



<http://dx.doi.org/10.11646/zootaxa.3861.3.5>

<http://zoobank.org/urn:lsid:zoobank.org:pub:EA82A956-0344-41A0-AD3C-3B75C87761C0>

Reconsideration of *Xysticus* species described by Ehrenfried Schenkel from Mongolia and China in 1963 (Araneae: Thomisidae)

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

¹Institute for Biological Problems of the North, RAS, Portovaya Str. 18, Magadan RF-685000, Russia. yurmar@mail.ru

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

³Gornotaezhnaya Station FEB RAS, Gornotaezhnoe Vil., Ussuriysk Dist., Primorski Krai RF-692533, Russia. omelkom@gmail.com

⁴Far Eastern Federal University, Sukhanova 8, Vladivostok RF-690950, Russia

Abstract

The types of nine *Xysticus* species described by Schenkel (1963) from China and Mongolia are revised. Comments on all 16 species described by Schenkel in 1963 are provided. Three species are synonymised with *Xysticus davidi* Schenkel, 1963: *X. excavatus* Schenkel, 1963, **syn. n.**, *X. hotingchiehi* Schenkel, 1963, **syn. n.**, *X. pentagonius* Seyfulina & Mikhailov, 2004, **syn. n.** *Xysticus fagei* Schenkel 1963, **syn. n.** is a junior synonym of *X. ephippiatus* Simon, 1880. *Xysticus lesserti* Schenkel, 1963 is revalidated and removed from synonymy with *X. kurilensis* Strand, 1907. A male specimen from Gansu identified by Schenkel as *Xysticus sibiricus* Kulczyński, 1908 is described as a new species *X. courti* **sp. n.**

Key words: Crab spiders, Asia, new synonymy, revalidation, new species, Potanin

Introduction

Xysticus C.L. Koch, 1835 is the largest genus in Thomisidae and is distributed worldwide. So far, 375 species have been attributed to this genus (Platnick 2014). However, in general, it is rather poorly studied. More than one third of all species (164) are known only from one sex (♀ 103; ♂ 53) or even only by juveniles (8). Moreover, 158 species are known from a single taxonomic entry or by two entries, with the second repeating information from the previous publication (cf. Platnick 2014). Judging from the copulatory organs and habitus *Xysticus* is not a monophyletic genus. Several generic or subgeneric names have already been suggested for some groups of species, but they are considered as synonyms of *Xysticus* (*Lassycticus* Schick, 1965, *Pellysticus* Schick, 1965, *Proxysticus* Dalmás, 1922 and *Psammitis* Menge, 1868). Only in some regions of the Holarctic the genus relatively well studied, although many of the species remain known from only one sex and/or one taxonomic entry: North America (Schick 1965; Turnbull *et al.* 1965; Dondale & Redner 1978), Europe (cf. Nentwig *et al.* 2014), Israel (Levy 1985), Central Asia (Marusik & Logunov 1990, 1995), Siberia (Marusik 1989; Logunov & Marusik 1994; Logunov 1995; Marusik & Logunov 2002) and Japan (Ono 2009). Thomisid spiders have been revised in China (Song & Zhu 1997), but *Xysticus* remains poorly studied in the region. Among 45 species known from China (Song *et al.* 1999), 23 are known from only one sex. The lack of detailed knowledge about *Xysticus* from China and adjacent Mongolia warranted a revision of available types from that region.

Recently we got the opportunity to examine the types of nine of the 16 *Xysticus* species described by Schenkel (1963) from China and Mongolia and one specimen identified as *Xysticus sibiricus* Kulczyński, 1908. Seven species were unavailable for study and the location of their types is unclear. All the studied material belongs to the Muséum National d'Histoire Naturelle, Paris. Six species described by Schenkel have been synonymised, four species are relatively well known due to several publications, two names were found to be junior homonyms, and one of these names (*laticeps*) was already replaced (cf. Platnick 2014).

The main goals of our paper are as follows: to provide comments on all species of *Xysticus* described by Schenkel (1963), to illustrate available types and some poorly known species and to trace the type localities.

of Turku) for providing museum facilities. David Penney (Manchester, UK), Dmitri Logunov (The Manchester Museum, UK) and Victor Fet (Huntington, USA) helped us with some linguistic questions. English of the final draft was kindly checked by David Penney. This study was supported in part by the Russian Foundation for Basic Research (grant № 12–04–01548).

