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THE GENUS *CHARINUS* SIMON, 1892 (AMBLYPYGI: CHARINIDAE) ON THE ISLAND OF HISPANIOLA, GREATER ANTILLES

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Abstract: The genus *Charinus* Simon 1892 is herein taxonomically revised for the island of Hispaniola, in the Greater Antilles. It is represented here by two species, both restricted to opposite parts of the southern watershed of the Bahoruco Range: *Charinus dominicanus* Armas & Pérez, 2001 in the eastern coastal foothill (Barahona Province) and *Charinus bahoruco* **n. sp.** in an intramontane ravine of the western portion (Pedernales Province). Both species are described, illustrated and compared in detail.
Key words: Amblypygi, Charinidae, *Charinus*, new species, Hispaniola, Greater Antilles.

El género *Charinus* Simon 1892 (Amblypygi: Charinidae) en la isla de La Española, Antillas Mayores
Resumen: Se revisa taxonómicamente el género *Charinus* Simon 1892 para la isla de La Española, en las Antillas Mayores. Está representado aquí por dos especies, ambas restringidas a partes opuestas de la vertiente sur de la Sierra de Bahoruco: *Charinus dominicanus* Armas & Pérez, 2001 en el piedemonte costero oriental (Provincia de Barahona) y *Charinus bahoruco* **n. sp.** en un cauce intramontano de su porción occidental (Provincia de Pedernales). Ambas especies son descritas, ilustradas y comparadas en detalle.
Palabras clave: Amblypygi, Charinidae, *Charinus*, especie nueva, La Española, Antillas Mayores.

Taxonomy / Taxonomía: *Charinus bahoruco* **n.sp.**

Introduction

The genus *Charinus* Simon, 1892 (family Charinidae Quintero, 1986), went completely unnoticed in Hispaniola until the Armas & Pérez (2001) revision of the whip-spider fauna of this Greater Antillean island. In that contribution two species were recorded, both from single localities in the Sierra de Bahoruco mountains (hereafter Bahoruco Range) in the southwest part: *Charinus dominicanus* Armas & Pérez, 2001 from Barahona (which was described as new), and *Charinus* sp. (which remained undescribed due to inadequate sample). No additional specimens of these or other species have been documented since, and all subsequent records (Armas, 2004, 2006, 2010; Teruel & Questel, 2011, 2015) are mere citations or repetitions of the original data published by Armas & Pérez (2001).

During a field trip conducted by the present author and some collaborators across Dominican Republic in 2014, very well representative sample of *Charinus* were collected at two localities of the Bahoruco Range: the same one of the undescribed species mentioned by Armas & Pérez (2001) and one new record of *C. dominicanus* near the type-locality. Herein the former is described and a complementary description is given for the latter, which includes the first known adult males and additional adult females.

Methods & material

The specimens were studied, measured, drawn and photographed under a Zeiss Stemi 2000-C stereomicroscope, equipped with line scale and grid ocular micrometers, and a Canon PowerShot® A620 digital camera, all calibrated to 20x.

Photographs of the live individuals and their habitat were taken *in situ* with a Nikon Coolpix® S8100 digital camera. Digital images were slightly processed with Adobe Photoshop® 8.0, only to optimize bright and contrast features.

Nomenclature and measurements follow Quintero (1983), except for pedipalp segmentation after Shultz (1999: coxa, trochanter, femur, patella, tibia, and tarsus + claw) and its spine numeration system after Weygoldt (2000: modified to include also tarsus, following the same coding scheme and abbreviated as "Bd" and "Bv"). Adulthood of specimens was unequivocally determined by the full sclerotization of pedipalps (both sexes), combined to the complete development and sclerotization of the opisthogeminate organs (males) and the presence of egg-clutch, its membranous remainders attached to the sternites, or eggs visible through the abdominal wall (females).

All specimens are deposited in the collection of the Centro Oriental de Ecosistemas y Biodiversidad, Santiago de Cuba (BIOECO), with labels originally written in Spanish (transcribed into English in the present text).

Systematics

Charinus dominicanus Armas & Pérez, 2001

Fig. 1-3, 7a, 8. Table I.

Charinus dominicanus Armas & Pérez, 2001: 47, 50, 59, 62–64; fig. 11, 14. Armas, 2004: 39. Armas, 2006: 227–228, 242–243; fig. 6; tab. I. Teruel & Questel, 2015: 47.

TYPE. DOMINICAN REPUBLIC: Sierra de Bahoruco: Barahona Province: La Ciénaga Municipality: Sección San Rafael: Los Charcos; 18°04'00"N - 71°06'00"W; 10 m a.s.l.; 22 August 1987; L. F. de Armas, E. J. Marcano, A. Abud, D. Lantigua; 1♀ holotype (IES). **Examined.**

ADDITIONAL MATERIAL EXAMINED. Same data as holotype; 5 juvenile topotypes (IES). DOMINICAN REPUBLIC: Sierra de Bahoruco: Barahona Province: Barahona Municipality (**new record**): Sección Playa Azul: La Vuelta de Gabino; 18°08'

23"N - 71°04'36"W; 18 m a.s.l.; 6 March 2014; R. Teruel, F. Kovařík, P. Kindl; 3♂♂, 7♀♀, 4 juveniles (BIOECO).

DIAGNOSIS (emended). Adult size moderately small for the genus (4.1–5.5 mm). Coloration reddish brown with olivaceous abdomen, immaculate overall. Carapace with lateral eyes well developed, median ocular tubercle small, median eyes and underlying melanic pigment absent; frontal area widely convex (slightly narrower in male). Tritosternum/tetrasternum/pentasternum with 2/1/1 pairs of spiniform setae, respectively; tritosternum bottle-shaped, extremely short (wider than long) and with a pair of apical spiniform setae. Leg I flagellum with 21 tibial and 33 tarsal segments. Leg IV with trisegmented basitibia. Tarsomere II of legs II–IV with translucent membranous ring complete.

