

## Remarks on the Ural spider fauna, 10. New records of spider species (Aranei)

### Заметки по фауне пауков Урала, 10. Новые находки пауков (Aranei)

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**КЛЮЧЕВЫЕ СЛОВА:** пауки, фауна, фаунистика, Урал.

**ABSTRACT.** A check-list and new records of 67 spider species from the Urals are given. As many as 13 species are recorded in Russia for the first time, 27 spider species are new to the Ural fauna. The female of *Pardosa jeniseica* Eskov et Marusik, 1995 is described for the first time. The records of *Pellenes nigrociliatus* (Simon in L. Koch, 1875), *Walckenaeria acuminata* Blackwall, 1833, *Xysticus ukrainicus* Utotschkin, 1968 and *Entelecara media* Kulczyński, 1887 from the Urals are erroneous, with some misidentifications in the previously published lists of Ural spiders corrected.

**РЕЗЮМЕ.** Приведен список новых находок 67 видов пауков. Сразу 13 видов впервые указываются для России, а 27 видов — новые для фауны Урала. Впервые описана самка *Pardosa jeniseica* Eskov et Marusik, 1995. Указания для Урала *Pellenes nigrociliatus* (Simon in L. Koch, 1875), *Walckenaeria acuminata* Blackwall, 1833, *Xysticus ukrainicus* Utotschkin, 1968 и *Entelecara media* Kulczyński, 1887 признаны ошибочными с исправлением ряда ошибочных видовых определений, содержащихся в ранее опубликованных фаунистических списках по паукам Урала.

### Introduction

Since the publication of the catalogue of spiders of the Urals [Esyunin & Efimik, 1996], several important corrections and supplements have appeared [Efimik et al., 1997; Efimik & Zolotarev, 1998; Esyunin & Efimik, 1998; Koponen et al., 1998; Marusik & Tanasevitch, 1998]. The present contribution sheds some new light on the fauna and distribution of Ural spiders. Here material of 67

species is put on record, 13 of these being new to the fauna of Russia, and 27 to the fauna of the Urals.

### Material

Besides the collections of the authors, abbreviated in the text as (SE), (VE) and (NM), respectively, this paper is based on material taken by Dr. V.O. Kozminikh (VOK), Dr. V.G. Novokshonov (VN), D. Kazantsev (DK) and some others. This material belongs to the collection of the Department of Zoology of the Perm State University (PSU). The pattern of presentation of distributional data follows that given in the catalogue [Esyunin & Efimik, 1996]. All measurements are in millimeters.

### Misidentifications

The following previous misidentifications of Ural spiders should be corrected based on a restudy of pertinent material.

1. All records of *Agyneta reselli* (Wunderlich, 1973) in the South Urals [Esyunin & Efimik, 1996] are erroneous. Apparently, these records concern a new species close to *A. similis* (Kulczyński, 1926) (Tanasevitch, in press).

2. All records of *Entelecara media* Kulczyński, 1887 in the Urals [Esyunin & Efimik, 1996] are erroneous and are to be applied to *Entelecara erythropus* (Westring, 1851).

3. All records of *Leptophantes collinus* (L. Koch, 1872) in the Urals [Esyunin & Efimik, 1996] are erroneous and are to be applied to *Megaleptophantes pseudocolinus* Saaristo, 1997.

4. The records of *Leptophantes geminus* Tanasevitch, 1982 in Bashkiria [Pakhorukov & Efimik, 1988; Eskov, 1994; Efimik, 1995; Efimik & Gulyashchikh, 1995] and the Visimskii Reserve, Ekaterinburg Area [Esyunin & Ukhova, 1996; Esyunin et al., 1996; Ukhova & Esyunin, 1996] are erroneous and must actually be referred to *Oryphantes angulatus* (O. P.-Cambridge, 1881).

5. The record of *Walckenaeria acuminata* Blackwall, 1833 in the city of Perm by Kharitonov [see Kharitonov, 1931, 1932; Azheganova & Glukhov, 1981; Eskov, 1994; Esyunin & Efimik, 1996; Thaler, 1996] is erroneous and should be referred to *Walckenaeria mitrata* (Menge, 1868).

6. The record of *Zelotes villicus* (Thorell, 1875) in the Chelyabinsk Area [Efimik & Zolotarev, 1998] is erroneous and is to be applied to *Drassyllus pusillus* (C.L. Koch, 1833).

7. All records of *Xysticus ukrainicus* Utotschkin, 1968 in the Urals [Esyunin & Efimik, 1996] are erroneous and are to be applied to *Xysticus tortuosus* Simon, 1932.

8. The record of *Euophrys aequipes* (O. P.-Cambridge, 1871) in the Ilmenskii Reserve [Polyanin & Pakhorukov, 1988] should be referred to *Euophrys frontalis* (Walckenaer, 1802) (revised by D. Logunov).

9. The record of *Euophrys obsoleta* (Simon, 1868) in the Preduralie Reserve [Pakhorukov et al., 1995] should be referred to *Euophrys frontalis* (Walckenaer, 1802).

10. The records of *Pellenes nigrociliatus* (Simon in L. Koch, 1875) in Bashkiria [Pakhorukov & Efimik, 1985; Efimik, 1995; Efimik & Gulyashchikh, 1995] are erroneous and should be applied to *Sitticus dzieduszyckii* (L. Koch, 1870).

## New data of the fauna and distribution of Ural spiders

### PHOLCIDAE

#### *Pholcus crassipalpis* Spassky, 1940

*Pholcus crassipalpis* Spassky, 1940: 359, figs 9–11 (♂♀).

MATERIAL: South Urals: 2 ♂♂, 5 ♀♀, Orenburg Area, Kuvandyk Distr., Aituar, rock, under stone, 19–22.V.1997, leg. SE.

REMARKS. New to the Urals. *P. crassipalpis* was originally described from the southern Ukraine (the Crimea and Kherson Area) and southern Russia (Krasnodar Province) [Spassky, 1940]. The new record considerably extends the species' distribution to the east, the southern Urals currently serving as the easternmost outpost.

### MIMETIDAE

#### *Mimetus laevigatus* (Keyserling, 1863)

MATERIAL: South Urals: 1 sub♀, Orenburg Area, Kuvandyk Distr., Aituar, rock, under stones, 15.V.1997, leg. SE.

REMARKS. New to the Urals. In Russia, this species has hitherto been recorded in Kalmykia [Ponomarev & Minoransky, 1981] and Tatarstan [Krasnobaev & Matveev, 1993], being widespread in N-Africa, S-Europe, the Caucasus and Central Asia.

### THERIDIIDAE

#### *Achaearanea riparia* (Blackwall, 1834)

MATERIAL: Middle Urals: 1 ♂, Ekaterinburg Area, Talitsa Distr., Pripyshminskie Bory Reserve, *Pinus-Betula* forest, sweeping, 29.VI.1997, leg. DK

CATALOGUE: Middle Urals: Perm Area. South Urals: Bashkiria, Chelyabinsk Area.

#### *Enoplognatha caricis* (Fickert, 1876)

MATERIAL: Middle Urals: 1 ♀, Perm City, bank of Mulyanka River, VI.1996, leg. VN.

REMARKS. New to Russia. This species has hitherto been known from Europe, with the former eastern periphery of the range lying in the Ukraine.

#### *Enoplognatha mordax* (Thorell, 1875)

MATERIAL: South Urals: 1 ♂, 1 ♀, Chelyabinsk Area, Troitsk Distr., Troitskii Reserve, bank, sweeping, 25.VI.1995, leg. VE; 1 ♂, Orenburg Area, Sol-Iletsk Distr., Linevka, 20.VII.1998, leg. S. Kuznetsov.

REMARKS. New to the Urals. Earlier this species has been recorded in the Saratov and Rostov areas [Kharitonov, 1932] of Russia. It is widespread in Europe, the Crimea and the Caucasus in the west up to Kazakhstan and Central Asia in the east.

