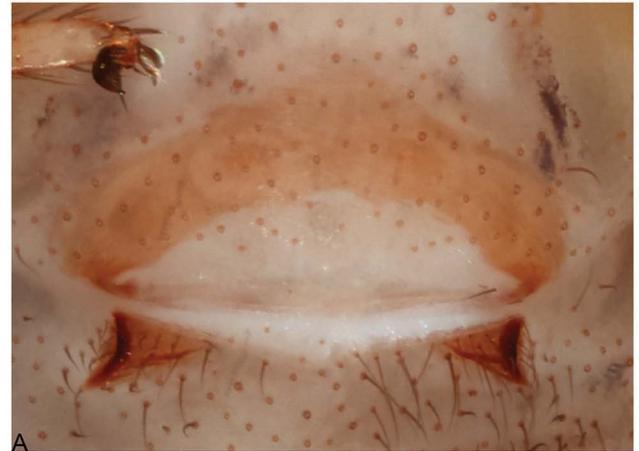


Figure 17.—*Scytodes loja* sp. nov., female holotype: A, epigastric region, ventral view; B, internal genitalia digested, dorsal view.

Scytodes minus sp. nov.

<http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:9F7F39D6-13AB-4779-A1C7-F1A25499F03D>
(Figs. 23, 24, 35)

Type material.—*Holotype male*. ECUADOR: *Napo Province*: Tena, Jatun Sacha (01.066464°S, 77.617192°W), 430 m, 10–15 March May 2020, pitfall, E. Tapia, N. Dupérré, A. Tapia (QCAZ).

Etymology.—The specific name comes from the latin prefix *minus*, meaning “rather small”, due to the small size of this species.

Diagnosis.—Males of *Scytodes minus* sp. nov. are distinguished from all species by a unique apical enlarged disk with small spicules on their palpal bulb, from similar species *S. akytaba* Rheims & Brescovit, 2006, they are distinguished by their deeper constriction of the palpal bulb and longer embolus tip (Figs. 24C, D) while in *S. akytaba* the constriction is shallow and embolus tip short (Rheims & Brescovit 2006; figs. 12, 13). Females are unknown.

Description (male holotype).—Total length: 1.72; carapace length: 1.08; carapace width: 0.91; carapace height: 0.42; abdomen length: 0.67. CEPHALOTHORAX: Carapace yellow strongly covered with black pattern; carapace slightly domed; covered with thick spatulate setae (Figs. 23A, B). Chelicerae pale yellow with small diffused black marking; chelicerae with subapical hyaline keel; with ~ 16 stridulatory ridges. Labium

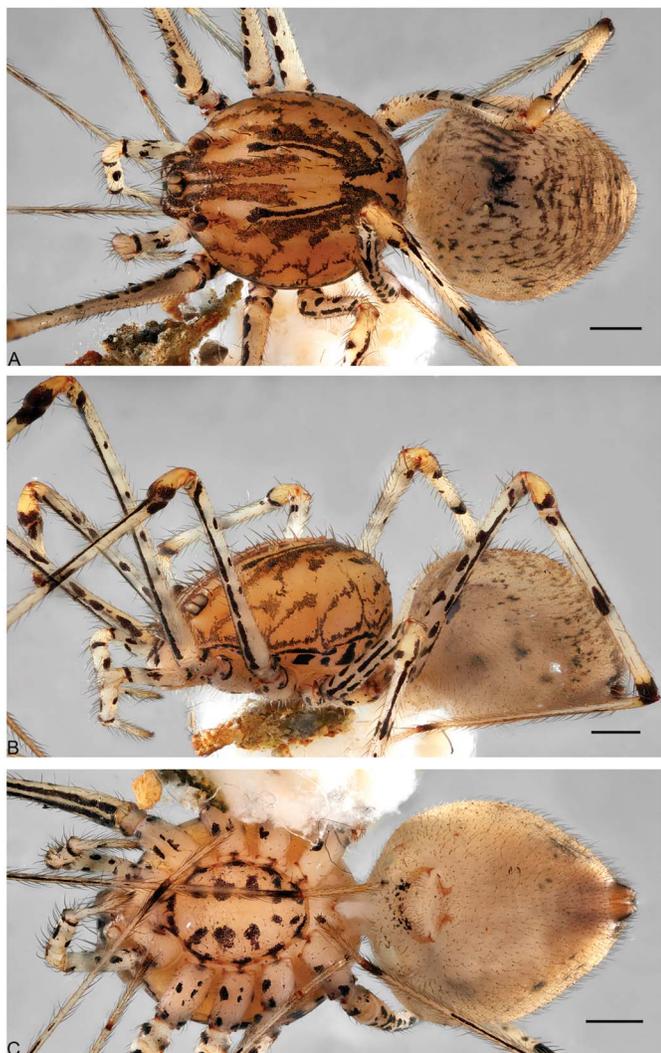


Figure 18.—*Scytodes argelia* sp. nov., female holotype: A, habitus, dorsal view; B, habitus, lateral view; C, habitus, ventral view. Scale bars: 0.5mm.

dark yellow. Endites yellow suffused with black internally. Sternum pale yellow with suffused with black in front of each coxae, strongly undulate (Fig. 23C). EYES: 6 eyes in three diads: PME 0.06, ALE 0.06, PLE 0.07; lateral eyes on a tubercle. ABDOMEN: Oval, pointed apically; dorsally mostly dark gray with black irregular markings; ventrally beige; with few black irregular markings; covered with thick spatulated setae (Figs. 23A, B). LEGS: yellow; covered with thick spatulated setae; leg I missing; femur II–IV with medial and apical, black bands; patella II–IV yellow; tibia I–IV with medial and apical, dorsal black bands; metatarsi I–IV with medial, ventral black markings; tarsi uniformly yellow. Leg measurements: I (missing); II 2.56 (0.69/0.3/0.69/0.7/0.2); III 2.13 (0.53/0.3/0.51/0.53/0.26); IV 2.62 (0.66/0.3/0.72/0.67/0.27); leg formula: 423. GENITALIA: Papal femur basal stridulatory pick not observed. Cymbium with two distal spines; bulb short, medio-apically constricted; distal region with proteral apical keel and retrolateral enlarged disk with small spicules (Figs. 24A–D).

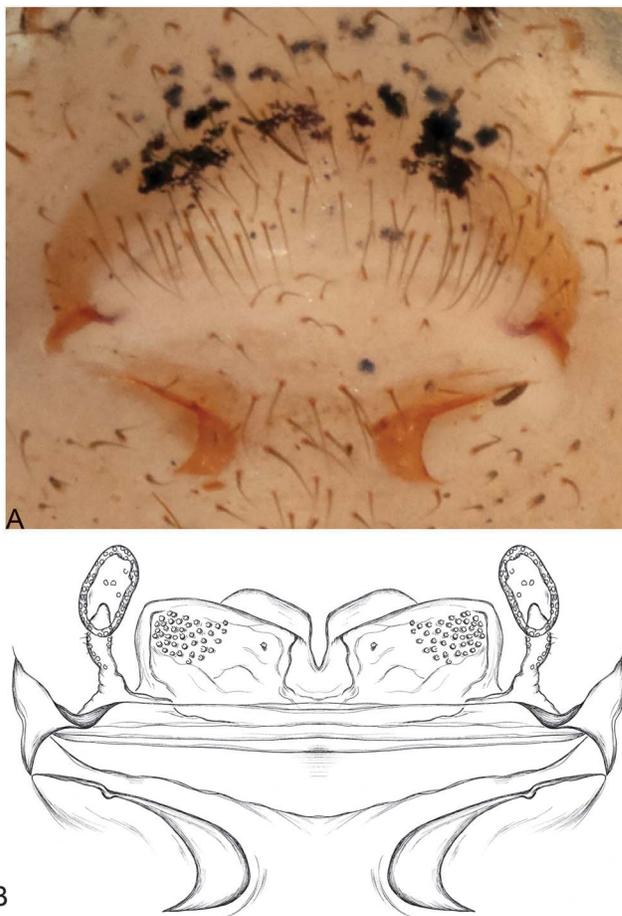


Figure 19.—*Scytodes argelia* sp. nov., female holotype: A, epigastric region, ventral view; B, internal genitalia digested, dorsal view.

Distribution.—Only found at the type locality, Napo Province, Ecuador.

Natural history.—The male was collected by pitfall at 430 m in an evergreen lowland forest of the Napo-Curaray region (Guevara et al. 2013b).

Scytodes orellana sp. nov.

<http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:7B7B39D4-B1E2-4562-AA7F-22BB1658767C>

(Figs. 25–27, 35)

Type material.—*Holotype female*. ECUADOR: *Orellana Province*: Yasuni National Park (QCAZ).

Paratypes: ECUADOR: *Orellana Province*: 1 ♂ allotype, same data as holotype (QCAZ).

