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RESEARCH ARTICLE

New data on spiders (Arachnida, Aranei) of Kamchatka, Russia

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Abstract

Since 1885 and for almost a century the Kamchatka Peninsula had been a region of Russia east of the Urals with the best studied spider fauna. Currently, Kamchatka can be considered the least studied Siberian region. In this paper, we have provided a brief overview of Tatyana V. Pavlenko's spider collection compiled in Kamchatka in 1988-1992. A species list contains 108 species belonging to 15 families, of which 25 species, five genera and the family Titanoecidae are new to the spider fauna of Kamchatka. *Walckenaeria subspiralis* Millidge, 1983 is recorded from the Palaearctic Region for the first time. *Kolymocyba petrophila* Eskov, 1989 previously known from Magadan Area only is illustrated to provide more detail data about its morphology. The female of *Micaria yeniseica* Marusik & Koponen, 2002 that was previously known from the holotype male from the middle reaches of Yenisei River only is described for the first time. Two species – *M. yeniseica* and *Zelotes azsheganovae* Esyunin & Efimik, 1992 – significantly extended their known range to the east. Based on new data, a total number of the spider species known from Kamchatka has extended to 273.

Keywords

Araneae, Asia, Far East, new record

Introduction

Thanks to two papers by Kulczyński (1885, 1926) and two other publications by Schenkel (1930) and Sytshevskaja (1935), for almost a century the Kamchatka Peninsula had been a region of Russia east of the Urals with the best studied spider fauna. In the four abovementioned papers 170 spider species were recorded from Kamchtka (Charitonow 1936). Currently, Kamchatka seems to represent the least studied Siberian region in the arachnological sense, with only 248 species being recorded from there (Mikhailov 2016). The neighboring Magadan Area together with Chukotka account for over 550 species (Marusik et al. 1992), Sakhalin Area and Yakutia have over 400 reported species each (Marusik et al. 1993a, 1993b).

Our late colleague, professional arachnologist, Dr Tatyana V. Pavlenko used to work in Kamchatka (1988–1992) and collect spiders from different parts of the peninsula, but none of her faunistic data has been published. For a long time, it was thought that the spider material collected by Pavlenko was lost after her return to St.-Petersburg followed by an unexpected death (exact year is unknown).

Fortunately, these materials and field notebooks were found in the Zoological Institute of the Russian Academy of Sciences (St.-Petersburg, Russia). They contain several dozens of jars of different sizes, in some of which invertebrates dried out. Here we first present the results based on undamaged specimens.

Although sample tubes lack proper geographical labels, it was easy to recognize most of the localities thanks to the available field notebooks. At first, we have been able to process about a quarter of the material collected by Tatyana Pavlenko and her colleagues from Kamchatka. Among these materials, we have found 25 species, five genera and a family of spiders new to Kamchatka. The goals of this paper are to provide a brief survey of studied material and to comment on new records.

Material and methods

Field works were carried out in the central part of the Kamchatka Peninsula, in the vicinity of the Esso Village (northern spurs of the Kozyrevski Mt. Range, the eastern macro-slope of the Sredinnyi Mt. Ridge, Figure 1). In addition, some materials were collected from the vicinities of Kozyrevsk and Aginskii villages, the Kronotsky Nature Reserve and the South Kamchatka Natural Park, etc. Spiders were collected by pitfall traps, sweeping, by hands, also from soil samples, and fixed in 75% alcohol.

Below the studied sites are arranged in accordance with their geographic proximity (Figure 1):

1. **Koz** – Kozyrevsk Village, meadow.

2. **Es** – Esso Village vicinities; **Es1** – the right bank of Bystraya River, Tupikin Kluch; **Uks** – Uksichan River valley, the right bank, ca 56°04'N 158°22'E; **Bir** – the right bank of Birakchan Stream, slope plume, N exposition, 790 m a.s.l., *Pinus pumi-*

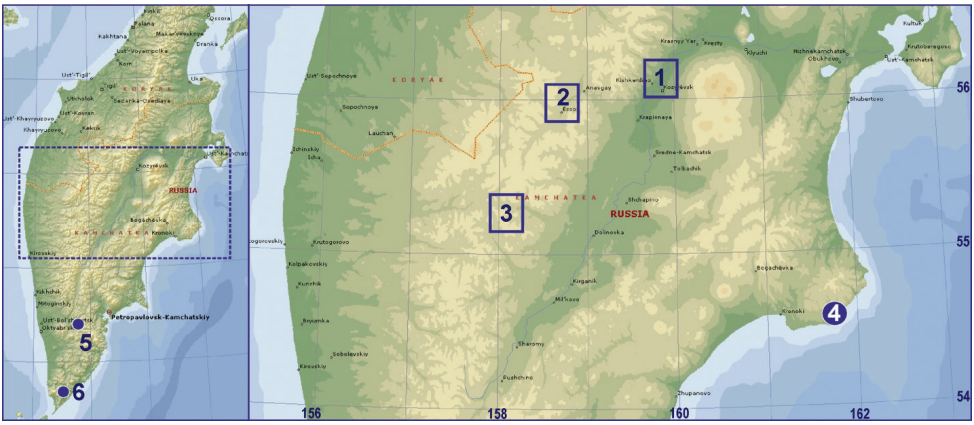

Figure 1. Major collecting sites. Environs of Kozyrevsk (**1**), Esso (**2**) and Aginskii (**3**) villages, Kozlova Cape, Kronotsky Nature Reserve (**4**), Chasha Lake, Tolmachevskiy dol (**5**), Kurile Lake, South Kamchatka Natural Park (**6**).

