RESEARCH ARTICLE

New data on the spider fauna (Arachnida, Aranei) of the Altai Territory

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A checklist of 30 spider species recorded from the Tigirek State Nature Reserve (the Altai Territory) is provided, of which four species are recorded from the reserve for the first time and one is new to the Altai Mts. Also, the family Uloboridae was first recorded for the reserve.
Key words: Araneae; fauna; new records; spiders; Tigirek State Nature Reserve; Altai

Introduction

The Tigirek State Nature Reserve is situated in the northwestern part of the Altai Mts. Its territory lies at the altitude ranging from 500 to 2000 m a.s.l. Most of the reserve relief is middle-mountain, with dome-shaped peaks.

Special studies of the reserve's spider fauna began relatively recently. The first annotated checklist of spiders of the Tigirek Reserve was published by Trilikauskas and included 132 species (Volynkin et al., 2011). Later, the number of species was increased to 153 thanks to a series of publications by Azarkina & Trilikauskas (2012, 2013a, b; Trilikauskas, 2014). The latest paper by Fomichev [2016] already contains information on 175 spider species recorded from the territory of the Tigirek Reserve. Nevertheless, the spider fauna of the reserve remains poorly inventoried.

Methods

This paper is based on the spider material collected by the senior author, A.S. Slepenkov and A.E. Naydenov in the period of 1–13 July, 2016. The spider species recorded from the Tigirek Reserve for the first time are marked with an asterisk (*), and those that are new to the Altai Mts with two asterisks (**). The studied material has been deposited in the collection of the Institute of Systematic and Ecology of Animals SB RAS, Novosibirsk, Russia (curator: G.N. Azarkina).

Species List

Family **AGELENIDAE**

Agelena labyrinthica (Clerck, 1758)
MATERIAL. c. 3 km NW of Tigirek Vil., Mayak Mt. (51°10'N, 83°00'E), 700–750 m, 01.VII.2016 (Sidorov V.V.), 1♂.
DISTRIBUTION. Trans-Palaearctic nemoral range [Marusik et al., 2000].

Family **ARANEIDAE**

Aculepeira ceropegia (Walckenaer, 1802)
MATERIAL EXAMINED. c. 3 km NW of Tigirek Vil., Mayak Mt. (51°10'N, 83°00'E), 700–750 m, 01.VII.2016 (Sidorov V.V. & Slepenkov A.S.), 6♀; Tigirek Mt. Range, Razrabotnaya Mt. (51°01'N, 83°01'E), 1800–1960 m, 13.VII.2016 (Sidorov V.V.), 3♀.
DISTRIBUTION. Euro-Siberian polyzonal range [WSC, 2019].

Araniella displicata (Hentz, 1847)
MATERIAL EXAMINED. Vicinity of Tigirek Vil. (51°08'N, 83°02'E), 500 m, 01.VII.2016 (Sidorov V.V. & Naydenov A.E.), 3♂ 5♀; c. 3 km NW of Tigirek Vil., Mayak Mt. (51°10'N, 83°00'E), 700–750 m, 01.VII.2016 (Sidorov V.V.), 3♀; Tigirek Mt. Range, the upper reaches of Babii Klyuch River (51°02'N, 82°57'E), 1400–1500 m, 07–10.VII.16 (Sidorov V.V. & Slepenkov A.S.), 1♀.
DISTRIBUTION. Circum-Holarctic boreo-nemoral range [Marusik et al., 2000].

Larinioides cornutus (Clerck, 1758)
MATERIAL EXAMINED. c. 3 km NW of Tigirek Vil., Mayak Mt. (51°10'N, 83°00'E), 700–750 m, 01.VII.2016 (Sidorov V.V.), 1♂.
DISTRIBUTION. Circum-Holarctic polyzonal range [Marusik et al., 2000].

Larinioides patagiatus (Clerck, 1758)
MATERIAL EXAMINED. c. 3 km NW of Tigirek Vil., Mayak Mt. (51°10'N, 83°00'E), 700–750 m, 01.VII.2016 (Sidorov V.V.), 1♀.
DISTRIBUTION. Circum-Holarctic polyzonal range [Marusik et al., 2000].

