

Three new species of the genus *Thinodromus* Kraatz, 1857 from Indonesia and the Philippines (Coleoptera: Staphylinidae: Oxytelinae)

Три новых вида рода *Thinodromus* Kraatz, 1857 из Индонезии и Филиппин (Coleoptera: Staphylinidae: Oxytelinae)

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КЛЮЧЕВЫЕ СЛОВА: Coleoptera, Staphylinidae, *Thinodromus*, новые виды, Восточная биогеографическая область, Индонезия, Филиппины.

ABSTRACT. Three new species of the genus *Thinodromus* are described: *Thinodromus* (s.str.) *makarovi*, **sp.n.** from Java and Sumatra; *Thinodromus* (s.str.) *coronatus*, **sp.n.** and *Thinodromus* (s.str.) *shavrini*, **sp.n.** from the Philippines.

РЕЗЮМЕ. Описываются три новых вида рода *Thinodromus*: *Thinodromus* (s.str.) *makarovi*, **sp.n.** с Явы и Суматры; *Thinodromus* (s.str.) *coronatus*, **sp.n.** и *Thinodromus* (s.str.) *shavrini*, **sp.n.** с Филиппин.

Introduction

So far, only three species of the genus *Thinodromus* Kraatz, 1857 were known from this part of the Oriental biogeographic region [Herman, 2001; Gildenkov, 2017, 2018a, b, 2019a, b; Makranczy, 2006, 2014, 2016; Schülke, Smetana, 2015]. *Thinodromus* (s. str.) *sumatrensis* (Bernhauer, 1915) is described from Sumatra, and is now also known from Bali [Gildenkov, 2017]. *Thinodromus* (s. str.) *unipustulatus* (Cameron, 1941) is described from the island of Luzon, and is now also known from other Philippine islands — Mindoro and Negros [Gildenkov, 2017]. Both of these species belong [Gildenkov, 2017] to the «*lunatus*» group. The third species, *Thinodromus arcitenens* (Fauvel, 1905), has been described from Java and, in our opinion [Gildenkov, 2015], is much closer to the species of genus *Carpelimus* Leach, 1819 of the subgenus *Bucephalinus* Koch, 1934, as evidenced by [Makranczy, 2014] structural features of the body (developed temples, shape of impressions on pronotum disk) and aedeagus structure.

The three species described in this work do not belong to the «*lunatus*» group or other known species group of *Thinodromus*.

This paper is based on the specimens deposited in the following collections: cMG — private collection of M. Gildenkov (Smolensk, Russia); DUISB — Daugavpils University Institute of Systematic Biology (Latvia); MHNG — Muséum d'Histoire Naturelle Geneva (Switzerland); NHMW — Naturhistorisches Museum Wien (Austria). In the present study, standard methods were used for the taxonomic research of insects; the preparations were made on an MBS-10 binocular microscope. The genital preparations were processed using 10% KOH and then fixed in euparal. In the descriptions and diagnoses giving the length to width ratio for the head, pronotum, and elytra, the following standard units were used: 7 standard units = 0.1 mm; thus, 1 standard unit constitutes about 0.0143 mm. Photographs were taken with a Canon EOS 5D Mark III camera and a Canon MP-E 65 mm objective using the extended focus technology. The distributional maps were created using MapCreator 2.0 software.

Thinodromus (s.str.) *coronatus* Gildenkov, **sp.n.** Figs 1, 4–6.

