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A new species of the genus *Xysticus* from the mountains of South Siberia and Mongolia (Araneae, Thomisidae)

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Summary

A new species, *Xysticus austrosibiricus* sp. n., from the mountains of South Siberia and Mongolia is described, figured, diagnosed and mapped. Comparative data (figures and localities in Siberia, including a distribution map) of two closely related species, *X. obscurus* and *X. viduus*, are also given.

Introduction

The thomisid fauna of the mountains of South Siberia, consisting of 46 species, has recently been revised by Logunov & Marusik (1994). Of the species reported by these authors, *Xysticus viduus* Kulczyński turned out to be misidentified, this record actually belonging to a new species. Moreover, *X. viduus* has been shown to display a Central European–West Siberian temperate distributional pattern (Thaler & Knoflach, 1995; current data) and has never been recorded east of the Yenisei River (see Fig. 13). The only eastern record of *X. viduus*, from Khabarovsk Province (Kurenshchikov, 1992; Kim & Kurenshchikov, 1995), was probably based on a misidentification and needs confirmation. This record may also belong to the new *Xysticus* species described herein.

The main goals of this study are (1) to describe a new species hitherto erroneously recorded from S. Siberia as *X. viduus*; and (2) to redefine the Siberian distribution of *X. viduus* and *X. obscurus* Collett, both of which are close relatives of the new species.

The work is based on newly collected material from Siberia and Mongolia. Specimens for this study were borrowed from or are distributed among the following museums: IBPN=Institute for the Biological Problems of the North, Magadan, Russia; ISEA=Zoological Museum of the Institute for Systematics and Ecology of Animals, Novosibirsk, Russia; ZMMU=Zoological Museum of the Moscow State University, Moscow, Russia.

The format of the description and the terminology follows Ono (1988). Some rare abbreviations used are as follows: MOA=median ocular area; MOA-WA=anterior width of MOA; MOA-WP=posterior width of MOA; MOA-L=length of MOA. The sequence of leg segments in measurement data is as follows: femur+patella+tibia+metatarsus+tarsus. All measurements are in mm.

Xysticus austrosibiricus sp. n. (Figs. 3, 4, 9, 10, 13)

Xysticus viduus: Loksa, 1965: 30; Logunov & Marusik, 1994: 194 (misidentifications).

Type: Holotype ♂ (ISEA), Russia, South Siberia, Tuva, *c*. 20 km NE of Khol'-Oozhu, East Tannu-Ola Mt. Range, Kangai-Kyry Mt., 50°48′N, 94°18′E, 2100 m, 16 July 1993 (D. V. Logunov).

Etymology: The specific epithet is derived from the Latin *austro-sibiricus* meaning "South-Siberian".

Diagnosis: *Xysticus austrosibiricus* shows an intermediate position between *X. obscurus* and *X. viduus*, as its palpal structure is closer to that of *X. obscurus*, while the female genitalia are more like those of *X. viduus*. Males of *X. austrosibiricus* can be distinguished by the shape, relative positions and sizes of the median and apical tegular apophyses (cf. Figs. 3 and 1, 5). Additionally, the new species differs from *X. viduus* in having the retrolateral tibial apophysis of the male palp apically pointed, not truncate (cf. Figs. 4 and 2). Females differ

in having a more elongated epigynal depression and stronger spermathecae, as compared with *X. viduus* (cf. Figs. 9, 10 and 7, 8).

Distribution: The mountains of South Siberia and Mongolia (Fig. 13). Hitherto, this species has been recorded from there as *X. viduus* (see Loksa, 1965; Logunov & Marusik, 1994). Loksa's specimens collected from environs of Ulan-Bator, Mongolia and deposited in Budapest, re-examined.

