



REVIEW ARTICLE

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A REVIEW OF THE LEAF-BEETLES (COLEOPTERA: CHRYSOMELIDAE) OF SUBFAMILIES ALTICINAE AND CASSIDINAE OF THE MONGOLIAN ALTAI.

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A check-list for the subfamilies Alticinae, Cassidinae is provided. Currently, 59 species of 16 genera of these subfamilies are known from the Mongolian Altai. Nine species of leaf-beetles, *Psylliodes macella* Weise, 1900, *Argopus nigratarsis* (Gebler, 1823), *Altica tamaricis* Schrank, 1785, *A. balassogloi* (Jacobson, 1892), *Longitarsus violentus* Weise, 1893, *Hispa atra* (Fabricius, 1775), *Cassida murraea* Linnaeus, 1767, *C. berolinensis* Suffrian, 1844 and *Hypocassida subferruginea* (Schrank, 1776) are new records for Bayan-Ulegei aimak, two species, *Chaetocnema sahlbergii* (Gyllenhal, 1827) and *Ch. mannerheimi* (Gyllenhal, 1827) are new for Hovd aimak and three species, *Crepidodera plutus* (Latreille, 1804), *Longitarsus luridus* (Scopoli, 1763) and *Cassida berolinensis* Suffrian, 1844 are new for Gobi-Altai aimak.

Key words: Coleoptera, Chrysomelidae, Alticinae, Cassidinae, Leaf-beetles, Mongolian Altai.

INTRODUCTION

Despite the relatively large number of publications devoted to the entomofauna of Mongolia, the data on the Mongolian Altai insects are extremely deficient. This is due to several reasons, primarily to the lack of materials and also to the complexity of certain groups identification. Our studies of the recent years carried out in the Mongolian Altai allowed to considerably supplement the data on the fauna of the Mongolian Altai and also of the entire Mongolia. This concerns certain groups of Lepidoptera: *Pterophoridae* (Ustjuzhanin & Kovtunovich, 2008), *Papilionoidea* (Yakovlev, 2011), *Zygaenidae* (Efetov et al., 2012), *Sphingidae* (Yakovlev et al., 2015). There was the only review on Coleoptera (Tyumaseva & Guskova, 2008). The West Mongolian Chrysomelidae were revised, the species new for science were discovered, a series of important Faunistic discoveries was given (Guskova, 2006; Mikhailov & Guskova, 2013a, 2013b). The present study provides a detailed overview of leaf beetles of the subfamilies Alticinae and Cassidinae in the Mongolian Altai fauna.

MATERIALS AND METHODS

The basic material for the current paper is based on personal collections of the author who participated in the complex botanical-zoological expeditions organized by the South Siberian Botanical Garden of the Altai State University in 2007, 2009 and 2010. Expeditions were performed in all the three aimaks which are covered by the Mongolian Altai: Bayan-Ulegei, Hovd and Gobi-Altai, including localities which have never been visited by entomologists.

The collection was performed with standard methods: manual collection and mowing with sweep net and at night using ultraviolet lights (light source-tube Philips TL 8W/05), poison-chloroform), bulbs, Philips-250 a Subaru-750 generator).

The research was mainly based on the materials collected by the author in different localities of the Mongolian Altai, on the collection of Elena V. Guskova (EGC), Barnaul, Russia and also partially on the materials from the following collections: National Museum of Natural History (USNM), Washington, USA; State Collection of Zoology (ZSMC) Germany, Munich; collection of Lev N. Medvedev (LMC), Moscow, Russia; Zoological Institute of Russian Academy of Sciences (ZIRAS), St Petersburg, Russia.

