

On the fauna of spiders and harvestmen (Arachnida: Aranei et Opiliones) of Gornaya Shoriya, South Siberia

О фауне пауков и сенокосцев (Arachnida: Aranei et Opiliones) Горной Шории, Южная Сибирь

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Ключевые слова: пауки, сенокосцы, Горная Шория, долина Мрассу, местообитания.

Abstract. An annotated checklist of the spiders and harvestmen of Gornaya Shoriya is given for the first time and includes 20 families, 96 genera and 146 spider and 6 harvestman species, of which 133 spider and 4 harvestman species are recorded from the Shorsky National Nature Park. The largest numbers of spider species belong to the families Linyphiidae (52), Lycosidae (16) and Salticidae (13). Species with wide distributional ranges predominate, making up 60 % of all zoogeographical elements. A significant part accounts for the Euro-Siberian (16.5 %) and Siberian (11 %) species. With regards to zonal distribution, the boreo-nemoral (= temperate) species predominate, making up 40 % of the recorded species. The number of spider species of the aspen-fir forest is twice those of the willow and aspen forests collectively. According to the Shimkevich-Simpson similarity index, the species assemblages of the aspen-fir and aspen forests are the most similar. Harvestmen predominate among the ground-living arachnids of the aspen-fir forest, of which most abundant species are *Oligolophus tridens* and *Sabacon sergeidedicatum*. Spiders were rarely collected by pit-fall traps. The dynamic density of harvestmen and spiders shows an asymmetric distribution and considerable variation.

Резюме. Впервые приведён аннотированный список видов пауков и сенокосцев Горной Шории. Согласно полученным данным, фауна Горной Шории включает не менее 20 семейств, 97 родов и 146 видов пауков и 6 видов сенокосцев. 133 вида пауков и 4 вида сенокосцев из них отмечены на территории Шорского национального природного парка. Наибольшее число видов пауков обнаружено в семействах Linyphiidae (52), Lycosidae (16) и Salticidae (13). В структуре зоогеографических элементов доминируют широко ареальные виды (около 60 %). Значительна доля европейско-сибирских (16,5 %) и сибирских (11 %) элементов. Борео-неморальные виды преобладают в составе зональных элементов (более 40 %). В летнем аспекте количество видов пауков в черневой тайге более чем вдвое больше, чем в ивняках и осинниках. По индексу Шимкевича-Симпсона сходство

видового состава больше в черневой тайге и осинниках. Летом, среди напочвенных паукообразных в черневых лесах доминируют сенокосцы. Наиболее обильны *Oligolophus tridens* и *Sabacon sergeidedicatum*. Пауки редко отмечены в почвенных ловушках. Для динамической плотности сенокосцев и пауков в отдельных ловушках характерно ассиметричное распределение и значительное варьирование этого показателя.

Introduction

By and large the fauna of spiders and harvestmen of the mountains of South Siberia seems to have been well studied [Logunov, Marusik, 1994; Marusik et al., 1996, 2000; Tchemeris et al., 1998; etc.]. However, the information on both arachnid groups from Gornaya Shoriya (=Gornaya Shoria) remains fragmentary [e.g., Logunov, Marusik, 1994, 1998, 2000a, b]. This region indeed is in need of further detailed arachnological investigations. The present work is devoted to the inventory of spiders and harvestmen of Kondoma and Mrassu River basins, along the latitude of Kuzedeyevo Vil., where the Shorsky National Nature Park of about 413 843 ha is situated. The aims of the present work are as follows: (1) to provide first data on the fauna and habitat preferences of spiders and harvestmen of Gornaya Shoriya; (2) to briefly discuss taxonomic and arealogical compositions of the studied fauna; (3) to compare the taxonomic composition of spider complexes between the willow, aspen and aspen-fir forests (the upper reaches of Mrassu River valley); and (4) to preliminary describe the structure of summer complex of ground-living spiders and harvestmen of the aspen-fir forest (Shorsky National Nature Park).

As a result of our survey, an annotated check-list of 146 spider species from 96 genera and 20 families and 6 harvestman species is provided for the first time.

Material and methods

This work is based on the material collected by the author in the Shorsky National Nature Park and in a few other localities in Tashtagol District of Kemerovo Region, during the field season of 2010–2011 (Fig. 1). The characteristic features of this region are the low-mountain and upland relief and a high level of precipitation; of the vegetation, aspen-fir forests prevail. The aspen-fir forest is the vegetation type typical only for southern Siberia, of which characteristic peculiarities are as follows [see Kuminova, 1950]: (1) fir and aspen predominate, with the undergrowth of large shrubs such as bird-cherry, rowan and high cranberry; (2) development of the high grassy undergrowth; (3) the presence of relic species which are typical of the lime-tree forest in the grassy undergrowth; and (4) moss layer is either absent or poorly developed.

Hand collecting, sweeping, litter sifting and pitfall trapping were used for collecting spiders and harvestmen. The spider complex of willow forest was studied in July 2011 on the river islands near the Kabuk cordon of the Park (locality 6, see below) and the Mazas River mouth (locality 11). The studied aspen forest is situated near the Uzas River mouth (locality 9); here the material was collected in August 2010 and July 2011. The spider complex of aspen-fir forest was studied in August 2010 and July 2011 near the Kubansu River mouth (locality 13). The summer complex of ground-living spiders and harvestmen was studied in the locality 13, where 10 pitfall traps (plastic cups of 7 cm diameter and 10 cm depth) were exposed from 22 to 26 July, 2011. As the period of collecting data by pitfall traps was short, all drawn conclusions about this arachno-complex (see below) are preliminary. The structure of dominance groups follows Tishler [1949]: Sp — super-dominants (>30 %), E — eudomonants (>10 %), D — dominants (5,1–10 %), Sd — subdominants (2,1–5 %), R — recedents (1,1–2 %), + — subrecedents (<1 %).

The majority of listed species is deposited in the Institute of Systematics and Ecology of Animals (ISEA), but few voucher specimens are retained in the private author's collection (PCLA). The nomenclature used in this paper follows the World Spider Catalog by N.I. Platnick [2012].

List of localities. Kemerovskaya Oblast', *Tashtagol'skii Raion*: **1** — environs of Sheregesh, Mustag Mt. Range, Karitshal Mt., 52°57' N, 83°02' E, 16–17.07.2011; **3** — Ust-Kabyrza Vil., 416 m, 52°49' N, 88°24' E, 10.06.2010; **4** — Tashtagol, 445 m, 52°46' N, 87°55' E, 02.08.2010, 17–18.07.2011; **16** — Mrassu Vil., 18–20.07.2011; **17** — near Altamash Vil., 52°32' N, 87°42' E, 25.08.2010. *Shorsky National Nature Park, Mrassu River Valley*: **2** — Mednaya Cordon and its environs, 416 m, 52°52' N, 88°23' E, 3–10.06.2010; **5** — near Yenys River mouth, 52°47' N, 88°33' E, 01.08.2010; **6** — Kabuk Cordon, 52°44' N, 88°35' E, 29.07–02.08.2011; **7** — 2 km upstream of the Chyornaya Rechka River mouth, 52°42' N, 88°36' E, 01.09.2010, 29.07.2011; **8** — Kizas Cordon, 484 m, 52°38' N, 88°40' E, 28–29.07.2011; **9** — near the Uzas River mouth, 519 m, 52°33' N, 88°44' E, 31.08.2010, 26–28.07.2011; **10** — 3 km downstream of the Aizas River mouth, 52°32' N, 88°45' E, 26.07.2011; **11** — 3 km downstream of the Mazas

River mouth, 52°31' N, 88°44' E, 26.07.2011; **12** — 500 m downstream of the Mazas River mouth, 52°30' N, 88°42' E, 31.08.2010; **13** — 2 km upstream of the Kubansu River mouth, 52°28' N, 88°41' E, 28–31.08.2010, 21–26.07.2011; **14** — near the Sigzas River mouth, 52°27' N, 88°40' E, 21.07.2011; **15** — near the Kurulek River mouth, 52°27' N, 88°38' E, 28.08.2010.

