European Journal of Taxonomy 856: 152–169
https://doi.org/10.5852/ejt.2023.856.2035
ISSN 2118-9773
www.europeanjournaloftaxonomy.eu
2023 · Rheims C.A.

Research article

urn:lsid:zoobank.org:pub:061D1047-17C7-4B55-95D5-E291FA9E063C

Cuiambuca gen. nov., a new genus of Sparianthinae spiders (Araneae: Sparassidae) from Brazil

Cristina A. RHEIMS
Laboratório de Coleções Zoológicas, Instituto Butantan,
Av. Vital Brasil, 1500, 05503-900, São Paulo, SP, Brazil.
Email: carheims@gmail.com

urn:lsid:zoobank.org:author:C25D9F53-D1FD-42FB-B844-40B67EA6BD97

Abstract. A new genus of Sparianthinae spiders, *Cuiambuca* gen. nov., is proposed to include the type species, *Cuiambuca vacabrava* sp. nov. (♂♀), from Paraíba and Sergipe, *C. aratangi* sp. nov. (♂♀), from Paraíba and Pernambuco, and *C. borborema* sp. nov. (♀) from Alagoas, all in northeastern Brazil. The genus is remarkable in that it exhibits a partly sclerotized conductor, with a sclerotized base and a distal hyaline sheath, in the male palp, a keyhole-shaped median septum in the female epigyne as well as a gourd-shaped spermathecae and blind ending projection in the vulva. All species are described and illustrated and a distribution map is provided.

Keywords. New species, new genus, Neotropical region.

Rheims C.A. 2023. *Cuiambuca* gen. nov., a new genus of Sparianthinae spiders (Araneae: Sparassidae) from Brazil. *European Journal of Taxonomy* 856: 152–169. https://doi.org/10.5852/ejt.2023.856.2035

Introduction

Sparianthinae Simon, 1897 is a well-established subfamily of Sparassidae Bertkau, 1872 that currently comprises 129 species in 13 genera (Rheims 2019, 2020; World Spider Catalog 2023). It is characterized by the combination of a canoe-shaped tapeta in the eyes, small retromarginal teeth in the chelicerae, the presence of a trilobate membrane with reduced median lobe, and a median apophysis in the male palps (Jäger 1998; Ramírez 2014). The subfamily is considered sister to all other Sparassidae (Moradmand *et al.* 2014; Ramírez 2014; Wheeler *et al.* 2017; Tong *et al.* 2019) and its monophyly was recently tested and confirmed (Gorneau *et al.* 2022).

The Neotropical region harbors 70 native species of Sparianthinae distributed in seven genera: *Decaphora* Franganillo, 1931 (five species), *Diminutella* Rheims & Alayón, 2018 (one species), *Extraordinarius* Rheims, 2019 (six species), *Neostasina* Rheims & Alayón, 2018 (34 species), *Sparianthis* Simon, 1880 (13 species), *Stasina* Simon, 1877 (four species) and *Uaiuara* Rheims, 2013 (seven species) (World Spider Catalog 2023). Of these, only *Stasina* is not endemic to the region and the four Neotropical species currently assigned to the genus are considered misplaced (Rheims & Alayón 2016). These numbers represent more than 52% of the known Sparianthinae fauna and have been growing rapidly over the last decade with the work of Rheims (2013, 2017, 2019, 2020) and Rheims & Alayón (2014, 2016, 2018).

In this paper, I describe the new Sparianthinae genus *Cuiambuca* gen. nov., to include three species from northeastern Brazil. With the exception of *C. borborema* sp. nov., known solely from the female, the species herein described are remarkable in that they exhibit a partly sclerotized conductor in the male palp, with a strongly sclerotized base ending in a hyaline sheath.

Material and methods

Specimens described in this paper were examined at the Laboratório de Coleções Zoológicas, Instituto Butantan, under a LEICA MZ12.5 stereo microscope. All measurements are in millimeters. Leg measurements are listed as: total length (femur, patella, tibia, metatarsus, tarsus); eye diameters as AME, ALE, PME, PLE and interdistances as AME-AME, AME-ALE, PME-PME, PME-PLE, AME-PME, ALE-PLE. Coloration patterns are described based on specimens preserved in 70% alcohol. Positions of male tegular appendages are given according to clock positions, based on the left palp in ventral view. Female epigynes were dissected and immersed in clove oil for better visualization of internal structures, according to Levi (1965). In schematic courses of female internal duct systems, the copulatory openings are marked with a circle, glandular or blind ending appendages with a "T", and the end of the fertilization duct in direction of uterus externus with an arrow. Illustrations were made using a stereo microscope LEICA MZ 12.5, with camera-lucida. Photographs of genital structures and specimens were made using a Leica DFC 500 digital camera, mounted on a Leica MZ 16A stereo microscope. Extended focal range images were composed with the program Leica Application Suite ver. 2.5.0. Scanning electron micrographs (SEM) were taken using the scanning electron microscope of the Laboratório de Biologia Celular (Butantan Institute). Material used for SEM was dehydrated through a series of graded ethanol (80% to 100%), mounted on metal stubs and sputter coated with gold. Geographic coordinates of collection localities were obtained from the labels (given in parentheses) or from Google Earth (given in square brackets). Distribution map was prepared on SimpleMappr (Shorthouse 2010). Species are listed in alphabetical order.

Abbreviations

Depository institution and curator

IBSP = Instituto Butantan, São Paulo, Brazil (A.D. Brescovit)

Somatic morphology

ALE = anterior lateral eyes
AME = anterior median eyes
d = dorsal
MAB = muscle attachment bands
p = prolateral
PLE = posterior lateral eyes
PME = posterior median eyes
r = retrolateral
v = ventral

Genitalia (♂)

C = conductor
E = embolus
MA = median apophysis
RpP = retroproximal cymbial process
RTA = retrolateral tibial apophysis

TBE = tegular projection close to embolus base
VTA = ventral tibial apophysis

Genitalia (♀)
BP = blind ending projection
CD = copulatory duct
FD = fertilization duct
LL = lateral lobes
MS = median septum
SP = spermathecae

Results

Taxonomy

Class Arachnida Cuvier, 1812
Order Araneae Clerck, 1757
Family Sparassidae Bertkau, 1872
Subfamily Sparianthinae Simon, 1887

Genus ***Cuiambuca*** gen. nov.
urn:lsid:zoobank.org:act:9C7768E4-C253-4D78-BC03-059DD589F64C

Diagnosis

Species of the genus *Cuiambuca* gen. nov. resemble those of the genera *Decaphora*, *Rhacocnemis*, *Stasina*, *Thelcticopis* and *Thomasettia* by the presence of more than two retromarginal teeth in the chelicerae (5–7 in *Decaphora*, 6 in *Rhacocnemis*, 4−5 in *Stasina*, 5−6 in *Thelcticopis*, 3 in *Thomasettia* and 4–5 in *Cuiambuca* gen. nov.), but are distinguished from *Decaphora* and *Rhacocnemis* in having only three promarginal teeth (Fig. 1A) (4 in the latter genera); from *Thomasettia* in having two straight or slightly procurved eye rows (e.g., Figs 3A, 6A, 8A) and only one pair of ventral spines on metatarsi I−II (recurved eye rows and two pairs of spines in *Thomasettia*); from *Stasina* and *Thelcticopis* in having 3−4 pairs of ventral spines on tibiae I−II (more than 5 pairs in the latter genera). They are further distinguished from all other genera in Sparianthinae by the conductor in the male palp sclerotized with keels and projections at base, ending in a hyaline sheath (Figs 5B, 10B), by the embolus with short, sickle-shaped TBE (Figs 5D−E, 10D−E), by the female epigyne with a keyhole-shaped MS (Figs 5F, 7A, 10F) and by the vulva with rounded spermathecae and rounded blind ending projections on long and thick stalks (Figs 5G, 7B, 10G).

Etymology

The generic name is a Brazilian noun, derived from the Tupi "*kuyã'buka*", used for a container made out of a gourd with a circular opening at the top to retain water and other liquids. It refers to the shape of the female vulva and its rounded spermathecae and blind-ending projections. Gender is female; noun in apposition.