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

Diagnosis.—Females and males are distinguished from most species by their legs coloration with black spots (Figs. 25B, 26B) from similar species *S. championi* F.O. Pickard-Cambridge, 1899 and *S. lineatipes* Taczanowski, 1874; females are distinguished from both species by their unique internal genitalia with spermathecae on extremely elongated stalks (Fig. 27B), short stalks in the latter two species (see Brescovit & Rheims 2001; figs. 17,

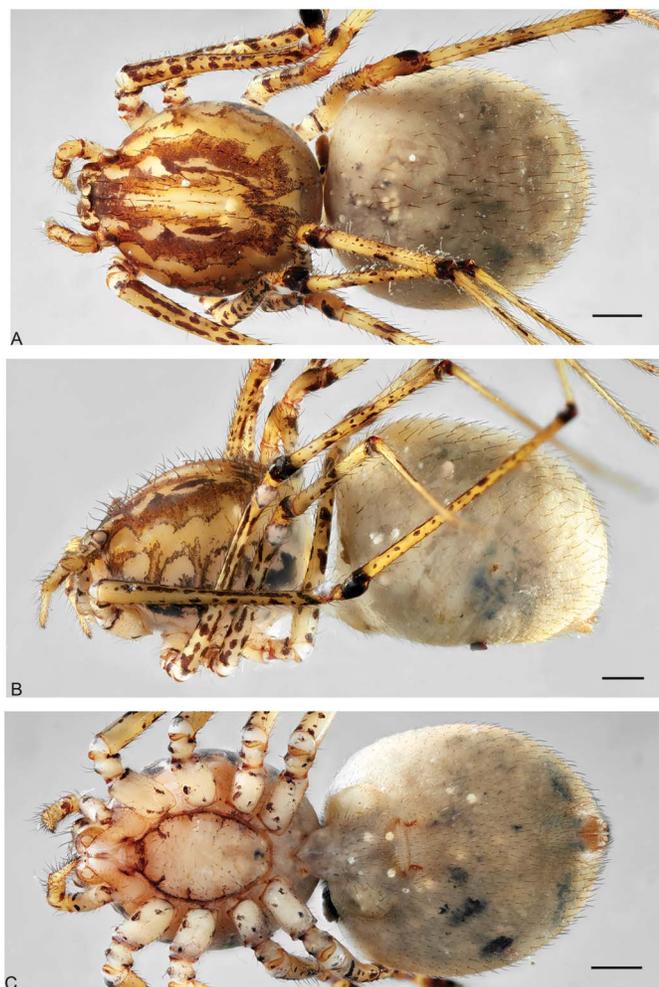


Figure 20.—*Scytodes amazonica* sp. nov., female holotype: A, habitus, dorsal view; B, habitus, lateral view; C, habitus, ventral view. Scale bars: 0.5mm.

22). Males are distinguished from both species by the constricted bulb (Figs. 27E, F) not constricted in the latter two species and blunt tip (Fig. 27F), pointed in the latter two (see Brescovit & Rheims 2001; figs. 15 and 19).

Description (female holotype).—Total length: 2.79; carapace length: 1.25; carapace width: 1.09; carapace height: 0.74; abdomen length: 1.54. CEPHALOTHORAX: Carapace pale yellow with black pattern, not strongly domed (Figs. 25A, B). Chelicerae pale yellow with black diagonal line; chelicerae with subapical hyaline keel; inconspicuous stridulatory ridges. Labium and endites uniformly beige. Sternum uniformly pale yellow; surface flat (Fig. 25C). EYES: 6 eyes in three diads; eyes diameter: PME 0.07, ALE 0.07, PLE 0.09; lateral eyes on a tubercle. ABDOMEN: Elongated oval; beige, with black irregular markings (Fig. 25A). LEGS: whitish; leg I–II missing; femur III–IV with ventral black spots; patellae I–IV with black spots apically; tibia III with black spots basally, medially and apically; metatarsi and tarsi III uniformly whitish. Palp with basal stridulatory pick. Leg measurements: I missing; II missing; III 5.84 (1.89/0.26/1.51/1.71/0.47); IV partly missing (3.11/0.31/—/—/—). GENITALIA: Epigastric region with rectangular plate, not well



Figure 21.—*Scytodes amazonica* sp. nov., male paratype. A, habitus, dorsal view; B, habitus, lateral view; C, habitus, ventral view. Scale bars: 0.5mm.

sclerotized; with elongated diagonally positioned epigastric sclerotizations; positioning ridges comma-shaped; small triangular fovea (Figs. 27A, B). Internal genitalia with oval spermathecae, situated on extremely elongated stalks (2x spermathecae length); hyaline pocket elongated, situated medially with large, grouped glandular pores (Fig. 27B).

Description (male allotype).—Total length: 3.79; carapace length: 1.81; carapace width: 1.34; carapace height: 0.75; abdomen length: 1.98. CEPHALOTHORAX: Carapace pale yellow with black pattern; carapace not strongly domed (Figs. 26A, B). Chelicerae as in female: with ~7 stridulatory files. Labium, endites, and sternum as in female. EYES: 6 eyes in three diads; eyes diameter: PME 0.12, ALE 0.10, PLE 0.11; lateral eyes on a tubercle. ABDOMEN: Oval, pointed apically; beige, with black irregular markings (Fig. 26A). LEGS: whitish; femur I–IV with ventral black spots; patellae I–IV with black spots apically; tibia I–IV with black spots basally, medially and apically; metatarsi II–IV with diffused black band apically; tarsi III–IV uniformly whitish. Leg measurements: I (7.73/0.54/7.98/—/—); II 16.55 (4.91/0.41/4.60/6.08/0.55); III 9.75 (2.97/0.41/2.59/3.30/0.48); IV 15.98 (4.94/0.42/4.50/5.78/0.64). GENITALIA: Papal femur with

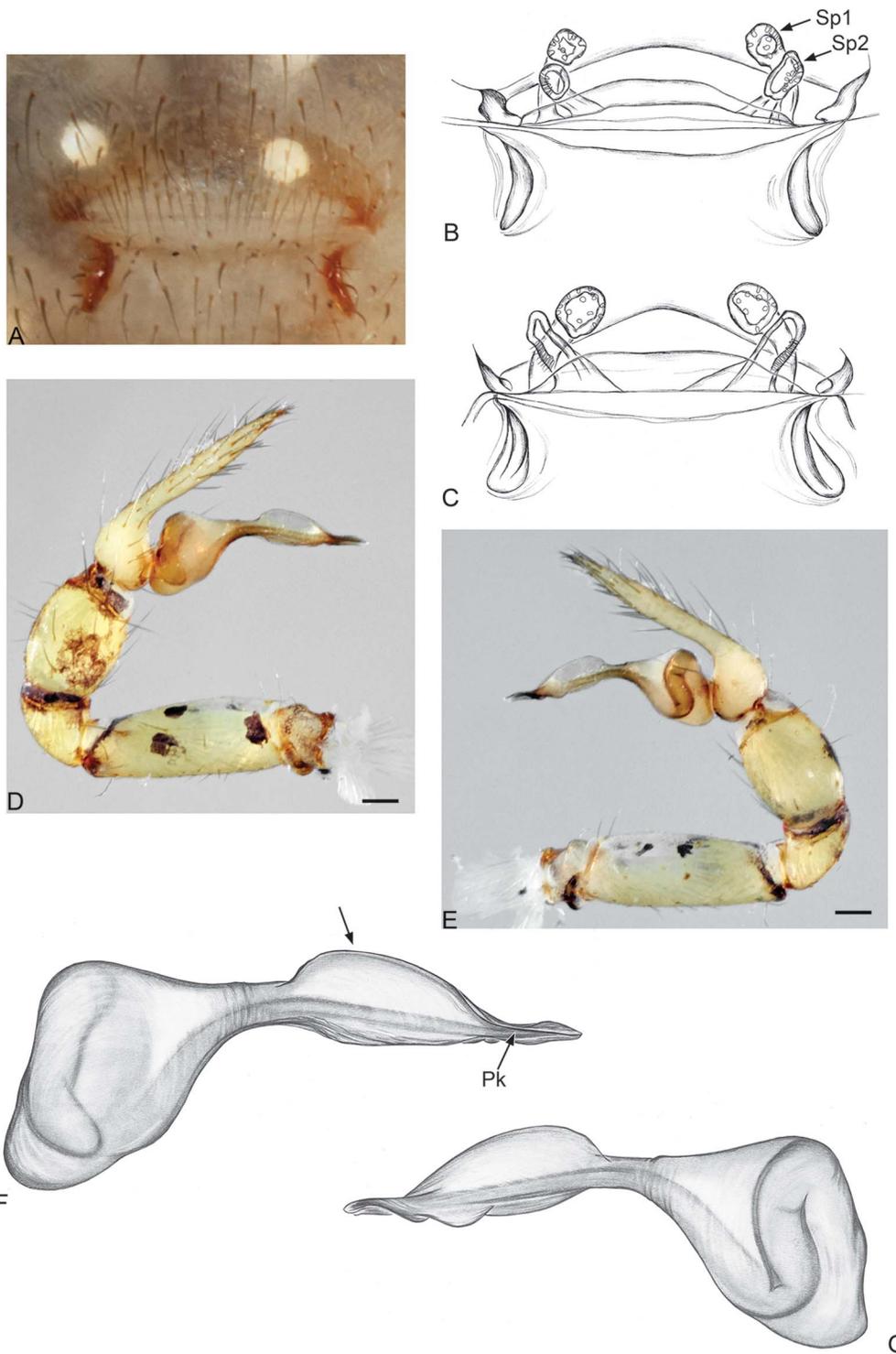


Figure 22.—*Scytodes amazonica* sp. nov., A, holotype female, epigastric region, ventral view; B, holotype female, internal genitalia digested, dorsal view; C, paratype female, internal genitalia digested, dorsal view; D, palp, prolateral view; E, paratype male, palp retrolateral view; F, paratype male, bulb, prolateral view (arrow points to dorsal fin); G, paratype male, bulb, retrolateral view; Scale bars: 0.1mm.

basal stridulatory pick. Cymbium with two distal spines; bulb long, medio-apically constricted; medial region with small prolateral keel (Fig. 27E); distal region with retrolateral pocket, elongated keel and sclerotized membrane; tip blunt (Figs. 27C–F).

