

On the fauna of jumping spiders of the southern part of West Siberia (Aranei: Salticidae)

К фауне пауков-скакунчиков юга Западной Сибири (Aranei: Salticidae)

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КЛЮЧЕВЫЕ СЛОВА: пауки-скакунчики, Западная Сибирь, фаунистика.

ABSTRACT: New faunistic data on 51 salticid species from the Novosibirsk Area and adjacent regions of West Siberia are presented, of which 10 species are recorded there for the first time. The occurrence of *Salticus scenicus* (Clerck, 1758) and *Heliophanus cupreus* (Walckenaer, 1802) in southern West Siberia requires confirmation. All relevant localities are mapped.

РЕЗЮМЕ: Приведены новые фаунистические данные о 51 виде пауков-скакунчиков из Новосибирской области и прилегающих регионов Западной Сибири. 10 видов впервые отмечены для фауны региона. Находки *Salticus scenicus* и *Heliophanus cupreus* требуют подтверждения. Приведена карта местонахождений.

Introduction

The southern part of West Siberia can be designed as the territory lying between the longitudes 58°00'–50°00'E and the latitudes 63°00'–90°00' N, including the Novosibirsk Area and adjacent regions (see Map) where forest-steppe and steppe landscapes are dominant. Although Salticidae of Siberia have long been the subject of considerable interest, in the recent years, chiefly due to the works of Logunov, the salticid fauna of the study area can be said to remain virtually unknown. The existing literature records [e.g. Ermolajew, 1928, 1934; Volkov, 1987; Logunov et al., 1993; Logunov & Hęciak, 1996; etc.] only contain fragmentary data on the jumping spiders occurring in the region. Most salticid species have been collected and reported there from single/few specimens and/or a single/few localities. That is why it seems topical to reassess all data available on the salticids ever reported/ found in the area in question. By now, 51 species

have been studied, all listed below. Only the occurrence of *Salticus scenicus* (Clerck, 1758) and *Heliophanus cupreus* (Walckenaer, 1802) in southern West Siberia requires confirmation.

Material and methods

The work is based on available museum collections and new material taken in southern West Siberia, i.e. the Novosibirsk Area and adjacent areas (Map).

Specimens for this study were borrowed from or housed in the following museums: ISE — the Zoological Museum of the Institute for Systematics and Ecology of Animals, Novosibirsk, Russia; SL — the personal collection of Mr. S.V. Lukyantsev, Tomsk, Russia; ZMMU — the Zoological Museum of the Moscow State University, Moscow, Russia. ZMTU — the Zoological Museum of the Tomsk State University, Tomsk, Russia.

In most cases, the names of collectors are abbreviated as follows: Dr. V.V. Dubatolov (V.D.); Dr. D.V. Logunov (D.L.); Mr. O.V. Lyakhov (O.L.); Mr. S.Yu. Rakov (S.R); Mr. S.V. Lukyantsev (S.L.); Dr. V.P. Pekin (V.P); Mr. A.A. Legalov (A.L.); Dr. S.E. Chernyshov (S.Ch.).

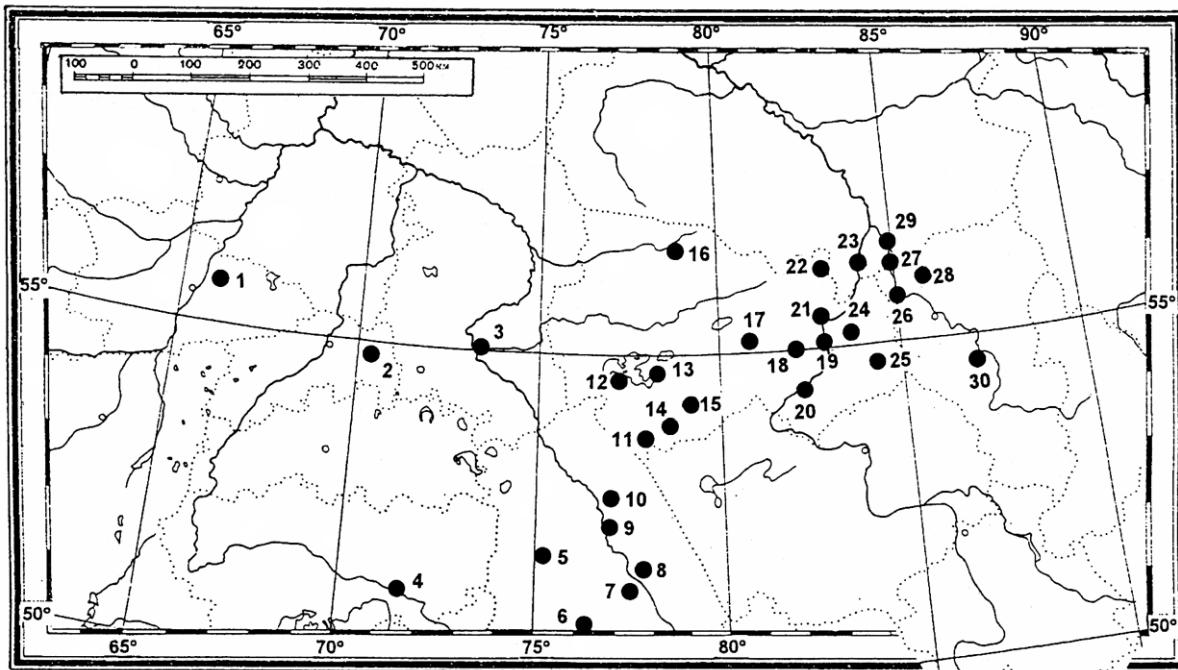
Distribution patterns are quoted after Logunov [1996].

Numbers in square brackets correspond to the locality numbers shown on the map. The following abbreviations are used in the text: s.d. — same district, s.lo. — same locality.

A survey of species

Aelurillus sp.

Material. KAZAKHSTAN: Pavlodar Area: 3 ♂♂ (ISE), 20 km S of Pavlodar [9], 15–17.06.1992, O.L.; 18 ♂♂, 27 ♀♀ (ISE), Ermakovskoye Distr., Lake Malyi Kalkaman, 40 km W of Pavlodar



Map. Localities of collected Salticidae from SW-Siberia: 1 — Mazurovo, 2 — Bolshaya Malyshka, 3 — Omsk, 4 — Akmola, 5 — Shchiderty, 6 — Babaly and Kyzyl-Tau, 7 — Elubay, Koykurym, Tundyk, Alkamergen and Zhamantuz, 8 — Shoktal and Montal, 9 — Pavlodar, Kyzyl-Zhar and Malii Kalkaman, 10 — Mikhailovka, 11 — Karasuk and Troitskoe, 12 — Chany, 13 — Shirokaya Kurya, 14 — Krasnozherka, 15 — Inder, 16 — Biaza, 17 — Sherstobitovo and Makaryevskii, 18 — Kochenevo, 19 — Novosibirsk, Kotorovo, Zherebtsovo, Chik, 20 — Verkhniy Irmensk and Ordynsk, 21 — Kolyvanskoe Plateau, 22 — Pikhtovka, 23 — Kireevsk, 24 — Gornyi, 25 — Lebedevo and Mirnyi, 26 — Tutalskie Rocks ($55^{\circ}45'N, 84^{\circ}45'E$), 27 — Alaevo, 28 — Lomachevka, 29 — Tomsk, 30 — Novokuznetsk.