Mangora acalypha (Walckenaer, 1802)
MATERIAL EXAMINED. c. 3 km NW of Tigirek Vil., Mayak Mt. (51°10'N, 83°00'E), 700–750 m, 01.VII.2016 (Sidorov V.V.), 1♀.
DISTRIBUTION. European-Altaian range [Azarkina & Trilikauskas, 2012].

Singa nitidula C.L. Koch, 1844
MATERIAL EXAMINED. Vicinity of Tigirek Vil. (51°08'N, 83°02'E), 500 m, 01.VII.2016 (Sidorov V.V. & Naydenov A.E.), 1♀.
DISTRIBUTION. Trans-Palaearctic (?) boreo-nemoral range [Marusik et al., 2000].

Family **CHEIRACANTHIIDAE**

Cheiracanthium erraticum
MATERIAL EXAMINED. Tigirek Mt. Range, the upper reaches of Babii Klyuch River (51°02'N, 82°57'E), 1400–1500 m, 07–10.VII.16 (Sidorov V.V. & Slepenkov A.S.), 1♀.
DISTRIBUTION. Trans-Palearctic polyzonal range [WSC, 2019].

**Cheiracanthium pennyi* O. Pickard-Cambridge, 1873
MATERIAL EXAMINED. Tigirek Mt. Range, the upper reaches of Babii Klyuch River (51°02'N, 82°57'E), 1400–1500 m, 07–10.VII.16 (Sidorov V.V. & Slepenkov A.S.), 1♂.
DISTRIBUTION. Euro-Siberian polyzonal range [WSC, 2019].

**Cheiracanthium punctorium* (Villers, 1789)
MATERIAL EXAMINED. c. 3 km NW of Tigirek Vil., Mayak Mt. (51°10'N, 83°00'E), 700–750 m, 01.VII.2016 (Sidorov V.V.), 1♂.
DISTRIBUTION. West Palaearcric temperate range [WSC, 2019].

Family **CLUBIONIDAE**

Clubiona pseudosaxatilis Mikhailov, 1992
MATERIAL EXAMINED. Tigirek Mt. Range, the upper reaches of Babii Klyuch River (51°02'N, 82°57'E), 1400–1500 m, 07–10.VII.16 (Sidorov V.V. & Slepenkov A.S.), 10♀; Tigirek Mt. Range, Razrabotnaya Mt. (51°01'N, 83°01'E), 1800–1960 m, 13.VII.2016 (Slepenkov A.S.), 7♀.
DISTRIBUTION. West Mongolian range [Mikhailov, 1992].

Family **GNAPHOSIDAE**

Drassodes cupreus (Blackwall, 1834)
MATERIAL EXAMINED. Tigirek Mt. Range, the upper reaches of Babii Klyuch River (51°02'N, 82°57'E), 1400–1500 m, 07–10.VII.16 (Sidorov V.V. & Slepenkov A.S.), 1♀.
DISTRIBUTION. Trans-Palaearctic boreo-nemoral range [Marusik et al., 2000].

Gnaphosa banini Marusik et Koponen, 2001
MATERIAL EXAMINED. Tigirek Mt. Range, Razrabotnaya Mt. (51°01'N, 83°01'E), 1800–1960 m, 13.VII.2016 (Sidorov V.V.), 5♀.
DISTRIBUTION. Altai-Mongolian mountain range [Azarkina & Trilikauskas, 2013a].

Parasyrisca volynkini (Fomichev, 2016)
MATERIAL EXAMINED. Tigirek Mt. Range, Razrabotnaya Mt. (51°01'N, 83°01'E), 1800–1960 m, 13.VII.2016 (Sidorov V.V.), 2♀, 2♀ subad.
DISTRIBUTION. The type locality only [Fomichev, 2016; Fomichev, Marusik & Sidorov, 2018].

