

On the supposed presence of *Centruroides platnicki* Armas, 1981 (Scorpiones: Buthidae) in Hispaniola, Greater Antilles

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Abstract: It is demonstrated that the scorpion population from Hispaniola, and seemingly that of Eleuthera Island, Bahamas, previously identified as *Centruroides platnicki* Armas, 1981, do not belong to this species. New morphological information is presented for *C. platnicki*, on the basis of a female and a male from Salt Cay, Turks and Caicos Islands.

Key words: *Centruroides nitidus*, taxonomy, West Indies, Bahamas, Turks and Caicos Islands, Dominican Republic.

Acerca de la supuesta presencia de *Centruroides platnicki* Armas, 1981 (Scorpiones: Buthidae) en La Española, Antillas Mayores

Resumen: Se demuestra que la población de escorpiones de La Española, y posiblemente también la de Isla Eleuthera, Bahamas, previamente identificadas como *Centruroides platnicki* Armas, 1981, no corresponden a esta especie. Se aporta nueva información sobre la morfología de *C. platnicki*, a partir de una hembra y un macho de Salt Cay, Islas Turcos y Caicos.

Palabras claves: *Centruroides nitidus*, taxonomía, Antillas, Bahamas, Islas Turcos y Caicos, República Dominicana.

The bark scorpion *Centruroides platnicki* Armas, 1981 was described from near Abraham Bay, Mayaguana Island (type locality), Bahamas, and three small islet of the Caicos Archipelago: Long Cay, West Caicos, and a cay 4 miles SW of North Caicos (Armas, 1981). Some years later, this species was recorded from Salt Cay, Turk Islands, on the basis of two adult specimens, female and male (Armas, 2001).

Until eight years ago, *C. platnicki* was considered an endemic species of the Bahamas archipelago, *sensu lato*. Nevertheless, Teruel & Seiter (2016) identified as belonging to this species some specimens from the northwestern area of the Dominican Republic, properly from Monte Cristi Province. According to those authors, during several years this population was misidentified as *Centruroides nitidus* (Thorell, 1876).

Recently was again possible to revise the two adult specimens of *C. platnicki* recorded by Armas (2001) from Salt Cay. At naked eyes was obvious that these specimens and those identified by Teruel & Seiter (2016) as *C. platnicki* are not conspecific. This criterion is based in the following characters:

1. The female and male specimens from Eleuthera Island, Bahamas (Teruel & Seiter, 2016: fig. 3), clearly differ from those of *C. platnicki* from Mayaguana and Turks and Caicos Islands (Figs. 1–2) by having very spotted sternites, a different pattern on the tergites and ventral surface of the metasoma, and also stronger pedipalp chelae. It seems to be a different species. In reference to these specimens, Teruel & Seiter (2017: 78) erroneously cited them as topotypes. From Eleuthera, Armas (1981: 7, 15–16, table 2) recorded a male and a subadult of *Centruroides guanensis* Franganillo, 1930, but the specimens illustrated by Teruel & Seiter (2016) do not belong to this species.

2. The Hispaniolan specimens identified as *C. platnicki* by Teruel & Seiter (2016: figs. 2 a–d) have: (i) pedipalp chelae and metasoma segments with the tegument moderately lustrous, whereas in the Bahamian species they are coriaceous, not shiny (Figs. 2A, C). (ii) Female with pedipalp chelae globose, robust (Fig. 2B); in *C. platnicki* it is sub-ovate, moderately slender (Fig. 2A). (iii) Pedipalp fingers short; in *C. platnicki* they are longer (ratio movable finger length/underhand length = 1.5–1.9 in *C. platnicki* and 1.15–1.20 in the Hispaniolan specimens identified as this species).

