



<http://dx.doi.org/10.11646/zootaxa.3894.1.4>

<http://zoobank.org/urn:lsid:zoobank.org:pub:70B9B045-9C14-47B1-B0C7-8DDA09AFE02B>

A survey of East Palaearctic Gnaphosidae (Araneae). 3. On new and poorly known *Gnaphosa* Latreille, 1804

YURI M. MARUSIK^{1,2} & MIKHAIL M. OMELKO^{3,4}

¹ Institute for Biological Problems of the North RAS, Portovaya Str. 18, Magadan, Russia. E-mail: yurmar@mail.ru

² Zoological Museum, University of Turku, FI-20014 Turku, Finland.

³ Far Eastern Federal University, Sukhanova 8, Vladivostok 690950, Russia. E-mail: omelkom@gmail.com

⁴ Gornotayozhnaya Station FEB RAS, Gornotayozhnoye Vil., Ussuriyski Dist., Primorski Krai, 692533 Russia.

Abstract

Two new species, *Gnaphosa koponeni* sp. n. (♂♀, Tuva, Russia) and *G. tunevae* sp. n. (♀, Mongolia) are described. New figures and distribution data are provided for *G. gracilior* Kulczyński, 1901, *G. kansuensis* Schenkel, 1963, *G. mandshurica* Schenkel, 1963, *G. sticta* Kulczyński, 1908, *G. stoliczkai* O. Pickard-Cambridge, 1885 and *G. wiehlei* Schenkel, 1963. Additional morphological evidence is provided that *G. similis* Kulczyński, 1926 is not a synonym of *G. muscorum* (L. Koch, 1866). *Gnaphosa stoliczkai* is reported from Mongolia for the first time. The synonymy of *Gnaphosa potanini* Simon, 1895 with *G. silvicola* Kamura, 1988 is discussed and is likely to be incorrect.

Key words: Mongolia, Asia, Siberia, Far East, Altai, new species, distribution

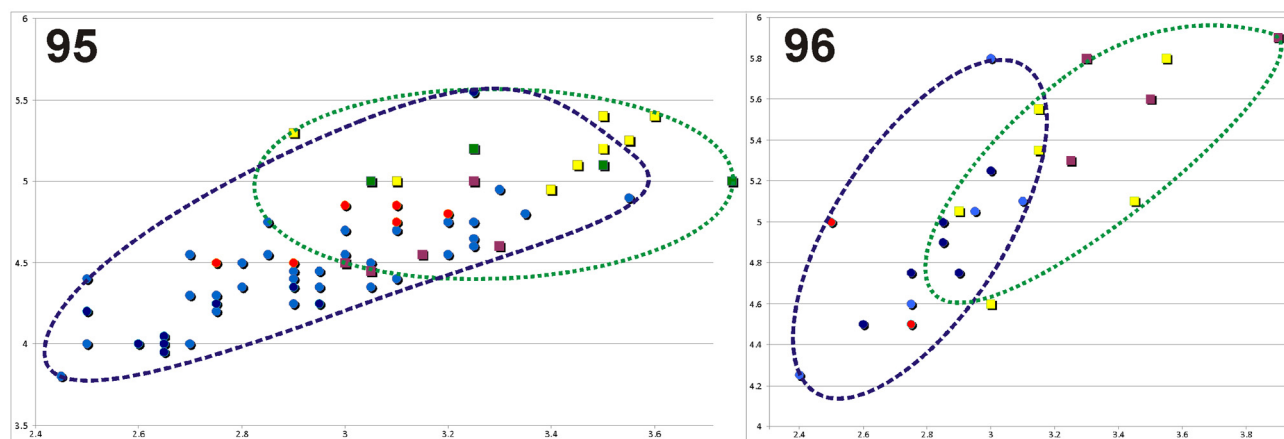
Introduction

Gnaphosa Latreille, 1804 is the third largest genus of ground spiders (Gnaphosidae) with 141 species (Platnick 2014) and is one of the best-studied, species-rich genera of Holarctic spiders. The genus is well studied due to the several wide-scale revisions of the Nearctic (Platnick & Shadab 1975), European (Grimm 1985), Asian (Ovtsharenko et al. 1992) and Chinese (Song et al. 2004) species. Only six species in the genus (*G. jodhpurensis* Tikader & Gajbe, 1977, *G. kailana* Tikader, 1966, *G. kankhalae* Biswas & Roy, 2008, *G. pauiensis* Tikader & Gajbe, 1977, *G. poonaensis* Tikader, 1973, *G. rohtakensis* Gajbe, 1992) are known outside of the Holarctic. All are from India and judging from the original descriptions, are misplaced. Although the genus is well studied, 39 species remain known only from one sex (33 from females and six from males). One species, *Gnaphosa limbata* Strand, 1900, was described from a juvenile specimen.

