



A new species of the Hispaniolan endemic genus *Antillena* Bertani, Huff and Fukushima, 2017 (Araneae, Theraphosidae, Aviculariinae), with notes on the natural history of the genus

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Abstract

Theraphosidae is the most speciose mygalomorph family, and its species are usually fossorial, but arboreal species are known in various subfamilies. One of these subfamilies, Aviculariinae, is composed exclusively of arboreal forms and is distributed in the Americas and the Caribbean. Seven genera of this subfamily were described in 2017, including the monotypic genus *Antillena* Bertani, Huff & Fukushima, 2017, which is endemic to the Dominican Republic. It presents some remarkable features concerning genitalia shape both in male and female, distinct from all other aviculariine species. Herein, we describe the second species of *Antillena*, *A. miguelangeli* sp. nov., along with field-note observations and new records for *Antillena rickwesti* Bertani & Huff, 2013. Males of the new species have a longer and slender embolus on the bulb, and the keels are poorly developed. Females have the spermathecae plateau-shaped with its distal sclerotized half of an elliptical appearance. The new species also represents the first record of this genus from the northern region of Hispaniola.

Key words: *Antillena rickwesti*, *Avicularia*, *Caribena*, Dominican Republic, Haiti

Resumen

Theraphosidae es la familia más diversa de migalomorfos y sus especies suelen ser fosoriales, aunque se conocen especies arbóreas en varias subfamilias. Una de estas subfamilias, Aviculariinae, está compuesta exclusivamente por formas arbóreas y se distribuye en América y el Caribe. En 2017 se describieron siete géneros de esta subfamilia, incluyendo el género monotípico *Antillena* Bertani, Huff & Fukushima, 2017, el cual es endémico de República Dominicana. Presenta algunas características notables en cuanto a la forma de los genitales tanto en machos como en hembras, distintas de todas las demás especies aviculariinas. En el presente trabajo se describe la segunda especie de *Antillena*, *A. miguelangeli* sp. nov., junto con observaciones de campo y nuevos registros para *Antillena rickwesti* Bertani & Huff, 2013. Los machos de la nueva especie tienen un émbolo más largo y delgado en el bulbo, con quillas poco desarrolladas. Las hembras tienen las espermatecas en forma de meseta con su mitad distal esclerotizada de apariencia elíptica. La nueva especie también representa el primer registro de este género para la región norte de la Hispaniola.

Palabras clave: *Antillena rickwesti*, *Avicularia*, *Caribena*, República Dominicana, Haití

Introduction

Theraphosidae is the most speciose mygalomorph family, with more than a thousand described species (World Spider Catalog 2024). Most species are fossorial, but arboreal forms have evolved convergently in Asia (e. g., *Poecilotheria* Simon), Africa (e. g., *Stromatopelma* Karsch, *Heteroscodra* Pocock), and, mainly, in the Americas and the Caribbean (Psalmopoeinae, Aviculariinae) (Fukushima & Bertani 2017). All species of the theraphosid subfamily Aviculariinae are known to be arboreal. This subfamily is distributed throughout Central America, South

America and the Caribbean, and is composed by seven genera: *Avicularia* Lamarck, *Typhochlaena* C. L. Koch, *Iridopelma* Pocock, *Pachistopelma* Pocock, *Caribena* Fukushima & Bertani, *Ybirapora* Fukushima & Bertani and *Antillena* Bertani, Huff & Fukushima (Fukushima & Bertani 2017). Of these, two genera are endemic to the Caribbean: *Caribena*, *C. versicolor* (Walckenaer) from Martinique, and *C. laeta* (C. L. Koch), from Puerto Rico; and *Antillena*, a monotypic genus from Dominican Republic (Fukushima & Bertani 2017). This last genus is intriguing by the genitalic modifications seen in both the male bulb, which bears keels resembling those found in theraphosine species (Bertani 2000; Fukushima & Bertani 2017), as well as the female spermathecae, also resembling the more sclerotized and shorter spermathecae found in theraphosine females. The only species described to date, *Antillena rickwesti* (Bertani & Huff), lives in deciduous *Acacia* sp. forests, thorny scrub and broad-leafed forest, building retreats that resemble those of other aviculariine species, such as species of *Avicularia* (Bertani & Huff 2013).

The taxonomic history of the genus *Antillena* Bertani, Huff & Fukushima, 2017 goes back as far as only 10 years ago, when Bertani & Huff (2013) described *Avicularia rickwesti* (Bertani & Huff, 2013) which they considered a remarkable new species of *Avicularia* Lamarck, based on its peculiar spermathecae: "... two very short and broad, twice wider than long, with distal half strongly sclerotized very short and broad". However, only the female was known till then. Three years later, Kaderka (2016) described the male based on one specimen that was collected at the type locality and sent to him, and which also presented an unusual characteristic among *Avicularia*: the presence of keels on its palpal bulb. Based on this, Kaderka (2016) re-diagnosed the species. One year later, Fukushima & Bertani (2017) taxonomically revised the genus *Avicularia* and carried out a cladistic analysis including all aviculariine species. The cladistic analysis topology indicated the necessity to erect three new genera for some species previously described in *Avicularia*, one of them for *Avicularia rickwesti*. The genus *Antillena* was then erected and remained a monotypic genus endemic to Hispaniola.