la with underscrubs and green mosses; **Pla** – plateau on the right bank of Uksichan River, headwaters of Birakchan stream, 800-1000 m, mountain tundra with *Ledum* sp., *Empetrum* sp., *Vaccinium* sp., lichens, green mosses, *Pinus pumila*; **Ole** – the upper reaches of Olengende River, 1100 m a.s.l., NNW exposed slope, the upper limit of *Pinus pumila* belt with *Rhododendron* sp., *Vaccinium* spp., green mosses, lichens; **Gor** – c. 8 km SW of Esso Village, the left bank of Bystraya River, nr. Gorgachan Pass; **Oem** – Bystraya River valley, opposite to the confluence of Oemtevlan and Bystraya Rivers, *Pinus pumila*; **Bys** – Bystraya River valley.

3. **Aga** – Aga River, geological field station in front of Marina Pass; **Agi** – Aginskii Village, the left bank of Kopylie River, pebble-stone; **Mari** – Bystraya River upstream, Marina Pass; **Ket** – Ketachan River valley.

4. **Krono** – Kronotsky Nature Reserve, Kozlova Cape near Kozlova River mouth, *Pinus pumila*.

5. **Cha** – Tolmachevskiy dol, Chasha Lake, under stones.

6. **Kur** – South Kamchatka Natural Park, Kurile Lake.

7. Unidentified region. **Lay** – Kamchatka, Layda, marshy birch forest (*Betula ermanii*); **XX** – Kamchatka.

Species marked with an asterisk (*) are first recorded from Kamchatka, those with two asterisks (**) mean that both genus and the species are new to Kamchatka; ♂♂ or/and ♀♀ means that specimens are numerous (>20) and were not counted.

Almost all the studied materials are deposited in the Zoological Institute of the Russian Academy of Sciences, St.-Petersburg, Russia, with some specimens being temporary deposited in the Zoological Museum of the Turku University, Finland.

Results

Araneidae

Hypsosinga sanguinea (C. L. Koch, 1844)
Material. 1♂ [**Pla**].

Larinioides patagiatus (Clerck, 1757)
Material. 1♂ [**Pla**].

Clubionidae

Clubiona kulczynskii Lessert, 1905
Material. 1♀ [**Ole**]; 1♀ [**Uks**], NW slope; 1♂ [**Gor**], SE slope; 1♀ [**Uks**].

Clubiona propinqua L. Koch, 1879
Material. 1♂ [**Gor**].

Dictynidae

Emblyna annulipes (Blackwall, 1846)
Material. 3♀ 1♂ [**Uks**].

Hackmania prominula (Tullgren, 1948)
Material. 2♂ [**Es**]; 2♀ [**Bir**].

Gnaphosidae

Drassodes cupreus (Blackwall, 1834)
Material. 2♀ [**Gor**]; 1♀ 1♂ [**Uks**], NW slope; 2♀ [**Es**]; 1♂ [**Gor**].

Drassodes neglectus (Keyserling, 1887)*
Material. 1♀ [**Uks**].
Note. This Siberio-Nearctic species (Marusik et al. 2000) is new to Kamchatka.

Gnaphosa borea Kulczyński, 1908*
Material. 1♀ 7♂ [**Pla**].
Note. This Siberio-Nearctic species (Marusik et al. 2000) is new to Kamchatka.

Gnaphosa microps Holm, 1939
Material. 1♀ 20♂ [**Pla**]; 1♀ [**Oem**]; 1♀ [**Mari**]; 1♀ 8♂ [**Es**]; 1♀ [**Gor**].

Gnaphosa orites Chamberlin, 1922*
Material. 2♀ [**Mari**]; 1♀ [**Es1**].

Note. This Holarctic species (Marusik et al. 2000) is new to Kamchatka.

Gnaphosa similis Kulczyński, 1926
Material. 1♂ [**Uks**], NW slope; 1♀ 1♂ [**Es**]; 2♀1♂ [**Uks**]; 1♀ [**Gor**].

Note. This species was described from Kamchatka and known from East Siberia, from Transbaikalia to Chukotka Peninsula, and southward to Maritime Territory (Marusik and Omelko 2014).

Haplodrassus hiemalis (Emerton, 1909)*
Material. 2♂ [**Pla**]; 1♀ [**Uks**].

Note. This Siberio-Nearctic species (Marusik et al. 2000) is new to Kamchatka.

Haplodrassus moderatus (Kulczyński, 1897)
Material. 2♂ [**Gor**].

Haplodrassus signifer (C. L. Koch, 1839)
Material. 2♀ 1♂ [**Uks**], NW slope; 7♀ 7♂ [**Pla**]; 5♀ 1♂ [**Es**]; 1♀ 1♂ [**Gor**]; 1♀ [**Es**].

Haplodrassus soerenseni (Strand, 1900)
Material. 1♀ [**Es1**]; 2♀ [**Mari**]; 2♀ [**Agi**]; 9♀ 43♂ [**Uks**], NW slope; 5♀ 38♂ [**Pla**]; ♀♀ ♂♂ [**Es**]; 1♀ [**Uks**].

Micaria alpina L. Koch, 1872*
Material. 1♂ [**Pla**]; 2♂ [**Es**].

Note. This Holarctic species (Marusik et al. 2000) is new to Kamchatka.