References

- Bryant, E.B. (1933) New and little known spiders from the United States. *Bulletin of the Museum of comparative Zoology, Harvard*, 74, 171–193.
- Chen, X.E. & Gao, J.C. (1990) *The Sichuan farmland spiders in China*. Sichuan Science & Technology Publishing House, Chengdu, 226 pp.
- Chen, Z.F. & Zhang, Z.H. (1991) *Fauna of Zhejiang: Araneida*. Zhejiang Science and Technology Publishing House, 356 pp.
- Denis, J. (1938) Sur la synonymie de quelques araignées. *Bulletin de la Société d'histoire naturelle de Toulouse*, 62, 379–389.
- Di, Z.Y. & Zhu, M.S. (2008) The new discovery of the male *Xysticus sicus* from China (Araneae: Thomisidae). *Acta arachnologica sinica*, 17, 16–18.
- Dondale, C.D. & Redner, J.H. (1978) The insects and arachnids of Canada, Part 5. The crab spiders of Canada and Alaska, Araneae: Philodromidae and Thomisidae. *Research Branch, Agriculture Canada*, 1663, 1–255.
- Levy, G. (1985) *Araneae: Thomisidae. Fauna Palaestina, Arachnida II*. Israel Academy of Sciences and Humanities, Jerusalem, 114 pp.
- Logunov, D.V. (1995) Contribution to the northern Asian fauna of the crab spider genus *Xysticus* C.L. Koch, 1835 (Aranei Thomisidae). *Arthropoda Selecta*, 3, 111–118.
- Logunov, D.V. & Marusik, Y.M. (1994) A faunistic review of the crab spiders (Araneae, Thomisidae) from the mountains of south Siberia. *Bulletin de l'Institut Royal des Sciences Naturelles de Belgique Entomologie*, 64, 177–197.
- Marusik, Y.M. (1989) Two new species of the spider genus *Xysticus* and synonymy of crab spiders (Aranei, Thomisidae, Philodromidae) from Siberia. *Zoologicheskyy Zhurnal*, 68, 140–145. [in Russian]
- Marusik, Y.M. & Koponen, S. (2000) New data on spiders (Aranei) from the Maritime Province, Russian Far East. *Arthropoda Selecta*, 9, 55–68.
- Marusik, Y.M. & Logunov, D.V. (1990) The crab spiders of middle Asia, USSR (Aranei, Thomisidae). 1. Descriptions and notes on distribution of some species. *Korean Arachnology*, 6, 31–62.
- Marusik, Y.M. & Logunov, D.V. (1995) The crab spiders of Middle Asia 2 (Aranei, Thomisidae). *Beiträge zur Araneologie*, 4, 133–175.
- Marusik, Y.M. & Logunov, D.V. (2002) New and poorly known species of crab spiders (Aranei: Thomisidae) from south Siberia and Mongolia. *Arthropoda Selecta*, 10, 315–322.
- Nentwig, W., Blick, T., Gloor, D., Hänggi, A. & Kropf, C. (2014) *Araneae - Spiders of Europe*. Available from: <http://www.araneae.unibe.ch/> (accessed 28 May 2014)
- Ono, H. (1988) *A revisional study of the spider family Thomisidae (Arachnida, Araneae) of Japan*. National Science Museum, Tokyo, ii + 252 pp.
- Ono, H. (2009) *The Spiders of Japan with keys to the families and genera and illustrations of the species*. Tokai University Press, Kanagawa, xvi+739 pp.
- Ono, H., Marusik, Y.M. & Logunov, D.V. (1990) Spiders of the family Thomisidae from Sakhalin and the Kurile Islands. *Acta arachnologica*, 39 (1990), 7–19. <http://dx.doi.org/10.2476/asjaa.39.7>
- Platnick, N.I. (2014) *The World Spider Catalog. Version 14.5*. American Museum of Natural History, New York Available from: <http://research.amnh.org/entomology/spiders/catalog/index.html> (accessed 28 May 2014).
- Potantin, G.N. (1893) *Tangutsko-tibetskaya okraina Kitaya i Central'naya Mongolia [The Tangut-Tibetan borderlands of China and Central Mongolia]*. Royal Russian Geographical Society, Sankt-Petersburg, 2, 1–567. [in Russian]
- Schenkel, E. (1963) Ostasiatische Spinnen aus dem Muséum d'Histoire naturelle de Paris. *Memoires Du Museum National D'Histoire Naturelle*, 25, 1–481.
- Schick, R.X. (1965) The crab spiders of California (Araneae, Thomisidae). *Bulletin of the American Museum of Natural History*, 129, 1–180.
- Seyfulina, R.R. & Mikhailov, K.G. (2004) Three new species of genus *Xysticus* C.L. Koch, 1835 (Aranei: Thomisidae) from the Amur area. *Arthropoda Selecta*, 12, 251–254.
- Simon, E. (1880) Etudes arachnologiques. 11e Mémoire. XVII. Arachnides recueillies aux environs de Pékin par M. V. Collin de Plancy. *Annales de la Société Entomologique de France*, 10, 97–128.
- Song, D.X. (1987) *Spiders from agricultural regions of China (Arachnida: Araneae)*. Agriculture Publishing House, Beijing, 376 pp.
- Song, D.X. & Hubert, M. (1983) A redescription of the spiders of Beijing described by E. Simon in 1880. *Journal of Huizhou Teachers College*, 2, 1–23.
- Song, D.X. & Zheng, S.X. (1981) A supplement note on three species of spiders from China. *Zoological Research, Kunming*, 2, 349–352.

- Song, D.X. & Zhu, M.S. (1997) *Fauna Sinica: Arachnida: Araneae: Thomisidae, Philodromidae*. Science Press, Beijing, viii + 259 pp.
- Song, D.X., Zhu, M.S. & Chen, J. (1999) *The Spiders of China*. Hebei Science and Technology Publishing House, Shijiazhuang, 640 pp.
- Tang, L.R. & Song, D.X. (1988) A revision of some thomisid spiders (Araneae: Thomisidae). *Sinozoology*, 6, 137–140.
- Turnbull, A.L., Dondale, C.D. & Redner, J.H. (1965) The spider genus *Xysticus* C. L. Koch (Araneae: Thomisidae) in Canada. *The Canadian Entomologist*, 97, 1233–1280.
<http://dx.doi.org/10.4039/Ent971233-12>
- Utochkin, A.S. (1968) *Pauki roda Xysticus fauny SSSR (Opredelitel')*. University of Perm, 73 pp. [in Russian]