### LINYPHIIDAE

#### *Abacoproces saltuum* (L. Koch, 1872)

MATERIAL: Middle Urals: 1 ♀, Ekaterinburg Area, Talitsa Distr., Pripyshminskie Bory Reserve, *Pinus-Betula* forest, sweeping, 9.VII.1997, leg. DK. South Urals: 7 ♂♂, 2 ♀♀, Orenburg Area, Kuvandyk Distr., Aituar, bank of brook in steppe and *Betula* forest, litter, 15.V–1.VI.1996, leg. NM.

CATALOGUE: Middle Urals: Perm Area. South: mountainous region, Chelyabinsk Area.

#### *Acartauchenius scurritilis* (O. P.-Cambridge, 1872)

MATERIAL: Middle Urals: 1 ♂, Perm Area, Kishert Distr., Preduralie Reserve, bottomland *Salix* bed, pitfall trapping, 17–27.VI.1998, leg. SE. South Urals: 1 ♂, Orenburg Area, Kuvandyk Distr., Aituar, shrubby steppe, sweeping, 25.V.1996, leg. NM.

REMARKS. New to the Urals. This species ranges from S- and M-Europe in the west up to E-Kazakhstan [Eskov, 1992] and Central Asia (Kirghizia) [Zonshtein, 1984] in the east.

#### *Agnynphantes expunctus* (O. P.-Cambridge, 1875)

MATERIAL: South Urals: 2 ♂♂, Bashkiria, Burzyan Distr., Shulgan-Tash Reserve, Kapova Cordon, broad-leaved forest, 2.VI.1985, leg. VE.

CATALOGUE: Polar Urals: Sob River. Cispolar Urals: mountainous region. North Urals: Komi Republic, Perm Area, mountainous region. Middle Urals: mountainous region. South Urals: mountainous region.

#### *Agyneta decora* (O. P.-Cambridge, 1870)

MATERIAL: South Urals: 3 ♂♂, Chelyabinsk Area, Troitsk Distr., Troitskii Reserve, *Betula* forest, pitfall trapping, 29.IV–26.VI.1995, leg. SE.

CATALOGUE: North Urals: Perm Area. Middle Urals: mountainous region. South: mountainous region.

#### *Agyneta innotabilis* (O. P.-Cambridge, 1863)

MATERIAL: Middle Urals: 1 ♂, Perm Area, Kishert Distr., Preduralie Reserve, *Betula* forest, 16.VI.1988, leg. Ilyina.

CATALOGUE: South Urals: Bashkiria and mountainous region.

#### *Archaeoncus prospiciens* (Thorell, 1875)

MATERIAL: Middle Urals: 1 ♂, Ekaterinburg Area, Krasnoufimsk Distr., data ?, leg. ?

REMARKS. New to the Urals. This species is widespread in E-Europe, the Caucasus, the Crimea, the southern European part of Russia and Central Asia.

*Bathyphantes approximatus* (O. P.-Cambridge, 1871)

MATERIAL: Middle Urals: 1 ♀, Perm City, bank of Mulyanka Rive, VI.1996, leg. VN.

CATALOGUE: South Urals: Chelyabinsk.

*Centromerus levitarsis* (Simon, 1884)

MATERIAL: Middle Urals: 1 ♀, Perm Area, Chusovoi Distr., Sela, *Betula* forest with *Salex*, litter, 24.VI.1996, leg. NM.

CATALOGUE: Middle Urals: Ekaterinburg Area. South Urals: Chelyabinsk Area.

*Dactylopisthes mirifica* (Georgesco, 1976)

MATERIAL: South Urals: 1 ♂, Chelyabinsk Area, Troitsk Distr., Troitskii Reserve, salina, 20.V.1993, leg. VE; 1 ♂, Orenburg Area, Kuvandyk Distr., Aituar, bank of brook in steppe, sweeping, 17.VII.1997, leg. NM; 2 ♀♀, near Orenburg City, Pokrovka, 28.VII.1989, leg. S. Kuznetsov (all det. A.V. Tanasevitch).

REMARKS. New to the Urals. In Russia, this species has been recorded in the Samara Area only [Krasnobaev & Matveev, 1993: as *Scytiella*], being widespread in S- and E-Europe.

*Diplocephalus connatus* Bertkau, 1889

MATERIAL: South Urals: 1 ♀, Chelyabinsk Area, Troitsk Distr., Uz River, stony steppe, under stones, 27.VI.1995, leg. VE.

CATALOGUE: North Urals: Komi Republic. Middle Urals: Perm Area. South Urals: Bashkiria.

*Dismodicus elevatus* (C.L. Koch, 1838)

MATERIAL: Middle Urals: 1 ♀, Perm Area, near Gornozavodsk, slash of *Picea* forest, sweeping, 10.VII.1997, leg. D. Shilov.

CATALOGUE: North Urals: Perm Area, mountainous region. Middle Urals: Ekaterinburg Area. South: Bashkiria.

*Entelecara erythropus* (Westring, 1851)

REMARKS. In Esyunin & Efimik [1996], *E. erythropus* and *E. media* Kulczyński, 1887 have been referred to as two different species. According to Eskov [1994], however, the latter species is a junior synonym of the former. Examination of lots of samples from the Urals has since made us reconsider the issue, with the conclusion that all Ural specimens belong to one species only, the trans-Palaearctic *E. erythropus*.

CATALOGUE: Polar Urals: mountainous region. North Urals: Perm Area, mountainous region. Middle Urals: Perm Area, mountainous region, Ekaterinburg Area. South Urals: Bashkiria, mountainous region, Chelyabinsk Area [Esyunin & Efimik, 1996: as *Entelecara media* Kulczyński, 1887 and *E. erythropus*].

*Glypesis tauplesius* Wunderlich, 1969

*G. tauplesius* Wunderlich, 1969, 388, figs 23–25, 27–28, 30–31, 34 (♂♀).

MATERIAL: Middle Urals: 1 ♀, Perm Area, Kishert Distr., Preduralie Reserve, *Salix* bed on bank of Silva River, pitfall trapping, 24.V.1988, leg. T. Gridina.

REMARKS. New to Russia. Originally, *G. tauplesius* was described from Berlin, Germany [Wunderlich, 1969] and has since been known from M-Europe only.

*Gonatium rubellum* (Blackwall, 1841)

MATERIAL: Middle Urals: 4 ♂♂, Ekaterinburg Area, Visimskii Reserve, *Picea* forest, sweeping, 12.VIII.1997, leg. VE.

CATALOGUE: North Urals: Komi Republic, montane region. Middle Urals: montane region. South Urals: montane region.

*Hylyphantes nigritus* (Simon, 1881)

MATERIAL: Middle Urals: 1 ♀, Ekaterinburg Area, Talitsa Distr., Pripyshminskie Bory Reserve, *Pinus-Betula* forest, sweeping, 30.VI.1997, leg. DK.

CATALOGUE: South Urals: Chelyabinsk Area.

*Megalephyphantes pseudocollinus* Saaristo, 1997

*Leptyphantes collinus* [non L. Koch, 1872]: Kharitonov, 1923: 29, fig. 2.

MATERIAL: Middle Urals: 1 ♂, 1 ♀, Perm City, *Picea-Tilia* forest, pitfall trapping, 09.IX.1988, leg. VOK; 3 ♂♂, 1 ♀, same locality, inside building, VIII–IX.1994–1998, leg. VOK & SE; 5 ♂♂, 9 ♀♀, environs of Perm City, Verkhnyaya Kuriya, kitchen-garden, pitfall trapping, IX–X.1988–1990, leg. VOK; environs of Perm City, Bolshoe Savino, *Cerasus* shrub on southern slope and *Pinus* forest with green mosses, pitfall trapping, IX–XI.1987–1988, leg. SE; 1 ♂, 1 ♀, Perm Area, Yugo-Kamskii, *Tilia* forest, pitfall trapping, 15.VIII.1995, leg. V. Ritskova; 1 ♂, Perm Area, Dobryanka, inside building, data ?, leg. ?; 3 ♀♀, Perm Area, Kungur Distr., Spasskaya Gora Reserve, limestone denudation, under stone and in cavern, 23.IX.1988, leg. SE; 6 ♂♂, 5 ♀♀, Perm Area, Kishert Distr., Preduralie Reserve, rocks and *Pinus* forest, VIII–IX.1985–1994, leg. Sursyakova, T. Gridina & SE. South Urals: 1 ♂, 1 ♀, Bashkiria, Syrtlanovo, rock, 27.VIII.1990, leg. VE; 1 ♂, 3 ♀♀, Bashkiria, Shulgan-Tash Reserve, rocks, VII–VIII. 1986 & 1997, leg. VE & SE. Krasnodar Province: Ust-Labinskii Distr., Kirpelskaya, windbreak grove, 28.VII.1995, leg. V. Zhirkova.

