http://zoobank.org/urn:lsid:zoobank.org:pub:489BA5BC-AE78-488E-941F-1638D313D3DE
DOI: 10.24412/2226-0773-2021-10-8-1074-1095

A review of Crimean *Dorcadion* Dalman, 1917 (Coleoptera, Cerambycidae) mainly on the base of 2021 collecting season

M.L. Danilevsky[1], G.B. Danilevskaya[2]

[1]A.N. Severtsov Institute of Ecology and Evolution of the Russian Academy of Sciences
Leninsky prospect 33, Moscow 119071 Russia
e-mail: danilevskyml@rambler.ru, danilevsky@cerambycidae.net

[2]Godovikova str., 2, appart. 98, Moscow 129085 Russia
e-mail: danil_gal@rambler.ru

Key words: Coleoptera, Cerambycidae, Lamiinae, *Dorcadion*, taxonomy, new subspecies, Crimea.

Abstract: Ten Crimean *Dorcadion* taxons are recorded for Crimean Peninsula: *D.* (*Carinatodorcadion*) *carinatum carinatum* (Pallas, 1771), *D.* (*Cribridorcadion*) *equestre vadimi Danilevsky*, **ssp. n.** (Crimean endemic), *D.* (*C.*) *holosericeum ustinovi* Danilevsky, **ssp. n.** (distributed all over peninsula), *D.* (*C.*) *cinerarium panticapaeum* Plavilstshikov, 1951, *D.* (*C.*) *cinerarium bartenevi* Lazarev, 2011, *D.* (*C.*) *cinerarium mosyakini* Danilevsky, **ssp. n.** (western Crimea), *D. (C.) cinerarium perroudi* Pic, 1942, *D.* (*C.*) *sericatum* Sahlberg, 1823, *D.* (*C.*) *pusillum pusillum* Küster, 1847 and *D.* (*C.*) *ciscaucasicum mokrzeckii* Jakovlev, 1902.

Introduction

Dorcadion fauna of Crimean Peninsula is relatively well investigated (Bartenev, 2003). It traditionally includes (Danilevsky, 2020) 7 species and 9 taxons (with subspecies).

D. (Carinatodorcadion) carinatum carinatum (Pallas, 1771)
D. (Cribridorcadion) equestre equestre (Laxmann, 1770)
D. (C.) holosericeum holosericeum Krynicki, 1832
D. (C.) cinerarium panticapaeum Plavilstshikov, 1951
D. (C.) cinerarium bartenevi Lazarev, 2011
D. (C.) cinerarium perroudi Pic, 1942
D. (C.) sericatum Sahlberg, 1823
D. (C.) pusillum pusillum Küster, 1847
D. (C.) ciscaucasicum mokrzeckii Jakovlev, 1902

Crimean *D. holosericeum* Krynicki, 1832, Crimean *D. equestre* (Laxmann, 1770) and small pubescent *D. cinerarium* (Fabricius, 1787) from near Evpatoria are described below as three new subspecies: *D.* (*C.*) *holosericeum ustinovi* Danilevsky, **ssp. n.**, *D.* (*C.*) *equestre vadimi* **ssp. n.** and *D. cinerarium mosyakini* Danilevsky, **ssp. n.**

The records of *D. fulvum* (Scopoli, 1763) and *D. tauricum* Waltl, 1838 for Crimea by Plavilstshikov (1958) were wrong (no specimens were known), as well as a number of subsequent repetitions.

D. pedestre (Poda von Neuhaus, 1761) is also absent in Crimea (Plavilstshikov, 1958). The publication by Keppen (1882) for South Coast of Crimea was definitely connected with numerous local populations of *D. cinerarium* (Fabricius, 1787), as well as recent record of *D. pedestre* by Kasatkin (1999) for Chatyr-Dag Mt.

The authors arranged three expeditions (April-May: 2018, 2019, 2021) to study Cerambycidae distribution and taxonomy of the peninsula. The most interesting and numerous material was collected in 2021, when a big part of the peninsula was investigated (Fig. 1). Sergey Mosyakin joined us for several excursions near Simferopol in 2018. Sergey Murzin and Vadim Ustinov took part in our expedition in 2021. Many new localities were discovered, many hundreds of specimens were collected. New material allowed us to identify three new subspecies described below.

All specimens collected by S.V. Murzin and V.E. Ustinov are preserved in their own collections, all other specimens mentioned in the publication are preserved in the collection of M.L. Danilevsky.

Abbreviations of collections:
MD - collection of M. Danilevsky (Moscow)
SM - collection of S. Mosyakin (Simferopol)
VU - collection of V. Ustinov (Moscow)

Results

Dorcadion (*Carinatodorcadion*) *carinatum carinatum* (Pallas, 1771)
Cerambyx carinatus Pallas, 1771: 465 - “circa Volgam obseruatus”.
Dorcadion (*Carinatodorcadion*) *carinatum carinatum*, Danilevsky, 1998b: 136;

2020: 339 - Central and Southern Russia, Ukraine, Kazakhstan; Bartenev, 2009: 294 - Ukraine (including Crimea), South Russia, North-West Kazakhstan.

Type locality. South of Volga Region.

Diagnosis. Body relatively big and wide; legs and antennae always completely black; humeral carinae well developed; body proportions, shape of thoracic spines, pronotal and elytral punctation are rather different in different populations; body length in males: 18.0-23.5 mm, width: 6.0-7.0 mm, body length in females: 17.2-25.0 mm, width: 6.3-8.3 mm.

Crimean material. 3 males, 1 female, Eastern Crimea, Fontan environs, 45°16'N, 35°55'19"E, 70 m, 26.4.1992, Danilevsky leg. (MD); 1 male, Central Crimea, Krasnogvardeyskoe, 45°30'N, 34°18'E, 56 m, 25.4.2018, K. Efetov leg. (MD); 1 male, Eastern Crimea, Cape Kazantip, about 45°28'12"N, 35°50'41"E, 40 m, 9.6.1985, I. Plyushch leg. (MD); 1 female, Northern Crimea, Kalinino, about 45°36'N, 34°13'E, 23.5.1985, I. Plyushch leg. (MD); 1 female, Vladislavovka, 45°9'18"N, 35°22'16"E, 50 m, 15.4.2021, Ustinov leg. (VU); 1 male, Central Crimea, Simferopol, 1.6.1989, B. Moseichuk leg. (MD); 1 female, Western Crimea, Donuzlav Lake, 45°25'3"N, 33°9'43"E, 19 m, 4.7.1988, K. Efetov leg. (MD); 1 female, Podgornoe (northwards Koktebel, 45°0'42"N, 35°16'23"E, 130 m), 21.5.2019, Danilevsky leg. (MD); 1 female, South Crimea, northwards Partizanskoe, 44°51'21"N, 34°5'30"E, 410 m, 4.5.2018, Danilevsky leg. (MD).

Material used for comparison. Big series of *D. c. carinatum* from Russia: Samara, Saratov, Belgorod, Rostov, Volgograd, Stavropol, Krasnodar and Orenburg regions, as well as from Adygeya and Kabardino-Balkaria; several specimens are available from Ukraine (Kharkov, Donetsk) and North-West Kazakhstan (Dzhanybek).

Distribution in Crimea. The taxon seems to be distributed all over Crimea Peninsula, though a few localities are definitely known: Cape Kazantip (about 45°28'12"N, 35°50'41"E, 40 m), Fontan environs (45°16'N, 35°55'19"E, 70 m), Vladislavovka (45°9'18"N, 35°22'16"E, 50 m), Krasnogvardeyskoe env. (about 45°30'N, 34°18'E), Kalinino (about 45°36'N, 34°13'E), Simferopol-city, northwards Partizanskoe (44°51'21"N, 34°5'30"E, 410 m), Podgornoe (northwards Koktebel, 45°0'42"N, 35°16'23"E, 130 m),

Donuzlav Lake (45°25'3"N, 33° 9'43"E, 19 m).