MATERIAL. Holotype, ♂, Philippines, Negros Island: with labels “PHILIPP. 16.III.1994 Negros occ, Mambucal Seven Falls, ca 900m leg. Schödl (2)” (NHMW). Paratypes: 2♂♂, 1♀ “PHILIPP. 16.III.1994 Negros occ, Mambucal Seven Falls, ca 900m leg. Schödl (2)” (NHMW); 1♂ — cMG); 3♀♀, 1 ex. “PHIL.: Negros 1994 Mt. Canlaon, ca. 900m Mambucal, 16.3. leg. Zettel (39d)” (NHMW); 1♀ — cMG); 1♀ “PHILIPP.: Negros isl. Mambucal 12.2.1994 leg. Seyfert” (NHMW); 1♀ “Philippines Palawan central, along Tarabanan river, NE San Rafael, ca 30m, 7.XII.1995, Kodada & Rigova lgt.” (MHNG); 1♀ “Philippines Luzon: Lagunas, Los Banos, vegetation debris near small river, 28.XI.1995 J. Kodada & B. Rigova lgt.” (MHNG).

DESCRIPTION (holotype). Length 2.7 mm. Colouration brown, legs, last two segments of antennae and apex of elytra yellow-brown. Integument are quite shiny, body with fairly long light-coloured seta.

Head transverse, with a wide base, ratio of its length (from posterior margin of head to anterior margin of clypeus) to maximum width about 23:33. Neck constriction prominent. Eyes large, convex, occupying almost entire lateral side of head; temples almost indistinct, the head has the largest width in the eye area (Fig. 1). Head surface with clearly, rather finely and dense punctation. Diameter of punctures is about 1.5 times smaller than the eye facet. Distances between punctures significantly smaller than their diameter, interspaces smooth, shining (Fig. 1). Antennae long, with lengths of all antennal segments noticeably or significantly longer than their width (Fig. 1).

Pronotum heart-shaped, reaches its greatest width after about 2/3 of the length measured from the base, then narrowed (Fig. 1). Ratio of pronotum length to its maximum width is about 28:36. Surface of pronotum with clearly, rather finely and dense punctation. Diameter of punctures about 1.5 times smaller than the eye facet. Distances between punctures are significantly smaller than their diameter, interspaces smooth, shining (Fig. 1). Base of pronotal disc with distinct horse-shoe-shaped depression (Fig. 1); central part of disc with 2 symmetrical distinct weakly developed oval depressions.

Ratio of length of elytra to their combined width about 46:54. Elytra with clearly, rather finely and dense punctation.

Diameter of punctures dots is approximately equal to eye facet. Distances between punctures significantly smaller than their diameter, interspaces smooth, shining (Fig. 1).

Abdomen with fine and sparse punctation, shining.

Aedeagus of characteristic structure, with a peculiar form of parameres (Figs 4–5).

Female. Sexual dimorphism is absent, female morphologically similar to male. Spermatheca of characteristic structure (Fig. 6).

