

## New synonymies and new combinations in Scolytidae from the Kuril Archipelago and continental territories of the Russian Far East (Coleoptera)

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Mandelshtam, M.Yu. 2007. New synonymies and new combinations in Scolytidae from the Kuril Archipelago and continental territories of the Russian Far East (Coleoptera). *Zoosystematica Rossica*, **15**(2), 2006: 323-325.

*Hypothenemus corni* Kurenzov, 1941 and *H. insularum* Krivolutskaya, 1968 are transferred to *Ernoporicus* (new combinations) and the following new synonymies are established: *Ernoporicus insularum* (Krivolutskaya, 1968) = *Ericryphalus elongatus* Nobuchi, 1975; *Cryphalus rhusii* Niisima, 1909 = *C. kurilensis* Krivolutskaya, 1968; *Xyleborus seriatus* Blandford, 1894 = *X. orientalis* Eggers, 1933. Lectotypes of *H. corni* Kurenzov, 1941 and *X. seriatus* Blandford, 1894 are designated.

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Recent papers with new synonymies and combinations in the Far-Eastern Scolytidae (Mandelshtam, 2000, 2002) solved only a part of the taxonomic problems raised by independent descriptions of Far-Eastern scolytids by Russian, Japanese, British and German scientists. The present paper aims to argue for new synonymy in some poorly known Far-Eastern species and demonstrate further that the bark-beetle fauna of the Southern Kurils does not differ significantly from the Japanese fauna and has in fact no endemic Scolytidae species.

The following abbreviations are used for institutions keeping the collections mentioned below (curators given in parentheses): BMNH – Natural History Museum, London (M. Barclay); IBSS – Institute of Biology and Soil Sciences, Vladivostok (G.Sh. Lafer); ZMMU – Zoological Museum of Moscow University (N.B. Nikitsky); NHMW – Museum of Natural History, Vienna (H. Schönmann); ZISP – Zoological Institute, St.Petersburg (B.A. Korotyaev).

**Ernoporicus corni** (Kurenzov, 1941), **comb. n.** = *Hypothenemus corni* Kurenzov, 1941. *Lectotype* (present designation): ♂, “Upper flow of River Iman, Southern Ussuri Reg., A. Kurenzov leg., 1938”, “Typus” (in blue ink on pink paper), “*Cornus tataricum* host plant”, “*Hypothenemus* sp. n. det. A. Kurenzov”, “*Hypothenemus corni* sp. n. (in black ink on pink paper)”, “Lectotypus *Hypothenemus corni* Kur. det. J. Michalski 1969” (label in black ink on red paper added by J. Michalski); ZISP. The lectotype designation has not been published by Michalski (1969). Two

paralectotypes (ZISP) and additional specimens from Khabarovsk Terr. and Sakhalin I. (ZISP, IBSS) were examined as well. This species possesses an aseptate club marked by procurved rows of setae, which is a feature of the genus *Ernoporicus* Berger, 1917 and not of *Hypothenemus* Westwood, 1836; also males are nearly of the same size as females (not dwarfed as in *Hypothenemus*), winged (not unable to flight as in *Hypothenemus*) and the habitus of the species is typical of *Ernoporicus*.

**Ernoporicus insularum** (Krivolutskaya, 1968), **comb. n.** = *Hypothenemus insularum* Krivolutskaya, 1968 = *Ericryphalus elongatus* Nobuchi, 1975, **syn. n.** = *Hypothenemus krivolutskayae* Wood, 1992. The holotype of *H. insularum* is kept in ZISP and not in IBSS as stated by Wood & Bright (1992); it was examined. It is a male with labels “Kunashir I., environs of Alekhino settlement, mixed forest, from *Bothrocaryum*, 21.VII.1962, G.O. Krivolutskaya leg.”, “*Hypothenemus insularum* sp. n.” (in red ink), G. Kriwolutzkaja (printed)”, “Holotypus *Hypothenemus insularum* Krivol. 1968 det. J. Michalski (label in black ink on red paper added by J. Michalski)”. Additional specimens (paratypes) of *H. insularum* from Kunashir I. were examined in IBSS. This species is very closely related to *E. corni* and is transferred to the genus *Ernoporicus* for the same reasons as the former. *H. krivolutskayae* Wood, 1992 is an unnecessary replacement name, as *H. insularis* Perkins, 1900 and *H. insularum* Krivolutskaya, 1968 are not homonyms (adjective and noun, respectively) (see