Карта. Места сбора сальтицид с территории ЮЗ Сибири: 1 — Мазурово, 2 — Большая Малышка, 3 — Омск, 4 — Акмола, 5 — Щидерты, 6 — Бабалы и Кызыл-Тау, 7 — Елубай, Койкурым, Тундык, Алкамерген и Жамантуз, 8 — Шоктал и Мантал, 9 — Павлодар, Кызыл-Джар и Малый Калкаман, 10 — Михайловка, 11 — Карасук и Троицкое, 12 — Чаны, Широкая Курья, 14 — Краснозерка, 15 — Индер, 16 — Биаза, 17 — Шерстобитово и Макарьевский, 18 — Коченево, 19 — Новосибирск, Которово, Жеребцово, Чик, 20 — Верхний Ирмень и Ордынск, 21 — Колыванское плато, 22 — Пихтовка, 23 — Киреевск, 24 — Горный, 25 — Лебедево и Мирный, 26 — Тутальские скалы, 27 — Алаево, 28 — Ломачевка, 29 — Томск, 30 — Новокузнецк.

[9], steppe, 11.04—20.05.1990, O.L.; 1♀ (ISE), s.lo., 6.06.1994, O.L.; 4♀♀ (ISE), Ekibastuz Distr., 5 km SE of Shchiderty, valley of Shchiderty River [5], 1.05.1992, O.L.; 8♂♂, 2♀♀ (ISE), Mayskii Distr., 10 km W Elubay, E of Koykurym Lake [7], 19.08.1990, O.L.

Comparative material. *A. lutosus* (Tystshenko, 1965): 1♀ (holotype) (ZMMU), Kazakhstan, Akmola Area, Mt Kokshetau, 11.07.1957, V.P. Tystshenko.

NOTES: This species is definitely very close to *A. lutosus* (Tystshenko, 1965), while this material will be dealt with in due detail elsewhere.

Aelurillus m-nigrum Kulczyński, 1891

Material. KAZAKHSTAN: Pavlodar Area: 2♀♀ (ISE), Pavlodar Area, Ermakovskoye Distr., 40 km W of Pavlodar, Lake Malyi Kalkaman [7], steppe, 11.04.1990, O.L.; 2♂♂, 2♀♀ (ISE), Mayskii Distr., Tundyk River [7], stony steppe, 31.07.1990, O.L.; 2♂♂ (ISE), s.d., ca 40 km W of Elubay, Kokuyrym Lake [7], 19.07.1990, O.L.; 2♂♂ (ISE), s.d., S of Beystusky Kupol, steppe, 26.08.1990, O.L.; 2♂♂ (ISE), s.d., near Lake Koktas [7], 23.08.1990, O.L.

DISTRIBUTION: This is a South European-Siberian-Central Asian species distributed up to the Pavlodar Area (current data) in the north and to China (Xinjiang) [Hu & Wu, 1989] in the east. The above are the first records of the species in southern West Siberia.

Aelurillus v-insignitus (Clerck, 1758)

Material. KAZAKHSTAN: Pavlodar Area: 1♀ (ISE), Mayskii

Distr., near Lake Zhamantuz [7], steppe, 9.05.1990, O.L.; 1♀ (ISE), s.d., near Tundyk [7], stony steppe, 31.07.1990, O.L.; 1♂ (ISE), Ekibastuz Distr., near Shchiderty, valley of Shchiderty River [5], 1.05.1992, O.L. — RUSSIA: Novosibirsk Area: 1♂ (ZMTU), Karasuk Distr., Karasuk [11], 10.06.1990, V.P.; 1♂, 3♀♀ (ISE), s.d., 8 km W of Troitskoe [11], 06—07.1989, V.P.

DISTRIBUTION: This trans-Eurasian species is to be reported from southern West Siberia for the first time.

Asianellus festivus (C.L. Koch, 1834)

Material. RUSSIA: Novosibirsk Area: 1♀ (ISE), Ordynsk Distr., near Chik [20], 6.06.1994, A.L. — Kemerovo Area: 2♀♀ (ZMTU), 3 km E of Yurga, Tutalskie Rocks ($55^{\circ}45'N, 84^{\circ}45'E$) [26], 1—6.07.1997, S.R.

DISTRIBUTION: The species displays a trans-Eurasian pattern of distribution [Logunov & Hęciak, 1996]. Earlier, the species has been recorded in Tomsk [29] [Ermolajew, 1934] and the Novosibirsk Area (Lebedcovo [23]) [Logunov & Hęciak, 1996].

Asianellus kazakhstanicus Logunov & Hęciak, 1996

DISTRIBUTION: The species is only known from the steppe zone of West Siberia (Novosibirsk Area, Karasuk [11]) and N-Kazakhstan (Shchiderty [5]) [Logunov & Hęciak, 1996].

Bianor aurocinctus (Ohlert, 1865)

Material. RUSSIA: Novosibirsk Area: 1 ♂ (ISE), Severnoe Distr., 1.5 km S Biaza [16], 05–07.1989, V.P. — Tomsk Area: 1 ♀ (SL) Tomsk [29], 19.06.1997, S.L.

DISTRIBUTION: This is a trans-Eurasian species hitherto reported from the Tyumen Area: Yugansky Nature Reserve (75°00'N, 59°30'E) [Esyunin, 1996].

Chalcoscirtus brevicymbialis Wunderlich, 1980

Material. RUSSIA: Novosibirsk Area: 1 ♂, 1 ♀ (ISE), Karasuk Distr., W of Troitskoe [11], 06–07.1989, V.P.

DISTRIBUTION: A Euro-Siberian subboreal species [Logunov & Marusik, 1999].

Chalcoscirtus nigritus (Thorell, 1875)

Material. RUSSIA: Novosibirsk Area: 1 ♀ (ISE), Karasuk Distr., W of Troitskoe [11], 06–07.1989, V.P.

DISTRIBUTION: A Euro-Siberian-Central Asian distribution pattern, with the Novosibirsk Area representing the northernmost periphery of the species' range. This species is to be reported from southern West Siberia for the first time.

Chalcoscirtus tanasevichi Marusik, 1991

Material. KAZAKHSTAN: 1 ♀ (ISE), Pavlodar Area, Ermakovskoe Distr., ca 5 km N of Kyzyl-Zhar, Irtysh River Valley [9], summer 1992, O.L.

