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Josef Vlasak
Schwenksville, PA, josef_vlasak@merck.com

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Josef Vlasak
207 Silverbrook Drive
Schwenksville, PA 19473, U.S.A.

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A new species of *Paradiscopus* Schwarzer (Coleoptera: Cerambycidae: Lamiinae: Acanthoderini) from Costa Rica

Josef Vlasak
207 Silverbrook Drive
Schwenksville, PA 19473, U.S.A.
josef_vlasak@merck.com

Abstract. *Paradiscopus monteverdensis* Vlasak, **new species** (Coleoptera: Cerambycidae) is described from Costa Rica. The new species is illustrated and a key is provided to *Paradiscopus* species.

Resumen. *Paradiscopus monteverdensis* Vlasak, **especie nueva** (Coleoptera: Cerambycidae) se describe de Costa Rica. La especie nueva se ilustran y una clave para las especies de *Paradiscopus* se proporciona.

Key Words. Neotropical, long-horned beetles, species description, taxonomy, key to species, color illustrations.

Palabras claves. Neotropical, descripción de la especie, taxonomía, clave para las especies, ilustraciones a color.

Introduction

Paradiscopus Schwarzer (1930) is a monotypic genus (Bezark 2015) containing *P. maculatus* Schwarzer (1930) described from Turrialba, Costa Rica. A new *Paradiscopus*, collected by the author in the Monteverde area of Costa Rica in 2013 and 2015, is described herein as the second species belonging to the genus.

This species has been collected before at the same locality by Jim Wappes (ACMT), E. F. Giesbert and F. T. Hovore but the species description has never been published. An entry for *Paradiscopus monteverdensis* in the database of the Florida State Collection of Arthropods (FSCA, http://www.fsca-dpi.org/Coleoptera/Mike/FloridaCerambycids/Lamiinae.htm) presumably represents this species from the E. F. Giesbert collection with an F. T. Hovore manuscript name (J. E. Wappes, personal communication). The FSCA specimens, however, could not be located and are apparently lost. Additionally, it is known that Frank Hovore had specimens of his own (J. E. Wappes, personal communication), which could not be located either. As a result the description presented here is based on the newly collected specimens as well as on a specimen collected by Jim Wappes in 1981.

Materials and Methods

The following institutions or collections either provided material for this study or serve as the repository for the primary types:

ACMT – American Coleoptera Museum (James Wappes), San Antonio, Texas, USA
FSCA – Florida State Collection of Arthropods, Gainesville, Florida, USA
JVPC – Josef Vlasak personal collection, Schwenksville, Pennsylvania, USA

Images were taken with a Canon EOS Rebel T5i DSLR/Canon EF 100mm f/2.8 macro USM lens using daylight as the primary light source assisted by a Canon MR-14EX II Macro Ring Lite flash to soften the shadows. A scale bar photographed with the specimens was used to derive measurements in Adobe Photoshop Elements 10. Specimen label data is reproduced verbatim as it appears on the labels with individual lines separated by a single slash (/).

***Paradiscopus monteverdensis* Vlasak, sp. nov.**
(Fig. 1–4)

Diagnosis. *Paradiscopus monteverdensis* (Fig. 1) is readily distinguished from *P. maculatus* (Fig. 5) by the different pattern of elytral coloration, the medially converging pronotal vittae, and the setal brush of the third antennomere occupying only the apical third (in *P. maculatus* pronotal vitae run parallel along their entire length and the setal brush covers entire length of the third antennomere). Additionally, in *P. monteverdensis*, the sides of the scutellum are lined with sparse yellow pubescence whereas in *P. maculatus* the scutellum is entirely clothed with dense yellow pubescence and the pronotum is more transverse in *P. monteverdensis* than in *P. maculatus*. The white annulation of antennomere IV also differs – in *P. monteverdensis,* the entire basal half of the segment is covered with white pubescence, whereas in *P. maculatus* it is annulate only at the middle. In both species the annulation is entire only on the ventral surface and interrupted dorsally. Similar white annulation is present on segment III in *P. monteverdensis* (although more interrupted dorsally) but absent in *P. maculatus*.

Description. Female. Form moderate-sized, subparallel, tapering apically. Integument brown with short, dark appressed pubescence and a distinctive pattern of yellow coloration.