Check-list of species

ARANEI

Agelenidae

Paracoelotes birulai (Ermolajev, 1926)

Material. 1♂, 3♀♀ (ISEA) — **2**; 1♂, 4♀♀ (ISEA) — **13**.

Habitat. Aspen-fir forests.

Distribution. Siberio-Central Asian boreo-mountain range [Marusik et al., 2000].

Araneidae

Aculepeira carbonarioides (Keyserling, 1892)

Material. 2♀♀ (ISEA) — **2**; 2♀♀ (PCLT) — **6**.

Habitat. Screes.

Distribution. Siberio-trans-Nearctic arcto-alpine range [Marusik et al., 2000].

Araneus diadematus Clerck, 1758

Material. 1♀ (ISEA) — **3**; 1♀ (ISEA) — **5**; 1♂, 1♀ (ISEA) — **6**; 1♂ (ISEA) — **13**; 1♀ (ISEA) — **17**.

Habitat. Meadows, pine forest, scree, stony debris on bush, aspen-fir forest.

Distribution. Circum-Holarctic range with disjunction in continental parts of North America [Marusik et al., 1996].

Araneus marmoreus Clerck, 1758

Material. 1♂, 1♀ (ISEA) — **5**; 1♀ (ISEA) — **8**; 1♀ (ISEA) — **9**; 1♀ (ISEA) — **13**.

Habitat. Meadows, willow forest, sparse growth of birch with *Bergenia crassifolia* on stony debris.

Distribution. Circum-Holarctic boreo-nemoral range [Marusik et al., 2000].

Araneus nordmanni (Thorell, 1870)

Material. Juv. (ISEA) — **9**; 2♂♂, 1♀ (ISEA) — **13**; 1♀ (ISEA) — **17**.

Habitat. Aspen-fir forest, fir forest, sparse growth of birch with *Bergenia crassifolia* on stony debris.

Distribution. Circum-Holarctic boreo-nemoral range [Marusik et al., 2000].

Araneus cf. schrencki (Grube, 1861)

Material. 1 juv. ♂ (PCLT) — **9**.

Habitat. Aspen forest, in grass.

Distribution. South Siberia.

Comments. New undescribed species. Also known from Altai and Tuva (Yu. Marusik, personal communication).

Araneus sturmi (Hahn, 1831)

Material. 2♂♂ (ISEA) — **2**.

Habitat. Secondary forest, on *Spirea* and *Rubus*.

Distribution. Euro-Siberian range (Yu. Marusik, personal communication).

Araniella displicata (Hentz, 1847)

Material. 1♀ (ISEA) — **6**; 1♀ (ISEA) — **13**.

Habitat. Birch (*Betula pendula*) forest, grass near the river, aspen-fir forest.

Distribution. Circum-Holarctic boreo-nemoral range [Marusik et al., 2000].

Cyclosa conica (Pallas, 1772)

Material. 1 juv. ♂ (PCLT) — 2; 2♀♀ (ISEA) — 13.

Habitat. Aspen-fir forest, *Abies sibirica* forest.

Distribution. Circum-Holarctic boreo-nemoral range [Marusik et al., 2000].

Larinioides cornutus Clerck, 1758

Material. 1♀ (ISEA) — 1; 1♀ (ISEA) — 8; 1♀ (ISEA) — 13.

Habitat. Swamp in the subalpine zone, willow bushes, bank of river.

Distribution. Circum-Holarctic polyzonal range [Marusik et al., 2000].

Larinioides patagiatus (Clerck, 1758)

Material. 3♀♀ (ISEA) — 2; 1♀ — 13; 1♀ — 7.

Habitat. Secondary forest, on *Spirea* and *Betula*, bank of river in grass, willow bushes.

Distribution. Circum-Holarctic polyzonal range [Marusik et al., 2000].

Singa nitidula C.L. Koch, 1844

Material. 1♂ (ISEA) — 2; 1♀ (ISEA) — 11.

Habitat. Secondary forest, on *Ribes*, willow forest on *Ribes* also.

Distribution. Trans-Palaeartic (?) boreo-nemoral range [Marusik et al., 2000].

Stroemiellus stroemi (Thorell, 1875)

Material. 1♂ (ISEA) — 2.

Habitat. *Pinus sibirica* – *Abies sibirica* taiga.

Distribution. Trans-Palaeartic nemoral range [Marusik et al., 2000].

Cheiracanthiidae

Cheiracanthium erraticum
(Walckenaer, 1802)

Material. 1♀ (ISEA) — 1; 1 juv. (PCLT) — 2; 1♀ (ISEA) — 6; 1♀ (ISEA) — 8.

Habitat. Subalpine meadow, grass near building, stony steppe, pine forest with motley grass.

Distribution. Trans-Palaeartic boreo-nemoral (?) range [Marusik et al., 2000].

Clubionidae

Clubiona germanica Thorell, 1870

Material. 2♂♂, 1♀ (ISEA) — 6.

Habitat. Willow forest.

Distribution. European-Cisbaikalian range [Marusik et al., 1996].

Clubiona kulczyanskii Lessert, 1905

Material. 1♂ (ISEA) — 1; 1♀ (ISEA) — 9; 2♂♂, 4♀♀ (ISEA) — 13.

Habitat. Subalpine meadow, aspen-fir forest, meadow with high grass, clearance in aspen-fir forest on cereals.

Distribution. Circum-Holarctic boreo-nemoral range [Marusik et al., 2000].

Clubiona lutescens Westring, 1851

Material. 1♀ (ISEA) — 9; 1♀ (ISEA) — 13.

Habitat. Aspen forest, bank of river, on tansy.

Distribution. Trans-Palaeartic – West Nearctic boreo-nemoral [Marusik et al., 2000].

Clubiona pallidula (Clerck, 1758)

Material. 1♀ (ISEA) — 13.

Habitat. Aspen-fir forest.

Distribution. Circum-Holarctic nemoral range [Marusik et al., 2000].

Corinnidae

Phrurolithus festivus (C.L. Koch, 1835)

Material. 1♂ (ISEA) — 2.

Habitat. Scree.

Distribution. Trans-Eurasian range [Danilov, 1998].

Dictynidae

Lathys alberta Gertsch, 1946

Material. 1♂ (ISEA) — 2.

Habitat. Scree.

Distribution. Siberian-North American species.

Gnaphosidae

Callilepis schuszeri (O. Herman, 1879)

Material. 1♀ (ISEA) — 2.

Habitat. Scree.

Distribution. Trans-Palaeartic nemoral range.

Drassodes cupreus (Blackwall, 1834)

Material. 2♀♀ (ISEA) — 1.

Habitat. Stony debris.

Distribution. Trans-Palaeartic boreo-nemoral range [Marusik et al., 2000].

Haplodrassus sp.

Material. 1♀ (ISEA) — 1.

Habitat. Stony debris.

Distribution. Unknown.

Micaria pulicaria Sundevall, 1831

Material. 1♀ (ISEA) — 1; 1♀ (ISEA) — 13.

Habitat. Mountain-sky complex territory, *Abies* – *Betula* forest.

Distribution. Holarctic temperate range [Tuneva, 2007].

Zelotes fratris Camberlin, 1920

Material. 1♂ (ISEA) — 6.

Habitat. Pebble river bank.

Distribution. West-Palaeartic polyzonal range [Kovblyuk, 2006].

Hahnidae

Hahnia pusilla C.L. Koch, 1841

Material. 9♂♂, 6♀♀ (ISEA) — 2.

Habitat. *Pinus sibirica* – *Abies sibirica* taiga and its clearance, birch (*Betula pendula*) forest.

Distribution. European-West Siberian [Mikhailov, 1997] boreo-nemoral range.