REMARKS. New to the Krasnodar Province, Russia.

All records of *L. collinus* in the Urals (see above) are referred in fact to *M. pseudocollinus*. Thus, *Leptyphantes collinus* (L. Koch, 1872) must be ejected from the Ural regional list.

CATALOGUE: Middle Urals: Perm Area [Pakhorkov et al., 1995: as *L. c.*], Ekaterinburg Area [Kharkonov, 1923: as *L. c.*, 1932: as *L. c.*; Tystshenko, 1971: as *L. c.*; Eskov, 1994: as *L. c.*; Saaristo, 1997]. South Urals: Bashkiria [Pakhorkov & Efimik, 1988: as *L. c.*; Ghirfanova et al., 1992: as *L. c.*; Esyunin et al., 1993: as *L. c.*; Eskov, 1994: as *L. c.*; Efimik & Gulyashchikh, 1995: as *L. cf. c.*; Efimik, 1997a: as *L. c.*].

*Minicia caspiana* Tanasevitch, 1990

*M. caspiana* Tanasevitch, 1990, 56, fig. 19.1–6 (♂♀).

MATERIAL: South Urals: 2 ♂♂, 9 ♀♀, Chelyabinsk Area, Troitsk Distr., Troitskii Reserve, steppe, litter, 10–20.X.1991 and 19.V.1993, leg. VN, SE and VE.

REMARKS. New to Russia. Originally, this species was described from the Azerbaijan coast of the Caspian Sea [Tanasevitch, 1990]. The records of *M. marginella* (Wider, 1834) in the Troitskii Reserve by Esyunin & Pakhorukov [Esyunin & Pakhorukov, 1992; Eskov, 1994 (part!)] actually refer to *M. caspiana*.

*Oedothorax gibbosus* (Blackwall, 1841)

MATERIAL: Middle Urals: 1 ♂, 1 ♀, Perm Area, Chusovoi Distr., Sela, *Betula-Picea* forest, litter, 18.VI.1996, leg. NM; 3 ♀♀, same locality, *Betula* forest with *Salex*, litter, 24.VI.1996, leg. ?; 2 ♂♂, 4 ♀♀, Perm Area, Chaikovskoe Distr., Saigatka River, waterlogged meadow, pitfall trapping, 20–23.VI.1997, leg. N. Shadrin.

CATALOGUE: North Urals: Komi Republic, Ekaterinburg Area. Middle Urals: montane region, Ekaterinburg. South: Bashkiria, montane region, Chelyabinsk.

*Oryphantes angulatus* (O. P.-Cambridge, 1881)

*Leptyphantes angulatus* (O. P.-Cambridge, 1881): Marusik et al., 1996, figs 9.A–B, 10B, 12 (♂♀).

REMARKS. The records of *Leptyphantes geminus* Tanasevitch, 1982 in the South Urals [Esyunin & Efimik,

1996] and Visimskii Reserve (Middle Urals: Ekaterinburg Area) by Esyunin & Ukhova [1996], Esyunin et al. [1996] and Ukhova & Esyunin [1996] are to be referred in fact to *Oryphantes angulatus* (O. P.-Cambridge, 1881). Thus, *Oryphantes geminus* (Tanasevitch, 1982) is known for sure in the Polar and Cispolar Urals (see bibliography in Esyunin & Efimik [1996]).

CATALOGUE: North Urals: Komi Republic, Perm Area, montane region, Ekaterinburg Area. Middle Urals: Perm Area, montane region, Ekaterinburg Area [Esyunin & Efimik, 1996: as *Leptophantes*]. South Urals: Bashkiria [Pakhorukov & Efimik, 1988: as *L.*; Eskov, 1994: as *L.*; Efimik, 1995: as *L.*; Efimik & Gulyashchikh, 1995: as *L.*; Esyunin & Efimik, 1996: as *L. geminus*].

*Peponocranium orbiculatum* (O. P.-Cambridge, 1882)

MATERIAL: Middle Urals: 1 ♀, Ekaterinburg Area, Talitsa Distr., Pripyshminskie Bory Reserve, *Pinus-Betula* forest, sweeping, 28.VII.1997, leg. DK.

CATALOGUE: South Urals: Bashkiria.

*Poeciloneta variegata* (Blackwall, 1841)

MATERIAL: Middle Urals: 1 ♂, Perm Area, near Gornozavodsk, *Picea* forest, 29.VI.1997, leg. D. Shilov. South Urals: 1 ♂, Bashkiria, Shulgash-Tash Reserve, canyon near Cave Kapova, moss on rock, 22.VIII.1997, leg. VE; 1 ♂, 1 ♀, same locality, bank of Belaya River, crag, 18.VIII.1997, leg. VE.

CATALOGUE: Polar Urals: Vorkuta Distr., montane region, Sob River. North Urals: Komi Republic, Perm Area, montane region, Ekaterinburg Area.

*Savignya producta* Holm, 1977

MATERIAL: Middle Urals: 4 ♂♂, 10 ♀♀, Ekaterinburg Area, Visimskii Reserve, *Picea* forest, litter, 13.VIII.1996, leg. NM.

CATALOGUE: Polar Urals: Vorkuta District, montane region, Sob River. North Urals: Perm Area. Middle Urals: Perm Area, montane region. South Urals: Bashkiria, montane region.

*Tapinocyboides pygmaeus* (Menge, 1869)

MATERIAL: Middle Urals: 1 ♀, Ekaterinburg Area, Talitsa Distr., Pripyshminskie Bory Reserve, *Picea* forest, litter, 1.VII.1997, leg. DK.

CATALOGUE: North Urals: Komi Republic. Middle Urals: Perm Area. South Urals: Bashkiria, Chelyabinsk Area.

*Tibiaster djanybekensis* Tanasevitch, 1987

*T. djanybekensis* Tanasevitch, 1987, 74, figs 1.A-E, 2.A-B (♂♀).

MATERIAL: South Urals: 1 ♂, Orenburg Area, Kuvandyk Distr., Aituar, rock, pitfall trapping, 15-24.V.1997, leg. SE.

REMARKS. New to Russia. Originally, *T. djanybekensis* was described from the semi-desert zone of West Kazakhstan [Tanasevitch, 1987].

*Walckenaeria alticeps* (Denis, 1952)

*W. alticeps*: Kronestedt, 1980, 1, 4, 6-7, 10, 12-14, 21-22, 24 (♂♀).

MATERIAL: South Urals: 4 ♀♀, Orenburg Area, Kuvandyk Distr., Aituar, bank of brook in steppe and bottomland *Populus* forest, litter, 15.V-1.VI.1996, leg. NM; 1 ♂, same locality, *Betula* grove in steppe, litter, 22.IX.1996, leg. NM; 1 ♂, 1 ♀, Chelyabinsk Area, Ilmenskii Reserve, *Pinus* forest, 2.IX.1986, leg. A. Polyanin; 1 ♂, 3 ♀♀, Bashkiria, Burzyan Distr., Bashkirkii Reserve, mixed forest, 28.VII.1985, leg. VE; 1 ♀, Chelyabinsk Area, near Mountain Iremel, Tygynskoe Bog, sphagnum bog, pitfall trapping, 20.VI-28.VII.1993, leg. A. Alikin.

REMARKS. Formally new to Russia and to the Urals, although it has already been recorded from the South Urals as *Walckenaeria antica* (Wider, 1834) (see above). This species was originally described from Romania and later redescribed from Austria, Germany and Poland by Wunderlich [1972], and from Sweden by Kronestedt [1980]. It has also been found in Bulgaria [Deltshev & Blagoev, 1992], the Ukraine [Polchaninova, 1988] and Byelorussia [Ghembitsky et al., 1985].

