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Cossidae (Lepidoptera) of Georgia

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Abstract

An annotated list of Cossidae of Georgia is for the first time given which includes 14 species.

Zusammenfassung

Erstmals wird eine kommentierte Liste der Cossidae von Georgien veröffentlicht, die 14 Arten umfasst.

Introduction

The first contributions to the systematic and faunistic knowledge on Lepidoptera of Transcaucasia were published by the Grand Duke N. M. ROMANOV (ROMANOFF, 1885);

they included some data on Cossidae. In this remarkable work, ROMANOV mentioned 10 cossid species for Transcaucasia, including 4 reported for Georgia. Further preliminary data on Cossidae of Georgia were already published by the first author in several papers (DIDMANIDZE, 1975, 1976, 1978, 1980; DIDMANIDZE & ZURASHVILI, 1981). Data on Cossidae of Abhasia were published by E. S. MILYANOVSKY (1964). A monographic work on Lepidoptera of arid landscapes of Georgia (DIDMANIDZE, 1978) contains data on life history and distribution of Cossidae, two of which were not identified to species, while the remaining 8 species were identified as follows: *Cossus cossus* L., *Cossus terebra* F., *Zeuzera pyrina* L., *Catopta thrips* Hb., *Catopta caestrum caucasica* Gr.-Gr., *Dyspessa ulula* Bkh., *Dyspessa salicicola* Ev., *Dyspessa alpherakyi* Chr. As a result of the treatment of all existing data from the literature and the collections of Museum Thomas WITT (Munich, Germany), Simon Janashia Museum of Georgia (Tbilisi), Zoological Institute of Science, Academy of Russian Federation (Saint-Petersburg, Russia), Zoological Museum of Kiev National University (the Ukraine), and Zoological Museum of Moscow State University (Russia), we compiled a checklist of 14 Cossidae of Georgia which pretends to be exhaustive.

Abbreviation list

AHU – collection of Armin Hauenstein (Untermünkheim, Germany)

MWM – Museum of Thomas Witt (Munich, Germany)

MGT – Simon Janashia Museum of Georgia (Tbilisi, Georgia)

ZISP – Zoological Institute of Science Academy of Russian Federation (Saint-Petersburg, Russia)

ZMKU – Zoological Museum of Kiev National University (Kiev, Ukraina)

ZMMU – Zoological Museum of Moscow State University (Russia)

TL - type locality

Annotated list of species

Family Cossidae LEACH, [1815]

Subfamily Cossinae LEACH, [1815]

Genus *Acossus* DYAR, 1905

Acossus DYAR, 1905 and *Lamellocossus* DANIEL, 1954 were synonymised by YAKOVLEV (in press a).

***Acossus terebra* ([DENIS et SCHIFFERMÜLLER], 1775) (map 1)**

Bombyx terebra [DENIS et SCHIFFERMÜLLER], 1775, Ankündigung syst. Werk. Schmett. Wien.: 60.

Cossus terebra – ROMANOFF, 1885: 1.

Cossus terebra L. – MILYANOVSKY, 1964: 185.

Cossus terebra – DIDMANIDZE, 1978: 16.

TL: Wien [Austria]

A transpalaeartic species.

Reported for Borzhom (ROMANOFF, 1885); Abkhaziya (MILYANOVSKY, 1964); Kartli: of the Iori River valley, Gardaban and Kaheti: the Vashlovanskii reserve (Signakhsii distr.) (DIDMANIDZE, 1978).

Habitats. Forest-steppe, shrub-arboreal and mountain xerophytic associations, arid parklands..

Material: 4 males, Borjomi, 30.05.1899 (MGT); 1 female, Samergelo, Gegechkori, Tamakoni vill., 2.07.1962, E. DIDMANIDZE leg. (MGT); Samergelo, the Lukumbare Mt., 26.06.1961, E. DIDMANIDZE leg. (MGT); 1 male, Shida Kartli, Gardabanskoe forest punct, 22.05.1972, E. DIDMANIDZE leg. (MGT); 1 female, Kvemo Kartli, Gomareti, Sarkineti vill., 25.07.1966, E. DIDMANIDZE leg. (MGT); 1 male, Dmanisi, Kakliani village, 20.07.1966, E. DIDMANIDZE leg. (MGT); 1 male, Kaheti, the Vashlovanskii reserve, 31.06.1973, E. DIDMANIDZE leg. (MGT); 1 male, Kobuleti distr., Didvake village, 21.06.1974., ZAGULYAEV (ZISP); 1 male, Georgia (ZMMU)

Genus *Cossus* FABRICIUS, 1793

***Cossus cossus* (LINNAEUS, 1758) (map 2)**

Phalaena Bombyx cossus LINNAEUS, 1758, Sys. Nat. (Edn 10): 504.