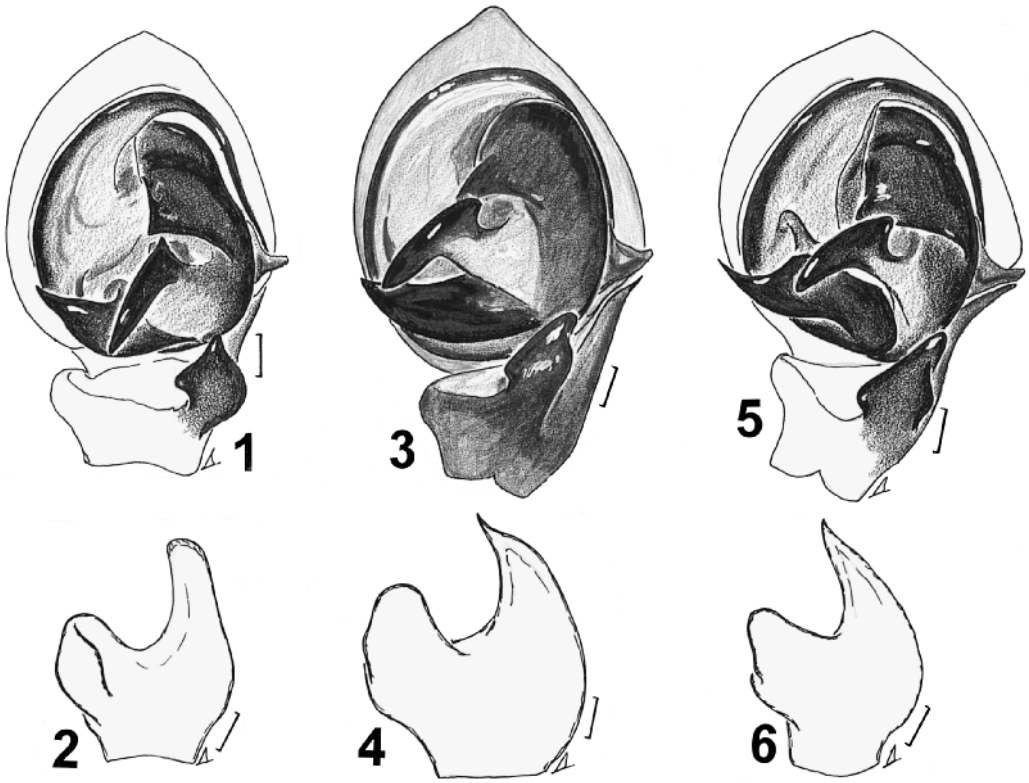
Habitat: Mountain moss-tussock-shrubby wet tundra and moss-lichen-stony tundra (goltsy); subalpine meadows (*Anemone-Aconitum*, etc.); *Larix* forest and forest-tundra at upper elevations (above 1700 m).

Notes: The only female from Yakutia (see below) showed differences in the epigynal structure, its epigyne being less elongated (almost rounded) as compared with the S. Siberian specimens. The taxonomic significance of these differences requires further study, when additional specimens, including males, become available.

