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Source: Florida Entomologist, 93(4) : 567-570

Published By: Florida Entomological Society

URL: https://doi.org/10.1653/024.093.0414

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PTINUS HISPANIOLAENSIS, A NEW SPECIES OF SPIDER BEETLE (COLEOPTERA: PTINIDAE) FROM HISPANIOLA

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ABSTRACT

A new species of *Ptinus*, collected in the Dominican Republic, is described and compared to the known West Indian fauna. The species is distinguished by the pronotum with 2 lateral spines and dorsally with 2 loose setal tufts medially on rounded protuberances, and an elytral setal pattern approximately in a triangular or heart-shaped outline. A checklist of the known West Indies Ptinidae (excluding the Anobiidae) is given.

Key Words: West Indies, Dominican Republic, *Ptinus*, *Gynopterus*

RESUMEN

Se describe una nueva especie de *Ptinus* colectada en la República Dominicana y se compara con la fauna conocida de las Antillas. La especie se caracteriza por tener dos espinas laterales en el pronoto, dos penachos de setas sobre protuberancias redondeadas ubicadas medialmente en el pronoto, y las sedas de los élitros con un diseño semi-triangular o acorazonado. Se presenta una lista de las especies de Ptnidae (excepto Anobiidae) de las Antillas.

Translation provided by the authors.

The first record of a spider beetle in the West Indies began with the description of *Ptinus niveicollis* by Boieldieu (1856). Studies documenting the spider beetle fauna continued at a very slow pace in the late 19th century and into the early 20th century with the discovery of three more species of *Ptinus* (Gorham 1898; Fall 1905; Pic 1906). The most recent documentation was the description of *P. espanyoli* from Jamaica (Bellés 1997). Wolcott (1948) also documented a species endemic to Puerto Rico but did not describe it. There are 4 additional but still undescribed species we are aware of in the *P. strangulatus* group with 2 from the Bahamas, and 1 each from Cuba and Puerto Rico, with the last record most likely the species reported by Wolcott.

The native other species are placed within 3 genera: *Fabrasia cubana* (Zayas) is known from Cuba; *Lachnoniptus lindae* Philips reported from the British Virgin Islands; and 2 species of *Pitnus* are recorded from most of the West Indies (Zayas 1988; Philips 1997, 1998; Bellés 1992). The West Indies still likely holds many more unknown taxa, but we take the opportunity at this time to describe 1 additional spider beetle species from the Dominican Republic.

Note at this time we are considering the Ptinidae or spider beetles in the strict sense, i.e., excluding the Anobiidae. This is due to the unsettled nature of the classification and the preliminary molecular data conflicting with the morphological (Philips 2000; McKenna & Ferrell 2009)

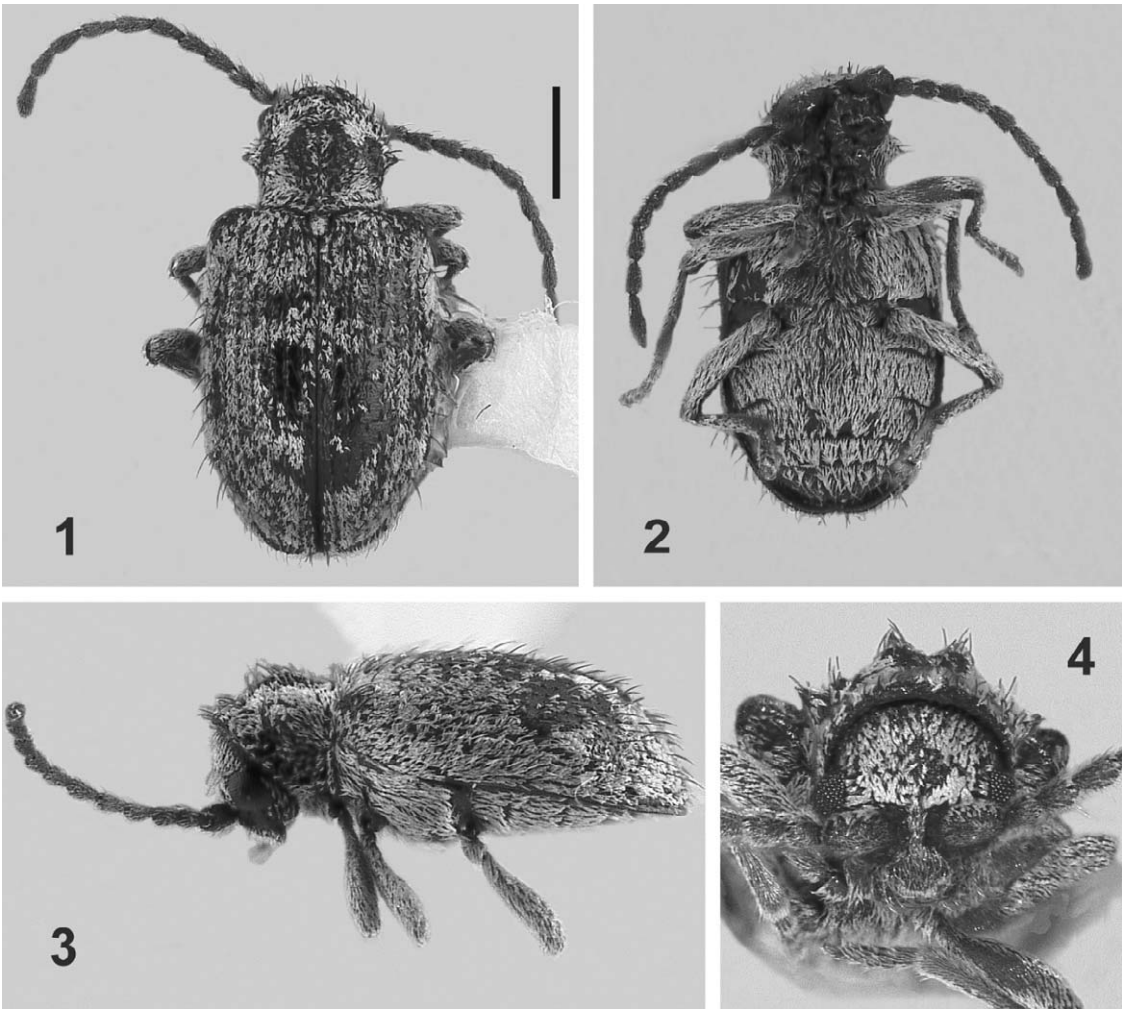
Ptinus hispaniolaensis **New Species,** Figs. 1-4

