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Two new species of *Cryptophagus* HERBST, 1792 (Coleoptera: Cryptophagidae) from China

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A b s t r a c t : Two new species of *Cryptophagus* from Sichuan and Yunnan (China) were described.

K e y w o r d s : Cryptophagidae, *Cryptophagus*, Palaearctic Region, China, new species.

Introduction

Further specimens of Cryptophagidae from China were studied. The examination result two undescribed *Cryptophagus* species. Both species were collected in high altitude of Chinese mountains (up from 3700 m above sea level). They are wingless and tiny species found in litter of different kind of trees or bushes. Together with the species of *Micrambe* THOMSON, 1863 and *Cryptophagus* HERBST, 1792 described recently from China they show the high level of biodiversity of Cryptophagidae in China (ESSER 2017a, b).

Material and methods

The material examined is deposited in the following collections:

MFNB Museum für Naturkunde, Berlin, Germany

eES author's private collection, Berlin, Germany

cPÜ Andreas Pütz private collection, Eisenhüttenstadt, 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 puetzi* nov.sp.**

Type material: Holotype ♂: "China, Prov. Sichuan, Ganzi Tibetan Auton. Pref., Batang Co., Shaluli Shan, Abies-Forest, 55 km NE Batang, 30.07.68N, 100.03.77E, 4200 m, 3.VII.1999, leg. A. Pütz" [cPÜ].

Paratypes: 8♂♂, 2♀♀: "China, Prov. Sichuan, Ganzi Tibetan Auton. Pref., Yajiang Co., Shaluli Shan, E Pass, 15 km W Yajiang, 4300 m, Rhododendron sift, 30.00.24N, 100.51.63E, 2.VII.1999, leg. A. Pütz" [cPÜ, cES]; 1♂, 1♀: "China, Prov. Sichuan, Ganzi Tibetan Auton. Pref., Litang Co., Shaluli Shan, Abies-Forest-Rest, 25 km NW Litang, 30.17.23 N, 90.30.97 E, 4300 m, 1.VII.1999, leg. A. Pütz" [cPÜ].

E t y m o l o g y : The specific epithet points on Andreas Pütz (Eisenhüttenstadt), who collected all specimens of this species.



Fig. 1-2: (1) *Cryptophagus puetzi* nov.sp. holotype, male; (2) *C. puetzi* nov.sp., holotype, parameres.

Description: Male, hind wings absent, 2 mm. Reddish-brown, moderately shining (fig. 1). Eyes small but convex with only a small number of ommatidia. Pronotum 1,4 times broader than long, broadest before the middle tooth, margin slightly concave between anterior angles (callosities) and convex between middle tooth and posterior angles. Margin is forming a transparent lamella between posterior angles and the middle tooth, the outer margin is convex, the inner margin straight. Anterior callosities small, forming a small tooth oriented backwards. Front margin straight, hind margin slightly rounded. Pronotum strongly and moderately dense punctate, surface convex, margin not depressed. Elytra elongate, oviform, with moderately long and decumbent hairs. No humeral callus developed, with a longish callosity next to the suture. Elytra in the anterior third strongly but less dense punctate than on pronotum. Legs stout, tarsi five-segmented, posterior tarsi four-segmented (only in male), anterior tarsomeres 1-4 moderately widened (only in male). Antennae stout, club well developed, segments 1, 2, 4-8 moniliform, segment 1 and 2 broader than the remaining, segment 3 longer than broad, 9 and 10 moderately transverse, 10 broader than 9, segment 11 oval and asymmetric. Parameres as in fig. 2.

Comment: Resembles to *Cryptophagus schuelkei* nov.sp. (fig. 3, 4) and is distinguishable by the shape of pronotum, parameres and distribution (Yunnan). *C. puetzi* nov.sp. is also less shining. *Cryptophagus hongguan* ESSER, 2017 (ESSER 2017b) differs in shape of pronotum and parameres more rounded. It is known from China, province Qinghai.

***Cryptophagus schuelkei* nov.sp.**

Type material: Holotype ♂: "China, N-Yunnan (C03-12), Zhongdian Co.: pass 28 km ESE Zhongdian, 3700-3750 m, 27°43.9'N; 98°58.2'E, leg. Schülke, 22.8.2003" [cES].

Paratype: 1 ♀ with the same data than the holotype [cES].

Etymology: The specific epithet points on Michael Schülke (Berlin), who collected all specimens of this species.

Description: Male, hind wings absent, 2 mm. Reddish-brown, shining (fig. 3). Eyes small but convex with only a small number of ommatidia. Pronotum 1,5 times broader than long, broadest before the middle tooth, margin strongly concave between anterior angles (callosities) and convex between middle tooth and posterior angles. Margin is forming a transparent lamella between posterior angles and the middle tooth, the outer margin is convex, the inner margin straight. Anterior callosities small, forming a hook-shaped tooth oriented backwards. Front margin straight, hind margin slightly rounded. Pronotum strongly and moderately dense punctate, surface convex, margin not depressed. Elytra elongate, oviform, with moderately long and more or less decumbent hairs. No humeral callus developed, with a longish callosity next to the suture. Elytra in the anterior third strongly but less dense punctate than on pronotum. Legs stout, tarsi five-segmented, posterior tarsi four-segmented (only in male), anterior tarsomeres 1-4



Fig. 3-4: (3) *Cryptophagus schuelkei* nov.sp., holotype, male; (4) *C. schuelkei* nov.sp., holotype, parameres.

moderately widened (only in male). Antennae stout, club well developed, segments 1, 2, 4-8 moniliform, segment 1 and 2 broader than the remaining, segment 3 longer than broad, 9 and 10 transverse, 10 broader than 9, segment 11 oval and asymmetric. Parameres as in fig. 4

C o m m e n t : Resembles to *Cryptophagus puetzi* nov.sp. (fig. 1, 2) and is distinguishable by the shape of pronotum, parameres and distribution (Sichuan). *C. schuelkei* nov.sp. is also more shining. *Cryptophagus hongguanus* ESSER, 2017 (ESSER 2017b) differs in shape of pronotum and parameres more rounded. It is known from China, province Qinghai.

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Zusammenfassung

Zwei Arten der Gattung *Cryptophagus* HERBST, 1792 aus der chinesischen Provinzen Sichuan und Yunnan werden beschrieben und mit ähnlichen, vermutlich verwandten Arten verglichen.

References

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 Esser J. (2017b): Two new Cryptophagidae (Coleoptera) from Qinghai (China). — Linzer biologische Beiträge **49** (2): 1125-1128.

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