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Two new species of *Cryptophagus* HERBST, 1792 (Coleoptera: Cryptophagidae) from New Mexico (United States of America)

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A b s t r a c t : Two new species of *Cryptophagus* HERBST, 1792 from New Mexico (USA) are described and compared with similar, presumably related species.

K e y w o r d s : Cryptophagidae, *Cryptophagus*, Nearctic Region, USA, New Mexico, new species.

Introduction

WOODROFFE & COOMBS (1961) revised the *Cryptophagus* HERBST, 1792 of North America and stated 40 species from Canada and the USA. BOUSQUET (1989) mentioned 39 species, LESCHEN & SKELLEY (2002) only 29 described species (and one undescribed).

The present paper deals with two species found in the Magdalena Mountains (Socorro Co., New Mexico). Both species are flightless and were found in the high altitude region of the Magdalena Mountains.

Material and methods

The material examined is deposited in the following collections:

MNHM..... Hungarian National History Museum, Budapest

cBU..... Richard J. Buss, Albuquerque (NM), USA

cES..... author's private collection

The morphological studies were conducted using a Euromex DZ 1605 and Eschenbach Kolleg SH 45. Photographs were created with a TouPCam 14MP (TouPCam).

Body length was measured from the head to the apex of the elytra, length of pronotum in the middle, broadness on the broadest part.

Descriptions of new species

Cryptophagus magdalenamontanus nov.sp.

T y p e m a t e r i a l : Holotype ♂: "USA: NM: Socorro Co., S. Mt. Baldy peak, N 33 95.100, W 107 11.165, 3136 m, baited pitfall trap, 14.08.2015, leg. R. J. Buss" [cES].

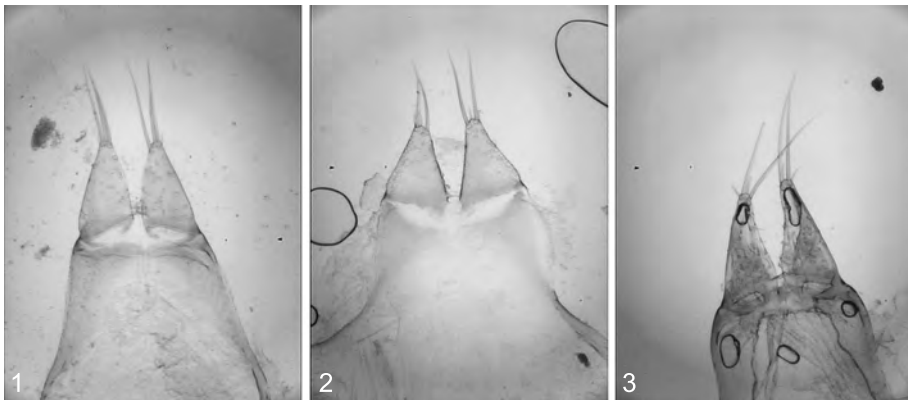
Paratypes: 2♂♂, 1♀ with the same data as the holotype [2♂♂ cBU, 1♀ cES]; 4♂♂, 3♀♀ "USA: NM: Socorro Co.; N33.9849, W107.1861, S. Baldy Peak, pitfall, 21.08.2015, leg. R. J. Buss" [cES, 1♀ cBU]; 1♀ "USA, New Mexico, Socorro Co., Magdalena Mountains, N33°59.100', W107°11.165', forest, pitfall trap, 30.VI.1998, leg. O. Fegyveres" [MNHM].

E t y m o l o g y : Named after the Magdalena Mountains in New Mexico (USA), the type locality.