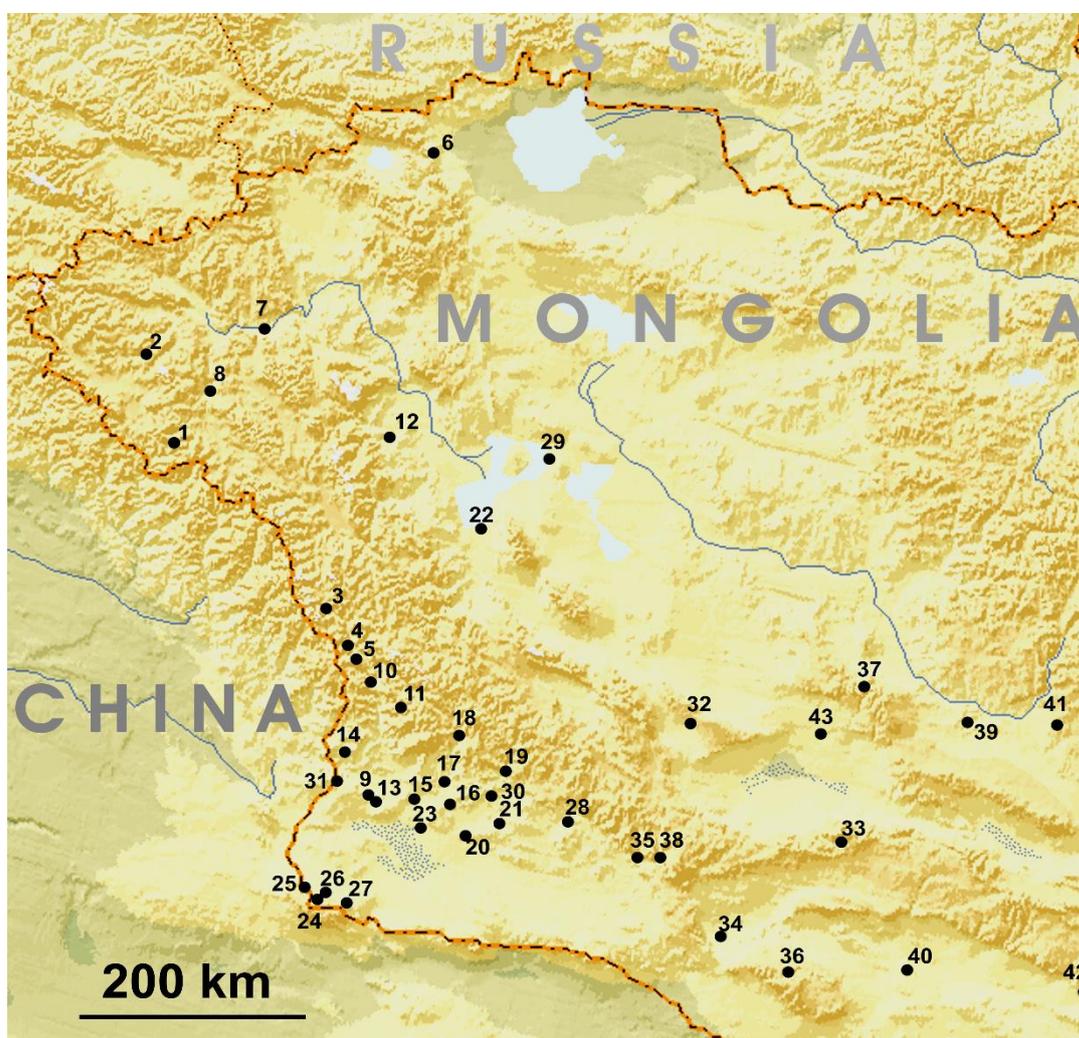


Fig. 1. Localities of collecting Chrysomelidae in the Mongolian Altai.



List of collecting localities (Fig. 1).

BAYAN-ULEGEJ AIMAK: 1) **Elt-Gol** – middle stream of Elt-Gol river (Kara-Irtys basin), 2,100–2,300 m, 48°07' N 89°11' E); 2) **Tsengel** – Kobdo-gol Valley, 20 km SW Tsengel, 1,900–2,200 m, 48°49' N 88°59' E; 3) **Bulgan (upper)** – Bulgan-gol Valley, 10 km N. Bulgan (upper), 2,000 m, 47°11' N 90°47' E; 4) **Altai (BU)** – 10 km N Altai vill., 2,000 m, 46°53' N 91°06' E; 5) **middle Bulgan-gol** – middle stream of Bulgan-gol river, 1,800 m, 46°44' N 91°18' E; 6) **Turgen-Gol**, 2,300–2,250 m, 50°10' N 91°26' E; 7) **Bayan-Ulegei** – near Bayan-Ulegei, 2,100 m, 48°58' N 89°58' E; 8) **Buyant** – 20 km N Buyant somon, 1,950 m, 48°35' N 89°33' E.

HOVD AIMAK: 9) **Bulgan** – Dzhungarian Gobi desert, Kobdoskii aimak, 15 km S Bulgan, 1,100 m, 45°59' N 91°31' E; 10) **Bulgan-Gol Valley** – Bulgan-Gol Valley, 45 km N of Bulgan, 1,500 m, 46°33' N 91°22' E; 11) **Dod-Naryin-gol** – 40 km N Bulgan vill., Bulgan-gol basin, middle stream of Dod-Naryin-gol river, Shara-Nuruu Mts., 1,400–1,700 m, 46°29' N 91°29' E; 12) **Darkhijn-Shurag-Gol** – under stream of Darkhijn-Shurag-Gol riv., 1,400 m, 48°18' N 91°18' E; 13) **Barangijn-Shara-Nuruu** – Dzhungarian Gobi desert, Barangijn-Shara-Nuruu Mts., 15 km S of Bulgan somon, 1,300 m, 45°53' N 91°19' E; 14) **Arshantyn-Nuruu** – Bulgan-gol basin, Arshantyn-Nuruu Mts., Bayan-gol basin, middle stream of Ulyastain-Sala river, 1,700–2,300 m, 46°19' N 91°07' E; 15) **30 km SW Uench** – Uenchin-gol, 30 km SW Uench, 1,100 m, 45°53' N 91°40' E; 16) **Uench** – 30 km SE of Uench vill., 1,100 m, 45°52' N 91°44' E; 17) **2 km N Uench** – Uenchin-Gol river, 2 km N Somon Uench, 1,450 m, 46°07' N 92°03' E; 18) **Uenchin-Gol** – Uenchin-Gol Valley, 50 km N of Uench vill., 1,500 m, 46°23' N 92°10' E; 19) **Hundijn-Gol** – Bodonchijn-Gol basin, Hundijn-Gol river Valley, 1,600 m, 46°06' N 92°30' E; 20) **Elkhony-Ekhen-Tal** – 30 km S Altai somon, Bodonchijn-Gol river valley (under stream), Elkhony-Ekhen-Tal place, 1,200 m, 45°43' N 92°05' E; 21) **Altai (H)** – 20 km SE Altai, 45°39' N 92°23' E; 22) **Hara-Us-Nur** lake, 47°46' N 92°03' E; 23) **30 km S Uench** – r. Uench-Gol, 30 km S. Uench, 1,700 m, 45°42' N 91°57' E; 24) **Altan-Obo** – Baitag-Bogdo Range, Altan-Obo, 1,900–2,200 m, 45°13' N 90°56' E; 25) **Tachtoi-Ula** – Baitag-Bogdo Range, Mt. Tachtoi-Ula, 1,800–2,200 m, 45°16' N 90°55' E; 26) **Baruun-Khargaityn-Gol** – Bajtag-Bogd-Uul Mts., Baruun-Khargaityn-Gol river Valley, 1,900–2,000 m, 45°16' N; 90°57' E; 27) **Gushoot-Shineetijn-Gol** – Bajtag-Bogd-Uul Mts., Gushoot-Shineetijn-Gol river Valley, 2000 m, 45°15' N; 91°03' E; 28) **Barlagiin-Gol** – Barlagiin-Gol river, 65 km E Altai, 1,700 m, 45°48' N 93°02' E; 29) **Khoit-Dalaj-Nuur** – Khoit-Dalaj-Nuur lake, 1,150–1,200 m, 48°08' N 92°45' E; 30) **Elkhon** – 20 km NE Altai, Elkhon vic., 45°58' N 92°27' E; 31) **Jarantaj** – Bulgan-Gol river, 10 km E Jarantaj, 46°14' N 91°00' E;