*Walckenaeria antica* (Wider, 1834)

*W. antica*: Kronestedt, 1980, 2-3, 5, 8-9, 11, 15-20, 23 (♂♀).

MATERIAL: Cispolar Urals and Middle Urals (see Esyunin et al. [1995]): North Urals: 1 ♀, Perm Area, Krasnovishersk Distr., Visherskii Reserve, *Betula* forest, pitfall trapping, 15-24.VI.1995, leg. NM. Middle Urals: 3 ♂♂, 2 ♀♀, Perm Area, Gornozavodsk Distr., Basegi Reserve, *Vaccinium myrtillus* montane tundra, *Betula nana* woodland and meadow, VI-VIII.1985-1990, leg. SE; 10 ♂♂, 4 ♀♀, Perm Area, Barda Distr., Sarashi, *Pinus* and *Quercus* forests, pitfall trapping, 6.V-1.VI.1991, leg. V.O. Kozminykh; 1 ♂, Ekaterinburg Area, Visimskii Reserve, *Betula* forest, litter, 11.VIII.1996, leg. NM. South Urals: 1 ♀, Chelyabinsk Area, Satka, mixed forest, 1.VII.1984, leg. N.M. Pakhorukov.

REMARKS. The majority but not all of the records of this species in the South Urals [Esyunin & Efimik, 1996 (part!)] (see material of *W. alticeps* and *W. antica*) are erroneous, being referred in fact to *W. alticeps*.

CATALOGUE: Polar Urals: Sob River. Cispolar Urals: montane region. North Urals: Perm Area, montane region. Middle Urals: Perm Area, montane region. South Urals: Bashkiria, montane region, Chelyabinsk Area.

*Walckenaeria atrotibialis* O. P.-Cambridge, 1878

MATERIAL: Middle Urals: 1 ♀, Ekaterinburg Area, Talitsa Distr., Pripyshminskie Bory Reserve, *Picea-Pinus* forest, litter, 6.VII.1997, leg. DK.

CATALOGUE: North Urals: Perm Area. Middle Urals: Perm Area, montane region. South Urals: Bashkiria, montane region, Chelyabinsk Area.

*Walckenaeria dysderoides* (Wider, 1834)

MATERIAL: South Urals: 1 ♂, Bashkiria, Shulgash-Tash Reserve, canyon near Cave Kapova, under stones, 24.VIII.1997, leg. VE.

CATALOGUE: North Urals: Perm Area. Middle Urals: montane region. South Urals: Chelyabinsk Area.

*Walckenaeria furcillata* (Menge, 1869)

MATERIAL: Middle Urals: 1 ♂, Perm Area, near Yugo-Kamsk, *Pinus* forest, litter, 13.VI.1995, leg. V. Ritskova; 1 ♂, Chaikovsk Distr., Saigatka River, *Pinus* forest, pitfall trapping, 18-29.VI.1997, leg. N. Shadrin.

CATALOGUE: South Urals: Orenburg Area, Bashkiria, Chelyabinsk Area.

*Walckenaeria mitrata* (Menge, 1868)

MATERIAL: Middle Urals: 1 ♀, near Perm City, Nizhnyaya Kuriya, date ?, leg. Boitsova (det. D.E. Kharitonov: as *W. acuminata* Blackwall, 1833).

REMARKS. The record of *W. acuminata* Blackwall, 1833 in the Perm City by Kharitonov [see Kharitonov, 1931, 1932; Azheganova & Glukhov, 1981; Eskov, 1994; Esyunin & Efimik, 1996; Thaler, 1996] is to actually be referred to *Walckenaeria mitrata* (Menge, 1868). Thus, *W. acuminata* is absent from the Ural spider fauna.

CATALOGUE: Middle Urals: Perm Area. South Urals: Bashkiria, montane region.

## PISAURIDAE

*Pisaura mirabilis*  
(Clerck, 1758)

MATERIAL: Middle Urals: 2 ♀♀, Ekaterinburg Area, Visimskii Reserve, dry meadow, herbage, 06.VIII.1998, leg. T. Esyunina.

CATALOGUE: South Urals: Orenburg Area, Bashkiria, montane region, Chelyabinsk Area.

## LYCOSIDAE

*Arctosa stigmosa*  
Thorell, 1875

MATERIAL: South Urals: 3 ♂♂, 1 ♀, Orenburg Area, Kuvandyk Distr., Aituar, bank of brook in steppe, under stones, 15–20.V.1996, leg. NM; 1 ♂, Chelyabinsk Area, Troitsk Distr., Uz River, Salex shrub on bank, pitfall trapping, 30.VI–7.VII.1995, leg. VE.

CATALOGUE: North Urals: Komi Republic. Middle Urals: Perm Area. South Urals: Bashkiria.

*Pardosa jeniseica* Eskov et Marusik, 1995  
Figs 1–2.

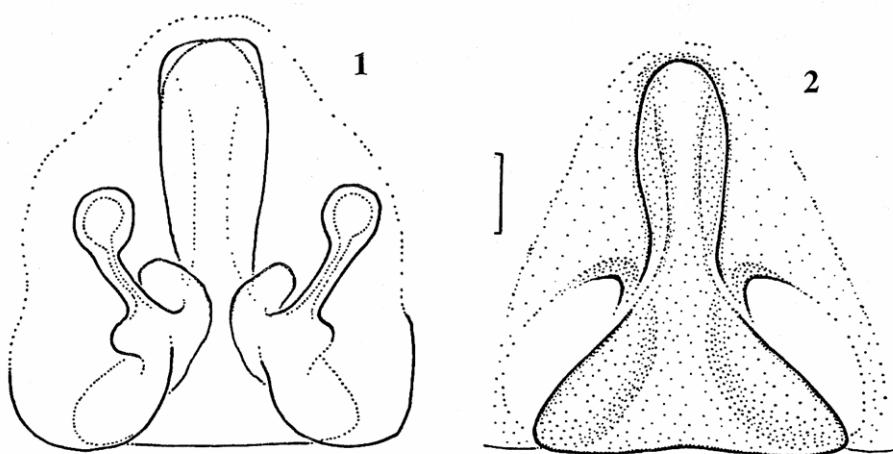
*Pardosa* sp. Pakhorukov, 1978: 294, fig. 68 (♀),  
*P. jeniseica* Eskov & Marusik, 1995: 65, figs 64–65 (♂).  
MATERIAL: North Urals: 1 ♀, Komi Republic, source of Tsugor River, stony bank, 21.VI.1996, leg. ?. Middle Urals: 2 ♀♀, Perm Area, Lysva Distr., Matveevo, Barda River, shingle bank, 4.VI.1996, leg. VN. South Urals: 3 ♀♀, Bashkiria, Meleuz Distr., Syrtlanovo, stony bank of Belaya River, 18.VI.1990, leg. VE.

DIAGNOSIS. "*P. jeniseica* belongs to the *P. chionophila* group (sensu Zyuzin). [The male of] This species can be distinguished from *P. chionophila* by the longer hairs on leg I, and also in having both the shorter cymbium and tegular apophysis, the different shape of the terminal apophysis and epiconductor" [Eskov & Marusik, 1995: 66]. Besides this, the male of *P. jeniseica* is similar to that of *P. dondalei* Yu et Song, 1988 (see figs 22–23 in Yu & Song [1988]). It is difficult to discriminate both these species with certainty without revision of the latter species. The female of *P. jeniseica* is closely related to that of *P. bulgarica* Buchar, 1968 (see fig. G in Buchar [1968]) but it can be distinguished by the shape of the lateral pits of the epigyne, which is oval in *P. jeniseica* and round in *P. bulgarica*.

DESCRIPTION. The male has been described by Eskov & Marusik [1995].

Female. Total length 6.3–8.0. Carapace 3.0–3.8 long, 2.3–3.2 wide, brown with a stellar bright brown median band, a black ocular area, a narrow lateral band and a motley pattern of white hairs. Sternum brown, covered with white hairs and black setae. Abdomen motley grey-brown, covered with white hairs and black setae. Epigyne (Figs 1–2) with a triangular septum and oval lateral pits.

