

Review of the bee genus *Lasioglossum* Curtis, 1833 (Hymenoptera: Halictidae) fauna of the European South of Russia

Обзор фауны пчел рода *Lasioglossum* Curtis, 1833 (Hymenoptera: Halictidae) европейского Юга России

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КЛЮЧЕВЫЕ СЛОВА: Anthophila, биоразнообразие, список видов, новые находки, опылители, таксономия.

ABSTRACT. This faunistic survey presents the records of 64 species of the genus *Lasioglossum* (Hymenoptera: Halictidae) from the European South of Russia, mainly from Volgograd Province, as well as from the Rostov and Astrakhan Provinces and the Kalmyk Republic. *Lasioglossum ciscapum* (Blüthgen, 1931) is reported as new to Russia and Europe, 29 species are new to the fauna of the Volgograd Province, 24 species are new to the Astrakhan Province, 15 species are new to the Kalmyk Republic and six species are new to the Rostov Province. In total, 17 previously unknown *Lasioglossum* species are listed for the fauna of the southern European part of Russia. *Lasioglossum muganicum* Ebmer, 1972, **stat. ressur.** is raised to full species level.

РЕЗЮМЕ. В предлагаемом фаунистическом обзоре приведены находки 64 видов пчел рода *Lasioglossum* (Hymenoptera: Halictidae) на европейском Юге России, большей частью из Волгоградской области, а также из Ростовской и Астраханской областей и Республики Калмыкия. *Lasioglossum ciscapum* (Blüthgen, 1931) впервые указывается для фауны России и Европы, 29 видов являются новыми для Волгоградской области, 24 вида — для Астраханской области, 15 видов — для Республики Калмыкия и 6 видов — для Ростовской области. Всего в фауне юга европейской части России зарегистрировано 17 ранее неизвестных видов рода

Lasioglossum. Восстановлен видовой статус *Lasioglossum muganicum* Ebmer, 1972, **stat. ressur.**

Introduction

The global genus *Lasioglossum* Curtis, 1833 currently includes 1881 described species [Ascher, Pickering, 2024], with the highest known diversity in the Holarctic region [Michener 2007]. A total of 450 species are known from the Palaearctic region [Astafurova, Proshchalykin, 2017b], of which 182 species are found in Europe [Ghisbain *et al.*, 2023; Astafurova, Proshchalykin, 2023; current data], and 151 species from Russia [Proshchalykin *et al.*, 2023; current data].

This paper contains an updated checklist of *Lasioglossum* occurring in the European South of Russia (S — in the “Annotated catalogue of the Hymenoptera of Russia” [Astafurova, Proshchalykin, 2017b]). This territory lies in two natural zones. The Rostov Province and most of the Volgograd Province are in the steppe zone, and the Astrakhan Province, most of the Kalmyk Republic and the south-eastern part of the Volgograd Province are in the semi-desert and desert zone.

The halictid fauna of the southern part of European Russia remains poorly studied. Until recently, only one paper was published on halictid bees, including the genus *Lasioglossum* from the Rostov Province [Pesenko, 1972].

The present paper provides new data on the species composition of *Lasioglossum* of this region, including information on the distribution of these bees in the European South of Russia missing in present catalogues [Astafurova, Proshchalykin, 2017b].

Material and methods

An updated annotated checklist of bees of genus *Lasioglossum* occurring in the European South of Russia (S — according to the last catalogue [Astafurova, Proshchalykin, 2017b]) is presented. In addition to information from this catalogue, the paper includes new data based on the study of materials collected recently in the Kalmyk Republic, Volgograd and Astrakhan Provinces. In addition, we identified material collected by Yu.A. Pesenko in Rostov Province in 1970 and 1971, which was not included in his publication on the bees of the Rostov Province [Pesenko, 1972]. In total, the results presented in this paper are based on 1554 *Lasioglossum* specimens currently housed in the Zoological Institute, Russian Academy of Sciences (St. Petersburg, Russia, ZISP); Zoological Museum of the Moscow State University (Moscow, Russia, ZMMU); Federal Scientific Center of the East Asia Terrestrial Biodiversity, Far Eastern Branch of Russian Academy of Sciences (Vladivostok, Russia, FSCV); and the personal collection of K.P. Tomkovich (Moscow, Russia) [KTC].

We have used the following abbreviations for collectors: AK — A.I. Khalaim; DK — D.R. Kasparyan; DP — D.V. Panfilov; GV — G.A. Viktorov; IR — I. Razumova; KT — K.P. Tomkovich; LZ — L.V. Zimina; MM — M.V. Mokrousov; MP — M.Yu. Proshchalykin; SB — S.A. Belokobylskij; VL — V.M. Loktionov; VT — V.I. Tobias; YA — Yu.V. Astafurova; YP — Yu.A. Pesenko.

Notes on the general distribution of species follow Astafurova and Proshchalykin [2017b] and Pauly *et al.* [2019]. Classification of nomenclature of ranges follow Yemel'yanov [1974].

Subgenera and species are given in the text in alphabetical order according to the recent corrections and additions to the catalogue of the bees of Russia [Proshchalykin *et al.*, 2023]. Species that are missed in the Catalogue for the European South of Russia (S) [Astafurova, Proshchalykin, 2017b] are marked with an asterisk (*).

Specimens were studied with an Olympus SZ51 stereomicroscope, and photographs were taken with a combination of stereomicroscope (Olympus SZX10) and digital camera (Olympus OM-D). Final images are stacked composites generated using Helicon Focus v. 7.7.4 Pro. All images were post-processed for contrast and brightness using Adobe Photoshop.

Species list

Subgenus *Biennilaeus* Pesenko, 2007

**Lasioglossum marginatum* (Brullé, 1832)

PUBLISHED DATA. No records from south of the European part of Russia.

MATERIAL. RUSSIA: *Volgograd Prov.*, 15 ♀♀, Sarepta, 29.IV–3.V.1907 (M. Koch) [ZISP]; *Kalmyk Rep.*: 3 ♀♀, 26 km SE Arshan, Zelmen, 47°35'N 44°38'E, 20.V.2019 (MP,VL) [ZISP/FSCV]; *Astrakhan Prov.*: 1 ♀, Baskunchak Lake, 1–2.V.2010 (KT) [KTC].

DISTRIBUTION. Russia: North Caucasus, south and east of the European part. — Southern and locally Central Europe,

North Africa, Caucasus, Turkey, Syria, Jordan, Israel, Iraq, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Northwestern India, Nepal.

Subgenus *Dialictus* Robertson, 1902

Lasioglossum aeratum (Kirby, 1802)

PUBLISHED DATA. Pesenko, 1972: 293 (as *Halictus viridiaeneus* Blüthgen, Rostov Prov.).

MATERIAL. RUSSIA: *Rostov Prov.*, 2 ♀♀, 1 ♂, Bagaevskiy, 2.V, 7.VIII.1970 (YP) [ZISP]; 10 ♀♀, Persiyanovka, 12.V–16.VII.1971 (YP) [ZISP]; *Volgograd Prov.*, 2 ♀♀, Sarepta (A. Becker) [ZISP]; 3 ♀♀, 1 ♂, Kamyshin, 25.V.1950 (LZ) [ZMMU]; 1 ♀, Tinguta, 30.VI.1954 (IR) [ZMMU]; 1 ♂, Bakalda, 23.VI.1977 (DK) [ZISP]; 2 ♂♂, Koper River, near Uryupinsk, 15.VII.1977 (VT) [ZISP]; 1 ♀, 10 ♂♂, Elton Lake, Khara River, dry steppe, 15–17.VI.2004 (SB, AK) [ZISP]; 1 ♂, 10 km S of Mikhaylovka, Medveditsa River, forest, 1.VII.2004 (AK) [ZISP]; *Astrakhan Prov.*: 3 ♂♂, SE of Baskunchak Lake, Kordn Lake, steppe, 12.VI.2004 (AK) [ZISP]; 1 ♂, Baskunchak Lake, steppe, 8–13.VI.2004 (SB) [ZISP]; 1 ♂, Kharabali, steppe, 19–21.VI.2006 (SB) [ZISP].

DISTRIBUTION. Russia: North Caucasus, European part. — Europe, Turkey, Syria, Iran, Central Asia, Kazakhstan.

Lasioglossum duckei (Alfken, 1909).

PUBLISHED DATA. Blüthgen, 1923: 253 (Rostov Prov.).

MATERIAL. —

DISTRIBUTION. Russia: Crimea, Rostov Prov. — Southeastern Europe, Turkey.

**Lasioglossum leucopum* (Kirby, 1802)

PUBLISHED DATA. No records from south of the European part of Russia.

MATERIAL. RUSSIA: *Rostov Prov.*: 2 ♀♀, Persiyanovka, 18.VII.1971 (YP) [ZISP]; *Volgograd Prov.*, 3 ♀♀, Sarepta (A. Becker) [ZISP]; 1 ♀, Kamyshin, Elshanka, 3.VII.1951 (DP) [ZMMU]; 1 ♀, 1 ♂, Tinguta, 1954 (IR) [ZMMU]; 1 ♀, Baybayev, Don River, 49,188°N 44,042°E, steppe, 15.VI.2012 (A. Rokhletzova) [ZISP].

DISTRIBUTION. Russia: east to Yakutia. — Europe, Turkey, Iran.

**Lasioglossum lissonotum* (Noskiewicz, 1926)

PUBLISHED DATA. No records from south of the European part of Russia.

MATERIAL. RUSSIA: *Volgograd Prov.*, 1 ♀, Yelshanka [near Kamyshin], 30.VII.1933 (L. Zimin) [ZISP]; 5 ♀♀, Tinguta, 27.VI.1954 (IR) [ZMMU].

DISTRIBUTION. Russia (Lipetsk and Volgograd Provinces). — Europe (except north).

REMARKS. From Russia, this species was previously known only from the Lipetsk Province [Kuznetzova, 1990: 43]. The record from east of the European part (Astafurova, Proshchalykin, 2017b: 284) is incorrect. Instead, the Volgograd Province is the most eastern known location of distribution of this species.

Lasioglossum morio (Fabricius, 1793)

PUBLISHED DATA. Pesenko, 1972: 293 (Rostov Prov.).

MATERIAL. RUSSIA: *Volgograd Prov.*, 3 ♀♀, 1 ♂, Sarepta, 16–20.VIII.1922 (A. Shestakov) [ZISP]; 14 ♀♀, 1 ♂, Yelshanka near Kamyshin, on *Cichorium intybus*, 3–8.VII.1951 (DP) [ZMMU]; 3 ♀♀, 3 ♂♂, Kamyshin, 6–17.VII.1951 (DP) [ZMMU]; 1 ♀, Tinguta, 1954 (IR)

[ZMMU]; 1 ♀, Koper River, 5 km S of Uryupinsk, steppe, 13.VII.1977 (DK) [ZISP]; 1 ♀, 1 ♂, 10 km S of Mikhaylovka, Medveditsa River, forest, 1.VII.2004 (AK) [ZISP]; 1 ♀, 5 km SW of Kamyshin, 10.VII.2015 (MP, MM, VL, SB) [ZISP].

