

**LOCATION OF THE BARK BEETLE TYPES (COLEOPTERA:
CURCULIONIDAE, SCOLYTINAE) DESCRIBED BY
GALI OLIMPIEVNA KRIVOLUTSKAYA**

M. Yu. Mandelshtam^{1*)}, M. E. Sergeev²⁾, V. Yu. Savitsky³⁾, A. V. Petrov⁴⁾

1) Department of Forest Protection, Wood Sciences and Game Management, Saint-Petersburg State Forest Technical University named after S.M. Kirov, St. Petersburg, 194021 Russia. *Corresponding author, E-mail: amitinus@mail.ru

2) Federal Scientific Center of the East Asia Terrestrial Biodiversity, Far Eastern Branch of the Russian Academy of Sciences, Vladivostok 690022, Russia.

3) Zoological Museum, Moscow Lomonosov State University, Moscow 125009, Russia.

4) Institute of Forest Science RAS, Sovetskaya st. 21, Uspenskoe, Moscow Region 143030, Russia.

Summary. Data on depositories of type specimens for ten bark-beetle species (six valid and four invalid) described by G.O. Krivolutsкая (1923–2007) is corrected and updated. Lectotype of *Phellodendrophagus elegans* Krivolutsкая, 1956 is designated; this species was described in 1956 not 1958. New combination is proposed for *Taphrorychus aceris* (Krivolutskaya, 1968), **comb. n.**, transferred from the genus *Dryocoetes* Eichhoff, 1864.

Key words: beetles, taxonomy, type specimens, new combination, entomological collections.

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Резюме. Исправлены и дополнены сведения о местах хранения типовых экземпляров 10 видов (6 валидных и 4 невалидных) жуков-короедов, описанных Г.О. Криволицкой (1923–2007). Обозначен лектотип для *Phellodendrophagus elegans* Krivolutsкая, 1956, который описан в 1956, а не 1958 году. Предложена новая комбинация для *Taphrorychus aceris* (Krivolutskaya, 1968), **comb. n.**, переведенного из рода *Dryocoetes* Eichhoff, 1864.

INTRODUCTION

Gali Olimpiyevna Krivolutsкая (1923–2007) was a leading specialist in the systematics of bark beetles (Coleoptera, Curculionidae: Scolytinae) of Russia. There is some confusion in the location of type specimens of the bark beetle species described by her in the catalog of

bark beetles of the world fauna (Wood & Bright, 1992), and in this paper we correct these inaccuracies and provide information on the locations of primary types and data on the places of their collection. The present study is based on the authors' work in the Russian collections, where specimens of bark beetles identified by G.O. Krivolutskaya are deposited.

MATERIAL AND METHODS

The present study is based on the authors' work in the collections of the Zoological Institute of the Russian Academy of Sciences in St. Petersburg (ZIN), Zoological Museum of Moscow State University (ZMMU), as well as in the Bioresource Collection (reg. number 2797657) of the Federal Scientific Center for Terrestrial Biodiversity of East Asia FEB RAS in Vladivostok (FSCV).

Photographs were taken with the stereomicroscope Olympus SZX16 and digital camera Olympus DP74 and stacked using Helicon Focus software. The final illustrations were post-processed for contrast and brightness using Adobe Photoshop® software.

LIST OF TAXA DESCRIBED BY G.O. KRIVOLUTSKAYA

Tribe Corthylini LeConte, 1876

Genus *Pityophthorus* Eichhoff, 1878

Pityophthorus sachalinensis Krivolutskaya, 1956

Pityophthorus sachalinensis Krivolutskaya, 1956b: 838.

TYPE MATERIAL EXAMINED. Lectotype (designated by Mandelshtam, 2002): sex unknown, **Russia**: Sakhalin, Kirovsk region, forest Territory Argi-Pagi, from *Abies*, 5.IX [19]50 (G. Krivolutskaya) [FSCV]. Paralectotypes: same collection locality and date, sex unknown, 6 ex. [FSCV], 2 ex. [ZIN].

CURRENT STATUS. Valid species (Alonso-Zarazaga *et al.*, 2023).

REMARKS. Lectotype is the third beetle from up in the stack of 7 carded beetles.

Tribe Cryphalini Lindemann, 1876

Genus *Cryphalus* Erichson, 1836

Cryphalus alni Krivolutskaya, 1958

Cryphalus alni Krivolutskaya, 1958: 145.