GOBI-ALTAI AIMAK: 32) **Dariv** – Great Lakes Valley, near Dariv, 1,450 m, 46°27' N; 94°07' E; 33) **Hara-Adzragyn-Nuru** – Hara-Adzragyn-Nuru Mts., Najtvaryn-Sajr river Valley (under stream), 1,700–2,000 m, 45°52' N 95°30' E; 34) **Alag-Nuur** – Dzhungarian Gobi, Alag-Nuur lake, (near Ajlyn-Tsagan-Khuduk), 1,300 m, 45°09' N 94°30' E; 35) **Bidzh-Altai** – 30 km NW Bidzh-Altai, 2,220–2,300 m,



45°40' N 93°40' E; 36) **Khalba-Khairkhan** – Adzh-Bogdo Mts. (NE slope), near Khalba-Khairkhan Mt., 1,700 m, 45°03' N 94°59' E; 37) **Zhargalan** – Khasgt-Khairkhan Mts., 17 km SSW Zhargalan, 2,500–2,900 m, 46°48' N 95°49' E; 38) **Mogoijn-Gol** – Mongolian Altai Mts. (S. slope), Mogoijn-Gol Valley, 1800 m, 45°39'N; 93°47'E; 39) **Altai** – 40 km ENE Altai, 46°32' N 96°47' E; 40) **Hatan-Hairhan** – Piket 22, N, 1,225 m, 44°56' N 96°12' E; 41) **Delger** – 15 km NW Delger, 46°31' N 97°37' E; 42) **Urd-Bulak** – Urd-Bulak, 50 km E Dzahoi (Zahuy), 44°56' N 97°25' E; 43) **Sharga**, 46°27' N 95°27' E.

RESULTS

An annotated list of the Chrysomelidae (Alticinae, Cassidinae) fauna of the Mongolian Altai

In the present paper we give an annotated list of Chrysomelidae belonging to four subfamilies Alticinae and Cassidinae from the Mongolian Altai. To compile the list we resorted to the literary data of other researchers.

ALTICINAE Newman, 1835

PHYLLOTRETA Chevrolat, 1836

Ph. atra (Fabricius, 1775)

Medvedev & Voronova, 1977: 344; 1979: 126; Medvedev, 1982: 268; Döberl, 2010: 545.

Distribution: Europe, Kazakhstan, Siberia, Sakhalin, Japan, China. Mongolia (Hovd, Gobi-Altai, Bayankhongor).

Material: Altan-Obo, 25-28.07.1975 (LMC).

Ph. cruciferae (Goeze, 1777)

Medvedev & Voronova, 1977a: 344; 1979: 126; Medvedev, 1982: 268; Döberl, 2010: 546.

Distribution: Europe except for Fennoscandia, Caucasus, Transcaucasia, Turkey, Near and Middle East, Central Asia, India, N Africa, introduced in N America. Mongolia (Hovd, Gobi-Altai, Bayankhongor).

Ph. erysimi Weise, 1900

Kral, 1973: 113; Medvedev, 1979: 165; 1982: 267; Döberl, 2010: 546.

Distribution: SE Europe, Ukraine, S European Russia, Caucasus, Turkey, Middle East, Central Asia. Mongolia (Hovd, Gobi-Altai, Bayankhongor, Uverhang, South Gobi).

Material: Bidzh-Altai, 21.07.1970 (*Kerzhner*) (ZIRAS); Hatan-Hairhan, 13-14.07.1975 (LMC).



Ph. mongolica L. Medvedev, 1980

Medvedev, 1980: 319; 1982: 268; Döberl, 2010: 548.

Distribution: Mongolia (Gobi-Altai).

Ph. pallidipennis Reitter, 1891

Kral, 1967: 183; 1973: 113; 1980: 123; Lopatin, 1975: 223; Medvedev & Voronova, 1976: 231; 1977a: 343; 1977b: 219; 1979: 125; Medvedev & Pustovoit, 1977: 207; Medvedev, 1982: 266; Döberl, 2010: 548.

Distribution: S Ukraine, SE European Russia, Ciscaucasia, Dagestan, Turkey, Central Asia, Afghanistan, Iran, SW Siberia, Altai, Baikal Area, Transbaikalia, NE China, Mongolia.

Material: Altai, 19.08.1973(LMC); Elkhon, 27.7.1970 (LMC); Delger, 11.07.1970 (Kerzhner) (LMC).

Ph. praticola Weise, 1887

Medvedev & Voronova, 1977a: 345; 1979: 127; Lopatin, 1977: 154; Medvedev, 1982: 269; Döberl, 2010: 548.

Distribution: SE European Russia, S Ural, Ciscaucasus, Turkey, Central Asia, Afghanistan, Iran, SW Siberia, Altai, NW China, India. Mongolia (Hovd, Gobi-Altai).

Material: Altan-Obo, 25-28.7.1975 (LMC); Arshantyn-Nuruu, 23-25.06.2005 (R. Yakovlev & D. Ryzhkov) (EGC); Darkhijn-Shurag-Gol, 4.07.2007 (E.V. Guskova & R.V. Yakovlev) (EGC); Hara-Adzragyn-Nuru, 15-16.07.2010 (E.V. Guskova & R.V. Yakovlev) (EGC); Alag-Nuur, 1-2.06.2011 (R. Yakovlev) (EGC); Khalba, 3.-4.06.2011 (R. Yakovlev) (EGC).

Ph. scheuchi Heikertinger, 1941

Medvedev & Voronova, 1979: 126; Medvedev, 1982: 269; Döberl, 2010: 549.

Distribution: England, Spin, southern parts of Central Europe, S Ukraine. Mongolia (Hovd).

Material: Tachtoi-Ula, 1-3.08.1976 (LMC).

Ph. tomboi Lopatin, 1967

Lopatin, 1967: 165; 1975: 224; Medvedev & Voronova, 1977a :344; 1979: 127; Medvedev, 1979: 165; 1982: 268; Döberl, 2010: 549.

Distribution: Mongolia.

Ph. undulata Kutschera, 1860

Kral, 1967: 183; Lopatin, 1975: 224; Medvedev & Voronova, 1977a: 344; 1979: 126; Medvedev, 1982: 267; Döberl, 2010: 549.