Distribution.—Only found at the type locality, in Orellana Province, Ecuador.

Natural history.—Specimens were collected in a low evergreen forest of the Napo-Curaray region (BsTa02) (Guevara et al. 2013c).

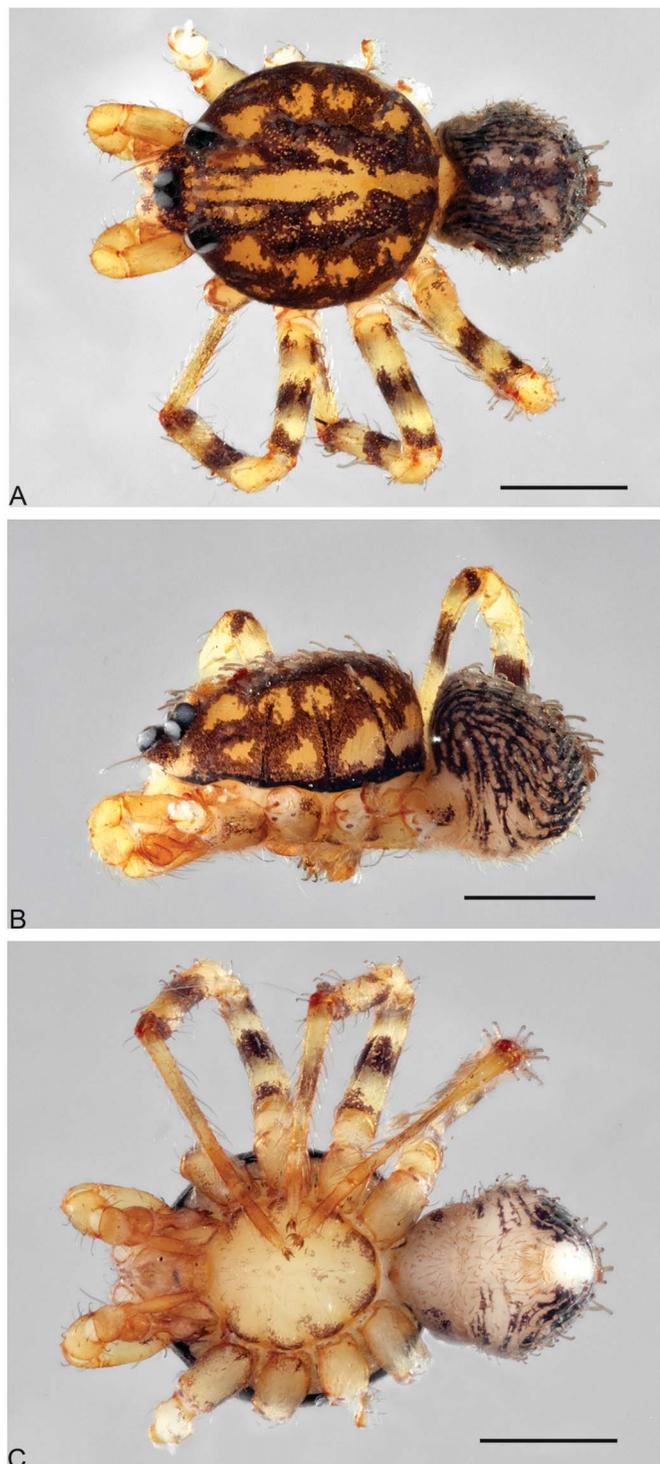


Figure 23.—*Scytodes minus* sp. nov., male holotype: A, habitus, dorsal view; B, habitus, lateral view; C, habitus, ventral view. Scale bars: 0.5mm.

Scytodes tayos sp. nov.

<http://zoobank.org/?lsid=urn:lsid:zoobank.org:act:8FCC130A-BB32-4146-B990-3548822B58D4>
(Figs. 28, 29, 35)

Type material.—*Holotype male*. ECUADOR: *Morona-Santiago Province*: Los Tayos, July 1976. T. DeVries, L. Rodri (QCAZ).

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

Diagnosis.—Males of *S. tayos* sp. nov. are distinguished from most species by their small size (< 2mm) from similar species *S. minus* sp. nov. by their palpal bulb without spicules (Figs. 29C, D) present in the latter (Figs. 24C, D). Females are unknown.

Description (male holotype).—Total length: 1.94; carapace length: 1.08; carapace width: 0.93; carapace height: 0.60; abdomen length: 1.98.

CEPHALOTHORAX: Carapace yellow with brown pattern; carapace not strongly domed (Figs. 28A, B). Chelicerae whitish; with subapical hyaline keel; with ~8 stridulatory files. Labium, and endites uniformly whitish. Sternum uniformly whitish; surface undulated (Fig. 28C). **EYES:** 6 eyes in three diads; eyes diameter: PME 0.08, ALE 0.06, PLE 0.06; lateral eyes on a tubercle. **ABDOMEN:** Oval; whitish, without light brown irregular markings; covered with thick spatulated setae (Fig. 28A). **LEGS:** whitish; covered with thick spatulated setae; femur I–IV with brown rings, basally, medially and apically; patellae I–IV whitish; tibia I–II brown rings apically, tibia III–IV with brown rings medially and apically; metatarsi and tarsi uniformly whitish. Leg measurements: I 3.14 (0.79/0.25/1.00/0.77/0.33); II 2.52 (0.70/0.23/0.68/0.64/0.27); III 1.82 (0.51/0.20/0.41/0.48/0.22); IV 2.60 (0.68/0.21/0.70/0.73/0.28); leg formula: 1423. **GENITALIA:** Papal femur stridulatory pick not observed. Cymbium distal spines not observed; bulb medio-basally constricted; distal region with small retrolateral triangular extension; tip blunt (Figs. 29A–D).

Distribution.—Only found at the type locality, Morona-Santiago Province, Ecuador.

Natural history.—There is no information on the label about the habitat where the specimen was collected, and therefore it could have been collected inside or outside the famous cave, Cueva de los Tayos.

Scytodes lineatipes Taczanowski, 1874

(Figs. 30, 31)

Scytodes lineatipes Taczanowski, 1874: 107 (description of female from French Guiana).

Scytodes lineatipes Taczanowski: Keyserling, 1891: 163, pl. 5, fig. 112 (description of likely juvenile and male from Brazil; male misidentification per Rheims and Brescovit 2009 and, female probably misidentified).

Scytodes lineatipes Taczanowski: Simon, 1892: 570, pl. 42, figs. 16–17 (description of female, male from St. Vincent).

Scytodes romitii Caporiacco, 1947: 22 (description of likely juvenile from British Guyana).

Synonymized with *Scytodes lineatipes* Taczanowski, 1874 by Rheims & Brescovit, 2009: 3. Here removed from synonymy (see Discussion, below).

Scytodes lineatipes Brignoli, 1976: 171, figs. 99, 101 (description of female from Paraguay, misidentified).

Scytodes lineatipes Rheims & Brescovit, 2009: 3 (synonymy of *S. romitii*; here rejected).

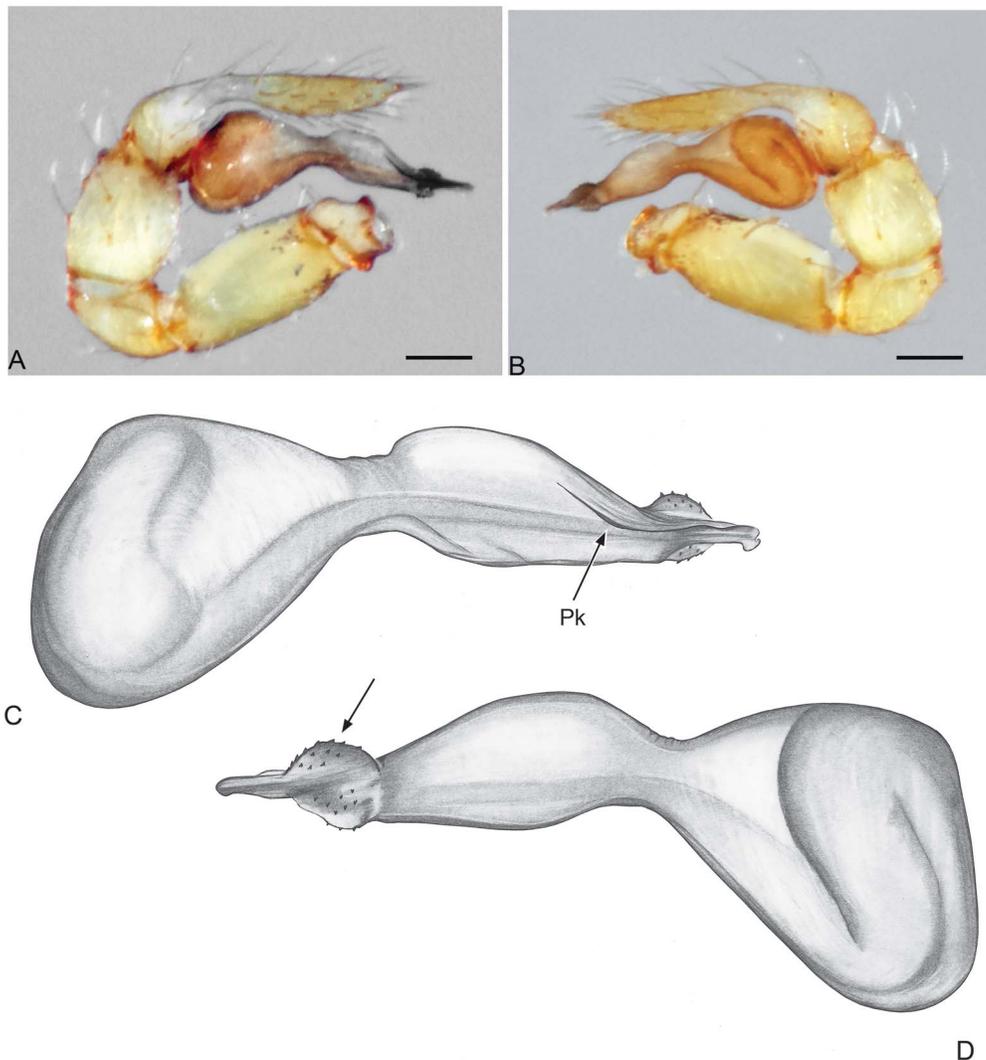


Figure 24.—*Scytodes minus* sp. nov., male holotype: A. palp, prolateral view; B. palp, retrolateral view; C. bulb, prolateral view; D. bulb, retrolateral view.

