

## Nomenclature changes in Palaearctic Scolytinae (Coleoptera: Curculionidae)

### Номенклатурные изменения в палеарктических Scolytinae (Coleoptera: Curculionidae)

A.V. Petrov<sup>1</sup>, M.Yu. Mandelshtam<sup>2</sup>, You Li<sup>3</sup>, S.O. Potanina<sup>4</sup>, S.M. Smith<sup>5</sup>  
 А.В. Петров<sup>1</sup>, М.Ю. Мандельштам<sup>2</sup>, Ю. Ли<sup>3</sup>, С.О. Потанина<sup>4</sup>, С.М. Смит<sup>5</sup>

<sup>1</sup> Institute of Forest Science RAS, Sovetskaya st. 21, Uspenskoe, Moscow Region, 143030, Russia.

<sup>1</sup> Институт лесоведения Российской академии наук, с. Успенское, ул. Советская, д. 21, 143030 Московская обл., Россия.

<sup>2</sup> St. Petersburg State Forest Technical University named after S.M. Kirov, Institutskii per. 5, St. Petersburg, 194021, Russia.

<sup>2</sup> Санкт-Петербургский государственный лесотехнический университет им. С.М. Кирова, Институтский пер., д. 5, 194021, Санкт-Петербург, Россия.

<sup>3</sup> Fujian Agriculture and Forestry University, Fuzhou, 350002, China.

<sup>4</sup> FGBU “VNIKR”, Pogradichnaya Str. 32, Bykovo, Moscow Region, 140150, Russia.

<sup>4</sup> Всероссийский центр карантина растений (ФГБУ «ВНИИКР»), ул. Пограничная 32, Московская область, пос. Быково 140150 Россия

<sup>5</sup> Michigan State University, East Lansing, Michigan 48824, USA.

Alexandr Petrov hylesinus@list.ru ORCID <https://orcid.org/0000-0001-9448-7179>

Mikhail Mandelshtam amitinus@mail.ru ORCID <https://orcid.org/0000-0002-7135-3239>

You Li yourreason@hotmail.com ORCID <https://orcid.org/0000-0001-9952-9542>

Sofia Potanina enkoletta@yandex.ru ORCID <https://orcid.org/https://orcid.org/0009-0006-0580-5950>

Sarah Smith camptocerus@gmail.com ORCID <https://orcid.org/0000-0002-5173-3736>

KEY WORDS: bark beetles, Coleoptera, Curculionidae, Scolytini, Ernoporini, Scolytus, Ernoporus, synonymy.

КЛЮЧЕВЫЕ СЛОВА: короеды, Coleoptera, Curculionidae, Scolytini, Ernoporini, Scolytus, Ernoporus, синонимия.

**ABSTRACT.** A new synonymy in the genus *Scolytus* Geoffroy, 1762 is established: *S. jacobsoni* (Spessivtsev, 1919) (= *nunbergi* Michalski, 1964 **syn.n.**). We restore species status of *Scolytus emarginatus* (Wichmann, 1915), **stat.resurr.** (= *seulensis* Murayama, 1930 **syn.n.**) and *Ernoporus eggersi* Kurentsov, 1941 **stat.resurr.** previously treated as synonyms of *Scolytus schevyrewi* Semenov, 1902 and *Ernoporus tiliae* (Panzer, 1793), respectively. A lectotype for *Ernoporus eggersi* Kurentsov, 1941 is designated.

**РЕЗЮМЕ.** Установлена новая синонимия в роде *Scolytus* Geoffroy, 1762: *S. jacobsoni* (Spessivtsev, 1919) (= *nunbergi* Michalski, 1964, **syn.n.**). Мы восстанавливаем статус *Scolytus emarginatus* (Wichmann, 1915), **stat.ressurr.** (= *seulensis* Murayama, 1930 **syn.n.**) и *Ernoporus eggersi* Kurentsov, 1941 **stat.ressurr.** как самостоятельных видов, а не младших синонимов *Scolytus schevyrewi* Semenov, 1902 и *Ernoporus tiliae* (Panzer, 1793) соответственно. Обозначен лектотип для *Ernoporus eggersi* Kurentsov, 1941.