REMARKS. Formally new to the Urals, although this species has already been recorded in, and described and figured from, the Pechoro-Ilychskii Reserve (North Urals:



Figs 1–2. *Pardosa jeniseica* Eskov et Marusik, 1995: epigyne, dorsal (1) and ventral (2) views, respectively. Scale 0.1 mm.

Рис. 1–2. *Pardosa jeniseica* Eskov et Marusik, 1995: эпигина соответственно снизу (1) и сверху (2). Масштаб 0.1 мм.

Perm Area) by Pakhorukov [1978] as *Pardosa* sp. This widespread Siberian species was originally described from the East-Kazakhstan Area [Eskov & Marusik, 1995]. The above are currently the westernmost localities of this species.

## DICTYNIDAE

*Archaeodictyna minutissima* (Miller, 1958)

*Dictyna minutissima* Miller, 1958: 148, figs 1–8 (♂♀).

MATERIAL: South Urals: 1 ♀, Chelyabinsk Area, Troitsk Distr., Uz River, stony steppe, under stones, 21.V.1993, leg. VE.

REMARKS. New to Russia. This species is known from E-Europe: Moravia [Miller, 1958: as *Dictyna*] and the Ukraine [Guryanova & Khomenko, 1991: as *D. m.*].

*Embleyna burjatica* Danilov, 1994

*Dictyna burjatica* Danilov, 1994: 204, figs 23–25 (♀).

*E. burjatica*: Marusik, Koponen, 1998: 85, figs 27–30 (♂♀).

MATERIAL: Middle Urals: 1 ♀, Ekaterinburg Area, Talitsa Distr., Pripyshminskie Bory Reserve, *Picea* forest, litter, 1.VII.1997, leg. DK.

REMARKS. New to the Urals. Originally, *D. burjatica* was described from Buryatia [Danilov, 1994] and recorded in the Krasnoyarsk Province [Marusik, Koponen, 1998].

## HAHNIIDAE

*Hahnia ononidum* Simon, 1875

MATERIAL: Middle Urals: 1 ♂, 1 ♀, Ekaterinburg Area, Visimskii Reserve, *Picea* forest, litter, 12.VIII.1996, leg. NM.

CATALOGUE: Polar Urals: Sob River. North Urals: Komi Republic, Perm Area, montane region, Ekaterinburg Area. Middle Urals: Perm Area, montane region. South Urals: Orenburg Area, Bashkiria, montane region, Chelyabinsk Area.

## LIOCRANIDAE

*Agroeca brunnea* (Blackwall, 1833)

MATERIAL: Middle Urals: 1 ♀, Ekaterinburg Area, Visimskii Reserve, *Betula* forest with grass, litter, 12.VIII.1996, leg. NM; 4 ♀♀, Ekaterinburg Area, Talitsa Distr., Pripyshminskie Bory Reserve, *Pinus-Betula* forest, pitfall trapping, 6.VII.1997, leg. DK.

CATALOGUE: North Urals: Komi Republic, Perm Area, montane region, Ekaterinburg Area. Middle Urals: Perm Area. South Urals: Bashkiria, montane region, Chelyabinsk Area.

### *Agroeca proxima* (O. P.-Cambridge, 1871)

MATERIAL: Middle Urals: 1 ♂, Ekaterinburg Area, Visimskii Reserve, *Betula* forest with *Tilia*, pitfall trapping, 10–17.VIII.1996, leg. NM.

CATALOGUE: Middle Urals: Perm Area, montane region. South Urals: Bashkiria, montane region, Chelyabinsk Area.

### CLUBIONIDAE

#### *Clubiona congestilis* Kulczyński, 1913

MATERIAL: South Urals: 1 ♂, 3 ♀♀, Orenburg Area, Kuvandyk Distr., Aituar, bank of brook in steppe and steppe proper, sweeping, 15.V–1.VI.1996, leg. NM (det. K.G. Mikhailov).

REMARKS. New to the Urals. This European species ranges throughout the steppe and forest-steppe zones from E-Europe in the west to N- and E-Kazakhstan in the east [Mikhailov, 1992].

### GNAPHOSIDAE

#### *Drassylus vinealis* (Kulczyński, 1897)

MATERIAL: South Urals: 5 ♂♂, Orenburg Area, Kuvandyk Distr., Aituar, steppe and rock, under stones, 15–24.V.1996, leg. NM.

REMARKS. New to the Urals. This European species ranges throughout the forest-steppe zone from E-Europe and the Caucasus in the west to Kazakhstan in the east [Ovtsharenko, 1982].

#### *Gnaphosa mongolica* Simon, 1895

*G. mongolica* Simon, 1895: Ovtsharenko et al., 1992: 46, figs 153–154, 159–162 (♂♀).

MATERIAL: South Urals: 1 ♂, 1 ♀, Orenburg Area, Kuvandyk Distr., Aituar, steppe and rock, under stones, V.1996–1997, leg. NM and SE.

REMARKS. New to the Urals. This species ranges from E-Europe in the west up to Mongolia and China in the east, being attributable to steppe elements [Ovtsharenko et al., 1992].

#### *Gnaphosa steppica* Ovtsharenko, Platnick et Song, 1992

*G. steppica* Ovtsharenko et al., 1992: 37, figs 133–136 (♂♀).

MATERIAL: South Urals: 10 ♂♂, 7 ♀♀, Orenburg Area, Kuvandyk Distr., Aituar, steppe, pitfall trapping, 15–20.V.1996, leg. NM.

REMARKS. New to the Urals. This species ranges from Turkey, the Caucasus and SE-Europe in the west up to Kazakhstan in the east, being attributable to steppe elements [Ovtsharenko et al., 1992].

#### *Synaphosus palearticus* Ovtsharenko, Levy et Platnick, 1994

*S. palearticus* Ovtsharenko et al., 1994: 6, figs 21–29 (♂♀).

MATERIAL: South Urals: 7 ♂♂, 3 ♀♀, Orenburg Area, Kuvandyk Distr., Aituar, rock, under stones, 15–24.V.1997, leg. SE.

REMARKS. New to Russia. This species ranges from Turkey and the Caucasus in the west up to Central Asia in the east, being confined to arid regions of the central Palearctic [Ovtsharenko et al., 1994].

### ZORIDAE

#### *Zora spinimana* (Sundevall, 1833)

MATERIAL: Middle Urals: 1 ♂, 1 ♀, Ekaterinburg Area, Talitsa Distr., Pripyschinskii Bory Reserve, *Pinus-Betula* forest, sweeping, 16.VII.1997, leg. DK.

CATALOGUE: North Urals: Perm Area, montane region, Ekaterinburg Area. Middle Urals: Perm Area, montane region. South Urals: Bashkiria, montane region, Chelyabinsk Area.

### PHILODROMIDAE

#### *Paratibellus oblongiusculus* (Lucas, 1846)

MATERIAL: South Urals: 1 ♀, Chelyabinsk Area, Troitsk Distr., Troitskii Reserve, steppe, sweeping, VII.1997, leg. VE; 2 ♀♀, environs of Orenburg City, *Populus* forest tract, 14–27.VI.1985, leg. S. Kuznetsov; 1 ♀, Orenburg Area, Sol-Iletsk Distr., Linevka, forest glade, 1.VII.1985, leg. S. Kuznetsov.

REMARKS. New to the Urals. This species is widespread from N-Africa and S-Europe in the west up to Central Asia in the east.

#### *Philodromus aryy* Marusik, 1991

*P. aryy* Marusik, 1991: 53, figs 2.5–7, 4.6 (♂♀).

MATERIAL: South Urals: 2 ♂♂, Orenburg Area, Kuvandyk Distr., Aituar, *Populus* forest, sweeping, 15.V.1997, leg. SE.

REMARKS. New to the Urals. Originally, this species was described from Yakutia [Marusik, 1991] and recorded in S-Siberia [Danilov, 1995] and Sakhalin [Marusik et al., 1993]. Probably it occurs in Mongolia as well [Marusik, 1991]. The above is the westernmost record of this Siberian species.

