

## First data on spiders and harvestmen (Arachnida: Aranei, Opiliones) from Karaginski Island, Eastern Koryakia, Kamchatka Peninsula

### Первые данные о пауках и сенокосцах (Arachnida: Aranei, Opiliones) острова Карагинский, Восточная Корякия, Камчатка

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KEY WORDS: Northeast Asia, Far East Asia, new record, Kamchatka Province.

КЛЮЧЕВЫЕ СЛОВА: Северо-Восток Азии, Дальний Восток, новая находка, Камчатский край.

**ABSTRACT.** The spider and harvestman faunas of Karaginski Island were studied for the first time. 56 species of spiders and one species of harvestman are reported from the island. Of these, 26 spider species are new to Koryakia and 9 of them are new for the entire Kamchatka Province. The total number of spider species found in Koryakia now totals 117.

**РЕЗЮМЕ.** Впервые приводятся данные по фауне пауков и сенокосцев острова Карагинский. На острове отмечено 56 видов пауков и 1 вид сенокосцев. 26 видов пауков являются новыми для Корякии, 9 видов — для Камчатской области в целом. Общее число видов пауков, отмеченных в Корякии, достигло 117.

### Introduction

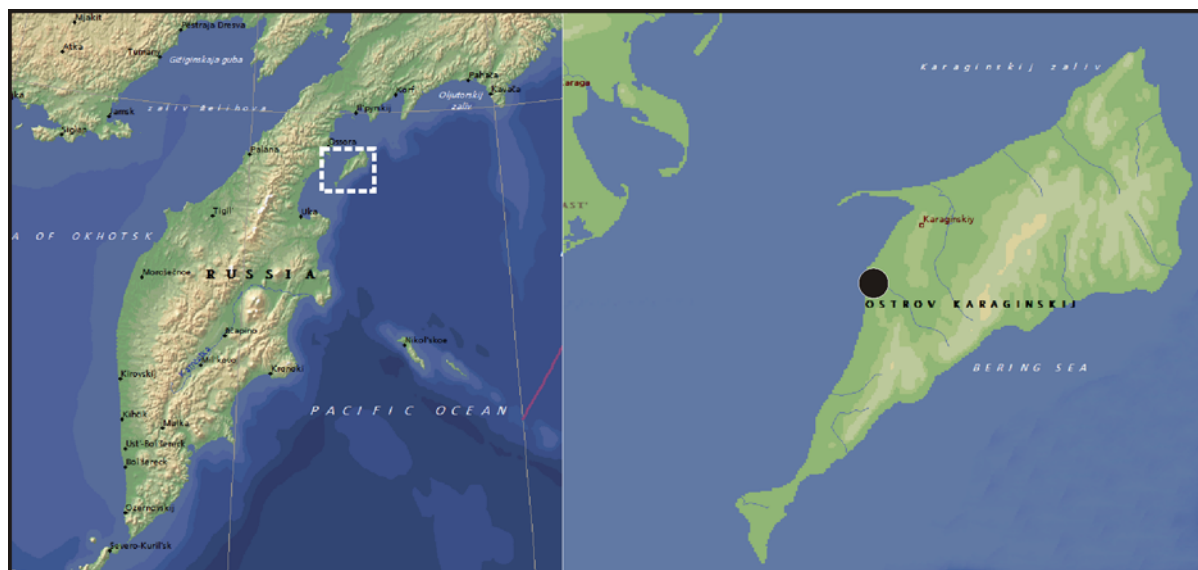
The arachnid fauna of Koryakia is one of the most poorly studied arachnofaunas of Russia. Only six species of spiders were known from the region before 2010 [Marusik et al., 2010]. The fauna of the whole Kamchatka Province is also poorly-studied, with approximately 220 species reported [cf. Mikhailov, 2002; Marusik et al., 2010]. The number of spider species known from the Kamchatka Province is half of that in the Sakhalin Area and even smaller when compared to that known for the Magadan Area [cf. Marusik et al., 2010].