Diagnosis

The new species from the Dominican Republic (Fig. 5) is distinguishable from all other spider beetles in the West Indies by a pronotum with 2 lateral spines and a medially expanded or swollen area covered with 2 loose setal tufts on either side of midline. Further, a moderately dense covering of recumbent gold and white setae on the body surface is notable. The elytra also have a mix of white and gold colored setae, with the white setae forming a vague triangular or heart-shaped outline pattern at the middle of the elytra. The only other similar shaped species of *Ptinus* in the Dominican Republic is *P. niveicollis* Boieldieu that, in contrast, has 2 very distinct and obvious large white setal tufts medially on the pronotum that strongly project vertically as well as setal tufts on the elytra dark brown to gold in color.

The body shape is elongate compared to the distinctly rounded bodies of *Pitnus* (*Pitnus huesanus* Fisher and *Pitnus antillanus* Bellés) and *Lachnoniptus lindae* Philips. Moreover, *Pitnus* species are typically around 1 mm and very dark in color. *Lachnoniptus* is about the same size or larger but densely covered woolly tan brown setae. Lastly, *Fabrasia cubana* is an odd shaped myrmecophile known only from Cuba that has

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Figs. 1-4. *Ptinus hispaniolaensis* **New Species**, 1. Dorsal habitus; 2. Ventral habitus; 3. Lateral habitus; 4. Close up of front of head. Note the characteristic pronotal peaks and spines. Scale bar = 0.5 mm.

swollen hind femora that possess obvious trichomes distally, and elytra medially constricted and with acute apices.

Description, Length. 1.59-1.77 mm (average 1.71 ± 0.07mm).

Head

Dark red with dark brown tints, covered with dense, thick setae, majority of setae gold in color with few white setae, setae acutely erect; surface finely granulate; eyes large, protruding, slightly cone-shaped; narrow ridge between antennal fossae with thin, flat golden setae; antennae 11 segmented with scattered thin, flattened setae, ultimate segment with tip narrowly rounded, proximal antennomeres broad, becoming elongate and narrow; clypeus triangular shaped, covered with very thin, flattened setae; labrum small, triangular; maxillary and labial palps with apical segment elongate, tapered to a point; mentum triangular shaped with distinct "U" shaped groove containing a small pit at apex of each arm.

Pronotum

Widest around middle, covered with moderately dense short recumbent scale-like setae, largely obscuring surface, each seta with a split longitudinally at apex, white setae dominating laterally, gold setae dominating dorsally; 2 acute spiny projections located laterally, with white and some scattered golden setae, similar but slightly

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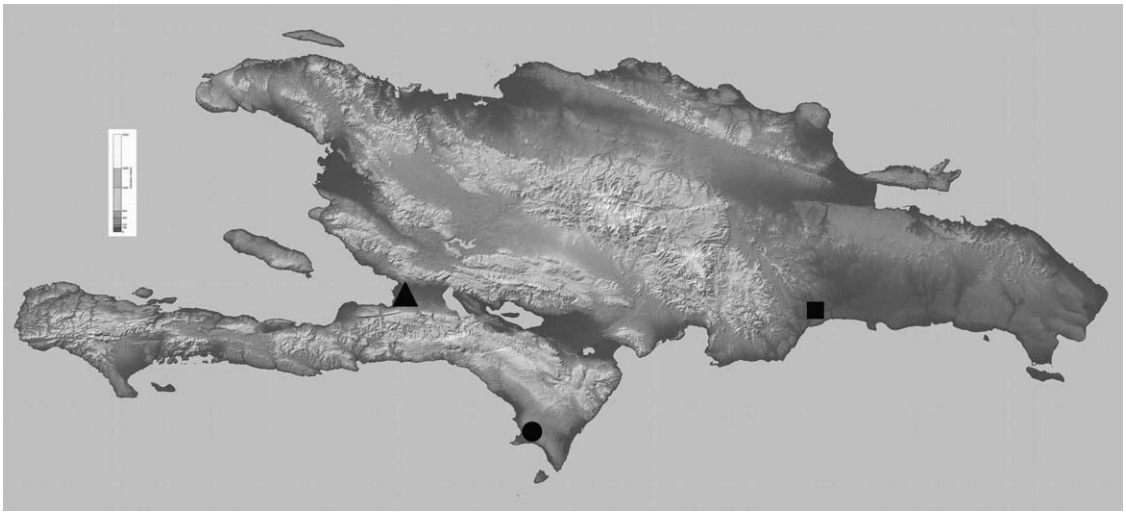