### THOMISIDAE

#### *Heriaeus horridus* Tystshenko, 1965

*H. horridus* Tystshenko, 1965: Marusik & Logunov, 1995: 136, figs 1–3 (♂♀).

MATERIAL: South Urals: 1 ♂, Orenburg Area, Sol-Iletsk Distr., Ilek River, 20.VII.1989, leg. S. Kuznetsov.

REMARKS. New to the Urals. In Russia, this species has hitherto been known from the Saratov Area only [Loerbroks, 1983: as *H. sareptanus* Loerbroks, 1983]. This form is widespread in Kazakhstan and Central Asia.

#### *Ozyptila gertschi* Kurata, 1944

*Ozyptila gertschi* Kurata, 1944: Wunderlich, 1973: 425, figs 45–50 (♂♀).

MATERIAL: North Urals: 3 ♂♂, 1 ♀, Perm Area, Krasnovishersk Distr., Visherskii Reserve, Olkhovka River, bog, 28.VI.1994, leg. D. Shilov.

REMARKS. New to Russia. This species has hitherto been known from Europe and Canada.

#### *Ozyptila pullata* (Thorell, 1875)

MATERIAL: South Urals: 2 ♂♂, Orenburg Area, Kuvandyk Distr., Aituar, stony steppe, pitfall trapping, 16–20.V.1996, leg. NM.

CATALOGUE: Middle Urals: Perm Area.

#### *Xysticus sjostedti* Schenkel, 1936

*X. sjostedti* Schenkel, 1936: Logunov & Marusik, 1994: 192, figs 18–24 (♂♀).

MATERIAL: South Urals: 1 ♀, Chelyabinsk Area, Varna Distr., Alekseevka, Toguzak River, stony steppe, under stones, 21.V.1996, leg. S. Zolotarev; 2 ♀♀, Orenburg Area, Kuvandyk Distr., Aituar, rock, under stones, 20–25.V.1996–1997, leg. NM and SE.

REMARKS. New to the Urals. The above are the westernmost records of this species hitherto known from S-Siberia and China [Logunov & Marusik, 1994].

*Xysticus tortuosus* Simon, 1932

*Xysticus ukrainicus* non Utotschkin, 1968: Esyunin & Efimik, 1995: 87, figs 12–15 (♂♀).

MATERIAL: see Esyunin & Efimik [1995].

REMARKS. New to Russia. The earlier records of *X. ukrainicus* in the Urals [Esyunin & Efimik, 1995] appear a mistake. Mr. Stano Pekár has kindly pointed out to us the distinctions in the figures of the Ural specimens in our work and of the specimens from the Caucasus [Ovtsharenko, 1979]. Based on our figures, he has determined the Ural samples as *X. tortuosus*. We have compared our specimens with the type of *X. ukrainicus* and with the micrographs which Mr. Pekár kindly sent us. As a result, we fully agree with his opinion. Thus, all records of *X. ukrainicus* in the Urals are to be referred in fact to *X. tortuosus*, and *Xysticus ukrainicus* Utotschkin, 1968 must be ejected from the Ural regional list.

DISTRIBUTION. S- and E-Europe.

*Xysticus ulkan* Marusik et Logunov, 1990

*X. ulkan* Marusik & Logunov, 1990: 40, figs 22–23 (♂).

MATERIAL: South Urals: 1 ♂, Orenburg Area, Kuvandyk Distr., Aituar, *Stipa* steppe, pitfall trapping, 17.V–1.VI.1996, leg. NM.

REMARKS. New to Russia. This species was originally described from montane Kirghizia [Marusik & Logunov, 1990].

*Xysticus viduus* Kulczyński, 1898

MATERIAL: Middle Urals: 1 ♀, Ekaterinburg Area, Visimskii Reserve, *Picea* forest, litter, 12.VIII.1996, leg. NM.

CATALOGUE: Polar Urals: Sob River. North Urals: Komi Republic. Middle Urals: Perm Area. South Urals: Orenburg Area, Bashkiria, montane region, Chelyabinsk Area.

## SALTICIDAE

*Chalcoscirtus nigritus* (Thorell, 1875)

MATERIAL: South Urals: 3 ♂♂, Orenburg Area, Kuvandyk Distr., Aituar, stony steppe, under stones, 31.V.1996, leg. NM (det. D. Logunov).

REMARKS. New to Russia. Originally, this species was described from Nikopol, Dnepropetrovsk Area, Ukraine [Thorell, 1875]. Later, it was recorded from the Crimea, the Caucasus, Kazakhstan and Central Asia [Nenlin, 1984].

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

MATERIAL: South Urals: 7 ♂♂, 2 ♀♀, Orenburg Area, Kuvandyk Distr., Aituar, shrubby steppe and rock, under stones, 19–22.V.1997, leg. SE.

REMARKS. New to Russia. The above is the northernmost record of this species which ranges throughout the "narrow subboreal area" from Central Asia (Pakistan) and the Caucasus (Azerbaijan) in the west to Mongolia and West China in the east [Rakov & Logunov, 1996].

*Heliophanus koktas* Logunov, 1992

*H. koktas* Logunov, 1992a: 52, figs 1.A–K (♂♀).

MATERIAL: South Urals: 2 ♂♂, 1 ♀, Orenburg Area, Kuvandyk Distr., Aituar, bank of brook in steppe and stony

steppe, sweeping, V.1996–1997, leg. NM and SE (det. D. Logunov).

REMARKS. New to Russia. *H. koktas* was originally described from N-Kazakhstan [Logunov, 1992a].

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

MATERIAL: South Urals: 1 ♂, Orenburg Area, Kuvandyk Distr., Aituar, stony steppe, 22.V.1997, leg. SE; 1 ♂, same locality, rock, 20.V.1997, leg. SE (all det. D. Logunov).

REMARKS. New to Russia. According to Wesołowska [1996], this species occurs in Lebanon only, but it was reported from Turkmenistan by Mikhailov & Fet [1994]. Dr. Logunov [Logunov et al., 1999] considers that *P. epularis* is widespread, ranging from Madeira, Lebanon and the Caucasus to Middle Asia.

*Phlaeae chrysops* (Poda, 1761)

MATERIAL: South Urals: 1 ♀, Chelyabinsk Area, Troitsk Distr., Uz River, limestone denudation, 10.VII.1998, leg. T. Gridina.

CATALOGUE: South Urals: Orenburg Area, Bashkiria.

*Phlegra fuscipes* Kulczyński, 1891

MATERIAL: South Urals: 2 ♀♀, Orenburg Area, Kuvandyk Distr., Aituar, stony steppe, under stones, 31.V.1996, leg. NM (det. D. Logunov).

REMARKS. New to the Urals. According to Logunov [1992b], this species displays "a Euro-Baikalian subboreal pattern".

*Phlegra profuga* Logunov, 1996

MATERIAL: South Urals: 1 ♀, Orenburg Area, Kuvandyk Distr., Aituar, stony steppe, 20.V.1996, leg. NM (det. D. Logunov).

REMARKS. New to the Urals. Originally, this species was described from North Kazakhstan, South Siberia (Tuva) and Central Asia (Kirghizia) [Logunov, 1996].

*Pseudicius encarpatus* (Walckenaer, 1802)

MATERIAL: South Urals: 1 ♂, 1 ♀, Orenburg Area, Kuvandyk Distr., Aituar, 20.V.1997, leg. SE (det. D. Logunov).

REMARKS. New to the Urals. *P. encarpatus* is widespread in Europe, the southern Russian Plain, the Crimea, the Caucasus, Kazakhstan and Central Asia.

*Talavera thorelli* (Kulczyński, 1891)

MATERIAL: Middle Urals: 1 ♂, Perm Area, Kungur Distr., Zuyata, limestone denudation, 13.V.1995, leg. T.I. Gridina.

CATALOGUE: North Urals: montane region. Middle Urals: montane region. South Urals: Bashkiria, Chelyabinsk Area.