Herein, we describe both sexes of the second known species of this genus. In addition, new records of *Antillena rickwesti* are presented, expanding its geographical distribution, and field-note observations of this exclusive Antillean genus are commented. With this new addition, the theraphosids' diversity known from Hispaniola is increased to 15 species (World Spider Catalog 2024).

Materials and methods

The specimens were examined with an EMZ-5TRD zoom stereo microscope with SWF 10X and 20X eyepieces. Photographs were taken with a Canon EOS 7D camera using a 65 mm f/2.8 macro lens. Several images were taken at different focal planes and then stacked with HELICON FOCUS 6 (www.heliconsoft.com). Leg and palp measurements were taken from the dorsal aspect of the left side. Only total length (including chelicerae but not spinnerets) was measured with a Stanley 78-440LA vernier caliper, other measurements were taken using a micrometer; all were taken in millimeters. When not mentioned in the description, the character state in the female paratype is the same as in the male holotype (e.g., coloration and shape of structures). In the collecting data, elevations correspond to meters above sea level.

Terminology of urticating setae follows Cooke *et al.* (1972), five setae were measured in each described specimen. The spermathecae were cleared using enzymatic digestion (Ultrazyme®). The terminology of male palpal bulb structures follows Bertani (2000).

The specimens examined are deposited in the collection of the Museo Nacional de Historia Natural "Prof. Eugenio de Jesús Marcano", Santo Domingo, Dominican Republic (MNHNSD, curator: author G.D.S), and The American Museum of Natural History, New York (AMNH), curator: L. Prendini. Species distribution maps were done with SimpleMappr (Shorthouse, 2010).

Abbreviations: A = apical keel, ALE = anterior lateral eyes, AME = anterior median eyes, OQ = ocular quadrangle, PI = prolateral inferior keel, PLE = posterior lateral eyes, PLS = posterior lateral spinnerets, PME = posterior median eyes, PMS = posterior median spinnerets, PS = prolateral superior keel.

Results

Taxonomy

Family Theraphosidae Thorell, 1869

Subfamily Aviculariinae Simon, 1889

Antillena Bertani, Huff & Fukushima, 2017

Antillena Bertani, Huff & Fukushima 2017: 153, f. 284–294.

Type species. *Antillena rickwesti* (Bertani & Huff, 2013), by original designation.

Diagnosis. See Fukushima & Bertani 2017.

Antillena rickwesti (Bertani & Huff, 2013)

(Figs. 3B, 3D, 3F, 3H, 5C, 6)

Type material. Female holotype: DOMINICAN REPUBLIC: *Pedernales Province*, Parque Nacional Jaragua, track into park (unmarked) between Manuell [Goya] and Oviedo (17°48'41.5"N, 71°26'35.9"W), elev. 83.3 m a.s.l., 09 July 2004, J. Huff & E. S. Volschenk leg. (AMNH), collecting permit #014967; Female paratype: DOMINICAN REPUBLIC: *Independencia Province*, Parque Nacional Sierra de Baoruco, Rabo de Gato (18°18'39.1" N, 71°34'54.4" W), elev. 408 m a.s.l., 10 July 2004, J. Huff & E. S. Volschenk leg. (AMNH), collection permit #014967, examined.

Additional material. DOMINICAN REPUBLIC: *Pedernales Province*, Jaragua National Park, Los Tres Charcos, road to Fondo Paradi (17°48'7.45"N 71°26'5.41" W), 1 male, R. C. West & J. Huff leg., 20 February 2012, matured in captivity 10 April 2014 (AMNH).

New records. DOMINICAN REPUBLIC: *Pedernales province*, Hoyo de Pelempito, Sierra de Bahoruco National Park (18.09414° -71.44063°), 391 m, 1 female, G. de los Santos leg., 20–24 June 2012 (MNHNSD 09.1735); *Peravia province*, Bani, Honduras, Monte Bonito (18.42612° -70.42329°), 671 m, 2 females, M. A. Landestoy, G. de los Santos leg., 29 January 2021 (MNHNSD 09.1737, 09.1738); *Barahona province*, Los Limones, camino al Hoyo de Pelempito (18.09222° -71.40405°), 760 m, 1 female, N. Navarro & G. de los Santos leg., 19 June 2012 (MNHNSD 09.1734); Loma El Curro, Sierra Martín García National Park, (18.39417° -71.03933°), 901 m, 3 females, C. Marte & G. de los Santos leg., 17 November 2021 (MNHNSD 09.1722, 09.1723, 09.1724); (18.39667° -71.04295°), 840 m, 1 male 1 female 2 females, C. Marte & G. de los Santos leg., 17 November 2021 (MNHNSD 09.1727, 09.1726, 09.1725); *Azua province*, Las Charcas, Francisco Alberto Caamaño Deñó National Park (18.44023° -70.59280°), 76 m, 2 females, C. Marte & G. de los Santos leg., 18 November 2021 (MNHNSD 09.1739, 09.1740).

