

**Description of a new *Hypothenemus* Westwood, 1834 species  
(Coleoptera: Curculionidae: Scolytinae) from  
South of Primorskiy Krai of Russia and South Korea**

**Описание нового вида рода *Hypothenemus* Westwood, 1834  
(Coleoptera: Curculionidae: Scolytinae)  
с юга Приморского края России и из Южной Кореи**

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**KEY WORDS:** Coleoptera, Curculionidae, Scolytinae, *Hypothenemus*, bark beetles, taxonomy, Russia, South Korea.

**КЛЮЧЕВЫЕ СЛОВА:** Coleoptera, Curculionidae, Scolytinae, *Hypothenemus*, короеды, систематика, Россия, Южная Корея.

**ABSTRACT.** A new species of *Hypothenemus* Westwood, 1834, *H. margaritae* **sp.n.** is described from south of Primorskiy krai of Russia and South Korea.

**РЕЗЮМЕ.** Описывается новый вид рода *Hypothenemus* Westwood, 1834, *H. margaritae* **sp.n.** с юга Приморского края России и из Южной Кореи.

The bark beetles are a constant part of the forest communities participating in the trees decay. The majority of species of Scolytinae inhabits the branches and stems of the host trees, less frequently fruit shells and leaf petioles or stems of herbaceous plants [Kirkendall et al, 2015; Petrov, 2017; Wood, 1982].

Tribe Cryphalini Lindemann, 1877 unites in Russia eight genera of Scolytinae: *Allernoporus* Kurentsov, 1941, *Cryphalus* Erichson, 1836, *Eidophelus* Eichhoff, 1876, *Ernoporicus* Berger, 1917, *Ernoporus* Thomson, 1859, *Hypothenemus* Westwood, 1834, *Procryphalus* Hopkins, 1915, *Trypophloeus* Fairmaire, 1864 [Berger, 1917; Krivolutskaya, 1958, 1996; Kurentsov, 1941; Salnitskaya, Mandelshtam, 2015; Stark, 1952].

The genus *Hypothenemus* Westwood, 1834 is one of the speciose genera of tribe Cryphalini Lindemann, 1877 (Coleoptera, Curculionidae, Scolytinae), common in tropical and subtropical areas. The genus *Hypothenemus* includes more than 180 recent species [Bright, Skidmore, 1997, 2002; Bright, 2014, 2019; Wood,

Bright, 1992]. Several hundred *Hypothenemus* species from different tropical and subtropical areas were described in entomological literature, but a majority of them are now in synonymy [Wood, 1986].

Most *Hypothenemus* species are tiny (length 0.6–2.0 mm), few species exceeds 2.0 mm (2.1–2.8 mm). A “big” species of *Hypothenemus*, *H. margaritae* is described from southernmost Primorskiy Krai of Russia and South Korea.

The characteristic features of the genus *Hypothenemus* include the following: 1) an emarginated eye; 2) antennal funicle 3- to 5-segmented; 3) antennal club with partly septate suture 1, suture 2 procurved and marked by setae; 4) basal and posterolateral margins of the pronotum with fine raised line; 5) rather abundant vestiture, usually including scales; 6) flightless males of reduced size [Vega et al, 2015; Westwood, 1834; Wood, 1982; 1986; 2007]. Species of *Hypothenemus* are distinguished from *Scolytogenes* Eichhoff, 1878 by the presence of procurved suture 2 marked by setae, by the vestiture that consists of rows of interstitial scales and rows of recumbent striae setae [Bright, 2019; Vega et al, 2015].

Recently second author has collected a series of *Hypothenemus* beetles in southern parts of Primorskiy Krai. Besides, six specimens of this species from South Korea were found in Research Institute of Forest Insect Diversity collection (Namyangju, South

