

UDC 595.44 FIRST DESCRIPTION OF THE MALE OF DRASSODES KASZABI (ARANEI, GNAPHOSIDAE)

A. A. Fomichev¹, Y. M. Marusik^{2,3,4}

 ¹Altai State University, Lenina Prospect, 61, Barnaul, 656049 Russia E-mail: a.fomichov@mail.ru
²Institute for Biological Problems of the North, RAS, Portovaya st., 18, Magadan, 685000 Russia E-mail: yurmar@mail.ru
³Far Eastern Federal University, Sukhanova, 8, Vladivostok, 690950 Russia
⁴Zoological Museum, University of Turku, FI-20014, Turku, Finland

First Description of the Male of *Drassodes kaszabi* (Aranei, Gnaphosidae). Fomichev, A. A., Marusik, Y. M. — A previously unknown male of *D. kaszabi* Loksa, 1965 is described for the first time, and the female is redescribed. The species is known from Western Mongolia and Western Tuva.

Key words: Araneae, Gnaphosidae, spiders, Mongolia, Tuva.

Первое описание самца *Drassodes kaszabi* (Aranei, Gnaphosidae). Фомичев А. А., Марусик Ю. М. — Описан ранее неизвестный самец *D. kaszabi* Loksa, 1965 и переописана его самка. Вид известен из Западной Монголии и Западной Тувы.

Ключевые слова: Araneae, Gnaphosidae, пауки, Монголия, Тува.

Introduction

Drassodes Westring, 1851, with 171 species, is the second largest genus of Gnaphosidae, having a nearly cosmopolitan distribution (World..., 2015). Most species are found in Eurasia and Africa, and only a few species occur in the New World. Despite the presence of large-scale regional revisions of the Nearctic (Platnick, Shadab, 1976), Central European (Grimm, 1985), Israeli (Levy, 2004), Ural (Esyunin, Tuneva, 2002), and Chinese (Song et al., 2004) species, *Drassodes* still remains an inadequately studied taxon. Many species included in this genus are probably misplaced (Platnick, Shadab, 1976), and more than half of the described species (102) are known only from one sex (World..., 2015). To date, 11 *Drassodes* species have been recorded from Mongolia (Loksa, 1965; Marusik, Logunov, 1999, 2006), one, *D. kaszabi* Loksa, 1965, was known only from the female. Several specimens belonging to this species, including previously unknown males, were collected in Western Mongolia. Here we provide the first description of the male of *D. kaszabi* and redescribe the female.

Material and methods

Specimens were photographed using an Olympus Camedia E-520 camera attached to Olympus SZX 16 stereomicroscope at the Zoological Museum, University of Turku, Finland and an AxioCam MRc5 (Zeiss) camera attached to a Stemi 2000-C stereomicroscope at the Institute of Systematics and Ecology of Animals, Novosibirsk, Russia. Digital images were prepared using "Combine ZP" and "Helicon focus 3.10" image stacking software. Illustrations of the endogyne were made after maceration in a KOH-water solution. All measurements are given in mm. Apical spines on metatarsi III and IV were not counted. Abbreviations used in the text: Leg segments: Fe — femur, Mt — metatarsus, Pt — patella, Ta — tarsus, Ti — tibia. Leg spination: d — dorsal, p — prolateral, r — retrolateral, v — ventral; AF Alexander Fomichev.

Voucher material is deposited at the Museum of the Institute of Systematics and Ecology of Animals, Novosibirsk, Russia (ISEA).

Drassodes kaszabi Loksa, 1965 (fig. 1-11)

D. kaszabi Loksa, 1965: 27, fig. 46 (Q); Marusik, Logunov, 1995: 183, fig. 11-12 (Q).

Material examined. Mongolia: Bayan-Ölgii Aimag: Khongor-Olongiyn-Gol River Valley, 34 km ENE from Tolbo Village, 48°31′ N, 90°43′ E, mountain stony steppe with rocks, 2300 m, 5.05.2012, 1 Q; Khovd

Aimag: Arshantyn-Nuruu Mt. Range, 46°21′ N, 91°15′ E, mountain stony steppe with rocks, 1700–2100 m, 15.05.2012, 2 ♂, 2 ♀; Mongolian Altai Mt. Range (S slope), Bodonchiyn-Gol River Basin, Khondiyn-Gol River Valley, 46°07′ N, 92°30′ E, semi-desert steppe with rocks, at night, 1800 m, 17.05.2012, 1 ♀; foothills of Muchar-Uul Mt., 47°09′ N, 92°11′ E, mountain stony steppe with rocks, 1900–2000 m, 5–6.05.2012, 1 ♂, 2 ♀ (AF) (ISEA).