Distribution: Europe, Kazakhstan, Siberia, Japan, Sakhalin, China. Mongolia (Hovd, Bulgan, Selenge).

Material: Tsengel, 21.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Alag-Nuur, 9-10.07.2010 (*E.V. Guskova & R.V. Yakovlev*) (EGC).

Ph. vittula (L. Redtenbach, 1849)

Medvedev & Voronova, 1977a: 344; 1979: 126; Kral, 1980: 132; Medvedev, 1982: 266; Döberl, 2010: 549.

Distribution: Europe, Caucasus, Transcaucasia, Turkey, Central Asia, Afghanistan, Siberia, Far East, Korea, China. Mongolia (Hovd, Bulgan).

APHTHONA Chevrolat, 1836

A. czwalinai Weise, 1888

Medvedev & Voronova, 1979: 125; Medvedev, 1982: 271; Döberl, 2010: 497.

Distribution: Europe except for N, Kazakhstan, Kirghizstan, W Siberia, Tuva. Mongolia (Hovd).

Material: Uenchin-Gol, 6.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC).

A. jakuta Ogloblin, 1927

Kral, 1973: 115; 1980: 133; Medvedev & Dubeshko, 1974: 193; Warchalowski, 1974: 55; Lopatin, 1975: 224; Medvedev & Voronova, 1977a: 343; Medvedev, 1979: 165; 1982: 270; Döberl, 2010: 499.

Distribution: Evenkia, Yakutia, middle and upper Lena Valley, Cisbaikalia, Magadan Distr., Far East. Mongolia.

A. tolli Ogloblin, 1927

Lopatin, 1967: 165; 1975: 224; Medvedev & Voronova, 1977a: 343; Medvedev, 1982: 271; Döberl, 2010: 501.

Distribution: N Kazakhstan, Transbaikalia, Yakutia, Amurland, China, Mongolia.

LONGITARSUS Latreille, 1829

L. ballotae Marscham, 1802

Medvedev, 1982: 272; Döberl, 2010: 523.

Distribution: Europe except for N, Ciscaucasia, Caucasus, Transcaucasia, Turkey, Near and Middle East, S Kazakhstan, N Africa. Mongolia (Gobi-Altai).

L. ganglbaueri Heikertinger, 1912

Medvedev & Dubeshko, 1974: 194; Medvedev, 1982: 274; Döberl, 2010: 525.



Distribution: Europe except for N, Caucasus, Transcaucasia, Turkey, Transbaikalia, Sakhalin, introduced to N America. Mongolia (Hovd, Gobi-Altai, Uverhang, Arkhangai).

L. jacobaeae (G.R. Waterhouse, 1858)

Medvedev & Voronova, 1977a: 342; 1979: 123; Medvedev & Zaitzev, 1978: 148; Medvedev, 1982: 273; Döberl, 2010: 526.

Distribution: Europe, Caucasus, Transcaucasia, Kazakhstan, Kirghizstan, China (Tibet), Asian Russia (all over Siberia except for N). Mongolia (Hovd, Gobi-Altai, Selenge, Central).

L. luridus (Scopoli, 1763)

Lopatin, 1967: 166; 1975: 225; Kral, 1973: 118; 1980: 133 Medvedev & Dubeshko, 1974: 193; Medvedev & Voronova, 1976: 231; 1977a: 342; 1977b: 219; 1979: 123; Medvedev & Zaitzev, 1978: 148; Medvedev, 1982: 272; Döberl, 2010: 527.

Distribution: All over Palearctic except for Central Asia and Far East, introduced to N America. Mongolia (Hovd, Gobi-Altai (new record), Ubsunur, Zavhan, Khubsugul, Arkhangai, Bulgan, Selenge, Eastern, Central).

Material: Mogoijn-Gol, 6–8.07.2010 (*E.V. Guskova & R.V. Yakovlev*) (EGC).

L. scutellaris (Mulsant & Rey, 1874)

Kral, 1967: 187; 1973: 117; Lopatin, 1967: 166; 1975: 225; Medvedev & Dubeshko, 1974: 193; Medvedev & Voronova, 1976: 232; 1977a: 342; 1979: 124; Medvedev, 1979: 165; 1982: 274; Döberl, 2010: 531.

Distribution: Europe except for extreme N, Caucasus, Transcaucasia, Turkey. Mongolia (Hovd, Ubsunur, Khubsugul, Arkhangai, Bulgan, Selenge, Central, Hentiysky).

Material: Khoit-Dalaj-Nuur, 6.08.1975 (LMC).

L. suturellus (Duftschmidt, 1825)

Lopatin, 1977: 154; Döberl, 2010: 530.

Distribution: All over Palearctic except for Mediterranean. Mongolia (Hovd).

L. tabidus (Fabricius, 1775)

Medvedev & Voronova, 1976: 231; 1977b: 219; 1979: 123; Medvedev & Pustovoit, 1977: 207; Medvedev, 1982: 273; Döberl, 2010: 532.

Distribution: Europe, Kazakhstan, Middle Asia, W Siberia, N Africa. Mongolia (Hovd, Bulgan, Central, Bayankhongor, Uverhang, South Gobi).

L. violentus Weise, 1893



Heikertinger, 1914: 259; Lopatin, 1967: 166; 1975: 225; Kral, 1973: 118; 1980: 134; Warchalowski, 1974: 56; Medvedev & Dubeshko, 1974: 193; Medvedev & Voronova, 1976: 231; 1977a: 342; 1977b: 219; 1979: 123; Medvedev & Pustovoit, 1977: 207; Medvedev, 1982: 272; Döberl, 2010: 532.

Distribution: SE European Russia, Caucasus, Transcaucasia, Turkey, Middle East, Kazakhstan, Central Asia, S and Middle Siberia, Transbaikalia, Tuva, Yakutia, Beringia. Widespread in the Mongolia (Bayan-Ulegei (new record)).

Material: Tsengel, 21.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Mogoijn-Gol, 11.07.2009 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Hara-Adzragyn-Nuru, 15–16.07.2010 (*E.V. Guskova & R.V. Yakovlev*) (EGC).

ALTICA Geoffroy, 1762

A. balassogloi (Jacobson, 1892)

Kral, 1973: 120; Medvedev, 1982: 277; Döberl, 2010: 492.