Ernoporos longus Eggers, 1926: 136.

Cryphalus longus (Eggers): Mandelshtam, 2002: 8.

TYPE MATERIAL EXAMINED. Lectotype of *C. alni* (designated by Mandelshtam, 2002): ♂, **Russia**: Sakhalin, Gornozavodskoi Region, River Rybatskaya valley, from alder, 30.VII 1952 (G. Krivolutskaja) [ZMMU]. Paralectotypes: same locality, date and collector: 2 ex. [ZMMU], 3 ex. [FSCV]; Gornozavodskoi Region, River Kuznetsovka valley 25.VIII 1952, 14 ex. [FSCV] and 30.VIII 1952, 13 ex. [FSCV]; Nevelskii Region, Kuznetsovo, from willow, 18.VII 1951, 8 ex. (G. Krivolutskaya) [FSCV].

CURRENT STATUS. Invalid species. Junior subjective synonym of *Cryphalus longus* (Eggers, 1926) known from Japan, according to Mandelshtam (2002: 8).

REMARKS. *Cryphalus alni* lectotype in ZMMU is the upper beetle in the stack of 3 carded beetles on one entomological pin; 2 other beetles become paralectotypes.

***Cryphalus kurilensis* Krivolutskaya, 1968**

Cryphalus kurilensis Krivolutskaya, 1968: 53.

Cryphalus rhusi Niisima, 1909: 145.

TYPE MATERIAL EXAMINED. Holotype: ♀, **Russia**: Kunashir I., environs of Alekhino settlement, mixed forest, from *Toxicodendron*, 22.VII 1962, (G. Krivolutskaya) [ZIN].

CURRENT STATUS. Invalid species. Junior subjective synonym of *Cryphalus rhusi* Niisima, 1909, according to Mandelshtam (2006: 324).

REMARKS. *Cryphalus kurilensis* was described based on 123 specimens from Kunashir and Iturup Islands. The holotype is not deposited in FSCV (Wood & Bright, 1992), but in ZIN (Krivolutskaya, 1968), there 4 paratypes also found (Mandelshtam, 2006). Moreover, 46 specimens stored in FSCV as well as 3 specimens kept in ZMMU should be considered as paratypes also.

***Cryphalus padi* Krivolutskaya, 1958**

Cryphalus padi Krivolutskaya, 1958: 145.

Cryphalus malus Niisima, 1909: 144.

TYPE MATERIAL EXAMINED. Lectotype of *C. padi* (designated by Mandelshtam, 2002), ♀, **Russia**: Sakhalin, Novoaleksandrovsk, River Susun valley, 18.VIII [19]52 (G. Krivolutskaya) [FSCV]. Paralectotypes: same place and date, 8 ex. [FSCV] and 3 ex. [ZIN].

CURRENT STATUS. Invalid species. Junior subjective synonym of *Cryphalus malus* Niisima, 1909 according to Mandelshtam (2002: 8).

Tribe Diamerini Hagedorn, 1909

Genus *Sphaerotrypes* Blandford, 1894

***Sphaerotrypes juglansis* Krivolutskaya, 1970**

Sphaerotrypes juglansis Krivolutskaya, 1970: 210.

TYPE MATERIAL EXAMINED. Holotype: sex unknown, **Russia**: Primorskii Krai, Nakhodka, Lesnaya str., from *Juglans*, 17.VII [19]66 (A.N. Kupyanskaya) [ZIN]. Paratypes: same date and collection place, 3 ex. [ZIN] and 6 ex. [FSCV]; Primorskii Krai, env. of Suchan town, from *Juglans mandshurica*, 7.VI 1967 (A.N. Kupyanskaya), 3 ex. [ZIN] and 15 ex. [FSCV].

CURRENT STATUS. Valid species.

REMARKS. Holotype is the upper beetle in the stack of three carded beetles on one entomological pin. According to original description (Krivolutskaya, 1970) type series consists of 12 specimens from Nakhodka and 22 specimens from Suchan (=Partizansk). So far, holotype is deposited not in FSCV (Krivolutskaya, 1970; Wood & Bright, 1992), but in ZIN.

Tribe Dryocoetini Lindemann, 1876

Genus *Dryocoetes* Eichhoff, 1864

Dryocoetes aceris Krivolutskaya, 1968

Fig. 1

Dryocoetes aceris Krivolutskaya, 1968: 58.