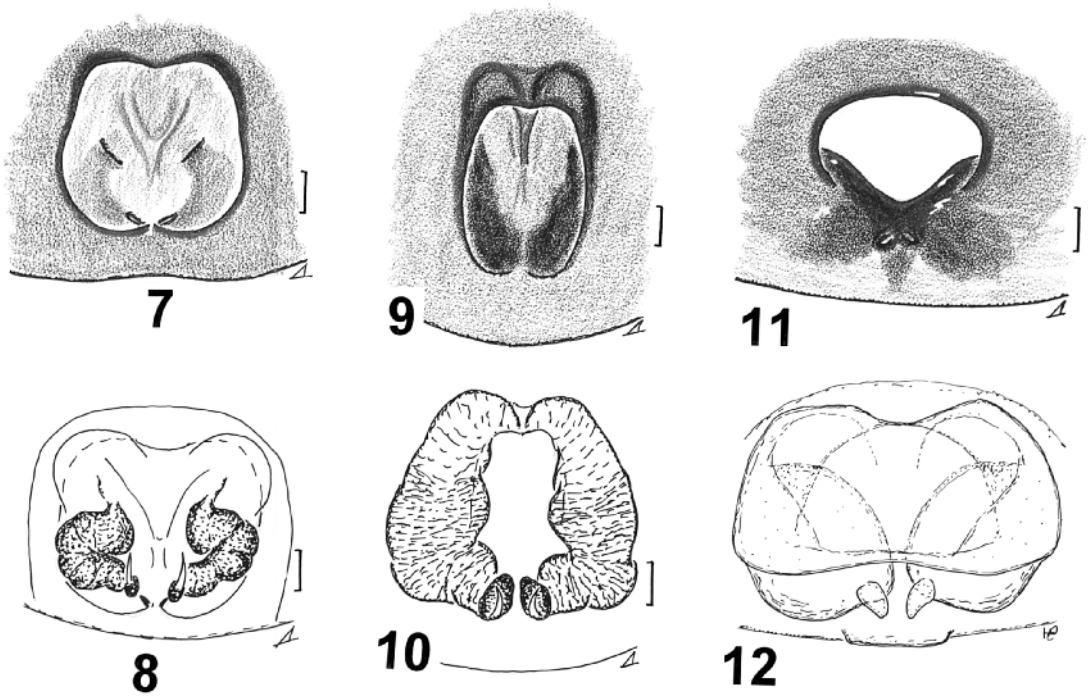
Description: *Male* (holotype): Carapace 3.25 long, 3.15 wide. Abdomen 3.68 long, 3.03 wide. Clypeal height 0.30. MOA-WA 0.58, MOA-WP 0.60, MOA-L 0.60; AME 0.10; ALE 0.17, PME 0.10, PLE 0.14; AME-AME 0.41, AME-ALE 0.24, PME-PME 0.39, PME-PLE 0.45. Length of leg segments: I 2.93+1.43+2.13+2.08+1.08; II 2.90+1.40+2.08+2.08+1.10; III 2.25+0.88+1.40+1.35+0.83; IV 2.45+1.00+1.50+1.48+0.88. Spination of leg I: femur d 0-0-1-1-1-1, pr 12 spines situated irregularly along segment; patella pr and rt 0-10; tibia pr and rt 1-1-1, v 2-2-2-2-2ap; metatarsus pr 1-1-1ap, rt 1-1, v 2-2-2-2ap. Coloration (typical of *Xysticus* species): Carapace brown, with numerous yellow striae, a wide median yellow-brownish longitudinal band and a V-shaped white spot. Eye quadrangle and clypeal area yellow. Sternum, maxillae, labium and chelicerae brownish yellow. Abdomen: dorsum yellow-brown, colour markings not marked; sides and venter grey-white. Book-lung covers yellow, tinged with grey. Spinnerets brown. All legs yellow-brown, with thin dorsal and ventral longitudinal white lines on coxae, femora, patellae and tibiae. Palpal structure as in Figs. 3, 4.

Female (from Tuva, upper reaches of Kuge-Davaa River): Carapace 3.03 long, 3.00 wide. Abdomen 3.63 long, 3.43 wide. Clypeal height 0.30. MOA-WA 0.63, MOA-WP 0.69, MOA-L 0.63; AME 0.11, ALE 0.19, PME 0.11, PLE 0.13; AME-AME 0.45, AME-ALE 0.28, PME-PME 0.48, PME-PLE 0.53. Length of leg segments: I 2.63+1.28+1.93+1.63+0.96; II 2.58+1.50+1.95+1.70+0.88; III 1.95+1.00+1.25+1.05+0.73; IV 2.03+0.95+1.38+1.25+0.83. Spination of leg I: femur pr 0-1-1-1-0; tibia v 2-2-2-2-2ap; metatarsus pr 1-1-1ap, rt 1-1, v 2-2-2-2-2ap. Coloration: Carapace light brown, with numerous yellow striae and a median white longitudinal band. Sternum yellow, densely dotted with brown. Maxillae, labium and chelicerae yellow. Abdomen yellow-white. Dorsum brownish, with median fir-like white markings. Book-lung covers yellow. Spinnerets brown. All legs yellow, with thin white lines as in males. Epigyne and spermathecae as in Figs. 9, 10.

Material examined: Paratypes: SIBERIA: *Kemerovo Area*: 14♂ 2♀ (ISEA), *c.* 50 km S of Belogorsk, Kuznetsky Alatau Mt. Range, Chemodan Mt., 28 June 1993 (N. V. Demidenko); 14♂ 1♀ (ISEA), same locality, 17–23 June 1992 (N. V. Demidenko). *Tuva*: 3♂ (ISEA), 30–35 km SW of Mugur-Aksy Vill., upper reaches of Mugur River, Mongun-Taiga Mt., 50°22′N, 90°05′E, 3100–3300 m, 23 July 1993 (D. V. Logunov & S. E. Tchernyshev); 1♀ (ISEA), same distr., 8–9 km NE of Mugur-Aksy, upper reaches of Kuge-Davaa River, Tsagan-Shibetu



Figs. 1–6: Left male palps (1, 3, 5 in ventral view) and tibial apophyses (2, 4, 6 in retrolateral view). **1, 2** *Xysticus viduus* (Novosibirsk Area, Alabuga); **3, 4** *X. austrosibiricus* sp. n. (Tuva, Sangelen Mt. Range, paratype); **5, 6** *X. obscurus* (Altai, Artybash). Scale lines=0.1 mm.



