

Linzer biol. Beitr.	50/1	245-253	27.7.2018
---------------------	------	---------	-----------

Notes on taxonomy and distribution of *Cryptophagus jakowlewi* REITTER, 1888 (Coleoptera: Cryptophagidae) with remarks on further species

Jens ESSER

A b s t r a c t : The identity and synonymy of *Cryptophagus jakowlewi* REITTER, 1888 was explored. The synonymy of *Cryptophagus archangelicus* J.R. SAHLBERG, 1926, *C. bidentatus* MÄLKIN, 1853, *C. confertus* CASEY, 1900, *C. punctatissimus* MÄKLIN, 1853 and *C. uralensis* BRUCE, 1963 was also newly examined. The identity and validity of *C. freyi* BRUCE, 1941 as well-defined species was suggested.

K e y w o r d s : Cryptophagidae, *Cryptophagus archangelicus* J.R. SAHLBERG, 1926, *Cryptophagus bidentatus* MÄLKIN, 1853, *Cryptophagus confertus* CASEY, 1900, *Cryptophagus freyi* BRUCE, 1941, *Cryptophagus jakowlewi* REITTER, 1888, *Cryptophagus punctatissimus* MÄKLIN, 1853, *Cryptophagus uralensis* BRUCE, 1963, Palaearctic Region, taxonomy, new synonymy, distribution.

Introduction

During the last few decades, the Finnish colleagues recorded a *Cryptophagus* species whose identity was not clear. Further examinations of the colleagues resulted that the species is identical with *Cryptophagus uralensis* BRUCE, 1963 (synonym of *C. jakowlewi* REITTER, 1888). The examination of specimens shows that the species from Finland are identical with *C. jakowlewi* REITTER, 1888 (= *uralensis* BRUCE, 1963). So far known in the moment, *C. jakowlewi* is distributed in the nothern parts of Europe (from the Ural mountain range to Sweden), but also in northern parts of East Palaearctic. The occurrence in the Nearctic Region (MAJKA & LANGOR 2010) based on the synonymy of *C. confertus* CASEY, 1900 with *C. jakowlewi* in JOHNSON et al. (2007). *C. jakowlewi* is not recorded from the Nearctic Region. For understanding the names listed as synonyms in JOHNSON et al. (2007) the writer examined further types and specimens.

Material and methods

The material examined is deposited in the following collections:

- MNHG.....Muséum d'histoire naturelle, Geneva
- MNHMHungarian National History Museum, Budapest
- NHMBNaturhistorisches Museum, Basel
- NMNH.....National Museum of Natural History; Washington
- SMNSStaatliches Museum für Naturkunde, Stuttgart

ZMH.....	Zoologisches Museum, Helsinki
ZMUL.....	Zoologisches Museum der Universität Lund
cES.....	author's private collection
cGE.....	private collection Joja Geijer, Arby
cHE.....	private collection Eero Helve, Espoo
cLU.....	private collection Stig Lundberg, Luleå
cMA.....	private collection Jaakko Mattila, Helsinki

Results

The comparison of the types of *Cryptophagus jakowlewi* REITTER, 1888 and *Cryptophagus uralensis* BRUCE, 1963 resulted identity of both (fig. 1 and 2). Further it was obvious that *Cryptophagus confertus* CASEY, 1900 (fig. 4) is not a synonym of *Cryptophagus jakowlewi* REITTER like proposed by JOHNSON et al. (2007) but a different species.

The examination of types and further material of *Cryptophagus archangelicus* J. R. SAHLBERG, 1926 and *C. confertus* CASEY, 1900 shows their characters as two well separated species.

JOHNSON et al. (2007) resurrected *C. jakowlewi* from synonymy with *C. pallidus* STURM, 1845. *Cryptophagus pallidus* STURM, 1845 was misinterpreted for long time and is not identical with the previous interpretation (JOHNSON & ESSER, 2007). For that reason JOHNSON et al. (2007) resurrected *Cryptophagus reflexus* REY, 1889 from synonymy with *Cryptophagus scanicus* (LINNAEUS, 1758) as replacement name for *Cryptophagus pallidus* sensu auctorum. OTERO (2013) synonymised *C. jakowlewi* with *C. reflexus*, so we have three interpretations of *C. jakowlewi* in the recent years. OTERO (2013) also interpreted *Cryptophagus freyi* BRUCE, 1941 as synonym of *C. jakowlewi* according to JOHNSON et al. (2007) with *C. freyi* as synonym of *C. reflexus*. As showed below, *C. freyi* is not identical with *C. jakowlewi* and *C. freyi* seems to be a well separated species (fig. 5). *C. freyi* is known only by the holotype. The specimen resembles more with *C. brucki* REITTER, 1875 or *C. hauseri* REITTER, 1890.