Micaria pulicaria (Sundevall, 1831)
Material. 1♂ [**Uks**], NW slope; 1♂ [**Pla**]; 1♀ 1♂ [**Es**]; 3♀ 1♂ [**Gor**].

Micaria rossica Thorell, 1875
Material. 1♀ [**Gor**]; 1♂ [**Uks**].

Micaria yeniseica* Marusik & Koponen, 2002
Figs 2A–C, 3A–C, 4A–D

Micaria yeniseica Marusik & Koponen, in Marusik et al. 2002: 345, figs 1–2 (♂).

Material. 11♀ 2♂ [**Gor**].

Description. Female. Total length 3.15–3.75 mm, carapace 1.5–1.7 long, 1–1.1 wide, length/width ratio 1.5. Carapace dark brown with silver hairs. Legs dark

Table 1. Leg measurements in female, mm.

	Fe	Pa	Ti	Mt	Ta	Total
I	1.1	0.5	0.8	0.7	0.7	3.8
II	1.0	0.5	0.8	0.7	0.7	3.7
III	0.9	0.4	0.6	0.7	0.6	3.2
IV	1.1	0.4	0.9	0.9	0.6	3.9

brown. Leg lengths as in Table 1. Abdomen silver black with two sublateral white spots at the top of abdomen, and whitish stripe in the middle of abdomen. Carapace/tibia I ratio 0.7, tibia I/metatarsus I ratio1.2. Epigyne as in Fig. 4A–D.

Note. The comparative figures of *M. yeniseica* and its sibling species *M. silesiaca* L. Koch, 1875 are provided here. The males of two species are easily distinguishable by the relative length of the tibia (longer in *M. yeniseica*), the position of the tegular apophysis (antero-prolateral vs. central) and shape of the retrolateral part of the sperm duct (straight vs. rounded). No distinct differences have been found between the females of two species, in which the conformation of receptacles strongly varies.

This species is new to Kamchatka. Earlier, it was known from the type locality and only from the holotype male, from the middle reaches of Yenisei River (Marusik et al. 2002; Mikhailov 2013). It seems that it has a disjunctive range as it is unknown between Yenisei and Kamchatka. This record extends the known range to about 70º or 3800 km to the east and represents the easternmost limit of the species' distribution.

Zelotes azsheganovae **Esyunin & Efimik, 1992***
Fig. 5

Material. 1♂ [**Gor**].

Note. This species is new to Kamchatka. Earlier, it was known to occur from Ukraine to the Altai (Marusik et al. 1996; Mikhailov 2013). It seems that the species has a disjunctive range as it is not recorded from between the Altai and Kamchatka. The present record extends the known species range to about 75º or 4500 km to the east and represents the north-easternmost limit of its distribution. In order to prove out identification figures of the male palp have been provided here.

Zelotes puritanus Chamberlin, 1922*
Material. 1♀ [**Gor**].

Note. This species is new to Kamchatka. It has a circum-Holarctic disjunctive range (Marusik et al. 2000).

