Ptinus hispaniolaensis, a New Species of Spider Beetle (Coleoptera: Ptinidae) from Hispaniola

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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 Ptinus 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)
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

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.
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 1/2 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 obscurting surface.

Legs
The legs are covered in a mixture of white to yellowish white setae; pro- and mesoxae with scattered setae, metaxae largely lacking setae, exposing finely granulate surface; femora and tibiae gradually increasing in width towards apex; tarsus relatively stout, approximately 2/3 to 3/4 the length of the respective tibia.

Label Data

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.

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.
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. Pitinus antillanus Bellés 1992 ........................ Puerto Rico
4. Pitinus huseanus Fisher 1919 .......................... Bahamas, Cuba
5. Pitinus dufaui Pic 1906 .......................... Antigua
6. Pitinus espanyoli Bellés 1997 .......................... Jamaica
7. Pitinus niveicollis Boieldieu 1856 .......................... Cuba, Dominican Republic
8. Pitinus strangulatus Fall 1905 .......................... Bahamas
9. Pitinus tesellatus Gorham 1898 .......................... Grenada
10. Pitinus #1 Smiley and Philips .......................... Bahamas
11. Pitinus #2 Smiley and Philips .......................... Bahamas
12. Pitinus #3 Smiley and Philips .......................... Cuba
13. Pitinus #4 Smiley and Philips .......................... Puerto Rico
14. Pitinus hispaniolaensis Philips and Smiley .......................... Dominican Republic

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