While South Siberia, Mongolia and China are well studied thanks to a revision of Asian *Gnaphosa* (Ovtsharenko et al. 1992) and a synopsis of Chinese Gnaphosidae (Song et al. 2004), there are still many poorly known or entirely new species. Recent studies of Mongolian *Gnaphosa* revealed three new species that represent a separate species group (Fomichev et al. 2013; Marusik et al. 2014). Working with recently collected material and studying museum collections, we found two species new to science, several species with inadequately illustrated copulatory organs, some records that were interesting in terms of geographical distribution or considerable size variation, and new evidence of the validity of *G. similis* Kulczyński, 1926, earlier to be a junior synonym of the Holarctic *G. muscorum* L. Koch, 1866.

The aims of the paper are 1) to provide detailed descriptions of new species, 2) to illustrate poorly known species and show their variation, 3) to provide new records that extend the known range of four species and 4) to show differences between two sibling species, *G. similis* and *G. muscorum*.

record lies 250 km east from the current record, which is the northeasternmost in the whole range. *Gnaphosa mandshurica* is known from northern Kazakhstan to Eastern Mongolia and neighbouring Inner Mongolia, and from Nepal to Gansu.



FIGURES 95-96. 95—Correlation between femur I length (x axis) and carapace length (y axis) in males of *Gnaphosa similis* (square: red-brown—Kolyma R. mouth, yellow—Pevek, green—Maritime Province) and *G. muscorum* (ring: light blue—Finland, dark blue—Tuva, red—Mongolia). 96—Correlation between femur I length (x axis) and carapace length (y axis) in females of *Gnaphosa similis* (square: red-brown—Kolyma R. mouth, yellow—Pevek) and *G. muscorum* (ring: light blue—Tuva, dark blue—Finland, orange—Mongolia).

Acknowledgements

We thank the late S. Mahunka (NHMB, Budapest) and Kirill G. Mikhailov (Moscow) for the loan of material and the American Museum of Natural History for allowing the reproduction of two figures. Special thanks to Seppo Koponen (University of Turku) for providing museum facilities. Helpful comments on a draft of the manuscript were provided by Mykola M. Kovblyuk (Simferopol) and Galina Azarkina (Novosibirsk). English of the final draft was kindly checked and corrected by Cor Vink. This study was supported in part by the Russian Foundation for Basic Research (grant № 12–04–01548) and Far Eastern Federal University.

References

- Almquist, S. (2006) Swedish Araneae, part 2-families Dictynidae to Salticidae. *Insect Systematics and Evolution Supplements*, 63, 285–601.
- Fomichev, A.A., Marusik, Y.M. & Omelko, M.M. (2013) A new species of *Gnaphosa* Latreille, 1804 (Aranei: Gnaphosidae) from western Mongolia. *Arthropoda Selecta*, 22, 153–156.
- Grimm, U. (1895) Die Gnaphosidae Mitteleuropas (Arachnida, Araneae). *Abhandlungen des Naturwissenschaftlichen Vereins in Hamburg*, 26, 1–318.
- Gromov, A.V. (2011) Interesting finds of spiders in Central Kazakhstan. *Zoological researches of the 20 years of independence of the Republic of Kazakhstan: Materials of the International scientific conference devoted to the 20 years of independence of Republic of Kazakhstan*, Aimagy, Institut Zoologii, pp. 70–75. [in Russian]
- Grube, A.E. (1861) Beschreibung neuer, von den Herren L. v. Schrenck, Maack, C. v. Ditmar u. a. im Amurlande und in Ostsibirien gesammelter Araneiden. *Bulletin de l'Académie impériale des sciences de St.-Petersbourg*, 4, 161–180.
- Izmailova, M.V. (1989) *Fauna of Spiders of South Part of Eastern Siberia*. Irkutsk, State University, 184 pp. [in Russian]
- Kulczyński, (1926) Arachnoidea Camtschadalia. *Yezhegodnik zoologicheskogo muzeya Akademii Nauk. SSSR*, 27, 29–72.
- Logunov, D.V. & Marusik, Y.M. (2004) *Order Araneae - spiders*. Biodiversity of the Sokhondo Nature Reserve. Arthropoda. Novosibirsk-Chita, 416 pp. [pp. 41–80] [in Russian]
- Marusik, Y.M. (1993) Three new wandering spider species (Aranei, Lycosidae, Gnaphosidae) from Mongolia. *Arthropoda Selecta*, 2 (1), 77–81.
- Marusik, Y.M. & Koponen, S. (2000) New data on spiders (Aranei) from the Maritime Province. *Arthropoda Selecta*, 9 (1), 55–68.
- Marusik, Y.M. & Kovblyuk, M.M. (2011) *Spiders of Siberia and Russian Far East*. Moscow, KMK Press, 344 pp. [in Russian]