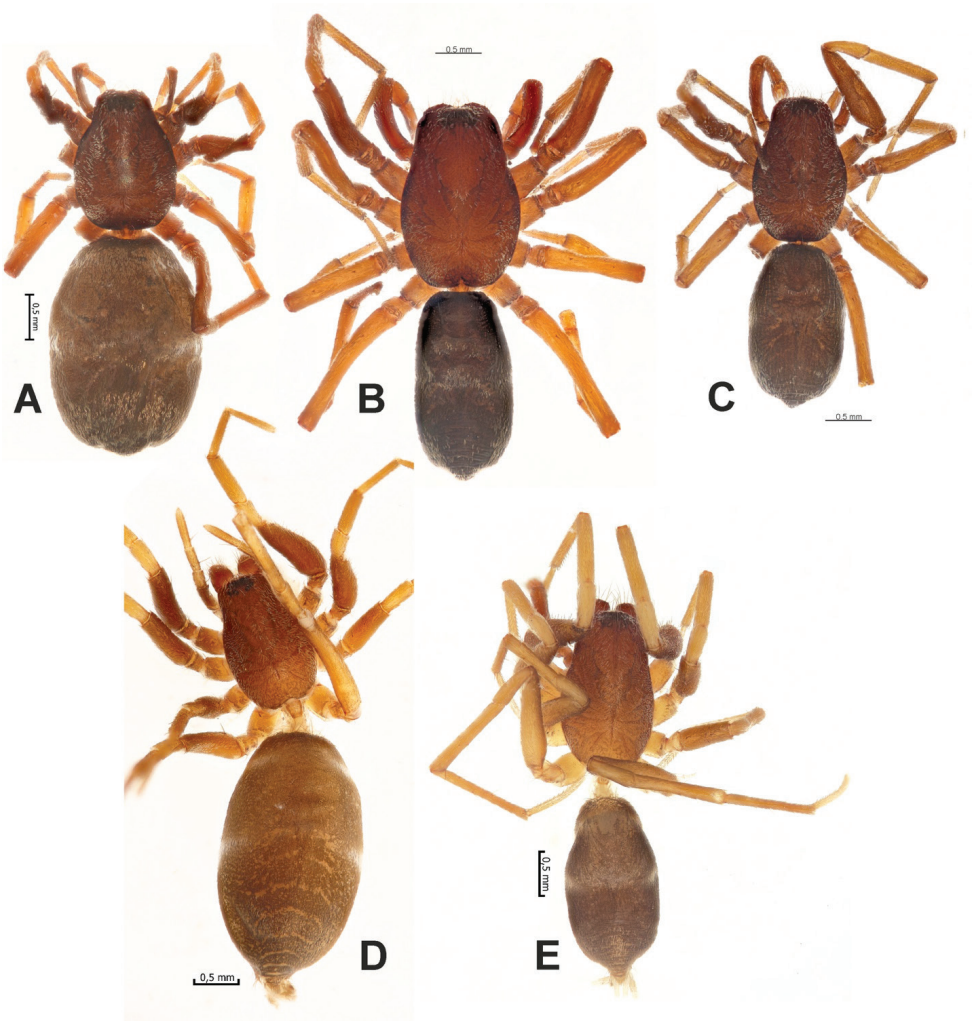

Figure 2. Habitus of *Micaria yeniseica* (**A–C**) and *M. silesiaca* (**D–E**), dorsal. **A**, **D** female; **B–C**, **E** male. **B–C** show size variation. Scale = 0.5 mm.

Hahniidae

Hahnia ononidum Simon, 1875
Material. 1♂ [**Es**].

Linyphiidae

Agnyphantes expunctus (O. Pickard-Cambridge, 1875)
Material. 1♀ [**Gor**].

Agyneta birulai (Kulczyński, 1908)*
Material. 7♀ 1♂ [**Pla**].

Note. This species is new to Kamchatka. It is known across whole Siberia (Mikhailov 2013).

Agyneta conigera (O. Pickard-Cambridge, 1863)
Material. 1♂ [**Krono**].

Agyneta olivacea (Emerton, 1882)*
Material. 1♂ [**Bir**]; 9♀ 22♂ [**Pla**]; 4♀ [**Es**].

Note. This species is new to Kamchatka. It has a circum-Holarctic range (Marusik et al. 2000).

Agyneta pseudosaxatilis Tanasevitch, 1984
Material. 3♀ 1♂ [**Pla**]; 1♀ [**Es**].

Anguliphantes karpinskii (O. Pickard-Cambridge, 1873)
Material. 1♀ [**Oem**]; 2♀ 1♂ [**Es**].

Baryphyma trifrons (O. Pickard-Cambridge, 1863)
Material. 1♀ [**Krono**]; 1♀ 1♂ [**Mari**]; ♀♀ [**Aga**]; 1♀ [**Pla**]; 2♂ [**Es**]; 2♀ [**Ket**].

Bathyphantes eumenis (L. Koch, 1879)
Material. 1♀ [**Pla**]; 3♀ [**Es**]; 1♀ [**Uks**].

Bathyphantes setiger F. O. Pickard-Cambridge, 1894*
Material. 1♀ 1♂ [**Lay**].

Note. This species is new to Kamchatka. It has a trans-Palaearctic range (Marusik et al. 2000).

Bolyphantes alticeps (Sundevall, 1833)
Material. 1♀ [**Kur**].

Centromerus sylvaticus (Blackwall, 1841)
Material. 1♀ [**Mari**].

Cnephalocotes obscurus (Blackwall, 1834)
Material. 1♀ 1♂ [**Pla**]; 4♀ [**Es**].

Collinsia caliginosa (L. Koch, 1879)
Material. 1♀ [**Agi**]; 2♀ [**Uks**].

Collinsia holmgreni (Thorell, 1871)
Material. 1♂ [**XX**].

Figure 3. Male palp of *Micaria yeniseica* (**A–C**) and *M. silesiaca* (**D–E**). **A**, **D** ventral; **B–C**, **E** retrolateral. Scale = 0.2 mm.

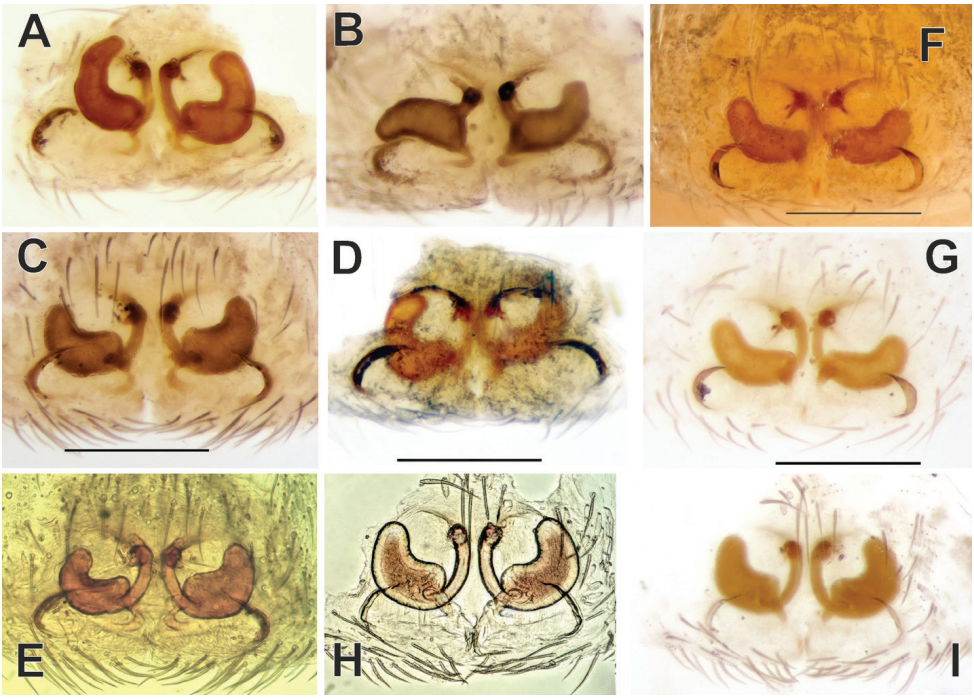

Figure 4. Epigyne of *Micaria yeniseica* (**A–D**) and *M. silesiaca* (**E–I**) showing variations in the shape of receptacles. Scale = 0.2 mm.