Linyphiidae

Agyneta fuscipalpa (C.L. Koch, 1836)

Material. 1♂ (PCLT) — 4.

Habitat. Stony debris.

Distribution. Euro-Baikalian nemoral-montane range [Marusik et al., 2000].

Allomengea scopigera (Grube, 1859)**Material.** 1♀ (ISEA) — 2; 3♀♀ (ISEA) — 13.**Habitat.** Aspen-fir forest.**Distribution.** Palaearctic – West Nearctic boreo-nemoral range [Tanasevitch, Koponen, 2007].*Anguliphantes cerinus*
(L. Koch, 1879)**Material.** 1♂, 1♀ (ISEA) — 2; 1♀ (ISEA) — 9; 2♀♀ (ISEA) — 13.**Habitat.** Clearance in the *Pinus sibirica* – *Abies sibirica* taiga, tourist camp, birch and fir-birch (*Betula pendula*) forest, aspen-fir forest.**Distribution.** Middle Siberian boreal range [Marusik et al., 2000].*Bathyphantes eumenis* (L. Koch, 1879)**Material.** 2♀♀ (ISEA) — 2; 1♀ (ISEA) — 6; 5♀♀ (ISEA) — 13.**Habitat.** *Pinus sibirica* – *Abies sibirica* taiga, willow forest, under the birch, aspen-fir forest.**Distribution.** Fennoscandian-Siberian-Nearctic boreal range, with an enclave in central Europe [Tanasevitch, 2011].*Bolyphantes alticeps*
(Sundevall, 1832)**Material.** 1♀ (ISEA) — 9; 1♂, 1♀ 1juv (ISEA) — 13.**Habitat.** River banks, grass with willow, aspen-fir forest, aspen forest.**Distribution.** Palaearctic boreo-nemoral range [Tanasevitch, Koponen, 2007].*Centromerus clarus* (L. Koch, 1879)**Material.** 8♂♂, 14♀♀ (ISEA) — 2; 3♀♀ (ISEA) — 13.**Habitat.** *Pinus sibirica* – *Abies sibirica* taiga and its clearance, birch (*Betula pendula*) forest, aspen-fir forest, grass along river bank.**Distribution.** Siberian boreal range [Tanasevitch, 2005].*Ceratinella brevis* (Wider, 1834)**Material.** 1♀ (ISEA) — 2; 1♀ (ISEA) — 9.**Habitat.** Birch (*Betula pendula*) forest, aspen forest.**Distribution.** Trans-Palaearctic boreo-nemoral range [Marusik et al., 2000].*Ceratinella scabrosa*
(O. Pickard-Cambridge, 1871)**Material.** 1♂ (ISEA) — 12.**Habitat.** *Pinus sibirica* forest, in moss.**Distribution.** Trans-Palaearctic [Tanasevitch, 2005] boreo-nemoral range.*Ceratinella wideri* (Thorell, 1871)**Material.** 6♂♂, 3♀♀ (ISEA) — 2.**Habitat.** *Pinus sibirica* — *Abies sibirica* taiga and its clearance, birch (*Betula pendula*) forest.**Distribution.** Trans-Palaearctic boreal range [Marusik et al., 2000].*Collinsia distincta* (Simon, 1884)**Material.** 1♂ (ISEA) — 2.**Habitat.** Shore drift near Mrassu River.**Distribution.** Euro-Yakutian range boreo-nemoral range [Marusik et al., 2000].*Concavocephalus eskovi*

Marusik et Tanasevitch, 2003

Material. 1♂ (PCLT) — 2; 1♂ (ISEA) — 12.**Habitat.** *Pinus sibirica* – *Abies sibirica* taiga, *Pinus sibirica* forest, in moss.**Distribution.** Mountain Shoriya and Tuva [Marusik, Tanasevitch, 2002].*Diplocephalus cristatus* (Blackwall, 1833)**Material.** 1♀ (ISEA) — 8.**Habitat.** Willow bushes.**Distribution.** Holarctic boreo-nemoral range [Tanasevitch, Kamaev, 2011].*Diplostyla concolor* (Wider, 1934)**Material.** 1♀ (ISEA) — 2; 1♀ (ISEA) — 6.**Habitat.** In bulding, willow forest.**Distribution.** . Holarctic polyzonal range [Tanasevitch, 2009].*Dicymbium nigrum* Blackwall, 1834**Material.** 1♀ (ISEA) — 2.**Habitat.** Shore drift near Mrassu River.**Distribution.** West Palaearctic range [Tanasevitch, 2009].*Dismodicus bifrons* (Blackwall, 1841)**Material.** 2♀♀ (ISEA) — 9.**Habitat.** Edge of the aspen-fir forest, motley grass.**Distribution.** Circum-Holarctic boreo-nemoral range [Marusik et al., 2000].*Drapetisca socialis* (Sundevall, 1832)**Material.** 1♀ (ISEA) — 9.**Habitat.** Edge of the aspen-fir forest, motley grass.**Distribution.** Palaearctic polyzonal range.*Erigone atra* Blackwall, 1883**Material.** 1♂ (ISEA) — 4.**Habitat.** Meadow in the Kondoma River Valley.**Distribution.** Circum-Holarctic polyzonal range [Marusik et al., 2000].*Erigone dentipalpis* (Wider, 1834).**Material.** 1♀ (ISEA) — 7.**Habitat.** Pebble river bank.**Distribution.** Trans-Palaearctic polyzonal range [Marusik et al., 2000].*Floronia bucculenta* (Clerck, 1757)**Material.** 1♂, 3♀♀ (ISEA) — 6.**Habitat.** Willow forest.**Distribution.** Trans-Palaearctic range [Tanasevitch, 2005].*Gonathium rubellum* (Blackwall, 1841)**Material.** 3♀♀ (ISEA) — 2; 2♂♂, 2♀♀ (ISEA) — 13.**Habitat.** *Pinus sibirica* – *Abies sibirica* taiga and its clearance, birch (*Betula pendula*) forest, aspen-fir forest, meadow with high grass.**Distribution.** Trans-Palaearctic boreo-nemoral range [Marusik et al., 2000].*Helophora insignis* (Blackwall, 1841)**Material.** 1♀ (ISEA) — 6; 1♀ (ISEA) — 8; 1♂, 10♀♀ (ISEA) — 9; 1♀ (ISEA) — 13; 3♂♂, 2♀♀ (ISEA) — 15.

Habitat. Willow forest, pine forest with motley grass, aspen-fir forest, in grass near the river, aspen forest.

Distribution. Holarctic polyzonal range [Tanasevitch, Koponen, 2007].

Hypselistes jacksoni
(O. Pickard-Cambridge, 1902)

Material. 1♂, 1♀ (ISEA) — 13.

Habitat. Aspen-fir forest.

Distribution. Palearctic – West Nearctic boreo-nemoral range [Tanasevitch, Koponen, 2007].

Hypselistes semiflavus (L. Koch, 1879)

Material. 1♀ (ISEA) — 2.

Habitat. *Pinus sibirica* – *Abies sibirica* taiga under the birch.

Distribution. Siberian-Alaskan boreal range [Marusik et al., 2000].

Improphantes complicatus (Emerton, 1882)

Material. 1♀ (PCLT) — 9.

Habitat. Aspen forest.

Distribution. Holarctic [Tanasevitch, 2005].

Kaestneria dorsalis (Wider, 1834)

Material. 3♂♂, 4♀♀ (ISEA) — 2.

Habitat. Shore drift near Mrassu River, in grass and down branches of fir near the cordon building.

Distribution. European-Siberian range [Tanasevitch, 2005].

Lasiargus hirsutus (Menge, 1869)

Material. 2♂♂ (ISEA) — 2.

Habitat. Scree.

Distribution. Trans-Palaeartic boreo-nemoral range [Marusik et al., 2000].

Lepthyphantes luteipes (L. Koch, 1879)

Material. 1♀ (ISEA) — 2.

Habitat. Birch (*Betula pendula*) forest in litter.