DISTRIBUTION. Russia: east to Altai (except north). — Europe, Caucasus, Turkey, Israel, Lebanon (nominative subspecies); North Africa, Spain (ssp. *cordialie*).

REMARKS. A common species in the steppes of the Rostov and Volgograd Provinces, it has not been recorded in the semi-deserts of the Astrakhan Prov. and Kalmykia Rep.

Lasioglossum nitidulum (Fabricius, 1804)

PUBLISHED DATA. Becker, 1880: 151 (Volgograd, as *L. smeathmanellum*); Pesenko, 1972: 293 (as *Halictus aenidorsum* Alfken, Rostov Prov.).

MATERIAL. RUSSIA: Rostov Prov., 1 ♀, Persiyankovka, 12.V.1971 (YP) [ZISP].

DISTRIBUTION. Russia: European part, Ural. — Europe, Turkey (ssp. *nitidulum*); Crete (ssp. *cretense*); Balearic Islands (ssp. *hammi*); Tajikistan, Kyrgyzstan (ssp. *oculare*).

REMARKS. A rare species in the southern European part of Russia, where it is known from single specimens from the Rostov and Volgograd Provinces.

Subgenus *Hemihalictus* Cockerell, 1897

Lasioglossum adabaschum (Blüthgen, 1931)

PUBLISHED DATA. Astafurova, Proshchalykin, 2023: 2 (Astrakhan Prov., Kalmyk Rep.).

MATERIAL. See Astafurova & Proshchalykin [2023].

DISTRIBUTION. Russia: Astrakhan Prov., Kalmyk Rep. — Turkmenistan.

Lasioglossum brevicorne (Schenck, 1869)

PUBLISHED DATA. Pesenko, 1972: 292 (Rostov Prov.).

MATERIAL. RUSSIA: Rostov Prov., 2 ♀♀, Bagaevskiy, 7.VI.1970 (YP) [ZISP]; 1 ♀, Persiyankovka, 27.V.1971 (YP) [ZISP]; Volgograd Prov., 1 ♀, Sarepta, 19.VI.1906 (L. Wolmann) [ZISP]; 1 ♀, idem, 16–20.VIII.1929 (A. Shestakov) [ZISP]; 2 ♂♂, Kamyshin, 3.VII.1951 (DP) [ZMMU]; 1 ♂, 18 km NNE of Kalach-on-Don, 10–13.VII.2015 (MP, VL, MM, SB) [ZISP]; Kalmyk Rep., 2 ♀♀, 16 km E of Khulkhuta, 46°17'N 46°40'E, 29.V.2016 (YA) [ZISP]; Astrakhan Prov., 1 ♀, Dosang, 7–8.VI.2016 (YA) [ZISP]; 1 ♀, Volzhskiy, 46,965°N 47,53°E, 24.VII.2017 (MM) [ZISP].

DISTRIBUTION. Russia: European part (except north). — Europe, North Africa, Azerbaijan, Turkey, Israel, Lebanon, Iran, Afghanistan.

REMARKS. Specimens from the Astrakhan Province, Kalmyk Republic and partially Volgograd Province belongs to the “*aciculatum*” form with dense punctures and a strigate female T1. These specimens were collected in semi-desert/dry steppe biotopes. The subspecies *L. brevicorne aciculatum* Blüthgen was synonymized by Ebmer [1988] because it is sympatric with the main form of *L. brevicorne*.

Lasioglossum buccale (Pérez, 1903)

PUBLISHED DATA. Pesenko, 1972: 292 (Rostov Prov.).

MATERIAL. RUSSIA: Rostov Prov., 1 ♀, Bagaevskiy, 7.VIII.1970 (YP) [ZISP]; 1 ♀, Ust-Donetsk, 5.VI.1971 (YP); 3 ♀♀, Persiyankovka, 12–14.VI.1971 (YP) [ZISP]; Volgograd Prov., 1 ♀, Sarepta, 23.V.1904 (D. Glasunov) [ZISP]; 1 ♀, 1 ♂, Kamyshin, 31.V.1950 (DP) [ZMMU]; 1 ♀, Yelshanka near Kamyshin, on *Linuria odorofa*, 3.VII.1951 (DP) [ZMMU];

3 ♀♀, Tinguta, 17.VI.1954 (IR) [ZMMU]; 1 ♂, 5 km SW of Kamyshin, 10.VII.2015 (MP, MM, VL, SB) [ZISP].

DISTRIBUTION. Russia: south of European part, Ural. — Europe (except north), Turkey, Iran.

**Lasioglossum ciscapum* (Blüthgen, 1931)

Figs 1–3.

PUBLISHED DATA. No records from south of the European part of Russia.

MATERIAL. RUSSIA: Kalmyk Rep., 6 ♀♀, 1 ♂, 17 km SSW Artezian, Kuma River, semi-desert, 18–21.VII.2018 (MP, VL, MM, SB) [ZISP/FSCV]; Astrakhan Prov., 2 ♂♂, 60 km N Astrakhan, Dosang, meadow of floodplain forest, 23.VII.2004 (SB) [ZISP]; 1 ♂, 13 km S of Liman, 24–26.VII.2015 (MP, VL, MM, SB) [ZISP]; 1 ♀, 8 km SE Promyslovka, 45°40'N 47°14'E, 21.V.2019 (MP,VL) [ZISP].

DISTRIBUTION. *Russia (Astrakhan Prov. and Kalmyk Rep.). — Asia Minor, Azerbaijan, Georgia, southern Kazakhstan, Turkmenistan, Uzbekistan, Kyrgyzstan [Ebmer, 2000].

REMARKS. This is first record of the species from Russia and Europe.

Lasioglossum clypeare (Schenck, 1853)

PUBLISHED DATA. Pesenko, 1972: 292 (Rostov Prov.).

MATERIAL. RUSSIA: Rostov Prov., 11 ♀♀, Bagaevskiy, 6–7.VI.1970 (YP) [ZISP]; 1 ♀, Persiyankovka, 18.VII.1971 (YP) [ZISP]; Volgograd Prov., 1 ♂, Nektachevo, 25.VII.1950 (GV) [ZMMU]; 2 ♀♀, Elton Lake, Khara River, dry steppe, 15–17.VI.2004 (SB) [ZISP].

DISTRIBUTION. Russia: Crimea, North Caucasus, south of the European part, South Ural. — Southern and locally central Europe, Turkey, Lebanon, Iran, Kyrgyzstan, Kazakhstan.

REMARKS. Rare species.

Lasioglossum convexiusculum (Schenck, 1853)

PUBLISHED DATA. Pesenko, 1972: 292 (Rostov Prov.).

MATERIAL. —

DISTRIBUTION. Russia: central and south of European part, Ural. — Europe (except north), Turkey, Lebanon, Iran.

Lasioglossum corvinum (Morawitz, 1877)

PUBLISHED DATA. Pesenko, 1972: 292 (Rostov Prov.).

MATERIAL. RUSSIA: Rostov Prov., 8 ♀♀, Persiyankovka, 6–7.VI., 17.VII.1970 (YP) [ZISP]; 1 ♂, Bagaevskiy, 6.VIII.1970 (YP) [ZISP]; Volgograd Prov., 1 ♀, Sarepta, 1868 (A. Becker) [ZISP].

DISTRIBUTION. Russia: Crimea, North Caucasus, south of the European part. — Southern Europe, North Africa, Lebanon, Caucasus, Turkey, Iran.

REMARKS. Rare species.

Lasioglossum crassepunctatum (Blüthgen, 1923)

PUBLISHED DATA. Blüthgen, 1923: 280 (Volgograd); Pesenko, 1972: 291 (Rostov Prov.).

MATERIAL. RUSSIA: Rostov Prov., 8 ♀♀, Bagaevskiy, 8–30.V.1970 (YP) [ZISP]; 10 ♀♀, Persiyankovka, 11.V., 16.VII.1971 (YP) [ZISP]; Volgograd Prov., 3 ♀♀, Sarepta, 1868 (A. Becker) [ZISP]; 5 ♀♀, Tinguta, 14.VII–31.VII.1954 (IR) [ZMMU]; 1 ♀, NW Elton Lake, Khara River, dry steppe, 17.VI.2004 (AK) [ZISP]; 1 ♀, 6 km SW of Kamyshin, 10.VII.2015 (MP, VL, MM, SB) [ZISP]; Astrakhan Prov., 1 ♀, Verhnyaya Chekannaya [near Khalarat], delta of Volga River, 3.VII.1911 (Lukash) [ZISP]; 4 ♂♂, 60 km N of Astrakhan, Dosang, meadow of floodplain forest, 23.VII.2004 (SB) [ZISP];

20 ♂♂, Kharabali, floodplain forest, meadow, 16–21.VI.2006 (SB, AK) [ZISP]; 1 ♀, 35 km NNW of Astrakhan, 26.VII.2015 (MP, VL, MM, SB) [ZISP]; 14 ♀♀, near Volzhskiy, 46°57'N 47°31'E, 27.V.2016 (YA) [ZISP].

DISTRIBUTION. Russia: Crimea, North Caucasus, central and south of the European part. — Southern and Central Europe, Azerbaijan, Turkey, Israel, Lebanon, Jordan, Iran.

REMARKS. A relatively common species occurring in steppe and semi-desert landscapes.

Lasioglossum elegans (Lepeletier, 1841)

PUBLISHED DATA. Blüthgen, 1924: 283 (southern European Russia, no locality).

MATERIAL. RUSSIA: *Volgograd Prov.*, 1 ♀, Kamyshin, 27.VI.1949 [ZMMU]; 1 ♀, Tinguta, 25.VI.1953 (IR) [ZMMU].

DISTRIBUTION. Russia: south of the European part. — Southern and locally Central Europe, North Africa, Caucasus, Turkey, Iran, Turkmenistan.

Lasioglossum griseolum (Morawitz, 1872)

PUBLISHED DATA. Pesenko, 1972: 291 (Rostov Prov.).

MATERIAL. RUSSIA: *Rostov Prov.*, 5 ♀♀, Bagaevskiy, 6.VI–22.VIII.1970 (YP) [ZISP]; 5 ♀♀, 1 ♂, Persiyanovka,

21.VII–13.VIII.1971 (YP) [ZISP]; *Volgograd Prov.*, 1 ♀, Sarepta, 10.V.1904 (D. Glasunov) [ZISP]; 1 ♀, Tinguta, 25.VI.1953 (IR) [ZMMU]; 18 ♀♀, Elton Lake, Khara River, dry steppe, 15–17.VI.2004 (SB, AK) [ZISP]; 1 ♀, 18 km NNE of Kalachon-Don, 10–13.VII.2015 (MP, VL, MM, SB) [ZISP]; *Kalmyk Rep.*, 1 ♀, 17 km SSW of Artezian, Kuma River, semi-desert, 2–3.VI.2016 (YA) [ZISP]; *Astrakhan Prov.*, 2 ♀♀, Verhnyaya Chekannaya [near Khalarat], delta of Volga River, 26.VI.1911 (Lukash) [ZISP]; 4 ♂♂, 13 ♀♀, Kharabali, dry steppe, 19–21.VI.2004 (SB) [ZISP]; 5 ♀♀, Baskunchak Lake, steppe, 8–13.VI.2004 (SB) [ZISP]; 4 ♀♀, idem, 1–6.V.2010 (KT) [KTC]; 1 ♀, Dosang, 7–8.VI.2016 (YA) [ZISP].

