

A new species of the genus *Pseudogaurotina* Plavilstshikov, 1958
(Coleoptera: Cerambycidae: Lepturinae: Rhagiini)
from South Korea

Новый вид жуков-дровосеков рода *Pseudogaurotina*
Plavilstshikov, 1958 (Coleoptera: Cerambycidae: Lepturinae:
Rhagiini) из Южной Кореи

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КЛЮЧЕВЫЕ СЛОВА: Coleoptera, Cerambycidae, *Pseudogaurotina*, новый вид, диагноз, описание, Южная Корея.

ABSTRACT. A new species, *Pseudogaurotina drumonti* Miroshnikov et Tichý, **sp.n.**, is described from South Korea. Based on male characters, it appears to be particularly similar to *Pseudogaurotina magnifica* (Plavilstshikov, 1958) from the Sikhote-Alin Mountains, but specifically differs in the narrower pronotum with the distinctly less strongly expressed dorsolateral tubercles, the distinctly denser, predominantly confluent, in part smaller punctures on head between eyes, the somewhat different coloration of the meso- and metasterna, coxae, tibiae, and tarsi, as well as in the structure of the genitalia.

РЕЗЮМЕ. Описан новый вид *Pseudogaurotina drumonti* Miroshnikov et Tichý, **sp.n.** из Южной Кореи. По признакам самца он наиболее сходен с *Pseudogaurotina magnifica* (Plavilstshikov, 1958), населяющим горы Сихотэ-Алинь, но отличается более узкой переднеспинкой с отчетливо менее выраженными дорсолатеральными буграми, явно более густой, преимущественно сливающейся, отчасти более мелкой пунктировкой головы между глазами, несколько иной окраской мезо- и метастерна, тази-ков, голеней и лапок, а также строением гениталий.

Introduction

Several years ago, during the study by the second author of historical collections from Fusan (= Busan), South Korea, deposited at the Institut royal de Scienc-

es naturelles de Belgique, Bruxelles (IRSN), one male from the group of genera *Gaurotina* – *Pseudogaurotina*¹ was discovered. However, the establishment of a taxonomic attribution of this specimen was challenging for some time, despite the fact that Danilevsky [2020: 12] identified it from an image as *Gaurotina sichotensis* Danilevsky, 1988 without any comment.

Only a significant progress in the study of *Pseudogaurotina magnifica* (Plavilstshikov, 1958) and a discovery of the previously unknown male of this species [Miroshnikov, Sergeev, 2023] allowed us to solve the problem and reasonably attribute the discussed Korean specimen to a new species of the genus *Pseudogaurotina* described below.

In this regard, it is important to note that the male of *P. magnifica*, which closely resembles a here discussed Korean male, differs sharply from the female in the coloration of the legs and venter [Miroshnikov, Sergeev, 2023]. Such pronounced sexual dimorphism in the coloration was discovered for the first time among representatives of *Pseudogaurotina*.

The material treated in this work belongs to the following institutional and private collections: cAM — collection of Alexandr Miroshnikov (Krasnodar, Russia); cEY — collection of Evgeny Yakushkin (Moscow, Russia); cJM — collection

¹ As was demonstrated earlier [Miroshnikov, Sergeev, 2023], the position of *Pseudogaurotina excellens* (Brancsik, 1874) in the Nearctic genus *Brachysomida* Casey, 1913 [Zamoroka, 2022] is erroneous, while the erection of the tribe Cariliini Zamoroka, 2022 [Zamoroka, 2022] appears insufficiently justified.

of Jacques Marquet (Grisy-Suisnes, France); cPR — collection of Pierpaolo Rapuzzi (Prepotto, Italy); FCBV — Federal Scientific Center of the East Asia Terrestrial Biodiversity, Far East Branch of the Russian Academy of Sciences (Vladivostok, Russia); IRSN — Institut royal de Sciences naturelles de Belgique (Bruxelles, Belgium); ZIN — Zoological Institute of the Russian Academy of Sciences (St Petersburg, Russia); ZMMU — Zoological Museum of the Moscow State University (Moscow, Russia).

Pseudogaurotina drumonti Miroshnikov et Tichý, **sp.n.**
Figs 1, 4, 7, 10, 13, 15, 17, 19–21.

Gaurotina sichotensis: Danilevsky, 2020: 12 («Korea») (non *sichotensis* Danilevsky, 1988).

Pseudogaurotina sp.: Miroshnikov, Sergeev, 2023: 65 (as most likely a new species).