	JOHNSON et al. (2007)	OTERO 2013	present paper
<i>C. archangelicus</i>	> <i>C. jakowlewi</i>	> <i>C. confertus</i>	> <i>C. archangelicus</i>
<i>C. bidentatus</i>	> <i>C. bidentatus</i>	> <i>C. bidentatus</i>	> <i>C. bidentatus</i>
<i>C. confertus</i>	> <i>C. jakowlewi</i>	> <i>C. confertus</i>	> <i>C. confertus</i>
<i>C. freyi</i>	> <i>C. reflexus</i>	> <i>C. jakowlewi</i>	> <i>C. freyi</i>
<i>C. jakowlewi</i>	> <i>C. jakowlewi</i>	> <i>C. jakowlewi</i>	> <i>C. jakowlewi</i>
<i>C. reflexus</i> *	> <i>C. reflexus</i>	> <i>C. jakowlewi</i>	> <i>C. reflexus</i>
<i>C. uralensis</i>	> <i>C. jakowlewi</i>	> <i>C. jakowlewi</i>	> <i>C. jakowlewi</i>

*previously known as *C. pallidus* sensu auct. nec STURM, 1845 (fig. 6, 15), the *C. pallidus* sensu STURM, 1845 is the former *C. thomsoni* REITTER, 1875.

Present synonymy

***Cryptophagus archangelicus* J. R. SAHLBERG, 1926 stat. rev.**

Cryptophagus bidentatus* MÄKLIN, 1853

Cryptophagus kamtschaticus LYUBARSKY, 1992

Cryptophagus punctatissimus MÄKLIN, 1853

*synonyms according to JOHNSON et al. (2007), not examined by the writer (except *punctatissimus* MÄKLIN, 1853)

***Cryptophagus confertus* CASEY, 1900 stat. rev.**

***Cryptophagus freyi* BRUCE, 1941 stat. rev.**

***Cryptophagus jakowlewi* REITTER, 1888**

Cryptophagus uralensis BRUCE, 1963

Cryptophagus reflexus* REY, 1889

Cryptophagus fowleri JOY, 1910

Cryptophagus lateralis REY, 1889

Cryptophagus pallidus auct. nec STURM, 1845

*synonyms according to JOHNSON et al. (2007), not examined by the writer

Cryptophagus scanicus* (LINNAEUS, 1758)

Cryptophagus niger BRISOUT DE BARNEVILLE, 1863

Cryptophagus nigerrimus REY, 1889

Cryptophagus patruelis STURM, 1845

Cryptophagus piceus J.R. SAHLBERG, 1926

Cryptophagus subdentatus REY, 1889

Cryptophagus suturalis REY, 1889

*synonyms according to JOHNSON et al. (2007), not examined by the writer (except *patruelis* STURM, 1845)

Cryptophagus loebli (OTERO, 1997) is a synonym of *Cryptophagus pallidus* STURM, 1845 (nec auct.)

Material examined

Cryptophagus archangelicus J. R. SAHLBERG, 1926: Three syntypes from Solovetsk (Russia) [ZMH], one female from Novosibirsk (Siberia) [SMNS].

Cryptophagus bidentatus MÄKLIN, 1853: Syntypes [ZMH] and specimens from Canada and USA.

Cryptophagus confertus CASEY, 1900: Type [NMNH] and further specimens from Canada.

Cryptophagus corticinus THOMSON, 1863: Numerous specimens from Europe.

Cryptophagus freyi BRUCE, 1941: Holotype from Azrou (Morocco) [NHMB].

Cryptophagus jakowlewi REITTER, 1888: Holotype and three paratypes [NMNH]. Further material see "distribution in Europe".

Cryptophagus loebli (OTERO, 1997) (*Micrambe*): Holotype and one paratype [MNHG].

Cryptophagus punctatissimus MÄKLIN, 1853: Syntypes [ZMH].

Cryptophagus reflexus REY, 1889: Numerous specimens from Europe.

Cryptophagus scanicus (LINNAEUS, 1758): Numerous specimens mainly from Europe.

Cryptophagus uralensis BRUCE, 1963: Holotype [SMNS] and two paratypes [ZMUL].