Recent studies reviewing Palaearctic Scolytinae (Coleoptera: Curculionidae) dealing with synonymy and

combinations in the Palaearctic Scolytinae solved only a part of the taxonomic problems in tribes Scolytini Latreille, 1804 and Ernoporini Nüßlin, 1911 [Knížek, 2011; Petrov *et al.*, 2019; Johnson *et al.*, 2020]. Our study of the morphology of bark beetles made it possible to clarify the synonymy of some species.

### Material and methods

Specimens used in the present work were collected by the authors in the Russian Federation, Kyrgyzstan and China. Additional specimens housed in the National Museum of Natural History, Washington, D.C. USA (NMNH), Zoological Museum of Russian Academy of Sciences, St. Petersburg (ZIN), Zoological Museum of Moscow University, Moscow (ZMMU), Naturhistorisches Museum, Wien (NHMW), were also examined.

Photographs of beetles were taken using a Canon 50D camera and macro lens MP-E65, photographs of genitalia were taken using a microscope Axio Imager A2 with AxioCam 208 color camera. Images were processed using PICOLAY.

## Results

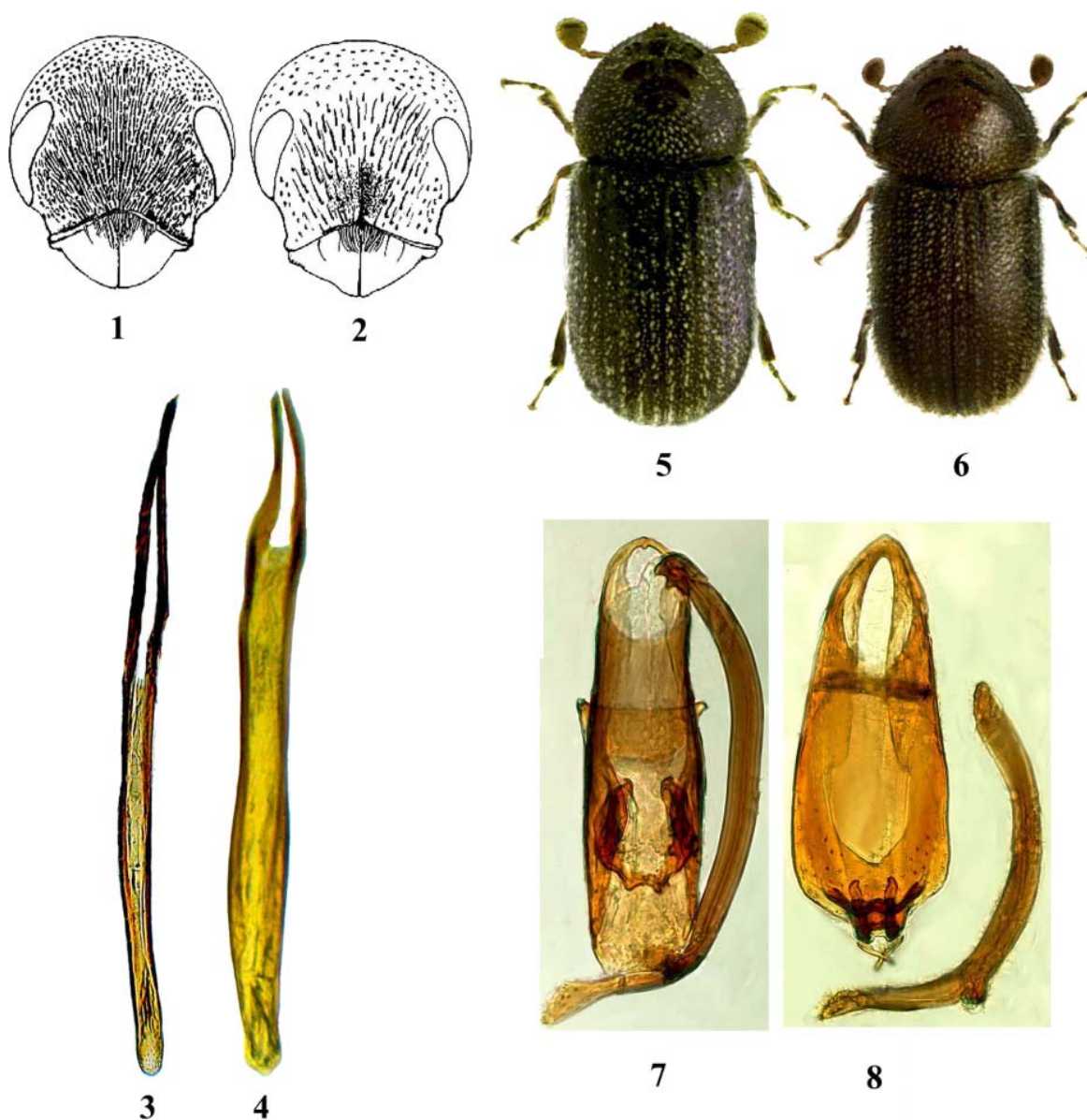
Tribe Scolytini Latreille, 1804  
*Scolytus emarginatus* (Wichmann, 1915)  
 (*Eccoptogaster*), **stat. resurr.**  
 Figs 1–4.