Cossus cossus – ROMANOFF, 1885: 1.

Cossus (sic!) *cossus* L. – MILYANOVSKY, 1964: 185.

Cossus cossus – DIDMANIDZE, 1975: 298.

Cossus cossus – DIDMANIDZE, 1976a: 174.

Cossus cossus – DIDMANIDZE, 1978: 15.

TL: [Europe], probably Sweden

A transpalaeartic species.

Reported for Tiflis [an old Russian spelling of «Tbilisi»], Borzhom (ROMANOFF, 1885), Abkhazia (MILYANOVSKY, 1964), Minadze, the Kura River valley (DIDMANIDZE, 1975) and Dmanisskii and Zalkinskii Districts (Mamulo and Gomareti) (DIDMANIDZE, 1976a).

In Georgia *Cossus cossus armeniaca* ROTHSCCHILD, 1912.

Habitat. Forests, agrobiocenoses. An eurybiont species occurring from the coasts to highlands; sometimes appears in mass quantities.

Material: 3 males, Borjomi, 1874; 12.13.06.1899, 24.06.1899 (MGT); 2 males, Likani,

[Borjomi distr.], 7.07.1914, 6.07.1919 (MGT); 2 males, Tiflis, 27.05.1907, 16.06.1904 (MGT); 2 males, Mtskhebtá prope Tiflis, 07.1915 (MGT); 3 males, Kodjori, 6.07.1908, 6–18.08.1914 (MGT); 1 male, Manglisi, 22.07.1920 (MGT); 1 male, Gori [Tbilisi distr.], 13.07.1905 (MGT); 1 male, Akhtala [Gurjaani distr.], 17.06.1916 (MGT); 1 male, 1 female, Adzhara, Chkhutuneti vill., a garden, 7.06.1969, 250 m, E. DIDMANIDZE leg. (MGT); 1 male, 1 female, Adzhara, Tsvermagala vill., 27.07.1969, E. DIDMANIDZE leg. (MGT); 1 male, 1 female, Adzhara, the Kintrishskii reserve, 18.05.1979, E. DIDMANIDZE leg. (MGT); 1 female, Adzhara, the Kintrishi River, 15.06.1979, E. DIDMANIDZE leg. (MGT); 1 male, 1 female, Samergelo, Tsalendzhikha vill., 19.06.1968, E. DIDMANIDZE leg. (MGT); 1 female, Samergelo, the Lukumbare River, 26.06.1961, E. DIDMANIDZE leg. (MGT); 1 male, Samergelo, Zugdidi, 27.05.1968, E. DIDMANIDZE leg. (MGT); 2 males, Samergelo, Chkhorotsku, 7.06.1968, E. DIDMANIDZE leg. (MGT); 1 male, Samergelo, Gegechkori, 29.06.1962, E. DIDMANIDZE leg. (MGT); 6 males, Samergelo, Salhino vill., 26.06.1962, E. DIDMANIDZE leg. (MGT); 5 males, Kaheti, Lagodehi, 5.05.1958, E. DIDMANIDZE leg. (MGT); 1 male, Kvemo Kartli, Dmanisi, 20.07.1966, E. DIDMANIDZE leg. (MGT); 1 male, Kvemo Kartli, Sarkineti vill., 25.07.1966, E. DIDMANIDZE leg. (MGT); 1 male, Meshet-Dzhavaheti, Akhaltsikhe, Minadze vill., 24.07.1964, E. DIDMANIDZE leg. (MGT); 1 male, Batumi, 21.07.976, ZAGULYAЕV (ZISP); 1 male, Gonio, Batumi, 28.07.976., ZAGULYAЕV (ZISP); 1 male, Zumuri, Gumistinski reserve, Abkhaziya, 7.07.981., ZAGULYAЕV (ZISP); 1 male, Manglisi, 4.07.971, ZAGULYAЕV (ZISP); 1 male, Borjom (ZISP); 1 male, Poti, 2.09.[1]909 (ZISP); 1 male, near Tkvibuli, Kuttaiskaya gubernia, 15.05.[18]85, KISLYAKOV (ZISP); Lagodekhi, 27.06.91. (ZISP); 1 male, Borzhomi, 12.07.1987, DANILEVSKY (MWM); 2 males, Abkhasia, Sukhumi (ZMMU), 1 male, river Borzhomi, Tsagveri village (ZMMU); 1 male, Borzhom (ZMKU); 1 male, Sukhumi, 29.07.1986 (AHU).

