Published December 28, 2020

Klapalekiana, **56**: 213–216, 2020
ISSN 1210-6100

On the identity of *Cryptophagus vseteckai* Reška, 1977 (Coleoptera: Cryptophagidae)

Identita druhu *Cryptophagus vseteckai* Reška, 1977 (Coleoptera: Cryptophagidae)

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Coleoptera, Cucujoidea, Cryptophagidae, *Cryptophagus vseteckai*, *Cryptophagus croceus*, new synonymy, Central Europe, Czech Republic

Abstract. Examining the type material of *Cryptophagus vseteckai* Reška, 1977 indicates that it is conspecific with *Cryptophagus croceus* Zimmermann, 1869. The present paper deals with the new synonymy and the first record of *C. croceus* in Europe and the Palaearctic Region.

INTRODUCTION

Reška (1977) described *Cryptophagus vseteckai* based on two males that he collected in Bohemia (Czech Republic). He found the type specimens in a pheasant feeding trough filled with wheat and oats. Reška (1977) did not find any species in the Holarctic Region that resembled the two Bohemian specimens, but probably he was unable to compare with all Nearctic or East Palaearctic species. As shown below, *C. vseteckai* is conspecific with the Nearctic *Cryptophagus croceus* Zimmermann, 1869. Later, Reška (1994) assumed that *C. vseteckai* could have been introduced from Asia; this conclusion was repeated by Johnson et al. (2007).

So far known, there have been no further records of *Cryptophagus croceus* in the Palaearctic Region. Probably *C. croceus* is not naturalized in the Palaearctic Region.

MATERIAL AND METHODS

The material examined is deposited in the following collections:

FSCA	Florida State Collection of Arthropods (USA)
NMPC	National Museum Prague, Czech Republic
TAMUIC	Texas A&M University Insect Collection, College Station, USA
USNM	US National Museum, Washington, USA
WIRC	Wisconsin Insect Research Collection, Madison, USA
cES	Jens Esser, private collection, Berlin, Germany

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

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

Information about the material in square brackets was added by the writer and are not written on the original labels. Diagonal slashes separate different labels.

RESULT AND DISCUSSION

***Cryptophagus croceus* Zimmermann, 1869**

Cryptophagus amputatus Casey, 1900
Cryptophagus crinitus Zimmermann, 1869
Cryptophagus densicollis Casey, 1924
Cryptophagus fungicola Zimmermann, 1869
Cryptophagus laticlavus Casey, 1900
Cryptophagus nodifer Casey, 1900
Cryptophagus vseteckai Reška, 1977, **syn. nov.**

Type material. *Cryptophagus vseteckai* Reška, 1977: holotype ♂, labelled "[Czech Republic] Boh.[emia] 18.8.1974, Lhotka u Z.[adní] Třebáň [ca. 49.91°N 14.19°E], leg. [M.] Reška / past s plesnivým chlebem v krmelci [trap with moldy bread in feeder] / HOLOTYPE [red] / Cryptophagus vseteckai sp. n. Reška det. 1976 / Cryptophagus croceus Zimmermann det. Esser 2019" (NMPC).