Recently, the junior author had an opportunity to collect terrestrial invertebrates on Karaginski Island, which administratively belongs to Koryakia. It is located close to the northeastern part of the Kamchatka Peninsula at 59°N latitude in the Bering Sea. The area

of the island is 2000 km<sup>2</sup> and its highest elevation is over 900 m. Karaginski Island is situated in the zone of the island permafrost, and its climate is rather severe (the average February temperature is –15°C, the temperature of August does not exceed 12°C). According to the scheme of phytogeographic division, Karaginski Island, together with other northern regions of Kamchatka, belongs to the Beringian forest-tundra Province. About half of its territory is occupied by different so-called tundra communities; elfin woodland formations also have a broad distribution on this island [Barkalov et al., 1986]. The aim of this paper is to provide a list of spiders and harvestmen found on the island. All species were found on the island for the first time.

### Material and methods

All material was collected between July 13 and 29, 2008 in a small area (ca. 2 km<sup>2</sup>) in the middle part of the western shore near Gnunvayam River mouth (58°53'N 163°47'E). The study area included the following habitat types: littoral, slopes and plain parts of the sea terrace and bedrock shore, and also river valley close to its mouth. The most common habitats in the region were the so-called shrub tundra communities with some *Pinus pumila* on the plain parts of the sea terrace (dominant plants: *Pinus pumila*, *Arctous alpina*, *Ledum decumbens*, *Empetrum nigrum*, *Vaccinium minus* and *Betula exilis*), and different types of meadows. In addition to these, we studied moist herb-moss communities in hollows, river and sea gravel shores, alder stands and some other habitats. Most of the material was collected by pitfall trapping (1094 trap days) and by sweeping with an entomological sweep-net.



Map 1. Map of Kamchatka Province and Karaginski Island. Square indicates Karaginski Island and dot indicates collecting site.  
Карта 1. Камчатский край и остров Карагинский. Квадратом выделен остров Карагинский. Точкой показано место сборов.

The material treated herein will be deposited in the Zoological Museum of the Moscow State University.

Species new to the fauna of Koryakia are marked with an asterisk. Two asterisks means that the species is a new record for the entire Kamchatka Peninsula. In the species survey we provide information about all morphospecies, including those unidentifiable to species level.

### Species survey

#### Order ARANEI

#### Family Araneidae (3)

##### *Araneus yukon* Levi, 1971

COMMENTS. This species was recently reported from Kamchatka and Western Koryakia for the first time [Marusik et al., 2010]. The species is a herb dweller. It was found in several habitats on the island (cf. Table 1). It has an East Siberian – northwestern Nearctic range.

##### *Araniella proxima* (Kulczyński, 1885)\*

This species was described from the environs of Petropavlovsk-Kamchatski and has a Holarctic range. Although it has a broad range it was hitherto unknown from Koryakia.

##### *Larinioides cornutus* (Clerck, 1757)\*

COMMENTS. Although this species has a circum-Holarctic polyzonal range, it was hitherto unknown from Koryakia.

#### Family Clubionidae (1)

##### *Clubiona* sp.

COMMENTS. Only one unidentifiable juvenile specimen was found on the island.

#### Family Dictynidae (1)

##### *Hackmania prominula* (Tullgren, 1948)\*\*

COMMENTS. This species has a trans-Palaeartic – northwest Nearctic range. It was hitherto unknown from Koryakia or Kamchatka. This species is a litter dweller, all specimens were found in one habitat — shrubby tundra community with *Pinus pumila*.

#### Family Gnaphosidae (4)

##### *Gnaphosa microps* Holm, 1939\*\*

COMMENTS. Although this species has a circum-Holarctic range it was hitherto unknown from Koryakia and the Kamchatka Peninsula. This species was found in several habitats.

##### *Haplodrassus moderatus* (Kulczyński in Chyzer et Kulczyński, 1897)\*

COMMENTS. This species has a trans-Palaeartic range and was already known from the Kamchatka Peninsula (Kronotskoye Lake) under the name *Drassodes simplex* Kulczyński, 1926. The two names remain to be formally synonymised. This species was hitherto unknown from Koryakia. All eight specimens were found in one habitat — shrubby tundra community with *Pinus pumila*.