Distribution. Trans-Siberian boreo-nemoral range [Marusik et al., 2000].

Lepthyphantes sajanensis
Eskov et Marusik, 1994

Material. 1♀ (ISEA) — 2.

Habitat. *Pinus sibirica* — *Abies sibirica* taiga.

Distribution. West Mongolian mountane range [Marusik et al., 2000].

Leptorhoptrum robustum
(Westring, 1851)

Material. 3♀♀ (ISEA) — 1; 3♀♀ (ISEA) — 2; 1♀ (ISEA) — 6; 1♀ (ISEA) — 11; 4♂♂, 1♀ (ISEA) — 13.

Habitat. Stony debris in the subalpine zone, clearance in the *Pinus sibirica* – *Abies sibirica* taiga, willow forest, shore drift near Mrassu River, birch (*Betula pendula*) forest, aspen-fir forest.

Distribution. Palearctic boreo-nemoral range [Tanasevitch, Koponen, 2007].

«*Lepthyphantes*» sp.

Material. 2♀♀ (PCLT) — 2; 1♀ (ISEA) — 9; 2♀♀ (PCLT) — 12.

Habitat. Birch (*Betula pendula*) forest, sparse growth of birch with *Bergenia crassifolia* on stony debris, *Pinus sibirica* forest.

Comments. Appearance new species. Genus membership is undistinguished as yet.

Linyphia triangularis (Clerck, 1758)

Material. 1♂, 2♀♀ (ISEA) — 3; 2♂♂, 5♀♀ (ISEA) — 13; 1♀ (ISEA) — 15.

Habitat. Grass along the river bank, *Pinus sibirica* – *Abies sibirica* taiga, aspen-fir forest, pine forest.

Distribution. Palaeartic polyzonal range [Tanasevitch, Kamaev, 2011].

Macrargus rufus (Wider, 1834)

Material. 1♀ (ISEA) — 13.

Habitat. Grass along the river bank.

Distribution. Euro-West Siberian range [Tanasevitch, 2005].

Micrargus herbigradus (Blackwall, 1841)

Material. 4♀♀ (ISEA) — 2.

Habitat. In grass near the building, *Pinus sibirica* – *Abies sibirica* taiga, birch (*Betula pendula*) forest.

Distribution. Trans-Palaeartic boreo-nemoral range [Marusik et al., 2000].

Microneta viaria (Blackwall, 1841)

Material. 1♀ (ISEA) — 9.

Habitat. Sparse growth of birch with *Bergenia crassifolia* on stony debris.

Distribution. Circum-Holarctic polyzonal range [Marusik et al., 2000].

«*Nematogmus*» sp.

Material. 1♂ (ISEA) — 6.

Habitat. Near the cordon building.

Comments. Appearance new species. Genus membership is undistinguished as yet.

Neriere clathrata (Sundevall, 1830)

Material. 1♂ (ISEA) — 2; 1♀ (ISEA) — 13.

Habitat. *Pinus sibirica* – *Abies sibirica* taiga, in grass, aspen-fir forest.

Distribution. Holarctic boreo-nemoral range [Tanasevitch, 2009].

Neriere emphana (Walckenaer, 1842)

Material. 1♂ (ISEA) — 1; 1♂ (ISEA) — 6; 3♀♀ (ISEA) — 13; 2♀♀ (ISEA) — 15; 2♀♀ (ISEA) — 17.

Habitat. Bushes along mountain-sky track, birch (*Betula pendula*) forest, *Pinus sibirica* – *Abies sibirica* taiga, aspen-fir forest, in grass with willow bushes along the river bank.

Distribution. Palaeartic boreo-nemoral range [Tanasevitch, 2009].

Neriere montana (Clerck, 1758)

Material. 3♂♂, 3♀♀ (ISEA) — 2; 1♀ (ISEA) — 6; 1♀ (ISEA) — 16.

Habitat. Grass near the cordon buildings and in buildings, aspen-fir forest, willow forest, kitchen garden.

Distribution. Trans-Palaeartic boreo-nemoral range [Marusik et al., 2000].

Obscuriphantes pseudoobscurus
(Marusik et al., 1996)**Material.** 1♀ (ISEA) — 13.**Habitat.** Aspen-fir forest.**Distribution.** Trans-Siberian boreal range [Marusik et al., 2000].*Oryphantes geminus* (Tanaesvitch, 1982)**Material.** 1♀ (PCLT) — 6.**Habitat.** Willow forest.**Distribution.** Uralo-Baikalian boreal range [Marusik et al., 2000].*Panamomops dybowskii*
(O. Pickard-Cambridge, 1873)**Material.** 1♂, 24♀♀ (ISEA) — 2.**Habitat.** *Pinus sibirica* – *Abies sibirica* taiga, birch (*Betula pendula*) forest.**Distribution.** Uralo-Baikalian boreal range [Marusik et al., 2000].*Pocadicnemis pumila* (Blackwall, 1841)**Material.** 1♂ (ISEA) — 3.**Habitat.** Grass near the cordon building.**Distribution.** Circum-Holarctic (?) nemoral range [Marusik et al., 2000].*Semljicola thaleri* (Eskov, 1981)**Material.** 2♀♀ (ISEA) — 2; 1♀ (PCLT) — 12.**Habitat.** *Pinus sibirica* – *Abies sibirica* taiga, birch (*Betula pendula*) forest, *Pinus sibirica* forest.**Distribution.** Siberian boreal range [Marusik et al., 2000].*Tenuiphantes cristatus* (Menge, 1866)**Material.** 2♀♀ (ISEA) — 2.**Habitat.** *Pinus sibirica* – *Abies sibirica* taiga.**Distribution.** Euro-Yenisei [Tanasevitch, 2005] boreal range.*Tenuiphantes mengei* (Kulczyński, 1887)**Material.** 1♂ (ISEA) — 13.**Habitat.** Aspen-fir forest.**Distribution.** Trans-Palaeartic [Tanasevitch, 2005] boreo-nemoral range.*Tenuiphantes nigriventris* (L. Koch, 1879)**Material.** 1♂ (ISEA) — 2; 2♂♂ (ISEA) — 6; 1♂, 2♀♀ (ISEA) — 9; 3♂♂, 6♀♀ (ISEA) — 13; 1♂, 1♀ (ISEA) — 15.**Habitat.** Aspen-fir forest, willow forest, birch and fir-birch (*Betula pendula*) forest, aspen forest.**Distribution.** Trans-Palaeartic boreal range [Marusik et al., 2000].*Tibioploides arcuatus* (Tullgren, 1955)**Material.** 3♂♂, 1♀ (ISEA) — 12; 2♀♀ (ISEA) — 13.**Habitat.** Aspen-fir forest, *Pinus sibirica* forest.**Distribution.** Trans-Palaeartic boreal range [Marusik et al., 2000].*Troxochrus scabriculus* (Westring, 1851)**Material.** 2♂♂ (ISEA) — 2.**Habitat.** On and near a building under board.**Distribution.** Euro-Enisei boreo-nemoral range [Marusik et al., 2000].*Walckenaeria cuspidata* (Blackwall, 1833)**Material.** 1♂ (ISEA) — 2; 1♀ (ISEA) — 11.**Habitat.** Shore drift near Mrassu River, willow forest.**Distribution.** Holarctic polyzonal range [Tanasevitch, Kamaev, 2011].*Walckenaeria koenboutjei* Baert, 1994**Material.** 2♀♀ (ISEA) — 1; 3♀♀ (ISEA) — 2; 2♂♂, 1♀ (ISEA) — 9; 1♀ (ISEA) — 12.**Habitat.** Stony debris in the subalpine zone, clearance in the *Pinus sibirica* – *Abies sibirica* taiga, aspen forest, *Pinus sibirica* forest.**Distribution.** Mongolian boreal range [Marusik et al., 2000].*Walckenaeria nodosa*