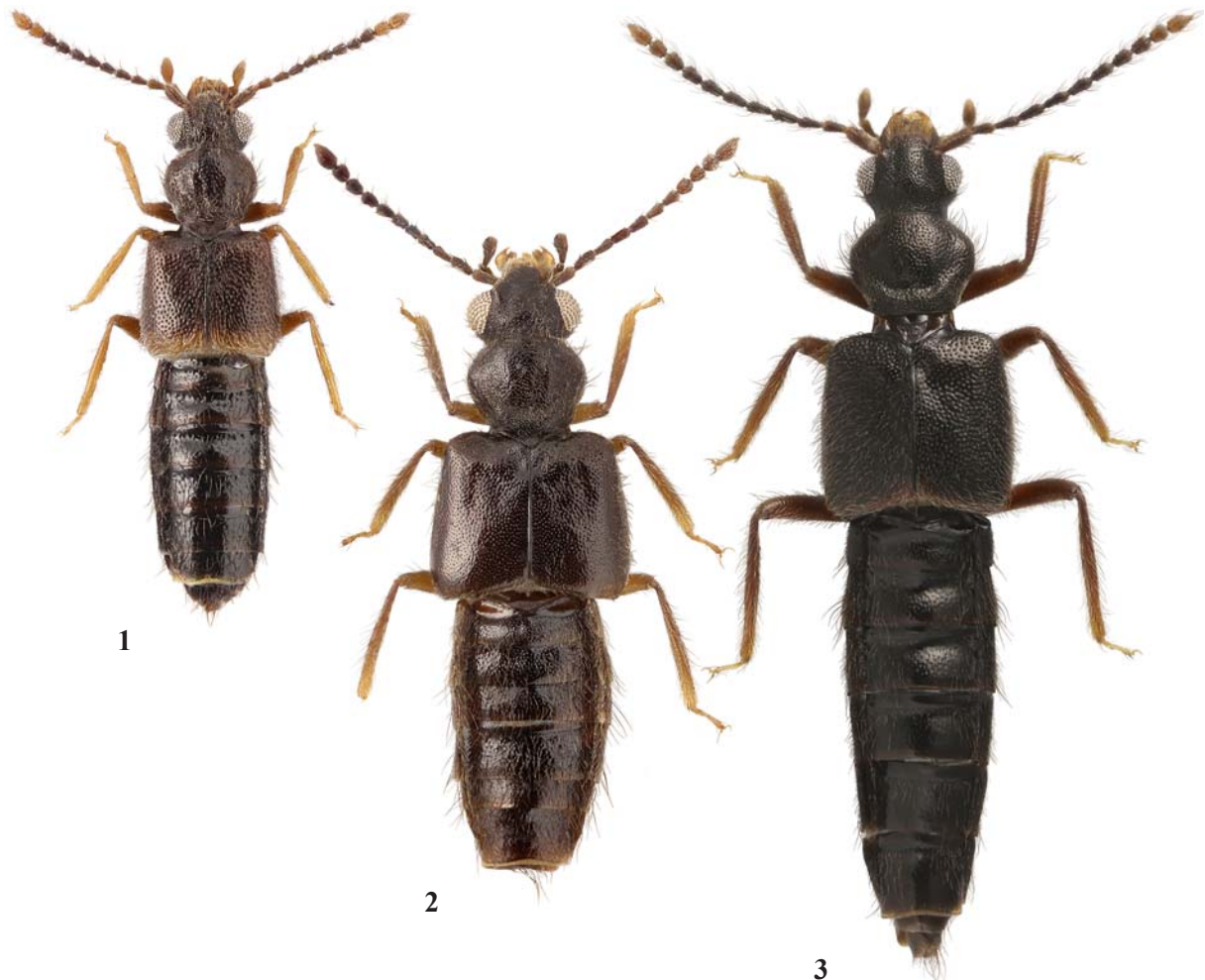
COMPARATIVE REMARKS. The species is distinguished by its small size, clear puncturation of the body surface and light coloring of the apex of the elytra. Reliably different in the structure of the aedeagus, especially in the form of parameres (Figs 4–5).

DISTRIBUTION. Philippines (Fig. 13).

ETYMOLOGY. From Latin “coronatus” (crowned); the name refers to the structure of parameres.

Thinodromus (s.str.) *makarovi* Gildenkov, **sp.n.**
Figs 2, 7–9.

MATERIAL. Holotype, ♂, Indonesia, West Java: with labels “INDONESIA: W Java Gn. Salak, 8km S Bogor Sungai Ciapus, ca 800m lg. Schuh 17.8. 1994” (NHMW). Paratypes: 3♂♂, 1♀ “INDO-