Head. (Fig. 4) Frons convex, transverse, with two anteriorly converging yellow vittae running from medial side of lower eye lobe to fronto-clypeal margin. Yellow pubescence bordering lower eye lobe, ending before the lower front corner, not reaching the yellow fronto-clypeal vitta. Vertex convex with two anteriorly converging yellow vittae partially bordering upper eye lobe. Eyes small, emarginate, finely faceted, lower eye lobe subquadrate. Gena subquadrate, slightly longer than lower eye lobe. **Antennae** (Fig. 1-3) extending about three segments beyond elytral apex, scape clavate, segment III about 1.5 times the length of scape, slightly longer than segment IV; segment III bearing a stiff brush of long erect black hair on the ventral side of the apical third, less extensive brush on segment IV; basal, brushless portions of segments III and IV ciliate, covered with white pubescence extending dorsally at the base and middle of the segment, dorsal region between the white annulae covered with black pubescence; this region longer in segment III than in segment IV; segment V about half the length of segment IV; segments V–XI each slightly shorter than the preceding segment, covered with black pubescence, white annulate at bases, with several dark erect setae on the ventral side at the apical end of each segment.

Thorax. Prothorax (Fig. 1 and 2) transverse (slightly wider than long, widest at middle), obtusely tuberculate on sides at middle; prosternal process narrow, about 1/2 the width of procoxal cavity, expanded at apex. Mesosternal process subquadrate, slightly narrower than mesocoxal cavity, not expanded at apex. **Pronotum** covered with short, dark, appressed pubescence, with two feebly developed, obtuse tubercles on the disk; broad yellow vittae on sides, two yellow longitudinal vitae on disc, extending from apical to basal margin, converging and diminishing gradually towards the center of the disc, diverging and expanding apically and basally. Transverse rows of sparse punctures in depressions along apical and basal margin, scattered weak punctures on disc. **Scutellum** subtriangular, obtusely rounded at apex, covered with dark appressed pubescence, with a line of sparse yellow pubescence along the lateral edges.

Elytra (Fig. 1). Length: 1.8 times the basal width, 3.7 times as long as pronotum; disc convex, lacking ridges; humeri broad, sides subparallel, arcuate from apical third; apices obliquely truncate, outer angle slightly more produced. Punctation difficult to discern through pubescence, scattered throughout, more prominent in the basal third. Yellow elytral pattern distinctive with six large irregular maculae on each elytron – basal vittae along the suture about 1.5 times as long as scutellum, connected posteriorly to an irregular spot of similar length but broader, positioned more laterally, mostly not touching suture; a group of three larger irregular maculae on basal half on each elytron, one median and two lateral; two, more or less connected maculae on the apical third of each elytron; borders of the larger maculae irregular, sometimes mottled with small bare spots; in addition to the large maculae each elytron with a row of small, more or less regularly spaced maculae running along the suture from basal 1/3 to near apex and a regular, round macula on elytral apex. Elytral epipleuron with a row of evenly spaced small maculae (Fig. 3).

Abdomen. Ventral sternites covered with dense, appressed, silvery pubescence, longitudinal band of yellow pubescence on metasternum. **Legs.** Trochanters with a single erect hair. Femora stout, moderately clavate, covered with silvery pubescence irregularly interrupted apically, silvery-white annulate at

extreme apex. Tibia dark, white annulate at middle, apical third with a brush of erect black setae, most pronounced on metatibiae. Tarsal segments I and V covered in silvery pubescence, remaining three segments mostly dark; black, erect hairs scattered on all segments.

Dimensions in mm (female) Total length: 10.3–10.5, n=5. Width at elytral base: 3.8–4.0.

Male. As female except protarsi expanded, covered with long black setae; antennae extending about five segments beyond elytral apex; scape and femora slightly more robust.

Dimensions in mm (male) Total length: 9.1–10.0 mm, n=2. Width at elytral base: 3.3–3.5 mm.

Type material: Holotype female from COSTA RICA, Puntarenas prov./ Monteverde area, Apr 2015/ Josef Vlasak, coll. (FSCA); accompanied with a red holotype label. **Allotype:** same data and label structure as holotype (FSCA), accompanied with red allotype label. **Paratypes**: (n = 5) One female with same data and label structure as holotype (JVPC) and three females, also from Costa Rica, with the following label data: Puntarenas prov./ Monteverde area, Dec 2013/ Josef Vlasak, coll. accompanied with yellow paratype labels (FSCA 1, JVPC 2). One male paratype with label data: Costa Rica Punt. Pr. / Monteverde area/ June 4-6, 1980/ J. E. Wappes (ACMT).

Variation. The degree of interruption of the two median longitudinal pronotal vitae varies from being fully connected to lacking in the middle third. Obtuse tubercles on pronotal disc with less developed yellow maculae.

Key to the species of *Paradiscopus*

1. Yellow elytral coloration in scattered patches, median pronotal vittae converging, narrowing and often interrupted at middle; yellow pubescence on scutellum mostly lacking or present only on sides; only apical third of antennal segment III covered by dense brush of setae ..... ***P. monteverdensis*, new species**

— Yellow elytral coloration in longitudinal stripes, median pronotal longitudinal yellow vittae parallel, running for entire length, not converging or narrowing at middle; scutellum entirely clothed with yellow pubescence, setal brush covering entire length of antennal segment III (Fig. 5) .. ***P. maculatus* Schwarzer**

Other material examined. *Paradiscopus maculatus*. Topotype, female, CATIE, Turrialba, Cartago, Costa Rica, E. Giesbert, May 28-31 1987. Topotype, male, CATIE, Turrialba, Cartago, Costa Rica, E. Giesbert/H. Lezama, May 7-10 1996; both deposited in FSCA.