= *seulensis* Murayama, 1930 **syn.n**

The species limits of *Scolytus schevyrewi* Semenov, 1902 has been confused in many publications on the Palearctic *Scolytus* Geoffroy, 1762 fauna [Murayama, 1930;

Kurentsov, 1941; Schedl, 1948; Stark, 1952; Michalski, 1973; Yin, Huang, 1980; Wood, Bright, 1992; Krivolutskaya, 1996; Petrov, 2013; Petrov *et al.*, 2019]. Observed discrete morphological differences among *S. schevyrewi* specimens suggested that its species limits were in need of revision. Unfortunately, the holotype of *S. schevyrewi* is lost but types of its synonyms *S. emarginatus* Wichmann, 1915 and *S. seulensis* Murayama, 1930 were available for study.

We have studied the male holotype of *Scolytus emarginatus* (NHMW), with the geographic label “Fergana, Alay, Turkestan” and the label with designation of holotype. We also examined another male of *Scolytus emarginatus* in the K.E. Schedl collec-



**Figs 1–9.** Habitus and details of the species *Scolytus* and *Ernoporus*: 1, 3 — *Scolytus emarginatus*; 2, 4 — *Scolytus schevyrewi*; 5, 7 — *Ernoporus eggersi*; 6, 8 — *Ernoporus tiliae*; 1–2 — head, male; 3–4 — aedeagus without tegmen and spicule; 5–6 — habitus, males; 7–8 — aedeagus.  
**Рис. 1–9.** Габитус и детали строения видов *Scolytus* и *Ernoporus*: 1, 3 — *Scolytus emarginatus*; 2, 4 — *Scolytus schevyrewi*; 5, 7 — *Ernoporus eggersi*; 6, 8 — *Ernoporus tiliae*; 1–2 — голова самца; 3–4 — гениталии самцов без тегмена и спикюлы; 5–6 — внешний вид самцов; 7–8 — гениталии самцов *Ernoporus*.

tion (NHMW) bearing only one hand-written geographic label “Fergana, Alay, Turkestan” which is identical to the geographic label of the holotype. In his species description, Wichmann [1915] states that his diagnosis is based on only one specimen thus we cannot consider the second specimen as belonging to the of *S. emarginatus* type series. In addition, we examined 35 male and 67 females from Buryatia, Chita Region, southern parts of Primorsky Krai (Maritime Terr., Russian Far-East), Kyrgyzstan (West Tian Shan, near Baubash-Ata Mt.) and China. The photographs of the *S. seulensis* holotype (NMNH) were also examined and found to be conspecific with that of *S. emarginatus* and the species is here placed in synonymy.