Besides the south coast of Crimea (between Alushta and Baydary) was mentioned by Plavilstshikov (1958: 95).

Remark. We did not discover any dense population in Crimea; single specimens only were collected in several localities. Available Crimean specimens are among the biggest known in the taxon, but we were not able to detect stable distinguishing characters to separate peninsula populations from mainland populations. In general, pronotal and elytral punctation is not too much dense, neither coarse.

Dorcadion (*Cribridorcadion*) *equestre vadimi* Danilevsky, **ssp. n.**

Figs 3-4

Dorcadion cruciatum, Thomson, 1867: 58 - "Tauria, Crimea".

Dorcadion equestre, Zahaikevitch, 1991: 153 - mountain Crimea.

Dorcadion (*Cribridorcadion*) *equestre equestre*, Bartenev, 2009: 310, part. - Crimea; Peks, 2010: 219 - "Crimea Jalta".

Type locality. Crimea, Klyuchi, 44°57'31"N, 33°59'14"E, 223 m.

Diagnosis. The taxon is similar to *D. e. equestre* (Laxmann, 1770 - South Russia) because of big size, completely black (including antennae and legs) wide body; prothorax with narrow sharpened lateral spines; elytra with strong humeral carinae; in females external dorsal carinae also well developed; humeral pale lines in males always absent; dorsal elytral side usually with wide contrast white cruciform design, which can be sometimes reduced to a pair of spots or to a sutural line only; in females dirty-grey pale humeral line often distinct.

D. e. vadimi **ssp. n.** differs from the nominative subspecies by very bright-white pale elytral design in males (usually dirty-white in the nominative subspecies) and by glabrous pronotum without central white line; pronotum in the nominative subspecies usually more or less pubescent with distinct central white line; body length in males: 14.0-18.0 mm, width: 6.0-7.5 mm; body length in females: 17.0-20.0 mm, width: 7.6-9.0 mm.

Distribution in Crimea. The taxon is known from Simferopol and its western (Klyuchi, 44°57'31"N, 33°59'14"E, 223 m) and eastern (Lozovoe) suburbs. Very old specimens with labels "Sevastopol" and "Laspi Bay" are preserved in Zoological Museum of Moscow

University. Besides the species was recorded from Yalta (Peks, 2010: 219).

Material. Holotype, male, Crimea, Klyuchi, 44°57'31"N, 33°59'14"E, 223 m, 29.4-3.5.2021, M. Danilevsky and G. Danilevskaya leg. (MD); 101 paratypes (90 males, 11 females): 18 males, 2 females, with same label (MD); 67 males, 8 females, same dates and same locality, V. Ustinov leg. (VU); 4 males, 1 female, Simferopol, 22.5.1987, 6.5.1991, K. Efetov leg. (MD); 1 male, Lozovoe (SE Simferopol env.), 1.5.1987, K. Efetov leg. (MD).

Material used for comparison (MD). Big series of *D. e. equestre* from Russia: Rostov, Volgograd, Belgorod and Kursk regions, as well as from North Ossetia; many specimens are available from Ukraine: Kharkov, Dnepropetrovsk (Dnepr), Voroshilovgrad (Lugansk) and Kiev regions.

Etymology. The new subspecies is dedicated to Vadim Ustinov (Moscow), who collected the most part of the type series.

Dorcadion (*Cribridorcadion*) *holosericeum ustinovi* Danilevsky, **ssp. n.**

Figs 5-6

Dorcadion (*Cribridorcadion*) *holosericeum holosericeum*, Bartenev, 2009: 307, part. - Crimea; Danilevsky, 2020: 347, part.

Type locality. Crimea, Perevalnoe, 15 km N Sudak, 44°58'10"N, 34°58'8"E, 427 m.

Description. The taxon is characterized by very stable elytral design in malys and in females; male elytra black with more or less short velvety-black dorsal elytral stripes; female elytra dark-brown, nearly black, also with short velvety-black strokes; humeral elytral stripes in males and in females absent (usually present in the nominative subspecies), that is why the new taxon looks very similar to *D. striolatum* Kraatz, 1873; females in the nominative subspecies are often more or less pale, and pale males are also known; body length in males: 12.7-17.1 mm, width: 4.7-6.3 mm; body length in females: 14.3-18.5 mm, width: 6.3-7.4 mm.

Type material. Holotype, male, Crimea, Perevalnoe, 44°58'10"N, 34°58'8"E, 427 m, 15-16.5.2021, Danilevsky leg. (MD); 195 paratypes; 64 males, 21 females, same locality and dates, Danilevsky & Danilevskaya leg. (MD); 79 males, 14 females, same

locality and dates, Ustinov leg. (VU); 1 male, Simferopol-city, 44°56'14"N, 34°2'25"E, 290 m, 3.5.2021, Danilevskaya leg. (MD); 1 male, 1 km NW Armyansk, 46°7'32"N, 33°40'6"E, 157 m, 24.4.2021, Danilevsky leg. (MD); 1 male, Crimea, Gvardeyskoe, 45°6'27"N, 34°1'30"E, 148 m, 26.4.2021, Danilevsky leg. (MD); 2 males, Crimea, Simferopol, 18 and 27.4.1992, K. Efetov leg. (MD); 3 males, Crimea, Simferopol, Salgirka Park, 44°56'28"N, 34°7'53"E, 255 m, 8.5.1987, K. Efetov leg. (MD); 1 female, Crimea, Simferopol, 8.4.1990, K. Efetov leg. (MD); 2 females, Crimea, Simferopol, 29.4.1988, K. Efetov leg. (MD); 1 male, 1 female, 1 km N Klyuchi, 44°57'53"N, 33°58'8"E, 230 m, 27.4.2021, V. Ustinov leg. (VU); 1 female, Crimea, Klyuchi, 44°57'31"N, 33°59'14"E, 223m, 1.4.2021, V. Ustinov leg. (VU); 1 male, 2 females, Crimea, Kerch Peninsula, Ivanovka, 45°17'34"N, 36°14'44"E, 84 m, 14.4.-20.5.2021 (pitfall traps), V. Ustinov leg. (VU).

Etymology. The new subspecies is dedicated to Vadim Ustinov (Moscow), who collected the most part of the type series.

Dorcadion (*Cribridorcadion*) *cinerarium panticapaeum* Plavilstshikov, 1951

Fig. 2

Dorcadion (s. str.) *panticapaeum* Plavilstshikov [Плавильщиков], 1951: 116 - Crimea, Kerch environs.

Dorcadion (*Cribridorcadion*) *cinerarium panticapaeum*, Danilevsky, 2009: 707; Lazarev, 2011: 282 - "Perekop Isthmus, Chongar Peninsula, east part of Crimean Peninsula including Kerch Peninsula (Ukraine) and Taman Penisula (Krasnodar Region, Russia)".

Type locality. Crimea, Kerch environs, according to the original description.

