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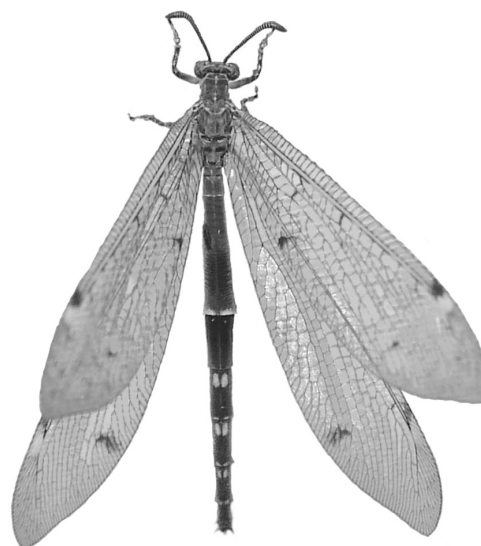


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Notes on the taxonomy and distribution of the genus *Cryphaeus* Klug, 1833 (Coleoptera: Tenebrionidae: Toxicini) in the Russian Far East

Замечания по таксономии и распространению рода *Cryphaeus* Klug, 1833 (Coleoptera: Tenebrionidae: Toxicini) на Дальнем Востоке России

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Key words: Coleoptera, Tenebrionidae, Toxicini, *Cryphaeus*, new record, Russian Far East.

Ключевые слова: Coleoptera, Tenebrionidae, Toxicini, *Cryphaeus*, новая находка, Дальний Восток России.

Abstract. A brief review of the genus *Cryphaeus* Klug, 1833 of the Russian Far East is given. Two species occur in this region: *C. amurensis* (Heyden, 1884) in the Primorsky and Sakhalin regions and *C. albopilosus* Chûjô et Lee, 1993 in the Primorsky Region (new record for Russia). A new synonymy is proposed: *Cryphaeus amurensis* (Heyden, 1884) = *Anthracias duellicus* Lewis, 1894, **syn. n.** *Cryphaeus amurensis* was described by Heyden in 1884, but not by Kulzer, 1950 as indicated in the Catalogue of Palaearctic Coleoptera, 2008.

Резюме. Дан краткий обзор рода *Cryphaeus* Klug, 1833 российского Дальнего Востока. В этом регионе встречаются 2 вида: *C. amurensis* (Heyden, 1884) в Приморском крае и на Сахалине и *C. albopilosus* Chûjô et Lee, 1993 в Приморском крае (новый вид для фауны России). Предложена новая синонимия: *Cryphaeus amurensis* (Heyden, 1884) = *Anthracias duellicus* Lewis, 1894, **syn. n.** *Cryphaeus amurensis* был описан Хейденом (Heyden) в 1884 году, а не Кюльцером (Kulzer) в 1950, как указано в каталоге палеарктических жесткокрылых 2008 года.

A checklist of the tenebrionid fauna of Russia is continuously updated and presently includes 277 species from 117 genera [Nabozhenko, 2018]. The most intensive studies were recently carried out in the Russian Far East. Two new species from the genera *Nalassus* Mulsant, 2015 and *Toxicum* Latreille, 1802 were described and a new *Platydemus* Laporte et Brullé, 1831 was recorded from the Primorsky Region of Russia for the first time [Nabozhenko, Ivanov, 2015, 2018; Ivanov et al., 2017]. Below we give information about a new record of the genus *Cryphaeus* Klug, 1833 from this Russian region.

The genus *Cryphaeus* comprises three species in the fauna of Russia. *Cryphaeus cornutus* (Fischer von Waldheim, 1823) is distributed in Southern Europe, Crimea, Rostov, Volgograd, Krasnodar and Stavropol regions of Russia and in the Caucasus [Abdurakhmanov, Nabozhenko, 2011]. The second species, *Cryphaeus amurensis* Heyden, 1884 is listed as an endemic species from the Russian Far East [Medvedev, 1992; Löbl et al., 2008]. The third species of this genus, *Cryphaeus albopilosus* Chûjô et Lee, 1993, which was described from the Korean Peninsula, is newly found in the Primorsky Region of Russia.