TYPE MATERIAL EXAMINED. Holotype: sex unknown, **Russia**: Iturup I., env. of Kuibyshevo, coastal slopes with *Acer pictum*, 7.IX 1961 (G. Krivolutskaya), [ZIN]. Paratypes: same locality and date, curvilinear forest on coastal slopes, 3 ex. [ZIN], 28 ex. [FSCV]; Iturup I., env. of Zolotoye, mixed forests, from maple, 11.VII 1963, 1 ex. (G. Krivolutskaya) [FSCV].

CURRENT STATUS. Valid species in the genus *Taphrorychus*. This species is most closely related to *Taphrorychus (Pseudopoecilips) mikuniyamensis* (Murayama, 1957) from Korea and thus should be transferred from genus *Dryocoetes* Eichhoff, 1864 into genus *Taphrorychus* Eichhoff, 1878 and new combination is proposed here: *Taphrorychus aceris* (Krivolutskaya, 1968), **comb. n.**

REMARKS. *Taphrorychus aceris* was described based on study of 32 specimens from Iturup Island. According to original description (Krivolutskaya, 1968) type series consists of holotype and 20 paratypes, but most probably the last number is a misprint. Holotype and 3 paratypes are deposited in ZIN and 28 paratypes in FSCV.

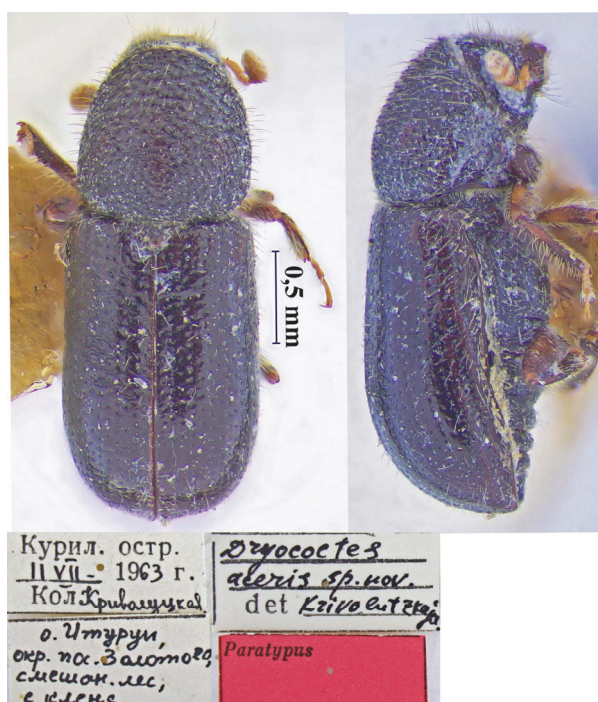


Fig 1. Paratype of *Taphrorychus aceris* (Krivolutskaya, 1968), **comb. n.**

Tribe Ernoporini Nüsslin, 1912

Genus *Eidophelus* Eichhoff, 1876

Phellodendrophagus elegans Krivolutskaya, 1956

Fig. 2

Phellodendrophagus elegans Krivolutskaya, 1956a: 57.

Eidophelus imitans Eichhoff, 1878: 201.

TYPE MATERIAL EXAMINED. Lectotype, here designated: sex unknown, **Russia:** Sakhalin I., Nevelskii Region, Kuznetsovo, from *Phellodendron sachalinensis*, 25.VI [19]51, (G. Krivolutskaya) [FSCV]. Paralectotypes: same place and date, 3 ex. [FSCV], 2 ex. [ZIN], same date and place but 22.VI [19]51, 6 ex. on two entomological pins [FSCV], 4 ex. [ZMMU].

CURRENT STATUS. Invalid species. Junior subjective synonym of *Eidophelus imitans* Eichhoff, 1878 according to Wood (1989: 172).



Fig. 2. Paralectotype of *Phellodendrophagus elegans* Krivolutskaya, 1956.