- Marusik, Y.M. & Logunov, D.V. (1995) Gnaphosid spiders from Tuva and adjacent territories, Russia (Arachnida: Araneae: Gnaphosidae). *Beiträge zur Araneologie*, 4, 177–210.
- Marusik, Y.M. & Logunov, D.V. (1999) On the spiders (Aranei) collected in Mongolia during a joint American-Mongolian-Russian expedition in 1997. *Arthropoda Selecta*, 7 (3), 233–254.
- Marusik, Y.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.
- Marusik, Y.M., Fomichev, A.A. & Omelko, M.M. (2014) A survey of East Palaearctic Gnaphosidae (Araneae). 2. Two new *Gnaphosa* Latreille, 1804 species from Western Mongolia. *ZooKeys*, 426, 1–9.
<http://dx.doi.org/10.3897/zookeys.426.7898>
- Namkung, J. (2002) *The spiders of Korea*. Kyo-Hak Publishing Co., Seoul, 648 pp.
- Namkung, J. (2003) *The Spiders of Korea*, 2nd. ed. Kyo-Hak Publishing Co., Seoul, 648 pp.
- Ovtsharenko, V.I. & Marusik, Y.M. (1988) Spiders of the family Gnaphosidae (Aranei) of the North-East of the USSR (Magadan Area). *Entomologicheskoe Obozrenie*, 61 (4), 204–217. [In Russian]
- Ovtsharenko, V.I. & Marusik, Y.M. (1996) An additional data on spiders of the family Gnaphosidae (Aranei) of the north-east Asia. *Entomologicheskije Issledovaniya na Severo-Vostoke SSSR*, 2, 114–130. [In Russian]
- Ovtsharenko, V.I., Platnick, N.I. & Song, D.X. (1992) A review of the North Asian ground spiders of the genus *Gnaphosa* (Araneae, Gnaphosidae). *Bulletin of the American Museum of Natural History*, 212, 1–88.
- Paquin, P. & Dupérré, N. (2003) Guide d'identification des araignées de Québec. *Fabriques Supplement*, 11, 1–251.
- Platnick, N.I. & Shadab, M.U. (1975) A revision of the spider genus *Gnaphosa* (Araneae, Gnaphosidae) in America. *Bulletin of the American Museum of Natural History*, 155, 1–66.
- Platnick, N.I. (2014) The World Spider Catalog, Version 14.5 American Museum of Natural History. Available from: <http://research.amnh.org/entomology/spiders/catalog/index.html> (Accessed 28 May 2014)
- Roberts, M.J. (1998) *Spinnengids*. Tirion, Baarn, Netherlands, 397 pp.
- Schenkel, E. (1963) Ostasiatische Spinnen aus dem Muséum d'Histoire naturelle de Paris. *Memoires Du Museum National D'Histoire Naturelle*, 25, 1–481.
- Simon, E. (1895) Arachnides recueillis par M.G. Potanine en Chine et en Mongolie (1876–1879). *Bulletin de l'Académie impériale des sciences de St.-Petersbourg*, 2 (5), 331–345.
- Song, D.X., Zhu, M.S. & Chen, J. (1999) *The Spiders of China*. Hebei Science and Technology Publishing House, Shijiazhuang, 640 pp.
- Song, D.X., Zhu, M.S. & Zhang, F. (2004) *Fauna Sinica: Invertebrata Vol. 39: Arachnida: Araneae: Gnaphosidae*. Science Press, Beijing, ix + 362 pp.
- Tullgren, A. (1946) *Svenska spindelfauna: 3. Egentliga spindlar. Araneae. Fam. 5-7. Clubionidae, Zoridae och Gnaphosidae*. Entomologiska Föreningen, Stockholm, 141 pp.
- Wesołowska, W. (1988) Redescriptions of the A. Grube's East Siberian species of spiders (Aranei) in the collection of the Natural History Museum at Wrocław. *Annales Zoologici, Warszawa*, 41, 403–413.
- Zhao, J.Z. (1993) *Spiders in the Cotton Fields in China*. Wuhan Publishing House, Wuhan, China, 552 pp.