Distribution: Afghanistan, Pakistan, Kazakhstan, Kirghizstan. Mongolia (Bayan-Ulegei (new record), Hovd, Gobi-Altai).

Material: Bulgan (upper), 16.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Tsengel, 21.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Mogoijn-Gol, 11.07.2009 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Mogoijn-Gol, 30–31.05.2011 (*R. Yakovlev*) (EGC).

A. deserticola (J. Weise, 1889)

Weise, 1889: 570; Jacobson, 1892: 464; Kral, 1973: 120; Lopatin, 1975: 226; Medvedev & Voronova, 1977a: 341; 1978: 65; 1979: 122; Medvedev, 1982: 277; Döberl, 2010: 493.

Distribution: SE European, SW Kazakhstan, Transcaucasia, Turkey, Afghanistan, N and NW China, Taiwan. Mongolia (Ubsunur, Khubsugul, Hovd, Gobi-Altai, Bayankhongor).

Material: Alag-Nuur, 9-10.07.2010 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Alag-Nuur, 1-2.06.2011 (*R. Yakovlev*) (EGC); Khalba, 3-4.06.2011 (*R. Yakovlev*) (EGC); Elkhony-Ekhen-Tal, 7.06.2011 (*R. Yakovlev*) (EGC); Arshantyn-Nuruu, 9-10.06.2011 (*R. Yakovlev*) (EGC).

A. sajanica (Csiki, 1901)

Kral, 1965: 158; 1967: 187; 1973: 191, 120; 121; 1980: 135; Mohr, 1966: 369; Lopatin, 1967: 166; 1975: 232; Warchalowski, 1974: 55; Medvedev & Dubeshko, 1974: 192; Medvedev & Voronova, 1977a: 340; 1977b: 219; 1979: 121; 122; Medvedev & Pustovoit, 1977: 207; Medvedev, 1979: 165; 1982: 278; Döberl, 2010: 494.

Distribution: S Middle Siberia, Transbaikalia, Amurland. Widespread in the Mongolia.



Material: Arshantyn-Nuruu, 23-25.06.2005 (*R. Yakovlev & D. Ryzhkov*) (EGC); Barangijn-Shara-Nuruu, 11.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Bulgan (upper), 16.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Tsengel, 21.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Zhargalan, 19–21.07.2010 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Tsengel, 25-27.07.2010 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Mogoijn-Gol, 30–31.05.2011 (*R. Yakovlev*) (EGC); Arshantyn-Nuruu, 9-10.06.2011 (*R. Yakovlev*) (EGC).

A. tamaricis Schrank, 1785

Kral, 1973: 131; Medvedev, 1982: 277; Guskova, 2006: 306; Döberl, 2010: 495.

Distribution: Europe except for N, Caucasus, Transcaucasia, Turkey, Middle East, Kazakhstan, Uzbekistan, S Siberia, Transbaikalia. Mongolia (Bayan-Ulegei (new record), Hovd).

Material: Buyant, 10.07.2005 (*R. Yakovlev*) (EGC); Bulgan (upper), 16.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Tsengel, 21.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC).

NEOCREPIDODERA Heikertinger, 1911

(*Asiolestia* Jacobson, 1925; *Crepidodera* auct. non Chevrolat in Dejean, 1836)

N. sublaevis (Motschulsky, 1859)

Kral, 1973: 124; Medvedev & Voronova, 1977a: 341; 1979:122; Medvedev, 1982: 276; Döberl, 2010: 540.

Distribution: Kazakhstan, Afghanistan, N Tajikistan, Middle and Siberia to Far East. Mongolia (S Hovd, Gobi-Altai).

Material: Hundijn-Gol, 21.06.2005 (*R. Yakovlev & D. Ryzhkov*) (EGC); Arshantyn-Nuruu, 23-25.06.2005 (*R. Yakovlev & D. Ryzhkov*) (EGC); Dod-Naryin-gol, 26.06.2005 (*R. Yakovlev & D. Ryzhkov*) (EGC); Uenchin-Gol, 6.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Bulgan-Gol Valley, 12.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Arshantyn-Nuruu, 12.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC).

CREPIDODERA Chevrolat, 1836

(*Chalcoides* Foudras, 1861)

Cr. plutus (Latreille, 1804)

Warchalowski, 1974: 58; Medvedev & Voronova, 1977a: 341; 1979:122; Medvedev, 1982: 276; Döberl, 2010: 511.

Distribution: Europe except for N, Caucasus, Turkey, Iran, Kazakhstan, Kirghizstan, Tajikistan, Siberia to Far East, Sakhalin, Kuriles Isles, N China, Korea, Japan. Mongolia (Hovd, Gobi-Altai (new record), Ubsunur, Bulgan, Selenge, Central, Hentiysky, Eastern, Bayankhongor, Uverhang).

Material: Tachtoi-Ula, 1-3.08.1976 (LMC); Mogoijn-Gol, 11.07.2009 (*E.V. Guskova & R.V. Yakovlev*) (EGC).



EPITRIX Foudras, 1861

E. abeillei (Bauduer, 1874)

Kral, 1973: 113; Medvedev & Voronova, 1977a: 341; 1979: 122; Medvedev, 1982: 275; Döberl, 2010: 513.

Distribution: Turkey, Middle and Near East, Kazakhstan, Uzbekistan, NE China, N Africa. Mongolia (Hovd, Gobi-Altai, Bayankhongor, South Gobi).

Material: Alag-Nuur, 1-2.06.2011 (*R.V. Yakovlev*) (EGC).

CHAETOCNEMA Stephens, 1831

Chaetocnema (Tlanoma) Motschulsky, 1845

Ch. (Tlanoma) breviuscula (Faldermann, 1837)

Kral, 1973: 125; Lopatin, 1975: 226; Medvedev & Voronova, 1977a: 345; 1979: 127; Medvedev & Zaitzev, 1978: 151; Medvedev, 1979: 165; 1982: 279; Döberl, 2010: 508.

Distribution: Europe, Caucasus, Middle Asia, southern parts of W Siberia, Mongolia (Bulgan, Central, Suhe Bator, Eastern, Hovd, Gobi-Altai, Bayankhongor).

