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# NEW DATA ON SPIDERS (ARACHNIDA: ARANEI) FROM SOUTH-WESTERN MONGOLIA

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New records of 12 species found in Mongolia for the first time are provided. One of them – *Dipoena yutian* Hu et Wu, 1989 – previously known only from Xinjiang Province of China is illustrated.

Key words: Asia, Araneae, faunistic records.

#### INTRODUCTION

The study of the Mongolian spider fauna began by Simon (1895) and Kulczyński (1901). In the following decades, a number of papers devoted to spiders of Mongolia have been published (Loksa, 1965; Staręga, 1974; Punda, 1975; Prószyński, 1982; Heimer, 1987; Eskov, 1989; Wunderlich, 1995; Marusik & Koponen, 1998; 2001; Marusik & Logunov, 2002; Logunov & Marusik, 2003; Marusik & Buchar, 2004; Marusik et al., 2014a, 2014b; Fomichev & Marusik, 2015). The most comprehensive papers dealing with the spider fauna of Mongolia were published by Marusik & Logunov (1999; 2006), of which the latter paper was based on extensive materials collected by the Hungarian entomologist Zoltan Kaszab during six expeditions to Mongolia in 1963–1968. To date, some 700 spider species have been reported from Mongolia (Y.M. Marusik, pers. comm.). Although the routes of Kaszab's expeditions covered almost the entire territory of Mongolia, not so much collecting was undertaken in the south-western part of the country occupied by Dzhungarian Gobi Desert (Fig. 1). Three field trips to this poorly studied area undertaken by the author and his collaborators in 2012 and 2015 have revealed 12 species that are new to Mongolia. The goal of this paper is to report on these species found in Mongolia for the first time.

# MATERIAL AND METHODS

This paper is based on the material collected by the author in May 2012, 2015 and June-July 2015. The material was collected in several localities in the south part of Khovd Aimag and the western part of Govi-Altai Aimag. This part of Mongolia is known as Dzhungarian Gobi. The list and descriptions of the localities are given below. In the list of recorded spiders, each name is followed by a number corresponding to the described locality. Photographs were taken in dish with paraffin at the bottom, using an AxioCam MRc 5 (Zeiss) camera attached to a Stemi – 2000 C stereomicroscope in the Institute of Systematic and Ecology of Animals, Novosibirsk, Russia. Digital Images were prepared using Helicon Focus 3.10 image stacking software. Epigynes were macerated in a water solution of KOH. The studied material will be deposited in the collection of the Institute of Systematic and Ecology of Animals SB RAS (ISEA), except for the specimen of *Ceratinella alaskae* Chamberlin et Ivie, 1947 which is deposited in the private collection of Andrei Tanasevitch (Moscow, Russia).

The names of collectors are abbreviated as follows: AF, A.A. Fomichev; RY, R.V. Yakovlev.

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#### List of localities:

- 1. Govi-Altai Aimag, c. 2 km NEE from Alag-Nuur Lake, 45°10'N, 94°28'E, rubbly desert, 1060 m, 11.05.2012. AF.
- 2. Govi-Altai Aimag, c. 6 km NEE from Alag-Nuur Lake, Ailyn-Cagaan Mt., 45°10'N, 94°32'E, dry residual mountains, h=1150-1300 m, 11.05.2012. AF.
- 3. Khovd Aimag, c. 36 km SW from Altai Village, Bodonchiyn-Gol River Valley, 45°46'N, 92°10'E, pebbly river bank, 1280 m, 7–8.05.2012. AF&RY.
  - 4. Same locality as 3, meadow near river. AF.
- 5. Khovd Aimag, Arshantyn-Nuruu Mt. Range, 46°22'N, 91°13'E, meadow near stream, 1700 m, 17.05.2012. AF.
- 6. Same locality as  $5,46^{\circ}21$ 'N,  $91^{\circ}14$ 'E, mountain stony steppe with rocks, 1700-2100 m, 15.05.2012. AF.
- 7. Khovd Aimag, c. 44 km SW from Bulgan Village, Ovkhood-Uul Mt., 45°48'N, 91°07'E, rubbly desert, 1200 m, 27.05.2015. AF.
- 8. Khovd Aimag, Baitag-Bogd-Uul Mt. Range, Gakhai-Gol River Valley, 45°14'N, 91°07'E, stony desert, 2000 m, 24.05.2015. AF.
- 9. Khovd Aimag, Ikh-Khavtag-Uul Mt. Range, near Zhugentyin Spring, 45°04'N; 92°12'E, mountain stony steppe with rocks, 2050-2300 m, 30.06-02.07.2015. AF.
- 10. Khovd Aimag, Ikh-Khavtag-Uul Mt. Range, near Yargaityn-Sair Gorge, 45°03'N; 92°09'E, mountain stony steppe with rocks, 1900-2150 m, 30-31.05.2015. AF.