Antillena miguelangeli new species

(Figs. 1, 2, 3A, 3C, 3E, 3G, 4, 5A–B, 6–8)

Diagnosis. Males of *Antillena miguelangeli* **sp. nov.** can be distinguished from those of *A. rickwesti* by the longer and slender embolus and the presence of poorly developed keels in the embolus (Figs. 2D–E, 3). Females differ from those of *A. rickwesti* in having a plateau-shaped spermathecae with its distal sclerotized half of an elliptical appearance (Fig. 5B).

Etymology. The specific name is a patronym in honor to the Dominican herpetologist Miguel Ángel Landestoy, for his contributions to the knowledge of *Antillena*'s distribution.

Type material. Holotype male (MNHNSD 09.1729) from DOMINICAN REPUBLIC: *Valverde province*, Mao, Los Quemados, Refugio de vida silvestre El Cañón del río Gurabo: 19.49313° -71.179251°; 180 m, 11.XI.2020. C. Marte & G. de los Santos leg.; inside a silk-covered burrow on tree, at around 21:00 hrs. Paratype female (MNHNSD 09.1728), same collecting data as holotype.



FIGURE 1. *Antilena miguelangeli* sp. nov., holotype male. A, sternum, labium, maxillae and coxae; B, eye tubercle; C, chelicerae, ventral view. Scale: A, 5 mm; B, 1 mm; C, 2 mm.

Other material examined. DOMINICAN REPUBLIC: *Valverde province*, Mao, Los Quemados, Refugio de vida silvestre El Cañón del río Gurabo: 19.49313° -71.179251°; 180 m, 2 females, C. Marte & G. de los Santos leg., 12 September 2018 (MNHNSD 09.1730, 09.1731); 19.49323° -71.17799°; 174 m, 2 females, 29.V.2018, same collectors, 29 May 2018 (MNHNSD 09.1732, 09.1733).

Description. Male holotype. Carapace, legs and pedipalps brown dorsally, chelicerae and eye tubercle chestnut brown. Abundant pinkish setae covering carapace, chelicerae, and legs articles except on metatarsi and tarsi where pinkish setae are of distinctly lower density. Patellae, tibiae, and metatarsi distally with patches of white setae differently distributed. Abdomen dark gray with pink setae and having a light pattern, consisting in a single anteriorly located irregular patch and four indistinct lateral stripes from central to distal part of abdomen (Fig. 7A). Urticating setae forming a patch on the posterior half. All femora dorsally with two longitudinal stripes of abundant tiny pubescence, and without body setae; retrolaterally with one of such longitudinal stripes (most noticeable on posterior legs). All patellae dorsally with two of such stripes, slightly diagonal and meeting distally; tibiae I–IV dorsally with two longitudinal stripes. Ventrally, the labium, sternum, maxillae, coxae, and legs light brown (Fig. 1A); abdomen gray.

Total length 22.7. Carapace 8.6 long, 7.3 wide. Ocular tubercle flattened, 1.25 long, 1.95 wide, clypeus absent; OQ 0.85 long, 1.95 wide (Fig. 1B). Anterior eye row procurved, posterior eye row slightly recurved. AME round, diameter 0.36; PME round, diameter 0.20; ALE ovoid, greater diameter 0.40; PLE ovoid, greater diameter 0.43. Eye interdistances: AME–AME 0.31, AME–ALE 0.30, AME–PME 0.10, AME–PLE 0.30; PME–PME 1.08, PME–PLE 0.03, ALE–PLE 0.20, ALE–ALE 1.30; PLE–PLE 1.44. Fovea transverse, 1.3 wide; 5.15 from the anterior edge of carapace. Chelicerae 4.3 long, with 1 row of teeth on the promargin (Fig. 1C). Left chelicera with 9 teeth and right with 8 teeth; each chelicera with 5 microspikes (granulation) between basal teeth 1–3. Sternum 4.3 long, 3.2 wide; covered by large, thin erect setae and with abundant pinkish setae (Fig. 1A). Labium dome-shaped, with anterior

region almost straight, bearing long, thin, and erect setae (Fig. 1A); 0.92 long, 1.32 wide; 60 labial cuspules on the anterior third. Maxilla 2.95 long, 1.50 wide. Right maxilla with 148 cuspules forming a triangle on its basal anterior part; left maxilla with 157 cuspules, with same distribution. Three pairs of sigilla located near coxae I (rounded, 0.19 long, 0.14 from edge), coxae II (rounded, 0.22 long, 0.11 from edge), and coxae III (ellipsoidal, 0.40 long, 0.27 from edge). Abdomen 9.5 long, 6.7 wide; with type II urticating setae 0.53–0.57 in length. Spinnerets: PLS triarticulated, 3.73 long, basal segment 1.39, middle segment 0.90, apical segment 1.44, digitiform; PMS monoarticulated, 0.40 long.