DISTRIBUTION: The species is known from Kirghizstan and S- and N-Kazakhstan [Marusik, 1991; Logunov, unpublished data].

Dendryphantes hastatus (Clerck, 1758)

Material. RUSSIA: Kemerovo Area: 1 ♂ (ZMTU), Izhmorskii Distr., Lomachevka [28], edge of swamp, 30.06.1986, V.R.; 1 ♂, 2 ♀♀ (SL) s.lo., 13.06.1991, S.L. — Tomsk Area: 1 ♂ (ZMTU), Tomsk, Anikino [29], mixed forest, 16.07.1996, S.R.

DISTRIBUTION: The species displays a Euro-Siberian pattern of distribution. In West Siberia, it has hitherto been reported from the Tyumen Area: Mazurovo [1] [Volkov, 1987] and the Yugansky Nature Reserve (75°00'N, 59°30'E) [Esyunin, 1996].

Dendryphantes rufus (Sundevall, 1832)

Material. KAZAKHSTAN: 2 ♂♂, 1 ♀ (ISE), Pavlodar Area, Bayanaul Distr., Mt. Kyzyl-Tau [6], 10–12.06.1991, O.L. — RUSSIA: Kurgan Area: 1 ♂ (ISE), Kurgan, valley of Tobol River, 20.05.1990, N. Utkin.

DISTRIBUTION: This Euro-Siberian species has hitherto been reported from W-Siberia: Tomsk [29] and Tobolsk [Ermolajew, 1934, 1937], as well as the Yugansky Nature Reserve (75°00'N, 59°30'E), Tyumen Area, [Esyunin, 1996].

Euophrys frontalis (Walckenaer, 1802)

Material. RUSSIA: Kemerovo Area: 1 ♂ (ZMTU), Izhmorskii Distr., Lomachevka, *Populus tremula* forest, 8.06.1992, V.R. — Novosibirsk Area: 1 ♂ (ISE), Salairskii Mt. Ridge, Toguchin Distr., Mirnyi, 06.1985, V. Bakurov. — Tomsk Area: 1 ♂ (ZMTU), Tomsk, near Anikino, mixed forest, 11.07.1994, S.R.

DISTRIBUTION: In West Siberia, this trans-Eurasian species has been reported from Novosibirsk [19] [Logunov et al., 1993].

Euophrys petrensis (C.L. Koch, 1837)

Material. RUSSIA: Tomsk Area: 1 ♀ (ISE), Tomsk, Anikino [29], mixed forest, 10.06.1994, S.R.

DISTRIBUTION: This Euro-Siberian-Central Asian species is to be reported from southern West Siberia for the first time.

Evarcha arcuata (Clerck, 1758)

Material. KAZAKHSTAN: Pavlodar Area: 1 ♀ (ISE), 20 km S of Pavlodar [9], 17.05.1992, O.L.; 9 ♂♂, 3 ♀♀ (ISE), near Pavlodar, Irtysh River Valley [9], 20.05.1994, O.L. — RUSSIA: Kemerovo Area: 10 ♂♂, 16 ♀♀ (ZMTU), Izhmorskii Distr., Lomachevka, [28], ?, V.R.; 1 ♂, 2 ♀♀ (SL) s.lo., 11.06.1991, S.L.; 2 ♂♂ (ZMTU), s.lo., 15–30.06.1986, V.R.; 3 ♂♂ (ZMMU), Yurga Distr., near Alaev [27], 8.06–19.07.1997, K.M. Komarov. — Novosibirsk Area: 1 ♂ (ISE), Karasuk Distr., W of Troitskoe [11], 06–07.1989, V.P.; 1 ♂ (ISE), Zdvinsk Distr., 5 km NE of Shirokaya Kurya [13], 05–06.1989, V.P.; 1 ♂, 1 ♀ (ISE), Barabinsk Distr., near Lake Chany [12], 5.08.1990, A.V. Barkalov; 5 ♂♂, 1 ♀ (ISE), Severnoe Distr., 1.5 km S of Biaza [16], 05–07.1989, V.P.; 1 ♂, 1 ♀ (ISE), near Novosibirsk [19], 5–24.05.1992, V.D.; 8 ♂♂, 3 ♀♀ (ISE), Chulymsk Distr., near Sherstobitovo [17], 9.08.1992, V.D.; 2 ♂♂ (ISE), Dovolenko Distr., Inder [15], 15.08.1992, A.V. Barkalov; 6 ♂♂, 2 ♀♀ (ISE), near Krasnozherka [14], 06.1989, A.A. Alekseev; 2 ♂♂ (ISE), Moshkovo Distr., Zherebtsovo [19], 7.07.1992, S.Ch. — Tomsk Area: 3 ♂♂, 3 ♀♀ (ZMTU) Tomsk Distr., Bogashovo, near Voronovo [29], meadow, summer 1990, S.R.; 1 ♀ (ZMTU), Tomsk, Anikino [29], 26.07.1994, S.R.; 1 ♂, 1 ♀ (ZMMU), Kozhevnikovo Distr., near Kireevsk [23], 1.08.1997, K.M. Komarov; 1 ♂ (SL), s.lo., 12.07.1994, S.L.

DISTRIBUTION: In West Siberia, this trans-Eurasian species has been recorded in Novokuznetsk [30] [Ermolajew, 1928, 1934; Kharitonov, 1932], Omsk [3] and Tobolsk [Spassky & Lavrov, 1928], Tomsk [29] [Ermolajew, 1934] and the Tyumen Area: Tobol River floodplain [Shlykov, 1978], Yarkovo Distr. [Shlykov, 1977], Yugansky Nature Reserve (75°00'N, 59°30'E) [Esyunin, 1996] and Tura Plain (border between the Ekaterinburg and Tyumen areas) [Shlykov, 1975].

Evarcha falcata (Clerck, 1758)