Description

Total length of males 6.0−7.7, of females 7.6−9.2. Prosoma longer than wide; cephalic region higher than thoracic region; fovea slightly conspicuous on posterior third of prosoma. Eight eyes arranged in two rows, the anterior row straight, the posterior straight or slightly procurved; AME larger than ALE and more separated from each other than from laterals; PME smaller than PLE and equidistant (Figs 3A, 4A, 6A, 8A, 9A). Clypeus low, less than AME diameter. Chelicerae longer than wide, with three promarginal teeth, the basal one smallest, and 5−6 retromarginal smaller teeth; intermarginal

denticles absent; one single retromarginal escort setae at the base of fang (Fig. 1A). Labium slightly longer than wide. Endites convergent with dense scopulae on internal margin. Serrula with a single row of denticles (Fig. 1B). Sternum longer than wide. Female palp with single pectinate claw with 4−5 short, gently curved teeth (Fig. 1D). Legs laterigrade, leg formula: 4123 or 4213. Trochanter smooth. Metatarsi I–IV with distal dorsal trilobate membrane with median hook much smaller than lateral projections (Fig. 1C). Tarsi and anterior half of metatarsi scopulate. Trichobothria present on dorsal tibiae, metatarsi and tarsi, arranged in several rows that converge to one on metatarsi. Trichobothria with well-differentiated proximal and distal plates; proximal plate with several transverse ridges; trichobothrial setae thickened in a basal bulb (Fig. 2A). Tarsal organ capsulate, with round to oval

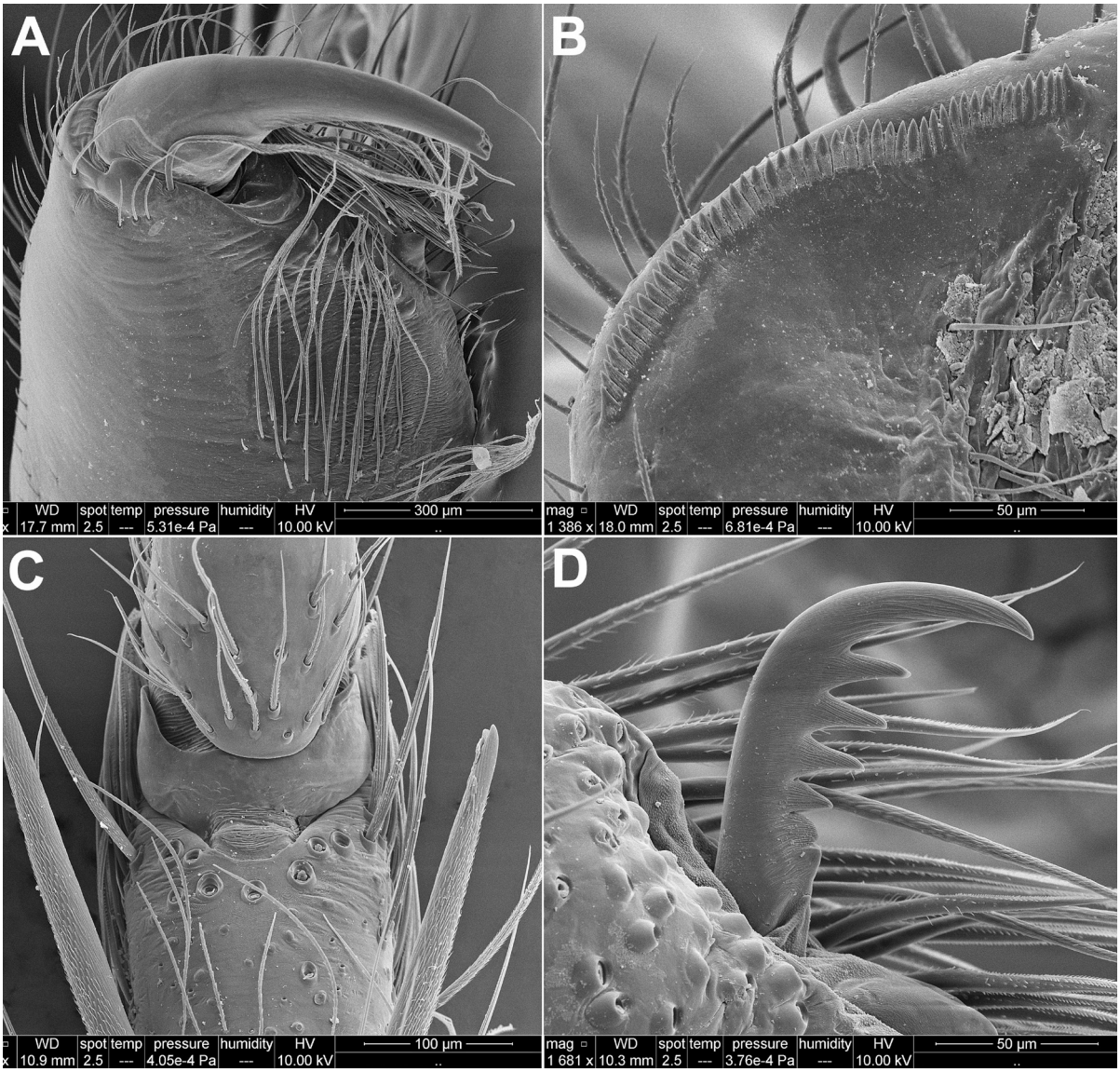

Fig. 1. *Cuiambuca vacabrava* sp. nov. **A**−**B**, **D**. Paratype, ♀ (IBSP 60015). **C**. Holotype, ♂ (IBSP 60013). **A**. Chelicerae, right, ventral view. **B**. Serrula, right, ventral view. **C**. Leg I, metatarsus, trilobate membrane, dorsal view (median hook not visible) . **D**. Palp, right, retrolateral view.

opening (Fig. 2B), located distally on tarsi. Tarsi with pair of pectinate claws, with 11−12 gently curved teeth, inserted medially on proximal half and laterally on distal half of claw; claw tufts with deeply indented setae (Fig. 2C). Spination pattern in males: femora I−III: p1-1-1,d 0-1-1, r1-1-1; femur IV: p1-1-1, d0-1-1, r0-0-1; patellae I−IV: 0; tibiae I−II: p1-0-1, d0-0-1; r1-0-1; v2-2-2-2 (v2-2-2 in *C. aratangi* sp. nov.); tibiae III−IV: p1-0-1, d0-0-1; r1-0-1; v2-2-2; metatarsi I−II: p1-1-1; r1-1-1; v2-0-0; metatarsi III−IV: p1-1-1, r1-1-1, v2-2-0; palp: femur p0-0-1; d0-1-2; patella p1-r1; tibia p2-1-0; in females: femora I−III: p1-1-1, d0-1-1, r1-1-1; femur IV: p1-1-1, d0-1-1, r0-0-1; patellae I−IV: 0; tibiae I−II: v2-2-2-2 (v2-2-2 in *C. aratangi* sp. nov.); tibia III: v2-2-2; tibia IV: p1-0-1, r1-0-1, v1p-2-2; metatarsi I−II: v2-0-0; metatarsus IV: p1-1-1, r1-1-1, v2-2-0; palp: femur p0-0-1; d0-1-2; patella p1; r1; tibia p2-1; d1-1; r1-1; tarsus: p2-1; r2-1. Opisthosoma oval, longer than wide. Male epiandrium with epiandrous spigots arranged in scattered bunches (Fig. 2D). Six spinnerets: anterior lateral spinnerets contiguous, conical and bi-segmented; basal segment elongate and cylindrical, distal segment short and truncated. Posterior median spinnerets conical and short. Posterior lateral spinnerets conical and bi-segmented; basal segment elongate and cylindrical, distal segment short and truncated. Palp: tibia short, roughly half cymbium length, with two prolateral and one dorsal spine; VTA triangular, slightly displaced retrolaterally; RTA single, with two branches, arising medio-proximally from tibia; cymbium with small RpP, large, round alveolus and small rounded dorsal scopula; subtegulum visible in ventral view between 5−6 o'clock; tegulum with hyaline keel along distal margin, fanning out close to C base; MA cup-shaped, arising from tegulum at 4−4:30 o'clock; C arising from tegulum at 3 o'clock position; E filiform, arising from tegulum between 8:30−9 o'clock position (Figs 3C−E, 5A−E, 8C−D, 10A−E). Epigyne: divided into LL and MS; LL simple, with or without posterior triangular projections, partially covering MS; MS smooth, without projections, longer than wide (Figs 4C, 5F, 6F, 7A, 9C, 10F). Vulva: CD short, opening posteriorly on MS or at lateral margins of LL; SP large and rounded; BP arising from CD at base of SP; antero-mediad (Figs 4D, 5G−H, 6D, 7B−C, 9D, 10G−H).

Included species

Cuiambuca aratangi sp. nov., *C. borborema* sp. nov. and *C. vacabrava* sp. nov.

Distribution

Northeastern Brazil, from Paraíba to Sergipe (Fig. 11).

Cuiambuca aratangi sp. nov.

urn:lsid:zoobank.org:act:6ADBAC94-5F62-46F6-9833-4A066481B59E

Figs 2D, 3−5

Diagnosis

Males of *C. aratangi* sp. nov. are distinguished from those of *C. vacabrava* sp. nov. (Fig. 10A−E) by the palps with RTA with dorsal branch bearing two long and pointed projections (Fig. 5B−C) (absent in *C. vacabrava* sp. nov.) and E base slender and with a secondary TBE (Fig. 5D−E) (E with wide and laminar base, lacking secondary TBE in *C. vacabrava* sp. nov.). Females resemble *C. vacabrava* sp. nov. (Fig. 10F−H) by the epigyne with anteriorly rounded MS but are distinguished from the latter species by the LL lacking posterior projections (Fig. 5F) and by the vulva with BP medially bent at 90° angle (Fig. 10G−H) (triangular projections present and BP medially twisted in *C. vacabrava*).

Etymology

The specific name refers to Chã do Monte de Aratangi, name by which the city of Araçoiaba (type locality of the holotype) was known until the beginning of the 19th century; noun in apposition.

Material examined

Holotype

BRAZIL • ♂; Pernambuco State, Araçoiaba; [07°48′ S, 35°04′ W]; 2009; A. Costa leg.; IBSP 167826.

Paratype

BRAZIL • 1 ♀; Paraíba State, São José da Mata; [07°10′59″ S, 35°55′59″ W]; Sítio São Miguel; 10 Apr. 1997; A.D. Brescovit leg.; IBSP 8907.