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## References

- Azheganova N.S., Glukhov M.F. 1981. [Fauna and ecology of spiders in the environs of the Biological Station (Verkhnyaya Kvazhva)] // Fauna i ekologiya nasekomykh. Perm. P.21–32 [in Russian].
- Buchar J. 1968. Zur Lycosidenfauna Bulgariens // Věstn. Českosl. Společ. Zool. Vol.32. No.2. P.116–130.
- Danilov S.N. 1994. [Cribellate spiders from Transbaikalia] // Entomol. obozrenie. Vol.73. No.1. P.200–209 [in Russian, with English summary].
- Danilov S.N. 1995. [Spiders of the Dzherghinskiy Reserve] // Bioraznoobrazie ekosistem Pribaikaliya. Trudy Zapovednika. Vol.1. P.53–64 [in Russian].
- Deltshov C.D., Blagoev G.A. 1992. A faunistic and zoogeographic analysis of spiders (Araneae) in Zemen gorge (Southwestern Bulgaria) // Acta Zool. Bulgarica. Vol.45. P.26–35.
- Efimik V.E. 1995. [Spiders (Aranei) of the Bashkirian State Reserve] // Fauna i ekologiya paukov. Perm. P.98–116 [in Russian].
- Efimik V.E., Gulyashchikh E.V. 1995. [Spider fauna of the pine-broadleaved forests of the South Urals] // Fauna i ekologiya paukov. Perm. P.116–131 [in Russian].
- Efimik V.E. 1997. [Biotopical distribution of Bashkirian spiders] // Vestnik Perm. Univ. No.3. P.128–138 [in Russian].
- Efimik V.E., Esyunin S.L., Kuznetsov S.F. 1997. Remarks on the Urals spider fauna, 7. New data on the fauna of the Orenburg Area (Arachnida Aranei) // Arthropoda selecta. Vol.6. No.1–2. P.85–90.
- Efimik V.E., Zolotarev M. P. 1998. [Supplementary data to fauna and ecology of spider (Arachnida: Aranei) of the Chelyabinsk Area] // Bespozvonochnye zhivotnye Yuzhnogo Zauraliya i sopredelnykh territorii. Kurgan. P.140–146 [in Russian].
- Eskov K.Y. 1992. New data on the linyphiid spider fauna of South Siberia (Araneae Linyphiidae) // Arthropoda Selecta. Vol.1. No.2. P.73–82.
- Eskov K.Y. 1994. Catalogue of the linyphiid spiders of northern Asia (Arachnida, Araneae, Linyphiidae). Sofia-Moscow: Pensoft Publ. 144 pp.
- Eskov K.Y., Marusik Y.M. 1995. On the spiders from Saur Mt. Range, Easter Kazakhstan (Arachnida: Araneae) // Beitr. Araneol. Vol.4 (1994). P.55–94.
- Esyunin S.L., Efimik V.E. 1995. Remarks on the Ural spider fauna, 4. New records of spider species (excluding Linyphiidae) from the Urals (Arachnida Aranei) // Arthropoda Selecta. Vol.4. № 1. P.71–91.
- Esyunin S.L., Efimik V.E. 1996. Catalogue of the spiders (Arachnida, Aranei) of the Urals. Moscow: KMK Sci. Press. 229 pp.
- Esyunin S.L., Efimik V.E. 1998. Remarks on the Ural spider fauna, 8. New and unidentified species from steppe landscapes of the South Urals (Arachnida: Aranei) // Arthropoda Selecta. Vol.6. No.2. P.145–152.
- Esyunin S.L., Efimik V.E., Polyanin A.B. 1995. Remarks on the Ural spider fauna, 5. New records of spider species of the family Linyphiidae from the Urals (Arachnida Aranei) // Arthropoda Selecta. Vol.4. No.2. P.49–71.
- Esyunin S. L., Golovatch S.I., Penev L.D. 1993. The fauna and zoogeography of spiders inhabiting oak forests of the East European Plain (Arachnida: Araneae) // Ber. nat.-med. Ver. Innsbruck. Bd.80. S.175–249.
- Esyunin S.L., Pakhorukov N.M. 1992. [The spider fauna of the Troitskii Reserve] // Chlenistonogchie okhranyaemykh territorii Chelyabinskoi oblasti. Sverdlovsk. P.3–28 [in Russian].
- Esyunin S.L., Ukhova N.L. 1996. [Zoogeographical composition of the spider fauna of the Visimski Reserve] // Problemy zapovednogo dela. 25 let Visimskomu zapovedniku. Ekaterinburg. P.47–48 [in Russian].
- Esyunin S.L., Kozminykh V.O., Komlev A.M., Khokhutkin I.M. 1996. [The diversity of some groups of soil mesofauna of Visimski Reserve forests] // Ibid. P.44–47 [in Russian].
- Ghembitsky A.S., Efremova G.A., Zhukovets E.M. 1985. [Spiders (Aranei) from the bird nests in Byelorussia] // Vestsі AN BSSR. Ser. biyal. navuk. No.1. P.81–87 [in Byelorussian, with Russian and English summaries].
- Ghirfanova L.I., Grigorieva T.N., Stepanova R.K. 1992. [Materials to fauna and ecology of spiders of Bashkiria] // Voprosy ekologii zhivotnykh Yuzhnogo Urala. Vol.5. Ufa. P. 56–64. Deposited in VINITI, No 587-B92 [in Russian].
- Guryanova V.E., Khomenko V.N. 1991. [Composition of the araneofauna and the basic ecological peculiarities of its components in the steppe ecosystems of the "Askania-Nova" Reserve]. Kiev. 56 pp. [in Russian].
- Kharitonov D.E. 1923. [On the spider fauna of the eastern slope of the Urals] // Izvestiya biol. Nauchno-issled. instituta i biol. stantsii pri Permskom gos. universitete. T.2. No.1. P.25–36 [in Russian].
- Kharitonov D.E. 1931. [Araneina in the lower strata of a Pinetum cladinosum, collected by M. K. Boitsova in Nizhnyaya Kurya near Perm] // Trudy biol. Nauchno-issled. Instituta pri Permskom gos. universitete. Vol.1. No.1–2. P.153–161 [in Russian, with German summary].
- Kharitonov [Charitonov] D.E. 1932. Katalog der russischen Spinnen. Leningrad: AN SSSR Publ. P.1–206.
- Koponen S., Marusik Y.M., Tanasevitch A.V. 1998. New data on the spider fauna of the Polar Urals (Aranei) // Arthropoda selecta. 1997. Vol.6. No.3/4. P.109–119.
- Krasnobaev Y.P., Matveev V.A. 1993. [Catalogue of spiders of the middle flow of Volga River region]. Samara: Samarskaya Luka. 74 pp.
- Kronestedt T. 1980. Notes on *Walckenaeria alticeps* (Denis), new to Sweden, and *W. antica* (Wider) (Araneae, Linyphiidae) // Bull. Br. arachnol. Soc. Vol.5. No.3. P.139–144.
- Loerbroks A. 1983. Revision der Krabbenspinnen-Gattung *Heriaeus* Simon (Arachnida: Thomisidae) // Verh. Naturwiss. Ver. Hamburg. N.F. Bd.26. S.85–139.
- Logunov D.V. 1992a. Salticidae of Middle Asia (Aranei). I. New species from the genera *Heliophanus*, *Salticus* and *Sitticus*, with notes on new faunistic records of the family // Arthropoda Selecta. Vol.1. No.1. P.51–67.
- Logunov D.V. 1992b. The spider family Salticidae (Araneae) from Tuva. II. An annotated check list of species // Ibid. Vol.1. No.2. P.47–71.
- Logunov D.V. 1996. A review of the genus *Phlegra* Simon, 1876 in the fauna of Russia and adjacent countries (Araneae: Salticidae: Aelurillinae) // Genus. Vol.7. No.3. P.533–567.
- Logunov D.V., Marusik Y.M. 1994. A faunistic review of the crab spiders (Araneae, Thomisidae) from the mountains of South Siberia // Bull. Inst. Roy. Sci. nat. Belg., Entomol. Vol. 64. P.177–197.
- Logunov D.V., Marusik Y.M., Rakov S.Y. 1999. A review of the genus *Pellenes* in the fauna of Central Asia and the Caucasus (Araneae, Salticidae) // J. Nat. History. Vol.33. P.89–148.
- Marusik Y.M. 1991. [Crab spiders of the family Philodromidae (Aranei) of East Siberia] // Zool. zhurn. Vol.70. No.10. P.48–58 [in Russian, with English summary].
- Marusik Y.M., Eskov K.Y., Logunov D.V., Basarukin A.M. 1993. A check-list of spiders (Arachnida Aranei) from Sakhalin and Kurile Islands // Arthropoda Selecta. Vol.1 (1992). No.4. P.73–85.
- Marusik Y.M., Hippa H., Koponen S. 1996. Spiders (Araneae) from the Altai area, Southern Siberia // Acta Zool. Fennica. Vol.201. P.11–45.
- Marusik Y.M., Koponen S. 1998. New and little known spiders of the subfamily Dictyninae (Araneae: Dictynidae) from South Siberia // Entomol. Problems. Vol. 29. No.2. P. 79–86.
- Marusik Yu.M., Logunov D.V. 1990. The crab spiders of Middle Asia, USSR (Aranei, Thomisidae). I. Description and notes on distribution of some species // Korean Arachnol. Vol.6. No.1. P.31–62.
- Marusik Yu.M., Logunov D.V. 1995. The crab spiders of Middle Asia (Aranei, Thomisidae), 2 // Beitr. Araneol. Vol.4 (1994). P.133–175.
- Marusik Yu.M., Tanasevitch A.V. 1998. Notes on the spider *Stylocetor* Simon, 1884 and some related genera, with description of two new species from Siberia (Aranei: Linyphi-