MATERIAL. Holotype, ♂ (IRSN) (Figs 1, 4): South Korea, Fusan (= Busan), 35°10'N / 129°04'E, VII.1939, Cogan [original handwritten label: «Corée, Fusan, VII.1939, Cogan»; author's note: Cogan is probably the surname of the collector].

COMPARATIVE MATERIAL. *Pseudogaurotina magnifica* (Plavilstshikov, 1958): Russia, Primorye Region: 1♀, holotype (ZMMU), «бух. Терней, Сихота-Алин, Прим. об., 12.VI.[1]914, Крылов» [Terney Bay, Sikhote-Alin, Primorye Region, 12.VI.1914, leg. Krylov] / «[*Gaurotes (Pseudogaurotina)*] *magnifica* m. ♂ (sic; in reality it is a female: Miroshnikov, Sergeev, 2023)» / «Holotypus» / «Holotypus *Gaurotes (Pseudogaurotina) magnifica* Plavilstshikov, 1958» [label by M.L. Danilevsky] / «Зоомазей МГУ (Москва, Россия) [Zoological Museum of the Moscow State University (Moscow, Russia), № ZMMU Col 00048, Zool. Mus. Mosq. Univ. (Mosquae, Russia, ex coll. N.N. Plavilstshikov); 1♀, paratype (ZMMU), «Приморский кр., ключ Серебрян.[ый], 14.VII.[19]45, Несмерчук» [Primorye Region, Serebryanyi Stream, 14.VII.1945, leg. Nesmerchuk] / «[*Gaurotes (Pseudogaurotina)*] *magnifica* m. ♀» / «Cотyпуc» / «Paratypus *Gaurotes (Pseudogaurotina) magnifica* Plavilstshikov, 1958» [label by M.L. Danilevsky]; 1♂ (сAM) (Figs 2, 5), Сихотэ-Алинский заповедник, верховья реки Серебрянка, урочище Спорный, ключ Спорный, 45°10'13.1''N / 135°56'36.9''E, 29.06.2017, М.Е. Сергеев [Sikhote-Alin Nature Reserve, upper reaches of the Serebryanka River, Spornyi natural boundary, Spornyi Stream, 45°10'13.1»N / 135°56'36.9»E, 29.06.2017, leg. М.Е. Сергеев] / *Pseudogaurotina magnifica* (Plavilstshikov, 1958) ♂ det. A. Miroshnikov 2017; 1♀ (сAM), same label / *Pseudogaurotina magnifica* (Plavilstshikov, 1958) ♀ det. A. Miroshnikov 2017; 1♀ (сAM), Сихотэ-Алинский заповедник, урочище Венера, ключ Венера, пойменный лес, 20.06.2017, Г.А. Начаркин [Sikhote-Alin Nature Reserve, Venera natural boundary, Venera Stream, floodplain forest, 20.06.2017, leg. G.A. Nacharkin] / *Pseudogaurotina magnifica* (Plavilstshikov, 1958) ♀ det. A. Miroshnikov 2017; 1♂ (сAM), Сихотэ-Алинский заповедник, урочище Курума, пойма р. Курума, 44°55'46.8»N / 136°12'29.9»E, 8.06.2020, отряхивание цветущей жимолости, М.Е. Сергеев [Sikhote-Alin Nature Reserve, Kuruma natural boundary, Kuruma River floodplain, 44°55'46.8»N / 136°12'29.9»E, 8.06.2020, shaking off a blooming honeysuckle bush (*Lonicera* sp.), leg. М.Е. Сергеев] / *Pseudogaurotina magnifica* (Plavilstshikov, 1958) ♂ det. A. Miroshnikov 2020; 1♀ (сEY), Тернейский район, ~35 км к северу от поселка Светлая, нижнее течение р. Кабанья (~5 км от морского побережья), 46°52'N / 138°26'E, 21.06.1979, Е.А. Якушкин [Terneysky District, ~35 km north of Svetlaya Village, lower course of the Kabanya River (~5 km from the sea coast), 46°52'N / 138°26'E, 21.06.1979, leg.