Distribution data for *Cryptophagus jakowlewi* REITTER, 1888 from Europe

***Cryptophagus jakowlewi* REITTER, 1888**

Finnland: Tb: Jyväskylä, Ylistönrinne, 3.10.2001, leg. Jaakko Mattila [cMA, cES]; Ta: Kuhmoinen,

30.05.1974, 14.07.1983, 11.10.1987, leg. Eero Helve [cHE, cES]; Lkem: Sodankylä, 05.07.1989, leg. Eero Helve [cHE, cES].

Sweden: LyL, Gravsjön, 19.VI.-28.VII.1998, leg. Per Löfgren [cLU], Arby (Vassmolösa, Kalmar), leg. Geijer [cGE].

Notes on identifying *Cryptophagus jakowlewi* REITTER, 1888

Cryptophagus jakowlewi REITTER, 1888 is quite similar to *Cryptophagus archangelicus* J.R. SAHLBERG, 1926 (9, 12, 18) and *C. corticinus* THOMSON, 1867 (fig. 8, 10). Most specimens of *Cryptophagus jakowlewi* have both a dark head and pronotum (fig. 7). Males of *C. jakowlewi* are easily distinguishable by its parameres (fig. 11). But a few specimens are paler and more similar to *C. corticinus*.

C. bidentatus MÄKLIN, 1853 (fig. 3, 14) and *C. confertus* CASEY, 1900 (fig. 5, 13) are often also very similar but have different parameres. They resemble to *C. quadridentatus* MANNERHEIM, 1843 and *C. dentatus* (HERBST, 1793)

C. reflexus REY, 1889 and *C. scanicus* (LINNAEUS, 1758) are well-defined species.

Acknowledgement

I wish to thank the following colleagues for supporting my examinations: Eva Sprecher-Übersax (Basel), Giulio Cuccodoro (Geneva), Christoffer Fäggerström (Lund), Eero Helve (Espoo), Stig Lundberg (Luleå), Petri Martikainen (Joensuu), Jaakko Mattila (Helsinki), Ottó Merkl (Budapest), Wolfgang Schawaller (Stuttgart).

Zusammenfassung

Die Synonymie des Namens *Cryptophagus jakowlewi* REITTER, 1888 untersucht und damit zusammenhängend die Synonymie der Namen *Cryptophagus archangelicus* J.R. SAHLBERG, 1926, *C. bidentatus* MÄKLIN, 1853, *C. confertus* CASEY, 1900, *C. punctatissimus* MÄKLIN, 1853 und *C. uralensis* BRUCE, 1963 neu bewertet. Darüber hinaus wird zur Diskussion gestellt, dass *C. freyi* BRUCE, 1941 eine valide Art ist.

References

- JOHNSON C. (2007): Cryptophagidae: New acts and comments. — In: LÖBL I. & A. SMETANA, Catalogue of Palaearctic Coleoptera Vol. 4. Apollo Books, Stentrup: 65-69.
- JOHNSON C. & J. ESSER (2007): Cryptophagidae: New acts and comments. — In: LÖBL I. & A. SMETANA, Catalogue of Palaearctic Coleoptera Vol. 4. Apollo Books, Stentrup: 69-70.
- JOHNSON C., OTERO J.C. & R.A.B. LESCHEN (2007): Cryptophagidae. — In: LÖBL I. & A. SMETANA, Catalogue of Palaearctic Coleoptera Vol. 4. Apollo Books, Stentrup: 513-531.
- MAJKA C.G. & D. LANGOR (2010): Contributions towards an understanding of the Cryptophaginae (Coleoptera, Cryptophagidae) of Atlantic Canada. — ZooKeys **35**: 13-35.
- OTERO J.C. (2013): Cryptophaginae (Coleoptera) de la region paleárcica occidental. — Coleopterological Monographs **4**.

Author's address:

Jens ESSER

Fagottstraße 6, D-13127 Berlin, Germany

E-mail: jens_esser@yahoo.de



Fig. 1-2: Holotypes of (1) *Cryptophagus jakowlewi* REITTER, 1888, (2) *Cryptophagus uralensis* BRUCE, 1963. **Fig. 3-4:** Habitus of (3) *Cryptophagus bidentatus* MÄKLIN, 1853, holotype, (4) *Cryptophagus scanicus* (LINNAEUS, 1758), Germany.