Dactylopisthes video (Chamberlin & Ivie, 1947)
Material. 2♂ [**Uks**].

Diplocentria bidentata (Emerton, 1882)
Material. 2♀ 1♂ [**Krono**]; 2♂ [**Pla**]; 4♀ 1♂ [**Es**]; 2♀ [**Uks**], NW slope; 1♀ [**Es**]; 2♀ [**Es1**].

Diplocentria rectangulata (Emerton, 1915)
Material. 1♀ [**Mari**]; 2♀ [**Es1**]; 2♀ [**Es**]; 4♀ [**Oem**]; 1♂ [**Pla**].

Erigone atra Blackwall, 1833
Material. 2♀ [**Agi**]; 1♀ [**Uks**].

Eskovia exarmata (Eskov, 1989)
Material. 1♀ [**Es**].

Estrandia grandaeva (Keyserling, 1886)
Material. 1♀ [**Es1**]; 1♀ [**Oem**]; 1♀ [**Ket**].

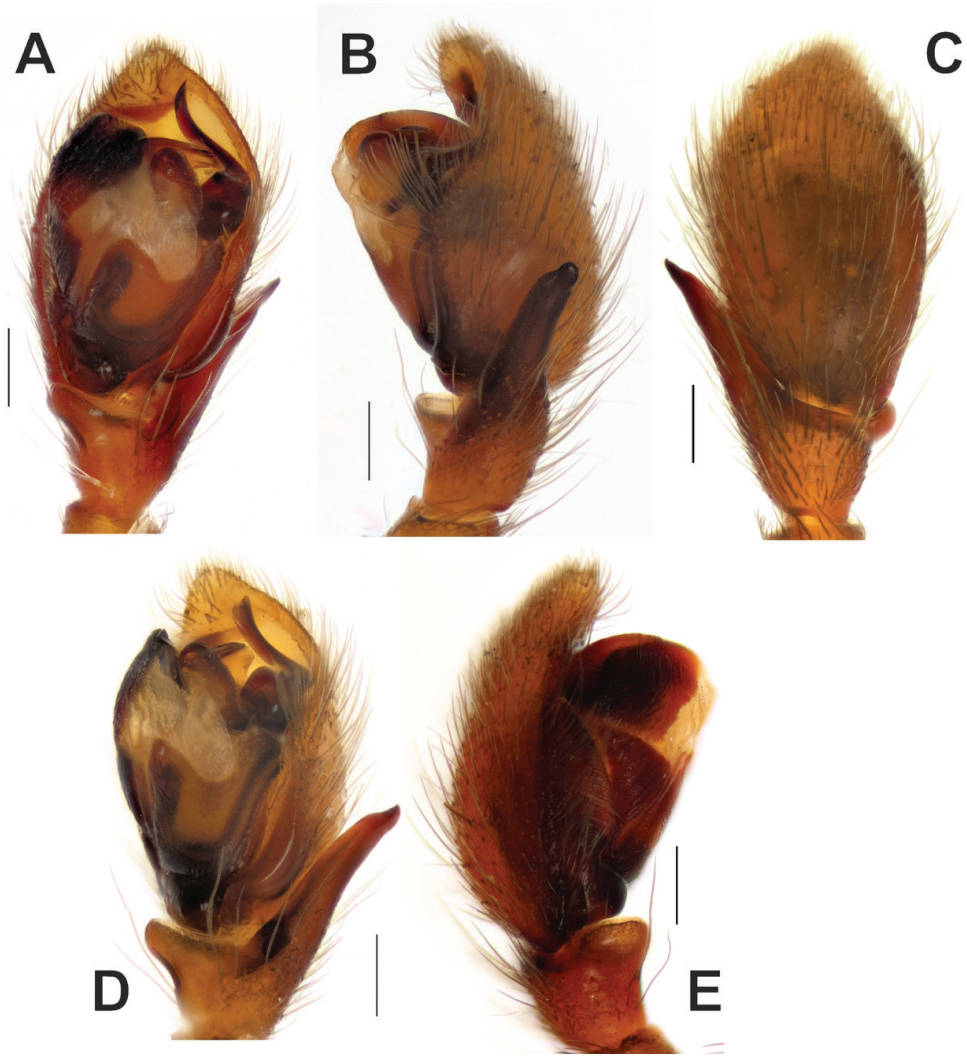

Figure 5. Male palp of *Zelotes azsheganovae*. **A** ventral; **B** retrolateral; **C** dorsal; **D** ventro-retrolateral; **E** prolateral. Scale = 0.2 mm.

Gnathonarium dentatum (Wider, 1834)
Material. 1♂ [**Ket**].

Gnathonarium taczanowskii (O. Pickard-Cambridge, 1873)
Material. 3♀ [**Agi**].

Hilaira gibbosa Tanasevitch, 1982
Material. 4♂ [**Pla**].