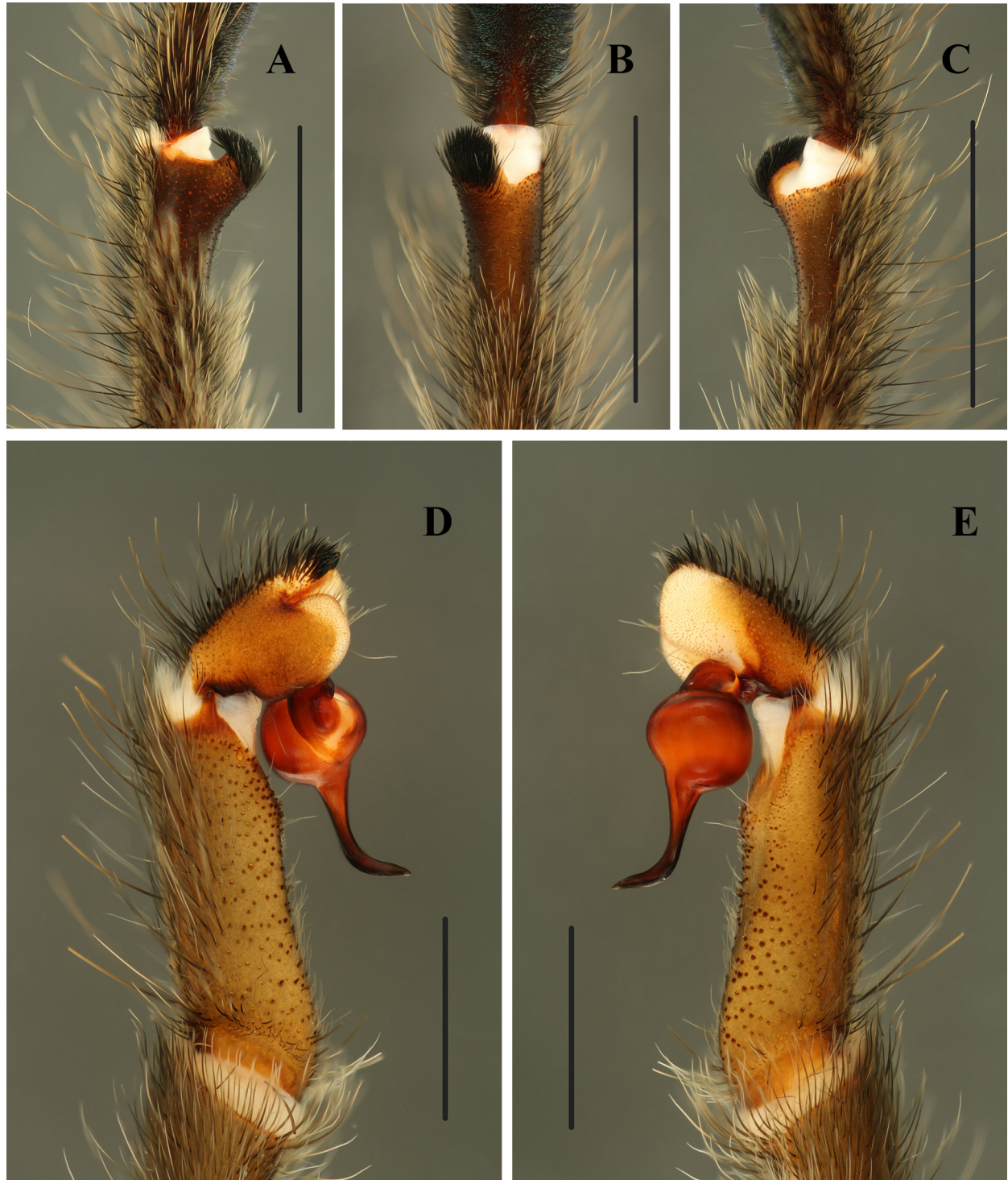


FIGURE 2. *Antillena miguelangeli* sp. nov., holotype male. (A–C) left tibia and metatarsus I. A, retrolateral. B, ventral. C, prolateral. (D–E) left palpus. D, prolateral; E, retrolateral. Scale: A–C, 5 mm; D–E, 2 mm.