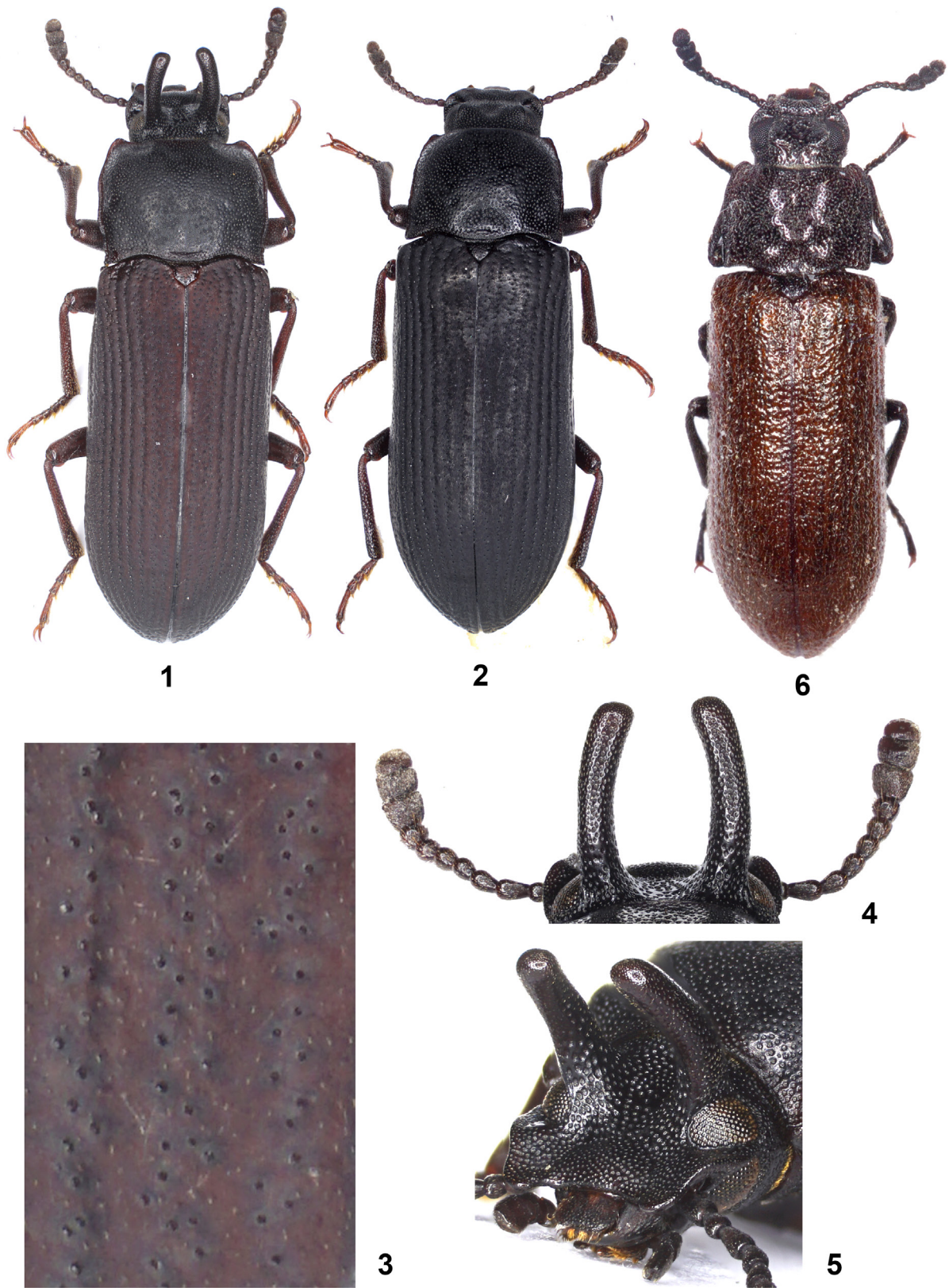
This study is based on specimens from the Staatliches Museum für Naturkunde (SNMS, Stuttgart, Germany), the private collection of M.V. Nabozhenko (CN, Rostov-on-Don, Russia) and collected material of E.V. Komarov (Volgograd, Russia).