Figs. 7–12: Epigynes and spermathecae. **7, 8** *Xysticus viduus* (Novosibirsk Area, Alabuga); **9, 10** *X. austrosibiricus* sp. n. (Kemerovo Area, Kuznetsky Alatau Mt. Range, paratype); **11, 12** *X. obscurus* (Krasnoyarsk Province, Yukseevo). Scale lines = 0.1 mm.

Mt. Range, 50°24′N, 90°30′E, 2100–2700 m, 10–19 May 1990 (D. V. Logunov); 1♂ (ISEA), 1–2 km S and SE of Chagytai Lake, northern foothills of East Tannu-Ola Mt. Range, 50°57′N, 94°41′E, 1050–1800 m, 26 June–2 July 1989 (D. V. Logunov); 1♂ (ISEA), 20–25 km W of Sagly, upper reaches of Onachy River, 50°28′N, 90°57′E, 1500–1600 m, 24 July 1993 (D. V. Logunov; 10♂ 2♀ (ISEA), 3♂ (ZMMU), Sangelen Mt. Range, Pass between Naryn and Balyktyg-Khem Rivers, 50°18′N, 96°25′E, 2400 m, 26 June–5 July 1996 (Y. M. Marusik); 39♂ 5♀ (ISEA), 4♂ 3♀ (ZMMU), Sangelen Mt. Range, upper reaches of Balyktyg-Khem River, 50°17′N, 96°39′E, 2000–2300 m, 26 June–5 July 1996 (Y. M. Marusik); 22♂ 1♀ (ISEA), 1♂ 1♀ (ZMMU), Sangelen Mt. Range, middle reaches of Kargy River, 50°31′N, 97°03′E, 1300–1400 m, 28 June–4 July 1996 (Y. M. Marusik). *Chita Area*: 6♂ 2♀ (ISEA), 60–65 km SW of Kyra Vill., Sokhondo Reservation, 1600–1700 m, 28–29 June 1991 (S. E. Tchernyshev). MONGOLIA: 11♂ (IBPN), Bayanhkongor Aimak, Gurvanbulag Somon, Khokh-Nuur (lake), 47°32′N, 98°32′E, 2600 m, 7–10 June 1997 (Y. M. Marusik); 1♂ (IBPN), Overkhangai Aimak, Zuunbayan-Ulaan Somon, Zamtyn Davaa, 46°43′N, 102°51′E, 2000 m, 14–18 June 1997 (Y. M. Marusik).

Other material studied: SIBERIA: *Yakutia*: 1♀ (ISEA), Byadi Vill., Alasy, 21–23 June 1993 (A. A. Alekseev).

