Baltic J. Coleopterol. 20(2) 2020
ISSN 1407 - 8619

Five new species of the genus *Dere* Fahraeus, 1872 (Coleoptera: Cerambycidae) from the Philippines

Arvīds Barševskis, Daiga Saulīte

Barševskis A., Saulīte D. 2020. Five new species of the genus *Dere* Fahraeus, 1872 (Coleoptera: Cerambycidae) from the Philippines. *Baltic J. Coleopterol., 20 (2): 211-219.*

Five new species of the gernus *Dere* Fahraeus, 1872 from the Philippines are described and illustrated*: D. telnovi* sp. nov. (Palawan), *D. shavrini* sp. nov. (Palawan), *D. legalovi* sp. n. (Samar), *D. bukejsi* sp. nov. (Negros) and *D. rukmaneae* sp. nov. (Mindanao). The world fauna of *Dere* is now represented by 56 taxa, and the fauna of the Philippines by nine species.

Key words: Coleoptera, Cerambycidae, Cerambycinae, Cleomenini, *Dere*, taxonomy, new species, Philippines

Arvīds Barševskis, Daiga Saulīte. Daugavpils University, Institute of Life Sciences and Technology, Coleopterological Re-search Center, Vienības Str. 13, Daugavpils, LV-5401, Latvia; e-mail: arvids.barsevskis@du.lv

INTRODUCTION

The genus *Dere* Fahraeus, 1872 (Coleoptera: Cerambycidae) belongs to the subfamily Cerambycinae Latreille, 1802 and tribe Cleomenini Lacordaire, 1869. This genus containing 51 taxa (species & subspecies) in the fauna of the world (Tavakilian, Chevillotte 2020).

Heller (1923) and Aurivillius (1924) described two species of *Dere* from the Philippines, both from Momungan, Mindanao Island: *D. philippinensis* Heller, 1923 and *D. virescens* Aurivillius, 1924. After original descriptions, any faunistic data for these species are missing. Vives (2015) described two species of this genus: *D. coloripennis* (Vives, 2015) from Gutalac, Zamboanga del Norte, Mindanao Island, and *D. miroshnikovi* Vives, 2015 from Mt. Halcon, Mindoro Island. Both species are presented in Daugavpils University Coleopterological Research Centre beetles collection (DUBC) by series of specimens, collected by local collectors in type localities in later years after descriptions.

This study presents descriptions of a five new species of *Dere* from the Philippines: two species from Palawan, and three species from Samar, Negros and Mindanao islands respectively. The world fauna of *Dere* is now represented by 56 taxa, from which nine species are known from the Philippines.

MATERIAL AND METHODS

The laboratory research and measurements have been performed using *Nikon* AZ100, *Nikon* SMZ745T and *Zeiss* Stereo Lumar V12 digital stereomicroscopes, NIS-Elements 6D software. The habitus photographs were obtained with a digital camera Canon EOS 6D with Canon MP-E

65 mm macro lens, using Helicon Focus auto montage and subsequently were edited with Photoshop. All measurements are given in millimeters.

All types described in this article are deposited in DUBC, Ilgas, Daugavpils Distr., Latvia.

RESULTS

***Dere telnovi* sp. nov.**
(Figs. 1-2)

Type material. HOLOTYPUS, male: Philippines / Palawan isl., Roxas, 05. 2020 / local collector leg. [printed white label]. HOLOTYPUS: / Dere / telnovi sp. nov. / A.Barševskis, D. Saulīte descr. 2020 [red handwritten label] (DUBC).

PARATYPUS, 9 specimens (6 males, 3 females). All paratypes are from the same locality and with same data as that in holotype, and were collected in the period from 05.2020 to 09.2020. All paratypes with additional red handwrited label: "PARATYPUS: / Dere / telnovi sp. nov. / A.Barševskis, D. Saulīte descr. 2020".

General distribution: Palawan Isl., Philippines.

Description. Body black, some specimens particularly dark-brown, with yellow-red pronotum. Body elongated, narrow, elytra flattened, with coarse, dense punctation and wrinkles. Length: 7.7-9.9 mm, maximal width: 1.6-2.4 mm; length/width ratio: 4.1-4.8.