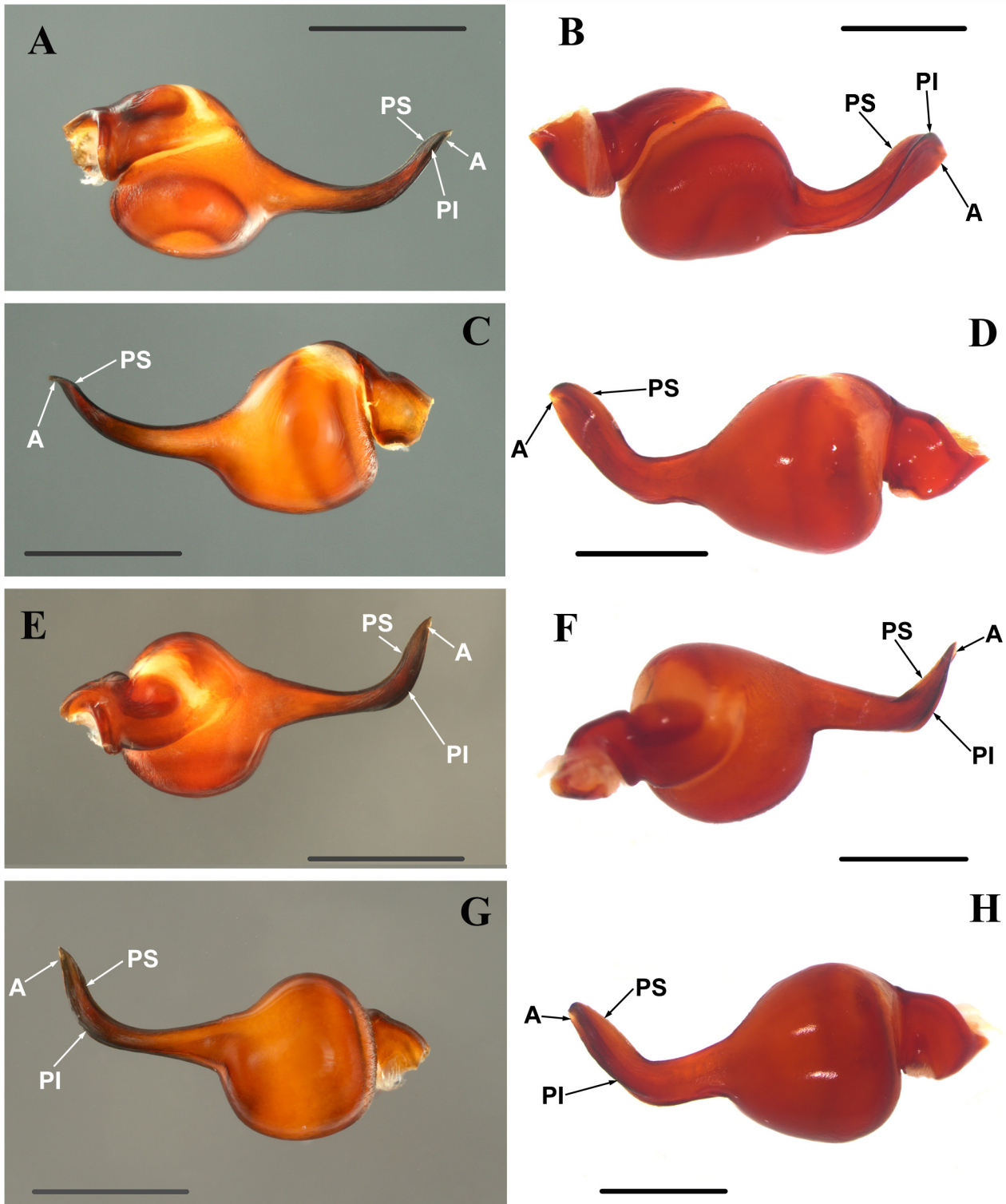


FIGURE 3. Left bulb of *Antillena miguelangeli* **sp. nov.**, holotype male (A, C, E, G), and *Antillena rickwesti* (B, D, F, H). A–B, prolateral; C–D, retrolateral; E–F, dorsal; G–H, ventral. Scale: 1 mm.

Scopulae: all tarsi 100 % scopulate; metatarsi I–II 95 %, III \approx 60 %, IV \approx 40 % scopulate. Tarsi I–III with scopula entire, tarsi IV less dense and with a band of elongated setae (not dividing the scopula); metatarsi IV divided by a band of elongated setae. Scopulae on tarsi and metatarsi I–II laterally extended, distinctly less developed in posterior tarsi and metatarsi. Claw tufts paired, well-developed. Dorsally, all tarsi with two rows of short claviform trichobothria distributed irregularly on apical half. Cymbium with two rows of such trichobothria on basal half. All

paired tarsal claws without teeth. Plumose setae on retrolateral face of femur IV absent. Spination absent on all leg segments and palps.

Cymbium with almost equal cymbial lobes and small conical process with a dorsal patch of short spines on its distal part (Fig. 2D–E). Embolus moderately long and slender (Figs. 2D–E; 3A, 3C, 3E, 3G), smoothly curved, projected retrolaterally but with a small ventrally projected bend at its distal third, carrying three smooth keels (PS, PI and A), not well-developed (Figs. 3A, 3C, 3E, 3G). Tegulum oval, smooth, without any tegular structures. Palpal tibia without any process. Tibia I with single subapical tibial apophysis, apically covered with numerous thin and large spines (Fig. 2A–C). Metatarsus I contact the retrolateral side of tibial apophysis when flexed. Maxillary and trochanteral stridulatory bristles absent. Coxae I–IV prolaterally with many soft spiniform setae, also present above the suture; retrolaterally present on coxae I and III, reduced in number and only present distally.

Appendages segment lengths. Leg I: femur 7.8, patella 4.4, tibia 5.8, metatarsus 5.4, tarsus 2.9; total 26.3. Leg II: 7.1, 4.2, 5.7, 5.6, 2.7; 25.3. Leg III: 6.4, 3.5, 5.2, 4.9, 2.6; 22.6. Leg IV: 7.9, 3.9, 6.5, 6.1, 2.7; 27.1. Pedipalp: 4.6, 2.8, 3.5, -, 1.9; 12.8. Leg formula: I=IV>II>III. Leg IV/I= 1.03.