Genus *Holcocerus* STAUDINGER, 1884

***Holcocerus didmanidzae* YAKOVLEV, in press. (map 3, fig. 1)**

Holcocerus didmanidzae YAKOVLEV, Eversmannia, particular number 1, in press.

TL: S. Georgia, the Vashlovanskii reserve

Material: holotype – male, Georgia, Kaheti, the Vashlovanskii reserve, 29.06.1973, E. DIDMANIDZE leg. (MGT).

Genus *Deserticossus* YAKOVLEV, in press

The description of this new genus is published in Eversmannia, particular number 1 (YAKOVLEV, in press b).

***Deserticossus arenicola* (STAUDINGER, 1879) (map 4)**

Cossus arenicola STAUDINGER, 1879, Stettin. ent. Ztg 40: 317.

TL: [Narıın, nordöstlich von Astrachan zwischen Wolga- und Ural-Fluß, etwa 15 deutsche Meilen ostwärts von der Wolga] NW Kazakhstan, european part.

A Turanian subarid steppe species.

In Georgia *Deserticossus arenicola transcausicus* ZUKOWSKY, 1936 (TL: Armenia

ross., Dschulfa, Daratshitshag)

Habitat. Hemixerophytic associations.

Material: 1 male, Shida Kartli, the Saguramo reserve, 27.08.1970, 1000–1200 m, E. A. DIDMANIDZE leg. (MGT).



Fig. 1. *Holcocerus didmanidzae* YAKOVLEV, in press. Holotype ♂. Georgia, Kaheti, Vashlovanskii reserve, 29. 06. 1973, E. Didmanidze leg., Simon Janashia Museum, Tbilisi, Georgia.

Genus *Paracossulus* SCHOORL, 1990

***Paracossulus thrips* (HÜBNER, 1813) (map 5)**

Bombyx thrips HÜBNER, 1813, Samml. europ. Schmett., Bomb., pl. 62, fig. 265.

Hypopta thrips (sic!) – DIDMANIDZE, 1976b: 719.

Catopta (= *Hypopta*) *thrips* – DIDMANIDZE, 1978: 16.

Catopta thrips – DIDMANIDZE, 1980: 139.

Hypopta thrips – DIDMANIDZE, ZURASHVILI, 1981: 77.

TL: not stated [E. Europe]

A West Palaearctic subboreal steppe species.

Reported for the Vashlovanskii reserve (DIDMANIDZE, 1976b; DIDMANIDZE, ZURASHVILI, 1981) and Tusheti: Dzhvarboseli and near Omalo (DIDMANIDZE, 1978; 1980).

Material. 1 male, Shida Kartli, the Saguramskii reserve, 500–600 m, 7.07.1970, E. A. DIDMANIDZE leg. (MGT); 1 female, Kahetia, Eldarskaya Steppe, 28.08.1972, E. A. DIDMANIDZE leg. (MGT); 1 male, Tusheti, Dzhvarboseli, 16.07.1976, E. A. Didmanidze

leg. (MGT); 1 male, Tusheti, Omalo, 19.07.1977, E. A. DIDMANIDZE leg. (MGT).

Habitat: In the Vashlovanskii reserve inhabits xerophytic *Pistacea/Juniperus* stands and steppes.

Genus *Parahypopta* DANIEL, 1961

***Parahypopta caestrum* (HÜBNER, 1804) (map 6)**

Bombyx caestrum HÜBNER, 1808, Samml. europ. Schmett., Bomb.: 151, pl. 46, fig. 199.

Hypopta caestrum caucasica GRUM-GRSHIMAILO, 1902, Ann. Mus. St. Petersburg 7: 202.

Parahypopta caestrum caucasica – DANIEL, 1961: 168.

Catopta caestrum ssp. *caucasica* – DIDMANIDZE, 1978: 16.

Catopta caestrum ssp. *caucasica* – DIDMANIDZE, 1980: 139.

TL: Hungary

A West Palaearctic subboreal steppe species.

In Georgia *Parahypopta caestrum caucasica* (GRUM-GRSHIMAILO, 1902) (TL: the Caucasus, Derbent)

Reported for Tiflis (DANIEL, 1961) the Trusovskoe gorge, Ketrisi; the Vashlovanskii reserve (DIDMANIDZE, 1978); Omalo (DIDMANIDZE, 1978; 1980).