COMPLEMENTARY DESCRIPTION (adult male from La Vuelta de Gabino). **Coloration** (fig. 1a–b) uniformly olivaceous to yellowish-brown, conspicuously darker leg femora and pedipalps, slightly darker and with reddish hue on carapace, venter and chelicerae paler, tergites greener, intersegmental membranes whitish.

Chelicerae typical for the genus. Basal segment dentition: internal margin with the four standard teeth, all large and spiniform, the distal tooth conspicuously bicuspid (proximal cusp shorter), external margin smooth. Movable finger with 4–5 flat crenulations.

Pedipalps (fig. 1c–d) not attenuated, densely covered by minute granules and short spiniform setae in all segments except postarsus, few setiferous tubercles present only on dorsal edges of every segment except postarsus. Trochanter sparsely covered with large spiniform setae, with a single anteroventral spine (long and thin); ventroapical spur long, sharp and sinuose (curved outwards but tip curved inwards), ventrally with two parallel rows of 5/5 large spiniform setae. Femur prismatic, dorsally with three large primary spines (size not evenly decreasing distally: Fd-1 > Fd-2 >> Fd-3, each armed with a spiniform seta, none subdivided by a suture but with an annular constriction suggesting such condition), flanked externally by 6–7 spiniform setae, the basalmost very large and perfectly aligned with the primary spines (actually a secondary spine Fd-4); ventrally with one secondary and three large primary spines (location, size and structure identical to those on the dorsal margin), plus 2–3 spiniform setae of various sizes, much shorter than spines. Patella moderately flat, dorsally with the genus' full standard spination pattern of five dorsal spines: the primary Fd-1 > Fd-2 > Fd-3 (each armed with 1–2 spiniform setae, none subdivided by a suture but with an annular constriction suggesting such condition, and flanked externally by 3–4 spiniform setae), plus two secondary spines (Fd-0 and Fd-4; the former is longer and a true spine with blunt tip, the latter a very large setiferous tubercle); ventrally with two primary spines (Fv-1 > Fv-2, both unarmed and not subdivided by a suture but the former with an annular constriction suggesting such condition), flanked by three subparallel rows of spiniform setae, the innermost alternating with the primary spines. Tibia markedly flat, dorsally with two primary spines (Td-1 about twice longer than Td-2, both unarmed and not subdivided by a suture nor annular constriction); ventrally with a single large primary spine (Tv-1, armed with two spiniform setae and not subdivided by a suture nor annular constriction), the second primary spine (Tv-2) is replaced by an ordinary spiniform setae. Tarsus dorsally with two primary spines (Bd-1 more than twice longer than Bd-2, both unarmed, the former not subdivided by a suture nor annular constriction but the latter basally articulated); ventrally smooth, with cleaning organ very long and closely barbed. Claw long, sharp, evenly curved inwards and smooth.

Carapace (fig. 1e) widely cordiform, 1.22 times wider than long. Tegument very minutely wrinkled, completely devoid of granules and setae. Frontal margin wide and markedly convex (paraboloid), with six short, thick spiniform setae arranged into three divergent pairs; posterior margin with eight minute spiniform setae evenly distributed in four divergent pairs. Median eyes and underlying melanic pigment absent, median ocular tubercle small, round and with two minute setae. Lateral eyes well developed and silver-white; lateral ocular tubercles well developed, underlined by melanic pigment.

Tergites (fig. 1a) with the same sculpture and setation as on carapace.

Ventral region (fig. 1b, f) with genital operculum large, posterior margin widely rounded; opisthogeminate organs protruding and with heavily sclerotized sclerites. Tritosternum extremely short (wider than long) and apically very narrow (bottle-shaped), with two apical macrosetae plus one pair of same-sized spiniform setae (sub-basal). Tetrasternum moderately sclerotized, wider than long and with a large median pair of spiniform macrosetae. Pentasternum moderately sclerotized, wider than long and with a large median pair of spiniform macrosetae. Sternites very densely and minutely granulose, moderately covered by short, thin setae.

Legs (fig. 1a–b) slender but not unusually attenuated, femur densely covered with minute and moderately large scale-like tubercles and rigid setae of various sizes. Leg I flagellum with 21/21 tibial and 33/33 tarsal segments; first tarsomere about 4.5 times longer than second. Leg IV with trisegmented basitibia. Tarsomere II of legs II–IV with the translucent membranous ring complete, representing a true tarsal subdivision.

FEMALE (fig. 2, 3b; tab. I). Very similar to male, slight sexual dimorphism evident in: **a)** body noticeably larger and more robust; **b)** carapace with frontal margin wider and less prominent; **c)** genital operculum relatively smaller and narrower, with fewer and shorter setae; **d)** gonopods lacking sclerotized sclerites.

VARIATION. The coloration of live adults is darker and more reddish (fig. 3) but after alcoholic preservation it rapidly changes to the pattern described above. Adult females are usually slightly darker than males and juveniles are much paler, especially on pedipalps.

The tritosternum and tetrasternum both frequently possess a supernumerary seta usually located on one side, rarely in the midline of the plate.

The tibial/tarsal segmentation of leg I varied in 17 legs examined as follows: 11 legs (64.7%) with 21/33 segments and one each with 20/33, 21/26, 21/30, 22/35, 25/33, and 27/35; pooled, 76.4% of all examined legs I had 21 tibial and/or 33 tarsal segments. All cases with deviated counts seem to imply lost-and-regenerated legs, as the affected leg never had the same length as the specimen's typical leg of the opposite side, nor other same-instar specimens.

Similarly, no variation was found in walking legs: the basitibia IV is trisegmented and the tarsomere II has the translucent membranous ring completely developed in all available legs.