##### *Haplodrassus soerenseni* (Strand, 1900)

COMMENTS. This species was already known from Western Koryakia [Marusik et al., 2010] but the record was uncertain. The reason for doubt was that only females had been collected. In the new material studied both sexes are represented. The record from Karaginsky Island is the easternmost locality in the known range of this species.

Table 1. Spatial distribution of spiders and harvestmen on Karaginski Island.  
Таблица 1. Особенности стациальной приуроченности пауков и сенокосцев на о-ве Карагинский.

Species	Shore pebbles	Wet lake shore	Slopes and base of terraces with late snow melt	Shrubby communities with <i>P. pumila</i>	Seashore meadows	Rich (species-rich) meadow	Other habitats	Total specimens
<i>Araneus yukon</i>	–	2	–	–	–	3	5	10♂♀
<i>Araniella proxima</i> *	–	1	–	–	–	2	–	3♂♀
<i>Larinioides comutus</i> *	–	1	–	–	6	–	2	7♂♀
<i>Clubiona</i> sp.	–	–	–	–	1	–	–	1j
<i>Hackmania prominula</i> **	–	–	–	8	–	–	–	8♂
<i>Gnaphosa microps</i> **	–	–	2	3	–	5	–	10♂
<i>Haplodrassus moderatus</i> *	–	–	–	8	–	–	–	8♂
<i>Haplodrassus soerenseni</i>	–	–	–	1	–	–	6	7♂♀
<i>Micaria pulicaria</i> *	–	–	–	–	1	–	1	2♂
<i>Hahnia ononidum</i> **	–	–	–	2	–	–	1	3♂
<i>Agniphantes expunctus</i> *	–	–	–	1	–	1	–	2♀
<i>Bathypahntes eumenis</i>	–	–	2	5	–	–	–	7♀
<i>Bathypahntes humilis</i> *	–	2	–	–	–	1	–	3♂♀
<i>Bathypahntes pogonias</i>	–	–	1	–	–	–	–	1♂
<i>Dactylopisthes video</i> *	9	–	–	–	–	–	–	9♂♀
<i>Dicymbium libidinosum</i>	–	–	1	–	1	–	–	2♀
<i>Diplocentria bidentata</i>	–	–	2	1	–	–	–	3♂
<i>Dismodicus alticeps</i> *	–	–	–	–	1	–	–	1♀
<i>Erigone cristatopalpus</i> **	4	–	–	1	–	–	–	5♂♀
<i>Estrandia grandeva</i>	–	–	–	1	–	–	–	1j
<i>Gnathonarium</i> sp.	–	1	–	–	8	–	–	9♀
<i>Hilaira herniosa</i>	–	–	–	1	–	–	–	1♂
<i>Horcotes strandi</i>	–	–	3	–	–	–	–	3♂
<i>Hybauchenidium gibbosum</i>	–	16	–	–	12	1	5	34♀
<i>Kaestneria anceps</i>	–	5	–	3	3	–	3	14♂♀
<i>Lepthyphantes luteipes</i>	–	–	–	1	–	–	–	1♀
<i>Macrargus multesimus</i> *	–	–	2	–	–	–	–	2♀
<i>Microlinyphia pusilla</i>	–	–	–	1	–	–	–	1♀
<i>Minyrioloides affine</i>	–	1	3	–	–	5	–	9♂♀
<i>Oreoneta magaputo</i> **	–	–	21	–	–	–	–	21♂
<i>Oreonetides vaginatus</i>	–	–	10	–	–	–	–	10♂♀
<i>Oryphantes bipilis</i>	–	–	25	–	–	–	–	25♂♀
<i>Pelecopsis mengei</i> **	–	–	1	–	–	–	–	1♀
<i>Phlattothrata parva</i>	–	–	7	–	–	–	–	7♂
<i>Porrhomma montanum</i>	–	–	1	–	–	–	–	1♂
<i>Praestigia kulczynskii</i>	–	–	–	1	7	–	1	9♀
<i>Savignia birostra</i> *	–	1	–	–	–	–	–	1♀
<i>Stemonyphantes sibiricus</i>	–	–	–	3	1	–	3	7♂♀

Table 1 (continuing).  
Таблица 1 (продолжение).