Head flattened, with square frontal portion, and convex, bilobate eyes. Dorsal surface of head with coarse punctation. Head with short impressed longitudinal line between thick and extended antennal bases, from medioapical portion behind clypeus obliquely stretching basally, forming small and thin, raised stripe. Labrum dark-brown, slightly pubescent, shiny, with some short transverse impressed lines. Clypeus dark-brown, transverse, shiny. Mandibles dark-brown, very sharp, massive, wide, shiny, relatively short, with sparse, short pubescence on lateral portion. Cheeks with sparse, short, dark pubescence. Antennae slender. Male antennae shorter than body, almost reaching apex of elytra. Female antennae shorter, reaching slightly behind middle portion of elytra. Antennae covered with coarse punctures and fine, sparse pubescence; antennomeres 1– 5 thickened apically, black.

Pronotum yellow-red, uneven, cylindrical, elongated, neck-shaped narrowed in apical and basal portions. Surface with very dense and coarse punctation and short wrinkles.

Scutellum small, with slightly rounded apex. *Pars stridens* almost completely covered with pronotum.

Elytra almost parallel-sided, dark-brown, black, or dark-brown with indistinct yellow-brown portion around suture behind scutellum. Elytra from middle slightly widened apically, flattened, with indistinctly raised shoulders hump. Elytra slightly shiny, with indistinct metallic reflection. Punctation of elytra very dense, not arranged in longitudinal rows. Apical margin of elytra with two sharp extensions: smaller on apical edge near suture and longer, latero-apical extension.

Ventral surface of body with dense, grey pubescence. Legs black, with very fine pubescence, inner margin of tibia with dense golden pubescence.

Differential diagnosis. Based on the shape of the body, *D. telnovi* sp. n. is similar to *D. coloripennis* Vives, 2015, but can be distinguished by different coloration of the elytra and legs. Elytra of new species unicolour, dark brown to black or dark-brown with yellow-brown misty portion around suture behind scutellum, and legs generally black, while elytra of *D. coloripennis* with a well-defined longitudinal yellow spot with expanded apical part and legs (except forelegs) are bicolor: basal portion of femur is yellow.

Fig. 1. Habitus of *Dere telnovi* sp. nov. (holotype)

Fig. 2. Habitus of *Dere telnovi* sp. nov. (paratype)

Etymology. This species is named after my colleague Dr. Dmitry Telnov (Riga, Latvia) in appreciation of cooperation, and in gratitude for his contribution to the studies of Coleoptera of the world.

***Dere shavrini* sp. nov.**
(Fig. 3)

Type material. HOLOTYPUS, male: Philippines / Palawan isl., Roxas, 08. 2020 / local collector leg. [printed white label]. HOLOTYPUS: / Dere / shavrini sp. nov. / A.Barševskis, D. Saulīte descr. 2020 [red handwritten label] (DUBC).

PARATYPUS, female: Philippines / Palawan isl., Roxas, 08. 2020 / local collector leg. [printed white label]; ex Prof. A.Barševskis coll. [printed white label]. PARATYPUS: / Dere / shavrini sp. nov. / A.Barševskis, D. Saulīte descr. 2020 [red handwritten label] (DUBC).

General distribution: Palawan Isl., Philippines.

Description. Body black, elongated, narrow, dorsal surface of elytra flattened, with coarse and dense punctation, wrinkles and metallic reflection. Length: 6.8 - 6.9 mm, maximal width: 1.7 – 2.0 mm; length/width ratio: 3.3 – 3.5.

Head flattened, with square frontal part and convex, bilobate eyes. Dorsal surface of head with coarse punctation and with short, impressed longitudinal line between extended antennal bases. Labrum dark-brown, slightly pubescent, shiny. Clypeus dark-brown, transverse, shiny. Mandibles brown, with darker apex, sharp,

Fig. 3. Habitus of *Dere shavrini* sp. nov. (paratype)

massive, wide, shiny, relatively short, with sparse short pubescence on lateral portions. Cheeks with very sparse, short, dark pubescence. Antennae slender. Male antennae slightly shorter than body, not reaching apex of elytra. Female antennae shorter, reaching slightly behind middle of elytra. Antennomeres covered with coarse punctation and fine, sparse pubescence; antennomeres 1–5 thickened apically, black.