Description. Female paratype. Carapace brown, legs and pedipalps brown dorsally, chelicerae and eye tubercle chestnut brown. Abundant pinkish setae distributed as in the male. Patellae, tibiae, and metatarsi patches of white setae as in male. Abdomen mostly black with pink setae and having a light pattern consisting in three distinct lateral stripes: the anterior and middle stripes each connect to one triangle in the mid-dorsal; posterior stripe is interrupted by the patch of urticating setae. The anterior triangle connects with a semi-circular patch on the base of the abdomen. Ventrally, the labium, sternum, maxillae, coxae, and legs light brown; abdomen gray. Scopulae without remarkable differences between anterior and posterior metatarsi and tarsi.



FIGURE 4. *Antillena miguelangeli* sp. nov., paratype female. A, sternum, labium, maxillae and coxae; B, eye tubercle; C, chelicerae, ventral view. Scale: A, 5 mm; B–C, 1 mm

Total length 25.5. Carapace 10.4 long, 8.2 wide. Ocular tubercle flattened, 1.52 long, 2.05 wide, clypeus absent; OQ 1.06 long, 2.05 wide (Fig. 4B). Anterior eye row procurved, posterior eye row slightly recurved. AME round, 0.30; PME round, 0.22; ALE ovoid, 0.49; PLE ovoid, 0.40. Eye interdistances: AME–AME 0.63, AME–ALE 0.36, AME–PME 0.22, AME–PLE 0.49; PME–PME 1.30, PME–PLE 0.04, ALE–PLE 0.22, ALE–ALE 1.53; PLE–PLE

1.75. Fovea transverse, 1.8 wide; 6.5 from the anterior edge of carapace. Chelicerae 4.9 long, with a single row of teeth on the promargin (Fig. 4C). Left chelicera with 11 teeth and 6 microspikes between basal teeth 1–2; right chelicera with 10 teeth and 4 microspikes between basal teeth 1–3. Sternum 5.2 long, 3.8 wide (Fig. 4A). Labium 1.21 long, 1.71 wide; 81 labial cuspules on the anterior third. Maxilla 3.43 long, 1.91 wide. Right maxilla with ca. 165 cuspules, left maxilla with 147 cuspules. Three pairs of sigilla, anterior rounded 0.18 long, 0.09 from the edge; middle rounded 0.19 long, 0.08 from the edge; posterior ellipsoidal 0.35 long, 0.13 from the edge. Abdomen 10.2 long, 6.7 wide with type II urticating setae 0.52–0.56 in length. Spinnerets (Fig. 5A): PLS triarticulated, 4.60 long, basal segment 1.50, middle segment 1.10, apical segment 1.50, digitiform; PMS monoarticulated, 0.90 long.

Spermathecae paired, short and broad, plateau-shaped with distal half strongly sclerotized and of elliptical form (Fig. 5B).