Diagnosis. Small beetles with partly or totally pubescent elytra; pronotum about always with distinct black setae along white central line; very often pubescent elytral areas in males are distinct along elytral depressions only; diffused humeral pale line in males sometimes can be seen; very rare fragments of external dorsal pale stripes also present; males with glabrous elytra (with white sutural and marginal stripes) are also known and can dominate in certain populations; females about always autochromal (no androchromal females are known from Crimea) with more or less pale elytral pubescence, with or without diffused dark elytral stripes and dots;

sometimes with contrast white dorsal lines; females with dark elytral pubescence are very rare, glabrous females unknown; legs and 1st antennal joints dark-red, sometimes nearly black; body length in males: 7.4-13.0 mm, in females: 9.7-13.5 mm.

The taxon is rather variable. Each population is more or less peculiar, usually with a number of males without pubescence between marginal and sutural elytral stripes and so with strongly shining elytra. Such glabrous shining specimens dominate in one population only (Vladislavovka env., 45°9'18"N, 35°22'16"E), but here glabrous males also with white central pronotal line (usually absent in *D. c. perroudi*). From the other side glabrous males near Dolinka (45°51'9"N, 34°28'8"E) are very rare. A big number of such forms was observed near Oktyabrskoe (45°24'55"N, 34°55'57"E).

Distribution in Crimea. Crimean steppe areas, north, east and center of the peninsula. Many populations are known: Kerch-city (Mt. Mitridat, 45°21'3"N, 36°28'13"E, 70 m), Ivanovka (45°17'34"N, 36°14'44"E, 84 m), Vladislavovka env. (45°9'18"N, 35°22'16"E, 50 m), Primorsky (near 45°8'N, 35°30'E, 30 m); Bagerovo (45°22'38"N, 36°16'15"E, 93 m), Chokrak Lake (45°28'34"N, 36°17'34"E, 60 m), Opuk Mt. (45°2'12"N, 36°14'3"E, 14 m), Fontan env. (45°16'N, 35°55'19"E, 70 m), Cape Kazantip (45°28'12"N, 35°50'41"E, 40 m), Izobilnoe env. (45°34'N, 34°57'5E, 5 m), Kondratovo env. (45°38'29"N, 34°29'8"E, 17 m), Martynovka env. (45°51'21"N, 34°19'7"E, 14m), Yasnopolyanskoe env. (45°56'32"N, 34°20'9"E, 7 m), Turetzky Val (about 46°8'16"N, 33°38'40"B, 11 m), Ishun env. (Chatyrlyk River, 45°52'52"N, 33°48'16"E, 3 m), Dolinka env. (45°51'9"N, 34°28'8"E, 3 m), Privolnoe env. (45°39'3"N, 33°42'30"E, 38 m), Zvezdnoe env. (45°16'36"N, 34°3'47"E, 80 m).

Two interesting localities were mentioned by Lazarev (2011): Uyutnoe (45°31'N, 34°35'E), Pyatikhatka (45°19'N, 34°16'E).

Crimean material. 3 males, Kerch Peninsula, Ivanovka, 45°17'34"N, 36°14'44"E, 84 m, 13-14.4.2021, Murzin leg.; 60 males, 16 females, same locality, 20.5.2021 (pitfall traps), Ustinov leg.; 25 males, 3 females, SE Crimea, Vladislavovka env., 50 m 15.4.2021, 45°9'18"N, 35°22'16"E, Danilevsky & Danilevskaya leg.; 47 males, 18 females, same locality and dates, Ustinov leg.; 1 male, 1 female, Crimea, Primorsky env. (about 45°8'N, 35°30'E, 30m), 14-24.5.1979, G. Petrovsky leg.; 7 males, 2 females, Sovetsky,

45°20'8"N, 34°55'14"E, 17m 16.4.2021, Ustinov leg.; 78 males, 25 females, E Crimea, Oktyabrskoe, 14 m, 45°24'55"N, 34°55'57"E, 16-17.4.2021, Danilevsky & Danilevskaya leg.; 51 males, 14 females, same locality and dates, Ustinov leg.; 23 males, 54 females, NE Crimea, Kondratovo env., 17 m, 45°38'29"N, 34°29'8"E, 18-19.4.2021, Danilevsky & Danilevskaya leg.; 88 males, 46 females, same locality and dates, Ustinov leg.; 21 male, 6 female, same locality and dates, Murzin leg.; 1 male, 2 females, Crimea, Maslovo, 45°47'56"N, 34°22'40"E, 9 m, 21.4.2021, Ustinov leg.; 1 male, N Crimea, Martynovka, 14m, 45°51'21"N, 34°19'7"E, 22.4.2021, Danilevsky & Danilevskaya leg.; 34 males, 7 females, N Crimea, Dolinka, 3 m, 45°51'9"N, 34°28'8"E, 22-23.4.2021, Danilevsky & Danilevskaya leg.; 21 males, 4 females, same locality and dates, Ustinov leg.; 5 males, 1 female, same locality and dates, Murzin leg.; 4 males, 1 female, N Crimea, Chatyrlyk River, Ishun, 3 m, 45°52'52"N, 33°48'16"E, 25.4.2021, Danilevsky & Danilevskaya; 7 males, 1 female, same locality and dates, Ustinov leg.; 2 males, N Crimea, Privolnoe, 38 m, 45°39'3"N, 33°42'30"E, 25.4.2021, Danilevsky & Danilevskaya leg.; 1 male, Crimea, Skvortzovo, 67 m, 45°3'25"N, 33°47'52"E, 27.4.2021, Ustinov leg.; 1 male, Crimea, Veseloe, 149 m, 45°1'16"N, 33°57'8"E, 27.4.2021, Ustinov leg.; 38 males, 5 females, C Crimea, Zvezdnoe, 80 m, 45°16'36"N, 34°3'47"E, 28.4.2021, Danilevsky & Danilevskaya leg.; 12 males, 1 female, same locality and dates, Ustinov leg.; 1 male, 1 female, Crimea, Iskra, 45°16'48"N, 34°9'57"E, 80 m, 28.4.2021, Ustinov leg.; 88 males, 8 females, Crimea, Kerch Peninsula, Opuk Mt., 14 m, 45°2'12"N, 36°14'3"E, 17-25.4.2018, 5.5.2018, Danilevsky & Danilevskaya leg.; 17 males, 5 females, Crimea, Kerch Peninsula, Chokrak Lake, Kurortnoe, 60 m, 45°28'34"N, 36°17'34"E, 15.5.2019, Danilevsky & Danilevskaya leg.; Crimea, Kerch-city: 3 males, 10.4.1906, W. Pliginski leg.; 2 females, Kerch, IV.1908, A. Leb. leg.; 1 male, 3.5.1992, K. Efetov leg.; 1 female, Crimea, Cape Kazantip (about 40 m, 45°28'12"N, 35°50'41"E), 2.5.1923, Arnoldi leg.; 15 males, 17 females, about same locality, 2.5.1987, 9.5.1987, 16.5.1987, 31.5.1987, K. Efetov leg.; 2 males, 2 females, about same locality, 21-25.4.1992, Danilevsky leg.; 8 males, 1 female, Crimea, Kerch Peninsula, Bagerovo, 93 m, 45°22'38"N, 36°16'15"E, 28.4.1992, Danilevsky leg.; 8 males,

1 female, Crimea, Kerch Peninsula, W Fontan env., 70 m, 45°16'N, 35°55'19"E, 26.4.1992, Danilevsky leg.; 1 male, 1 female, Crimea, Izobilnoe (before Primorye), 5 m, 45°34'N, 34°57'5E, 18.5.1956, Topchiev leg.; 2 males, 3 females, Kherson Region, Chongar, 25.4.-1.5.1996, R. Mishustin leg.; 1 male, Turetskiy Val, 4.1992.