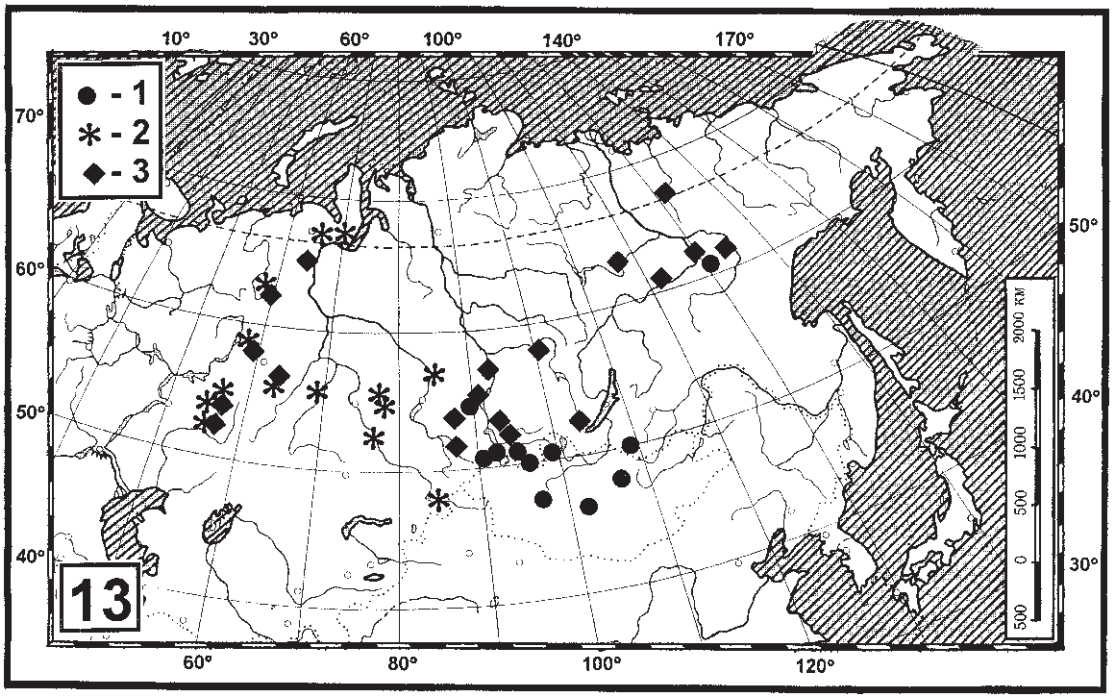


Fig. 13: Distribution of *Xysticus* species in Siberia and Mongolia. **1** *X. austrosibiricus* sp. n.; **2** *X. viduus* Kulczyński; **3** *X. obscurus* Collett. In addition to the original data, localities were taken from Marusik *et al*. (1993), Esyunin & Efimik (1996) and Utotchkin & Savelyeva (1995). One dot may represent more than one close locality.

Xysticus obscurus Collett, 1877 (Figs. 5, 6, 11, 12, 13)

Material examined: SIBERIA: *Kemerovo Area*: 1♂ 1♀ (ISEA), Kuzedeevsk Distr., Gornaya Shoriya, Sherebesh Vill., 25–27 May 1948 (Coll.?). *Krasnoyarsk Province*: 1♀ (ISEA), Bol'she-Murtinsk Distr., Yukseevo Vill., August–September 1991 (A. V. Gurov); West Sayany Mts., Oiskiy Mt. Range, Buiba River, 52°47′N, 93°18′E, 1230 m, 20–21 June 1995 (Y. M. Marusik); 1♂ 1♀ (ISEA), Boguchansky Distr., Sosnovka Vill., 12 June 1974 (M. T. Shternbergs). *Tuva*: 1♀ (ISEA), Uyuk River mouth, 52°04′N, 94°22′E, 600–700 m, 3–5 June 1995 (Y. M. Marusik).

Other material studied: See Logunov & Marusik (1994).

Distribution: Holarctic arcto-alpine range (Thaler & Knoflach, 1995). All the Siberian localities are shown in Fig. 13.

Xysticus viduus Kulczyński, 1898 (Figs. 1, 2, 7, 8, 13)

Material examined: SIBERIA: *Kurgan Area*: 1♀ (ISEA), Ukrainets Vill., 25 May 1990 (Smirnov & Maiorov); 8♂ (ISEA), Pritobol'sky Distr., Teplyakovo Vill., 31 May 1990 (N. A. Utkin); 1♀ (ISEA), Uval Vill., 8 June 1989 (N. A. Utkin). *Novosibirsk Area*: 2♂ 2♀ (ISEA), *c*. 5 km NE of Alabuga Vill., 9 August 1992 (S. V. Tchernyshev); 1♀ (ISEA), Chany Lake, 15 August 1992 (V. V. Dubatolov); 1♂ 2♀ (ISEA), near Kuibyshev Town, 16 August 1992 (V. V. Dubatolov). *Pavlodar area*: 1♀ (ISEA), near Pavlodar Town, Irtysh River Valley, 27 June 1990 (O. V. Lyakhov). *Tomsk Area*: 1♀ (ISEA), near Tomsk, 18 June 1993 (S. Lukiantsev).

Distribution: This is a Central European–West Siberian temperate species (Thaler & Knoflach, 1995; current data). All the Siberian localities are shown in Fig. 13.

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