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**New *Cryptophagus* HERBST, 1792 (Coleoptera: Cryptophagidae)
from Arizona (United States of America)**

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A b s t r a c t : Three new species of *Cryptophagus* HERBST, 1792 (Cryptophagidae) from Arizona (USA) are described.

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

Introduction

In the United States the fauna of Cryptophagidae is poorly known except the revision of *Cryptophagus* HERBST, 1792 (WOORDROFFE & COOMBS 1961). The writer examined specimens of several collections in the US. One of the specimens described below was stated as possibly new by WOODROFFE & COOMBS (1961). But the authors know just one specimen and not dare to describe it.

Material and methods

The material examined is deposited in the following collections:

CASCalifornia Academy of Sciences, San Francisco (CA), USA
FSCAFlorida State Collection of Arthropods, Gainesville (FL), USA
cES.....author's private collection, Berlin, Germany

The morphological studies were conducted using a Euromex DZ-1605 and Euromex BB.1153.PLI. Photographs were created with a ToupCam 14MP (ToupTek).

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

Description of new species

***Cryptophagus coombsi* nov.sp. (fig. 1)**

T y p e m a t e r i a l : Holotype ♂: "Arizona, St. Catalina Mts., Molino Basin, March 7 1970" [FSCA]. Paratype: 1♂ "Arizona, St. Catalina Mts., Hollin Cyn., April 4 1970 / wash-up, K. Stephan leg." [cES]; 1♀ "Arizona, Santa Rita Mts., Madera Cyn., Sept. 21, 1968" [FSCA]; 1♂ " Arizona, Cochise Co., Chiricahua Mts., elev. 5500 ft, Oct. 1968" [FSCA]; 1♀ "Arizona, Pima Co., tucson, March 8 1969, K. Stephan leg." [FSCA]; 1♀ "Arizona, Santa Rita Mts., Madera Cyn, Nov. 17 1968" [cES], 1♂ "J. W. Green, Tucson, Ariz., III-14-46" [CAS].

E t y m o l o g y : Named to the honour of C. W. Coombs, who stated together with G. E. Woodroffe the identity of this species.

D e s c r i p t i o n : Male, 2.1 mm, hind wings absent, humeral callus present, hardly developed. Reddish-brown with legs and antennae slightly paler, eyes of normal size. Punctuation of head and pronotum strong and dense, of the elytra less dense (basal third). Covered with yellowish pubescence, on elytra with shorter and decumbent hairs and longer hairs more erected and forming indistinct rows. Pronotum transverse, nearly 1,5 times wide as long. Anterior callosity more short but prominent, forming a hook. Lateral tooth just before the middle, broadest part of pronotum behind the lateral tooth. Margin straight between anterior callosity and lateral tooth, rounded behind lateral tooth and concave before the posterior angles. Elytra hardly rounded. Legs slender, antennae without any features, segment XI and X strongly transverse.

C o m m e n t : WOODROFFE & COOMBS (1961) knew one specimen from Tuscon (AZ) and named it "example 1". They were not sure about the identity and discussed the specimen could be conspecific with *C. latens* WOODROFFE & COOMBS, 1961 (fig. 2). Indeed, *C. coombsi* nov.sp. is very similar with *C. latens* but well distinguishable by the shape of the pronotum. The longer hairs on elytra are standing in rows (not in *latens*). The body is less convex and more flattened as in *latens*. So far known *latens* has hind wings fully developed. *C. descendens* CASEY, 1900 (fig. 3) and *C. fumidulus* CASEY, 1900 (fig. 4) differ by their different shape of pronotum and anterior callosity.

Cryptophagus coombsi also resembles to *Cryptophagus descendens* CASEY, 1900 and *C. fumidulus* CASEY, 1900. *Descendens* was described from Arizona, too, *C. fumidulus* from California.