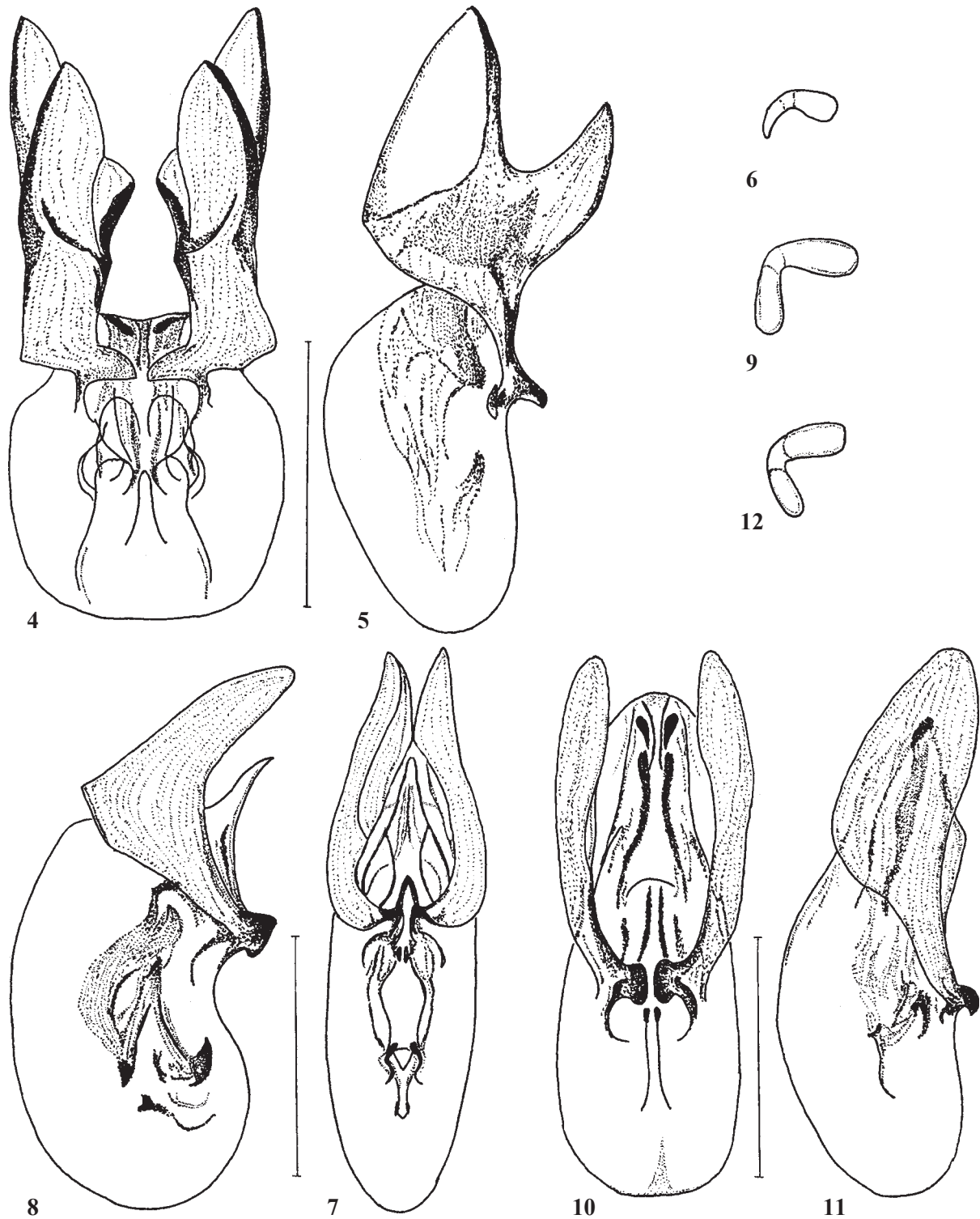


Figs 1–3. *Thinodromus* spp., holotypes, males, dorsal view: 1 — *Thinodromus* (s. str.) *coronatus*, **sp.n.**; 2 — *Thinodromus* (s. str.) *makarovi*, **sp.n.**; 3 — *Thinodromus* (s. str.) *shavrini*, **sp.n.**

Рис. 1–3. *Thinodromus* spp., голотипы, самцы, сверху: 1 — *Thinodromus* (s. str.) *coronatus*, **sp.n.**; 2 — *Thinodromus* (s. str.) *makarovi*, **sp.n.**; 3 — *Thinodromus* (s. str.) *shavrini*, **sp.n.**