Family **LYCOSIDAE**

Acantholycosa cf. *altaiensis* Marusik, Azarkina et Koponen, 2004

MATERIAL EXAMINED. Tigirek Mt. Range, the upper reaches of Babii Klyuch River (51°02'N, 82°57'E), 1400–1500 m, 07–10.VII.16 (Sidorov V.V. & Slepenkov A.S.), 2♂, 1♀; Tigirek Mt. Range, Razrabotnaya Mt. (51°01'N, 83°01'E), 1800–1960 m, 13.VII.2016 (Slepenkov A.S.), 2♂, 1♀.

DISTRIBUTION. Endemic of North-Western Altai [Marusik et al., 2004].

COMMENTS. Collected specimens resembles *Acantholycosa altaiensis*, but slightly different in palpal characters. They most likely belong to a new species and needs further attention, which is beyond scope of this paper.

Alopecosa aculeata (Clerck, 1758)

MATERIAL EXAMINED. Tigirek Mt. Range, the upper reaches of Babii Klyuch River (51°02'N, 82°57'E), 1400–1500 m, 07–10.VII.16 (Sidorov V.V. & Slepenkov A.S.), 4♀.

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

Pardosa agrestis/plumipes

MATERIAL EXAMINED. Vicinity of Tigirek Vil. (51°08'N, 83°02'E), 500 m, 01.VII.2016 (Sidorov V.V. & Naydenov A.E.), 2♀.

DISTRIBUTION. West Palaerctic – West Siberian nemoral range [Marusik et al., 1996].

COMMENTS. Males of two species, *Pardosa agrestis* (Westring, 1861) and *P. plumipes* (Thorell, 1875), can be easily distinguished by formation of first legs; males of *P. plumipes* have long and dense hairs on tibiae, metatarsi and tarsi of first legs, while in *P. agrestis* this character is absent. Females of these two species are hardly distinguishable from each other. The only way to identify females is collect it with males (Azarkina, personal data).

Pardosa lugubris (Walckenaer, 1802)

MATERIAL EXAMINED. Vicinity of Tigirek Vil. (51°08'N, 83°02'E), 500 m, 01.VII.2016 (Sidorov V.V. & Naydenov A.E.), 1♀; Tigirek Mt. Range, the upper reaches of Babii Klyuch River (51°02'N, 82°57'E), 1400–1500 m, 07–10.VII.16 (Sidorov V.V. & Slepenkov A.S.), 1♀.

DISTRIBUTION. West Palaearctic temperate range [WSC, 2019].

Family **PHILODROMIDAE**

Philodromus cespitum (Walckenaer, 1802)

MATERIAL EXAMINED. Vicinity of Tigirek Vil. (51°08'N, 83°02'E), 500 m, 01.VII.2016 (Sidorov V.V. & Naydenov A.E.), 1♂, 2♀; c. 4 km NW of Tigirek Vil., (51°09'N, 82°59'E), 600–700 m, 03.VII.2016 (Sidorov V.V.), 1♂.

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

Philodromus emarginatus (Schrank,1803)

MATERIAL EXAMINED. Vicinity of Tigirek Vil. (51°08'N, 83°02'E), 500 m, 01.VII.2016 (Sidorov V.V. & Naydenov A.E.), 1♂.

DISTRIBUTION. Trans-Palearctic nemoral range [Marusik et al., 2000].

Family **SALTICIDAE**

Calositticus floricola (C. L. Koch, 1837)

MATERIAL EXAMINED. Tigirek Mt. Range, the upper reaches of Babii Klyuch River (51°02'N, 82°57'E), 1400–1500 m, 07–10.VII.16 (Sidorov V.V. & Slepenkov A.S.), 6♀.

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

Family **SPARASSIDAE**

Micrommata virescens (Clerk, 1757)

MATERIAL EXAMINED. Vicinity of Tigirek Vil. (51°08'N, 83°02'E), 500 m, 01.VII.2016 (Sidorov V.V. & Naydenov A.E.), 1♂.

DISTRIBUTION. Trans-Palearctic nemoral range [Marusik et al., 2000].