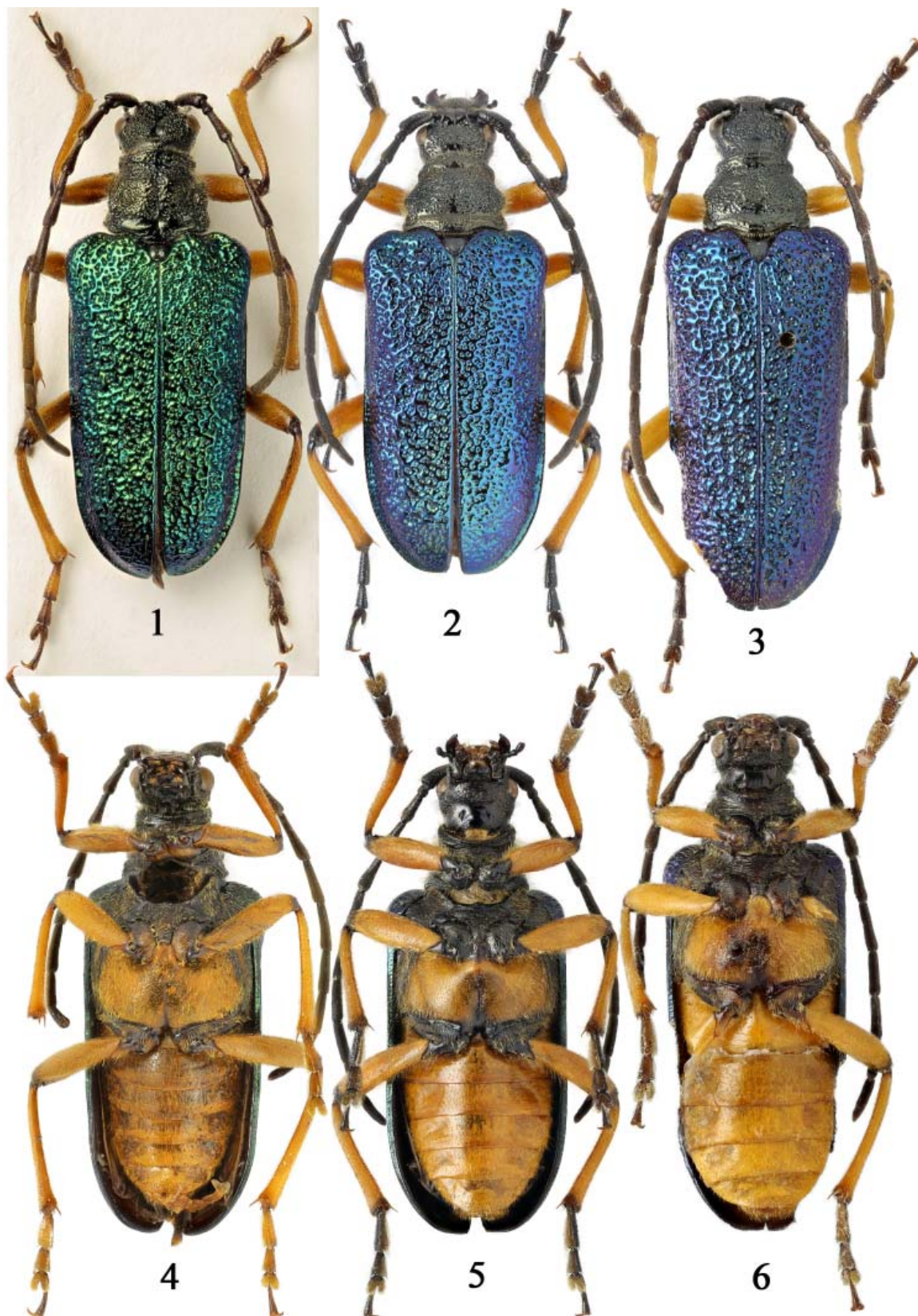
E.J. Yakushkin] / *Pseudogaurotina magnifica* (Plavilstshikov, 1958), det. E. Yakushkin; 1♂ (сJM) (photograph), окрестности Дальнегорска, 580 м [Dalnegorsk environs, 580 m], 16.06.2013, leg. Jacques Marquet / «*Gaurotina sikhotensis* [sic] Plavilstshikov, 1958» [see Marquet, 2015: 81] / *Pseudogaurotina magnifica* (Plavilstshikov, 1958) ♂ det. A. Miroshnikov 2020; 1♀ (сPR) (photograph), «Russia – Far East, Primorje Reg., Bikin Riv. 26.6.[19]99» / «*Pseudogaurotina magnifica* (Plav.) det. P. Rapuzzi 2003». Khabarovsk Region: 1♀ (ZIN), «Хабаровский край, жд. ст. Тумнин, 7.07.1982, Зиновьев» [Tummin train station, 7.07.1982, leg. Zinoviev] / *Pseudogaurotina magnifica* (Plav.), det. A.L. Lobanov 1986; 1♀ (FCBV), Сихотэ-Алинь, хребет Тардоки-Яни, 1400 м, ельник, 12.07.1980, Г.Ш. Лафер [Sikhote-Alin, Tardoki-Yani Mountain Range, 1400 m, spruce forest, 12.07.1980, leg. G.Sh. Lafer] / «*Gaurotes magnifica* Plav., det. G. Lafer 1980».