Dorcadion (*Cribridorcadion*) *cinerarium bartenevi* Lazarev, 2011
Fig. 2

Dorcadion (*Cribridorcadion*) *cinerarium bartenevi* Lazarev, 2011: 287 - "cape Tarkhankut, the most western part of Crimean Peninsula"; Danilevsky, 2020: 343 - "Crimea, Tarkhancut Cape".

Type locality. Crimea, western most point of the peninsula - Cape Tarkhankut (about 45°20'30"N, 32°31'30"E).

Diagnosis. The taxon is similar to *D. c. panticapaeum* because of same small size and pubescent elytra between marginal and sutural white stripes, but lateral thoracic tubercles sharpened (never rounded as in *D. c. panticapaeum*); pronotal punctation less dense; 1st antennal joint and legs rather dark, sometimes nearly black; glabrous forms are not known (numerous in certain populations of *D. c. panticapaeum*); all known females are very pale (dark females are rare in *D. c. panticapaeum*), with distinct and contrast pale dorsal elytral lines; body length in males: 10.5-13.0 mm, in females: 10.2-14.0 mm.

Distribution. All known specimens were collected inside a very small area, about 5 km along the seashore southwards Olenevka village.

Material. 1 male, holotype, Crimea, Tarkhankut Peninsula, 2.6.1985, I. Plyushch leg. (MD); 7 males, 1 female, Tarkhankut Peninsula, 28.4.-2.5.2018, 15 m, Danilevsky & Danilevskaya leg. (MD); 7 males, 2 females, Tarkhankut Peninsula, 30.4.-2.5.2018, 28 m, Danilevsky leg. (MD).

Dorcadion (*Cribridorcadion*) *cinerarium mosyakini* Danilevsky, **ssp. n.**
Figs 2, 7-12

Type locality. Crimea, Evpatoria environs northwards Suvorovskoe, 45°15'30"N, 33°23'26"E, 4 m.

Description. The taxon is very close to *D. c. bartenevi*, but on average smaller and wider; prothorax narrower, its base in males about

as wide as prothoracic length; lateral thoracic spines about as sharp as in *D. c. bartenevi*, but sometimes oblique; pronotum with moderate punctation; humeral white spot in males often completely absent; rudiments of humeral and dorsal elytral lines usually absent; females brown, considerably darker, than females of *D. c. bartenevi*; dorsal elytral lines in females are usually indistinct; body length in males: 8.5-11.3 mm, width: 3.0-4.3 mm; body length in females: 9.0-11.5 mm; width: 4.0-4.8 mm.

Distribution. West Crimea, Evpatoria env., steppe area northwards Suvorovskoe (45°15'30"N, 33°23'26"E, 4 m and 45°15'31"N, 33°22'43"E, 24 m); park inside Saki-city (45°7'30"N, 33°36'E, 8 m).

Type material. Holotype male, Crimea, Evpatoria env. northwards Suvorovskoe, 45°15'30"N, 33°23'26"E, 4 m, 27.4.2018, Danilevsky leg. (MD); 117 paratypes (87 males, 30 females): 30 males and 13 females with same label (MD); 50 males and 15 females, Crimea, Suvorovskoe, 20.4.2000, 14.4.2001, 30.4.2001, 9.5.2001, 29.5.2001, 4.4.2002, 13.4.2002, 25.4.2003, 9.5.2011, 15.4.2018, S. Mosyakin leg. (MD, SM); 7 males and 2 females, Crimea, Saki, park, 12.4.2016, 2.4.2018, S. Mosyakin leg. (MD, SM).

Etymology. The taxon is dedicated to a well-known Crimean Chrysomelidae specialist Sergey Aleksandrovich Mosyakin (Simferopol), who collected the most part of the type series.

Dorcadion (*Cribridorcadion*) *cinerarium perroudi* Pic, 1942

Fig. 2

Dorcadion sericatum var. *perroudi* Pic, 1942: 2 - "de Crimee".

Dorcadion (*Cribridorcadion*) *cinerarium perroudi,* Lazarev, 2011: 270 - "Ukraine, south half of Crimean Peninsula, southwards 45°30'N".

Type locality. Crimea, Simferopol environs (Lazarev. 2011).

Diagnosis. Medium sized beetles, usually bigger than the previous subspecies, with shining, glabrous elytra in males with only sutural and marginal white lines; pronotum in males shining, with reduced central white line (often totally absent); females about always autochromal with more or less pale elytral pubescence, with or without diffused dark elytral stripes and dots, often with contrast white dorsal lines; two forms of androchromal females are very rare, but known (with glabrous elytra or with elytra totally covered with

black pubescence); legs and 1st antennal joints red, often bright-red; body length in males: 9.3-14.5 mm, in females: 9.7-15.0 mm.

The taxon is rather variable. Each population is more or less peculiar; a small number of males with totally pubescent elytra are known from near Simferopol only. Males from north-western populations are usually with very rough punctation (Simferopol environs), while pronotum in males from eastern populations (Koktebel, Schebetovka, Belaya Skala) is often very smooth. Probably it is an evidence of subspecies rank of eastern populations. Elytra in males from near Klyuchi often with pubescence along elytral furrows, just as in *D. c. panticapaeum*, though local specimens are rather big, much bigger than similar *D. c. panticapaeum*. Besides there are several females from near Klyuchi with densely pubescent black elytra, that is impossible in *D. c. panticapaeum.* The biggest specimens were observed near Simferopol, in Chernorechye and Pavlovka environs, rather big males were collected in high localities of Ay-Petri Yayla and near Perevalnoe (northwards Sudak).

Distribution. Mountains and foothills of the south part of Crimean Peninsula, generally southwards 45°N, but the northern most population is known from near Belaya Skala (45°5'59"N, 34°37'39"E) northwards Belogorsk. Many populations are known: Simferopol city (Central Park); Dubki env. (44°55'45"N, 34°2'15"E), Klyuchi env. (44°57'31"N, 33°59'14"E, 223 m), Trudolyubovo env. (44°53'35"N, 33°58'54"E, 255 m), Alimova Balka (44°41'41"N, 33°52'54"E, 160 m), Chernorechye env. (44°33'37"N, 33°40'28"E, 73 m), Sevastopol env., Balaklava env., Inkerman env., Pavlovka env. (44°27'6"N, 33°47'56"E, 270 m), Mt. Ay-Petri (44°28'18"N, 34°3'58"E, 1167 m), Yalta env., Gurzuf env., Alyshta env. (Verkhnyaya Kutuzovka), Mt. North Demerdzhi, Kyzyl-Koba (15km SE Simferpol, 44°51'43"N, 34°20'E, 844 m), Generalskoe env. (44°48'11"N, 34°28'52"E, 348 m), Privetnoe env. (44°48'56"N, 34°39'34"E, 300 m), Sudak (44°50'33"N, 34°57'26"E, 57 m), Schebetovka env. (45°55'50"N, 35°7'27"E, 144 m), Mt. Kara-Dag (44°57'37"N, 35°12'2"E, 136 m), Belaya Skala env. (45°5'59"N, 34°37'39"E, 156 m).