O. Pickard-Cambridge, 1873

Material. 1♀ (ISEA) — 2; 1♂ (ISEA) — 13.**Habitat.** Birch (*Betula pendula*) forest, fir-birch (*Betula pendula*) forest.**Distribution.** Palaeartic [Tanasevitch, 2005] range.*Zornella cultrigera* (L. Koch, 1879)**Material.** 1♀ (ISEA) — 2; 2♀♀ (ISEA) — 13.**Habitat.** Clearance in *Pinus sibirica* – *Abies sibirica* taiga, aspen-fir forest.**Distribution.** Holarctic [Tanasevitch, 2005] boreal (?) range.**Liocranidae***Agroeca brunnea* (Blackwall, 1833)**Material.** 1♀ (ISEA) — 6; 1♀ (ISEA) — 9.**Habitat.** Willow forest, aspen forest.**Distribution.** Palaeartic range [Tanasevitch, Kamaev, 2011].**Lycosidae***Acantholycosa lignaria* (Clerck, 1757)**Material.** 1♀ (ISEA) — 6; 1♀ (ISEA) — 13.**Habitat.** Pebble river bank, flood-land forest on log.**Distribution.** Trans-Palaeartic boreo-nemoral range.*Acantholycosa norvegica* (Thorell, 1875)**Material.** 2♂♂ (ISEA) — 2; 1♀ (ISEA) — 7; 2♀♀ (ISEA) — 13.**Habitat.** Scree, *Pinus sibirica* – *Abies sibirica* taiga, aspen-fir forest.**Distribution.** Trans-Palaeartic boreo-alpine disjunctive range [Marusik et al., 2000].*Alopecosa aculeata* (Clerck, 1757)**Material.** 2♀♀ (ISEA) — 1.**Habitat.** Subalpine *Betula tortuosa* forest.**Distribution.** Circum-Holarctic polyzonal range [Marusik et al., 2000].*Alopecosa cuneata* (Clerck, 1758)**Material.** 1♂ (ISEA) — 3.**Habitat.** Near the road in grass.**Distribution.** Trans-Palaeartic (?) boreo-nemoral range [Marusik et al., 2000].

Alopecosa pictilis (Emerton, 1885)**Material.** 2♂♂ (ISEA) — 2.**Habitat.** Scree.**Distribution.** Siberian-North American range [Dondale, Redner, 1990].*Pardosa agrestis* (Westring, 1861)**Material.** 1♀ (ISEA) — 1.**Habitat.** Stony debris in the subalpine zone.**Distribution.** Palearctic polyzonal range [Tanasevitch, Kamaev, 2011].*Pardosa amentata* (Clerck, 1758)**Material.** 1♂ (ISEA) — 6.**Habitat.** Edge of the birch (*Betula pendula*) forest.**Distribution.** Euro-Mongolian range [Marusik et al., 2000].*Pardosa fulvipes* (Collett, 1875)**Material.** 1♀ (ISEA) — 8.**Habitat.** Pine forest with motley grass.**Distribution.** European – Central Siberian (?) nemoral range [Marusik et al., 1996].*Pardosa lasciva* L. Koch, 1879**Material.** 1♂ (ISEA) — 2.**Habitat.** Clearance in *Pinus sibirica* – *Abies sibirica* taiga.**Distribution.** Euro-Baikalian boreal range [Marusik et al., 2000].*Pardosa* cf. *lugubris* Walckenaer, 1802**Material.** 3♂♂ (ISEA) — 2; 2♀♀ (ISEA) — 6; 1♀ (ISEA) — 8; 2♀♀ (ISEA) — 9; 2♀♀ (ISEA) — 13.**Habitat.** Scree and grass near buildings, birch (*Betula pendula*) forest, willow forest, pine forest with motley grass, clearance in aspen-fir forest, aspen forest, pebble river bank.**Distribution.** From East-Kazakhstan to Buryatia [Marusik et al., 2000].**Comments.** See Marusik et al., 2000.*Pardosa prativaga* (L. Koch, 1870)**Material.** 1♀ (ISEA) — 6.**Habitat.** Near the cordon building.**Distribution.** Palearctic polyzonal range [Tanasevitch, Kamaev, 2011].*Pardosa riparia* (C.L. Koch, 1833)**Material.** 1♀ (ISEA) — 6.**Habitat.** Birch (*Betula pendula*) forest.**Distribution.** Trans-Palaearctic polyzonal range.*Pirata hygrophilus* Thorell, 1872**Material.** 1♂, 1♀ (ISEA) — 2; 4♀♀ (ISEA) — 13.**Habitat.** Clearance in *Pinus sibirica* – *Abies sibirica* taiga, swamp with the marsh marigold, aspen-fir forest.**Distribution.** Euro-Mongolian boreo-nemoral range [Marusik et al., 2000].*Trochosa spinipalpis*

(F.O. Pickard-Cambridge, 1895)

Material. 10♂♂ (ISEA) — 2; 1♀ (ISEA) — 11.**Habitat.** *Pinus sibirica* – *Abies sibirica* taiga and its clearance, willow forest.**Distribution.** Palaearctic range [Tanasevitch, Kamaev, 2011].*Trochosa terricola* Thorell, 1856**Material.** 1♂ (ISEA) — 3.**Habitat.** Pine forest.**Distribution.** Circum-Holarctic boreo-nemoral range.*Xerolycosa nemoralis* (Westring, 1861)**Material.** 1♂ (ISEA) — 4; 1♂ (ISEA) — 6.**Habitat.** Anthropogenic landscapes, birch (*Betula pendula*) forest.**Distribution.** Trans-Palaearctic boreo-nemoral range [Marusik et al., 2000].**Philodromidae***Artanes marusiki* Logunov, 1997**Material.** 1♀ (PCLT) — 6.**Habitat.** Cliffs.**Distribution.** Mongolian range [Marusik et al., 2000].*Philodromus mysticus*

Dondale et Redner, 1975

Material. 1♂ (ISEA) — 2.**Habitat.** *Pinus sibirica* – *Abies sibirica* taiga, on elder.**Distribution.** Siberio-American temperate range [Szita, Logunov, 2008].*Philodromus rufus* Walckenaer, 1825**Material.** 1♂ (ISEA) — 2.**Habitat.** On a building.**Distribution.** Circum-Holarctic (?) boreo-nemoral range [Marusik et al., 2000].*Philodromus utotchkini* Marusik, 1991**Material.** 1♂ (ISEA) — 2.**Habitat.** On *Spirea* sp.**Distribution.** Siberian range. This record represents the westernmost locality [Logunov, Marusik, 2004].**Pholcidae***Pholcus phalangioides* (Fuesslin, 1775)**Material.** 1♀ (ISEA) — 4.**Habitat.** In a building.**Distribution.** Cosmopolitan range.**Pisauridae***Dolomedes fimbriatus* (Clerck, 1758)**Material.** 2♂♂ (ISEA) — 2.**Habitat.** Wash with cowslip.**Distribution.** West-Eurasian boreo-nemoral range.**Salticidae***Asianellus festivus* (C.L. Koch, 1846)**Material.** 1♂ (ISEA) — 2.**Habitat.** Scree.**Distribution.** Trans-Palaearctic boreo-nemoral range [Marusik et al., 2000].*Euophrys flavoatra* (Grube, 1861)**Material.** 1♂ (ISEA) — 4.**Habitat.** Stony debris.**Distribution.** Siberian boreo-hypoarctic range [Marusik et al., 2000].

Evarcha arcuata (Clerck, 1758)

Evarcha arcuata: Logunov, Marusik, 2000b: 82.

Distribution. Trans-Eurasian temperate range [Logunov, Marusik, 2000b].

Evarcha falcata (Clerck, 1758)

Evarcha falcata: Logunov, Marusik, 2000a: 282; Logunov, Marusik, 2000b: 87.

