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Two new species of *Heterocerus* FABRICIUS, 1792 from Mexico (Coleoptera: Heteroceridae)

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Abstract

Heterocerus ezeri sp.n. and *H. prepsli* sp.n. (Coleoptera: Heteroceridae) from Mexico are described and illustrated. A checklist of the species of Heteroceridae recorded from Mexico is provided.

Key words: Coleoptera, Heteroceridae, *Heterocerus*, *Tropicus*, taxonomy, new species, Mexico, checklist.

Introduction

To date, 19 species of Heteroceridae were known from Mexico: 15 in the genus *Heterocerus* FABRICIUS, 1792 and four in the genus *Tropicus* PACHECO, 1964 (SKALICKÝ 2018). During the study of specimens belonging to this family of beetles from the collection of Mr. Eduard Ezer (Zlín, Czechia), I was able to identify two species new to science, which are herein described.

Material and methods

Male genitalia were extracted after a brief immersion of the abdomen in a cold solution of potassium hydrate at 10%; the genital pieces were included in a drop of DMHF (Dimethyl Hydantoin Formaldehyde) resin on a card pinned under the specimen. Habitus images were taken with a Nikon stereomicroscope SMZ-1/1B 80x; measurements were taken with the ocular micrometer of the stereomicroscope.

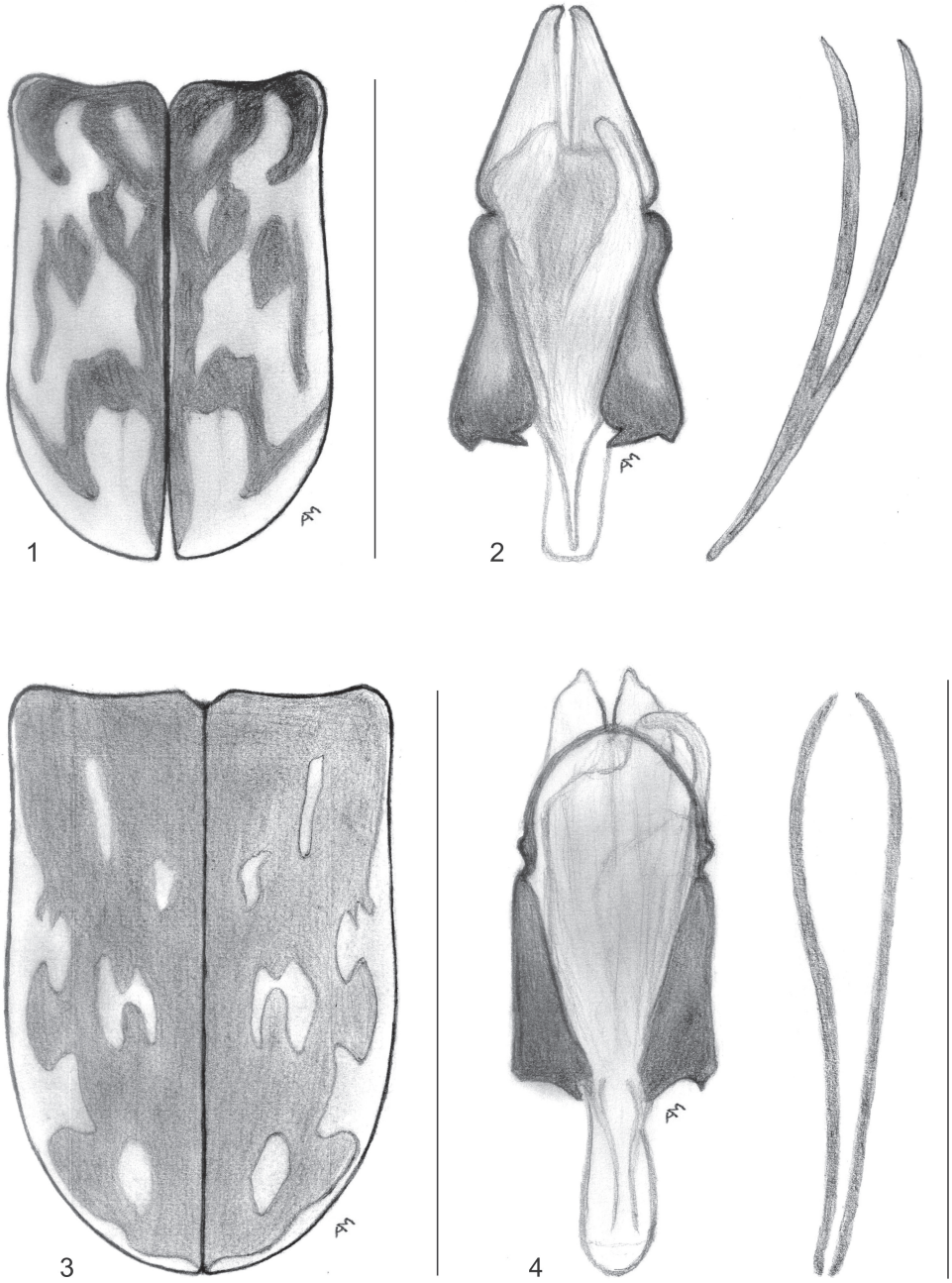
Acronyms:

CEZ Collection Eduard Ezer, Zlín, Czechia
CMS Collection Alessandro Mascagni, Scandicci, Firenze, Italy

Heterocerus ezeri sp.n.

TYPE MATERIAL: **Holotype** ♂ (CEZ): MEXICO, Sonora, 28 km S Navojoa, 8.IX.2012, leg. S. Prepsl. **Paratypes**: 4 ♀♀ (CEZ 3 exs., CMS 1 ex.), same data as holotype.

DESCRIPTION: Holotype ♂: Total length 3.2 mm (to apex of labrum); pronotum 1.2 mm wide; elytra 2.0 mm long, 1.3 mm wide across shoulders. Head dark brown, with dense whitish pubescence, and with longer scattered setae; mandibles large, with acute apex; eyes well developed, antennae with 11 antennomeres, apical seven antennomeres clubbed; clypeus with pair of anterior horns, with dense and short setae, longer especially at sides. Pronotum dark brown, lighter on sides, about as wide as base of elytra, rectangular, densely punctate, posteriorly bordered, with dense whitish pubescence and longer setae laterally. Elytra densely punctate, with dense whitish pubescence, and with scattered longer setae; elytral markings of ochraceous colour, disposed as in Fig. 1. Legs ochre, densely pubescent; tibiae with numerous spines and long setae. Abdomen ochre, lighter at sides, stridulatory arch marked; post-metacoxal line absent. Aedeagus (0.7 mm long) and speculum gastrale (V-shaped) as in Fig. 2.



Figs. 1–2: *Heterocerus ezeri*, holotype; 1) elytral markings; 2) aedeagus and spiculum gastrale. Scales: 2.0 mm (Fig. 1), 0.7 mm (Fig. 2).
Figs. 3–4: *Heterocerus prepsli*, holotype; 3) elytral markings; 4) aedeagus and spiculum gastrale. Scales: 2.3 mm (Fig. 1), 0.9 mm (Fig. 2).

Paratypes ♀♀: Total length 3.2–3.5 mm (to apex of labrum); pronotum 1.1–1.2 mm wide; elytra 2.0–2.2 mm long, 1.2–1.3 mm wide across shoulders. Externally similar to holotype.

ETYMOLOGY: I am glad to dedicate this new taxon to my colleague Eduard Ezer (Zlín, Czechia).

DIFFERENTIAL DIAGNOSIS: *Heterocerus ezeri* is related to the *H. philippensis* group (MASCAGNI & SKALICKÝ 2007) due to the shape of the male genitalia; however, it differs in the disposition of the elytral pattern and the morphology of the aedeagus.

DISTRIBUTION: The new species is at present known only from the type locality.