<i>Styloctetor lehtineni</i> **	2	–	–	–	–	–	–	2♂
<i>Tenuiphantes menzei</i> *	–	–	–	–	–	1	–	1♀
<i>Tmetiscus tolli</i> *	–	–	–	–	1	–	–	1♀
<i>Walckenaeria cuspidata</i>	–	–	5	–	1	–	–	6♀
<i>Walckenaeria karpinskii</i>	–	–	–	1	–	–	–	1♀
<i>Wubanooides fissus</i> *	–	–	–	5	–	–	1	6♂♀
<i>Alopecosa aculeata</i> *	–	–	–	3	1	2	–	6♂♀
<i>Pardosa aff. prosaica</i> *	17	–	–	–	–	–	–	17♀
<i>Pardosa atrata</i> *	–	25	–	–	1	1	–	27♂♀
<i>Pardosa palustris</i> *	–	14	31	40	110	14	103	312♂♀
<i>Pardosa riparia</i>	–	–	1	5	–	8	–	14♂♀
<i>Tibellus maritimus</i>	–	–	–	–	–	2	2	4♂♀
<i>Siticus floricola</i> **	–	–	–	–	–	–	1	1♂
<i>Tetragnatha extensa</i>	–	2	2	41	6	10	2	63♂♀
<i>Enoplognatha caricis</i>	–	–	–	–	–	–	1	1♂&j
<i>Robertus</i> sp.	–	–	–	–	–	1	–	1j
<i>Ozyptila trux</i> **	–	–	–	–	–	2	2	4♂
<i>Xysticus brücheri</i>	–	–	–	6	3	2	4	15♂♀
<i>Mitopus morio</i>	–	4	123	217	117	77	143	681j

Note. \* Species is new to Koryakia; \*\* species is new to Kamchatka Province.

*Micaria pulicaria* (Sundevall, 1831)\*

COMMENTS. Although this species has a circum-Holarctic range it was hitherto unknown from Koryakia.

Family Hahniidae (1)

*Hahnia ononidum* (Simon, 1875)\*\*

COMMENTS. Although this species is widespread and common throughout its circum-Holarctic range it was hitherto unknown from Koryakia and Kamchatka. It is a litter dwelling species.

Family Linyphiidae (34)

*Agyphantes expunctus* (O. Pickard-Cambridge, 1875)\*

COMMENTS. This species has a trans-Palaeartic range and had previously been recorded from the Kamchatka Peninsula, but not from Koryakia.

*Bathyphantes eumenis* (L. Koch, 1879)

COMMENTS. This species has an almost circum-Holarctic range and had previously been recorded from both Kamchatka and Koryakia.

*Bathyphantes humilis* (L. Koch, 1879)\*

COMMENTS. This species has a Siberian range and had previously been recorded from Kamchatka, but not from Koryakia.

*Bathyphantes pogoinias* Kulczyński, 1885

COMMENTS. This species was described from Kamchatka Peninsula and from western Koryakia. It is

restricted to Beringia and occurs in north Sakhalin and the Kuril Islands, northern Cisokhotia, Kamchatka and Alaska.

*Dactylopiastes video* (Chamberlin et Ivie, 1947)\*

COMMENTS. This species has a Siberio – north-west Nearctic range. It had previously been recorded from the Kamchatka Peninsula, but not from Koryakia. All specimens were collected among stones on the pebbly seashore.

*Dicymbium libidinosum* (Kulczyński, 1926)

COMMENTS. This species was described from eastern Kamchatka and occurs throughout Siberia.

*Diplocentria bidentata* (Emerton, 1882)

COMMENTS. The species has a circum-Holarctic range and had previously been recorded from Kamchatka and Koryakia.

*Dismodicus alticeps* Chamberlin et Ivie, 1947\*

COMMENTS. This species has an east Siberio – Nearctic range and had previously been recorded from Kamchatka, but not from Koryakia.

*Erigone cristatopalpus* Simon, 1884?\*

COMMENTS. According to Tanasevitch [2011] the species has a Holarctic range. Tanasevitch [2011] synonymised three species with it: *E. simillima* Keyserling, 1886, *E. zographica* Crosby & Bishop, 1928 and *E. viabilis* Chamberlin & Ivie, 1933. In our opinion this synonymy is questionable, due to the variation

in the figures that exist for these species. If the synonymy is correct then *E. cristatopalpus* has a very unusual distribution range: highlands of Central Europe, Magadan Area, Commander Islands, and the Nearctic. The status of the four species requires further investigations involving molecular studies.