Type material examined.—*Syntypes*, 1 female, 1 undetermined sex and 2 juveniles. FRENCH GUIANA: Cayenne et Iles du Salut. (MIZ PAN ARA 020868).

Diagnosis.—Females most resemble *S. championi* in coloration, *S. costa* sp. nov. and *S. loja* sp. nov. in internal genitalia configuration. They are distinguished from *S. championi* by their internal genitalia with spermathecae on long stalks (1.5x spermathecae length), and large hyaline pocket (Fig. 31C), while the latter has spermathecae on short stalks and small hyaline pocket (Brescovit and Rheims 2001; fig 17); from *S. costa* sp. nov. by hyaline pocket not constricted in the middle (Fig. 31C) deeply constricted in the latter (Fig. 7B) and from *S. loja* sp. nov. hyaline pocket larger, slightly constricted medially with pores grouped in circle (Fig. 17B) while the hyaline pocket is narrower and constricted apically with glandular pores lay out in rows at margin (Fig. 31C).

Description (female lectotype).—Carapace length: 1.73; carapace width: 1.32. EYES: 6 eyes in three diads; eyes diameter: PME 0.12, ALE 0.11, PLE 0.11; lateral eyes on a tubercle. ABDOMEN: too damaged. LEGS: too fragile, but the two ventral

lines on femur I–II can be observed (Figs. 30A, B). GENITALIA: Epigastric region (Fig. 31B). Internal genitalia with globular spermathecae, situated on elongated stalks (1.5x spermathecae diameter); hyaline pocket large, constricted apically, with small glandular pores at margin (Fig. 31C).

Distribution.—French Guiana.

Remarks.—The adult female is here designated as the lectotype. The hyaline pocket is filled with a black deposit (Fig. 31B), but the glandular pores are small and situated at the margin of the hyaline pocket (Fig. 31C). All syntype specimens have somewhat dehydrated abdomens, the lectotype is an adult female, two specimens are juveniles and the lectotype female epigastric region could not be observed.

Scytodes luteola Simon, 1893

(Figs. 33, 34)

Scytodes luteola Simon, 1893: 437 (description of female).

Type material examined.—*Syntype female*. VENEZUELA: Caracas, (MNHN AR 1225).

Description (female syntype).—GENITALIA: Epigastric region with rectangular plate, well sclerotized; with triangular

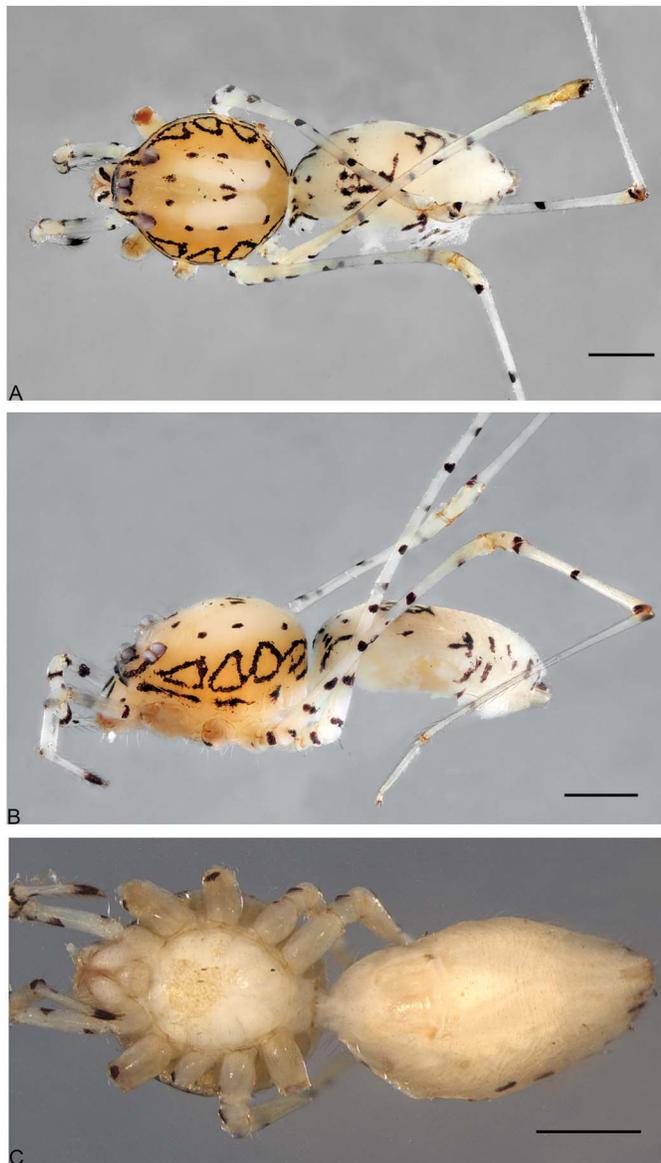


Figure 25.—*Scytodes orellana* sp. nov., female holotype: A, habitus, dorsal view; B, habitus, lateral view; C, habitus, ventral view. Scale bars: 0.5mm.

epigastric sclerotizations; positioning ridges comma-shaped; small triangular fovea (Fig. 34A). Internal genitalia with small spermathecae on curved stalks, widely separated; hyaline pocket large, W-shaped, constricted medially (Fig. 34C).

Distribution.—Venezuela.

Remarks.—The female syntype specimen was found at the MNHN, Paris. No type label was found in the vial with the specimens, but this is often the case with Simon type specimens. The locality, the sex, and the size of the specimen coincide with the data provided by Simon in his original description and is therefore considered to pertain to the type series.

New Records

Scytodes auricula Rheims & Brescovit, 2000 (Fig. 35)

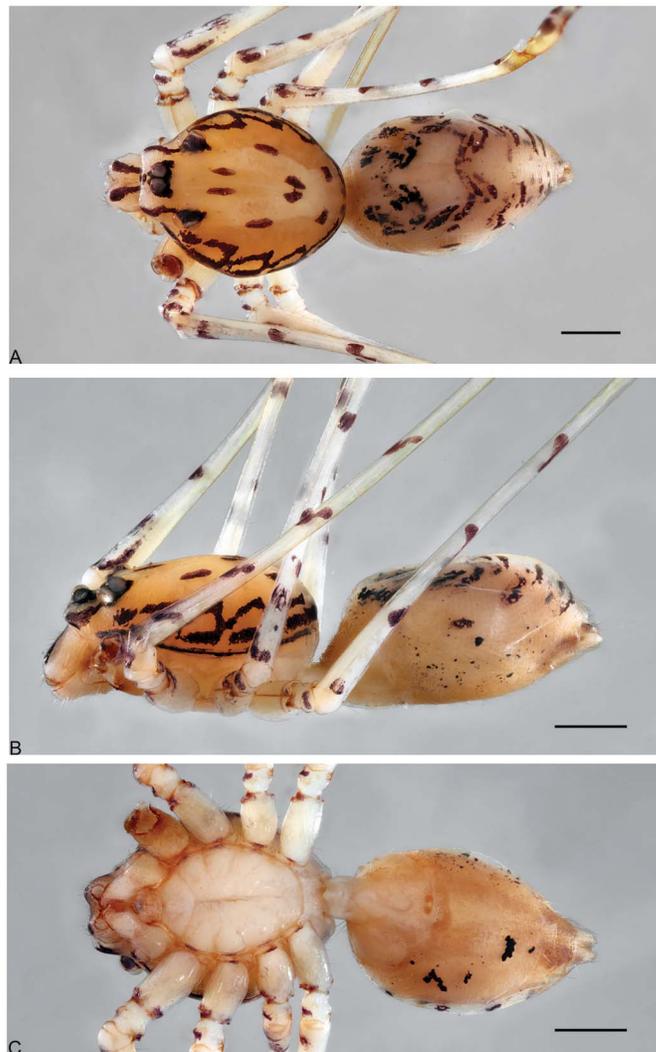


Figure 26.—*Scytodes orellana* sp. nov., male allotype: A, habitus, dorsal view; B, habitus, lateral view; C, habitus, ventral view. Scale bars: 0.5mm.

Scytodes auriculata Rheims & Brescovit, 2000: 724 (description of female).