Material. 4♂♂ 3♀♀ (ISEA) — 2; 1♀ (ISEA) — 9; 1♀ (ISEA) — 10; 4♂♂, 2♀♀ (ISEA) — 13.

Habitat. In grass near building, *Pinus sibirica* – *Abies sibirica* taiga, rocks, aspen-fir forest, fir forest, meadow with high grass.

Distribution. Euro-Baikalian boreo-nemoral range [Marusik et al., 2000].

Heliophanus auratus C.L. Koch, 1835

Heliophanus auratus: Logunov, Marusik, 2000a: 283; Logunov, Marusik, 2000b: 101.

Material. 4♂♂ (ISEA) — 6; 1♂ (ISEA) — 8; 1♂ (ISEA) — 9.

Habitat. Birch (*Betula pendula*) forest, pine forest with motley grass, aspen forest.

Distribution. Euro-Baikalian boreo-nemoral range [Marusik et al., 2000].

Heliophanus flavipes Hahn, 1831

Material. 1♀ (ISEA) — 13.

Habitat. Aspen-fir forest.

Distribution. Euro-Baikalian boreo-nemoral range [Marusik et al., 2000].

Marpissa pomatia (Walckenaer, 1802)

Marpissa pomatia: Logunov, Marusik, 2000a: 285; Logunov, Marusik, 2000b: 127.

Material. 2♂♂, 1♀ (ISEA) — 2; 1♀ (ISEA) — 9; 2♀♀ (ISEA) — 13.

Habitat. In grass near building, meadow with high grass.

Distribution. Trans-Eurasian temperate range [Logunov, Marusik, 2000a].

Neon reticulatus (Blackwall, 1853)

Material. 1♂ (ISEA) — 2.

Habitat. Scree.

Distribution. Holarctic temperate range [Logunov, Marusik, 2000b].

Pseudeophrys erratica (Walckenaer, 1826)

Material. 2♂♂ (ISEA) — 2; 1♂ (ISEA) — 9; 1♀ (ISEA) — 13.

Habitat. Birch (*Betula pendula*) forest, on a building, tourist camp, aspen forest, fir forest.

Distribution. Euro-Baikalian boreo-nemoral range [Marusik et al., 2000].

Pseudeophrys obsoleta (Simon, 1868)

Material. 1♂, 1♀ (ISEA) — 2.

Habitat. Scree.

Distribution. Euro-Central Asian subboreal range [Logunov, Marusik, 2000b].

Sitticus albolineatus (Kulczyński, 1895)

Material. 2♀♀ (ISEA) — 1.

Habitat. Stony debris in the subalpine zone.

Distribution. Siberian boreo-nemoral range [Marusik et al., 2000].

Sitticus distinguendus (Simon, 1868)

Material. 3♂♂ (ISEA) — 6.

Habitat. Scree.

Distribution. Trans-Eurasian temperate range [Logunov, Marusik, 2000b].

Sitticus floricola (C.L. Koch, 1837)

Sitticus floricola: Logunov, Marusik, 2000a: 289; Logunov, Marusik, 2000b: 215.

Distribution. Trans-Eurasian temperate range [Logunov, Marusik, 2000b].

Sparassidae*Micrommata virescens* (Clerck, 1757)

Material. 2 juv. (PCLT) — 9; 1 juv. (PCLT) — 8; 1 juv. (PCLT) — 13.

Habitat. Aspen forest, pine forest with motley grass, meadow with high grass.

Distribution. Trans-Palaearctic boreo-nemoral range [Marusik et al., 2000].

Tetragnathidae*Metellina mendei* (Blackwall, 1869)

Material. 2♀♀ (ISEA) — 2; 1♀ (ISEA) — 13.

Habitat. Clearance on horse-tail and near a building in grass, fir forest.

Distribution. Euro-South Siberian nemoral range.

Metellina segmentata Clerck, 1758

Material. 1♂, 1♀ (ISEA) — 13.

Habitat. Aspen-fir forest.

Distribution. Euro-South Siberian nemoral range.

Pachygnatha listeri Sundevall, 1830

Material. 6♂♂, 8♀♀ (ISEA) — 2; 1♂, 3♀♀ (ISEA) — 13.

Habitat. *Pinus sibirica* — *Abies sibirica* taiga and its clearance, in grass near buildings, in grass with willow along the Mrassu River bank.

Distribution. Trans-Palaearctic boreo-nemoral range [Marusik et al., 2000].

Tetragnatha dearmata Thorell, 1873

Material. 1♂, 4♀♀ (ISEA) — 2; 4♀♀ (ISEA) — 13.

Habitat. *Pinus sibirica* – *Abies sibirica* taiga, birch (*Betula pendula*) forest, near the cordon on *Spirea*, in grass with willow along the Mrassu River bank.

Distribution. Circum-Holarctic boreo-nemoral range [Marusik et al., 2000].

Tetragnatha extensa (Linnaeus, 1758)

Material. 1♂ (ISEA) — 13; 1♀ (ISEA) — 16.

Habitat. In grass along the Mrassu River bank, croft.

Distribution. Circum-Holarctic polyzonal range [Marusik et al., 2000].

Tetragnatha montana Simon, 1874

Material. 1♂, 2♀♀ (ISEA) — 13; 1♂ (ISEA) — 14.

Habitat. In grass along the Mrassu River bank, aspen-fir forest.

Distribution. Trans-Palaearctic nemoral range.

Tetragnatha pinicola L. Koch, 1870

Material. 1♀ (ISEA) — 1; 1♀ (ISEA) — 2; 1♂, 1♀ (PCLT) — 8; 2♂♂ (ISEA) — 9; 1♀ (ISEA) — 11; 2♂♂, 4♀♀ (ISEA) — 13.

Habitat. Subalpine *Betula tortuosa* forest, birch (*B. pendula*) forest, pine forest with motley grass, willow bushes, aspen-fir forest, edge of the aspen-fir forest, motley grass.

Distribution. Trans-Paleartic boreo-nemoral range [Marusik et al., 2000].

Theridiidae*Cryptachaea riparia* (Blackwall, 1834)

Material. 1♀ (ISEA) — 8; 1♀ (ISEA) — 12; 3♀♀ (ISEA) — 13.

Habitat. Pine forest with motley grass, aspen-fir forest, *Pinus sibirica* forest, grass along river bank.

Distribution. Trans-Paleartic nemoral range [Marusik et al., 2000].

Neottiura bimaculata (Linnaeus, 1758)

Material. 1♀ (ISEA) — 6.

Habitat. Birch (*Betula pendula*) forest.

Distribution. Trans-Paleartic-North West Nearctic nemoral range [Marusik et al., 2000].

Ohlertidion ohlerti (Thorell, 1870)

Material. 3♂♂ (ISEA) — 2; 1♀ (ISEA) — 13.

Habitat. Grass near cordon, birch (*Betula pendula*) forest, aspen-fir forest on *Spiraea*, meadow with high grass.

Distribution. Holarctic arcto-boreal range [Tanasevitch, Kamaev, 2011].

Parasteatoda simulans (Thorell, 1875)

Material. 1♀ (ISEA) — 13.

Habitat. In a building.

Distribution. Trans-Paleartic nemoral range [Marusik et al., 1996].

Parasteatoda tabulata (Levi, 1980)

Material. 2♀♀ (ISEA) — 10.

Habitat. Rocks.

Distribution. Holarctic [Platnick, 2012] nemoral range.

Parasteatoda tepidariorum (C.L. Koch, 1841)

Material. 1♀ (ISEA) — 9; 1♀ (ISEA) — 13.

Habitat. Aspen-fir forest on the *Abies sibirica* trunk, *Abies sibirica* forest on birch trunk.

Distribution. Cosmopolitan range.

Phylloneta impressa (L. Koch, 1881)

Material. 2♀♀ (ISEA) — 6.

Habitat. Stony steppe.

Distribution. Trans-Paleartic – North West Nearctic nemoral range [Marusik et al., 2000].