D i a g n o s i s. Males of *D. kaszabi* are similar to those of *D. pubescens* (Thorell, 1876), *D. dispulsoides* Schenkel, 1963 and *D. cupa* Tuneva, 2005 in having a modified median apophysis (transverse, with bifurcated tip) and a straight embolus, differing from these two species by having a long tibial apophysis, almost as long as the palpal tibia (2 or more times shorter in similar species). The tibial apophysis of *D. cupa* is sharply pointed, but it is not in

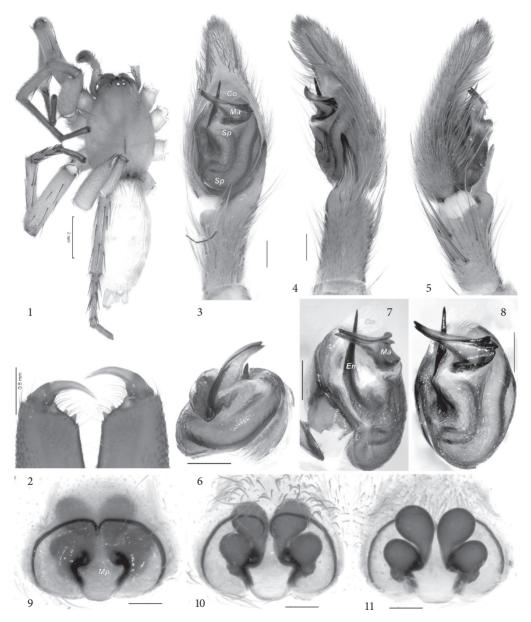


Fig. 1–11. Diagnostic characters of *Drassodes kaszabi*: 1 — male habitus, dorsal; 2 — male chelicera, posterior; 3-5 — male palp, ventral, retro- and prolateral; 6-8 — bulbus, dorso-retrolateral, prolateral and ventral; 9-10 — epigyne, ventral; 11 — epigyne, dorsal. Scale bar 0.2 mm if not otherwise indicated. Abbreviations: *Co* — conductor; *Ma* — median apophysis; *Mp* — median plate; *Sp* — spermophor.

D. kaszabi. Females of *D. kaszabi* differ from other species by having a large epigynal fovea with distinct margins and a small median plate (two times shorter than fovea height).

Description. Male. Total length 10.3. Carapace: 4.8 long, 3.4 wide. Colouration. Carapace, sternum and legs yellow-brown (fig. 1). Chelicerae brown, with 3 promarginal teeth and 1 small retromarginal tooth (fig. 2). Maxillae and labium light-brown. Abdomen beige, without pattern.

Leg measurements:

Leg	Fe	Pt	Ti	Mt	Та	Total
Ι	4.1	2.2	3.8	3.25	2.05	15.4
II	3.85	2.1	3.25	2.95	1.95	14.1
III	3.65	1.75	2.8	2.95	1.9	13.05
IV	4.5	2.0	3.8	4.7	2.25	17.25

Leg spination:

Leg	Fm	Ti	Mt
Ι	d1-1-0 p0-1-1	p1-0-1 v2-0-2	v2-0-0
II	d1-1-0 p0-1-1	p1-0-1 v2-0-2	v2-0-0
III	d1–1–1 p1–1–1 r0–1–1	d1-0-0 p1-1-1 r2-0-1 v2-2-2	d1-2-0 p1-1-0 r1-1-0 v2-2-0
IV	d1-1-1 p0-1-1 r0-2-1	d1-0-1 p1-1-1 r2-0-1 v2-2-2	d1-2-0 p1-1-0 r1-1-0 v2-0-2

Palp as in fig. 3–8. Tibia with 2–3 dorsal and 2 prolateral spines. Tibial apophysis long, almost as long as tibia. Spermophor (*Sp*) with three loops, terminal part directed downward (basally). Median apophysis (*Ma*) modified, without hook, much wider than long, almost as wide as tegulum, tip bifurcated. Conductor (*Co*) large, membranous with serrated margins. Embolus strong and straight, slightly shorter than median apophysis width.

F e m a l e. See Loksa (1965) and Marusik, Logunov (1995) for description. Total length 14.0. Carapace: 4.8 long, 3.3 wide. Colouration as in male.