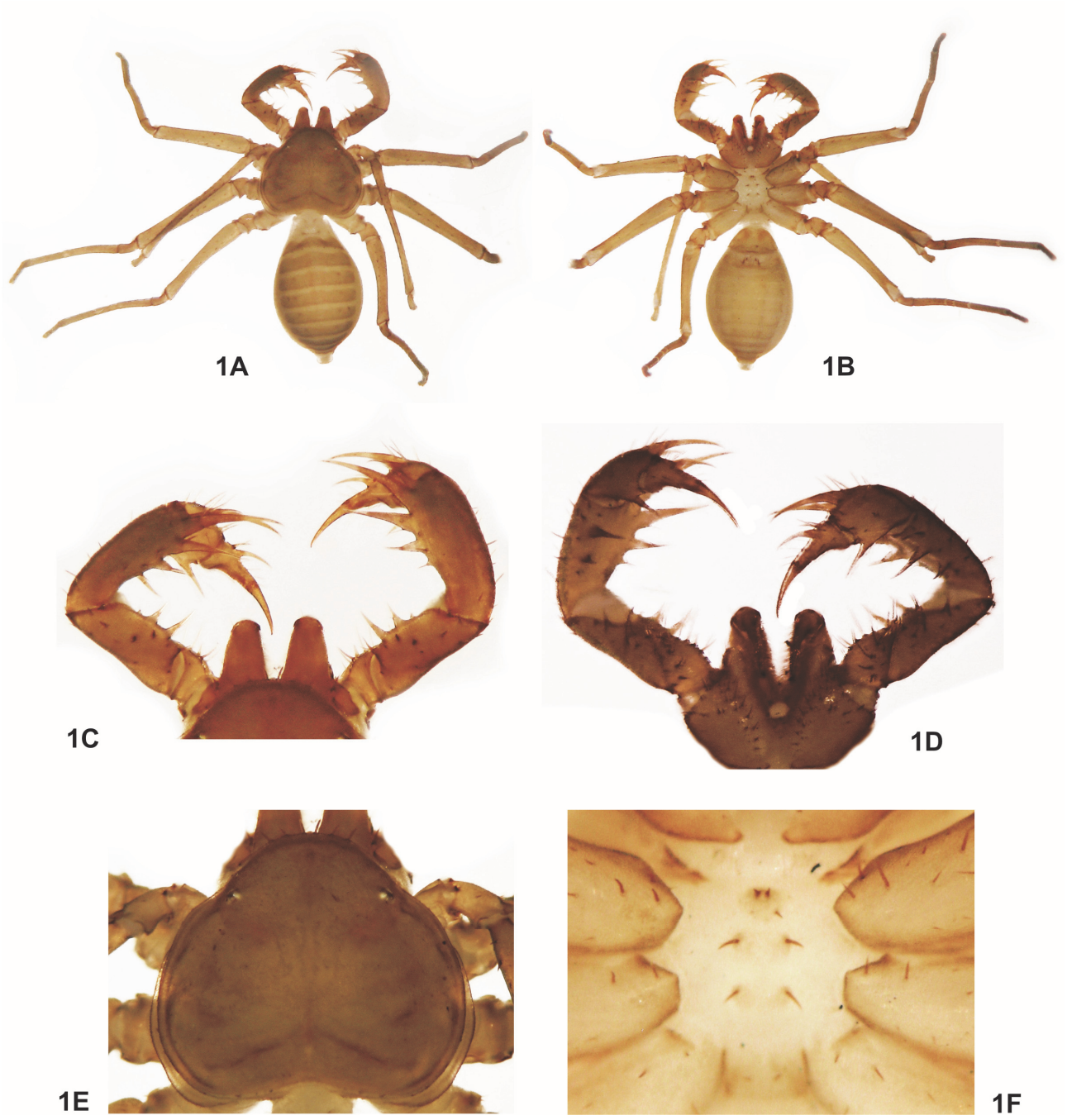


Fig. 1. Adult male of *Charinus dominicanus* from La Vuelta de Gabino: **a)** dorsal view; **b)** ventral view; **c)** chelicerae and pedipalps, dorsal view; **d)** chelicerae and pedipalps, ventral view; **e)** carapace; **f)** sternal region.

Table I. Measurements (mm) of the two Hispaniolan species of *Charinus* (specimens of *C. dominicanus* from La Vuelta de Gabino). Abbreviations: length (L), width (W), depth (H).

Dimensions		*Charinus dominicanus*		*Charinus bahoruco* n.sp.	
		♂ topotype	♀ topotype	♂ holotype	♀ paratype
Carapace	L / A	1.62 / 1.97	2.20 / 2.68	2.23 / 2.70	2.75 / 3.40
Abdomen	L	2.50	3.30	3.85	4.60
Pedipalp	L	3.37	4.48	4.37	6.14
Femur	L / A	0.96 / 0.30	1.20 / 0.43	1.10 / 0.40	1.72 / 0.57
Patella	L / A	1.10 / 0.29	1.50 / 0.41	1.57 / 0.40	2.15 / 0.62
Tibia	L	0.53	0.70	0.70	0.90
Basitarsus	L	0.38	0.48	0.50	0.70
Postarsus	L	0.40	0.60	0.50	0.67
Leg I Femur	L	2.69	4.00	4.00	5.22
Leg IV Femur	L	1.90	2.60	2.80	3.50
Total	**L**	**4.12**	**5.50**	**6.08**	**7.35**