Habitat. The mountain steppes from 300–500 to 2200 m above sea level.

Material: 2 males, Shida Kartli, the Saguramskii reserve, 3–14.07.1970, E. A. DIDMANIDZE leg. (MGT); 1 male, Kakheti, the Vashlovanskii reserve, 20.08.1973, E. A. DIDMANIDZE leg. (MGT); 1 male, Shirak-Eldari Steppe, 30.06.1973, E. A. DIDMANIDZE leg. (MGT); 1 male, Khevi, the Trusovskoe gorge, Ketrisi, 12.07.1975, E. A. DIDMANIDZE leg. (MGT); 1 male, Tusheti, near Omalo, 14.08.1977, E. A. DIDMANIDZE leg. (MGT).

Genus *Isoceras* TURATI, 1924

***Isoceras bipunctatum* (STAUDINGER, 1887) (map 7)**

Endagria bipunctata STAUDINGER, 1887, Stettin. ent. Ztg 48: 94.

TL: SW Asia minor, Marash

A Mediterranean subarid species.

Habitat. Mountain xerophytic associations.

Material: 1 male, Kahetia, the Vashlovanskii reserve, 23.05.1973, E. DIDMANIDZE leg. (MGT).

***Isoceras huberi* EITSCHBERGER et STRÖHLE, 1987 (map 8)**

Isoceras huberi EITSCHBERGER et STRÖHLE, 1987, Atalanta, 18: 93–95.

TL: Turkey East, Van prov., Baskale region, Guseldere pass

A Mediterranean subarid species.

Material: 1 male, 1 female, Meskhet-Dzhavaheti, Uraveli vill., 21.05.1979, E. DIDMANIDZE (MGT).

Genus *Dysspessa* HÜBNER, [1820]

***Dysspessa ulula* (BORKHAUSEN, 1790) (map 9)**

Phalena ulula BORKHAUSEN, 1790, Naturgesch. eur. Schmett. 3: 142.

Endagria ulula – ROMANOFF, 1885: 3.

Dysspessa ululua (sic!) – DIDMANIDZE, 1975: 298.

Dysspessa ulula – DIDMANIDZE, 1976a: 174.

Dysspessa ulula – DIDMANIDZE, 1978: 17

Dysspessa (Endagria) ulula – DIDMANIDZE, 1980: 139.

TL: Europe

A West Palaearctic subboreal species.

Reported for Omalo (DIDMANIDZE, 1978, 1980), Uraveli (DIDMANIDZE, 1975, 1978); Patara Dmanisi village and Dmanisi town (DIDMANIDZE, 1976a) Borzhomi, Tiflis, Markopi (ROMANOFF, 1885).

Habitat. Open tree stands in the mountains, steppes.

Material: 7 males, Borjomi, 25.05.1900, 13.06.1899, 6.06.1901, 19.05.1900, 1.06.1899, 27.05.1900 (MGT); 3 males, Tiflis, 9.05.1907, 13–19.05.1913 (MGT); 2 males, Shida Kartli, the Saguramskii reserve, 550–600 m, 5.06.1970, E. A. DIDMANIDZE leg. (MGT); 1 male, Kakheti, the Vashlovanskii reserve, 3.07.1973, E. A. DIDMANIDZE leg. (MGT); 2 males, Tusheti, Omalo, 1900 m, 28.07.1977, E. A. DIDMANIDZE leg. (MGT).

***Dysspessa pallidata* STAUDINGER, 1901 (map 10)**

Endagria ulula ab. *pallidata* STAUDINGER, 1892, Dt. ent. Z. Iris 5: 284 (infrasubspecific)

Dysspessa pallidata STAUDINGER, 1901, in STAUDINGER & REBEL, Cat. Lepid. palaeart. Faunengeb. 1: 409

TL: Syntypes from «Hadjin, Marasch und Kara Hissar» [Turkey]

The infrasubspecific name of STAUDINGER (1892) was made nomenclatorially available by STAUDINGER (1901) who elevated *pallidata*, published as an aberration, in the rank of a full species. It was subsequently also treated as a species by WAGNER (1926) and others.

A Mediterranean subarid species.

Habitat. Mountain xerophytic associations.

Material: 1 male, Meshet-Dzhavaheti, Uraveli vill., 9.04.1979, E. A. DIDMANIDZE leg. (MGT).

***Dysspessa salicicola* (EVERSMANN, 1848) (map 11)**

Cossus salicicola EVERSMANN, 1848, Bull. Soc. Nat. Moscou, 21 (2): 211.