DISTRIBUTION. Russia: North Caucasus, south of the European part. — Eastern and South Europe, North Africa (ssp. *musculum*), Saudi Arabia (ssp. *musculum*), Turkey, Georgia, Israel, Lebanon, Iran, Afghanistan.

REMARKS. A common species in dry steppe or semi-desert landscapes.

**Lasioglossum limbellum* (Morawitz, 1876)

PUBLISHED DATA. No records from the south of the European part. Pesenko [2007: 857] reported species (as *Evyllaes limbellus*) from “European part of Russia” without localities.



Figs 1–6. *Lasioglossum ciscapum* (Blüthgen, 1931) (1, 3 — female; 2 — male), *L. muganicum* Ebmer, 1972 (4, 5 — female) and *L. tricinctum* (Schenck, 1874) (6 — female): 1, 2 — habitus, dorsal view; 3 — head, frontal view; 4 — T3–T5, dorsal view; 5, 6 — spur of hind tibia lateral view.

Рис. 1–6. *Lasioglossum ciscapum* (Blüthgen, 1931) (1, 3 — самка; 2 — самец), *L. muganicum* Ebmer, 1972 (4, 5 — самка) и *L. tricinctum* (Schenck, 1874) (6 — самка): 1, 2 — общий вид, сверху; 3 — голова, спереди; 4 — T3–T5, сверху; 5, 6 — шпора задней голени, сбоку.

The species is also known from Dagestan Rep. [Astafurova, Proshchalykin, 2017a].

MATERIAL. RUSSIA: *Astrakhan Prov.*, 2 ♂♂, Kharabali, steppe, 19–21.VI.2006 (SB) [ZISP]; *Kalmyk Rep.*, 1 ♀, 10 km NNE of Lagan', 24.VII.2015 (MP, VL, SB, MM) [ZISP]; 1 ♀, 26 km SE Arshan, Zelmen, 47°35'N 44°38'E, 20.V.2019 (MP, VL) [ZISP]; *Volgograd Prov.*, 4 ♂♂, Kamyshin, 26.VI.1951 (DP) [ZMMU].

DISTRIBUTION. Russia: North Caucasus, South of European part. — Europe (except north), North Africa, Caucasus, Turkey, Israel, Iran, Afghanistan, Uzbekistan, Tajikistan, China (Gansu).

Lasioglossum lucidulum (Schenck, 1861)

PUBLISHED DATA. Pesenko, 1972: 292 (Rostov Prov.)

MATERIAL. RUSSIA: *Rostov Prov.*, 11 ♀♀, Bagaevskiy, 2.V–29.VI.1970 (YP) [ZISP]; 1 ♀, 60 km E of Rostov-on-Don, Vesel, 7.VIII.1970 (YP) [ZISP]; 13 ♀♀, 3 ♂♂, Persiyanovka, 12.V–2.IX.1971 (YP) [ZISP]; *Volgograd Prov.*, 3 ♀♀, Sarepta, 11.V.1904 (D. Glasunov) [ZISP]; 1 ♀, 1 ♂, idem (L. Wolmann); 1 ♀, Kamyshin, 4.VI.1950 (DP) [ZMMU]; 6 ♀♀, Tinguta, 3.VII.1954 (IR) [ZMMU]; 4 ♀♀, Bakalda, near Volgograd, 14–23.VI.1977 (DK, VT) [ZISP]; 2 ♀♀, Khoper River, near Uryupinsk, 15.VII.1977 (VT) [ZISP]; 1 ♀, Gulyaevsky, 50,417°N 42,762°E, 7.VI.2012 (KT) [KTC]; *Astrakhan Prov.*, 6 ♀♀, Verhnyaya Chekannaya [near Khalarat], delta of Volga River, 11–14.V.1911 (Lukash) [ZISP]; 1 ♀, Astrakhan (A. Becker) [ZISP]; 3 ♀♀, Baskunchak Lake, 3–6.V.2010 (KT) [KTC].

DISTRIBUTION. Russia: east to western Siberia. — Europe, Georgia, Turkey, Caucasus, Israel, Lebanon, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, Northern China.

Lasioglossum medinai (Vachal, 1895)

PUBLISHED DATA. Pesenko, 1972: 292 (Rostov Prov., mostly as *L. villosulum*); Pauly *et al.*, 2019: 32 (Volgograd Prov.).

MATERIAL. RUSSIA: *Rostov Prov.*, 2 ♀♀, 1 ♂, Rostov-on-Don, 8.VI.1963 (YP) [*L. villosulum* Pesenko det.] [ZISP]; 18 ♀♀, Bagaevskiy, 28.IV–8.V.1970; 4 ♂♂, idem, 3–23.VII.1970 (YP) [ZISP]; 2 ♀♀, 3 ♂♂, Persiyanovka, 11.VIII–2.IX.1971 (YP); [ZISP] *Volgograd Prov.*, 2 ♀♀, Sarepta [ZISP]; 1 ♀, Ilovlin distr, Baybaev, Don River, 15.VI.2012 (A. Rochletsova) [ZISP]; *Kalmyk Rep.*, 1 ♀, 17 km SSW of Artezian, Kuma River, semi-desert, 18–21.VII.2015 (MP, VL, MM, SB) [ZISP]; 2 ♀♀, 20 km E Yashkul', 46°09'N 45°38'E, semi-desert, 1.VI.2016 (YA) [ZISP]; *Astrakhan Prov.*, 1 ♀, 13 km S of Liman, 24–26.VII.2015 (MP, VL, MM, SB) [ZISP].

DISTRIBUTION. Russia: south of the European part. — Southern Europe, North Africa, Israel.

Lasioglossum mesosclerum (Pérez, 1903)

PUBLISHED DATA. Blüthgen, 1931: 319 (Volgograd).

MATERIAL. RUSSIA: *Volgograd Prov.*, 1 ♀, Sarepta, 21.VI.1906 (L. Wolmann) [ZISP]; 4 ♀♀, Tinguta, 20.VI–1.VII.1954 (IR) [ZMMU]; *Kalmyk Rep.*, 1 ♀, 1 ♂, 17 km SSW of Artezian, Kuma River, 18–21.VII.2015 (MP, VL, MM, SB) [ZISP/FSCV]; *Astrakhan Prov.*, 1 ♀, 1 ♂, Kharabali, floodplain forest, meadow, 16.VI.2006 (AK) [ZISP]; 3 ♀♀, Ikryaninskiy distr., Zyuzno, 45,751°N 47,678°E, 8–9.V.2010 (KT) [KTC]; 2 ♀♀, 13 km S of Liman, 24–26.VII.2015 (MP, VL, MM, SB) [ZISP/FSCV]; 1 ♀, near Volzhskiy, 46°57'N 47°31'E, 27.V.2016 (YA) [ZISP]; 1 ♀, 8 km SE of Promyslovoye, 45°40'N 47°14'E, 21.V.2019 (MP, VL) [ZISP].

DISTRIBUTION. Russia: North Caucasus, south of the European part. — Southern and Central Europe, Ukraine, North Africa, Caucasus, Turkey, Syria, Jordan, Israel, Lebanon, Iran, Afghanistan, Central Asia, Kazakhstan.

**Lasioglossum minutissimum* (Kirby, 1802)

PUBLISHED DATA. No records from south of the European part of Russia.

MATERIAL. RUSSIA: *Volgograd Prov.*, 2 ♂♂, Kamyshin, 27.VI.1950 (GV) [ZMMU]; 1 ♀, 18 km NNE of Kalach-on-Don, 10–13.VII.2015 (MP, VL, MM, SB) [ZISP]; *Astrakhan Prov.*, 1 ♂, Dosang, 22–25.V.2019 (MP, VL) [ZISP].

DISTRIBUTION. Russia: Crimea, European part (except north), South Ural. — Europe, North Africa, Caucasus, Turkey, Israel.

**Lasioglossum nitidiusculum* (Kirby, 1802)

PUBLISHED DATA. No records from south of the European Russia.

MATERIAL. RUSSIA: *Volgograd Prov.*, 2 ♀♀, Kamyshin, 20.IV–6.VI.1950 (LZ) [ZMMU]; 1 ♀, Kamyshin, 4.VII.1950 (GV) [ZMMU].

DISTRIBUTION. Russia: North Caucasus, European part, Ural. — Europe, Sardinia (ssp. *pseudocombinatus*), North Africa, Turkey, Lebanon, Iran.

Lasioglossum pallidum (Radoszkowski, 1888)

PUBLISHED DATA. Proshchalykin *et al.*, 2017: 19 (Volgograd Prov.).

MATERIAL. RUSSIA: *Astrakhan Prov.*, 1 ♂, Volzhskiy, 46,965°N 47,530°E, 16.VIII.2017 (MM) [ZISP].

DISTRIBUTION. Russia: Dagestan, south of the European part. — Afghanistan, Turkmenistan.

Lasioglossum puncticolle (Morawitz, 1872)

PUBLISHED DATA. Pesenko, 1972: 291 (Rostov Prov.)

MATERIAL. RUSSIA: *Rostov Prov.*, 7 ♀♀, Bagaevskiy, 2–10.V.1970 (YP) [ZISP]; 8 ♀♀, 60 km E of Rostov-on-Don, Vesel, 7.VIII.1970 (YP) [ZISP]; 7 ♀♀, Persiyanovka, 12.VIII.1971 (YP) [ZISP]; *Volgograd Prov.*, 1 ♀, Yelshanka near Kamyshin, 3.VII.1951 (DP) [ZMMU]; 1 ♂, 5 km SW of Kamyshin, 10.VII.2015 (MP, MM, VL, SB) [ZISP].

DISTRIBUTION. Russia: Crimea, North Caucasus, central and south of the European part, Ural. — Europe, North Africa, Turkey, Georgia, Syria, Lebanon, Iran.

REMARKS. According to Pesenko [1972] this is a common species in Rostov Prov. and recorded mostly near young forest plantations.

Lasioglossum pygmaeum (Vachal, 1905)

PUBLISHED DATA. Blüthgen, 1925: 113 (Volgograd; as *Halictus denislucius* Strand, 1909: see Ebmer, 2000: 414); Pesenko, 1972: 292 (Rostov Prov.).

MATERIAL. RUSSIA: *Rostov Prov.*, 4 ♀♀, Bagaevskiy, 30.IV.1970 (YP) [ZISP]; 2 ♀♀, Persiyanovka, 29.VI.1971 (YP) [ZISP]; *Volgograd Prov.*, 4 ♀♀, Sarepta (A. Becker) [ZISP]; 8 ♀♀, idem, 1–3.V.1907 (M. Koch) [ZISP]; 14 ♀♀, 4 ♂♂, Kamyshin, 29.IV–4.VII.1950 (DP, LZ, GV) [ZMMU]; 2 ♀♀, 1 ♂, Tinguta, 3.VI–11.VI.1954 (IR) [ZMMU]; 1 ♀, Elton Lake, Khara River, dry steppe, 15–17.VI.2004 (SB) [ZISP]; *Astrakhan Prov.*, 8 ♂♂, Baskunchak Lake, steppe, 8–13.VI.2004 (SB) [ZISP]; 12 ♀♀, 47 ♂♂, Kharabali, floodplain forest, meadow, 16–21.VI.2006 (AK, SB) [ZISP]; 5 ♀♀, near Volzhskiy, 46°57'N 47°31'E, 27.V.2016 (YA) [ZISP].