Hilaira herniosa (Thorell, 1875)
Material. 2♀ 4♂ [**Krono**]; 1♀ 1♂ [**Bir**]; 9♀ 11♂ [**Pla**]; 3♀ 5♂ [**Es**]; 1♀ [**Uks**], NW slope.

Hybauchenidium gibbosum (Sørensen, 1898)
Material. 3♀ 1♂ [**Es**].

Hypselistes semiflavus (L. Koch, 1879)
Material. 1♀ [**Es**].

Improphantes complicatus (Emerton, 1882)
Material. 3♀ [**Pla**]; 3♀ 2♂ [**Es**].

Improphantes flexilis (Tanasevitch, 1986)
Material. 1♀ 4♂ [**Pla**].

Incestophantes laricetorum (Tanasevitch & Eskov, 1987)*
Material. 1♀ 1♂ [**Pla**].

Note. This species is new to Kamchatka. It is known across entire Siberia (Mikhailov 2013).

Islandiana cristata Eskov, 1987
Material. 2♂ [**Pla**].

Ivielum sibiricum Eskov, 1988
Material. 2♂ [**Pla**].

Kaestneria pullata (O. Pickard-Cambridge, 1863)
Material. 1♂ [**Mari**]; 1♀ [**Aga**]; 1♂ [**Lay**].

Kolymocyba petrophila* Eskov, 1989*
Fig. 6A–C, F–H

Kolymocyba petrophila Eskov, 1989: 75, f. 5.1–5 (♂♀).

Material. 3♀ 1♂ [**XX**].

Note. It is the type species of the monotypic genus that is known from the single taxonomic entry. In order to provide more detailed data about its morphology, we provide SEM images of its male palp and epigyne have been presented. The original figures by Eskov (1989) do not show the complex shape of the radix as if having only a single apophysis, despite it having a small posterior (*Rp*) and a larger anterior (*Ra*) apophyses and a very short tailpiece (*Tp*). Numerous fine teeth on the terminal

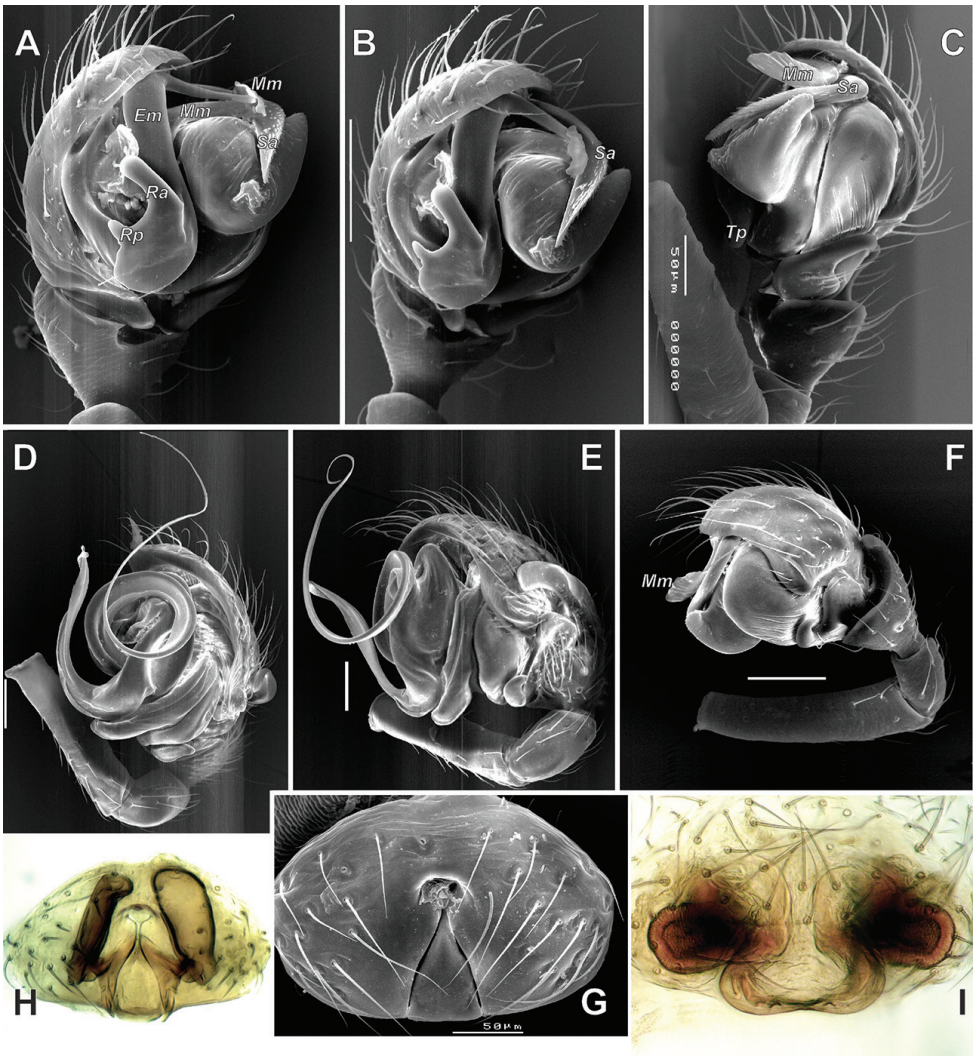

Figure 6. Copulatory organs of *Kolymocyba petrophila* (**A–C**, **F–H**) and *Walckenaeria microspiralis* (**D–E**, **I**). **A**–C terminal part of male palp, prolateral, antero-prolateral and ventral; **D**, **F** whole male palp, retrolateral; **E** whole male palp, dorso-retrolateral showing dorsal tibial apophysis; **G–I** epigyne, ventral. Scale = 0.1 mm if not otherwise indicated. Abbreviations: *Em* – embolus, *Mm* – median membrane, *Ra* – anterior radix apophysis, *Rp* – posterior radix apophysis, *Sa* – suprategular apophysis, *Tp* – tailpiece of embolic division.