Alonso-Zarazaga, 2005). Examination of the original description (Nobuchi, 1975) of *E. elongatus* Nobuchi, 1975 and the high-quality photo of the holotype in the Web ([http://ss.niaes.affrc.go.jp/inventry/insect/dbscolytidae/e\\_elongatus.htm](http://ss.niaes.affrc.go.jp/inventry/insect/dbscolytidae/e_elongatus.htm)) allowed considering it to be a junior synonym of *E. insularum*. The host-plant of both nominal species (*Cornus controversa* Hemsley, which is sometimes considered to be in another genus and cited as *Bothrocaryum controversum* (Hemsley) Pojarkova) is the same, giving additional argument for synonymy. *E. insularum* can be differentiated only with difficulty from the very closely related *E. corni* by the slightly larger size and elytral ground vestiture; more evident are differences in the host plant specificity and in distribution. In *E. insularum*, males are as common as females (Krivolutskaya, 1968), being only slightly lesser in size compared to females, i.e. not dwarfed, flightless and rare as in species of the genus *Hypothenemus*.

**Cryphalus rhusii** Niisima, 1909 = *C. kurilensis* Krivolutskaya, 1968, **syn. n.** The holotype of *C. kurilensis* (ZISP, and not IBSS) and a long series of paratypes (4 in ZISP, 46 in IBSS and 3 in ZMMU) from Kunashir and Iturup were compared to two specimens of *C. rhusii* from IBSS and ZMMU collected in Japan (Mito, Ibaraki Pref., Honshu) and determined by Akira Nobuchi. All essential features, including long setae at alternate elytral interstices at declivity, poorly developed stria punctures, short longitudinal frontal carina under triangular frontal impression and presence of four to six sharp tubercles on anterior margin of pronotum, are shared by specimens from the Kurils and Japan. Posterior half of pronotum in specimens from the Kurils is covered by flushing, convex, round, shining granules and recumbent scales. Identical microsculpture of the basal half of the pronotum is seen in *C. rhusii* specimens from Honshu. Host plants of the species in the Kurils (*Toxicodendron trichocarpum* (Miq.) O. Kuntze) and in Japan (named by Niisima as *Rhus toxicodendron* var. *radicans*, currently referred to as *Toxicodendron radicans* (Linn.) O. Kuntze) are very closely related species (Ming & Barfod, 2006). *C. rhusii* was erroneously indicated by Chu (1964) for North Korea; I had an opportunity to study three beetles (IBSS) collected in North Korea from *Rhus japonica* by D.R. Chu, and these clearly belong to another, quite distinct *Cryphalus* species rather than to *C. rhusii*. The holotype of *C. kurilensis* is a female with the following labels: "Kunashir I., environs of Alekhino settlement, mixed forest, from *Toxicodendron*, 22.VII.1962, G.O. Krivolutskaya leg.", "*Cryphalus kurilensis* sp. n., holotypus" (in black ink in G.O. Krivolutskaya handwriting), "Holotypus *Cryphalus kurilensis* Krivol. 1968

det. J. Michalski" (label in black ink on red paper added by J. Michalski). Krivolutskaya (1968) did not compare her species with Niisima's *C. rhusii* in the diagnosis and most probably was mistaken due to the treatment of the species from Korea (see above) as *C. rhusii*.