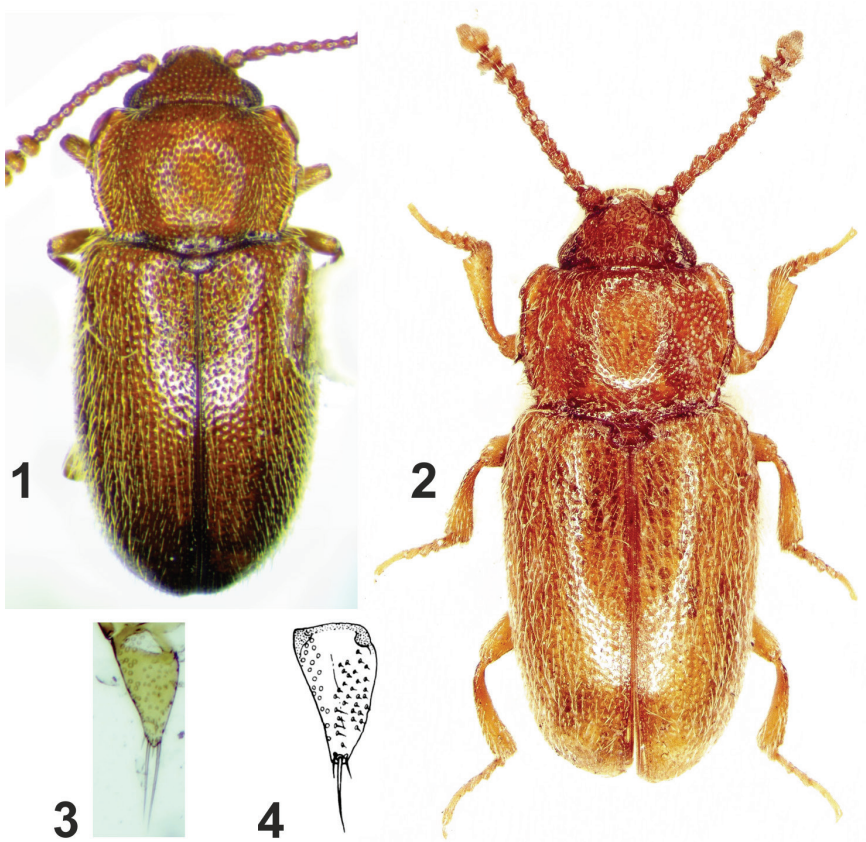
Additional material examined. USA. Alabama: Blount Co. (13 spec., FSCA, cES); Arkansas: Pulaski Co. (1 spec., TAMUIC); California: Santa Cruz Co. (1 spec., TAMUIC); Florida: Clay Co. (1 spec., FSCA), Washington Co. (1 spec., FSCA); Indiana: Monroe Co. (1 spec., FSCA); Kentucky: Christian Co. (1 spec., TAMUIC); Maryland: Montgomery Co. (1 spec., USNM); New Mexico: Socorro Co. (1 spec., cES); Ohio: Champaign Co. (1 spec., FSCA); Oklahoma: Latimer Co. (89 spec., FSCA, TAMUIC, cEs); Texas: Bandera Co. (1 spec., TAMUIC); Bastrop Co. (2 spec., TAMUIC); Bosque Co. (1 spec., TAMUIC); Brazos Co. (64 spec., cES, cRI, TAMUIC); Harris Co. (1 spec., TAMUIC); Jeff Davis Co. (1 spec., TAMUIC); Kerr Co. (2 spec., TAMUIC); Sabine Co. (16 spec., TAMUIC); Tyler Co. (1 spec., TAMUIC); Wood Co. (1 spec., TAMUIC); Virginia: Covington (1 spec., FSCA); Wisconsin: Grant Co. (1 spec., WIRC); Green Co. (1 spec., WIRC).

Cryptophagus croceus Zimmermann, 1869 is a polytypic species. Woodroffe & Coombs (1961) distinguished two forms, mainly by the shape of pronotum and parameres. Furthermore form 1 has double pubescence with longer, erect hairs, form 2 has a double or a simple and more or less decumbent pubescence. Specimens of form 2 were additionally described by T. L. Casey as *Cryptophagus laticlavus* Casey, 1900 and *C. densicollis* Casey, 1924. Woodroffe & Coombs (1961) studied extensive material of *C. croceus* and its synonyms and found that all these specimens were conspecific.

The holotype of *Cryptophagus vseteckai* Reška, 1977 (Fig. 2) corresponds to specimens of form 2 of *Cryptophagus croceus* Zimmermann, 1869 (Fig. 1) with simple pubescence. Furthermore, the parameres of *C. vseteckai* and some forms *C. croceus* are identical (Figs 3, 4). Therefore, I consider *C. vseteckai* a junior subjective synonym of *C. croceus*.

Cryptophagus croceus is widespread in the Nearctic Region, not only in the eastern parts of US (Woodroffe & Coombs 1961) but in many states throughout and also in Canada. Reška (1994) presumed the specimens were introduced with grain (more probably) or by birds. It is presumed unlikely that the specimens were mislabelled.

ACKNOWLEDGEMENTS. I wish to thank Craig M. Brabant & Daniel K. Young (WIRC), Jiří Hájek (NMPC), Edward G. Riley (TAMUIC), Floyd W. Shockley (USNM) and Paul E. Skelley (FSCA) for loan and donation of specimens. Tobias Mainda (Greifswald, Germany) reviewed the manuscript.



Figs 1–4. 1–2, dorsal habitus: 1 – *Cryptophagus croceus* Zimmermann, 1869 (USA: Oklahoma), 2 – *C. vseteckai* Reška, 1977 (holotype, Czech Republic); 3–4, parameres: 3 – *C. croceus* Zimmermann, 1869 (USA: New Mexico), 4 – *C. vseteckai* Reška, 1977 (holotype, adapted from Reška (1994)).
Obr. 1–4. 1–2, habitus dorzálně: 1 – *Cryptophagus croceus* Zimmermann, 1869 (USA: Oklahoma), 2 – *C. vseteckai* Reška, 1977 (holotypus, Česká republika); 3–4, paramery: 3 – *C. croceus* Zimmermann, 1869 (USA: New Mexico), 4 – *C. vseteckai* Reška, 1977 (holotypus, upraveno podle Rešky (1994)).

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SOUHRN

Studium typového materiálu druhu *Cryptophagus vseteckai* Reška, 1977 ukázalo, že je identický s nearktickým druhem *C. croceus* Zimmermann, 1869, známým ze Spojených států a Kanady (Woodroffe & Coombs 1961). V této práci jsou oba druhy synonymizovány, zároveň je druh *C. croceus* hlášen poprvé pro Evropu a pro celou palearktickou oblast.