Material. KAZAKHSTAN: 8 ♂♂, 9 ♀♀ (ISE), N-Kazakhstan Area, Sokolovo Distr., Bolshaya Malyshka [2], 10.06.1986, DL; Pavlodar Area: 5 ♂♂, 1 ♀ (ISE), Zheleznovsk Distr., 15 km S of Mikhaliovka [10], 28.07.1990, O.L.; 1 ♂, 1 ♀ (ISE), Lebyazhye Distr., ca. 3 km N of Shoktal [8], 5.07.1990, O.L.; 1 ♂ (ISE), s.d., 3 km NW of Montal [8], 5.07.1990, O.L. — RUSSIA: Kemerovo Area: 3 ♂♂, 1 ♀ (ZMTU), 3 km E of Yurga, Tutalskie Rocks (55°45'N, 84°45'E) [26], 1–6.07.1997, S.R.; 1 ♂ (ZMMU), Yurga Distr., near Alaev [29], 19.08.1995, S.R.; 7 ♂♂, 2 ♀♀ (ZMTU), s.lo., mixed forest, 30.08.1994, S.R.; 9 ♂♂, 12 ♀♀ (ZMTU), Izhmorskii Distr., Lomachevka [28], summer 1986–1996, V.R.; 24 ♂♂, 3 ♀♀ (ZMTU), s.lo., 15–30.06.1986, V.R. — Novosibirsk Area: 11 ♂♂, 2 ♀♀ (ISE), Severnoe Distr., 1.5 km S of Biaza [16], 05–07.1989, V.P.; 4 ♂♂, 3 ♀♀ (ISE), near Novosibirsk [19], 5–24.05.1992, V.D.; 10 ♂♂, 5 ♀♀ (ISE), Chulymsk Distr., near Sherstobitovo [17], 9.08.1992, V.D.; 1 ♀ (ISE), Ordynsk Distr., near Chik [20], 6.06.1994, A.L.; 2 ♂♂ (ISE), Moshkovo Distr., Zherebtsovo [19], 7.07.1992, S.Ch. — Omsk Area: 1 ♂ (ISE), near Omsk [3], 11–13.04.1992, A. Barkalov. — Tomsk Area: 1 ♂ (ZMTU) Tomsk Distr., environs of Bogashovo, near Voronovo [29], meadow, summer 1991, S.R.; 1 ♂ (ZMTU), same distr., near Kalarovo [29], 11.07.1997, K.M. Komarov; 1 ♂, 5 ♀♀ (ZMTU),

4 ♂♂, 4 ♀♀ (ZMMU), Tomsk, Anikino [29], mixed forest, 27.05–24.07.1994, S.R.; 4 ♂♂, 15 ♀♀ (ZMTU), 5 ♂♂, 2 ♀♀ (ZMMU), s.lo., 23.05–26.08.1995, S.R.; 6 ♂♂ (ZMMU), s.lo., 16.07.1996, S.R.; 2 ♂♂, 1 ♀ (ZMTU), s.lo., 8.06.1997, S.R. & A. Chemeris; 1 ♀ (ZMMU), s.lo., 21.08.1997, S.R.; 1 ♂, 1 ♀ (SL), Tomsk Distr., Timeryazevo [29], 31.08.1997, S.L.

DISTRIBUTION: In southern West Siberia, this Euro-Siberian species [Rakov, 1997] has been reported from Omsk [3] [Spassky & Lavrov, 1928], Tomsk [29] [Ermolajew, 1934] and the Tyumen Area: Tobol River floodplain [Shlykov, 1978: sub *E. flammata*], between Tobolsk and Obdorsk (Salekhard) [Bergroth, 1881: sub *Hasarius falcatus*], Mazurovo [1] [Volkov, 1987: sub *E. flammata*], the Tura Plain (border between Ekaterinburg and Tyumen areas) [Shlykov, 1975], the Yugansky Nature Reserve (75°00'N, 59°30'E) [Esyunin, 1996], and E-Kazakhstan (Pavlodar [9]) [Rakov, 1997].

Evarcha laetabunda (C.L. Koch, 1846)

Material. RUSSIA: Kemerovo Area: 1 ♀ (ZMTU), Izhmorskii Distr., Lomachevka [28], summer 1986–1996, V.R. — Novosibirsk Area: 1 ♂ (ISE), Karasuk Distr., 8 km W of Troitskoe [11], 06–07.1989, V.P.; 1 ♀ (ISE), Zdvinskii Distr., 5 km NE from Shirokaya Kurya [13], 05–06.1989, V.P.; 1 ♂ (ISE), Moshkovo Distr., Zherebtsovo [19], 7.07.1992, S.Ch.

DISTRIBUTION: In West Siberia, this amphi-Eurasian species has been reported from the Novosibirsk Area (Krasnozerka [14]) [Logunov, 1992], the Tyumen Area: Mazurovo [1] [Volkov, 1987], Tobol River floodplain [Shlykov, 1978], the Tura Plain (border between the Ekaterinburg and Tyumen areas) [Shlykov, 1975], and N-Kazakhstan: Kokchetav Area, Borovoe, [Spassky & Lavrov, 1928]. It seems very likely that some of Volkov's [1987] and Shlykov's [1975, 1978] records could actually belong to *Evarcha michailovi* (see just below).

Evarcha michailovi Logunov, 1992

Material. KAZAKHSTAN: 38 ♂♂, 18 ♀♀ (ISE), environs of Pavlodar, Irtysh River Valley [9], 20.05.1994, O.L. — RUSSIA: Novosibirsk Area: 1 ♂, 1 ♀ (ISE), Karasuk Distr., 8 km W of Troitskoe [11], 06–07.1989, V.P.; 1 ♀ (ISE), Zdvinsk Distr., 5 km NE from Shirokaya Kurya [13], 05–06.1989, V.P.; 2 ♀♀ (ISE), Kochenevo Distr., near Kochenevo [18], 4.06.1994, A.L.; 1 ♂, 3 ♀♀ (ISE), Iskitim Distr., Salairskii Mt. Range, Gornyi [24], 30.07.1993, A.L.; 1 ♀ (ISE), Ordynsk Distr., near Verkhnii Irmen [19], 18.06.1994, A.L.; 1 ♀ (ISE), s.d., near Ordynsk [19], 18.06.1994, A.L.

DISTRIBUTION: In West Siberia, this Euro-Siberian species has hitherto been reported from the Novosibirsk Area (Krasnozerka [14]) [Logunov, 1992].

Heliophanus auratus C.L. Koch, 1835

Material. RUSSIA: Kemerovo Area: 1 ♂ (ZMTU), Izhmorskii Distr., Lomachevka [28], 23.07.1991, V.R.; 1 ♀ (ZMTU), s.lo., 8.08.1993, V.R.; 1 ♀ (ZMTU), s.lo., 28.08.1985, V.R.; 2 ♂♂, 2 ♀♀ (ZMTU), s.lo., summer 1986–1996, V.R.; 1 ♂ (ZMTU), Yurga Distr., 3 km E of Yurga, Tultalskie Rocks (55°45'N, 84°45'E) [26], 1–6.07.1997, S.R. — Novosibirsk Area: 1 ♀ (ZMTU), no exact locality, V.P.; 1 ♂ (ZMTU), Dovolenskoe Distr., Inder [15], 15.08.1992, A.V. Barkalov; 1 ♂ (ISE), Karasuk Distr., 8 km W of Troitskoe [11], 06–07.1989, V.P.; 1 ♂ (ISE), near Novosibirsk [19], 5–24.05.1992, V.D.; 1 ♀ (ISE), near Kochenevo [18], 4.06.1994, A.L.; 1 ♀ (ISE), Kolyvan Distr., Kolyvanskoe Plateau [21], 21.VI.1994, A.L.; 7 ♂♂, 2 ♀♀ (ISE), Krasnozerka [14], 06.1989, A.A. Alekseev. — Tomsk Area: 1 ♂ (ZMTU), Tomsk [29], 14.06.1994, S.R.; 1 ♀ (SL) s.lo., 18.06.1993, S.L.; 1 ♂ (ZMTU), Tomsk Distr., near Kalarovo [29], 11.07.1997, K.M. Komarov.