**Xyleborus seriatus** Blandford, 1894 = *X. orientalis* Eggers, 1933, **syn. n.** Lectotype of *X. seriatus* (present designation): ♀, "Type" (BMNH red circular label), "Nikko" (printed), "G. Lewis 1910-320", "*Xyleborus seriatus* Bland." (probably, in Blandford's handwriting); BMNH. Blandford's (1894) original description of *X. seriatus* was based on two specimens collected at Nikko and Miyanoshta. Of the two syntypes, only one was found in BMNH; it is designated as lectotype. In addition to the lectotype, 13 more specimens of *X. seriatus* from Japan collected by G. Lewis mostly at Nikko (BMNH) and three additional beetles from more recent collections in Japan (NHMW) determined by K.E. Schedl were examined. Besides, a paratype ("cotype") of *X. orientalis* from ZMMU was studied, its labels are as follows: "Vladivostok env., Shkotov district., Maikhe forestry, 25.V.1929, V. Shabliovskiy leg.", silver circle, "*Xyleborus orientalis* ♀, Cotype, n. sp., Eggers det. 1931", "Cotypus" (on red paper), "*Xyleborus orientalis* Egg. B. Sokanovsky det.". One more specimen of *X. orientalis* determined by Eggers is preserved in ZMMU: "Jezo, Coll. Sokanovsky", "*Xyleborus orientalis* m. ♀ Eggers det. 1933", "*Xyleborus orientalis* Egg. B. Sokanovsky det.". Labels of this specimen demonstrate that Eggers did not differentiate the two species, since only *X. seriatus*, and not *X. orientalis*, was known to occur in Japan, including Hokkaido (Jezo). In addition to the types of *X. orientalis*, more than 100 specimens from Primorsk Terr. were examined (ZISP, N.B. Nikitsky collection at ZMMU). No stable morphological differences between specimens of *X. seriatus* from Japan and the continental Far East are found. Specimens examined demonstrate variability in intensity of body colour, size of declivital hairs, expression of juxtasutural sulcus at declivity, etc. *X. seriatus* was reported to be extremely polyphagous; one of its important hosts in Russia and Japan is spruce *Picea jezoensis* (Siebold & Zuccarini) Carrière. Previously, *X. orientalis* was reported for the Kuril Islands (Kunashir) (Mandelstam, 2000). The species range of *X. seriatus* (= *X. orientalis*) includes, in addition to Japan, the Kurils and Primorsk Terr., also North Korea (Chu, 1964), South Korea (Choo & Woo, 1985) and China (Hua, 2002). Recently, the species has been introduced into eastern USA (Boston, Massachusetts) (Haack, 2006). In contrast to most other Xyleborini and as the closely related *X. cryptographus*, *X. seria-*

*tus* builds its galleries under the bark of infested unhealthy trees and not in the wood and thus is thought to cause no serious damage.

#### Acknowledgements

The author is grateful to Prof. Ryūtarō Iwata (Nihon University, Fujisawa, Japan), Mr. Hideaki Goto (Forestry and Forest Products Research Institute, Ibaraki, Japan), Mr. Akira Ueda (Kansai Research Center, Kyoto, Japan), Dr. Haruo Kinuura (Tohoku Research Center, Morioka, Japan) for providing helpful reprints of Japanese taxonomic papers. The author thanks Dr. June-Yeol Choi (National Institute of Agricultural Science & Technology, Suwon, Korea) and Dr. Ki-Jeong Hong (National Plant Quarantine Service, Anyang city, Korea) for help in reading Korean papers and labels, curators of the collections (see above) for the material used in this study, and the late V.N. Kuznetsov (IBSS) for providing an important Chinese reprint and other help. G.O. Krivolutskaya and A.S. Lelej kindly opened access to all Scolytidae materials in IBSS and provided fruitful discussions during visit of the author to Vladivostok in 2000. Special sincere thanks are addressed to Heinrich Schönmann for organization of the author's work in NHMW in 2006. Vasily Grebennikov (Ontario Plant Laboratories, Canadian Food Inspection Agency, Ottawa, Canada) and Roger A. Bever (Thailand) are thanked for help with literature and comments on the manuscript. The collection of Zoological Institute RAS is supported by Ministry of Education and Science of RF (no. 2-2.20).

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Received 15 September 2006