Endagria salicicola – ROMANOFF, 1885: 4.

Dyspessa salicicola – DANIEL, 1962: 26–27.

Dyspessa salicicola – DIDMANIDZE, 1978: 17.

Dyspessa salicicola – DIDMANIDZE, ZURASHVILI, 1981: 77

TL: «im Saratovischen Gouvernement, in der Gegend von Wolsk» [Russia, Saratovskaja oblast', Vol'sk]

A West Palaearctic subboreal steppe species.

Reported for Tiflis (ROMANOFF, 1885); Tbilisi (DANIEL, 1962) the Vashlovanskii reserve (DIDMANIDZE, 1978; DIDMANIDZE, ZURASHVILI, 1981).

Habitat. Steppes, open tree stands, mountain xerophytic associations.

Material: 6 males, 2 females, Tiflis, 14.06.1907 (MGT); 4 males, Ahtala, 17.06.1910 (MGT); 1 female, Shida Kartli, the Saguramskii reserve, 550–600 m, 7.07.1970, E. A. DIDMANIDZE leg. (MGT); 5 males, Kaheti, the Vashlovanskii reserve, 10.05.1973, 30.06.1973, 31.07.1973, 29.06.1974, E. A. DIDMANIDZE leg. (MGT); 5 males, 1 female, Kaheti, Shirak-Eldari Steppe, 10.05.1973, 28.06.1973, E. A. DIDMANIDZE leg. (MGT); 1 male, Meskhet-Dzhavakheti, Hando vill., near Ahalkalaki, 14.07.1964, E. A. DIDMANIDZE leg. (MGT); 2 males, Chachuny, Tiflis (ZISP); 3 males, Kodzhory, Tiflis (ZISP); 3 males, Borzhom (ZMKU).

***Dyspessa alpherakyi* (CHRISTOPH, 1885) (map 12)**

Endagria alpherakyi CHRISTOPH, in ROMANOFF, 1885, Mém. Lépid. 2: 3, pl. 2, fig. 1

Dyspessa alpherakyi – DIDMANIDZE, 1976b: 719.

Dyspessa alpherakyi – DIDMANIDZE, 1978: 17.

Dyspessa alpherakyi – DIDMANIDZE, ZURASHVILI, 1981: 77

TL: Ordubad.

Endemic in Caucasus Minor.

Reported for the Vashlovanskii reserve (DIDMANIDZE, 1976b; 1978; DIDMANIDZE, ZURASHVILI, 1981).

Habitat. In Vashlovan Reserve this rare species was collected on eroded slopes with mountain xerophytic associations.

Material: 1 male, Borjomi, 1.06.1899 (MGT); 1 male, Meshet-Dzhavakheti, Uraveli vill., 21.05.1964, E. A. DIDMANIDZE leg. (MGT).

Subfamily Zeuzerinae BOISDUVAL, [1828]

Genus *Phragmataecia* NEWMAN, 1850

***Phragmataecia castaneae* (HÜBNER, 1790) (map 13)**

Phalaena Bombyx castaneae HÜBNER, 1790, Beitr. Gesch. Schmett. 2 (1): 9, pl. 1, fig. C.

TL: Europe.

A West Palaearctic subboreal polyzonal species.

Habitat. The Black Sea coast.

Material: 1 male, «Transcauc. occ., Poti, G. L'VOV», 29.06.1940 (ZISP); 2 males, Poti, 06.1941 (MGT).

Genus *Zeuzera* LATREILLE, 1804

***Zeuzera pyrina* (LINNAEUS, 1761) (map 14)**

Phalaena Noctua pyrina LINNAEUS, 1761, Fauna Svecica (Ed. 2): 306.

Zeuzera pyrina L. – MILYANOVSKY, 1964: 185.

Zeuzera pyrina L. – DIDMANIDZE, 1975: 298.

Zeuzera pyrina L. – DIDMANIDZE, 1976a: 174.

Zeuzera pyrina – DIDMANIDZE, 1978: 16.

TL: Sweden

A West Palaearctic subboreal polyzonal species.

Reported for Khevi: Kazbegi (DIDMANIDZE, 1978), Abkhazia (MILYANOVSKY, 1964) Minadze, Uraveli (DIDMANIDZE, 1975; 1978), Kartli: Dmanisskii and Zalkinskii distr. (Patara, Mamulo and Dmanisi) (DIDMANIDZE, 1976a; 1978).

Habitat. Everywhere in broad-leaved and mixed species forests at various elevations.