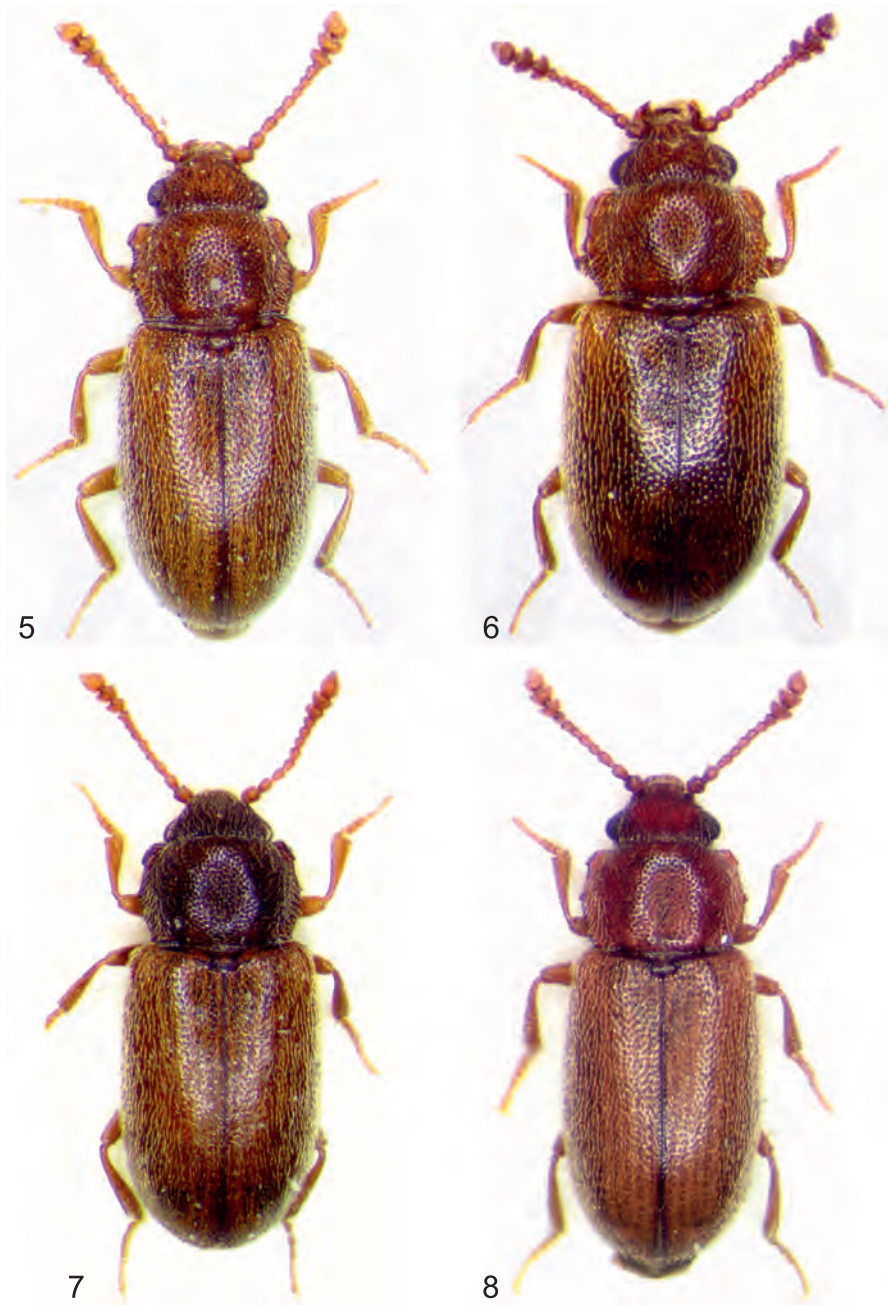


Fig. 5-6: Habitus of (5) *Cryptophagus confertus* CASEY, 1900, Canada, (6) *Cryptophagus reflexus* REY, 1889, Germany. **Fig. 7-8:** Habitus of (7) *Cryptophagus jakowlewi* REITTER, 1888, Finland, (8) *Cryptophagus corticinus* THOMSON, 1867, Germany.



Fig. 9: Habitus of *Cryptophagus archangelicus* J. R. SAHLBERG, 1926, syntypes.