Robertus neglectus

(O. Pickard-Cambridge, 1871)

Material. 1♂ (ISEA) — 6.

Habitat. Willow forest.

Distribution. Euro-Siberian nemoral range.

Rugathodes aurantius (Emerton, 1915)

Material. 2♀♀ (ISEA) — 9; 1♀ (ISEA) — 13.

Habitat. Aspen forest; aspen-fir forest.

Distribution. Circum-Holarctic boreal range [Marusik et al., 2000].

Steatoda bipunctata (Linnaeus, 1758)

Material. 1♀ (ISEA) — 2.

Habitat. In a building.

Distribution. East Nearctic – Trans-Paleartic boreo-nemoral range [Marusik et al., 2000].

Theridion pictum (Walckenaer, 1802)

Material. 2♂♂ (ISEA) — 2; 1♀ (ISEA) — 6; 1♀ (ISEA) — 11.

Habitat. Cordon under a board, on a building, willow forest on horsetail.

Distribution. Circum-Holarctic boreo-nemoral range [Marusik et al., 2000].

Theridion varians Hahn, 1833

Material. 1♀ (ISEA) — 2.

Habitat. Birch (*Betula pendula*) forest.

Distribution. Trans-Paleartic – West Nearctic boreo-nemoral range [Marusik et al., 2000].

Thomisidae*Lysiteles major* Ono, 1979

Material. 1♂ (ISEA) — 1.

Habitat. Subalpine *Abies sibirica* forest.

Distribution. Nepalo-Manchurian-Siberian temperate range [Marusik et al., 2000].

Misumena vatia (Clerck, 1758)

Material. 1 juv. 1♀ (ISEA) — 13.

Habitat. Grass along river bank, meadow with high grass.

Distribution. Circum-Holarctic polyzonal range [Marusik et al., 2000].

Ozyptila brevipes (Hahn, 1826)

Material. 1♀, 2♂♂ (ISEA) — 2; 2♂♂ (ISEA) — 13; 1♂ (ISEA) — 15.

Habitat. *Pinus sibirica* – *Abies sibirica* taiga and its clearance, aspen-fir forest, in grass.

Distribution. Euro-Siberian boreo-nemoral range [Mikhailov, 1997].

Ozyptila rauda Simon, 1875

Material. 1♂ (ISEA) — 2.

Habitat. Scree.

Distribution. Euro-Mongolian boreo-montane range [Marusik et al., 2000].

Ozyptila sincera Kuleczyński, 1926

Material. 1♀ (ISEA) — 2; 1♀ (ISEA) — 11; 1♀ (ISEA) — 13.

Habitat. Birch (*Betula pendula*) forest, fir-birch (*Betula pendula*) forest, *Pinus sibirica* forest.

Distribution. Siberio-Trans-Nearctic boreal range [Marusik et al., 2000].

Xysticus audax (Schrank, 1803)

Material. 2♂♂ (ISEA) — 2.

Habitat. Grass near the cordon building.

Distribution. Trans-Paleartic boreo-nemoral range [Marusik et al., 2000].

Xysticus ephippiatus Simon, 1880**Material.** 4♂♂ (ISEA) — 2.**Habitat.** *Pinus sibirica* – *Abies sibirica* taiga and in grass near the cordon buildings.**Distribution.** East-Palaearctic boreo-nemoral range [Marusik et al., 2000].*Xysticus lanio* C.L. Koch, 1835**Material.** 1♂ (ISEA) — 2.**Habitat.** Grass near the cordon building.**Distribution.** Trans-Palaearctic range [Esyunin, Efimik, 1995].*Xysticus luctuosus* (Blackwall, 1836)**Material.** 2♂♂, 6♀♀ (ISEA) — 2; 5♀♀ (ISEA) — 13.**Habitat.** *Pinus sibirica* – *Abies sibirica* taiga on *Spirea*, on breik, aspen-fir forest.**Distribution.** Circum-Holarctic boreo-nemoral range [Marusik et al., 2000].*Xysticus obscurus* Collett, 1877*Xysticus obscurus*: Logunov, Marusik, 1994: 188; Logunov, Marusik, 1998: 106.**Material.** 3♂♂, 1♀ (ISEA) — 2.**Habitat.** Grass near the cordon building.**Distribution.** Circum-Holarctic boreo-alpine range [Marusik et al., 2000].*Tmarus rimosus* Paik, 1973**Material.** 1♂ (ISEA) — 2.**Habitat.** Grass near the cordon building.**Distribution.** East-Palaearctic [Logunov, 1992] boreo-nemoral range.**Zoridæ***Zora nemoralis* (Blackwall, 1861)**Material.** 1♀ (ISEA) — 9.**Habitat.** Sparse growth of birch with *Bergenia crassifolia* on stony debris.**Distribution.** Palaearctic range [Tanasevitch, Kamaev, 2011].*Zora spinimana* (Sundevall, 1832)**Material.** 1♂ (ISEA) — 2; 1♂, 1♀ (PCLT) — 4; 1♂, 1♀ (ISEA) — 9; 1♀ (ISEA) — 13.**Habitat.** *Pinus sibirica* – *Abies sibirica* taiga, stony debris, aspen forest, fir-birch (*Betula pendula*) forest.**Distribution.** Trans-Palaearctic boreo-nemoral range.**OPILIONES****Phalangiidae***Acanthomegabunus sibiricus*

Tsurusaki, Tchemeris et Logunov, 2000

Material. 2♂♂ (ISEA) — 13.**Habitat.** Aspen-fir forest on fir trunk.**Distribution.** The mountains of South Siberia [Tsurusaki et al., 2000].*Homolophus nordenskiöldi*

(C.L. Koch, 1879)

Material. 1 juv. (PCLT) — 16.**Habitat.** On building.**Distribution.** Siberian temperate range [Tchemeris et al., 1998].*Mitopus morio* (Fabricius, 1779)**Material.** 2♂♂, 2♀♀ (PCLT) — 1; 1♀ (ISEA) — 9; 4♂♂, 23♀♀ (ISEA) — 13; 2♂♂, 2♀♀ (ISEA) — 15.**Habitat.** *Leuzea* meadow in the subalpine belt, aspen forest, aspen-fir forest.**Distribution.** Holarctic species [Martens, 1978].*Oligolophus tridens* (C.L. Koch, 1836)**Material.** 2♀♀ (ISEA) — 6; 2 juv. (PCLT) — 9; 5 juv. (PCLT) — 13.**Habitat.** Willow forest, sparse growth of birch with *Bergenia crassifolia* on stony debris, aspen forest, aspen-fir forest.**Distribution.** Euro-Siberian species [Martens, 1978].*Phalangium opilio* Linnaeus, 1761**Material.** 1♀ (ISEA) — 1; 1♂ (ISEA) — 3.**Habitat.** Stony debris in subalpine belt; motley grass.**Distribution.** Holarctic species [Martens, 1978].**Sabaconidae***Sabacon sergeidedicatum* Martens, 1989**Material.** 10♂♂, 9♀♀ (ISEA) — 2; 3 juv. (PCLT) — 6; 25♂♂, 13♀♀ (ISEA) — 13.**Habitat.** *Pinus sibirica* – *Abies sibirica* taiga, willow forest, aspen-fir forest.**Distribution.** The mountains of South Siberia [Chemeris, Logunov, 2000].**Discussion**

According to the present data, the spider fauna of Gornaya Shoriya consists of 20 families, 96 genera and 146 species and that of harvestmen of 6 species, of which 134 spider and four harvestman species were collected from the Shorsky National Nature Park. The most diverse are the families Linyphiidae (52), Lycosidae (16) and Salticidae (13); twelve species were recorded for the Araneidae, and Theridiidae. The most diverse genera are *Pardosa* (7 species), *Araneus* (5) and *Xysticus* (5). The families Clubionidae, Gnaphosidae, Dictynidae, Philodromidae and other groups remain studied inadequately. An expected diversity of spiders of the studied region is hardly less than 400 species. Records of new species are likely as well.