Pronotum black, cylindrical, elongated, slightly narrowed in apical and basal portions. Surface with very dense and coarse punctures and short wrinkles.

Scutellum small, with slightly rounded apex. *Pars stridens* almost completely covered with pronotum.

Elytra almost parallel-sided, black, from middle slightly widened apically, flattened, with indistinctly raised shoulders hump. Elytra shiny, with metallic reflection. Punctation very dense, not arranged in longitudinal rows. Apical margin of elytra with two sharp extensions: smaller on apical edge near suture and largest and very sharp latero-apical extension.

Ventral surface of body laterally covered with grey pubescence. Legs black, covered with very fine pubescence, inner margin of tibia with dense silver pubescence, with small oval spot of silver-grey pubescence near apex.

Differential diagnosis. Regarding the shape of the body, the new species is similar to *D. telnovi* sp. n., but differs from it by unicoloured body, smaller size (< 7.0 mm, while *D. telnovi* sp. nov. > 7.7 mm), different length/width ratio (3.3–3.5, while *D. telnovi* sp. nov. is 4.1-4.8). Lateral extensions on apical margins of elytra of new species longer than that in *D. telnovi* sp. nov.

Etymology. This species is named after my friend and colleague Dr. Alexey Shavrin (Daugavpils, Latvia) in appreciation of cooperation, and in gratitude for his contributions to the knowledge of Staphylinidae.

***Dere legalovi* sp. nov.**
(Fig. 4)

Type material. HOLOTYPUS, male (right elytron near apex damaged): Philippines, E Visayas / Samar isl., Marabot, 01. 2015 / local collector leg. [printed white label]. Ex Prof. A.Barševskis coll. [printed white label]. HOLOTYPUS: / Dere / legalovi sp. nov. / A.Barševskis, D. Saulīte descr. 2020 [red handwritten label] (DUBC).

General distribution: Samar Isl., Philippines.

Description. Body black, elongated, narrow, yellow-brown, with black head and apical portion of elytra, with coarse, dense punctation, without metallic reflection. Length: 7.8 mm, maximal width: 1.9 mm; length/width ratio: 4.1.

Head flattened, with square, frontal part and bilobate apical margin. Dorsal surface of head with coarse punctation, with short impressed longitudinal line between extended antennal bases. Labrum brown, slightly pubescent, shiny. Clypeus dark-brown, transverse, shiny, with long setae on apical margin. Mandibles brown, darker apically, sharp, massive, wide, shiny, relatively short, with sparse, silver-grey short pubescence on lateral portion. Eyes convex, bilobate. Cheeks with dense, short, silver-grey pubescence. Antennae slender. Male antennae shorter than body, not reaching apex of elytra. Antennomeres covered with coarse punctation and fine, sparse pubescence; antennomeres 1–5 thickened apically, black.

Fig. 4. Habitus of *Dere legalovi* sp. nov. (holotype)

Pronotum yellow-red, cylindrical, elongated, slightly narrowed in apical and basal portions. Surface with very dense and coarse punctation and short wrinkles.

Scutellum black, small, with slightly rounded apex. *Pars stridens* almost completely covered with pronotum.

Elytra almost parallel-sided, flattened, yellow-red, darkened in apical portion, from middle slightly widened apically, with indistinctly raised shoulders hump. Elytra shiny, without metallic reflection. Punctation of elytra very dense, not arranged in longitudinal rows. Apical margin of elytra with two sharp extensions: one smaller on apical edge near suture and one larger latero-apical extension.

Ventral surface of body covered with dense silver-grey pubescence. Legs black, covered with very fine pubescence, inner margin of tibia with short silver-grey pubescence.

Female unknown.

Differential diagnosis. Regarding the shape of the body, the new species is similar to *D. coloripennis* Vives, 2015, but can be distinguished from it by different coloration of elytra and legs. Elytra of *D. legalovi* sp.nov. are yellow-red, with darkened apical portion and legs are unicolour, black, while dark elytra of *D. coloripennis* having a well-defined longitudinal yellow spot with expanded apical part, and legs (except forelegs) are bicolour, with yellow basal portion of femur.