DISTRIBUTION: In West Siberia, this trans-Eurasian species has earlier been reported from the Tyumen Area: Mazurovo [1] [Volkov, 1987], Tobol River floodplain [Shlykov, 1978] and the Tura Plain (border between the Ekaterinburg and Tyumen areas) [Shlykov, 1975] as well as from Omsk [3] [Spassky & Lavrov, 1928], Tobolsk [Ermolajew, 1937, Spassky & Lavrov, 1928] and N-Kazakhstan (Pavlodar [9], Lake Koktas [7], Akmola [4]) [Rakov & Logunov, 1996] and the Kokchetav Area, Borovoe [Spassky & Lavrov, 1928].

Heliophanus cupreus (Walckenaer, 1802)

DISTRIBUTION: This Euro-Caucasian species [cf. Rakov & Logunov, 1996] has been reported from the Tura Plain (border between the Ekaterinburg and Tyumen areas) [Shlykov, 1975]. However, the occurrence of *H. cupreus* in southern West Siberia requires confirmation.

Heliophanus curvidens (O. P.-Cambridge, 1872)

DISTRIBUTION: This E-Mediterranean-Central Asian species has earlier been reported from the Pavlodar Area (Tundyk [7]) [Rakov & Logunov, 1996], the northernmost periphery of the species' range.

Heliophanus dampfi Schenkel, 1923

Material. RUSSIA: Kemerovo Area: 1 ♂, 2 ♀♀ (ZMTU), Izhmorskii Distr., Lomachevka [28], summer 1986–1996, V.R.; 6 ♀♀ (ZMTU), s.lo., summer 1986–1996, V.R.; 1 ♀ (ZMTU), s.lo., swamp, 10.07.1993, V.R.

DISTRIBUTION: In the region concerned, this Euro-Siberian boreal species has hitherto been reported from the Tyumen Area: Yugansky Nature Reserve (75°00'N, 59°30'E), males only. Wesołowska & Marusik [1990] noted that, since the males of *H. dampfi* are indistinguishable from those of *H. camtschadalicus* Kulczyński, 1885, the males they reported could prove to belong to either or even both of the species. However, we have found samples of both sexes of *H. dampfi*, hence this species only is believed to actually occur in southern West Siberia.

Heliophanus dubius (C.L. Koch, 1831)

Material. RUSSIA: Kemerovo Area: 1 ♀ (ZMTU), Izhmorskii Distr., Lomachevka [28], 8.08.1993, V.R. — Tomsk Area: 1 ♂, 1 ♀ (ZMTU), Tomsk, near Anikino [29], mixed forest, 23.05.1995, S.R.; 1 ♀ (ZMTU) s.lo., *Pinus* young trees, 20.05.1994, S.R.; 1 ♂, 1 ♀ (SL), Tomsk [29], 13.09.89. S.L.; 1 ♂ (ZMTU) Tomsk Distr., Bogashovo, near Voronovo [29], meadow, summer 1991, S.R.

DISTRIBUTION: In West Siberia, this trans-Eurasian temperate species has been recorded in Tomsk [29] [Ermolajew, 1934], between Tobolsk and Obdorsk (Salekhard) [Bergroth, 1881], the Tyumen Area: Yugansky Nature Reserve (75°00'N, 59°30'E) [Esyunin, 1996], and N-Kazakhstan (Pavlodar [9], Bolshaya Malyshka [2]) [Rakov & Logunov, 1996].

Heliophanus flavipes (Hahn, 1832)

Material. RUSSIA: Kemerovo Area: 1 ♂ (ZMTU), 3 km E of Yurga, Tultalskie Rocks (55°45' N, 84°45' E) [26], 1–6.07.1997, S.R. — Novosibirsk Area: 1 ♀ (ISE), Zdvinsk Distr., 5 km NE from Shirokaya Kurya [13], 05–06.1989, V.P.; 2 ♀♀ (ISE), Karasuk Distr., 8 km W Troitskoe [11], 06–07.1989, V.P.; 1 ♂, 3 ♀♀ (ISE),

Kochenevo Distr., near Kochenevo [18], 4.06.1994, A.L.; 1♂ (ISE), Kolyvan Distr., Kolyvanskoe Plateau [21, ?; 2♂♂, 3♀♀ (ISE), Iskitim Distr., Salairskii Mt. Range, Gornyi [24], 30.07.1993, A.L.; 2♀♀ (ISE), Ordynsk Distr., near Chik [20], 6.06.1994, A.L.

DISTRIBUTION: In West Siberia, this trans-Eurasian temperate species has earlier been reported from Tomsk [29] [Ermolajew, 1934], Omsk [3] [Spassky & Lavrov, 1928], Novokuznetsk [30] [Ermolajew, 1928], Tobolsk [Ermolajew & Samko, 1929; sub *H. varians*], the Tyumen Area: Tobol River floodplain [Shlykov, 1978], the Tura Plain (border between the Ekaterinburg and Tyumen areas) [Shlykov, 1975], and N-Kazakhstan (Ak-mola [4], Pavlodar [9], Shchiderty [5]) [Rakov & Logunov, 1996].

Heliophanus melinus L. Koch, 1867

DISTRIBUTION: Novosibirsk Area, Kulunda [Litvinchuk, 1980]. The records of this species in West Siberia as well as in Central Asia [see Rakov & Logunov, 1997] seem to belong either to *H. patagiatus* or *H. dubius*.

Heliophanus patagiatus Thorell, 1875

Material. RUSSIA: Kemerovo Area: 1♂ (ZMTU), 3 km E of Yurga, Tatarskie Rocks (55°45'N, 84°45'E) [26], 1–6.07.1997, S.R.

DISTRIBUTION: In the study region, this trans-Eurasian temperate species has earlier been reported from N-Kazakhstan (Pavlodar [9], Shchiderty [5]), [Rakov & Logunov, 1996].

Heliophanus ussuricus Logunov & Marusik, 1994

DISTRIBUTION: In West Siberia, this Siberian subboreal species has only been recorded so far in the Novosibirsk Area: Mt. "Bugotaksky Sopki" [19] [Logunov & Marusik, 1994].