### LIST OF SPECIES

### **GNAPHOSIDAE**

*Sosticus loricatus* (L. Koch, 1866): 2♂ [1].

COMMENTS. This species has a Holarctic range (Tuneva, Esyunin, 2002). Although it is a widespread species, it has been found in Mongolia for the first time.

### LINYPHIIDAE

*Ceratinella alaskae* Chamberlin et Ivie, 1947: 1♂ [8].

COMMENTS. This species is new to Mongolia. It has a Siberio-Nearctic range and known from Middle Siberia, southward to Amur-Maritime Area in Asia and to Alaska and Canada in the Nearctic (Chamberlin & Ivie, 1947; Mikhailov, 2013; Paquin & Dupérré, 2003). The new record represents the westernmost locality of the species in Asia.

### LYCOSIDAE

**Pardosa jeniseica** Eskov et Marusik, 1995:  $4^{\circ}$  13 $^{\circ}$  [3],  $1^{\circ}$  [4],  $6^{\circ}$  1 $^{\circ}$  [5].

COMMENTS. It is the first record from Mongolia. The species has a trans-Siberian boreo-nemoral range (Marusik et al., 2000), with new finds representing the southernmost limit of its range.

#### **MIMETIDAE**

*Ermetus inopinabilis* Ponomarev, 2008: 16 [10].

COMMENTS. The species was previously known from the south-east part of the Russian Plain and from the Caucasus (Ponomarev, 2008). It is reported from Mongolia for the first time. Apart from the record of an undetermined species of Mimetidae in Central (=Tov) Aimag of Mongolia (as "*Ero* sp." in Marusik & Logunov (1999)), it is the first record of the family from the country.

# PHILODROMIDAE

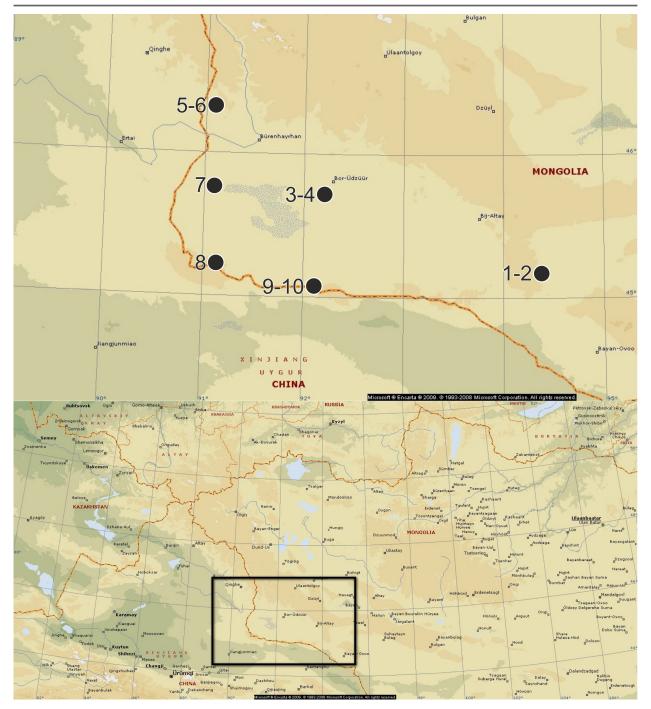
Thanatus formicinus (Clerck, 1757):  $1 \supseteq [6]$ .