NESIA: W Java Gn. Salak, 8km S Bogor Sungai Ciapus, ca 800m lg. Schuh 17.8. 1994" (NHMW; 1♂ — cMG); 2♂♂, 1♀, Indonesia, West Sumatra: with labels "INDONESIEN 1991 (28) W-Sumatra, W Danau di Atas 70 km SE Padang, leg. Jäch 24.2" (NHMW); 4♂♂,

5♀♀, 5 ex., Indonesia, North Sumatra: with labels "SUMATRA ACEH Ketambe 7.-17.X.> <INDONESIA 1991, leg. Barries" (NHMW; 1♂, 1♀, 1 ex. — cMG); 1♀, 2 ex. "SUMATRA, Aceh Kutacane. Ketambe 7.-19.10.1991, 400m, leg. Barries" (NHMW).



Figs 4–12. Genitalia of *Thinodromus*: 4–6 — *T. coronatus*, sp.n.; 7–9 — *T. makarovi*, sp.n.; 10–12 — *T. shavrini*, sp.n.; 4, 7, 10 — aedeagus, ventral view (holotypes); 5, 8, 11 — aedeagus, lateral view (holotypes); 6, 9, 12 — spermatheca (paratypes). Scale bars: 0.25 mm.
 Рис. 4–12. Гениталии *Thinodromus*: 4–6 — *T. coronatus*, sp.n.; 7–9 — *T. makarovi*, sp.n.; 10–12 — *T. shavrini*, sp.n.; 4, 7, 10 — эдеагус, снизу (голотипы); 5, 8, 11 — эдеагус, сбоку (голотипы); 6, 9, 12 — сперматека (паратипы). Масштаб: 0,25 мм.

DESCRIPTION (holotype). Length 3.3 mm. Colouration brown, legs light-brown. Integument slightly shining, body with short, light-coloured seta. Some specimens are black-brown, legs and antennas are brown.

Head transverse, with a wide base, ratio of its length (from posterior margin of head to anterior margin of clypeus) to maximum width is about 28:43. Neck constriction prominent. Eyes large, convex, occupying almost entire lateral side of head; temples almost indistinct, the head has the largest width in the eye area (Fig. 2). Head surface with rather clearly, highly finely and dense punctation. The diameter of the punctures is more than 5 times smaller than the diameter of the eye facet. Distances between punctures significantly smaller than their diameter, interspaces smooth, slightly shining (Fig. 2). Antennae rather long, antennal segments 1–8 elongated; segments 9–10 are about as long as wide; segment 11 elongated, conical (Fig. 2).

Pronotum heart-shaped, reaches its greatest width after about 2/3 of the length measured from the base, then narrowed (Fig. 2). Ratio of pronotum length to its maximum width about 37:46. Surface of pronotum with rather clearly, finely and dense punctation. The diameter of the punctures is approximately 5 times smaller than the diameter of the eye facet. The distance between punctures is significantly smaller than their diameter, interspaces smooth, slightly shining (Fig. 2). Base of pronotal disc with distinct horseshoe-shaped depression (Fig. 2); central part of disc with 2 symmetrical distinct weakly developed oval depressions.

Ratio of length of elytra to their combined width about 65:76. Elytra with rather clearly, finely and dense punctation. The diameter of the punctures is about 4 times smaller than the diameter of the eye facet. Distance between punctures are a little smaller than their diameter, interspaces smooth, shining (Fig. 2).

Abdomen with fine and dense punctation, shining.

Aedeagus of characteristic structure (Figs 7–8).

Female. Sexual dimorphism is absent, female morphologically similar to male. Spermatheca of characteristic structure (Fig. 9).

COMPARATIVE REMARKS. The species is distinguished by large sizes, well-developed eyes, and distinct, fine, and dense punctation of the body surface. Reliably different in the structure of the aedeagus (Figs 7–8).

DISTRIBUTION. Indonesia; Java, Sumatra (Fig. 14).

ETYMOLOGY. The species is named after Kirill Vladimirovich Makarov, a well-known expert in the biology and taxonomy of Coleoptera.