Description

Male (holotype)

Color. Prosoma brown, with thin darker brown lines extending posteriorly along lateral margins of cephalic region and behind PLE; fovea slightly darker than prosoma; eye borders black. Chelicerae

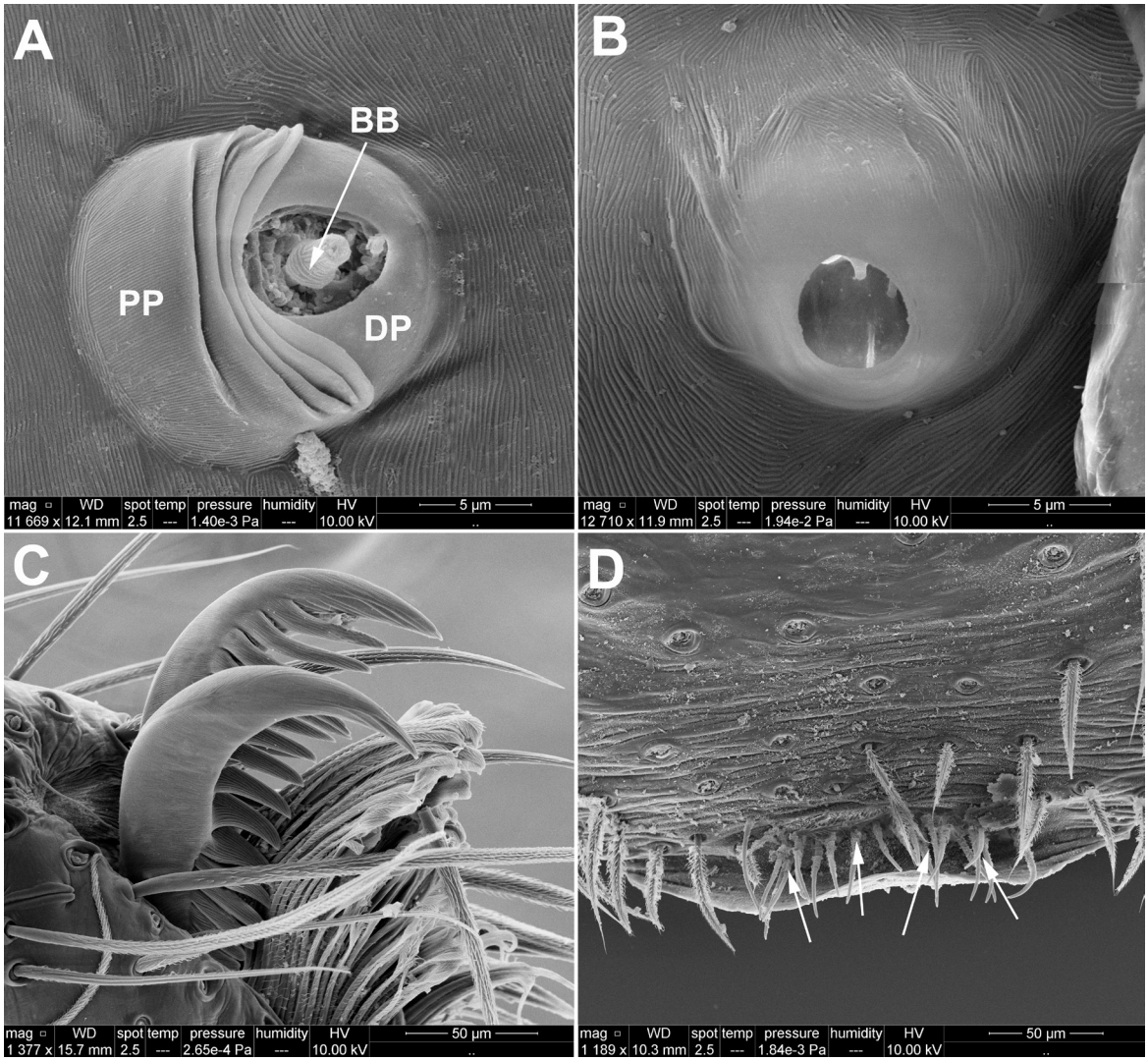

Fig. 2. A–**C**. *Cuiambuca vacabrava* sp. nov., holotype, ♂ (IBSP 60013). **D**. *Cuiambuca aratangi* sp. nov., holotype, ♂ (IBSP 167826) **A**. Leg I, tarsus, tricobothria, dorsal view. **B**. Leg I, tarsus, tarsal organ. **C**. Leg I, tarsus, claws, prolateral view. **D**. Epiandrium, epiandrous spigots (arrows). Abbreviations: BB = basal bulb; DP = distal plate; PP = proximal plate.

brown. Legs and palps brown, slightly lighter than prosoma. Labium brown, distally pale brown. Endites pale brown, distally lighter. Sternum pale brown with slightly darker margins. Opisthosoma cream colored; dorsally with brown pattern of irregular marks at margins of cardiac mark and laterally and median long transversal marks down posterior half; ventrally with irregular marks laterally on

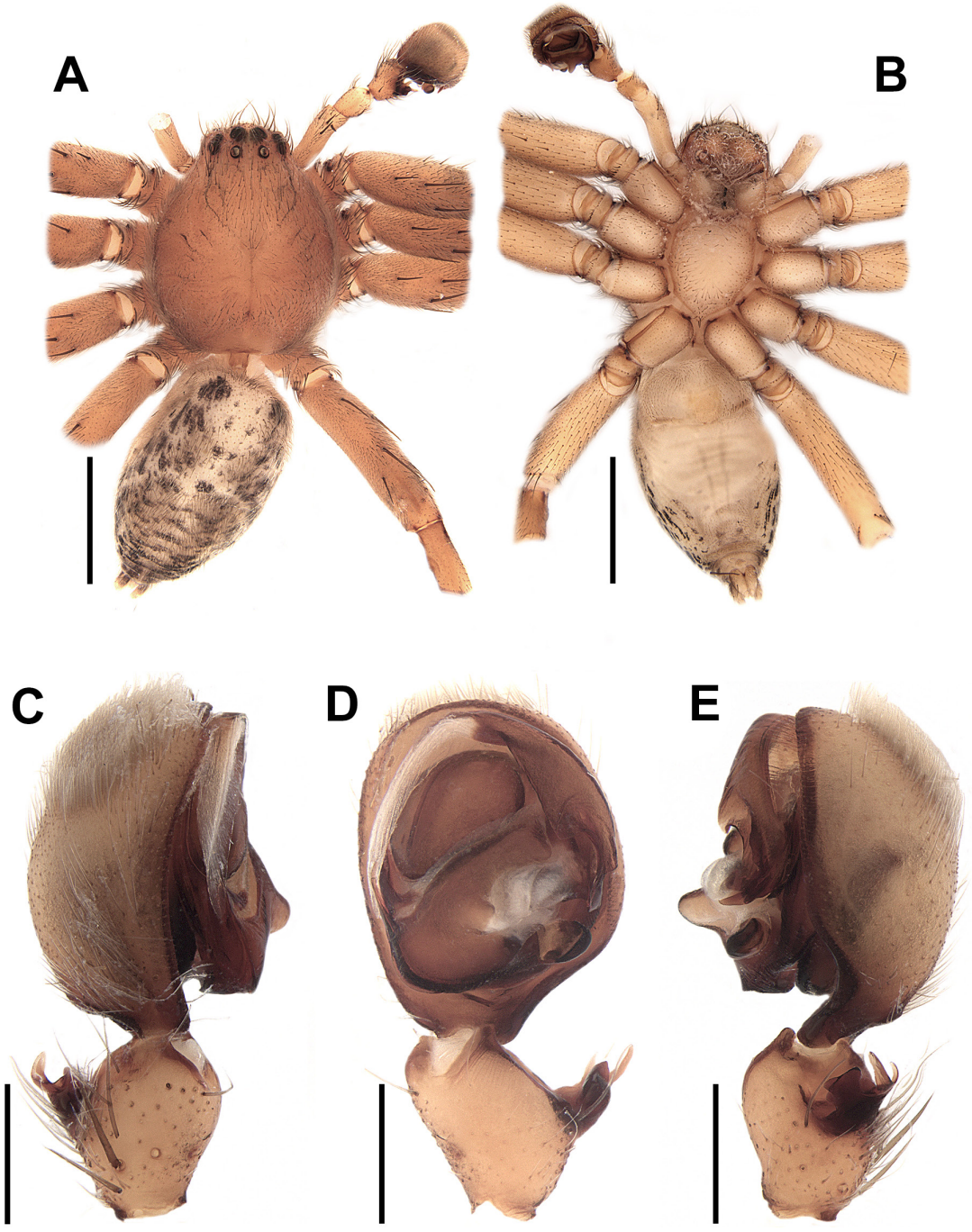

Fig. 3. *Cuiambuca aratangi* sp. nov., holotype, ♂ (IBSP 167826). **A**. Habitus, dorsal view. **B**. Habitus, ventral view. **C**. Left palp, prolateral view. **D**. Left palp, ventral view. **E**. Left palp, retrolateral view. Scale bars: A–B = 2.0 mm; C–E = 0.5 mm.

posterior half and two median, almost parallel lines of muscle impressions. Spinnerets pale yellowish brown, distally cream colored (Fig. 3A−B).

Measurements. Total length 7.7, prosoma length 3.6, width, opisthosoma length 4.0, width 2.1. Eye diameters: 0.25, 0.21, 0.17, 0.22, interdistances: 0.17, 0.05, 0.30, 0.26, 0.17, 0.05. Legs (4123): I: 12.4 (3.5, 1.7, 3.2, 3.0, 1.0), II: 12.3 (3.6, 1.7, 3.1, 3.7, 1.0).

Palp. RTA with ventral branch bifid with two laminar projections; tegulum with hyaline keel extending along distal margin from embolus to conductor base; tp arising close to MA, triangular and almost as large as MA (Figs 3C−E, 5A−E).