Marpissa pomatia (Walckenaer, 1802)

Material. RUSSIA: Kemerovo Area: 1♂, 8♀♀ (ZMTU), Izhmorskii Distr., Lomachevka [28], 30.07.1990, V.R.; 1♂ (ZMTU), s.lo., 15–30.06.1986, V.R.; 4♂♂ (ZMTU), s.lo., summer 1986–1996, V.R. — Novosibirsk Area: 9♂♂, 9♀♀ (ISE), Severnoe Distr., 1.5 km S Biazza [16], 05–07.1989, V.P. 5♂♂ (ISE), Chulymsk Distr., near Sherstobitovo [17], 9.08.1992, V.D.; 1♂ (ISE), near Novosibirsk [19], 5–24.05.1992, V.D.; 2♂♂ (ISE), Dovolen-skoe Distr., Inder [15], 15.08.1992, A.V. Barkalov; 6♂♂, 3♀♀ (ISE), Toguchin Distr., Lebedevo [23], ca. 200–300 m a.s.l., 22–25.07.1992, D.L.; 1♀ (ISE), Krasnozerka Distr., Krasnozerka [14], 06.1989, A.A. Alekseev. — Tomsk Area: 1♀ (SL) Tomsk [29], 27.08.1992, S.L.; 1♂ (ZMTU), s.lo., 05.08.1995, S.R.; 1♂ (ZMTU), environs of Tomsk, Tom River Valley [29], 6.06.1997, S.R. & A. Chemeris; 1♂, 1♀ (ZMTU), Tomsk, near Anikino [29], mixed forest, 4.06–18.07.1994, S.R.; 1♀ (ZMTU), s.lo., 23.05.1995, S.R.; 1♂ (ZMTU), Tomsk Distr., Bogashovo, near Voronovo [29], dry meadow, summer 1991, S.R.

DISTRIBUTION: In West Siberia, this trans-Eurasian species has hitherto been reported from Tomsk [29] [Ermolajew, 1934], the Tyumen Area: Yugansky Nature Reserve (75°00'N, 59°30'E) [Esyunin, 1996], and N-Kazakhstan: Kokchetav Area, Borovoe [Spassky & Lavrov, 1928].

Marpissa radiata (Grube, 1859)

Material. RUSSIA: Novosibirsk Area: 1♀ (ISE), Karasuk Distr., 8 km W of Troitskoe [11], 06–07.1989, V.P.; 1♂, 1♀ (ISE),

Severnoe Distr., 1.5 km S Biazza [16], 05–07.1989, V.P.; 1♂ (ISE), Zdvinsk Distr., 5 km NE from Shirokaya Kurya [13], 05–06.1989, V.P.; 1♂, 1♀ (ISE), Chulymsk Distr., near Sherstobitovo [17], 9.08.1992, V.D.; 1♀ (ISE), Kolyvan Distr., Pikhtovka [22], 07.1989, B.P. Zakharov; 3♂♂ (ISE), Kargat Distr., 15 km NE Verkhnnii Kargat, Makaryevskii [17], 26.08.1987, D.L.

DISTRIBUTION: In West Siberia, this trans-Eurasian species has been reported from the Kemerovo Area: Novokuznetsk [30] [Ermolajew, 1928; Kharitonov, 1932] and from Tobolsk, Tyumen Area [Ermolajew, 1937].

Neon rayi (Simon, 1875)

Material. RUSSIA: Kemerovo Area: 1♂ (ZMTU), 3 km E of Yurga, Tatarskie Rocks (55°45'N, 84°45'E) [26], 1–6.07.1997, S.R.

DISTRIBUTION: This Euro-Siberian species is to be found in Siberia for the first time. It has hitherto been recorded in Europe only [Prószyński, 1990].

Neon reticulatus (Blackwall, 1852)

DISTRIBUTION: This trans-Eurasian species has hitherto been reported from the Tyumen Area (Mazurovo [1]) [Volkov, 1987] and Yugansky Nature Reserve (75°00'N, 59°30'E) [Esyunin, 1996].

Pellenes albopilosus (Tystshenko, 1965)

DISTRIBUTION: The species is restricted to the steppe zone of West Siberia, earlier reported from the Novosibirsk Area (Karasuk [11]) by Mikhailov [1996, 1997: sub *Evarcha a.*]. Logunov et al. [1998] have transferred it to the genus *Pellenes* Simon, 1876.

Pellenes pulcher Logunov, 1995

DISTRIBUTION: At present, this species has only been recorded in Tuva, Siberia and the Pavlodar Area (Lake Koykurym [7]), Kazakhstan [Logunov, 1995].

Pellenes sibiricus Logunov & Marusik, 1994

Material. RUSSIA: Novosibirsk Area: 1♂ (ISE), Karasuk Distr., 8 km W of Troitskoe [11], 06–07.1989, V.P.

DISTRIBUTION: In West Siberia, this Siberian temperate species has been reported from N-Kazakhstan [Logunov & Marusik, 1994].

Pellenes epularis (O. P.-Cambridge, 1872)

DISTRIBUTION: In West Siberia, this Mediterranean-Central Asian species has been reported from the environs of Pavlodar [9] [Logunov et al., 1999].

Phlegra fasciata (Hahn, 1826)

Material. KAZAKHSTAN: 1♂ (ZMMU), N-Kazakhstan Area, Sokolovo Distr., Bolshaya Malysheka [2], 12–18.06.1986, D.L. — RUSSIA: Novosibirsk Area: 1♀ (ISE), Iskitim Distr., Salairskii Mt. Range, Gornyi [24], ca. 320 m a.s.l., 22.06.1994, A.L.

DISTRIBUTION: In West Siberia, this Holarctic temperate species has earlier been reported from Tobolsk [Ermolajew & Samko, 1929; Ermolajew, 1937].

Phlegra fuscipes Kulczyński in Chyzer & Kulczyński, 1891

DISTRIBUTION: In West Siberia, this Siberian

subboreal species has hitherto been reported from the Pavlodar Area (Babaly [6]) [Logunov, 1997].

Phlegra profuga Logunov, 1997

DISTRIBUTION: The species displays a Kazakhstan-West Mongolian subboreal distribution pattern. In West Siberia, it has hitherto been reported from the Pavlodar Area (Tundyk [7]) [Logunov, 1997].

Pseudeuophrys erratica (Walckenaer, 1826)

Material. RUSSIA: Kemerovo Area: 1 ♂ (ZMTU), Izhmorskii Distr., Lomachevka [28], 06.1992, V.R.; 1 ♂ (ZMTU), s.lo., 3.06.1995, V.R. — Tomsk Area: 3 ♂♂, 1 ♀ (ZMTU) Tomsk Distr., Anikino [29], mixed forest, 4–10.06.1994, S.R.; 1 ♂ (ZMTU), s.lo., 11.07.1994, S.R.; 1 ♂ (ZMTU), Kozhevnikovo Distr., Kireevsk [23], 20–28.07.1996, S.R.

DISTRIBUTION: In the study region, this Holarctic species has been reported from the Novosibirsk Area: Koltshovo and Kotorovo [19] [Logunov et al., 1993: sub *Euophrys e.*], and the Tyumen Area: Yugansky Nature Reserve (75°00'N, 59°30'E) [Esyunin, 1996].