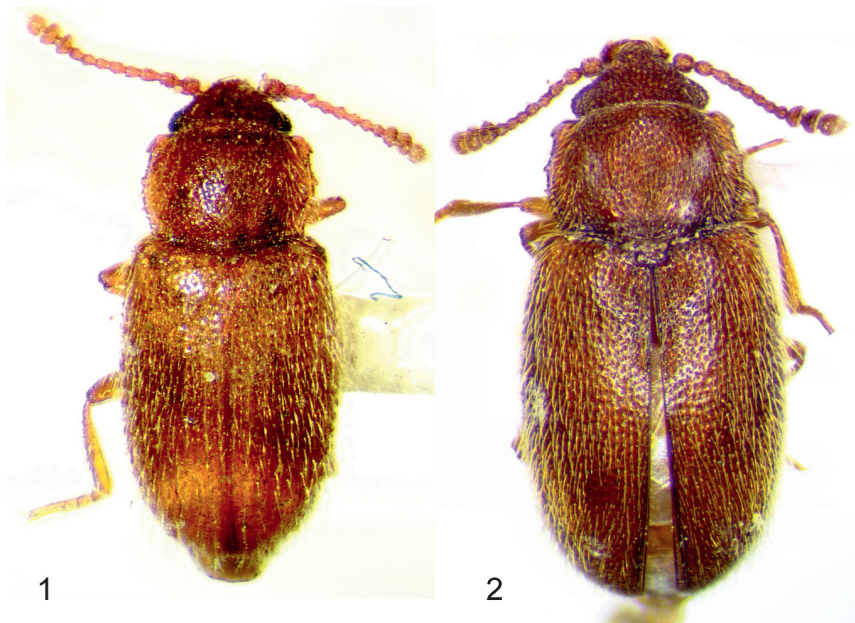


Fig. 1-2: (1) *Cryptophagus coombsi* nov.sp. holotype, male; (2) *Cryptophagus latens* WOODROFFE & COOMBS, 1961.



Fig. 3-4: (3) *Cryptophagus discendens* CASEY, 1900; (4) *Cryptophagus fumidulus* CASEY, 1900 holotype.

***Cryptophagus grahammontanus* nov.sp.**

Type material: Holotype ♂: "Arizona: Graham Mts., May 18 1969, K. Stephan leg [FSCA].
Paratypes: 2♂♂, 1♀ with the same data as the holotype [FSCA, cES]; 1♀: "Arizona Graham Mts., 9200 ft., April 25 1971, K. Stephan leg [FSCA]."

Etymology: Named after the Graham Mountains in Arizona (USA) where the types were collected.

Description: Male, 1.8 mm, hind wings absent, humeral callus nearly absent, with small tooth. Reddish-brown with legs and antennae paler, eyes of normal size. Punctuation fine and moderately dense on head and pronotum, less dense on elytra (basal third). Covered with yellowish and decumbent pubescence. Pronotum hardly wider as long. Anterior callosity short but prominent, forming a hook. Lateral tooth in the middle, lateral margin concave before the tooth and convex behind the tooth. Rim of the margin indistinct before and distinct behind the tooth. Elytra strongly elongated. Legs more stout, antennae slender without any features, segment IX and X slightly transverse.

Comment: Typical species which is similar to *C. stephani* (fig. 7) and very similar to *C. bussi* ESSER, 2017 (fig. 6). *C. stephani* has a strongly elongated pronotum, *C. bussi* a less elongated pronotum which is more elongated as in *grahammontanus* with more convex posterior margin. Legs and antennae are in *grahammontanus* more slender than in *bussi*. *Cryptophagus bussi* was described from the Magdalena Mountains in New Mexico. So far known, the species seems to be restricted to this mountain range. It is obvious, that *C. grahammontanus* is also restricted to mountain range of the Graham Mountains.

***Cryptophagus stephani* nov.sp.**

Type material: Holotype ♀: "Arizona: St. Catalina Mts., elev. 8600 ft, May 31 1969" [FSCA]. Paratype: 1♀ with the same data as the holotype [FSCA].

E t y m o l o g y : Named to the honour of K. STEPHAN, who collected the types and many other interesting species.

D e s c r i p t i o n : Female, 2 mm, hind wings absent, humeral callus absent, with distinct tooth. Reddish-brown with legs and antennae paler, eyes of normal size. Punctuation fine and moderately dense on head and pronotum, somewhat stronger and denser on elytra (basal third). Covered with yellowish and decumbent pubescence. Pronotum elongated, nearly long as wide. Anterior callosity short but prominent, forming a strong hook. Lateral tooth in the middle, lateral margin concave before the tooth and concave behind the tooth. Rim of the margin indistinct before and distinct behind the tooth. Elytra strongly elongated. Legs more stout, antennae slender without any features, segment IX and X slightly transverse.

C o m m e n t : Very typical species with elongated body and strongly elongated pronotum. General shape resembles to *C. grahammontanus* nov.sp. (fig. 5) but literally the pronotum is more elongated in *C. stephani* nov.sp.



Fig. 5-7: (5) *Cryptophagus grahammontanus* nov.sp. paratype, female; (6) *Cryptophagus bussi* ESSER, 2017, New Mexico; (7) *Cryptophagus stephani* nov.sp. holotype, male.

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Zusammenfassung

Drei neue Arten der Gattung *Cryptophagus* HERBST, 1792 aus Arizona (USA) werden beschrieben und mit ähnlichen Arten verglichen.

References

- ESSER J. (2017): Two new species of *Cryptophagus* HERBST, 1792 (Coleoptera: Cryptophagidae) from New Mexico (USA). — Linzer biologische Beiträge **49** (1): 571-576.
- WOODROFFE G.E. & C.W. COOMBS (1961): A Revision of the North American *Cryptophagus* HERBST (Coleoptera: Cryptophagidae). — Miscellaneous Publications of the Entomological Society of America **2**: 179-211.

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