Leg measurements:

Leg	Fe	Pt	Ti	Mt	Та	Total
Ι	3.85	2.1	3.15	2.65	1.8	13.55
II	3.65	1.9	2.9	2.55	1.75	12.75
III	3.5	1.75	2.75	2.85	1.8	12.65
IV	4.5	2.0	3.8	4.65	2.0	16.95

Leg spination:

Leg	Fm	Ti	Mt
Ι	d1-1-0 p0-1-1	v2-2-0	v2-0-0
II	d1-1-0 p0-1-1	p0-0-1 v2-2-0	v2-0-0
III	d1-1-1 p0-1-1	d1-0-0 p1-1-1 r2-0-1 v1-2-2	d1-2-0 p1-1-0 r1-1-0 v2-2-0
IV	d1-1-1 p0-1-1 r0-1-1	d1-0-1 p1-1-1 r2-0-1 v2-2-2	d1-2-0 p1-1-0 r1-1-0 v2-0-2

Epigyne as in fig. 9–11. Fovea with distinct margins, 1.6 times wider than high. Median plate (Mp) about 2.2 times thinner than cavity and almost 2 times shorter than cavity. Each receptacle with 2 large chambers; receptacles span a distance 0.77 times less than cavity width.

Size variation. Male body length varies from 10.0 to 10.7, carapace 4.1–4.8 long and 3.0–3.4 wide. Female body length varies from 9.6 to 14.0, carapace 4.5–5.6 long and 3.2–3.95 wide.

Distribution. Western Mongolia (Bayan-Ölgii, Khovd, Uvs, Bayankhongor and Övörkhangai Aimags) and Western Tuva (Russia).

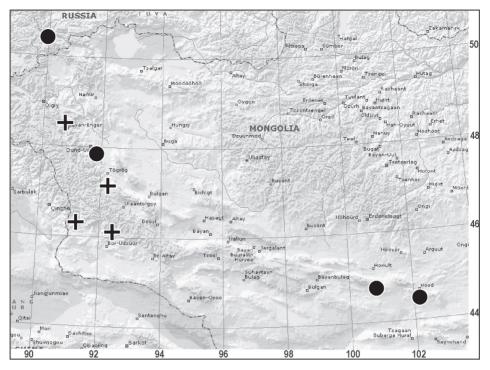


Fig. 12. Distribution records of *Drassodes kaszabi*: • literature data; + new records.

We thank R. V. Yakovlev (Barnaul, Russia), A. N. Nakonechnyi (Novosibirsk, Russia), A. I. Shmakov (Barnaul, Russia), G. G. Khabiev (Aktash, Russia) and U. Beket (Ölgii, Mongolia) for organizing and undertaking an expedition to Mongolia, from where the material treated in this paper was collected. Thanks to S. Koponen (University of Turku, Finland) and R. Yu. Dudko (ISEA) for providing institutional facilities. English of the earlier draft was kindly checked and corrected by Sarah Crews (California Academy of Sciences, USA).

References

- Esyunin, S. L., Tuneva, T. K. 2002. A review of the family Gnaphosidae in the fauna of the Urals (Aranei), 1. Genera *Drassodes* Westring, 1851 and *Sidydrassus* gen. n. *Arthropoda Selecta*, **10** (2), 169–180.
- Grimm, U. 1985. Die Gnaphosidae Mitteleuropas (Arachnida, Araneae). Abhandlungen des Naturwissenschaftlichen Vereins in Hamburg, 26, 1–318.
- Levy, G. 2004. Spiders of the genera Drassodes and Haplodrassus (Araneae, Gnaphosidae) from Israel. Israel Journal of Zoology, **50**, 1-37.
- Loksa, I. 1965. Araneae. Ergebnisse der zoologischen Forschungen von Dr. Z. Kaszab in der Mongolei. *Reichenbachia*, 7, 1-32.
- Marusik, Yu. M., Logunov, D. V. 1995. Gnaphosid spiders from Tuva and adjacent territories, Russia. *Beiträge zur Araneologie*, **4**, 177–210.
- Marusik, Yu. M., Logunov, D. V. 1999. On the spiders (Aranei) collected in central Mongolia during a joint American-Mongolian-Russian expedition in 1997. *Arthropoda Selecta*, 7 (3), 233–254.
- Marusik, Yu. M., Logunov, D. V. 2006. On the spiders collected in Mongolia by Dr. Z. Kaszab during expeditions in 1966–1968 (Arachnida, Aranei (excluding Lycosidae)). *Arthropoda Selecta*, **15** (1), 39–57.
- Platnick, N. I., Shadab, M. U. 1976. A revision of the spider genera *Drassodes* and *Tivodrassus* (Araneae, Gnaphosidae) in North America. *American Museum Novitates*, **2593**, 1–29.
- Song, D. X., Zhu, M. S., Zhang, F. 2004. Fauna Sinica: Invertebrata Vol. 39: Arachnida: Araneae: Gnaphosidae. Science Press, Beijing, 1–362 [In Chinese].
- World Spider Catalog. 2015. World Spider Catalog, Version 16.5. Natural History Museum Bern; online at: http://wsc.nmbe.ch (accessed on September, 2015).

Received 18 September 2015 Accepted 29 October 2015