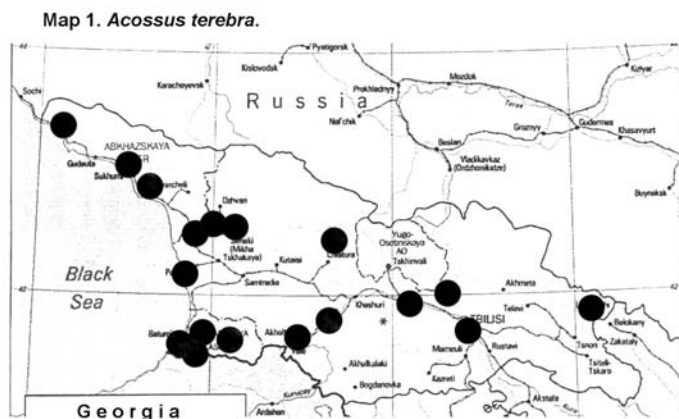
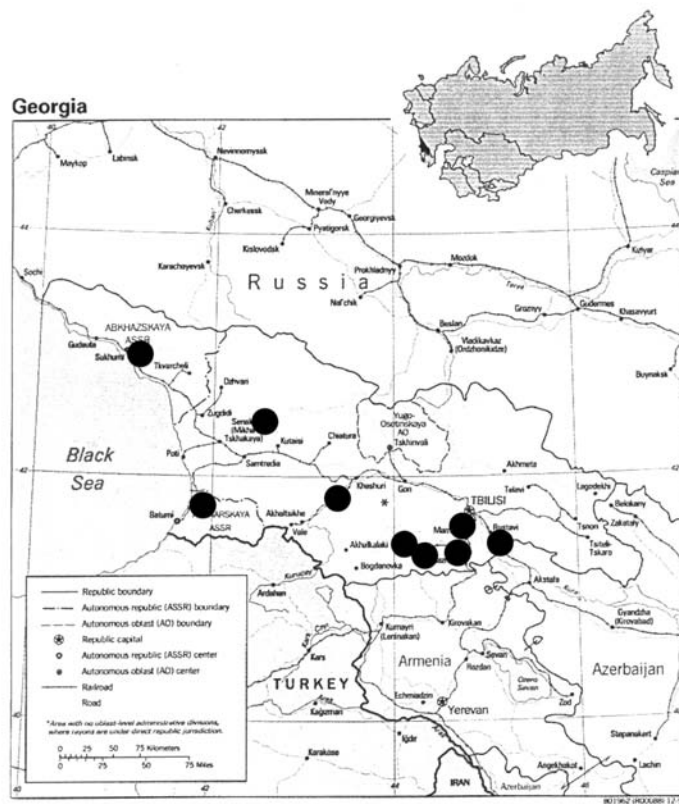
Material: 2 males, Borjomi, 5.07.1899 (MGT); Likani [near Borjomi], 18.08.1914 (MGT); 2 males, Tiflis, Khudadov Forest, 07.1938 (MGT); 1 male, Lagodehi (MGT); 1 male, Samergelo, Gegechkori, 4.07.1962, E. A. DIDMANIDZE leg. (MGT); 1 male, Samergelo, Kurzu, 30.06.1962, E. A. DIDMANIDZE leg. (MGT); 1 female, Adzhara, Chkhutuneti vill., 650 m, 7.06.1969, E. A. DIDMANIDZE leg. (MGT); 1 male, Imereti, the Adzhametskii reserve, 23.07.1980, E. A. DIDMANIDZE leg. (MGT); 2 males, 2 female, Meskhet-Dzhavakheti, Uraveli vill., 25.07.1964, E. A. DIDMANIDZE leg. (MGT); 1 male, Meskhet-Dzhavakheti, Minadze vill., 24.07.1964, E. A. DIDMANIDZE leg. (MGT); 1 male, the Caucasus, Suhumi (ZISP).

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Map 3. *Holcocerus didmanidzei*.



Map 4. *Deserticossus arenicola*.



Map 5. *Paracossulus thrips*.



Map 6. *Parahypopta caestrum*.



Map 7. *Isoceras bipunctatum*.



Map 8. *Isoceras huberi*.



Map 9. *Dyspessa ulula*.



Map 10. *Dyspessa pallidata*.



Map 11. *Dyspessa salicicola*.



Map 12. *Dyspessa alpherakyi*.



Map 13. *Phragmataecia castaneae*.



Map 14. *Zeuzera pyrina*.

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