REMARKS. The first valid description of *P. elegans* was made by Krivolutskaya (1956a). This paper was not known to the catalog compilers of bark beetles of the world fauna (Wood & Bright, 1992) and Palaearctic (Knížek, 2011; Alonso-Zarazaga *et al.*, 2023) and they mistakenly considered that *Ph. elegans* was described later (Krivolutskaya, 1958). The place of storage of the type series in the original description (Krivolutskaya, 1956a) is not indicated, the place of collection of beetles is the valley of the Kuznetsovka River in the Gornozavodsky District (Krivolutskaya, 1958). There are no specimens marked as holotype in the collections of ZIN and FSCV. The FSCV has specimens with red labels, apparently belonging to the type series, from which we designate the lectotype, and the ZIN has two cotypes with the determining label of Krivolutskaya, which we designate as paralectotypes.

***Eocryphalus zachvatkini* Krivolutskaya, 1958**

Eocryphalus zachvatkini Krivolutskaya, 1958: 149.

Ernoporicus zachvatkini: Krivolutskaya, 1996: 367.

TYPE MATERIAL EXAMINED. Holotype: **Russia**: Sakhalin, Uglegorsky district, vicinity of Kotan settlement, from alder, 28.VIII [19]51, sex unknown (G.O. Krivolutskaya) [ZMMU]. Paratypes: same place and date, 1 ex. [ZMMU], 2 ex. [FSCV]. There is no indication of the holotype designation and place of its deposition in the original description (Krivolutskaya, 1958).

CURRENT STATUS. Valid species in the genus *Eidophelus* Eichhoff, 1876 (Johnson *et al.*, 2020: 55). Transferred to the genus *Eidophelus* by Johnson *et al.* (2020: 3).

Tribe Hyorrhynchini Hopkins, 1915

Genus *Pseudohyorrhynchus* Murayama, 1950

***Pseudohyorrhynchus wadai kurilensis* Krivolutskaya, 1996: 331**

TYPE MATERIAL EXAMINED. Holotype: ♂, **Russia**: Kunashir I., env. of Alekhino, mixed forest, from *Botrocaryum* trunk, 4.VIII 1961 (G. Krivolutskaya) [FSCV]. Paratypes: same date and collection place, 11 ex. [FSCV], 3 ex. [ZIN].

CURRENT STATUS. Valid subspecies in the genus *Pseudohyorrhynchus*. However, we have not directly compared types of this subspecies with types of *Pseudohyorrhynchus wadai wadai* Murayama, 1950 and thus cannot be completely sure in separate standing of two subspecies.

Tribe Trypophloeini Nüsslin, 1912

Genus *Hypothenemus* Westwood, 1834

***Hypothenemus insularum* Krivolutskaya, 1968**

Hypothenemus insularum Krivolutskaya, 1968: 56.

Ericryphalus elongatus Nobuchi, 1975: 42.

Hypothenemus krivolutskayae Wood, 1992: 79. Unnecessary replacement name for *Hypothenemus insularum* Krivolutskaya, 1968.

Ernoporicus insularum: Mandelshtam, 2006: 323.

Eidophelus insularum: Johnson *et al.*, 2020: 54.

TYPE MATERIAL: Holotypus: Russia, Kuril Isles, Kunashir I., env. of Alekhino settl., mixed forest, from *Botrocaryum*, 21.VII 1962, ♂ (G.O. Krivolutskaya) [ZIN]; paratypes, same date and place 6 specs. [FSCV]; same place, but 3.VII 1962, 1 spec. [FSCV].

CURRENT STATUS. Valid species in genus *Eidophelus* Eichhoff, 1878 (Alonso-Zarazaga *et al.*, 2023). Mandelshtam (2006:323) synonymized *Ericryphalus elongatus* Nobuchi, 1975 with *Hypothenemus insularum* Krivolutskaya, 1968 and transferred the species to the genus *Ernoporicus* Berger, 1917; later the genus *Ernoporicus* was synonymized with genus *Eidophelus* Eichhoff, 1878 (Johnson *et al.*, 2020: 1) what resulted in a modern combination *Eidophelus insularum* (Krivolutskaya, 1968) (Johnson *et al.*, 2020: 2).

REMARKS. According to original description type series consisted of 17 specimens (10♂, 7♀), holotype is deposited in ZIN (Krivolutskaya, 1968; Mandelshtam, 2006) and not in FSCV, as stated in the world catalogue of Scolytines (Wood & Bright, 1992).

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Address: Federal Scientific Center of the East Asia Terrestrial Biodiversity (former Institute of Biology and Soil Science), Far East Branch of the Russian Academy of Sciences, 690022, Vladivostok-22, Russia.

E-mail: storozhenko@biosoil.ru

web-site: <http://www.biosoil.ru/fec>