Female (paratype)

Color. Prosoma brown with dark brown lines extending posteriorly along lateral margins of cephalic region and posterior eyes and short brown lines; fovea brown, darker than prosoma; eye borders black.

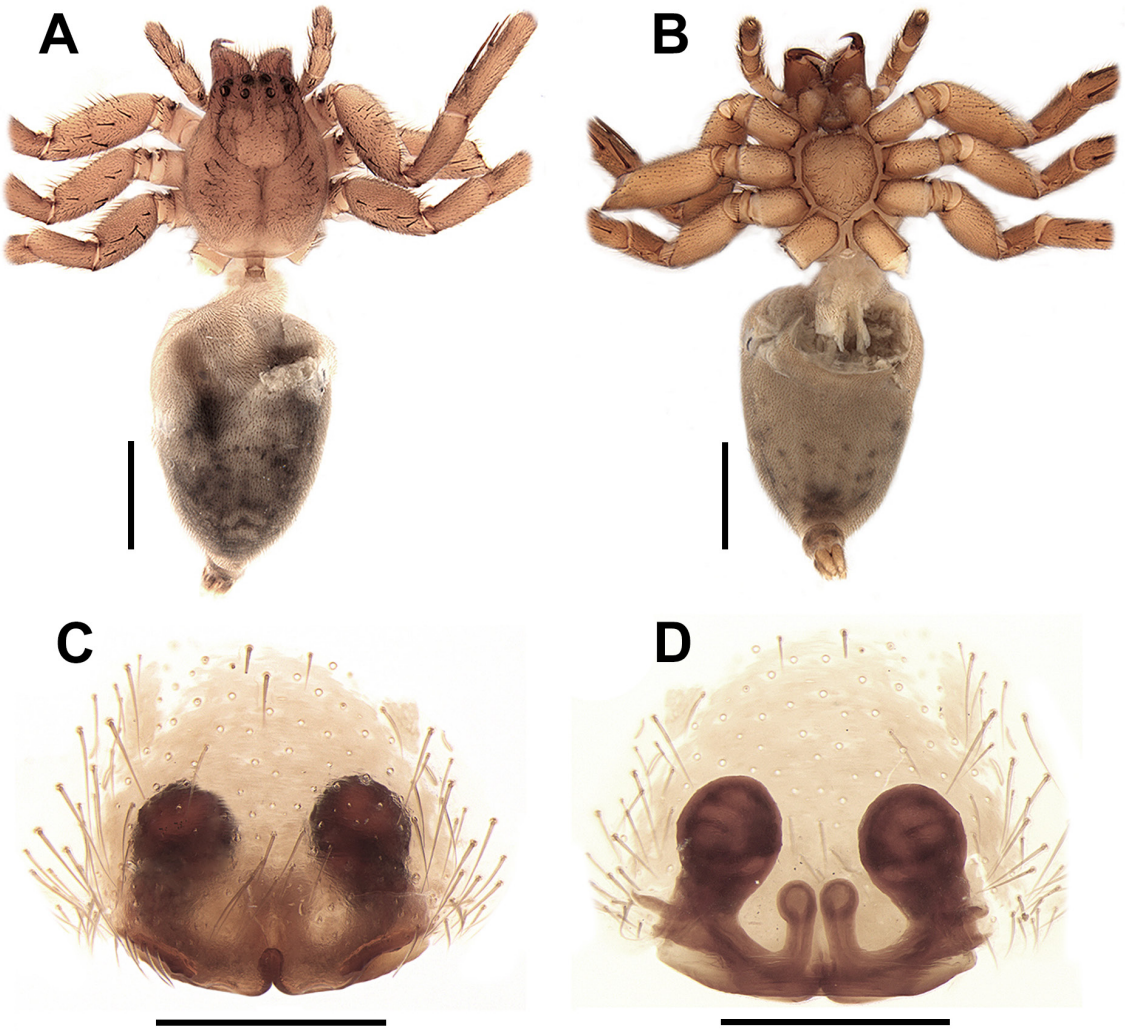

Fig. 4. *Cuiambuca aratangi* sp. nov., paratype, ♀ (IBSP 8907). **A**. Habitus, dorsal view. **B**. Habitus, ventral view. **C**. Epigyne, ventral view. **D**. Vulva, dorsal view. Scale bars = 0.5 mm.

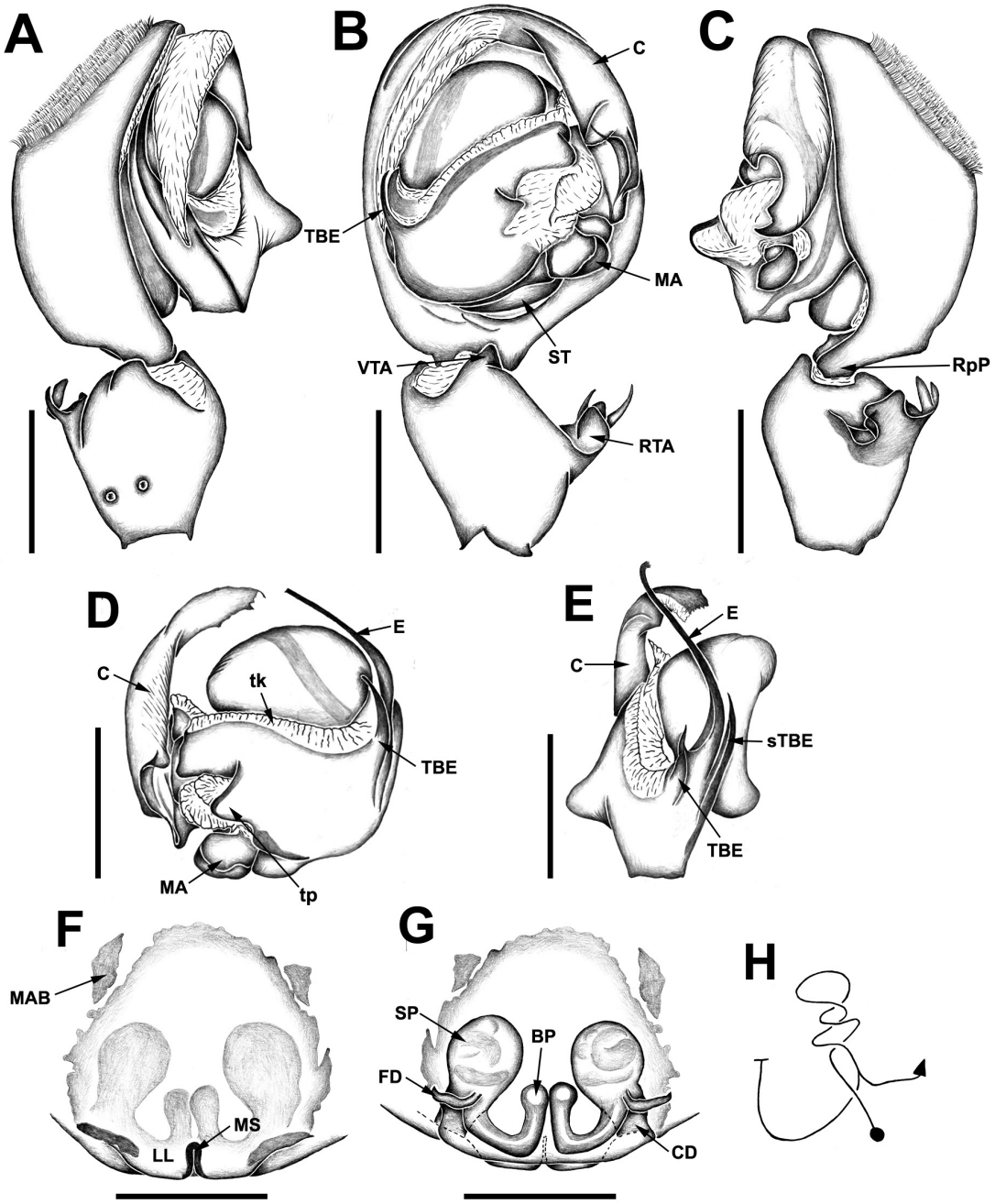

Fig. 5. *Cuiambuca aratangi* sp. nov. **A**–**E**. Holotype, ♂ (IBSP 167826). **F**–**H**. Paratype, ♀ (IBSP 8907). **A**. Left palp, prolateral view. **B**. Left palp, ventral view. **C**. Left palp, retrolateral view. **D**. Right palp, bulb, ventral view. **E**. Right palp, detail of embolus base, prolateral view. **F**. Epigyne, dorsal view. **G**. Vulva, ventral view. **H**. Schematic course of internal duct system. Abbreviations: BP = blind ending projection; C = conductor; CD = copulatory duct; FD = fertilization duct; LL = lateral lobe; MA = median apophysis; MAB = muscle attachment bands; MS = median septum; RpP = retroproximal cymbial projection; RTA = retrolateral tibial projection; SP = spermathecae; ST = subtegulum; sTBE = secondary tegular projection close to embolus base; TBE = tegular projection close to embolus base; tk = tegular keel; tp = tegular protrusion; VTA = ventral tibial projection. Scale bars = 0.5 mm.

Chelicerae brown with slightly darker longitudinal line. Legs and palps brown, lighter than prosoma. Labium, endites and sternum as in male, darker. Opisthosoma brownish gray; dorsally with indistinct dark pattern; ventrally with few scattered spots on posterior half. Spinnerets pale brown, distally lighter (Fig. 4A−B).