3. The supposed *C. platnicki* from Hispaniola are larger and most robust than those from Mayaguana Island and the Turks and Caicos Islands. Recently, Sherwood *et al.* (2024: fig. 14) published the photograph of a female *C. platnicki* from Hispaniola, courtesy of

M. Seiter. On April, 06, 2024, in e-mail to this author, M. Seiter kindly provided the precise locality of this specimen: Hato del Medio Arriba (N19°41,584'; W71°18,2065'; 66 m a.s.l.), Monte Cristi Province, Dominican Republic; he also added that it corresponds to the specimen illustrated by Teruel & Seiter (2016: fig. 2c). When compared with the female from Salt Cay (Figs. 2 A–D), the differences are very obvious and reinforce the criterion that they are two different species.

In the examined specimens from Salt Cay, the metasomal segments II–IV have four pairs of ventral lateral macrochaetae, a character previously not described for *C. platnicki* and shared with *C. nitidus* and *C. lucidus* Teruel, Armas & Kovařík, 2015, both species from Hispaniola.

In conclusion: (1) *C. platnicki* is not present in Hispaniola and must be suppressed from the list of its scorpion fauna. (2) This species is restricted to Bahamas and Turks and Caicos Islands. (3) The population from Eleuthera Island that resembles *C. platnicki* seems to be a new species. (4) The taxonomic identity of the Hispaniolan population previously identified as *C. platnicki* is pending of future studies.