Spider species having wide distributional ranges predominate, encompassing about 60 % of all the zoogeographical groups. For instance, the Palaearctic species (including trans-Eurasian ones) make up more than a third of the entire species list. The Holarctic, Fennoscandian-Nearctic, trans-Palaearctic-West Nearctic and East Nearctic-trans-Palaearctic species make up almost 30 % of the studied fauna. A significant part also accounts for Euro-Siberian (16,5 %) and Siberian (11 %) species. With regards to zonal distribution, boreo-nemoral (=temperate) species predominate, making up to 40 %. Polyzonal, nemoral and boreal species are represented almost equally, with each encompassing some 10 %.

Results of a comparison of the summer spider assemblages of the willow, aspen and aspen-fir forests in the upper reaches of Mrassu River Valley are present-

Table 1. Summer spider species assemblages of the willow, aspen and aspen-fir forests in the upper reaches of Mrassu River Valley

Таблица 1. Сообщества пауков в летний период в ивняке, осиннике и черневой тайге в верховьях реки Мрассу

List of taxa	Aspen-fir forest	Willow forest	Aspen forest
<i>Paracoelotes birulai</i>	+	-	-
<i>Araneus diadematus</i>	+	-	-
<i>Araneus marmoreus</i>	-	+	-
<i>Araneus nordmanni</i>	+	-	-
<i>Araniella displicata</i>	+	-	-
<i>Araneus cf. schrencki</i>	-	-	+
<i>Cyclosa conica</i>	+	-	-
<i>Singa nitidula</i>	-	+	-
<i>Clubiona germanica</i>	-	+	-
<i>Clubiona kulczynskii</i>	+	-	-
<i>Clubiona lutescens</i>	-	-	+
<i>Clubiona pallidula</i>	+	-	-
<i>Allomengea scopigera</i>	+	-	-
<i>Anguliphantes cerinus</i>	+	-	-
<i>Bathypantes eumenis</i>	+	+	-
<i>Bolyphantes alticeps</i>	+	-	+
<i>Centromerus clarus</i>	+	-	-
<i>Ceratinella brevis</i>	-	-	+
<i>Diplostyla concolor</i>	-	+	-
<i>Floronia bucculenta</i>	-	+	-
<i>Gonathium rubellum</i>	+	-	-
<i>Helophora insignis</i>	+	+	+
<i>Hypselistes jacksoni</i>	+	-	-
<i>Improphantes complicatus</i>	-	-	+
<i>Leptorhoptrum robustum</i>	+	+	-
<i>Linyphia triangularis</i>	+	-	-
<i>Neriere clathrata</i>	+	-	-
<i>Neriere emphana</i>	+	-	-
<i>Neriere montana</i>	+	+	-
<i>Obscuriphantes pseudoobscurus</i>	+	-	-
<i>Oryphantes geminus</i>	-	+	-
<i>Tenuiphantes mengei</i>	+	-	-
<i>Tenuiphantes nigriventris</i>	+	+	+
<i>Tibioploides arcuatus</i>	+	-	-
<i>Walckenaeria cuspidata</i>	-	+	-
<i>Walckenaeria koenboutjei</i>	-	-	+
<i>Zomella cultrigera</i>	+	-	-
<i>Agroeca brunnea</i>	-	+	+
<i>Acantholycosa norvegica</i>	+	-	-
<i>Pardosa cf. lugubris</i>	-	+	+
<i>Pirata hygrophilus</i>	+	-	-

Table 1. (continuation)
Таблица 1. (продолжение)

List of taxa	Aspen-fir forest	Willow forest	Aspen forest
<i>Trochosa spinipalpis</i>	-	+	-
<i>Evarcha falcata</i>	+	-	-
<i>Heliophanus auratus</i>	-	-	+
<i>Heliophanus flavipes</i>	+	-	-
<i>Pseudeuophrys erratica</i>	-	-	+
<i>Micrommata virescens</i>	-	-	+
<i>Metellina segmentata</i>	+	-	-
<i>Tetragnatha montana</i>	+	-	-
<i>Tetragnatha pinicola</i>	+	-	-
<i>Cryptachaea riparia</i>	+	-	-
<i>Ohlertidion ohlerti</i>	+	-	-
<i>Parasteatoda tepidariorum</i>	+	-	-
<i>Robertus neglectus</i>	-	+	-
<i>Rugathodes aurantius</i>	+	-	+
<i>Theridion pictum</i>	-	+	-
<i>Ozyptila brevipes</i>	+	-	-
<i>Xysticus luctuosus</i>	+	-	-
<i>Zora spinimana</i>	-	-	+
Number of species	38	17	15

ed in Table 1. The number of species in the aspen-fir forest is twice as much than those in the willow and aspen forests mainly due to the Araneidae, Linyphiidae, Tetragnathidae and Theridiidae. The jumping spiders (Salticidae) are more diverse in the aspen forest; yet only in this habitat Zoridae species are found.

According to the Shimkevich-Simpson similarity index, the species assemblages of the aspen-fir and aspen forests are most similar. It is hardly surprising, as the aspen forest is known to be a secondary forest being usually formed instead of the burnt-out aspen-fir forest [Kuminova, 1950], which later is replaced by the aspen-fir forest. Both forests are very similar by the number of wandering spider species (8 and 7 accordingly), whereas there are only four such species in the willow forest.

During the preliminary survey of the summer populations (or arachnocoenoses) of ground-living spiders and harvestmen of the aspen-fir forest of Shorsky National Nature Park by pitfall traps, 106 individuals of 3 harvestman species and 13 individuals of 5 spider species were collected. Since spiders were poorly presented in pitfall traps, the variation indexes were only calculated for separate species of harvestmen and for all spiders taken together. As seen from Table 2, the dynamic density of each taxon considered shows an asymmetric distribution and considerable variation. The dynamic density of *Mitopus morio* is most variable, while that of spiders the smallest. It is likely that the spatial distribution of all species is aggregated.

Table 2. Arithmetic means and variation coefficients of the dynamic density of ground-living harvestmen and spiders of the aspen-fir forest (summer aspect)

Таблица 2. Средние арифметические и показатели вариации динамической плотности наземных сенокосцев и пауков в черневой тайге (летний аспект)

Takson	M	S_x^2	S_x	CV, %
<i>Mitopus morio</i>	7.75	119.06	10.91	141
<i>Oligolophus tridens</i>	9.75	48.93	6.99	72
<i>Sabacon sergeidedicatum</i>	9.00	61.38	7.83	87
Aranei	3.25	4.19	2.05	63

M — arithmetic mean of individuals density (in 100 pitfall traps/twenty four hours), S_x^2 — dispersion, S_x — mean standard deviation, CV — variation coefficient.

Table 3. Abundance and dominance groups of ground-living harvestmen and spiders of the aspen-fir forest (summer aspect)

Таблица 3. Обилие и группы доминантов среди наземных сенокосцев и пауков в черневой тайге (летний аспект)

Species	Abundance, %	Dominance group
Opiliones	89.1	-
<i>Mitopus morio</i>	26.1	E
<i>Oligolophus tridens</i>	32.7	Sp
<i>Sabacon sergeidedicatum</i>	30.2	Sp
Aranei	11	-
<i>Allomengea scopigera</i>	1.7	R
<i>Bathypantes eumenis</i>	2.5	Sd
<i>Leptorhoptrum robustum</i>	3.4	Sd
<i>Pirata hygrophilus</i>	1.7	R
<i>Zornella cultrigera</i>	0.8	+

Abundance and dominance groups are shown in Table 3. In the summer, harvestmen markedly predominate among the ground-living arachnids. The most abundant were *Oligolophus tridens* and *Sabacon sergeidedicatum*. In July, the former was represented by immature individuals only. Of the collected harvestmen, the males of *S. sergeidedicatum* and the females of *M. morio* markedly prevailed.

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