Measurements. Total length 9.2, prosoma length 3.5, width 2.7, opisthosoma length 5.5, width 3.0. Eye diameters: 0.24, 0.21, 0.15, 0.20, interdistances: 0.20, 0.18, 0.38, 0.32, 0.17, 0.07. Legs (4123): I: 9.0 (2.7, 1.3, 2.3, 2.0, 0.7), II: 8.3 (2.5, 1.3, 2.0, 1.8, 0.7), III: 7.8 (2.4, 1.2, 1.7, 1.8, 0.7), IV: 9.1 (2.7, 1.1, 2.1, 2.3, 0.9).

Epigyne. EF as long as wide with wide, irregular-shaped MAB antero-laterally; MS short, not surpassing $\frac{1}{9}$ EF length with mostly the same width throughout its entire length (Figs 4C, 5F).

Vulva. BP longer than SP with anterior margin not surpassing half SP length; FD laterad (Figs 4D, 5G−H).

Distribution

Known from the states of Paraíba and Pernambuco in northeastern Brazil (Fig. 11).

Cuiambuca borborema sp. nov.

urn:lsid:zoobank.org:act:D955F86C-DE62-4C14-9F93-1094905E0AB8

Figs 6−7

Diagnosis

Females of *C. borborema* sp. nov. are distinguished from those of all congeners by the epigyne with MS anteriorly M-shaped (Fig. 7A) (rounded in the other species) and vulva with BP anterior to spermathecae and by the presence of a ventral sclerotized plate (Fig. 7B) (BP not surpassing spermathecae and sclerotized plate absent in other species).

Etymology

The specific name refers to the region of the Planalto de Borborema, where the Ecological Station of Murici is located; noun in apposition.

Material examined

Holotype

BRAZIL • ♀; Alagoas State, Murici, Estação Ecológica de Murici; (09°15′ S, 35°51′ W); 13−22 Sep. 2003; Equipe Biota leg.; IBSP 60011.

Description

Female (holotype)

Color. Prosoma brown with thin dark brown spots extending posteriorly from behind posterior eyes and along lateral margins of cephalic region and thoracic striae. Chelicerae brown with thin darker brown longitudinal line. Legs and palps pale brown. Labium brown, distally pale brown. Endites pale brown, distally lighter. Sternum brown with darker brown margins. Opisthosoma pale gray; dorsally with dark brown pattern of median irregular shaped marks on anterior half, elongated marks laterally and median chevron-like marks down posterior half; ventrally with elongated marks laterally and median mottled brown band medially. Spinnerets pale brown, distally lighter (Fig. 6A−B).

Measurements. Total length 7.9, prosoma length 3.3, width 2.8, opisthosoma length 4.2, width 2.6. Eye diameters: 0.22, 0.20, 0.15, 0.20, interdistances: 0.15, 0.10, 0.30, 0.25, 0.15, 0.05. Legs (4213): I: 8.4 (2.5, 1.5, 2.0, 1.8, 0.6), II: 8.6 (2.7, 1.5, 2.0, 1.8, 0.6), III: 7.6 (2.3, 1.2, 1.7, 1.8, 0.6), IV: 9.3 (2.8, 1.1, 2.2, 2.4, 0.8).

Epigyne. EF wider than long, widest posteriorly, with wide, irregular-shaped MAB situated antero-laterally; LL with roughly triangular posterior projections; MS longer than wide, with anterior margin reaching ⅔ EF length (Figs 6C, 7A).

Vulva. BP slightly longer than SP, FD laterad (Figs 6D, 7B–C).

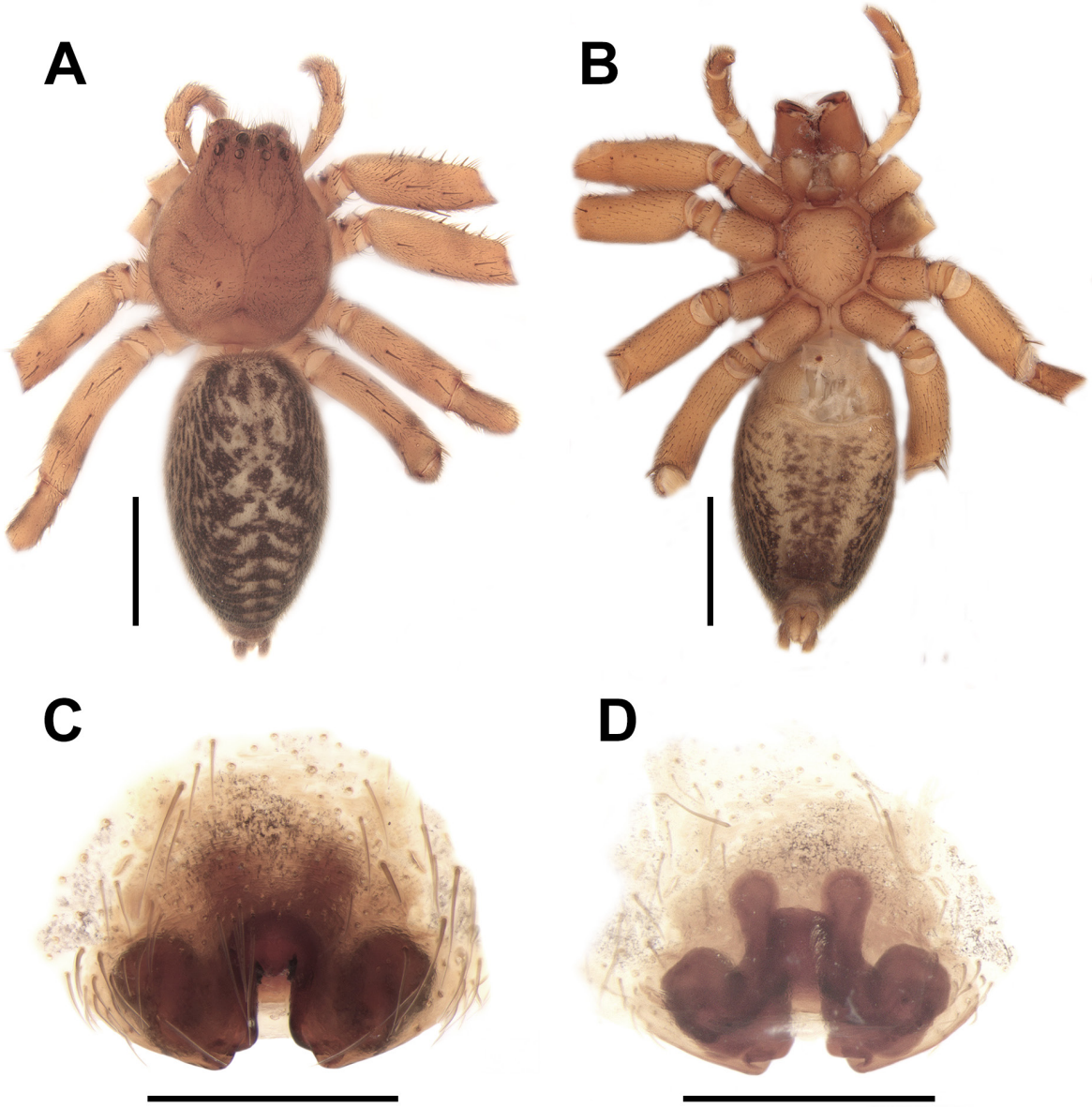

Fig. 6. *Cuiambuca borborema* sp. nov., holotype, ♀ (IBSP 60011). **A**. Habitus, dorsal view. **B**. Habitus, ventral view. **C**. Epigyne, ventral view. **D**. Vulva, dorsal view. A–B = 2.0 mm; C–D = 0.5 mm.

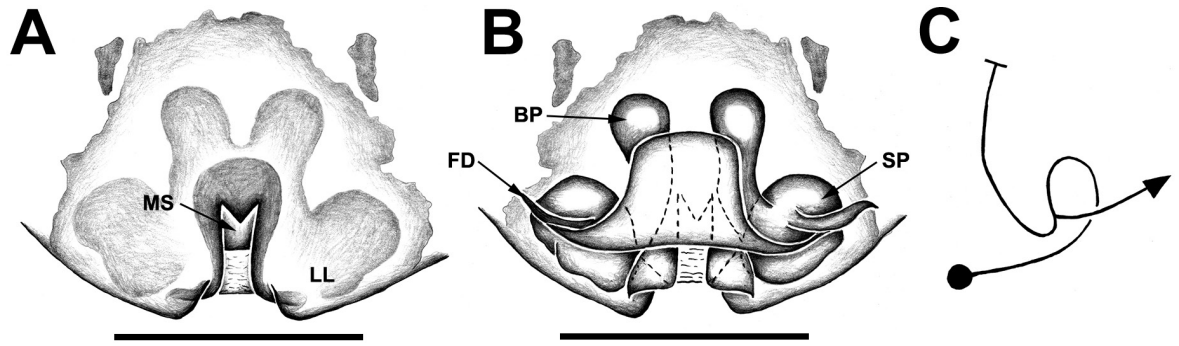

Fig. 7. *Cuiambuca borborema* sp. nov., holotype, ♀ (IBSP 60011). **A**. Epigyne, ventral view. **B**. Vulva, dorsal view. **C**. Schematic course of internal duct system. Abbreviations: BP = blind ending projection; FD = fertilization duct; LL = lateral lobe; MAB = muscle attachment bands; MS = median septum; SP = spermathecae. Scale bars = 0.5 mm.

Distribution

Only known from the type locality in the state of Alagoas, northeastern Brazil (Fig. 11).

