

Plusiotis ericsmithi (Coleoptera: Scarabaeidae): a new metallic species from eastern Guatemala

José Monzón Sierra

and

Enio B. Cano

Laboratorio de Entomología Sistemática
Universidad del Valle de Guatemala
Apartado postal 82. 01901, Guatemala
Guatemala, C. A.

Resumen. Se describe *Plusiotis ericsmithi* sp. nov. de un bosque nuboso de baja altitud (1100 msnm) en la Sierra del Merendón, Guatemala, cerca de la frontera con Honduras. Además, se incluyen ilustraciones de los genitales masculinos y femeninos.

Abstract. *Plusiotis ericsmithii* n. sp. is described from a low altitude cloud forest (1100 m) in the Guatemalan Merendón mountain chain near the Honduran border. Male and female genitalia are illustrated.

Introduction

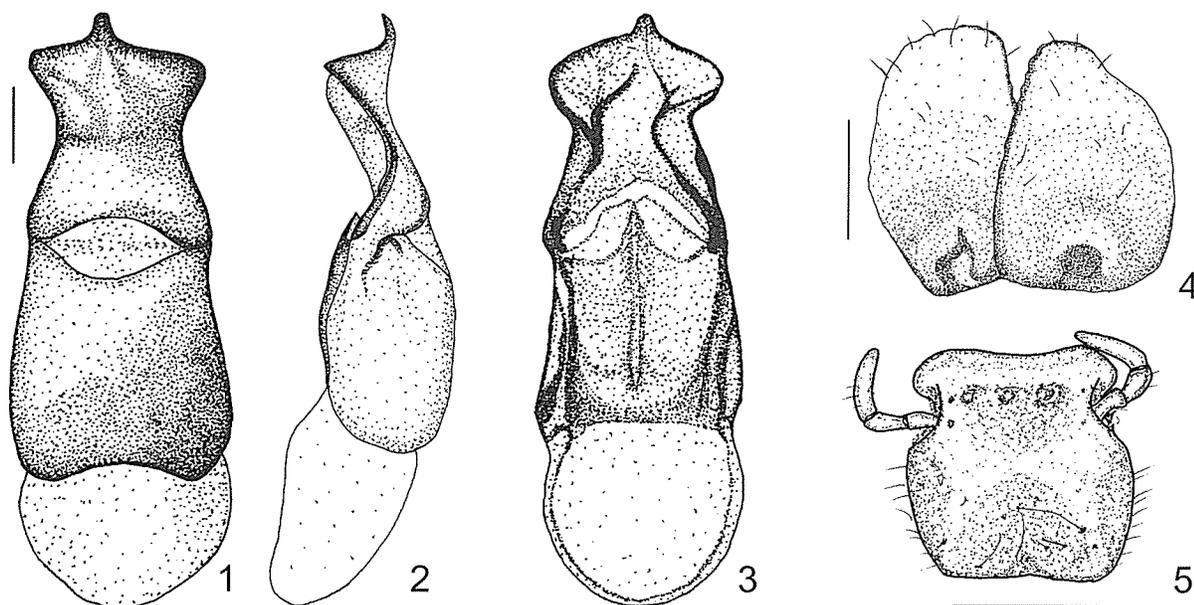
A collecting trip in late may 1996 by J. Monzón and longhorn collector Edmund F. Giesbert to a poorly known low altitude cloud forest in eastern Guatemala near the Honduran border, the Sierra del Merendón, provided a female metallic *Plusiotis* specimen. We thought it was a specimen of *Plusiotis pastori* Curoe, recently described from Honduras (Curoe 1994), but it didn't match well with the description. Later the same year, in July, the same place provided 2 more specimens, this time males. The male genitalia of these indicated that they belonged to an undescribed species. This new species, along with *P. strasseni* Ohaus and *P. pastori* Curoe (which possibly occurs in Guatemala also), marks the northernmost range for metallic *Plusiotis*.

***Plusiotis ericsmithi* Monzón and Cano
new species
(Figures 1-5)**

Type material. Holotype male, allotype female, and 14 paratypes (8 males and 6 females) labeled: "GUATEMALA, Izabal, 20 km southwest of Morales, cerca Negro Norte, 1100 m, 18 VII 1996, J. Monzón y A. C. Bailey coll." (holotype and one paratype); same data except "20 V 1996, J. Monzón y E. Giesbert coll." (allotype); same data except "27 VI 1998, J. Monzón, E. Cano coll., 16318120 E., 1700831 N. UTM" (13 paratypes). Holotype deposited in the Arthropod col-

lection of the Universidad del Valle de Guatemala (UVG). Allotype and paratypes deposited in collections of Universidad del Valle de Guatemala; Florida State Collection of Arthropods; M. A. Morón (Xalapa, México); University of Nebraska State Museum, and the private collections of D. C. Hawks and J. Monzón.