Material examined.—ECUADOR: *Orellana Province*: 2 ♀, Yasuni National Park (QCAZ); 2 ♀, Est. Chiruisla, Bloc 31, 218 m (00°36'S, 75°52'W), 3 November 2005 A. Barragán (QCAZ); 1 ♂, 30 October 2005, A. Barragán, D. Donoso (QCAZ); 1 ♂, 2 ♀, Est. Chiruisla, Bloc 31, 218 m (00°36'S, 75°52'), 7 Dec. 2006, C. Carpio, A. Barragán (QCAZ).

Distribution.—Brazil and Orellana Province, Ecuador.

Natural history.—In Ecuador specimens were collected in a low evergreen forest of the Napo-Curaray region (BsTa02) (Guevara et al. 2013a).

Scytodes longipes Lucas, 1844 (Fig. 35)

Scytodes longipes Lucas, 1844: 72 (description of male).

Material examined.—ECUADOR: *Imbabura Province*: 3 ♀, Salinas de Ibarra (00.48107°N, 78.122114°W), 1565 m, 10 April

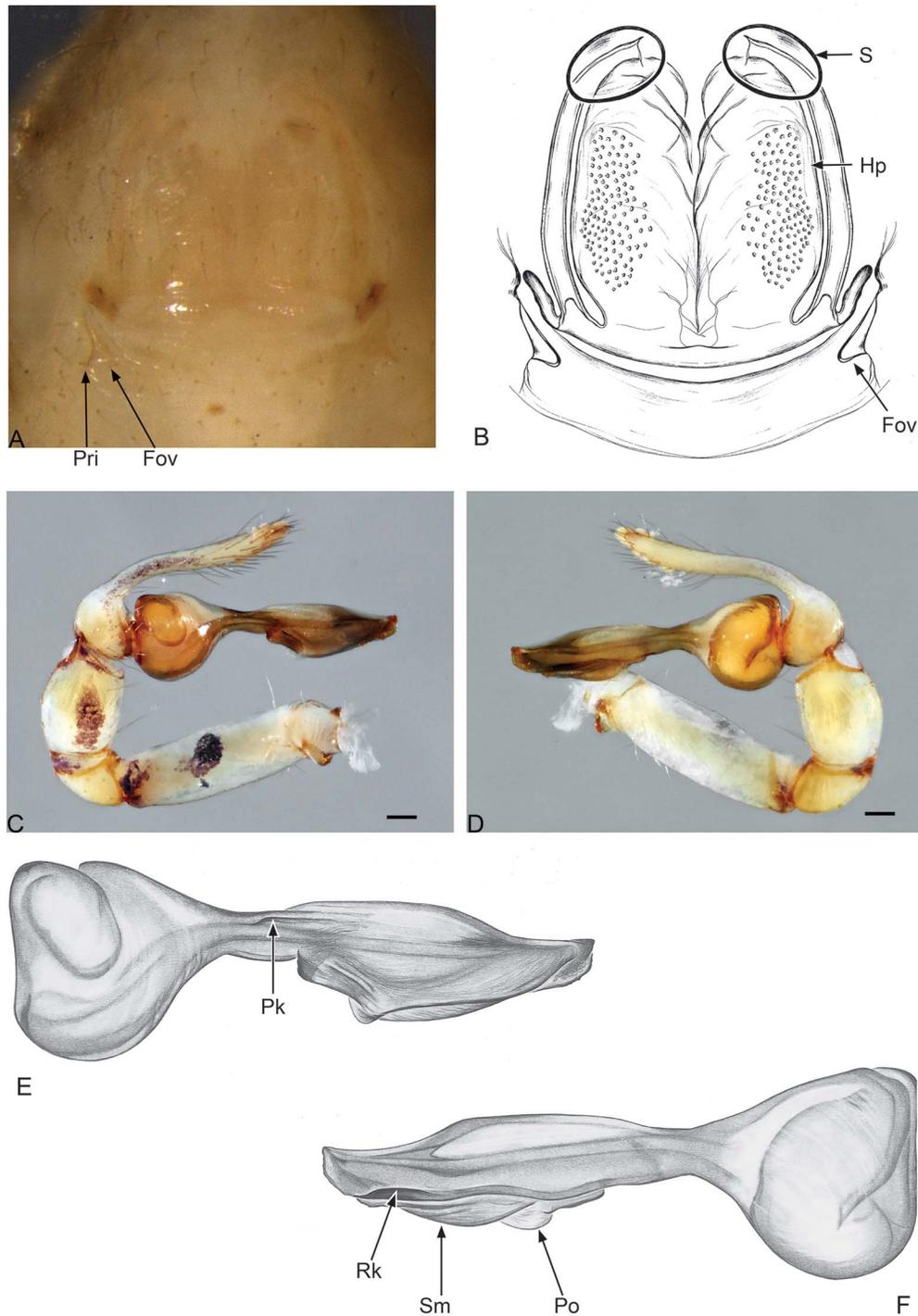


Figure 27.—*Scytodes orellana* sp. nov., A, female holotype epigastric region, ventral view; B, female holotype, internal genitalia digested, dorsal view; C, male allotype, palp prolateral view; D, male allotype, palp retrolateral view; E, bulb, prolateral view; F, bulb, retrolateral view. Scale bars: 0.1mm.

2016, hand collected around buildings, N. Dupérré, E. Tapia (ZMH-A0015393); 1 ♂, 3 ♀, 2 juv., Valle del Chota, El Juncal (00.437379°N, 77.965082°W), 1659 m, 18 November 2021, under rocks, E. Tapia (QCAZ). *Loja Province*: 3♀, Vía El Tambo to Malacatos (04.07994°S, 79.30867°W), 1513 m, 4 March 2020, under rocks N. Dupérré, E. Tapia, A. Tapia (ZMH-A0013264, A0013265, A0013266). *Manabi Province*: 2

♀, via Jipijapa to Puerto Cayo, Bosque Protector Cantagallo (01.362049°S, 80.642410°W), 266 m, 8 October 2021, roadside under rocks in dry area, N. Dupérré, Elicio Tapia, Anabelle Tapia (ZMH-A0014071); 1 ♀, Sancan 4km via Puertas al Cielo (01.273246°S, 80.605045°W), 307 m, 10 October 2021, under dead wood and rocks in dry area, N. Dupérré, Elicio Tapia, Anabelle Tapia (QCAZ). *Napo Province*: 1 ♀, Rio

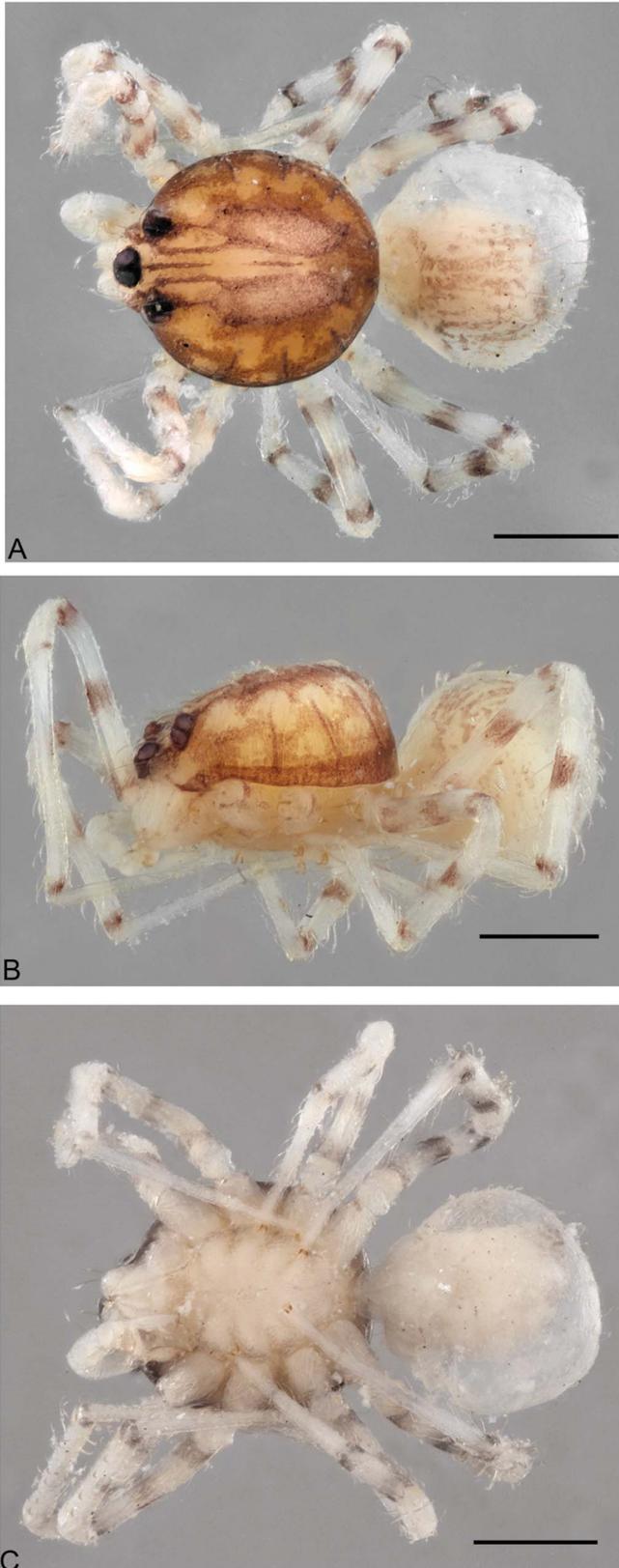


Figure 28.—*Scytodes tayos* sp. nov., male holotype: A, habitus, dorsal view; B, habitus, lateral view; C, habitus, ventral view. Scale bars: 0.5mm.