Cuiambuca vacabrava sp. nov.

urn:lsid:zoobank.org:act:1B435816-7A2C-4641-9C18-6C853670574C

Figs 1, 2A–C, 8–10

Diagnosis

Males of *C. vacabrava* sp. nov. are distinguished from those of *C. aratangi* sp. nov. (Fig. 5A–E) by the palps with RTA with dorsal branch truncated without projections (Fig. 10B–C) (dorsal branch bearing two long and pointed projections in *C. aratangi* sp. nov.) and E base wide and laminar base, lacking secondary TBE (Fig. 10D–E) (E base slender and secondary TBE present in *C. aratangi* sp. nov.). Females resemble *C. aratangi* sp. nov. (Fig. 5F–H) by the epigyne with anteriorly rounded MS but are distinguished from the latter species by the LL bearing triangular posterior projections (Fig. 10F) and by the vulva with BP medially twisted (Fig. 10G–H) (LL lacking posterior projections and BP medially bent at a 90° angle in *C. aratangi* sp. nov.).

Etymology

The specific name refers to the Sítio Vaca Brava, in which the Mata do Pau Ferro is located; noun in apposition.

Material examined

Holotype

BRAZIL • ♂; Sergipe State, Areia, Reserva da Mata do Pau Ferro; [06°57′S, 35°43′58″ W]; 23–29 Sep. 1999; Equipe Biota leg.; IBSP 60013.

Paratypes

BRAZIL • 1 ♀; Sergipe State, Areia, Reserva da Mata do Pau Ferro; [06°57′ S, 35°43′58″ W]; 23–29 Sep. 1999; Equipe Biota; Equipe Biota leg.; IBSP 60015 • 1 ♀; Itabaiana, Estação Ecológica da Serra de Itabaiana; (10°40′ S, 37°25′ W); 14–20 Sep. 1999; A.D. Brescovit *et al*. leg.; IBSP 43277.

Description

Male (holotype)

Color. Prosoma brown, slightly darker along lateral margins of cephalic region, along fovea and thoracic striae; eye borders black. Chelicerae brown. Legs and palps pale brown. Labium brown, distally pale brown. Endites pale brown, distally cream colored. Sternum cream colored with pale brown margins.

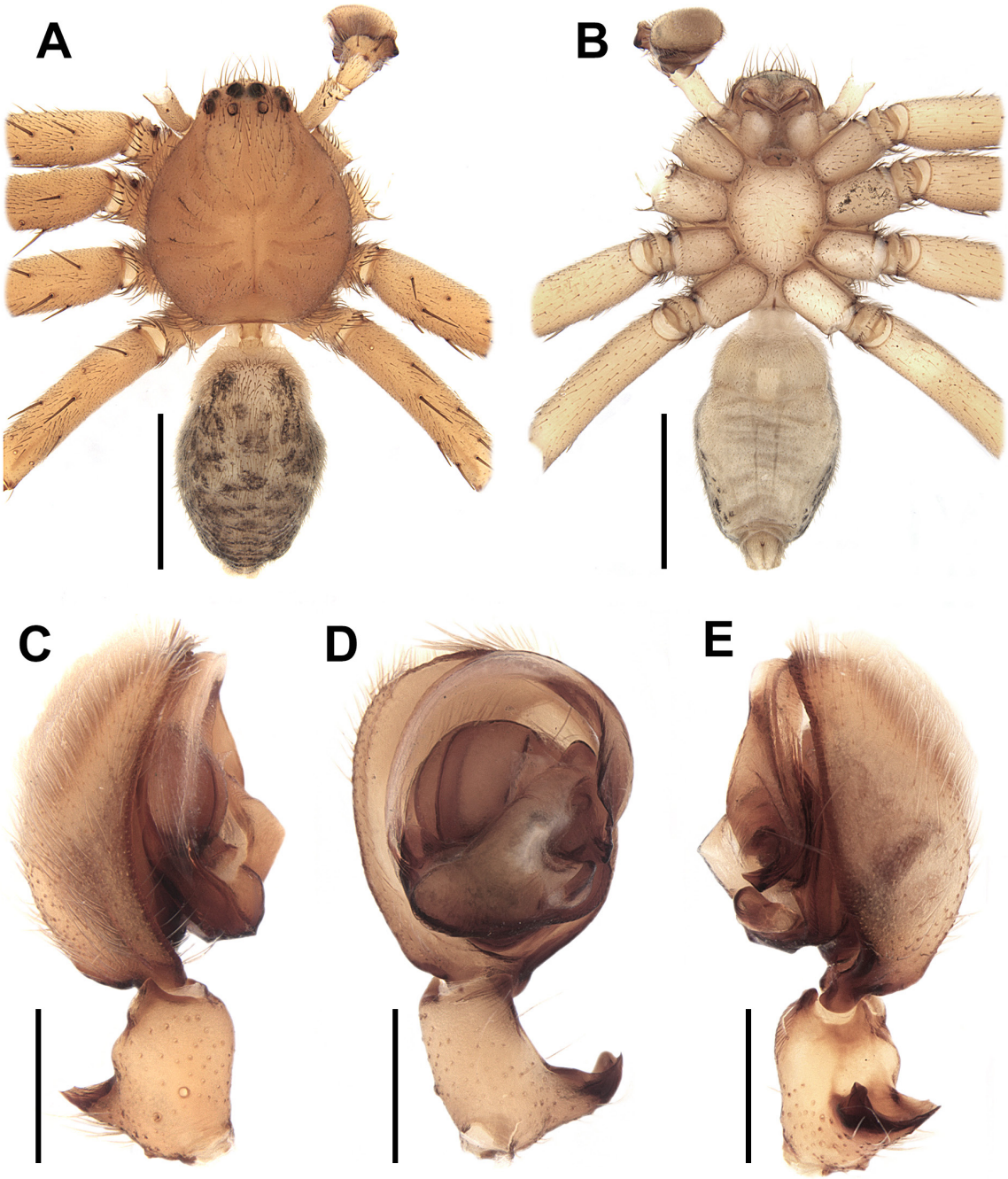

Fig. 8. *Cuiambuca vacabrava* sp. nov., holotype, ♂ (IBSP 60013). **A**. Habitus, dorsal view; **B**. Habitus, ventral view. **C**. Left palp, prolateral view. **D**. Left palp, ventral view. **E**. Left palp, retrolateral view. Scale bars: A–B = 2.0 mm; C–E = 0.5 mm.

Opisthosoma cream colored; dorsally with brown pattern of irregular marks medially on anterior half and elongated marks laterall and on posterior half; ventrally with two almost parallel lines of muscle impressions. Spinnerets cream colored (Fig. 8A−B).

Measurements. Total length 6.0, prosoma length 3.0, width 2.5, opisthosoma length 2.9, width 1.8. Eye diameters: 0.24, 0.19, 0.15, 0.18, interdistances: 0.14, 0.05, 0.26, 0.25, 0.10, 0.05. Legs (4123): I: 10.7 (3.1, 1.4, 2.8, 2.6, 0.8), II: 10.6 (3.1, 1.5, 2.7, 2.5, 0.8), III: 8.0 (2.5, 0.8, 2.0, 2.1, 0.6), IV: 10.8 (3.1, 1.1, 2.5, 3.1, 1.0).

Palp. RTA with ventral branch bifid, bearing two laminar, triangular projections; tegulum with hyaline keel arising close to C base; tp arising close to MA, roughly triangular and much smaller than MA (Figs 8C−E, 10A−E).