Several interesting localities were published by Lazarev (2011): Laspi (44˚25'N, 33˚43'E), Orlinoe (44˚26'N, 33˚46'E), Foros (44˚23'N, 33˚47'E), Parkovoe (44˚24'N, 33˚54'E), Simeiz

(44˚24’N, 33˚59’E), Alupka (44˚25’N, 34˚02’E), Miskhor (44˚25’N, 34˚05’E), Gaspra (44˚25’N, 34˚06’E), Koreiz (44˚25’N, 34˚05’E), Yalta (44˚29’N, 34˚09’E), Yaltinskaya Yayla (44˚33’N, 34˚08’E), Gurzuf (44˚33’N, 34˚17’E), Zaprudnoe (44˚35’N, 34˚19’), Alushta (44˚40’N, 34˚24’E), Luchistoe (44˚44’N, 34˚24’E), Mt. Chatyr-Dag (44˚46’N, 34˚17’E), Marino (44˚55’N, 34˚08’E), Lozovoe (44˚54’N, 34˚09’E), Kamenka (44˚59’N, 34˚10’E), Kurskoe (45˚01’N, 34˚56’E), Mt. Agarmysh, Staryi Krym (45˚01’N, 35˚05’E).

Material. 177 males, 28 females, Crimea, Klyuchi, NW Simferopol, 44°57'31"N, 33°59'14"E, 223 m, 29.4-2.5.2021, Danilevsky & Danilevskaya leg.; 195 males, 42 females, same locality and dates, Ustinov leg.; 19 males, 7 females, same locality, 2.5.2021, Murzin leg.; 103 males, 14 females, Crimea, Trudolyubovo, 44°53'35"N, 33°58'54"E, 255 m, 3.5.2021, Danilevsky & Danilevskaya leg.; 51 males, 11 female, same locality and dates, Ustinov leg.; 2 males, Crimea, Alimova Balka, 44°41'41"N, 33°52'54"E, 160 m, 5.5.2021, Danilevskaya leg.; 5 males, same locality and date, Ustinov leg.; 3 males, same locality and date, Murzin leg.; 6 males, 1 female, Crimea, Chernorechye, 44°33'37"N, 33°40'28"E, 73 m, 7-9.5.2021, Danilevsky & Danilevskaya leg.; 13 males, 1 female, same locality and dates, V. Ustinov leg.; 5 males, 1 female, same locality, 19.5.2021, Ustinov leg.; 175 males, 54 females, Crimea, Pavlovka, 44°27'6"N, 33°47'56"E, 270 m, 10-13.5.2021, Danilevsky & Danilevskaya leg.; 189 males, 47 females, same locality and dates, Ustinov leg.; 23 males, 4 females, Crimea, Privetnoe, 44°48'56"N, 34°39'34"E, 300 m, 14-15.5.2021, Danilevsky & Danilevskaya leg.; 65 males, 3 females, same locality and dates, Ustinov leg.; 153 males, 24 females, Crimea, Perevalnoe, 44°58'10"N, 34°58'8"E, 427 m, 15-16.5.2021, Danilevsky & Danilevskaya leg.; 261 males, 64 females, same locality and dates, Ustinov leg.; 16 males, 2 females, Crimea, Schebetovka, 45°55'50"N, 35°7'27"E, 144 m, 18-19.5.2021, Danilevsky & Danilevskaya leg.; 14 males, same locality and dates, Ustinov leg.; 6 males, 1 female, Crimea, Belaya Skala, 156 m, 45°5'59"N, 34°37'39"E, 20-21.5.2021, Danilevsky & Danilevskaya leg.; 2 males, 2 females, Crimea, Chatyr-Dag, Perevalnoe, 44°50'9"N, 34°17'54"E, 450m, 6.5.2021, K. Efetov leg.; 1 male, Simferopol, 30.3.1957; 2 males, 1 female, Simferopol, 18.4.1969, 27.4.1970, E. Berlov leg.; 25 males, 22 females, Crimea,

Simferopol and Simferopol (Salgirka Park, 44°56'28"N, 34°7'53"E, 255 m), 5-8.5.1987, 1.5.1991, K. Efetov leg.; 1 male, Sevastopol, 10.4.1911, V. Kizeritzky leg.; 2 females, Balaklava, 4.1903; 1 female, Inkerman, 30.4.1938, Arnoldi leg.; 1 male, 1 female, Crimea, Simferopol, Dubki, 44°55'45"N, 34°2'15"E, 300 m, 4.5.2018, Danilevsky leg.; 3 males, 6 females, Crimea, Ay-Petri Mt., 1167 m, 44°28'18"N, 34° 3'58"E, 21.5.2018, Danilevsky & Danilevskaya leg.; 1 male, 3 females, Yalta, 4.1900, 4.1903, 1.4.1903, 22.4.1973; 1 female, Gurzuf, 13.4.1948, K. Arnoldi leg.; 2 males, Alyshta, Verkhnyaya Kutuzovka, 7.6.1987, 8.4.1989, K. Efetov leg.; 1 male, Crimea, Mt. North Demerdzhi, 15.4.1989, K. Efetov leg.; 2 males, Crimea, Kyzyl-Koba, 15km SE Simferpol, 44°51'43"N, 34°20'E, 844 m, 19.5.2018, M. Danilevsky leg.; 1 male, 1 female, Crimea, Generalskoe (Ulu-Uzen), 44°48'11"N, 34°28'52"E, 348m, 2.6.2019, Danilevsky leg.; 2 males, 1 female, Crimea, Sudak, 9.4.1989, 14.4.1991, K. Efetov leg.; 1 male, Sudak, 44°50'33"N, 34°57'26"E, 57 m, 17.5.2018, Danilevsky leg.; 1 male, 1 female, Crimea, Kara-Dag, 6.4.1989, I. Plyushch leg.; 1 female, Crimea, Kara-Dag, 44°57'37"N, 35°12'2"E, 136 m, 15.5.2018, Danilevsky leg.

Several specimens were observed by us in Simferopol Central Park (2018).

Dorcadion (*Cribridorcadion*) *sericatum* Sahlberg, 1823

Dorcadion sericatum Sahlberg, 1823: 53 - "Tauria".
Dorcadion (*Autodorcadion*) *arenarium sericatum*, Plavilstshikov, 1958: 145 - Crimea (southern coast and steppe area as well).
Dorcadion (*Pedestredorcadion*) *sericatum*, Breuning, 1962: 345 - "Krim".
Dorcadion (*Cribridorcadion*) *sericatum*, Danilevsky, 2020: 357 - southern Crimean coast.

Type locality. Crimea (on the base of original description and taxon area).
Diagnosis. Medium sized beetles with totally pubescent elytra without dorsal and humeral lines in males and females; ground elytral pubescence is usually black; very rare autochromal females have brown or dirty white ground elytral pubescence; a single exceptional female has diffused hardly visible pale humeral and external dorsal elytral lines; antennae and legs red; body length in males: 10.0-15.0 mm, in females: 12.0-17.0 mm.
Distribution. Endemic of South Crimean Coast; all records from steppe Crimean areas were wrong; several records from South

Crimea look doubtful as could be connected with pubescent forms of *D. cinerarium perroudi*. Many rather different localities are known: Sudak, Simeiz, Alushta, Yalta, Yayla above Yalta, Kastropol (now Beregovoe), Laspi, Sevastopol, Kuchuk-Koy (now Parkovoe), Novyi Svet, Karadag Mt. The authors observed mass activity of the species (2018, 2021) above Privetnoe near Sudak.

Material. 241 males, 42 females, Crimea, Sudak environs, 1.5 km SW Privetnoe, 44°48'56"N, 34°39'33E, 300 m, 18-19.5.2018, Danilevsky & Danilevskaya leg.; 13 males, 3 females, same locality, 14-15.5.2021, Danilevsky & Danilevskaya leg.; 120 males, 30 females, same locality and dates, Ustinov leg.; 11 males, 8 females, Crimea, Sudak, 29.3.1986, 6.4.1986, 9.4.1989, 21.4.1991, K. Efetov leg.; 1 female, Sudak env., Veseloe, 22.5.1988, K. Efetov leg.; 1 male, Kuru-Uzen (now Solnechnogorskoe), 5.5.1910, G. & K. Khristoforov leg.; 1 male, Crimea, Laspi Bay, 6.5.1971, N. Dubrovin leg.