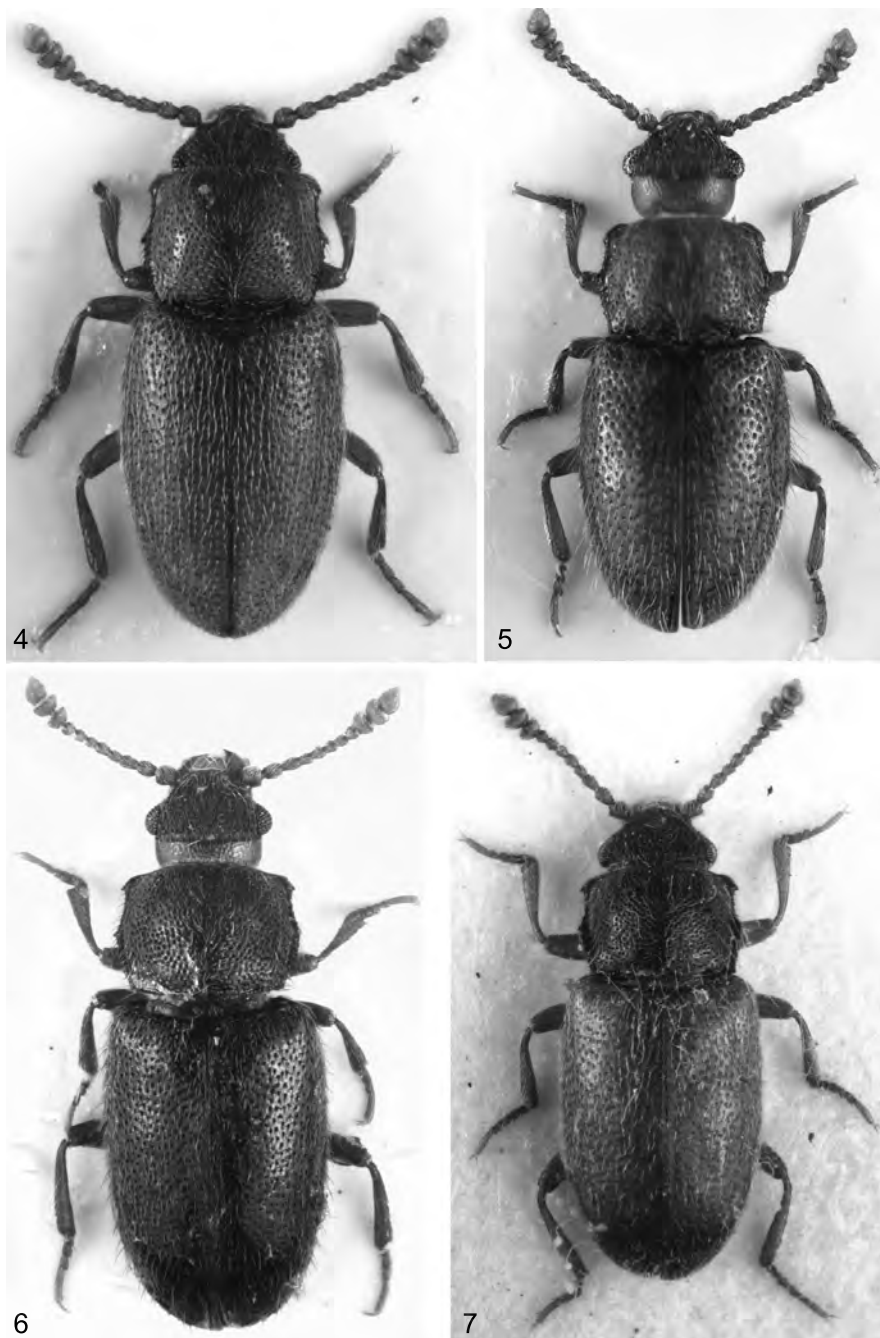
D e s c r i p t i o n : Male, hind wings absent, 2,2 mm. Body oval, convex, elytra broadest in the middle, pronotum 1,5 times wide as long. Pubescence yellow and not very dense, with only erect hairs. Punctuation of the pronotum coarse, distance between the punctures in the middle of the surface like the diameter. Punctuation of the elytra (basal third) like that of the pronotum. Eyes conical, head above the eyes wide as the pronotum between the anterior angles. Antennae rather short, 11-segmented with a 3-segmented club. (fig. 1). Pronotum 1,5 times broader than long, anterior callosity thickened, with a little prominent tooth. Tooth on the margin of the pronotum in the middle, sides behind the tooth straight except slightly concave in front of the posterior angles. Elytra oval, convex, broadest close to the middle, humeral callus absent.