part of the suprategular apophysis (*Sa*) were not shown as well as the large median membrane (*Mm*). The epigyne in light microscope (Fig. 6H) looks like the one illustrated by Eskov (1989). This species and genus are new to Kamchatka. It was known from Magadan Area (Marusik et al. 1992; Mikhailov 2013) only and the record from Kamchatka lies at the south-easternmost limit of its range.

Lepthyphantes luteipes (L. Koch, 1879)
Material. 1♀ [**Bir**]; 1♂ [**Pla**]; 1♀ [**Oem**].

Macrargus multesimus (O. Pickard-Cambridge, 1875)
Material. 1♀ [**Es**]; 1♂ [**Lay**].

Maro sibiricus Eskov, 1980
Material. 2♀ [**XX**].

Mecynargoides kolymensis Eskov, 1988**
Material. 3♂ [**Pla**].

Note. These species and genus are new to Kamchatka. It was known from Magadan Area and Mongolia only (Marusik 2005) and the record from Kamchatka lies at the easternmost limit of its range.

Mecynargus tungusicus (Eskov, 1981)
Material. 1♂ [**Uks**], NW slope.

Microlinyphia pusilla (Emerton, 1882)
Material. 4♀ [**Mari**]; 1♀ [**Oem**]; 1♀ [**Ket**].

Minicia marginella (Wider, 1834)*
Material. 1♀ [**Es1**]; 1♀ [**Es**].

Note. This species is new to Kamchatka. It has a trans-Palaearctic range (Marusik et al. 2000).

Oreonetides vaginatus (Thorell, 1872)
Material. 1♂ [**Krono**]; 2♀ 1♂ [**Es**].

Paratmeticus bipunctis (Bösenberg & Strand, 1906)
Material. 1♀ [**Ket**].

Pelecopsis dorniana Heimer, 1987*
Material. 2♀ 5♂ [**Es**].

Note. This species is new to Kamchatka. It has a Siberian range (Marusik et al. 2000).

Pelecopsis parallela (Wider, 1834)
Material. 1♀ [**Cha**].

Phlattothrata parva (Kulczyński, 1926)
Material. 1♂ [**Mari**].

Sciastes dubius (Hackman, 1954)
Material. 2♀ [**Agi**].

Scotinotylus protervus (L. Koch, 1879)*
Material. 1♀ [**Aga**]; 1♀ [**XX**].

Note. This species is new to Kamchatka. It has a Siberio-NW Nearctic range (Marusik et al. 2000).

Semljicola thaleri (Eskov, 1981)
Material. 1♂ [**Pla**].

Sisicus apertus (Holm, 1939)
Material. 1♀ [**Uks**], NW slope; 1♀ [**Gor**]; 3♀ [**Oem**].

Stemonyphantes sibiricus (Grube, 1861)
Material. 1♂ [**Krono**]; 3♀ 1♂ [**Pla**].

Tenuiphantes alacris (Blackwall, 1853)
Material. 1♀ [**Krono**]; 1♂ [**Lay**].

Tenuiphantes mengei (Kulczyński, 1887)
Material. 1♂ [**Gor**].

Tibioplus diversus (L. Koch, 1879)
Material. 1♂ [**Es**].

Tiso aestivus (L. Koch, 1872)
Material. 5♀ 11♂ [**Pla**]; 1♀ 1♂ [**Es**]; 2♀ [**Gor**].

Tmeticus tolli Kulczyński, 1908
Material. 2♀ [**Krono**].

Walckenaeria cuspidata Blackwall, 1833
Material. 3♂ [**Krono**].

Walckenaeria fraudatrix Millidge, 1983
Material. 1♀ [**Pla**].

Walckenaeria karpinskii (O. Pickard-Cambridge, 1873)
Material. 1♀ [**Es1**]; 1♂ [**Pla**]; 3♀ 1♂ [**Es**]; 1♀ [**Uks**], NW slope; 1♀ [**Gor**].

Walckenaeria lepida (Kulcyński, 1885)
Material. 1♂ [**Lay**].

Walckenaeria subspiralis* Millidge, 1983
Figs 6D–E, I

Material. 1♀ 1♂ [**Agi**].

Note. There are three very similar species that are indistinguishable by their male palps and in some cases even by the epigynes: *Walckenaeria spiralis* (Emerton, 1882), *W. microspiralis* Millidge, 1893 and *W. subspiralis*. The epigyne of our specimen is similar to those of both *W. subspiralis* (known across the Nearctic north to southern North-West Territories) and *W. microspiralis* (known from the New England only). Based purely on the distribution, we suspect that the Kamchatka specimens belong to *W. subspiralis*. *Walckenaeria spiralis* was reported from the vicinity of Magadan (Marusik et al. 1992) based on a single male (YM, personal data) and this record could also belong to the same species. This species is new to Kamchatka, Russia and the entire Palaearctic.

Walckenaeria picetorum (Palmgren, 1976)
Material. 2♀ [**Pla**].