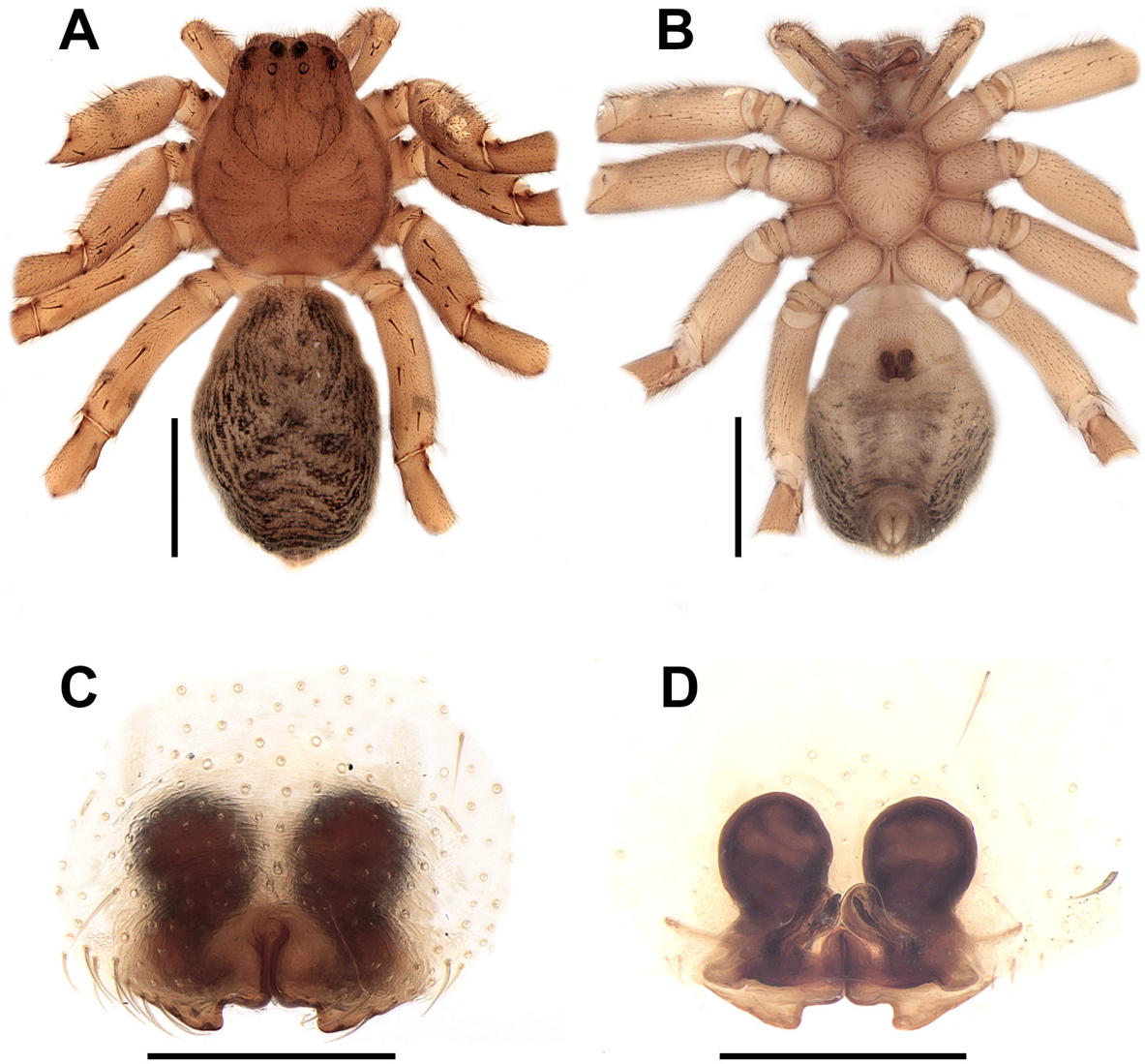

Fig. 9. *Cuiambuca vacabrava* sp. nov., paratype, ♀ (IBSP 43277). **A**. Habitus, dorsal view; **B**. Habitus, ventral view; **C**. Epigyne, ventral view. **D**. Vulva, dorsal view. Scale lines: A−B = 2.0 mm; C−D = 0.5 mm.

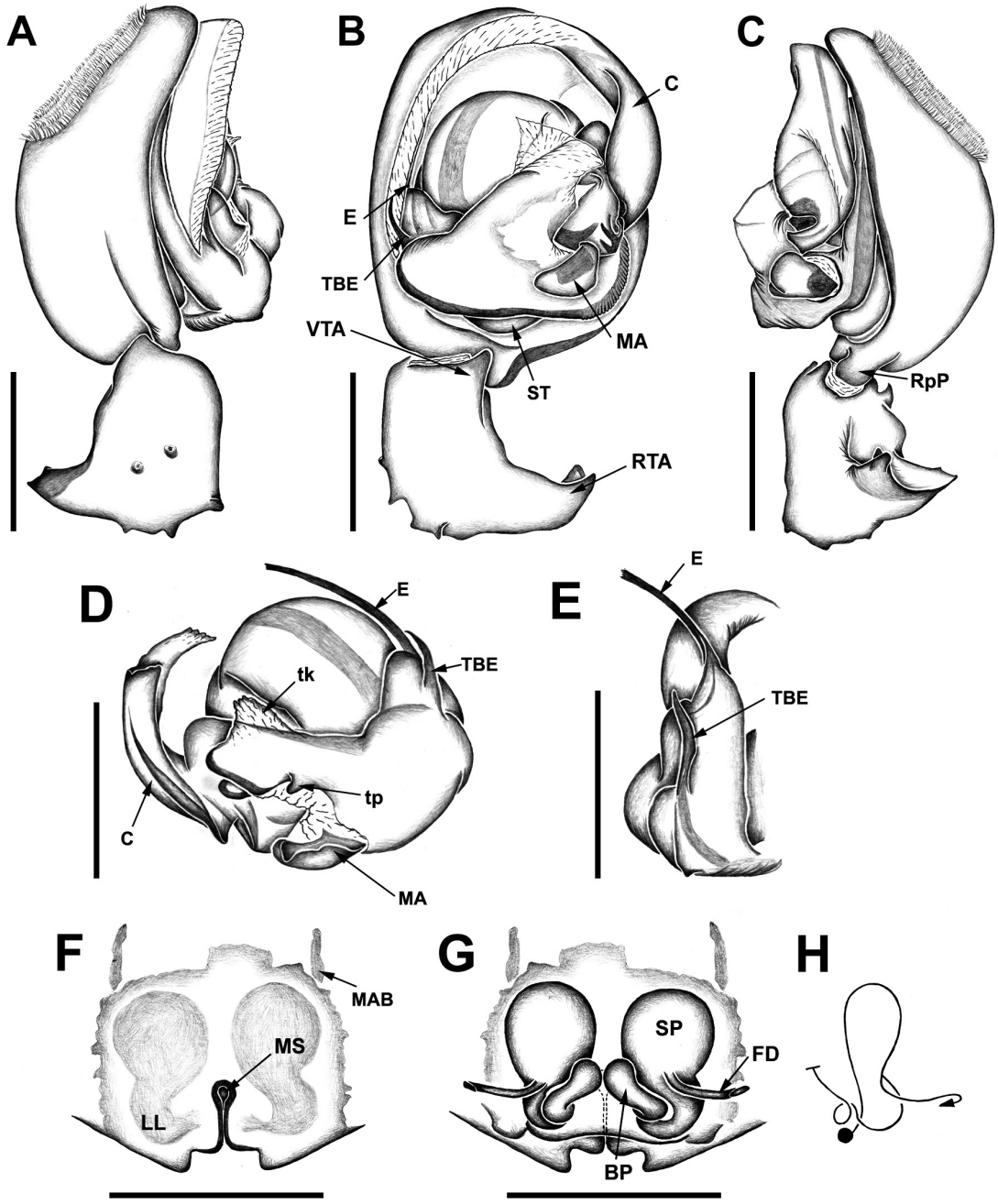

Fig. 10. *Cuiambuca vacabrava* sp. nov. **A**–**C**. Holotype, ♂ (IBSP 60013). **D**–**F**. Paratype, ♀ (IBSP 43277). **A**. Left palp, prolateral view. **B**. Left palp, ventral view. **C**. Left palp, retrolateral view. **D**. Right palp, bulb, ventral view. **E**. Right palp, detail of embolus base, prolateral view. **F**. Epigyne, dorsal view. **G**. Vulva, ventral view. **H**. Schematic course of internal duct system. Abbreviations: BP = blind ending projection; C = conductor; CD = copulatory duct; FD = fertilization duct; LL = lateral lobe; MA = median apophysis; MAB = muscle attachment bands; MS = median septum; RpP = retroproximal cymbial projection; RTA = retrolateral tibial projection; SP = spermathecae; ST = subtegulum; sTBE = secondary tegular projection close to embolus base; TBE = tegular projection close to embolus base; tk = tegular keel; tp = tegular protrusion; VTA = ventral tibial projection. Scale bars = 5 mm.

Female (IBSP 43277, paratype)

Color. As in male, generally darker, with opisthosoma with dorsal median chevron-like marks down posterior half and ventral median faint brown V-shaped mark (Fig. 9A−B).

Measurements. Total length 7.6, prosoma length 3.4, width 2.8, opisthosoma length 3.9, width 2.6. Eye diameters: 0.24, 0.20, 0.12, 0.17, interdistances: 0.23, 0.16, 0.35, 0.35, 0.15, 0.07. Legs (4123): I: 9.1 (2.8, 1.6, 2.2, 1.8, 0.7), II: 8.5 (2.6, 1.4, 2.0, 1.9, 0.6), III: 7.7 (2.5, 1.3, 1.5, 1.8, 0.6), IV: 9.8 (2.9, 1.1, 2.3, 2.6, 0.9).

Epigyne. EF wider than long, with wide, irregular-shaped MAB antero-laterally; MS widest anteriorly, reaching ⅓ EF length (Figs 9C, 10F).

Vulva. BP longer than SP with anterior margin not surpassing half SP length; FD laterad, apically mediad (Figs 9D, 10G−H).

Variation

Two females: total length 7.6−8.6, prosoma length 3.4−3.5, femur I length 2.7−2.8.