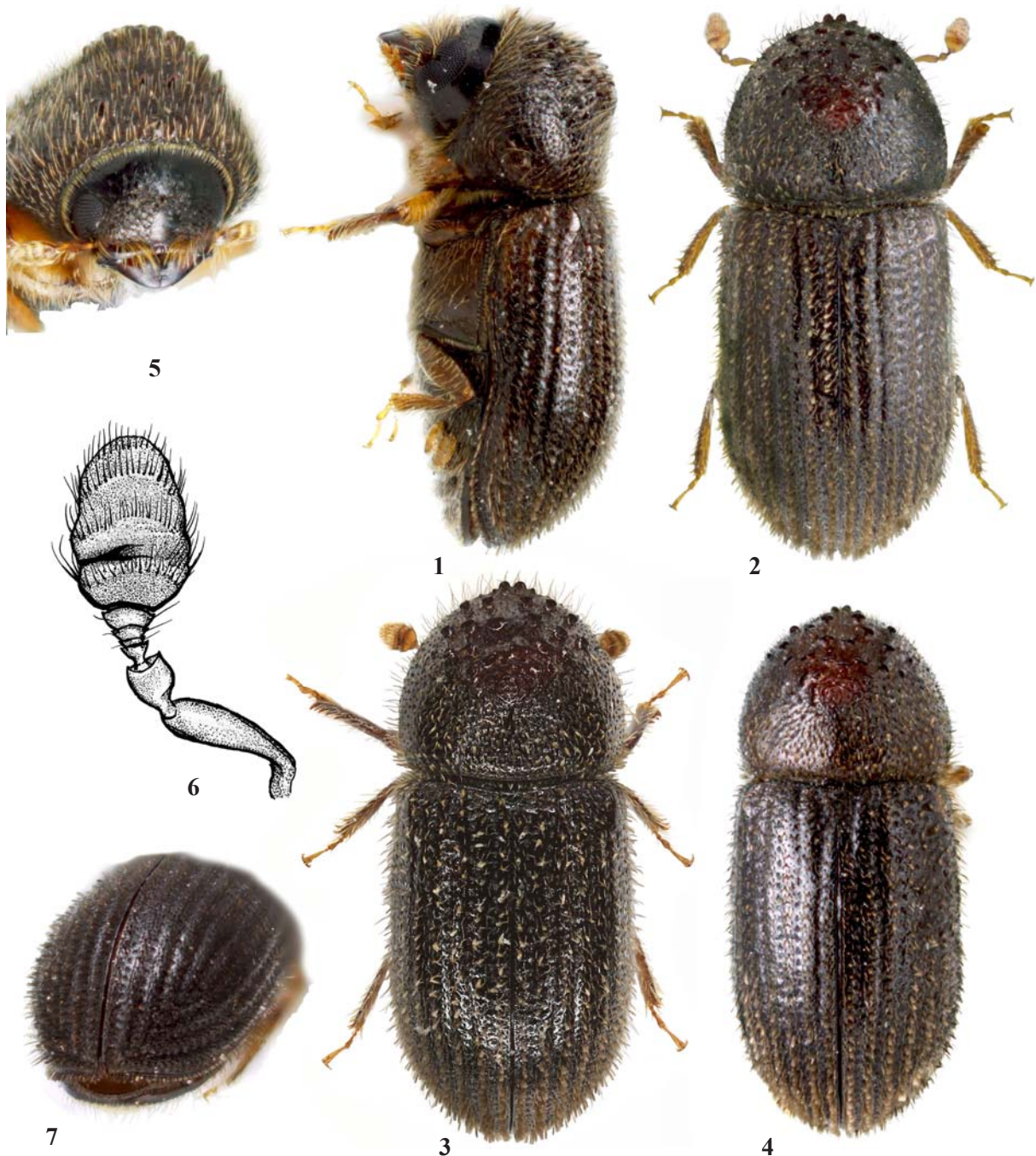
Korea) and University of Florida Forest Entomology collection (UFFE).

Photographs of beetles were taken using a Canon 50D camera and macro lens MP-E6.5, and processed using the program CombineZP.

*Hypothenemus margaritae* Petrov and Shamaev, **sp.n.**

Figs 1–7.

**MATERIAL.** Holotype, ♀ (ZMM): RUSSIA: South Primorskiy Kray Khasan District, 10 km N from Kraskino, beetle raised from larvae, 7.I.2018, A.V. Shamaev; Paratypes: same place, but emerged from 1.I.2018 till 2.V.2018, 20♀ (in APP and VNIKR collection,



Figs 1–7. Habitus and details of *Hypothenemus margaritae* sp.n., females: 1–4 — habitus; 5 — head; 6 — antenna; 7 — elytral declivity; 2 — holotype; 1, 4–7 — paratypes from South Primorie, Russia; 3 — paratype from South Korea; 1–2, 4–7 — photographs of A.V. Petrov; 3 — photograph of S. Park.

Рис. 17. Габитус и детали строения *Hypothenemus margaritae* sp.n., самки: 1–4 — внешний вид; 5 — голова; 6 — усик; 7 — скат надкрылий; 2 — голотип; 1, 4–7 — паратипы из Южного Приморья России; 3 — паратип из Южной Кореи; 1–2, 4–7 — фотографии А.В. Петрова; 3 — фотография S. Park.