*Estrandia grandeva* (Keyserling, 1886)

COMMENTS. This species has a circum-Holarctic range and had previously been recorded from Kamchatka and Koryakia.

*Gnathonarium* sp.

COMMENTS. We have several females that may belong to one or even two different species, but due to the lack of proper revision of this genus our specimens can not be identified to species level. So far, only one species of *Gnathonarium* has been recorded from Koryakia: *G. taczanowskii* (O. Pickard-Cambridge, 1873) [cf. Marusik et al., 2010]. Another two species are known from southern Kamchatka: *G. suppositum* (Kulczyński, 1885) and *G. dentatum* (Wider, 1834).

*Hilaira herniosa* (L. Koch, 1879)

COMMENTS. The species has a circum-Holarctic range and had previously been recorded from Kamchatka and Koryakia.

*Horcotes strandi* (Sytshevskaja, 1935)

COMMENTS. This species was described from Kamchatka, but was hitherto unknown from Koryakia. It has a circum-Holarctic range.

*Hybauchenidium gibbosum* (Soerensen, 1898)

COMMENTS. This species has a Siberio-Nearctic range and had previously been recorded from western Koryakia. It is one of the most common species collected on the island.

*Kaestneria anceps* (Kulczyński, 1885)

COMMENTS. This species was described from Kamchatka and has a Siberio-Nearctic range. It had previously been recorded from western Koryakia. In the study area it was found in a few different habitats.

*Lepthyphantes luteipes* (L. Koch, 1879)

COMMENTS. This species has an east Palaearctic range and had previously been recorded from western Koryakia.

*Macrargus multesimus* (O. Pickard-Cambridge, 1875)\*

COMMENTS. This species has a circum-Holarctic range. It had previously been recorded from the Kamchatka Peninsula, but not from Koryakia.

*Microlinyphia pusilla* (Sundevall, 1830)

COMMENTS. This species has a circum-Holarctic range. It had previously been recorded from the Kamchatka Peninsula and from western Koryakia.

*Minyrioloides affine* (Schenkel, 1930)

COMMENTS. This species was described from Kamchatka and was recently recorded from western Koryakia [Marusik et al., 2010]. Tanasevitch [2011] synonymised this species with *M. trifrons* (O. Pickard-Cambridge, 1863), but we follow Holm [1945] who demonstrated clear differences in the embolic divisions of the two species.

*Oreoneta magaputo* Saaristo et Marusik, 2004\*\*

COMMENTS. This species has a Siberio – west Nearctic range. Although it had previously been recorded to both the east and west of the Kamchatka Peninsula it was hitherto unknown from Kamchatka Province. All the specimens collected were males, and they were found in only one habitat — terrace slope with late snow melt.

*Oreonetides vaginatus* (Thorell, 1872)

COMMENTS. This species has a circum-Holarctic range and had previously been recorded from Koryakia. This species was found in high numbers, but only in the habitats with late snow melt.

*Oryphantes bipilis* (Kulczyński, 1885)

COMMENTS. This species has an east Siberian range. It had previously been recorded from Koryakia. This species was found in high numbers, but only in the habitats with late snow melt.

*Pelecopsis mengei* (Simon, 1884)\*\*

COMMENTS. Although this species has a circum-Holarctic range it was hitherto unknown from Koryakia and Kamchatka.

*Plattothrata parva* (Kulczyński, 1926)

COMMENTS. This species has an east Siberian – west Nearctic range. It had previously been recorded from Koryakia. This species was found in high numbers, but only in one habitat – terrace slope with late snow melt.

*Porrhomma montanum* Jackson, 1913

COMMENTS. This species has a Palaearctic range and had previously been recorded from western Koryakia.

*Praestigia kulczynskii* Eskov, 1979

COMMENTS. This species has a Siberio–Nearctic range and had previously been recorded from Koryakia.