Family **THERIDIIDAE**

Parasteatoda tepidariorum (C.L. Koch, 1841)

MATERIAL EXAMINED. c. 4 km NW of Tigirek Vil., (51°09'N, 82°59'E), 600–700 m, 03.VII.2016 (Sidorov V.V.), 1 ♀.

DISTRIBUTION. Cosmopolitan range [Marusik et al., 2000].

Phylloneta impressa (L. Koch, 1881)

MATERIAL EXAMINED. c. 3 km NW of Tigirek Vil., Mayak Mt. (51°10'N, 83°00'E), 700–750 m, 01.VII.2016 (Sidorov V.V.), 2♀.

DISTRIBUTION. Trans-Palearctic – North-West Nearctic polyzonal range [Marusik et al., 2000].

Family **THOMISIDAE**

Lysiteles maius Ono, 1979

MATERIAL EXAMINED. Tigirek Mt. Range, Razrabotnaya Mt. (51°01'N, 83°01'E), 1800–1960 m, 13.VII.2016 (Sidorov V.V.), 1♂.

DISTRIBUTION. Altaian-Nepalo-Manchurian disjunctive nemoral range [Azarkina & Trilikauskas, 2013b].

***Xysticus lanio* C. L. Koch, 1835 (Fig. 1)

MATERIAL EXAMINED. Tigirek Mt. Range, Razrabotnaya Mt. (51°01'N, 83°01'E), 1800–1960 m, 13.VII.2016 (Slepenkov A.S.), 1♂.

DISTRIBUTION. West Palaearctic temperate range [WSC, 2019].

Xysticus ulmi (Hahn, 1831)

MATERIAL EXAMINED. Vicinity of Tigirek Vil. (51°08'N, 83°02'E), 500 m, 01.VII.2016 (Sidorov V.V. & Naydenov A.E.), 1 ♀.

DISTRIBUTION. West-Central Palaearctic temperate range [Esyunin et al., 2013].

Xysticus obscurus (Collett, 1877)

MATERIAL EXAMINED. Tigirek Mt. Range, the upper reaches of Babii Klyuch River (51°02'N, 82°57'E), 1400–1500 m, 07–10.VII.16 (Sidorov V.V. & Slepenkov A.S.), 1♀.

DISTRIBUTION. Circum-Holarctic boreo-alpine range [Marusik et al., 2000].

Psammitis bonneti (Denis, 1938)

MATERIAL EXAMINED. Tigirek Mt. Range, the upper reaches of Babii Klyuch River (51°02'N, 82°57'E), 1400–1500 m, 07–10.VII.16 (Sidorov V.V. & Slepenkov A.S.), 2♀.

DISTRIBUTION. European-Baikalian disjunctive boreoalpine range [Marusik et al., 2000].

Family **ULOBORIDAE**

***Uloborus walckenaerius* Latreille, 1806

MATERIAL EXAMINED. c. 3 km NW of Tigirek Vil., Mayak Mt. (51°10'N, 83°00'E), 700–750 m, 01.VII.2016 (Sidorov V.V.), 1♀.

DISTRIBUTION. Trans-Palearctic nemoral range [Marusik et al., 2000].

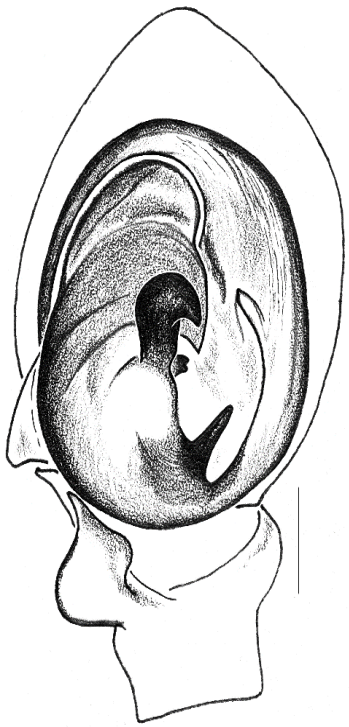

Fig. 1. Male palp of Xysticus lanio C. L. Koch, 1835 (ventral view). Scale bar – 0.1 mm.