Pseudeuophrys obsoleta (Simon, 1868)

DISTRIBUTION: In West Siberia, this Euro-Siberian-Central Asian species has been reported from N-Kazakhstan (Pavlodar [9]) [Logunov et al., 1993: sub *Euophrys o.*].

Salticus cingulatus (Panzer, 1797)

Material. RUSSIA: 1 ♂ (ISE), Novosibirsk [19], 24.05.1992, V.D.

DISTRIBUTION: In West Siberia, this trans-Eurasian temperate species has earlier been reported from Tomsk [29] [Ermolajew, 1934], Omsk [3] [Spassky, Lavrov], Tobolsk [Ermolajew, 1937], between Tobolsk and Obdorsk (Salekhard) [Bergrøth, 1881; sub *Calliethera cingulata*], and the Tyumen Area: Yugansky Nature Reserve (75°00'N, 59°30'E) [Esyunin, 1996].

Salticus scenicus (Clerck, 1758)

DISTRIBUTION: In the region in question, this Holarctic circum-temperate species has been reported from the Sygry River Valley [Simon, 1891: sub *Calliethera scenica*; Kharitonov, 1932] and the Tyumen Area: Tobol River floodplain [Shlykov, 1978]. The occurrence of *S. scenicus* in southern West Siberia requires confirmation.

Sitticus caricis (Westring, 1861)

DISTRIBUTION: In the study region, this amph-Eurasian species [Logunov & Kronestedt, 1997] has hitherto been recorded in the Tyumen Area: Yugansky Nature Reserve (75°00'N, 59°30'E) [Esyunin, 1996].

Sitticus distinguendus (Simon, 1868)

Material. RUSSIA: Kemerovo Area: 2 ♂♂, 3 ♀♀ (ZMTU), 3 km E of Yurga Town, Tultalskie Rocks (55°45' N, 84°45' E) [26], 1–6.07.1997, S.R. — Tomsk Area: 1 ♂ (SL) Tomsk [29], 30.07.1994, S.L.

DISTRIBUTION: This species displays a Euro-Baikalian temperate distribution pattern [Logunov, 1996].

Sitticus dzieduszyckii (L. Koch, 1870)

Material. RUSSIA: Tomsk Area: 2 ♂♂ (ISE), 2 ♂♂, 1 ♀ (ZMTU), Kozhevnikovo Distr., Kireevsk [23], Ob River bank, sandy slope, 20–28.07.1996, S.R.; 1 ♂, 1 ♀ (ZMTU), s.lo., 20.07.1997, S.R.; 1 ♂ (ZMMU), Tomsk [29], Tom River bank, on stones, 6.06.1997, S.R.; 1 ♀ (SL), Tomsk [29], 19.06.1997, S.L.

DISTRIBUTION: The species displays a Euro-Siberian temperate pattern, with the Tomsk Area probably representing the easternmost periphery of its distribution. This species is to be reported from southern West Siberia for the first time.

HABITAT: Stony and sandy slopes of riversides.

Sitticus floricola (C.L. Koch, 1837)

Material. RUSSIA: Kemerovo Area: 1 ♂ (ZMTU), Izhmorskii Distr., Lomachevka [28], 15.06.1991, V.R.; 1 ♀ (ZMMU), Novokuznetsk Distr., ca. 37 km S of Belogorsk, Kiya River Valley, Mt. Chemodan, 16.07.1990, N.V. Demidenko. — Novosibirsk Area: 1 ♂, 1 ♀ (ISE), 1 ♂ (ZMTU), Chulymsk Distr., Sherstobitovo [17], 9.08.1992, A. Barkalov. — Tomsk Area: 1 ♀ (SL), Kozhevnikovo Distr., Kireevsk [29], Biological Station, 13.07.1994, S.L.; 2 ♀♀ (SL), Vasyugan, Olenye, 6.08.1993, S.L.

DISTRIBUTION: In West Siberia, this Holarctic species has hitherto been reported from Novokuznetsk [30], Kemerovo Area [Ermolajew, 1928, 1934; Kharitonov, 1932] and the Yugansky Nature Reserve (75°00'N, 59°30'E), Tyumen Area [Esyunin, 1996].

Sitticus inexpectus Logunov & Kronestedt, 1997

DISTRIBUTION: In the region in question, this Euro-Siberian-Central Asian species has been reported from Novosibirsk [19] [Danilov & Logunov, 1994: sub *S. rupicola*; Logunov & Kronestedt, 1997] and Lake Chany [12] [Logunov & Kronestedt, 1997].

Sitticus saltator (Simon, 1868)

DISTRIBUTION: In West Siberia, this Euro-Siberian species has been reported so far from the Novosibirsk Area (Karasuk [11]) [Logunov & Wesołowska, 1995].

Sitticus terebratus (Clerck, 1758)

Material. RUSSIA: Kemerovo Area: 1 ♂ (ZMTU), Yurga Distr., Alaev [27], 10.08.1995, S.R.; 1 ♂, 1 ♀ (ZMTU), Izhmorskii Distr., Lomachevka [28], 6.08.1993, V.R.; 3 ♂♂ (ZMTU), s.lo., summer 1986–1996, V.R. — Tomsk Area: 1 ♂, 1 ♀, (ZMTU), Tomsk [29], 8.08.1997, V.A. Strekozov, 1 ♂ (ZMMU), s.lo., inside building, 8.09.1998, S.R.

DISTRIBUTION: In West Siberia, this Euro-Siberian boreal species has earlier been reported from Tomsk [29] [Ermolajew, 1934].

Synageles hilarulus (C.L. Koch, 1846)

Material. RUSSIA: Kemerovo Area: 1 ♂ (ZMTU), Izhmorskii Distr., Lomachevka [28], 15–30.06.1986, V.R.

DISTRIBUTION: In West Siberia, this trans-Eurasian subboreal species has been reported from Pavlodar (Lake Malyi Kalkaman [9]) [Logunov & Rakov, 1997].

Synageles venator (Lucas, 1836)

Material. RUSSIA: Kemerovo Area: 2 ♂♂, 4 ♀♀ (ZMTU), Izhmorskii Distr., Lomachevka [28], summer 1986–1996, V.R. — Novosibirsk Area: 1 ♀ (ISE), Severnoe Distr., 1.5 km S of Biaza [16], 05–07.1989, V.P.; 1 ♂ (ISE), Moshkovo Distr., Zherebtsovo [19], 7.07.1992, S.Ch.

DISTRIBUTION: This trans-Eurasian species displays a patchy distribution pattern in Central Asia. In southern West Siberia, it has hitherto been reported from the Novosibirsk Area: Kolyvan [21] [Logunov & Rakov, 1997].

Talavera thorelli (Kulczyński, 1891)

Material. Tomsk Area: 1 ♀ (ISE), Tomsk, Anikino [29], mixed forest, 4–10.06.1994, S.R.

DISTRIBUTION: A Euro-Siberian species.

NOTE: The above specimen will be treated in due detail in a forthcoming revision of *Talavera* Peckham & Peckham, 1909.