Dorcadion (*Cribridorcadion*) *pusillum pusillum* Küster, 1847

Dorcadion pusillum Küster, 1847: 90 - "In Podolien, dem südlichen Russland und in Griechenland"; *Dorcadion* (*Pedestredorcadion*) *pusillum*, Bartenev, 2009: 304 - Ukraine (including Crimea).

Dorcadion (*Cribridorcadion*) *pusillum pusillum*, Danilevsky et al., 2005: 137; Dascălu, 2018: 44.

Type locality. Podolia (Vinnitsa and Khmelnitsky regions of Ukraine with neighbor areas of Moldova), South Ukraine and South Russia eastwards to about Rostov-on-Don (on the base of original description and taxon area).

Original geographical record covers about whole area of the species. The species is absent in Greece. The record of Greece in the original description was connected with local species described later. Type material is not known (probably it is preserved in "Naturhistorisches Museum" Nürnberg). Lectotype was not designated. Type locality must be situated (Dascălu, 2018) between Vinnitsa and Khmelnitsky.

Diagnosis. Very small beetle; elytra in males and females always completely pubescent with white sutural and marginal lines and

usually with scattered back spots; male elytra dark-brown, sometimes pale humeral and dorsal lines slightly pronounced; females usually much paler with distinct pale humeral and dorsal lines, very rare pale elytral lines undistinguished because of too pale ground elytral pubescence; strong erect short elytral setae indistinct; body length in available males (big series from Odessa, Nikolaev, Kherson, Kirovograd, Cherkassy and Dnepropetrovsk regions, Crimea and Moldova): 8.0-10.5 mm; width: 3.4-4.0 mm; body length in available females: 9.6-12.0 mm, width: 3.9-4.7 mm. According to Dascălu (2018), body length in males: 7.4-12.1 mm, width: 2.8-4.6 mm, body length in females: 9.0-13.9 mm.

Distribution in Crimea. Only two populations are definitely known in the northernmost area of the Peninsula in Armyansk environs: 1km NW Armyansk, 46°7'32"N, 33°40'7"E, 15 m and 1 km westwards Voloshino, 46°6'25"N, 33°39'58"E.

Several Crimean specimens collected in the beginning of XX century are preserved in Zoological Institute (St.-Petersburg) with labels "Kerch" and "Yalta", but those data need confirmation. The record (Bartenev, 2009: 304) from Cape Tarkhankut (Olenevka) was most probably connected with wrong identification of *D. cinerarium bartenevi*.

Crimean material. 9 males, 2 females, Crimea, 1 km NW Armyansk, 46°7'32"N, 33°40'7"E, 15 m, 24.4.2021, M. Danilevsky leg. (MD); 1 male, 2 females, same date and same locality, Ustinov leg. (VU); 1 male, Crimea, Voloshino, 46°6'25"N, 33°39'58"E, 9 m, 24.4.2021, Danilevsky leg. (MD).

Material used for comparison (MD). Big series of specimens from Ukraine: environs of Odessa, Ochakov, Cherkassy, Dnepropetrovsk, Kherson and from Moldova. No records are known from Kharkov, Lugansk or Donetsk regions.

Remark. Available Crimean specimens do not demonstrate any distinguishing characters to separate peninsula population from mainland populations of the nominative subspecies.

Dorcadion (*Cribridorcadion*) *ciscaucasicum mokrzeckii* Jakovlev, 1902

Dorcadion mokrzeckii Jakovlev, 1902: 148 - "Crimée: env. de Kertch".

Dorcadion (*Cribridorcadion*) *ciscaucasicum mokrzeckii*, Lazarev, 2009: 13 - Kerch-city and Mt. Opuk.

Type locality. Kerch environs.

Diagnosis. Elytra completely pubescent with very contrast dorsal stripes in males and females; several semi erect short black setae are distinct among pale-yellow or dirty-white recumbent pubescence of humeral and dorsal pale stripes, as well as in pronotal stripe; all available females authochromal with brown dark elytral pubescence; body length in males: 11.3-13.2 mm, width: 3.9-4.6 mm; body length in females: 13.2-14.5 mm, width: 5.3-6.0 mm

Distribution. Endemic of Crimea; only two localities are known: Mt. Mitridat (45°21'3"N, 36°28'13"E, 70m) in the center of Kerch-city and Mt. Opuk (104 m, 45°2'4"N, 36°12'54"E; 64m, 45° 2'39"N, 36°14'28"E) at the south coast of Kerch Peninsula.

Material (MD). 1 male, 1 female, Kerch, 16.3.1906; 3.4.1906; 1 male, 1 female, Kerch, 25.4.1923, Arnoldi leg.; 2 males, 1 female, Kerch, 28.4.1991, 3.5.1992, K. Efetov leg.; 1 male, 1 female, Crimea, Mt. Opuk, 16.4.1999, R. V. Andreeva leg.; 1 male, Crimea, Mt. Opuk, 45°2'39"N, 36°14'28"E, 64m, 21.4.2018, M. Danilevsky leg.

Acknowledgements. We are very grateful to Sergey Mosyakin (Simferopol), Sergey Murzin (Moscow) and Vadim Ustinov (Moscow), who accompanied us during our collecting trips. We also express our gratitude to Konstantin Efetov (Simferopol) and Sergey Mosyakin for a number of interesting specimens that were given to us.

REFERENCES

Bartenev A. F. 2004. [A review of the long-horned beetles species (Coleoptera: Cerambycidae) of the fauna of Ukraine]. - Izvestiya Kharkovskogo Entomologicheskogo Obshchestva [The Kharkov Entomological Society Gazette]. 2003 (2004), 11 (1-2): 24-43. [in Russian]

Danilevsky M.L. 1998. A review of subspecific configuration of Dorcadion (Carinatodorcadion) carinatum (Pallas, 1771) with a description of new subspecies (Coleoptera: Cerambycidae). - Acta entomologica Slovenica. 6 (2): 135-142.

Danilevsky M.L. 2009. Species Group Taxa of Longhorned Beetles (Coleoptera, Cerambycidae) Described by N.N. Plavilstshikov and Their Types Preserved

in the Zoological Museum of the Moscow State University and in the Zoological Institute of the Russian Academy of Sciences, St. Petersburg. - Entomological Review. 89 (6): 689-720.

Danilevsky M.L. 2010. tribe Dorcadionini, pp. 241-264.- In I. Löbl & A. Smetana (ed.): Catalogue of Palaearctic Coleoptera, Vol. 6. Stenstrup: Apollo Books, 924 pp.

Danilevsky M.L. 2020. tribe Dorcadionini, pp. 337-373. - In: Danilevsky M. L. (ed.). Catalogue of Palaearctic Coleoptera, vol. 6 (1), Chrysomeloidea I (Vesperidae, Disteniidae, Cerambycidae). Revised and updated edition. Leiden / Boston: Brill, i-xxii, 1-712.

Dascălu M.-M. 2018. The subspecific structure of Dorcadion (Cribridorcadion) pusillum Küster (Coleoptera: Cerambycidae) with description of two new subspecies from Romania. - Zootaxa. 4442 (1): 43–62.

Fabricius J.C. 1787. Mantissa insectorum, sistens eorum species nuper detectas adiectis characteribus genericis, differentiis specificis, emendationibus, observationibus. Tomus I. Hafniae: C. G. Proft, xx + 348 pp.