Fig. 5. Distribution map for *Ptinus hispaniolaensis,* **New Species**. Dot shows the known distribution of *Ptinus hispaniolaensis* (Cabo Rojo, Pedernales). Triangle = Port-au-Prince and square = Santo Domingo for reference.

smaller projections on either side of middle, mainly with golden setae; longer erect or suberect dark brown setae arising basally from tubercles located on acute projections and along anterior margin; a second widely spaced aligned row of setae slightly posterior to anterior margin.

Elytra

Scattered with patches of white and gold setae similar to that on pronotum, base and apical 2/5 mostly with gold setae, sides covered mostly with white setae; broad triangular or heart-shaped irregular outline of white setae medially, outline interrupted at suture; slightly longer, recumbent tan colored setae projecting from each puncture, some setae occasionally split at the tip; much longer, thin, suberect dark brown setae occurring in longitudinal rows between punctures; apical margin at suture slightly emarginate; scutellum with small patch of white to yellowish white setae.

Ventral Surface

Ventral surfaces largely obscured by dense, recumbent white to yellowish white setae similar to that dorsally but smaller in length; pro- and mesoventrites surface more exposed; first and second abdominal ventral sutures obsolete at middle for ½ and 3/5 of their length, fourth and fifth ventrals also with erect yellowish white setae at and near posterior margin; metaepisternum covered in dense, recumbent setae obscuring surface.

Legs

The legs are covered in a mixture of white to yellowish white setae; pro- and mesocoxae with scattered setae, metacoxae largely lacking setae, exposing finely granulate surface; femorae and tibiae gradually increasing in width towards apex; tarsus relatively stout, approximately ⅔ to ¾ the length of the respective tibia.

Label Data

Holotype and 4 paratypes with identical data. First label is as follows: REP. DOM: Pedernales, Prov. Sierra Baoruco, 31 km N. Cabo Rojo, 2500' XII-29-1986, Doyen & Santiago; REP. DOM Pedernales, Prov Sierra Baoruco, 31 km N. Cabo Rojo, 2500' XIII-30-1986, Doyen & Blay. Second label: Broad leaf, mesophyll, association, (Beating vegetation). Types deposited in UCBC and TKPC.

Remarks

This species belongs to the *Ptinus* subgenus *Gynopterus* based on the morphological characteristics of 2 spines protruding laterally from the pronotum and lack of (or slight) sexual dimorphism externally. This species may be restricted to broad-leaf mesophyll forest remnants in the Sierra Baoruco region of the Dominican Republic (Fig. 5), assuming that any adjacent forest once present within Haiti is now gone.

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CHECKLIST OF THE EXTANT WEST INDIES AND BAHAMIAN PTINIDAE, *SENSU STRICTO*

1. *Fabrasia cubana* (Zayas) 1988 . . . . . Cuba
2. *Lachnoniptus lindae* Philips 1998 . . . . . British Virgin Islands
3. *Pitnus antillanus* Bellés 1992 . . . . . Puerto Rico
4. *Pitnus huesanus* Fisher 1919 . . . . . Bahamas, Cuba
5. *Ptinus dufaui* Pic 1906 . . . . . Antigua
6. *Ptinus espanyoli* Bellés 1997 . . . . . Jamaica
7. *Ptinus niveicollis* Boieldieu 1856 . . . . . Cuba, Dominican Republic
8. *Ptinus strangulatus* Fall 1905 . . . . . Bahamas
9. *Ptinus tesellatus* Gorham 1898 . . . . . Grenada
10. *Ptinus* #1 Smiley and Philips . . . . . Bahamas
11. *Ptinus* #2 Smiley and Philips . . . . . Bahamas
12. *Ptinus* #3 Smiley and Philips . . . . . Cuba
13. *Ptinus* #4 Smiley and Philips . . . . . Puerto Rico
14. *Ptinus hispaniolaensis* Philips and Smiley . . . . . Dominican Republic

ACKNOWLEDGMENTS

Our gratitude to Cheryl Barr, Essig Museum of Entomology, University of California, Berkeley, for loan of specimens and to Jesus Orozco (University of Nebraska, Lincoln) for translation of the English abstract and for suggestions for the map source.

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