Gaurotina sichotensis Danilevsky, 1988: 1♂, holotype (ZMMU) (Figs 3, 6), «Сихотэ-Алин.[ский] зап.[оведник], 2.VII.1937, К. Грунин» [Sikhote-Alin Nature Reserve, 2.VII.1937, leg. K. Grunin] / «m. *sichotensis* m.» / «*Gaurotina sichotensis* det. M. Danilevsky 1988» / «Holotypus *Gaurotina sichotensis* sp. n. M. Danilevsky det. 1988»; 1♂, paratype (Danilevsky collection; photograph), «Приморский край, Хасанский район, окрестности Андреевки, 10.6.1975, С. Никиреев» [Primorye Region, Khasansky District, Andreevka environs, 10.6.1975, leg. S. Nikireev] [see Danilevsky, 2015: 139].

DIAGNOSIS. Based on male characters, the new species seems to be particularly similar to *Pseudogaurotina magnifica*, but differs by the narrower pronotum with the distinctly less strongly expressed dorsolateral tubercles, as in Fig. 7 (cf. Fig. 8), the clearly denser, predominantly confluent, in part smaller punctures on head between eyes, as in Fig. 10 (cf. Fig. 11; see also Remarks below), the apically more obtuse antennal tubercles, the somewhat different coloration of the meso- and metasterna, coxae, tibiae, and tarsi, as in Figs 1, 4 (cf. Figs 2, 5; see also below), the structure of the genitalia, as in Figs 19–21 (cf. Figs 22–24). *Pseudogaurotina drumonti* **sp.n.** can also be compared to *Gaurotina sichotensis* Danilevsky, 1988², but is distinguished due to the shorter elytra, as in Fig. 1 (cf. Fig. 3; see also below), the shorter scutellum which is more broadly rounded at the apex, as in Fig. 13 (cf. Fig. 14), the narrower pronotum, as in Fig. 7 (cf. Fig. 9), the denser, predominantly confluent punctures on head between eyes, as in Fig. 10 (cf. Fig. 12), the somewhat different shape of the intercoxal process of the metasternum, as in Fig. 17 (cf. Fig. 18), the comparatively shorter basal tarsomere of at least the posterior tarsus, as in Fig. 15 (cf. Fig. 16), and the different coloration of all tarsi (see below).