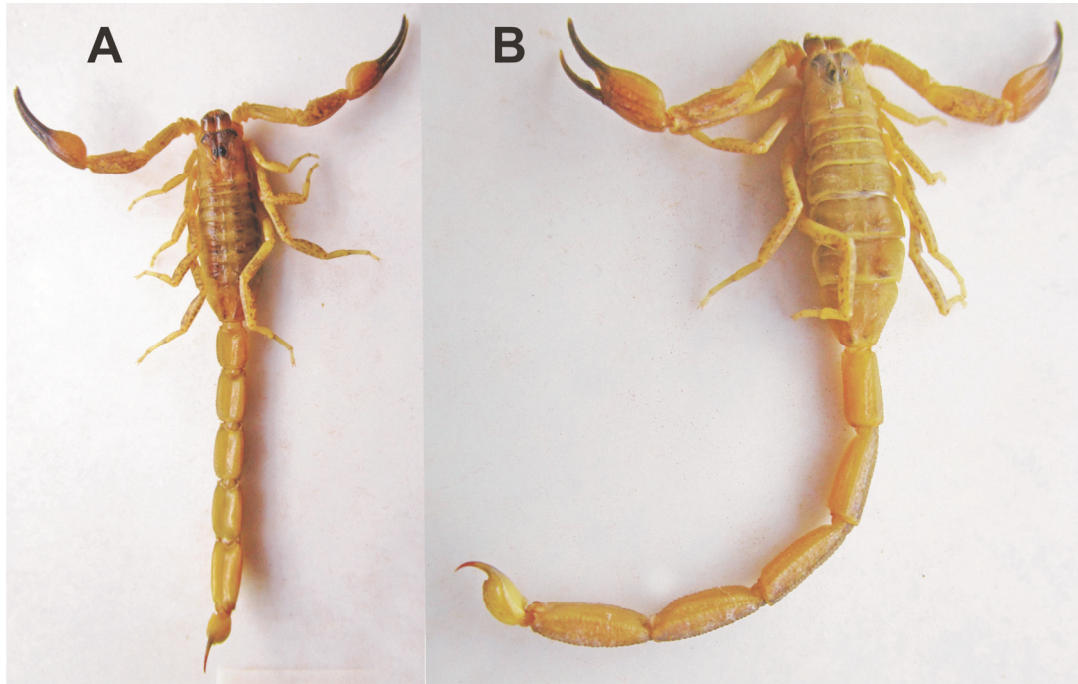
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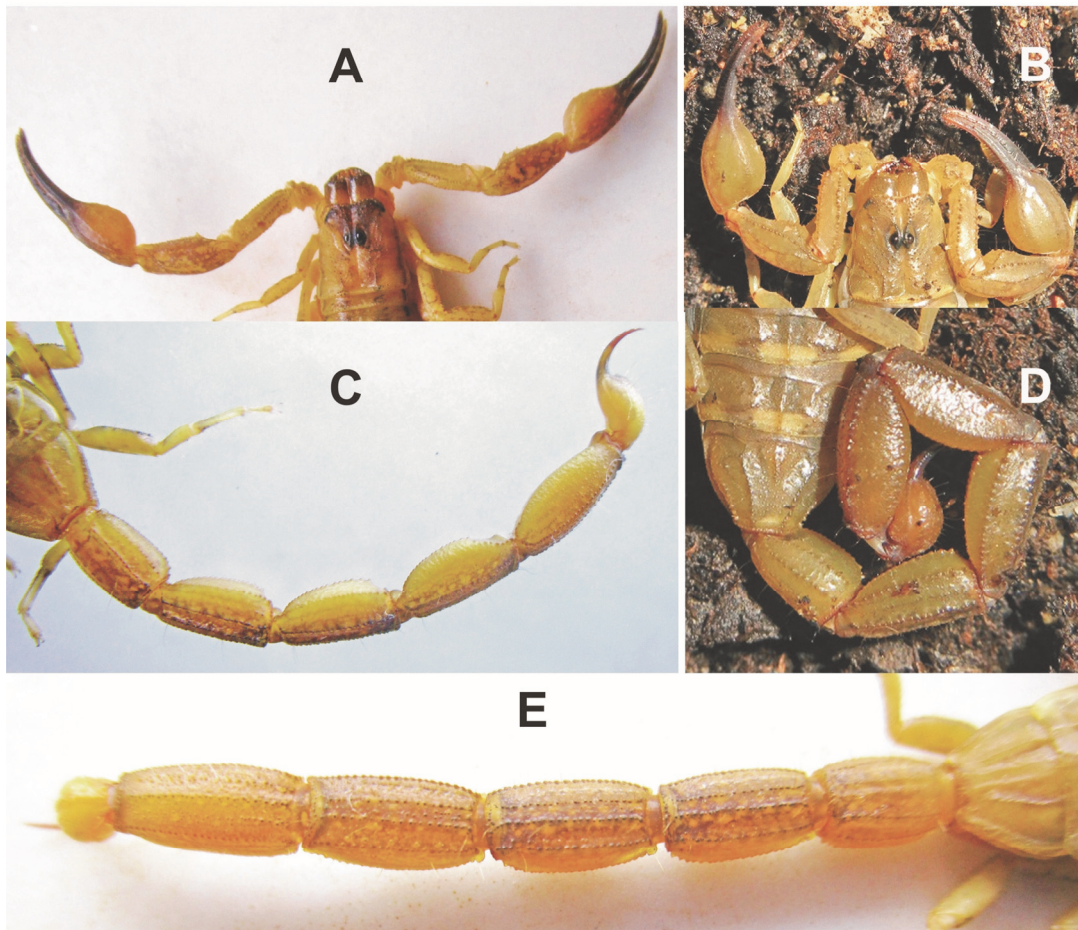
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Fig. 1. *Centruroides platnicki*. Female (A) and male (B) from Salt Cay, Turks and Caicos Islands. Dorsal habitus. Total length (in mm): female, 46.15; male, 49.65 (after Armas, 1981: table I).

Fig. 2. A, C, E, *Centruroides platnicki* female (from Salt Cay, Turks Islands); B, D, *Centruroides* aff. *nitidus* (from Hato del Medio, Monte Cristi, Dominican Republic). A-B, carapace and pedipalp, dorsal view; C-D, metasoma, lateral view. E, metasomal segments I-IV showing ventral pattern. Photograph B and C, have been modified from Sherwood *et al.* (2024: fig. 14).