Hollin, 1100 m, 7 December 1996, F. Sáenz (QCAZ); 1 ♂, 5 juv., Rio Hollin, camino a Santo Domingo, 5km SE Arachidona (0.9554444°S, 77.7476389°W), 660 m, 15–16 March 2014, hand collecting, R. Botero Trujillo, J.A. Ochoa (QCAZ I 259245). *Pichincha Province*: 1 ♂, La Unión del Toachi, Otongachi Natural Reserve (00.30510°S, 78.93442°W), 1087 m, 20 March 2020, hand collecting around house, I. Tapia, N. Dupérré E. Tapia (ZMH-A0015044); 4 ♀, 1 juv., La Unión del Toachi, Otongachi Natural Reserve (00.321295°S, 78.95163°W) 909 m, 10 September 2013, hand collecting inside house, N. Dupérré E. Tapia (ZMH-A0015375); 1 ♀, Lirios de Carcelen (00°05′06.68″S, 78°27′27.26″W), 2595 m, 25 March 2016, hand collected in house, E. Tapia, A. Tapia, I. Tapia (QCAZ). *Orellana Province*: 2 ♀, 3 juv., 25 Diciembre (00.294013°S, 76.85528°W) 277 m, 12 July 2013, hand collected around house, M. Archambault (QCAZ). *Tungurahua Province*: 1 ♀, Baños (01°23′40″S, 78°25′24″W), 2000 m, 28 December 2004, C. Mideros (QCAZ).

Distribution.—Imbabura, Loja, Manabí, Napo, Orellana, Pichincha and Tungurahua Provinces of Ecuador and introduced to multiple islands in the Galapagos (Buchholz et al. 2020).

Natural history.—Most specimens were collected inside and outside habitations or buildings or under rocks.

Scytodes fusca Walckenaer, 1837

(Fig. 35)

Scytodes fusca Walckenaer, 1837: 272 (description of female).

Material examined.—ECUADOR: *Guayas Province* (now Santa Elena Province): 1 ♀, PNSC Santo Elena, 4 July 1989, Lee Schel (QCAZ). *Imbabura Province*: 3 ♀, Valle del Chota, El Juncal (00.437379°N, 77.965082°W), 1659 m, 18.xi.2021, under rocks, E. Tapia (QCAZ, ZMH-A00014073). *Manabí Province*: 3 ♂, 6 ♀, 2 juv., via Jipijapa to Puerto Cayo, Bosque Protector Cantagallo (01.362049°S, 80.642410°W), 266 m, 8.x.2021, roadside under rocks in dry area, N. Dupérré, Elicio Tapia, Anabelle Tapia (QCAZ, ZMH-A00014070). *Napo Province*: 1 ♀, 1 juv., Tena, cabins close to Serena (1.088830°S, 77.921927°W), 528 m, 20 July 2013, hand collecting, M. Archambault (ZMH-A0016065). *Pastaza Province*: 1 ♂, 6 ♀, 17 juv., Via Puyo-Macas, Comunidad Chuwitayo, 7km via Comunidad Chapintza, Propiedad Sr. Luis Caniras (01.951156°S, 77.788473°W), 642 m, 5.x.2021, night collecting on house, N. Dupérré, Elicio Tapia, Anabelle Tapia (QCAZ, ZMH-A00014076).

Distribution.—Imbabura, Manabí, Napo, Pastaza and Santa Elena Provinces of Ecuador, and introduced to multiple islands in the Galapagos (Buchholz et al. 2020).

Natural history.—Specimens were collected around habitations or under rocks.

DISCUSSION

To date, most *Drymusa* species have been found in the Amazonian region of South America. Interestingly, the new species herein described was discovered in the Chocó region of Ecuador on the western side of the Andes. Only one other species is considered Andean, *D. rengan* Labarque & Ramírez, 2007 from Chile. While both species are found in the Andes, *D. pristirana* sp. nov. is putatively more closely related to the Costa Rican species, sharing unique morphological characters such as two sclerotized plates of the abdomen and potentially the abdominal hook. The abdominal hook presence or absence in *D. dinora* needs to

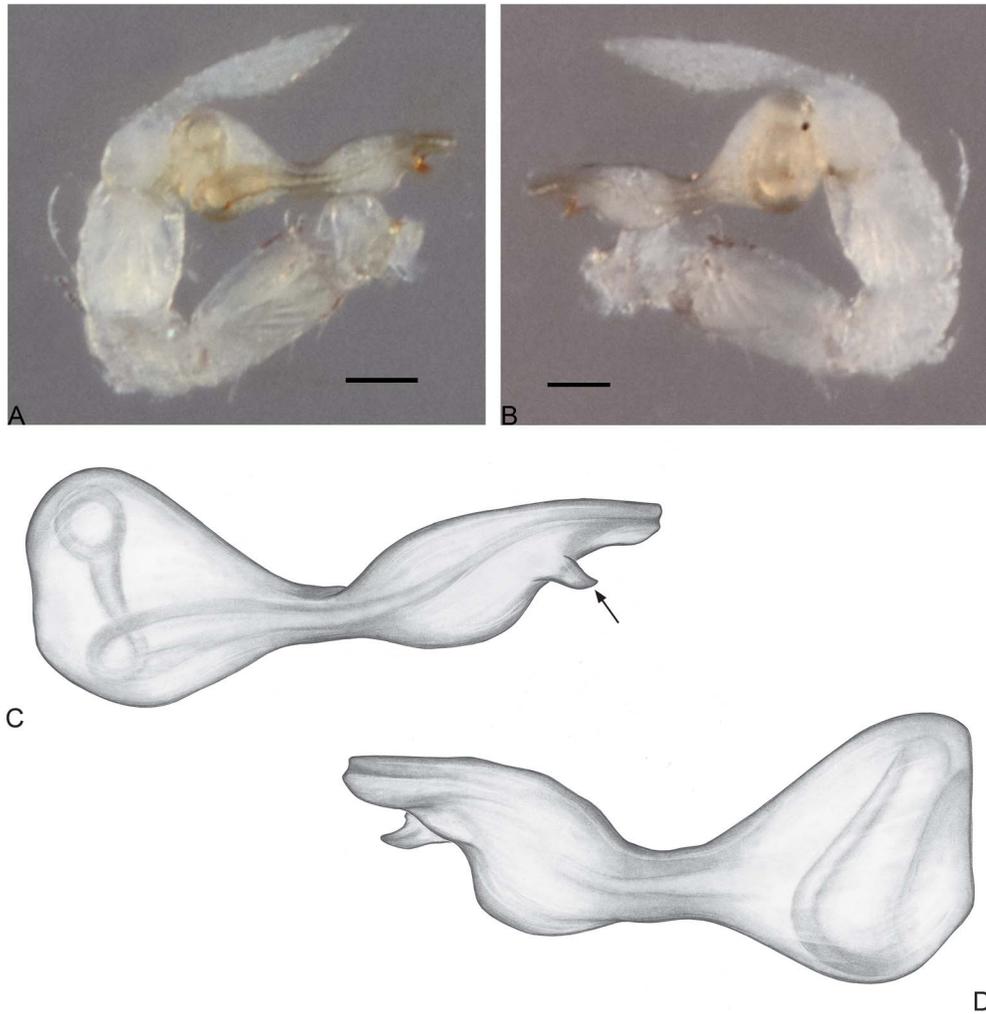


Figure 29.—*Scytodes tayos* sp. nov., male holotype: A, palp, prolateral view; B, palp, retrolateral view; C, bulb, prolateral view (arrow points to triangular extension); D, bulb, retrolateral view.

be confirmed. Valerio (1971) drew a structure just above the spinnerets (Valerio 1971: fig. 9) that could either represent the “hook” or the colulus. Unfortunately, there is no mention of the structure in the description. Conceivably, the abdominal hook was overlooked by Valerio, as it is difficult to observe, being semi-transparent and covered by abdominal setae.

Members of the family Drymusidae present interesting and peculiar morphological characters, such as: anterior stridulatory plate on the male opisthosoma in *Izithunzi* (Labarque et al. 2018: figs. 7C, D); two sclerotized sulci above the epigastric furrow in females of *D. rengan* (Labarque & Ramírez 2007b); while *D. simoni* has a peculiar medial longitudinal lobe protecting the tracheal slit (Bryant 1948: figs. 32, 33; Valerio 1971: fig. 3). One interesting abdominal character noted by Valerio (1971) is the presence in *D. dinora* of five abdominal wrinkles. The abdominal wrinkles have not been observed in any other species until *D. pristirana* sp. nov. was uncovered. A more detailed study of the wrinkles with SEM, showed that one wrinkle is actually a fold, creating an interior pocket, bearing exteriorly a rather long, bent hook (Figs. 2C, 4A, B). The hook was found only in the two adult females and not in juvenile specimens, hence the hook must be

related to some reproductive function, but until the natural history of these elusive spiders is further studied, the function of the hook remains a mystery.

Preliminary geographic distribution patterns of Ecuadorian *Scytodes*.—Until now, the genus *Scytodes* was mainly found on the eastern side of the South American Andes (Amazon, Cerrado, Caatinga and Atlantic ecoregions), with only four species described from the northern Andes and no species known to occur on the western side of the Andes before the discovery of *S. ayampe* sp. nov. and *S. costa* sp. nov. Two species were described from the Colombian Andes, *S. ruizensis* Strand, 1914 from “Pass de Ruiz 3700m” and *S. vittata* Keyserling, 1877 (now synonymized with *Scytodes fusca* (Dupérré 2023b)) from St Fé de Bogota. The location of the type specimens of *S. ruizensis* and *S. vittata* are unfortunately unknown. Finally, two other Andean species were described from the Venezuelan Andes: *S. paramera* González-Sponga, 2004 was found at 2000 m and *S. rupestris* González-Sponga, 2004 was collected at 1700 m. Herein we are describing four new species from the Ecuadorian Andes.