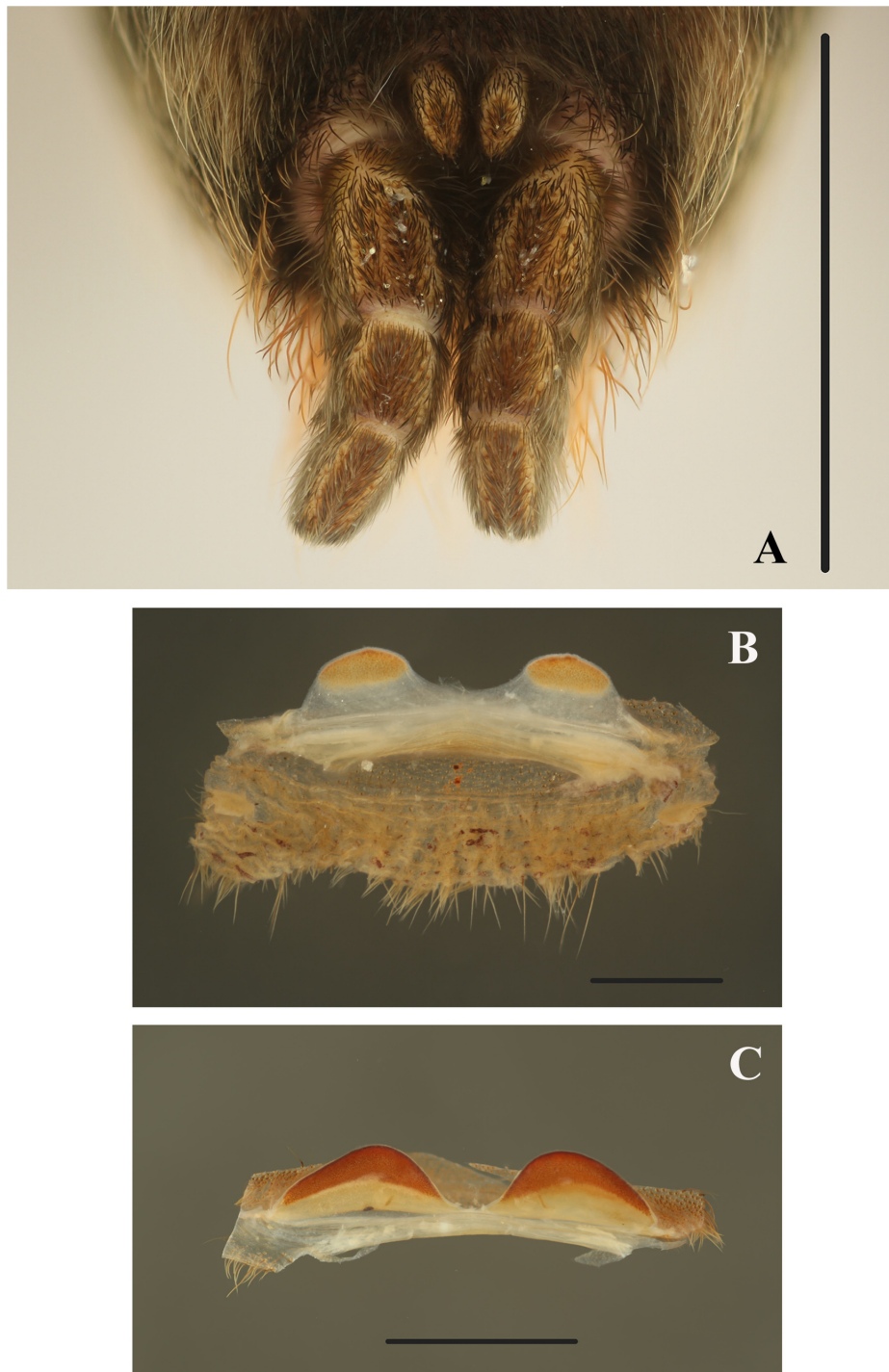


FIGURE 5. *Antillena miguelangeli* sp. nov., paratype female (A–B). A, ventral view of spinnerets. B, spermathecae. *Antillena rickwesti*. C, spermathecae. Scale: A, 5 mm; B, 1 mm; C, 2 mm.

Appendages segment lengths. Leg I: femur 7.2, patella 4.1, tibia 4.9, metatarsus 4.8, tarsus 2.9, total 23.9. Leg II: 6.8, 4.2, 5.0, 4.5, 2.7, 23.2. Leg III: 5.9, 3.7, 4.4, 4.2, 2.7, 20.9. Leg IV: 7.1, 4.2, 5.9, 5.3, 2.5, 25.0. Pedipalp: 5.5, 3.2, 3.0, -, 3.1, 14.8. Leg formula: I=IV>II>III. Leg IV/I = 1.05.

Distribution. Dominican Republic: only known from the type locality at Valverde province (Fig. 6).

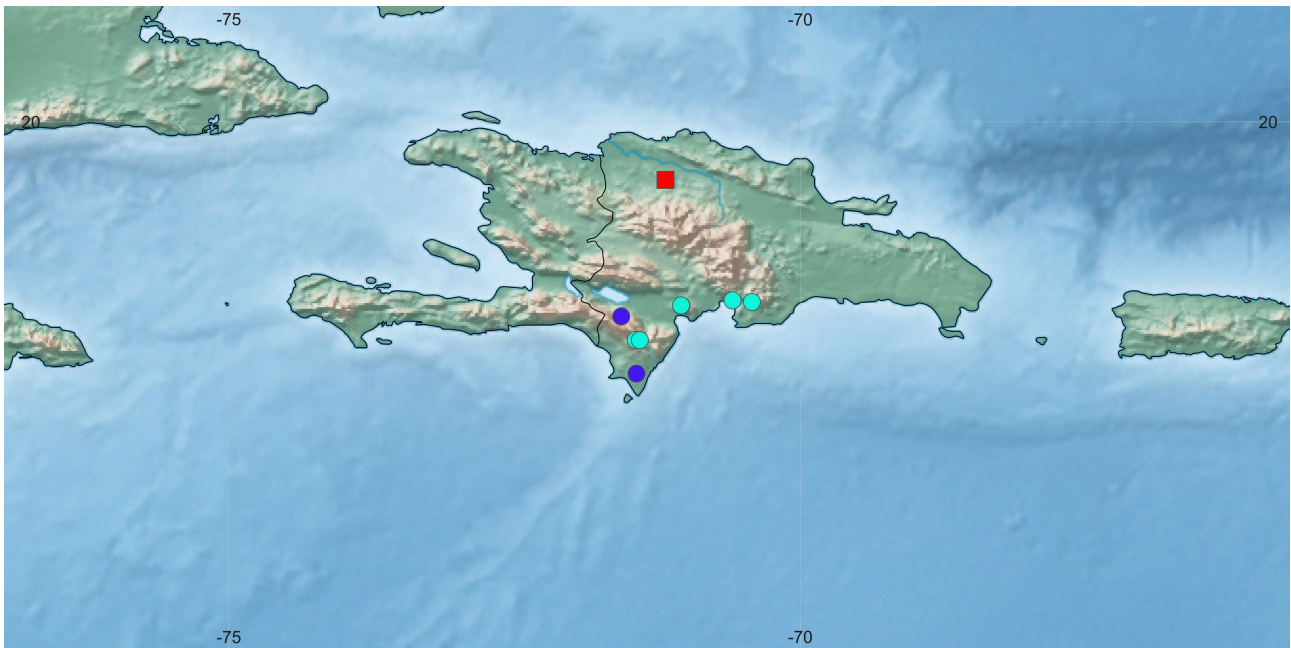


FIGURE 6. Hispaniolan map showing the type locality of *Antillena miguelangeli* sp. nov. (red square), previous records for *A. rickwesti* (dark blue dots) and the new locality records for *A. rickwesti* (light blue dots).