*Savignya birostra* (Chamberlin et Ivie, 1947)\*

COMMENTS. This species has an east Siberio – west Nearctic range. It had previously been recorded from Kamchatka, but was hitherto unknown from Koryakia.

*Stemonyphantes sibiricus* (Grube, 1861)

COMMENTS. This species has a Siberian range and had previously been recorded from Koryakia.

*Styloctetor lehtineni* Marusik et Tanasevitch, 1998\*\*

COMMENTS. This species has a Siberian range. It was hitherto unknown from Koryakia and Kamchatka.

Our find represents the easternmost locality record of its known distribution range.

*Tenuiphantes menzei* (Kulczyński, 1887)\*

COMMENTS. This species has a trans-Palaeartic range. It had previously been recorded from Kamchatka, but was hitherto unknown from Koryakia.

*Tmeticus tolli* Kulczyński, 1908\*

COMMENTS. This species has a Siberian range and had previously been recorded from Kamchatka, but was hitherto unknown from Koryakia.

*Walckenaeria cuspidata* Blackwall, 1833

COMMENTS. This species has a circum-Holarctic range and had previously been recorded from western Koryakia.

*Walckenaeria karpinskii* (O.Pickard-Cambridge, 1873)

COMMENTS. The species has a circum-Holarctic range and had previously been recorded from western Koryakia.

*Wubanoides fissus* (Kulczyński, 1926)\*

COMMENTS. Although this species was described from Kamchatka and is rather common in east Siberia it was hitherto unknown from Koryakia.

Family Lycosidae (5)

*Alopecosa aculeata* (Clerck, 1757)\*

COMMENTS. This species has a circum-Holarctic range. It had previously been recorded from Kamchatka but was hitherto unknown from Koryakia.

*Pardosa* aff. *prosaica* Chamberlin et Ivie, 1947\*

COMMENTS. This species had previously been recorded from Kamchatka (sub *P. disjuncta* Jackson, 1933 [Buchar, 1971]), but was hitherto unknown from Koryakia. It seems that the east Siberian populations of *P.* aff. *prosaica* are not conspecific with the west Nearctic *P. prosaica*. All specimens were found among pebbles on the seashore.

*Pardosa atrata* (Thorell, 1873)\*

COMMENTS. This species has a trans-Palaeartic range. It had previously been recorded from Kamchatka but was hitherto unknown from Koryakia. Although it was found in several habitats (cf. Table 1), it was dominant only in the wet lake shore environment.

*Pardosa palustris* (Linnaeus, 1758)\*

COMMENTS. This species has a trans-Palaeartic – west Nearctic range. It had previously been recorded from Kamchatka but was hitherto unknown from Koryakia. This species was found in all habitats except for pebbly beaches. In most of the habitats it is the most numerous species. The total number (312) of specimens of *P. palustris* was much higher than the numbers of all other species.

*Pardosa riparia* (C.L. Koch, 1847)

COMMENTS. This species has a trans-Palaeartic range and had previously been recorded from Koryakia. Karaginski Island is the northeasternmost locality in the its known distribution range. The easternmost locality for this species is on the Commander Islands.

Family Philodromidae (1)

*Tibellus maritimus* (Menge, 1875)

COMMENTS. This species has a circum-Holarctic range and had previously been recorded from Koryakia.

Family Salticidae (1)

*Sitticus floricola* (C.L. Koch, 1837)\*\*

COMMENTS. This species has a trans-Palaeartic range and was hitherto unknown from both Koryakia and Kamchatka. Our find represents the northeasternmost record of its known distribution range. *S. floricola* was previously known to occur east of Magadan Area only [Logunov & Marusik, 2000].

Family Tetragnathidae (1)

*Tetragnatha extensa* (Linnaeus, 1758)

COMMENTS. This circum-Holarctic species had previously been recorded from western Koryakia [Marusik et al., 2010]. It was found in all habitats except for pebbly beaches, where the lack of herbs prohibits web construction. Most of the specimens were collected by sweep net sampling.

Family Theridiidae (2)

*Enoplognatha caricis* (Fickert, 1876)

COMMENTS. This circum-Holarctic species had previously been recorded from western Koryakia [Marusik et al., 2010], but only from juvenile specimens.