Yllenus sp.

Material. KAZAKHSTAN: Pavlodar Area: 1 ♀ (ISE), Mayskii Distr., S shore of Lake Alkamergen [7], 7.05.1990, O.L.; 1 ♂, 1 ♀ (ISE), Ermakovskoe Distr., Lake Malyi Kalmakan [9], steppe, 2.05.1990, O.L.

DISTRIBUTION: The species seems particularly close to *Y. hamifer* Simon, 1895 and will be treated elsewhere.

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References

- Bergroth E. 1881. [Captures d'Aranéides en Sibérie] // Ann. Soc. ent. Belg. T.25. C.R. P.X.
- Ermolajew W. 1928. Materialen zur Spinnenfauna Westsibiriens I–II // Arch. Naturg. Bd.92A (1926). H.7. S.97–111.
- Ermolajew W. 1934. Ditto. III. Die Spinnen der Stadt Tomsk // Folia zool. hydrobiol. Vol.7. Pt.1. P.130–147.
- Ermolajew V.N., Samko K.P. 1929. [Addition to the spider list of the town of Tobolsk] // Byull. Obshch. izuch. kraya pri Muzee Tobolskogo Severa. No.1–2. P.37–39 [in Russian].
- Esyunin S.O. 1996. [The spider fauna of the Yugansky Nature Reserve] // Ekosistemy srednego Priobya. Ekaterinburg. P.67–79 [in Russian].
- Hu J.L., Wu W.G. 1989. Spiders from agricultural regions of Xinjiang, Uygur Autonomous Region, China (Arachnida, Aranei). Shandong: Univ. Publ. House. 435 pp.
- Kharitonov D.E. 1932. Katalog der russischen Spinnen. Lenigrad: AN SSSR. Publ. 206 S.
- Logunov D.V. 1992. The spider family Salticidae from Tuva. II. Annotated check-list of species // Arthropoda Selecta. Vol.1. No.2. P.47–71.
- Logunov D.V. 1995. New and little known species of the jumping spiders from Central Asia (Araneae: Salticidae) // Zoosystematica rossica. Vol.3. No.2. P.237–246.
- Logunov D.V. 1996. A review of the genus *Phlegra* Simon, 1876 in the fauna of Russia and adjacent countries (Araneae: Salticidae: Aelurilinae) // Genus. Vol.7. No.3. P.533–567.
- Logunov D.V., Cutler B., Marusik Yu.M. 1993. A review of the genus *Euophrys* C.L. Koch in Siberia and the Russian Far East (Araneae: Salticidae) // Ann. Zool. Fennici. Vol.30. P.101–124.
- Logunov D.V., Marusik Yu.M. 1994. New data on the jumping spiders of the Palearctic fauna (Aranei: Salticidae) // Arthropoda Selecta. Vol.3. No.1–2. P.101–105.
- Logunov D.V., Wesolowska W. 1995. New data on some poorly known Palaearctic species of *Sitticus* (Araneae: Salticidae) // Genus. Vol.6. No.2. P.163–175.
- Logunov D.V., Hęciak S. 1996. *Asianellus*, a new genus of the subfamily Aelurillinae (Araneae: Salticidae) // Ent. scand. Vol.26. P.103–117.
- Logunov D.V., Kronestedt T. 1997. A new Palearctic species of the genus *Sitticus* Simon, with notes on related species in the *floricola* group (Aranea, Salticidae) // Bull. Br. arachnol. Soc. Vol.10. Pt.7. P.225–233.
- Logunov D.V., Rakov S.Yu. 1996. A review of the spider genus *Synageles* Simon, 1876 (Araneae, Salticidae) in the fauna of Central Asia // Bull. Inst. R. Sci. Nat. Belg. Entomol. Vol.66. No.1. P.65–74.
- Logunov D.V. & Marusik Yu.M. 1999. A brief review of the genus *Chalcoscirtus* Bertkau, 1880 in the fauna of Central Asia and the Caucasus (Aranei, Salticidae) // Arthropoda Selecta. Vol.7 (for 1998). No.3. P.205–226.
- Logunov D.V., Marusik Yu.M., Rakov S.Yu. 1999. A review of the genus *Pellenes* in the fauna of Central Asia and the Caucasus (Araneae, Salticidae) // J. Nat. Hist. Vol.33. P.89–148.
- Marusik Yu.M. 1991. [The spider genus *Chalcoscirtus* (Aranei, Salticidae) from the USSR. Communication 2] // Zool. zhurnal. T.70. No.1. P.19–31 [in Russian, with English summary]
- Mikhailov K.G. 1996. A checklist of the spiders of Russia and other territories of the former USSR // Arthropoda Selecta. Vol.5. No.1–2. P.75–137.
- Mikhailov K.G. 1997. Catalogue of the spiders of the territory of the former Soviet Union (Arachnida, Aranei) // Trudy Zool. muz. MGU. Vol.37. 416 pp.
- Prószyński J. 1990. Catalogue of Salticidae (Araneae). Siedlce: WSRP. 366 pp.
- Rakov S.Yu., Logunov D.V. 1996. A critical review of the genus *Heliophanus* C.L. Koch, 1833 from Middle Asia and the Caucasus (Araneae, Salticidae) // Arthropoda Selecta. Vol.4. Nos 3–4. P.67–104.
- Rakov S.Yu. 1997. Review of the genus *Evarha* Simon, 1902 in Middle Asia (Aranei: Salticidae) // Ibid. Vol.5. Nos 1–2. P.105–112.
- Shlykov N.B. 1975. [Biogeographical characteristics of spiders of the Tura Plain] // Nauchnye trudy Tyumen. univ. Vol.16. P.46–52 [in Russian].
- Shlykov N.B. 1978. [Araneological characteristics of three biotopes in the Tobol River floodplain] // Ekologiya zhivotnykh i faunistika. Tyumen: Tyumen univ. P.41–46 [in Russian].
- Simon E. 1891. Liste des Arachnides recueillis par Rabot dans la Sibérie occidentale en 1890 // Bull. Soc. zool. Fr. T.16. P.107–109.
- Spassky S.A., Lavrov S.D. 1928. [Materials to the spider fauna of Western Siberia] // Trudy Sibirs. inst. selskogo khoz. i lesovedstva. Omsk. Vol.10. No.2. P.203–213 [in Russian, with French summary].
- Volkov A.E. 1987. [To the problem of the knowledge of spiders of the subzone of southern taiga in Tyumen Area] // Ekologiya i gheografiya chlenistonogikh Sibiri. VI soveshch. entomologov Sibiri. Novosibirsk: Nauka. P.38–39 [in Russian].
- Wesolowska W., Marusik Yu.M. 1990. Notes on *Heliophanus camtschadalicus* Kulczynski, 1885 (Aranei, Salticidae) and the related species // Korean Arachnology. Vol.6. No.1. P.91–100.