- idae) // Arthropoda Selecta. Vol. 6, No 2. P. 153–159.
- Mikhailov K.G. 1992. The spider genus *Clubiona* Latreille, 1804 (Arachnida Aranei Clubionidae) in the USSR Fauna: a critical review with taxonomical remarks // Arthropoda Selecta. Vol.1. No.3. P.3–34.
- Mikhailov K.G., Fet V. 1994. Fauna and zoogeography of spiders (Aranei) of Turkmenistan // Fet V., Atamuradov K. (eds.), Biogeography and ecology of Turkmenistan. Monogr. Biol. Vol. 72. Dordrecht etc.: Kluwer Acad. Publ. P.499–524.
- Miller F. 1958. Tři nové druhy pavouků z moravských stepních oblastí // Acta Soc. Zool. Bohemoslov. Vol.22. No.2. P.148–155 [in Slovakian].
- Nenilin A.B. 1984. [Materials to the fauna of the spider family Salticidae of the USSR. I. Catalogue of Salticidae of Middle Asia] // Fauna i ekologiya paukoobraznykh. Perm. P.6–37 [in Russian].
- Ovtsharenko V.I. 1979. [Spiders of the families Gnaphosidae, Thomisidae, Lycosidae (Aranei) of the Caucasus Major] // Fauna i ekologiya paukoobraznykh. Trudy Zool. Inst. AN SSSR. T.85. P.39–53 [in Russian].
- Ovtsharenko V.I. 1982. [A systematic list of the spiders family Gnaphosidae (Aranei) of the European part of the USSR and the Caucasus] // Entomol. obozr. Vol.61. No.4. P.830–844 [in Russian, with English summary].
- Ovtsharenko V.I., Levy G., Platnick N.I. 1994. A review of the ground spider genus *Synaphosus* (Araneae, Gnaphosidae) // Amer. Mus. Novit. No.3095. P.1–27.
- Ovtsharenko V.I., Platnick N.I., Song D.X. 1992. A review of the North Asian ground spiders of the genus *Gnaphosa* (Araneae, Gnaphosidae) // Bull. Amer. Mus. Nat. Hist. No.212. P.1–88.
- Pakhorukov N.M. 1978. [Spiders of the northern Urals (an ecofaunistic review)]. Thesis of Candidate (Ph.D.) of Biological Sci. Degree. Perm. 297 pp. [in Russian].
- Pakhorukov N.M., Efimik V.E. 1988. [On the spider fauna of the Bashkirian Reserve] // Fauna i ekologiya paukoobraznykh. Perm. P.15–34.
- Pakhorukov N. M., Esyunin S. L., Polyanin A. B. 1995. [Spider fauna (Arachnida: Aranei) of the Research Forestry "Preduralye", Perm Area] // Fauna i ekologiya paukov. 1994. Perm. P.25–38 [in Russian].
- Polchaninova N.Y. 1988. [Spiders of the Chernomorskii State Reserve] // Fauna i ekologiya paukoobraznykh. Perm. P.42–51 [in Russian].
- Polyanin A.B., Pakhorukov N.M. 1988. [The spider fauna of the forest zone of southern Transuralia] // Ibid. P.61–80.
- Ponomarev A.V., Minoransky V.A. 1981. [On the spiders (Aranei) from burrows of *Citellus pygmaeus* Pall. in the semidesert zone of the USSR European part] // Entomol. obozr. Vol.60. No.1. P.196–200 [in Russian, with English summary].
- Rakov S.Y., Logunov D.V. 1996. A critical review of the genus *Heliophanus* C.L. Koch, 1833, of Middle Asia and the Caucasus (Aranei Salticidae) // Arthropoda Selecta. Vol.5. No.3–4. P.67–104.
- Saaristo M.I. 1997. Description of *Megalepthyphantes pseudocolinus*, n. sp. (Araneae: Linyphiidae: Micronetinae) // Bull. Br. arachnol. Soc. Vol.10. No.7. P.257–259.
- Spassky S.A. 1940. Araneae palaearcticae novae. V. // Folia Zool. Hydrobiol. T.10. No.2. P.353–364.
- Tanasevitch A.V. 1987. [A new genus of spiders of the subfamily Erigoninae (Aranei, Linyphiidae) from West Kazakhstan] // Biologicheskie nauki. No.11. P.72–75 [in Russian, with English summary].
- Tanasevitch A.V. 1990. [Spiders of the family Linyphiidae of the Caucasian fauna (Arachnida, Aranei)] // Fauna nazemnykh bespozvonochnykh Kavkaza. Moscow: Nauka. P.5–114, 235 [in Russian, with English summary].
- Thaler K. 1996. Three *Walckenaeria* species from Peloponnese, Greece (Araneae: Linyphiidae) // Bull. Br. arachnol. Soc. Vol.10. No.4. P.156–160.
- Thorell T. 1875. Descriptions of several European and North African spiders // Kongl. Svenska Vet.-Akad. Handl. Bd.13. H.5. P.3–203.
- Tystshenko V.P. 1971. [An identification book of spiders of the European part of the USSR]. Leningrad: Nauka. 281 pp. [in Russian].
- Ukhova N.L., Esyunin S.L. 1996. [To the arachnid fauna (Arachnida) of the Visimskii Reserve] // Problemy zapovednogo dela. 25 let Visimskomu zapovedniku. Ekaterinburg. P.110–112 [in Russian].
- Wesołowska W. 1996. New data on the jumping spiders of Turkmenistan (Aranei Salticidae) // Arthropoda Selecta. Vol.5. No.1–2. P.17–53.
- Wunderlich J. 1969. Beschreibung seltener oder bisher unbedeutender Arten (Arachnida: Araneae) // Senckenbergiana biol. Bd.50. H.5–6. S.381–393.
- Wunderlich J. 1972. Zur Kenntnis der Gattung *Walckenaeria* Blackwall 1833 unter besonderer Berücksichtigung der europäischen Subgenera und Arten (Arachnida: Araneae: Linyphiidae) // Zool. Beitr. (N.F.). Bd.18. S.371–427.
- Wunderlich J. 1973. Weitere seltene und bisher unbedeutende Arten sowie Anmerkungen zur Taxonomie und Synonymie (Arachnida: Araneae) // Senckenbergiana biol. Bd.54. H.4–6. S.405–428.
- Yu L.-M., Song D.-X. 1988. [On new species of the genus *Pardosa* from China] // Acta zootaxon. Sin. Vol.13. No.1. P.27–41 [in Chinese].
- Zonshtain S.L. 1984. [To the fauna and ecology of spiders (Aranei) of the lower strata of walnut-fruit forests of southern Kirghizia] // Entomol. issledovaniya v Kirghizii. Frunze: Ilim. No.17. P.144–151 [in Russian].