Interestingly, no *Scytodes* species were known to occur on mainland Ecuador (WSC 2023) except for the two widely



Figure 30.—*Scytodes lineatipes* Taczanowski, 1874. Female lectotype. A, habitus, dorsal view; B, habitus, ventral view. Scale bars: 0.5mm.

distributed species *S. longipes* and *S. fusca* (Brescovit & Rheims 2000; Bucholz et al. 2020). Herein, males and females of both species are recorded from mainland Ecuador and most specimens were collected in/or around human habitations. In total, ten new *Scytodes* species are described: two from the coastal region and four for both the Andean and the Amazonian regions. Preliminary data suggest that coastal and Amazonian *Scytodes* species are

more widely distributed than the Andean species. For instance, *S. costa* sp. nov. is found along nearly the entire coastal region of Ecuador (321 km), and in the Amazonian region, *S. amazonica* sp. nov. was collected over a range of 127 km. More impressively, *S. auricula* occurs from Brazil to Ecuador, over a distance of about 3500 km. In the Andes, species were only collected at the type locality or close by (less than 30 km). While further data are necessary to ascertain patterns of distribution for *Scytodes* species in Ecuador, long-range distribution in the coastal and Amazonian regions were observed while short-range distribution pattern were encountered in the Andean region.

Importance of type specimen examination.—Spider taxonomy and identification is not unchallenging, and the morphology and variation of specimens need to be studied in detail to ascertain a species' identity. Frequently in early taxonomic works, new species descriptions were presented only via a text description without any illustrations. Hence, subsequent arachnologists relied upon basic data to identify species, oftentimes having to base their identification on characters such as coloration and size. Furthermore, early taxonomists could not have conceived of the remarkable diversity of spiders found in South America.

Scytodes lineatipes presents an interesting example of how early misidentifications led to subsequent incorrect identifications and doubtful distribution records. The examination of the type revealed that *Scytodes lineatipes* was wrongly identified by several subsequent authors. The species was described by Taczanowski (1874) based on four specimens collected in Cayenne and Iles du Salut, in French Guiana. Taczanowski did not provide any illustrations and the species description mostly pertains to coloration and basic measurements.

In 1891, Keyserling described the male of *Scytodes lineatipes* based on a specimen from Brazil, Neu Freiburg and examined females “not quite mature” (Keyserling 1891: 165) from Blumenau. Keyserling provided illustrations of the male habitus and male palp tip ending with two points. In 1892, Simon redescribed the species (female and male), and also provided an illustration of the male palp based on specimens from St-Vincent, but his illustration of the male palp does not resemble the Keyserling illustration. It is not possible to know if Keyserling or Simon examined Taczanowski type specimens, but it seems unlikely. Rheims & Brescovit (2009) stated that the male specimen illustrated by Keyserling (1891: figs. 112a, b) was misidentified and belonged to a new species that they described as *S. ilhota* Rheims & Brescovit, 2009, from the state of Santa Catarina. Finally, in 1976, Brignoli presented an illustration of the internal genitalia of a female specimen identified as *S. lineatipes* from Paraguay but as noted by Brignoli himself (1976: 171): “I cannot say anything about the correctness of the determination”.

Since Taczanowski did not provide any illustrations and his description mainly pertains to the coloration pattern of the female, especially to the diagnostic character of the leg: “ventral surface of femur with two black lines, more or less complete” (translated from French from Taczanowski 1873: 107); one can assume that subsequent identifications of female specimens by Keyserling, Simon and Brignoli were based on color pattern (especially of the leg) and size. In fact, Caporiacco (1948: 625) even mentions the utility of the leg color pattern, stating that the species is “easy to identify by the black lines on the femora of

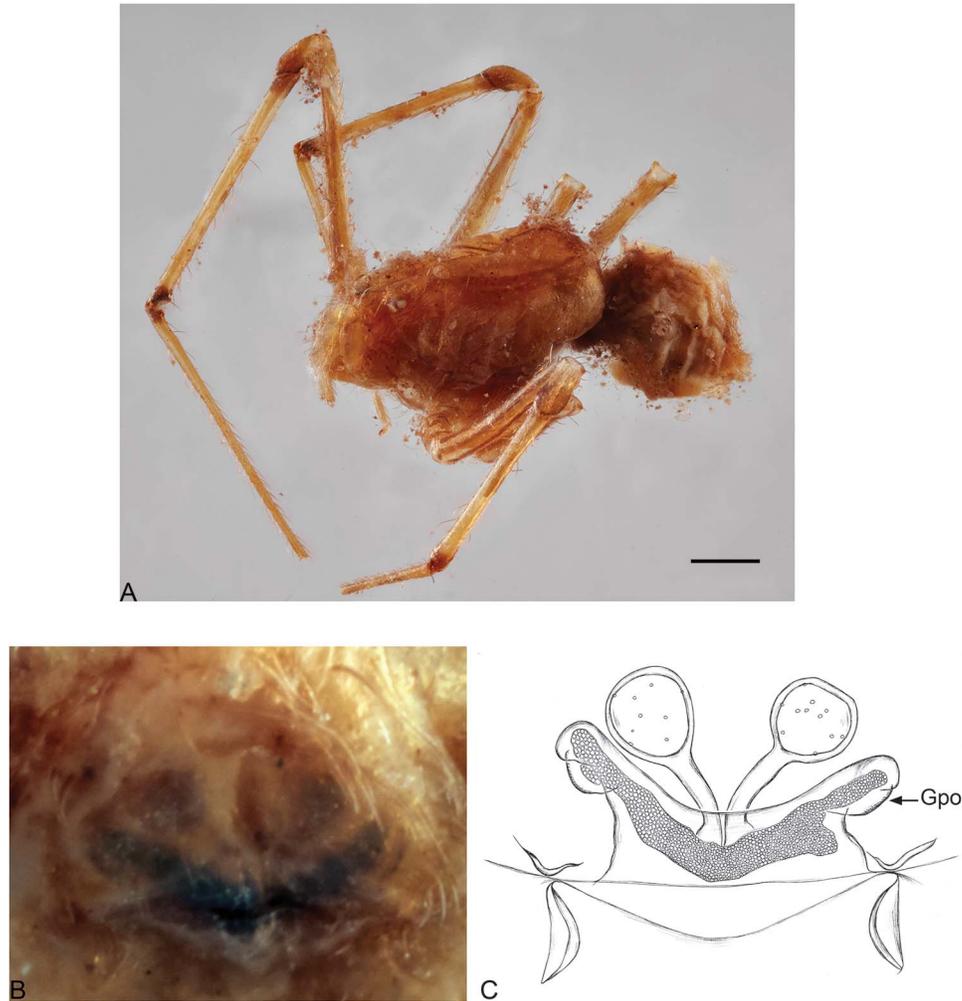


Figure 31.—*Scytodes lineatipes* Taczanowski, 1874. Female lectotype: A, habitus, lateral view; B, epigastric region, ventral view; C, internal genitalia digested, dorsal view. Scale bars: 1.0mm.

legs". At the time it was not possible to know that the coloration pattern of the legs in *Scytodes* is not species specific, in fact, at least eight described species bear two more or less complete black lines on the ventral surface of the femora, e.g., *S. argelia* sp. nov. (Fig. 18C), *S. piroca* Rheims & Brescovit, 2000 and *S. vieirae* Rheims & Brescovit, 2000 (Rheims & Brescovit 2000: 721, 728); and *S. maromba* Rheims & Brescovit, 2009, *S. tyaia* Rheims & Brescovit, 2009, *S. antonina* Rheims & Brescovit, 2009, *S. chopim* Rheims & Brescovit, 2009 and *S. ilhota* Rheims & Brescovit, 2009 (Rheims & Brescovit 2009: 17, 21, 33, 43).

As for the male of *S. lineatipes*, arachnologists subsequently identified the species based on two different male palp illustrations, one presented by Keyserling from Brazil and one by Simon from St-Vincent. Consequently, based on ambiguous information, *S. lineatipes* was stated to occur in: Brazil (Mello-Leitão 1940, 1943; Soares 1944), Argentina (Mello-Leitão 1945), Paraguay (Mello-Leitão 1946) and British Guyana (Caporiacco 1948) as reported by Brignoli (1976: 171).

Considering that the real identity and accurate distribution of *S. lineatipes* was not well established, the type series was



Figure 32.—*Scytodes romitii* Caporiacco, 1947. Female syntype: A, habitus, ventral view (photograph by Dr. L. Bartolozzi (MZUF)).



Figure 33.—*Scytodes luteola* Simon, 1893. Female syntype: A, habitus, dorsal view; B, habitus, ventral view.

borrowed and imaged for the first time. All syntype specimens were somewhat dehydrated. One adult female (Figs. 30A, B) was placed in a separate microvial with a label “lectotype” (though no formal lectotype designation was found in the literature). The “lectotype” specimen of *S. lineatipes* was photographed and then dissected (Figs. 30, 31). Unfortunately, no interpretation can be made about Keyserling’s identification of *S. lineatipes* juvenile females from Brazil or Simon’s female from St-Vincent, since no illustrations are available for comparison. However, after comparison of the lectotype specimen’s internal genitalia with Brignoli’s illustrations of a female *S. lineatipes* from Paraguay (Brignoli 1976: figs. 99, 101) the two specimens are not conspecific.