COMMENTS. Although this common species is widespread in the Holarctic (Logunov, 1996), it has not reported from Mongolia to date.

# **SALTICIDAE**

Aelurillus m-nigrum Kulczyński, 1891: 1♀ [6].

COMMENTS. This species has a Euro-Central Asian nemoral range (Azarkina, 2002). It is found in Mongolia for the first time and the new record lies in the easternmost limit of its range.



**Figure 1.** Geographical position of the studied area and collecting localities in Khovd and Govi-Altai Aimags of Mongolia.

# *Chalcoscirtus karakurt* Marusik, 1991: 13 [7].

COMMENTS. The species has a Turanian range and it has been recorded from Iran, Astrakhan Region of Russia, Uzbekistan, Turkmenistan, Kyrgyzstan and Kazakhstan (Logunov, Marusik, 1999; 2000). Found in Mongolia for the first time. The new record represents the easternmost locality of its range.

# *Euophrys uralensis* Logunov, Cutler et Marusik, 1993: 1♂ [6].

COMMENTS. This species is distributed from the Caucasus, southward to Turkmenistan, northeast to the Altai (Logunov, 1997; Logunov & Marusik, 2000). It is the first record from Mongolia representing the easternmost locality of the species range.

**Pellenes geniculatus** (Simon, 1868): 1♂ [2].

COMMENTS. Although this species is known from Western Europe, southward to Southern Africa and widely distributed in Central Asia (Logunov et al., 1999; Wesołowska & Haddad, 2014), it has not been reported from Mongolia to date. The new record represents the easternmost locality of the species range.

# **TETRAGNATHIDAE**

*Pachygnatha listeri* Sundevall, 1830: 1♀[3].

COMMENTS. The species has a trans-Palaearctic boreo-nemoral range (Marusik et al., 2000); recorded from Mongolia for the first time.

# **THERIDIIDAE**

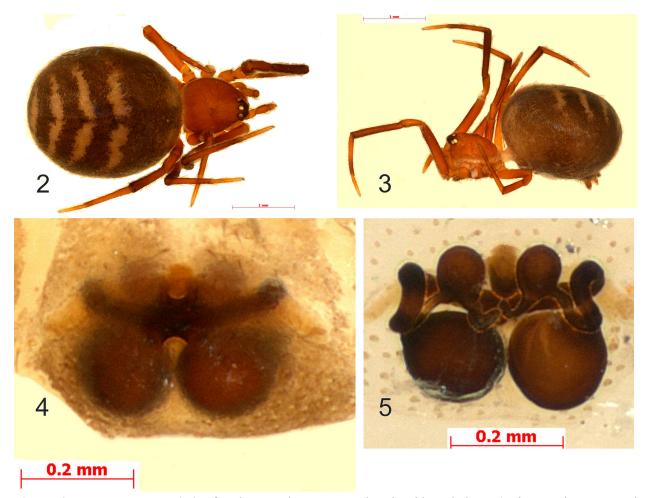
*Dipoena yutian* Hu et Wu, 1989: 1♀ [9].

COMMENTS. To date this species has been known from the south of Taklamakan Desert in Xinjiang Province of China only (Hu & Wu, 1989; Song et al., 1999). It is found in Mongolia for the first time. The new locality is separated from the previously known ones by approximately 1200 km and represents the northern-easternmost limit in its range. The epigyne and general appearance of the female of *D. yutian* are as given in Figs 2–5.

# THOMISIDAE

*Xysticus lehtineni* Fomichev, Marusik et Koponen, 2014: 1♀ [6].

COMMENTS. The species is reliably known only from the Altai and Tuva Regions of Russia. Fomichev et al. (2014) suggested that this species would likely to occur in Mongolia as well. The present finding is the first credible record of this species from Mongolia representing the southernmost locality of its range.



**Figures 2–5.** Dipoena yutian. 2, 3 – female general appearance, dorsal and lateral views; 4 – intact epigyne, ventral view; 5 – spermathecae, dorsal view. Scale: 2, 3 = 1 mm; 4, 5 = 0.2 mm.

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