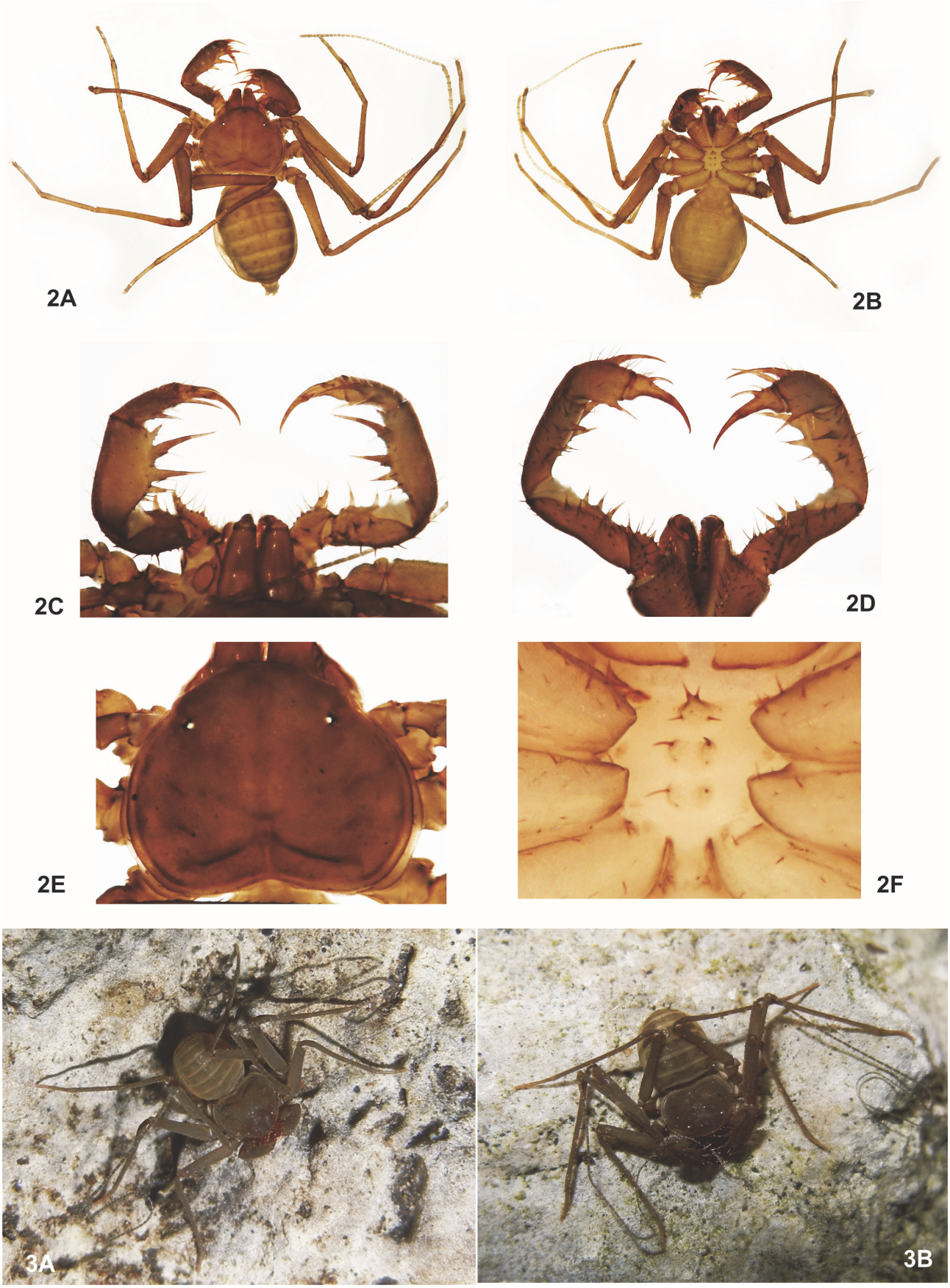


Fig. 2. Adult female of *Charinus dominicanus* from La Vuelta de Gabino: **a)** dorsal view; **b)** ventral view; **c)** chelicerae and pedipalps, dorsal view; **d)** chelicerae and pedipalps, ventral view; **e)** carapace; **f)** sternal region. **Fig. 3.** Live adults of *Charinus dominicanus* from La Vuelta de Gabino, photographed when found in its natural habitat: **a)** male; **b)** female.

COMPARISONS. Amongst its non-Hispaniolan Antillean congeners, *C. dominicanus* is most similar to the Cuban *Charinus wanlessi* (Quintero, 1983): both species are very similar in size, coloration, ocular development (carapace completely lacking median eyes), and leg I flagellum segmentation (21 tibial and 33 tarsal segments). But the latter can be safely distinguished by the following characters: **1)** completely opposite sexual dimorphism, i.e., adult males larger and more slender overall than corresponding size-class females; **2)** appendages remarkably longer and more attenuate, especially male pedipalps; **3)** base color remarkably more greenish, especially when alive; **4)** tritosternum elongate-conical, about 3–5 times longer than wide and with more pairs of spiniform macro- and microsetae.

With respect to the only other Hispaniolan congener (a new species described below), see a detailed comparison in the pertinent section of that taxon.

DISTRIBUTION (fig. 8). This species is known only from two nearby localities of the eastern coastal tip of the Bahoruco Range.

ECOLOGICAL NOTES. All specimens from La Vuelta de Gabino were found under variously-sized limestone rocks, semiburied in the organic soil densely covered with dry leaf litter, in the bottom of a small dry gully. The vegetation is a rather dense, broadleaf semicaducifolious forest (fig. 7a), surrounded by much drier scrubland. The specimens were always hanging to the underside of the rocks, usually solitary or in small groups of 2–3 individuals.

REMARKS. La Vuelta de Gabino is located near the type-locality (roughly 10 km air distance) and is identical in altitude, distance to shoreline, humidity, soil, and vegetation. The easternmost foothill of the Bahoruco Range is plenty of similar gullies and ravines (even between the two known localities), thus, *C. dominicanus* is likely to be more widespread along this coastal strip.

Charinus bahoruco, new species

Fig. 4-6, 7b, 8. Table I.