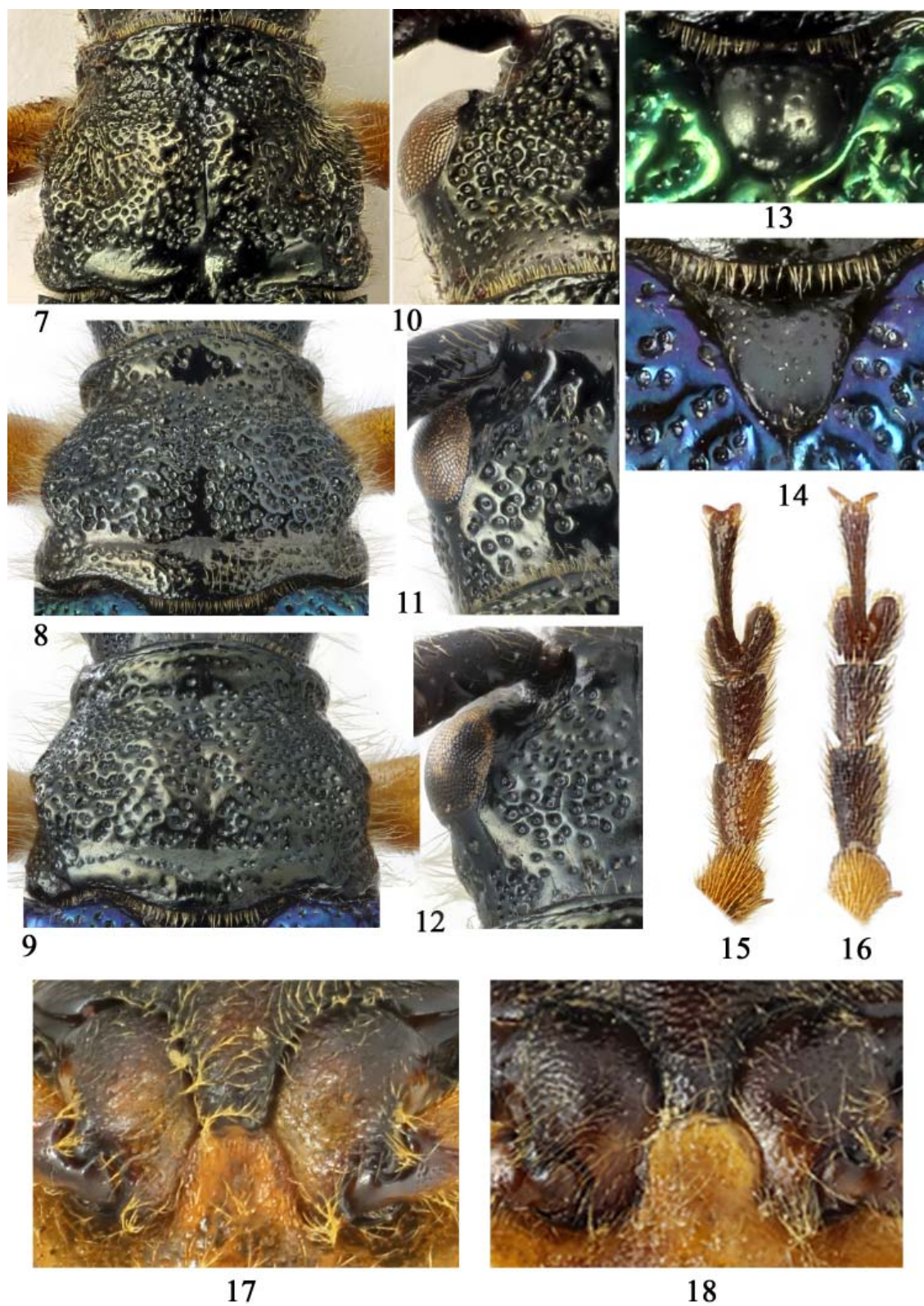
DESCRIPTION. Male. Body length 12.5 mm, humeral width 5.0 mm. Head, pronotum, scutellum, and prosternum black; antennae black-brown, basal antennomere darkest, almost black (in *P. magnifica*, antennae entirely black); mesosternum black except for brown spot in basal part of an intercoxal process (in *P. magnifica*, mesosternum completely black); metasternum rufous, excluding episterna and narrow black area along its very base, whereas episterna black with a narrow longitudinal brown stripe (in *P. magnifica*, metasternum mostly rufous as well, but blackened not only along its very base, but also partly near median longitudinal line and on intercoxal process, while episterna entirely black); visible abdominal sternites entirely rufous; coxae partly black, partly rufous (in *P. magnifica*, coxae entirely black); trochanters mostly dark rufous, in apical

² In fact, as previously noted [Miroshnikov, Sergeev, 2023], *Gaurotina sichotensis* should be transferred to the genus *Pseudogaurotina*, but this nomenclatural act is supposed to be justified in a separate publication.



Figs 1–6. *Pseudogaurotina* and *Gaurotina* spp., males, habitus, ventral and dorsal views: 1, 4 — *P. drumonti* sp.n., holotype; 2, 5 — *P. magnifica*; 3, 6 — *G. sichotensis*, holotype.

Рис. 1–6. *Pseudogaurotina* и *Gaurotina* spp., самцы, общий вид сверху и снизу: 1, 4 — *P. drumonti* sp.n., голотип; 2, 5 — *P. magnifica*; 3, 6 — *G. sichotensis*, голотип.



Figs 7–18. *Pseudogaurotina* and *Gaurotina* spp., males: 7, 10, 13, 15, 17 — *P. drumonti* sp.n., holotype; 8, 11 — *P. magnifica*; 9, 12, 14, 16, 18 — *G. sichotensis*, holotype; 7–9 — pronotum; 10–12 — left part of head, dorsal view; 13–14 — scutellum; 15–16 — left posterior tarsus; 17–18 — meso- and metasternal processes between coxae.