Material: Sharga, 1.09.1977 (*G. Molnar*) (USNM).

Ch. (Tlanoma) concinna Marsham, 1802

Kral, 1965: 160; 1967: 187; Medvedev & Dubeshko, 1974: 194; Warchalowski, 1974: 56; Lopatin, 1975: 226; Medvedev & Voronova, 1977a: 345; Döberl, 2010: 508.

Distribution: All over Palearctic. Mongolia (Hovd (new record), Arkhangai, Bulgan, Selenge, Eastern, Suhe Bator).

Material: Barangijn-Shara-Nuruu, 11.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC).

Ch. (Tlanoma) nebulosa Weise, 1886

Medvedev & Pustovoit, 1977: 207; Medvedev, 1978: 195; 1982: 278; Medvedev & Voronova, 1979: 127; Döberl, 2010: 509.

Distribution: southern parts of Europe, Kazakhstan, Middle Asia. Southern parts of Mongolia.

Ch. (Chaetocnema) costulata (Motschulsky, 1860)

Kral, 1965: 160; 1967: 188; 1973: 127; 1980: 135; Lopatin, 1967: 167; 1975: 227; Medvedev & Dubeshko, 1972: 56; 1974: 194; Warchalowski, 1974: 58; Medvedev & Voronova, 1976: 232; 1977a: 345; 1977b: 219; 1979: 128; Medvedev & Pustovoit, 1977: 207; Medvedev & Zaitzev, 1978: 151; Medvedev, 1982: 280; Döberl, 2010: 506.

Distribution: Afghanistan, Tuva, Sayan, Cisbaikalia, Transbaikalia, Buryatia, Yakutia, Amurland, Maritime Prov., Beringia, Kamchatka, Sakhalin, China. Widespread in the Mongolia.



Material: Turgen-Gol, 1-2.08.1975 (LMC).

Ch. (Chaetocnema) grandis Pic, 1909

Kral, 1973:127; Döberl 2010: 507; Konstantinov, 2011: 149.

Distribution: Kazakhstan, Kyrgyzstan, Russia, Tajikistan, Turkmenistan, Uzbekistan. Mongolia (Gobi-Altai, Hovd).

Material: Urd-Bulak, 12.08.1976 (ZSMC); 30 km S Uench, 29-31.07.1975 (ZSMC); 2 km N Uench, 7.07.1966 (*Dr. Z. Kaszab*) (USNM);

Ch. (Chaetocnema) hortensis (Geoffroy, 1785)

Kral, 1973: 125; 1980: 136; Lopatin, 1967: 167; 1975: 227; 1977: 154; Medvedev & Dubeshko, 1974: 194; Warchalowski, 1974: 58; Medvedev & Voronova, 1976: 232; 1977a: 345; 1979: 128; Medvedev, 1979: 166; 1982: 279; Döberl, 2010: 506.

Distribution: Europe, Kazakhstan, Siberia, Sakhalin, Japan, China, N. Africa. Widespread in the Mongolia.

Material: Dariv, 23.07.2010 (*E.V. Guskova & R.V. Yakovlev*) (EGC).

Ch. (Chaetocnema) obesa (Boieldieu, 1859)

Lopatin, 1977: 154; Medvedev, 1982: 279; Döberl, 2010: 507.

Distribution: Europe except for N, Caucasus, Turkey, Iraq, Kazakhstan, Altai, China. Mongolia (Hovd).

Material: Jarantaj, 18.05.1974 (*Dr. R. Piechocki*) (USNM).

Ch. (Chaetocnema) sahlbergii (Gyllenhal, 1827)

Kral, 1973: 126; 1980: 136; Medvedev & Dubeshko, 1974: 194; Lopatin, 1975: 227; Medvedev & Voronova, 1977a: 345; Medvedev, 1982: 279; Döberl, 2010: 507.

Distribution: Europe, Siberia, Amurland, Kamchatka. Mongolia (Bayan-Ulegei, Hovd (new record), Zavhan, Arkhangai, Central).

Material: Jarantaj, 25.05.1975 (*Dr. R. Piechocki*) (USNM); 30 km SW Uench, 4.07.1976 (*Medvedev & Voronova*) (LMC); Arshantyn-Nuruu, 19-20.06.2005 (*R. Yakovlev & D. Ryzhkov*) (EGC); Hundijn-Gol, 21.06.2005 (*R. Yakovlev & D. Ryzhkov*) (EGC); Barangijn-Shara-Nuruu, 11.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC).

Ch. (Chaetocnema) mannerheimi (Gyllenhal, 1827)

Medvedev, 1982: 280; Döberl, 2010: 507.

Distribution: Europe, Siberia, Kazakhstan. Mongolia (Hovd (new record), Eastern).

Material: Arshantyn-Nuruu, 12.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Dariv, 23.07.2010 (*E.V. Guskova & R.V. Yakovlev*) (EGC).



Ch. (Chaetocnema) splendens (Motschulsky, 1845)

Kral, 1967: 188; 1973: 125; 1980: 136; Lopatin, 1967: 166; 1975: 227; 1977: 154; Medvedev & Dubeshko, 1974: 194; Warchalowski 1974: 58; Medvedev & Voronova, 1977a: 346; 1979: 128; Medvedev, 1982: 279; Döberl, 2010: 507.

Distribution: Cisbaikalia, Transbaikalia, Buryatia, Ussuri Area, Amurland, N China. Widespread in the Mongolia.

Material: Bulgan, 29.07.1970 (*Kerzhner*) (LMC); Barlagiin-Gol, 5.07.1976 (*Medvedev & Voronova*) (LMC); Barangijn-Shara-Nuruu, 11.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Bulgan-Gol Valley, 12.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Arshantyn-Nuruu, 12.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Bulgan (upper), 16.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Mogoijn-Gol, 11.07.2009 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Mogoijn-Gol, 8.07.2010 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Dariv, 23.07.2010 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Tsengel, 25-27.07.2010 (*E.V. Guskova & R.V. Yakovlev*) (EGC).