*Robertus* sp.

COMMENTS. The single juvenile specimen cannot be identified to species level. Four species of *Robertus* have previously been recorded from Koryakia [Marusik et al., 2010].

Family Thomisidae (2)

*Ozyptila trux* (Blackwall, 1846)\*\*

COMMENTS. This species has a trans-Palaeartic range but was hitherto unknown from Koryakia.

*Xysticus britcheri* Gertsch, 1934

COMMENTS. This species has an almost circum-Holarctic range and had previously been recorded from both Kamchatka and Koryakia.

Order OPILIONES

Family Phalangiidae (1)

*Mitopus morio* (Fabricius, 1779)

COMMENTS. This species has a Holarctic range and had previously been recorded from western Kory-

akia. It was found in all habitats (except pebbly beaches), *M. morio* was found usually in high numbers.

## Discussion

All 57 species treated in this paper are new to Karaginski Island. Of these, 26 spider species found on the island are new to Koryakia and 9 of them represent new records for Kamchatka Province. The total number of spider species found in Koryakia now totals 117.

The composition of the spider fauna on Karaginski Island is rather similar to faunas along the north coast of the Sea of Okhotsk. All species found on the island except for *Sitticus floricola* are known from the adjacent Magadan Area. Unlike in western Koryakia [cf. Marusik et al., 2010] no notable (extraordinary) species were found on the island.

Among 56 species of spiders belonging to 12 families, about 2/3 (34 species) of them belong to Linyphiidae. Such a high value of Linyphiidae is very characteristic for Hypoarctic faunas [Marusik, 2007, etc]. About half of the species reported from the island occur in the tundra landscape of Eurasia. However, true tundra species (those distributed in plain landscapes north of the taiga zone [Chernov & Matveeva, 2002]) are absent from Karaginski Island. Most of the species just penetrate to the south-tundra landscapes and their main distribution range consists of the boreal or boreo-nemoral zones.

A high percentage of ecologically plastic boreal, boreo-nemoral and polyzonal species is a characteristic feature of the fauna of Kamchatka [Kurentsov, 1963]. In this respect, the latitudinal and longitudinal composition of the Karaginski Island spider fauna (and some insect groups [Khruleva & Vinokurov, 2009; Barkalov et al., 2010]), is quite typical for the biota of the Kamchatka Peninsula. Only a few species have a limited distribution. *Bathypantes pogonias* is known from Kamchatka, north Sakhalin and the North Kuril Islands, northern Cisokhotia and Alaska. *Oryphantes bipilis* is restricted to Kamchatka and northern Cisokhotia, and *Pardosa* aff. *prosaica* is known to us from Magadan Area, northeastern Yakutia and Kamchatka. These three species can be considered as Beringian.

It is interesting that several polyzonal species are rather common in the studied area and that they occur in various habitats (Table 1). The same is true for the most numerous (in respect of number of specimens collected) species — the ground dwelling *Pardosa palustris* and grass dwelling *Tetragnatha extensa*.

The short collecting period and the fact that numerous species were represented by single specimens (15 species or 1/4 of all species found) do not permit a detailed discussion of relative spatial distribution patterns. It is worth mentioning that the majority of species (26 including the harvestman) were collected in so-called tundra shrubby communities. It is worth mentioning that tundra communities as defined by botanists have no specific tundra spider species. Even pure

boreal species are mostly absent from the island. In our opinion, the shrubby communities on the island appear tundra only in terms of their topography/morphology, and should be classified as such with a good degree of reservation.

**ACKNOWLEDGEMENTS.** We are deeply grateful to M.V. Berezin and E.Yu. Tkacheva, the expedition partners of OK, and also to the villagers of Ossora and Karaga (especially to V.V. Permyakov, V.A. Kudashev and to Mainovye's family) who helped with organization and assisted with collecting on Karaginski Island. We also thank Seppo Koponen (Turku) and Mikhail M. Omelko (Vladivostok) for valuable comments and help during the preparation of the manuscript.

This work was supported in part by the RFFI grants ## 09-04-01365, 11-04-01716-a, 11-04-00941, 12-04-00864-a and also by the Russian Academy Program «Biodiversity: inventory, function, protection».

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