Description: Holotype male. Length 22.5 mm; width at elytral humeri 11.0 mm; maximum width (middle of elytra) 12.0 mm. Dorsal surface brilliant and polished metallic silver, clypeus rosy brown, with posterior one third silver only at the middle; pygidium, epipleuron, dorsum of antennal scape and venter iridescent golden brown with green reflections; legs rosy brown, tarsi silver with greenish malachite cast. Head weakly convex, frons very finely and sparsely punctate, punctures shallow, becoming denser and deeper along free clypeal margins; clypeus parabolic and apically reflexed; dorsal interocular width wider than antennal club (1.66:1). Pronotum polished with sparse micropunctures visible only at high magnification; 5.0 mm x 9.0 mm widest at posterior angles, with marginal bead well indicated but obsolete near middle of anterior and posterior margins; anterior angles acute; posterior angles slightly obtuse; lateral margins angulate about middle. Metasternum sides with well impressed ring-like punctures, each with a white, long and erect seta; punctation weaker towards disc. Elytra 15.0 mm long; striae weakly impressed, 3 medial somewhat obvious, marked by small and sparse punctures visible only at high magnification; sutural striae almost not visible; apical umbone



Figures 1-5. *Plusiotis ericsmithii* new species. (1-3) parameres in dorsal, lateral and ventral views, respectively; (4) female genitalia, caudal view; (5) labium. Lines equal one millimeter.

oblique in dorsal view, slightly conical, posteriorly, not very prominent. Pygidium shagreened with punctation very dense and finely rugose (giving it a scaly appearance towards the lateral margins) with sparse fine setae, subapically convex and prominent towards its apex. Abdominal segments II-IV with abundant laterally scaled striae; sparse whitish setae along posterior margin. Legs with protibiae clearly tridentate. Genitalia asymmetrical, with parameres fused (fig. 1-3).

Allotype female. Length 21.5 mm; width at humeri 11.0 mm; maximum width 12.0 mm. Similar to holotype except: pygidium less convex; anterior tarsi less robust; genital plates as in figure 4.

Variation. Males: Length 22.0-22.5 mm; width at elytral humeri 10.5-11.0 mm; maximum width 11.5-12.0 mm. Coloration similar to holotype with only the amount of pink varying slightly in intensity in the pygidium and venter.

Females: Length 21.5-25.0 mm; width at elytral humeri 10.5-12.0 mm; maximum width 11.5-12.5 mm. Coloration similar to allotype.

Etymology. We are proud to name this unusual species after Eric Nelson Smith, in honor of his dedication to studying the Guatemalan herpetofauna and his contributions to the Arthropod Collection at the Universidad del Valle de Guatemala.

Diagnosis. Dorsal (except pygidium) color brilliant and polished metallic silver; ventral ground color pale reddish-brown, iridescent; pygidium iridescent golden green and coarsely rugose; mesometasternal projection long and brilliant silver. *Plusiotis ericsmithii* can be easily distinguished from *Plusiotis strasseni* Ohaus (which occurs commonly in the same place) by its non-metallic venter and pygidium, and from *Plusiotis pastori* by its more polished and not greenish dorsal surface and different male genitalia.

Relationship. This species is very similar to *P. pastori*. They both share a somewhat similar male and female genital structure, as well as ventral and pygidial coloration. This species is also similar to *P. optima* Bates and *P. batesi* Boucard (Curoe 1994).

Remarks. The type series was collected in a low altitude cloud forest, which is especially diverse in Rutelinae. We found flying at the same time the following Pelidnotina and Heterosternina: *Plusiotis strasseni*, *P. luteomarginata* Ohaus, *Chrysina karschi* Nonfried, *Heterosternus buprestoides* Dupont and *Macropoidelimmus mniszehi* (Sallé).

Acknowledgments

We would like to thank the late Edmund Giesbert, A. C. Bailey, K. Castañeda, and E. N. Smith for assistance collecting the type series. Special thanks to

Ing. Carlos Meanny and Marlenne Hage for facilitating permits to collect at the type locality and to Dr. J. C. Schuster for reviewing the manuscript.

CONAP provided the collecting permits. Financial support was provided by the Fondo Nacional de Ciencia y Tecnología de Guatemala (FONACYT) as part of the Cloud Forest Priority project (proyecto# 3, CONCYT).

Literature Cited

- Curoe D. J.** 1994. Two new *Plusiotis* Burmeister from Honduras (Coleoptera, Scarabaeidae). *Giornale Italiano di Entomologia*, 7:35-39.