LYTHRARIA Bedel, 1897

L. salicariae (Paykull, 1800)

Medvedev & Voronova, 1977a: 341; Medvedev & Zaitzev, 1978: 144; Medvedev, 1982: 275; Döberl, 2010: 535.

Distribution: Europe, W Siberia. Mongolia (Hovd).

ARGOPUS Fischer von Waldheim, 1824

A. nigratarsis (Gebler, 1823)

Kral, 1973: 128; Medvedev, 1978: 195; 1979: 165; 1982: 275; Döberl, 2010: 503.

Distribution: E Europe, Middle Asia, W Siberia, Sayan, Korea, Japan. Mongolia (Bayan-Ulegei (new record), Hovd, Selenge, Eastern).

Material: Altai (BU), 8.07.2005 (*R. Yakovlev & D. Ryzhkov*) (EGC); Bulgan (upper), 16.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC).

PSYLLIODES Latreille, 1829

Ps. saulcyi Allard, 1867

= *Ps. atriplicis* Jacobson, 1922

Lopatin, 1975: 227; Medvedev, 1982: 280; Döberl, 2010: 556.

Distribution: SE Ukraine, S European Russia, N Caucasus, Near and Middle East, Kazakhstan, N Africa. Mongolia (Hovd).

Ps. cucullata (Illiger, 1807)

Kral, 1967: 189; 1973: 128; 1980: 136; Mohr, 1966: 369; Lopatin, 1967: 167; 1975: 228; Medvedev & Dubeshko, 1974: 194; Warchalowski, 1974: 58; Medvedev &



Voronova, 1976: 232; 1977a: 346; 1977b: 219; 1979: 129; Medvedev, 1982: 280; Döberl, 2010: 554.

Distribution: Europe, Kazakhstan, Siberia, Sakhalin, Japan, China, N Africa, Mongolia.

Material: Barlagiin-Gol, 5.08.1976 (*Medvedev & Voronova*) (LMC).

Ps. macella Weise, 1900

Kral, 1967: 189; 1973: 130; 1980: 137; Lopatin, 1967: 168; 1975: 228; Warchalowski, 1974: 59; Medvedev & Dubeshko, 1974: 195; Medvedev & Korotyaev, 1975: 185; Medvedev & Voronova, 1976: 232; 1977a: 346; 1977b: 219; 1979: 128; Voronova, 1977: 249; Medvedev & Pustovoit, 1977: 207; Medvedev, 1982: 279; Döberl, 2010: 557.

Distribution: E Kazakhstan, S Siberia from Krasnoyarsk Distr. to Buryatia and Dauria. Widespread in the Mongolia (Bayan-Ulegei (new record).

Material: Dod-Naryin-gol, 26.06.2005 (*R. Yakovlev & D. Ryzhkov*) (EGC); Tsengel, 21.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Dariv, 23.07.2010 (*E.V. Guskova & R.V. Yakovlev*) (EGC).

Ps. reitteri parallela Weise, 1890

Kral, 1973: 129; 1980: 136; Lopatin, 1975: 228; Medvedev & Voronova, 1977a: 346; 1979: 129; Voronova, 1977: 248; Medvedev, 1982: 279; Döberl, 2010: 557.

Distribution: SE European Russia, Kazakhstan, Central Asia, S Siberia, Amurland, Maritime Prov., China. Mongolia (Ubsunur, Hovd, Gobi-Altai, Uverhang, Eastern).

CASSIDINAE Gyllenhal, 1813

HISPA Linnaeus, 1767

H. atra Linnaeus, 1767

Lopatin, 1968: 215; 1975: 229; Medvedev & Voronova, 1977a: 347; 1979: 130; Medvedev, 1982: 282; Guskova, 2006: 306; Borowiec & Sekerka, 2010: 387.

Distribution: Europe, Caucasus, Kazakhstan, Middle Asia, southern parts of Siberia. Mongolia (Bayan-Ulegei (new record), Hovd, Gobi-Altai).

Material: middle Bulgan-gol, 28.06.2005 (*R. Yakovlev & D. Ryzhkov*) (EGC); Bayan-Ulegei, 2.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Uenchin-Gol, 6.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Barangijn-Shara-Nuruu, 11.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC).

ACMENYCHUS Weise, 1905

A. inermis (Zubkov, 1833)

Lopatin, 1970: 255; 1975: 229; Medvedev & Voronova, 1977a: 347; 1979: 130; Medvedev, 1982: 283; Borowiec & Sekerka, 2010: 383.



Distribution: Kazakhstan, Central Asia, NE China. Mongolia (Hovd, Gobi-Altai, Bayankhongor).

Material: Barangijn-Shara-Nuruu, 11.07.2007 (*E.V. Guskova & R.V. Yakovlev*) (EGC); Alag-Nuur, 16.07.2009 (*E.V. Guskova & R.V. Yakovlev*) (EGC).

ISCHYRONOTA Weise, 1891

Is. conicicollis (Weise, 1890)

Jacobson, 1901: 127; Lopatin, 1968: 215; 1970: 255; 1975: 229; Medvedev & Voronova, 1976: 233; 1977a: 347; 1979: 130; Medvedev & Pustovoit, 1977: 207; Medvedev, 1982: 283; Borowiec & Sekerka, 2010: 379.

Distribution: Kazakhstan, Tajikistan, S Mongolia.

Is. desertorum (Gebler, 1833)

Lopatin, 1975: 229; Medvedev & Voronova, 1976: 233; 1977a: 347; 1979: 130; Medvedev, 1979: 166; 1982: 283; Borowiec & Sekerka, 2010: 379.

Distribution: Southern parts of E Europe, Kazakhstan, Central Asia, NW China. Mongolia (Hovd, Gobi-Altai, Bayankhongor, Uverhang, South Gobi, Eastern).

Material: Dariv, 23.07.2010 (*E.V. Guskova & R.V. Yakovlev*) (EGC).

Is. schusteri Spaeth, 1914

Lopatin, 1970: 255; 1975: 229; Medvedev & Voronova, 1976: 233; 1977a: 347; 1979: 130; Medvedev & Pustovoit, 1977: 207; Medvedev, 1982: 283; Borowiec & Sekerka, 2010: 380.