In 2001, Brescovit and Rheims redescribed the female and described the male of *S. romitii* Caporiacco, 1947 based on

specimens from Brazil, after re-examining the Caporiacco type specimen. Later on, in 2009 Rheims & Brescovit (2009: 3) synonymized *S. romitii* under *S. lineatipes* after examining “the female genitalic structures of *S. lineatipes* and their comparison to those of *S. romitii* showed that the specimens were conspecific and should thus be considered synonyms”.

Scytodes romitii was described without illustration by di Caporiacco based on a female from Guyana. In 1948, di Caporiacco presented the female habitus and mentioned that the specimen was a juvenile. We were not able to borrow the type material but examination of a photograph of the female type send to us by Dr. Bartolozzi (MZUF) suggest that the type might be juvenile. Furthermore, no black lines are visible on any ventral side of the femora (Fig. 32A), while black lines are still visible on the *S. lineatipes* type (Figs. 30A, B), as well as on the juvenile specimens

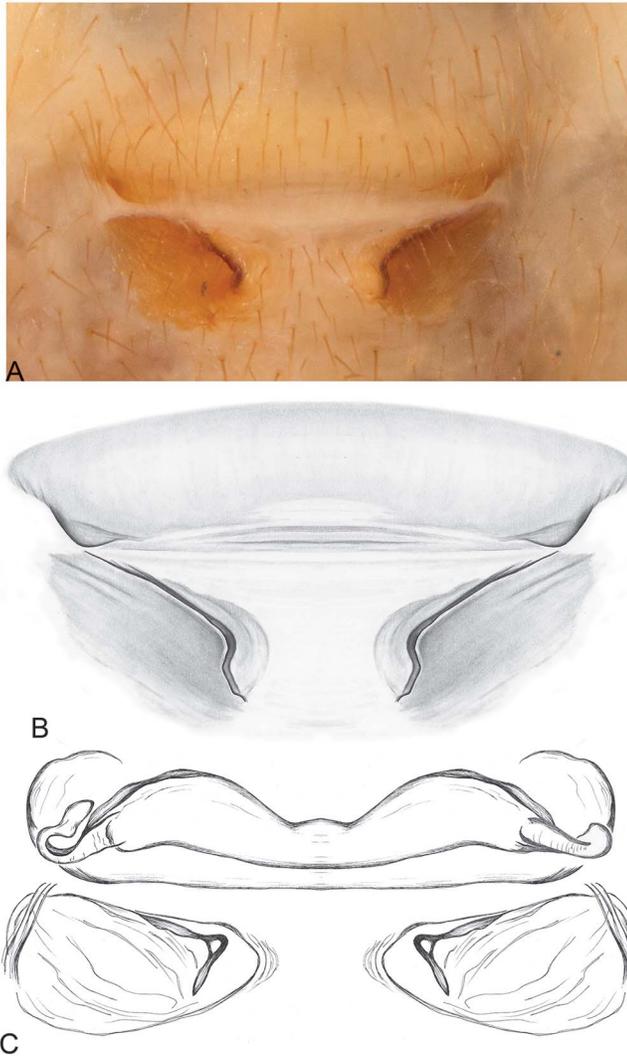


Figure 34.—*Scytodes luteola* Simon, 1893. Female syntype: A, epigastric region, ventral view; B, epigastric region, ventral view; C, internal genitalia, dorsal view.

from the type series. Until the type specimen of *Scytodes romitti* is physically examined, the species is revalidated *contra* Brescovit & Rheims (2001).

Furthermore, if we compare the illustrations of the internal genitalia of *S. romitti* Caporiacco, 1947 *sensu* Brescovit & Rheims (2001: figs. 21, 22) with the internal genitalia of the type specimen of *S. lineatipes*, the two represent distinct species, even counting for a possible distortion of the genitalia due to dehydration. For example, the female genitalia presented by Brescovit & Rheims (2001: figs. 21, 22) shows spermathecae on short, wide stalks with a ring at the base, while in the type specimen the spermathecae are on thin and elongated stalks without a ring (Fig. 31C). Hence, based on comparison of the internal genitalia of the type material, the conspecificity of *S. romitti sensu* Brescovit & Rheims (2001) and *S. lineatipes* is rejected.

The ambiguous early identity of *S. lineatipes* led to incorrect identifications and an uncertain distribution. Hence re-examination, re-description and re-imaging of the type specimens are crucial, or if not

available for examination, re-description or matching sexes should be done at least with specimens from the type locality.

CONCLUSION

Based on the data gathered, only the female of *S. lineatipes* is known, the male should be regarded as “uncertain”, since the males described so far under *S. lineatipes* were either wrongly identified (Keyserling 1891; Brescovit and Rheims 2001); or described from a distant locality, as in the case of Simon (1892). Males from the type locality, or males found alongside *S. lineatipes* females should be sought to confirm the match. Furthermore, the species distribution should be regarded as only French Guiana, and not from Venezuela to Paraguay until further specimens can be collected and internal genitalia of specimens from other regions can be examined and compare. The synonymy of *Scytodes romitti* and *S. lineatipes* is therefore rejected, and the species is revalidated *contra* Brescovit & Rheims (2001).

This is just glimpse of the Scytodoidea diversity found in Ecuador, the fauna remains on the whole understudied and unknown, and many discoveries still await.

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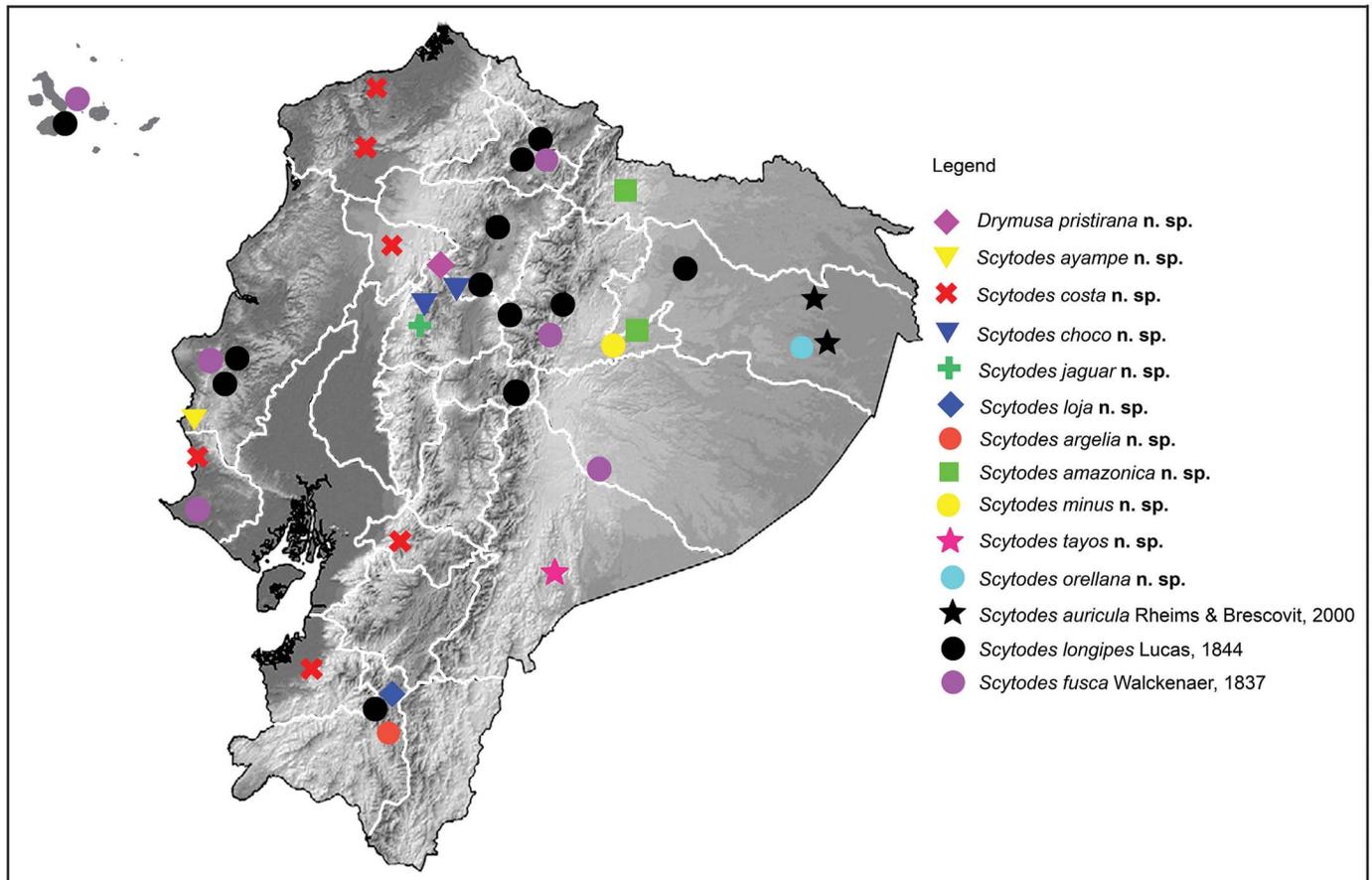


Figure 35.—Distribution map of all *Scytodes* species recorded from Ecuador.

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