*Scolytus emarginatus* differs from the morphologically similar *Scolytus schevyrewi* by structure of the male frons and male genitalia: frons in the former is covered by very dense, longitudinal deep aciculations, puncturation not visible (Fig. 1) and in the latter by sparse, longitudinal shallow aciculations, intervals between aciculations with small punctures (Fig. 2); male genitalia in *S. emarginatus* possess long narrow apophyses, penis tube is narrow and long (11.6–12.3 times longer than wide), 1.48 times longer than apophyses (Fig. 3) and in *S. schevyrewi* male genitalia have short wide apophyses, median lobe is wider (8.4–8.6 times longer than wide), 2.0 times longer than apophyses (Fig. 4).

*S. emarginatus* thus is restored from a synonymy with *S. schevyrewi*. Both species share partly overlapping distribution ranges in Central Asia and China.

#### *Scolytus jacobsoni* (Spessivtsev, 1919)

= *nunbergi* Michalski, 1964 **syn.n.**

We studied the female holotype of *Scolytus nunbergi* (ZIN) and compared the morphology of this type with 65 *S. jacobsoni* females from the southern parts of Primorsky Krai (Maritime Terr., Russian Far-East). We found similarity of habitus and elytra puncturation of *S. nunbergi* with *S. jacobsoni*, and three *S. jacobsoni* females have frons morphology identical to those of *S. nunbergi*. The right protrusion of ventrite 4 in *S. nunbergi* holotype is not symmetrical with the protrusion on the left. These protrusions are presumably the result of a mutation and are morphological aberrations. There were no observations of beetles with similar ventrite 4 protuberance since its description. Thus, we consider *S. nunbergi* to be a junior synonym of *S. jacobsoni*.

#### Tribe Ernoporini Nüsslin, 1911

#### *Ernoporus eggarsi* Kurentsov, 1941 **stat.ressurr.** Figs 5–8.

The name for the species was proposed by V.N. Stark [1936], but the morphological description of the species was provided for the first time in the monograph of A.I. Kurentsov [1941]. V.N. Stark [1952] gave the following characteristics to distinguish *E. eggarsi* from *E. tiliae* (Panzer, 1793): more elongated body form and strong metallic shining luster of the body and broader elytral striae. In contemporary literature *E. eggarsi* is considered a junior synonym of *E. tiliae* [Johnson *et al.*, 2020]. In 2024 in vicinity of Vladivostok (Bogataya River) A.V. Petrov collected a series of *E. eggarsi* consisting of 32 specimens that allowed detailed morphological study of the species. In our opinion, features of outer morphology [Stark, 1952] do not allow to separate the two closely related species (Figs 5–6). The only reliable feature to distinguish *E. eggarsi* is the structure of the male genitalia. Males of *E. eggarsi* possess a broad tegmen of semicircular form; apophyses very short, penis body is 2.3

times as long as apophyses; penis tube elongated, 2.9 times as long as wide; supporting penis structure is located not on penis apex, but closer to penis middle (Fig. 7). In males of *E. tiliae* the tegmen is narrow, apophyses are short, penis body is 2.0 times as long as apophyses; penis tube more broad, 1.7 times as long as wide; supporting penis structure is located on the penis apex (Fig. 8). *Ernoporus eggarsi* thus is restored as a valid species and removed from synonymy with *E. tiliae*.

From the long syntypic series of *Ernoporus eggarsi* (ZIN) we selected the lectotype (sex unknown) with the geographic label: “239. Майхинский ЛПХ [Леспромхоз], Соловейцев ключ, *Tilia amurensis*, 20.IX. [19]31” (239. Maikhe Forestry Enterprise, Soloveytsev stream, 20.IX. [19]31”) bearing also the additional label “collected by Kurentsov on Far East” probably added by V.N. Stark.

**Competing interests.** The authors declare no competing interests.

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