Distribution: S Kazakhstan, Turkmenistan, W China, Mongolia (Hovd, Gobi-Altai, Bayankhongor, Uverhang, South Gobi).

CASSIDA Linnaeus, 1758

C. undecimnotata Gebler, 1841

Medvedev & Voronova, 1979: 131; Medvedev, 1982: 284; Borowiec & Sekerka, 2010: 378.

Distribution: Middle East, Kazakhstan, Central Asia, Altai. Mongolia (Hovd).

C. berlinensis Suffrian, 1844

Medvedev 1957: 557; 1982: 84; Medvedev & Voronova 1976: 233; 1977a: 349; 1979: 131; Medvedev & Pustovoit 1977: 207; Medvedev & Zaitzev, 1978: 166; Borowiec & Sekerka 2010: 373.

Distribution: SE Europe, Kazakhstan, S Siberia, Far East, N China. Widespread in the Mongolia (Bayan-Ulegei and Gobi-Altai (new record)).



Material: Arshantyn-Nuruu, 19-20.06.2005 (R. Yakovlev & D. Ryzhkov) (EGC); Barangijn-Shara-Nuruu, 11.07.2007 (E.V. Guskova & R.V. Yakovlev) (EGC); Dariv, 23.07.2010 (E.V. Guskova & R.V. Yakovlev) (EGC); Tsengel, 25-27.07.2010 (E.V. Guskova & R.V. Yakovlev) (EGC); Mogoijn-Gol, 30-31.05.2011 (R. Yakovlev) (EGC).

C. lineola Creutzer, 1799

Lopatin, 1964: 373; 1966: 236; 1967: 168; 1968: 215; 1971: 230; 1975: 230; Mohr, 1966: 369; Medvedev & Voronova, 1976: 233; 1977a: 348; 1977b: 219; 1979: 131; Medvedev & Pustovoit, 1977: 207; Medvedev & Zaitzev, 1978: 165; Medvedev, 1982: 285; Borowiec & Sekerka 2010: 375.

Distribution: southern parts of Europe and Siberia, Kazakhstan, Middle Asia, China, Japan. Widespread in the Mongolia.

C. nebulosa Linnaeus, 1758

Lopatin, 1964: 373; 1966: 236; 1967: 167; 1971: 229; 1975: 230; Medvedev & Dubeshko, 1974: 195; Medvedev & Voronova, 1977a: 348; 1977b: 219; 1979: 131; Medvedev, 1982: 284; Borowiec & Sekerka, 2010: 375.

Distribution: All over Palearctic except for Mediterranean, introduced to N America. Widespread in the Mongolia.

C. rubiginosa O. F. Müller, 1776

Medvedev & Voronova, 1977a: 349; 1979: 132; Medvedev, 1982: 285; Borowiec & Sekerka, 2010: 377.

Distribution: Europe, W Siberia. Mongolia (Hovd, Selenge).

C. nobilis Linnaeus, 1758

Lopatin, 1967: 168; 1971: 229; 1975: 230; Medvedev & Voronova, 1977a: 349; 1979: 132; Medvedev, 1982: 286; Borowiec & Sekerka, 2010: 375.

Distribution: All over Palearctic except for extreme N and N Africa. W and N Mongolia.

Material: Dod-Naryin-gol, 26.06.2005 (R. Yakovlev & D. Ryzhkov) (EGC).

C. parvula Boheman, 1854

Lopatin, 1966: 236; 1967: 168; 1971: 230; 1975: 230; Medvedev & Voronova, 1977a: 349; Medvedev, 1982: 286; Borowiec & Sekerka, 2010: 376.

Distribution: S and E Europe, Crimea, Ciscaucasia, Caucasus, Turkmenistan, Kazakhstan, Central Asia, S Siberia to Amurland. Mongolia (Ubsunur, Bulgan, Central, Hentiysky, Suhe Bator, Eastern, Hovd, Bayankhongorn, Uverhang).

C. murraea Linnaeus, 1767



Medvedev & Dubeshko, 1974: 195; Medvedev & Voronova, 1976: 233; 1977a: 348; 1979: 131; Lopatin, 1977: 154; Medvedev, 1982: 284; Borowiec & Sekerka, 2010: 375.

Distribution: All over Palearctic except for Mediterranean, Central Asia and N Africa. Mongolia (Bayan-Ulegei (new record), Hovd, Zavhan, Arkhangai, Bulgan, Selenge, Central, Hentiysky).

Material: Elt-Gol, 1-8.07.2005 (R. Yakovlev & D. Ryzhkov) (EGC).

C. turcmenica Weise, 1892

Lopatin, 1970: 255; Medvedev & Voronova, 1977: 348; 1979: 131; Medvedev, 1982: 287; Borowiec & Sekerka, 2010: 378.

Distribution: Kazakhstan, Middle Asia. Mongolia (Hovd, Gobi-Altai, Bayankhongor, South Gobi).

HYPOCASSIDA J. Weise, 1893

H. subferruginea (Schrank, 1776)

Lopatin, 1970: 255; Medvedev & Voronova, 1977a: 348; Medvedev & Pustovoit, 1977: 207; Medvedev & Zaitzev, 1978: 163; Medvedev, 1982: 287; Borowiec & Sekerka, 2010: 379.

Distribution: Europe, Kazakhstan, Middle Asia, southern parts of Siberia, Maritime Prov. Mongolia (Bayan-Ulegei (new record), Selenge, Central, Hovd, Bayankhongor).

Material: Elt-Gol, 1-8.07.2005 (R. Yakovlev & D. Ryzhkov) (EGC).

DISCUSSION

Thus, during the study it was found that 44 Alticinae species belonging to 11 genera and 15 Cassidinae species belonging to 5 genera inhabit the territory of the Mongolian Altai. Considerable additions to the local faunas of aimaks have been revealed, in particular 9 species are reported as new for Bayan-Ulegei, 2 species for Hovd, 3 species – for Gobi-Altai. The further faunistic research of Coleoptera in West Mongolia seems to be very promising in terms of a detailed study of the taxa spreading, clarification of the local fauna composition in individual regions and clarification of the taxonomic affiliation of poorly revised families.

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