Kasatkin D.G. 1999. Zum Erkenntnis der Bockkäfer (Coleoptera, Cerambycidae) am Süden Ruβlands und in den nachbarliegenden Gebieten. - [Proceedings of the Kharkov Entomological Society. 7 (2): 37-39. [in Russian]

Keppen F. 1882. Insect pests. V. 2. Special Part. I. Orthoptera, Coleoptera and Hymenopter. Sankt-Petersburg, Printing House of the Imperial Academy of Sciences, 585 pp. [in Russian]

Küster H.C. 1847. Die Käfer Europa's. Nach der Natur beschrieben. Mit Beiträgen mehrerer Entomologen. 8. Heft. Nürnberg: Bauer & Raspe, [2] + 100 cheets, 2 pls.

Laxman E. 1770. Novae insectorum species. - Novi Commentarii Academiae Scientiarum Imperialis Petropolitanae. 14: 593-604.

Lazarev M.A. 2009. Taxonomical structure of Dorcadion (Cribridorcadion) ciscaucasicum Jakovlev, 1900 with the description of a new subspecies from Taman. - Eversmannia, Entomological research in the Russia and adjacent regions. 19-20: 10-15 + 1 plate.

Lazarev M.A. 2011. A revision of the taxonomic structure of Dorcadion cinerarium (Fabricius, 1787) (Coleoptera: Cerambycidae). - Studies and reports of District Museum Prague-East. Taxonomical Series. 7 (1-2): 255-292.

Pallas P.S. 1771. Reise durch verschiedene Provinzen des Russischen Reichs. Erster Theil. St. Petersburg: Kayserliche Akademie der Wissenschaften, [10] + 3-504 pp., 11 pls.

Peks H. 2010. Eine neue Art der Gattung Dorcadion Dalm. aus der Türkei, Umgebung Iznik (Coleoptera, Cerambycidae, Lamiinae). - Coleoptera. 14: 213-220.

Pic M. 1942. Opuscula martialis VII. L'Échange, Revue Linnéenne. Numéro Spécial: 1-16.

Plavilstshikov N.N. 1958. Faune de l'URSS. Insects Coléoptères. V.23 (1). Cerambycidae (P.3). Sous-famille Lamiinae, p.1. Moscou, Leningrad: 592 pp. [in Russian]

Zahaikevitch I.K. 1991. Taxonomy and Ecology of Longicorn Beetles. "Naukova Dumka". 180 pp. [in Russian]