Etymology. This species is named after my colleague Dr. Andrei Legalov (Novosibirsk, Russia) in appreciation of cooperation, and in gratitude for his contributions to the knowledge of Atellabidae and Curculionidae of the world.

***Dere bukejsi* sp. nov.**
(Fig. 5)

Type material. HOLOTYPUS, male: Philippines: Negros isl. / San Salvador / Benedicto / 05. 2020., loc. coll. [handwrited white label]. HOLOTYPUS: / Dere / bukejsi sp. nov. / A.Barševskis, D. Saulīte descr. 2020 [red handwritten label] (DUBC).

PARATYPES: 1 male: Philippines: Negros isl. / San Salvador / Benedicto / 06. 2020., loc. coll. [handwrited white label]. PARATYPUS: / Dere / bukejsi sp. nov. / A.Barševskis, D. Saulīte descr. 2020 [red handwritten label] (DUBC); 1 female: Philippines: Negros isl. / San Salvador / Benedicto / 05. 2020., loc. coll. [handwrited white label]. PARATYPUS: / Dere / bukejsi sp. nov. / A.Barševskis, D. Saulīte descr. 2020 [red handwritten label] (DUBC).

Fig. 5. Habitus of *Dere bukejsi* sp. nov. (holotype)

General distribution: Negros isl., Philippines.

Description. Body black, except for yellow-red pronotum and two spots at base of elytra. Body elongated, narrow, dorsal surface of elytra flattened, with coarse and dense punctation, wrinkles, without metallic reflection. Length: 7.6-8.1 mm, maximal width: 1.8–2.1 mm; length/width ratio: 3.9–4.2.

Head flattened, with square frontal part and convex, bilobate eyes. Dorsal surface of head with very coarse punctation. Impressed longitudinal line between extended antennal bases indistinct between coarse punctures. Labrum dark-brown, slightly pubescent, shiny. Clypeus dark-brown, almost invisible, shiny. Mandibles brown, with darker apex, sharp, massive, wide, shiny, relatively short, with sparse short lateral pubescence. Cheeks with very sparse, short, grey pubescence. Antennae slender. Male antennae nearly exceeding apex of elytra. Female antennae shorter, reaching slightly behind middle of elytra. Antennomeres covered with coarse punctures and fine, sparse pubescence; antennomeres 1– 5 slightly thickened apically, black.

Pronotum yellow-red, cylindrical, elongated, slightly narrowed in apical and basal portions. Surface with dense and coarse punctation and short wrinkles. Pronotum of female yellow-red, on dorsal disc with two elongated,, curved spots.

Scutellum small, black, with slightly rounded apex. *Pars stridens* almost completely covered with pronotum.

Elytra almost parallel-sided, black, basal margin with yellow-red, misty spot (female with very small, rudimentary spots), from middle slightly widened apically, flattened, with indistinct raised shoulders hump. Elytra shiny, without metallic reflection. Punctation very dense, not arranged in longitudinal rows. Apical margin of elytra with two sharp extensions: one smaller near suture

and one large latero-apical extension, r with very sharp apex..

Ventral surface of body covered with grey pubescence. Legs black, covered with very fine pubescence, inner margin of tibia with dense pubescence.

Differential diagnosis. It differs from all remaining species of the genus by the presence of round yellow-red spot at each basal margin of the monochrome black elytron.

Etymology. This species is named after my friend and colleague Andris Bukejs (Daugavpils, Latvia) in appreciation of cooperation, and in gratitude for his contribution to the studies of fossil Coleoptera.

***Dere rukmaneae* sp. nov.**
(Fig. 6)

Type material. HOLOTYPUS, male: Philippines: Mindanao / Cotabato, Mt. Apo / Kidapawan, 01. 2015. / local collector leg. [handwrited white label]. HOLOTYPUS: / Dere / rukmaneae sp. nov. / A.Barševskis, D. Saulīte descr. 2020 [red handwritten label] (DUBC).

PARATYPUS, **female:** Philippines: Mindanao / Cotabato, Mt. Apo / Kidapawan, 01. 2015. / local

Fig. 6. Habitus of *Dere rukmaneae* sp. nov. (paratype)

Fig. 7. Habitus of *D. miroshnikovi* Vives, 2015

collector leg. [handwrited white label]. PARATYPUS: / Dere / rukmaneae sp. nov. / A.Barševskis, D. Saulīte descr. 2020 [red handwritten label] (DUBC).