Charinus sp.: Armas & Pérez, 2001: 50, 59, 64; fig. 2a, 2c, 2e, 11. Armas, 2004: 39. Armas, 2006: 229, 242.

"Undescribed species from Hispaniola": Teruel & Questel, 2015: 43.

TYPES. DOMINICAN REPUBLIC: Sierra de Bahoruco: Pedernales Province: Pedernales Municipality: Sección Mencía: Banano: El Mulito (=Río Mulito); 18°09'34"N - 71°44'56"W; 409 m a.s.l.; 12 March 2014; R. Teruel, F. Kovařík, P. Kindl; 1♂ holotype (BIOECO), 3♂♂, 7♀♀, 1 juvenile paratypes (BIOECO), 1♂, 1♀ paratypes (IES).

ADDITIONAL MATERIAL EXAMINED. Same locality; 22 August 1987; L. F. de Armas; 1 juvenile topotype (IES).

DIAGNOSIS. Adult size medium for the genus (6.0–7.4 mm). Coloration reddish brown with olivaceous abdomen, immaculate overall. Cheliceral basal segment with external dentition reduced to a single vestigial tooth. Carapace with lateral eyes well developed, median ocular tubercle small, median eyes and underlying melanic pigment absent; frontal area widely convex (slightly narrower in male). Tritosternum / tetrasternum / pentasternum with 2/2/1 pairs of spiniform setae, respectively; tritosternum bottle-shaped, very short (slightly longer than wide), and with a pair of apical spiniform setae. Leg I flagellum with 21 tibial and 37 tarsal segments. Leg IV with trisegmented basitibia. Tarsomere II of legs II–IV with translucent membranous ring complete.

ETYMOLOGY. The selected epithet is an indeclinable noun in apposition, taken directly from the name of the mountain range where this species was collected.

DESCRIPTION (adult male holotype unless otherwise noted). **Coloration** (fig. 4a–b) uniformly olivaceous to yellowish-brown, conspicuously darker leg femora and pedipalps, slightly darker and with reddish hue on carapace, venter and chelicerae paler, tergites greener, intersegmental membranes whitish.

Chelicerae (fig. 4c–d, also fig. 5c–d depict female paratype) typical for the genus. Basal segment dentition: internal margin with the four standard teeth, all large and spiniform, the distal tooth conspicuously bicuspid (proximal cusp shorter), external margin with a single vestigial tooth at the level of the internal distal tooth. Movable finger with 4–5 flat crenulations.

Pedipalps (fig. 4c–d) not attenuated, densely covered by minute granules and short spiniform setae in all segments except postarsus, few setiferous tubercles present only on dorsal edges of every segment except postarsus. Trochanter moderately covered with large spiniform setae, with a single anteroventral spine (long and thick); ventroapical spur long, thick and curved inwards, ventrally with three subparallel rows of 6/5/6 mostly large spiniform setae. Femur prismatic, dorsally with three large primary spines (size evenly decreasing distally: Fd-1 > Fd-2 > Fd-3, each armed with a spiniform seta, none subdivided by a suture but with an annular constriction suggesting such condition), flanked externally by 5–6 large setiferous tubercles, the two basalmost very large and perfectly aligned with the primary spines (actually secondary spines Fd-4 and Fd-5); ventrally with no secondary and three large primary spines (location, size and structure identical to those on the dorsal margin), plus 7–8 spiniform setae of various sizes, much shorter than spines. Patella moderately flat, dorsally with an increased spination pattern of six dorsal spines: the primary Pd-1 > Pd-2 > Pd-3 (each armed with 1–3 spiniform setae, none subdivided by a suture but with an annular constriction suggesting such condition, and flanked externally by 4–5 setiferous tubercles), plus three secondary spines (**two** Pd-0 and Pd-4; the former are true spines [the distal one-third the size of the basal] with blunt tips, the latter a typical large setiferous tubercle); ventrally with two primary spines (Pv-1 > Pv-2, both unarmed and not subdivided by a suture but the former with an annular constriction suggesting such condition), flanked by three subparallel rows of spiniform setae, the innermost alternating with the primary spines. Tibia markedly flat, dorsally with two primary spines (Td-1 more than twice longer than Td-2, the former unarmed, the latter armed with 2–3 spiniform setae, none subdivided by suture nor annular constriction); ventrally with a single large primary spine (Tv-1, armed with two spiniform setae and not subdivided by a suture nor annular constriction), the second primary spine (Tv-2) is reduced to a coarse granule. Tarsus dorsally with two primary spines (Bd-1 more than twice longer than Bd-2, both unarmed, the former not subdivided by a suture nor annular constriction but the latter basally articulated); ventrally smooth, with cleaning organ very long and closely barbed. Claw long, sharp, evenly curved inwards and smooth.

Carapace (fig. 4e) widely cordiform, 1.21 times wider than long. Tegument very minutely wrinkled, completely devoid of granules but with scattered few minute setae. Frontal margin wide and markedly convex (paraboloid), with six short, thick spiniform setae arranged into three divergent pairs; posterior margin with 14 short spiniform setae evenly distributed in seven divergent pairs. Median eyes and underlying melanic pigment absent, median ocular tubercle small, round and with two minute setae. Lateral eyes well developed and silver-white; lateral ocular tubercles well developed, underlined by melanic pigment.

Tergites (fig. 4a) with the same sculpture and setation as on carapace.

Ventral region (fig. 4b, f) with genital operculum large, posterior margin vestigially bilobed; opisthogeminate organs protruding and with heavily sclerotized sclerites. Tritosternum very short (slightly longer than wide) and apically very narrow (bottle-shaped), with two apical macrosetae plus one pair of same-sized spiniform setae (sub-basal). Tetrasternum moderately sclerotized, wider than long and with a large median pair of spiniform macrosetae plus a much smaller basal pair. Pentasternum moderately sclerotized, wider than long and with a large median pair of spiniform macrosetae only. Sternites very densely and minutely granulose, moderately covered by minute spiniform setae.