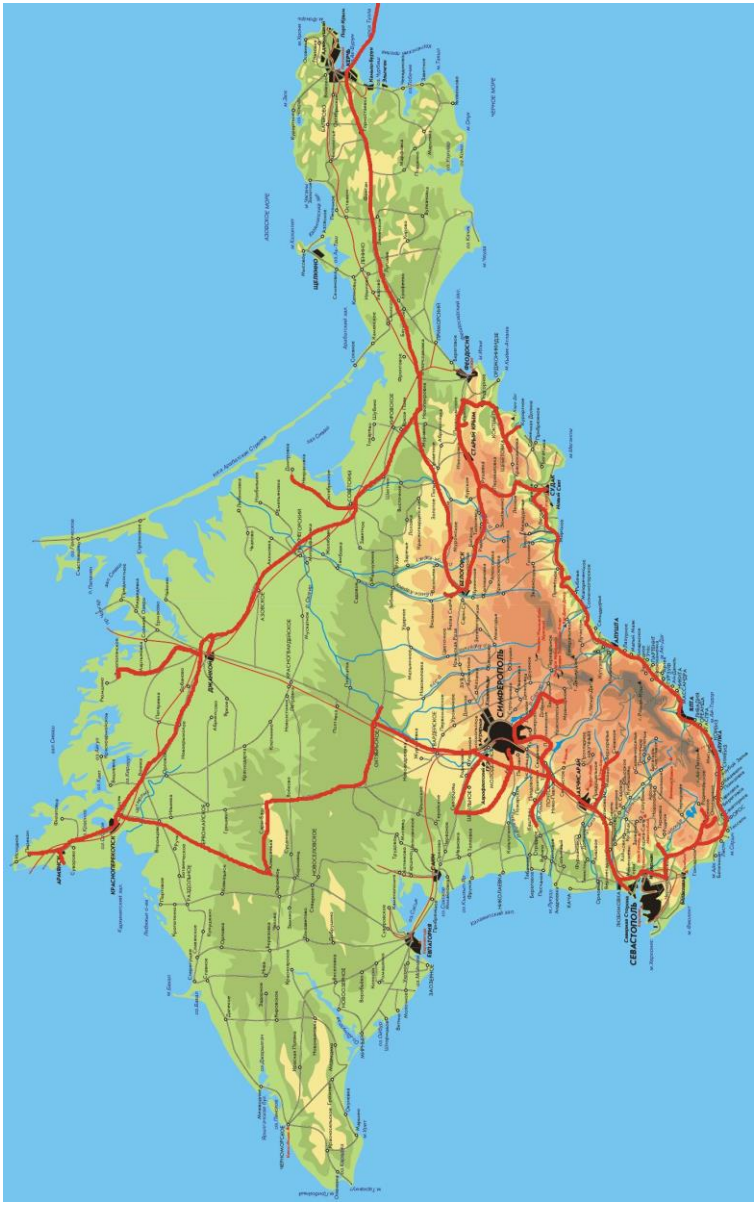


Fig. 1. Way of the authors' collecting trip 2021

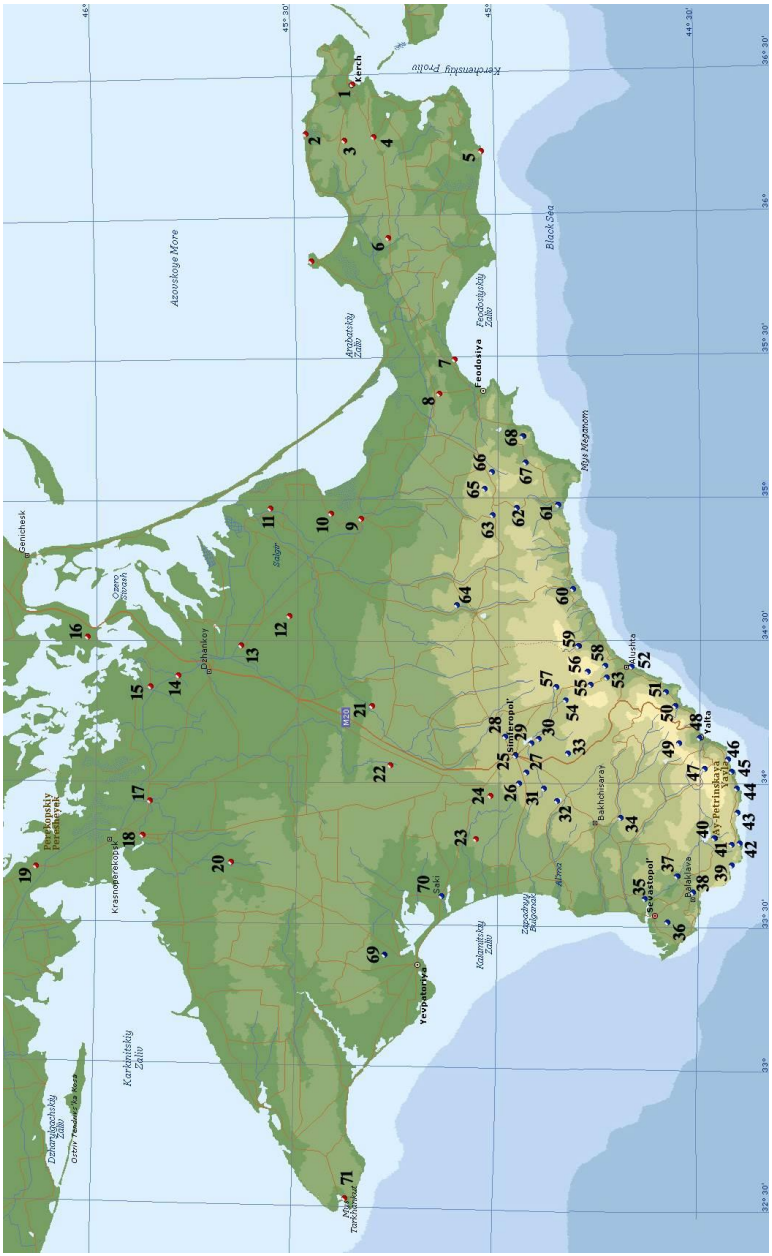


Fig. 2. Localities of *Dorcadion cinerarium* in Crimea (*D. c. panticapaeum*, *D. c. perroudi*, *D. c. mosyakini* Danilevsky, **ssp. n.**, *D. c. bartenevi*).

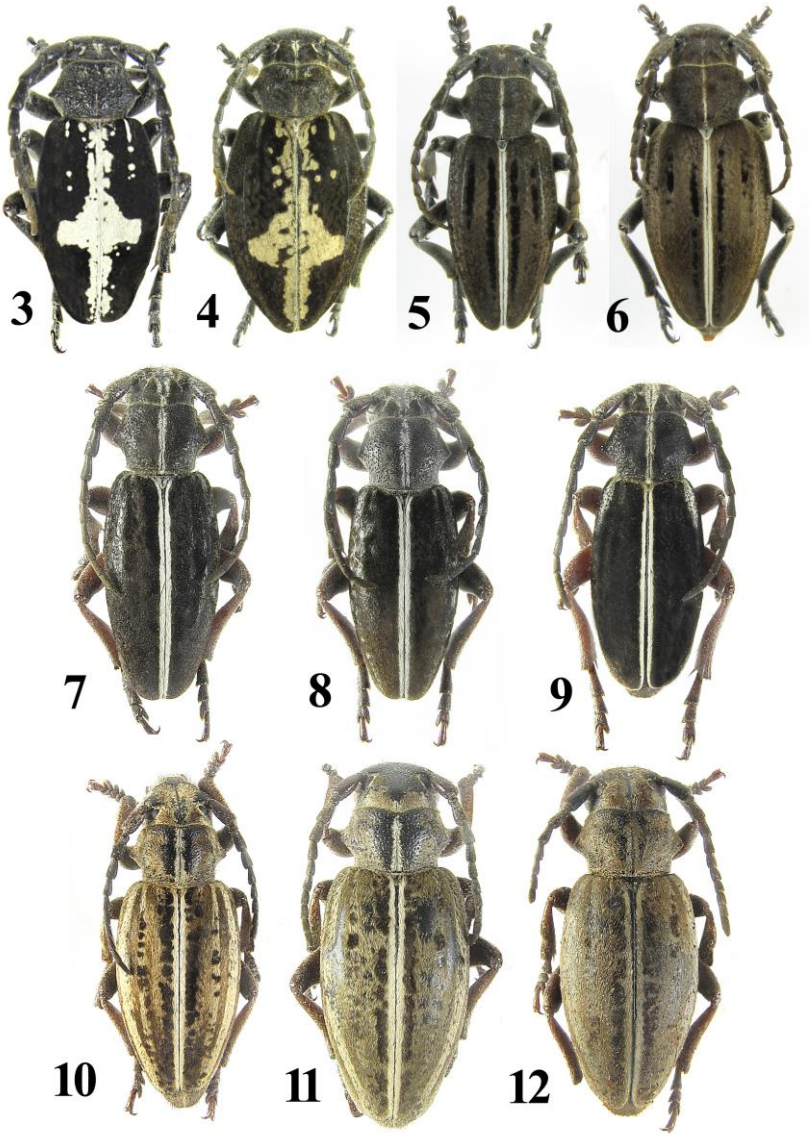
Fig. 2. Localities of *Dorcadion cinerarium* in Crimea (*D. c. panticapaeum, D. c. perroudi, D. c. mosyakini* Danilevsky, **ssp. n.**, *D. c. bartenevi*).

D. c. panticapaeum: 1 - Kerch, 2 - Chokrak Lake, 3 - Bagerovo, 4 - Ivanovka, 5 - Mt. Opuk, 6 - Fontan, 7 - Primorsky, 8 - Vladislavovka, 9 - Sovetsky, 10 - Oktyabrskoe, 11 - Izobilnoe, 12 - Uyutnoe, 13 - Kondratovo, 14 - Maslovo, 15 - Martynovka, 16 - Chongar, 17 - Dolinka,18 - Ishun, 19 - Turetsky Val, 20 - Privolnoe, 21 - Zvezdnoe, 22 - Pyatikhatka, 23 - Skvortsovo, 24 - Veseloe.

D. c. perroudi: 25 - Simferopol, 26 - Klyuchi, 27 - Dubki, 28 - Kamenka, 29 - Marino, 30 - Lozovoe, 31 - Trudolyubovo, 32 - Kazanki, 33 - Partizanskoe, 34 - Alimova Balka, 35 - Inkerman, 36 - Sevastopol, 37 - Chernorechenskoe, 38 - Balaklava, 39 - Laspi, 40 - Pavlovka, 41 - Orlinoe, 42 - Foros, 43 - Parkovoe, 44 - Simeiz, 45 - Alupka, 46 - Miskhor, 47 - Ay-Petri, 48 - Yalta, 49 - Yaltinskaya Yayla, 50 - Gurzuf, 51 - Zaprudnoe, 52 - Alushta, 53 - Verkhnyaya Kutuzovka, 54 - Chatyr-Dag, 55 - Angarsky Pass, 56 - Severnaya Demerdzhi, 57 - Kyzyl-Koba, 58 - Luchistoe, 59 - Generalskoe, 60 - Privetnoe, 61 - Sudak, 62 - Perevalnoe, 63 - Kurskoe, 64 - Belaya Skala, 65 - Agarmysh, 66 - Staryy Krym, 67 - Schebetovka, 68 - Kara-Dag.

D. c. mosyakini Danilevsky, **ssp. n.**: 69 - Suvorovskoe, 70 - Saki.

D. c. bartenevi: 71 - Cape Tarkhankut.


3
4
5
6
7
8
9
10
11
12

Figs 3-4. *D. equestre vadimi* **ssp. n.**: 3 - male, holotype; 4 - female, paratype, Klyuchi environs.
Figs 5-6. *D. holosericeum ustinovi* Danilevsky, **ssp. n.:** 5 - male, holotype; 6 - female, paratype, Perevalnoe.
Figs 7-12. *D. cinerarium mosyakini* Danilevsky, **ssp. n.:** 7 - male, holotype; 8 - male, paratype, Suvorovskoe, 15.4.2019, S. Mosyakin leg.; 9 - male, paratype, Saki, 2.4.2018, S. Mosyakin leg.; 10 - female, paratype, Suvorovskoe, 15.4.2019, S. Mosyakin leg.; 11 - female, paratype, Suvorovskoe, 27.4.2018, M. Danilevsky leg.; 12 - female, paratype, Suvorovskoe, 9.5.2001, S. Mosyakin leg.

Received: 05.08.2021
Accepted: 19.08.2021