C o m m e n t : Very similar to *Cryptophagus difficilis* CASEY, 1900 and it differs only in the shape of the parameres and its setae (*C. difficilis* (fig. 3): two long setae on the apex, *C. magdalenamontanus* (fig. 2): three long setae on the apex). The widespread *C. difficilis* is in some cases (WOODROFFE & COOMBS 1961) fully winged, but the writer saw only wingless specimens. Similar, but fully winged are *C. descendens* CASEY, 1900, described from Arizona, furthermore recorded from Colorado. Also similar is *C. fumidulus* CASEY, 1900 with wings developed in some cases (California, Utah).

D i s t r i b u t i o n : As far as known restricted on the Magdalena Mountains in New Mexico (fig. 8, 9 and 10). A wider distribution in the mountains ranges of New Mexico is conceivable, also in the neighbouring states, but probably vicarious with *C. difficilis* CASEY, 1900 and *C. descendens* CASEY, 1900.



Figs 1-3: (1) *Cryptophagus magdalenamontanus* nov.sp. holotype, parameres; (2) *Cryptophagus bussi* nov.sp. holotype, parameres; (3) *Cryptophagus difficilis* CASEY, 1900 from Quebec (Canada) – parameres.



Figs 4-7: (4) *Cryptophagus bussi* nov.sp. holotype, male; (5) *C. magdalenamontanus* nov.sp. holotype, male; (6) *C. porrectus* CASEY, 1900; (7) *C. varus* WOODROFFE & COOMBS, 1961.

***Cryptophagus bussi* nov.sp.**

Type material: Holotype ♂: "USA: NM: Socorro Co., South Mt. Baldy, N 33 95.100, W 107 11.165, 3136 m, baited pitfall trap, 14.08.2015, leg. R. J. Buss" [coll. ES].

Paratypes: 2♂♂, 3♀♀ with the same data as the holotype [cES]; 2♂♂, 4♀♀ "USA: NM: Socorro Co.; N33.9849, W107.1861, S. Baldy Peak, pitfall, 21.08.2015, leg. R. J. Buss" [3♀♀ in cES, 2♂♂, 1♀ cBU]; 1♂, "USA, New Mexico, Socorro Co., Magdalena Mountains, N33°59.100', W107°11.165', forest, pitfall trap, 30.VI.1998, leg. O. Fegyveres" [MNHM].

E t y m o l o g y : Named after Richard J. Buss, Albuquerque (USA), who collected the most of the type-specimens.

D e s c r i p t i o n : Male, hind wings absent, 2,2 mm. Body elongate, elytra broadest in the middle, pronotum 1,4 times broader than long. Pubescence light and fine, only with procumbent hairs. Punctuation of the pronotum relatively fine, distance between the punctures in the middle of the surface like the diameter. Punctuation of the elytra (basal third) like that of the pronotum. Eyes small but convex, head above the eyes wide as the pronotum between the anterior angles. Antennae slender, 11-segmented with a 3-segmented club (fig. 4). Pronotum 1,4 times broader than long, anterior callosity thickened, with a prominent tooth. Tooth on the margin of the pronotum in the middle, sides behind the tooth convex, in front of it strong concave. Elytra elongate oval, widest in the middle, humeral callus absent.

C o m m e n t : Quite characteristic wingless species. The shape of the pronotum resembles *C. porrectus* CASEY, 1900 (fig. 6) and *C. varus* WOODROFFE & COOMBS, 1961 (fig. 7), but both are fully winged. *C. porrectus* was found together with *C. bussi* in the same pitfall-traps. *C. porrectus* has a wide distribution throughout the USA.



Fig. 8: Landscape near South Baldy peak in the Magdalena Mountains (New Mexico) with *Pseudotsuga menziesii* var. *glauca* (MAYR) FRANCO (photo: R. J. Buss).

Distribution: As far as known restricted on the Magdalena Mountains in New Mexico (fig. 8, 9 and 10). A wider distribution in the mountains ranges of New Mexico is conceivable, also in the neighbouring states.



Fig. 9: Type locality (photo: R. J. Buss).

Acknowledgement

I wish to thank Richard J. Buss (Albuquerque, NM, USA) for the donation of specimens and supporting my work in a very kind way.

Zusammenfassung

Zwei Arten der Gattung *Cryptophagus* HERBST, 1792 aus New Mexico (USA) werden beschrieben und mit ähnlichen, vermutlich verwandten Arten verglichen.

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