Etymology. The name *monteverdensis* refers to the type locality. It was originally proposed (unpublished) by the late F. T. Hovore who also collected this species in the Monteverde area in Costa Rica.

Biology. Teneral adults were found in pupal cells under bark of larger, somewhat decayed branches.

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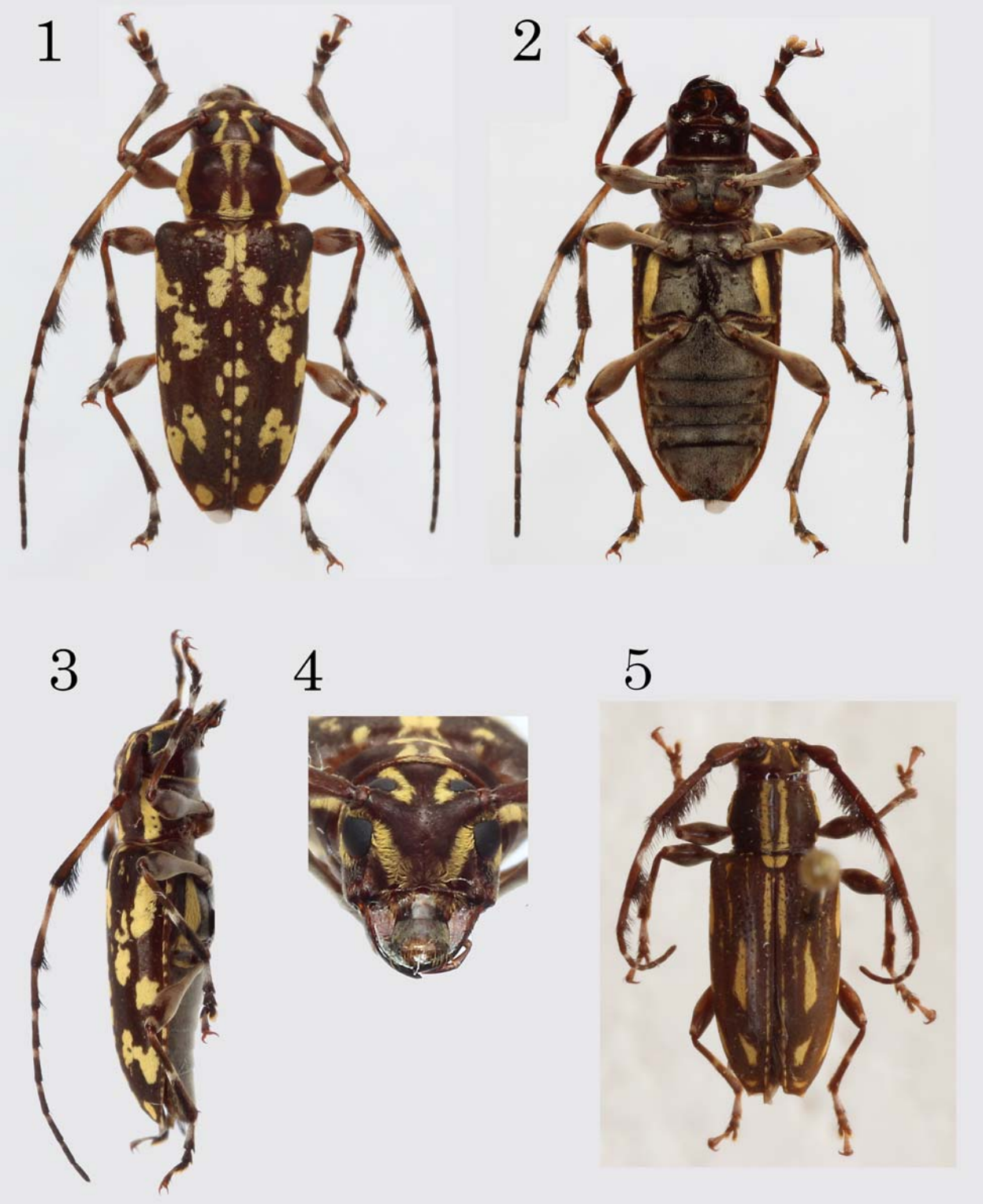

Figure 1-5. Two species of *Paradiscopus*. **1-4)** *Paradiscopus monteverdensis* holotype, female. **1)** Dorsal view. **2)** Ventral view. **3)** Lateral view. **4)** Head. **5)** *Paradiscopus maculatus* topotype, female.