Results

The spider fauna of the Tigirek State Nature Reserve is complemented by three additional species and now accounts for 180 species in 98 genera and 23 families. Even so, the araneofauna of the reserve seems to consist of more than 240 species (Fomichev, 2016).

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References

Azarkina, G.N., Trilikauskas, L.A. (2012). New data on spider fauna (Aranei) of the Russian Altai, part I: families Agelenidae, Araneidae, Clubionidae, Corinnidae, Dictynidae and Eresidae. Euroasian Entomological Journal, 11(3), 199–208.
Azarkina, G.N., Trilikauskas, L.A. (2013a). New data on spider fauna (Aranei) of the Russian Altai, part II: families Gnaphosidae, Hahniidae, Linyphiidae, Liocranidae and Lycosidae. Euroasian Entomological Journal, 12(1), 51–67.
Azarkina, G.N., Trilikauskas, L.A. (2013b). New data on spider fauna (Aranei) of the Russian Altai, part III: families Mimetidae, Miturgidae, Oxyopidae, Philodromidae, Pholcidae, Pisauridae, Salticidae, Sparassidae, Tetragnathidae, Theridiidae, Thomisidae, Titanoecidae, Uloboridae and Zoridae. Euroasian Entomological Journal, 12(3), 243–254.
Davydov, E.A., Botchkareva, E.N., Chernykh, D.V. (2011). [Natural conditions of the Tigirek Strict Nature Reserve]. Trudy Tigirekskogo Zapovednika. Barnaul, 4, 7–19 (in Russian).
Esyunin, S.L., Ermakov, A.I., Mikhailov, Yu.E. (2013). Remarks on the Ural spider fauna (Arachnida: Aranei), 14. On the spider fauna of the Kytlym plexus of mountains (the North Urals). Arthropoda Selecta, 22(1), 75–82.
Fomichev, A. A. (2016). New data on the spiders (Arachnida: Aranei) from Altai Territory, Russia. Arthropoda Selecta, 25(1), 119–126.
Fomichev, A. A., Marusik, Y. M. & Sidorov, V. V. (2018). A survey of East Palaearctic Gnaphosidae (Aranei). 9. New data on the Parasyrisca potanini-group from Central Asia. Arthropoda Selecta, 27(2), 155–168.
Mikhailov, K.G. (1992). The spider genus Clubiona Latreille, 1804 (Arachnida Aranei Clubionidae) in the USSR fauna: a critical review with taxonomic remarks. Arthropoda Selecta, 1(3), 3–34.
Trilikauskas, L.A. (2014). [On some seasonal aspects of spiders and harvestmen population (Arachnida: Aranei, Opiliones) in larch forests of the Tigirekski Reserve (North-Western Altai). Tomsk State University Journal of Biology, 28(4), 123–135 (in Russian).
Volynkin, A.V., Trilikauskas, L.A., Baghirov, R.T-O., Burmistrov, M.V., Byvaltsev, A.M., Vasilenko, S.V., Vishnevskaya, M.S., Danilov, Yu.N., Dudko, A.Yu., Dudko, R.Yu., Knyshov, A.A., Kosova, O.V., Kostrov, D.V., Krugova, T.M., Kuznetsova, R.O., Kuzmenkin, D.V., Legalov, A.A., Lvovsky, A.L., Namyatova, A.A., Nedoshivina, S.V., Perunov, Yu.E., Reschnikov, A.V., Sinev, S.Yu., Solovarov, V.V., Tyumaseva, Z.I., Udalov, I.A., Ustyuzhanin, P.Ya., Filimonov, R.V., Tshernyshev, S.E., Tshesnokova, S.V., Sheikin, S.D., Shcherbakov, M.V., Yanygina, L.V. (2011). [Invertebrates of the Tigirek Nature Reserve (an annotated check-list), Biota of the Tigirek Natural Reserve]. Trudy Tigirekskogo Zapovednika. Barnaul, 4, 165–226 (in Russian).
WSC 2019. World Spider Catalog, Version 20.0. Natural History Museum Bern. Available from: http://wsc.nmbe.ch/ accessed on 14 June, 2019.

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