DISTRIBUTION. Russia: Crimea, south of the European part. — Europe, North Africa, Caucasus, Turkey, Syria, Jordan, Lebanon, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan.

REMARKS. One of the commonest species in steppe landscapes in the south of European Russia.

Lasioglossum quadrinotatum (Schenck, 1861)

PUBLISHED DATA. Astafurova, Proshchalykin, 2017a: 83 (Volgograd).

MATERIAL. RUSSIA: *Volgograd Prov.*, 4 ♀♀, Sarepta, 16.V.1909 (D. Glasunov) [ZISP]; 1 ♀, Ilovinskaya, 11.VII.1949 (GV) [ZMMU]; *Astrakhan Prov.*, 1 ♀, near Volzhskiy, 46°57'N 47°31'E, 27.V.2016 (YA) [ZISP].

DISTRIBUTION. Russia: to Eastern Siberia. — Europe, Turkey, North China.

REMARKS. Rare species in the south of the European part of Russia.

Lasioglossum quadrisignatum (Schenck, 1853)

PUBLISHED DATA. Pesenko, 1972: 292 (as *Halictus aff. quadrisignatus*; Rostov Prov.).

MATERIAL. —

DISTRIBUTION. Russia: Crimea, central and south of the European part. — Europe (except north), Caucasus, Turkey, Iran.

REMARKS. From Russia, this rare species also known from Crimea [Proshchalykin, Astafurova, 2012: 100], Lipetsk [Kuznetsova, 1990: 41] and Belgorod (1 ♀, Borisovka, 9.VI.1959 (Wu Yanru) [ZISP]) Provinces. The records of this species from the Volgograd Province (incorrectly record from the Saratov Province) by Astafurova & Proshchalykin [2017a: 83] refers to *L. subaenescens*.

**Lasioglossum semilucens* (Alfken, 1914)

PUBLISHED DATA. No records from south of the European part.

MATERIAL. RUSSIA: *Rostov Prov.*, 1 ♀, near Rostov-on-Don, 26.VI.1971 (YP) [ZISP]; *Volgograd Prov.*, 1 ♂, 18 km NNE of Kalach-on-Don, 10–13.VII.2015 (MP, VL, MM, SB) [ZISP]; *Astrakhan Prov.*, 1 ♀, 3 ♂♂, 60 km N of Astrakhan, Dosang, meadow of floodplain forest, 23.VII.2004 (SB) [ZISP]; 6 ♀♀, Ikryaninskiy distr., Zyuzno, 45,751° N 47,678°E, 8–9.V.2010 (KT) [KTC].

DISTRIBUTION. Russia: North Caucasus, European part (north to the Kirov Prov.). — Europe, Azerbaijan, Afghanistan, Tajikistan, Kyrgyzstan.

REMARKS. Rare species in the south of the European part. In Russia, this species was known from the Karachaevo-Cherkesk Rep. [Dathe, 1980: 211]; Moscow Prov. [Levchenko, 2015: 37] and Kirov Prov. [Levchenko, Yuferev, 2013: 105].

**Lasioglossum sexstrigatum* (Schenck, 1869)

PUBLISHED DATA. No records from south of the European part of Russia.

MATERIAL. RUSSIA: *Volgograd Prov.*, 1 ♀, Sestrenki, Kamyshin distr., 20.VII.1949 (GV) [ZMMU]; 2 ♀♀, Kamyshin, 6.VII.1950, 15.V.1951 (LZ, DP) [ZMMU]; 1 ♀, Tinguta, 30.VI.1954 (IR) [ZMMU].

DISTRIBUTION. Russia: European part (except north), South Ural. — Europe, Armenia, Turkey.

Lasioglossum subaenescens (Pérez, 1895)

PUBLISHED DATA. Pesenko, 1972: 292 (Rostov Prov., as *L. marginellum*); Astafurova, Proshchalykin, 2017a: 83 (Volgograd Province, as *L. quadrisignatum*).

MATERIAL. RUSSIA: *Rostov Prov.*, 7 ♀♀, Bagaevskiy, 9.V–7.VI.1970 (YP) [ZISP]; 6 ♀♀, Persiyanovka, 6.VI–30.VII.1971 (YP) [ZISP]; *Volgograd Prov.*, 7 ♀♀, Sarepta, 16.V.1909 (D. Glasunov) [ZISP]; 1 ♂, 13 ♀♀, Kamyshin, 31.V–8.VII.1951 (DP) [ZMMU]; 5 ♀♀, Tinguta, 8.VII.1953, I. Rasumova [ZMMU]; 1 ♂, 2 ♀♀, Elton Lake, Khara River, dry steppe, 15–17.VI.2004 (SB) [ZISP]; 2 ♂♂, 5 km SW of Kamyshin, 10.VII.2015 (MP, MM, VL, SB) [ZISP]; *Kalmyk Rep.*, 3 ♀♀, 26 km SE Arshan, Zelmen, 47°35'N 44°38'E, 20.V.2019 (MP, VL) [ZISP/FSCV]; *Astrakhan Prov.*, 4 ♀♀, 3 ♂♂, Baskunchak Lake, steppe, 8–13.VI.2004 (SB) [ZISP]; 1 ♂, Kharabali, steppe, 19–21.VI.2006 (SB) [ZISP].

DISTRIBUTION. Russia: Crimea, south of the European part. — Southern Europe, Egypt, Turkey, Near East, Iran, Azerbaijan, Central Asia, Mongolia, China (Xinjiang).

REMARKS. The specimens from the south of the European part of Russia belong to ssp. *asiaticus* (Dalla Torre, 1896). A common species in steppe landscapes in south of European Russia.

Lasioglossum tarsatum (Schenck, 1869)

PUBLISHED DATA. Astafurova, Proshchalykin, 2017a: 83 (Volgograd).

MATERIAL. RUSSIA: *Volgograd Prov.*, 2 ♀♀, Sarepta (A. Becker) [ZISP]; 3 ♀♀, idem, 2.V.1901 (D. Glasunov) [ZISP]; 1 ♀, Kamyshin, 14.VIII.1948 (GV) [ZMMU]; *Astrakhan Prov.*, 1 ♀, Astrakhan (P. Gold) [ZISP].

DISTRIBUTION. Russia: European part. — Europe (from France), Afghanistan.

REMARKS. An uncommon species in the south of the European part.

Lasioglossum truncaticolle (Morawitz, 1877)

PUBLISHED DATA. Blüthgen, 1923: 299 (Volgograd); Pesenko, 1972: 291 (Rostov Prov.).

MATERIAL. RUSSIA: *Rostov Prov.*, 15 ♀♀, 1 ♂, Persiyanovka, 10.VII.1971 (YP) [ZISP]; *Volgograd Prov.*, 13 ♀♀, Sarepta, 23–24.V.1904 (D. Glasunov) [ZISP]; 2 ♀♀, idem, 23–36.VII.1926 (A. Shestakov) [ZISP]; 4 ♀♀, Kamyshin, 29.VI–11.VII.1951 (DP) [ZMMU]; 14 ♀♀, 3 ♂♂, Tinguta, 14.VII.1954 (IR) [ZMMU]; *Kalmyk Rep.*, 1 ♂, 3 km SSE of Tsagan-Nur, 13.VII.2015 (MP, VL, MM, SB) [ZISP]; 1 ♀, 26 km SE Arshan, Zelmen, 47°35'N 44°38'E, 20.V.2019 (MP, VL) [ZISP].

DISTRIBUTION. Russia: Crimea, south of European part. — Southern and locally central Europe, North Africa, Ukraine, Caucasus, Turkey, Syria, Israel, Lebanon, Iran, Kazakhstan.

REMARKS. A relatively common species in the steppe biotopes of Rostov [Pesenko, 1972] and Volgograd Provinces.

Lasioglossum villosulum (Kirby, 1802)

PUBLISHED DATA. The record of this species from the Rostov Prov. by Pesenko [1972: 292] mostly refers to *L. medinae*.

MATERIAL. RUSSIA: *Rostov Prov.*, 1 ♂, Bagaevskiy, 3.VII.1970 (YP) [ZISP]; *Volgograd Prov.*, 1 ♀, 1 ♂, Sarepta (A. Becker) [ZISP]; 1 ♂, Koper River, near Uryupinsk, 15.VII.1977 (VT) [ZISP].

DISTRIBUTION. Russia: east to Far East. — Europe, North Africa, Caucasus, Turkey, Syria, Israel, Lebanon, Iran, Afghanistan, Tajikistan, Mongolia, China, Korea, Japan, India, Nepal, Malaysia, Canada, USA.

Subgenus *Lasioglossum**Lasioglossum bicallosum* (Morawitz, 1873)

PUBLISHED DATA. Pesenko, 1972: 292 (Rostov Prov.)

MATERIAL. RUSSIA: *Rostov Prov.*, 1 ♂, Bagaevskiy, 29.IV.1970 (YP) [ZISP]; 2 ♀♀, 13 ♂♂, Persiyanovka, 11.V.1971 (YP) [ZISP].

DISTRIBUTION. Russia: Crimea, North Caucasus, South of the European part. — Southeastern Europe, Caucasus, Turkey, Israel, Iran.

REMARKS. In the south of European Russia, this species is only known from the Rostov Province, where it is one of the commonest species of halictid bees flying end of April – May [Pesenko, 1972].

**Lasioglossum costulatum* (Kriechbaumer, 1873)

PUBLISHED DATA. No records from south of the European part of Russia.

MATERIAL. RUSSIA: *Rostov Prov.*, 2 ♀♀, Persiyanovka, 16.VII, 18.VII.1971 (YP) [ZISP].

DISTRIBUTION. Russia: east to Eastern Siberia. — Europe, North Africa, Caucasus, Turkey, Syria, Iran, Kazakhstan, Central Asia.

Lasioglossum fallax (Morawitz, 1873)

PUBLISHED DATA. Blüthgen, 1925: 99 (Volgograd); Pesenko, 2007: 842 (Rostov Prov., Volgograd Prov.).

MATERIAL EXAMINED. RUSSIA: *Volgograd Prov.*, 28 ♀♀, Sarepta, 1868 (A. Becker) [ZISP]; 10 ♀♀, 6 ♂♂, Kamyshin, 18–28.V.1950 (GV, LZ) [ZMMU]; 4 ♀♀, 7 ♂♂, Tinguta, 12.V–1.VI.1952 (GV) [ZMMU]; 1 ♂, 18 km NNE of Kalach-on-Don, 10–13.VII.2015 (MP, VL, MM, SB) [ZISP]; *Astrakhan Prov.*, 6 ♂♂, Kharabali, steppe, 19–21.VI.2006 (SB, AK) [ZISP]; 4 ♀♀, Baskunchak Lake, 1–6.V.2010 (KT) [KTC].DISTRIBUTION. Russia: Crimea, North Caucasus, south of the European part, South Ural. — Georgia, Turkey, Iran, Turkmenistan (nominative subspecies); Kazakhstan, Uzbekistan, Tajikistan, Kyrgyzstan, Afghanistan, Mongolia (ssp. *melanarium*); Pakistan (ssp. *rhadiourgon*).**Lasioglossum laevigatum* (Kirby, 1802)

PUBLISHED DATA. No records from south of the European part of Russia.