Moscow; ZIN RAS, St.Petersburg, Russia); South Korea 6 ♀♀: Gyeonggi Province, Gunpo-Si, Hosu-ro, Mt. Surisan, 14.IV.2016, leg. S. Park (1 ♀); Gangwon Province, Inje-gun, Inje-eup, Gwandae-ri 13–19.VI.2013, leg. S. Park [labeled in Korean](1 ♀); Gangwon Province, Inje-gun, Buk-myeon, Hangye-ri, 17.IV–8.V.2018, leg. M.H. Lee (1 ♀); Gangwon Province, Goseong-gun, Geojin-eub, Geonbongsa-ro, 26.V.1993, leg. D.S. Gu (1 ♀); Gangwon Province, Chuncheon-si, Dong-myeon, Janghak-ri, 21.IV–17.V. 2011, leg. S. Park (1 ♀); Gyeongbuk Province, Yeongju-si, Pyeongun-myeon, Gangdong-ri, 10.V.1997, leg. K.J. Hong (1 ♀).

TYPE LOCALITY. Russia, South Primorskiy Krai.

DESCRIPTION. **Female:** body length 2.50 mm, 2.27 times as long as wide, body dark brown, covered with pale scales; antenna and legs yellowish brown (Figs 1–4).

Head black, shining. Frons convex from epistoma to vertex, punctured by small points except smooth median area from epistoma to upper level of eyes, vertex with sparse large punctures; vestiture hair-like, short, sparse, except numerous long yellow setae on epistoma and lateral sides of frons (Figs 1, 5). Eyes large, shallowly emarginated. Antennal funicle 5-segmented, club 2.0 times as long as wide, suture 1 straight, partly septate, suture 2 procurved and marked by setae (Fig. 6).

Pronotum 0.88 times as long as wide, surface shining; sides moderately arcuate on basal half, rather narrowly rounded in front; basal margin and posterior third of lateral margin marked by a fine raised line; anterior margin armed by two large (in the middle) and two smaller (laterally) rounded serrations; summit at middle, anterior slope coarsely asperate, armed by 20–23 large rounded serrations, surface punctured by small sparse points; posterior area shining, surface punctured with numerous points; vestiture on anterior part of abundant erect setae, on posterior part with numerous hair-like setae and yellowish brown scales.

Elytra 1.54 times as long as wide, 2.12 times as long as pronotum; sides almost straight and parallel on basal two-thirds, rather broadly rounded behind; striae 1 and 2 weakly impressed, all striae wide, punctures round, middle sized (diameter of each point equal in length to distance between punctures in rows), uniform from the base to apex; interstriae on disc almost smooth, about 1.2 times as wide as striae, with very small punctures, not at all granulate. Declivity convex, moderately steep; striae as wide as interstriae, declivital striae punctures well-developed clear, all interstriae weakly elevated (Fig. 7). Disc vestiture of rows of fine, rather short striae hairs, supplemented by some similar interstitial hair, and single straight rows of erect interstitial scales; each scale length equal to half of distance between rows; single straight rows of erect interstitial scales on declivity more abundant, length scales on declivity equals length of scales on disc.

Abdomen dark brown, vestiture of numerous hair-like pale setae.

**Male** unknown.

MEASUREMENT. Paratypes (females) 1.93–2.6 long, 2.27–2.28 times as long as wide, elytra 1.42–1.56 times as long as wide, 1.88–2.2 times as long as pronotum.

DIAGNOSIS. The new species is closely related to *Hypothenemus interstitialis* (Hopkins, 1915), but can be distinguished by larger body size, number and form of serrations on the apical margin of pronotum and vestiture on elytral declivity.

BIOLOGY. The species was collected in sparse growth of trees on flat hills. The trees were spaced by 10 to 30 meters. Larvae and callow adults overwinter in brood galleries. The adult beetles were raised and obtained by A.V. Shamaev from the branches of *Quercus dentata* Thunberg, 1784.

Along with the described species of bark beetle the branches were inhabited by *Phymatodes* (*Poecilium*) *ermolenkoi* Tsherepanov, 1980 (Cerambycidae) and *Agrilus viridis* L. (Buprestidae).

ETYMOLOGY. The new species is named in honor of A.V. Shamaev's daughter Margarita Shamaeva.

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