Legs (fig. 4a–b) slender but not unusually attenuated, femur densely covered with minute scale-like tubercles and rigid setae of various sizes. Leg I flagellum with 21/21 tibial and 37/37 tarsal segments; first tarsomere about three times longer than second. Leg IV with trisegmented basitibia. Tarsomere II of legs II–IV with the translucent membranous ring complete, representing a true tarsal subdivision.

FEMALE (fig. 5, 6b; tab. I). Very similar to holotype male, slight sexual dimorphism evident in: **a)** body noticeably larger and more robust; **b)** carapace with frontal margin wider and less prominent; **c)** genital operculum relatively smaller and narrower, with fewer and shorter setae; **d)** gonopods lacking sclerotized sclerites.

VARIATION. The coloration of live adults is darker and more reddish (fig. 6) but after alcoholic preservation it rapidly changes to the pattern described above. Adult females are usually slightly darker than males and juveniles are much paler, especially on pedipalps.

The tritosternum and tetrasternum both frequently possess 1–2 minute supernumerary setae usually arranged as an additional pair. This is more frequent in larger specimens, mostly females.

The tibial/tarsal segmentation of leg I was essentially fixed in 23 legs examined: 21 legs (91.3%) with 21/37 segments and one each with 20/37 and 21/38; pooled, all examined legs I had 21 tibial and/or 33 tarsal segments. The only two deviated counts seem to imply normal variation instead of regenerated legs, as the affected leg was very similar to the specimen's typical leg of the opposite side or other same-instar specimens.

Similarly, no variation was found in walking legs: the basitibia IV is trisegmented and the tarsomere II has the translucent membranous ring completely developed in all available legs.

COMPARISONS. This new species is easy to distinguish from the only other Hispaniolan congener *C. dominicanus*, which possess: **1)** notoriously smaller adult size in both sexes; **2)** leg I flagellum with only 33 tarsal segments; **3)** tritosternum extremely short, wider than long.

Amongst its non-Hispaniolan Antillean congeners, *C. bahoruco* **n.sp.** is most similar to the Cuban *Charinus cubensis* (Quintero, 1983) and *Charinus tomasmicheli* Armas, 2006, the Jamaican *Charinus caribensis* (Quintero, 1986) and the Puerto Rican *Charinus perezassoi* Armas, 2010. All these species are very similar in size, coloration, ocular development (carapace completely lacking median eyes), and leg I flagellum segmentation (21 tibial and 37 tarsal segments). But these four species can be reliably distinguished from it by: **1)** carapace completely lacking median ocular tubercle; **2)** pedipalp patella with standard (i.e., not increased) spination pattern; **3)** tritosternum remarkably longer and with more pairs of spiniform macro- and microsetae.

DISTRIBUTION (fig. 8). This species is known only from the type locality, in the westernmost part of the southern watershed of the Bahoruco Range. It is placed just at the border with Haiti, thus, the species is very likely to occur also in that country

ECOLOGICAL NOTES. All specimens were found under variously-sized limestone rocks, semi-buried in the organic soil densely covered with dry leaf litter, in the margin of a small river. The vegetation is a rather dense, broadleaf semicaducifolious forest (fig. 7b), surrounded by heavily deforested lands. The specimens were always hanging to the underside of the rocks, usually in small groups of 2–4 individuals.

REMARKS. The IES juvenile collected in 1987 was not designated as paratype because it is in very poor condition: it has become translucent due to a severe dehydration, with legs dismembered and disarticulated. Armas & Pérez (2001: 64) stated that the carapace of this specimen had a minute black spot (= melanic ocular pigment) under the location of the absent median ocular tubercle; we could not observe such spot in this specimen. It is definitely absent in all of the 14 additional specimen (types), thus, it is not possible to define if this was an observation error by Armas & Pérez (2001), or a case of unusual individual variation now obscured by the poor state of the specimen.

General remarks

Despite both extensive and intensive arachnological surveys conducted in Hispaniola for decades, the genus *Charinus* seems to have a notoriously restricted distribution there: only two species have been discovered and both occur relatively nearby, in the same watershed of a single mountain system (Bahoruco Range, Fig. 8). These amblypygids are typically found in karstic terrain (R. Teruel, pers. obs.), thus, its apparent absence is intriguing in other large karst areas (either mountainous or not) such as the Neiba and Martín García Range, Los Haitises, and the southeastern tip of the island. Another oddity is that *Charinus* spp. are common inhabitants of cave environments not only all over its worldwide range, but also in all surrounding Greater Antilles (Cuba, Jamaica and Puerto Rico), but so far not a single specimen of this genus have been documented from the dozens of caves that have been sampled in Hispaniola. Nevertheless, it is most likely an artifact of incomplete sampling: populations of these whip-spiders are usually