MATERIAL EXAMINED. RUSSIA: *Volgograd Prov.*, 4 ♂♂, Yelshanka near Kamyshin, 13.VII.1950 (GV) [ZMMU].

DISTRIBUTION. Russia: Central and South of the European part, Ural. — Europe, Caucasus, Turkey, Iran.

Lasioglossum quadrinotatum (Kirby, 1802)

PUBLISHED DATA. Pesenko, 1972: 291 (Rostov Prov.); Becker, 1880: 151 (Volgograd).

MATERIAL EXAMINED. —

DISTRIBUTION. Russia: Crimea, North Caucasus, European part (except north). — Europe, Caucasus, Turkey, Iran, Kazakhstan.

**Lasioglossum sexnotatum* (Kirby, 1802)

PUBLISHED DATA. No records from the south of the European part of Russia.

MATERIAL EXAMINED. RUSSIA: *Volgograd Prov.*, 1 ♀, Salomatino near Kamyshin, 13.VI.1949 (GV) [ZMMU]; *Astrakhan Prov.*, 3 ♀♀, Kharabali distr., 47°30'N 48°54'E, 2–3.VI.2009 (I. Melnik) [ZMMU].

DISTRIBUTION. Russia: Crimea, North Caucasus, European part. — Europe, Caucasus, Turkey, Iran.

Lasioglossum tungusicum Ebmer, 1978

PUBLISHED DATA. Pesenko, 2006: 149 (Rostov Prov.).

MATERIAL EXAMINED. —

DISTRIBUTION. Russia: east to Amur Prov. — Caucasus, Turkey, Iran, Kazakhstan, Mongolia, China.

Lasioglossum xanthopus (Kirby, 1802)

PUBLISHED DATA. Becker, 1880: 151 (Volgograd); Pesenko, 1972: 290 (Rostov Prov.); Mukhin, 1977: 104 (Volgograd Prov.).

MATERIAL EXAMINED. RUSSIA: *Rostov Prov.*, 8 ♀♀, Bagaevskiy, 31.V–12.VI.1970 (YP) [ZISP].

DISTRIBUTION. Russia: east to Ural. — Europe, North Africa, Caucasus, Turkey, Israel, Lebanon, Iran, Pakistan, Central Asia, Kazakhstan, Mongolia, Northwestern China.

Subgenus *Leuchalictus***Lasioglossum aegyptiellum* (Strand, 1909)

PUBLISHED DATA. No records from south of the European part of Russia.

MATERIAL EXAMINED. RUSSIA: *Kalmyk Rep.*, 1 ♀, 17 km SSW of Artezian, Kuma River, 15–21.VII.2015 (MP, VL, MM, SB) [ZISP].

DISTRIBUTION. Russia: Crimea, North Caucasus, south of the European part (Kalmyk Rep.). — Southern Europe, North Africa, Caucasus, Turkey, Near East, Iran, Iraq, Turkmenistan.

Lasioglossum discum (Smith, 1853)PUBLISHED DATA. Pesenko, 1972: 290 (as *Halictus morbillosus*, Rostov Prov.).MATERIAL EXAMINED. RUSSIA: *Rostov Prov.*, 17 ♂♂, 60 km E of Rostov-on-Don, Vesel, 7.VIII.1970 (YP) [ZISP]; 3 ♀♀, 8 ♂♂, Persiyanovka, 12.VIII.1971 (YP) [ZISP]; *Volgograd Prov.*, 2 ♂♂, Kamyshin, 3–16.VII, 1951 (DP) [ZMMU]; 9 ♀♀, 12 ♂♂, Tinguta, 9.VI–13.VII.1954 (IR) [ZMMU]; *Astrakhan Prov.*, 1 ♀, Baskunchak Lake, steppe, 8–13.VI.2004 (SB) [ZISP]; 2 ♀♀, Dosang, 7–8.VI, 2016 (YA) [ZISP].

DISTRIBUTION. Russia: east to Eastern Siberia (except north). — Europe (except north), North Africa, Caucasus, Turkey, Israel, Lebanon, Iran, Afghanistan, Central Asia, Kazakhstan, Northwestern China.

REMARKS. One of the most common species in the steppes of southern European Russia, rare in semi-deserts.

Lasioglossum leucozonium (Schrank, 1781)PUBLISHED DATA. Pesenko, 1972: 290 (Rostov Prov.); Pesenko, 1986: 143 (Astrakhan Prov., as *H. tadschicus* Blüthgen); Pesenko, 2006: 155 (Astrakhan Prov.).MATERIAL EXAMINED. RUSSIA: *Rostov Prov.*: 5 ♀♀, Bagaevskiy, 9–30.V.1970; idem, 4 ♂♂, 5.VIII.1970 (YP) [ZISP]; 3 ♂♂, 60 km E of Rostov-on-Don, Vesel, 7.VIII.1970 (YP) [ZISP]; 2 ♀♀, 12 ♂♂, Persiyanovka, 12.VIII–4.IX.1971 (YP) [ZISP]; *Volgograd Prov.*, 2 ♀♀, Sarepta, 8.VIII.1906 (M. Koch) [ZISP]; 2 ♂♂, idem, 20–23.V. 1909 (D. Glasunov) [ZISP]; 2 ♀♀, Tinguta, 26.VII.1952 (GV) [ZMMU]; 12 ♀♀, 6 ♂♂, Tinguta, 21.VI–17.VII.1953, 1954 (IR) [ZMMU]; *Kalmyk Rep.*, 1 ♂, 17 km SSW of Artezian, Kuma River, 15–21.VII.2015 (MP, VL, MM, SB) [ZISP]; 3 ♂♂, 22 km E Yashkul', 16–18.VII.2015 (MP, VL, MM, SB) [ZISP/FSCV]; 1 ♂, 10 km NNE of Lagan', 24.VII.2015 (MP, VL, MM, SB) [ZISP]; *Astrakhan Prov.*, 2 ♂♂, 60 km N Astrakhan, Dosang, meadow of floodplain forest, 23.VII.2004 (SB) [ZISP]; 8 ♂♂, Kharabali, steppe, 19–21.VI.2006 (SB, AK) [ZISP]; 1 ♀, 5 km SE of Promyslovoye, 45°40'N 47°14'E, 5.VI.2016 (YA) [ZISP].

DISTRIBUTION. Russia: east to Far East. — Europe, North Africa, Caucasus, Turkey, Near East, Afghanistan, Pakistan, North India, Central Asia, Kazakhstan, Mongolia, China, North America.

Lasioglossum niveocinctum (Blüthgen, 1923)

PUBLISHED DATA. Blüthgen, 1923: 325 (Astrakhan Prov.); Blüthgen, 1925: 92 (Volgograd); Pesenko, 2007: 847 (Volgograd and Astrakhan Prov.).

MATERIAL EXAMINED. RUSSIA: *Volgograd Prov.*, 1 ♂, Sarepta, 1868 (Backer) [ZISP]; *Kalmyk Rep.*, 8 ♀♀, 31 ♂♂, 17 km SSW of Artezian, Kuma River, 15–21.VII.2015 (MP, VL, MM, SB) [ZISP/FSCV]; idem, 7 ♀♀, 2–3.VII.2016 (YA) [ZISP]; 1 ♀, 1 ♂, 22 km E of Yashkul', 16–18.VII.2015 (MP, VL, MM, SB) [ZISP/FSCV]; 1 ♂, 10 km NNE of Lagan', 24.VII.2015 (MP, VL, MM, SB) [ZISP]; *Astrakhan Prov.*, 4 ♀♀, 8 ♂♂, 13 km S of Liman, 24–26.VII.2015 (MP, VL, MM, SB) [ZISP/FSCV].

DISTRIBUTION. Russia: North Caucasus, South of the European part. — Azerbaijan, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Mongolia, North China.

REMARKS. In the south of European Russia, this species occurs in semi-desert areas.

Lasioglossum zonulum (Smith, 1848)

PUBLISHED DATA. Pesenko, 1972: 290 (Rostov Prov.); Skrebtzova, 1984: 161 (Astrakhan Prov.).

MATERIAL EXAMINED. RUSSIA: *Rostov Prov.*, 1 ♀, Bagaevskiy, 22.VII.1970 (YP) [ZISP]; 1 ♀, near Rostov-on-Don, 24.V.1971 (YP) [ZISP]; *Volgograd Prov.*, 4 ♂♂, Sarepta, 26.VII.1906 (M. Koch) [ZISP]; 1 ♂, Kamyshin, 8.VIII.1951 (DP) [ZMMU]; 1 ♀, Tinguta, 1954 (IR) [ZMMU]; *Kalmyk Rep.*, 3 ♀♀, 22 km E Yashkul', 16–18.VII.2015 (MP, VL, MM, SB) [ZISP/FSCV]; 3 ♀♀, 20 km E Yashkul', 46°09'N 45°38'E, semi-desert, 1.VI.2016 (YA) [ZISP]; 1 ♀, 17 km SSW of Artezian, Kuma River, semi-desert, 2–3.VI.2016 (YA) [ZISP]; *Astrakhan Prov.*: 2 ♀♀, Astrakhan, Gorodskoy Isl., 26.VII.2004 (SB) [ZISP]; 1 ♀, Kharabali, steppe, 19–21.VI.2006 (SB); 1 ♀, 13 km S Liman, 24–26.VII.2015 (MP, VL, MM, SB) [ZISP]; 2 ♀♀, Volzhskiy, 46,965°N 47,530°E, 22.VIII.2017 (MM) [ZISP].

DISTRIBUTION. Russia: east to Eastern Siberia. — Europe, Caucasus, Turkey, Iran, Central Asia, Kazakhstan, China, North America.

Subgenus *Sphecodogastra*

Lasioglossum albipes (Fabricius, 1781)

PUBLISHED DATA. Becker, 1880: 151 (Volgograd); Pesenko, 1972: 291 (Rostov Prov.).

MATERIAL EXAMINED. RUSSIA: *Volgograd Prov.*, 5 ♀♀, 3 ♂♂, Sarepta (A. Becker) [ZISP]; 1 ♀, Antipovka, 10–13.VI.2005 (V. Krivokhatskiy) [ZISP].

DISTRIBUTION. Russia: east to Far East. — Europe, North Africa, Turkey, Caucasus, Iran, Central Asia, Mongolia, North China, Korea, Japan.

REMARKS. Rare species.

Lasioglossum anellum (Vachal, 1905)

PUBLISHED DATA. Blüthgen, 1931: 321 (Volgograd); Pesenko, 1972: 291 (Rostov Prov.).