General distribution: Mindanao isl., Philippines.

Description. Body black, elongated, narrow, with flattened dorsal surface of elytra, coarse and dense punctation, wrinkles, without metallic reflection. Length: 6.3-7.1 mm, maximal width: 1.4–1.8 mm; length/ width ratio: 3.9–4.5.

Head flattened, with square frontal part and convex, bilobate eyes. Dorsal surface of head with moderately coarse punctation and fine, silver-grey pubescence. Impressed longitudinal line between extended antennal bases distinct, stretching across forehead to apicalbilobate margin. Labrum dark-brown, slightly pubescent, shiny, with row of yellow-brown setae on apical margin. Clypeus dark-brown, transverse, visible, shiny. Mandibles brown, with darkener apex, sharp, massive, wide, shiny, relatively short, with sparse and short lateral pubescence. Cheeks with very fine, short pubescence. Antennae slender. Male antennae slightly not reaching apex of elytra. Female antennae shorter, reaching about middle of elytra. Antennomeres covered with coarse punctures and fine, sparse pubescence; antennomeres 1– 5 thickened apically, black or dark-brown.

Pronotum black, middle portion of dorsal disc with almost quadrangular yellow-red spot and small triangular yellow-red spot on lateral sides of pronotum, cylindrical, elongated, slightly narrowed in apical and basal portions. Surface with dense punctation and fine pubescence.

Scutellum small, black, with slightly rounded apex. *Pars stridens* almost completely covered with pronotum.

Elytra almost parallel-sided, black, from middle slightly widened apically, flattened, with indistinctly raised shoulders hump. Elytra shiny, without metallic reflection. Punctation of elytra dense, not arranged in longitudinal rows. Apical margin of elytra with two sharp extensions as that as in previous species.

Ventral surface of body covered with grey pubescence. Legs black, covered with very fine pubescence, inner margin of tibia with dense pubescence.

Differential diagnosis. Based on the general shape of the body, the new species is similar to *D. miroshnikovi* Vives, 2015 from Mindoro isl., but it differs by the different coloration of pronotum: pronotum of *D. rukmaneae* sp.n. is black, with quadrangular yellow-red spot on dorsal disc of pronotum and small triangular yellow red spot on each side of pronotum, while pronotum of *D. miroshnikovi* is red, with two dark elongated spots on lateral portions of dorsal disc of pronotum. Besides that, the new species is smaller than *D. miroshnikovi* (< 7.1 mm, while that in *D. miroshnikovi*: >7.5 mm).

Etymology. This species is named after my PhD student and colleague Anita Rukmane (Daugavpils, Latvia) in appreciation of cooperation, and in gratitude for her contribution to the studies of the genus *Pachyrhynchus*.

ACKNOWLEDGEMENTS

I wish to express our gratitude to Alexey Shavrin for editorial comments, and Alexander Anichtchenko and Anita Rukmane (all from Daugavpils, Latvia) for help in preparation of photographs of beetles.

REFERENCES

Aurivillius Ch. 1924. Neue oder wenig bekannte Coleoptera Longicornia. 19. *Arkiv för Zoologi, Uppsala 15 (25) [1923]: 437-479.*

Berzak L.G. 2020. A Photographic Catalog of the CERAMBYCIDAE of the World. Old World

Cerambycidae Catalog. http://bezbycids.com/byciddb/wdefault.asp?w=o [accessed 01.11.2020]

Heller K. M. 1923. Neue Bockkäfer von den Philippinen und aus Borneo. *Deutsche entomologische Zeitschrift, Berlin 7 (4): 414-425*

Tavakilian G., Chavillotte H. 2020. Base de données Titan sur les Cerambycidés ou Longicornes. http://titan.gbif.fr [accessed 01.12.2020]

Vives E. 2015. New or interesting Cerambycidae from the Philippines. Part X. (Coleoptera, Cerambycidae, Cerambycinae). *Les Cahiers Magellanes, NS, No 18: 1-18.*

Received: 15.11.2020
Accepted: 22.12.2020
Published: 30.12.2020

Baltic Journal of Coleopterology