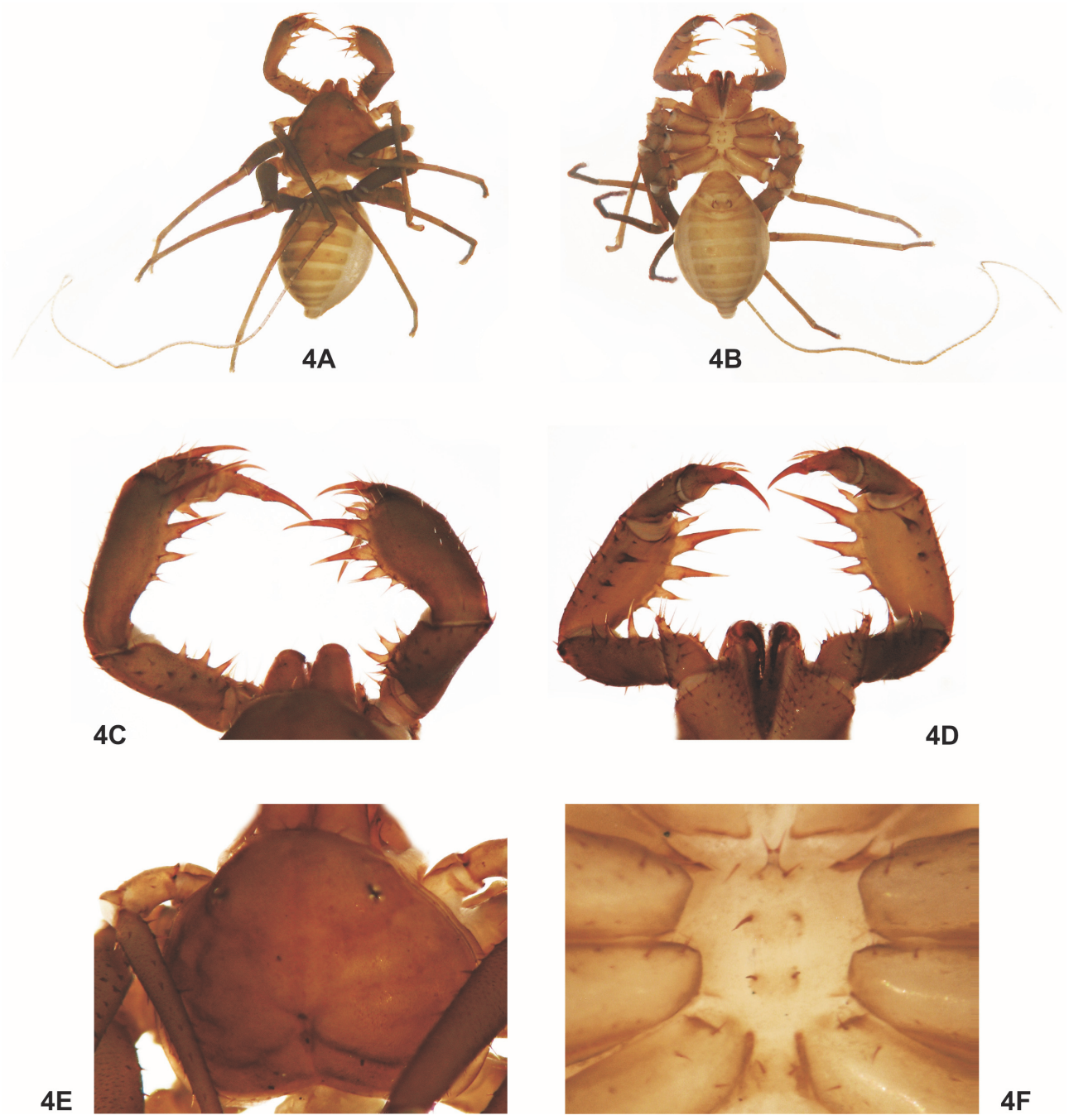


Fig. 4. Adult male holotype of *Charinus bahoruco* **n.sp.**: **a)** dorsal view; **b)** ventral view; **c)** chelicerae and pedipalps, dorsal view; **d)** chelicerae and pedipalps, ventral view; **e)** carapace; **f)** sternal region.

restricted to tiny patches inside widely homogeneous, larger areas, and it is easy to overlook them if the right spot is not examined.

On the other hand, the two Hispaniolan species of *Charinus* are both morphologically closely related and also similar to the other Greater Antillean members of the genus; see Teruel & Questel (2011: 16) for additional data.

Last, the complete list of the Charinidae occurring in the West Indies is updated as follows (every species is an insular endemic; local distribution in each country between parentheses):

1. *Charinus acosta* (Quintero, 1983): Cuba (widespread).
2. *Charinus bahoruco* Teruel, 2016: Hispaniola (Dominican Republic: Pedernales).
3. *Charinus bruneti* Teruel & Questel, 2011: Saint-Barthélemy (widespread).
4. *Charinus caribensis* (Quintero, 1986): Jamaica (St. Catherine).
5. *Charinus centralis* Armas & Ávila, 2001: Cuba (Sancti Spíritus).
6. *Charinus cubensis* (Quintero, 1983): Cuba (Guantánamo).
7. *Charinus decu* (Quintero, 1983): Cuba (Isla de Pinos).
8. *Charinus desirade* Teruel & Questel, 2015: Guadeloupe (La Désirade).