Distribution

Known from the states of Paraíba and Sergipe in northeastern Brazil (Fig. 11)

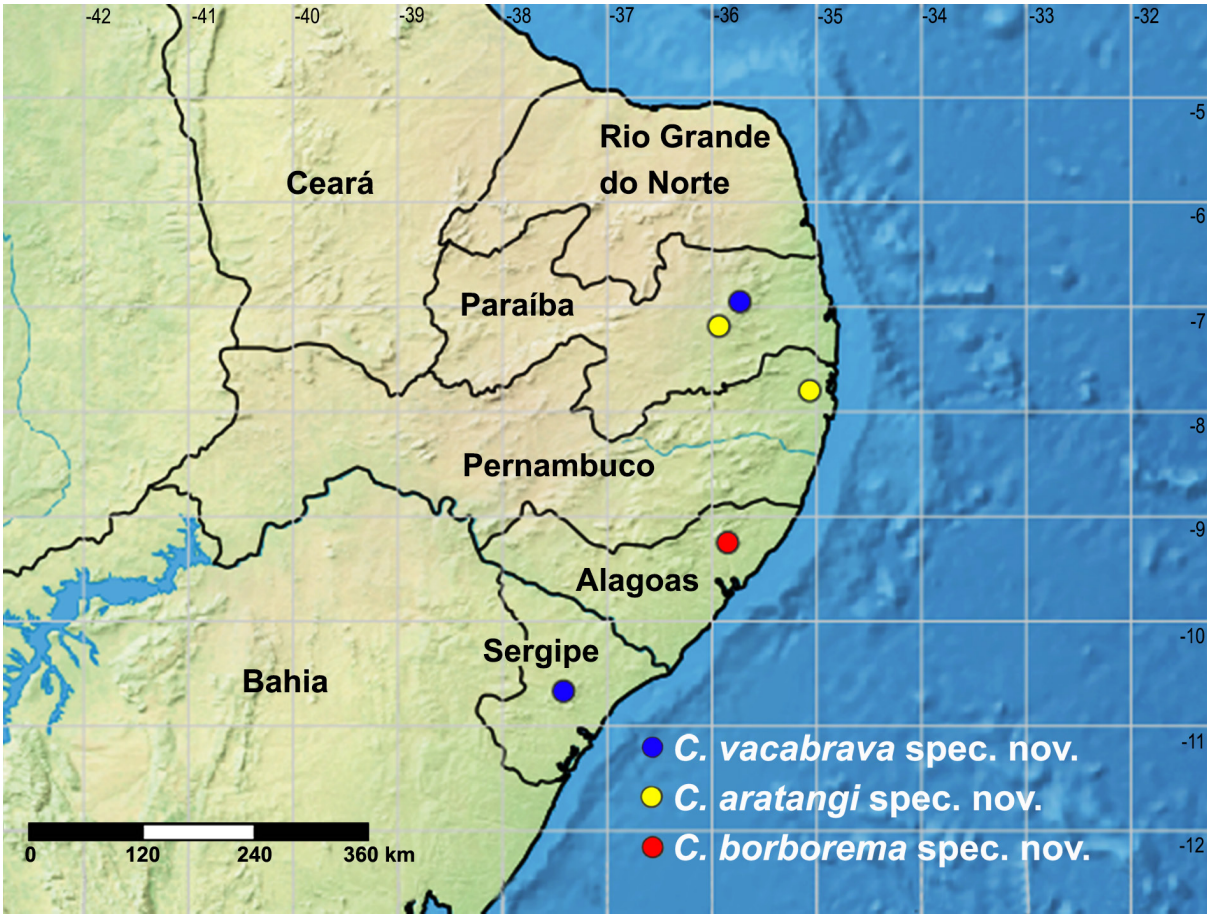

Fig. 11. Distribution map for species of the genus *Cuiambuca* gen. nov. (Brazil).

Discussion

The monophyly of *Cuiambuca* gen. nov. seems to be morphologically well substantiated. All species share a combination of characters not seen in any other genera of Sparassidae, such as the partly sclerotized conductor in the male palp, the keyhole-shaped median septum in the female epigyne and the gourd-shaped spermathecae and blind ending projection in the vulva. Based on these characters, I am convinced that this is a distinct lineage within Sparianthinae and that future studies will corroborate its generic status.

Within Sparianthinae, however, the position of *Cuiambuca* gen. nov. remains doubtful and not much can be said, based solely on morphology. As pointed out in previous taxonomical papers dealing with this subfamily (e.g., Rheims & Alayón 2016; Rheims 2019), species tend to be conservative and characters such as eye arrangement, cheliceral dentition and spine patterns seem to have a strong phylogenetic signal. *Cuiambuca* shares with the Neotropical *Decaphora*, and the non-Neotropical *Stasina* and *Thelcticopis*, the presence of eyes arranged in a straight anterior and slightly procurved posterior row, more than five retromarginal teeth in the chelicerae and only one ventral pair of spines on metatarsi I–II, which seems to indicate a closer relationship to one of these genera. With *Stasina* and *Thelcticopis* it shares the presence of three promarginal teeth in the chelicerae (four in *Decaphora*), while with *Decaphora* and *Thelcticopis* it shares the medial-proximal position of the RTA in the male palp (medial-distal in *Stasina*). The intermediate type of conductor in *Cuiambuca*, with a sclerotized base and a distal hyaline sheath, does not help to clarify if the genus is more related to any of these genera, since *Decaphora* has a hyaline conductor and *Thelcticopis* and *Stasina* a sclerotized one. Thus, I believe that further phylogenetic studies, probably including both morphological and molecular data, will be needed to clarify the position of the genus within the subfamily and corroborate or refute these suggestions.

Acknowledgments

This study was supported by Fundação de Amparo à Pesquisa de São Paulo (FAPESP grants 2011/18694-3 and 2015/18982-0). I wish to thank Beatriz Mauricio (Laboratório de Biologia Celular, Instituto Butantan, São Paulo) for helping with SEMs, Dr Rudy Jocqué (section editor) and two anonymous reviewers for critical comments on this manuscript.

References

Gorneau J.A., Rheims C.A., Moreau C.S. & Rayor L. 2022. Huntsman spider phylogeny informs evolution of life history, egg sacs, and morphology. *Molecular Phylogenetics and Evolution* 174: 107530. https://doi.org/10.1016/j.ympev.2022.107530

Jäger P. 1998. First results of a taxonomic revision of the SE Asian Sparassidae (Araneae). *In*: Selden P.A. (ed.) *Proceedings of the 17th European Colloquium of Arachnology, Edinburgh 1997*: 53–59.

Levi H.W. 1965. Techniques for the study of spider genitalia. *Psyche* 72: 152–158. https://doi.org/10.1155/1965/94978

Moradmand M., Schönhofer A.L. & Jäger P. 2014. Molecular phylogeny of the spider family Sparassidae with focus on the genus Eusparassus and notes on the RTA-clade and 'Laterigradae'. *Molecular Phylogenetics and Evolution* 74: 48–65. https://doi.org/10.1016/j.ympev.2014.01.021

Ramírez M.J. 2014. The morphology and phylogeny of dionychan spiders (Araneae: Araneomorphae). *Bulletin of the American Museum of Natural History* 390: 1–374. https://doi.org/10.1206/821.1

Rheims C.A. 2013. A new genus of huntsman spiders (Araneae, Sparassidae, Sparianthinae) from the Neotropical region. *Zootaxa* 3734: 199–220. https://doi.org/10.11646/zootaxa.3734.2.6

Rheims C.A. 2017. A new species of *Decaphora* Franganillo, 1931 (Araneae, Sparassidae, Sparianthinae) from Colombia, with an identification key for all known species of the genus. *Zootaxa* 4323 (3): 435−439. https://doi.org/10.11646/zootaxa.4323.3.11

Rheims C.A. 2019. *Extraordinarius* gen. nov., a new genus of Sparianthinae spiders (Araneae: Sparassidae) from southeastern Brazil. *Zootaxa* 4674: 83–99. https://doi.org/10.11646/zootaxa.4674.1.4

Rheims C.A. 2020. Revision of the spider genus *Sparianthis* Simon, 1880 (Araneae, Sparassidae, Sparianthinae). *Zootaxa* 4890 (2): 151−191. https://doi.org/10.11646/zootaxa.4890.2.1

Rheims C.A. & Alayón G. 2014. The huntsman genus *Decaphora* Franganillo, 1931 (Araneae: Sparassidae: Sparianthinae). *Zootaxa* 3815 (1): 79−93. https://doi.org/10.11646/zootaxa.3815.1.5

Rheims C.A. & Alayón G. 2016. *Neostasina* gen. nov., a new genus of huntsman spiders from the Neotropical region (Araneae, Sparassidae, Sparianthinae). *Zootaxa* 4079: 301–344. https://doi.org/10.11646/zootaxa.4079.3.1

Rheims C.A. & Alayón G. 2018. A new genus of minute Sparianthinae spiders from the Caribbean (Araneae, Sparassidae). *ZooKeys* 742: 13–22. https://doi.org/10.3897/zookeys.742.21819

Shorthouse D.P. 2010. SimpleMappr, an online tool to produce publication-quality point maps. Available from http://www.simplemappr.net [accessed 29 Jul. 2022].

Tong Y., Binford G., Rheims C.A., Kuntner M., Liu J. & Agnarsson I. 2019. Huntsmen of the Caribbean: Multiple tests of the GAARlandia hypothesis. *Molecular Phylogenetics and Evolution* 130: 259−268. https://doi.org/10.1016/j.ympev.2018.09.017

Wheeler W.C., Coddington J.A., Crowley L.M., Dimitrov D., Goloboff P.A., Griswold C.E., Hormiga G., Prendini L., Ramírez M.J., Sierwald P., Almeida-Silva L., Alvarez-Padilla F., Arnedo M.A., Benavides Silva L.R., Benjamin S.P., Bond J.E., Grismado C.J., Hasan E., Hedin M., Izquierdo M.A., Labarque F.M., Ledford J., Lopardo L., Maddison W.P., Miller J.A., Piacentini L.N., Platnick N.I., Polotow D., Silva-Dávila D., Scharff N., Szűts T., Ubick D., Vink C.J., Wood H.M. & Zhang J. 2017. The spider tree of life: phylogeny of Araneae based on target-gene analyses from an extensive taxon sampling. *Cladistics* 33: 574–616. https://doi.org/10.1111/cla.12182

World Spider Catalog 2023. World Spider Catalog. Version 21.0. Natural History Museum Bern. Available from http://wsc.nmbe.ch [accessed 10 Nov. 2021]. https://doi.org/10.24436/2

Manuscript received: 3 August 2022
Manuscript accepted: 20 October 2022
Published on: 2 February 2023
Topic editor: Tony Robillard
Section editor: Rudy Jocqué
Desk editor: Marianne Salaün