***Thinodromus* (s.str.) *shavrini* Gildenkov, sp.n.**

Figs 3, 10–12.

MATERIAL. Holotype, ♂, Philippines, Mindanao Island: with labels “PHILIPPINES: Mindanao, Davao prov., Mt. Talomo (Mts. Apo) 1200–1300 m 7°04'40.9"N 125°29'02.3"E, 27–28.04.2019, Shavrin A.V. leg.” (DUISB). Paratypes: 3♂♂, 2♀♀, 2 ex. “PHILIPPINES: Mindanao, Davao prov., Mt. Talomo (Mts. Apo) 1200–1300 m 7°04'40.9"N 125°29'02.3"E, 27–28.04.2019, Shavrin A.V. leg.” (DUISB; 1♂, 1 ex. — cMG); 1♂ “PHILIPPINES: Mindanao, Davao prov., Mt. Talomo (Mts. Apo), Gatigan, 800–1000 m 7°01'22.0"N 125°22'30.5"E, 29.4–01.05.2019, Shavrin A.V. leg.” (DUISB).

DESCRIPTION (holotype). Length 3.9 mm. Colouration dark-brown, legs, 1st, 2nd and 9–11th segments of antennas and apex of elytra brown. Integument slightly shining, body with fairly long light-coloured seta.

Head transverse, with a wide base, ratio of its length (from posterior margin of head to anterior margin of clypeus) to maximum width is about 27:40. Neck constriction prominent. Eyes large, convex, occupying almost entire lateral side of head; eye diameter in dorsal view is about 3.5 times as long as temple length (Fig. 3). Head surface with clearly, finely and dense punctation. The diameter of the punctures is about 1.5 times smaller than the diameter of the eye facet. Distance between punctures is much smaller than their diameter, interspaces smooth, slightly shining (Fig. 3). Antennae long, with lengths of all antennal segments noticeably or significantly longer than their width (Fig. 3).

Pronotum heart-shaped, reaches its greatest width after about 2/3 of its length measured from the base, then narrowed (Fig. 3). Ratio of pronotum length to its maximum width about 40:47. Surface of pronotum with clearly, finely and dense punctation. Diameter of punctures is slightly smaller than the diameter of an eye facet. Distance between punctures is much smaller than their diameter, interspaces smooth, slightly shining (Fig. 3). Base of pronotal disc with distinct horseshoe-shaped depression (Fig. 3); central part of disc with 2 symmetrical distinct weakly developed oval depressions.

Ratio of length of elytra to their combined width is about 68:73. Elytra with clearly, finely and dense punctation. Diameter of punctures is slightly more than the diameter of an eye facet. Distance between punctures is much smaller than their diameter, interspaces smooth, slightly shining (Fig. 3).

Abdomen with fine and dense punctation, shining. Aedeagus of characteristic structure (Figs 10–11).

Female. Sexual dimorphism is absent, female morphologically similar to male. Spermatheca of characteristic structure (Fig. 12).



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Figs 13–14. Distribution of *Thinodromus*: 13 — *T. coronatus*, sp.n. (black circles) and *T. shavrini*, sp.n. (black squares) in Philippines; 14 — *T. makarovi*, sp.n. in Indonesia.

Рис. 13–14. Распространение *Thinodromus*: 13 — *T. coronatus*, sp.n. (черные круги) и *T. shavrini*, sp.n. (черные квадраты) на Филиппинах; 14 — *T. makarovi*, sp.n. в Индонезии.

COMPARATIVE REMARKS. The species is distinguished by large sizes, a narrow body with a small head, clear, fine and dense punctation of the surface of the body. Reliably different in the structure of the aedeagus (Figs 10–11).

DISTRIBUTION. Philippines (Fig. 13).

ETYMOLOGY. The species is named after Alexey Valeriyevich Shavrin, a well-known expert in the biology and taxonomy of Coleoptera, who collected the type series.

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