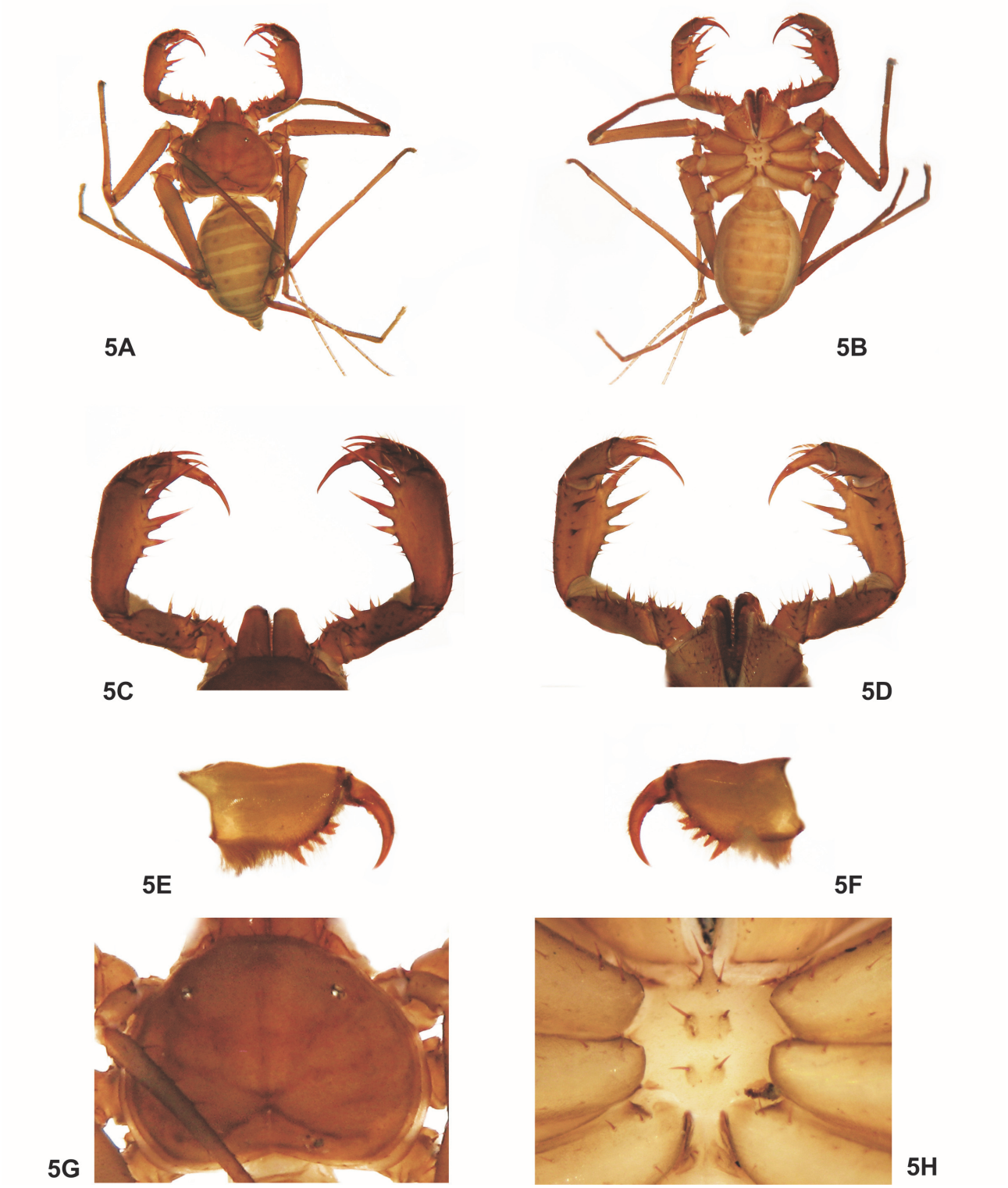


Fig. 5. Adult female paratype of *Charinus bahoruco* **n.sp.**: **a)** dorsal view; **b)** ventral view; **c)** chelicerae and pedipalps, dorsal view; **d)** chelicerae and pedipalps, ventral view; **e)** chelicera, external view; **f)** chelicera, internal view; **g)** carapace; **h)** sternal region.

9. *Charinus dominicanus* Armas & Pérez, 2001: Hispaniola (Dominican Republic: Barahona).
10. *Charinus muchmorei* Armas & Teruel, 1997: Virgin Islands (St. John).
11. *Charinus perezassoi* Armas, 2010: Puerto Rico (Patillas).
12. *Charinus tomasmicheli* Armas, 2006: Cuba (Villa Clara).
13. *Charinus victori* Armas, 2010: Puerto Rico (Aguas Buenas).
14. *Charinus wanlessi* (Quintero, 1983): Cuba (Santiago de Cuba).

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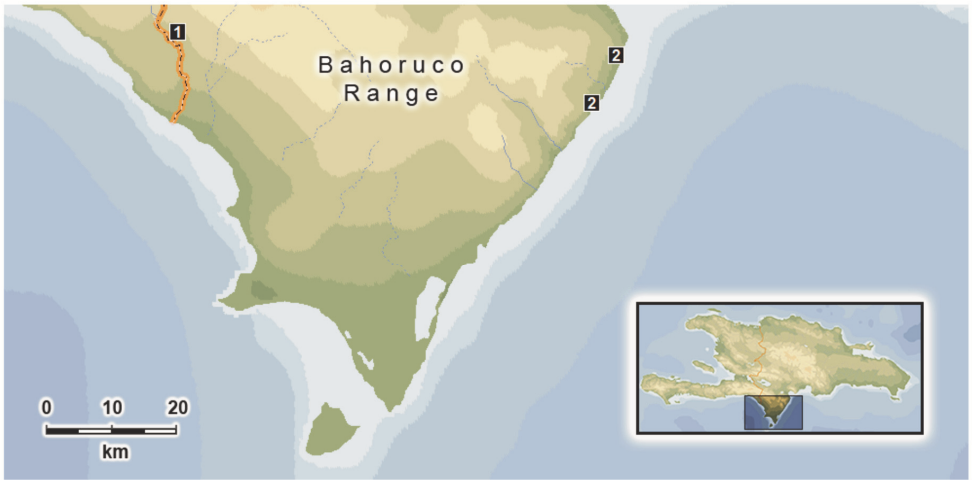
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Fig. 6. Live adult paratypes of *Charinus bahoruco* **n.sp.**, photographed when found in its natural habitat: **a)** male; **b)** female. **Fig. 7.** Exact sites of occurrence of: **a)** *Charinus dominicanus* at La Vuelta de Gabino; **b)** *Charinus bahoruco* **n.sp.** at the type locality. **Fig. 8.** Known geographical distribution of the genus *Charinus* in Hispaniola: *C. bahoruco* **n.sp.** (1) and *C. dominicanus* (2: the southern symbol depicts type-locality). The inset frame shows the general location of the Pedernales peninsula and the southern watershed of the Bahoruco Range in Hispaniola.

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