MATERIAL EXAMINED. RUSSIA: *Rostov Prov.*, 3 ♀♀, Bagaevskiy, 8–9.V.1970 (YP) [ZISP]; 6 ♀♀, Persiyonovka, 12.V–16.VII.1971 (YP) [ZISP]; *Volgograd Prov.*, 1 ♀, Sarepta, 21.V.1909 (D. Glazunov) [ZISP]; 13 ♀♀, 3 ♂♂, Kamyshin, on *Centaurea gerberi*, *C. sabulosa* and *Eryngium campestre*, 15.V–25.VI.1950 (DP, LZ) [ZMMU]; 2 ♂♂, Sestrinki, Ka-

myshin distr, 30.VI. 1950 (GV) [ZMMU]; 5 ♀♀, Tinguta, 1.VII.1954 (IR) [ZMMU]; 2 ♀♀, 3 ♂♂, 6 km SW Kamyshin, 10.VII.2015 (MP, VL, MM, SB) [ZISP/FSCV].

DISTRIBUTION. Russia: North Caucasus, south of the European part. — Southeastern Europe, Caucasus, Turkey, Israel, Lebanon, Syria, Jordan, Iran.

REMARKS. A common species occurring in steppe landscapes of Rostov and Volgograd Provinces.

Lasioglossum calceatum (Scopoli, 1763)

PUBLISHED DATA. Becker, 1880: 151 (Volgograd, as *Halictus rubellus*); Pesenko, 1972: 291 (Rostov Prov.); Mukhin, 1977: 103 (Volgograd Prov.).

MATERIAL EXAMINED. RUSSIA: *Rostov Prov.*, 4 ♂♂, Bagaevskiy, 6–7.VIII.1970 (YP) [ZISP]; 3 ♀♀, 1 ♂, Persiyonovka, 11.V.1971 (YP) [ZISP]; 1 ♀, Ust'-Donetsk, 20.V.1971 (YP) [ZISP]; *Volgograd Prov.*, 24 ♀♀, 6 ♂♂, Sarepta, 15–28.IV.1907 (M. Koch) [ZISP]; 30 ♀♀, 24 ♂♂, Kamyshin, 18V–26.VI.1950 (GV, LZ, DP) [ZMMU]; 3 ♂♂, Tinguta, 27.VI.1953 (IR) [ZMMU]; 1 ♀, 18 km NNE of Kalach-on-Don, 10–13.VII.2015 (MP, VL, MM, SB) [ZISP]; *Kalmyk Rep.*, 17 ♀♀, 12 ♂♂, 17 km SSW of Artezian, Kuma River, semi-desert, 18–21.VII.2015 (MP, VL, MM, SB) [ZISP/FSCV]; idem, 2–3.VI.2016 (YA) [ZISP]; 9 ♀♀, 1 ♂, 13 km S of Liman, 24–26.VII.2015 (MP, VL, MM, SB) [ZISP/FSCV]; 1 ♀, 3 ♂♂, 10 km NNE Lagan', 24.VII.2015 (MP, VL, SB, MM) [ZISP]; 11 ♀♀, 20 km E Yashkul', 46°09'N 45°38'E, semi-desert, 1.VI.2016 (YA) [ZISP]; *Astrakhan Prov.*, 2 ♀♀, 1 ♂, 60 km N of Astrakhan, Dosang, meadow, 23.VII.2004 (SB) [ZISP]; 1 ♀, Astrakhan, Gorodskoy Isl., 26.VII.2004 (SB) [ZISP]; 5 ♀♀, Kharabali, floodplain forest, meadow, 16–20.VI.2006 (SB, AK) [ZISP]; 4 ♀♀, 5 km SE Promyslovoye, 45°40'N 47°14'E, 5.VI.2016 (YA) [ZISP]; 2 ♀♀, 1 ♂, Volzhskiy, 46,965°N 47,530°E, 22.VIII.2017 (MM) [ZISP].

DISTRIBUTION. Russia (east to Kuril Islands). — Europe, North Africa, Caucasus, Turkey, Iran, Central Asia, Kazakhstan, Mongolia, North China, Korea, Japan.

REMARKS. This is one of the commonest species of the genus *Lasioglossum* in the south of European Russia, occurring in various biotopes.

**Lasioglossum damascene* (Pérez, 1911)

PUBLISHED DATA. Pesenko, 1972: 291 (Rostov Prov. as *L. tricinctum* (Schenck, 1874), misidentification).

MATERIAL EXAMINED. RUSSIA: *Rostov Prov.*, 2 ♀♀, Bagaevskiy, 29–31.V.1970 (YP) [*E. tricinctus* Pesenko det.] [ZISP].

DISTRIBUTION. Russia: Crimea, Rostov Province. — Southeastern Europe, Russia (Crimea, Rostov province); Syria, Israel, Cyprus, Turkey, Armenia, Iran.

REMARKS. A rare species in southern European Russia, known from isolated occurrences in the Rostov Province.

Lasioglossum euboense (Strand, 1909)

PUBLISHED DATA. Blüthgen, 1924: 276 (Volgograd); Pesenko, 1972: 291 (Rostov Prov.).

MATERIAL EXAMINED. RUSSIA: *Volgograd Prov.*, 2 ♀♀, 1 ♂, Sarepta, 16–20.VIII.1929, (A. Shestakov) [ZISP]; 4 ♀♀, 2 ♂♂, Kamyshin, 2–22.VI.1950 (DP) [ZMMU]; 1 ♀, Tinguta, 3.VII.1954 (IR) [ZMMU]; *Kalmyk Rep.*, 1 ♀, 17 km SSW of Artezian, Kuma River, semi-desert, 18–21.VII.2015 (MP, VL, MM, SB) [ZISP]; idem, 1 ♀, 2–3.VI.2016 (YA) [ZISP].

DISTRIBUTION. Russia: North Caucasus, south and east of the European part. — Europe (except north), North Africa, Azerbaijan, Turkey, Iran.

Lasioglossum interruptum (Panzer, 1798)

PUBLISHED DATA. Becker, 1880: 151 (Volgograd); Pesenko, 1972: 290 (Rostov Prov.).

MATERIAL EXAMINED. RUSSIA: *Rostov Prov.*, 2 ♀♀, Bagaevskiy, 8.V.1970; idem, 1 ♂, 17.VII.1971 (YP) [ZISP]; 2 ♀♀, 7 ♂♂, Persiyanovka, 26.VII–13.VIII.1971 (YP) [ZISP]; *Volgograd Prov.*, 1 ♀, 2 ♂♂, Kamyshin, 2–3.VII.1951 [DP] [ZMMU]; 1 ♀, Yelshanka near Kamyshin, 3.VII.1951 (DP) [ZMMU].

DISTRIBUTION. Russia: Crimea, European part (except north). — Europe, North Africa, Armenia, Turkey, Lebanon, Syria, Iran.

**Lasioglossum laticeps* (Schenck, 1869)

PUBLISHED DATA. No records from south of the European part of Russia.

MATERIAL EXAMINED. RUSSIA: *Rostov Prov.*, 14 ♀♀, near Rostov-on-Don, 20–28.IV.1971 (YP) [ZISP]; 1 ♀, Persiyanovka, 15.VI.1971 (YP); *Volgograd Prov.*, 2 ♀♀, Sestrinki, Kamyshin distr., 6.VI.1950 (GV) [ZMMU]; 4 ♀♀, Kamyshin, 26.VI.1950 (LZ) [ZMMU]; 2 ♂♂, 5 km SW of Kamyshin, 10.VII.2015 (MP, VL, MM, SB) [ZISP].

DISTRIBUTION. Russia (east to Ural). — Europe, Asia Minor, Caucasus, Lebanon, Iran.

REMARKS. The species occurs in the steppe of the Rostov and Volgograd Provinces. Although the species was not listed by Pesenko [1972] for the Rostov Province, we found it in Yu.A. Pesenko's collection material from this area.

**Lasioglossum lineare* (Schenck, 1869)

PUBLISHED DATA. No records from south of the European part of Russia.

MATERIAL EXAMINED. RUSSIA: *Rostov Prov.*, 2 ♂♂, Persiyanovka, 13.VIII.1971 (YP) [ZISP]; *Volgograd Prov.*, 8 ♂♂, Kamyshin, 26.VI.1951 (DP) [ZMMU]; 1 ♂, Yelshanka near Kamyshin, 3.VII.1951 (DP) [ZMMU]; 2 ♀♀, Tinguta, 3.VII.1954 (IR) [ZMMU].

DISTRIBUTION. Russia: Crimea, European part (except north). — Europe, Caucasus, Turkey, Syria, Israel, Lebanon, Iran, Turkmenistan.

Lasioglossum malachurum (Kirby, 1802)

PUBLISHED DATA. Pesenko, 1972: 291 (Rostov Prov.).

MATERIAL EXAMINED. RUSSIA: *Rostov Prov.*, 30 ♀♀, 29 ♂♂, Persiyanovka, 20.IV–4.IX.1971 (YP) [ZISP]; *Volgograd Prov.*, 4 ♀♀, Sarepta, 16–20.VIII.1929 (A. Shestakov) [ZISP]; 1 ♀, Kamyshin, 27.VI.1951 (DP) [ZMMU]; 3 ♀♀, Tinguta, 3.VII.1954 (IR) [ZMMU].

DISTRIBUTION. Russia: Crimea, south and east of the European part. — Europe, North Africa, Caucasus, Turkey, Israel, Lebanon, Iran, Turkmenistan.

REMARKS. In the south of the European part of Russia, this species is one of commonest *Lasioglossum* species in steppe landscapes of the Lower Don [Pesenko, 1972, current data]. We have not recorded this species from semi-desert areas (Astrakhan Prov. and Kalmyk Rep.).

Lasioglossum muganicum* Ebmer, 1972, **stat. ressur.
Figs 4, 5.

Lasioglossum (Evyllaes) muganicum Ebmer, 1972: 239, Fig. 3; non *Halictus (Indohalictus) muganicus* Blüthgen, 1931 [*Homalictus*]. ♂. Holotype: ♂, Azerbaijan: Mugansk; Museum für Naturkunde, Berlin Germany.

Halictus tricoloratus spp. *muganicus*: Warncke, 1975: 100.

PUBLISHED DATA. No records from south of the European part of Russia.

MATERIAL EXAMINED. RUSSIA: *Kalmyk Rep.*, 2 ♀♀, 26 km SE of Arshan, Zelmen, 47°35'N 44°38'E, 20.V.2019 (MP, VL) [ZISP/FSCV]; *Astrakhan Prov.*: 19 ♀♀, 4 ♂♂, Baskunchak Lake, steppe, 8–13.VI.2004 (SB, AK) [ZISP]; idem, 1 ♀, 3–6.V.2010 (KT) [KTC]; 1 ♀, Ikryaninskiy distr., Zyuzno, 45,751°N 47,678°E (KT) [KTC].

DISTRIBUTION. Russia (Astrakhan Prov., Kalmyk Rep.). — Greece, Azerbaijan, Turkey, Iran.