Heterocerus prepsli sp.n.

TYPE MATERIAL: **Holotype** ♂ (CEZ): MEXICO, Sonora, 28 km S Navojoa, 8.IX.2012, leg. S. Prepsl. **Paratypes**: 1 ♂ (CMS), 1 ♀ (CEZ), same data as holotype.

DESCRIPTION: Holotype ♂: Total length 3.7 mm (to apex of labrum); pronotum 1.3 mm wide; elytra 2.3 mm long, 1.4 mm wide across shoulders. Head dark brown, with dense whitish pubescence and with longer scattered setae; mandibles large, with acute apex; eyes well developed, antennae with 11 antennomeres, apical seven antennomeres clubbed; clypeus with pair of anterior horns, with dense and short setae, longer especially at sides. Pronotum black, less dark at sides, about as wide as base of elytra, rectangular, densely punctate, posteriorly bordered, with dense whitish pubescence and longer setae laterally. Elytra densely punctate, with dense whitish pubescence, and with scattered longer setae; elytral markings of ochraceous colour, disposed as in Fig. 3. Legs ochre, densely pubescent; tibiae with numerous spines and long setae. Abdomen lighter brown at sides, stridulatory arch marked; post-metacoxal line absent. Aedeagus (0.9 mm long) and speculum gastrale (V-shaped) as in Fig. 4.

Paratype ♂: Total length 3.7 mm (to apex of labrum); pronotum 1.3 mm wide; elytra 2.3 mm long, 1.4 mm wide across shoulders. Externally similar to holotype.

Paratype ♀: Total length 4.4 mm (to apex of labrum); pronotum 1.5 mm wide; elytra 2.8 mm long, 1.6 mm wide across shoulders. Externally similar to holotype.

ETYMOLOGY: I am glad to dedicate this new taxon to Stanislav Prepsl (Brno, Czechia), collector of the type series.

DIFFERENTIAL DIAGNOSIS: *Heterocerus prepsli* is probably related to *H. similis* GROUVELLE, 1896 and *H. reticulatus* PACHECO, 1964 because of the shape of the male genitalia; however, it differs in the disposition of the elytral pattern and the morphology of the aedeagus.

DISTRIBUTION: The new species is at present known only from the type locality.

Updated Checklist of the Heteroceridae of Mexico

Heterocerus armatus SHARP, 1882: 117
Heterocerus cognatus SHARP, 1887: 773
Heterocerus crossi MILLER, 1995: 251
Heterocerus evzeni SKALICKÝ, 2018: 1657
Heterocerus ezeri MASCAGNI, 2020: 253
Heterocerus fatuus KIESENWETTER, 1851: 292
Heterocerus gnatho LECONTE, 1863: 74
Heterocerus mexicanus SHARP, 1882: 118
Heterocerus minor MASCAGNI & MONTE, 2010: 160
Heterocerus prepsli MASCAGNI, 2020: 255
Heterocerus sinaloensis PACHECO, 1961: 15
Heterocerus sinuosus (PACHECO, 1964: 46)

Heterocerus stankerus PACHECO, 1963: 6
Heterocerus unicus MILLER, 1988: 314
Heterocerus unituberculosus MILLER, 1995: 249
Heterocerus usingeri PACHECO, 1961: 14
Heterocerus velutinus SHARP, 1887: 773

Tropicus balli SKALICKÝ, 2006: 76
Tropicus bilineatus (CHEVROLAT, 1864: 407)
Tropicus hevelorum SKALICKÝ, 2007: 173
Tropicus pusillus (SAY, 1823: 200)

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References

MASCAGNI, A. & SKALICKÝ, S. 2007: New species and new statuses of Heteroceridae from the Oriental region (Coleoptera). – Folia Heyrovskyana, Series A, 14 (3): 87–94.

SKALICKÝ, S. 2018: *Heterocerus evzeni* nov. sp. from Mexico (Coleoptera, Heteroceridae). – Linzer biologische Beiträge 50 (2): 1657–1660.

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