Cryphaeus amurensis (Heyden, 1884)
= *Anthracias duellicus* Lewis, 1894: 470, **syn. n.**
(Figs 1–5)

Material. 1♀ (CN), Russia, Primorsky Region, Khasan District, Baburovo, 19.07.1990 (leg. A. Napolov); 1♂, 1♀ (CN), Russia, Primorsky Region, Terney Distr., near Artemovo, floodplain of Serebryanka River, 15.05.2015 (leg. M.E. Sergeev); 2♂, 1♀ (CN), Russia, Primorsky Region, Sikhote-Alin Nature Reserve, Khanov Spring, 2.08.2015 (leg. M.E. Sergeev).

Distribution. Russia: Primorsky Region, Southern Sakhalin [Medvedev, 1992; Kompantseva, 1999]. China (Hainan), Taiwan, Korean Peninsula, Japan [Löbl et al., 2008].

Notes. *Cryphaeus amurensis* was described by Heyden [1884: 295] from Vladivostok (Russia) and is erroneously listed with the authorship of Kulzer [1950] in the Catalogue of Palaearctic Coleoptera [Löbl et al., 2008].



Figs 1–6. *Cryphaeus* spp. from the Russian Far East, habitus and morphological details.

1–5 – *C. amurensis*; 6 – *C. albopilosus*, female. 1 – male, habitus; 2 – female, habitus; 3 – striae of elytra; 4 – head of male, posterior view; 5 – head of male, antero-dorsal view.

Figs 1–6. *Cryphaeus* spp. с Дальнего Востока России, общий вид и детали строения.

1–5 – *C. amurensis*; 6 – *C. albopilosus*, самка, габитус. 1 – самец, габитус; 2 – самка, габитус; 3 – точечные ряды на надкрыльях; 4 – голова самца, вид сзади; 5 – голова самца, вид спереди и сбоку.

Chinese colleagues recorded *C. amurensis* for China, but without supporting material or cited literature of collected specimens [Wu, Ren, 2008]. *Cryphaeus duellicus* was described by Lewis from Japan ("Yuyama, Kadzusa, Niigata, and Junsai") in the genus *Anthracias* [Lewis, 1894] and was later listed for the Korean Peninsula [Mochizuki, Tsumekawa, 1937; Jung et al., 2009], Russian Far East, China (Hainan) [Löbl et al., 2008; Wu, Ren, 2008; Jung et al., 2009] and Taiwan [Jung et al., 2009].

Both taxa are conspecific as shown by having several common characteristics such as the 3-segmented antennal club, the head with triangularly produced anterior corners of the male frontoclypeus, the similar form of supraorbital horns, elytral striae with geminate irregular rows of punctures (especially in the middle of elytra), strongly convex interstriae, and the similar form of aedeagi. Therefore a new synonymy is proposed: *Cryphaeus amurensis* (Heyden, 1884) = *Anthracias duellicus* Lewis, 1894, **syn. n.**

Bionomics. Larvae and adults inhabit the polypore mushrooms *Trametes* sp., *Irpex lacteus* [Kompantseva, 1999], *Daedaleopsis conragosa* and *D. tricolor* [Jung et al., 2009].

Cryphaeus albopilosus Chûjô et Lee, 1993
(Fig. 6)

Material. 1♂ (SMNS), China, Shaanxi Prov., Taibai Shan above Houshenzi, 1300–1700 m, 9.06–3.07.1998 (leg. P. Jäger, J. Martens); 1♀ (will be deposited in Zoological Institute of the Russian Academy of Science, St Petersburg), Russia, Primorsky Region, Khasan District, Gamov Peninsula, Vityaz', 42°35'58.77"N / 131°11'13.86"E, at light, 6.08.2018 (leg. E.V. Komarov).

Distribution. Russia: Primorsky Region. South Korea (Mansu-san Mts.), China (Shaanxi), Taiwan.

Note. This species was described from the western part of South Korea [Chûjô, Lee, 1993]. It was later recorded for the same area, Taiwan [Jung et al., 2009] and China (Shaanxi) [Wu, Ren, 2008]. *Cryphaeus albopilosus* is readily separable from other species of the genus by having the body covered by white recumbent hairs. The species is recorded from Russia for the first time.

Bionomics. The specimen was collected in broad-leaved forest with *Quercus* sp., *Acer* sp., *Juglans mandshurica*, *Phellodendron amurense*. In Korea, the beetles were collected on *Daedaleopsis* sp. [Jung et al., 2009].

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