Discussion. The morphology of the genitalia of *Antillena rickwesti* is highly divergent from that of other aviculariine species, due to the presence of keels on the embolus of the male bulb, and the short, well-sclerotized female spermathecae. The male of *Antillena miguelangeli* sp. nov. has a not so modified embolus, with poorly developed keels. Furthermore, the embolus is more slender than that of *A. rickwesti* and resembles those of other aviculariine species (Fig. 3A–H). The presence of developed keels on the embolus of *A. rickwesti* males is certainly a convergence with those of theraphosines, ornithoctonines and *Poecilotheria* Simon species, as no other aviculariine species presents keels on the embolus. The discovery of a second species of *Antillena* with poorly developed keels, an intermediate state between the absence of keels found in other aviculariine species and the well-developed keels of *A. rickwesti*, supports the idea of convergence.

Field-notes on *Antillena*. These spiders benefit from the natural holes on tree trunks created when some branches break down or by another cause, building their retreats by upholstering the hole and making a silk tube that varies in length in relation to the size of the hole (Fig. 8). In general, this silk tube has a vertical orientation and possess two entrances: upper and lower. The spider perches at the lower entrance, leaving leg III and cephalothorax (complete or just half) outside of the burrow, waiting for a prey to pass/land nearby. In some situations, the spider was observed as far as 0.5 m away from the entrance, and in some other cases (least frequent), the spider was perched in the upper entrance.

Retreats have been observed at heights between 0.3–4.0 m, but they are usually seen between 1.0–2.5 m. More than one retreat in trees with multiple branches were observed, but never in the same branch (Fig. 8A). There have been 5–8 juveniles found in the same retreat along with the maternal female, sometimes with a marked instar difference; it is frequent to see the juveniles in the entrance or in small clusters close to the retreat entrance (Fig. 8B). A male was collected inside a completely sealed retreat. It was observed that these spiders start their activity right after sunset. Finally, at Refugio de vida silvestre El Cañón del río Gurabo most of the retreats were seen on trees of *Haematoxylum* sp.



FIGURE 7. *Antillena miguelangeli* sp. nov., habitus. A, male holotype. B, female. Photos: A, Francisco Paz; B, Cristian Marte.



FIGURE 8. *Antillena* spp. in the wild. A, two individuals of *Antillena miguelangeli* **sp. nov.** built their retreats on the same tree, but on different branches. (B–C) *Antillena rickwesti*. B, maternal female (bottom circle) and juvenile (top circle) sharing the same retreat. C, aspect of the branch hole without the silken upholster.

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References

- Bertani, R. (2000) Male palpal bulbs and homologous features in Theraphosinae (Araneae: Theraphosidae). *The Journal of Arachnology*, 28, 29–42.
[https://doi.org/10.1636/0161-8202\(2000\)028\[0029:MPBAHF\]2.0.CO;2](https://doi.org/10.1636/0161-8202(2000)028[0029:MPBAHF]2.0.CO;2)
- Bertani, R. & Huff, J. (2013) *Avicularia rickwesti* sp. nov., a remarkable new species of *Avicularia* (Theraphosidae: Aviculariinae) from Dominican Republic. *Zoologia*, 30 (3), 333–337.
<https://doi.org/10.1590/S1984-46702013000300012>
- Cooke, J.A.L., Roth, V.D. & Miller, F.H. (1972) The urticating hairs of theraphosid spiders. *American Museum Novitates*, 2498, 1–43.
- Fukushima, C.S. & Bertani, R. (2017) Taxonomic revision and cladistic analysis of *Avicularia* Lamareck, 1818 (Araneae, Theraphosidae, Aviculariinae) with description of three new Aviculariine genera. *ZooKeys*, 659, 1–185.
<https://doi.org/10.3897/zookeys.659.10717>
- Kaderka, R. (2016) Description of the male of *Avicularia rickwesti* Bertani & Huff, 2013, a remarkable species from the Dominican Republic (Araneae: Theraphosidae: Aviculariinae). *Revista Ibérica de Aracnología*, 28, 121–127.
- Shorthouse, D.P. (2010) SimpleMappr, an online tool to produce publication-quality point maps. Available from: <http://www.simplemappr.net> (accessed 30 November 2023)
- World Spider Catalog (2024) *World Spider Catalog. Version 25.0*. Natural History Museum Bern, Bern. Available from: <http://wsc.nmbe.ch> (accessed 8 July 2024)
<https://doi.org/10.24436/2>