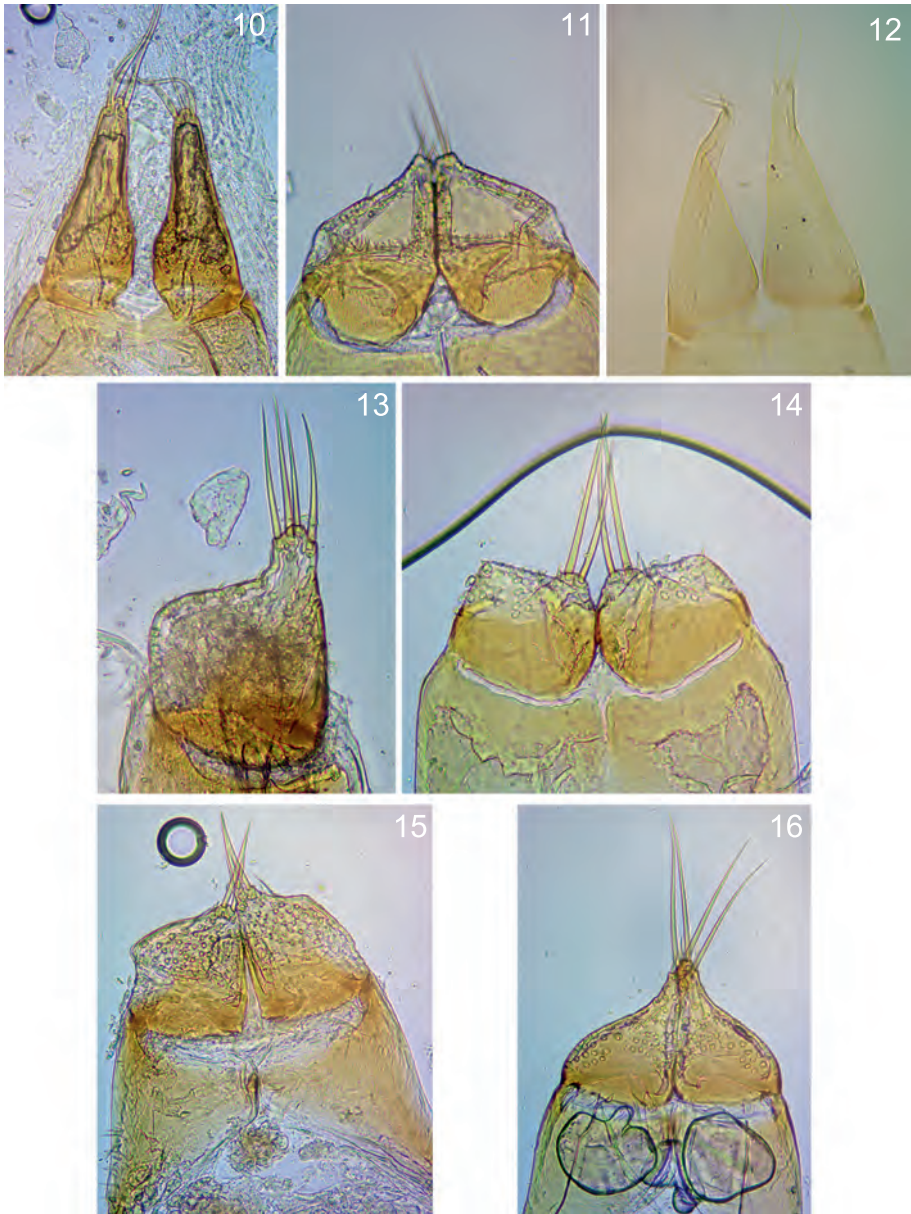


Fig. 10-12: Parameres of (10) *Cryptophagus corticinus* THOMSON, 1867 (11) *Cryptophagus jakowlewi* REITTER, 1888, (12) *Cryptophagus archangelicus* J.R. SAHLBERG, 1926, syntypus. **Fig. 13-14:** Parameres of (13) *Cryptophagus confertus* CASEY, 1900, (14) *Cryptophagus bidentatus* MÄKLIN, 1853. **Fig. 15-16:** Parameres of (15) *Cryptophagus reflexus* REY, 1889, (16) *Cryptophagus scanicus* (LINNAEUS, 1758).



Fig. 17-18: (17) *Cryptophagus freyi* BRUCE, 1941, holotype, (18) *Cryptophagus archangelicus* J.R. SAHLBERG, 1929, Siberia. **Fig. 19-20:** Habitus of (19) *Cryptophagus quadridentatus* MANNERHEIM, 1843, (20) *Cryptophagus denta* (HERBST, 1793).

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Linzer biologische Beiträge](#)

Jahr/Year: 2018

Band/Volume: [0050_1](#)

Autor(en)/Author(s): Esser Jens

Artikel/Article: [Notes on taxonomy and distribution of *Cryptophagus jakowlewi* REITTER, 1888 \(Coleoptera: Cryptophagidae\) with remarks on further species 245-253](#)