Wubanoides fissus (Kulczyński, 1926)
Material. 1♀ [**Pla**]; 2♀ 1♂ [**Es**].

Zornella orientalis Marusik, Buckle & Koponen, 2007**
Material. 1♀ [**Es**].

Note. These genus and species are new to Kamchatka. However, Tanasevitch (2008) considers *Z. orientalis* a junior synonym of *Z. cultrigera* (L. Koch, 1879), although the differences between the species are clearly shown in the revision by Marusik et. al. (2007).

Liocranidae

Agroeca ornata Banks, 1892
Material. ♂♂ [**Es**].

Lycosidae

Alopecosa aculeata (Clerck, 1757)
Material. 13♀ 28♂ [**Pla**]; 1♀ [**Es**].

Pardosa adustella (Roewer, 1951)
Material. 1♂ [**Pla**]; 7♀ 1♂ [**Es**]; 1♀ 1♂ [**Bir**]; 2♂ [**Uks**].

Pardosa lapponica (Thorell, 1872)
Material. 27♀ 50♂ [**Pla**]; 1♀ [**Uks**].

Pardosa lyrata (Odenwall, 1901)
Material. 7♀ 2♂ [**Es**]; 1♀ [**Ket**].

Pardosa palustris (Linnaeus, 1758)
Material. 13♀ 20♂ [**Pla**].

Pardosa schenkeli Lessert, 1904
Material. 1♂ [**Bys**].

Miturgidae

Zora nemoralis (Blackwall, 1861)
Material. 1♂ [**Krono**]; 1♀ 5♂ [**Uks**], NW slope; 1♀ [**Pla**]; 1♀ 1♂ [**Es**].

Philodromidae

Tibellus oblongus (Walckenaer, 1802)
Material. 1♂ [**Uks**]; 1♀ [**Bys**]; 1♀ [**Lay**].

Salticidae

Attulus floricola (C.L. Koch, 1837)
Material. 2♂ [**Koz**].

Evarcha proszynskii Marusik & Logunov, 1998*
Material. 4♀ [**Koz**].

Note. This species is new to Kamchatka, it has an East Palaearctic – West Nearctic distribution (Logunov and Marusik 2000).

Marpissa pomatia (Walckenaer, 1802)
Materail. 1♀ [**Koz**].

Tetragnathidae

Tetragnatha extensa (Linnaeus, 1758)
Material. 1♂ [**Cha**]; 1j [**Oem**]; 1♂ [**Kur**].

Note. Although specimens from **Oem** is juvenile, we are sure in identification, because *T. extensa* is a single species known in the Peninsula with characteristic sternal pattern.

Theridiidae

Enoplognatha caricis (Fickert, 1876)
Material. 1♂ [**Ket**]; 1♀ [**Kur**]; 1♀ [**Cha**].

Robertus lyrifer Holm, 1939
Material. 2♀ [**Pla**].

Ohlertidion ohlerti (Thorell, 1870)**
Material. 1♀ [**Bys**].

Note. These genus and species are new to Kamchatka, it has a circum-Holarctic distribution (Marusik et al. 2000).

Phylloneta impressa (L. Koch, 1881)
Material. 1♂ [**Ket**].

Thomisidae

Ozyptila arctica Kulczyński, 1908*
Material. 1♀ 1♂ [**Pla**].

Note. This species is new to Kamchatka, it has a Siberio-Nearctic distribution (Marusik et al. 2000).

Ozyptila orientalis Kulczyński, 1926
Material. 2♀ 1♂ [**Pla**].

Ozyptila sincera Kulczyński, 1926
Material. 1♀ 1♂ [**Es**].

Spiracme vachoni (Schenkel, 1963)*
Material. 1♂ [**Bys**].

Note. This species is new to Kamchatka. It was known from north-eastern Kazakhstan to Chukotka, and southward to Mongolia and Hokkaido (Marusik et al. 2000).

Titanoecidae*

Note. This family was not known from Kamchatka before.

Titanoeca nivalis Simon, 1874**
Material. 1♀2j [Gor]; 1♀ [Gor].

Note. These species and genus are new to Kamchatka. It has a trans-Palaearctic–West Nearctic distribution (Marusik et al. 2000).

Discussion

One of the peculiarities of the spider fauna of Kamchatka is the presence of several species having disjunctive ranges with large gaps within the Palaearctic Region, such as: *Ozyptila gertschi* Kurata, 1944 (Europe to the Urals, Nearctic and Kamchatka; Marusik et al. 2010), *Asperthorax borealis* Ono & Saito, 2001 (Khabarovsk, Hokkaido and Kamchatka; Marusik et al. 2010), *Walckenaeria kochi* (O. Pickard-Cambridge, 1872) (the West Palaearctic to Yenisei and Kamchatka and the Kuril Islands; Marusik et al. 2010), *Arctosa raptor* (Kulczyński, 1885) has a disjunction between Nepal and Kamchatka, and Kamchatka and the Nearctic (WSC 2020). The results of the present study added two more such species having disjunctive ranges: *Micaria yeniseica* and *Zelotes azsheganovae*. The species with such unusual ranges are unknown from the adjacent Sakhalin Island, Magadan Area, Chukotka Peninsula or Hokkaido.

Before this study, 248 spider species were known from Kamchatka (Mikhailov 2016). With the newly recorded 25 species, a total number of the spider species recorded from the peninsula has increased up to 273.

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