REMARKS. Warncke [1975: 100] regarded *Lasioglossum muganicum* as a subspecies of *L. tricoloratus*. Although Warncke's opinion was supported by Ebmer [1988: 606; 1995: 592], we consider these taxa as two different species. The species is well distinguished from the others by the shape of female hind tibial spur (with 4–8 processes in *L. muganicum* vs 2–3 processes in *L. tricoloratus*, Figs 5, 6); usually T3 has less dense pubescence (Fig. 4). From *L. setulellum*, both species differ by dark flagellomeres in female (vs yellow to reddish-brown on lower side), usually denser pubescence of T3 and long setae on male gonostylus.

Lasioglossum nigripes (Lepeletier, 1841)

PUBLISHED DATA. Pesenko, 1972: 291 (Rostov Prov.).

MATERIAL EXAMINED. —

DISTRIBUTION. RUSSIA: Crimea, North Caucasus, south of the European part. — Europe, North Africa, Caucasus, Turkey, Jordan, Israel, Iran, Turkmenistan.

REMARKS. A rare species from southern European Russia, known only from a single specimen from the Rostov Province.

Lasioglossum obscuratum (Morawitz, 1876)

PUBLISHED DATA. Pesenko, 1972: 291 (Rostov Prov.).

MATERIAL EXAMINED. RUSSIA: *Rostov Prov.*, 7 ♀♀, Persiyanovka, 22.IV–5.V.1970; idem, 4 ♂♂, 11–12.VIII.1971 (YP) [ZISP]; 2 ♂♂, Bagaevskiy, 8.VIII.1970 (YP) [ZISP].

DISTRIBUTION. Russia: Crimea, North Caucasus, south of the European part. — Southeastern Europe, Azerbaijan, Turkey, Syria, Jordan, Israel, Iran, Afghanistan, Central Asia, Kazakhstan.

REMARKS. A rare species from southern European Russia, known from a few specimens from the Rostov Province.

Lasioglossum pauxillum (Schenck, 1853)

PUBLISHED DATA. Pesenko, 1972: 291 (Rostov Prov.).

MATERIAL EXAMINED. RUSSIA: *Rostov Prov.*, 7 ♀♀, Bagaevskiy, 28.IV–8.V.1970; idem, 4 ♂♂, 4–8.VIII.1970 (YP) [ZISP]; 5 ♀♀, 2 ♂♂, Persiyanovka, 11.V., 18.VII.1971 (YP) [ZISP]; 2 ♀♀, Rostov-on-Don, 28.IV.1971 (YP) [ZISP]; 1 ♂, 60 km E of Rostov-on-Don, Vesel, 7.VIII.1970 (YP) [ZISP].

DISTRIBUTION. Russia: east to western Siberia (except north). — Europe, Caucasus, Turkey, Iran, Turkmenistan.

REMARKS. *Lasioglossum pauxillum* was recorded in the Rostov Province by Pesenko [1972] as a common species and recorded mostly near young forest plantations. This species does not occur in desert and semi-desert biotopes.

Lasioglossum setulellum (Strand, 1909)

PUBLISHED DATA. Blüthgen, 1924: 279 (Volgograd); Pesenko, 1972: 291 (Rostov Prov.).

MATERIAL EXAMINED. RUSSIA: *Rostov Prov.*, 1 ♀, 1 ♂, Persiyanovka, 12.V., 11.VIII.1971 (YP) [ZISP]; 1 ♀, Bagaevskiy, 9.V.1970 (YP) [ZISP]; *Volgograd Prov.*, 11 ♀♀, Sarepta, 1868 (A. Becker) [ZISP]; 14 ♀♀, 7 ♂♂, Kamyshin, 27.IV–28.VI.1950 (LZ, DP) [ZMMU]; 1 ♀, Khoper River, 15 km N of Uryupinsk, 13.VII.1977 (DK) [ZISP].

DISTRIBUTION. Russia: Crimea, south and east of the European part, South Ural. — Europe (except north), Armenia, Turkey, Syria, Iran.

Subgenus *Pyghalictus* Warncke, 1975*Lasioglossum glabriusculum* (Morawitz, 1872)

PUBLISHED DATA. Pesenko, 1972: 292 (Rostov Prov.).

MATERIAL EXAMINED. RUSSIA: *Rostov Prov.*, 7 ♀♀, 1 ♂, Persiyonovka, 11.V–2.IX.1971 (YP) [ZISP]; *Bagaevskiy*, 3 ♂♂, 7.VIII.1970 (YP) [ZISP]; *Volgograd Prov.*, 1 ♂, Khover River, 20 km S of Uryupinsk, 15.VII.1977 (VT) [ZISP]; 1 ♀, Gulyaevsky, 50,417°N 42,762°E, 7.VI.2012 (KT) [KTC]; *Kalmyk Rep.*, 2 ♀♀, Manych Lake, 9.VI. 2012 (KT) [KTC]; *Astrakhan Prov.*, 6 ♀♀, Ikryaninskiy distr., Zyuzno, 45,751°N 47,678°E, 8–9.V.2010 (KT) [KTC].

DISTRIBUTION. Russia: North Caucasus, south of the European part. — Europe (except north), North Africa (ssp. *ultraparvus*), Georgia, Turkey, Syria, Jordan, Israel, Lebanon, Iran.

REMARKS. Pesenko [1972] reported this species as common in the steppe of the Lower Don (Rostov Province), occurring in various biotopes.

Lasioglossum mandibulare (Morawitz, 1866)

PUBLISHED DATA. Morawitz, 1866: 23 (Volgograd); Blüthgen, 1923: 290 (Volgograd, as *Halictus sareptanus* Blüthgen, 1923); Pesenko, 1972: 292 (Rostov Prov.).

MATERIAL EXAMINED. RUSSIA: *Volgograd Prov.*, 17 ♀♀, Sarepta, 32.V.1909 (D. Glasunov) [ZISP]; 3 ♀♀, Elton Lake, Khara River, dry steppe, 15–17.VI.2004 (SB, AK) [ZISP]; *Kalmyk Rep.*, 4 ♀♀, 1 ♂, 17 km SSW of Artezian, Kuma River, semi-desert, 18–21.VII.2018 (MP, VL, MM, SB) [ZISP/FSCV]; *Astrakhan Prov.*, 3 ♀♀, 8 km SE of Promyslovka, 14, 21.V.2019 (MP, VL) [ZISP/FSCV]; 4 ♀♀, Verhnyaya Chekannaya [near Khalarat], delta of Volga River, 3.VII.1911 (Lukash) [ZISP]; 11 ♀♀, Ikryaninskiy distr., Zyuzno, 45,751°N 47,678°E, 8–9.V.2010 (KT) [KTC]; 1 ♂, 13 km S of Liman, 24–26.VII.2015 (MP, VL, MM, SB) [ZISP].

DISTRIBUTION. Russia: North Caucasus, south of the European part. — Southern Europe, North Africa, Caucasus, Turkey, Israel.

Lasioglossum politum (Schenck, 1853)

PUBLISHED DATA. Pesenko, 1972: 292 (Rostov Prov.); Mukhin, 1977: 104 (Volgograd Prov.).

MATERIAL EXAMINED. RUSSIA: *Rostov Prov.*, 6 ♀♀, Bagaevskiy, 3–30.V.1970 (YP) [ZISP]; 2 ♀♀, Rostov-on-Don, 28.IV.1971 (YP) [ZISP]; 16 ♀♀, Pesiyanovka, 12.V.1971 (YP) [ZISP]; *Volgograd Prov.*, 3 ♀♀, Sarepta, 1872 (A. Becker) [ZISP]; idem, 6 ♀♀, 21.VII.1906 (L. Wolmann) [ZISP]; 11 ♀♀, 12 ♂♂, Kamyshin, 31.V–19.VII.1950 (LZ, DP, GV) [ZMMU]; 1 ♀, Khover River, 5 km S of Uryupinsk, steppe, 13.VII.1977 (DK); 4 ♀♀, Bakalda, near Volgograd, 14.VI.1977 (DK) [ZISP]; 1 ♀, Elton Lake, Khara River, dry steppe, 17.VI.2004 (AK) [ZISP]; 11 ♀♀, 3 ♂♂, 10 km S of Mikhaylovka, Medveditsa River, steppe meadow, forest, 1.VII.2004 (AK, SB) [ZISP]; 1 ♀, 6 km SW of Kamyshin, 10.VII.2015 (MP, VL, MM, SB) [ZISP]; *Astrakhan Prov.*, 1 ♀, SE Baskunchak Lake, Kordon Lake, steppe, 12.VI.2004 (AK) [ZISP]; 1 ♂, 60 km N of Astrakhan, Dosang, meadow of floodplain forest, 23.VII.2004 (SB) [ZISP]; 1 ♀, Astrakhan, Gorodskoy Isl., 26.VII.2004 (SB) [ZISP]; 4 ♀♀, 1 ♂, Khara-bali, steppe, 19–21.VI.2006 (SB) [ZISP].

DISTRIBUTION. Russia: European part and Ural, except north. — Europe (except north), North Africa, Near East, Turkey, Georgia, Uzbekistan, Tajikistan, Kyrgyzstan, Iran, Eastern China, Japan.

REMARKS. One of the commonest species, occurring in steppe landscapes.

Discussion

A total of 64 species of the genus *Lasioglossum* have so far been recorded in the southern European part of Russia, 17 of which are new to the fauna of this area: *L. aegyptiellum*, *L. ciscapum* (this species was also recorded for the first time in Russia and Europe), *L. costulatum*, *L. damascene*, *L. laevigatum*, *L. laticeps*, *L. leucopum*, *L. limbellum*, *L. lineare*, *L. lissonotum*, *L. marginatum*, *L. minutissimum*, *L. muganicum*, *L. nitidiusculum*, *L. semilucens*, *L. sexnotatum*, and *L. sexstrigatum*.

The vast majority of species (45) have a wide western Palaearctic range: Western Palaearctic or Western Pan-continental (25), Pan-Atlantic (18), Western Eury-continental (2). Three species are typical elements of the Iranian-Turanian fauna. A quarter (16) of the species are also known from the Eastern Palaearctic (i.e. east of 90°E), half are Super-Atlantic species (7), one is a widely distributed Iranian-Turanian species, and the remaining species are distributed even further east (Table 1.).

The majority of species (45) have a southern distribution (sub-boreal+subtropical combination of belt), and 19 largely multi-zonal species with a boreal-subtropical type of distribution were found in the study area. At the same time, the known northern limits of the distribution of almost half (29) of the 64 species of the genus recorded here pass through the territory of the southern European part of Russia: *L. adabaschum*, *L. aegyptiellum*, *L. anellum*, *L. bicallosum*, *L. buccale*, *L. ciscapum*, *L. clypeare*, *L. corvinum*, *L. damascene*, *L. duckei*, *L. elegans*, *L. euboense*, *L. fallax*, *L. glabriusculum*, *L. griseolum*, *L. limbellum*, *L. mandibulare*, *L. marginatum*, *L. medinai*, *L. mesosclerum*, *L. muganicum*, *L. nigripes*, *L. niveocinctum*, *L. obscuratum*, *L. pallidum*, *L. pygmaeum*, *L. setulellum*, *L. subaenescens*, and *L. truncaticolle*.

The location of the study area, both in the steppe and desert/semi-desert natural zones, determines the heterogeneous composition of the faunas. Naturally, the faunal composition of bees collected in the steppe landscapes of the Rostov and Volgograd Provinces differs from that of the desert and semi-desert areas of the south-east of the Volgograd Province, the Astrakhan Province and the Kalmyk Republic.

