

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

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## Abstract

*Heterocer* *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, *Heterocer*, *Tropicus*, taxonomy, new species, Mexico, checklist.

## Introduction

To date, 19 species of Heteroceridae were known from Mexico: 15 in the genus *Heterocer* 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

## *Heterocer* *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.

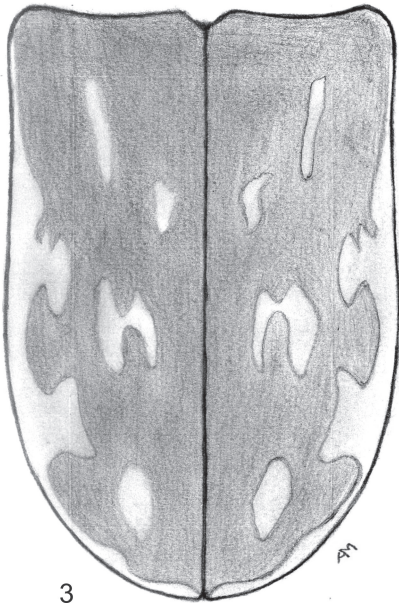
**DESCRIPTION:** Holotype ♂: Total length 3.2 mm (to apex of labrum); pronotum 1.2 mm wide; elytra 2.0 mm long, 1.3 mm wide across shoulders. Head dark brown, with dense whitish pubescence, and with longer scattered setae; mandibles large, with acute apex; eyes well developed, antennae with 11 antennomeres, 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.



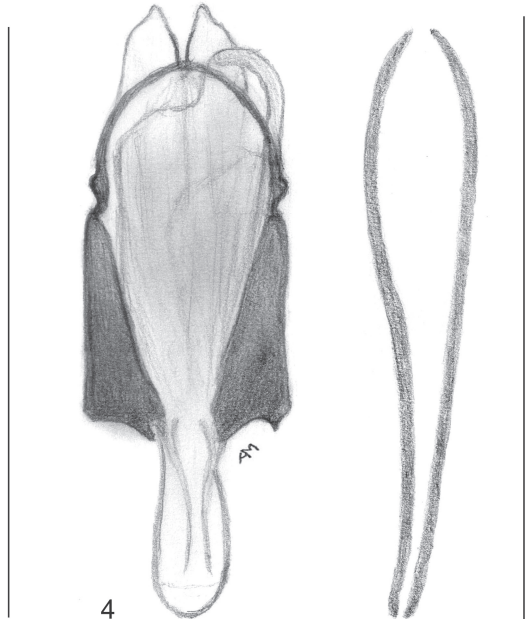
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Figs. 1–2: *Heterocerus ezeri*, holotype; 1) elytral markings; 2) aedeagus and spiculum gastrale. Scales: 2.0 mm (Fig. 1), 0.7 mm (Fig. 2).

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 unituberculosis* 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

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

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