Рис. 7–18. *Pseudogaurotina* и *Gaurotina* spp., самцы: 7, 10, 13, 15, 17 — *P. drumonti* sp.n., голотип; 8, 11 — *P. magnifica*; 9, 12, 14, 16, 18 — *G. sichotensis*, голотип; 7–9 — переднеспинка; 10–12 — левая часть головы сверху; 13–14 — щиток; 15–16 — левая передняя лапка; 17–18 — межтазиковые отростки средне- и заднегруди.



Figs 19–24. *Pseudogaurotina* spp., males, genitalia: 19–21 — *P. drumonti* sp.n., holotype; 22–24 — *P. magnifica*; 19, 22 — apical part of penis, ventral view; 20, 23 — apical part of tegmen, ventral view; 21, 24 — tergite 8 (without base), dorsal view.

Рис. 19–24. *Pseudogaurotina* spp., самцы, гениталии: 19–21 — *P. drumonti* sp.n., голотип; 22–24 — *P. magnifica*; 19, 22 — верхинная часть пениса снизу; 20, 23 — верхинная часть тегмена снизу; 21, 24 — 8-й тергит сверху (без основания).

part rufous (in *P. magnifica*, trochanters entirely black); femora rufous, only very narrowly blackened (darkened) at apex; tibiae, like femora, rufous, narrowly blackened (darkened) at base, while apices of pro- and metatibiae without black coloration, only apex of protibiae very narrowly darkened, thereby only on upper side (in *P. magnifica*, all tibiae blackened not only at base, but also very distinctly at apex on all sides); basal tarsomere of all tarsi mostly rufous, second tarsomere dark brown, partly somewhat lightened, subsequent two tarsomeres entirely dark brown except for claws (in *P. magnifica*, all tarsi completely black, in *G. sichotensis*, all tarsi dark brown); elytra bright, with a metallic lustre, monochrome-green with a bluish tint.

Head dorsally between eyes with a moderately coarse, very dense and confluent punctures (in *P. magnifica*, head between eyes with a coarse, irregular, partly rarefied, infrequently confluent punctures), on remaining part dorsally with a coarse or rough, partly relatively small, irregular, in part sparse puncturation; on either side of midline partly nearly smooth, with sparse punctures; antennal tubercles well-expressed; temples partly with a coarse, irregular puncturation; antennae slightly not reaching apical one-fifth of elytra.

Pronotum barely transverse, 1.12 times as long as width (in male of *P. magnifica*, 1.19–1.21 times, in holotype male of *G. sichotensis*, 1.28 times), widest at base; predominantly with a coarse and rough, partly very dense and confluent, in part rarefied and irregular punctures being mostly obliterated, partly absent at base; with a median, longitudinal, narrow, smooth area on basal half; lateral tubercles well-developed, dorsolateral tubercles weakly expressed; with a distinctly visible impression on each side of pronotal disc near dorsolateral tubercle; with numerous, erect, light setae being longest on sides and at apex, shortest in most of disc.

Scutellum broadly rounded at apex, with sparse, irregular, heterogeneous punctures, almost without pubescence.

Elytra moderately narrowed towards apex, starting from base; 1.85 times as long as humeral width (in *G. sichotensis*, 2.04–2.08 times³); covered by a coarse, scabrous sculpture with dense, partly confluent, irregular punctures; with very short, but clearly visible, mostly suberect, pale setae.

³ The statement that in the holotype of *Gaurotina sichotensis* “Elytrae about 2.3 times longer than wide” [Danilevsky, Rapuzzi, 1996: 13], is erroneous.

Prosternum in apical part distinctly transversely wrinkled; mesosternum mostly with a scabrous sculpture; metasternum with small, distinct, dense punctures; intercoxal process of metasternum noticeably wider than that of mesosternum; visible abdominal sternites with a somewhat more sparse punctures than on metasternum; last (visible) abdominal sternite with a barely noticeable emargination at apex.

Genitalia as in Figs 19–21.

The female is unknown, but it appears reasonable to assume that it resembles a female of *P. magnifica* at least in the coloration.

ETYMOLOGY. We are pleased to dedicate this new species to our colleague, Mr. Alain Drumont (Royal de Sciences naturelles de Belgique, Bruxelles), who kindly provided a very valuable material for study.

REMARKS. In all females of *P. magnifica*, the puncturation on head between the eyes is about the same as in its males, sometimes the punctures somewhat denser, but not the same as in *P. drumonti* **sp.n.**

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Additional gratitude to some persons for the opportunity to study the comparative material discussed herein and for the assistance with imaging of certain specimens of *P. magnifica* and *G. sichotensis* has been expressed before by one of the authors [Miroshnikov, Sergeev, 2023].

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