Almost half of the species in the southern part of Europe are recorded only in the steppe zone (31 species): *L. albipes*, *L. anellum*, *L. bicallosum*, *L. buccale*, *L. convexiusculum*, *L. corvinum*, *L. costulatum*, *L. damascene*, *L. duckei*, *L. elegans*, *L. interruptum*, *L. laevigatum*, *L. laticeps*, *L. leucopum*, *L. lineare*, *L. lissonotum*, *L. malachurum*, *L. morio*, *L. nigripes*, *L. nitidiusculum*, *L. nitidulum*, *L. obscuratum*, *L. pauxillum*, *L. puncticolle*, *L. quadrinotatum*, *L. quadrisignatum*, *L. setulellum*, *L. sexstrigatum*, *L. tungusicum*, *L. villosulum*, and *L. xanthopus*. Most of these species have a Pan-Atlantic distribution.

Slightly fewer species are found in both the steppe and desert/semi-desert zones (27 species): *L. aeratum*, *L. brevicorne*, *L. calceatum*, *L. clypeare*, *L. crassepunctatum*, *L. discum*, *L. euboense*, *L. fallax*, *L. glabriusculum*, *L. griseolum*, *L. leucozonium*, *L. limbellum*, *L. lucidulum*, *L. mandibulare*, *L. marginatum*, *L. medinai*, *L. mesosclerum*, *L. minutissimum*, *L. politum*,

Table 1. Distribution and range type of *Lasioglossum* species from European South of Russia.
Таблица 1. Распространение и типы ареалов видов рода *Lasioglossum* юга Европейской России.

<i>Lasioglossum</i> species	R	V	K	A	Type of ranges (according to Emel'anov, 1974)
<i>Biennilaeus</i>					
<i>L. marginatum</i>		+	+	+	Western Palaearctic, southern
<i>Dialictus</i>					
<i>L. aeratum</i>	+	+		+	Western Palaearctic, boreal-subtropical
<i>L. duckei</i>	+				Pan-Atlantic, southern
<i>L. leucopum</i>	+	+			Eurasian, mostly boreal
<i>L. lissonotum</i>		+			Western pancontinental, southern
<i>L. morio</i>	+	+			Western Palaearctic, boreal-subtropical
<i>L. nitidulum</i>	+	+			Western pancontinental, southern
<i>Hemihalictus</i>					
<i>L. adabaschum</i>			+	+	Iranian-Turanian
<i>L. brevicorne</i>	+	+	+	+	Western Palaearctic, southern
<i>L. buccale</i>	+	+			Pan-Atlantic, southern
<i>L. ciscapum</i>			+	+	Iranian-Turanian
<i>L. clypeare</i>	+	+			Western pancontinental, southern,
<i>L. convexiusculum</i>	+				Pan-Atlantic, southern
<i>L. corvinum</i>	+	+			Pan-Atlantic, southern
<i>L. crassepunctatum</i>	+	+		+	Pan-Atlantic, southern
<i>L. elegans</i>		+			Western Palaearctic, southern
<i>L. griseolum</i>	+	+	+	+	Western pancontinental, southern
<i>L. limbellum</i>		+	+	+	Super-Atlantic, southern
<i>L. lucidulum</i>	+	+		+	Super-Atlantic, boreal-subtropical
<i>L. medinai</i>	+	+	+	+	Western pancontinental, southern (taking into account non-published material from Central Asia)
<i>L. mesosclerum</i>		+	+	+	Western pancontinental, southern
<i>L. minutissimum</i>		+		+	Pan-Atlantic, southern
<i>L. nitidiusculum</i>		+			Pan-Atlantic, boreal-subtropical
<i>L. pallidum</i>				+	Iranian-Turanian
<i>L. puncticolle</i>	+	+			Pan-Atlantic, southern
<i>L. pygmaeum</i>	+	+		+	Western Palaearctic, southern
<i>L. quadrinotatum</i>		+		+	Super-Atlantic, boreal-subtropical
<i>L. quadrisignatum</i>	+				Pan-Atlantic, southern
<i>L. semilucens</i>	+	+		+	Western Palaearctic, boreal-subtropical
<i>L. sexstrigatum</i>		+			Pan-Atlantic, southern
<i>L. subaenescens</i>	+	+	+	+	Super-Atlantic, southern
<i>L. tarsatum</i>		+		+	Pan-Atlantic, boreal-subtropical
<i>L. truncaticolle</i>	+	+	+		Western pancontinental, southern
<i>L. villosulum</i>	+	+			Голарктический, boreal-subtropical
<i>Lasioglossum</i>					
<i>L. bicallosum</i>	+				Pan-Atlantic, southern
<i>L. costulatum</i>	+				Super-Atlantic, southern
<i>L. fallax</i>		+		+	Western eurycontinental, southern
<i>L. laevigatum</i>		+			Pan-Atlantic, boreal-subtropical
<i>L. quadrinotatum</i>	+	+			Western Palaearctic, southern
<i>L. sexnotatum</i>		+		+	Western Palaearctic, boreal-subtropical
<i>L. tungusicum</i>	+				Eurycontinental, boreal-subtropical
<i>L. xanthopus</i>	+				Super-Atlantic, boreal-subtropical
<i>Leuchalictus</i>					
<i>L. aegyptiellum</i>			+		Western pancontinental, mostly subtropical
<i>L. discum</i>	+	+		+	Super-Atlantic, southern
<i>L. leucozonium</i>	+	+	+	+	Holarctic, boreal-subtropical
<i>L. niveocinctum</i>		+	+	+	broadly Iranian-Turanian (Iranian-Turanian -Gobi)
<i>L. zonulum</i>	+	+	+	+	Pancontinental, boreal-subtropical
<i>Sphecodogastra</i>					
<i>L. albipes</i>	+	+			Trans-Palaearctic, boreal-subtropical

Table 1 (ending).

<i>L. anellum</i>	+	+			Pan-Atlantic, southern
<i>L. calceatum</i>	+	+	+	+	Trans-Palaeartic, boreal-subtropical
<i>L. damascene</i>	+				Western pancontinental, southern
<i>L. euboense</i>		+		+	Pan-Atlantic, southern
<i>L. interruptum</i>	+	+			Pan-Atlantic, southern
<i>L. laticeps</i>	+	+			Pan-Atlantic, southern
<i>L. lineare</i>	+	+			Western pancontinental, southern
<i>L. malachurum</i>	+	+			Western Palaeartic, boreal-subtropical
<i>L. muganicum</i>			+	+	Western eurycontinental, southern
<i>L. nigripes</i>	+				Western pancontinental, southern
<i>L. obscuratum</i>	+				Western pancontinental, southern
<i>L. pauxillum</i>	+				Western Palaeartic, southern
<i>L. setulellum</i>	+	+			Pan-Atlantic, southern
<i>Pygmalictus</i>					
<i>L. glabriusculum</i>	+	+	+	+	Pan-Atlantic, southern
<i>L. mandibulare</i>	+	+	+	+	Pan-Atlantic, southern
<i>L. politum</i>	+	+		+	Trans-Palaeartic, southern
Total:	44	48	18	30	

R — Rostov Province; V — Volgograd Province; K — Kalmyk Republic; A — Astrakhan Provinces.

L. pygmaeum, *L. quadrinotatum*, *L. semilucens*, *L. sexnotatum*, *L. subaenescens*, *L. tarsatum*, *L. truncaticolle*, and *L. zonulum*. Most of these species have a Western Palaeartic and Western pancontinental distribution, or are distributed even further east. However, *L. crassepunctatum*, *L. euboense*, *L. glabriusculum*, *L. mandibulare*, *L. minutissimum*, and *L. tarsatum*, in the desert/semi-desert zone are elements of the Pan-Atlantic fauna coming from the west.

The species collected exclusively in semi-desert and desert zones include only six species: *L. adabaschum*, *L. aegyptiellum*, *L. ciscapum*, *L. muganicum*, *L. niveocinctum*, and *L. pallidum*, the last four being elements of the Iranian-Turanian desert fauna.

Thus, 58 species have been recorded in the steppe zone of South European Russia and 33 species in semi-deserts and deserts. However, the desert areas are less well sampled, and with further research the difference in the number of species of the genus *Lasioglossum* between the steppe and desert faunas of South European Russia will probably decrease. It is also possible that species characteristic of the fauna of Central Asia, which have not yet been discovered in Russia, may be found in the desert zone.

A widespread species in southern European Russia, found in both steppe and semi-arid landscapes, is *Lasioglossum calceatum*. According to Pesenko [1972], the most widespread species in the Lower Don steppe is *L. bicallosum*. In the Rostov Province, this species flies from May to early June, but in the material we studied, except for the Lower Don, *L. bicallosum* was no longer found. Other common species in steppe landscapes are *Lasioglossum politum*, *L. pygmaeum* and *L. discum*; *L. malachurum*, a widespread species in the Rostov Province [Pesenko, 1972], was also recorded by us from the Volgograd Province, but only from a few specimens.

Other common species in the steppe zone are *L. anellum*, *L. crassepunctatum*, *L. fallax*, *L. leucozonium*, *L. medinai*, *L. morio*, *L. pygmaeum*, *L. subaenescens*, and *L. truncaticolle*.

Lasioglossum pauxillum and *L. puncticolle* were noted by Pesenko [1972] to be common in the steppes of the Lower Don, but the former is known in southern European Russia only from the Rostov Province, and the latter was recorded by us from the Volgograd Province, but from isolated specimens. *Lasioglossum villosulum*, a species noted as widespread in the Rostov Province [Pesenko, 1972], is a complex of two species, *L. medinai* and *L. villosulum*, of which *L. medinai* is common and *L. villosulum* is rare.

Lasioglossum niveocinctum was found to be a common species in semi-deserts and dry steppes; *L. griseolum* and *L. muganicum* are also common there. Species such as *L. aeratum*, *L. lucidulum*, *L. glabriusculum*, and *L. mandibulare* are common in both steppe and semi-desert habitats.

Lasioglossum interruptum, *L. laticeps*, *L. mesosclerum*, *L. setulellum*, and *L. zonulum* are somewhat less common in the material we studied.

About half of the known species of the genus *Lasioglossum* from southern European Russia can be classified as rare species, many of which are known from single specimens: *L. adabaschum*, *L. aegyptiellum*, *L. albipes*, *L. brevicorne*, *L. buccale*, *L. ciscapum*, *L. clypeare*, *L. convexiusculum*, *L. corvinum*, *L. costulatum*, *L. damascene*, *L. elegans*, *L. euboense*, *L. laevigatum*, *L. leucopum*, *L. limbellum*, *L. lineare*, *L. lissonotum*, *L. marginatum*, *L. minutissimum*, *L. nigripes*, *L. nitidiusculum*, *L. nitidulum*, *L. obscuratum*, *L. pallidum*, *L. quadrinotatum*, *L. quadrinotatum*, *L. quadrisignatum*, *L. semilucens*, *L. sexnotatum*, *L. sexstrigatum*, *L. tarsatum*, and *L. tungusicum*.

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